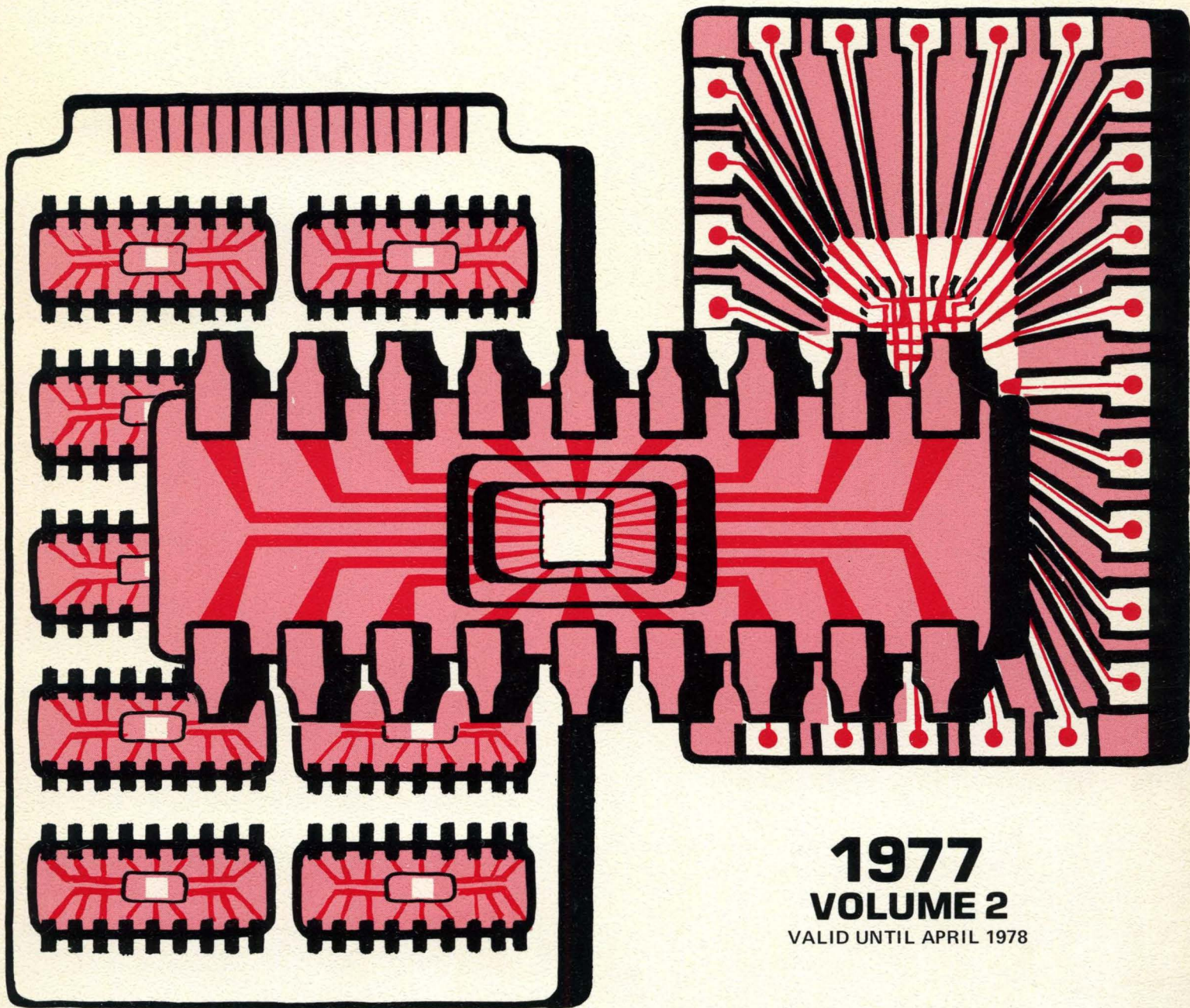


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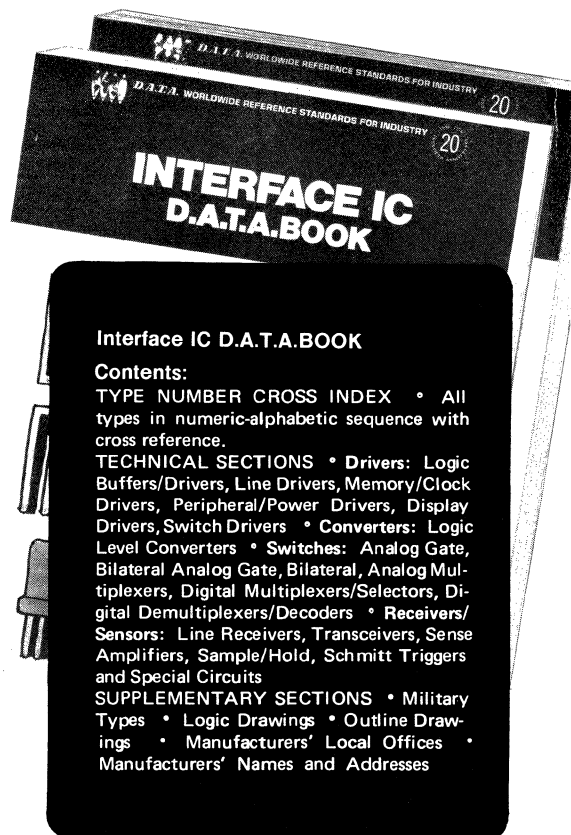
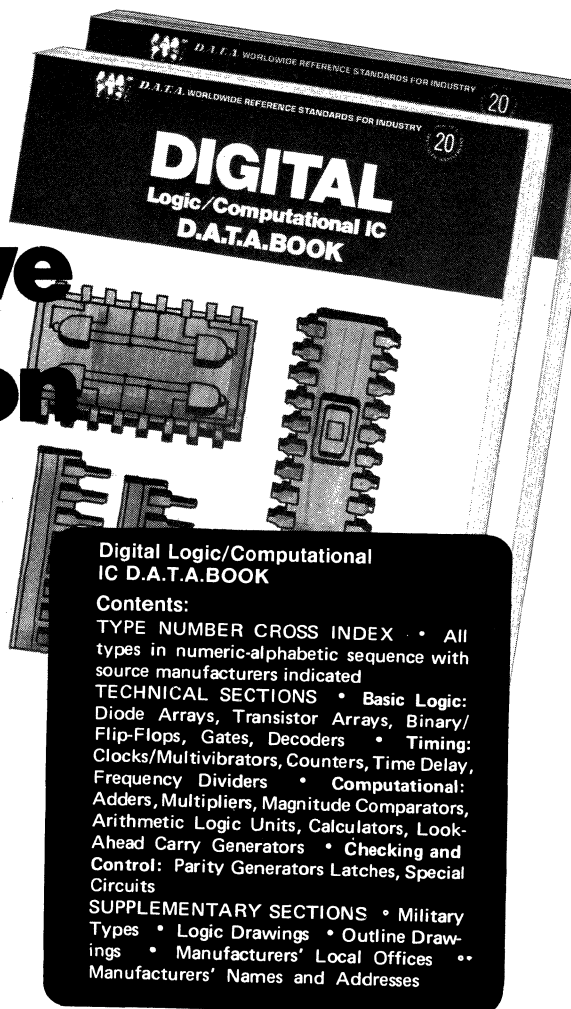
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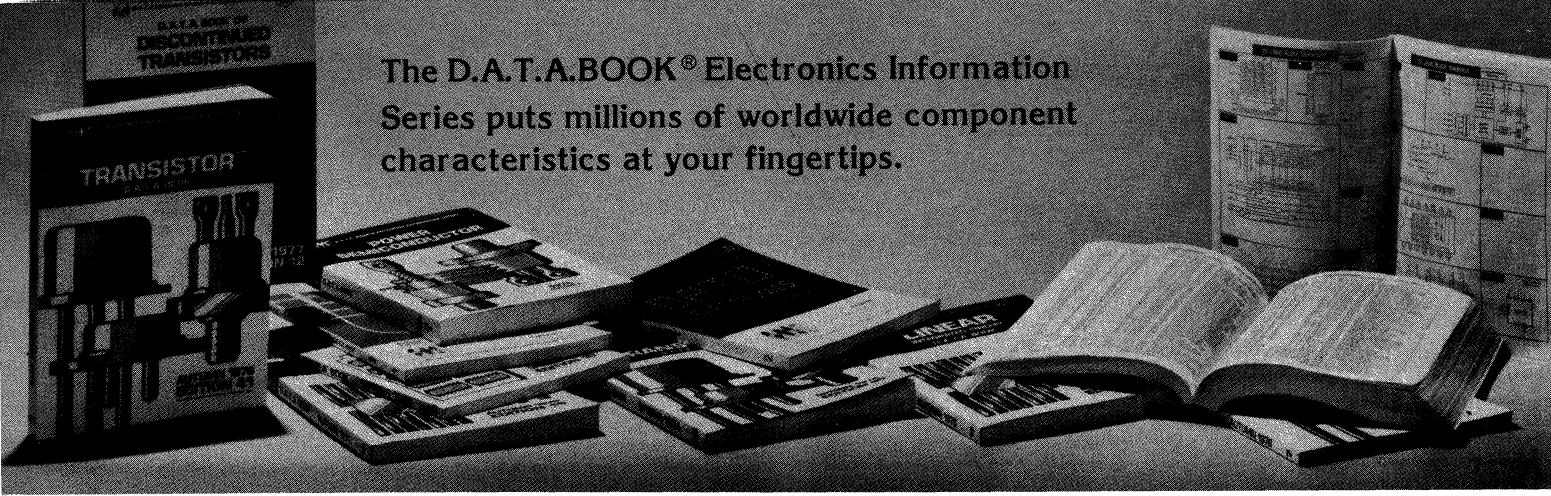
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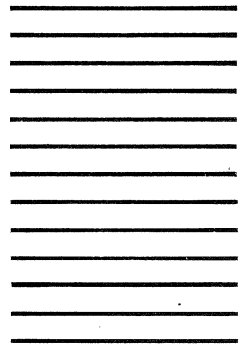
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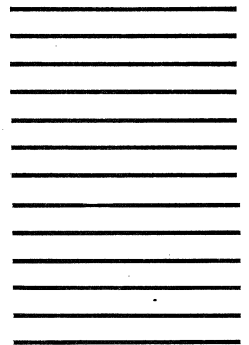
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MSI/LSI SEMICONDUCTOR MEMORIES

13th Edition

1977 Volume 2

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Purpose	This D.A.T.A.BOOK is designed to report comprehensively on what is presently being produced throughout the world in the field of MSI-LSI MEMORIES. While a book such as this cannot provide 100% of the information you might need, its primary aims are those of facilitating the selection of types suitable to your technical requirements, and of directing you to the sources of their manufacture.
Technical Data Acquisition	D.A.T.A. acquires and processes the information presented in this D.A.T.A.BOOK with the cooperation of the participating manufacturers who supply us with their latest technical information. Manufacturers are not charged for the listing of their products.
JEDEC Outlines	At the time this D.A.T.A.BOOK was prepared, there were no JEDEC type numbers; however, some of the devices have the JEDEC-designated MO- and TO- outlines which are included as applicable in the Outline Drawing Section.
Military Type Numbers	The electrical, mechanical and environmental information tabulated for the military types in the technical sections is derived directly from the applicable military specifications and standards. The source information, showing the particular manufacturers qualified for each type, is derived from the QPL (Qualified Parts List) associated with the governing specification, or from the manufacturers Qualification Test Letters.
Substitute Types And Compatibility	This D.A.T.A.BOOK can not truly claim to be an interchangeability chart; however, because of the sequencing arrangement of selected characteristics in the technical sections, types with the same or similar characteristics are grouped together. For purposes of replacement, this means of thorough, convenient technical comparison should prove superior to, and safer than, a mere listing of possible substitute type numbers.
Price And Availability	Because of the rapidly-changing and complex nature of this field, current price and delivery information should be obtained direct from the manufacturers. The list of manufacturers and the Local Offices Section in back of the book will assist you in this.
Manufacturers' Specifications	This book includes currently-manufactured devices with their major characteristics, drawings and manufacturers. Every effort is made to ensure the accuracy of the entries herein; however, the publisher can not be held responsible nor guarantee against the possibility of error or omission. Only the manufacturers or their authorized representatives can provide you with complete technical details.

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To make maximum use of this D.A.T.A.BOOK, select the particular known-unknown situation below that defines your problem, and follow the instructions as indicated.

1	<p>KNOWN: Electrical and Mechanical Requirements UNKNOWN: Suitable Type Numbers</p> <ol style="list-style-type: none"> Turn to the Table of Contents (first page) and select the technical data section corresponding to the subject device type. Turn to any page in the selected section. Note the sequencing parameters (those characteristics for which the data is arranged in order) indicated at the top corner of the page. Using the sequencing parameters, locate the type numbers that are in general agreement with your requirements. (Because of the sequencing arrangement, these types will appear together, in groups and sub-groups.) From among these, select the one or ones most suitable. To identify the manufacturer of the selected type number(s), follow the instructions in Block 2 below.
2	<p>KNOWN: Type Numbers (SN5494J, 10139F) UNKNOWN: Manufacturer(s), Address, Local Offices</p> <ol style="list-style-type: none"> Turn to Type No. Cross-Index (Section 1) and locate the subject type number. (Refer to 'HOW TYPE NUMBERS ARE SEQUENCED' in front of the book as a guide for this.) Note the 3- or 4-letter manufacturer's code(s), e.g., TII, MULB indicated for each of the subject types. Use the listing of 'MANUFACTURERS & THEIR CODES' in back of the book to identify the codes. (Note: Local Offices for manufacturers shown in bold print on this listing are indicated in a special section in back of the book.)
3	<p>KNOWN: Type Number (SN5494J) UNKNOWN: Its Electrical Characteristics, And/Or Logic And Outline Drawings</p> <ol style="list-style-type: none"> Turn to Type No. Cross-Index and locate the subject type number. Note the page and line number, e.g., 59-75, alongside the type number. Locate the type number as noted, in the technical sections. (Note: Along with the electrical and performance characteristics listed for each type number are references to the logic/block and outline drawings, located in Section 22 and Section 23 respectively.)
4	<p>KNOWN: Type Number UNKNOWN: Equivalent Types for Replacement</p> <ol style="list-style-type: none"> Follow the instructions in Block 3 above. Survey the type numbers surrounding the subject number to determine the suitable alternatives.
5	<p>KNOWN: Military Requirements UNKNOWN: Suitable Type Number(s)</p> <ol style="list-style-type: none"> Scan the military type numbers in Section 21 (TYPES WITH MILITARY SPECIFICATIONS) to determine the military identifying prefix(es); e.g., M38510. Follow the instructions in Block 1, to determine the general type numbers that meet the military requirements. From among these, select the military types by means of the identifying prefix. To identify the manufacturers, follow the instructions in Block 6.
6	<p>KNOWN: Military Type Number UNKNOWN: Qualified Manufacturers And/Or Applicable Military Standard Or Specification</p> <ol style="list-style-type: none"> Turn to Section 21 (TYPES WITH U.S. MILITARY SPECIFICATIONS), and locate the subject type number. (Type numbers are arranged in alpha-numeric order, by individual specifications as indicated in the column headings.) Note the manufacturer's code(s) listed alongside the type number. Follow the instructions in Block 1 to identify the manufacturers.
7	<p>KNOWN: Type Number Not Included In Book UNKNOWN: What Happened To It?</p> <ol style="list-style-type: none"> Consult D.A.T.A.BOOK OF DISCONTINUED INTEGRATED CIRCUITS.

USE OF POWERS-OF-TEN MULTIPLIERS AND SYMBOLS & CODES IN THE TECHNICAL SECTIONS

To present a maximum amount of information in a minimum amount of space, use is made in this book of the following data modifiers:

POWERS-OF-TEN MULTIPLIERS

The powers-of-ten multipliers shown below are used in numeric columns when the value being entered is many times greater or smaller than the units of measure indicated in the column heading. Usually, the latter are the so-called 'basic' units; such as V (volts), A (amperes) and s (seconds). The multipliers and an explanation of their use are given below:

MULTIPLIERS									EXPLANATION		
PREFIXES & SYMBOLS			Recommended by International Committee on Weights and Measures						Value of Data To Be Entered	Basic Unit In Column Heading	Actual Entry
Indicating Powers of Ten			Adopted by National Bureau of Standards								
Power	Prefix	Symbol	Power	Prefix	Symbol	Power	Prefix	Symbol			
10 ¹²	tera	T	10	deka	da	10 ⁻⁹	nano	n	3 milliamperes	A (amperes)	3.0m
10 ⁹	giga	G	10 ⁻¹	deci	d	10 ⁻¹²	pico	p	9 megaohms	Ω (ohms)	9.0M
10 ⁶	mega	M	10 ⁻²	centi	c	10 ⁻¹⁵	femto	f	0.5 volt	V (volts)	500m *
10 ³	kilo	k	10 ⁻³	milli	m	10 ⁻¹⁸	atto	a	10 amperes	A (amperes)	10
10 ²	hecto	h	10 ⁻⁶	micro	μ				* May also be written as 0.5, with no multiplier		

SYMBOLS & CODES

Symbols — Symbols such as #, ^, and \$ are used in all columns, numeric or otherwise, whenever the data entries differ in some way from the entity defined in the column heading. For instance, if a given heading specifies Max. Power (in Watts) and the numeric value being entered for a given type represents the minimum power instead, the variance is denoted by the appearance of a special symbol alongside the numeric entry.

NOTE: The symbols and codes used herein are explained on the cards in back of the book.

Codes — Codes are used in some columns as means to abbreviate the data being entered. The codes may be alphabetic (A,B,C, etc.) numeric (1,2,3, etc.) or some combination of both.

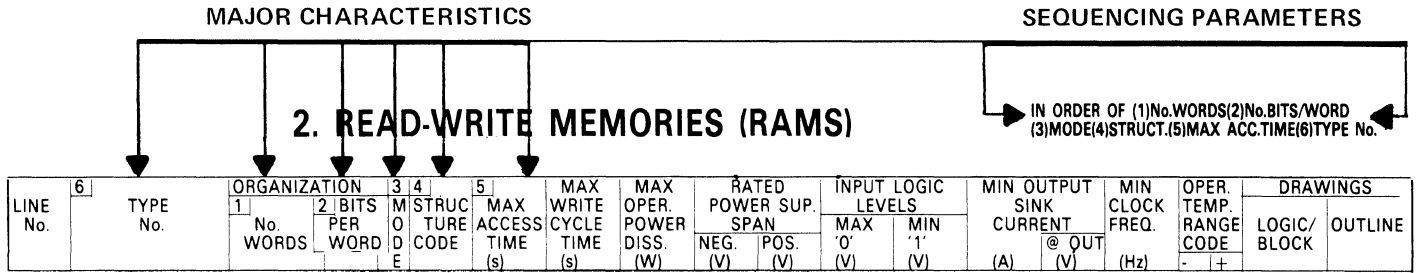
HOW TYPE NUMBERS ARE SEQUENCED IN THE TYPE NUMBER CROSS INDEX

Sequencing of type numbers in the Type Number Cross-Index is governed by the following rules:

	EXAMPLES
Rules: 1) Type numbers are listed in numeric-alphabetic sequence; i.e., type numbers beginning with a number (decimal, fraction, or whole) precede type numbers beginning with a letter.	13A01 143 1202 A147 AN127 B2000
2) Decimals and fractions precede whole numbers. An equivalent decimal precedes the fraction when the remainder of type number is identical.	.25Z150 1/4Z150 3/4M12Z 1T3
3) Zeros are ignored in sequencing except when the zero is the only basis for distinguishing one type number from another. In this case the type number containing the zero is listed first.	0112 112 0113 00115 AP01 AP1 AP02
4) Number and/or letter groupings preceding hyphens or slashes are the controlling factors in sequencing. The hyphens and slashes themselves precede any identically positioned letters also having the same beginning number/letter groupings.	66-0706 66M1 70/10 70A9

HOW TYPE NOS. ARE ARRANGED IN THE TECHNICAL SECTION – SEQUENCING PARAMETERS

The arrangement of types in the technical sections is keyed to a set of special characteristics selected for their importance from among the general group of characteristics tabulated in each section. These selected characteristics, or sequencing parameters, differ from one section to another, and are identified at the top corner of each page, as shown in the sample below.



The different types within a section are first arranged in ascending numeric (or alphabetic) order of the first such parameter. Groups of types having a common value for the first parameter are then arranged in ascending order of the second parameter. This process continues for each parameter in turn, up to and including the last parameter which, in every instance, is the type number itself. The final arrangement, by type number, is done in accordance with the sequencing of type numbers in the cross-index, as explained on the preceding page.

A simplified model of the arrangement as described is shown below.

4 Type Number	Characteristics			
	1 A	2 B	C	3 D
A13	100		325	
A4	100		1000	20
A9	100	A	20	25
A10	100	A	200	25
A3	100	B	40	15
A1	100	C	80	10
A8	100	C	900	15
A7	100	D	35	30
A11	110	A	60	25
A2	120	A	300	15
A5	120	B	150	20
A6	120	B	200	20
A12	120	B	475	25

Last Seq. Par.
1st Seq. Par.
2nd Seq. Par.
(Not Seq.)
3rd Seq. Par.

Note that the absence of an entry for any sequencing parameter is regarded as a zero, and precedes any actual entries in the sequencing.

D.A.T.A.'S APPROACH TO MSI/LSI MEMORY SPECIFICATIONS

The MSI/LSI Memory industry is still in its infancy. It has not as yet matured to the point whereby standardized data presentation or standardized definitions have evolved. In general the data supplied by one manufacturer is difficult, if not impossible, to compare with that of another manufacturer.

It is for the above reasons that D.A.T.A. has prepared all manufacturers data in D.A.T.A.'s "Standardized Format". The "Standardized Format" presents a given set of device characteristics in a sequential order of either ascending or descending values. This orderly presentation now allows the reader to select one or more MSI/LSI Memory circuits from a group of devices which satisfies the reader's specification requirements. The "Standardized Format" presentation permits the reader to analyze, select and trade between groups of devices available from all known manufacturers.

The characteristics for MSI/LSI Memory presented in the D.A.T.A.BOOK are generally specified under "worst case" conditions. Thus, the minimum or maximum values (whichever is applicable) is recorded instead of the typical value. When only the typical value is available, it is accompanied by a symbol to alert the reader to exercise caution in interpreting the data.

What follows is, from D.A.T.A.'s point of view, the technical reasoning and guidelines used in the preparation of the technical sections of the MSI/LSI Memory D.A.T.A.BOOK. We would certainly welcome your comment's about this, or any other D.A.T.A.BOOK.

- Access Time (Sect. 2,3,4,5,6) – the speed at which a device can read-out information from its memory. It is defined as the time difference between the addressing of the memory and the appearance of a valid output.
- Clock Freq. (Sect 2,3,7) – is given for dynamic devices for the reason explained under "modes". For static devices it is assumed to be dc. In Section 3 it is specified in the Description column when applicable.
- Conversion Code: "From" and "To" (Sect. 6)– indicates the input and output codes of the device. Those devices having reversible code capability are listed twice, once for each direction change.
- Input Logic Levels (All sections) – the max. input voltage at which the input is in the "off" or "0" state, and the min. input voltage at which the input is in the "on" or "1" state. The difference between the two input levels indicates the relative noise immunity of the device. For cases where the input logic levels are not specified, the output levels are, and a symbol is used to indicate this condition.

The input logic levels apply to the address inputs for the "memory" devices in Sections 2 to 6, and to the data inputs for shift registers in Section 7. If the device can be adjusted for compatibility with both MOS and Bipolar systems, then Bipolar levels are specified in the column. A symbol is used to indicate this condition.

- Logic/Block Drawings (All sections) – separated and coded according to functional classification, i.e., RAM's, ROM's, etc. The block drawing was considered more descriptive than the circuit schematic in showing the overall operation of the device from a system aspect.
- Mode: Static or Dynamic (Sect. 2 and 5) – represents the basic storage method of the device. Static types use flip-flops that retain their state indefinitely as long as the supply voltage is maintained. Their frequency of operation extends down to dc. Dynamic types use the inherent interelectrode capacitance of MOS devices to store a charge which determines the state of a memory bit. Since this charge cannot be held indefinitely, these types must be refreshed periodically; this restricts the lower limit of their operating frequency.
- No. of Bits Per Character (Sect. 4) – the number of bits in the display matrix, obtained by multiplying the number of rows in the display matrix times the number of columns. The number provides a measure of the resolution of the display.

D.A.T.A.'S APPROACH TO MSI/LSI MEMORY SPECIFICATIONS (Cont'd)

- No. of Bits Per Register (Sect. 7) – the bit capacity of the individual registers which can be used separately in the device. If the number of bits varies for the different registers, then the highest capacity is specified, and the user is referred to the logic/block drawing for more specific information.
- No. of Characters (Sect 4) – the character capacity of the device. For a standard code with a given number of characters such as ASCII, the input code for any character is fixed. Some devices must be used in pairs to supply the complete code, in which case a symbol is used in the technical section column.
- No. of Code Inputs and Outputs (Sect. 6) – determines the code input and output character capacity.
- No. of Outputs (Sect. 4) – indicates the number of outputs to the display. For row-and-column-scanning devices, the array of the display matrix is easily determined by dividing this number into the number of bits per character.
- No. of Registers (Sect. 7) – together with the number of bits/register determine the total bit capacity of the device. Some registers contain inputs to intermediate stages; this is noted with a symbol.
- Oper. Mode and Prog. Code (Sect 3) – describes: 1)the mode of operation of the device (dynamic or static); and 2)the type of program available (standard or custom). If a standard program is indicated in the Code, it is defined in the technical section Description column.
- Operating Power Diss. (All sections) – the “worst-case” power dissipation of the device under operating conditions. A manufacturer may indicate the “quiescent” or the “absolute maximum” power dissipations; these values vary significantly from “worst case”. For this reason the user is cautioned not to use the quiescent or absolute maximum power dissipation in comparing the operating power dissipation of different devices. All conditions other than “worst case” are distinguished by the use of a symbol following the value.
- Oper. Temp. Range Code (All sections) – the temperature range over which the manufacturer indicates that the device will operate. Unless otherwise noted by a symbol in the appropriate column or columns, all specified characteristics apply over the operating temperature range of the device.
- Organization: No. of Words and No. Bits/Word (Sect. 2,3,5) – represents the capacity of the memory. By connecting the outputs of two or more devices in parallel, the total number of words may be expanded; similarly, by connecting the address inputs in parallel, the number of bits/word can be expanded.
- Outline Drawings (All sections) – separated and coded in the Outline Drawing Section according to package configuration. In this way the user can easily determine the types of package and the associated dimensions available for memory circuits.
- Output Sink Current (All sections) –negative current that the output of a device can sink at a specified “0” level. This is especially important in determining a device’s compatibility to Bipolar circuits. Where the sink current is not specified or not applicable, an alternate output current characteristic is specified, and is identified by an appropriate symbol.
- Propagation Delay (Sect. 7) – the time required to shift information one bit through the register. It is defined as the time between the initiating clock pulse at the input of a storage element, to the occurrence of a valid output from the same element.
- Rated Power Supply Span (All sections) – the range of positive and negative supply voltages at which the characteristics are specified by the manufacturer. If more than one negative or positive voltage is necessary for the operation of the device, the maximum negative or positive value is specified. The logic/block drawing should then be consulted for the actual voltages required to operate the device.

D.A.T.A.'S APPROACH TO MSI/LSI MEMORY SPECIFICATIONS (Cont'd)

- Search Time (Sect. 5) – the time required to match information in the memory once a search is initiated. It is defined as the time difference between the enabling of the associate control input and the receiving of a mismatch or match condition at the output.
- Structure Code (All sections) – relates the device to the two main developing semiconductor technologies for memory devices: Bipolar and MOS. Presently, the two technologies are characterised by distinctive advantages and disadvantages in comparison to each other. Generally, Bipolar devices are faster, but MOS devices dissipate less power. A third technology, thin film amorphous, features non-volatile and non-destructive crystalline memory bits.
- Use Code (Sect. 4) – describes 1) the mode of operation of the device (dynamic or static); 2) the type of code stored in the device; and 3) the type of display used with the device. Knowing these three characteristics greatly narrows the search for a character generator.
- Use Code (Sect. 7) – describes 1) the type (serial or parallel) of input and output terminals available on the device; and 2) the operating mode of the device (static or dynamic). For devices that operate in both the serial and parallel modes on the input and/or output, the parallel capability is specified, since parallel devices can operate in both the serial and parallel modes.
- Worst Case Operating Frequency (Sect. 7) – the highest guaranteed operating frequency of the device. Alternatively, the data-rate frequency is specified in the case where it differs from the clock frequency.
- Write-Cycle Time (Sect. 2,5) – the time required to write a data-word into a given memory address. The max. read-write time is similarly defined, except that it includes both the read and write portions of the cycle. The min. write-pulse width is specified in the column when the cycle times are not given. It is defined as the min. pulse width required at the write input to insure that valid information is stored at the memory address.

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
9LS95DC	◆FSC	57-76	54LS194AFM	◆FSC	57-94	93L425PC	◆FSC	24-24	2510K	◆MULB	76-86	2680-1F	◆MULB	27-39
9LS95DM	◆FSC	57-77	54LS194AJ	◆RTN	56-39	95H00DC	◆FSC	58-9	PHIN	◆SIC	77-49	2680-2F	◆PHIN	◆SIC
9LS95FC	◆FSC	57-78	54LS194AW	◆RTN	56-40	370AJ	◆FSC	47-10	◆MULB	◆SIC	77-50	2680F	◆PHIN	◆SIC
9LS95FM	◆FSC	57-79	54LS195ADM	◆FSC	57-95	370AL	◆FSC	47-11	2511A	◆MULB	77-49	◆MULB	27-75	
9LS95FF	◆FSC	57-80	54LS195AFM	◆FSC	57-96	370BL	◆FSC	47-12	PHIN	◆SIC	77-50	◆MULB	26-94	
9LS164DC	◆FSC	65-73	54LS195AJ	◆RTN	56-41	370CL	◆FSC	47-13	◆MULB	◆SIC	78-78	◆MULB	◆SIC	
9LS164DM	◆FSC	65-74	54LS195AW	◆RTN	56-42	370JL	◆FSC	47-14	PHIN	◆SIC	78-78	3101E	◆AMV	17-83
9LS164FC	◆FSC	65-75	54LS295ADM	◆FSC	58-26	370ML	◆FSC	47-15	2512K	◆MULB	78-78	3255-9-7K	◆FSC	44-23
9LS164FM	◆FSC	65-76	54LS295AFM	◆FSC	58-27	375AL	◆FSC	47-16	PHIN	◆SIC	43-55	3256-9-7K	◆FSC	44-24
9LS164PC	◆FSC	65-77	54LS295AJ	◆RTN	56-43	375BL	◆FSC	48-1	2513XCM2140	◆MULB	43-55	3257-9-7K	◆FSC	43-23
9LS170DC	◆FSC	16-32	54LS295AW	◆RTN	56-44	375CJ	◆FSC	48-2	◆MULB	◆SIC	44-26	3258-9-7K	◆FSC	43-52
9LS170DM	◆FSC	16-33	54LS395AJ	◆RTN	54-20	375CL	◆FSC	48-3	2513XCMXXX#1	◆PHIN	44-26	3260-9-1-7R	◆FSC	43-46
9LS170FC	◆FSC	16-34	54LS395AW	◆RTN	54-21	375ML	◆FSC	48-4	◆MULB	◆SIC	44-28	3260-9-2-7R	◆FSC	43-47
9LS170FM	◆FSC	16-35	54LS670DM	◆FSC	16-44	511	◆DTC	62-79	2513XCMXXX#2	◆PHIN	44-28	3260-4-5F	◆FSC	76-83
9LS170PC	◆FSC	16-36	54LS670FM	◆FSC	16-45	511T	◆DTC	63-1	◆MULB	◆SIC	43-56	3269-5F	◆FSC	76-10
9LS174DC	◆FSC	64-9	54LS670J	◆RTN	16-5	512	◆DTC	74-4	2513NXXCM2140	◆MULB	43-56	3329-9-5F	◆FSC	78-8
9LS174DM	◆FSC	64-10	54LS670W	◆RTN	16-6	512T	◆DTC	74-5	PHIN	◆SIC	44-27	3330-9-5F	◆FSC	78-5
9LS174FC	◆FSC	64-11	74LS91J	◆RTN	72-79	513T	◆DTC	63-2	2513NXXCMXXX#1	◆PHIN	44-27	3331-9-5F	◆FSC	78-6
9LS174FM	◆FSC	64-12	74LS91W	◆RTN	72-80	527	◆DTC	60-2	◆MULB	◆SIC	44-29	3333-9-7K	◆FSC	75-84
9LS174PC	◆FSC	64-13	74LS95BDC	◆FSC	57-97	527T	◆DTC	60-7	2513NXXCMXXX#2	◆PHIN	44-29	3341-9-7F	◆FSC	60-83
9LS175DC	◆FSC	58-41	74LS95BFC	◆FSC	57-98	569T	◆DTC	60-82	◆MULB	◆SIC	44-29	3383-9-5F	◆FSC	77-54
9LS175DM	◆FSC	58-42	74LS95BJ	◆RTN	52-24	690A	◆DTC	49-1	2513NXXCMXXX#Z	◆PHIN	44-29	3501-9-6G	◆FSC	36-35
9LS175FC	◆FSC	58-43	74LS95BPC	◆FSC	57-99	1101ADM	◆AMV	20-107	◆MULB	◆SIC	38-28	3507-9-6G	◆FSC	36-38
9LS175FM	◆FSC	58-44	74LS95BW	◆RTN	52-25	1103-1K	◆MULB	23-9	2514NXXCMXXXMULB	◆MULB	38-28	3512-9-6G	◆FSC	35-75
9LS175PC	◆FSC	58-45	74LS164DC	◆FSC	65-80	1103-1XA	◆PHIN	23-10	PHIN	◆SIC	43-24	3513-9-7C	◆FSC	36-85
9LS194DC	◆FSC	57-81	74LS164FC	◆FSC	65-81	1103-1XA	◆MULB	23-10	2516IXCM2150	◆MULB	43-24	3514-9-1-7R	◆FSC	38-84
9LS194DM	◆FSC	57-82	74LS164J	◆RTN	71-52	1103K	◆PHIN	23-25	PHIN	◆SIC	44-11	3514-9-2-7K	◆FSC	38-87
9LS194FC	◆FSC	57-83	74LS164PC	◆FSC	65-82	1103K	◆MULB	23-25	2516IXCMXXX	◆MULB	44-11	3532-9A-7K	◆FSC	22-86
9LS194FM	◆FSC	57-84	74LS164W	◆RTN	71-53	1103XA	◆PHIN	23-26	PHIN	◆SIC	43-25	3532-9B-7K	◆FSC	22-87
9LS194PC	◆FSC	57-85	74LS170DC	◆FSC	16-46	1103XA	◆MULB	23-26	2516NXXCM2150	◆MULB	43-25	3534-9-7T	◆FSC	23-27
9LS195DC	◆FSC	57-86	74LS170FC	◆FSC	16-47	1402A	◆AMV	77-90	PHIN	◆SIC	44-12	3539A	◆SMI	22-78
9LS195DM	◆FSC	57-87	74LS170J	◆RTN	16-7	1402AB	◆AMV	77-80	2516NXXCMXXXMULB	◆MULB	44-12	3539B	◆SMI	22-77
9LS195FC	◆FSC	57-88	74LS170PC	◆FSC	16-48	1402AB	◆MULB	77-80	PHIN	◆SIC	76-78	3539C	◆SMI	22-76
9LS195FM	◆FSC	57-89	74LS170W	◆RTN	16-8	1402AI	◆PHIN	77-81	2517T	◆MULB	76-78	3539D	◆SMI	22-79
9LS195PC	◆FSC	57-90	74LS174DC	◆FSC	64-19	1402AI	◆MULB	77-81	PHIN	◆SIC	76-79	3580-9-6G	◆FSC	37-63
9LS295DC	◆FSC	58-21	74LS174FC	◆FSC	64-19	1403A	◆AMV	78-56	2517V	◆MULB	76-79	3584-9-6G	◆FSC	37-67
9LS295DM	◆FSC	58-22	74LS174J	◆RTN	63-85	1403A	◆MULB	78-39	PHIN	◆SIC	74-107	3800-4-6H	◆FSC	64-51
9LS295FC	◆FSC	58-23	74LS174PC	◆FSC	64-18	1403ATA	◆MULB	78-39	2518B	◆MULB	74-107	3800-9-6H	◆FSC	64-52
9LS295FM	◆FSC	58-24	74LS174W	◆RTN	63-86	1403AV	◆PHIN	78-40	PHIN	◆SIC	74-109	3801-4-6H	◆FSC	74-27
9LS295PC	◆FSC	58-25	74LS175DC	◆FSC	58-48	1403AV	◆MULB	78-40	2518F	◆MULB	74-109	3801-9-6H	◆FSC	74-28
9LS670DC	◆FSC	16-37	74LS175FC	◆FSC	58-48	1404A	◆AMV	78-103	◆PHIN	◆SIC	74-108	4104ACC	◆SMI	26-49
9LS670DM	◆FSC	16-38	74LS175J	◆RTN	58-39	1404AA	◆AMV	78-82	2518I	◆MULB	74-108	4104ACP	◆SMI	26-50
9LS670FC	◆FSC	16-39	74LS175PC	◆FSC	58-50	1404ATA	◆PHIN	78-83	PHIN	◆SIC	75-8	4200A	◆SMI	29-85
9LS670FM	◆FSC	16-40	74LS175W	◆RTN	57-40	1404AV	◆PHIN	78-83	2519B	◆MULB	75-8	4200A	◆SMI	29-84
9LS670PC	◆FSC	16-41	74LS194ADC	◆FSC	57-100	1404AV	◆MULB	78-83	PHIN	◆SIC	75-10	4402A	◆SMI	29-82
21FO2B	◆MULB	25-26	74LS194AFC	◆FSC	57-101	1405A	◆AMV	78-19	2519F	◆MULB	75-10	4402B	◆SMI	29-80
◆PHIN	◆SIC		74LS194AJ	◆RTN	56-45	1405K	◆MULB	78-10	◆PHIN	◆SIC	75-9	4801	◆SMI	29-90
21FO2F	◆MULB	25-27	74LS194APC	◆FSC	57-102	1405K	◆MULB	78-10	2519I	◆MULB	75-9	4801A	◆SMI	29-88
◆PHIN	◆SIC		74LS194AW	◆RTN	56-46	1406T	◆AMV	78-48	PHIN	◆SIC	76-109	4801B	◆SMI	29-86
21FO2I	◆MULB	25-28	74LS195ADC	◆FSC	57-103	1407T	◆AMV	78-50	2521V	◆MULB	76-109	4801C	◆SMI	29-87
◆PHIN	◆SIC		74LS195AFC	◆FSC	57-104	1506T	◆AMV	76-50	PHIN	◆SIC	77-29	4804	◆SMI	26-55
21LO2-1B	◆MULB	25-61	74LS195AJ	◆RTN	56-47	1507T	◆AMV	76-51	2522V	◆MULB	77-29	4804A	◆SMI	26-53
◆PHIN	◆SIC		74LS195APC	◆FSC	57-105	2101-1F	◆MULB	22-23	2524V	◆PHIN	78-17	4804B	◆SMI	26-52
21LO2-1F	◆MULB	25-62	74LS195AW	◆RTN	56-48	2101-1F	◆MULB	22-23	2525V	◆PHIN	78-89	4804C	◆SMI	26-51
◆PHIN	◆SIC		74LS295ADC	◆FSC	58-28	2101-2F	◆MULB	22-31	PHIN	◆SIC	78-89	5200-1J	◆MMI	33-50
21LO2-1I	◆MULB	25-63	74LS295AFC	◆FSC	58-29	2101-2F	◆MULB	22-31	2526/CM3400	◆MULB	46-58	5201-1J	◆MMI	33-50
◆PHIN	◆SIC		74LS295AJ	◆RTN	56-49	2101F	◆PHIN	22-8	PHIN	◆SIC	46-58	5205-1J	◆MMI	37-25
21LO2-3B	◆MULB	25-37	74LS295APC	◆FSC	58-30	2101F	◆MULB	22-8	2526/CM3940	◆MULB	45-57	5220-1J	◆MMI	31-36
◆PHIN	◆SIC		74LS295AW	◆RTN	56-50	2102B	◆PHIN	25-101	PHIN	◆SIC	45-57	5221-1J	◆MMI	31-37
21LO2-3F	◆MULB	25-38	74LS395AJ	◆RTN	54-22	2102B	◆MULB	25-101	2526I#1	◆PHIN	44-5	5241-1J	◆MMI	38-55
◆PHIN	◆SIC		74LS395AW	◆RTN	54-23	2102F	◆PHIN	25-102	PHIN	◆SIC	44-5	5242-1J	◆MMI	38-56
21LO2-3I	◆MULB	25-39	74LS670DC	◆FSC	16-49	2102F	◆MULB	25-102	2526I#2	◆PHIN	39-65	5243-1J	◆MMI	37-28
◆PHIN	◆SIC		74LS670FC	◆FSC	16-50	2102I	◆PHIN	25-103	2526I#2	◆MULB	39-65	5243-1J	◆MMI	37-29
25LO1B	◆MULB	21-11	74LS670J	◆RTN	16-9	2111-1K	◆MULB	22-24	PHIN	◆SIC	44-6	5250-1J	◆MMI	39-104
◆PHIN	◆SIC		74LS670PC	◆FSC	16-51	2111-1XA	◆MULB	22-25	2526I#2	◆PHIN	44-6	5251-1J	◆MMI	39-105
25LO1I	◆MULB	21-12	74LS670W	◆RTN	16-10	2111-2K	◆MULB	22-32	2526N#2	◆PHIN	39-66	5300-1J	◆MMI	34-75
◆PHIN	◆SIC		82S23	◆MULB	31-88	2111-2K	◆MULB	22-32	PHIN	◆SIC	77-68	5301-1D	◆MMI	34-76
25LS222J	◆RTN	72-37	82S100I	◆PHIN	80-10	2111-2XA	◆MULB	22-33	2527V	◆PHIN	77-68	5305-1D	◆MMI	38-14
25LS222M	◆RTN	72-38	82S101I	◆PHIN	80-11	2111-2XA	◆MULB	22-33	2528V	◆PHIN	77-52	5306-1D	◆MMI	38-15
25LS222WC	◆RTN	72-39	82S123	◆PHIN	31-89	2111K	◆MULB	22-47	◆PHIN	◆SIC	77-51	5331-1D	◆MMI	31-91
25LS223J	◆RTN	72-41	93H00DC	◆FSC	58-51	2111K	◆MULB	22-47	2529V	◆PHIN	77-51	5335-1D	◆MMI	36-58
25LS223M	◆RTN	72-42	93H00DM	◆FSC	58-52	2111XA	◆MULB	22-48	◆PHIN	◆SIC	38-82	5336-1D	◆MMI	36-59
25LS233WC	◆RTN	72-43	93H00FC	◆FSC	58-53	◆PHIN	◆SIC	20-95	2530I	◆MULB	38-82	5340-1D	◆MMI	

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6251-1J	MMI	39-103	93407ADC	FSC	17-33	93450DC	FSC	40-104	AM25LS175FM	AMV	58-6	AM93L00PC	AMV	49-64
6300-1J	MMI	34-78	93407AFC	FSC	17-34	93450DM	FSC	40-105	AM25LS175PC	AMV	58-7	AM93L28DC	AMV	73-62
6301-1J	MMI	34-79	93407BDC	FSC	17-35	93450FC	FSC	40-106	AM25LS194ADC	AMV	57-41	AM93L28DM	AMV	73-63
6305-1J	MMI	38-8	93407BDM	FSC	17-37	93450PC	FSC	40-107		AMV		AM93L28FM	AMV	73-64
6306-1J	MMI	38-9	93407BFC	FSC	17-36	93451DC	FSC	40-108	AM25LS194ADM	AMV	57-42	AM93L28PC	AMV	73-65
6330-1J	MMI	31-58	93407BFM	FSC	17-38	93451DM	FSC	41-1		AMV		AM93L38DC	AMV	64-42
6331-1J	MMI	31-59	93410ADC	FSC	20-28	93451FC	FSC	41-2	AM25LS194AFM	AMV	57-43	AM93L38DM	AMV	64-43
6335-1J	MMI	36-60	93410AFC	FSC	20-29	93451PC	FSC	41-3		AMV		AM93L38FM	AMV	64-44
6336-1J	MMI	36-61	93410APC	FSC	20-30	93452DC	FSC	40-18	AM25LS194APC	AMV	57-44	AM93L38PC	AMV	64-45
6340-1J	MMI	39-52	93410DC	FSC	20-44	93452DM	FSC	40-24		AMV		AM1402A51E	AMV	77-102
6341-1J	MMI	39-53	93410DM	FSC	20-52	93452PC	FSC	40-19	AM25LS195ADC	AMV	57-45	AM1402A51F	AMV	77-103
6348-1J	MMI	39-40	93410FC	FSC	20-45	93453DC	FSC	40-20		AMV		AM1402A59F#1	AMV	77-104
6349-1J	MMI	39-41	93410FM	FSC	20-53	93453DM	FSC	40-25	AM25LS195ADM	AMV	57-46	AM1402A59F#2	AMV	77-82
6350-1J	MMI	40-10	93410PC	FSC	20-46	93453PC	FSC	40-21		AMV		AM1402A#1	AMV	77-91
6351-1J	MMI	40-11	93411ADC	FSC	20-31	93454DC	FSC	40-50	AM25LS195AFM	AMV	57-47	AM1402A#2	AMV	77-83
6352-1J	MMI	40-12		RTN		93454DM	FSC	40-62		AMV		AM1402ADM#1	AMV	77-92
6353-1J	MMI	40-13	93411DC	FSC	20-41	93454FC	FSC	40-51	AM25LS195APC	AMV	57-48	AM1402ADM#2	AMV	77-84
6380-1J	MMI	41-8		RTN		93454FM	FSC	40-63		AMV				
6381-1J	MMI	41-9	93411DM	FSC	20-49	93454PC	FSC	40-52	AM25LS299DC	AMV	72-53		AMV	
6384-1J	MMI	41-10		RTN		93454DC	FSC	40-53	AM25LS299DM	AMV	72-54	AM1402APC#1	AMV	77-93
6385-1J	MMI	41-11	93411FM	FSC	20-50	93457DM	FSC	33-61	AM25LS299FM	AMV	72-55	AM1402APC#2	AMV	77-85
6386-1J	MMI	41-12	93411PC	FSC	20-42	93457FC	FSC	33-52	AM25LS299PC	AMV	72-56	AM1403A51F	AMV	78-69
6387-1J	MMI	41-13	93412DC	FSC	21-30	93457FM	FSC	33-62	AM25LS374DC	AMV	65-110	AM1403A51T	AMV	78-70
6530	MMI	19-95	93412DM	FSC	21-38	93457PC	FSC	33-53	AM25LS374DM	AMV	66-1	AM1403A59F#1	AMV	78-71
6531	MMI	19-96	93412FC	FSC	21-31	93458DC	FSC	80-13	AM25LS374FM	AMV	66-2	AM1403A59F#2	AMV	78-46
6560D	MMI	17-85	93412FM	FSC	21-39	93458DM	FSC	80-14	AM25LS374PC	AMV	66-3	AM1403A#1	AMV	78-57
6560N	MMI	17-86	93415ADC	FSC	23-110	93459DC	FSC	80-15	AM25LS377DC	AMV	66-4	AM1403A#2	AMV	78-47
9300DC	FSC	16-1		RTN		93459DM	FSC	80-16	AM25LS377DM	AMV	66-5	AM1403AHM#1	AMV	78-58
9300DC	FSC	57-71	93415AFC	FSC	24-1	93464DC	FSC	40-53	AM25LS377FM	AMV	66-6		AMV	
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9300FC	FSC	57-73		PHIN		93464FC	FSC	40-54	AM25LS2519DC	AMV	47-18		AMV	
9300FM	FSC	57-74	93415APC	FSC	24-2	93464FM	FSC	40-65		AMV		AM1403APC#1	AMV	78-59
9328DC	FSC	73-66	93415DC	FSC	24-6	93464PC	FSC	40-55	AM25LS2519DM	AMV	47-19	AM1403APC#2	AMV	78-49
9328DM	FSC	73-67		RTN		93467DC	FSC	33-54		AMV		AM1404A51F	AMV	79-7
9328FC	FSC	73-68	93415DM	FSC	24-25	93467DM	FSC	33-63	AM25LS2519FM	AMV	47-20	AM1404A51T	AMV	79-8
9328FM	FSC	73-11		RTN		93467FC	FSC	33-55		AMV		AM1404A59F#1	AMV	79-9
10139F	MULB	31-39	93415FC	FSC	24-7	93467FM	FSC	33-64	AM25LS2519PC	AMV	47-21	AM1404A59F#2	AMV	79-90
	PHIN		93415FM	FSC	24-26	93467PC	FSC	33-56		AMV		AM1404A#1	AMV	78-104
10140F	MULB	18-84	93415PC	FSC	24-8	93470DC	FSC	29-50	AM25S07DC	AMV	63-3	AM1404A#2	AMV	78-91
	PHIN		93417DC	FSC	34-31	93470DM	FSC	29-51	AM25S07DM	AMV	63-4	AM1404AHM#1	AMV	78-105
10142F	MULB	18-78	93417DM	FSC	34-41	93470PC	FSC	29-52	AM25S07FM	AMV	63-5		AMV	
	PHIN		93417FC	FSC	34-32	93471DC	FSC	29-53	AM25S07PC	AMV	63-6	AM1404AHM#2	AMV	78-92
10142I	MULB	18-79	93417FM	FSC	34-42	93471DM	FSC	29-54	AM25S08DC	AMV	47-22		AMV	
	PHIN		93417PC	FSC	34-33	93471PC	FSC	29-55	AM25S08DM	AMV	47-23	AM1404APC#1	AMV	78-106
10145F	MULB	17-61	93419DC	FSC	18-109	93481ADC	FSC	26-69	AM25S08FM	AMV	47-24	AM1404APC#2	AMV	78-93
	PHIN		93419DM	FSC	19-1	93481AFC	FSC	26-70	AM25S08PC	AMV	47-25	AM1406HM	AMV	76-58
10145I	MULB	17-62	93421ADC	FSC	20-24	93481APC	FSC	26-71	AM25S09DC	AMV	47-26	AM1407HM	AMV	76-59
	PHIN			RTN		93481DC	FSC	26-72	AM25S09DM	AMV	47-27	AM1506HC	AMV	76-60
10148F	MULB	18-85	93421DC	FSC	20-33	93481FC	FSC	26-73	AM25S09FM	AMV	47-28	AM1507HC	AMV	76-61
	PHIN			RTN		93481PC	FSC	26-74	AM25S09PC	AMV	47-29	AM2502DC	AMV	65-6
10149F	MULB	34-22	93421DM	FSC	20-47	95400DC	FSC	17-67	AM25S10DC	AMV	47-30	AM2502DM	AMV	65-7
	PHIN			RTN		95401DC	FSC	16-2	AM25S10DM	AMV	47-31	AM2502FM	AMV	65-8
10151F	MULB	18-86	93421FM	FSC	20-48	340174DC	FSC	63-34	AM25S10FM	AMV	47-32	AM2502PC	AMV	65-9
	PHIN		93421PC	FSC	20-34	340174DM	FSC	63-35	AM25S10PC	AMV	47-33	AM2503DC	AMV	65-10
10176F	MULB	64-27	93422DC	FSC	21-32	340174FC	FSC	63-36	AM25S18DC	AMV	59-27	AM2503DM	AMV	65-11
	PHIN		93422DM	FSC	21-40	340174FM	FSC	63-37	AM25S18DM	AMV	59-28	AM2503FM	AMV	65-12
29600DC	RTN	36-52	93422FC	FSC	21-33	340174PC	FSC	63-38	AM25S18FM	AMV	59-29	AM2503PC	AMV	65-13
29600DM	RTN	36-54	93422FM	FSC	21-41	340175DC	FSC	59-85	AM25S18PC	AMV	59-30	AM2504DC	AMV	74-38
29601DC	RTN	36-53	93425ADC	FSC	24-9	340175DM	FSC	59-86	AM27LS00DC	AMV	19-71	AM2504DM	AMV	74-39
29601DM	RTN	36-55		RTN		340175FC	FSC	59-87	AM27LS00DM	AMV	19-72	AM2504FM	AMV	74-40
29612DC	RTN	37-90	93425AI	MULB	24-10	340175FM	FSC	59-88	AM27LS00FM	AMV	19-73	AM2504PC	AMV	74-41
29612DM	RTN	37-104		PHIN		340175PC	FSC	59-89	AM27LS00PC	AMV	19-74	AM2533DC	AMV	79-13
29613DC	RTN	37-91	93425APC	FSC	24-11	340194DC	FSC	47-65	AM27LS01DC	AMV	19-75	AM2533V	AMV	79-14
29613DM	RTN	37-105	93425DC	FSC	24-31	340194DM	FSC	47-66	AM27LS01DM	AMV	19-76	AM2802DC	AMV	77-105
29660DC	RTN	34-51		RTN		340194FC	FSC	47-67	AM27LS01FM	AMV	19-100	AM2802DM	AMV	77-106
29660DM	RTN	34-61	93425DM	FSC	24-37	340194PC	FSC	47-68	AM27LS01PC	AMV	19-74	AM2802PC	AMV	77-107
29661DC	RTN	34-52		RTN		340194PC	FSC	47-69	AM27SO2DC	AMV	17-71	AM2803HC	AMV	78-72
29661DM	RTN	34-62	93425FC	FSC	24-38	340195DC	FSC	47-70	AM27SO2DM	AMV	17-72	AM2803HM	AMV	78-73
29662DC	RTN	34-39	93425PC	FSC	24-32	340195DM	FSC	47-71	AM27SO2FM	AMV	17-73	AM2803PC	AMV	78-74
29662DM	RTN	34-55	93427DC	FSC	34-34	340195FC	FSC	47-72	AM27SO2PC	AMV	17-74	AM2804HC	AMV	79-10
29663DC	RTN	34-40	93427DM	FSC	34-43	340195FM	FSC	47-73	AM27SO3DC	AMV	17-75	AM2804HM	AMV	79-11
29663DM	RTN	34-56	93427FC	FSC	34-35	340195PC	FSC	47-74	AM27SO3DM	AMV	17-76	AM2804PC	AMV	79-12
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33511DC	FSC	75-15	93427PC	FSC	34-36	AM25L02DM	AMV	64-83	AM27SO3PC	AMV	17-78	AM2805HM	AMV	78-18
33512DC	FSC	75-13	93431DC	FSC	37-10	AM25L02FM	AMV	64-84	AM27SO8DC	AMV	31-42	AM2806HC	AMV	78-98
34014DC	FSC	65-1	93431DM	FSC	37-18	AM25L02PC	AMV	64-85	AM27SO8DM	AMV	31-43	AM2806HM	AMV	78-94
34014DM	FSC	65-2	93431FC	FSC	37-11	AM25L03DC	AMV	64-86	AM27SO9DC	AMV	31-44	AM2807PC	AMV	78-21
34014FC	FSC	65-3	93431FM	FSC	37-19	AM25L03DM	AMV	64-87	AM27SO9DM	AMV	31-45	AM2808PC	AMV	78-99
34014FM	FSC	65-4	93431PC	FSC	37-12	AM25L03FM	AMV	64-88	AM27S10DC	AMV	34-45	AM2809HC	AMV	77-12
34014PC	FSC	65-5	93432DC	FSC	38-40	AM25L03PC	AMV	64-89	AM27S10DM	AMV	34-46	AM2809HM	AMV	77-3
34015DC	FSC	60-10	93432DM	FSC	38-47	AM25L04DC	AMV	74-37	AM27S11DC	AMV	34-47	AM2809PC	AMV	77-13
34015DM	FSC	60-11	93432FC	FSC	38-41	AM25L04DM	AMV	74-42	AM27S11DM	AMV	34-48	AM2810DC	AMV	77-4
34015FC	FSC	60-12	93432FM	FSC	38-48	AM25L04FM	AMV	74-43	AM31L01DC	AMV	18-49	AM2810DM	AMV	77-5
34015FM	FSC	60-13	93432PC	FSC	38-42	AM25L04PC	AMV	74-44	AM31L01DM	AMV	18-12	AM2812ADC	AMV	75-2
34015PC	FSC	60-14	93436DC	FSC	37-84	AM25LS07DC	AMV	63-87	AM31L01E	AMV	18-15	AM2812ADM	AMV	75-3
34021DC	FSC	68-8	93436DM	FSC	37-92	AM25LS07DM	AMV	63-88	AM31L01FM	AMV	18-13	AM2812DC	AMV	74-110
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JANM38510/00903CCA	SIC	71-8	JANM38510/00906CFA	MOTA	54-17	JANM38510/02802BBC	none	70-2	JANM38510/02805AAB	none	68-86	JANM38510/05701CCA	NSC	62-42
JANM38510/00903CCB	SIC	71-9	JANM38510/00906CFB	MOTA	54-18	JANM38510/02802BCA	none	70-3	JANM38510/02805AAC	none	68-87	JANM38510/05701CCB	NSC	62-43
JANM38510/00903CCC	none	71-10	JANM38510/00906CFC	none	54-19	JANM38510/02802BCB	none	70-4	JANM38510/02805ABA	none	68-88	JANM38510/05701CCC	NSC	62-44
JANM38510/00903CDA	none	71-11	JANM38510/02801AAA	none	48-5	JANM38510/02802BCC	none	70-5	JANM38510/02805ABB	none	68-89	JANM38510/05701CDA	NSC	62-45
JANM38510/00903CDB	none	71-12	JANM38510/02801AAB	none	48-6	JANM38510/02802BDA	none	70-6	JANM38510/02805ABC	none	68-90	JANM38510/05701CDB	NSC	62-46
JANM38510/00903CDC	none	71-13	JANM38510/02801AAC	none	48-7	JANM38510/02802BDB	none	70-7	JANM38510/02805ACA	none	68-91	JANM38510/05701CDC	NSC	62-47
JANM38510/00904AEA	none	67-87	JANM38510/02801ABA	none	48-8	JANM38510/02802BDC	none	70-8	JANM38510/02805ACB	none	68-92	JANM38510/05702AEA	RCA	66-20
JANM38510/00904AEB	none	67-88	JANM38510/02801ABB	none	48-9	JANM38510/02802CAA	none	70-9	JANM38510/02805ACC	none	68-93	JANM38510/05702AEB	NSC	66-21
JANM38510/00904AEC	none	67-89	JANM38510/02801ABC	none	48-10	JANM38510/02802CAB	none	70-10	JANM38510/02805ADA	none	68-94	JANM38510/05702AEC	NSC	66-22
JANM38510/00904AFA	none	67-90	JANM38510/02801ACA	none	48-11	JANM38510/02802CAC	none	70-11	JANM38510/02805ADB	none	69-1	JANM38510/05702AFA	NSC	66-23
JANM38510/00904AFB	none	67-91	JANM38510/02801ACB	none	48-12	JANM38510/02802CBA	none	70-12	JANM38510/02805ADC	none	69-2	JANM38510/05702AFB	NSC	66-24
JANM38510/00904AFC	none	67-92	JANM38510/02801ACC	none	48-13	JANM38510/02802CBB	none	70-13	JANM38510/02805BAA	none	69-3	JANM38510/05702AFC	NSC	66-25
JANM38510/00904BEA	MOTA	67-93	JANM38510/02801ADA	none	48-14	JANM38510/02802CBC	none	70-14	JANM38510/02805BAB	none	69-4	JANM38510/05702BEA	RCA	66-26
JANM38510/00904BEB	MOTA	67-94	JANM38510/02801ADB	none	48-15	JANM38510/02802CCA	none	70-15	JANM38510/02805BAC	none	69-5	JANM38510/05702BEB	NSC	66-27
JANM38510/00904BEC	none	67-95	JANM38510/02801ADC	none	48-16	JANM38510/02802CCB	none	70-16	JANM38510/02805BBA	none	69-6	JANM38510/05702BEC	NSC	66-28
JANM38510/00904BFA	none	67-96	JANM38510/02801BAA	none	48-17	JANM38510/02802CCC	none	70-17	JANM38510/02805BBB	none	69-7	JANM38510/05702BFA	NSC	66-29
JANM38510/00904BFB	MOTA	67-97	JANM38510/02801BAB	none	48-18	JANM38510/02802CDA	none	70-18	JANM38510/02805BBC	none	69-8	JANM38510/05702BFB	NSC	66-30
JANM38510/00904BFC	none	67-98	JANM38510/02801BAC	none	48-19	JANM38510/02802CDB	none	70-19	JANM38510/02805BCA	none	69-9	JANM38510/05702BFC	NSC	66-31
JANM38510/00904CEA	MOTA	68-1	JANM38510/02801BBA	none	48-20	JANM38510/02802CDC	none	70-20	JANM38510/02805BCB	none	69-10	JANM38510/05702CEA	RCA	66-32
JANM38510/00904CEB	MOTA	68-2	JANM38510/02801BBB	none	48-21	JANM38510/02802STD	none	70-21	JANM38510/02805BCC	none	69-11	JANM38510/05702CEB	NSC	66-33
JANM38510/00904CEC	none	68-3	JANM38510/02801BBC	none	48-22	JANM38510/02803AEA	none	73-17	JANM38510/02805BDA	none	69-12	JANM38510/05702CEC	NSC	66-34
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JANM38510/00904CFB	MOTA	68-5	JANM38510/02801BCB	NSC	48-24	JANM38510/02803AEC	none	73-19	JANM38510/02805BDC	none	69-14	JANM38510/05702CFB	NSC	66-36
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JANM38510/00905AEA	none	52-4	JANM38510/02801BDA	NSC	48-26	JANM38510/02803AFB	none	73-21	JANM38510/02805CAB	none	69-16	JANM38510/05703AEA	RCA	60-16
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JANM38510/00905CFB	MOTA	52-20	JANM38510/02802AAA	none	69-52	JANM38510/02804AEC	none	55-10	JANM38510/05701ACB	none	62-25	JANM38510/05703CFB	NSC	60-32
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JANM38510/00906AEC	none	54-4	JANM38510/02802ABB	none	69-56	JANM38510/02804BEA	none	55-14	JANM38510/05701ADC	none	62-29	JANM38510/05704AEC	NSC	66-40
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JANM38510/00906AFB	none	54-6	JANM38510/02802ACA	none	69-58	JANM38510/02804BEC	none	55-16	JANM38510/05701BAB	none	62-31	JANM38510/05704AFB	NSC	66-42
JANM38510/00906AFC	none	54-7	JANM38510/02802ACB	none	69-59	JANM38510/02804BFA	none	55-17	JANM38510/05701BAC	none	62-32	JANM38510/05704AFC	NSC	66-43
JANM38510/00906BEA	MOTA	54-8	JANM38510/02802ACC	none	69-60	JANM38510/02804BFB	none	55-18	JANM38510/05701BCA	NSC	62-33	JANM38510/05704BEA	RCA	66-44
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JANM38510/00906BFA	MOTA	54-11	JANM38510/02802ADC	none	69-63	JANM38510/02804CEB	none	55-21	JANM38510/05701BDA	NSC	62-36	JANM38510/05704BFA	NSC	66-47
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JANM38510/00906BFC	none	54-13	JANM38510/02802BAB	none	69-65	JANM38510/02804CFA	none	55-23	JANM38510/05701BDC	none	62-38	JANM38510/05704BFC	NSC	66-49
JANM38510/00906CEA	MOTA	54-14	JANM38510/02802BAC	none	69-66	JANM38510/02804CFB	none	55-24	JANM38510/05701CAA	none	62-39	JANM38510/05704CEA	RCA	66-50
JANM38510/00906CEB	MOTA	54-15	JANM38510/02802BBA	none	69-67	JANM38510/02804CFC	none	55-25	JANM38510/05701CAB	none	62-40	JANM38510/05704CEB	NSC	66-51
JANM38510/00906CEC	none	54-16	JANM38510/02802BBB	none	70-1	JANM38510/02805AAA	none	68-85	JANM38510/05701CAC	none	62-41	JANM38510/05704CEC	NSC	66-52

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
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JANM38510/05704CFB	NSC	66-54	JANM38510/07602AEB	none	59-1	JANM38510/20101AKB	none	32-6	JANM38510/20201BEB	none	35-3	JANM38510/23502BVB	none	28-25
JANM38510/05704CFC	NSC	66-55	JANM38510/07602AEC	none	59-2	JANM38510/20101AKC	none	32-7	JANM38510/20201BEC	none	35-4	JANM38510/23502BVC	TII	28-26
JANM38510/05705AEA	none	75-32	JANM38510/07602AFA	none	59-3	JANM38510/20101AZA	none	32-8	JANM38510/20201BFA	none	35-5	JANM38510/23502CUA	none	28-27
JANM38510/05705AEB	none	75-33	JANM38510/07602AFB	none	59-4	JANM38510/20101AZB	none	32-9	JANM38510/20201BFB	none	35-6	JANM38510/23502CUB	none	28-28
JANM38510/05705AEC	none	75-34	JANM38510/07602AFC	none	59-5	JANM38510/20101AZC	none	32-10	JANM38510/20201BFC	none	35-7	JANM38510/23502CUC	none	28-29
JANM38510/05705AFA	none	75-35	JANM38510/07602BEA	none	59-6	JANM38510/20101BJA	none	32-11	JANM38510/20201CEA	none	35-8	JANM38510/23502CVA	none	28-30
JANM38510/05705AFB	none	75-36	JANM38510/07602BEB	none	59-7	JANM38510/20101BJB	none	32-12	JANM38510/20201CEB	none	35-9	JANM38510/23502CVB	none	28-31
JANM38510/05705AFC	none	75-37	JANM38510/07602BEC	none	59-8	JANM38510/20101BJC	none	32-13	JANM38510/20201CEC	none	35-10	JANM38510/23502CVC	TII	28-32
JANM38510/05705BEA	NSC	75-38	JANM38510/07602BFA	none	59-9	JANM38510/20101BKA	none	32-14	JANM38510/20201CFA	none	35-11	JANM38510/23503AUA	none	28-33
JANM38510/05705BFB	NSC	75-39	JANM38510/07602BFB	none	59-10	JANM38510/20101BKB	none	32-15	JANM38510/20201CFB	none	35-12	JANM38510/23503AUB	none	28-34
JANM38510/05705BFC	NSC	75-40	JANM38510/07602BFC	none	59-11	JANM38510/20101BKC	none	32-16	JANM38510/20201CFC	none	35-13	JANM38510/23503AUC	none	28-35
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JANM38510/05705BFC	NSC	75-43	JANM38510/07602CEC	none	59-14	JANM38510/20101BZC	none	32-19	JANM38510/20202AEC	none	35-16	JANM38510/23503AWC	none	28-38
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JANM38510/05706CKC	none	64-70	JANM38510/15902AEC	none	73-43	JANM38510/20102BKC	none	32-43	JANM38510/23501BUC	none	28-5	JANM38510/23504ABU	none	29-7
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JANM38510/07601AFA	none	58-76	JANM38510/15902BEA	none	73-47	JANM38510/20102CJA	none	32-47	JANM38510/23501CUA	none	28-9	JANM38510/23504ACU	none	29-11
JANM38510/07601AFB	none	58-77	JANM38510/15902BEB	none	73-48	JANM38510/20102CJB	none	32-48	JANM38510/23501CUB	none	28-10	JANM38510/23504ACU	none	29-12
JANM38510/07601AFC	none	58-78	JANM38510/15902BEC	none	73-49	JANM38510/20102CJC	none	32-49	JANM38510/23501CUC	none	28-11	JANM38510/23504ACU	none	29-13
JANM38510/07601BEA	none	58-79	JANM38510/15902BFA	none	73-50	JANM38510/20102CKA	none	32-50	JANM38510/23501CWA	none	28-12	JANM38510/30106AEA	none	63-39
JANM38510/07601BEB	none	58-80	JANM38510/15902BFB	none	73-51	JANM38510/20102CKB	none	32-51	JANM38510/23501CWB	none	28-13	JANM38510/30106AEB	none	63-40
JANM38510/07601BEC	none	58-81	JANM38510/15902BFC	none	73-52	JANM38510/20102CKC	none	32-52	JANM38510/23501CWC	TII	28-14	JANM38510/30106AEC	none	63-41
JANM38510/07601BFA	none	58-82	JANM38510/15902CEA	none	73-53	JANM38510/20102CZA	none	32-53	JANM38510/23502AUA	none	28-15	JANM38510/30106AFA	none	63-42
JANM38510/07601BFB	none	58-83	JANM38510/15902CEB	none	73-54	JANM38510/20102CZB	none	32-54	JANM38510/23502AUB	none	28-16	JANM38510/30106AFB	none	63-43
JANM38510/07601BFC	none	58-84	JANM38510/15902CEC	none	73-55	JANM38510/20102CZC	none	32-55	JANM38510/23502AUC	none	28-17	JANM38510/30106AFC	none	63-44
JANM38510/07601CEA	none	58-85	JANM38510/15902CFA	none	73-56	JANM38510/20201AEA	none	34-100	JANM38510/23502AVA	none	28-18	JANM38510/30106BEA	none	63-45
JANM38510/07601CEB	none	58-86	JANM38510/15902CFB	none	73-57	JANM38510/20201AEB	none	34-101	JANM38510/23502AVB	none	28-19	JANM38510/30106BEB	none	63-46
JANM38510/07601CEC	none	58-87	JANM38510/15902CFC	none	73-58	JANM38510/20201AEC	none	34-102	JANM38510/23502AVC	none	28-20	JANM38510/30106BEC	none	63-47
JANM38510/07601CFA	none	58-88	JANM38510/20101AJA	none	32-2	JANM38510/20201AFA	none	34-103	JANM38510/23502BUA	none	28-21	JANM38510/30106BFA	none	63-48
JANM38510/07601CFB	none	58-89	JANM38510/20101AJB	none	32-3	JANM38510/20201AFB	none	34-104	JANM38510/23502BUB	none	28-22	JANM38510/30106BFB	none	63-49
JANM38510/07601CFC	none	58-90	JANM38510/20101AJC	none	32-4	JANM38510/20201AFC	none	35-1	JANM38510/23502BUC	none	28-23	JANM38510/30106BFC	none	63-50

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				IN TYPE NUMBER SEQUENCE			
TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line
MM4230QWJ	46-43	MM5203D#1	36-76	MM5240ABUJ	44-50	N74S172N	16-108
MM4230QXJ	45-67	MM5203D#2	38-19	MM5240ABUN	44-51	MULB	N82S126F
MM4230QYJ	45-17	MM5203Q#1	36-77	MM5240ABZJ	44-45	PHIN	MULB
MM4231D#1	36-29	MM5203Q#2	38-20	MM5240ABZN	44-46	MULB	PHIN
MM4231D#2	37-57	MM5204D	39-59	MM5240ACAJ	44-47	MULB	MULB
MM4231J#1	36-30	MM5204Q	39-60	MM5240ACAN	44-48	PHIN	PHIN
MM4231J#2	37-58	MM5210D	39-78	MM5240D	44-32	MULB	MULB
MM4231RP2J	45-68	MM5210J	39-79	MM5240J	44-33	PHIN	PHIN
MM4232AEIJ	80-51	MM5210N	39-80	MM5240N	44-34	MULB	MULB
MM4232J#1	38-102	MM5211D	39-87	MM5241D	44-16	PHIN	PHIN
MM4232J#2	40-7	MM5211J	39-88	MM5241J	44-17	MULB	MULB
MM4233D	38-92	MM5211N	39-89	MM5241N	44-18	PHIN	PHIN
MM4233J	38-93	MM5212AD	41-44	MM5261D	23-40	MULB	MULB
MM4240ABUJ	44-49	MM5212AN	41-45	MM5261N	23-41	PHIN	PHIN
MM4240ABZJ	44-43	MM5213	36-22	MM5262D	26-58	MULB	MULB
MM4240ACAJ	44-44	MM5213D#1	36-26	MM5262N	26-59	PHIN	PHIN
MM4240D	44-30	MM5213D#2	37-54	MM5269D	22-56	MULB	MULB
MM4240J	44-31	MM5213J#1	36-27	MM5269N	22-57	PHIN	PHIN
MM4241D	44-13	MM5213J#2	37-55	MM5270D5	27-45	MULB	MULB
MM4241J	44-14	MM5213N#1	36-28	MM5270D	27-2	PHIN	PHIN
MM4241N	44-15	MM5213N#2	37-56	MM5271D	27-26	MULB	MULB
MM4250D	20-93	MM5214J	38-103	MM5280D5	27-3	PHIN	PHIN
MM4250D	23-42	MM5214N	38-104	MM5280D	27-3	MULB	MULB
MM4261N	23-43	MM5215AD	41-42	MM5281D	27-27	PHIN	PHIN
MM4262D	26-60	MM5215AN	41-43	MM5606AN	62-67	MULB	MULB
MM4606AD	62-65	MM5220AEJ	45-43	MM5614AN	67-14	PHIN	PHIN
MM4606AF	62-66	MM5220AEN	45-44	MM5621AN	67-15	MULB	MULB
MM4614AD	67-10	MM5220APJ	45-100	MM5635AN	47-109	PHIN	PHIN
MM4614AF	67-11	MM5220APN	45-101	MM6055	43-48	MULB	MULB
MM4621AD	67-12	MM5220BLJ	46-60	MM6056	43-16	PHIN	PHIN
MM4621AF	67-13	MM5220BLN	46-61	MM6061	43-74	MULB	MULB
MM4635AD	47-107	MM5220BMJ	80-49	MM6062	43-32	PHIN	PHIN
MM4635AF	47-108	MM5220BMN	80-50	MM6071	43-63	MULB	MULB
MM5001AH	75-68	MM5220BNJ	80-2	MM6072	43-78	PHIN	PHIN
MM5006AD	76-70	MM5220BNN	80-3	MM6073	43-35	MULB	MULB
MM5006AH	76-71	MM5220D#1	33-13	MM6074	43-26	PHIN	PHIN
MM5007AAD	76-15	MM5220D#2	34-5	MM11011D	20-100	MULB	MULB
MM5007AAH	76-16	MM5220DFJ	80-30	MM11011N	20-101	PHIN	PHIN
MM5007D	76-72	MM5220DFN	80-31	MM1001	27-63	MULB	MULB
MM5007H	76-73	MM5220EKJ#1	45-106	MM1001-1	27-28	PHIN	PHIN
MM5007XXD	76-46	MM5220EKJ#2	45-2	MM1001-2	27-4	MULB	MULB
MM5007XXH	76-47	MM5220EKN#1	45-107	MM1003	23-34	PHIN	PHIN
MM5010AH	75-69	MM5220EKN#2	45-3	MP3802	38-89	MULB	MULB
MM5011A	75-70			MS109	46-53	PHIN	PHIN
MM5011D	77-64			MS113	31-1	MULB	MULB
MM5012N	77-65	MM5220J#1	33-14	MS115	31-2	PHIN	PHIN
MM5013D	78-86	MM5220J#2	34-6	MS116	31-7	MULB	MULB
MM5013H	78-87	MM5220LRJ#1	45-103	MS204	31-3	PHIN	PHIN
MM5013N	78-88	MM5220LRJ#2	45-104	MS208	31-5	MULB	MULB
MM5015AD	75-87	MM5220LRN#1	45-104	MS212	31-4	PHIN	PHIN
MM5015D	78-14	MM5220LRN#2	45-41	MS618	74-73	MULB	MULB
MM5016H	78-15	MM5220N#1	33-15	MS625	74-79	PHIN	PHIN
MM5016N	78-16	MM5220N#2	34-7	MSM540	76-99	MULB	MULB
MM5017D	78-43	MM5220NPJ	43-65	MSM541	75-21	PHIN	PHIN
MM5017H	78-44	MM5220NPN	43-66	MSM542	68-81	MULB	MULB
MM5017N	78-45	MM5221J#1	33-21	MSM543	66-65	PHIN	PHIN
MM5018H	75-88	MM5221J#2	34-13	MSM544	60-85	MULB	MULB
MM5019D	77-66	MM5221N#1	33-22	MSM575	74-106	PHIN	PHIN
MM5019H	77-67	MM5221N#2	34-14	MSM575-01	38-77	MULB	MULB
MM5019XXD	77-57	MM5221RQJ#1	45-55	MSR4	49-4	PHIN	PHIN
MM5019XXH	77-58	MM5221RQJ#2	46-63	MSR8	60-3	MULB	MULB
MM5020D	76-30	MM5221RQN#1	45-56	MTS1102	76-82	PHIN	PHIN
MM5020N	76-31			MTS2013	76-80	MULB	MULB
MM5021D	76-22	MM5221RQN#2	46-64	MTS2100	78-22	PHIN	PHIN
MM5021H	76-23			MTS2103	74-95	MULB	MULB
MM5021N	76-24	MM5221RRJ	45-5	MTS2105	75-80	PHIN	PHIN
MM5023D	76-26	MM5221RRN	45-6	MTS2107	77-2	MULB	MULB
MM5023N	76-27	MM52229D	36-93	MTS2108	77-6	PHIN	PHIN
MM5024AH	79-4	MM52229N	36-94	MUF5	62-78	MULB	MULB
MM5025D	79-29	MM5230B01J	46-41	MW4050D	27-64	PHIN	PHIN
MM5025N	79-30	MM5230B01N	46-42	MW4050DV1	27-29	MULB	MULB
MM5026D	79-31	MM5230D#1	36-19	MW4050DV2	27-5	PHIN	PHIN
MM5026N	79-32	MM5230D#2	37-48	MW4060D	27-65	MULB	MULB
MM5027F	79-36	MM5230FEJ#1	45-97	MW4060DV1	27-30	PHIN	PHIN
MM5027N	79-37	MM5230FEJ#2	45-81	MW4060DV2	27-6	MULB	MULB
MM5040H	74-60	MM5230FEN#1	45-98	MW4104D	26-68	PHIN	PHIN
MM5050	74-91	MM5230FEN#2	45-82	MWS5001D	24-72	MULB	MULB
MM5050AD	74-99	MM5230J#1	36-20	MWS5001H	24-73	PHIN	PHIN
MM5050AH	74-100	MM5230J#2	37-49	MWS5040D	21-90	MULB	MULB
MM5051	74-92	MM5230JTJ#1	45-109	MWS5040H	21-91	PHIN	PHIN
MM5051AH	74-101	MM5230JTJ#2	45-84	MWS5501D	24-70	MULB	MULB
MM5052H	76-18	MM5230JTN#1	45-110	MWS5501H	24-71	PHIN	PHIN
MM5053H	76-88	MM5230JTN#2	45-85	MWS5540D	21-88	MULB	MULB
MM5054D	75-76	MM5230KP2J	45-36	MWS5540H	21-89	PHIN	PHIN
MM5054N	75-77	MM5230KP2N	45-37	N8T10B	58-31	MULB	MULB
MM5055D	77-20	MM5230N#1	36-21			PHIN	PHIN
MM5055N	77-21	MM5230N#2	37-50	N8T10F	58-32	MULB	MULB
MM5056H	77-109	MM5230NNJ	43-69			PHIN	PHIN
MM5056N	77-110	MM5230NNN	43-70	N25L01B	20-102	MULB	MULB
MM5057D	78-24	MM5230NOJ	43-71			PHIN	PHIN
MM5057N	78-25	MM5230NON	43-72	N25L01N	20-103	MULB	MULB
MM5058N	79-15	MM5230QWJ	46-44			PHIN	PHIN
MM5060AAD	76-110	MM5230QXN	45-69	N74LS170B	16-58	MULB	MULB
MM5060AAN	77-1	MM5230QYJ	45-70			PHIN	PHIN
MM5060ABD	77-30	MM5230QYN	45-19	N74LS170F	16-59	MULB	MULB
MM5060ABN	77-31	MM5231D#1	36-31			PHIN	PHIN
MM5060ACD	77-34	MM5231D#2	37-59	N74LS174B	63-74	MULB	MULB
MM5060ACN	77-35	MM5231J#1	36-32			PHIN	PHIN
MM5060ADD	77-40	MM5231J#2	37-60	N74LS174F	63-75	MULB	MULB
MM5060ADN	77-41	MM5231N#1	36-33			PHIN	PHIN
MM5060AXD	77-42	MM5231N#2	37-61	N74LS175B	56-100	MULB	MULB
MM5060XXN	77-43	MM5231RP2J	45-71			PHIN	PHIN
MM5061D	76-94	MM5232AEIJ	80-52	N74LS175F	56-101	MULB	MULB
MM5061N	76-95	MM5232AEIN	80-53			PHIN	PHIN
MM5081	78-4	MM5232J#1	38-105	N74LS670B	16-83	MULB	MULB
MM5104H	78-4	MM5232J#2	40-8			PHIN	PHIN
MM5105H	76-5	MM5232N#1	38-106	N74LS670F	16-84	MULB	MULB
MM5202AD	36-74	MM5232N#2	40-9			PHIN	PHIN
MM5202AQ	36-75	MM5233J	38-94	N74S172F	16-107	MULB	MULB
		MM5233N	38-95			PHIN	PHIN
			38-96			MULB	MULB

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TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
UA3540D8	♦SOD	43- 54									
UA3548#1	SOD	36- 40									
UA3548#2	SOD	37- 66									
UA3548#3	SOD	39- 97									
UA3548#4	SOD	41- 52									
UA3572D	♦SOD	36- 98									
UC6548#1	♦SOD	41- 54									
UC6548#2	♦SOD	39- 99									
UC6548#3	♦SOD	38- 24									
UC6548#4	♦SOD	36- 82									
UC6572	♦SOD	36- 95									
UC7523#1	♦SOD	36- 34									
UC7523#2	♦SOD	37- 62									
UC7526	SOD	33- 4									
UC7541-03	♦SOD	43- 21									
UC7541-79	♦SOD	44- 41									
UC7548#1	♦SOD	41- 55									
UC7548#2	♦SOD	39-100									
UC7548#3	♦SOD	38- 25									
UC7548#4	♦SOD	36- 83									
UC7572	♦SOD	36- 96									
UC7596S	♦SOD	40- 43									
UC65253K#1	♦SOD	33- 16									
UC65253K#2	♦SOD	36-102									
UC65253K#3	♦SOD	34- 8									
UC65253K#4	♦SOD	39- 81									
UC65254K#1	♦SOD	33- 17									
UC65254K#2	♦SOD	36-103									
UC65254K#3	♦SOD	34- 9									
UC65254K#4	♦SOD	39- 82									
UC65723K	♦SOD	36- 88									
UC75253K#1	♦SOD	33- 18									
UC75253K#2	♦SOD	36-104									
UC75253K#3	♦SOD	34- 10									
UC75253K#4	♦SOD	39- 83									
UC75254K#1	♦SOD	33- 19									
UC75254K#2	♦SOD	36-105									
UC75254K#3	♦SOD	34- 11									
UC75254K#4	♦SOD	39- 84									
UC75723K	♦SOD	36- 89									
ZN54L91E	♦FERB	72- 67									
ZN54L91J	♦FERB	72- 68									
ZN54L95E	♦FERB	48- 49									
ZN54L95J	♦FERB	48- 50									
ZN54L96E	♦FERB	60- 89									
ZN54L96J	♦FERB	60- 90									
ZN54L164E	♦FERB	70- 28									
ZN54L164J	♦FERB	70- 29									
ZN74L91E	♦FERB	72- 69									
ZN74L91J	♦FERB	72- 70									
ZN74L95E	♦FERB	48- 51									
ZN74L95J	♦FERB	48- 52									
ZN74L96E	♦FERB	60- 91									
ZN74L96J	♦FERB	60- 92									
ZN74L164E	♦FERB	70- 30									
ZN74L164J	♦FERB	70- 31									
ZN5491AE	♦FERB	72- 98									
ZN5491AJ	♦FERB	72- 99									
ZN5494E	♦FERB	59- 81									
ZN5494J	♦FERB	59- 82									
ZN5495AE	♦FERB	59- 90									
ZN5495AJ	♦FERB	56- 23									
ZN5496E	♦FERB	61- 54									
ZN5496J	♦FERB	61- 55									
ZN7491AE	♦FERB	72-100									
ZN7491AJ	♦FERB	72-101									
ZN7494E	♦FERB	59- 83									
ZN7494J	♦FERB	59- 84									
ZN7495AE	♦FERB	56- 24									
ZN7495AJ	♦FERB	56- 25									
ZN7496E	♦FERB	61- 56									
ZN7496J	♦FERB	61- 57									
ZN54164E	♦FERB	72- 20									
ZN54164J	♦FERB	72- 21									
ZN54165E	♦FERB	68- 37									
ZN54165J	♦FERB	68- 38									
ZN54166J	♦FERB	68- 63									
ZN54174E	FERB	63- 65									
ZN54174J	FERB	63- 66									
ZN54175E	FERB	56- 26									
ZN54175J	FERB	56- 27									
ZN54194E	♦FERB	56- 28									
ZN54194J	♦FERB	56- 29									
ZN74164E	♦FERB	72- 22									
ZN74164J	♦FERB	72- 23									
ZN74165E	♦FERB	68- 39									
ZN74165J	♦FERB	68- 40									
ZN74166E	♦FERB	68- 64									
ZN74166J	♦FERB	65- 80									
ZN74174E	FERB	63- 67									
ZN74174J	FERB	63- 68									
ZN74175E	FERB	56- 30									
ZN74175J	FERB	56- 31									
ZN74194E	♦FERB	56- 32									
ZN74194J	♦FERB	56- 33									

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		STRUCTURE	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE	DRAWINGS	
		1 No. WORDS	2 BITS PER WORD					3 MODE	4 STRUCTURE	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)			(A)	(V)	-	+	LOGIC/BLOCK	OUTLINE
1	SN54S200AW	256	1	S	60n	40n	500mt	0.0	5.0	.80	2.0	16m	50	5	C	A275	M0004AG
2	SN54S300AJ	256	1	S	65n	50n	500mt	0.0	5.0	.80	2.0Δ	16m	50	5	C	A275	ML61a
3	SN54S300AW	256	1	S	65n	50n	500mt	0.0	5.0	.80	2.0Δ	16m	50	5	C	A275	M0004AG
4	5530	256	1	S	70n	65n	675m	0.0	5.0	.85	2.0	10m	50	5	C	A154	ML158
5	5531	256	1	S	70n	65n	675m	0.0	5.0	.85	2.0	10m	50	5	C	A154	ML158
6	DM54S200J	256	1	S	70n	50n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A115	ML127f
7	DM54S200W	256	1	S	70n	50n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A115	FL39
8	S54S200F	256	1	S	70n	60n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A243	ML127a
9	S54S201F	256	1	S	70n	60n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A243	ML127m
10	S54S301F	256	1	S	70n	60n	650m	0.0	5.0	.80	2.0Δ	16m	50	5	C	A243	ML127m
11	S82S16F	256	1	S	70n	70n	1.5m%	0.0	5.0	.80	2.0	16m	50	5	C	A243	ML127m
12	S82S17F	256	1	S	70n	70n	1.5m%	0.0	5.0	.80	2.0Δ	16m	50	5	C	A243	ML127m
13	DM54S206J	256	1	S	80n	50n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A115	ML127f
14	DM54S206N	256	1	S	80n	50n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A115	ML178
15	DM54S206W	256	1	S	80n	50n	650m	0.0	5.0	.80	2.0	16m	50	5	C	A115	FL39
16	L6530	256	1	S	115n	85n	275mt	0.0	5.0	.80	2.0	15m	50	0	7	A154	ML158
17	L6531N	256	1	S	115n	85n	275mt	0.0	5.0	.80	2.0	15m	50	0	7	A154	ML157
18	L5530	256	1	S	130n	100n	275mt	0.0	5.0	.80	2.0	10m	50	5	C	A154	ML158
19	L5531	256	1	S	130n	100n	275mt	0.0	5.0	.80	2.0	10m	50	5	C	A154	ML158
20	L5531N	256	1	S	130n	100n	275mt	0.0	5.0	.80	2.0	10m	50	5	C	A154	ML157
21	N82S06I	256	1	S	30n	30n	1.5m%	0.0	5.0	.85	2.0	16m	45	0	7	A76	ML107
22	N82S07I	256	1	S	30n	30n	1.5m%	0.0	5.0	.85	2.0	16m	45	0	7	A76	ML107
23	T74S200J	256	1	S	35n	40n	450mt	0.0	5.0	.80	2.0	12m	40	0	7	A91	ML48
24	93421ADC	256	1	S	40n	35n	675m	0.0	5.0	.85	2.0	16m	45	0	7	A153	ML98a
25	DM74200D	256	1	S	40n	25n	650m	0.0	5.0	.80	2.0	24m	40	0	7	A117	ML177
26	DM74200N	256	1	S	40n	25n	650m	0.0	5.0	.80	2.0	24m	40	0	7	A117	ML178
27	93L420DC	256	1	S	45n	50n	350m	0.0	5.0	.85	2.0	16m	45	0	7	A153	ML98a
28	93410ADC	256	1	S	45n	30n	700m	0.0	5.0	.85	2.0Δ	16m	45	0	7	A150b	ML127s
29	93410AFC	256	1	S	45n	30n	700m	0.0	5.0	.85	2.0Δ	16m	45	0	7	A150b	FL14
30	93410APC	256	1	S	45n	30n	700m	0.0	5.0	.85	2.0Δ	16m	45	0	7	A150b	ML170
31	93411ADC	256	1	S	45n	45n	675m	0.0	5.0	.85	2.0	16m	45	0	7	A150a	ML98a
32	HM2504-1	256	1	S	45n	30n	1.8m	0.0	5.0	.85	2.0	16m	45	0	7	A150a	ML89g
33	93421DC	256	1	S	50n	35n	620m	0.0	5.0	.85	2.0	16m	45	0	7	A153	ML98a
34	93421PC	256	1	S	50n	35n	620m	0.0	5.0	.85	2.0	16m	45	0	7	A153	ML170
35	DM8582D	256	1	S	50n	25n	625m	0.0	5.0	.80	2.0	24m	40	0	7	A117	ML177
36	DM8582N	256	1	S	50n	25n	625m	0.0	5.0	.80	2.0	24m	40	0	7	A117	ML178
37	uPB2200D	256	1	S	50n	55n	575m	0.0	5.0	.80	2.0	16m	50	0	6	A216	ML127n
38	uPB2206D	256	1	S	50n	55n	575m	0.0	5.0	.80	2.0	16m	50	0	6	A216	ML127n
39	93L420DM	256	1	S	55n	55n	350m	0.0	5.0	.85	2.0	16m	45	5	C	A153	ML98a
40	93L420FM	256	1	S	55n	55n	350m	0.0	5.0	.85	2.0	16m	45	5	C	A153	FL14
41	93411DC	256	1	S	55n	45n	620m	0.0	5.0	.85	2.0	16m	45	0	7	A150a	ML98a
42	93411PC	256	1	S	55n	45n	620m	0.0	5.0	.85	2.0	16m	45	0	7	A150a	ML170
43	HM2504	256	1	S	55n	30n	1.8m	0.0	5.0	.85	2.0	16m	45	0	7	A150a	ML89g
44	93410DC	256	1	S	60n	30n	676m	0.0	5.0	-1.4	2.0Δ	16m	45	0	7	A150	ML127s
45	93410FC	256	1	S	60n	30n	700m	0.0	5.0	.85	2.0Δ	16m	45	0	7	A150b	FL14
46	93410PC	256	1	S	60n	30n	700m	0.0	5.0	.85	2.0Δ	16m	45	0	7	A150b	ML170
47	93421DM	256	1	S	60n	45n	715m	0.0	5.0	.85	2.0	16m	45	5	C	A153	ML98a
48	93421FM	256	1	S	60n	45n	715m	0.0	5.0	.85	2.0	16m	45	5	C	A153	FL14
49	93411DM	256	1	S	65n	55n	715m	0.0	5.0	.85	2.0	16m	45	5	C	A150a	ML98a
50	93411FM	256	1	S	65n	55n	715m	0.0	5.0	.85	2.0	16m	45	5	C	A150a	FL14
51	uPB2202D	256	1	S	65n	55n	375m	0.0	5.0	.80	2.0	16m	50	0	6	A216	ML127n
52	93410DM	256	1	S	70n	40n	725m	0.0	5.0	.85	2.0Δ	16m	45	5	C	A150b	ML127s
53	93410FM	256	1	S	70n	40n	725m	0.0	5.0	.85	2.0Δ	16m	45	5	C	A150b	FL14
54	AM270059E	256	1	S	70n	60n	675m	0.0	5.0	.80	2.0	16m	40	0	7	A130	ML62c
55	AM270059F	256	1	S	70n	60n	675m	0.0	5.0	.80	2.0	16m	40	0	7	A130	FL33
56	AM270159E	256	1	S	70n	60n	675m	0.0	5.0	.80	2.0	16m	40	0	7	A130	ML62c
57	AM270159F	256	1	S	70n	60n	675m	0.0	5.0	.80	2.0	16m	40	0	7	A130	FL33
58	FLQ141-74200	256	1	S	80n	90n	625m	0.0	5.0	.80	2.0	16m	45	0	7	A307	ML2
59	93L421DC	256	1	S	90n	60n	350m	0.0	5.0	.85	2.0	16m	45	0	7	A153	ML98a
60	93L421PC	256	1	S	90n	60n	350m	0.0	5.0	.85	2.0	16m	45	0	7	A153	ML170
61	93L421DM	256	1	S	100n	70n	350m	0.0	5.5	.85	2.0	16m	45	5	C	A153	ML98a
62	93L421FM	256	1	S	100n	70n	350m	0.0	5.5	.85	2.0	16m	45	5	C	A153	FL14
63	CD4061AD	256	1	S	380n	450n	25u	0.0	5.0	0.1%	9.99	1.6m	4.99	5	C	A121	ML140
64	ZGF1400D	256	1	S	200n	200n	100u	0.0	10	3.0	7.0	1.6m	40	3	8	A170	ML176
65	IM6523IDE	256	1	S	800n	800n	10m	0.0	5.0	.80	3.0	1.0uΔ	0.0	0	7	A99b	ML1a
66	IM6523MDE	256	1	S	800n	800n	10m	0.0	5.0	.80	3.0	1.0uΔ	0.0	5	C	A99b	ML1a
67	34720DC	256	1	S	100n	80n	600u	0.0	10	3.0	7.0	1.2m	50	4	8	A170	ML127s
68	34720DM	256	1	S	100n	80n	600u	0.0	10	3.0	7.0	1.2m	50	5	C	A170	ML127s
69	34720FC	256	1	S	100n	80n	600u	0.0	10	3.0	7.0	1.2m	50	4	8	A170	FL14g
70	34720FM	256	1	S	100n	80n	600u	0.0	10	3.0	7.0	1.2m	50	5	C	A170	FL14g
71	34720PC	256	1	S	100n	80n	600u	0.0	10	3.0	7.0	1.2m	50	4	8	A170	ML170
72	CD40061AD	256	1	S	150n	110n	200m	0.0	10	0.01%	10			5	C	A247	ML140
73	CD40061AE	256	1	S	150n	110n	200m	0.0	10	0.01%	10			4	8	A247	M0001AC
74	CD40061AH	256	1	S	150n	110n	200m	0.0	10	0.01%	10			4	8	A247	CHZ
75	CD40061E	256	1	S	150n	110n	200m	0.0	10	0.01%	10			4	8	A247	M0001AC
76	ZGF1400P	256	1	S	200n	200n	100u	0.0	10	3.0	7.0	1.6m	40	4	8	A170	ML176
77	HD1-54C200	256	1	S	250n	80n	500n	0.0	10	2.0	8.0	30m	10	5	C	A183	ML93c
78	HD1-74C200	256	1	S	250n	80n	500n	0.0	10	2.0	8.0	30m	10	4	8	A183	ML93c
79	HD9-54C200	256	1	S	250n	80n	500n	0.0	10	2.0	8.0	30m	10	5	C	A183	TO86
80	HD9-74C200	256	1	S	250n	80n	500n	0.0	10	2.0	8.0	30m	10	4	8	A183	TO86
81	HEF4720P	256	1	S	260n	260n	400m	0.0	10	3.0	7.0	1.2m	50	4	8	A288	ML48e
82	CD4061AH	256	1	S	380n	450n	25u	0.0	5.0	0.1%	9.99	1.6m	40	5	C	A121	CH11
83	MM54C200D	256	1	S	400n	300n	500m	0.0	5.0	1.5	3.5	8.0mt	5.0	5	C	A183	ML177
84	MM74C200D	256															

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)NO.WORDS(2)NO.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION 1 No. WORDS	2 BITS PER WORD	3 MODE	4 STRUCTURE CODE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT (A)	OPER. TEMP. RANGE (°C)	DRAWINGS LOGIC/BLOCK	DRAWINGS OUTLINE	
									NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					
1#	M58531P	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	5.0	3.0	2.0m	4.5	0 7	A1	ML94b
2	MM1101AD	256	1	S	MPG	1.5u	800n*	700m	7.0	5.0	5.0	3.0s	2.0m	4.5	0 7	A102	ML177
3	MM1101AN	256	1	S	MPG	1.5u	800n*	700m	9.0	5.0	5.0	3.0s	2.0m	4.5	0 7	A102	ML178
4	MM1101D	256	1	S	MPG	1.5u	800n*	700m	9.0	5.0	5.0	3.0s	2.0m	4.5	0 7	A102	ML177
5	MM1101N	256	1	S	MPG	1.5u	800n*	700m	7.0	5.0	5.0	3.0s	2.0m	4.5	0 7	A102	ML178
6	P1101A	256	1	S	MPG	1.5u	800n*	700m	9.0	5.0	5.0	4.0	2.0m	4.5	0 7	A1	ML10c
7	RA9-1101A#1	256	1	S	MPG	1.5u	800n*	1.0	9.0	5.0	0.5	3.0	2.0m	4.5	0 7	A1	ML65
8	RA9-1101A#2	256	1	S	MPG	1.5u	800n*	1.0	9.0	5.0	0.5	3.0	2.0m	4.5	0 7	A1	ML65
9	MK4007-4P	256	1	S	MPI	1.0u	700n*	250m	9.0	5.0	5.0	-2.0s	3.0m	4.0	0 7	A36	ML22
10	MK4007P	256	1	S	MPI	1.0u	700n*	250m	9.0	5.0	5.0	-2.0s	3.2m	4.0	0 7	A36	ML22
11	25L01B	256	1	S	MPX	1.0u	300n*	1.7m	12	5.0	5.0	3.0	3.0m	4.5	0 7	A265	ML85
12	25L01I	256	1	S	MPX	1.0u	300n*	1.7m	12	5.0	5.0	3.0	3.0m	4.5	0 7	A265	ML107a
13	CDP1822SD	256	4	S	MCS	150nt	250nt	35mt	0.0	10	3.0	7.0	1.8m	9.5	2 8	A263a	ML
14	CDP1822SCD	256	4	S	MCS	150nt	250nt	10mt	0.0	6.0	1.8	4.2	800uf	5.0	2 8	A263a	ML
15#	M58721P	256	4	S		450n	450n	300m	0.0	5.0	5.0	2.2	3.5m	4.0	0 7		ML
16#	M58722P	256	4	S		450n	450n	300m	0.0	5.0	5.0	2.2	3.5m	4.0	0 7		ML
17#	M58723P	256	4	S		450n	450n	300m	0.0	5.0	5.0	2.2	3.5m	4.0	0 7		ML
18	SN54S207J	256	4	S	BTD	40nt	15nt*	600mt	0.0	5.0	5.0	2.0s	16m	5.0	5 C	A277	ML61a
19	SN54S208J	256	4	S	BTD	40nt	15nt*	600mt	0.0	5.0	5.0	2.0s	16m	5.0	5 C	A279	ML213
20	SN74S207J	256	4	S	BTD	40nt	15nt*	600mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A277	ML61a
21	SN74S207N	256	4	S	BTD	40nt	15nt*	600mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A277	ML48
22	SN74S208J	256	4	S	BTD	40nt	15nt*	600mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A279	ML213
23	SN74S208N	256	4	S	BTD	40nt	15nt*	600mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A279	ML161
24	SN54LS207J	256	4	S	BTD	75nt	25nt*	200mt	0.0	5.0	5.0	2.0s	16m	5.0	5 C	A277	ML61a
25	SN54LS208J	256	4	S	BTD	75nt	25nt*	200mt	0.0	5.0	5.0	2.0s	16m	5.0	5 C	A279	ML213
26	SN74LS207J	256	4	S	BTD	75nt	25nt*	200mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A277	ML61a
27	SN74LS207N	256	4	S	BTD	75nt	25nt*	200mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A277	ML48
28	SN74LS208J	256	4	S	BTD	75nt	25nt*	200mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A279	ML213
29	SN74LS208N	256	4	S	BTD	75nt	25nt*	200mt	0.0	5.0	5.0	2.0s	16m	5.0	0 6	A279	ML161
30	93412DC	256	4	S	BTX	45n	30n*	775m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	ML8c
31	93412FC	256	4	S	BTX	45n	30n*	775m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	FL3c
32	93422DC	256	4	S	BTX	45n	30n*	775m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	ML8c
33	93422FC	256	4	S	BTX	45n	30n*	775m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	FL3c
34	93L412DC	256	4	S	BTX	60n	45n*	325m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	ML8c
35	93L412FC	256	4	S	BTX	60n	45n*	400m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	FL3c
36	93L422DC	256	4	S	BTX	60n	45n*	325m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	ML8c
37	93L422FC	256	4	S	BTX	60n	45n*	400m	0.0	5.0	5.0	2.1	8.0m	4.5	0 7	A233	FL3c
38	93412DM	256	4	S	BTX	60n	40n*	850m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	ML8c
39	93412FM	256	4	S	BTX	60n	40n*	850m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	FL3c
40	93422DM	256	4	S	BTX	60n	40n*	850m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	ML8c
41	93422FM	256	4	S	BTX	60n	40n*	850m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	FL3c
42	93L412DM	256	4	S	BTX	75n	55n*	375m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	ML8c
43	93L412FM	256	4	S	BTX	75n	55n*	375m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	FL3c
44	93L422DM	256	4	S	BTX	75n	55n*	375m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	ML8c
45	93L422FM	256	4	S	BTX	75n	55n*	375m	0.0	5.0	5.0	2.1	8.0m	4.5	5 C	A233	FL3c
46	HM1-6501D5	256	4	S	MCG			4.0m*	0.0	5.0	5.0	3.0s	2.0m	4.0	0 7	A257	ML8h
47	HM1-6551D5	256	4	S	MCG			4.0m*	0.0	5.0	5.0	3.0s	2.0m	4.0	0 7	A259	ML8h
48	HM1-6561D5	256	4	S	MCG			4.0m*	0.0	5.0	5.0	3.0s	2.0m	4.0	0 7	A260	ML115b
49	HM1-6562D5	256	4	S	MCG			4.0m*	0.0	5.0	5.0	3.0s	2.0m	4.0	0 7	A261	ML223
50	D2112A2	256	4	S	MCG	250n	200n*	1.0	0.0	5.0	5.0	2.0	2.0m	4.5	0 8	A201	ML157c
51	MM74C920D	256	4	S	MCG	250n	140nt	500n	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A291	ML204a
52	MM74C920N	256	4	S	MCG	250n	140nt	500n	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A291	ML197
53	MM54C920D	256	4	S	MCG	275n	140nt	500n	0.0	5.0	5.0	3.0s	2.0m	4.0	5 C	A291	ML204a
54	HM1-6501B2	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0s	2.0m	4.0	5 C	A257	ML8h
55	HM1-6501B9	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A257	ML8h
56	HM1-6551B2	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0s	2.0m	4.0	5 C	A259	ML8h
57	HM1-6551B9	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A259	ML8h
58	HM1-6561B2	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0s	2.0m	4.0	5 C	A260	ML115b
59	HM1-6561B9	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A260	ML115b
60	HM1-6562B2	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0	2.0m	4.0	5 C	A261	ML223
61	HM1-6562B9	256	4	S	MCG	285n	450n*	50u*	0.0	5.0	5.0	3.0	2.0m	4.0	4 8	A261	ML223
62	D2112A	256	4	S	MCG	350n	270n*	1.0	0.0	5.0	5.0	2.0	2.0m	4.5	0 8	A201	ML157c
63	IM6551A-IDF	256	4	S	MCG	350n	95n*	5.0m	0.0	10	2.0	7.0	1.0uA		4 8	A297	ML8v
64	IM6551A-MDF	256	4	S	MCG	350n	95n*	5.0m	0.0	10	2.0	7.0	1.0uA		5 C	A297	ML8v
65	IM6561A-IDN	256	4	S	MCG	350n	95n*	5.0m	0.0	10	2.0	7.0	1.0uA		4 8	A298	ML134f
66	IM6561A-MDN	256	4	S	MCG	350n	95n*	5.0m	0.0	10	2.0	7.0	1.0uA		5 C	A298	ML134f
67	HM1-6501-9	256	4	S	MCG	400n	600n*	500u*	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A257	ML8h
68	HM1-6551-9	256	4	S	MCG	400n	600n*	500u*	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A259	ML8h
69	HM1-6561-9	256	4	S	MCG	400n	600n*	500u*	0.0	5.0	5.0	3.0s	2.0m	4.0	4 8	A260	ML115b
70	HM1-6562-9	256	4	S	MCG	400n	600n*	500u*	0.0	5.0	5.0	3.0	2.0m	4.0	4 8	A261	ML223
71	C5101L-1	256	4	S	MCG	450n	450n*	1.0	0.0	5.0	5.0	2.2	2.0m	4.0	0 8	A267	ML8d
72	D2112A4	256	4	S	MCG	450n	320n*	1.0	0.0	5.0	5.0	2.0	2.0m	4.5	0 8	A201	ML157c
73	HM1-6501-2	256	4	S	MCG	450n	650n*	500u*	0.0	5.0	5.0	3.0	2.0m	4.0	5 C	A257	ML8h
74	HM1-6551-2	256	4	S	MCG	450n	650n*	500u*	0.0	5.0	5.0	3.0	2.0m	4.0	5 C	A259	ML8h
75	HM1-6561-2	256	4	S	MCG	450n	650n*	500u*	0.0	5.0	5.0	3.0	2.0m	4.0	5 C	A260	ML115b
76	HM1-6562-2	256	4	S	MCG	450n	650n*	500u*	0.0	5.0	5.0	3.0	2.0m	4.0	5 C	A261	ML223
77	P5101L-1	256	4	S	MCG	450n	450n*	1.0	0.0	5.0	5.0	2.2	2.0m	4.0	0 8	A267	ML230
78	IM6551-IDF	256	4	S	MCG	460n	270n*	500u	0.0	5.0	5.0	3.0	2.0m	4.5	4 8	A297	ML8v
79	IM6551-MDF	256	4	S	MCG	460n	270n*	500u	0.0	5.0	5.0	3.0	2.0m	4.5	5 C	A297	ML8v
80	IM6561-IDN	256	4	S	MCG	460n	270n*	500u	0.0	5.0	5.0	3.0	2.0m	4.5	4 8	A298	ML134f
81	IM6561-MDN	2															

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)NO.WORDS(2)NO.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3	4	5	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1	2							NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)				LOGIC/BLOCK	OUTLINE	
1	P2111A2	256	4	S	MNG	250n	170m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A200	ML3	
2	P2112A2	256	4	S	MNG	250n	200m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	8	A201	ML89a	
3	C2101A	256	4	S	MNG	350n	220m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A196	ML162a	
4	D2111A	256	4	S	MNG	350n	220m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A200	ML23	
5	P2101A	256	4	S	MNG	350n	220m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A196	ML230	
6	P2111A	256	4	S	MNG	350n	220m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A200	ML3	
7	P2112A	256	4	S	MNG	350n	270m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	8	A201	ML89a	
8	2101F	256	4	S	MNG	400n	400m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A196	ML227	
9	2611K	256	4	S	MNG	400n	400m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML134	
10	2611XA	256	4	S	MNG	400n	400m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML165a	
11	uPD412D	256	4	S	MNG	430n	430m*	261m†	5.0	12	.65	.65	3.0	1.6m	.60	1	7	A222	ML205
12	C2101A4	256	4	S	MNG	450n	270n	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A196	ML162a	
13	D2111A4	256	4	S	MNG	450n	270m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A200	ML23	
14	P2101A4	256	4	S	MNG	450n	270m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A196	ML230	
15	P2111A4	256	4	S	MNG	450n	270m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	7	A200	ML3	
16	P2112A4	256	4	S	MNG	450n	320m*	1.0	0.0	5.0	.80	2.0s	2.0m	.45	0	8	A201	ML89a	
17	TMS4039-2/2101-1JL	256	4	S	MNG	450n	450m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A238	ML8n	
18	TMS4039-2/2101-1NL	256	4	S	MNG	450n	450m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A238	ML197a	
19	TMS4042-2/2111-1JL	256	4	S	MNG	450n	450m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A239	ML210	
20	TMS4042-2/2111-1NL	256	4	S	MNG	450n	450m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A239	ML3b	
21	TMS4043-2JL	256	4	S	MNG	450n	450m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A240	ML206	
22	TMS4043-2NL	256	4	S	MNG	450n	450m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A240	ML209	
23	2101-F	256	4	S	MNG	500n	500m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A196	ML227	
24	2111-1K	256	4	S	MNG	500n	500m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML134	
25	2111-1XA	256	4	S	MNG	500n	500m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML165a	
26	2606-1B	256	4	S	MNG	500n	500m*	640m†	0.0	5.0	.65	2.2s	1.9m	.45	0	7	A209	ML132	
27	MM2101-1D	256	4	S	MNG	500n	500m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A196	ML8g	
28	MM2101-1N	256	4	S	MNG	500n	500m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A196	ML197	
29	MM2111-1D	256	4	S	MNG	500n	500m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML115a	
30	MM2111-1N	256	4	S	MNG	500n	500m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML196	
31	2101-2F	256	4	S	MNG	650n	650m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A196	ML227	
32	2111-2K	256	4	S	MNG	650n	650m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML134	
33	2111-2XA	256	4	S	MNG	650n	650m*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML165a	
34	MM2101-2D	256	4	S	MNG	650n	650m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A196	ML8g	
35	MM2101-2N	256	4	S	MNG	650n	650m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A196	ML197	
36	MM2111-2D	256	4	S	MNG	650n	650m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML115a	
37	MM2111-2N	256	4	S	MNG	650n	650m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML196	
38	MM2112-2D	256	4	S	MNG	650n	700m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A201	ML1e	
39	MM2112-2N	256	4	S	MNG	650n	700m*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A201	ML178	
40	TMS4039-1/2101-2JL	256	4	S	MNG	650n	650m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A238	ML8n	
41	TMS4039-1/2101-2NL	256	4	S	MNG	650n	650m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A238	ML197a	
42	TMS4042-1/2111-2JL	256	4	S	MNG	650n	650m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A239	ML210	
43	TMS4042-1/2111-2NL	256	4	S	MNG	650n	650m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A239	ML3b	
44	TMS4043-1/2112-2JL	256	4	S	MNG	650n	650m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A240	ML206	
45	TMS4043-1/2112-2NL	256	4	S	MNG	650n	650m*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A240	ML209	
46	2606B	256	4	S	MNG	750n	750m*	640m†	0.0	5.0	.65	2.2s	1.9m	.45	0	7	A209	ML132	
47	2111K	256	4	S	MNG	1.0u	1.0u*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML134	
48	2111XA	256	4	S	MNG	1.0u	1.0u*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A200	ML165a	
49	2601F	256	4	S	MNG	1.0u	1.0u*	1.2	5.0	.65	.65	2.2	2.0m	.45	0	7	A196	ML227	
50	MM2101D	256	4	S	MNG	1.0u	1.0u*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A196	ML8g	
51	MM2101N	256	4	S	MNG	1.0u	1.0u*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML197	
52	MM2111D	256	4	S	MNG	1.0u	1.0u*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML115a	
53	MM2111N	256	4	S	MNG	1.0u	1.0u*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A200	ML196	
54	MM2112D	256	4	S	MNG	1.0u	1.0u*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A201	ML1e	
55	MM2112N	256	4	S	MNG	1.0u	1.0u*	300m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A201	ML178	
56	MM5269D	256	4	S	MNG	1.0u	1.0u*	350m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A206	ML8g	
57	MM5269N	256	4	S	MNG	1.0u	1.0u*	350m	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A206	ML197	
58	TMS4039/2101JL	256	4	S	MNG	1.0u	1.0u*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A238	ML8n	
59	TMS4039/2101NL	256	4	S	MNG	1.0u	1.0u*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A238	ML197a	
60	TMS4042/2111JL	256	4	S	MNG	1.0u	1.0u*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A239	ML210	
61	TMS4042/2111NL	256	4	S	MNG	1.0u	1.0u*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A239	ML210	
62	TMS4043/2112JL	256	4	S	MNG	1.0u	1.0u*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A240	ML206	
63	TMS4043/2112NL	256	4	S	MNG	1.0u	1.0u*	175m†	0.0	5.0	.65	2.2s	2.0m	.45	0	7	A240	ML209	
64	RA3-4256	256	4	S	MNI	500n	500m*	500m	0.0	5.0	.65	2.2s	1.6m	.40	0	7	A181	ML216b	
65	RA3-4256A	256	4	S	MNI	650n	650m*	500m	0.0	5.0	.65	2.2s	1.6m	.40	0	7	A181	ML216b	
66	RA3-4256B	256	4	S	MNI	650n	650m*	500m	0.0	5.0	.65	2.2s	1.6m	.40	0	7	A213	ML242	
67	uPD2101ALC2	256	4	S	MNX	250n	250m*	350m†	0.0	5.0	.80	2.0s	2.1m	.40	0	7	A263b	ML	
68	uPD2111ALC2	256	4	S	MNX	250n	250m*	350m†	0.0	5.0	.80	2.0s	2.1m	.40	0	7	A78b	ML	
69	uPD2101ALC	256	4	S	MNX	350n	350m*	350m†	0.0	5.0	.80	2.0s	2.1m	.40	0	7	A263b	ML	
70	uPD2111ALC	256	4	S	MNX	350n	350m*	350m†	0.0	5.0	.80	2.0s	2.1m	.40	0	7	A78b	ML	
71	uPD412C	256	4	S	MNX	430n	430m*	262m†	5.0	12	.65	3.0	1.7m	.60	1	7	A222	ML205	
72	uPD2101ALC4	256	4	S	MNX	450n	450m*	350m†	0.0	5.0	.80	2.0s	2.1m	.40	0	7	A263b	ML	
73	uPD2111ALC4	256	4	S	MNX	450n	450m*	350m†	0.0	5.0	.80	2.0s	2.1m	.40	0	7	A78b	ML	
74	35391DC	256	8	S	MNG	400n	400m*	500m	0.0	5.0	.65	2.2	1.6m	.40	0	7	A315	ML77h	
75	35392DC	256	8	S	MNG	500n	500m*	500m	0.0	5.0	.65	2.2	1.6m	.40	0	7	A315	ML77h	
76	3539DC	256	8	S	MNG	650n	650m*	500m	0.0	5.0	.65	2.2	1.6m	.40	0	7	A315	ML77h	
77	3539B	256	8	S	MNX	400n	350m*	375m	0.0	5.0	.80	2.4	1.6m	.40	0	7			
78	3539A	256	8	S	MNX	500n	375m*	375m	0.0	5.0	.80	2.4	1.6m	.40	0</				

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No. WORDS (2)No. BITS/WORD
(3)MODE (4)STRUCT. (5)MAX ACC. TIME (6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION			3 MOD E	4 STRUCTURE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN (V)	INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE (°C)	DRAWINGS		
		1 No. WORDS	2 BITS PER WORD	MODE							NEG.	POS.				MAX '0' (V)	MIN '1' (V)	LOGIC/BLOCK	OUTLINE
1	C1103A1	1024	1	D	MPG	145n	340n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 7	A195	ML147
2	C1103A2	1024	1	D	MPG	145n	400n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 7	A195	ML147
3	D1103A1	1024	1	D	MPG	145n	340n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 7	A195	ML194
4	D1103A2	1024	1	D	MPG	145n	400n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 7	A195	ML194
5	P1103A1	1024	1	D	MPG	145n	340n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 7	A195	ML3
6	P1103A2	1024	1	D	MPG	145n	400n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 7	A195	ML3
7	S1103A1-1P	1024	1	D	MPG	145n	340n*	660m†	0.0	22				500 Δ	0 7	A146a	ML3d	
8	S1103A1-2P	1024	1	D	MPG	145n	340n*	660m†	0.0	22				500 Δ	0 7	A146a	ML3e	
9	1103-1K	1024	1	D	MPG	150n*	340n*	1.0	0.0	19	2.0	18	10uΔ	0.0	1.0kΔ	0 5	A2	ML134
10	1103-1XA	1024	1	D	MPG	150n*	340n*	1.0	0.0	19	2.0	18	10uΔ	0.0	1.0kΔ	0 5	A2	ML131
11	C1103-1	1024	1	D	MPG	150n*	340n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 5	A2	ML147
12	D1103-1	1024	1	D	MPG	150n*	340n*	1.0	0.0	19	1.0	18	10uΔ	0.0	1.0kΔ	0 5	A2	ML194
13	ITT1103-1	1024	1	D	MPG	150n	340n*	409m	0.0	19	1.0	18	10uΔ		1.0k	0 5	A98	ML115d
14	P1103-1	1024	1	D	MPG	150n*	340n*	1.0	0.0	19	1.0	18	1.0uΔ	0.0	500 Δ	0 7	A2	ML3
15	RA9-1103E	1024	1	D	MPG	150n*	340n*	1.0	0.0	22	-1.0	23.5	600u\$	.06	500 Δ	0 5	A98	ML112
16	S1103-1	1024	1	D	MPG	150n	360n*	550m†	0.0	19	.080%	.085	800u	.085	500 Δ	0 5	A164	ML152
17	C1103A	1024	1	D	MPG	205n	580n*	1.0	0.0	16	1.0	15	1.0uΔ	0.0	500 Δ	0 7	A195	ML147
18	D1103A	1024	1	D	MPG	205n	580n*	1.0	0.0	16	1.0	15	1.0uΔ	0.0	500 Δ	0 7	A195	ML194
19	P1103A	1024	1	D	MPG	205n	580n*	1.0	0.0	16	1.0	15	1.0uΔ	0.0	500 Δ	0 7	A195	ML3
20	S146	1024	1	D	MPG	205n	390n*	550m†	0.0	19	.080%	.085	800u	.085	500 Δ	0 5	A164	ML152
21	S1103A-1P	1024	1	D	MPG	205n	580n*	425m†	0.0	19				500 Δ	0 7	A146a	ML3d	
22	S1103A-2P	1024	1	D	MPG	205n	580n*	425m†	0.0	19				500 Δ	0 7	A146a	ML3e	
23	RA9-1103D	1024	1	D	MPG	220n*	390n*	1.0	0.0	22	-1.0	23.5	600u\$	.06	500 Δ	0 5	A98	ML112
24	2508XC	1024	1	D	MPG	270n†	480n†	730m‡	12	5.0	.80*	4.0	2.7m	-1.0	500 Δ	0 7	A77	ML77
25	1103IK	1024	1	D	MPG	300n	580n*	1.0	0.0	16	1.0	15			500	0 7	A2	ML134
26	1103XA	1024	1	D	MPG	300n	580n*	1.0	0.0	16	1.0	15			500	0 7	A2	ML172
27	3534-9-7T	1024	1	D	MPG	300n*	480n*		0.0	16	1.8	15			500	0 7	A96	ML25a
28	C1103	1024	1	D	MPG	300n*	580n*	1.0	0.0	16	15*	1.8#	1.0uΔ	0.0	500 Δ	0 7	A2	ML147
29	D1103	1024	1	D	MPG	300n	580n*	1.0	0.0	16	15*	1.8#	1.0uΔ	0.0	500 Δ	0 7	A2	ML194
30	GYQ101	1024	1	D	MPG	300n*	565n*	337m	0.0	16	1.8	15	1.0u	0.0	500 Δ	0 7	A2	ML7
31	ITT1103	1024	1	D	MPG	300n	580n*	300u%†	0.0	16	1.8	15Δ			500 Δ	0 7	A98	ML115d
32	M58533P	1024	1	D	MPG	300n	580n	700m	0.0	16	1.0	15	500u\$	0.0	500	0 7	A2	ML136
33	MB8103	1024	1	D	MPG	300n	600n*	270m†	0.0	19	2.3	14.5	1.0uΔ	0.0	500	0 7	A2	ML73
34	MN1003	1024	1	D	MPG	300n*	580n*	1.0	0.0	16	17	1.0	1.0uΔ	0.0	500 Δ	0 6	A168	ML119
35	P1103	1024	1	D	MPG	300n*	580n*	1.0	0.0	16	17	1.0	1.0uΔ	0.0	500 Δ	0 7	A2	ML3
36	RA9-1103B	1024	1	D	MPG	300n*	580n*	1.0	0.0	19	-1.0	17	600u\$	.06	500 Δ	0 6	A98	ML112
37	RA9-1103C	1024	1	D	MPG	300n*	580n*	1.0	0.0	19	-1.0	17	600u\$	.06	500 Δ	0 6	A98	ML112
38	S1103	1024	1	D	MPG	300n	580n*	350m†	0.0	16	.040%	.050	400u	.040	500 Δ	0 6	A164	ML152
39	RA9-1103A	1024	1	D	MPG	350n*	580n*	1.0	0.0	19	-1.0	17	600u\$	.06	500 Δ	0 5	A98	ML112
40	MM5261D	1024	1	D	MPG	400n	625n*	400m†	12	5.0	.80	3.0s	1.6m	.40	500 Δ	0 7	A78a	ML115a
41	MM5261N	1024	1	D	MPG	400n	625n*	400m†	12	5.0	.80	3.0s	1.6m	.40	500 Δ	0 7	A78a	ML196
42	MM4261D	1024	1	D	MPG	450n	750n*	400m†	12	5.0	.80	3.0s	1.6m	.40	500 Δ	5 C	A78a	ML115a
43	MM4261N	1024	1	D	MPG	450n	750n*	400m†	12	5.0	.80	3.0s	1.6m	.40	500 Δ	5 C	A78a	ML196
44	MK4006-6P	1024	1	D	MPI	400n*	650n*	50m‡	12	5.0	.80	4.0			500 Δ	0 7	A35	ML22
45	S4006C	1024	1	D	MPI	400n	650n*	450m	12	5.0	.80	3.5			500 Δ	0 6	A167	ML82
46	S4006LC	1024	1	D	MPI	400n	650n*	450m	12	5.0	.80	3.5			500 Δ	0 6	A167	ML82
47	MK4008-6P	1024	1	D	MPI	500n*	900n*	50m‡	12	5.0	.80	4.0			500 Δ	0 7	A35	ML22
48	S4008	1024	1	D	MPI	500n	900n*	450m	12	5.0	.80	4.0	1.0m	0.0	500 Δ	0 7	A35	ML110
49	S4008C	1024	1	D	MPI	500n	900n*	450m	12	5.0	.80	3.5			500 Δ	0 6	A167	ML82
50	S4008LR	1024	1	D	MPI	500n	900n*	450m	12	5.0	.80	3.5			500 Δ	0 6	A167	ML82
51	S4008R	1024	1	D	MPI	500n	900n*	450m	12	5.0	.80	4.0	1.6m	.40	500 Δ	0 7	A35a	ML110
52	S4008-9	1024	1	D	MPI	800n	1.0u*	450m	12	5.0	.80	3.5			500 Δ	0 6	A167	ML82
53	TMS4062JL	1024	1	D	MPX	130n	200n*	120m†	0.0	20	2.0	18	2.0uΔ		500	0 7	A69	ML8n
54	TMS4062NL	1024	1	D	MPX	130n	200n*	120m†	0.0	20	2.0	18	2.0uΔ		500	0 7	A69	ML197a
55	TMS4063JL	1024	1	D	MPX	130n	200n*	120m†	0.0	20	2.0	18	2.0uΔ		500	0 7	A69	ML210
56	TMS4063NL	1024	1	D	MPX	130n	200n*	120m†	0.0	20	2.0	18	2.0uΔ		500	0 7	A69	ML3b
57	IM6002-11CDF	1024	1	D	MPX	150n	250n*	180m†	0.0	20	1.0	18			500 Δ	0 7	A320a	ML241
58	IM6002-11CDN	1024	1	D	MPX	150n	250n*	180m†	0.0	20	1.0	18			500 Δ	0 7	A320	ML240
59	F10415ADC	1024	1	S	BEX	20n	12n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML1k	
60	F10415AFC	1024	1	S	BEX	20n	12n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	FL14	
61	F100415DC	1024	1	S	BEX	20n	12n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		0 8	A97b	ML1k	
62	F100415FC	1024	1	S	BEX	20n	12n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		0 8	A97b	FL14	
63	HM2110-2	1024	1	S	BEX	20n	25n\$	500u%	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML217	
64	HM2110G-2	1024	1	S	BEX	20n	25n\$	500u%	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML89h	
65	HM2110-1	1024	1	S	BEX	25n	25n\$	500u%	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML217	
66	HM2110G-1	1024	1	S	BEX	25n	25n\$	500u%	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML89h	
67	MCM10146F	1024	1	S	BEX	29n	25n\$	754m‡	5.2	0.0	-1.6	-.98	20m	-.98	0 7	A97b	FL34	
68	MCM10146L	1024	1	S	BEX	29n	25n\$	754m‡	5.2	0.0	-1.6	-.98	20m	-.98	0 7	A97b	ML5	
69	F10415DC	1024	1	S	BEX	25n	25n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML1k	
70	F10415FC	1024	1	S	BEX	35n	25n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	FL14	
71	GXB10415	1024	1	S	BEX	35n	25n\$	780m	5.2	0.0	-1.4	-1.1	30m‡		3 8			
72	HM2110	1024	1	S	BEX	35n	25n\$	500u%	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML217	
73	HM2110G	1024	1	S	BEX	35n	25n\$	500u%	5.2	0.0	-1.4	-1.1	30m‡		0 7	A97b	ML89h	
74	MB7046	1024	1	S	BEX	35n	25n\$	820m	5.2	0.0	-1.8*	-.84#			0 7	A97b	ML140e	
75	MBM10415A	1024	1	S	BEX	35n	25n\$	820m	5.2	0.0	-1.8*	-.84#			0 7	A97b	ML140e	
76	MB7046N	1024	1	S	BEX	60n	35n\$	820m	5.2	0.0	-1.8*	-.84#			0 7	A97b	ML140e	
77	MBM10415	1024	1	S	BEX	60n	35n\$	820m	5.2	0.0	-1.8*	-.84#			0 7	A97b	ML140e	
78	N93415AF	1024	1	S	BDT						.85	2.1	16m	.45		0 7	A242	ML127r
79	N93425AF	1024	1	S	BDT						.85	2.1	16m	.45				

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)NO. WORDS (2)NO. BITS / WORD
(3)MODE (4)STRUCT. (5)MAX ACC. TIME (6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION			M O D E	5	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)		MIN. FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
			1	2	3					4	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	A			@ OUT (V)	LOGIC/BLOCK	OUTLINE
1	▼	93415AFC	1024	1	0	0	BTX	30n	20n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A97	FL14
2	▼	93415APC	1024	1	0	0	BTX	30n	20n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A97	ML170
3	▼	HM2510-2	1024	1	0	0	BTX	35n	25n	775m	0.0	5.0	80	2.1	16m	.45	0	7	A235	ML217
4	▼	HM2510G-2	1024	1	0	0	BTX	35n	25n	775m	0.0	5.0	80	2.1	16m	.45	0	7	A235	ML89h
5	▼	93415AI	1024	1	0	0	BTX	45n	45n	775m	0.0	5.0	85	2.1Δ	16m	.45	0	7	A242	ML107
6	▼	93415DC	1024	1	0	0	BTX	45n	30n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A97	ML127e
7	▼	93415FC	1024	1	0	0	BTX	45n	30n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A97	FL14
8	▼	93415PC	1024	1	0	0	BTX	45n	30n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A97	ML170
9	▼	93425ADC	1024	1	0	0	BTX	45n	30n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A163	ML98a
10	▼	93425AI	1024	1	0	0	BTX	45n	45n	775m	0.0	5.0	85	2.1Δ	16m	.45	0	7	A242	ML107
11	▼	93425APC	1024	1	0	0	BTX	45n	30n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A163	ML170
12	▼	HM2510-1	1024	1	0	0	BTX	45n	35n	775m	0.0	5.0	80	2.0	16m	.45	0	7	A97	ML217
13	▼	HM2510G-1	1024	1	0	0	BTX	45n	35n	775m	0.0	5.0	80	2.1	16m	.45	0	7	A235	ML89h
14	▼	MB7061	1024	1	0	0	BTX	45n	35n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A242	ML140e
15	▼	MBM93415A	1024	1	0	0	BTX	45n	35n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A242	ML140e
16	▼	N825101	1024	1	0	0	BTX	45n	45n	800m	0.0	5.0	85	2.1Δ	16m	.45	0	7	A242	ML107
17	▼	N825111	1024	1	0	0	BTX	45n	45n	800m	0.0	5.0	85	2.1Δ	16m	.45	0	7	A242	ML107
18	▼	uPB2205D	1024	1	0	0	BTX	50n	90n	400m	1								A271	ML107
19	▼	93L415DC	1024	1	0	0	BTX	60n	45n	325m	0.0	5.0	80	2.1Δ	16m	.50	0	7	A97	ML127e
20	▼	93L415FC	1024	1	0	0	BTX	60n	45n	325m	0.0	5.0	80	2.1	16m	.50	0	7	A97	FL14
21	▼	93L415PC	1024	1	0	0	BTX	60n	45n	325m	0.0	5.0	80	2.1Δ	16m	.50	0	7	A97	ML170
22	▼	93L425DC	1024	1	0	0	BTX	60n	45n	325m	0.0	5.0	80	2.1Δ	16m	.50	0	7	A163	ML127e
23	▼	93L425FC	1024	1	0	0	BTX	60n	45n	325m	0.0	5.0	80	2.1Δ	16m	.50	0	7	A163	FL14
24	▼	93L425PC	1024	1	0	0	BTX	60n	45n	325m	0.0	5.0	80	2.1Δ	16m	.50	0	7	A163	ML170
25	▼	93415DM	1024	1	0	0	BTX	60n	40n	850m	0.0	5.0	80	2.1Δ	16m	.45	5	5	A97	ML127e
26	▼	93415FM	1024	1	0	0	BTX	60n	40n	850m	0.0	5.0	80	2.1Δ	16m	.45	5	5	A97	FL14
27	▼	93L415DM	1024	1	0	0	BTX	70n	50n	375m	0.0	5.0	80	2.1Δ	16m	.50	5	5	A97	ML127e
28	▼	93L415FM	1024	1	0	0	BTX	70n	50n	375m	0.0	5.0	80	2.1Δ	16m	.50	5	5	A97	FL14
29	▼	93L425DM	1024	1	0	0	BTX	70n	50n	375m	0.0	5.0	80	2.1Δ	16m	.50	5	5	A163	ML127e
30	▼	93L425FM	1024	1	0	0	BTX	70n	50n	375m	0.0	5.0	80	2.1Δ	16m	.50	5	5	A163	FL14
31	▼	93425DC	1024	1	0	0	BTX	70n	50n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A163	ML98a
32	▼	93425PC	1024	1	0	0	BTX	70n	50n	775m	0.0	5.0	80	2.1Δ	16m	.45	0	7	A163	ML170
33	▼	HM2510	1024	1	0	0	BTX	70n	50n	775m	0.0	5.0	80	2.1	16m	.45	0	7	A235	ML217
34	▼	HM2510G	1024	1	0	0	BTX	70n	50n	775m	0.0	5.0	80	2.1	16m	.45	0	7	A235	ML89h
35	▼	S82S101	1024	1	0	0	BTX	70n	75n	850m	0.0	5.0	80	2.1Δ	16m	.50	5	5	A242	ML107
36	▼	S82S111	1024	1	0	0	BTX	70n	75n	850m	0.0	5.0	80	2.1Δ	16m	.50	5	5	A242	ML107
37	▼	93425FM	1024	1	0	0	BTX	75n	55n	850m	0.0	5.0	80	2.1Δ	16m	.45	5	5	A163	ML98a
38	▼	93425PM	1024	1	0	0	BTX	75n	55n	850m	0.0	5.0	80	2.1Δ	16m	.45	5	5	A163	FL14
39	▼	N82S081	1024	1	0	0	BTX	80n	35n	300m	1						0	0	A210	ML107
40	▼	IM6508A-1MDE	1024	1	0	0	MCG	95n	65n	1.1m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188a	ML1a
41	▼	IM6508A-1MDE	1024	1	0	0	MCG	95n	65n	1.1m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188a	ML1a
42	▼	IM6508A1DE	1024	1	0	0	MCG	150n	95n	5.5m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188a	ML1a
43	▼	IM6508AMD	1024	1	0	0	MCG	150n	95n	5.5m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188a	ML1a
44	▼	IM6518A-1IDN	1024	1	0	0	MCG	150n	95n	1.1m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188	ML147
45	▼	IM6518A-1MDN	1024	1	0	0	MCG	150n	95n	1.1m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188	ML147
46	▼	IM6518A1DN	1024	1	0	0	MCG	150n	65n	5.5m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188	ML147
47	▼	IM6518AMD	1024	1	0	0	MCG	150n	65n	5.5m*	0.0	11	2.2	7.7Δ	1.0uΔ	0.0	4	5	A188	ML147
48	▼	IM6508-1MDE	1024	1	0	0	MCG	200n	165n	50u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	5	A188a	ML1a
49	▼	IM6508-1MDE	1024	1	0	0	MCG	200n	165n	50u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	5	A188a	ML1a
50	▼	HM1-6508B2	1024	1	0	0	MCG	290n	465n*	50u*	0.0	5.0	80	3.0Δ	3.2m	.45	4	5	A258	ML223
51	▼	HM1-6508B9	1024	1	0	0	MCG	290n	465n*	50u*	0.0	5.0	80	3.0Δ	3.2m	.45	4	5	A258	ML223
52	▼	HM1-6518B2	1024	1	0	0	MCG	290n	465n*	50u*	0.0	5.0	80	3.0Δ	3.2m	.45	4	5	A258	ML115b
53	▼	HM1-6518B9	1024	1	0	0	MCG	290n	465n*	50u*	0.0	5.0	80	3.0Δ	3.2m	.45	4	5	A258	ML115b
54	▼	IM6518-1IDN	1024	1	0	0	MCG	300n	200n	50u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	5	A188	ML147
55	▼	IM6518-1MDN	1024	1	0	0	MCG	300n	200n	50u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	5	A188	ML147
56	▼	HM1-6508-9	1024	1	0	0	MCG	400n	650n*	500u*	0.0	5.0	80	3.0Δ	3.2m	.45	4	4	A258	ML223
57	▼	HM1-6518-9	1024	1	0	0	MCG	400n	650n*	500u*	0.0	5.0	80	3.0Δ	3.2m	.45	4	4	A258	ML25b
58	▼	HM1-6508-2	1024	1	0	0	MCG	450n	700n*	500u*	0.0	5.0	80	3.0Δ	3.2m	.45	5	5	A258	ML223
59	▼	HM1-6518-2	1024	1	0	0	MCG	450n	700n*	500u*	0.0	5.0	80	3.0Δ	3.2m	.45	5	5	A258	ML25b
60	▼	HM435101-1	1024	1	0	0	MCG	450n	450n*	55m*	0.0	5.0	65	2.2Δ	2.0m	.40	0	7	A267a	ML77g
61	▼	IM65081DE	1024	1	0	0	MCG	480n	300n	500u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	8	A188a	ML1a
62	▼	IM6508MDE	1024	1	0	0	MCG	480n	300n	500u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	8	A188a	ML1a
63	▼	IM65181DN	1024	1	0	0	MCG	480n	300n	500u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	8	A188	ML147
64	▼	IM6518MDN	1024	1	0	0	MCG	480n	300n	500u*	0.0	5.0	80	3.0Δ	2.0m	.45	4	8	A188	ML147
65	▼	HM1-6508D5	1024	1	0	0	MCG	550n	150n	4.0m*	0.0	5.0	80	3.0Δ	3.2m	.45	0	7	A258	ML223
66	▼	HM1-6518D5	1024	1	0	0	MCG	550n	150n	4.0m*	0.0	5.0	80	3.0Δ	3.2m	.45	0	7	A258	ML115b
67	▼	IM6508CPE	1024	1	0	0	MCG	600n	395n	8.0m	0.0	5.0	80	3.0Δ	1.6m	.45	0	7	A188a	ML89
68	▼	HM435101	1024	1	0	0	MCG	650n	650n*	55m*	0.0	5.0	65	2.2Δ	2.0m	.40	0	7	A267a	ML77g
69	▼	HM435101-V	1024	1	0	0	MCG	650n	650n*	37u*	0.0	5.0	65	2.2Δ	2.0m	.40	0	7	A267a	ML77g
70	▼	MWS5501D	1024	1	0	0	MCS	90nt	90nt	5.2m*	0.0	10	-10%	9.9	4.0m	.40	4	8	A251	ML140
71	▼	MWS5501H	1024	1	0	0	MCS	90nt	90nt	5.2m*	0.0	10	-10%	9.9	4.0m	.40	4	8	A251	CHI
72	▼	MWS5001D	1024	1	0	0	MCS	150nt	150nt	5.2m*	0.0	5.0								

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)NO.WORDS(2)NO.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE NO.

LINE No.	6 TYPE No.	ORGANIZATION				3 M O D E	4 STRUC TURE CODE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE		DRAWINGS	
		1 No. WORDS	2 BITS PER WORD	M	O						NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	(V)		+	-	LOGIC/ BLOCK	OUTLINE
1#	MB8115E	1024	1	S	MNG	95n	60n*	342m	0.0	5.0	80	2.1Δ	12m	.45	0	7	A256	ML140e			
2#	MB8125E	1024	1	S	MNG	95n	60n*	342m	0.0	5.0	80	2.1Δ	7.0m	.45	0	7	A256	ML140e			
3#	MBM2115E	1024	1	S	MNG	95n	60n*	342m	0.0	5.0	80	2.1Δ	12m	.45	0	7	A256	ML140e			
4#	MBM2125E	1024	1	S	MNG	95n	60n*	342m	0.0	5.0	80	2.1Δ	7.0m	.45	0	7	A256	ML140e			
5#	S4015-2E	1024	1	S	MNG	95n	120n*	500m†	0.0	5.0							A256	ML5e			
6#	S4025-2E	1024	1	S	MNG	95n	120n*	500m†	0.0	5.0							A256	ML5e			
7#	MB8115N	1024	1	S	MNG	120n	60n*	342m	0.0	5.0	80	2.1Δ	12m	.45	0	7	A256	ML140e			
8#	MB8125N	1024	1	S	MNG	120n	60n*	342m	0.0	5.0	80	2.1Δ	7.0m	.45	0	7	A256	ML140e			
9#	MBM2115N	1024	1	S	MNG	120n	60n*	342m	0.0	5.0	80	2.1Δ	12m	.45	0	7	A256	ML140e			
10#	MBM2125N	1024	1	S	MNG	120n	60n*	342m	0.0	5.0	80	2.1Δ	7.0m	.45	0	7	A256	ML140e			
11	AM9102DDC	1024	1	S	MNG	250n	250n	250m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
12	AM9102DPC	1024	1	S	MNG	250n	250n	250m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
13	C2102A2	1024	1	S	MNG	250n	250n*	342m	0.0	5.0	80	2.0Δ	2.1m	.40	0	8	A236	ML10c			
14	C2102AL2	1024	1	S	MNG	250n	250n*	342m	0.0	5.0	80	2.0Δ	2.1m	.40	0	8	A236	ML10c			
15	D2102A2	1024	1	S	MNG	250n	250n*	1.0 Δ	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML127a			
16	D2102AL2	1024	1	S	MNG	250n	250n*	42m ↓	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML127a			
17	P2102A2	1024	1	S	MNG	250n	250n*	1.0 Δ	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML4j			
18	P2102AL2	1024	1	S	MNG	250n	250n*	42m ↓	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML4j			
19	uPD2102ALC2	1024	1	S	MNG	250n	250n*	150m†	0.0	5.0	-50*	20Δ	2.1m	.40	0	7	A236	ML236			
20	AM9102CDC	1024	1	S	MNG	300n	300n*	165m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
21	AM9102CDM	1024	1	S	MNG	300n	300n*	165m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	ML62c			
22	AM9102CPC	1024	1	S	MNG	300n	300n*	165m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
23	AM9102CDC	1024	1	S	MNG	300n	300n	250m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
24	AM9102CDM	1024	1	S	MNG	300n	300n	275m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	ML62c			
25	AM9102CPC	1024	1	S	MNG	300n	300n	250m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
26	21F02B	1024	1	S	MNG	350n	350n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML85			
27	21F02F	1024	1	S	MNG	350n	350n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML127r			
28	21F02I	1024	1	S	MNG	350n	350n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML107a			
29	C2102A	1024	1	S	MNG	350n	350n*	289m	0.0	5.0	80	2.0Δ	2.1m	.40	0	8	A236	ML10c			
30	C2102AL	1024	1	S	MNG	350n	350n*	174m	0.0	5.0	80	2.0Δ	2.1m	.40	0	8	A236	ML10c			
31	D2102A	1024	1	S	MNG	350n	350n*	1.0 Δ	0.0	5.0	80	2.0Δ	2.1m	.40	0	7	A118	ML127a			
32	D2102AL	1024	1	S	MNG	350n	350n*	42m ↓	0.0	5.0	80	2.0Δ	2.1m	.40	0	7	A118	ML127a			
33#	HM452102-3	1024	1	S	MNG	350n	350n*	1.0 Δ	0.0	5.0	80	2.0Δ	2.1m	.40	0	7	A118	ML22c			
34	P2102A	1024	1	S	MNG	350n	350n*	1.0 Δ	0.0	5.0	80	2.0Δ	2.1m	.40	0	7	A118	ML4j			
35	P2102AL	1024	1	S	MNG	350n	350n*	42m ↓	0.0	5.0	80	2.0Δ	2.1m	.40	0	7	A118	ML4j			
36	uPD2102ALC	1024	1	S	MNG	350n	350n*	150m†	0.0	5.0	-50*	20Δ	2.1m	.40	0	7	A236	ML236			
37	21L02-3B	1024	1	S	MNG	400n	400n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML85			
38	21L02-3F	1024	1	S	MNG	400n	400n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML127r			
39	21L02-3I	1024	1	S	MNG	400n	400n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML107a			
40	AM9102BDC	1024	1	S	MNG	400n	400n*	150m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
41	AM9102BDM	1024	1	S	MNG	400n	400n*	175m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	ML62c			
42	AM9102BFM	1024	1	S	MNG	400n	400n*	175m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	FL33b			
43	AM9102BPC	1024	1	S	MNG	400n	400n*	150m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
44	AM9102BDC	1024	1	S	MNG	400n	400n	260m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
45	AM9102BDM	1024	1	S	MNG	400n	400n	275m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	ML62c			
46	AM9102BFM	1024	1	S	MNG	400n	400n	275m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	FL33b			
47	AM9102BPC	1024	1	S	MNG	400n	400n*	260m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
48	C2102A4	1024	1	S	MNG	450n	450n*	289m	0.0	5.0	80	2.0Δ	2.1m	.40	0	8	A236	ML10c			
49	C2102AL4	1024	1	S	MNG	450n	450n*	174m	0.0	5.0	80	2.0Δ	2.1m	.40	0	8	A236	ML10c			
50	CM2102A4	1024	1	S	MNG	450n	450n*	1.0 Δ	0.0	5.0	80	2.0	2.1m	.45	5	C	A118	ML10c			
51	D2102A4	1024	1	S	MNG	450n	450n*	1.0 Δ	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML127a			
52	D2102AL4	1024	1	S	MNG	450n	450n*	42m ↓	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML127a			
53#	HM452102-4	1024	1	S	MNG	450n	450n*	1.0 Δ	0.0	5.0	80	2.0Δ	2.1m	.40	0	7	A118	ML22c			
54#	M58751P	1024	1	S	MNG	450n	450n	200m	0.0	5.0	65	2.2	2.1m	.40	0	7	A109	ML136			
55#	MB8102	1024	1	S	MNG	450n	200n	370m	0.0	5.0	65	2.2Δ	3.2m	.40	0	7	A158	ML140e			
56	P2102A4	1024	1	S	MNG	450n	450n*	1.0 Δ	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML4j			
57	P2102AL4	1024	1	S	MNG	450n	450n*	42m ↓	0.0	5.0	80	2.0	2.1m	.40	0	7	A118	ML4j			
58	TMS4033/2102-1JL	1024	1	S	MNG	450n	450n*	350m	0.0	5.0	.65	2.2Δ	1.9m	.45	0	7	A203	ML206			
59	TMS4033/2102-1NL	1024	1	S	MNG	450n	450n*	350m	0.0	5.0	.65	2.2Δ	1.9m	.45	0	7	A203	ML209			
60	uPD2102ALC4	1024	1	S	MNG	450n	450n*	150m†	0.0	5.0	-50*	20Δ	2.1m	.40	0	7	A236	ML236			
61	21L02-1B	1024	1	S	MNG	500n	500n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML85			
62	21L02-1F	1024	1	S	MNG	500n	500n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML127r			
63	21L02-1I	1024	1	S	MNG	500n	500n*		12	5.0	65	2.2	1.9m	.40	0	7	A192a	ML107a			
64	2602-1B	1024	1	S	MNG	500n	500n*	640m	0.0	5.0	65	2.2	1.6m	.40	0	7	A109	ML132			
65	2602-1I	1024	1	S	MNG	500n	500n*	800m	0.0	5.0	65	2.2	1.6m	.40	0	7	A109	ML107			
66	AM9102ADC	1024	1	S	MNG	500n	500n*	150m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
67	AM9102ADM	1024	1	S	MNG	500n	500n*	175m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	ML62c			
68	AM9102AFM	1024	1	S	MNG	500n	500n*	175m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	FL33b			
69	AM9102APC	1024	1	S	MNG	500n	500n*	150m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
70	AM9102ADC	1024	1	S	MNG	500n	500n	260m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML127k			
71	AM9102ADM	1024	1	S	MNG	500n	500n	275m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	ML62c			
72	AM9102AFM	1024	1	S	MNG	500n	500n	275m	0.0	5.0	80	2.0	3.2m	.40	5	C	A159	FL33b			
73	AM9102APC	1024	1	S	MNG	500n	250n	260m	0.0	5.0	80	2.0	3.2m	.40	0	7	A159	ML89a			
74	C2102-1	1024	1	S	MNG	500n	500n*	350m	0.0	5.0	65	2.2	1.9m	.45	0	7	A158	ML127k			
75#	M330CB1	1024	1	S	MNG	500n	500n*	150m†	0.0	5.0	65	2.2	1.9m	.45	0	7	A158	ML60			
76#	M330CD1	1024	1	S	MNG	500n	500n*	150m†	0.0	5.0	65	2.2	1.9m	.45	0	7	A158	ML158			
77#	M58751S	1024	1	S	MNG	500n	500n	150m	0.0	5.0	65	2.2	1.9m	.45	0	7	A109	ML14			

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No. WORDS (2)No. BITS/WORD
(3)MODE (4)STRUCT. (5)MAX ACC. TIME (6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		MOD E	STRUC TURE	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK		CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		No. WORDS	PER WORD						NEG (V)	POS (V)	MAX '0' (V)	MIN '1' (V)	CURRENT (A)	OUT (V)			LOGIC/BLOCK	OUTLINE	
1#	M330AB1	1024	1	S	MNG	1.0u	1.0u*	150m	0.0	5.0	65	2.2	1.9m	45	0	7	A158	ML60	
2#	M330AD1	1024	1	S	MNG	1.0u	1.0u*	150m	0.0	5.0	65	2.2	1.9m	45	0	7	A158	ML158	
3#	M58751P2	1024	1	S	MNG	1.0u	1.0u	200m	0.0	5.0	65	2.2	2.1m	40	0	7	A189	ML136	
4	MM2102D	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	65	2.2s	1.9m	45	0	7	A187	ML177	
5	MM2102MD	1024	1	S	MNG	1.0u	1.0u*	275m	0.0	5.0	65	2.2s	2.1m	45	5	C	A187	ML177	
6	MM2102N	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	65	2.2s	1.9m	45	0	7	A187	ML178	
8	P2102	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	65	2.2	1.9m	45	0	7	A118	ML4	
9	TMS4035/2102JL	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	65	2.2s	1.9m	45	0	7	A203	ML206	
8	TMS4035/2102NL	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	65	2.2s	1.9m	45	0	7	A203	ML209	
10	IM700112-6D	1024	1	S	MNX	60n	180n	15u	0.0	15	80	2.4	2.0uΔ		0	7	A162	ML7	
11	IM700112-6DP	1024	1	S	MNX	60n	180n	15u	0.0	15	80	2.4	2.0uΔ		0	7	A162	ML7	
12	IM700115-6D	1024	1	S	MNX	70n	200n	18u	0.0	15	80	2.4	2.0uΔ		5	8	A162	ML7	
13	IM7001-12CDF	1024	1	S	MNX	80n	250n*	240u*	0.0	12	80	2.4			0	7	A322	ML241	
14	IM7001-12CPF	1024	1	S	MNX	80n	250n*	240u*	0.0	12	80	2.4			0	7	A322	ML212c	
15	IM700116-6D	1024	1	S	MNX	80n	250n	36u*	0.0	15	80	2.4	2.0uΔ		5	C	A162	ML7	
16	UPD405D	1024	1	S	MNX	85n	190n	100u*	5.0	12	60	2.7	3.2m	.40	0	7	A220		
17	IM7001-15CDF	1024	1	S	MNX	90n	250n*	260u*	0.0	12	80	2.4			5	8	A322	ML241	
18	UPD2115-2	1024	1	S	MNX	90n	50n*	500m	0.0	5.0	80	2.1Δ	12m	.45	0	7	A311	ML7	
19	UPD2125-2	1024	1	S	MNX	90n	50n*	500m	0.0	5.0	80	2.1s	12m	.45	0	7	A311	ML7	
20	IM7001-16CDF	1024	1	S	MNX	100n	300n*	260u*	0.0	12	80	2.4			5	C	A322	ML241	
21	UPD2115-1	1024	1	S	MNX	120n	60n*	500m	0.0	5.0	80	2.1Δ	12m	.45	0	7	A311	ML7	
22	UPD2125-1	1024	1	S	MNX	120n	60n*	500m	0.0	5.0	80	2.1s	12m	.45	0	7	A311	ML7	
23	S4006	1024	1	S	MPI	400n	650n*	450m	12	5.0	80	4.0	1.0m	0.0	0	7	A35	ML110	
24	S4006R	1024	1	S	MPI	400n	650n*	450m	12	5.0	80	4.0	1.6m	.40	0	7	A35a	ML110	
25	IM7114L2CJN	1024	4	S		200n	200n*	265m	0.0	5.0	80	2.0	3.2m	.40	0	7	A268	ML134h	
26	IM7114L2CPN	1024	4	S		200n	200n*	265m	0.0	5.0	80	2.0	3.2m	.40	0	7	A268	ML165d	
27	IM7114L3CJN	1024	4	S		300n	300n*	265m	0.0	5.0	80	2.0	3.2m	.40	0	7	A268	ML134h	
28	IM7114L3CPN	1024	4	S		300n	300n*	265m	0.0	5.0	80	2.0	3.2m	.40	0	7	A268	ML165d	
29	IM7114CPN	1024	4	S		450n	450n*	265m	0.0	5.0	80	2.0	3.2m	.40	0	7	A268	ML165d	
30	IM7114L3CJN	1024	4	S		450n	450n*	265m	0.0	5.0	80	2.0	3.2m	.40	0	7	A268	ML134h	
31	M58481S	1024	4	S	MCX	300n	300n	75m	0.0	5.0	60	2.2	2.4m	.40	0	7			
32	C2114-2	1024	4	S	MNG	200n	200n*	710m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML115c	
33	MK4114P-3	1024	4	S	MNG	200n	200n*	150mt	0.0	5.0	80	2.0	5.0m	.40	0	7	A304	ML134c	
34	P2114-2	1024	4	S	MNG	200n	200n*	710m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML3f	
35	MK4114P-4	1024	4	S	MNG	250n	200n*	150mt	0.0	5.0	80	2.0	5.0m	.40	0	7	A304	ML134g	
36	C2114-3	1024	4	S	MNG	300n	300n*	710m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML115c	
37	C2114L3	1024	4	S	MNG	300n	300n*	370m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML115c	
38	HM472114-3	1024	4	S	MNG	300n	300n*	200mt	0.0	5.0	80	2.0s	2.1m	.40	0	7	A268	ML165c	
39	MK4114P-5	1024	4	S	MNG	300n	300n*	150mt	0.0	5.0	80	2.0	5.0m	.40	0	7	A304	ML134g	
40	P2114-3	1024	4	S	MNG	300n	300n*	710m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML3f	
41	P2114L3	1024	4	S	MNG	300n	300n*	370m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML3f	
42	C2114	1024	4	S	MNG	450n	450n*	710m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML115c	
43	C2114L	1024	4	S	MNG	450n	450n*	370m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML115c	
44	HM472114-4	1024	4	S	MNG	450n	450n*	200mt	0.0	5.0	80	2.0s	2.1m	.40	0	7	A268	ML165c	
45	MCM2114L	1024	4	S	MNG	450n	450n	400mt	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML7	
46	MCM2114P	1024	4	S	MNG	450n	450n	400mt	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML7	
47	P2114	1024	4	S	MNG	450n	450n*	710m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML3f	
48	P2114L	1024	4	S	MNG	450n	450n*	370m	0.0	5.0	80	2.4s	2.1m	.40	0	7	A268	ML3f	
49	4104ACC	1024	4	S	MNX	200n	350n*	650m	5.0	12	70	2.4	2.0m	.50	0	7	A283	ML8f	
50	4104ACP	1024	4	S	MNX	200n	350n*	650m	5.0	12	70	2.4	2.0m	.50	0	7	A283	ML212a	
51	4804C	1024	4	S	MNX	350n	350n*	500m	0.0	5.0	80	2.4s	2.0m	.50	0	7	A287	ML210b	
52	4804B	1024	4	S	MNX	400n	400n*	500m	0.0	5.0	80	2.4s	2.0m	.50	0	7	A287	ML210b	
53	4804A	1024	4	S	MNX	450n	450n*	500m	0.0	5.0	80	2.4s	2.0m	.50	0	7	A287	ML210h	
54	M58724S	1024	4	S	MNX	450n	450n	400m	0.0	5.0	80	2.2	3.2m	.40	0	7			
55	4804	1024	4	S	MNX	600n	600n*	500m	0.0	5.0	80	2.4	2.0m	.50	0	7	A287	ML210b	
56	RA9-2048	2048	1	D	MPG	250n*	400n*	150u*	20	5.0	-20	-1.5	12m	-20	250 Δ	0	7	F148	ML92
57	RA9-2000	2048	1	D	MPG	360n*	615n*	200m	15	5.0	80	3.0	600u	1.8	0	7		ML92	
58	MM5262D	2048	1	D	MPG	365n	635n*	400m	15	5.0	80	3.5	10uΔ	0.0	500 Δ	0	7	A207	ML201
59	MM5262N	2048	1	D	MPG	365n	635n*	400m	15	5.0	80	3.5	10uΔ	0.0	500 Δ	0	7	A207	ML197
60	MM4262D	2048	1	D	MPG	470n	750n*	360m	15	5.0	80	3.5	10uΔ	0.0	1.0kΔ	5	C	A207	ML201
61	IM6003-11CDF	2048	1	D	MPX	350n	575n*	140u*	15	8.0	50	3.5			500 Δ	0	7	A321	ML241
62	IM600311	2048	1	D	MPX	350n	575n*	140u*	15	5.0	50	3.5			500 Δ	0	7	A87	ML241
63	IM6003-10CDF	2048	1	D	MPX	460n	695n*	130u*	15	8.5	50	4.0			500 Δ	0	7	A321	ML241
64	IM600310	2048	1	D	MPX	460n	695n*	130u*	15	5.0	50	4.0			500 Δ	0	7	A87	ML241
65	IM7003	2048	1	S	MNG	60n	180n*	300u*	3.0	15	80				0	7	A263c	ML7	
66	IM7003-12CDF	2048	1	S	MNX	60n	180n*	250u*	0.0	15	80	2.4			0	7	A323	ML241	
67	IM7003-12CPF	2048	1	S	MNX	60n	180n*	250u*	0.0	15	80	2.4			0	7	A323	ML212c	
68	MW4104D	4096	1	D	MNX	350n	470n	380mt	5.0	5.0	60	2.4	3.2m	.40	0	7	A99e	ML7	
69	93481ADC	4096	1	D	BTX	100n	240n*	500mt	0.0	5.0	80	2.1s	16m	.50	500 Δ	0	7	A317	ML1k
70	93481AFC	4096	1	D	BTX	100n	240n*	500mt	0.0	5.0	80	2.1s	16m	.50	500 Δ	0	7	A317	FL14
71	93481APC	4096	1	D	BTX	100n	240n*	500mt	0.0	5.0	80	2.1s	16m	.50	500 Δ	0	7	A317	ML170
72	93481DC	4096	1	D	BTX	120n	280n*	500mt	0.0	5.0	80	2.1s	16m	.50	500 Δ	0	7	A317	ML1k
73	93481FC	4096	1	D	BTX	120n	280n*	500mt	0.0	5.0	80	2.1s	16m	.50	500 Δ	0	7	A317	FL14
74	93481PC	4096	1	D	BTX	120n	280n*	500mt	0.0	5.0	80	2.1s	16m	.50	500 Δ	0	7	A317	ML170
75	HM4710	4096	1	D	MNG	100n	230n*	600m	5.2	12	60	2.4s	1.0m	.20	0	7	A313	ML77g	
76	MB8215E	4096	1	D	MNG	100n	200n*	645m	5.2	12	60	2.4			0	7	A255	ML162	
77	MK4027P-1	4096	1	D	MNG	120n	320n	462m	5.0	12									

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)NO. WORDS(2)NO. BITS / WORD
(3)MODE(4)STRUCT.(5)MAX. ACC. TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION		3 M D E	4 STRUC TURE CODE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 No. WORDS	2 BITS PER WORD						NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	MIN CURRENT (A)	MAX CURRENT (A)			LOGIC/ BLOCK	OUTLINE	
																			+
1	MK4027P-3	4096	1	D	MNG	200n	375n*	470m	5.0	12	60	2.2	3.2m	0.0	500	0	7	A264	ML225
2	MM5270D	4096	1	D	MNG	200n	400n*	420m \varnothing	5.0	12	60	2.4	2.0m	.45	500	0	7	A292	ML115a
3	MM5280D	4096	1	D	MNG	200n	400n*	420m \varnothing	5.0	12	60	2.4	2.0m	.45	500	0	7	A293	ML204a
4#	MN1001-2	4096	1	D	MNG	200n	400n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML8n
5	MW4050DV2	4096	1	D	MNG	200n	400n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A248	ML134d
6	MW4060DV2	4096	1	D	MNG	200n	400n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A249	ML8s
7	TMS4027-20JL	4096	1	D	MNG	200n	375n*	460m	5.0	12	80	2.4	3.2m	.40	500	0	7	A326	ML206
8	TMS4027-20NL	4096	1	D	MNG	200n	375n*	460m	5.0	12	80	2.4	3.2m	.40	500	0	7	A326	ML209
9	TMS4050-2JL	4096	1	D	MNG	200n	400n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML210
10	TMS4050-2NL	4096	1	D	MNG	200n	400n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML3b
11	TMS4060-2JL	4096	1	D	MNG	200n	400n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML8n
12	TMS4060-2NL	4096	1	D	MNG	200n	400n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML197a
13#	MB8224E	4096	1	D	MNG	230n	370n*	470m	5.0	12	80	2.4	3.2m	.40	500	0	7	A278	ML140e
14	C2104A-3	4096	1	D	MNG	250n	375n*	1.0 \square	5.0	12	80	2.4	3.2m	.40	500	0	7	A191a	ML140g
15	D2104A-3	4096	1	D	MNG	250n	375n*	1.0 \square	5.0	12	80	2.4	3.2m	.40	500	0	7	A191a	ML157c
16#	HM4704-2	4096	1	D	MNG	250n	425n	462m	5.0	12	80	2.4	3.0m	.40	500	0	7	A191	ML89h
17	IM7005-11-6B	4096	1	D	MNG	250n	375n*	380mt	5.0	12	80	2.4	2.0m	.40	500	0	7	A191a	ML225
18	IM7027P-4	4096	1	D	MNG	250n	480n*	470mt	5.0	12	80	2.2	3.2m	.40	500	0	7	A324	ML225
19	ITT4027-4	4096	1	D	MNG	250n	375n*	470m	5.0	12	80	2.2	3.2m	.40	500	0	7	A312	ML \varnothing
20	MB8107E	4096	1	D	MNG	250n	430n*	1.2 \square	5.0	12	60	2.4	2.2m	.45	500	0	7	A189	ML162
21	MCM4027L4	4096	1	D	MNG	250n	375n	470mt	5.0	12	80	2.4	3.2m	.40	500	0	7	A264	ML145
22	MCM4027P4	4096	1	D	MNG	250n	375n	470mt	5.0	12	80	2.4	3.2m	.40	500	0	7	A264	ML98b
23	MCM6604L2	4096	1	D	MNG	250n	375n*	630m	5.0	12	80	2.4	2.0m	.40	500	0	7	A190	ML98b
24	MCM6604P2	4096	1	D	MNG	250n	375n*	630m	5.0	12	80	2.4	2.0m	.40	500	0	7	A190	ML145
25	MK4027P-4	4096	1	D	MNG	250n	375n*	470m	5.0	12	80	2.2	3.2m	.40	500	0	7	A264	ML225
26	MM5271D	4096	1	D	MNG	250n	400n*	420m \varnothing	5.0	12	60	2.4	2.0m	.45	500	0	7	A292	ML115a
27	MM5281D	4096	1	D	MNG	250n	400n*	420m \varnothing	5.0	12	60	2.4	2.0m	.45	500	0	7	A293	ML204a
28#	MN1001-1	4096	1	D	MNG	250n	430n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML8n
29	MW4050DV1	4096	1	D	MNG	250n	430n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A248	ML134d
30	MW4060DV1	4096	1	D	MNG	250n	430n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A249	ML8s
31	TMS4027-25JL	4096	1	D	MNG	250n	375n*	460m	5.0	12	80	2.4	3.2m	.40	500	0	7	A326	ML206
32	TMS4027-25NL	4096	1	D	MNG	250n	375n*	460m	5.0	12	80	2.4	3.2m	.40	500	0	7	A326	ML209
33	TMS4050-1JL	4096	1	D	MNG	250n	430n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML210
34	TMS4050-1NL	4096	1	D	MNG	250n	430n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML3b
35	TMS4051-1JL	4096	1	D	MNG	250n	430n*	460mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML210
36	TMS4051-1NL	4096	1	D	MNG	250n	430n*	460mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML3b
37	TMS4060-1JL	4096	1	D	MNG	250n	430n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML8n
38	TMS4060-1NL	4096	1	D	MNG	250n	430n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML197a
39	2680-1F	4096	1	D	MNG	270n	470n*	680m \varnothing	5.5	12	60	2.4	2.0m	.45	2.0m Δ	0	7	A189a	ML133
40	B2107B4	4096	1	D	MNG	270n	470n*	1.2 \square	5.0	12	60	2.4	2.0m	.45	500	0	7	A189a	ML228
41	B2107B-4	4096	1	D	MNG	270n	470n*	1.2 \square	5.0	12	60	2.4	2.0m	.45	1.0k Δ	0	7	A189a	ML228
42	IM7270-12-6E	4096	1	D	MNG	270n	470n*	480mt	5.0	12	60	2.4	2.0m	.45	500	0	7	A273	ML240
43	IM7280-12-6D	4096	1	D	MNG	270n	470n*	480mt	5.0	12	60	2.4	2.0m	.45	500	0	7	A272	ML241
44#	M58755S2	4096	1	D	MNG	270n	470n*	420m	5.0	12	60	2.4	2.0m	.45	500	0	7	A189	ML8b
45	MM5270D5	4096	1	D	MNG	270n	470n*	420m \varnothing	5.0	12	60	2.4	2.0m	.45	500	0	7	A292	ML115a
46	MM5280D5	4096	1	D	MNG	270n	470n*	420m \varnothing	5.0	12	60	2.4	2.0m	.45	500	0	7	A293	ML204a
47	B2107A1	4096	1	D	MNG	280n	550n*	1.0 \square	5.0	12	80	3.5	1.7m	.45	1.0k Δ	0	7	A189a	ML229
48#	MB8224N	4096	1	D	MNG	280n	450n*	470m	5.0	12	80	2.4	3.2m	.40	500	0	7	A278	ML140e
49	2604	4096	1	D	MNG	300n	470n*	700n*	3.0	12	60	2.2	3.2m	.40	500	0	7	A208	ML204
50	2604A	4096	1	D	MNG	300n	470n*	700n*	3.0	12	60	2.2	3.2m	.40	500	0	7	A208	ML204
51	B2107A	4096	1	D	MNG	300n	700n*	1.0 \square	5.0	12	80	3.5	1.7m	.45	500	0	7	A189a	ML229
52	B2107B-5	4096	1	D	MNG	300n	590n*	1.2 \square	5.0	12	60	2.4	2.0m	.45	1.0k Δ	0	7	A189a	ML228
53	C2104A-4	4096	1	D	MNG	300n	425n*	1.0 \square	5.0	12	80	2.4	3.2m	.40	500	0	7	A191a	ML140g
54	D2104A-4	4096	1	D	MNG	300n	425n*	1.0 \square	5.0	12	80	2.4	3.2m	.40	500	0	7	A191a	ML157c
55#	HYB4060	4096	1	D	MNG	300n	470n*	380mt	5.0	12	60	2.4	3.2m	.40	500	0	7	A189	ML8b
56	IM7005-12-6B	4096	1	D	MNG	300n	425n*	380mt	5.0	12	80	2.4	2.0m	.40	500	0	7	A191a	ML225
57#	M58755S	4096	1	D	MNG	300n	550n*	420m	5.0	12	60	3.5	2.0m	.45	500	0	7	A189	ML8b
58#	MB8107N	4096	1	D	MNG	300n	470n*	1.2 \square	5.0	12	60	2.4	2.2m	.45	500	0	7	A189	ML162
59	MCM6604L4	4096	1	D	MNG	300n	425n*	630m	5.0	12	80	2.4	2.0m	.40	500	0	7	A190	ML98b
60	MCM6604P4	4096	1	D	MNG	300n	425n*	630m	5.0	12	80	2.4	2.0m	.40	500	0	7	A190	ML145
61	MCM6605AL	4096	1	D	MNG	300n	590n*	335mt	5.0	12	80	3.0	2.0m	.45	500	0	7	A148	ML8f
62	MCM6605AP	4096	1	D	MNG	300n	590n*	335mt	5.0	12	80	3.0	2.0m	.45	500	0	7	A148	ML212
63#	MN1001	4096	1	D	MNG	300n	470n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A202	ML8n
64	MW4050D	4096	1	D	MNG	300n	470n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A248	ML134d
65	MW4060D	4096	1	D	MNG	300n	470n*	400mt	5.0	12	60	2.2	3.2m	.40	500	0	7	A249	ML8s
66	SMC4030JR	4096	1	D	MNG	300n	470n*	965m	3.0	12	40%	2.4	3.2m	.40	1.0k Δ	5	8	A202	ML8n
67	SMC4050JR	4096	1	D	MNG	300n	470n*	965m	5.0	12	40%	2.4	5.0m	.40	1.0k Δ	5	8	A204	ML210
68	SMC4060JR	4096	1	D	MNG	300n	470n*	960m	5.0	12	40%	2.4	3.2m	.40	1.0k Δ	5	8	A202	ML8n
69	TMS4050JL	4096	1	D	MNG	300n	470n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML210
70	TMS4050NL	4096	1	D	MNG	300n	470n*	420mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML3b
71	TMS4051JL	4096	1	D	MNG	300n	470n*	460mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML210
72	TMS4051NL	4096	1	D	MNG	300n	470n*	460mt	5.0	12	60	2.2	5.0m	.40	500	0	7	A204	ML3b
73	TMS4060JL	4096	1																

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3	4	5	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS							
		1	2							M	D	O	S	NEG. (V)	POS. (V)			MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)	+	-	LOGIC/BLOCK	OUTLINE
1	JANM38510/23501AWB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
2	JANM38510/23501AWC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
3	JANM38510/23501BUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	FL45						
4	JANM38510/23501BUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	FL45						
5	JANM38510/23501BUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	FL45						
6	JANM38510/23501BWA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
7	JANM38510/23501BWB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
8	JANM38510/23501BWC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
9	JANM38510/23501CUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	FL45						
10	JANM38510/23501CUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	FL45						
11	JANM38510/23501CUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	FL45						
12	JANM38510/23501CWA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
13	JANM38510/23501CWB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
14	JANM38510/23501CWC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	1.0kΔ	5	8	A202	ML254						
15	JANM38510/23502AUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
16	JANM38510/23502AUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
17	JANM38510/23502AUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
18	JANM38510/23502AVA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
19	JANM38510/23502AVB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
20	JANM38510/23502AVC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
21	JANM38510/23502BUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
22	JANM38510/23502BUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
23	JANM38510/23502BUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
24	JANM38510/23502BVA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
25	JANM38510/23502BVB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
26	JANM38510/23502BVC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
27	JANM38510/23502CUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
28	JANM38510/23502CUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
29	JANM38510/23502CUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	FL45						
30	JANM38510/23502CVA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
31	JANM38510/23502CVB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
32	JANM38510/23502CVC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	1.0kΔ	5	8	A204	ML255						
33	JANM38510/23503AUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
34	JANM38510/23503AUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
35	JANM38510/23503AUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
36	JANM38510/23503AWA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
37	JANM38510/23503AWB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
38	JANM38510/23503AWC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
39	JANM38510/23503BUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
40	JANM38510/23503BUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
41	JANM38510/23503BUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
42	JANM38510/23503BWA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
43	JANM38510/23503BWB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
44	JANM38510/23503BWC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
45	JANM38510/23503CUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
46	JANM38510/23503CUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
47	JANM38510/23503CUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	FL45						
48	JANM38510/23503CWA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
49	JANM38510/23503CWB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
50	JANM38510/23503CWC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	3.2m	.40	2.0kΔ	5	A	A202	ML254						
51	JANM38510/23504AUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45						
52	JANM38510/23504AUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45						
53	JANM38510/23504AUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45						
54	JANM38510/23504AVA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255						
55	JANM38510/23504AVB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255						

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1) No.WORDS(2) No.BITS/WORD
(3)MODE(4) STRUCT.(5) MAX ACC.TIME(6) TYPE No.

LINE No.	TYPE No.	ORGANIZATION No. WORDS	2 BITS PER WORD	3 4 MOD CODE	5 STRUCTURE	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
									NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)				LOGIC/BLOCK	OUTLINE		
1	JANM38510/23504AVC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
2	JANM38510/23504BUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45
3	JANM38510/23504BUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45
4	JANM38510/23504BUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45
5	JANM38510/23504BVA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
6	JANM38510/23504BVB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
7	JANM38510/23504BVC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
8	JANM38510/23504CUA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45
9	JANM38510/23504CUB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45
10	JANM38510/23504CUC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	FL45
11	JANM38510/23504CVA	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
12	JANM38510/23504CVB	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
13	JANM38510/23504CVC	4096	1	D	MNX	300n	470n*	1.5	5.5	12	.60	2.2	5.0m	.40	2.0kΔ	5	A	A204	ML255
14	MK4096N-16	4096	1	D	MNX	300n	425n*	1.0	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML2
15	MK4096P-16	4096	1	D	MNX	300n	425n*	1.0	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML225
16	MK4200N-16	4096	1	D	MNX	300n	425n*	380m	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML2
17	MK4200P-16	4096	1	D	MNX	300n	425n*	380m	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML225
18	#UPD411AC	4096	1	D	MNX	300n	470n*	660m	5.0	12	.60	2.4s	3.2m	40	500 Δ	0	7	A308	ML237
19	#UPD411AD	4096	1	D	MNX	300n	470n*	660m	5.0	12	.60	2.4s	3.2m	40	500 Δ	0	7	A308	ML77f
20	#UPD411D	4096	1	D	MNX	300n	470n*	1.0	5.0	12	.60	2.4s	3.2m	40	500 Δ	0	7	A221	ML8f
21	#UPD414C	4096	1	D	MNX	300n	425n*	420mt	5.0	12	.80	2.4s	2.0m	40	500 Δ	0	7	A309	ML89f
22	#UPD414D	4096	1	D	MNX	300n	425n*	420mt	5.0	12	.80	2.4s	2.0m	40	500 Δ	0	7	A309	ML127w
23	#UPD418C	4096	1	D	MNX	300n	470n*	350m	5.0	12	.60	2.2	5.0m	40	500 Δ	0	7	A310	ML3g
24	#UPD418D	4096	1	D	MNX	300n	470n*	350m	5.0	12	.60	2.2	5.0m	40	500 Δ	0	7	A310	ML194a
25	MK4096N-11	4096	1	D	MNX	350n	500n*	1.0	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML2
26	MK4096N-15	4096	1	D	MNX	350n	500n*	1.0	5.0	15	.80	3.0s	2.0m	40	1.0kΔ	0	5	A191a	ML89e
27	MK4096P-11	4096	1	D	MNX	350n	500n*	1.0	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML225
28	MK4096P-15	4096	1	D	MNX	350n	500n*	1.0	5.0	15	.80	3.0s	2.0m	40	1.0kΔ	0	5	A191a	ML225
29	MK4096P-85	4096	1	D	MNX	350n	500n*	450m	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	5	8	A191	ML2
30	MK4200N-11	4096	1	D	MNX	350n	500n*	300m	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML2
31	MK4200P-11	4096	1	D	MNX	350n	500n*	300m	5.0	12	.80	2.4s	10uΔ	0.0	500 Δ	0	7	A191	ML225
32	#UPD411ACE	4096	1	D	MNX	350n	800n*	480m	5.0	12	.60	2.4s	3.2m	40	1.0kΔ	0	7	A308	ML237
33	#UPD411ADE	4096	1	D	MNX	350n	800n*	480m	5.0	12	.60	2.4s	3.2m	40	1.0kΔ	0	7	A308	ML77f
34	#UPD411DE	4096	1	D	MNX	350n	800n*	1.0	5.0	12	.60	3.5s	3.2m	40	1.0kΔ	0	7	A221	ML8j
35	#UPD414CE	4096	1	D	MNX	350n	500n*	420mt	5.0	12	.80	2.4s	2.0m	40	500 Δ	0	7	A309	ML89f
36	#UPD414DE	4096	1	D	MNX	350n	500n*	420mt	5.0	12	.80	2.4s	2.0m	40	500 Δ	0	7	A309	ML127w
37	IM7141L2CJN	4096	1			200n	200n*	265m	0.0	5.0	.80	2.0	3.2m	40		0	7	A325	ML134h
38	IM7141L2CPN	4096	1			200n	200n*	265m	0.0	5.0	.80	2.0	3.2m	40		0	7	A325	ML165d
39	IM7141L3CJN	4096	1			300n	300n*	265m	0.0	5.0	.80	2.0	3.2m	40		0	7	A325	ML134h
40	IM7141L3CPN	4096	1			300n	300n*	265m	0.0	5.0	.80	2.0	3.2m	40		0	7	A325	ML165d
41	IM7141L3JN	4096	1			450n	450n*	265m	0.0	5.0	.80	2.0	3.2m	40		0	7	A325	ML134h
42	IM7141L3PN	4096	1			450n	450n*	265m	0.0	5.0	.80	2.0	3.2m	40		0	7	A325	ML165d
43	F10470DC	4096	1		BEX	30n†	25n†	1.0	5.2	0.0	0.0	-1.4	-1.1	30mΩ		0	7	A319	ML194d
44	SN54S400J	4096	1		BID	75n†	75n†	500m†	0.0	5.0	0.0					5	C	A280	ML2
45	SN54S401J	4096	1		BID	75n†	75n†	500m†	0.0	5.0	0.0					5	C	A280	ML2
46	SN74S400J	4096	1		BID	75n†	75n†	500m†	0.0	5.0	0.0					0	6	A280	ML2
47	SN74S400N	4096	1		BID	75n†	75n†	500m†	0.0	5.0	0.0					0	6	A280	ML2
48	SN74S401J	4096	1		BID	75n†	75n†	500m†	0.0	5.0	0.0					0	6	A280	ML2
49	SN74S401N	4096	1		BID	75n†	75n†	500m†	0.0	5.0	0.0					0	6	A280	ML2
50	93470DC	4096	1		BTX	55n†	30n†	950m	0.0	5.0	.80	2.1Δ	8.0m	45		0	7	A316	ML194d
51	93470DM	4096	1		BTX	55n†	30n†	1.0	0.0	5.0	.80	2.1Δ	8.0m	45		5	C	A316	ML194d
52	93470PC	4096	1		BTX	55n†	30n†	950m	0.0	5.0	.80	2.1Δ	8.0m	45		0	7	A316	ML3h
53	93471DC	4096	1		BTX	55n†	30n†	950m	0.0	5.0	.80	2.1s	8.0m	45		0	7	A316a	ML194d
54	93471DM	4096	1		BTX	55n†	30n†	1.0	0.0	5.0	.80	2.1s	8.0m	45		5	C	A316a	ML194d
55	93471PC	4096	1		BTX	55n†	30n†	950m	0.0	5.0	.80	2.1s	8.0m	45		0	7	A316a	ML3h
56	#UPD410D	4096	1		MNG	100n	220n*	1.0	5.0	12	.60	2.4s	3.2m	40		0	7	A221	ML77a
57	TMS4044-15JL	4096	1		MNG	150n	150n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML210
58	TMS4044-15NL	4096	1		MNG	150n	150n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML3b
59	TMS4046-15JL	4096	1		MNG	150n	150n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327a	ML2
60	TMS4046-15NL	4096	1		MNG	150n	150n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327a	ML2
61	MK4104P-3	4096	1		MNG	200n	310n	120mt	0.0	5.0	.80	2.0	5.0m	40		0	7	A303	ML134g
62	TMS4044-20JL	4096	1		MNG	200n	200n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML210
63	TMS4044-20NL	4096	1		MNG	200n	200n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML3b
64	TMS4046-20JL	4096	1		MNG	200n	200n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327a	ML2
65	TMS4046-20NL	4096	1		MNG	200n	200n*	649m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327a	ML2
66	MK4104P-4	4096	1		MNG	250n	385n	120mt	0.0	5.0	.80	2.0	5.0m	40		0	7	A303	ML134g
67	TMS4044-25JL	4096	1		MNG	250n	250n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML210
68	TMS4044-25NL	4096	1		MNG	250n	250n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML3b
69	TMS4046-25JL	4096	1		MNG	250n	250n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327a	ML2
70	TMS4046-25NL	4096	1		MNG	250n	250n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327a	ML2
71	MK4104P-5	4096	1		MNG	300n	480n	120mt	0.0	5.0	.80	2.0	5.0m	40		0	7	A303	ML134g
72	TMS4044-30JL	4096	1		MNG	300n	300n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML210
73	TMS4044-30NL	4096	1		MNG	300n	300n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A327	ML3b
74	TMS4046-30JL	4096	1		MNG	300n	300n*	495m	0.0	5.0	.80	2.0s	2.0m	40		0	7	A32	

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION		3 M O D E	4 STRUC TURE CODE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		1 No. WORDS	2 BITS PER WORD						NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)			-	+	LOGIC/ BLOCK	OUTLINE
1	C2108-4	8192	1	D	MNX	300n	425n*	1.2	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A295	ML140g		
2	D2108-4	8192	1	D	MNX	300n	425n*	1.2	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A295	ML157c		
3	P2108-4	8192	1	D	MNX	300n	425n*	1.2	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A295	ML127v		
4▼	MCM6616L3	16384	1	D	MN	200n	375n	600m	5.0	12	80	2.7	4.2m	.40	500 Δ	0 7	A299	ML145		
5▼	MCM6616P3	16384	1	D	MN	200n	375n	600m	5.0	12	80	2.7	4.2m	.40	500 Δ	0 7	A299	ML98b		
6▼	MCM6616L4	16384	1	D	MN	250n	400n	600m	5.0	12	80	2.7	4.2m	.40	500 Δ	0 7	A299	ML145		
7▼	MCM6616P4	16384	1	D	MN	250n	400n	600m	5.0	12	80	2.7	4.2m	.40	500 Δ	0 7	A299	ML98b		
8▼	MCM6616L5	16384	1	D	MN	300n	450n	600m	5.0	12	80	2.7	4.2m	.40	500 Δ	0 7	A299	ML145		
9▼	MCM6616P5	16384	1	D	MN	300n	450n	600m	5.0	12	80	2.7	4.2m	.40	500 Δ	0 7	A299	ML98b		
10▼	MK4116P-1	16384	1	D	MNG	130n	320n	462m	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A299	ML225		
11#	MB8116H	16384	1	D	MNG	150n	375n*	462m	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A282	ML140f		
12	MK4116P-2	16384	1	D	MNG	150n	375n*	462m†	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A299	ML225		
13	C2116-2	16384	1	D	MNG	200n	350n*	900m	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A266	ML140g		
14▼#	HM4716-3	16384	1	D	MNG	200n	375n*	602m	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A99f	ML89h		
15▼	IM7116-3CDE	16384	1	D	MNG	200n	375n*	600m	5.0	12	80	2.4	3.2m	.40	500 Δ	0 7	A266	ML225		
16▼	IM7116A-3CDE	16384	1	D	MNG	200n	375n*	600m	5.0	12	80	2.4	3.2m	.40	500 Δ	0 7	A266	ML225		
17#	MB8116E	16384	1	D	MNG	200n	375n*	462m	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A282	ML140f		
18	MK4116P-3	16384	1	D	MNG	200n	375n*	462m†	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A299	ML225		
19	C2116	16384	1	D	MNG	250n	375n*	900m	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A266	ML140g		
20	C2116-3	16384	1	D	MNG	250n	375n*	1.2	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A266	ML140g		
21▼#	HM4716-4	16384	1	D	MNG	250n	375n*	602m	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A99f	ML89h		
22▼	IM7116-4CDE	16384	1	D	MNG	250n	385n*	600m	5.0	12	80	2.4	3.2m	.40	500 Δ	0 7	A266	ML225		
23▼	IM7116A-4CDE	16384	1	D	MNG	250n	385n*	600m	5.0	12	80	2.4	3.2m	.40	500 Δ	0 7	A266	ML225		
24	MK4116P-4	16384	1	D	MNG	250n	75n\$	1.0	5.0	12	80	2.4	10uΔ	0.0	500 Δ	0 7	A99f	ML		
25	C2116-4	16384	1	D	MNG	300n	425n*	900m	5.0	12	80	2.4	4.1m	.40	500 Δ	0 7	A266	ML140g		
26▼#	M58759S	16384	1	D	MNX	200n	375n	462m	5.0	12	80	2.4	4.2m	.40	500 Δ	0 7	A99f	ML		
27	uPD416D	16384	1	D	MNX	300n	500n*	720m†	5.0	12	60	2.4	2.0m	.40	500 Δ	0 7	A99f	ML		

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.VDS(2)No.BITS/WD(3)OP.MODE PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION		MODE	OP 4	5	MAX OPER. POWER (W)	RATED SUP. SPAN	INPUT LOGIC LEVELS	MIN OUTPUT		OPER. TEMP. RANGE	GENERAL DESCRIPTION		DRAWINGS								
			1	2							3	4		5	6	7	8	9	10	11	12	13	14	15
1	MS109	1	9	1	TAX		70n	0.0	5.0				0	7	Pr Non-Vol		CY8							
2	MS113	1	13	1	TAX		70n	0.0	5.0				0	7	Pr Non-Vol		ML1							
3	MS116	1	16	1	TAX		70n	0.0	5.0				0	7	Pr Non-Vol		ML1							
4	MS208	2	4	2	TAX		70n	0.0	5.0				0	7	Pr Non-Vol		ML1							
5	MS204	4	2	4	BAX		50m†	8.5m	5.0	1.4	20		0	7	PR Non-Vol RMM	B141	CY7b							
6	RM15	8	2	4	TAX		50m†	8.5m	5.0	2.0	80		0	7	PR Non-Vol RMM	B138	ML82							
7	MS115	15	1	1	TAX		50m†	8.5m	5.0	1.4	20		0	7	PR Non-Vol RMM	B140	ML82							
8	RM15Y	15	1	1	TAX		50m†	8.5m	5.0	2.0	80		0	7	PR Non-Vol RMM	B139	ML82							
9	RM32	15	1	1	TAX		50m†	8.5m	5.0	2.0	80		0	7	PR Non-Vol RMM	B137	ML82							
10	MCM4000L	16	8	8	BDX		45n	365m	0.0	45%	2.5	16m	45	0	7		B24	ML5						
11	MCM4000P	16	8	8	BDX		45n	365m	0.0	45%	2.5	12m	80	0	7		B24	ML145						
12	MCM4300L	16	8	8	BDX		45n	365m	0.0	45%	2.5	16m	45	0	7		B24	ML5						
13	RM256A#5	16	8	8	TAX		50m†	8.5m	0.0	2.0	80		0	7	PR Non-Vol RMM	B59	ML14							
14	MS488J	32	2	2	BTX		20m†	240m†	0.0	80	2.0	12m	40	0	7		B21	ML127f						
15	DM5488V	32	2	2	BTX		20m†	240m†	0.0	80	2.0	12m	40	0	7		B21	ML178						
16	DM5488W	32	2	2	BTX		20m†	240m†	0.0	80	2.0	12m	40	0	7		B21	FL39						
17	DM7488J	32	2	2	BTX		20m†	240m†	0.0	80	2.0	12m	40	0	7		B21	ML127f						
18	DM7488W	32	2	2	BTX		20m†	240m†	0.0	80	2.0	12m	40	0	7		B21	ML178						
19	DM7488V	32	2	2	BTX		20m†	240m†	0.0	80	2.0	12m	40	0	7		B21	FL39						
20	DM7598N	32	2	2	BTX		20m†	350m†	0.0	80	2.0	12m	40	0	7		B154	ML178						
21	6230-1J	32	2	2	BTX		50n	500m†	0.0	80	2.0	16m	50	0	7		B132	ML157						
22	6231-1J	32	2	2	BTX		50n	625m†	0.0	80	2.0	16m	50	0	7		B132	ML157						
23	DM8598J	32	2	2	BTX		50n	350m†	0.0	80	2.0	12m	40	0	7		B154	ML127f						
24	DM8598N	32	2	2	BTX		50n	350m†	0.0	80	2.0	12m	40	0	7		B154	ML178						
25	MCM4002L	32	2	2	BTX		50n	500m	0.0	45%	2.5	12m	45	0	7		B60	ML5						
26	MCM4002P	32	2	2	BTX		50n	500m	0.0	45%	2.5	12m	45	0	7		B60	ML145						
27	N7488B	32	2	2	BTX		50n	400m	0.0	40%	2.4	16m	40	0	7	PROM	B67	ML132						
28	N7488W	32	2	2	BTX		50n	400m	0.0	40%	2.4	16m	40	0	7	PROM	B67	FL25						
29	N8224B	32	2	2	BTX		50n	400m	0.0	40%	2.4	9.6m	40	0	7		B67	ML89a						
30	N8224F	32	2	2	BTX		50n	400m	0.0	40%	2.4	9.6m	40	0	7		B67	ML60a						
31	N8224W	32	2	2	BTX		50n	400m	0.0	40%	2.4	9.6m	40	0	7		B67	FL25						
32	S8224B	32	2	2	BTX		50n	400m	0.0	40%	2.4	9.6m	40	0	7		B67	ML89a						
33	S8224F	32	2	2	BTX		50n	400m	0.0	40%	2.4	9.6m	40	0	7		B67	ML60a						
34	S8224W	32	2	2	BTX		50n	400m	0.0	40%	2.4	9.6m	40	0	7		B67	FL25						
35	T1540D1	32	2	2	BTX		50n	400m	0.0	80	2.0	10m	45	0	7		B20	ML60						
36	5230-1J	32	2	2	BTX		60n	500m†	0.0	80	2.0	10m	50	0	7		B132	ML157						
37	5231-1J	32	2	2	BTX		60n	625m†	0.0	80	2.0	10m	50	0	7		B132	ML157						
38	DM7598J	32	2	2	BTX		65n	350m†	0.0	5.0	80	2.0	12m	40	0	7		B154	ML127f					
39	10139F	32	2	2	BEX		20n	580m†	5.2	0.0	-1.6%	-96	12m	40	3	8	PR	B149	ML127m					
40	HM7602-5	32	8	8	BTD		40n	650m	0.0	5.0	80	2.0	15m	45	0	7		B156	ML15					
41	HM7603-5	32	8	8	BTD		40n	650m	0.0	5.0	80	2.0	15m	45	0	7		B156	ML15					
42	AM27S08DM	32	8	8	BTD		50n	500m	0.0	5.0	80	2.0	16m	45	0	7	PROM	B175	ML127k					
43	AM27S08DM	32	8	8	BTD		50n	500m	0.0	5.0	80	2.0	16m	45	0	7	PROM	B175	ML127k					
44	AM27S09DC	32	8	8	BTD		50n	550m	0.0	5.0	80	2.0	16m	45	0	7	PROM	B175	ML127k					
45	AM27S09DM	32	8	8	BTD		50n	550m	0.0	5.0	80	2.0	16m	45	0	7	PROM	B175	ML127k					
46	HM7602-2	32	8	8	BTD		50n	650m	0.0	5.0	80	2.0	15m	45	0	7		B156	ML15					
47	HM7602-8	32	8	8	BTD		50n	650m	0.0	5.0	80	2.0	15m	45	0	7		B156	ML15					
48	HM7603-2	32	8	8	BTD		50n	650m	0.0	5.0	80	2.0	15m	45	0	7		B156	ML15					
49	HM7603-8	32	8	8	BTD		50n	650m	0.0	5.0	80	2.0	15m	45	0	7		B156	ML15					
50	DM7577J	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML127f					
51	DM7577N	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML178					
52	DM7578J	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML127f					
53	DM7578N	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML178					
54	DM8577J	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML127f					
55	DM8577N	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML178					
56	DM8578J	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML127f					
57	DM8578N	32	8	8	BTX		35n†	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML178					
58	6330-1J	32	8	8	BTX		50n	500m†	0.0	5.0	80	2.0	16m	50	0	7	Fid Prog	B132	ML157					
59	6331-1J	32	8	8	BTX		50n	625m†	0.0	5.0	80	2.0	16m	50	0	7	Fid Prog	B132	ML157					
60	DM7577D	32	8	8	BTX		50n	550m	0.0	5.0	80	2.0	12m	40	5	7	Field Program	B168	ML177					
61	DM7578D	32	8	8	BTX		50n	550m	0.0	5.0	80	2.0	12m	40	5	7	Field Program	B168	ML177					
62	DM8577D	32	8	8	BTX		50n	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML177					
63	DM8578D	32	8	8	BTX		50n	550m	0.0	5.0	80	2.0	12m	40	0	7	Field Program	B168	ML177					
64	HPROM8256-2	32	8	8	BTX		50n	500m	0.0	5.0	90	2.0	10m	40	5	7		B70	ML15					
65	HPROM8256-5	32	8	8	BTX		50n	550m	0.0	5.0	85	1.9	10m	45	0	7		B70	ML15					
66	HPROM8256-8	32	8	8	BTX		50n	500m†	0.0	5.0	90	2.0	10m	40	5	7		B70	ML15					
67	IM5600CDE	32	8	8	BTX		50n	500m	0.0	5.0	85	1.8	20m	45	0	7		B1	ML1a					
68	IM5600CPE	32	8	8	BTX		50n	500m	0.0	5.0	85	1.8	20m	45	0	7		B1	ML89					
69	IM5600MDE	32	8	8	BTX		50n	500m	0.0	5.0	85	1.7	20m	45	5	7		B1	ML1a					
70	IM5600MFE	32	8	8	BTX		50n	500m	0.0	5.0	85	1.7	20m	45	5	7		B1	FL27					
71	IM5610CDE	32	8	8	BTX		50n	350m	0.0	5.0	85	1.8	20m	45	0	7		B1	ML1a					
72	IM5610CPE	32	8	8	BTX		50n	350m	0.0	5.0	85	1.8	20m	45	0	7		B1	ML89					
73	IM5610MDE	32	8	8	BTX		50n	350m	0.0	5.0	85	1.7	20m	45	5	7		B1	ML1a					
74	IM5610MFE	32	8	8	BTX		50n	500m	0.0	5.0	85	1.7	20m	45	5	7		B1	FL27					
75	M54730S	32	8	8	BTX		50n	400m	0.0	5.0	80	2.0	16m	45	0	7		B53	ML140a					
76	MB7051	32	8	8	BTX		50n	530m	0.0	5.0	80	2.0	16m	45	0	7	PROM	B1	ML4k					
77	MB7056	32	8	8	BTX		50n	530m	0.0	5.0	80	2.0	16m	45	0	7	PROM	B1	ML4k					
78	N82S23B	32	8	8	BTX		50n	385m	0.0	5.0	85	2.0	16m	45	0	7	PROM	B196	ML132					
79	N82S23F	32	8	8	BTX		50n	385m	0.0	5.0	85	2.0	16m	45	0	7	PROM	B196	ML127m					
80	N82S123B	32	8	8	BTX		50n	385m	0.0	5.0	85	2.0	16m	45	0	7	PROM	B196	ML132					
81	N82S123F	32	8	8	BTX		50n	385m	0.0	5.0	85	2.0	16m	45	0	7	PROM	B196	ML127m					
82	N8223B	32	8	8	BTX																			

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		OP MODE		MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS		
		1 No. WORDS	2 BITS PER WORD	3 PROG. CODE	4 STRUCTURE CODE			NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)			LOGIC/BLOCK	OUTLINE	
1	MCM5304L	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	10m	4.7	5	C	B61	ML133	
2	JANM38510/20101AJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
3	JANM38510/20101AJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
4	JANM38510/20101AJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
5	JANM38510/20101AKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
6	JANM38510/20101AKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
7	JANM38510/20101AKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
8	JANM38510/20101AZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
9	JANM38510/20101AZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
10	JANM38510/20101AZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
11	JANM38510/20101BJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
12	JANM38510/20101BJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
13	JANM38510/20101BJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
14	JANM38510/20101BKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
15	JANM38510/20101BKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
16	JANM38510/20101BKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
17	JANM38510/20101BZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
18	JANM38510/20101BZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
19	JANM38510/20101BZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
20	JANM38510/20101CJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
21	JANM38510/20101CJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
22	JANM38510/20101CJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
23	JANM38510/20101CKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 ML126	
24	JANM38510/20101CKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
25	JANM38510/20101CKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
26	JANM38510/20101CZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL29	
27	JANM38510/20101CZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
28	JANM38510/20101CZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
29	JANM38510/20102AJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105 FL30	
30	JANM38510/20102AJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
31	JANM38510/20102AJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
32	JANM38510/20102AKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
33	JANM38510/20102AKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
34	JANM38510/20102AKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
35	JANM38510/20102AZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
36	JANM38510/20102AZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
37	JANM38510/20102AZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
38	JANM38510/20102BJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
39	JANM38510/20102BJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
40	JANM38510/20102BJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
41	JANM38510/20102BKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
42	JANM38510/20102BKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
43	JANM38510/20102BKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
44	JANM38510/20102BZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
45	JANM38510/20102BZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
46	JANM38510/20102BZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
47	JANM38510/20102CJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
48	JANM38510/20102CJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
49	JANM38510/20102CJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
50	JANM38510/20102CKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a ML126	
51	JANM38510/20102CKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
52	JANM38510/20102CKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL29	
53	JANM38510/20102CZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
54	JANM38510/20102CZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
55	JANM38510/20102CZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m		5	C	PROM	B105a FL30	
56	HRM2048	64	32	SE	TAX	240n	400m	0.0	5.0	.80	2.0	30m		0	7	PROM Programmable	B105a B91	ML113

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS(WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION		3 MODE	4 STRUCTURE	5 MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS			
		1 No. WORDS	2 BITS PER WORD					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ (V)			LOGIC/BLOCK	OUTLINE		
1	HRM2048#6	64\$	32\$	SE	TAX	500n	640m	0.0	5.0	2.0	.80				PR Non-Vol RMM	B91	ML113		
2	ER1400	100	14	SE	MPN	3.0m	300m	35	0.0	-8.0	-1.0				Serial I/O	B236	TO8		
3	RM256A#2	128\$	2\$	SE	TAX	50nt	8.5m	0.0	5.0	2.0	.80				PR Non-Vol RMM	B59	ML14		
4	UC7526	128	8	SC	MPA	1.5u	130m	27	0.0	-2.0	-9.0	1.6m	-15	0			B19	ML31a	
5	R06-1024/8	128	8	SC	MPN	1.0u	12	5.0		.80	3.5\$	1.6m	.40	5			B233b	ML34e	
6	R07-1024/8	128	8	SC	MPN	1.0u	12	5.0		.80	3.5\$	1.6m	.40	0			B233b	ML216b	
7	N2420Y#1	128\$	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2			B26a	ML21b	
8	N2421Y#1	128\$	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2			B26a	ML21b	
9	N2425Y#1	128\$	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2			B26c	ML21b	
10	N2426Y#1	128\$	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2			B26c	ML21b	
11	MM4220D#1	128\$	8\$	SC	MPX	650n	300m	12	12	10*	4.0#			5	C		B26a	ML128	
12	MM4220J#1	128\$	8\$	SC	MPX	650n	300m	12	12	10*	4.0#			5	C		B26a	ML133a	
13	MM5220D#1	128\$	8\$	SC	MPX	650n	300m	12	12	10*	4.0#			2	7		B26a	ML128	
14	MM5220J#1	128\$	8\$	SC	MPX	650n	300m	12	12	10*	4.0#			2	7		B26a	ML133a	
15	MM5220N#1	128\$	8\$	SC	MPX	650n	300m	12	12	10*	4.0#			2	7		B26a	ML183	
16	UC65253K#1	128\$	8	SC	MPX	900n	15m	5.0	5.0	.80	2.6	1.6m	.40	5	C		B9k	ML31a	
17	UC65254K#1	128\$	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	5	C		B9k	FL3a	
18	UC75253K#1	128\$	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	0	7		B9k	ML31a	
19	UC75254K#1	128\$	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	0	7		B9k	ML31a	
20	MM4221J#1	128\$	8\$	SC	MPX	950n	204m	12	5.0	3.0*	.80#			5	C		B26a	ML133a	
21	MM5221J#1	128\$	8\$	SC	MPX	950n	204m	12	5.0	3.0*	.80#			0	7		B26a	ML133a	
22	MM5221N#1	128\$	8\$	SC	MPX	950n	204m	12	5.0	3.0*	.80#			0	7		B26a	ML183	
23	MM3501D	128	8	SC	MPX	4.0u	2.15m	27	0.0	-2.0	-9.0	10u	-1.0	0	7		B107	ML128	
24	MM3501J	128	8	SC	MPX	4.0u	2.15m	27	0.0	0.0	-9.0#			0	7		B107	ML133a	
25	MM3501N	128	8	SC	MPX	4.0u	2.15m	27	0.0	0.0	-9.0#			0	7		B107	ML183	
26#	uPD501D	128	8	SC	MPX	4.0u	2.15m	24	0.0	-2.5%	-9.0#			1	7		B217	ML205	
27#	3501-9-6G	128	8	SC	MPX	4.2u	2.15m	27	0.0	-2.0	-9.0	1.0u	-15	0	7		B19	ML51	
28	UA2525D#1	128	8	SC	MXX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	5	C		B9	ML31a	
29	UA3525D#1	128	8	SC	MXX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	2	7		B9	ML31a	
30	UA3525F#1	128	8	SC	MXX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	2	7		B9	FL3a	
31	HRM2048#5	128\$	16\$	SE	TAX	500n	640m	0.0	5.0	2.0	.80			0	7		PR Non-Vol RMM	B91	ML113
32	RM256A#1	256\$	1\$	SE	TAX	50nt	8.5m	0.0	5.0	2.0	.80			5	7		PR Non-Vol RMM	B59	ML14
33	DM7597D	256	4	S	BTX	60n\$	550m	0.0	5.0	.80	2.0\$	16m	.40	5	C		B153	ML177	
34	DM7574D	256	4	S	BTX	85n\$	550m	0.0	5.0	.80	2.0\$	16m	.40	5	C		B80	ML177	
35	DM7574J	256	4	S	BTX	85n\$	550m	0.0	5.0	.80	2.0\$	16m	.40	5	C		B80	ML127f	
36	DM8574D	256	4	S	BTX	85n\$	550m	0.0	5.0	.80	2.0\$	16m	.40	0	7		B80	ML177	
37	DM8574J	256	4	S	BTX	85n\$	550m	0.0	5.0	.80	2.0\$	16m	.40	0	7		B80	ML127f	
38#	GXB10149	256	4	SC	BEX	25n\$	570m	5.2	0.0	-1.71	-.881	50m		0	7		B266	ML176	
39	MCM10149AL	256	4	SC	BEX	25n\$	676m	5.2	0.0	-1.6%	-.89			3	8		B145	ML98	
40#	SFC70301K	256	4	SC	BTC	60n	650m	0.0	5.0	.85	2.0	15m	.45	0	7		B80	ML139	
41#	SFC70301KM	256	4	SC	BTC	60n	650m	0.0	5.0	.85	2.0	15m	.45	5	C		B80	ML139	
42#	SFC70301KT	256	4	SC	BTC	60n	650m	0.0	5.0	.85	2.0	15m	.45	2	8		B80	ML139	
43	DM54S187J	256	4	SC	BDT	30nt	650m	0.0	5.0	.80	2.0Δ	16m	.50	5	C		B80	ML127f	
44	DM74S187J	256	4	SC	BDT	30nt	650m	0.0	5.0	.80	2.0Δ	16m	.45	0	7		B80	ML127f	
45	DM74S187N	256	4	SC	BDT	30nt	650m	0.0	5.0	.80	2.0Δ	16m	.45	0	7		B80	ML178	
46	DM75S97J	256	4	SC	BDT	30nt	650m	0.0	5.0	.80	2.0\$	16m	.50	5	C		B80	ML127f	
47	DM85S97J	256	4	SC	BDT	30nt	650m	0.0	5.0	.80	2.0\$	16m	.45	0	7		B80	ML127f	
48	DM85S97N	256	4	SC	BDT	30nt	650m	0.0	5.0	.80	2.0\$	16m	.45	0	7		B80	ML178	
49	6200-1J	256	4	SC	BDT	45n	625m	0.0	5.0	.80	2.0Δ	16m	.50	0	7		B50	ML127e	
50	6201-1J	256	4	SC	BDT	45n	625m	0.0	5.0	.80	2.0\$	16m	.50	0	7		B50	ML127e	
51*	93457DC	256	4	SC	BDT	45n	550m	0.0	5.0	.80	2.0Δ	16m	.45	0	7		B123	ML1k	
52*	93457FC	256	4	SC	BDT	45n	550m	0.0	5.0	.80	2.0Δ	16m	.45	0	7		B123	FL14	
53*	93457PC	256	4	SC	BDT	45n	550m	0.0	5.0	.80	2.0Δ	16m	.45	0	7		B123	ML170	
54*	93467DC	256	4	SC	BDT	45n	550m	0.0	5.0	.80	2.0\$	16m	.45	0	7		B123	ML1k	
55*	93467FC	256	4	SC	BDT	45n	550m	0.0	5.0	.80	2.0\$	16m	.45	0	7		B123	FL14	
56*	93467PC	256	4	SC	BDT	45n	550m	0.0	5.0	.80	2.0\$	16m	.45	0	7		B123	ML170	
57	D3301A	256	4	SC	BDT	45n	625m	0.0	5.0	.85	2.0	15m	.45	0	7		B126k	ML127a	
58	P3301A	256	4	SC	BDT	45n	656m	0.0	5.0	.85	2.0	15m	.45	0	7		B126g	ML4j	
59	5200-1J	256	4	SC	BDT	60n	650m	0.0	5.0	.80	2.0Δ	10m	.50	5	C		B50	ML127e	
60	5201-1J	256	4	SC	BDT	60n	650m	0.0	5.0	.80	2.0\$	10m	.50	5	C		B50	ML127e	
61*	93457DM	256	4	SC	BDT	60n	550m	0.0	5.0	.80	2.0Δ	16m	.45	5	C		B123	ML1k	
62*	93457FM	256	4	SC	BDT	60n	550m	0.0	5.0	.80	2.0Δ	16m	.45	5	C		B123	FL14	
63*	93467DM	256	4	SC	BDT	60n	550m	0.0	5.0	.80	2.0\$	16m	.45	5	C		B123	ML1k	
64*	93467FM	256	4	SC	BDT	60n	550m	0.0	5.0	.80	2.0\$	16m	.45	5	C		B123	FL14	
65	H5201D	256	4	SC	BDT	60n	650m	0.0	5.0	.80	2.0\$	10m	.50	5	C		B50	ML158	
66	H5201N	256	4	SC	BDT	60n	650m	0.0	5.0	.80	2.0\$	10m	.50	5	C		B50	ML157	
67	P3301	256	4	SC	BDT	90n	650m	0.0	5.0	.85	2.0	15m	.45	0	7		B126g	ML10b	
68	DM7597J	256	4	SC	BTX	35nt	550m	0.0	5.0	.80	2.0\$	16m	.40	5	C		B153	ML127f	
69	DM7597N	256	4	SC	BTX	35nt	550m	0.0	5.0	.80	2.0\$	16m	.40	5	C		B106	ML2e	
70	N82526F	256	4	SC	BTX	35nt	685m	0.0	5.0	2.0	.85	16m	.50	0	7		PROM	B87	ML127m
71	N82529F	256	4	SC	BTX	35nt	760m	0.0	5.0	2.0	.85	16m	.50	0	7		PROM	B87	ML127m
72	DM54187D	256</																	

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)NO.WDS(2)NO.BITS(WD/3)OP.MODE PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE NO.

LINE No.	TYPE No.	ORGANIZATION				MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS	
		1 No. WORDS	2 BITS PER WORD	3 MODE CODE	4 OP. STRUC. TURE CODE			NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	(V)			LOGIC/BLOCK	OUTLINE
1	N2425Y#2	256	4	SC	MPX	500n†	1.1	12	12	10*	4.0					B26c	ML21b
2	N2425Y#2	256	4	SC	MPX	500n†	1.1	12	12	10*	4.0					B26c	ML21b
3	MM4220D#2	256	4	SC	MPX	650n‡	300m‡	12	12	10*	4.0#					B26a	ML128
4	MM4220D#2	256	4	SC	MPX	650n‡	300m‡	12	12	10*	4.0#					B26a	ML133a
5	MM5220D#2	256	4	SC	MPX	650n‡	300m‡	12	12	10*	4.0#					B26a	ML128
6	MM5220D#2	256	4	SC	MPX	650n‡	300m‡	12	12	10*	4.0#					B26a	ML133a
7	UC65253K#3	256	4	SC	MPX	900n	150m‡				4.0#					B26a	ML183
8	UC65253K#3	256	4	SC	MPX	900n	150m‡	5.0	5.0	80	2.6	1.6m	40			B9n	ML31a
9	UC65254K#3	256	4	SC	MPX	900n	150m‡	5.0	5.0	80	2.6	1.6m	40			B9n	FL3a
10	UC75253K#3	256	4	SC	MPX	900n	150m‡	5.0	5.0	80	2.6	1.6m	40			B9n	ML31a
11	UC75254K#3	256	4	SC	MPX	900n	150m‡	5.0	5.0	80	2.6	1.6m	40			B9n	ML31a
12	MM4221J#2	256	4	SC	MPX	950n‡	204m‡	12	12	10*	4.0#					B26a	ML133a
13	MM5221J#2	256	4	SC	MPX	950n‡	204m‡	12	12	10*	4.0#					B26a	ML133a
14	MM5221N#2	256	4	SC	MPX	950n‡	204m‡	12	12	10*	4.0#					B26a	ML183
15	JA2525D#2	256	4	SC	MPX	900n	360m	10	10	80	2.7	1.6m	40			B9	ML31a
16	JA3525F#2	256	4	SC	MPX	900n	360m	10	10	80	2.7	1.6m	40			B9	ML31a
17	JA3525F#2	256	4	SC	MPX	900n	360m	10	10	80	2.7	1.6m	40			B9	FL3a
18	F10416DC	256	4	SE	BTX	15n†		5.2	0.0	-1.4	-1.1					PROM	B268
19	F10416FC	256	4	SE	BTX	15n†		5.2	0.0	-1.4	-1.1					PROM	B268
20	F10046DC	256	4	SE	BTX	15n†		5.2	0.0	-1.4	-1.1					PROM	B268
21	F10046FC	256	4	SE	BTX	15n†		5.2	0.0	-1.4	-1.1					PROM	B268
22	10149F	256	4	SE	BTX	20n	750m	5.2	0.0	-1.5	-1.1	20m	-1.1			Field Program	B200a
23	DM54S287D	256	4	SE	BTX	30n†	650m	0.0	5.0	80	2.0	16m	50			Field Program	B135
24	DM54S287J	256	4	SE	BTX	30n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
25	DM54S287D	256	4	SE	BTX	30n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
26	DM74S287J	256	4	SE	BTX	30n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
27	DM74S287N	256	4	SE	BTX	30n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
28	DM54S387J	256	4	SE	BTX	35n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
29	DM74S387J	256	4	SE	BTX	35n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
30	DM74S387N	256	4	SE	BTX	35n†	675m	0.0	5.0	80	2.0	16m	50			Field Program	B135
31	93417DC	256	4	SE	BTX	45n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
32	93417FC	256	4	SE	BTX	45n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
33	93417PC	256	4	SE	BTX	45n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
34	93427DC	256	4	SE	BTX	45n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
35	93427FC	256	4	SE	BTX	45n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
36	93427PC	256	4	SE	BTX	45n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
37	D3601-1	256	4	SE	BTX	50n‡	650m‡	0.0	5.0	85	2.0	15m	45			PROM	B126k
38	D3621-1	256	4	SE	BTX	50n‡	650m‡	0.0	5.0	85	2.0	15m	45			PROM	B126k
39	29662DC	256	4	SE	BTX	60n	682m	4.75	5.25	80	2.0	16m	45			PROM	B126k
40	29663DC	256	4	SE	BTX	60n	236m	4.50	5.50	80	2.0	16m	45			PROM	B126k
41	93417DM	256	4	SE	BTX	60n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
42	93417FM	256	4	SE	BTX	60n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
43	93427DM	256	4	SE	BTX	60n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
44	93427FM	256	4	SE	BTX	60n	550m	0.0	5.0	80	2.0	16m	45			Field Program	B123
45	AM27S10DC	256	4	SE	BTX	60n	550m	0.0	5.0	80	2.0	16	45			PROM	B176
46	AM27S10DM	256	4	SE	BTX	60n	550m	0.0	5.0	80	2.0	16	45			PROM	B176
47	AM27S11DC	256	4	SE	BTX	60n	600m	0.0	5.0	80	2.0	16	45			PROM	B176
48	AM27S11DM	256	4	SE	BTX	60n	600m	0.0	5.0	80	2.0	16	45			PROM	B176
49	HM7610-5	256	4	SE	BTX	60n	650m	0.0	5.0	80	2.0	15m	45			Field Program	B157
50	HM7611-5	256	4	SE	BTX	60n	650m	0.0	5.0	80	2.0	15m	45			Field Program	B157
51	29660DC	256	4	SE	BTX	70n	682m	4.75	5.25	80	2.0	16m	45			PROM	B126k
52	29661DC	256	4	SE	BTX	70n	682m	4.75	5.25	80	2.0	16m	45			PROM	B126k
53	D3601	256	4	SE	BTX	70n‡	650m‡	0.0	5.0	85	2.0	15m	45			PROM	B126k
54	D3621	256	4	SE	BTX	70n‡	650m‡	0.0	5.0	85	2.0	15m	45			PROM	B126k
55	29662DM	256	4	SE	BTX	75n	715m	4.50	5.50	80	2.0	16m	45			PROM	B126k
56	29663DM	256	4	SE	BTX	75n	248m	4.50	5.50	80	2.0	16m	45			PROM	B126k
57	HM7610-2	256	4	SE	BTX	75n	650m	0.0	5.0	80	2.0	15m	45			Field Program	B157
58	HM7610-8	256	4	SE	BTX	75n	650m	0.0	5.0	80	2.0	15m	45			Field Program	B157
59	HM7611-2	256	4	SE	BTX	75n	650m	0.0	5.0	80	2.0	15m	45			Field Program	B157
60	HM7611-8	256	4	SE	BTX	75n	650m	0.0	5.0	80	2.0	15m	45			Field Program	B157
61	29660DM	256	4	SE	BTX	80n	715m	4.50	5.50	80	2.0	16m	45			PROM	B126k
62	29661DM	256	4	SE	BTX	80n	715m	4.50	5.50	80	2.0	16m	45			PROM	B126k
63	MD3601	256	4	SE	BTX	90n	650m	0.0	5.0	80	2.1	16m	45			PROM	B126k
64	N82S27F	256	4	SE	BTX	40n	700m	0.0	5.0	80	2.0	32m	50			PROM	B198
65	HPROM1024-2	256	4	SE	BTX	50n†	500m†	0.0	5.0	80	2.0	15m	45			PROM	B126g
66	HPROM1024-5	256	4	SE	BTX	50n†	500m†	0.0	5.0	80	2.0	15m	45			PROM	B126g
67	HPROM1024-8	256	4	SE	BTX	50n†	500m†	0.0	5.0	80	2.0	15m	45			PROM	B126g
68	HPROM1024A2	256	4	SE	BTX	50n†	500m†	0.0	5.0	80	2.0	15m	45			PROM	B126g
69	HPROM1024A5	256	4	SE	BTX	50n†	500m†	0.0	5.0	80	2.0	15m	45			PROM	B126g
70	HPROM1024A8	256	4	SE	BTX	50n†	500m†	0.0	5.0	80	2.0	15m	45			PROM	B126g
71	N82S126B	256	4	SE	BTX	50n	600m	0.0	5.0	85	2.0	16m	50			PROM	B198
72	N82S126F	256	4	SE	BTX	50n	600m	0.0	5.0	85	2.0	16m	50			PROM	B198
73	N82S129B	256	4	SE	BTX	50n	600m	0.0	5.0	85	2.0	16m	50			PROM	B198
74	N82S129F	256	4	SE	BTX	50n	600m	0.0	5.0	85	2.0	16m	50			PROM	B198
75	5300-1D	256	4	SE	BTX	60n‡	600m‡	0.0	5.0	80	2.0	12m	50			Field Program	B50
76	5300-1J	256	4	SE	BTX	60n‡	600m‡	0.0	5.0	80	2.0	12m	50			Field Program	B50
77	5301-1D	256	4	SE	BTX	60n‡	600m‡	0.0	5.0	80	2.0	12m	50			Field Program	B50
78	6300-1J	256	4	SE	BTX	60n‡	600m‡	0.0	5.0	80	2.0	16m	50			Field Program	B50
79	6301-1J	256	4	SE	BTX	60n‡	600m‡	0.0	5.0	80	2.0	16m	50			Field Program	B50
80	DM7573D	256	4	SE	BTX	60n†	400m†	0.0	5.0	80	2.0	16m	40			Field Program	B80
81	DM8573D	256	4	SE	BTX	60n†	400m†	0.0	5.0	80	2.0	16m	40			Field Program	B80
82	IM5603ACDE	256	4	SE	BTX	60n‡	650m‡	0.0	5.0	80	2.0	16m	45			Field Program	B82
83	IM5603AMDE	256	4	SE	BTX	60n‡	650m‡	0.0	5.0	80	2.0	16m	45			Field Program	B82
84	IM5603AMFE	256	4	SE	BTX	60n‡	650m‡	0.0	5.0	80	2.0	16m	45			Field Program	B82
85	IM5623ACDE	256	4	SE	BTX	60n‡	500m‡	0.0	5.0	85	2.0	16m	45			Field Program	B82
86	IM5623AMDE	256	4	SE	BTX	60n‡	500m‡	0.0	5.0	85	2.0	16m	45			Field Program	B82
87	IM5623AMFE	256	4	SE	BTX	60n‡	500m‡	0.0	5.0	8							

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	1	ORGANIZATION		3	4	5	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS	
				1	No. WORDS						2	BITS PER WORD	MODE PROG CODE	STRUCTURE CODE	NEG. (V)	POS. (V)			MAX '0' (V)	MIN '1' (V)	(A)	@ (V)	LOGIC/BLOCK	OUTLINE
1	▼	JANM38510/20201AFC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
2	▼	JANM38510/20201BEA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
3	▼	JANM38510/20201BEB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
4	▼	JANM38510/20201BEC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
5	▼	JANM38510/20201BFA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
6	▼	JANM38510/20201BFB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
7	▼	JANM38510/20201BFC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
8	▼	JANM38510/20201CEA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
9	▼	JANM38510/20201CEB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
10	▼	JANM38510/20201CEC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
11	▼	JANM38510/20201CEA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
12	▼	JANM38510/20201CFB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
13	▼	JANM38510/20201CFC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
14	▼	JANM38510/20202AEA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
15	▼	JANM38510/20202AEB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
16	▼	JANM38510/20202AEC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
17	▼	JANM38510/20202AFA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
18	▼	JANM38510/20202AFB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
19	▼	JANM38510/20202AFC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
20	▼	JANM38510/20202BEA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
21	▼	JANM38510/20202BEB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
22	▼	JANM38510/20202BEC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
23	▼	JANM38510/20202BFA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
24	▼	JANM38510/20202BFB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
25	▼	JANM38510/20202BFC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
26	▼	JANM38510/20202CEA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
27	▼	JANM38510/20202CEB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
28	▼	JANM38510/20202CEC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	ML143	
29	▼	JANM38510/20202CFA	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
30	▼	JANM38510/20202CFB	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
31	▼	JANM38510/20202CFC	256	4	SE	BTX	100n	715m	0.0	5.5	.80	2.0	16m	.45	5	C	PROM	B253	FL31	
32		HM1-6610-2	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0Δ	2.0m	40	5	C	PROM	B253	FL31	
33		HM1-6610-9	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0Δ	2.0m	40	4	8	Fld Prog-Prom	B207	ML7	
34		HM1-6610B2	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0Δ	2.0m	40	5	C	Fld Prog-Prom	B207	ML7	
35		HM1-6610B9	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0Δ	2.0m	40	4	8	Fld Prog-Prom	B207	ML7	
36		HM1-6611-2	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	ML7	
37		HM1-6611-9	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	ML7	
38		HM1-6611B2	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	ML7	
39		HM1-6611B9	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	ML7	
40		HM1-6612-2	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	ML7	
41		HM1-6612-9	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	ML7	
42		HM1-6612B2	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	ML7	
43		HM1-6612B9	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	ML7	
44		HM9-6610-2	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0Δ	2.0m	40	5	C	Fld Prog-Prom	B207	FL7	
45		HM9-6610-9	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0Δ	2.0m	40	4	8	Fld Prog-Prom	B207	FL7	
46		HM9-6610B2	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0Δ	2.0m	40	5	C	Fld Prog-Prom	B207	FL7	
47		HM9-6610B9	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0Δ	2.0m	40	4	8	Fld Prog-Prom	B207	FL7	
48		HM9-6611-2	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	FL7	
49		HM9-6611-9	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	FL7	
50		HM9-6611B2	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	FL7	
51		HM9-6611B9	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	FL7	
52		HM9-6612-2	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	FL7	
53		HM9-6612-9	256	4	SE	MCG	300n	500u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	FL7	
54		HM9-6612B2	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	5	C	Fld Prog-Prom	B207	FL7	
55		HM9-6612B9	256	4	SE	MCG	300n	50u†	0.0	5.0	.80	3.0s	2.0m	40	4	8	Fld Prog-Prom	B207	FL7	
56		HM1-6610D5	256	4	SE	MCG	550n	4.0m†	0.0	5.0	.80	3.0Δ	2.0m	40	0	7	Fld Prog-Prom	B207	FL7	
57		HM1-6611D5	256	4	SE	MCG	550n	4.0m†	0.0	5.0	.80	3.0s	2.0m	40	0	7	Fld Prog-Prom	B207	ML7	
58		HM1-6612D5	256	4	SE	MCG	550n	4.0m†	0.0	5.0	.80	3.0s	2.0m	40	0	7	Fld Prog-Prom	B207	ML7	
59		ER1105	256	4	SE	MPN	2.0u	288m	12	12	3.0	10.5	3.4m	11.5	2	7	Non-Vol EAROM	B235	ML216b	
60		NC7050	256	4	SE	MXN	1.0u	900m	15	15	1.0	14s	1.6m	40	0	7	Non-Vol EAROM	B241	ML7	
61		MCS1007	256	8	DC	MPX	20uΔ	180m	12	5.0	.80	3.5	1.6m	40	2	8	KE 64 key	B113	ML14b	
62		DM54S271N	256	8	SC	BTD	35n†	750m	0.0	5.0	.80	2.0Δ	16m	50	5	C		B134	ML253	
63		DM54S371N	256	8	SC	BTD	35n†	750m	0.0	5.0	.80	2.0s	16m	50	5	C		B134	ML253	
64		DM72S04J	256	8	SC	BTD	35n†	850m	0.0	5.0	.80	2.0s	12m	50	5	C		B244	ML183a	
65		DM74S271N	256	8	SC	BTD	35n†	750m	0.0	5.0	.80	2.0Δ	16m	50	0	7		B134	ML253	
66		DM74S371N	256	8	SC	BTD	35n†	750m	0.0	5.0	.80	2.0s	16m	50	0	7		B134	ML253	
67		DM75S202N	256	8	SC	BTD	35n†	825m	0.0	5.0	.80	2.0s	12m	50	5	C		B243	ML253	
68		DM82S04J	256	8	SC	BTD	35n†	850m	0.0	5.0	.80	2.0s	12m	45	0	7		B244	ML183a	
69		DM82S04N	256	8	SC	BTD	35n†	850m	0.0	5.0	.80	2.0s	12m	45	0	7		B244	ML183	
70		DM85S202N	256	8	SC	BTD	35n†	825m	0.0	5.0	.80	2.0s	12m	45	0	7		B243	ML253	
71		N82S2141	256	8	SC	BTD	60n	875m	0.0	5.0	.85	2.0s	9.6m	50	0	7		B199b	ML150b	
72		S82S2141	256	8	SC	BTD	90n	925m	0.0	5.0	.80	2.0s	9.6m	50	5	C		B199b	ML150b	
73		N8204Y	256	8	SC	BTX	75n	850m	0.0	5.0	.85*	2.0†s	9.6m	50	0	7		B32a	ML47e	
74		uPD464D	256	8	SC	MNG	450n	520m†	12	12	.70	2.4s	1.7m	40	0	7		B220	ML205	
75		3512-9-7C	256	8	SC	MNG	600n	1.0u	12	5.0	.80	4.0								

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		MODE		STRUCTURE		MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS	
		No. WORDS	PER WORD	PROG. CODE	STRUCTURE CODE	NEG. (V)	POS. (V)			MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)	LOGIC/BLOCK	OUTLINE				
1	MK3602P-1	256	8	SC	MPG	550nt	2.0	9.0	5.0	65	3.0#	1.0uΔ	0.0	0	7	Non-Erasable	B208	ML191	
2	MK3702T-1	256	8	SC	MPG	550nt	2.0	9.0	5.0	65	3.0#	1.0uΔ	0.0	0	7	Erasable Prom	B208	ML191	
3	MK3602P-2	256	8	SC	MPG	750nt	2.0	9.0	5.0	65	3.0#	1.0uΔ	0.0	0	7	Non-Erasable	B208	ML191	
4	MK3702T-2	256	8	SC	MPG	750nt	2.0	9.0	5.0	65	3.0#	1.0uΔ	0.0	0	7	Erasable Prom	B208	ML224	
5	C1302	256	8	SC	MPG	1.0u	2.0	9.0	5.0	1.0	3.0#	1.6m	.45	0	7		B18a	ML34c	
6	MK3602P-3	256	8	SC	MPG	1.0u	2.0	9.0	5.0	65	3.0#	1.0uΔ	0.0	0	7	Non-Erasable	B208	ML191	
7	MK3702T-3	256	8	SC	MPG	1.0u	2.0	9.0	5.0	65	3.0#	1.0uΔ	0.0	0	7	Erasable Prom	B208	ML224	
8	P1302	256	8	SC	MPG	1.0u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	7		B18a	ML118f	
9	RO5-1302	256	8	SC	MPN	1.5u	12	5.0	80	3.5#	1.6m	.40	0	7		B233	ML216b		
10	RO6-2048/8	256	8	SC	MPN	1.5u	12	5.0	80	3.5#	1.6m	.40	5	C		B233d	ML34e		
11	RO7-2048/8	256	8	SC	MPN	1.5u	12	5.0	80	3.5#	1.6m	.40	0	7		B233d	ML216b		
12	RO1-2048#4	256	8	SC	MPT	750n	120m	24	0.0	-2.0	-2.4	3.0m		5	8		B49	ML47	
13	N2430Y#1	256	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7		B26	ML21b	
14	N2431Y#1	256	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7		B26	ML21b	
15	N2435Y#1	256	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7		B26	ML21b	
16	N2436Y#1	256	8	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7		B26	ML21b	
17	MM4230D#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			5	C		B26	ML128	
18	MM4230J#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			5	C		B26	ML133a	
19	MM5230D#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			2	7		B26	ML128	
20	MM5230J#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			2	7		B26	ML133a	
21	MM5230N#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			2	7		B26	ML183	
22	MM5213	256	8	SC	MPX	750n	650m	12	5.0	12									
23	MM4213D#1	256	8	SC	MPX	850n	175m	12	5.0	1.0*	3.0#			5	C		B26	ML128	
24	MM4213J#1	256	8	SC	MPX	850n	175m	12	5.0	1.0*	3.0#			5	C		B26	ML133a	
25	MM4213N#1	256	8	SC	MPX	850n	175m	12	5.0	1.0*	3.0#			5	C		B26	ML118	
26	MM5213D#1	256	8	SC	MPX	850n	175m	12	5.0	1.0*	3.0#			2	7		B26	ML128	
27	MM5213J#1	256	8	SC	MPX	850n	175m	12	5.0	1.0*	3.0#			2	7		B26	ML133a	
28	MM5213N#1	256	8	SC	MPX	850n	175m	12	5.0	1.0*	3.0#			2	7		B26	ML118	
29	MM4231D#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C		B26	ML128	
30	MM4231J#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C		B26	ML133a	
31	MM5231D#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7		B26	ML128	
32	MM5231J#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7		B26	ML133a	
33	MM5231N#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7		B26	ML183	
34	UC7523#1	256	8	SC	MPX	1.0u	420m	12	12	10*	4.0#			2	7		B11a	ML31b	
35	3507-9-6G	256	8	SC	MPX	1.7u	800m	27	0.0	-2.0	-9.0			0	7		B45	ML51	
36	RO1-2048S#1	256	8	SC	MPX	2.0u	275mt	12	12	10*	4.0			2.5m	2.4	0	7		B26
37#	uPD502D	256	8	SC	MPX	4.0u	500nt	24	0.0	-2.5#	-9.0#			1	7		B218	ML205	
38	3512-9-6G	256	8	SC	MXX	900n	600m	20	0.0	80*				5	C		B46	ML51	
39	UA2548#1	256	8	SC	MXX	900n	600m	20	0.0	80*			1.6m	.40	5	C		B9a	ML31a
40	UA3548#1	256	8	SC	MXX	900n	600m	20	0.0	80*			1.6m	.40	2	7		B9a	ML31a
41	MC1702A	256	8	SE	BTD	850n		9.0	5.0	45#	3.5#	1.6m	.45	5	A	Erasable PROM	B11r	ML258	
42	DM545470N	256	8	SE	BTD	35nt	750m	0.0	5.0	80	2.0Δ	16m	.50	5	C	PROM	B134	ML253	
43	DM545471N	256	8	SE	BTD	35nt	750m	0.0	5.0	80	2.0#	16m	.50	5	C	PROM	B134	ML253	
44	DM725114D	256	8	SE	BTD	35nt	990m	0.0	5.0	80	2.0#	12m	.50	5	C	PROM	B244	ML184a	
45	DM745470N	256	8	SE	BTD	35nt	750m	0.0	5.0	80	2.0Δ	16m	.50	0	7	PROM	B134	ML253	
46	DM745471N	256	8	SE	BTD	35nt	750m	0.0	5.0	80	2.0#	16m	.50	0	7	PROM	B134	ML253	
47	DM755222N	256	8	SE	BTD	35nt	825m	0.0	5.0	80	2.0#	12m	.50	5	C	PROM	B243	ML253	
48	DM825114D	256	8	SE	BTD	35nt	990m	0.0	5.0	80	2.0#	12m	.45	0	7	PROM	B244	ML184a	
49	DM825114N	256	8	SE	BTD	35nt	990m	0.0	5.0	80	2.0#	12m	.45	0	7	PROM	B244	ML183	
50	DM855222N	256	8	SE	BTD	35nt	825m	0.0	5.0	80	2.0#	12m	.45	0	7	PROM	B243	ML253	
51	N825114I	256	8	SE	BTD	60n	875m	0.0	5.0	85	2.0#	9.6m	.50	0	7	PROM	B199	ML150b	
52#	29800DC	256	8	SE	BTD	75n	682m	4.75	5.25	80	2.0#	16m	.45	0	7	PROM		ML21	
53#	29801DC	256	8	SE	BTD	75n	682m	4.75	5.25	80	2.0#	16m	.45	0	7	PROM		ML21	
54#	29800DM	256	8	SE	BTD	90n	715m	4.50	5.50	80	2.0#	16m	.45	5	C	PROM		ML21	
55#	29801DM	256	8	SE	BTD	90n	715m	4.50	5.50	80	2.0#	16m	.45	5	C	PROM		ML21	
56	S825114I	256	8	SE	BTD	90n	925m	0.0	5.0	80	2.0#	9.6m	.50	5	C	PROM	B199	ML150b	
57#	M54700S	256	8	SE	BTX	80n	350u*	0.0	5.0	80	2.0	16m	.45	0	7	PROM	B50a	ML149	
58	5335-1D	256	8	SE	BTX	90n	700m	0.0	5.0	80	2.0Δ	12m	.50	5	C	Fid Prog	B130	ML207d	
59	5336-1D	256	8	SE	BTX	90n	700m	0.0	5.0	80	2.0#	12m	.50	5	C	Fid Prog	B130	ML207d	
60	6335-1J	256	8	SE	BTX	90n	700m	0.0	5.0	80	2.0Δ	16m	.50	0	7	Fid Prog	B130	ML239	
61	6336-1J	256	8	SE	BTX	90n	700m	0.0	5.0	80	2.0#	16m	.50	0	7	Fid Prog	B130	ML239	
62	C1702AL2	256	8	SE	MNG	650n	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	8		B18	ML232a	
63	C1702AL	256	8	SE	MNG	1.0u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	8		B18	ML232a	
64	MM1702AD	256	8	SE	MNG	1.0u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	7	Erasable PROM	B170	ML184	
65	MM1702AQ	256	8	SE	MNG	1.0u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	7	Erasable PROM	B170	ML117	
66	uPD454D	256	8	SE	MNX	800n		12	70	3.0#	1.7m	.50	0	7	Erasable PROM	B185	ML205		
67	C1702A2	256	8	SE	MPG	650n	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	8	Erasable Prom	B18	ML232	
68	C1702A	256	8	SE	MPG	1.0u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	7	Erasable PR	B18	ML34c	
69#	HN351702A	256	8	SE	MPG	1.0u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	7	Erasable PROM	B18	ML207g	
70#	M585635S#1	256	8	SE	MPG	1.0u	500m	9.0	5.0	65	3.0	1.6m	.45	0	7		B18	ML34	
71#	MB8513	256	8	SE	MPG	1.0u	1.0	9.0	5.0	60	2.4	1.6m	.45	0	7	Erasable PR	B19r	ML23b	
72	MM4203D#1	256	8	SE	MPG	1.0u	275m	12	5.0	1.0	3.0#	16m	.40	5	8	Non-Vol PROM	B95	ML184	
73	MM4203Q#1	256	8	SE	MPG	1.0u	275m	12	5.0	1.0	3.0#	16m	.40	5	8	Non-Vol PROM	B95	ML117	
74	MM5202AD	256	8	SE	MPG	1.0u	175m	9.0	5.0	1.0	3.0#	1.6m	.40	0	7		B177	ML184	
75	MM5202AQ	256	8	SE	MPG	1.0u	175m	9.0	5.0	1.0	3.0#	1.6m	.40	0	7		B177	ML117	
76	MM5203D#1	256	8	SE	MPG	1.0u	275m	12	5.0	1.0	3.0#	16m	.40	0	7	Non-Vol PROM	B95	ML184	
77	MM5203Q#1	256	8	SE	MPG	1.0u	275m	12	5.0	1.0	3.0#	16m	.40	0	7	Non-Vol EPROM	B95	ML117	
78	C1702A6	256	8	SE	MPG	1.5u	2.0	9.0	5.0	65	3.0#	1.6m	.45	0	7	Erasable PR	B18	ML34c	
79#	M585635S1#1	256	8	SE	MPG	1.5u	500m	9.0	5.0	65	3.0	1.6m	.45	0	7		B18	ML34	
80	HRM2048#4	256	8	SE	TAX	500n	640m	0.0	5.0	2.0	.80			0	7	PR Non-Vol RMM	B11b	ML113	
81	RO6-2048S#1	256	8	SC	MPN	1.5u	300mt	12	5.0	80	-1.5#	1.6m	.40	5	C		B11b	ML113	
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3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)NO.WDS(2)NO.BITS/WD(3)OP.MODE PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION				5 MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE	GENERAL DESCRIPTION	DRAWINGS		
		1 No. Words	2 BITS PER WORD	3 MODE CODE	4 OP STRUCTURE CODE			NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	@ OUT (V)	C			R	LOGIC/BLOCK	OUTLINE
1	P3322	512	4		BT	70n	650m	0.0	5.0			15m	.50	0	7	B126e	ML4j	
2	P3302-4	512	4		BT	90n	650m	0.0	5.0			15m	.50	0	7	B126e	ML4j	
3	P3322-4	512	4		BT	90n	650m	0.0	5.0			15m	.50	0	7	B126e	ML4j	
4	DM54S270J	512	4	SC	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	5	C	B133	ML127f	
5	DM54S370J	512	4	SC	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	5	C	B133	ML127f	
6	DM74S270J	512	4	SC	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.45	0	7	B133	ML127f	
7	DM74S270N	512	4	SC	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.45	0	7	B133	ML178	
8	DM74S370J	512	4	SC	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.45	0	7	B133	ML127f	
9	DM74S370N	512	4	SC	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.45	0	7	B133	ML178	
10	93431DC	512	4	SC	BT	50n	650m	0.0	5.0	.80	2.0	16m	.45	0	7	B143	ML98a	
11	93431FC	512	4	SC	BT	50n	650m	0.0	5.0	.80	2.0A	16m	.45	0	7	B143	FL14	
12	93431PC	512	4	SC	BT	50n	650m	0.0	5.0	.80	2.0	16m	.45	0	7	B143	ML170	
13	93441DC	512	4	SC	BT	50n	650m	0.0	5.0	.80	2.0A	16m	.45	0	7	B143	ML98a	
14	93441FC	512	4	SC	BT	50n	650m	0.0	5.0	.80	2.0A	16m	.45	0	7	B143	FL14	
15	93441PC	512	4	SC	BT	50n	650m	0.0	5.0	.80	2.0A	16m	.45	0	7	B143	ML170	
16	6205-1J	512	4	SC	BT	60n	650m†	0.0	5.0	.80	2.0A	16m	.50	0	7	B129	ML127e	
17	6206-1J	512	4	SC	BT	60n	650m†	0.0	5.0	.80	2.0A	16m	.50	0	7	B129	ML127e	
18	93431DM	512	4	SC	BT	60n	650m	0.0	5.0	.80	2.0	16m	.45	5	C	B143	ML98a	
19	93431FM	512	4	SC	BT	60n	650m	0.0	5.0	.80	2.0	16m	.45	5	C	B143	FL14	
20	93441DM	512	4	SC	BT	60n	650m	0.0	5.0	.80	2.0A	16m	.45	5	C	B143	ML98a	
21	93441FM	512	4	SC	BT	60n	650m	0.0	5.0	.80	2.0A	16m	.45	5	C	B143	FL14	
22	D3302A	512	4	SC	BT	70n	700m†	0.0	5.0	.85	2.0A	15m	.45	6	C	B126e	ML157c	
23	D3322A	512	4	SC	BT	70n	700m†	0.0	5.0	.85	2.0A	15m	.45	6	C	B126e	ML157c	
24	5205-1J	512	4	SC	BT	75n	650m†	0.0	5.0	8.0	2.0A	10m	.50	5	C	B129	ML127e	
25	5206-1J	512	4	SC	BT	75n	650m†	0.0	5.0	8.0	2.0A	10m	.50	5	C	B129	ML127e	
26	6242-1J	512	4	SC	BT	75n	140u	0.0	5.0	.80	2.0A	10m	.50	0	7	B130	ML239	
27	6243-1J	512	4	SC	BT	75n	140u	0.0	5.0	.80	2.0A	10m	.50	0	7	B130	ML239	
28	5242-1J	512	4	SC	BT	90n	140u	0.0	5.0	8.0	2.0A	8.0	.50	5	C	B130	ML239	
29	5243-1J	512	4	SC	BT	90n	140u	0.0	5.0	8.0	2.0A	8.0	.50	5	C	B130	ML239	
30	D3302A4	512	4	SC	BT	90n	700m†	0.0	5.0	.85	2.0A	15m	.45	6	C	B126e	ML157c	
31	D3322A4	512	4	SC	BT	90n	700m†	0.0	5.0	.85	2.0A	15m	.45	6	C	B126e	ML157c	
32	N82S230F	512	4	SC	BTX	50n	675m	0.0	5.0	.85	2.0A	16m	.45	0	7	B197	ML127m	
33	N82S231F	512	4	SC	BTX	50n	675m	0.0	5.0	.85	2.0A	16m	.45	0	7	B197	ML127m	
34	S82S230F	512	4	SC	BTX	70n		0.0	5.0	.80	2.0A	16m	.50	5	C	B197	ML127m	
35	S82S231F	512	4	SC	BTX	70n		0.0	5.0	.80	2.0A	16m	.50	5	C	B197	ML127m	
36#	uPD463D	512	4	SC	MXN	900n	362m†	5.0	12	.65	3.0	1.7m	.50	1	7	B11n	ML205	
37#	SFF70611KM#2																	
38#	SFF70611KT#2	512	4	SC	MPA	700n	430m	12	5.0	.80	3.0	2.0m†	6.0	5	C	B119	ML95	
39	RO6-2048/4	512	4	SC	MPA	700n	430m	12	5.0	.80	3.0	2.0m†	1.0	2	8	B119	ML95	
40	RO7-2048/4	512	4	SC	MPN	1.5u	1.5u	12	5.0	.80	3.5#	1.6m	.40	5	C	B233c	ML34e	
41	RO1-2048#3	512#	4	SC	MPT	750n	130m†	24	0.0	-2.0	0.0	3.0m	.40	0	7	B233c	ML216b	
42	N2430Y#2	512#	4	SC	MPX	500nt	1.1	12	12	10*	4.0					B49	ML47	
43	N2431Y#2	512#	4	SC	MPX	500nt	1.1	12	12	10*	4.0					B26	ML21b	
44	N2435Y#2	512#	4	SC	MPX	500nt	1.1	12	12	10*	4.0					B26	ML21b	
45	N2436Y#2	512#	4	SC	MPX	500nt	1.1	12	12	10*	4.0					B26b	ML21b	
46	MM4230D#2	512#	4#	SC	MPX	725n	480m	12	12	10*	4.0#					B26	ML128	
47	MM4230J#2	512#	4#	SC	MPX	725n	480m	12	12	10*	4.0#					B26	ML133a	
48	MM5230D#2	512#	4#	SC	MPX	725n	480m	12	12	10*	4.0#					B26	ML128	
49	MM5230J#2	512#	4#	SC	MPX	725n	480m	12	12	10*	4.0#					B26	ML133a	
50	MM5230N#2	512#	4#	SC	MPX	725n	480m	12	12	10*	4.0#					B26	ML183	
51	MM4213D#2	512#	4#	SC	MPX	850n	175m	12	5.0	1.0*	3.0#					B26	ML128	
52	MM4213J#2	512#	4#	SC	MPX	850n	175m	12	5.0	1.0*	3.0#					B26	ML133a	
53	MM4213N#2	512#	4#	SC	MPX	850n	175m	12	5.0	1.0*	3.0#					B26	ML118	
54	MM5213D#2	512#	4#	SC	MPX	850n	175m	12	5.0	1.0*	3.0#					B26	ML128	
55	MM5213J#2	512#	4#	SC	MPX	850n	175m	12	5.0	1.0*	3.0#					B26	ML133a	
56	MM5213N#2	512#	4#	SC	MPX	850n	175m	12	5.0	1.0*	3.0#					B26	ML118	
57	MM4231D#2	512#	4#	SC	MPX	950n	510m	12	5.0	3.0*	.80#					B26	ML128	
58	MM4231J#2	512#	4#	SC	MPX	950n	510m	12	5.0	3.0*	.80#					B26	ML133a	
59	MM5231D#2	512#	4#	SC	MPX	950n	510m	12	5.0	3.0*	.80#					B26	ML128	
60	MM5231J#2	512#	4#	SC	MPX	950n	510m	12	5.0	3.0*	.80#					B26	ML133a	
61	MM5231N#2	512#	4#	SC	MPX	950n	510m	12	5.0	3.0*	.80#					B26	ML183	
62	UC7523#2	512#	4	SC	MPX	1.0u	420m	12	12	10*	4.0#					B11a	ML31b	
63	3580-9-6G	512	4	SC	MPX	1.7u	800m	27	0.0	-2.0	-9.0					B45a	ML51	
64	RO1-2048S#2	512	4	SC	MPX	2.0u	275m†	12	12	10*†	4.0	2.5m	2.4	0	7	B26		
65	UA2548#2	512	4	SC	MXX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	5	C	B9a	ML31a	
66	UA3548#2	512	4	SC	MXX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	2	7	B9a	ML31a	
67	3584-9-6G	512	4	SC	MXX	2.0u	500m	24	0.0	-9.0	-2.0					B47	ML51	
68	IM5604CDE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	0	7	B203	ML1a	
69	IM5604CFE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	0	7	B203	FL14e	
70	IM5604CPE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	0	7	B203	ML48d	
71	IM5604MDE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	5	C	B203	ML1a	
72	IM5604MFE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	5	C	B203	FL14e	
73	IM5624CDE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	0	7	B204	ML1a	
74	IM5624CFE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	0	7	B204	FL14e	
75	IM5624CPE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	0	7	B204	ML48d	
76	IM5624MDE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	5	C	B204	ML1a	
77	IM5624MFE	512	4	SE	BDX	70n	275u	0.0	5.0	.80	2.0	16m	.45	5	C	B204	FL14e	
78	DM54S570D	512	4	SE	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	5	C	PROM	B133	ML177
79	DM54S571D	512	4	SE	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	5	C	PROM	B133	ML177
80	DM74S570D	512	4	SE	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	0	7	PROM	B133	ML177
81	DM74S570N	512	4	SE	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	0	7	PROM	B133	ML178
82	DM74S571D	512	4	SE	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	0	7	PROM	B133	ML177
83	DM74S571N	512	4	SE	BT	35nt	750m	0.0	5.0	.80	2.0A	16m	.50	0	7	PROM	B133	ML178
84	93436DC	512	4	SE	BT	50n	650m	0.0	5.0	.80	2.0A	16m	.45	0	7	Field Program	B143	ML1k
85	93436FC	512	4	SE	BT	50n	650m†	0.0										

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION		3 MODE	4 OP	5 STRUC TURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN CURRENT (A)	OUTPUT SINK CURRENT (V)	OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS		
		1 No. WORDS	2 BITS PER WORD						NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/ BLOCK	OUTLINE	
																			PROG CODE
1	HM7621-8	512	4	SS	BT	85n	650m	0.0	5.0	.80	2.0s		15m	5	5	5	5	B158	ML15
2	D3602-4	512	4	SS	BTD	90n	700m	0.0	5.0	.85	2.0Δ		15m	5	6	5	5	PROM	B126e
3	D3602-6	512	4	SS	BTD	90n	650m	0.0	5.0									B126e	ML127a
4	D3622-4	512	4	SS	BT	90n	700m	0.0	5.0	.85	2.0s		15m	6	5	5	5	PROM	B126e
5	M3602	512	4	SS	BTD	90n	700m	0.0	5.0	.80	2.0		10m	6	5	5	5	B126e	ML127p
6	N82S130F	512	4	SS	BTX	50n	700m	0.0	5.0	.85	2.0Δ		16m	4	7	5	5	PROM	B197
7	N82S131F	512	4	SS	BTX	50n	700m	0.0	5.0	.85	2.0s		16m	4	7	5	5	PROM	B197
8	6305-1J	512	4	SS	BTX	60n	650m	0.0	5.0	.80	2.0Δ		16m	5	7	5	5	Fld Prog	B129
9	6306-1J	512	4	SS	BTX	60n	650m	0.0	5.0	.80	2.0s		16m	5	7	5	5	Fld Prog	B129
10#	MB7053	512	4	SS	BTX	70n	735m	0.0	5.0	.80	2.0s		16m	4	7	5	5	PROM	B203
11#	MB7058	512	4	SS	BTX	70n	735m	0.0	5.0	.80	2.0Δ		16m	4	7	5	5	PROM	B204
12	S82S130F	512	4	SS	BTX	70n	700m	0.0	5.0	.80	2.0Δ		16m	5	7	5	5	PROM	B197
13	S82S131F	512	4	SS	BTX	70n	700m	0.0	5.0	.80	2.0s		16m	5	7	5	5	PROM	B197
14	5305-1D	512	4	SS	BTX	75n	650m	0.0	5.0	.80	2.0Δ		12m	5	7	5	5	Fld Prog	B129
15	5306-1D	512	4	SS	BTX	75n	650m	0.0	5.0	.80	2.0s		12m	5	7	5	5	Fld Prog	B129
16#	M58563S#2	512	4	SS	MPG	1.0u	500m	9.0	5.0	.65	3.0		1.6m	4	7	5	5		B18
17	MM4203D#2	512	4s	SS	MPG	1.0u	660m	12	5.0	1.0	3.0s		16m	4	8	8	8	Non-Vol PROM	B95
18	MM4203Q#2	512	4s	SS	MPG	1.0u	660m	12	5.0	1.0	3.0s		16m	4	8	8	8	Non-Vol EPROM	B95
19	MM5203D#2	512	4s	SS	MPG	1.0u	660m	12	5.0	1.0	3.0s		16m	4	7	7	7	Non-Vol PROM	B95
20	MM5203Q#2	512	4s	SS	MPG	1.0u	660m	12	5.0	1.0	3.0s		16m	4	7	7	7	Non-Vol EPROM	B95
21#	M58563S1#2	512	4	SS	MPG	1.5u	500m	9.0	5.0	.65	3.0		1.6m	4	7	5	5		B95
22	HRM2048#3	512	4s	SS	TAX	500n	640m	0.0	5.0	2.0	.80			0	7	5	5	PR Non-Vol RMM	B18
23	R06-2048S#2	512	4	SS	MPN	1.5u	300m	12	5.0	.80	-1.5s		1.6m	4	7	5	5		B11
24	UC6548#3	512	4	SS	MXX	1.0u	750m	15	5.0	.60	2.6			0	7	5	5		B9e
25	UC7548#3	512	4	SS	MXX	1.0u	750m	15	5.0	.60	2.6			0	7	5	5		B9e
26#	FDR116Z	512	5	DC	MPX	850n	90m	14	0.0	-9.0	-2.0			0	7	8	8		C7
27	RO3-2560	512	5	SC	MNI	450n	175m	0.0	5.0	.65	2.2s		1.6m	4	7	5	5		B181
28	2514NXCXXXX	512	5	SC	MPG	600n	730m	12	5.0	1.0	3.2s		1.6m	4	7	5	5		C15a
29	D3304A	512	8	SS	BTD	70n	950m	0.0	5.0				15m	0	7	7	7		B165
30	D3304A4	512	8	SS	BTD	90n	950m	0.0	5.0				15m	0	7	7	7		B165
31	D3304A6	512	8	SS	BTD	90n	700m	0.0	5.0				15m	0	7	7	7		B165
32	CDP1831D	512	8	SS	MCX	400n	40m	0.0	12	3.6	8.4		1.8m	9.5	0	7	5	5	B11
33	CDP1832D	512	8	SS	MCX	400n	40m	0.0	12	3.6	8.4		1.8m	9.5	0	7	5	5	B11k
34	CDP1832CD	512	8	SS	MCX	800n	10m	0.0	6.0	1.8	4.2		800u	.50	0	7	5	5	B11k
35	CDP1831CD	512	8	SS	MCX	850n	10m	0.0	6.0	1.8	4.2		800u	.50	0	7	5	5	B11
36#	FDR131Z#1	512	8	DC	MPX	1.5u	90m	14	0.0	-9.0	-2.0			0	7	8	8		B36
37	DM7696D	512	8	SS	BTX	100n	875m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
38	DM8696D	512	8	SS	BTX	100n	875m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
39	DM8696N	512	8	SS	BTX	100n	875m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
40	93432DC	512	8	SS	BTD	55n	875m	0.0	5.0	.80	2.0		16m	4	7	5	5		B161
41▼	93432FC	512	8	SS	BTD	55n	875m	0.0	5.0	.80	2.0Δ		16m	4	7	5	5		B161
42	93432FC	512	8	SS	BTD	55n	875m	0.0	5.0	.80	2.0		16m	4	7	5	5		B161
43	93442DC	512	8	SS	BTD	55n	875m	0.0	5.0	.80	2.0s		16m	4	7	5	5		B161
44▼	93442FC	512	8	SS	BTD	55n	875m	0.0	5.0	.80	2.0s		16m	4	7	5	5		B161
45	93442FC	512	8	SS	BTD	55n	875m	0.0	5.0	.80	2.0s		16m	4	7	5	5		B161
46	N82S215I	512	8	SS	BTD	60n	875m	0.0	5.0	.85	2.0s		9.6m	5	7	5	5		B199c
47	93432DM	512	8	SS	BTD	70n	875m	0.0	5.0	.80	2.0		16m	4	7	5	5		B161
48	93432FM	512	8	SS	BTD	70n	875m	0.0	5.0	.80	2.0		16m	4	7	5	5		B161
49	93442DM	512	8	SS	BTD	70n	875m	0.0	5.0	.80	2.0s		16m	4	7	5	5		B161
50	93442FM	512	8	SS	BTD	70n	875m	0.0	5.0	.80	2.0s		16m	4	7	5	5		B161
51	C3324A	512	8	SS	BTD	70n	950m	0.0	5.0	.85	2.0s		15m	4	7	5	5		B165
52	D3324A	512	8	SS	BTD	70n	950m	0.0	5.0	.85	2.0s		15m	4	7	5	5		B165
53	6240-1J	512	8	SS	BTD	75n	140u	0.0	5.0	.80	2.0Δ		10m	5	7	5	5		B130
54	6241-1J	512	8	SS	BTD	75n	140u	0.0	5.0	.80	2.0s		10m	5	7	5	5		B130
55	5240-1J	512	8	SS	BTD	90n	140u	0.0	5.0	.80	2.0Δ		8.0	5	7	5	5		B130
56	5241-1J	512	8	SS	BTD	90n	140u	0.0	5.0	.80	2.0s		8.0	5	7	5	5		B130
57	C3324A4	512	8	SS	BTD	90n	950m	0.0	5.0	.85	2.0s		15m	4	7	5	5		B165
58	D3324A4	512	8	SS	BTD	90n	950m	0.0	5.0	.85	2.0s		15m	4	7	5	5		B165
59	S82S215I	512	8	SS	BTD	90n	925m	0.0	5.0	.80	2.0s		9.6m	5	7	5	5		B199c
60	N8205I	512	8	SS	BTX	75n	850m	0.0	5.0	.85*	2.01s		9.6m	5	7	5	5		B32
61	DM7595D	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152
62	DM7595J	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152
63	DM7596D	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
64	DM7596J	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
65	DM7795J	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152a
66	DM7796J	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152a
67	DM8595D	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152
68	DM8595J	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152
69	DM8595N	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152
70	DM8596D	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
71	DM8596J	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
72	DM8596N	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152
73	DM8795J	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152a
74	DM8795N	512	8	SS	BTX	80n	790m	0.0	5.0	.80	2.0		12m	4	7	5	5		B152a
75	DM8796J	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152a
76	DM8796N	512	8	SS	BTX	80n	850m	0.0	5.0	.80	2.0s		12m	4	7	5	5		B152a
77#	M5M575	512	8	SS	MCX	1.5u	2.5m	30	7.0	.80	3.0		1.6m	4	7	5	5		B205
78	RO3-4096	512	8	SC	MNI	500n	225m	0.0	5.0	.65	2.2s		1.6m	4	7	5	5		B181a
79#	SFF70612KM#1	512	8	SC	MPA	7.0n	460m	12	5.0	.80	3.0		2.0m	1.0	5	5	5		B96
80#	SFF70612KT#1	512	8	SC	MPA	7.0n	460m	12	5.0	.80	3.0		2.0m	1.0	5	5	5		B9

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION				5 MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS		
		1 No. WORDS	2 BITS PER WORD	3 MODE PROG CODE	4 OP STRUC TURE CODE			NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)			LOGIC/ BLOCK	OUTLINE	
1	93438DC	512	8	SE	BTD	55n	875m	0.0	5.0	80	2.0	16m	.45	0	7	Field Program	B161	ML193
2	93438FC	512	8	SE	BTD	55n	875m	0.0	5.0	80	2.0Δ	16m	.45	0	7	Field Program	B161	FL3c
3	93438PC	512	8	SE	BTD	55n	875m	0.0	5.0	80	2.0Δ	16m	.45	0	7	Field Program	B161	ML216
4	93448DC	512	8	SE	BTD	55n	875m	0.0	5.0	80	2.0Δ	16m	.45	0	7	Field Program	B161	ML193
5	93448FC	512	8	SE	BTD	55n	875m	0.0	5.0	80	2.0Δ	16m	.45	0	7	Field Program	B161	FL3c
6	93448PC	512	8	SE	BTD	55n	875m	0.0	5.0	80	2.0Δ	16m	.45	0	7	Field Program	B161	ML216
7	D3604A-2	512	8	SE	BTD	60n	875m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
8	D3624A-2	512	8	SE	BTD	60n	875m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
9	N82S115I	512	8	SE	BTD	60n	875m	0.0	5.0	85	2.0Δ	9.6m	.50	0	7	PROM	B199a	ML150b
10	93438DM	512	8	SE	BTD	70n	875m	0.0	5.0	80	2.0	16m	.45	5	C	Field Program	B161	ML193
11	93438FM	512	8	SE	BTD	70n	875m	0.0	5.0	80	2.0Δ	16m	.45	5	C	Field Program	B161	FL3c
12	93448DM	512	8	SE	BTD	70n	875m	0.0	5.0	80	2.0Δ	16m	.45	5	C	Field Program	B161	ML193
13	93448FM	512	8	SE	BTD	70n	875m	0.0	5.0	80	2.0Δ	16m	.45	5	C	Field Program	B161	FL3c
14	D3604	512	8	SE	BTD	70n	950m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
15	D3604A	512	8	SE	BTD	70n	875m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
16	D3624	512	8	SE	BTD	70n	950m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B11h	ML118d
17	D3624A	512	8	SE	BTD	70n	875m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
18	HM7640-5	512	8	SE	BTD	70n	850m	0.0	5.0	80	2.0	15m	.45	0	7		B159	ML88b
19	HM7641-5	512	8	SE	BTD	70n	850m	0.0	5.0	80	2.0Δ	15m	.45	0	7		B159	ML88b
20	SN74S474J	512	8	SE	BTD	75n	600mt	0.0	5.0	80	2.0Δ	12m	.50	0	7	Field Program	B11q	MO015AA
21	SN74S474N	512	8	SE	BTD	75n	600mt	0.0	5.0	80	2.0Δ	12m	.50	0	7	Field Program	B11q	ML72c
22	SN74S475J	512	8	SE	BTD	75n	600mt	0.0	5.0	80	2.0Δ	12m	.50	0	7	Field Program	B11q	MO015AA
23	SN74S475N	512	8	SE	BTD	75n	600mt	0.0	5.0	80	2.0Δ	12m	.50	0	7	Field Program	B11q	ML72c
24	HM7640-2	512	8	SE	BTD	85n	850m	0.0	5.0	80	2.0	15m	.45	5	C		B159	ML88b
25	HM7640-8	512	8	SE	BTD	85n	850m	0.0	5.0	80	2.0	15m	.45	5	C		B159	ML88b
26	HM7641-2	512	8	SE	BTD	85n	850m	0.0	5.0	80	2.0Δ	15m	.45	5	C		B159	ML88b
27	HM7641-8	512	8	SE	BTD	85n	850m	0.0	5.0	80	2.0Δ	15m	.45	5	C		B159	ML88b
28	SN54S474J	512	8	SE	BTD	85n	600mt	0.0	5.0	80	2.0Δ	12m	.50	5	C	Field Program	B11q	MO015AA
29	SN54S474W	512	8	SE	BTD	85n	600mt	0.0	5.0	80	2.0Δ	12m	.50	5	C	Field Program	B11q	MO019AA
30	SN54S475J	512	8	SE	BTD	85n	600mt	0.0	5.0	80	2.0Δ	12m	.50	5	C	Field Program	B11q	MO015AA
31	SN54S475W	512	8	SE	BTD	85n	600mt	0.0	5.0	80	2.0Δ	12m	.50	5	C	Field Program	B11q	MO019AA
32	D3604-4	512	8	SE	BTD	90n	950m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
33	D3604-6	512	8	SE	BTD	90n	735m	0.0	5.0	85	2.0	15m	.45	0	7	PROM	B165a	ML118d
34	D3604AL	512	8	SE	BTD	90n	650m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
35	D3604L6	512	8	SE	BTD	90n	700m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B165	ML133c
36	D3624-4	512	8	SE	BTD	90n	950m	0.0	5.0	85	2.0Δ	15m	.45	0	7	PROM	B11h	ML118d
37	MD3604	512	8	SE	BTD	90n	950m	0.0	5.0	80	2.1Δ	10m	.45	5	C	Prom	B165a	ML133c
38	MD3624	512	8	SE	BTD	90n	950m	0.0	5.0	80	2.1Δ	10m	.45	5	C	Prom	B165a	ML133c
39	S82S115I	512	8	SE	BTD	90n	925m	0.0	5.0	80	2.0Δ	9.6m	.50	5	C	PROM	B199a	ML150b
40	6348-1J	512	8	SE	BTX	70n	775m	0.0	5.0	80	2.0Δ	16m	.50	0	7	PROM	B249	ML161b
41	6349-1J	512	8	SE	BTX	70n	775m	0.0	5.0	80	2.0Δ	16m	.50	0	7	PROM	B249	ML161b
42	IM5605CJG	512	8	SE	BTX	70n	925m	0.0	5.0	80	2.0	16m	.45	0	7	PROM	B250	ML88g
43	IM5625CJG	512	8	SE	BTX	70n	925m	0.0	5.0	80	2.0	16m	.45	0	7	PROM	B250	ML88g
44	uPB405D	512	8	SE	BTX	70n	600mt	0.0	5.0	80	2.0	16m	.45	0	6	PROM	B264	ML133d
45	uPB425D	512	8	SE	BTX	70n	600mt	0.0	5.0	80	2.0Δ	16m	.45	0	6	PROM	B264	ML133d
46	5348-1D	512	8	SE	BTX	80n	775m	0.0	5.0	80	2.0Δ	12m	.50	5	C	PROM	B249	ML161c
47	5349-1D	512	8	SE	BTX	80n	775m	0.0	5.0	80	2.0Δ	12m	.50	5	C	PROM	B249	ML161c
48	IM5605MJG	512	8	SE	BTX	80n	925m	0.0	5.0	80	2.0	16m	.45	5	C	PROM	B250	ML88g
49	IM5625MJG	512	8	SE	BTX	80n	925m	0.0	5.0	80	2.0	16m	.45	5	C	PROM	B250	ML88g
50	5340-1D	512	8	SE	BTX	90n	700m	0.0	5.0	80	2.0Δ	12m	.50	5	C	Fld Prog	B130a	ML207d
51	5341-1D	512	8	SE	BTX	90n	700m	0.0	5.0	80	2.0Δ	12m	.50	5	C	Fld Prog	B130a	ML207d
52	6340-1J	512	8	SE	BTX	90n	700m	0.0	5.0	80	2.0Δ	16m	.50	0	7	Fld Prog	B130a	ML239
53	6341-1J	512	8	SE	BTX	90n	700m	0.0	5.0	80	2.0Δ	16m	.50	0	7	Fld Prog	B130a	ML239
54	C2704	512	8	SE	MNG	450n	1.5	5.0	12	65	3.0Δ	1.6m	.45	2	8	Erasable PR	B163	ML34c
55	EA2704DC	512	8	SE	MNG	450n	630m	5.0	12	80	2.0Δ	1.6m	.45	0	7	EPROM	B256	ML207f
56	EA2704DL	512	8	SE	MNG	500n	630m	5.0	12	80	2.0Δ	1.6m	.45	5	9	EPROM	B256	ML207f
57	EA2704DM	512	8	SE	MNG	550n	630m	5.0	12	80	2.0Δ	1.6m	.45	5	9	EPROM	B256	ML207f
58	S5204A-3L	512	8	SE	MPG	750n	750m	12	5.0	80	3.5Δ	1.6m	.40	0	7	Erasable PROM	B172	ML34f
59	MM5204D	512	8	SE	MPG	1.0u	480m	12	5.0	80	3.5Δ	1.6m	.40	0	7	Non-Vol PROM	B172	ML184
60	MM5204Q	512	8	SE	MPG	1.0u	480m	12	5.0	80	3.5Δ	1.6m	.40	0	7	Non-Vol EPROM	B172	ML117
61	MM4204D	512	8	SE	MPG	1.2u	600m	12	5.0	80	3.5Δ	1.6m	.40	5	8	Non-Vol PROM	B172	ML184a
62	MM4204Q	512	8	SE	MPG	1.2u	600m	12	5.0	80	3.5Δ	1.6m	.40	5	8	Non-Vol EPROM	B172	ML184a
63	S6834	512	8	SE	MPX	575n	750m	12	5.0	80	2.7Δ	1.6m	.40	0	7	Erasable PROM	B255	ML34g
64	S6834-1	512	8	SE	MPX	750n	750m	12	5.0	80	2.7Δ	1.6m	.40	0	7	Erasable PROM	B255	ML34g
65	2526I#2	512	9	SE	MPG	700n	730m	12	5.0	60	3.4Δ	1.6m	.50	0	7		B112	ML174
66	2526N#2	512	9	SE	MPG	700n	730m	12	5.0	60	3.4Δ	1.6m	.50	0	7		B112	ML135
67	RO3-5120	512	10	SC	MNI	500n	225m	0.0	5.0	65	2.2Δ	1.6m	.45	0	7		B181b	ML216b
68	uPD471D	512	10	SC	MNX	315n	704m	5.0	12	80	3.0Δ	1.6m	.40	0	7		B215	ML
69	EA4000	512	10	SC	MPX	160n	60u% 725n	12	2	40	2.4	1.6m	.40	5	8		B38	ML41
70	FDR146BZ	512	10	SC	MPX	725n	300mt	28	0.0	-9.0	-2.0	20m	5	8		E13	ML118b	
71	FDR146Z	512	10	SC	MPX	725n	300mt	26	0.0	-9.0	-2.0	20m	5	8		B71	ML141	
72	MCS2017#2	576Δ	7	DC	MPX	160n	200m	5.0	5.0	80	3.5	1.6m	.40	2	8	7x9x64	C32	ML
73	S8564#1	576	7	SC	MPA	450nt	1.0	12	5.0	60	4.0	0	6			C47	ML13b	
74	MCS2025#2	768	10	DC	MPX	160n	300m	5.0	5.0	80	3.5	1.6m	.40	2	8	10x12x64	C45	ML
75	MCS2024#2	896	9	DC	MPX	160n	300m	5.0	5.0	80	3.5	1.6m	.40	2	8	9x7x128	C44	ML
76	MM4210D	1024	1	SC	MPX	650n	300m	12	12	10*	4.0#			5	C		B27	ML198
77	MM4210J	1024	1	SC	MPX	650n	300m	12	12	10*	4.0#			5	C		B27	ML127f
78	MM5210D	1024	1	SC	MPX	650n	300m	12	12	10*	4.0#			0	7		B27	ML198
79	MM5210J	1024	1	SC	MPX	650n	300m	12	12	10*	4.0#			0	7		B27	ML127f
80	MM5210N	1024	1	SC	MPX	65												

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)NO.WDS(2)NO.BITS/W(3)OP.MODE PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3 OP MODE	4 STRUCTURE	5 MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS	
		1 No. WORDS	2 PER WORD					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)			LOGIC/BLOCK	OUTLINE
				PROG CODE													
1#	SFF70612KM#2	1024	4	SC	MPA	7.0n†	460m∅	12	5.0	.80	3.0	2.0m†	1.0	5 C		B96	ML95
2#	SFF70612KT#2	1024	4	SC	MPI	7.0n†	460m∅	12	5.0	.80	3.0	2.0m†	1.0	2 8		B96	ML95
3	MK2500P#2	1024\$	4	SC	MPI	700n	476m†	12	5.0	.80	2.4	1.6m	.40	0 7		B73	ML21
4	MK2600P#2	1024\$	4	SC	MPI	700n	476m†	12	5.0	.80	2.4	1.6m	.40	0 7		B99	ML21
5	S5232-1W#2	1024\$	4	SC	MPI	1.0u	500m	12	5.0							B73	ML72d
6	S5232-2L#2	1024\$	4	SC	MPI	1.0u	500m	12	5.0							B73	ML72e
7	MM4232J#2	1024\$	4\$	SC	MPX	1.0u∅	629m∅	12	5.0							B96	ML133a
8	MM5232J#2	1024\$	4\$	SC	MPX	1.0u∅	629m∅	12	5.0	1.0	3.0\$	1.6m	.40	0 7		B96	ML133a
9	MM5232N#2	1024\$	4\$	SC	MPX	1.0u∅	629m∅	12	5.0	1.0	3.0\$	1.6m	.40	0 7		B96	ML133a
10	6350-1J	1024	4	SE		60n	875m†	0.0	5.0	8.0	2.0Δ	16m	.50	0 7	Field Prog ROM	B222	ML194b
11	6351-1J	1024	4	SE		60n	875m†	0.0	5.0	8.0	2.0\$	16m	.50	0 7	Field Prog ROM	B222	ML194b
12	6352-1J	1024	4	SE		60n	875m†	0.0	5.0	8.0	2.0Δ	16m	.50	0 7	Field Prog ROM	B222a	ML194c
13	6353-1J	1024	4	SE		60n	875m†	0.0	5.0	8.0	2.0\$	16m	.50	0 7	Field Prog ROM	B222a	ML194c
14	5350-1D	1024	4	SE		75n	875m†	0.0	5.0	8.0	2.0Δ	12m	.50	5 C	Field Prog ROM	B222	ML210a
15	5351-1D	1024	4	SE		75n	875m†	0.0	5.0	8.0	2.0\$	12m	.50	5 C	Field Prog ROM	B222	ML210a
16	5352-1D	1024	4	SE		75n	875m†	0.0	5.0	8.0	2.0Δ	12m	.50	5 C	Field Prog ROM	B222a	ML210c
17	5353-1D	1024	4	SE		75n	875m†	0.0	5.0	8.0	2.0\$	12m	.50	5 C	Field Prog ROM	B222a	ML210c
18▼	93452DC	1024	4	SE	BTD	55n	850m	0.0	5.0	8.0	2.0Δ	16m	.45	0 7	Field Program	B267	ML194d
19▼	93452PC	1024	4	SE	BTD	55n	850m	0.0	5.0	8.0	2.0Δ	16m	.45	0 7	Field Program	B267	ML194d
20▼	93453DC	1024	4	SE	BTD	55n	850m	0.0	5.0	8.0	2.0\$	16m	.45	0 7	Field Program	B267	ML3h
21▼	93453PC	1024	4	SE	BTD	55n	850m	0.0	5.0	8.0	2.0\$	16m	.45	0 7	Field Program	B267	ML3h
22	D3605-2	1024	4	SE	BTD	60n	750m†	0.0	5.0	.85	2.0Δ	15m	.45	0 7	PROM	B214	ML231
23	D3625-2	1024	4	SE	BTD	60n	750m†	0.0	5.0	.85	2.0\$	15m	.45	0 7	PROM	B214	ML231
24▼	93452DM	1024	4	SE	BTD	70n	850m	0.0	5.0	8.0	2.0Δ	16m	.45	5 C	Field Program	B267	ML194d
25▼	93453DM	1024	4	SE	BTD	70n	850m	0.0	5.0	8.0	2.0\$	16m	.45	5 C	Field Program	B267	ML194d
26	D3605	1024	4	SE	BTD	70n	750m†	0.0	5.0	.85	2.0Δ	15m	.45	0 7	PROM	B214	ML231
27	D3625	1024	4	SE	BTD	70n	750m†	0.0	5.0	.85	2.0\$	15m	.45	0 7	PROM	B214	ML231
28	HM7642-5	1024	4	SE	BTD	70n	700m	0.0	5.0	8.0	2.0	15m	.45	0 7		B192	ML23
29	HM7643-5	1024	4	SE	BTD	70n	700m	0.0	5.0	8.0	2.0\$	15m	.45	0 7		B192	ML15
30	HM7644-5	1024	4	SE	BTD	70n	700m	0.0	5.0	8.0	2.0	15m	.45	0 7		B126f	ML15
31	HM7642-2	1024	4	SE	BTD	85n	700m	0.0	5.0	8.0	2.0	15m	.45	5 C		B192	ML23
32	HM7642-8	1024	4	SE	BTD	85n	700m	0.0	5.0	8.0	2.0	15m	.45	5 C		B192	ML23
33	HM7643-2	1024	4	SE	BTD	85n	700m	0.0	5.0	8.0	2.0\$	15m	.45	5 C		B192	ML23
34	HM7643-8	1024	4	SE	BTD	85n	700m	0.0	5.0	8.0	2.0\$	15m	.45	5 C		B192	ML23
35	HM7644-2	1024	4	SE	BTD	85n	700m	0.0	5.0	8.0	2.0	15m	.45	5 C		B126f	ML15
36	HM7644-8	1024	4	SE	BTD	85n	700m	0.0	5.0	8.0	2.0	15m	.45	5 C		B126f	ML15
37#	MB7054	1024	4	SE	BTX	70n	683m	0.0	5.0	8.0	2.0\$	16m	.45	0 7	PROM	B228	ML3c
38#	MB7059	1024	4	SE	BTX	70n	683m	0.0	5.0	8.0	2.0Δ	16m	.45	0 7	PROM	B228	ML3c
39	uPB406D	1024	4	SE	BTX	80n	500m†	0.0	5.0	8.0	2.0Δ	16m	.45	0 6		B192a	ML242
40	ER3400	1024	4	SE	MPN	650n	535m	30	5.0	8.0	3.5\$	2.0m	.40	0 7		B240	ML242
41	ER3401	1024	4	SE	MPN	950n	535m	30	5.0	8.0	3.5\$	2.0m	.40	0 7		B240	ML242
42	ER2401	1024	4	SE	MPN	2.0u	700m	23	5.0	60	3.5\$	3.2m	.40	0 7	EAROM	B238	ML216b
43	UC7596S	1024	4	SE	MPX	5.0u	50m†	15	5.0	60	3.0	1.6m	.40	6 F		B33	
44#	uPD472D	1024	5	SC	MNX	315n	704m†	5.0	12	80	3.0\$	1.6m	.40	0 7		B216	ML207
45	TMS4700JL	1024	8	SC	MNG	450n	310m†	5.0	12	80	3.3	2.0m	.45	0 7		B194	ML207
46	TMS4700NL	1024	8	SC	MNG	450n	310m†	5.0	12	80	3.3	2.0m	.45	0 7		B194	ML207
47#	M58732S	1024	8	SC	MXX	450n	800m	5.0	12	65	3.0	1.6m	.45	0 7	Fld Prog		
48#	M58732S-1	1024	8	SC	MXX	650n	800m	5.0	12	65	3.0	1.6m	.45	0 7	Fld Prog		
49	MCS2023	1024	8	DC	MPX	160n	300m	5.0	5.0	8.0	3.5	1.6m	.40	2 8	8x1024	B100	ML23
50	93454DC	1024	8	SC	BTD	45n	750m†	0.0	5.0	8.0	2.0	16m	.45	0 7		B162	ML193
51▼	93454FC	1024	8	SC	BTD	45n	750m†	0.0	5.0	8.0	2.0Δ	16m	.45	0 7		B162	FL3c
52	93454PC	1024	8	SC	BTD	45n	750m†	0.0	5.0	8.0	2.0	16m	.45	0 7		B162	ML216
53	93464DC	1024	8	SC	BTD	45n	750m†	0.0	5.0	8.0	2.0\$	16m	.45	0 7		B162	ML193
54▼	93464FC	1024	8	SC	BTD	45n	750m†	0.0	5.0	8.0	2.0\$	16m	.45	0 7		B162	FL3c
55	93464PC	1024	8	SC	BTD	45n	750m†	0.0	5.0	8.0	2.0\$	16m	.45	0 7		B162	ML216
56	DM75S28J	1024	8	SC	BTD	50n†	990m	0.0	5.0	8.0	2.0\$	10m	.50	5 C		B131	ML183a
57	DM75S29J	1024	8	SC	BTD	50n†	990m	0.0	5.0	8.0	2.0Δ	10m	.50	5 C		B131	ML183a
58	DM85S28J	1024	8	SC	BTD	50n†	990m	0.0	5.0	8.0	2.0\$	10m	.45	0 7		B131	ML183a
59	DM85S28N	1024	8	SC	BTD	50n†	990m	0.0	5.0	8.0	2.0\$	10m	.45	0 7		B131	ML183
60	DM85S29J	1024	8	SC	BTD	50n†	990m	0.0	5.0	8.0	2.0Δ	10m	.45	0 7		B131	ML183a
61	DM85S29N	1024	8	SC	BTD	50n†	990m	0.0	5.0	8.0	2.0Δ	10m	.45	0 7		B131	ML183
62	93454DM	1024	8	SC	BTD	60n	750m†	0.0	5.0	8.0	2.0	16m	.45	5 C		B162	ML193
63	93454FM	1024	8	SC	BTD	60n	750m†	0.0	5.0	8.0	2.0	16m	.45	5 C		B162	FL3c
64	93464DM	1024	8	SC	BTD	60n	750m†	0.0	5.0	8.0	2.0\$	16m	.45	5 C		B162	ML193
65	93464FM	1024	8	SC	BTD	60n	750m†	0.0	5.0	8.0	2.0\$	16m	.45	5 C		B162	FL3c
66#	N82S280I	1024	8	SC	BTD	70n	750m	0.0	5.0	8.5	2.0Δ	9.6m\$	.45	0 7		B131	ML256
67#	N82S281I	1024	8	SC	BTD	70n	750m	0.0	5.0	8.5	2.0\$	9.6m\$	.45	0 7		B131	ML256
68#	S82S280I	1024	8	SC	BTD	100n	750m	0.0	5.0	8.0	2.0Δ	9.6m\$	.50	5 C		B131	ML256
69#	S82S281I	1024	8	SC	BTD	100n	750m	0.0	5.0	8.0	2.0\$	9.6m\$	.50	5 C		B131	ML256
70	NC6560AL#1	1024\$	8	SC	MNA	290n	925m	5.0	12	80	3.0\$	1.6m	.40	0 7		B121	ML30g
71	NC6560AP#1	1024\$	8	SC	MNA	290n	925m	5.0	12	80	3.0\$	1.6m	.40	0 7		B121	ML30g
72	EA4700DC	1024	8	SC	MNA	350n	800m	0.0	5.0	8.0	2.2\$	1.6m	.40	0 7		B189	ML168
73	EA4700PC	1024	8	SC	MNA	350n	1.2	0.0	5.0	8.0	2.2\$	1.6m	.40	0 7		B189	ML214
74	MCM6560L#1	1024	8	SC	MNA	350n	1.0	0.0	5.0	8.0	4.0	1.6m	.40	0 7		B121	ML150
75	MCM6560P#1	1024	8	SC	MNA	350n	1.0	0.0	5.0	8.0	4.0	1.6m	.40	0 7		B121	ML39
76	NC6560L#1	1024\$	8	SC	MNA	350n	925m	3.0	12	80	3.0\$	1.6m	.40	0 7		B121	ML30g
77	NC6560P#1	1024\$	8	SC	MNA	350n	925m	3.0	12	80	3.0\$	1.6m	.40	0 7		B121	ML30g
78	EA2308AC	1024	8	SC	MNA	400n	1.2	0.0	5.0	8.0	2.2\$	2.0m	.45	0 7		B190	ML214
79	EA2308AP	1024	8	SC	MNA	400n	800m	0.0	5.0	8.0	2.2\$	2.0m	.45	0 7		B190	ML168
80	EA4700DC1	1024	8	SC	MNA	400n	800m	0.0	5.0	8.0	2.2\$	1.6m	.40	0 7		B189	ML168
81	EA4700PC1	1024	8	SC	MNA	400n	1.2	0.0	5.0	8.0	2.2\$	1.6m	.40	0 7		B189	ML214
82	EA8308AC	1024	8	SC	MNA	400n	1.2	0.0	5.0	8.0							

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION		3 OP 4	5	MAX OPER. POWER (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION		DRAWINGS			
			1	2				PROG. CODE	STRUC. CODE	MAX ACCESS TIME (s)	NEG. (V)	POS. (V)	MAX '0' (V)		MIN '1' (V)	(A)	(V)	LOGIC/BLOCK	OUTLINE	
1		93451DM	1024	8	SE	BTD	40nΔ	0.0	5.0	30	2.0s	16m	45	5	0	7	Field Program	B161a	ML193	
2		93451FC	1024	8	SE	BTD	40nΔ	0.0	5.0	30	2.0s	16m	45	5	0	7	Field Program	B161a	FL3c	
3		93451PC	1024	8	SE	BTD	40nΔ	0.0	5.0	30	2.0s	16m	45	5	0	7	Field Program	B161a	ML216	
4		D3608	1024	8	SE	BTD	80n	950m♦	0.0	5.0	35	2.0Δ	15m	45	0	7	PROM	B246	ML133c	
5		D3628	1024	8	SE	BTD	80n	950m♦	0.0	5.0	35	2.0s	15m	45	0	7	PROM	B246	ML133c	
6		D3608-4	1024	8	SE	BTD	100n	950m♦	0.0	5.0	35	2.0Δ	15m	45	0	7	PROM	B246	ML133c	
7		D3628-4	1024	8	SE	BTD	100n	950m♦	0.0	5.0	35	2.0s	15m	45	0	7	PROM	B246	ML133c	
8		6380-1J	1024	8	SE	BTX	90n	900m	0.0	5.0	80	2.0Δ	12m	50	0	7	PROM	B250	ML39c	
9		6381-1J	1024	8	SE	BTX	90n	900m	0.0	5.0	80	2.0s	12m	50	0	7	PROM	B250	ML39c	
10		6384-1J	1024	8	SE	BTX	90n	900m	0.0	5.0	80	2.0Δ	12m	50	0	7	PROM	B252	ML39d	
11		6385-1J	1024	8	SE	BTX	90n	900m	0.0	5.0	80	2.0s	12m	50	0	7	PROM	B252	ML39d	
12		6386-1J	1024	8	SE	BTX	90n	900m	0.0	5.0	80	2.0Δ	12m	50	0	7	PROM	B251	ML212b	
13		6387-1J	1024	8	SE	BTX	90n	900m	0.0	5.0	80	2.0s	12m	50	0	7	PROM	B251	ML212b	
14		5380-1D	1024	8	SE	BTX	125n	900m	0.0	5.0	80	2.0Δ	8.0m	50	5	0	7	PROM	B250	ML39d
15		5381-1D	1024	8	SE	BTX	125n	900m	0.0	5.0	80	2.0s	8.0m	50	5	0	7	PROM	B250	ML39d
16		5386-1D	1024	8	SE	BTX	125n	900m	0.0	5.0	80	2.0Δ	8.0m	50	5	0	7	PROM	B251	ML8w
17		5387-1D	1024	8	SE	BTX	125n	900m	0.0	5.0	80	2.0s	8.0m	50	5	0	7	PROM	B251	ML8w
18		C2708	1024	8	SE	MNG	450n	1.5	5.0	12	65	3.0s	1.6m	45	2	8	Erasable PR	B163	ML34c	
19		EA2708DC	1024	8	SE	MNG	450n	630m	5.0	12	80	2.0s	1.6m	45	0	7	EPROM	B256a	ML207f	
20		HN462708	1024	8	SE	MNG	450n	1.5	5.0	12	65	3.0s	1.6m	45	0	7	Erasable PROM	B163a	ML207g	
21		MB8518H	1024	8	SE	MNG	450n	800m	5.0	12	65	3.0s	1.6m	45	0	7	Erasable	B227	ML207e	
22		MC2708	1024	8	SE	MNG	450n	750m	5.0	12	65	3.0s	1.6m	45	5	A	Erasable PROM	B163a	ML258	
23		MK2708T	1024	8	SE	MNG	450n	450m	5.0	12	65	3.2m	40	0	7	EPROM	B259	ML21		
24		TMS27108JL	1024	8	SE	MNG	450n	475m	5.0	12	65	2.2s	2.0m	40	0	7	Erasable PROM	B225	ML207	
25		TMS2708JL	1024	8	SE	MNG	450n	800m	5.0	12	65	2.4s	1.6m	45	0	7	Erasable PROM	B225	ML207	
26		EA2708DL	1024	8	SE	MNG	500n	630m	5.0	12	80	2.0s	1.6m	45	5	9	EPROM	B256a	ML207f	
27		EA2708DM	1024	8	SE	MNG	550n	630m	5.0	12	80	2.0s	1.6m	45	5	9	EPROM	B256a	ML207f	
28		MB8518E	1024	8	SE	MNG	650n	800m	5.0	12	65	3.0s	1.6m	45	0	7	Erasable EPROM	B227	ML207e	
29		IM7708CDG	1024	8	SE	MNX	450n	800m	5.0	12	65	3.0s	1.6m	45	0	7	EPROM	B163b	ML207j	
30		uPD458D	1024	8	SE	MNX	450n	605m♦	0.0	12	70	3.0s	1.7m	50	0	7		B42e	ML21	
31		EA3815	1024	12	DC	MPX	2.5u	350m	12	12	-2.0	-1.0			0	7		B93	ML21	
32		EA3800#1	1024	12	DC	MPX	3.6u	830m	12	12	-2.0	-1.0			0	7		B93	ML185	
33		EA3800#2	1024	12	DC	MPX	3.6u	1.2	12	12	-2.0	-1.0			0	7		B93	ML186	
34		HM1-6312A2	1024	12	SC	MCG	250n†	5.0u†	0.0	11	2.2	7.7	1.0uΔ	11	5	C		B206	ML147	
35		HM1-6312A9	1024	12	SC	MCG	250n†	5.0u†	0.0	11	2.2	7.7	1.0uΔ	11	4	8		B206	ML147	
36		IM6312ADN	1024	12	SC	MCG	250n†	5.0u†	0.0	10	2.0	7.0			5	C		B206	ML134f	
37		IM6312AMDN	1024	12	SC	MCG	250n†	5.0u†	0.0	10	2.0	7.0			5	C		B206	ML134f	
38		HM1-6312-2	1024	12	SC	MCG	500n†	5.0u†	0.0	7.0	1.4	4.9	1.0uΔ	7.0	4	8		B206	ML147	
39		HM1-6312-9	1024	12	SC	MCG	500n†	5.0u†	0.0	7.0	1.4	4.9	1.0uΔ	7.0	4	8		B206	ML147	
40		IM6312IDN	1024	12	SC	MCG	500n†	5.0u†	0.0	5.0	1.0	3.5			5	C		B206	ML134f	
41		IM6312MDN	1024	12	SC	MCG	500n†	5.0u†	0.0	5.0	1.0	3.5			5	C		B206	ML134f	
42		MM5215AD	1024	12	SC	MPI	3.0u‡	300m‡	12	12	10*	3.0s#			0	7		B174a	ML29a	
43		MM5215AN	1024	12	SC	MPI	3.0u‡	300m‡	12	12	10*	3.0s#			0	7		B174a	ML199	
44		MM5212AD	1024	12	SC	MPI	5.0u‡	170m‡	12	5.0	80	2.8	2.5m♦	2.4	0	7		B174	ML29a	
45		MM5212AN	1024	12	SC	MPI	5.0u‡	170m‡	12	5.0	80	2.8	2.5m♦	2.4	0	7		B174	ML199	
46		DM8581N	1024	16	SC	BTX	450n\$	800m	0.0	5.0	80	2.0s	6.0m	45	0	7		B245	ML14d	
47		DM8581N	1024	16	SC	BTX	450n\$	800m	0.0	5.0	80	2.0s	6.0m	45	0	7		B245	ML257	
48		MK32022#2	1152	7	DC	MPX	160n	300m	5.0	5.0	80	3.5	1.6m	40	2	8	7x9x128	C34	ML21	
49		MK31000P-3	2000	8	SC	MNG	550n	1.0	5.0	5.0	80	2.0s	1.0uΔ	0.0	5	8		B78b	ML191	
50		RO1-2048#1	2048	1	SC	MPT	750n	140m†	24	0.0	-2.0	-2.4	3.0m	40	5	C		B49	ML47	
51		UA2548#4	2048	1	SC	MXX	900n	600m	20	0.0	80	2.7	1.6m	40	5	C		B9a	ML31a	
52		UA3548#4	2048	1	SC	MXX	900n	600m	20	0.0	80	2.7	1.6m	40	5	C		B9a	ML31a	
53		HRM2048#1	2048	1	SE	TAX	500n	640m	0.0	5.0	2.0	80			7		PR Non-Vol RMM	B91	ML113	
54		UC6548#1	2048	1	SE	MXX	1.0u	750m	15	5.0	60	2.6			5	C		B9e	ML31a	
55		UC7548#1	2048	1	SE	MXX	1.0u	750m	15	5.0	60	2.6			5	C		B9e	ML31a	
56		S8865	2048	4	DC	MPI	700n	611m†	12	5.0	75	3.5	2.2m	1.5	0	6	fc10k	B110	ML13b	
57		RO1-8192	2048	4	DC	MPN	1.5u*	375m†	12	5.0	80	3.2s			0	7		B9e	ML13b	
58		RO5-8192	2048	4	DC	MPN	1.6u	400m†	12	5.0	80	3.5	1.6m	50	0	7	Random No.Gen	B234	ML216b	
59		N82S184F	2048	4	SC	BTX	100n	835m‡	0.0	5.5	80	2.4			0	7	Fld Prog	B213	ML226	
60		N82S185F	2048	4	SC	BTX	100n	835m‡	0.0	5.5	80	2.4			0	7	Fld Prog	B213	ML226	
61		S82S184F	2048	4	SC	BTX	150n	835m‡	0.0	5.2	80	2.4			5	C	Fld Prog	B213	ML226	
62		S82S185F	2048	4	SC	BTX	150n	835m‡	0.0	5.2	80	2.4			5	C	Fld Prog	B213	ML226	
63		NC6560AL#2	2048	8	SC	MNA	290n	925m	5.0	12	80	3.0s	1.6m	40	0	7		B121a	ML30g	
64		NC6560AP#2	2048	8	SC	MNA	290n	925m	5.0	12	80	3.0s	1.6m	40	0	7		B121a	ML30g	
65		MCM6560L#2	2048	8	SC	MNA	350n	1.0	0.0	5.0	80	4.0	1.6m	40	0	7		B121a	ML150	
66		MCM6560P#2	2048	8	SC	MNA	350n	1.0	0.0	5.0	80	4.0	1.6m	40	0	7		B121a	ML150	
67		NC6560L#2	2048	8	SC	MNA	350n	925m	3.0	12	80	3.0s	1.6m	40	0	7		B121a	ML30g	
68		NC6560P#2	2048	8	SC	MNA	350n	925m	3.0	12	80	3.0s	1.6m	40	0	7		B121a	ML30g	
69		2580I	2048	4	SC	MPG	625n†	730m‡	12	5.0	60	3.4s	1.6m	50	0	7		B111	ML88f	
70		2580N	2048	4	SC	MFG	625n†	730m‡	12	5.0	60	3.4s	1.6m	50	0	7		B111	ML135	
71		ER2800	2048	4	SC	MPN	2.0u	575m	14	5.0	80	3.5s	3.2m		0	7	EAROM	B239	ML216b	
72		M58731-XXXS	2048	8	SE	MPX	850n	515m	0.0	5.0	80	2.0	1.9m	45	0	7	Fld Prog	B111	ML135	
73		M58733S	2048	8	SE	MXX	450n	5.0	12	65	3.0	1.6m	45	0	7	Fld Prog	B111	ML135		
74		M58733S-1	2048	8	SE	MXX	650n	5.0	12	65	3.0	1.6m	45	0	7	Fld Prog	B111	ML135		
75		MK28000P#1	2048	8	DC	MPI	600n	340m♦	12	5.0	80	-1.5	1.0u#Δ		0	7		B94	ML191	
76		MC52026	2048	8	DC	MPX	450n	500m†	12	5.0	80	3.5	1.6m	40	2	8		B124	ML21	
77		DM8531D	2048	8	SC	BTX	300n\$	575m†	0.0	5.0	80	2.0s	6.0m	40	0	7		B169	ML184	
78		DM8531J	2048	8	SC	BTX	450n\$	800m	0.0	5.0	80	2.0s	6.0m	45	0	7		B169	ML183a	
79		DM8531N	2048	8	SC	BTX	450n\$													

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION		3 OP. MODE		5 MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS			
		1 No. WORDS	2 BITS PER WORD	3 PROG. CODE	4 MODE			5 STRUCTURE CODE	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)			@ (V)	OUT	LOGIC/BLOCK	OUTLINE
1	uPD2316AD	2048	8	SC	MNX	450n	490m	0.0	5.0	.80	2.0s	2.0m	.45	1	7	B164	ML205		
2	MCM6832L	2048	8	SC	MNX	500n	527m	5.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML207b		
3	MCM6832P	2048	8	SC	MNX	500n	527m	5.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML139		
4	MCM68317L	2048	8	SC	MNX	500n†		0.0	5.0							B210	ML207b		
5	MCM68317P	2048	8	SC	MNX	500n†		0.0	5.0							B210	ML139		
6	EA8316EDL	2048	8	SC	MNX	525n	700m	0.0	5.0	.80	2.2s	2.1m	.45	5	9	B258	ML184b		
7	EA8316ADC	2048	8	SC	MNX	600n	800m	0.0	5.0	.80	2.2s	1.6m	.40	0	7	B164	ML133e		
8	EA8316ADM	2048	8	SC	MNX	600n	800m	0.0	5.0	.80	2.2s	1.6m	.40	5	9	B164	ML133e		
9	S9996#1	2048	8	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	A146	ML34d		
10	S9996#2	2048	8	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	A146	ML155		
11	TMS4800JL#1	2048\$	8\$	SC	MPX	700n	450m†	12	5.0	.60	3.5	50u	.40	0	7	B94	ML207		
12	TMS4800NL#1	2048\$	8\$	SC	MPX	700n	450m†	12	5.0	.60	3.5	50u	.40	0	7	B94	ML72b		
13	EA4900#1	2048	8	SC	MPX	950n	1.2	12	5.0	5.6	3.5			0	6	B94	ML41		
14	EA4900#2	2048	8	SC	MPX	950n	1.2	12	5.0	5.6	3.5			0	6	B94	ML168		
15	EA4900C#1	2048	8	SC	MPX	950n	800m	12	5.0	.60	3.5	1.6m	.40	0	7	B94a	ML168		
16	EA4900C#2	2048	8	SC	MPX	950n	1.2	12	5.0	.60	3.5	1.6m	.40	0	7	B94a	ML187		
17	FDR151BZ	2048	8	SC	MPX	1.2u	525m	12	5.0	3.5	.60	1.6m	.40	0	7	B94	ML118b		
18	FDR151Z	2048	8	SC	MPX	1.2u	525m	12	5.0	3.5	.60	1.6m	.40	0	7	B94	ML41		
19	TMS2716JL	2048	8	SE	MNG	450n	700m	5.0	12	.65	2.4s	1.6m	.45	0	7	Erasable PROM	B269	ML207	
20	RO3-20480	2048	10	SC	MNI	500n	250m†	0.0	5.0					0	7	B231	ML216b		
21	MK28000P#2	4096	4	DC	MPI	600n	340m†	12	5.0	.80	-1.5	10u#Δ		0	7	B94	ML191		
22	EA4600C#3	4096	4	SC	MNA	550n	800m	0.0	5.0	.40%	2.4	1.6m	.40	0	7	B94a	ML168		
23	EA4600C#4	4096	4	SC	MNA	550n	1.2	0.0	5.0	.40%	2.4	1.6m	.40	0	7	B94a	ML187		
24	EA4600M#3	4096	4	SC	MNA	750n	800m	0.0	5.0	.40%	2.4	1.6m	.40	5	C	B94a	ML168		
25	EA4600M#4	4096	4	SC	MNA	750n	1.2	0.0	5.0	.40%	2.4	1.6m	.40	5	C	B94a	ML187		
26	EA4600C1#3	4096	4	SC	MNA	800n	800m	0.0	5.0	.40%	2.4	1.6m	.40	0	7	B94a	ML168		
27	EA4600C1#4	4096	4	SC	MNA	800n	1.2	0.0	5.0	.40%	2.4	1.6m	.40	0	7	B94a	ML187		
28	RO3-16384	4096	4	SC	MNI	1.5u\$	250m	0.0	5.0	.65	2.2s	1.6m	.45	0	7	B183			
29	S8996#1	4096	4	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	Random PR	A146	ML34d	
30	S8996#2	4096	4	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	Random PR	A146	ML155	
31	TMS4800JL#2	4096\$	4\$	SC	MPX	700n	450m†	12	5.0	.60	3.5	50u	.40	0	7	B94	ML207		
32	TMS4800NL#2	4096\$	4\$	SC	MPX	700n	450m†	12	5.0	.60	3.5	50u	.40	0	7	B94	ML72b		
33	EA4900L#1	4096	4	SC	MPX	1.3u	800m	12	5.0	.60	3.5	1.6m	.40	5	A	B94a	ML168		
34	EA4900L#2	4096	4	SC	MPX	1.3u	1.2	12	5.0	.60	3.5	1.6m	.40	5	A	B94a	ML187		
35	M58332-XXXP	4096	8	SC		600n		0.0	5.0	.80	2.2	2.0m	.45	0	7				
36	MCS2029	4096	8	S	MPX	800n	456m†	12	5.0	.60	-1.5					B160	ML171		
37	MK32000P-5	4096	8	SC	MNG	300n	200m†	0.0	5.0	.80	2.0s			0	7	B261	ML191		
38	HN46532-2	4096	8	SC	MNG	450n	440m	0.0	5.0	.80	2.0	1.6m	.40	0	7	B247	ML32c		
39	TMS4732JL	4096	8	SC	MNG	450n	580m†	0.0	5.0	.65	2.0s	2.0m	.40	0	7	B226	ML207		
40	TMS4732NL	4096	8	SC	MNG	450n	580m†	0.0	5.0	.65	2.0s	2.0m	.40	0	7	B226	ML72b		
41	HN46532-3	4096	8	SC	MNG	650n	440m	0.0	5.0	.80	2.2	1.6m	.40	0	7	B247	ML32c		
42	RO3-9332B	4096	8	SC	MNI	450n		0.0	5.0					0	7	B232	ML216b		
43	RO3-9332A	4096	8	SC	MNI	850n		0.0	5.0					0	7	B232	ML216b		
44	EA3200DC	4096	8	SC	MNX	350n	500m	5.0	12	.80	2.4s	2.1m	.45	0	7	B257	ML218a		
45	MK36000P-5	8192	8	SC	MNG	300n	200m†	0.0	5.0	.80	2.0s			0	7	B262	ML191		

4. CHARACTER GENERATORS

IN ORDER OF (1)USE CODE(2)No.CHARACTERS
(3)No.BITS/CHAR(4)No.OUT(5)STRUCT(6)TYPE No.

LINE No.	TYPE No.	USE CODE	No. CHARACTERS	BITS PER CHAR.	No. OUT-PUTS	STRUC TURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)		OPER. TEMP. RANGE CODE		DRAWINGS		
									NEG. (V)	POS. (V)	'0' (V)	'1' (V)	(A)	(V)	- +	LOGIC/ BLOCK	OUTLINE		
1#	FDR131Z2	DAC	64	35	7	MPX	1.5u	90m	14	0.0	-9.0	-2.0					C8	ML41	
2▼	TMS4710JL	DAC	128	35	8	MNG	450n	310m	5.0	12	.80	3.3s	2.0m	.45	0	7		C70	ML207
3▼	TMS4710NL	DAC	128	35	8	MNG	450n	310m	5.0	12	.80	3.3s	2.0m	.45	0	7		C70	ML72b
4	RO1-2240	DAR	64	35	5	MPT	500nΔ	250m	25	0.0	-1.5*	-24#						C9	ML47
5#	FDR11621	DAR	64	35	5	MPX	850n	90m	14	0.0	-2.0	-2.0						C7	ML41
6#	FDR11622	DAR	64	35	5	MPX	850n	90m	14	0.0	-2.0	-2.0						C7	ML41
7	MCS2024#1	DCC	128	63	9	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C44	ML2
8	MCS2020#1	DCR	32	70	7	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C34	ML2
9	MCS2018#1	DCR	32	120	10	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C33	ML2
10	MCS2017#1	DCR	64	63	7	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C32	ML2
11	MCS2025#1	DCR	64	120	10	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C45	ML2
12	MCS2022#1	DCR	128	63	7	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C43	ML2
13#	uPD474D02	SAC	64	9	7	MNX	315n	704m*	5.0	12	.80	3.0s	1.7m	.50	1	7		C63	ML234
14#	uPD473D02	SAC	64	9	7	MNX	315n	704m*	5.0	12	.80	3.0s	1.7m	.50	1	7		C62	ML234
15#	uPD473D04	SAC	64	9s	7	MNX	315n	704m*	5.0	12	.80	3.0s	1.7m	.50	1	7		C62	ML234
16	MM6056	SAC	64	35	7	BTX	175n∅	675m	0.0	5.0	.80	2.0	6.0m	.45	0	7		C52	ML47c
17	MCS2027	SAC	64	35	7	MPC	450m	12	5.0	.80	3.5	1.6m	.40	2	7				
18	MCS2028	SAC	64	35	7	MPC	450m	12	5.0	.80	3.5	1.6m	.40	2	7				
19	MCS1004	SAC	64	35	7	MPC	950n∅	450m∅	12	12	-3.0	-9.0						C28a	
20	MCS1005	SAC	64	35	7	MPC	950n∅	450m∅	12	12	-3.0	-9.0						C28b	
21	UC7541-03	SAC	64	35	7	MPX	700n∅	200m∅	12	12	-3.0	-1.1	2.0m	-4.0	2	8		C16	ML24
22	RO5-2240S	SAC	64	35	7	MPX	1.5u	680m	12	5.0	.80	3.5	1.6	.40	0	7		C65	ML216b
23	3257-9-7C	SAC	64	35	7	MXX	1.0u	715m	12	5.0	.85	4.0	1.6m	.40	0	7		C18	ML52
24	2516IXCM2150	SAC	64	48	8	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7		C15b	ML88f
25	2516NXCM2150	SAC	64	48	8	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7		C15b	ML135
26	MM6074	SAC	64	63	9	BTX	175n∅	675m	0.0	5.0	.80	2.0	6.0m	.45	0	7		C58	ML47c
27	S8771D	SAC	64	63	10	MPI	450n	12	5.0	.60	4.0	4.0		0	6		B109a	ML13b	
28	EA4001	SAC	64	63	9	MPX	725n	60u%	30	#	-2.0	-9.0						C5	ML41
29#	FDR146BZ1	SAC	64	80	10	MPX	725n	300m	28	0.0	-9.0	-2.0	1.6m	.40	5	8		E13	ML118b
30#	FDR146Z1	SAC	64	80	10	MPX	725n	300m	28	0.0	-9.0	-2.0	1.6m	.40	5	8		E13	ML41
31	RO5-5184	SAC	64	81	9	MPX	3.5u	250m	12	5.0	.80	3.5s	1.6	.40	0	7		C66	ML216b
32	MM6062	SAC	128	35	7	BTX	175n∅	675m	0.0	5.0	.80	2.0	6.0m	.45	0	7		C54	ML47c
33	NC6591L#7	SAC%	128	49	7	MNA	800n	405m	5.0	12	.80	3.0	1.6m	.40	0	7		B144	ML30g
34	NC6591P#7	SAC%	128	49	7	MNA	800n	405m	5.0	12	.80	3.0	1.6m	.40	0	7		B144	ML30g
35	MM6073	SAC	128	63	9	BTX	175n∅	675m	0.0	5.0	.80	2.0	6.0m	.45	0	7		C57	ML47c
36	NC6581L	SAC∅	128	63	9	MNA	400n	700m	3.0	12	.80	3.0	1.6m	.40	0	7		C51	ML30g
37	NC6581P	SAC∅	128	63	9	MNA	400n	700m	3.0	12	.80	3.0	1.6m	.40	0	7		C51	ML30g
38	NC6583L	SACs	128	63	9	MNA	400n	700m	3.0	12	.80	3.0	1.6m	.40	0	7		C51	ML150c
39	NC6583P	SACs	128	63	9	MNA	400n	700m	3.0	12	.80	3.0	1.6m	.40	0	7		C51	ML150c
40	MCM6581L	SAC∅	128	64s	9	MNX	400n	800	3.0	12	.80	4.0	1.6m	.40	0	7		C51	ML150
41	MCM6581P	SAC∅	128	64s	9	MNX	400n	800m	3.0	12	.80	4.0	1.6m	.40	0	7		C51	ML39
42	MCM6583L	SACs	128	64s	9	MNX	400n	800	3.0	12	.80	4.0	1.6m	.40	0	7		C51	ML150
43	MCM6583P	SACs	128	64s	9	MNX	400n	800m	3.0	12	.80	4.0	1.6m	.40	0	7		C51	ML39
44	S8564#2	SAR	64	9	7	MPI	450n	1.0	12	5.0	.60	4.0		0	6		C47	ML13b	
45	S8564A	SAR	64	9	7	MPI	450n	1.0	12	5.0	.60	4.0		0	6		C47	ML13b	
46	3260-91-7R	SAR	64	9	7	MXG	560m	0.0	5.0	.80	4.0	4.0	2.4m	.40	0	7		C40	ML103
47	3260-92-7R	SAR	64	9	7	MXG	560m	0.0	5.0	.80	4.0	4.0	2.4m	.40	0	7		C40	ML103
48	MM6055	SAR	64	35	5	BTX	100n∅	625m	0.0	5.0	.85	2.0	8.0m	.45	0	7		C59	ML106
49#	RO3-2513	SAR	64	35	5	MNI	450n	165m	0.0	5.0	.65	2.2s	1.6m	.45	0	7		C60	ML216b
50	MK2408P	SAR	64	35	10	MPI	600n	425m	12	5.0	.80	-1.5	1.6m	.40	0	7		C12	ML29
51	MK2302P	SAR	64	35	7	MPI	1.0u∅	40m	12	5.0	.60	3.5	2.0m	.40	0	7		C12	ML21
52	3258-9-7K	SAR	64	35	5	MXG	600n	400m	12	5.0	.85	2.0						C19	ML57
53	UA3540D4	SAR	64	35	5	MXX	600n	540m	15	5.0	.80*	2.6	2.0uΔ	-5.0*	2	7		B9g	ML31a
54	UA3540D8	SAR	64	35	5	MXX	600n	540m	15	5.0	.80*	2.6	2.0uΔ	-5.0*	2	7		B9h	ML32
55	2513IXCM2140	SAR	64	40	5	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7		C15	ML88f
56	2513NXCM2140	SAR	64	40	5	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7		C15	ML135
57	DM7678J	SAR	64	63	1	BTX	50n∅	500m∅	0.0	5.0	.40%	2.4	16m	.40	5	C		C68	ML127f
58	DM7679J	SAR	64	63	1	BTX	50n∅	500m∅	0.0	5.0	.40%	2.4	16m	.40	5	C		C69	ML127f
59	DM8678J	SAR	64	63	1	BTX	50n∅	500m∅	0.0	5.0	.40%	2.4	16m	.40	0	7		C68	ML127f
60	DM8678N	SAR	64	63	1	BTX	50n∅	500m∅	0.0	5.0	.40%	2.4	16m	.40	0	7		C68	ML178
61	DM8679J	SAR	64	63	1	BTX	50n∅	500m∅	0.0	5.0	.40%	2.4	16m	.40	0	7		C69	ML127f
62	DM8679N	SAR	64	63	1	BTX	50n∅	500m∅	0.0	5.0	.40%	2.4	16m	.40	0	7		C69	ML178
63	MM6071	SAR	64	63	7	BTX	175n∅	675m	0.0	5.0	.80	2.0	6.0m	.45	0	7		C55	ML47c
64	MM4220NPJ	SAR	64	63	7	MPX	650n∅	300m∅	12	12	10*	4.0#		5	C		B26a	ML133a	
65	MM5220NPJ	SAR	64	63	7	MPX	650n∅	300m∅	12	12	10*	4.0#		2	7		B26a	ML133a	
66	MM5220NPN	SAR	64	63	7	MPX	650n∅	300m∅	12	12	10*	4.0#		2	7		B26a	ML183	
67	MM4230NNJ	SAR	64	63	7	MPX	725n∅	960m∅	12	12	10*	4.0#		5	C		B26	ML133a	
68	MM4230NOJ	SAR	64	63	7	MPX	725n∅	960m∅	12	12	10*	4.0#		5	C		B26	ML133a	
69	MM5230NNJ	SAR	64	63	7	MPX	725n∅	960m∅	12	12	10*	4.0#							

4. CHARACTER GENERATORS

IN ORDER OF (1)USE CODE(2)No.CHARACTERS
(3)No.BITS/CHAR(4)No.OUT(5)STRUCT(6)TYPE No.

LINE No.	TYPE No.	USE CODE	No. CHARACTERS	BITS PER CHAR.	No. OUT-PUTS	STRUC TURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT		OPER. TEMP. RANGE CODE	DRAWINGS			
									NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	(V)		-	+	LOGIC/BLOCK	OUTLINE
1	MCM6578L	SAR	128	63	7	MNX	500n	800m	3.0	12	.80	4.0	1.6m	.40	0	7	C50	ML150a	
2	MCM6578P	SAR	128	63	7	MNX	500n	800m	3.0	12	.80	4.0	1.6m	.40	0	7	C50	ML39	
3	MCM6579L	SAR	128	63	7	MNX	500n	800m	3.0	12	.80	4.0	1.6m	.40	0	7	C50	ML150a	
4	MCM6579P	SAR	128	63	7	MNX	500n	800m	3.0	12	.80	4.0	1.6m	.40	0	7	C50	ML39	
5	2526I#1	SAS	64	81	9	MPG	700n	730m	12	5.0	.60	3.4	1.6m	.50	0	7	B112	ML174	
6	2526N#1	SAS	64	81	9	MPG	700n	730m	12	5.0	.60	3.4	1.6m	.50	0	7	B112	ML135	
7#	M200M1AA	SBC	16	64	8	MPX	4.0u	150m†	27	0.0	-2.0	-9.0	1.0uΔ	20	0	7	B57	ML59	
8#	M200M1XX	SBC	16	64	8	MPX	4.0u	150m†	27	0.0	-2.0	-9.0	1.0u	20	0	7	B57	ML59	
9#	uPD474D01	SCC	64	7	9	MNX	315n	704m♦	5.0	12	.80	3.0s	1.7m	.50	1	7	C63	ML234	
10#	uPD473D03	SCC	64	9	7	MNX	315n	704m♦	5.0	12	.80	3.0s	1.7m	.50	1	7	C62	ML234	
11	2516IXCMXXXX	SCC	64	48	8	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7	C15b	ML88f	
12	2516NXCMXXXX	SCC	64	48	8	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7	C15b	ML135	
13	MM4241D	SCC	64	48	8	MPX	900n∅	629m∅	12	5.0	1.0	3.0s	1.6m	.40	5	C	C42	ML200	
14	MM4241J	SCC	64	48	8	MPX	900n∅	629m∅	12	5.0	1.0	3.0s	1.6m	.40	5	C	C42	ML133a	
15	MM4241N	SCC	64	48	8	MPX	900n∅	629m∅	12	5.0	1.0	3.0s	1.6m	.40	5	C	C42	ML118	
16	MM5241D	SCC	64	48	8	MPX	900n∅	629m∅	12	5.0	1.0	3.0s	1.6m	.40	2	7	C42	ML200	
17	MM5241J	SCC	64	48	8	MPX	900n∅	629m∅	12	5.0	1.0	3.0s	1.6m	.40	2	7	C42	ML133a	
18	MM5241N	SCC	64	48	8	MPX	900n∅	629m∅	12	5.0	1.0	3.0s	1.6m	.40	2	7	C42	ML118	
19	NC6580L	SCC	128	63	9	MNA	400n	700m†	3.0	12	.80	3.0	1.6m	.40	0	7	C51	ML30g	
20	NC6580P	SCC	128	63	9	MNA	400n	700m†	3.0	12	.80	3.0	1.6m	.40	0	7	C51	ML30g	
21	MCM6580L	SCC	128	64	9	MNX	400n	800	3.0	12	.80	4.0	1.6m	.40	0	7	C51	ML150	
22	MCM6580P	SCC	128	64	9	MNX	400n	800	3.0	12	.80	4.0	1.6m	.40	0	7	C51	ML39	
23	3255-9-7K	SCN	16	35	7	MPG	400n	400m	12	5.0	.85	4.0	2.4m	.40	0	7	C17	ML57	
24	3256-9-7K	SCN	16	35	7	MPG	400n	400m	12	5.0	.85	4.0	2.4m	.40	0	7	C17	ML57	
25#	uPD473D01	SCR	64	9	7	MNX	315n	704m♦	5.0	12	.80	3.0s	1.7m	.50	1	7	C62	ML234	
26	2513IXCMXXXX#1	SCR	64	35	5	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7	C15	ML88f	
27	2513NXCMXXXX#1	SCR	64	35	5	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7	C15	ML135	
28	2513IXCMXXXX#2	SCR	64	40	5	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7	C15	ML88f	
29	2513NXCMXXXX#2	SCR	64	40	5	MPG	500n	730m	12	5.0	.60	3.4s	1.6m	.40	0	7	C15	ML135	
30	MM4240D	SCR	64	40	5	MPX	600n∅	480m∅	12	12	10*	4.0#		5	C	C14a	ML200		
31	MM4240J	SCR	64	40	5	MPX	600n∅	480m∅	12	12	10*	4.0#		5	C	C14a	ML133a		
32	MM5240D	SCR	64	40	5	MPX	600n∅	480m∅	12	12	10*	4.0#		2	7	C14a	ML200		
33	MM5240J	SCR	64	40	5	MPX	600n∅	480m∅	12	12	10*	4.0#		2	7	C14a	ML133a		
34	MM5240N	SCR	64	40	5	MPX	600n∅	480m∅	12	12	10*	4.0#		2	7	C14a	ML183		
35	MK2300P	SCR	64	70	10	MPI	1.0u∅	40m	12	5.0	.60	3.5	2.0m	.40	0	7	C12	ML21	
36	NC6570AL	SCR	128	63	7	MNA	400n	600m†	5.0	12	.80	3.0	1.6m	.40	0	7	C50	ML30g	
37	NC6570AP	SCR	128	63	7	MNA	400n	600m†	5.0	12	.80	3.0	1.6m	.40	0	7	C50	ML30g	
38	NC6570L	SCR	128	63	7	MNA	400n	600m†	3.0	12	.80	3.0	1.6m	.40	0	7	C50	ML150c	
39	NC6570P	SCR	128	63	7	MNA	400n	600m†	3.0	12	.80	3.0	1.6m	.40	0	7	C50	ML150c	
40#	MSM575-01	SCC	5	7	7	MCX	1.5u†	2.5m†	0.0	5.0	.80	3.6	1.6m	.40	2	7	C61	ML118h	
41	UC7541-79	SECC	64	35	7	MPX	700n∅	200m†	12	12	-3.0	-11	2.0m	-4.0	2	8	C16	ML24	
42	EA4016	SECC	64	80	10	MPX	725n	450m	12	12	10	3.0	1.6m	.40	5	8	C41a	ML41	
43	MM4240ABZJ	SER	64	40	5	MPX	600n∅	504m∅	12	12	10*	4.0#		5	C	C14a	ML133a		
44	MM4240ACAJ	SER	64	40	5	MPX	600n∅	504m∅	12	12	10*	4.0#		5	C	C14a	ML133a		
45	MM5240ABZJ	SER	64	40	5	MPX	600n∅	504m∅	12	12	10*	4.0#		2	7	C14a	ML183		
46	MM5240ABZJN	SER	64	40	5	MPX	600n∅	504m∅	12	12	10*	4.0#		2	7	C14a	ML183		
47	MM5240ACAJ	SER	64	40	5	MPX	600n∅	504m∅	12	12	10*	4.0#		2	7	C14a	ML133a		
48	MM5240ACAN	SER	64	40	5	MPX	600n∅	504m∅	12	12	10*	4.0#		2	7	C14a	ML183		
49	MM4240ABUJ	SHR	64	40	7	MPX	600n∅	504m∅	12	12	10*	4.0#		5	C	C14a	ML133a		
50	MM5240ABUJ	SHR	64	40	7	MPX	600n∅	504m∅	12	12	10*	4.0#		2	7	C14a	ML133a		
51	MM5240ABUN	SHR	64	40	7	MPX	600n∅	504m∅	12	12	10*	4.0#		2	7	C14a	ML183		
52#	T154D1A9	SNC	6	40	8	BTX	50n∅	400m♦	0.0	5.0	90	2.0	10m	45	0	7	B20	ML60	
53#	T154D1B8	SNC	6	40	8	BTX	50n∅	400m♦	0.0	5.0	90	2.0	10m	45	0	7	B20	ML60	
54	MCM6670P	SNR	128	35	5	MNG	500n	650m	0.0	5.0	80	2.0	1.6m	.40	0	7	C64	ML7	
55	HEPC380ZP-RT	SNS	12	8	8	BTX	45n	240m†	0.0	5.0	90	2.0	20m	5.25	0	7	C26	ML38	
56	MC4039P	SNS	12	8	8	BTX	45n♦	240m†	0.0	5.0	.45%		20m	.45	0	7	C26	ML40	

6. CODE CONVERTERS

IN ORDER OF (1) FROM CODE (2) TO CODE (3) NO. WORDS
(4) NO. INPUT BITS (5) NO. OUTPUT BITS (6) TYPE No.

LINE No.	TYPE No.	CONVERSION CODE		3. No. WORDS	No. CODE BITS		MODE	STRUCTURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)		OPER. TEMP. RANGE CODE	DRAWINGS			
		1	2		4	5					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	(V)		+	-	LOGIC/BLOCK	OUTLINE
		FRM TO			IN	OUT															
1	MM4220EKJ #2	1	2	128	6	8	S	MPX	650n	300m	12	12	10*	4.0#			5	7	B26a	ML133a	
2	MM5220EKJ #2	1	2	128	6	8	S	MPX	650n	300m	12	12	10*	4.0#			5	7	B26a	ML133a	
3	MM5220EKN #2	1	2	128	6	8	S	MPX	650n	300m	12	12	10*	4.0#			5	7	B26a	ML183	
4	MM4221RRJ	1	2	128	7	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	7	B26a	ML133a	
5	MM5221RRJ	1	2	128	7	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	7	B26a	ML133a	
6	MM5221RRN	1	2	128	7	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	7	B26a	ML183	
7	MCM6561L#6	1	2	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
8	MCM6561P#6	1	2	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
9	MCM6562L#6	1	2	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
10	MCM6562P#6	1	2	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
11	NC6561L#6	1	2	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
12	NC6561P#6	1	2	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
13	MCM6591L#3	1	2	128*	11	8	S	MNG	800n	405m	3.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML150a	
14	NC6591L#6	1	2	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
15	NC6591P#6	1	2	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
16	N8224CB180	1	2	256	7	8	D	BTX	50n	400m	0.0	5.0	.40%		9.6m	.40	0	7	B67		
17	MM4230QYJ	1	2	256	8	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML133a	
18	MM5230QYJ	1	2	256	8	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML133a	
19	MM5230QYN	1	2	256	8	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML183	
20	N8204YCB505	1	2	256	8	8	S	BTX	75n	850m	0.0	5.0	.85*	2.0T	9.6m	.50	0	7	E1a	ML47a	
21	MK2503P#1	1	2	512	8	8	S	MPI	700n	476m	12	5.0	.40	2.4s	1.6m	.40	0	7	B73	ML21	
22	MK2601P#1	1	2	512	8	8	S	MPI	700n	476m	12	5.0	.40	2.4s	1.6m	.40	0	7	B99	ML21	
23	N8205YCB175#1	1	2	512	8	8	S	BTX	75n	850m	0.0	5.0	.85*	2.0T	9.6m	.50	0	7	E1	ML47a	
24	E44015#1	1	2	512	8	10	D	MPX	725n	450m	12	12	10	3.0	1.6m	.40	5	8	E14	ML41	
25#	FDR131Z1#1	1	2	512	9	8	D	MPX	1.5u	100mt	14	0.0	-9.0	-2.0			0	7	B36	ML41	
26	MCM6561L#2	1	3	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
27	MCM6561P#2	1	3	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
28	MCM6562L#2	1	3	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
29	MCM6562P#2	1	3	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
30	NC6561L#2	1	3	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
31	NC6561P#2	1	3	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
32	MCM6591L#1	1	3	128*	11	8	S	MNG	800n	405m	3.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML150a	
33	NC6591L#2	1	3	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
34	NC6591P#2	1	3	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
35	MM4230KP2J	1	3	256	7	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML133a	
36	MM5230KP2J	1	3	256	7	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML133a	
37	MM5230KP2N	1	3	256	7	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML183	
38#	FDR126Z1#1	1	3	256	8	10	D	MPX	1.0u	100mt	14	0.0	-9.0	-2.0			5	8	B35	ML41	
39	MM4220LRJ#2	1	4	128	6	7	S	MPX	650n	300m	12	12	10*	4.0#			5	7	B26a	ML133a	
40	MM5220LRJ#2	1	4	128	6	7	S	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML133a	
41	MM5220LRN#2	1	4	128	6	7	S	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML183	
42	MM4220AEJ	1	6	128	7	8	S	MPX	650n	300m	12	12	10*	4.0#			5	7	B26a	ML133a	
43	MM5220AEJ	1	6	128	7	8	S	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML133a	
44	MM5220AEN	1	6	128	7	8	S	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML183	
45	MCM6561L#4	1	6	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
46	MCM6561P#4	1	6	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
47	MCM6562L#4	1	6	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
48	MCM6562P#4	1	6	128*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
49	NC6561L#4	1	6	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
50	NC6561P#4	1	6	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
51	MCM6591L#4	1	6	128*	11	8	S	MNG	800n	405m	3.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML150a	
52	NC6591L#4	1	6	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
53	NC6591P#4	1	6	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
54	MM4221RQJ#1	1	11	128	6	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	7	B26a	ML133a	
55	MM5221RQJ#1	1	11	128	6	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	7	B26a	ML133a	
56	MM5221RQN#1	1	11	128	6	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	7	B26a	ML183	
57	2526/CM3940	2	1	64	9	9	S	MPG	700n	730m	12	5.0	.60	3.4s	1.6m	.50	0	7	B112	ML135	
58	NC6561L#5	2	1	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
59	NC6561P#5	2	1	128*	10	8	S	MNA	350n	600mt	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g	
60	MCM6591L#5	2	1	128*	11	8	S	MNG	800n	405m	3.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML150a	
61	NC6591L#5	2	1	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
62	NC6591P#5	2	1	128*	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g	
63	MCM6561L#5	2	1	256*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
64	MCM6561P#5	2	1	256*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
65	MCM6562L#5	2	1	256*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a	
66	MCM6562P#5	2	1	256*	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39	
67	MM4230QXJ	2	1	256	8	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML133a	
68	MM4231RP2J	2	1	256	8	8	S	MPX	950n	510m	12	5.0	3.0*	.80#			5	7	B26	ML133a	
69	MM5230QXJ	2	1	256	8	8	S	MPX	725n	960m	12	12	10*	4.0#			5	7	B26	ML133a	
70	MM5230QXN	2	1	256	8	8	S	MPX	725n	960m	12	12	10*	4.0#			0	7	B26	ML183	
71	MM5231RP2J	2	1	256	8	8	S	MPX	950n	510m	12	5.0	3.0*	.80#			2	7	B26	ML133a	
72	MM5231RP2N	2	1	256	8	8	S	MPX	950n	510m	12	5.0	3.0*	.80#			2	7	B26	ML183	
73	N8204YCB504	2	1	256	8	8	S	BTX	75n	850m	0.0	5.0	.85*	2.0T	9.6m	.50	0	7	E1a	ML47a	
74	N2430YCM0000	2	1	256	9	8	S	MPX	500nt	1.1	12	12	10*	4.0			2	7	B26	ML21b	
75	MK2503P#2	2	1	512	8	8	S	MPI	700n</												

6. CODE CONVERTERS

IN ORDER OF (1)FROM CODE(2)TO CODE(3)No.WORDS
(4)No.INPUT BITS(5)No.OUTPUT BITS(6)TYPE No.

LINE No.	TYPE No.	CONVERSION CODE		3 No. WORDS	No. CODE BITS		M O D E	STRUCTURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	DRAWINGS		
		1	2		4	5					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)		-	+	LOGIC/BLOCK	OUTLINE
																	FRM			
1	DM54184AJ	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	5	C	B21	ML127f
2	DM54184AW	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	5	C	B21	FL39
3	DM54184J	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	5	C	B21	ML127f
4	DM54184W	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	5	C	B21	FL39
5	DM74184AJ	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	0	7	B21	ML127f
6	DM74184AN	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	0	7	B21	ML178
7	DM74184AW	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	0	7	B21	FL39
8	DM74184J	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	0	7	B21	ML127f
9	DM74184N	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	0	7	B21	ML178
10	DM74184W	4	5	40	6	6	S	BTX	50ns	400m	0.0	5.0	.80	2.0	12m	.40	0	7	B21	FL39
11	FLH561-74184	4	5	40	6	6	S	BTC	40ns	500m	0.0	5.0	.80	2.0	12m	.40	0	7	E20	MLZ
12	FLH565-84184	4	5	40	6	6	S	BTC	40ns	500m	0.0	5.0	.80	2.0	12m	.40	2	8	E20	MLZ
13	SN54184J	4	5	40	6	6	S	BTX	40ns	500m	0.0	5.0	.80	2.0Δ	12m	.40	5	C	E18	ML61a
14	SN54184W	4	5	40	6	6	S	BTX	40ns	500m	0.0	5.0	.80	2.0Δ	12m	.40	5	C	E18	M0004AG
15	SN74184J	4	5	40	6	6	S	BTX	40ns	500m	0.0	5.0	.80	2.0Δ	12m	.40	0	7	E18	ML61a
16	SN74184N	4	5	40	6	6	S	BTX	40ns	500m	0.0	5.0	.80	2.0Δ	12m	.40	0	7	E18	ML48
17	5548	4	5	256	6	6	S	BTX	40ns	930m	0.0	5.0	.80	2.0	12m	.40	0	7	E20	MLZ
18	FLH571-74185A	5	4	64	6	6	S	BTC	40ns	500m	0.0	5.0	.80	2.0	12m	.40	0	7	E20	MLZ
19	FLH575-84185A	5	4	64	6	6	S	BTC	40ns	500m	0.0	5.0	.80	2.0	12m	.40	2	8	E20	MLZ
20	SN54185AJ	5	4	64	6	7	S	BTX	40ns	500m	0.0	5.0	.80	2.0Δ	12m	.40	5	C	E18	ML61a
21	SN54185AW	5	4	64	6	7	S	BTX	40ns	500m	0.0	5.0	.80	2.0Δ	12m	.40	5	C	E18	M0004AG
22	SN74185AJ	5	4	64	6	7	S	BTC	25n1	546m	0.0	5.25	.80	2.0	12m	.40	0	7	E18	ML61a
23	SN74185AN	5	4	64	6	7	S	BTC	25n1	546m	0.0	5.25	.80	2.0	12m	.40	0	7	E18	ML48
24	5549	5	4	256	6	6	S	BTX	40ns	930m	0.0	5.0	.80	2.0	12m	.40	0	7	E18	ML48
25	MCM4067AL%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0	7	E12	ML78
26	MCM4067L%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0	7	E12	ML5
27	MCM4068AL%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0	7	E12	ML78
28	MCM4068L%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0	7	E12	ML5
29	NC6561L#3	6%	1	128	10	8	S	MNA	350n	600m	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g
30	NC6561P#3	6%	1	128	10	8	S	MNA	350n	600m	3.0	12	.80	3.0	1.6m	.40	0	7	B121	ML30g
31	MCM6591L#6	6%	1	128	11	8	S	MNG	800n	405m	3.0	12	.80	3.0s	1.6m	.40	0	7	B144	ML150a
32	NC6591L#3	6%	1	128	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g
33	NC6591P#3	6%	1	128	11	8	S	MNA	800n	405m	3.0	12	.80	3.0	1.6m	.40	0	7	B144	ML30g
34	MCM6561L#3	6	1	256	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a
35	MCM6561P#3	6	1	256	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39
36	MCM6562L#3	6	1	256	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML150a
37	MCM6562P#3	6	1	256	8	8	S	MNA	350n	1.0	0.0	5.0	.40%	3.0	1.6m	.40	0	7	B121	ML39
38	MCM4069AL%	6	1	256	12	8	S	BTX	40n1	650m	0.0	5.0	.45%	3.0	12m	.45	0	7	E12a	ML98
39	MCM4070AL%	6	1	256	12	8	S	BTX	40n1	650m	0.0	5.0	.45%	3.0	12m	.45	0	7	E12a	ML98
40	MM4230B01J	6	1	256	12	8	S	MPX	725n	960m	12	12	10*	4.0#			5	C	B26	ML133a
41	MM5230B01J	6	1	256	12	8	S	MPX	725n	960m	12	12	10*	4.0#			0	7	B26	ML133a
42	MM5230B01N	6	1	256	12	8	S	MPX	725n	960m	12	12	10*	4.0#			0	7	B26	ML183
43	MM4230QWJ	6	2	256	12	8	S	MPX	725n	960m	12	12	10*	4.0#			5	C	B26	ML133a
44	MM5230QWJ	6	2	256	12	8	S	MPX	725n	960m	12	12	10*	4.0#			0	7	B26	ML133a
45	MM5230QWN	6	2	256	12	8	S	MPX	725n	960m	12	12	10*	4.0#			0	7	B26	ML183
46	AY5-2376	8	1	264	88	98	D	MPN	170m		12	5.0	.80	3.5	1.6m	.40	0	7	E17	ML246
47	AY5-3600	8	1	360	90	10	D	MPN	204m		12	5.0	.80	3.5	1.6m	.40	0	7	E18	ML246
48	EA2007ADC#1	8	1	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML166
49	EA2007APC#1	8	1	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML167
50	EA2007ADC#2	8	2	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML166
51	EA2007APC#2	8	2	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML167
52	AY5-3600-PRO	8	5	360	90	9	D	MPN	204m		12	5.0	.80	3.5	1.6m	.40	0	7	E18	ML246
53	MP3802	8	9	360	90	10	S	MXX	204m		12	5.0	.80	3.5	1.6m	.40	0	7	E19	ML174a
54	EA2000CD	8	9	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML166
55	EA2000CP	8	9	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML167
56	EA2030DC	8	9	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML166
57	EA2030PC	8	9	396	99	10	D	MPX			12	5.0	.80	2.8s	10uΔ		0	7	E16	ML167
58	2526/CM3400	10	1	64	5	9	S	MPG	700n	730m	12	5.0	.60	3.4s	1.6m	.50	0	7	B112	ML135
59	MM4220BLJ	10	1	128	5	7	S	MPX	650n	300m	12	12	10*	4.0#			5	C	B26a	ML133a
60	MM5220BLJ	10	1	128	5	7	S	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML133a
61	MM5220BLN	10	1	128	5	7	S	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML183
62	MM4221RQJ#2	11%	1	128	6	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			5	C	B26a	ML133a
63	MM5221RQJ#2	11%	1	128	6	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			0	7	B26a	ML133a
64	MM5221RQJ#2	11%	1	128	6	8	S	MPX	950n	204m	12	5.0	3.0*	.80#			0	7	B26a	ML183

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS / REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN. CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/ BLOCK	OUTLINE
1#	HEF4006P	4	1	PPD	100k	MCX	400m	0.0	15	4.5	10.5	50n	3.6m	4.8	4	F471	ML71g	
2#	uPD308C	4	1	PPD	12MΔ	MCX	500m	0.0	10	-9.0*	-4.0#	1.5u	250n	5.0	2	F140c	MO001AC	
3	CD4075BD	4	1	PPD	12MΔ	MCX	500m	0.0	10	0.05%	9.95%	250n	6.0M	4	F329	MO001AE		
4	CD4075BE	4	1	PPD	12MΔ	MCX	500m	0.0	10	0.05%	9.95%	250n	6.0M	4	F329	MO001AE		
5	CD4075BF	4	1	PPD	12MΔ	MCX	500m	0.0	10	0.05%	9.95%	250n	6.0M	4	F329	MO001AE		
6	CD4075BH	4	1	PPD	12MΔ	MCX	500m	0.0	10	0.05%	9.95%	250n	6.0M	4	F329	CH9		
7	CD4075BK	4	1	PPD	12MΔ	MCX	500m	0.0	10	0.05%	9.95%	250n	6.0M	5	F329	MO004AG		
8	1112	4	1	PPS			608m	0.0	8.0			55nt		5	F220	PL7		
9#	370AJ	4	1	PPS		BDX	768m	0.0	15	6.5	5.0	750n	2.6m	1.8	3	F324	ML132a	
10#	370AL	4	1	PPS		BDX	768m	0.0	15	6.5	5.0	750n	2.6m	1.8	3	F324	ML127j	
11#	370BL	4	1	PPS		BDX	768m	0.0	15	6.5	5.0	750n	2.6m	1.8	3	F324	ML127j	
12#	370CJ	4	1	PPS		BDX	494m	0.0	12	6.5	5.0	750n	2.1m	1.5	3	F324	ML132a	
13#	370CL	4	1	PPS		BDX	494m	0.0	12	6.5	5.0	750n	2.1m	1.5	3	F324	ML127j	
14#	370ML	4	1	PPS		BDX	494m	0.0	12	6.5	5.0	750n	2.1m	1.5	3	F324	ML127j	
15	SN15370J	4	1	PPS		BDX	405m†	0.0	13.5	5.0	6.5	400n		3	F360	ML161a		
16	SN15370N	4	1	PPS		BDX	405m†	0.0	13.5	5.0	6.5	400n		3	F360	ML48		
17#	GBX10133	4	1	PPS		BEX	310m	5.2	0.0	-1.6	-0.96	5.4n		3	F370	ML60c		
18	AM25LS2519DC	4	1	PPS		BTD		0.0	5.0	8.0	2.0%	4.0m	40	5	F431	ML248		
19	AM25LS2519DM	4	1	PPS		BTD		0.0	5.0	7.0	2.0%	4.0m	40	5	F431	FL44		
20	AM25LS2519FM	4	1	PPS		BTD		0.0	5.0	7.0	2.0%	4.0m	40	5	F431	ML161a		
21	AM25LS2519PC	4	1	PPS		BTD		0.0	5.0	8.0	2.0%	4.0m	40	5	F431	ML127k		
22	AM25S08DC	4	1	PPS		BTD	480m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F285	ML62c	
23	AM25S08DM	4	1	PPS		BTD	480m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F285	FL33b	
24	AM25S08FM	4	1	PPS		BTD	480m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F285	ML127k	
25	AM25S08PC	4	1	PPS		BTD	480m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F285	ML29a	
26	AM25S09DC	4	1	PPS		BTD	600m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F295	ML127k	
27	AM25S09DM	4	1	PPS		BTD	600m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F295	ML62c	
28	AM25S09FM	4	1	PPS		BTD	600m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F295	FL33b	
29	AM25S09PC	4	1	PPS		BTD	600m†	0.0	5.0	8.0	2.0	17n	20m	50	5	F295	ML89a	
30	AM25S10DC	4	1	PPS		BTD	425m†	0.0	5.0	8.0	2.0%	17n	20m	50	5	F286	ML127k	
31	AM25S10DM	4	1	PPS		BTD	425m†	0.0	5.0	8.0	2.0%	17n	20m	50	5	F286	ML62c	
32	AM25S10FM	4	1	PPS		BTD	425m†	0.0	5.0	8.0	2.0%	17n	20m	50	5	F286	FL33b	
33	AM25S10PC	4	1	PPS		BTD	425m†	0.0	5.0	8.0	2.0%	17n	20m	50	5	F286	ML89a	
34#	FJJ181-7475	4	1	PPS		BTX	160m†	0.0	5.0	8.0	2.0	40n	16m	40	0	F372	ML2m	
35#	FLJ151-7475	4	1	PPS		BTX	265m	0.0	5.0	8.0	2.0	40n	16m	40	0	F366	ML2k	
36#	FLJ155-8475	4	1	PPS		BTX	265m	0.0	5.0	8.0	2.0	40n	16m	40	2	F366	ML2k	
37#	FLJ541-74175	4	1	PPS		BTX	127m	0.0	5.0	8.0	2.0	15n§	16m	40	0	F351	ML2k	
38#	FLJ545-84175	4	1	PPS		BTX	127m	0.0	5.0	8.0	2.0	15n§	16m	40	2	F351	ML2k	
39#	M5395P	4	1	PPS		BTX	250m†	0.0	5.0	4.0%	2.4	60nØ	18m	40	0	F36	TO116	
40#	M53478P	4	1	PPS		BTX	420m	0.0	5.0	8.0	2.0	46n	16m	40	0	F273	ML86b	
41#	MIC6475J	4	1	PPS		BTX	160m	0.0	5.0	8.0	2.0	40n	16m	40	4	F386	ML61	
42#	MIC54175J	4	1	PPS		BTX	150m†	0.0	5.0	8.0	2.0	17n			5	F351	ML146	
43#	MIC64175J	4	1	PPS		BTX	150m†	0.0	5.0	8.0	2.0	17n			4	F351	ML146	
44#	MIC74175J	4	1	PPS		BTX	150m†	0.0	5.0	8.0	2.0	17n			0	F351	ML146	
45#	MIC74175N	4	1	PPS		BTX	150m†	0.0	5.0	8.0	2.0	17n			0	F351	ML146	
46	N8275B	4	1	PPS		BTX	265m	0.0	5.0	-4.0%	2.6%	16n			0	F388	ML7	
47	N8275E	4	1	PPS		BTX	265m	0.0	5.0	-4.0%	2.6%	16n			0	F388	ML61	
48	N8275R	4	1	PPS		BTX	265m	0.0	5.0	-4.0%	2.6%	16n			0	F388	FL25	
49	S8275B	4	1	PPS		BTX	265m	0.0	5.0	-4.0%	2.6%	16n			5	F388	ML7	
50	S8275E	4	1	PPS		BTX	265m	0.0	5.0	-4.0%	2.6%	16n			5	F388	ML61	
51	S8275R	4	1	PPS		BTX	265m	0.0	5.0	-4.0%	2.6%	16n			5	F388	FL25	
52	SN54278J	4	1	PPS		BTX	400m	0.0	5.0	8.0	2.0	46nØ	16m	40	5	F273	ML66a	
53	SN54278W	4	1	PPS		BTX	400m	0.0	5.0	8.0	2.0	46nØ	16m	40	5	F273	MO004AA	
54	SN74278J	4	1	PPS		BTX	400m	0.0	5.0	8.0	2.0	46nØ	16m	40	0	F273	ML66a	
55	SN74278N	4	1	PPS		BTX	400m	0.0	5.0	8.0	2.0	46nØ	16m	40	0	F273	ML71	
56	T9314F	4	1	PPS		BTX	275m	0.0	5.0	8.0	2.0	32n	16m	40	0	F363	FL14g	
57	T9314FM	4	1	PPS		BTX	275m	0.0	5.0	8.0	2.0	30n	16m	40	5	F363	FL14g	
58	T9314J	4	1	PPS		BTX	275m	0.0	5.0	8.0	2.0	32n	16m	40	0	F363	ML146	
59	T9314JM	4	1	PPS		BTX	275m	0.0	5.0	8.0	2.0	30n	16m	40	5	F363	ML146	
60	SCL4042BC	4	1	PPS		MCA	60u†	0.0	10	0.5%	9.95	150nØ	900u	50	5	F362	ML127t	
61	SCL4042BD	4	1	PPS		MCA	60u†	0.0	10	0.5%	9.95	150nØ	900u	50	5	F362	MO001AE	
62	SCL4042BE	4	1	PPS		MCA	60u†	0.0	10	0.5%	9.95	150nØ	1.1m	50	4	F362	ML127u	
63	SCL4042BF	4	1	PPS		MCA	60u†	0.0	10	0.5%	9.95	150nØ	900u	50	5	F362	MO004AH	
64	SCL4042BH	4	1	PPS		MCA	60u†	0.0	10	0.5%	9.95	150nØ	900u	50	5	F362	CH12	
65	340194DC	4	1	PPS		MCX	10m†	0.0	10	3.0	7.0	65nØ	1.2m	50	4	F245	ML127s	
66	340194DM	4	1	PPS		MCX	800u†	0.0	10	3.0	7.0	65nØ	1.2m	50	5	F245	ML127s	
67	340194FC	4	1	PPS		MCX	10m†	0.0	10	3.0	7.0	65nØ	1.2m	50	4	F245	FL14g	
68	340194FM	4	1	PPS		MCX	800u†	0.0	10	3.0	7.0	65nØ	1.2m	50	5	F245	FL14g	
69	340194PC	4	1	PPS		MCX	10m†	0.0	10	3.0	7.0	65nØ	1.2m	50	4	F245	ML170	
70	340195DC	4	1	PPS		MCX	10m†	0.0	10	3.0	7.0	65nØ	1.2m	50	4	F192	ML127s	
71	340195DM	4	1	PPS		MCX	800u†	0.0	10	3.0	7.0	65nØ	1.2m	50	5	F192	ML127s	
72	340195FC	4	1	PPS		MCX	10m†	0.0	10	3.0	7.0	65nØ	1.2m	50	4	F192	FL14g	
73	340195FM	4	1	PPS		MCX	800u†	0.0	10	3.0	7.0	65nØ	1.2m	50	5	F192	FL14g	
74	340195PC	4	1	PPS		MCX	10m†	0.0	10	3.0	7.0	65nØ	1.2m	50	4	F192	ML170	
75	CD4042AD	4	1	PPS		MCX												

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS (2) No. REGISTERS (3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/BLOCK	OUTLINE
1	375BL	4	1	PPS	3.0M	BDX	576m	0.0	12	1.5%	10	550n	6.3m	1.5	5 C	F37a	ML127b
2	375CJ	4	1	PPS	3.0M	BDX	576m	0.0	12	1.5%	10	550n	6.3m	1.5	3 8	F37a	ML89b
3	375CL	4	1	PPS	3.0M	BDX	576m	0.0	12	1.5%	10	550n	6.3m	1.5	3 8	F37a	ML127b
4	375ML	4	1	PPS	3.0M	BDX	960m	0.0	15	1.8%	13	600n	7.8m	1.8	5 C	F37a	ML127b
5	JANM38510/02801AAA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
6	JANM38510/02801AAB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
7	JANM38510/02801AAC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
8	JANM38510/02801ABA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
9	JANM38510/02801ABB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
10	JANM38510/02801ABC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
11	JANM38510/02801ACA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
12	JANM38510/02801ACB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
13	JANM38510/02801ACC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
14	JANM38510/02801ADA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
15	JANM38510/02801ADB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
16	JANM38510/02801ADC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
17	JANM38510/02801BAA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
18	JANM38510/02801BAB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
19	JANM38510/02801BAC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
20	JANM38510/02801BBA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
21	JANM38510/02801BBB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
22	JANM38510/02801BBC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
23	JANM38510/02801BCA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250m	2.0m	.30	5 C	F155a	ML137
24	JANM38510/02801BCB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
25	JANM38510/02801BCC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
26	JANM38510/02801BDA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
27	JANM38510/02801BDB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
28	JANM38510/02801BDC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
29	JANM38510/02801CAA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
30	JANM38510/02801CAB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
31	JANM38510/02801CAC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21a
32	JANM38510/02801CBA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
33	JANM38510/02801CBB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
34	JANM38510/02801CBC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL21
35	JANM38510/02801CCA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
36	JANM38510/02801CCB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
37	JANM38510/02801CCC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	ML137
38	JANM38510/02801CDA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
39	JANM38510/02801CDB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
40	JANM38510/02801CDC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
41	JANM38510/02801STD	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5 C	F155a	FL22
42	SN54195J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5 C	F93	FL35
43	SN54195T	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5 C	F93	ML66b
44	SN54199J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5 C	F155a	TO84
45	SN74195J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0 7	F94	ML61
46	SN74195N	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0 7	F155a	ML71
47	SN74199J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0 7	F94	ML61
48	SN74199N	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0 7	F94	ML48
49#	ZN54195E	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.80	2.0	2.0m	2.0m	.40	5 C	F456	ML71e
50#	ZN54195J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.80	2.0	2.0m	2.0m	.40	5 C	F456	ML64f
51#	ZN74195E	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.80	2.0	2.0m	2.0m	.40	0 7	F456	ML71e
52#	ZN74195J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.80	2.0	2.0m	2.0m	.40	0 7	F456	ML64f
53	SCL4035BC	4	1	PPS	3.0M	MCA	300u	0.0	10	.05%	9.95	250n	900u%	.50	5 C	F178	ML127t
54	SCL4035BD	4	1	PPS	3.0M	MCA	300u	0.0	10	.05%	9.95	250n	900u%	.50	5 C	F178	MO001AB
55	SCL4035BE	4	1	PPS	3.0M	MCA	300u	0.0	10	.05%	9.95	250n	1.1m%	.50	4 8	F178	ML127u
56	SCL4035BF	4	1	PPS	3.0M	MCA	300u	0.0	10	.05%	9.95	250n	900u%	.50	5 C	F178	MO004AH
57	SCL4035BH	4	1	PPS	3.0M	MCA	300u	0.0	10	.05%	9.95	250n	900u%	.50	5 C	F178	CHI
58	CM4035AD	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.95	200n	450u	9.5	5 C	F178	ML4g
59	CM4035AF	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.95	300n	450u	9.5	5 C	F178	ML17
60#	HBC4035AD	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.9	200n	450u	9.5	5 C	F178	ML127c
61#	HBC4035AF	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.9	200n	450u	9.5	5 C	F178	ML127c
62#	HBC4035AK	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.9	200n	450u	9.5	5 C	F178	MO004AG
63	HD1-4035A2	4	1	PPS	3.0M	MCX	100u	0.0	10	.01%	9.99	200n	1.2m	.50	5 C	F178	ML127h
64	HD9-4035A2	4	1	PPS	3.0M	MCX	100u	0.0	10	.01%	9.99	200n	1.2m	.50	5 C	F178	FL27
65#	MB84035	4	1	PPS	3.0M*	MCX	200m	0.0	10	3.0%	7.0	225n			5 C	F259	ML15
66	MC14035BAL	4	1	PPS	3.0M	MCX	100u	0.0	10	3.0	7.0	200n	1.3m	.50	5 C	F259	ML5
67	MM54C195D	4	1	PPS	3.0M	MCX	500m	0.0	5.0	1.5	3.0	300n			5 C	F323	ML177
68	MM54C195F	4	1	PPS	3.0M	MCX	500m	0.0	5.0	1.5	3.0	300n			5 C	F323	FL37
69	MM54C195J	4	1	PPS	3.0M	MCX	500m	0.0	5.0	1.5	3.0	300n			5 C	F323	ML127f
70	MM74C195J	4	1	PPS	3.0M	MCX	500m	0.0	5.0	1.5	3.0	300n			4 8	F323	ML127f
71	MM74C195N	4	1	PPS	3.0M	MCX	500m	0.0	5.0	1.5	3.0	300n			4 8	F323	ML178
72	MC14076BAL	4	1	PPS	4.5M	MCX	100u	0.0	10	3.0	7.0	160n	1.3m	.50	5 C	F329	ML5
73	MC14076BCL	4	1	PPS	4.5M	MCX	400u	0.0	10	3.0	7.0	160n	1.1m	.50	4 8	F329	ML5

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX. W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3	4	MAX WORST CASE FREQ. (Hz)	5	MAX OPER. POWER DISS. (W)	RATED POWER SPAN NEG. (V) POS. (V)	INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (A) (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE (°C)	DRAWINGS			
		1	2							OPER. CODE	STRUCTURE CODE		MAX '0' (V)	MIN '1' (V)			MIN CURRENT (A)	MIN VOLT (V)	LOGIC/BLOCK	OUTLINE
1	MC14076BCP	4	1	PPS	4.5M	MCX	400u	0.0	10	3.0	7.0s	160n	1.1m	.50	4	8	F329	ML145		
2	MM54C95D	4	1	PPS	4.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	360u	.40	5	8	F309	ML179		
3	MM74C95N	4	1	PPS	4.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	360u	.40	5	8	F309	ML180		
4	MSR4	4	1	PPS	5.0M	BDX	360m	0.0	5.0	4.0	3.0				0	7	F78			
5	690A	4	1	PPS	5.0M	BDX	300m	0.0	5.0	4.5	2.0				0	7	F384	PL12		
6	DM76L13F	4	1	PPS	5.0M	BTX	39m	0.0	5.0	7.0	2.0	100n	2.0m	.30	5	8	F374	FL37		
7	DM76L13J	4	1	PPS	5.0M	BTX	39m	0.0	5.0	7.0	2.0	100n	2.0m	.30	5	8	F374	ML127f		
8	DM76L13N	4	1	PPS	5.0M	BTX	39m	0.0	5.0	7.0	2.0	100n	2.0m	.30	5	8	F374	ML178		
9	DM86L13F	4	1	PPS	5.0M	BTX	39m	0.0	5.0	7.0	2.0	100n	2.0m	.30	0	7	F374	FL37		
10	DM86L13J	4	1	PPS	5.0M	BTX	39m	0.0	5.0	7.0	2.0	100n	2.0m	.30	0	7	F374	ML127f		
11	DM86L13N	4	1	PPS	5.0M	BTX	39m	0.0	5.0	7.0	2.0	100n	2.0m	.30	0	7	F374	ML178		
12	CD4035AD	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	870u	.50	5	8	F178	MO001AB		
13	CD4035AE	4	1	PPS	5.0M	MCX	14m	0.0	10	0.05%	9.95	300n	590u	.50	4	8	F178	MO001AC		
14	CD4035AF	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	870u	.50	5	8	F178	MO001AC		
15	CD4035AH	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	870u	.50	5	8	F178	CH3		
16	CD4035AK	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	870u	.50	5	8	F178	MO004AG		
17	CD4035CJ	4	1	PPS	5.0M	MCX	14m	0.0	10	0.05%	9.95		590u	.50	4	8	F178	ML127f		
18	CD4035CN	4	1	PPS	5.0M	MCX	14m	0.0	10	0.05%	9.95		590u	.50	4	8	F178	ML178		
19	CD4035MD	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95		870u	.50	5	8	F178	ML177		
20	CD4035MF	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95		870u	.50	5	8	F178	FL37		
21	CD4035MJ	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95		870u	.50	5	8	F178	ML127f		
22	MM54C95F	4	1	PPS	5.0M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	360u	.40	5	8	F309	FL36		
23	MM54C95J	4	1	PPS	5.0M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	360u	.40	5	8	F309	ML93d		
24	MM54C175D	4	1	PPS	5.0M	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	.10	5	8	F351	ML177		
25	MM54C175F	4	1	PPS	5.0M	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	.10	5	8	F351	FL37		
26	MM54C175J	4	1	PPS	5.0M	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	.10	5	8	F351	ML127f		
27	MM74C95J	4	1	PPS	5.0M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	360u	.40	4	8	F309	ML93d		
28	MM74C175J	4	1	PPS	5.0M	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	.10	4	8	F351	ML127f		
29	MM74C175N	4	1	PPS	5.0M	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	.10	4	8	F351	ML178		
30	SCL4035AC	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	450u	.95	5	8	F178	ML4g		
31	SCL4035AD	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	450u	.95	5	8	F178	ML62a		
32	SCL4035AE	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	450u	.95	4	8	F178	ML89		
33	SCL4035AF	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	450u	.95	5	8	F178	FL23		
34	SCL4035AH	4	1	PPS	5.0M	MCX	6.0m	0.0	10	0.05%	9.95	200n	450u	.95	5	8	F178	CHZ		
35#	uPD4035C	4	1	PPS	5.0M	MCX	200m	0.0	10	3.0	7.0	300n	590u	.50	4	8	F178	MO001AC		
36#	HD1-74C195	4	1	PPS	5.5M	MCX	100m	0.0	10	2.0	8.0	130n	1.0u	1.0	4	8	F320	ML127h		
37	HD9-74C195	4	1	PPS	5.5M	MCX	100m	0.0	10	2.0	8.0	130n	1.0u	1.0	4	8	F320	FL27		
38	DM75L51J	4	1	PPS	6.0M	BTX	45m	0.0	5.0	7.0	2.0s	120n	2.0m	.30	5	8	F444	ML127f		
39	DM75L51N	4	1	PPS	6.0M	BTX	45m	0.0	5.0	7.0	2.0s	120n	2.0m	.30	5	8	F444	ML178		
40	DM85L51J	4	1	PPS	6.0M	BTX	45m	0.0	5.0	7.0	2.0s	120n	3.6m	.40	0	7	F444	ML127f		
41	DM85L51N	4	1	PPS	6.0M	BTX	45m	0.0	5.0	7.0	2.0s	120n	3.6m	.40	0	7	F444	ML178		
42	DM85L51W	4	1	PPS	6.0M	BTX	45m	0.0	5.0	7.0	2.0s	120n	3.6m	.40	0	7	F444	FL39		
43	SCL4076BC	4	1	PPS	6.0M	MCA	300u	0.0	10	0.05%	9.95	140n	900u	.50	5	8	F329	ML127f		
44	SCL4076BD	4	1	PPS	6.0M	MCA	300u	0.0	10	0.05%	9.95	140n	900u	.50	5	8	F329	MO001AB		
45	SCL4076BE	4	1	PPS	6.0M	MCA	300u	0.0	10	0.05%	9.95	140n	1.1m	.50	4	8	F329	ML127u		
46	SCL4076BF	4	1	PPS	6.0M	MCA	300u	0.0	10	0.05%	9.95	140n	900u	.50	5	8	F329	MO004AH		
47	SCL4076BH	4	1	PPS	6.0M	MCA	300u	0.0	10	0.05%	9.95	140n	900u	.50	5	8	F329	CHZ		
48	MM54C173D	4	1	PPS	7.0M	MCX	500m	0.0	10	2.0	8.0s	200n			5	8	F361	ML177		
49	MM54C173F	4	1	PPS	7.0M	MCX	500m	0.0	10	2.0	8.0s	200n			5	8	F361	FL37		
50	MM54C173J	4	1	PPS	7.0M	MCX	500m	0.0	10	2.0	8.0s	200n			5	8	F361	ML127f		
51	MM74C173J	4	1	PPS	7.0M	MCX	500m	0.0	10	2.0	8.0s	200n			4	8	F361	ML127f		
52	MM74C173N	4	1	PPS	7.0M	MCX	500m	0.0	10	2.0	8.0s	200n			4	8	F361	ML178		
53#	CD40104BD	4	1	PPS	9.0M	MCX	500m	0.0	10	4.5f	5.5f	150n	2.6m	.50	5	8	F464	MO001AB		
54#	CD40104BE	4	1	PPS	9.0M	MCX	500m	0.0	10	4.5f	5.5f	150n	2.6m	.50	4	8	F464	MO001AC		
55#	CD40104BF	4	1	PPS	9.0M	MCX	500m	0.0	10	4.5f	5.5f	150n	2.6m	.50	5	8	F464	MO001AC		
56#	CD40104BH	4	1	PPS	9.0M	MCX	500m	0.0	10	4.5f	5.5f	150n	2.6m	.50	5	8	F464	CHZ		
57#	CD40104BK	4	1	PPS	9.0M	MCX	500m	0.0	10	4.5f	5.5f	150n	2.6m	.50	5	8	F464	MO004AG		
58	MC14194BAL	4	1	PPS	9.0M	MCX	3.0m	0.0	10	3.0	7.0	220n	900u	.50	5	8	F245	ML157a		
59	MC14194BCL	4	1	PPS	9.0M	MCX	3.0m	0.0	10	3.0	7.0	220n	900u	.50	4	8	F245	ML157a		
60	MC14194BCP	4	1	PPS	9.0M	MCX	3.0m	0.0	10	3.0	7.0	220n	900u	.50	4	8	F245	ML145		
61	AM93L00DC	4	1	PPS	10M	BTX	120m	0.0	5.0	7.0	2.0	75n	4.9m	.30	0	7	F2	ML127d		
62	AM93L00DM	4	1	PPS	10M	BTX	120m	0.0	5.0	7.0	2.0	75n	4.9m	.30	5	8	F2	ML62c		
63	AM93L00FM	4	1	PPS	10M	BTX	120m	0.0	5.0	7.0	2.0	75n	4.9m	.30	0	7	F2	FL33b		
64	AM93L00PC	4	1	PPS	10M	BTX	115m	0.0	5.0	7.0	2.0	75n	4.9m	.30	5	8	F2	ML89a		
65#	FLJ231-7494	4	1	PPS	10M	BTX	305m	0.0	5.0	8.0	2.0	40n	16m	.40	0	7	F467	MLZ		
66#	FLJ235-8494	4	1	PPS	10M	BTX	305m	0.0	5.0	8.0	2.0	40n	16m	.40	2	8	F467	MLZ		
67	M204	4	1	PPS	10M	BTX	200m	0.0	5.0	8.0	2.0	35n			0	7		PLZ		
68#	MB452	4	1	PPS	10M	BTX	200m	0.0	5.0	8.0	2.0	55n			0	7	F389	ML15		
69#	MB452M	4	1	PPS	10M	BTX	200m	0.0												

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		1 BITS PER REGISTER	2 No. REGS.					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/BLOCK	OUTLINE		
1	DM74L95J	4	1	PPS	14M	BTX	40m	0.0	5.0	.70	2.0	90n	3.6m	40	0	7	F155a	ML93d	
2	DM74L95N	4	1	PPS	14M	BTX	40m	0.0	5.0	.70	2.0	90n	3.6m	40	0	7	F155a	ML180	
3#	HEF40194P	4	1	PPS	14M	BTX	400m	0.0	10	3.0	7.0	180n	1.2m	50	4	8	F438	ML48e	
4#	HEF40195P	4	1	PPS	14M	MCX	400m	0.0	10	3.0	7.0	180n	1.2m	50	4	8	F439	ML48e	
5	93L00DC	4	1	PPS	15M	BTX	120m	0.0	5.0	.70	2.0	35n	3.2m	30	0	7	F2	ML15a	
6	93L00DM	4	1	PPS	15M	BTX	126m	0.0	5.0	.70	2.0	35n	3.2m	30	0	5	F2	ML15a	
7	93L00FC	4	1	PPS	15M	BTX	120m	0.0	5.0	.70	2.0	35n	3.2m	30	0	7	F2	FL14	
8	93L00FM	4	1	PPS	15M	BTX	126m	0.0	5.0	.70	2.0	35n	3.2m	30	0	5	F2	FL14	
9	DM75L51F	4	1	PPS	15M	BTX	30m	0.0	5.0	.70	2.0	20n	3.6m	40	5	C	F361	FL37	
10	DM85L51F	4	1	PPS	15M	BTX	30m	0.0	5.0	.70	2.0	20n	3.6m	40	6.0M	5	C	F361	FL37
11	DM7600D	4	1	PPS	15M	BTX	30m	0.0	5.0	.90	1.4	45n	7.4m	40	5	C	F61	ML63	
12	DM8600N	4	1	PPS	15M	BTX	30m	0.0	5.0	.90	1.6	45n	9.6m	45	0	7	F61	ML63	
13	DM8600N	4	1	PPS	15M	BTX	30m	0.0	5.0	.85	1.6	45n	9.6m	45	0	7	F61	ML69	
14#	FLJ491-49702	4	1	PPS	15M	BTX	170m	0.0	5.0	.80	2.0	20n	16m	40	0	7	F367	ML2k	
15#	FLJ495-49802	4	1	PPS	15M	BTX	170m	0.0	5.0	.80	2.0	20n	16m	40	0	2	F367	ML2k	
16	JANM38510/15901AEA	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
17	JANM38510/15901AEB	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
18	JANM38510/15901AEC	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
19	JANM38510/15901AFA	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
20	JANM38510/15901AFB	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
21	JANM38510/15901AFC	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
22	JANM38510/15901BEA	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
23	JANM38510/15901BEB	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
24	JANM38510/15901BEC	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
25	JANM38510/15901BFA	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
26	JANM38510/15901BFB	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
27	JANM38510/15901BFC	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
28	JANM38510/15901CEA	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
29	JANM38510/15901CEB	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
30	JANM38510/15901CEC	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	ML143	
31	JANM38510/15901CFA	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
32	JANM38510/15901CFB	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
33	JANM38510/15901CFC	4	1	PPS	15M	BTX	473m	0.0	5.0	.80	2.0	53n	9.6m	40	5	C	F37	FL31	
34	N8270A	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124b	ML86	
35	N8270F	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124b	ML93b	
36	N8270W	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124	ML27m	
37	N8271B	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124a	ML132	
38	N8271F	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124a	ML60a	
39	N8271W	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124a	FL25	
40	N9300B	4	1	PPS	15M	BTX	300m	0.0	5.0	.85	1.8	45n	600u	45	0	7	F2	ML132	
41	N9300E	4	1	PPS	15M	BTX	300m	0.0	5.0	.85	1.8	45n	600u	45	0	7	F2	ML25	
42	N74178A	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124b	ML86	
43	N74178F	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124b	ML93b	
44	N74178W	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124a	ML132	
45	N74179F	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	0	7	F124a	ML127m	
46	S8270A	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	5	C	F124b	ML86	
47	S8270F	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	5	C	F124b	ML93b	
48	S8270W	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	40	5	C	F124b	FL24	
49	S8271B	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	5	C	F124a	ML132	
50	S8271F	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	5	C	F124a	ML60a	
51	S8271W	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	40	5	C	F124a	FL25	
52	S9300B	4	1	PPS	15M	BTX	300m	0.0	5.0	.85	1.8	45n	600u	45	0	7	F2	ML132	
53	S9300E	4	1	PPS	15M	BTX	300m	0.0	5.0	.85	1.8	45n	600u	45	0	7	F2	FL25	
54	S54178A	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11n	40	0	5	C	F124b	ML86
55	S54178F	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11n	40	0	5	C	F124b	ML93b
56	S54178W	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11n	40	0	5	C	F347	FL24
57	S54179B	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11n	40	0	5	C	F124a	ML132
58	S54179F	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11n	40	0	5	C	F124a	ML127m
59	S54179W	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11n	40	0	5	C	F124a	FL25
60	T100	4	1	PPS	15M	BTX	700m	0.0	5.0	0.0	5.0	15n			5	C	F379	PL7	
61	T101	4	1	PPS	15M	BTX	740m	0.0	5.0	0.0	5.0	15n			5	C	F379	PL7	
62	JANM38510/00901AAA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21a	
63	JANM38510/00901AAB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21a	
64	JANM38510/00901AAC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21a	
65	JANM38510/00901ABA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21	
66	JANM38510/00901ABB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21	
67	JANM38510/00901ABC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21	
68	JANM38510/00901ACA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F155	ML143	
69	JANM38510/00901ACB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F155	ML143	
70	JANM38510/00901ACC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F155	ML143	
71	JANM38510/00901ADA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL22	
72	JANM38510/00901ADB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL22	
73	JANM38510/00901ADC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL22	
74	JANM38510/00901BAA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21a	
75	JANM38510/00901BAB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21a	
76	JANM38510/00901BAC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	40	5	C	F36	FL21a	

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		MIN (A)	OUT (V)			LOGIC/BLOCK	OUTLINE
1	JANM38510/00901BBA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
2	JANM38510/00901BBB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
3	JANM38510/00901BBC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
4	JANM38510/00901BCA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F155	ML143
5	JANM38510/00901BCB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F155	ML143
6	JANM38510/00901BCC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F155	ML143
7	JANM38510/00901BDA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL22
8	JANM38510/00901BDB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL22
9	JANM38510/00901BDC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL22
10	JANM38510/00901CAA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21a
11	JANM38510/00901CAB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21a
12	JANM38510/00901CAC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21a
13	JANM38510/00901CBA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
14	JANM38510/00901CBB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
15	JANM38510/00901CBC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
16	JANM38510/00901CCA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F155	ML143
17	JANM38510/00901CCB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F155	ML143
18	JANM38510/00901CCC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F155	ML143
19	JANM38510/00901CDA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL22
20	JANM38510/00901CDB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL22
21	JANM38510/00901CDC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL22
22	JANM38510/00901STD	4	1	PPS	16M*	BTX	315m	0.0	5.0	.80	2.0	49nΔ	16m	.40	5	C	F36	FL35
23▼	JANM38510/30606AAA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
24▼	JANM38510/30606AAB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
25▼	JANM38510/30606AAC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
26▼	JANM38510/30606ABA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
27▼	JANM38510/30606ABB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
28▼	JANM38510/30606ABC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
29▼	JANM38510/30606ACA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
30▼	JANM38510/30606ACB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
31▼	JANM38510/30606ACC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
32▼	JANM38510/30606ADA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
33▼	JANM38510/30606ADB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
34▼	JANM38510/30606ADC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
35▼	JANM38510/30606ABAA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
36▼	JANM38510/30606BAB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
37▼	JANM38510/30606BAC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
38▼	JANM38510/30606BBA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
39▼	JANM38510/30606BBB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
40▼	JANM38510/30606BBC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
41▼	JANM38510/30606BCA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
42▼	JANM38510/30606BCB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
43▼	JANM38510/30606BCC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
44▼	JANM38510/30606BDA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
45▼	JANM38510/30606BDB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
46▼	JANM38510/30606BDC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
47▼	JANM38510/30606CAA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
48▼	JANM38510/30606CAB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
49▼	JANM38510/30606CAC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21a
50▼	JANM38510/30606CBA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
51▼	JANM38510/30606CBB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
52▼	JANM38510/30606CBC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL21
53▼	JANM38510/30606CCA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
54▼	JANM38510/30606CCB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142
55▼	JANM38510/30606CCC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	ML142

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCTURE (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE (°C)	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	'0' (V)	'1' (V)					LOGIC/BLOCK	OUTLINE	
																		+
1▼	JANM38510/30606CDA	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
2▼	JANM38510/30606CDB	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
3▼	JANM38510/30606CDC	4	1	PPS	18M*	BTD	137m	0.0	5.5	.70	2.0	91n	4.0m	.40	5	C	F282	FL22
4	JANM38510/00905AEA	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
5	JANM38510/00905AEB	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
6	JANM38510/00905AEC	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
7	JANM38510/00905AFA	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
8	JANM38510/00905AFB	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
9	JANM38510/00905AFC	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
10	JANM38510/00905BEA	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
11	JANM38510/00905BEB	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
12	JANM38510/00905BEC	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
13	JANM38510/00905BFA	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
14	JANM38510/00905BFB	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
15	JANM38510/00905BFC	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
16	JANM38510/00905CEA	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
17	JANM38510/00905CEB	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
18	JANM38510/00905CEC	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	ML142
19	JANM38510/00905CFA	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
20	JANM38510/00905CFB	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
21	JANM38510/00905CFC	4	1	PPS	18M	BTX	360m□	0.0	5.0	.80	2.0	48n	16m	.40	5	C	F132	FL31
22▼	54LS95BJ	4	1	PPS	20M∅	BTD	105m	0.0	5.0	.70	2.0	40n∅	4.0m	.40	5	C	F402	ML63c
23▼	54LS95BW	4	1	PPS	20M∅	BTD	105m	0.0	5.0	.70	2.0	40n∅	4.0m	.40	5	C	F402	FL11c
24▼	74LS95BJ	4	1	PPS	20M∅	BTD	105m	0.0	5.0	.80	2.0	40n∅	4.0m	.40	0	7	F402	ML63c
25▼	74LS95BW	4	1	PPS	20M∅	BTD	105m	0.0	5.0	.80	2.0	40n∅	4.0m	.40	0	7	F402	FL11c
26	DM54LS295AJ	4	1	PPS	20M∅	BTD	125m	0.0	5.0	.70	2.0	70n∅	4.0m	.40	5	C	F282	ML93d
27	DM54LS295AN	4	1	PPS	20M∅	BTD	125m	0.0	5.0	.70	2.0	70n∅	4.0m	.40	5	C	F282	ML180
28	DM54LS295AW	4	1	PPS	20M∅	BTD	125m	0.0	5.0	.70	2.0	70n∅	4.0m	.40	5	C	F282	FL41
29	DM74LS295AJ	4	1	PPS	20M∅	BTD	125m	0.0	5.0	.80	2.0	70n∅	4.0m	.40	0	7	F282	ML93d
30	DM74LS295AN	4	1	PPS	20M∅	BTD	125m	0.0	5.0	.80	2.0	70n∅	4.0m	.40	0	7	F282	ML180
31	DM74LS295AW	4	1	PPS	20M∅	BTD	125m	0.0	5.0	.80	2.0	70n∅	4.0m	.40	0	7	F282	FL41
32▼	JANM38510/30601AEA	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
33▼	JANM38510/30601AEB	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
34▼	JANM38510/30601AEC	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
35▼	JANM38510/30601AFA	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
36▼	JANM38510/30601AFB	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
37▼	JANM38510/30601AFC	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
38▼	JANM38510/30601BEA	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
39▼	JANM38510/30601BEB	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
40▼	JANM38510/30601BEC	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
41▼	JANM38510/30601BFA	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
42▼	JANM38510/30601BFB	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
43▼	JANM38510/30601BFC	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
44▼	JANM38510/30601CEA	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
45▼	JANM38510/30601CEB	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
46▼	JANM38510/30601CEC	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	ML143
47▼	JANM38510/30601CFA	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
48▼	JANM38510/30601CFB	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
49▼	JANM38510/30601CFC	4	1	PPS	20M*	BTD	127m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F245	FL31
50▼	JANM38510/30603AAA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL21a
51▼	JANM38510/30603AAB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL21a
52▼	JANM38510/30603AAC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL21a
53▼	JANM38510/30603ABA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL21
54▼	JANM38510/30603ABB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL21
55▼	JANM38510/30603ABC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL21
56▼	JANM38510/30603ACA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	ML142
57▼	JANM38510/30603ACB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	ML142
58▼	JANM38510/30603ACC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	ML142
59▼	JANM38510/30603ADA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL22
60▼	JANM38510/30603ADB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40	5	C	F155	FL22

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/ BLOCK	OUTLINE
1▼	JANM38510/30603ADC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
2▼	JANM38510/30603BAA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21a
3▼	JANM38510/30603BAB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21a
4▼	JANM38510/30603BAC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21a
5▼	JANM38510/30603BBA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21
6▼	JANM38510/30603BBB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21
7▼	JANM38510/30603BBC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21
8▼	JANM38510/30603BCA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 ML142
9▼	JANM38510/30603BCB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 ML142
10▼	JANM38510/30603BCC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 ML142
11▼	JANM38510/30603BDA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
12▼	JANM38510/30603BDB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
13▼	JANM38510/30603BDC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
14▼	JANM38510/30603CAA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21a
15▼	JANM38510/30603CAB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21a
16▼	JANM38510/30603CAC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21a
17▼	JANM38510/30603CBA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21
18▼	JANM38510/30603CBB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21
19▼	JANM38510/30603CBC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL21
20▼	JANM38510/30603CCA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 ML142
21▼	JANM38510/30603CCB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 ML142
22▼	JANM38510/30603CCC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 ML142
23▼	JANM38510/30603CDA	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
24▼	JANM38510/30603CDB	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
25▼	JANM38510/30603CDC	4	1	PPS	20M*	BTD	116m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F155 FL22
26▼	JANM38510/30607AEA	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
27▼	JANM38510/30607AEB	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
28▼	JANM38510/30607AEC	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
29▼	JANM38510/30607AFA	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
30▼	JANM38510/30607AFB	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
31▼	JANM38510/30607AFC	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
32▼	JANM38510/30607BEA	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
33▼	JANM38510/30607BEB	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
34▼	JANM38510/30607BEC	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
35▼	JANM38510/30607BFA	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
36▼	JANM38510/30607BFB	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
37▼	JANM38510/30607BFC	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
38▼	JANM38510/30607CEA	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
39▼	JANM38510/30607CEB	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
40▼	JANM38510/30607CEC	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML143
41▼	JANM38510/30607CFA	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
42▼	JANM38510/30607CFB	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
43▼	JANM38510/30607CFC	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
44	SN54LS295AJ	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 FL31
45	SN54LS295AJ	4	1	PPS	20M*	BTD	159m	0.0	5.5	.70	2.0	56n	4.0m	.40		5 C	F283 ML66b
46	SN74LS295AJ	4	1	PPS	20M*	BTD	70mt	0.0	5.0	.70	2.0	35n	4.0m	.40		0 7	F282 MO004A4
47	SN74LS295AN	4	1	PPS	20M*	BTD	70mt	0.0	5.0	.80	2.0	70m	4.0m	.40		0 7	F282 ML66b
48#	M53295P	4	1	PPS	20M*	BTX	82m	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F155 ML86b
49#	MIC5495AJ	4	1	PPS	20M*	BTX	250mt	0.0	5.0	.80	2.0	35n	16m	.40		5 C	F70 TO116
50#	MIC6495AJ	4	1	PPS	20M*	BTX	250mt	0.0	5.0	.80	2.0	35n	16m	.40		4 8	F70 TO116
51#	MIC7495AJ	4	1	PPS	20M*	BTX	250mt	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F70 TO116
52#	MIC7495AN	4	1	PPS	20M*	BTX	250mt	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F70 ML7
53	SM61	4	1	PPS	20M*	BTX	40m%	0.0	5.0	.80	2.0	40n	250uA	5.5		6 k	F250 ML9
54	SM63	4	1	PPS	20M*	BTX	40m%	0.0	5.0	.80	2.0	35n	250uA	5.5		6 k	F250 ML9
55	SM71	4	1	PPS	20M*	BTX	40m%	0.0	5.0	.80	2.0	40n	250uA	5.5		6 k	F250a ML9
56	SM73	4	1	PPS	20M*	BTX	40m%	0.0	5.0	.80	2.0	40n	250uA	5.5		6 k	F250a ML9
57	SN7495N	4	1	PPS	20M*	BTX	250mt	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F70 ML71
58	SN7495J	4	1	PPS	20M*	BTX	410m	0.0	5.0	.80	2.0	35n	1.6m	.40		0 7	F36 ML93
59	SN7495N	4	1	PPS	20M*	BTX	410m	0.0	5.0	.80	2.0	35n	1.6m	.40		0 7	F36 ML64a
60#	T150B1	4	1	PPS	20M*	BTX	300m%	0.0	5.0	.85	1.6	45n	9.6m	.45		0 7	F2 ML80
61#	T150D1	4	1	PPS	20M*	BTX	300m%	0.0	5.0	.85	1.6	45n	9.6m	.45		0 7	F2 ML94
62#	T150D2	4	1	PPS	20M*	BTX	300m%	0.0	5.0	.90	1.4	45n	9.6m	.40		5 C	F2 ML94
63	MC7270L	4	1	PPS	22M*	BTX	180mt	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235 TO116
64	MC7270P	4	1	PPS	22M*	BTX	180mt	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235 ML124
65	MC7271L	4	1	PPS	22M*	BTX	180mt	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235a ML60b
66	MC7271P	4	1	PPS	22M*	BTX	180mt	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235a ML5b
67	MC8270L	4	1	PPS	22M*	BTX	180mt	0.0	5.0	.40%	2.6	40n	12m	.40		5 C	F235 TO116

7. SHIFT REGISTERS

IN ORDER OF (1)NO.BITS/REG(2)NO.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUC(TURE)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN OUTPUT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)						LOGIC/ BLOCK	OUTLINE
1	MC8271L	4	1	PPS	22M%	BTX	180m	0.0	5.0	.40%	2.6	40n	12m	.40	5	C	F235a	ML60b
2	JANM38510/00906AEA	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
3	JANM38510/00906AEB	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
4	JANM38510/00906AEC	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
5	JANM38510/00906AFA	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
6	JANM38510/00906AFB	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
7	JANM38510/00906AFC	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
8	JANM38510/00906BEA	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
9	JANM38510/00906BEB	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
10	JANM38510/00906BEC	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
11	JANM38510/00906BFA	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
12	JANM38510/00906BFB	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
13	JANM38510/00906BFC	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
14	JANM38510/00906CEA	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
15	JANM38510/00906CEB	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
16	JANM38510/00906CEC	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
17	JANM38510/00906CFA	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	ML142
18	JANM38510/00906CFB	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
19	JANM38510/00906CFC	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
20▼	54LS395AJ	4	1	PPS	24M	BTX	372m	0.0	5.0	.80	2.0	34n	16m	.40	5	C	F191	FL31
21▼	54LS395AW	4	1	PPS	25M	BTD	145m	0.0	5.0	.70	2.0	35n	12m	.40	5	C	F283	ML14h
22▼	74LS395AJ	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	12m	.40	0	7	F283	ML14h
23▼	74LS395AW	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	12m	.40	0	7	F283	FL14h
24	DM54LS173J	4	1	PPS	25M	BTD	120m	0.0	5.0	.70	2.0	28n	4.0m	.40	5	C	F444	ML127f
25	DM54LS173N	4	1	PPS	25M	BTD	120m	0.0	5.0	.70	2.0	28n	4.0m	.40	5	C	F444	ML178
26	DM54LS173W	4	1	PPS	25M	BTD	120m	0.0	5.0	.70	2.0	28n	4.0m	.40	5	C	F444	FL39
27	DM54LS194AJ	4	1	PPS	25M	BTD	115m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	C	F245	ML127f
28	DM54LS194AN	4	1	PPS	25M	BTD	115m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	C	F245	ML178
29	DM54LS194AW	4	1	PPS	25M	BTD	115m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	C	F245	FL39
30	DM74LS173J	4	1	PPS	25M	BTD	120m	0.0	5.0	.80	2.0	28n	4.0m	.40	0	7	F444	ML127f
31	DM74LS173N	4	1	PPS	25M	BTD	120m	0.0	5.0	.80	2.0	28n	4.0m	.40	0	7	F444	ML178
32	DM74LS173W	4	1	PPS	25M	BTD	120m	0.0	5.0	.80	2.0	28n	4.0m	.40	0	7	F444	FL39
33	DM74LS194AJ	4	1	PPS	25M	BTD	115m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	ML127f
34	DM74LS194AN	4	1	PPS	25M	BTD	115m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	ML178
35	DM74LS194AW	4	1	PPS	25M	BTD	115m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	FL39
36▼	JANM38510/30602AEA	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
37▼	JANM38510/30602AEB	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
38▼	JANM38510/30602AEC	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
39▼	JANM38510/30602AFA	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
40▼	JANM38510/30602AFB	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
41▼	JANM38510/30602AFC	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
42▼	JANM38510/30602BEA	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
43▼	JANM38510/30602BEB	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
44▼	JANM38510/30602BEC	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
45▼	JANM38510/30602BFA	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
46▼	JANM38510/30602BFB	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
47▼	JANM38510/30602BFC	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
48▼	JANM38510/30602CEA	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
49▼	JANM38510/30602CEB	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
50▼	JANM38510/30602CEC	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
51▼	JANM38510/30602CFA	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	ML143
52▼	JANM38510/30602CFB	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
53▼	JANM38510/30602CFC	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
54	SN54LS295BJ	4	1	PPS	25M*	BTD	116m	0.0	5.5	.70	2.0	53n	4.0m	.40	5	C	F108	FL31
55	SN54LS295BW	4	1	PPS	25M*	BTD	145m	0.0	5.0	.70	2.0	35n	12m	.40	5	C	F282	TO116
56	SN54LS395AJ	4	1	PPS	25M	BTD	145m	0.0	5.0	.70	2.0	35n	12m	.40	5	C	F282	MOO04AA
57	SN54LS395AW	4	1	PPS	25M	BTD	145m	0.0	5.0	.70	2.0	35n	12m	.40	5	C	F282	ML61a
58	SN54LS395J	4	1	PPS	25M	BTD	145m	0.0	5.0	.70	2.0	35n	12m	.40	5	C	F282	MOO04AG
59	SN54LS395W	4	1	PPS	25M	BTD	145m	0.0	5.0	.70	2.0	35n	12m	.40	5	C	F282	ML61a
60	SN74LS295BJ	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	24m	.50	0	7	F282	TO116
61	SN74LS295BN	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	24m	.50	0	7	F282	ML61a
62	SN74LS395AJ	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	24m	.50	0	7	F283	ML148
63	SN74LS395AN	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	24m	.50	0	7	F283	ML61a
64	SN74LS395J	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	24m	.50	0	7	F283	ML48
65	SN74LS395N	4	1	PPS	25M	BTD	145m	0.0	5.0	.80	2.0	35n	24m	.50	0	7	F283	ML127k
66	AM9300DC	4	1	PPS	25M1	BTX	425m	0.0	5.0	.80	2.0	45n	16m	.40	0	7	F2	ML62c
67	AM9300DM	4	1	PPS	25M1	BTX	430m	0.0	5.0	.80	2.0	45n	16m	.40	0	7	F2	FL33b
68	AM9300FM	4	1	PPS	25M1	BTX	425m	0.0	5.0	.80	2.0	45n	16m	.40	0	7	F2	ML89a
69	AM9300PC	4	1	PPS	25M1	BTX	430m	0.0	5.0	.80	2.0	45n	16m	.40	0	7	F2	ML62
70	AMU6B930051X	4	1	PPS	25M1	BTX	375m	0.0	5.0	.90	1.7	35n	7.4m	.40	5	C	F2	ML62
71	AMU6B930059X	4	1	PPS	25M1	BTX	400m	0.0	5.0	.85	1.8	35n	8.5m	.45	0	7	F2	ML62
72	DM7551J	4	1	PPS	25M	BTX	380m	0.0	5.0	.80	2.0	28n	16m	.40	5	C	F444	ML127f
73	DM7551W	4	1	PPS	25M	BTX	380m	0.0	5.0	.80	2.0	28n	16m	.40	5	C	F444	FL39
74	DM8551J	4	1	PPS	25M	BTX	380m	0.0	5.0	.80	2.0	28n	16m	.40	0	7	F444	ML127f

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		OP. CODE	MAX WORST CASE FREQ. (Hz)	STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN. OPER. TEMP. RANGE CODE	DRAWINGS		
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		MIN. CLOCK FREQ. (Hz)	LOGIC/BLOCK		OUTLINE		
																	LOGIC/BLOCK	OUTLINE
1	DM8551N	4	1	PPS	25M	BTX	360m	0.0	5.0	80	2.0s	28n	16m	40	0	7	F444	ML178
2	DM8551W	4	1	PPS	25M	BTX	360m	0.0	5.0	80	2.0s	28n	16m	40	0	7	F444	FL39
3	DM74173W	4	1	PPS	25M	BTX	360m	0.0	5.0	80	2.0s	28n	16m	40	0	7	F444	FL39
4#	FLJ191-7495A	4	1	PPS	25M	BTX	330m	0.0	5.0	80	2.0	32n	16m	40	0	7	F155	MLZ
5#	FLJ195-8495A	4	1	PPS	25M	BTX	330m	0.0	5.0	80	2.0	32n	16m	40	2	8	F155	MLZ
6#	FLJ551-74194	4	1	PPS	25M	BTX	330m	0.0	5.0	80	2.0	30n	16m	40	0	7	F469	MLZ
7#	FLJ555-84194	4	1	PPS	25M	BTX	330m	0.0	5.0	80	2.0	30n	16m	40	2	8	F469	MLZ
8#	JANM38510/02804AEA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
9	JANM38510/02804AEB	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
10	JANM38510/02804AEC	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
11	JANM38510/02804AFA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
12	JANM38510/02804AFB	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
13	JANM38510/02804AFC	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
14	JANM38510/02804BEA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
15	JANM38510/02804BEB	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
16	JANM38510/02804BEC	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
17	JANM38510/02804BFA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
18	JANM38510/02804BFB	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
19	JANM38510/02804BFC	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
20	JANM38510/02804CEA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
21	JANM38510/02804CEB	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
22	JANM38510/02804CEC	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
23	JANM38510/02804CFA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	ML143
24	JANM38510/02804CFB	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
25	JANM38510/02804CFC	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
26#	JANM38510/30107AEA	4	1	PPS	25M	BTX	124m	0.0	5.0	70	2.0	120n	3.2m	30	5	C	F37	FL31
27#	JANM38510/30107AEB	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
28#	JANM38510/30107AEC	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
29#	JANM38510/30107AFA	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
30#	JANM38510/30107AFB	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
31#	JANM38510/30107AFC	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
32#	JANM38510/30107BEA	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
33#	JANM38510/30107BEB	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
34#	JANM38510/30107BEC	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
35#	JANM38510/30107BFA	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
36#	JANM38510/30107BFB	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
37#	JANM38510/30107BFC	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
38#	JANM38510/30107CEA	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
39#	JANM38510/30107CEB	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
40#	JANM38510/30107CEC	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
41#	JANM38510/30107CFA	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	ML143
42#	JANM38510/30107CFB	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
43#	JANM38510/30107CFC	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
44#	M53375P	4	1	PPS	25M	BTX	99m	0.0	5.5	70	2.0	40n	4.0m	40	5	C	F351	FL31
45	MC8300L	4	1	PPS	25M	BTX	150m	0.0	5.0	80	2.0	35n		40	0	7	F351	ML146
46	MC8300P	4	1	PPS	25M	BTX	300m	0.0	5.0	45%	2.4	45n	12m	45	0	7	F37	ML5
47	MC9300L	4	1	PPS	25M	BTX	300m	0.0	5.0	40%	2.4	45n	12m	40	0	7	F37	ML40a
48	MIC9300-1D	4	1	PPS	25M	BTX	300m	0.0	5.0	90	1.4	45n	8.5m	40	5	C	F2	ML5
49	MIC9300-5D	4	1	PPS	25M	BTX	300m	0.0	5.0	85	1.6	45n	9.2m	45	0	7	F2	ML61
50#	MIC54194J	4	1	PPS	25M	BTX	195m	0.0	5.0	80	2.0	30n	16m	40	4	8	F89a	ML161
51#	MIC64194J	4	1	PPS	25M	BTX	195m	0.0	5.0	80	2.0	30n	16m	40	4	8	F89a	TO116
52#	MIC74194J	4	1	PPS	25M	BTX	195m	0.0	5.0	80	2.0	30n	16m	40	0	7	F89a	ML61
53#	MIC74194N	4	1	PPS	25M	BTX	195m	0.0	5.0	80	2.0	30n	16m	40	0	7	F89a	ML132f
54	N74194B	4	1	PPS	25M	BTX	195m	0.0	5.0	80	2.0	30n	16m	40	0	7	F132	ML132
55	N74194F	4	1	PPS	25M	BTX	195m	0.0	5.0	80	2.0	30n	16m	40	0	7	F132	ML127m
56	S5495A	4	1	PPS	25M	BTX	410m	0.0	5.0	80	2.0	32n	16m	40	0	7	F36	ML86
57	S5495F	4	1	PPS	25M	BTX	410m	0.0	5.0	80	2.0	32n	16m	40	0	7	F36	ML93b
58	S54194B	4	1	PPS	25M	BTX	315m	0.0	5.0	80	2.0	30n	16m	40	5	C	F132	ML132
59	S54194F	4	1	PPS	25M	BTX	315m	0.0	5.0	80	2.0	30n	16m	40	5	C	F132	ML61d
60	S54194W	4	1	PPS	25M	BTX	315m	0.0	5.0	80	2.0	30n	16m	40	5	C	F132	FL25
61#	SFC4175E	4	1	PPS	25M	BTX	150m	0.0	5.0	80	2.0	35n		40	0	7	F351	ML48
62#	SFC4175EM	4	1	PPS	25M	BTX	150m	0.0	5.0	80	2.0	35n		40	0	7	F351	ML48
63#	SFC4175ET	4	1	PPS	25M	BTX	150m	0.0	5.0	80	2.0	35n		40	0	7	F351	ML48
64	SN54LS95BJ	4	1	PPS	25M	BTX	65m	0.0	5.0	70	2.0	32n	4.0m	40	5	C	F155	ML66b
65	SN54LS95BJ	4	1	PPS	25M	BTX	65m	0.0	5.0	70	2.0	32n	4.0m	40	5	C	F155	MO004A
66	SN54LS94AJ	4	1	PPS	25M	BTX	75m	0.0	5.0	70	2.0	30n	4.0m	40	5	C	F245	ML61a
67	SN54LS94AW	4	1	PPS	25M	BTX	75m	0.0	5.0	70	2.0	30n	4.0m	40	5	C	F245	MO004A
68	SN74LS95BJ	4	1	PPS	25M	BTX	65m	0.0	5.0	80	2.0	32n	4.0m	40	0	7	F155	ML61a

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS / REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE - +	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE	
1	SN7495AN	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F155	ML66b	
2	SN54173J	4	1	PPS	25M	BTX	360m	0.0	5.0	.80	2.0s	43n	16m	.40	5	7	F361	ML61a	
3	SN54173W	4	1	PPS	25M	BTX	360m	0.0	5.0	.80	2.0s	43n	16m	.40	5	7	F361	MO004AG	
4	SN54175J	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	5	7	F351	ML61a	
5	SN54175W	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	5	7	F351	MO004AG	
6	SN54178J	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	7	F191	ML66a	
7	SN54178W	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	7	F191	MO004AG	
8	SN54179J	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	7	F191a	ML61a	
9	SN54179W	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	7	F191a	MO004AG	
10	SN54194J	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	7	F89a	ML61a	
11	SN54194W	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	7	F89a	MO004AG	
12	SN74173J	4	1	PPS	25M	BTX	360m	0.0	5.0	.80	2.0s	43n	16m	.40	0	7	F361	ML61a	
13	SN74173N	4	1	PPS	25M	BTX	360m	0.0	5.0	.80	2.0s	43n	16m	.40	0	7	F361	ML48	
14	SN74175J	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F351	ML61a	
15	SN74175N	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F351	ML48	
16	SN74178J	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	0	7	F191	ML66a	
17	SN74178N	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	0	7	F191	ML71	
18	SN74179J	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	0	7	F191a	ML61a	
19	SN74179N	4	1	PPS	25M	BTX	230m	0.0	5.0	.80	2.0	36n	16m	.40	0	7	F191a	ML48	
20	SN74194J	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F89a	ML61a	
21	SN74194N	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F89a	ML48	
22	TMSR4A	4	1	PPS	25M	BTX	250m	0.0	5.0	.22f	3.31	35n	4.0m	.40	0	7	F342	ML61a	
23#	ZN5495AJ	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	32n	16m	.40	5	7	F455	ML64f	
24#	ZN7495AE	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F455	ML71e	
25#	ZN7495AJ	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F455	ML64f	
26#	ZN54175E	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	5	7	F351	TO116	
27#	ZN54175J	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	5	7	F351	ML93e	
28#	ZN54194E	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	7	F461	ML5f	
29#	ZN54194J	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	7	F461	ML85b	
30#	ZN74175E	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F351	TO116	
31#	ZN74175J	4	1	PPS	25M	BTX	225m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F351	ML93e	
32#	ZN74194E	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F461	ML5f	
33#	ZN74194J	4	1	PPS	25M	BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F461	ML85b	
34	SN54LS95AJ	4	1	PPS	28M	BTX	85m	0.0	5.0	.70	2.0	48n	4.0m	.40	5	7	F70	ML66	
35	SN54LS95AW	4	1	PPS	28M	BTX	85m	0.0	5.0	.70	2.0	48n	4.0m	.40	5	7	F70	MO004AG	
36	SN74LS95AJ	4	1	PPS	28M	BTX	85m	0.0	5.0	.80	2.0	48n	8.0m	.50	0	7	F70	ML66a	
37	SN74LS95AN	4	1	PPS	28M	BTX	85m	0.0	5.0	.80	2.0	48n	8.0m	.50	0	7	F70	ML71	
38	SN74LS95AW	4	1	PPS	28M	BTX	85m	0.0	5.0	.80	2.0	48n	8.0m	.50	0	7	F70	MO004AG	
39▼	54LS194AJ	4	1	PPS	30M	BTX	115m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F245	MLZ	
40▼	54LS194AW	4	1	PPS	30M	BTX	115m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F245	FL14h	
41▼	54LS195AJ	4	1	PPS	30M	BTX	105m	0.0	5.0	.70	2.0	33n	4.0m	.40	5	7	F108	MLZ	
42▼	54LS195AW	4	1	PPS	30M	BTX	105m	0.0	5.0	.70	2.0	33n	4.0m	.40	5	7	F108	FL14h	
43▼	54LS295AJ	4	1	PPS	30M	BTX	125m	0.0	5.0	.70	2.0s	45n	4.0m	.40	5	7	F282	ML63c	
44▼	54LS295AW	4	1	PPS	30M	BTX	125m	0.0	5.0	.70	2.0s	45n	4.0m	.40	5	7	F282	FL11c	
45▼	74LS194AJ	4	1	PPS	30M	BTX	115m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	MLZ	
46▼	74LS194AW	4	1	PPS	30M	BTX	115m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	FL14h	
47▼	74LS195AJ	4	1	PPS	30M	BTX	105m	0.0	5.0	.80	2.0	33n	4.0m	.40	0	7	F108	MLZ	
48▼	74LS195AW	4	1	PPS	30M	BTX	105m	0.0	5.0	.80	2.0	33n	4.0m	.40	0	7	F108	FL14h	
49▼	74LS295AJ	4	1	PPS	30M	BTX	125m	0.0	5.0	.80	2.0s	45n	4.0m	.40	0	7	F282	ML63c	
50▼	74LS295AW	4	1	PPS	30M	BTX	125m	0.0	5.0	.80	2.0s	45n	4.0m	.40	0	7	F282	FL11c	
51	DM54LS195AJ	4	1	PPS	30M	BTX	105m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F108	ML127f	
52	DM54LS195AN	4	1	PPS	30M	BTX	105m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F108	ML178	
53	DM54LS195AW	4	1	PPS	30M	BTX	105m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F108	FL39	
54	DM74LS195AJ	4	1	PPS	30M	BTX	105m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F108	ML127f	
55	DM74LS195AN	4	1	PPS	30M	BTX	105m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F108	ML178	
56	DM74LS195AW	4	1	PPS	30M	BTX	105m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F108	FL39	
57	SN54LS173J	4	1	PPS	30M	BTX	150m	0.0	5.0	.70	2.0s	36n	12m	.40	5	7	F361	ML61a	
58	SN54LS173W	4	1	PPS	30M	BTX	150m	0.0	5.0	.70	2.0s	36n	12m	.40	5	7	F361	MO004AG	
59	SN54LS195AJ	4	1	PPS	30M	BTX	70m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F108	ML61a	
60	SN54LS195AW	4	1	PPS	30M	BTX	70m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F108	MO004AG	
61	SN54LS379J	4	1	PPS	30M	BTX	75m	0.0	5.0	.70	2.0	27n	4.0m	.40	5	7	F452	ML61a	
62	SN54LS379W	4	1	PPS	30M	BTX	75m	0.0	5.0	.70	2.0	27n	4.0m	.40	5	7	F452	MO004AG	
63	SN74LS173J	4	1	PPS	30M	BTX	150m	0.0	5.0	.80	2.0s	36n	24m	.50	0	7	F361	ML61a	
64	SN74LS173N	4	1	PPS	30M	BTX	150m	0.0	5.0	.80	2.0s	36n	24m	.50	0	7	F361	ML48	
65	SN74LS195AJ	4	1	PPS	30M	BTX	70m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F108	ML61a	
66	SN74LS195AN	4	1	PPS	30M	BTX	70m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F108	ML48	
67	SN74LS379J	4	1	PPS	30M	BTX	75m	0.0	5.0	.80	2.0	27n	8.0m	.50	0	7	F452	ML61a	
68	SN74LS379N	4	1	PPS	30M	BTX	75m	0.0	5.0	.80	2.0	27n	8.0m	.50	0	7	F452	ML48	
69	DM7613J	4	1	PPS	30M	BTX	380m	0.0	5.0	.80	2.0	33n	16m	.40	20M	5	7	F374	ML127f
70	DM7613N	4	1	PPS	30M	BTX	380m	0.0	5.0	.80	2.0	33n	16m	.40	20M	5	7	F374	ML178
71	DM7613W	4	1	PPS	30M	BTX	380m	0.0	5.0	.80	2.0	33n	16m	.40	20M	5	7	F374	FL39
72	DM8300J	4	1	PPS	30M	BTX	460m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F448	ML127f	
73	DM8300N	4	1	PPS	30M	BTX	460m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F448	ML178	
74	DM8300W	4	1	PPS	30M	BTX	460m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F448	FL39	
75	DM8613J	4	1	PPS	30M	BTX	380m	0.0	5.0	.80	2.0	33n	16m	.40	20M	0	7	F374	ML127f
76	DM8613N	4	1	PPS	30M	BTX	380m	0.0	5.0	.80	2.0	33n	16m	.40	20M	0	7	F374	ML178
77	DM8613W	4	1	PPS	30M	BTX	380m	0.0	5.0	.80	2.0	33n	16m	.40	20M	0	7	F374	FL39
78	DM9300J	4	1	PPS	30M	BTX	430m	0.0	5.0	.80	2.0	30n	16m	.40	5	7	F448	ML127f	
79	DM9300N	4	1	PPS	30M	BTX	430m	0.0											

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	6 ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		1 BITS PER REGISTER	2 No. REGS.					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC BLOCK	OUTLINE		
																		-	+
1	S54S195W	4	1	PPS	30MΔ	BTX	315m♦	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F108	FL25		
2	S54195B	4	1	PPS	30M0	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F108	ML132		
3	S54195F	4	1	PPS	30M0	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F108	ML61d		
4	S54195W	4	1	PPS	30M	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F108	FL25		
5	SN54LS175J	4	1	PPS	30MΔ	BTX	90m	0.0	5.0	.80	2.0	35n	4.0m	.40	5 C	F351	ML61a		
6	SN54LS175W	4	1	PPS	30MΔ	BTX	90m	0.0	5.0	.80	2.0	35n	4.0m	.40	5 C	F351	MO004AG		
7	SN74LS175J	4	1	PPS	30MΔ	BTX	90m	0.0	5.0	.80	2.0	35n	8.0m	.50	0 7	F351	ML61a		
8	SN74LS175N	4	1	PPS	30MΔ	BTX	90m	0.0	5.0	.80	2.0	35n	8.0m	.50	0 7	F351	ML48		
9	SN54195J	4	1	PPS	30M0	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F108	ML61a		
10	SN54195W	4	1	PPS	30M0	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F108	MO004AG		
11	SN54376J	4	1	PPS	30M0	BTX	370m	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F357	ML61a		
12	SN54376W	4	1	PPS	30M0	BTX	370m	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F357	MO004AG		
13	SN74195J	4	1	PPS	30M0	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	0 7	F108	ML61a		
14	SN74195N	4	1	PPS	30M0	BTX	195m♦	0.0	5.0	.80	2.0	30n0	16m	.40	0 7	F108	ML48		
15	SN74376J	4	1	PPS	30M0	BTX	370m	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F357	ML61a		
16	SN74376N	4	1	PPS	30M0	BTX	370m	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F357	ML48		
17	T9300F	4	1	PPS	30M	BTX	483m	0.0	5.0	.80	2.0	35n0	12m	.40	0 7	F249	FL14		
18	T9300FM	4	1	PPS	30M	BTX	473m	0.0	5.0	.80	2.0	35n0	12m	.40	5 C	F249	FL14		
19	T9300J	4	1	PPS	30M	BTX	483m	0.0	5.0	.80	2.0	35n0	12m	.40	0 7	F249	ML146		
20	T9300JM	4	1	PPS	30M	BTX	473m	0.0	5.0	.80	2.0	35n0	12m	.40	5 C	F249	ML146		
21	MC5495F	4	1	PPS	31M†	BTX	250m†	0.0	5.0	.40%	2.4	35n0	10m	.40	5 C	F36	TO86		
22	MC5495L	4	1	PPS	31M†	BTX	250m†	0.0	5.0	.40%	2.4	35n0	10m	.40	5 C	F36	ML66		
23	MC7495F	4	1	PPS	31M†	BTX	250m†	0.0	5.0	.40%	2.4	35n0	10m	.40	0 7	F36	TO86		
24	MC7495L	4	1	PPS	31M†	BTX	250m†	0.0	5.0	.40%	2.4	35n0	10m	.40	0 7	F36	ML66		
25#	MIC5495J	4	1	PPS	31M†	BTX	200m†	0.0	5.0	.80	2.0	35n0	16m	.40	5 C	F70	TO116		
26#	MIC6495J	4	1	PPS	31M†	BTX	200m†	0.0	5.0	.80	2.0	35n0	16m	.40	4 8	F70	TO116		
27#	MIC7495J	4	1	PPS	31M†	BTX	200m†	0.0	5.0	.80	2.0	35n0	16m	.40	0 7	F70	TO116		
28#	MIC7495N	4	1	PPS	31M†	BTX	200m†	0.0	5.0	.80	2.0	35n0	16m	.40	0 7	F70	ML71f		
29#	25LS194AJC	4	1	PPS	35M	BTX	115m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F245	ML2j		
30#	25LS194AJM	4	1	PPS	35M	BTX	115m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F245	ML2j		
31#	25LS194AWC	4	1	PPS	35M	BTX	115m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F245	FL14h		
32#	25LS194AWM	4	1	PPS	35M	BTX	115m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F245	FL14h		
33#	25LS194AJC	4	1	PPS	35M	BTX	105m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F108	ML2j		
34#	25LS195AJM	4	1	PPS	35M	BTX	105m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F108	ML2j		
35#	25LS195AWC	4	1	PPS	35M	BTX	105m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F108	FL14h		
36#	25LS195AWM	4	1	PPS	35M	BTX	105m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F108	FL14h		
37#	54LS175J	4	1	PPS	35M0	BTX	90m♦	0.0	5.0	.80	2.0	25n0	4.0m	.40	5 C	F351	ML2j		
38#	54LS175W	4	1	PPS	35M0	BTX	90m♦	0.0	5.0	.70	2.0	25n0	4.0m	.40	5 C	F351	FL14h		
39#	74LS175J	4	1	PPS	35M0	BTX	90m♦	0.0	5.0	.80	2.0	25n0	4.0m	.40	0 7	F351	ML2j		
40#	74LS175W	4	1	PPS	35M0	BTX	90m♦	0.0	5.0	.80	2.0	25n0	4.0m	.40	0 7	F351	FL14h		
41	AM25LS194ADC	4	1	PPS	35M	BTX	115m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F245	ML127k		
42	AM25LS194ADM	4	1	PPS	35M	BTX	115m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F245	ML62c		
43	AM25LS194AFM	4	1	PPS	35M	BTX	115m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F245	FL33b		
44	AM25LS194APC	4	1	PPS	35M	BTX	115m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F245	ML89a		
45	AM25LS195ADC	4	1	PPS	35M	BTX	105m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F108	ML127k		
46	AM25LS195ADM	4	1	PPS	35M	BTX	105m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F108	ML62c		
47	AM25LS195AFM	4	1	PPS	35M	BTX	105m	0.0	5.0	.70	2.0	21n	8.0m	.45	5 C	F108	FL33b		
48	AM25LS195APC	4	1	PPS	35M	BTX	105m	0.0	5.0	.80	2.0	21n	8.0m	.45	0 7	F108	ML89a		
49	MC4012L	4	1	PPS	35M%†	BTX	180m†	0.0	5.0	.90	1.8	25n†	16m	.40	0 7	F31	ML66		
50	MC4012P	4	1	PPS	35M%†	BTX	180m†	0.0	5.0	.90	1.8	25n†	16m	.40	0 7	F31	ML38		
51#	uPB74175C	4	1	PPS	35MΔ	BTX	225m♦	0.0	5.0	.80	2.0	35n0	16m	.40	0 7	F406	ML127s		
52	DM54LS95BJ	4	1	PPS	36M†	BTX	105m	0.0	5.0	.70	2.0	32n0	4.0m	.40	5 C	F402	ML93d		
53	DM54LS95BN	4	1	PPS	36M†	BTX	105m	0.0	5.0	.70	2.0	32n0	4.0m	.40	5 C	F402	ML180		
54	DM54LS95BW	4	1	PPS	36M†	BTX	105m	0.0	5.0	.70	2.0	32n0	4.0m	.40	5 C	F402	FL41		
55	DM74LS95BJ	4	1	PPS	36M†	BTX	105m	0.0	5.0	.80	2.0	32n0	4.0m	.40	0 7	F402	ML93d		
56	DM74LS95BN	4	1	PPS	36M†	BTX	105m	0.0	5.0	.80	2.0	32n0	4.0m	.40	0 7	F402	ML180		
57	DM74LS95BW	4	1	PPS	36M†	BTX	105m	0.0	5.0	.80	2.0	32n0	4.0m	.40	0 7	F402	FL41		
58	DM5495J	4	1	PPS	36M†	BTX	375m	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F155	ML93d		
59	DM5495N	4	1	PPS	36M†	BTX	375m	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F155	ML180		
60	DM5495W	4	1	PPS	36M†	BTX	375m	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F155	FL41		
61	DM7495J	4	1	PPS	36M†	BTX	375m	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F155	ML93d		
62	DM7495N	4	1	PPS	36M†	BTX	375m	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F155	ML180		
63	DM54194J	4	1	PPS	36M†	BTX	315m	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F132	ML127f		
64	DM54194W	4	1	PPS	36M†	BTX	315m	0.0	5.0	.80	2.0	30n0	16m	.40	5 C	F132	FL39		
65	DM74194J	4	1	PPS	36M†	BTX	315m	0.0	5.0	.80	2.0	30n0	16m	.40	0 7	F132	ML127f		
66	DM74194N	4	1	PPS	36M†	BTX	315m	0.0	5.0	.80	2.0	30n0	16m	.40	0 7	F132	ML178		
67	DM74194W	4	1	PPS	36M†	BTX	315m	0.0	5.0	.80	2.0	30n0	16m	.40	0 7	F132	FL39		
68	N7495F	4	1	PPS	36M†	BTX	315m♦	0.0	5.0	.80	2.0	32n	16m	.40	5 C	F36	ML93b		
69	SN5495J	4	1	PPS	36M†	BTX	250m†	0.0	5.0	.80	2.0	32n0	16m	.40	5 C	F70	ML66a		
70#	TL7495AN	4	1	PPS	36M†	BTX	330m	0.0	5.0	.80	2.0	32n	16m	.40	0 7	F244	ML71a		
71	9300DC	4	1	PPS	38M†	BTX	483m	0.0	5.0	.80	2.0	26n0	12m	.40	0 7	F2	ML15a		
72	9300DM	4	1	PPS	38M†	BTX	473m	0.0	5.0	.80	2.0	26n0	12m	.40	5 C	F2	ML15a		
73	9300FC	4	1	PPS	38M†	BTX	483m	0.0	5.0	.80	2.0	26n0	12m	.40	0 7	F2	FL14		
74	9300FM	4	1	PPS	38M†	BTX	473m	0.0	5.0	.80	2.0	26n0	12m	.40	5 C	F2	FL14		
75#	uPB74195C	4	1	PPS	39MΔ	BTX	315m♦	0.0	5.0	.80	2.0	30n0	16m	.40	0 7	F421	ML2j		
76	9LS95DC	4	1	PPS	40M†	BTX	110m♦	0.0	5.0	.80	2.0	27n	4.0m	.40	0 7	F402	TO116		
77	9LS95DM	4	1	PPS	40M†	BTX	115m♦	0.0	5.0	.70	2.0	27n	4.0m	.40	5 C	F402	TO116		
78	9LS95FM	4	1	PPS	40M†	BTX	110m♦	0.0	5.0	.80	2.0	27n	4.0m	.40	0 7	F402	TO86		
79	9LS95FC	4	1	PPS	40M†	BTX	115m♦	0.0	5.0	.70	2.0	27n	4.0m	.40	5 C	F402	TO86		
80	9LS95PC	4	1	PPS	40M†	BTX	110m♦	0.0	5.0	.80	2.0	27n	4.0m	.40	0 7	F402	ML233		
81	9LS194DC	4	1	PPS	40M†	BTX	120m♦	0											

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS/REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX. W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS				
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/BLOCK	OUTLINE			
																		+	-	
1	AM25LS09DM	4	1	PPS	40M	BTD	90m	0.0	5.0	.80	2.0	20n	8.0m	.45	5	C	F295	ML62c		
2	AM25LS09FM	4	1	PPS	40M	BTD	90m	0.0	5.0	.80	2.0	20n	8.0m	.45	5	C	F295	FL33b		
3	AM25LS09PC	4	1	PPS	40M	BTD	90m	0.0	5.0	.80	2.0	20n	8.0m	.45	5	0	7	F295	ML89a	
4	AM25LS175DC	4	1	PPS	40M	BTD	90m	0.0	5.0	.80	2.0	20n	8.0m	.45	5	0	7			
5	AM25LS175DM	4	1	PPS	40M	BTD	90m	0.0	5.0	.70	2.0	20n	8.0m	.45	5	5				
6	AM25LS175FM	4	1	PPS	40M	BTD	90m	0.0	5.0	.70	2.0	20n	8.0m	.45	5	5				
7	AM25LS175PC	4	1	PPS	40M	BTD	90m	0.0	5.0	.80	2.0	20n	8.0m	.45	0	5				
8	DM7542J	4	1	PPS	40M	BTX	600m	0.0	5.0	.80	2.0	38n	16m	.40	5	0	7	F316	ML127f	
9	DM7542N	4	1	PPS	40M	BTX	600m	0.0	5.0	.80	2.0	38n	16m	.40	5	0	7	F316	ML178	
10	DM7542W	4	1	PPS	40M	BTX	600m	0.0	5.0	.80	2.0	38n	16m	.40	5	0	7	F316	FL39	
11	DM8542J	4	1	PPS	40M	BTX	600m	0.0	5.0	.80	2.0	38n	16m	.40	0	0	7	F316	ML127f	
12	DM8542N	4	1	PPS	40M	BTX	600m	0.0	5.0	.80	2.0	38n	16m	.40	0	0	7	F316	ML178	
13	DM8542W	4	1	PPS	40M	BTX	600m	0.0	5.0	.80	2.0	38n	16m	.40	0	5	7	F316	FL39	
14	DM54175J	4	1	PPS	40MA	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	30M	5	0	7	F351	ML127f
15	DM54175N	4	1	PPS	40MA	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	30M	5	0	7	F351	ML178
16	DM54175W	4	1	PPS	40MA	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	30M	5	0	7	F351	FL39
17	DM74175J	4	1	PPS	40MA	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	30M	5	0	7	F351	ML127f
18	DM74175N	4	1	PPS	40MA	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	30M	5	0	7	F351	ML178
19	DM74175W	4	1	PPS	40MA	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	30M	0	7	F351	FL39	
20#	uPB2195D	4	1	PPS	40M	BTX	400m	0.0	5.0	.80	2.0					2	7	F243b	ML127s	
21	9LS295DC	4	1	PPS	45M	BTX	131m	0.0	5.0	.80	2.0	26n	4.0m	.40	5	0	7	F282	TO116	
22	9LS295DM	4	1	PPS	45M	BTX	137m	0.0	5.0	.70	2.0	26n	4.0m	.40	5	0	7	F282	TO116	
23	9LS295FC	4	1	PPS	45M	BTX	131m	0.0	5.0	.80	2.0	26n	4.0m	.40	5	0	7	F282	TO86	
24	9LS295FM	4	1	PPS	45M	BTX	137m	0.0	5.0	.70	2.0	26n	4.0m	.40	5	0	7	F282	TO86	
25	9LS295PC	4	1	PPS	45M	BTX	131m	0.0	5.0	.80	2.0	26n	4.0m	.40	5	0	7	F282	ML233	
26	54LS295ADM	4	1	PPS	45M	BTX	137m	0.0	5.0	.70	2.0	26n	4.0m	.40	5	0	7	F282	TO116	
27	54LS295AFM	4	1	PPS	45M	BTX	137m	0.0	5.0	.70	2.0	26n	4.0m	.40	5	0	7	F282	TO86	
28	74LS295ADC	4	1	PPS	45M	BTX	131m	0.0	5.0	.80	2.0	26n	4.0m	.40	0	7	F282	TO116		
29	74LS295AFC	4	1	PPS	45M	BTX	131m	0.0	5.0	.80	2.0	26n	4.0m	.40	0	7	F282	TO86		
30	74LS295APC	4	1	PPS	45M	BTX	131m	0.0	5.0	.80	2.0	26n	4.0m	.40	0	7	F282	ML233		
31	N8T10B	4	1	PPS	50M	BTX	619m	0.0	5.0	.40%	2.4%	24n			0	7	F387	ML132		
32	N8T10F	4	1	PPS	50M	BTX	619m	0.0	5.0	.40%	2.4%	24n			0	7	F387	ML61		
33	N8T10W	4	1	PPS	50M	BTX	619m	0.0	5.0	.40%	2.4%	24n			0	7	F387	FL25		
34	S8T10B	4	1	PPS	50M	BTX	619m	0.0	5.0	.40%	2.4%	24n			5	0	7	F387	ML132	
35	S8T10F	4	1	PPS	50M	BTX	619m	0.0	5.0	.40%	2.4%	24n			5	0	7	F387	ML61	
36	S8T10W	4	1	PPS	50M	BTX	619m	0.0	5.0	.40%	2.4%	24n			5	0	7	F387	FL25	
37	SN54S281J	4	1	PPS	50M	BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	5	0	7	F272	MO015AA	
38	SN54S281W	4	1	PPS	50M	BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	5	0	7	F272	MO019AA	
39	SN74S281J	4	1	PPS	50M	BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	0	7	F272	MO015AA		
40	SN74S281N	4	1	PPS	50M	BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	0	7	F272	ML72c		
41	9LS175DC	4	1	PPS	55MA	BTD	94m	0.0	5.0	.80	2.0	20n	4.0m	.40	0	7	F406	ML127s		
42	9LS175DM	4	1	PPS	55MA	BTD	99m	0.0	5.0	.70	2.0	20n	4.0m	.40	5	0	7	F406	ML127s	
43	9LS175FC	4	1	PPS	55MA	BTD	94m	0.0	5.0	.80	2.0	20n	4.0m	.40	0	7	F406	FL14g		
44	9LS175FM	4	1	PPS	55MA	BTD	99m	0.0	5.0	.70	2.0	20n	4.0m	.40	5	0	7	F406	FL14g	
45	9LS175PC	4	1	PPS	55MA	BTD	94m	0.0	5.0	.80	2.0	20n	4.0m	.40	0	7	F406	ML170		
46	54LS175DM	4	1	PPS	55MA	BTD	99m	0.0	5.0	.70	2.0	20n	4.0m	.40	5	0	7	F406	ML127s	
47	54LS175FM	4	1	PPS	55MA	BTD	99m	0.0	5.0	.70	2.0	20n	4.0m	.40	5	0	7	F406	FL14g	
48	74LS175DC	4	1	PPS	55MA	BTD	94m	0.0	5.0	.80	2.0	20n	4.0m	.40	5	0	7	F406	ML127s	
49	74LS175FC	4	1	PPS	55MA	BTD	94m	0.0	5.0	.80	2.0	20n	4.0m	.40	0	7	F406	FL14g		
50	74LS175PC	4	1	PPS	55MA	BTD	94m	0.0	5.0	.80	2.0	20n	4.0m	.40	0	7	F406	ML170		
51	93H00DC	4	1	PPS	55M	BTX	588m	0.0	5.0	.80	2.0	21n	12m	.40	0	7	F2	ML15a		
52	93H00DM	4	1	PPS	55M	BTX	561m	0.0	5.0	.80	2.0	21n	12m	.40	5	0	7	F2	ML15a	
53	93H00FC	4	1	PPS	55M	BTX	588m	0.0	5.0	.80	2.0	21n	12m	.40	5	0	7	F2	FL14	
54	93H00FM	4	1	PPS	55M	BTX	561m	0.0	5.0	.80	2.0	21n	12m	.40	5	0	7	F2	FL14	
55	93H72DC	4	1	PPS	60M	BTX	708m	0.0	5.0	.80	2.0	21n	16m	.40	0	7	F141	ML15a		
56	93H72DM	4	1	PPS	60M	BTX	680m	0.0	5.0	.80	2.0	21n	16m	.40	5	0	7	F141	ML15a	
57	93H72FC	4	1	PPS	60M	BTX	708m	0.0	5.0	.80	2.0	21n	16m	.40	0	7	F141	FL14		
58	93H72FM	4	1	PPS	60M	BTX	680m	0.0	5.0	.80	2.0	21n	16m	.40	5	0	7	F141	FL14	
59	N74S178A	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	0	7	F124b	ML86		
60	N74S178F	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	0	7	F124b	ML93b		
61	N74S179B	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	5	0	7	F124a	ML132	
62	N74S179F	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	5	0	7	F124a	ML127m	
63	N82S70A	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	0	7	F124b	ML86		
64	N82S70F	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	0	7	F124b	ML93b		
65	N82S71B	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	5	0	7	F124a	ML132	
66	N82S71F	4	1	PPS	60M	BTX	473m	0.0	5.0	.50%	2.7	20n	20m	.50	5	0	7	F124a	ML127m	
67	DM74S194N	4	1	PPS	70M	BTD	675m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F245	ML178		
68	DM74S195N	4	1	PPS	70M	BTD	645m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F108	ML178		
69	SN54S195J	4	1	PPS	70M	BTD	350m	0.0	5.0	.80	2.0	18n	20m	.50	5	0	7	F108	ML61a	
70	SN54S195W	4	1	PPS	70M	BTD	350m	0.0	5.0	.80	2.0	18n	20m	.50	5	0	7	F108	MO004AG	
71	SN74S195J	4	1	PPS	70M	BTD	350m	0.0	5.0	.80	2.0	18n	20m	.50	5	0	7	F108	ML61a	
72	SN74S195N	4	1	PPS	70M	BTD	350m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F108	ML48		
73	JANM38510/07601AEA	4	1	PPS	70MA	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F245	ML143		
74	JANM38510/07601AEB	4	1	PPS	70MA	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F245	ML143		
75	JANM38510/07601AEC	4	1	PPS	70MA	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F245	ML143		
76	JANM38510/07601AFA	4	1	PPS	70MA	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F245	FL31		
77	JANM38510/07601AFB	4	1	PPS	70MA	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F245	FL31		
78	JANM38510/07601AFC	4	1	PPS	70MA	BTX	605m	0.0	5.5	.80	2.0	22n	20m							

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE
1▼	JANM385 10/07602AEB	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
2▼	JANM385 10/07602AEC	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
3▼	JANM385 10/07602AFA	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
4▼	JANM385 10/07602AFB	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
5▼	JANM385 10/07602AFC	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
6▼	JANM385 10/07602BEA	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
7▼	JANM385 10/07602BEB	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
8▼	JANM385 10/07602BEC	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
9▼	JANM385 10/07602BFA	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
10▼	JANM385 10/07602BFB	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
11▼	JANM385 10/07602BFC	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
12▼	JANM385 10/07602CEA	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
13▼	JANM385 10/07602CEB	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
14▼	JANM385 10/07602CEC	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
15▼	JANM385 10/07602CFA	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	ML143
16▼	JANM385 10/07602CFB	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
17▼	JANM385 10/07602CFC	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
18	N74S194B	4	1	PPS	70MΔ	BTX	605m	0.0	5.5	.80	2.0	22n	20m	.50	5	C	F108	FL31
19	N74S194J	4	1	PPS	70MΔ	BTX	675m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F245	ML132
20	N74S194W	4	1	PPS	70MΔ	BTX	675m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F245	ML107
21	S54S194J	4	1	PPS	70MΔ	BTX	572m	0.0	5.0	.80	2.0	18n	20m	.50	5	C	F245	ML132
22	S54S194W	4	1	PPS	70MΔ	BTX	572m	0.0	5.0	.80	2.0	18n	20m	.50	5	C	F245	FL25
23	SN54S194J	4	1	PPS	70MΔ	BTX	425m	0.0	5.0	.80	2.0	18n	20m	.50	5	C	F245	ML61a
24	SN54S194W	4	1	PPS	70MΔ	BTX	425m	0.0	5.0	.80	2.0	18n	20m	.50	5	C	F245	MO004AG
25	SN74S194J	4	1	PPS	70MΔ	BTX	425m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F245	ML61a
26	SN74S194N	4	1	PPS	70MΔ	BTX	425m	0.0	5.0	.80	2.0	18n	20m	.50	0	7	F245	ML48
27	AM25S18DC	4	1	PPS	75M	BTD	720m	0.0	5.0	.80	2.0	13n	20m	.50	0	7	F331	ML127k
28	AM25S18DM	4	1	PPS	75M	BTD	720m	0.0	5.0	.80	2.0	13n	20m	.50	5	C	F331	ML62c
29	AM25S18FM	4	1	PPS	75M	BTD	720m	0.0	5.0	.80	2.0	13n	20m	.50	5	C	F331	FL33b
30	AM25S18FC	4	1	PPS	75M	BTD	720m	0.0	5.0	.80	2.0	13n	20m	.50	0	7	F331	ML89a
31	T54S194F	4	1	PPS	75M	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	5	C	F245	FL14
32	T54S194J	4	1	PPS	75M	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	5	C	F245	ML2j
33	T54S195F	4	1	PPS	75M	BTD	545m	0.0	5.0	.80	2.0	9.0n	20m	.50	5	C	F246	FL14
34	T54S195J	4	1	PPS	75M	BTD	545m	0.0	5.0	.80	2.0	9.0n	20m	.50	5	C	F246	ML2j
35	T74S194F	4	1	PPS	75M	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	0	7	F245	FL14
36	T74S194J	4	1	PPS	75M	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	0	7	F245	ML2j
37	T74S195F	4	1	PPS	75M	BTD	600m	0.0	5.0	.80	2.0	9.0n	20m	.50	0	7	F246	FL14
38	T74S195J	4	1	PPS	75M	BTD	600m	0.0	5.0	.80	2.0	9.0n	20m	.50	0	7	F246	ML2j
39	SN54S175J	4	1	PPS	75MΔ	BTX	480m	0.0	5.0	.80	2.0	22n	20m	.50	5	C	F351	ML61a
40	SN54S175W	4	1	PPS	75MΔ	BTX	480m	0.0	5.0	.80	2.0	22n	20m	.50	5	C	F351	MO004AG
41	SN74S175J	4	1	PPS	75MΔ	BTX	480m	0.0	5.0	.80	2.0	22n	20m	.50	0	7	F351	ML61a
42	SN74S175N	4	1	PPS	75MΔ	BTX	480m	0.0	5.0	.80	2.0	22n	20m	.50	0	7	F351	ML48
43	AM54S194J	4	1	PPS	110M†	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	5	C	F89a	ML62
44	AM54S194W	4	1	PPS	110M†	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	5	C	F89a	FL14
45	AM54S195J	4	1	PPS	110M†	BTD	375m	0.0	5.0	.80	2.0	10n	20m	.50	5	C	F192	ML62
46	AM54S195W	4	1	PPS	110M†	BTD	375m	0.0	5.0	.80	2.0	10n	20m	.50	5	C	F192	FL14
47	AM74S194J	4	1	PPS	110M†	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	0	7	F89a	ML15a
48	AM74S194N	4	1	PPS	110M†	BTD	450m	0.0	5.0	.80	2.0	10n	20m	.50	0	7	F89a	ML89a
49	AM74S195J	4	1	PPS	110M†	BTD	375m	0.0	5.0	.80	2.0	10n	20m	.50	0	7	F192	ML15a
50	AM74S195N	4	1	PPS	110M†	BTD	375m	0.0	5.0	.80	2.0	10n	20m	.50	0	7	F192	ML89a
51	T54S175F	4	1	PPS	110M†	BTD	0.0	5.0	.80	2.0	13n	20m	.50	75M	5	C	F351	FL14g
52	T54S175J	4	1	PPS	110M†	BTD	0.0	5.0	.80	2.0	13n	20m	.50	75M	5	C	F351	ML219
53	T74S175F	4	1	PPS	110M†	BTD	0.0	5.0	.80	2.0	13n	20m	.50	75M	0	7	F351	FL14g
54	T74S175J	4	1	PPS	110M†	BTD	0.0	5.0	.80	2.0	13n	20m	.50	75M	0	7	F351	ML48c
55#	MB10141	4	1	PPS	150MΔ	BEX	425m	5.2	0.0	-1.6%	-96	2.9n			3	8	F174	ML15
56#	MC10141M	4	1	PPS	150MΔ	BEX	425m	5.2	0.0	-1.6%	-96	2.9n			3	8	F174	ML221
57	MC10141L	4	1	PPS	150MΔ	BEX	425m	5.2	0.0	-1.6%	-96	3.8n			3	8	F174	ML127b
58	MC10141P	4	1	PPS	150MΔ	BEX	425m	5.2	0.0	-1.6%	-96	3.8n			3	8	F174	ML145
59	MC10541F	4	1	PPS	150MΔ	BEX	425m	5.2	0.0	-1.6%	-93	3.8n			5	C	F258	FL34
60	MC10541L	4	1	PPS	150MΔ	BEX	425m	5.2	0.0	-1.6%	-93	3.8n			5	C	F258	ML127b
61	95H00DC	4	1	PPS	190M†	BEX	551m	5.2	0.0	-1.4	1.1	7.5n	50m		0	7	F142	ML15a
62#	uPB2175D	4	1	PSS	10M	BTX	150MΔ	0.0	5.0	.80	2.0	10n			2	7	F140e	ML127s
63	MC794P	4	1	PSS	1.0M†	BRX	225m	0.0	11	.57	.79	55n			1	5	F39	ML38
64	MC5494L	4	1	PSS	10M	BTX	175m	0.0	5.0	.04%	2.4	40n	16m	.40	5	C	F110	ML127b
65	MC7494L	4	1	PSS	10M	BTX	175m	0.0	5.0	.04%	2.4	40n	16m	.40	0	7	F110	ML127b
66#	MIC5494J	4	1	PSS	10M*	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F92	ML61
67#	MIC6494J	4	1	PSS	10M*	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	4	8	F92	ML61
68#	MIC7494J	4	1	PSS	10M*	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F92	ML61
69#	MIC7494N	4	1	PSS	10M*	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F92</	

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG(2) No. REGISTERS
(3) OP. CODE(4) MAX W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	TYPE No.	ORGANIZATION	1 BITS PER REGISTER	2 No. REGS	3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN OPER. TEMP. RANGE CODE	DRAWINGS		
									NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)		(Hz)	LOGIC/BLOCK	OUTLINE
1#	H160D1		4	1	SSS	1.5M \emptyset	BXX	500m \emptyset	0.0	20	6.0	8.0	350nt			0	7		
2	RH803		4	2	PPS	500k	BDX \emptyset	2.2	0.0	15	1.0t	15t				0	7	F263	
3	MSR8		4	2	PPS $\$$	5.0M	\emptyset	360m	0.0	5.0	4.0	3.0				0	7	F341	
4	527		4	2	PPS	5.0M	BDX \emptyset	350mt	0.0	5.0	4.5	2.0	60n			0	7		
5	RD803		4	2	PPS	5.0M	BDX \emptyset	500m	0.0	5.0	3.0t	5.0t				0	7	F263	
6	RT801		4	2	PPS	10M	BTX \emptyset	540m	0.0	5.0	3.0	3.3t				0	7	F266	
7	527T		4	2	PPS	20M	BTX \emptyset	390mt	0.0	5.0	4.5	5.0	34n			0	7		
8	5527		4	2	PPS	20M1 Δ	BTX \emptyset	700mt	0.0	5.0	4.5	2.4	26nt	14m	.40	0	7		
9	TMSR8A		4	2	PPS $\$$	25M Δ	BTX \emptyset	500m	0.0	5.0	2.2t	3.3t	35n			0	7	F342a	
10	34015DC		4	2	SPS		MCX	2.0m \emptyset	0.0	10	3.0	7.0	135nt	1.2m	.50	4	8	F80	ML127s
11	34015DM		4	2	SPS		MCX	2.0m \emptyset	0.0	10	3.0	7.0	135nt	1.2m	.50	5	8	F80	ML127s
12	34015FC		4	2	SPS		MCX	2.0m \emptyset	0.0	10	3.0	7.0	135nt	1.2m	.50	4	8	F80	FL14g
13	34015FM		4	2	SPS		MCX	2.0m \emptyset	0.0	10	3.0	7.0	135nt	1.2m	.50	5	8	F80	FL14g
14	34015PC		4	2	SPS		MCX	2.0m \emptyset	0.0	10	3.0	7.0	135nt	1.2m	.50	4	8	F80	ML170
15	RH804		4	2	SPS	500k	BDX \emptyset	2.1	0.0	15	1.0t	15t				0	7	F264	
16 $\#$	JANM38510/05703AEA		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
17 $\#$	JANM38510/05703AEB		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
18 $\#$	JANM38510/05703AEC		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
19 $\#$	JANM38510/05703AFA		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
20 $\#$	JANM38510/05703AFB		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
21 $\#$	JANM38510/05703AFC		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
22 $\#$	JANM38510/05703BEA		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
23 $\#$	JANM38510/05703BEB		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
24 $\#$	JANM38510/05703BEC		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
25 $\#$	JANM38510/05703BFA		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
26 $\#$	JANM38510/05703BFB		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
27 $\#$	JANM38510/05703BFC		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
28 $\#$	JANM38510/05703CEA		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
29 $\#$	JANM38510/05703CEB		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
30 $\#$	JANM38510/05703CEC		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
31 $\#$	JANM38510/05703CFA		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	ML220
32 $\#$	JANM38510/05703CFB		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
33 $\#$	JANM38510/05703CFC		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
34	CM4015AE		4	2	SPS	700k	MCX	200m \emptyset	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F462	FL31
35	TP4015AJ		4	2	SPS	1.3M Δ	MCX	14m $\#$	0.0	10	.05%	9.95	500n	350u	9.5	4	8	F80	ML4g
36	TP4015AN		4	2	SPS	1.3M Δ	MCX	14m $\#$	0.0	10	.05%	9.95	500n	350u	9.5	4	8	F355	ML61a
37	CM4015AD		4	2	SPS	1.5M	MCX	200m \emptyset	0.0	5.0	.01% \emptyset	4.99	750n \emptyset			5	5	F80	ML4g
38	TF4015AJ		4	2	SPS	1.8M Δ	MCX	6.0m $\#$	0.0	10	.05%	9.95	400n	350u	9.5	5	5	F355	ML61a
39	TF4015AN		4	2	SPS	1.8M Δ	MCX	6.0m $\#$	0.0	10	.05%	9.95	400n	350u	9.5	5	5	F355	ML48
40	SS4015AE		4	2	SPS	2.5M*			0.0	10	.20%	9.8	300n	2.8m	1.5	2	8	F298	
41	SCL4015BC		4	2	SPS	2.5M \emptyset	MCA	300u $\#$	0.0	10	.05%	9.95	250n \emptyset	900u%	.50	5	5	F424	ML127t
42	SCL4015BD		4	2	SPS	2.5M \emptyset	MCA	300u $\#$	0.0	10	.05%	9.95	250n \emptyset	900u%	.50	5	5	F424	MO001AE
43	SCL4015BE		4	2	SPS	2.5M \emptyset	MCA	300u $\#$	0.0	10	.05%	9.95	250n \emptyset	1.1m%	.50	4	8	F424	ML127u
44	SCL4015BF		4	2	SPS	2.5M \emptyset	MCA	300u $\#$	0.0	10	.05%	9.95	250n \emptyset	900u%	.50	5	5	F424	MO004AH
45	SCL4015BH		4	2	SPS	2.5M \emptyset	MCA	300u $\#$	0.0	10	.05%	9.95	250n \emptyset	900u%	.50	5	5	F424	CHZ
46	CD4015AE		4	2	SPS	2.5M \emptyset	MCX	14m $\#$	0.0	10	.05%	9.95	300n \emptyset	80u%	9.5	4	8	F80	MO001AC
47 $\#$	HF4015AE		4	2	SPS	2.5M \emptyset	MCX	14m $\#$	0.0	10	.05%	9.9	300n \emptyset	80u%	9.5	4	8	F80	MO001AC
48 $\#$	HF4015AF		4	2	SPS	2.5M \emptyset	MCX	14m $\#$	0.0	10	.05%	9.9	300n \emptyset	80u%	9.5	4	8	F80	ML127c
49	HD1-4015A9		4	2	SPS	2.5M	MCX	1.0m $\#$	0.0	10	.01% \emptyset	9.99	300n	100u	.50	4	8	F80	ML127h
50 $\#$	MB84015M		4	2	SPS	2.5M*	MCX	200m	0.0	10	3.0 \emptyset	7.0	300n \emptyset			4	8	F80	ML221
51	CD4015AD		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.95	225n \emptyset	140u%	9.5	5	5	F80	MO001AE
52	CD4015AF		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.95	225n \emptyset	140u%	9.5	5	5	F80	MO001AE
53	CD4015AH		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.95	225n \emptyset	140u%	9.5	5	5	F80	CH6
54	CD4015AK		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.95	225n \emptyset	140u%	9.5	5	5	F80	MO001AG
55	CM4015AF		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.95	225n \emptyset	140u%	9.5	5	5	F80	ML19a
56 $\#$	HBC4015AD		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.9	225n \emptyset	140u%	9.5	5	5	F80	ML127c
57 $\#$	HBC4015AF		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.9	225n \emptyset	140u%	9.5	5	5	F80	ML127c
58 $\#$	HBC4015AK		4	2	SPS	3.0M \emptyset	MCX	6.0m $\#$	0.0	10	.05%	9.9	225n \emptyset	140u%	9.5	5	5	F80	MO004AG
59	HD1-4015A2		4	2	SPS	3.0M	MCX	100u $\#$	0.0	10	.01% \emptyset	9.99	225n	250u	.50	5	5	F80	ML127h
60	HD9-4015A2		4	2	SPS	3.0M	MCX	100u $\#$	0.0	10	.01% \emptyset	9.99	225n	250u	.50	5	5	F80	FL27
61 $\#$	MB84015		4	2	SPS	3.0M*	MCX	200m	0.0	10	3.0 \emptyset	7.0	200n \emptyset			5	7	F80	ML15
62	RD804		4	2	PPS	5.0M	BDX \emptyset	575m	0.0	5.0	.30t	5.0t				0	7	F264	
63	SCL4015AC		4	2	SPS	5.0M1 \emptyset	MCX	300m \emptyset	0.0	10	.05%	9.95	225n \emptyset	350u%	9.5	5	5	F154	ML4g
64	SCL4015AD		4	2	SPS	5.0M1 \emptyset	MCX	300m \emptyset	0.0	10	.05%	9.95	225n \emptyset	350u%	9.5	5	5	F154	ML62a
65	SCL4015AE		4	2	SPS	5.0M1 \emptyset	MCX	300m \emptyset	0.0	10	.05%	9.95	225n \emptyset	350u%	9.5	5	5	F154	ML89
66	SCL4015AF		4	2	SPS	5.0M1 \emptyset	MCX	300m \emptyset	0.0	10	.05%	9.95	225n \emptyset	350u%	9.5	5	5	F154	FL23
67	SCL4015AH		4	2	SPS	5.0M1 \emptyset	MCX	300m \emptyset	0.0	10	.05%	9.95	225n \emptyset	350u%	9.5	5	5	F154	CHZ
68 $\#$	uPD4015C		4	2	SPS	5.0M1 \emptyset	MCX	200m \emptyset	0.0	10	.30	7.0	300n	80u	.50	4	8	F80	MO001AC
69	MC14015BAL		4	2	SPS	6.0M%	MCX	3.0m $\#$	0.0	10	3.0	7.0	250n \emptyset	900u	.50	5	5	F397	ML157a
70	MC14015BCL		4	2	SPS	6.0M%	MCX	3.0m $\#$	0.0	10	3.0	7.0	400n \emptyset	900u	.50	4	8	F397	ML157a
71																			

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS / REG (2) No. REGISTERS
(3) OP. CODE (4) MAX. W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1	2					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE
		BITS PER REGISTER	No. REGS															
1	JANM38510/00902AEA	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
2	JANM38510/00902AEB	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
3	JANM38510/00902AEC	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
4	JANM38510/00902AFA	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
5	JANM38510/00902AFB	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
6	JANM38510/00902AFC	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
7	JANM38510/00902BEA	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
8	JANM38510/00902BEB	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
9	JANM38510/00902BEC	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
10	JANM38510/00902BFA	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
11	JANM38510/00902BFB	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
12	JANM38510/00902BFC	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
13	JANM38510/00902CEA	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
14	JANM38510/00902CEB	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
15	JANM38510/00902CEC	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
16	JANM38510/00902CFA	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	ML142
17	JANM38510/00902CFB	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
18	JANM38510/00902CFC	5	1	PPS	7.0M	BTX	400m□	0.0	5.0	.80	2.0	77n	16m	.40	5	C	F40	FL31
19	DM54LS96J	5	1	PPS	10M	BTX	100m	0.0	5.0	.70	2.0	55n	4.0m	.40	5	C	F40	ML127f
20	DM54LS96N	5	1	PPS	10M	BTX	100m	0.0	5.0	.70	2.0	55n	4.0m	.40	5	C	F40	ML178
21	DM54LS96W	5	1	PPS	10M	BTX	100m	0.0	5.0	.70	2.0	55n	4.0m	.40	5	C	F40	FL39
22	DM74LS96J	5	1	PPS	10M	BTX	100m	0.0	5.0	.80	2.0	55n	4.0m	.40	0	7	F40	ML127f
23	DM74LS96N	5	1	PPS	10M	BTX	100m	0.0	5.0	.80	2.0	55n	4.0m	.40	0	7	F40	ML178
24	DM74LS96W	5	1	PPS	10M	BTX	100m	0.0	5.0	.80	2.0	55n	4.0m	.40	0	7	F40	FL39
25	DM5496J	5	1	PPS	10M	BTX	340m	0.0	5.0	.80	2.0	55n	16m	.40	5	C	F40	ML127f
26	DM5496N	5	1	PPS	10M	BTX	340m	0.0	5.0	.80	2.0	55n	16m	.40	5	C	F40	FL39
27	DM7496J	5	1	PPS	10M	BTX	395m	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F40	ML127f
28	DM7496N	5	1	PPS	10M	BTX	395m	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F40	ML178
29	FLJ261-7496	5	1	PPS	10M	BTX	415m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F468	MLJ
30	FLJ265-8496	5	1	PPS	10M	BTX	415m	0.0	5.0	.80	2.0	40n	16m	.40	2	8	F468	MLJ
31	M53296P	5	1	PPS	10M*	BTX	29m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F40	ML5a
32	MB453	5	1	PPS*	10M*	BTX	280mt	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F390	ML15
33	MB453M	5	1	PPS*	10M*	BTX	280mt	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F390	ML221
34	MC5496L	5	1	PPS	10M	BTX	240mt	0.0	5.0	.40%	2.4	40n	16m	.40	5	C	F40	ML127b
35	MIC5496J	5	1	PPS	10M*	BTX	215mt	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F40	ML61
36	MIC6496J	5	1	PPS	10M*	BTX	215mt	0.0	5.0	.80	2.0	40n	16m	.40	4	8	F40	ML61
37	MIC7496J	5	1	PPS	10M*	BTX	215mt	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F40	ML61
38	MIC7496N	5	1	PPS	10M*	BTX	215mt	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F40	ML132b
39	N7496B	5	1	PPS	10M	BTX	400m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F40	ML85
40	S5496B	5	1	PPS	10M	BTX	340m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F40	ML132
41	S5496F	5	1	PPS	10M	BTX	340m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F40	ML61d
42	S5496W	5	1	PPS	10M	BTX	340m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F40	FL25
43	SN54LS96J	5	1	PPS	10M	BTX	60mt	0.0	5.0	.70	2.0	55n	4.0m	.40	5	C	F40	ML61a
44	SN54LS96N	5	1	PPS	10M	BTX	60mt	0.0	5.0	.70	2.0	55n	4.0m	.40	5	C	F40	MO004AG
45	SN74LS96J	5	1	PPS	10M	BTX	60mt	0.0	5.0	.80	2.0	55n	4.0m	.40	0	7	F40	ML61a
46	SN74LS96N	5	1	PPS	10M	BTX	60mt	0.0	5.0	.80	2.0	55n	4.0m	.40	0	7	F40	ML48
47	SN5496J	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	5	C	F40	ML61a
48	SN5496W	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	5	C	F40	MO004AG
49	SN7496J	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F40	ML61a
50	SN7496N	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F40	ML48
51	SW7496J	5	1	PPS	10M	BTX	395m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F40	ML48
52	SW7496N	5	1	PPS	10M	BTX	395m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F40	ML72
53	TL7496N	5	1	PPS	10M*	BTX	414m	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F243a	ML48b
54	ZN5496E	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	5	C	F457	ML5f
55	ZN5496J	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	5	C	F457	ML85b
56	ZN7496E	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F457	ML5f
57	ZN7496J	5	1	PPS	10M	BTX	240mt	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F457	ML85b
58	JANM38510/30604AEA	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
59	JANM38510/30604AEB	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
60	JANM38510/30604AEC	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
61	JANM38510/30604AFA	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
62	JANM38510/30604AFB	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
63	JANM38510/30604AFC	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
64	JANM38510/30604BEA	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
65	JANM38510/30604BEB	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
66	JANM38510/30604BEC	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
67	JANM38510/30604BFA	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
68	JANM38510/30604BFB	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
69	JANM38510/30604BFC	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
70	JANM38510/30604CEA	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
71	JANM38510/30604CEB	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
72	JANM38510/30604CEC	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	ML143
73	JANM38510/30604CFA	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31
74	JANM38510/30604CFB	5	1	PPS	18M*	BTX	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS / REG(2) No. REGISTERS
(3) OP. CODE(4) MAX W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX CASE FREQ. (Hz)	STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN SINK CURRENT (A)	OUTPUT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)						LOGIC/BLOCK	OUTLINE	
1▼	JANM38510/30604CFC	5	1	PPS SSS	18M*	BTD	110m	0.0	5.5	.70	2.0	90n	4.0m	.40	5	C	F40	FL31	
2#	GFB7496D	5	2	PPS SSS	10M	BTX	240m	0.0	5.0	.80	2.0	55n	1.8m	0.0	0	7	F40	ML175	
3	N8200F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302	ML133	
4	N8200N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302	ML135	
5	N8200Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302	FL3b	
6	N8201F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302a	ML133	
7	N8201N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302a	ML135	
8	N8201Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302a	FL3b	
9	S8200F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302	ML133	
10	S8200N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302	ML135	
11	S8200Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302	FL3b	
12	S8201F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302a	ML133	
13	S8201N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302a	ML135	
14	S8201Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302a	FL3b	
15	CM4006AE	5	4	PPS	1.2M	MCX	200m	0.0	5.0	.01%∅	4.99	500n∅			4	8	F126	ML19a	
16	CM4006AD	5	4	PPS	1.5M	MCX	200m	0.0	5.0	.01%∅	4.99	400n∅			5	5	F126	ML19a	
17	CM4006AF	5	4	PPS	2.5M∅	MCX	600u∅	0.0	10	.05%∅	9.95	200n∅	140u∅	9.5	5	5	F126	ML19a	
18	MC14006BCL	5	4	PPS	4.0M∅	MCX	400u∅	0.0	10	3.0	7.0	275n∅	1.1m	.50	4	8	F236	TO116	
19	MC14006BCP	5	4	PPS	4.0M∅	MCX	400u∅	0.0	10	3.0	7.0	275n∅	1.1m	.50	4	8	F236	ML124	
20	MC14006BAL	5	4	PPS	7.0M∅	MCX	100u∅	0.0	10	3.0	7.0	165n∅	1.3m	.50	5	C	F236	TO116	
21▼	JANM38510/05701AAA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
22▼	JANM38510/05701AAB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
23▼	JANM38510/05701AAC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
24	JANM38510/05701ACA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
25	JANM38510/05701ACB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
26	JANM38510/05701ACC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
27	JANM38510/05701ADA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
28	JANM38510/05701ADB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL22	
29	JANM38510/05701ADC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL22	
30▼	JANM38510/05701BAA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
31▼	JANM38510/05701BAB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
32▼	JANM38510/05701BAC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
33	JANM38510/05701BCA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
34	JANM38510/05701BCB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
35	JANM38510/05701BCC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
36	JANM38510/05701BDA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	ML219	
37	JANM38510/05701BDB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL22	
38	JANM38510/05701BDC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL22	
39▼	JANM38510/05701CAA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
40▼	JANM38510/05701CAB	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
41▼	JANM38510/05701CAC	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
42	JANM38510/05701CCA	5	4	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.2u	85u∅	.50	5	C	F251	FL21a	
43	JANM38510/05701CCB	5	4	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u∅	.50	5	C	F251	ML219	
44	JANM38510/05701CCC	5	4	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u∅	.50	5	C	F251	ML219	
45	JANM38510/05701CDA	5	4	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u∅	.50	5	C	F251	ML219	
46	JANM38510/05701CDB	5	4	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u∅	.50	5	C	F251	FL22	
47	JANM38510/05701CDC	5	4	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u∅	.50	5	C	F251	FL22	
48	CD4006AE	5	4	SSS	2.0M∅	MCX	400u∅	0.0	10	.05%	9.95	250n∅	80u∅	9.5	4	8	F126	MO001AB	
49#	HF4006AE	5	4	SSS	2.0M∅	MCX	1.4m∅	0.0	10	.05%	9.9	250n∅	80u∅	9.5	4	8	F126	MO001AB	
50#	HF4006AF	5	4	SSS	2.0M∅	MCX	1.4m∅	0.0	10	.05%	9.9	250n∅	80u∅	9.5	4	8	F126	MO001AD	
51	SCL4006ABC	5	4	SSS	2.5M∅	MCA	300u∅	0.0	10	.05%	9.95	300n∅	140u∅	9.5	5	C	F126	MO001AA	
52	SCL4006ABD	5	4	SSS	2.5M∅	MCA	300u∅	0.0	10	.05%	9.95	300n∅	140u∅	9.5	5	C	F126	ML93g	
53	SCL4006ABE	5	4	SSS	2.5M∅	MCA	300u∅	0.0	10	.05%	9.95	300n∅	160u∅	9.5	4	8	F126	ML93h	
54	SCL4006ABF	5	4	SSS	2.5M∅	MCA	300u∅	0.0	10	.05%	9.95	300n∅	140u∅	9.5	5	C	F126	MO004AF	
55	SCL4006ABH	5	4	SSS	2.5M∅	MCA	300u∅	0.0	10	.05%	9.95	300n∅	140u∅	9.5	5	C	F126	CHZ	
56	CD4006AD	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.95	200n∅	140u∅	9.5	5	C	F126	MO001AD	
57	CD4006AF	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.95	200n∅	140u∅	9.5	5	C	F126	MO001AB	
58	CD4006AH	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.95	200n∅	140u∅	9.5	5	C	F126	CH1	
59	CD4006AK	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.95	200n∅	140u∅	9.5	5	C	F126	MO004AF	
60#	HBC4006AD	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.9	200n∅	140u∅	9.5	5	C	F126	MO001AD	
61#	HBC4006AF	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.9	200n∅	140u∅	9.5	5	C	F126	MO001AD	
62#	HBC4006AK	5	4	SSS	2.5M∅	MCX	600u∅	0.0	10	.05%	9.9	200n∅	140u∅	9.5	5	C	F126	MO004AF	
63	HD1-4006A2	5	4	SSS	5.0MΔ∅	MCX	200m	0.0	10	.01%∅	9.99	200n	250u	.50	5	4	8	F126	MLZ
64	HD1-4006A9	5	4	SSS	5.0MΔ∅	MCX	200m	0.0	10	.01%∅	9.99	250n	125u	.50	5	4	8	F126	MLZ
65	MM4606AD	5	4	SSS	5.0M1∅	MCX	150u∅	0.0	5.0	.05%	9.95	400n∅			5	5	C	F312	ML179
66	MM4606AF	5	4	SSS	5.0M1∅	MCX	150u∅	0.0	5.0	.05%	9.95	400n∅			5	5	C	F312	FL36

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS/REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX. W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		OPER. CODE	4 MAX CASE FREQ. (Hz)	5 STRUC TURE CODE	MAX OPER. POWER (W)	RATED SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE
1	511T	6	1		20M	BTX	60m	0.0	7.0	.45	2.0	34ns						PL11
2	513T	6	1		25M	BTX	258m	0.0	7.0	.45	2.0	40n						PL11
3	AM25S07DC	6	1	PPS		BTD	720m	0.0	5.0	.80	2.0	17n	20m	50			F284	ML127k
4	AM25S07DM	6	1	PPS		BTD	720m	0.0	5.0	.80	2.0	17n	20m	50			F284	ML62c
5	AM25S07FM	6	1	PPS		BTD	720m	0.0	5.0	.80	2.0	17n	20m	50			F284	FL33b
6	AM25S07PC	6	1	PPS		BTD	720m	0.0	5.0	.80	2.0	17n	20m	50			F284	ML89a
7#	FLJ361-74118	6	1	PPS		BTX	300m	0.0	5.0	.80	2.0	29n	16m	40			F368	ML2k
8#	FLJ365-84118	6	1	PPS		BTX	300m	0.0	5.0	.80	2.0	29n	16m	40			F368	ML2k
9#	FLJ371-74119	6	1	PPS		BTX	300m	0.0	5.0	.80	2.0	29n	16m	40			F369	ML118g
10#	FLJ375-84119	6	1	PPS		BTX	300m	0.0	5.0	.80	2.0	29n	16m	40			F369	ML118g
11#	FLJ531-74174	6	1	PPS		BTX	177m	0.0	5.0	.80	2.0	15ns	16m	40			F350	ML2k
12#	FLJ535-84174	6	1	PPS		BTX	177m	0.0	5.0	.80	2.0	15ns	16m	40			F350	ML2k
13#	MIC54174J	6	1	PPS		BTX	225m	0.0	5.0	.80	2.0	17n					F350	ML146
14#	MIC64118J	6	1	PPS		BTX	150m	0.0	5.0	.80	2.0	29n					F368	ML146
15#	MIC64174J	6	1	PPS		BTX	225m	0.0	5.0	.80	2.0	17n					F350	ML146
16#	MIC74174J	6	1	PPS		BTX	225m	0.0	5.0	.80	2.0	17n					F350	ML146
17#	MIC74174N	6	1	PPS		BTX	225m	0.0	5.0	.80	2.0	17n					F350	ML146
18#	TL74118N	6	1	PPS		BTX	315m	0.0	5.0	.80	2.0	29n					F368	ML71a
19#	TL74119N	6	1	PPS		BTX	315m	0.0	5.0	.80	2.0	29n					F369	ML48b
20#	uPB10176D	6	1	PPS	150m%		550m	0.0	5.0	-1.8*	-80#	2.0ns					F417	ML127s
21#	uPD122C	6	1	PPS	150k	MXX		24	0.0	-9.3*	-3.7#	4.0u	80u	-13			F418	MO001AA
22#	MM54C174D	6	1	PPS	5.0MΔ	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	10			F350	ML177
23	MM54C174F	6	1	PPS	5.0MΔ	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	10			F350	FL37
24	MM54C174J	6	1	PPS	5.0MΔ	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	10			F350	ML127f
25	MM74C174J	6	1	PPS	5.0MΔ	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	10			F350	ML127f
26	MM74C174N	6	1	PPS	5.0MΔ	MCX	500m	0.0	10	2.0	8.0	110n	8.0m	10			F350	ML178
27	HD1-54C174	6	1	PPS	12MΔ†	MCX	500m	0.0	10	2.0	8.0	110n	10u	1.0	5.0M		F350	ML127h
28	HD1-74C174	6	1	PPS	12MΔ†	MCX	500m	0.0	10	2.0	8.0	110n	10u	1.0	5.0M		F350	ML127h
29	HD9-54C174	6	1	PPS	12MΔ†	MCX	500m	0.0	10	2.0	8.0	110n	10u	1.0	5.0M		F350	FL14f
30	HD9-74C174	6	1	PPS	12MΔ†	MCX	500m	0.0	10	2.0	8.0	110n	10u	1.0	5.0M		F350	FL14f
31	MC14174BAL	6	1	PPS	12MΔ†	MCX	6.0m	0.0	10	0.05%	9.95	170n	90	50			F399	ML157a
32	MC14174BCL	6	1	PPS	12MΔ†	MCX	6.0m	0.0	10	0.05%	9.95	170n	90	50			F399	ML157a
33	MC14174BCP	6	1	PPS	12MΔ†	MCX	6.0m	0.0	10	0.05%	9.95	170n	90	50			F399	ML145
34	340174DC	6	1	PPS	16MΔ†	MCX	4.0m	0.0	10	3.0	7.0	45n	1.2m	50			F412	ML127s
35	340174DM	6	1	PPS	16MΔ†	MCX	2.0m	0.0	10	3.0	7.0	45n	1.2m	50			F412	ML127s
36	340174FC	6	1	PPS	16MΔ†	MCX	4.0m	0.0	10	3.0	7.0	45n	1.2m	50			F412	FL14g
37	340174FM	6	1	PPS	16MΔ†	MCX	2.0m	0.0	10	3.0	7.0	45n	1.2m	50			F412	FL14g
38	340174PC	6	1	PPS	16MΔ†	MCX	4.0m	0.0	10	3.0	7.0	45n	1.2m	50			F412	ML170
39#	JANM38510/30106AEA	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
40#	JANM38510/30106AEB	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
41#	JANM38510/30106AEC	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
42#	JANM38510/30106AFA	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
43#	JANM38510/30106AFB	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
44#	JANM38510/30106AFC	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
45#	JANM38510/30106BEA	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
46#	JANM38510/30106BEB	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
47#	JANM38510/30106BEC	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
48#	JANM38510/30106BFA	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
49#	JANM38510/30106BFB	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
50#	JANM38510/30106BFC	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
51#	JANM38510/30106CEA	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
52#	JANM38510/30106CEB	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
53#	JANM38510/30106CEC	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	ML143
54#	JANM38510/30106CFA	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
55#	JANM38510/30106CFB	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
56#	JANM38510/30106CFC	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
57#	M53374P	6	1	PPS	25MΔ*	BTX	143m	0.0	5.5	.70	2.0	40n	4.0m	40			F350	FL31
58#	SFC4174E	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	ML48
59#	SFC4174EM	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	ML48
60#	SFC4174ET	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	ML48
61	SN54174J	6	1	PPS	25MΔ*	BTX	325m	0.0	5.0	.80	2.0	35n	16m	40			F350	ML61a
62	SN54174W	6	1	PPS	25MΔ*	BTX	325m	0.0	5.0	.80	2.0	35n	16m	40			F350	MO004AG
63	SN74174J	6	1	PPS	25MΔ*	BTX	325m	0.0	5.0	.80	2.0	35n	16m	40			F350	ML61a
64	SN74174N	6	1	PPS	25MΔ*	BTX	325m	0.0	5.0	.80	2.0	35n	16m	40			F350	ML48
65#	ZN54174E	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	TO116
66#	ZN54174J	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	ML93e
67#	ZN74174E	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	ML61a
68#	ZN74174J	6	1	PPS	25MΔ*	BTX	225m	0.0	5.0	.80	2.0	35n					F350	ML93e
69#	SN54LS378J	6	1	PPS	30M	BTD	110m	0.0	5.0	.70	2.0	27n	4.0m	40			F451	ML61a
70	SN54LS378W	6	1	PPS	30M	BTD	110m	0.0	5.0	.70	2.0	27n	4.0m	40			F451	MO004AG
71	SN74LS378J	6	1	PPS	30M	BTD	110m	0.0	5.0	.70	2.0	27n	4.0m	40			F451	ML61a
72	SN74LS378N	6	1	PPS	30M	BTD	110m	0.0	5.0	.70	2.0	27n	4.0m	40			F451	ML48
73#	IT74LS174	6	1	PPS	30MΔ*	BTX	130m	0.0	5.0	.80	2.0	35n	4.0m	40			F350	ML7
74	N74LS174B	6	1	PPS	30MΔ*	BTX	110m	0.0	5.0	.80	2.0	23n					F350	ML132
75	N74LS174F	6	1	PPS	30MΔ*	BTX	110m	0.0	5.0	.80	2.0	23n					F350	ML127m
76	S54LS174B	6	1	PPS	30MΔ*	BTX	110m	0.0	5.0	.80	2.0	23n					F350	ML132
77	S54LS174F	6	1	PPS	30MΔ*	BTX	110m	0.0	5.0	.80	2.0	23n					F350	ML127m
78	S54LS174W	6	1	PPS	30MΔ*	BTX	110m	0.0	5.0	.80	2.0	23n					F350	ML132
79	SN54LS174J	6	1	PPS	30MΔ*	BTX	130m	0.0	5.0	.80	2.0	35n	4.0m	40			F350	ML61a
80	SN54LS174W	6	1	PPS	30MΔ*	BTX	130m	0.0	5.0	.80	2.0	35n	4.0m	40			F350	MO004AG
81	SN74LS174J	6	1	PPS	30MΔ*	BTX	130m	0.0	5.0	.80	2.0	35n						

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)I/TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN OPER. TEMP. RANGE (°C)	DRAWINGS		
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)		LOGIC/ BLOCK	OUTLINE	
1	AM25LS174FM	6	1	PPS	40M	BDT	130m	0.0	5.0	0.70	2.0	20n	8.0m	.45	5	C		
2	AM25LS174PC	6	1	PPS	40M	BDT	130m	0.0	5.0	0.80	2.0	20n	8.0m	.45	0	7		
3	DM54174J	6	1	PPS	40MΔ	BTX	285m	0.0	5.0	0.80	2.0	30n	16m	.40	5	C	F350	
4	DM54174N	6	1	PPS	40MΔ	BTX	285m	0.0	5.0	0.80	2.0	30n	16m	.40	30M	5	C	F350 ML178
5	DM54174W	6	1	PPS	40MΔ	BTX	285m	0.0	5.0	0.80	2.0	30n	16m	.40	30M	5	C	F350 FL39
6	DM74174J	6	1	PPS	40MΔ	BTX	285m	0.0	5.0	0.80	2.0	30n	16m	.40	30M	0	7	F350 ML127f
7	DM74174N	6	1	PPS	40MΔ	BTX	285m	0.0	5.0	0.80	2.0	30n	16m	.40	30M	0	7	F350 ML178
8	DM74174W	6	1	PPS	40MΔ	BTX	285m	0.0	5.0	0.80	2.0	30n	16m	.40	30M	0	7	F350 FL39
9	9LS174DC	6	1	PPS	55MΔ	BDT	136m	0.0	5.25	0.80	2.0	20n	4.0m	.40	0	7	F405 ML127s	
10	9LS174DM	6	1	PPS	55MΔ	BDT	143m	0.0	5.0	0.70	2.0	20n	4.0m	.40	5	C	F405 ML127s	
11	9LS174FC	6	1	PPS	55MΔ	BDT	136m	0.0	5.25	0.80	2.0	20n	4.0m	.40	0	7	F405 FL14g	
12	9LS174FM	6	1	PPS	55MΔ	BDT	143m	0.0	5.0	0.70	2.0	20n	4.0m	.40	5	C	F405 FL14g	
13	9LS174PC	6	1	PPS	55MΔ	BDT	136m	0.0	5.25	0.80	2.0	20n	4.0m	.40	0	7	F405 ML170	
14	54LS174DM	6	1	PPS	55MΔ	BDT	143m	0.0	5.0	0.70	2.0	20n	4.0m	.40	5	C	F405 ML127s	
15	54LS174FM	6	1	PPS	55MΔ	BDT	143m	0.0	5.0	0.70	2.0	20n	4.0m	.40	5	C	F405 FL14g	
16	74LS174DC	6	1	PPS	55MΔ	BDT	136m	0.0	5.25	0.80	2.0	20n	4.0m	.40	0	7	F405 ML127s	
17	74LS174FC	6	1	PPS	55MΔ	BDT	136m	0.0	5.25	0.80	2.0	20n	4.0m	.40	0	7	F405 FL14g	
18	74LS174PC	6	1	PPS	55MΔ	BDT	136m	0.0	5.25	0.80	2.0	20n	4.0m	.40	0	7	F405 ML170	
19	SN54S174J	6	1	PPS	75MΔ	BTX	720m	0.0	5.0	0.80	2.0	22n	20m	.50	5	C	F350 ML61a	
20	SN54S174W	6	1	PPS	75MΔ	BTX	720m	0.0	5.0	0.80	2.0	22n	20m	.50	5	C	F350 MO004AG	
21	SN74S174J	6	1	PPS	75MΔ	BTX	720m	0.0	5.0	0.80	2.0	22n	20m	.50	0	7	F350 ML61a	
22	SN74S174N	6	1	PPS	75MΔ	BTX	720m	0.0	5.0	0.80	2.0	22n	20m	.50	0	7	F350 ML48	
23	T54S174F	6	1	PPS	110M†	BDT		0.0	5.0	0.80	2.0	13n	20m	.50	75M	5	C	F350 FL14g
24	T54S174J	6	1	PPS	110M†	BDT		0.0	5.0	0.80	2.0	13n	20m	.50	75M	5	C	F350 ML219
25	T74S174F	6	1	PPS	110M†	BDT		0.0	5.0	0.80	2.0	13n	20m	.50	75M	0	7	F350 FL14g
26	T74S174J	6	1	PPS	110M†	BDT		0.0	5.0	0.80	2.0	13n	20m	.50	75M	0	7	F350 ML219
27	10176F	6	1	PPS	150M%†	BEX	460m	5.2	0.0	-1.6	-96	4.0n			3	8	F349 ML127m	
28	MC10176L	6	1	PPS	150M%†	BEX	460m†	5.0	0.0	-1.4	-1.1	4.5n			3	8	F349 ML61e	
29	MC10176P	6	1	PPS	150M%†	BEX	460m†	5.0	0.0	-1.4	-1.1	4.5n			3	8	F349 ML145	
30	MC10186L	6	1	PPS	150M%†	BEX	460m†	5.0	0.0	-1.6	-96	2.5n			3	8	F378 ML61e	
31	HH806	6	1	SPS	500k	BDX	2.3	0.0	15	1.0†	15†				0	7	F265	
32	RD806	6	1	SPS	5.0M	BDX	850m	0.0	5.0	0.30†	5.0†				0	7	F265	
33	DM85S50J	6	1	SPS	75M	BDT	750m	0.0	5.0	0.80	2.0	20n	20m	.50	0	7	F446 ML127f	
34	DM85S50N	6	1	SPS	75M	BDT	750m	0.0	5.0	0.80	2.0	20n	20m	.50	0	7	F446 ML178	
35	DM85S50W	6	1	SPS	75M	BDT	750m	0.0	5.0	0.80	2.0	20n	20m	.50	0	7	F446 FL39	
36	CM4014AD	8s	1	PSS	1.5M	MCX	200m	0.0	5.0	0.1%φ	4.99	750n			5	C	F79 ML4g	
37	MGF8	8	1		2.0M		500m	0.0	5.0	0.0	5.0	25n			0	7	F383 PL10	
38	I106	8	1		5.0M	BDX	600m	4.8	5.2	0.0	5.0	50n			0	7	PL2	
39	I107	8	1		5.0M	BDX	600m	4.8	5.2	0.0	5.0	50n			0	7	PL2	
40	M203	8	1		20M	BTX	175m	0.0	5.0	0.40	2.4	30n			0	7	F430 FL44	
41	SN54LS374W	8	1	PPS		BDT		0.0	5.0	0.70	2.0	100n	4.0m	.40	5	C	F254 ML127d	
42	AM93L38DC	8	1	PPS		BTX	185m	0.0	5.0	0.70	2.0	100n	4.9m	.30	5	C	F254 ML62c	
43	AM93L38DM	8	1	PPS		BTX	185m	0.0	5.0	0.70	2.0	100n	4.9m	.30	5	C	F254 FL33b	
44	AM93L38FM	8	1	PPS		BTX	185m	0.0	5.0	0.70	2.0	100n	4.9m	.30	0	7	F254 ML89a	
45	AM93L38PC	8	1	PPS		BTX	185m	0.0	5.0	0.70	2.0	100n	4.9m	.30	0	7	F254 ML127k	
46	AM9338DC	8	1	PPS		BTX	495m	0.0	5.0	0.80	2.0	42n	16m	.40	5	C	F254 ML62c	
47	AM9338DM	8	1	PPS		BTX	495m	0.0	5.0	0.80	2.0	42n	16m	.40	5	C	F254 FL33b	
48	AM9338FM	8	1	PPS		BTX	495m	0.0	5.0	0.80	2.0	42n	16m	.40	5	C	F254 FL33b	
49	AM9338PC	8	1	PPS		BTX	495m	0.0	5.0	0.80	2.0	42n	16m	.40	0	7	F254 ML89a	
50#	TL74100N	8	1	PPS		BTX	556m†	0.0	5.0	0.80	2.0	30nΔ			0	7	F375 ML72	
51	3800-4-6H	8Δ	1	PPS	200k	MCX	180m	27	0.0	-2.0	-10	5.0u			5	8	F171 ML70	
52	3800-9-6H	8Δ	1	PPS	200k	MCX	180m	27	0.0	-2.0	-10	5.0u			0	7	F171 ML70	
53	JANM38510/05706AJA	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
54	JANM38510/05706AJB	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
55	JANM38510/05706AJC	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
56	JANM38510/05706AKA	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
57	JANM38510/05706AKB	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
58	JANM38510/05706AKC	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
59	JANM38510/05706BJA	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
60	JANM38510/05706BJB	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
61	JANM38510/05706BJC	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
62	JANM38510/05706BKA	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
63	JANM38510/05706BKB	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
64	JANM38510/05706BKC	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
65	JANM38510/05706CJA	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
66	JANM38510/05706CJB	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
67	JANM38510/05706CJC	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 ML126	
68	JANM38510/05706CKA	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
69	JANM38510/05706CKB	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
70	JANM38510/05706CKC	8	1	PPS	525k	MCX	200m	0.0	5.0	.85	3.95	1.5u	70u%	.50	5	C	F177 FL29	
71	SCL4034ABC	8	1	PPS	2.5Mφ	MCA	300u	0.0	10	.05%	9.95	480n	175u	.50	5	C	F177 ML39a	
72	SCL4034ABD	8	1	PPS	2.5Mφ	MCA	300u	0.0	10	.05%	9.95	480n	175u	.50	5	C	F177 ML39b	
73	SCL4034ABE	8	1	PPS	2.5Mφ	MCA	300u	0.0	10	.05%	9.95	480n	200u	.50	4	8	F177 CH2	
74	SCL4034ABH	8	1	PPS	2.5Mφ	MCA	300u	0.0	10	.05%	9.95	480n	175u	.50	5	C	F177 ML207b	
75	MC14034BCL	8	1	PPS	2.5Mφ	MCX	1.0m	0.0	10	3.0	7.0	450n	1.1m	.50	4	8	F423 ML39a	
76	MC14034BCP	8	1	PPS	2.5Mφ	MCX	1.0m	0.0	10	3.0	7.0	450n	1.1m	.50	4	8	F423 ML39a	
77	CD4034AD	8	1	PPS	3.0Mφ	MCX	6.0m	0.0	10	.05%	9.95	480n	175u	.50	5	C	F177 MO015AG	
78	CD4034AE	8	1	PPS	3.0Mφ	MCX	14m	0.0	10	.05%	9.95	480n	175u	.50	4	8	F177 MO001AA	
79	CD4034AH	8	1	PPS	3.0Mφ	MCX	6.0m	0.0	10	.05%	9.95	480n	175u	.50	5	C	F177 CH4	
80	CD4034AK	8	1	PPS	3.0Mφ	MCX	6.0m	0.0	10	.05%	9.95	480n	175u	.50	5	C	F177 MO015AG	
81	MC14034BAL	8	1	PPS	3.0Mφ	MCX	100u	0.0</										

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS / REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX. W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6	TYPE No.	ORGANIZATION		3	4	5	MAX	RATED	INPUT	LOGIC	MAX	MIN	PROP.	MIN	OUTPUT	CLOCK	OPER.	DRAWINGS													
			1	2															OPER. CODE	WORST CASE FREQ. (Hz)	STRUC TURE CODE	POWER DISS. (W)	POWER SUP.		MAX	MIN	DELAY	SINK CURRENT @ OUT (V)	FREQ. (Hz)	TEMP. RANGE CODE	LOGIC/ BLOCK	OUTLINE
																							BIT PER REGISTER	No. REGS.									NEG.	POS.	SPAN	'0'	'1'
1		34014DC	8	1	PPS	14MΔ	MCX	12m*	0.0	10	3.0	7.0	47n†	1.2m	50	4	8	F408	ML127s													
2		34014DM	8	1	PPS	14MΔ	MCX	6.0m*	0.0	10	3.0	7.0	47n†	1.2m	50	5	8	F408	ML127s													
3		34014FC	8	1	PPS	14MΔ	MCX	12m*	0.0	10	3.0	7.0	47n†	1.2m	50	4	8	F408	FL14g													
4		34014FM	8	1	PPS	14MΔ	MCX	6.0m*	0.0	10	3.0	7.0	47n†	1.2m	50	4	8	F408	FL14g													
5		34014PC	8	1	PPS	14MΔ	MCX	12m*	0.0	10	3.0	7.0	47n†	1.2m	50	4	8	F408	ML170													
6		AM2502DC	8	1	PPS	15M*	BTX	475m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	ML127k													
7		AM2502DM	8	1	PPS	15M*	BTX	425m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	ML127k													
8		AM2502FM	8	1	PPS	15M*	BTX	425m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	FL33b													
9		AM2502PC	8	1	PPS	15M*	BTX	475m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	ML89a													
10		AM2503DC	8	1	PPS	15M*	BTX	450m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	ML127k													
11		AM2503DM	8	1	PPS	15M*	BTX	400m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	ML127k													
12		AM2503FM	8	1	PPS	15M*	BTX	400m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	FL33b													
13		AM2503PC	8	1	PPS	15M*	BTX	450m*	0.0	50	80	2.0	38n‡	9.6m	40	0	7	F257	ML89a													
14		DM7546J	8	1	PPS	15M∅	BTX	575m	0.0	50	80	2.0	40n‡	16m	40	0	7	F447	ML127f													
15		DM7546W	8	1	PPS	15M∅	BTX	575m	0.0	50	80	2.0	40n‡	16m	40	0	7	F447	FL39													
16		DM8546J	8	1	PPS	15M∅	BTX	625m	0.0	50	80	2.0	40n‡	16m	40	0	7	F447	ML127f													
17		DM8546N	8	1	PPS	15M∅	BTX	625m	0.0	50	80	2.0	40n‡	16m	40	0	7	F447	ML178													
18		DM8546W	8	1	PPS	15M∅	BTX	625m	0.0	50	80	2.0	40n‡	16m	40	0	7	F447	FL39													
19#		uPB2091D	8	1	PPS	18M	BTX	175m	0.0	50	80	2.0	40n‡	16m	40	2	7	F404	ML93f													
20#		M53365P	8	1	PPS	20M∅	BTX	210m†	0.0	50	80	2.0	40n‡	16m	40	0	7	F107	ML5a													
21#		N74165B	8	1	PPS	20M∅	BTX	210m†	0.0	50	80	2.0	40n‡	16m	40	0	7	F107	ML132													
22		S54165B	8	1	PPS	20M∅	BTX	210m†	0.0	50	80	2.0	40n‡	16m	40	5	5	C	F107	ML132												
23		S54165F	8	1	PPS	20M∅	BTX	315m†	0.0	50	80	2.0	40n‡	16m	40	5	5	C	F107	ML61d												
24		S54165W	8	1	PPS	20M∅	BTX	315m†	0.0	50	80	2.0	40n‡	16m	40	5	5	C	F107	FL25												
25▼#		FLJ311-74198	8	1	PPS	25M	BTX	610m	0.0	50	80	2.0	35n	16m	40	0	7	F89	MLJ													
26▼#		FLJ315-84198	8	1	PPS	25M	BTX	610m	0.0	50	80	2.0	35n	16m	40	2	8	F89	MLJ													
27▼#		FLJ321-74199	8	1	PPS	25M	BTX	610m	0.0	50	80	2.0	35n	16m	40	0	7	F90	MLJ													
28▼#		FLJ325-84199	8	1	PPS	25M	BTX	610m	0.0	50	80	2.0	35n	16m	40	2	8	F90	MLJ													
29▼#		FLJ461-74166	8	1	PPS	25M	BTX	610m	0.0	50	80	2.0	35n	16m	40	0	7	F88	MLJ													
30▼#		FLJ465-84166	8	1	PPS	25M	BTX	610m	0.0	50	80	2.0	35n	16m	40	2	8	F88	MLJ													
31#		M53364P	8	1	PPS	25M∅	BTX	21m%†	0.0	50	80	2.0	42n†	8.0m	40	0	7	F179	TO116													
32#		M53398P	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F89														
33#		M53399P	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F90														
34#		MB455	8	1	PPS	25M*	BTX	360m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F89	ML207a													
35#		MB455M	8	1	PPS	25M*	BTX	360m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F89	ML216a													
36#		N74166B	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F88	ML132													
37		N74198F	8	1	PPS	25M∅	BTX	580m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F89	ML133													
38		N74198N	8	1	PPS	25M∅	BTX	580m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F89	ML135													
39		N74199F	8	1	PPS	25M∅	BTX	580m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F90	ML133													
40		N74199N	8	1	PPS	25M∅	BTX	580m†	0.0	50	80	2.0	35n‡	16m	40	0	7	F90	ML135													
41		S54166B	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F88	ML132												
42		S54166F	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F88	ML127m												
43		S54166W	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F88	FL25												
44		S54198F	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F89	ML133												
45		S54198N	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F89	ML135												
46		S54198Q	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F89	FL3b												
47		S54199F	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F90	ML133												
48		S54199N	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F90	ML135												
49		S54199Q	8	1	PPS	25M∅	BTX	520m†	0.0	50	80	2.0	35n‡	16m	40	5	5	C	F90	FL3b												
50		SN54198J	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	5	5	C	F89	MOO15AA												
51		SN54198W	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	5	5	C	F89	MOO19AA												
52		SN54199J	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	5	5	C	F90	MOO15AA												
53		SN54199W	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	5	5	C	F90	MOO19AA												
54		SN74198J	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F89	MOO15AA													
55		SN74198N	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F89	ML72													
56		SN74199J	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F90	MOO15AA													
57		SN74199N	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F90	ML72													
58		SW74198N	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F89	ML72													
59		SW74199N	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F90	ML72													
60#		ZN74166J	8	1	PPS	25M∅	BTX	360m†	0.0	50	80	2.0	30n‡	16m	40	0	7	F460	ML85b													
61		N74165F	8	1	PPS	26M∅	BTX	315m†	0.0	50	80	2.0	40n‡	16m	40	0	7	F107	ML127m													
62#		TL74166N	8	1	PPS	26M†	BTX	330m†	0.0	50	80	2.0	40n	16m	40	0	7	F107	ML48b													
63		SN54LS273J	8	1	PPS	30MΔ	BTD	135m	0.0	50	70	2.0	27n‡	4.0m	40	5	5	C	F449	ML213												
64		SN54LS277J	8	1	PPS	30MΔ	BTD	140m	0.0	50	80	2.0	27n‡	4.0m	40	5	5	C	F449	ML213												
65		SN74LS273J	8	1	PPS	30MΔ	BTD	135m	0.0	50	80	2.0	27n‡	4.0m	40	0	7	F449	ML213													
66		SN74LS273N	8	1	PPS	30MΔ	BTD	135m	0.0	50	80	2.0	27n‡	4.0m	40	0	7	F449	ML161													
67		SN74LS377J	8	1	PPS	30M	BTD	140m	0.0	50	80	2.0	27n‡	4.0m	40	0	7	F450	ML213													
68		SN74LS377N	8	1	PPS	30M	BTD	140m	0.0	50	80	2.0	27n‡	4.0m	40	0	7	F450	ML161													
69		SN54273J	8	1	PPS	30MΔ	BTD	470m	0.0	50	80	2.0	27n‡	16m	40	5	5	C	F449	ML213												
70		SN74273J	8	1	PPS	30MΔ	BTD	470m	0.0	50	80	2.0	27n‡	16m	40	0	7	F449	ML161													
71		SN74273N	8	1	PPS	30MΔ	BTD	470m	0.0	50	80	2.0	27n‡	16m	40	0	7	F449	ML161													
72#		uPB2198D	8	1	PPS	30M	BTX	360m†	0.0	50	80	2.0	27n‡	16m	40	2	7	F407	ML205													
73		9LS164DC	8	1	PPS	35MΔ†	BTD	141m*	0.0	50	80	2.0	27n	4.0m	40	5	5	C	F403	TO116												
74		9LS164DM	8	1	PPS	35MΔ†	BTD	148m*	0.0	50	70	2.0	27n	4.0m	40	5	5	C	F403	TO116												
75		9LS164FC	8	1	PPS	35MΔ†	BTD	141m*	0.0	50	80	2.0																				

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE
1	AM25LS374DM	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.70	2.0		4.0m	.40	5	C	F430	ML248
2	AM25LS374FM	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.70	2.0		4.0m	.40	5	C	F430	FL44
3	AM25LS374PC	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.80	2.0		4.0m	.40	0	7	F430	ML161a
4	AM25LS377DC	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.80	2.0		4.0m	.40	0	7	F432	ML248
5	AM25LS377DM	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.70	2.0		4.0m	.40	5	C	F432	ML248
6	AM25LS377FM	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.70	2.0		4.0m	.40	5	C	F432	FL44
7	AM25LS377PC	8	1	PPS	40M \uparrow	BTD		0.0	5.0	.80	2.0		4.0m	.40	0	7	F432	ML161a
8	SN54LS373J	8	1	PPS	40M \uparrow	BTD	200m	0.0	5.0	.70	2.0 $\frac{1}{2}$	27n	12m	.40	5	C	F358	ML213
9	SN74LS373J	8	1	PPS	40M \uparrow	BTD	200m	0.0	5.0	.80	2.0 $\frac{1}{2}$	27n	24m	.50	0	7	F358	ML213
10	SN74LS373N	8	1	PPS	40M \uparrow	BTD	200m	0.0	5.0	.80	2.0 $\frac{1}{2}$	27n	24m	.50	0	7	F358	ML161
11	SN54S299J	8	1	PPS $\frac{1}{2}$	50M	BTD	1.2	0.0	5.0	.80	2.0 $\frac{1}{2}$	24n	20m	.50	5	C	F281	ML213
12	SN74S299J	8	1	PPS $\frac{1}{2}$	50M	BTD	1.2	0.0	5.0	.80	2.0 $\frac{1}{2}$	24n	20m	.50	0	7	F281	ML213
13	SN74S299N	8	1	PPS $\frac{1}{2}$	50M	BTD	1.2	0.0	5.0	.80	2.0 $\frac{1}{2}$	24n	20m	.50	0	7	F281	ML161
14	SN54S374J	8	1	PPS	75M Δ	BTD	700m	0.0	5.0	.80	2.0 $\frac{1}{2}$	18n Δ	20m	.50	5	C	F359	ML213
15	SN74S374J	8	1	PPS	75M Δ	BTD	700m	0.0	5.0	.80	2.0 $\frac{1}{2}$	18n Δ	20m	.50	0	7	F359	ML213
16	SN74S374N	8	1	PPS	75M Δ	BTD	700m	0.0	5.0	.80	2.0 $\frac{1}{2}$	18n Δ	20m	.50	0	7	F359	ML161
17	SN54S373J	8	1	PPS	80M \uparrow	BTD	800m	0.0	5.0	.80	2.0 $\frac{1}{2}$	13n	20m	.50	5	C	F358	ML213
18	SN74S373J	8	1	PPS	80M \uparrow	BTD	800m	0.0	5.0	.80	2.0 $\frac{1}{2}$	13n	20m	.50	0	7	F358	ML213
19	SN74S373N	8	1	PPS	80M \uparrow	BTD	800m	0.0	5.0	.80	2.0 $\frac{1}{2}$	13n	20m	.50	0	7	F358	ML161
20	JANM38510/05702AEA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
21	JANM38510/05702AEB	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
22	JANM38510/05702AEC	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
23	JANM38510/05702AFA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
24	JANM38510/05702AFB	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
25	JANM38510/05702AFC	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
26	JANM38510/05702BEA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
27	JANM38510/05702BEB	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
28	JANM38510/05702BEC	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
29	JANM38510/05702BFA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
30	JANM38510/05702BFB	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
31	JANM38510/05702BFC	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
32	JANM38510/05702CEA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
33	JANM38510/05702CEB	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
34	JANM38510/05702CEC	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
35	JANM38510/05702CFA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	ML220
36	JANM38510/05702CFB	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
37	JANM38510/05702CFC	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
38 \uparrow	JANM38510/05704AEA	8	1 $\frac{1}{2}$	PSS	700k	MCX	200m \uparrow	0.0	5.0	.85	3.95	1.4u	85u%	.50	5	C	F252	FL31
39 \uparrow	JANM38510/05704AEB	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
40 \uparrow	JANM38510/05704AEC	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
41 \uparrow	JANM38510/05704AFA	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
42 \uparrow	JANM38510/05704AFB	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
43 \uparrow	JANM38510/05704AFC	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
44 \uparrow	JANM38510/05704BEA	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
45 \uparrow	JANM38510/05704BEB	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
46 \uparrow	JANM38510/05704BEC	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
47 \uparrow	JANM38510/05704BFA	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
48 \uparrow	JANM38510/05704BFB	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
49 \uparrow	JANM38510/05704BFC	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
50 \uparrow	JANM38510/05704CEA	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
51 \uparrow	JANM38510/05704CEB	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
52 \uparrow	JANM38510/05704CEC	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
53 \uparrow	JANM38510/05704CFA	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	ML220
54 \uparrow	JANM38510/05704CFB	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
55 \uparrow	JANM38510/05704CFC	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
56	CM4014AE	8	1	PSS	700k	MCX	200m \uparrow	0.0	5.0	1.25	3.25	1.4u	85u%	.50	5	C	F463	FL31
57	TP4014AJ	8 $\frac{1}{2}$	1	PSS	1.0M	MCX	200m \uparrow	0.0	5.0	.01 $\frac{1}{2}$	4.99	1.0u $\frac{1}{2}$			4	8	F79	ML4g
58	TP4014AN	8	1	PSS	1.3M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	400n	140u	9.5	4	8	F354	ML61a
59	TP4021AJ	8	1	PSS	1.3M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	400n	140u	9.5	4	8	F354	ML48
60	TP4021AN	8	1	PSS	1.3M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	400n	140u	9.5	4	8	F354	ML61a
61	TF4014AJ	8	1	PSS	1.8M Δ	MCX	6.0m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	300n	140u	9.5	5	C	F354	ML61a
62	TF4014AN	8	1	PSS	1.8M Δ	MCX	6.0m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	300n	140u	9.5	5	C	F354	ML61a
63	TF4021AJ	8	1	PSS	1.8M Δ	MCX	6.0m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	300n	140u	9.5	5	C	F354	ML61a
64	TF4021AN	8	1	PSS	1.8M Δ	MCX	6.0m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	300n	140u	9.5	5	C	F354	ML48
65 $\#$	MSM542	8	1	PSS	2.0M Δ	MCX	2.5m \uparrow	.30	7.0	.80	3.6	1.0u	1.6m \uparrow	.40	2	7	F394	ML222
66	CD4014AE	8	1	PSS	2.5M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	300n $\frac{1}{2}$	80u%	9.5	4	8	F79	MO001AC
67	CD4021AE	8	1	PSS	2.5M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.95	300n $\frac{1}{2}$	80u%	9.5	4	8	F149	MO001AC
68 $\#$	HBF4014AE	8	1	PSS	2.5M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.9	300n $\frac{1}{2}$	80u%	9.5	4	8	F79	MO001AC
69 $\#$	HBF4014AF	8	1	PSS	2.5M Δ	MCX	14m \uparrow	0.0	10	.05 $\frac{1}{2}$	9.9	300n $\frac{1}{2}$	80u%	9.5	4	8	F79	ML127c
70 $\#$	HBF4021AE</																	

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX CASE FREQ. (Hz)	5 STRUC. TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/ BLOCK	OUTLINE
1	MC14014BCL	8	1	PSS	2.5M	MCX	400u	0.0	10	3.0	7.0	400n	1.1m	.50	4	8	F274	ML5
2	MC14014BCP	8	1	PSS	2.5M	MCX	400u	0.0	10	3.0	7.0	400n	1.1m	.50	4	8	F274	ML145
3	MC14021BCL	8	1	PSS	2.5M	MCX	400u	0.0	10	3.0	7.0	400n	1.1m	.50	4	8	F274	ML5
4	MC14021BCP	8	1	PSS	2.5M	MCX	400u	0.0	10	3.0	7.0	400n	1.1m	.50	4	8	F274	ML145
5	MM54C165D	8	1	PSS	2.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	1.7m	5.0	5	5	F311	ML177
6	MM54C165F	8	1	PSS	2.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	1.7m	5.0	5	5	F311	FL37
7	MM54C165J	8	1	PSS	2.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	1.7m	5.0	5	5	F311	ML127f
8	MM74C165J	8	1	PSS	2.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	1.7m	5.0	4	8	F311	ML127f
9	MM74C165N	8	1	PSS	2.5M	MCX	1.5m	0.0	5.0	1.5	3.5	400n	1.7m	5.0	4	8	F311	ML178
10	MM4814AD	8	1	PSS	2.5M	MCX	1.5u	0.0	5.0	0.5	9.95	750n			5	5	F313	ML177
11	MM4814AF	8	1	PSS	2.5M	MCX	1.5u	0.0	5.0	0.5	9.95	750n			5	5	F313	FL37
12	MM4821AD	8	1	PSS	2.5M	MCX	1.5u	0.0	5.0	0.5	9.95	750n			5	5	F314	ML177
13	MM5814AN	8	1	PSS	2.5M	MCX	1.5u	0.0	5.0	0.5	9.95	750n			5	5	F314	FL37
14	MM5814AN	8	1	PSS	2.5M	MCX	3.5u	0.0	5.0	0.5	9.95	1.0u			4	4	F313	ML178
15	MM5821AN	8	1	PSS	2.5M	MCX	3.5u	0.0	5.0	0.5	9.95	1.0u			4	4	F314	ML178
16	SCL4014BC	8	1	PSS	3.0M	MCA	300u	0.0	10	0.5	9.95	300n	900u	.50	5	5	F125	ML127f
17	SCL4014BCD	8	1	PSS	3.0M	MCA	300u	0.0	10	0.5	9.95	300n	900u	.50	5	5	F125	MOO01AE
18	SCL4014BCE	8	1	PSS	3.0M	MCA	300u	0.0	10	0.5	9.95	300n	1.1m	.50	5	5	F125	ML127u
19	SCL4014BF	8	1	PSS	3.0M	MCA	300u	0.0	10	0.5	9.95	300n	900u	.50	5	5	F125	MOO04AH
20	SCL4014BFH	8	1	PSS	3.0M	MCA	300u	0.0	10	0.5	9.95	300n	900u	.50	5	5	F125	CH2
21	CD4014A	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	MOO01AE
22	CD4014AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	MOO01AC
23	CD4014AH	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	CH2
24	CD4014AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	MOO04AG
25	CD4021AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	MOO01AE
26	CD4021AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	MOO01AC
27	CD4021AH	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	CH2
28	CD4021AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	MOO01AG
29	CM4014AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	ML19a
30	CM4021AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	ML19a
31 #	HBC4014AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	225n	140u	9.5	5	5	F79	ML127c
32 #	HBC4014AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	225n	140u	9.5	5	5	F79	ML127c
33 #	HBC4014AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	225n	140u	9.5	5	5	F79	MOO04AG
34 #	HBC4021AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	225n	140u	9.5	5	5	F149	ML127c
35 #	HBC4021AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	225n	140u	9.5	5	5	F149	ML127c
36 #	HBC4021AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	225n	140u	9.5	5	5	F149	MOO04AG
37 #	HBC4034AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	480n	88u	9.5	5	5	F177	MO015AG
38 #	HBC4034AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.9	480n	88u	9.5	5	5	F177	ML127h
39 #	HD1.4014A2	8	1	PSS	3.0M	MCX	100u	0.0	10	0.1	9.99	225n	250u	.50	5	5	F149	FL27
40	HD1.4021A2	8	1	PSS	3.0M	MCX	100u	0.0	10	0.1	9.99	225n	250u	.50	5	5	F149	FL27
41	HD9.4014A2	8	1	PSS	3.0M	MCX	100u	0.0	10	0.1	9.99	225n	250u	.50	5	5	F149	FL27
42	HD9.4021A2	8	1	PSS	3.0M	MCX	100u	0.0	10	0.1	9.99	225n	250u	.50	5	5	F149	FL27
43 #	MB84021	8	1	PSS	3.0M*	MCX	200m	0.0	10	3.0	7.0	225n			5	5	F175	ML15
44	MC14014BAL	8	1	PSS	3.0M	MCX	100u	0.0	10	3.0	7.0	250n	1.3m	.50	5	5	F274	ML5
45	MC14021BAL	8	1	PSS	3.0M	MCX	100u	0.0	10	3.0	7.0	250n	1.3m	.50	5	5	F274	ML5
46	SCL4021BC	8	1	PSS	4.0M	MCA	300u	0.0	10	0.5	9.95	200n	900u	.50	5	5	F125	ML127f
47	SCL4021BD	8	1	PSS	4.0M	MCA	300u	0.0	10	0.5	9.95	200n	900u	.50	5	5	F125	MOO01AE
48	SCL4021BE	8	1	PSS	4.0M	MCA	300u	0.0	10	0.5	9.95	200n	1.1m	.50	5	5	F125	ML127u
49	SCL4021BF	8	1	PSS	4.0M	MCA	300u	0.0	10	0.5	9.95	200n	900u	.50	5	5	F125	MOO04AH
50	SCL4021BH	8	1	PSS	4.0M	MCA	300u	0.0	10	0.5	9.95	200n	900u	.50	5	5	F125	CH2
51	CD4014CJ	8	1	PSS	5.0M	MCX	14m	0.0	10	0.5	9.95	300n	80u	9.5	4	4	F79	ML127f
52	CD4014CN	8	1	PSS	5.0M	MCX	14m	0.0	10	0.5	9.95	300n	80u	9.5	4	4	F79	ML178
53	CD4014MD	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	ML177
54	CD4014MF	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	FL37
55	CD4014MJ	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F79	ML127f
56	CD4021CJ	8	1	PSS	5.0M	MCX	14m	0.0	10	0.5	9.95	300n	80u	9.5	4	4	F149	ML127f
57	CD4021CN	8	1	PSS	5.0M	MCX	14m	0.0	10	0.5	9.95	300n	80u	9.5	4	4	F149	ML127f
58	CD4021MD	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	ML178
59	CD4021MF	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	FL37
60	CD4021MJ	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F149	ML127f
61	HD1.54C165	8	1	PSS	5.0M	MCX	500m	0.0	10	2.0	8.0	200n	8.0m	10	5	5	F311	ML127h
62	HD1.74C165	8	1	PSS	5.0M	MCX	500m	0.0	10	2.0	8.0	200n	8.0m	10	5	5	F311	FL27
63	HD9.54C165	8	1	PSS	5.0M	MCX	500m	0.0	10	2.0	8.0	200n	8.0m	10	5	5	F311	FL27
64	HD9.74C165	8	1	PSS	5.0M	MCX	500m	0.0	10	2.0	8.0	200n	8.0m	10	5	5	F311	ML4g
65	SCL4014AC	8	1	PSS	5.0M	MCX	300m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	ML62a
66	SCL4014AD	8	1	PSS	5.0M	MCX	300m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	ML62a
67	SCL4014AE	8	1	PSS	5.0M	MCX	300m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	FL23
68	SCL4014AF	8	1	PSS	5.0M	MCX	300m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	CH2
69	SCL4014AH	8	1	PSS	5.0M	MCX	300m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	ML4g
70	SCL4021AC	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	ML62a
71	SCL4021AD	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	ML62a
72	SCL4021AE	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	ML62a
73	SCL4021AF	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	FL23
74	SCL4021AH	8	1	PSS	5.0M	MCX	6.0m	0.0	10	0.5	9.95	225n	140u	9.5	5	5	F125	CH2
75	DM54L165AF	8	1	PSS	14M	BTX	47m	0.0	5.0	7.0	2.0	112n	2.0m	.30	5	5	F346	FL37
76	DM54L165AJ	8	1	PSS	14M	BTX	47m	0.0	5.0	7.0	2.0	112n	2.0m	.30	5	5	F346	ML127f
77	DM54L165AN	8	1	PSS	14M	BTX	47m	0.0	5.0	7.0	2.0	112n	2.0m	.30	5	5	F346	ML178
78	DM74L165AF	8	1	PSS	14M	BTX	47m	0.0	5.0	7.0	2.0	112n	3.6m	.40	5			

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS / REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)		LOGIC/BLOCK	OUTLINE
1	JANM38510/00904CEA	8	1	PSS	14M	BTX	372mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F180	ML142
2	JANM38510/00904CEB	8	1	PSS	14M	BTX	372mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F180	ML142
3	JANM38510/00904CEC	8	1	PSS	14M	BTX	372mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F180	ML142
4	JANM38510/00904CFA	8	1	PSS	14M	BTX	372mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F180	FL31
5	JANM38510/00904CFB	8	1	PSS	14M	BTX	372mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F180	FL31
6	JANM38510/00904CFC	8	1	PSS	14M	BTX	372mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F180	FL31
7#	HEF4014P	8	1	PSS	14M	MCX	400mZ	0.0	10	3.0	7.0	165n	1.2m	.50	4 8	F433	ML48e
8	34021DC	8	1	PSS	18M	MCX	12mZ	0.0	10	3.0	7.0	51n	1.2m	.50	4 8	F409	ML127s
9	34021DM	8	1	PSS	18M	MCX	6.0mZ	0.0	10	3.0	7.0	51n	1.2m	.50	5 C	F409	ML127s
10	34021FC	8	1	PSS	18M	MCX	12mZ	0.0	10	3.0	7.0	51n	1.2m	.50	4 8	F409	FL14g
11	34021FM	8	1	PSS	18M	MCX	6.0mZ	0.0	10	3.0	7.0	51n	1.2m	.50	5 C	F409	FL14g
12	34021PC	8	1	PSS	18M	MCX	12mZ	0.0	10	3.0	7.0	51n	1.2m	.50	4 8	F409	ML170
13#	HEF4021P	8	1	PSS	18M	MCX	400mZ	0.0	10	3.0	7.0	172n	1.2m	.50	4 8	F435	ML48e
14	DM7590J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F445	ML127f
15	DM7590W	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F445	FL39
16	DM8590J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	0 7	F445	ML127f
17	DM8590N	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	0 7	F445	ML178
18	DM8590W	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	0 7	F445	FL39
19	DM54165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F346	ML127f
20	DM54165W	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	5 C	F346	FL39
21	DM74165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	0 7	F346	ML127f
22	DM74165N	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	0 7	F346	ML178
23	DM74165W	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	60n	16m	.40	0 7	F346	FL39
24	MC54165F	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.40%	2.4	40n	16m	.40	5 C	F261	FL34
25	MC54165L	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.40%	2.4	40n	16m	.40	5 C	F261	ML127b
26	MC74165F	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.40%	2.4	40n	16m	.40	0 7	F261	FL34
27	MC74165L	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.40%	2.4	40n	16m	.40	0 7	F261	ML127b
28	MC74165P	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.40%	2.4	40n	16m	.40	0 7	F261	ML145
29#	MIC54165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	5 C	F107	TO116
30#	MIC64165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	4 8	F107	TO116
31#	MIC74165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F107	TO116
32#	MIC74165N	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F107	ML61a
33	SN54165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	5 C	F107	ML61a
34	SN54165W	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	5 C	F107	M0004AG
35	SN74165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F107	ML61a
36	SN74165N	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F107	ML48
37#	ZN54165E	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	5 C	F459	ML5f
38#	ZN54165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	5 C	F459	ML85b
39#	ZN74165E	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F459	ML5f
40#	ZN74165J	8	1	PSS	20M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F459	ML85b
41	SN54LS165J	8	1	PSS	25M	BDT	180mZ	0.0	5.0	.70	2.0	40n	4.0m	.40	5 C	F107	ML61a
42	SN54LS165W	8	1	PSS	25M	BDT	180mZ	0.0	5.0	.70	2.0	40n	4.0m	.40	5 C	F107	M0004AA
43	SN54LS166J	8	1	PSS	25M	BDT	190mZ	0.0	5.0	.70	2.0	35n	4.0m	.40	5 C	F88	ML61a
44	SN54LS166W	8	1	PSS	25M	BDT	190mZ	0.0	5.0	.70	2.0	35n	4.0m	.40	5 C	F88	M0004AA
45	SN74LS165J	8	1	PSS	25M	BDT	180mZ	0.0	5.0	.80	2.0	40n	8.0m	.50	0 7	F107	ML61a
46	SN74LS165N	8	1	PSS	25M	BDT	180mZ	0.0	5.0	.80	2.0	40n	8.0m	.50	0 7	F107	ML48
47	SN74LS166J	8	1	PSS	25M	BDT	190mZ	0.0	5.0	.80	2.0	35n	8.0m	.50	0 7	F88	ML61a
48	SN74LS166N	8	1	PSS	25M	BDT	190mZ	0.0	5.0	.80	2.0	35n	8.0m	.50	0 7	F88	ML48
49#	FLJ451-74165	8	1	PSS	25M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F107	MLZ
50#	FLJ455-84165	8	1	PSS	25M	BTX	315mZ	0.0	5.0	.80	2.0	40n	16m	.40	2 8	F107	MLZ
51#	M53366P	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	ML5a
52#	MIC54166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	5 C	F88	TO116
53#	MIC64166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	4 8	F88	TO116
54#	MIC74166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	TO116
55#	MIC74166N	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	MLZ
56	N74166F	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F88	ML127m
57	SN54166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	5 C	F88	ML61
58	SN54166W	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	5 C	F88	M0004AG
59	SN74166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	ML61
60	SN74166N	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	ML48
61	SN74166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	ML5
62	SN74166N	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F88	ML5
63#	ZN54166J	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	5 C	F460	ML85b
64#	ZN74166E	8	1	PSS	25M	BTX	360mZ	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F460	ML5f
65#	UPD4014C	8	1	PSS	25M	MCX	200mZ	0.0	10	3.0	7.0	300n	100u	.40	4 8	F470	M0001AC
66#	UPD4021C	8	1	PSS	25M	MCX	200mZ	0.0	10	3.0	7.0	300n	100u	.40	4 8	F470	M0001AC
67	DM54166J	8	1	PSS	35M	BTX	520mZ	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F88	ML127f
68	DM54166W	8	1	PSS	35M	BTX	520mZ	0.0	5.0	.80	2.0	35n	16m	.40	5 C	F88	FL39
69	DM74166J	8	1	PSS	35M	BTX	580mZ	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F88	ML127f
70	DM74166N	8	1	PSS	35M	BTX	580mZ	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F88	ML178
71	DM74166W	8	1	PSS	35M	BTX	580mZ	0.0	5.0	.80	2.0	35n	16m	.40	0 7	F88	FL39
72	AM25LS22DC	8	1	SPS		BDT		0.0	5.0	.80	2.0s	4.0m	4.0	.40	0 7	F428	ML248
73	AM25LS22DM	8	1	SPS		BDT		0.0	5.0	.70	2.0s	4.0m	4.0	.40	5 C	F428	ML248
74	AM25LS22FM	8	1	SPS		BDT		0.0	5.0	.70	2.0s	4.0m	4.0	.40	5 C	F428	FL44
75	AM25LS22PC	8	1	SPS		BDT		0.0	5.0	.80	2.0s	4.0m	4.0	.40	0 7	F428	ML161a
76	SN54LS322J	8	1	SPS		BDT		0.0	5.0	.70	2.0s	4.0m	4.0	.40	5 C	F428	ML248
77	SN54LS322W	8	1	SPS		BDT		0.0	5.0	.70	2.0s	4.0m	4.0	.40	5 C	F428	FL44
78	SN54LS323W	8	1	SPS		BDT		0.0	5.0	.70	2.0s	4.0m	4.0	.40	5 C	F429	FL44
79	SN74LS322J	8	1	SPS		BDT		0.0	5.0	.80	2.0s	4.0m	4.0	.40	0 7	F428	ML248
80	SN74LS322N	8	1	SPS		BDT		0.0	5.0	.80	2.0s	4.0m	4.0	.40	0 7	F428	ML161a
81#	MSM541	8	1	SPS	2.0MA	MCX	2.5mZ	0.0	30	7.0	3.6	1.0u	1.6m	.40	2 7	F393	ML64e
82	SCL4094BC	8	1	SPS	2.5M	MCA	300uZ	0.0	1								

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG(2) No. REGISTERS
(3) OP. CODE(4) MAX W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/BLOCK	OUTLINE	
1	JANM38510/02805ADB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
2	JANM38510/02805ADC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
3	JANM38510/02805BAA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
4	JANM38510/02805BAB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
5	JANM38510/02805BAC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
6	JANM38510/02805BBA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
7	JANM38510/02805BBB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21
8	JANM38510/02805BBC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21
9	JANM38510/02805BCA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179	ML142
10	JANM38510/02805BCB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179	ML142
11	JANM38510/02805BCC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179	ML142
12	JANM38510/02805BDA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
13	JANM38510/02805BDB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
14	JANM38510/02805BDC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
15	JANM38510/02805CAA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
16	JANM38510/02805CAB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
17	JANM38510/02805CAC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21a
18	JANM38510/02805CBA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21
19	JANM38510/02805CBB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21
20	JANM38510/02805CBC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL21
21	JANM38510/02805CCA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179	ML142
22	JANM38510/02805CCB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179	ML142
23	JANM38510/02805CCC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179	ML142
24	JANM38510/02805CDA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
25	JANM38510/02805CDB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
26	JANM38510/02805CDC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
27	MM54C164D	8	1	SPS	3.0MΔ*	MCX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5	C	F179a	FL22
28	MM54C164F	8	1	SPS	3.0MΔ†	MCX	1.5m	0.0	5.0	1.5‡	3.5	380n	360u	.40	5	C	F310	ML179
29	MM54C164J	8	1	SPS	3.0MΔ†	MCX	1.5m	0.0	5.0	1.5	3.5	380n	360u	.40	5	C	F310	ML93d
30	MM74C164J	8	1	SPS	3.0MΔ†	MCX	1.5m	0.0	5.0	1.5	3.5	380n	360u	.40	4	8	F310	ML93d
31	MM74C164N	8	1	SPS	3.0M†‡	MCX	1.5m	0.0	5.0	1.5	3.5	380n	360u	.40	4	8	F310	ML180
32	CD4094BD	8	1	SPS	5.0MΔ†	MCX	2.0m‡	0.0	10	.05‡	9.95	250n‡	650u	.50	5	C	F330	MO001AE
33	CD4094BE	8	1	SPS	5.0MΔ†	MCX	1.0m‡	0.0	10	.05‡	9.95	250n‡	750u	.50	5	C	F330	MO001AC
34	CD4094BF	8	1	SPS	5.0MΔ†	MCX	2.0m‡	0.0	10	.05‡	9.95	250n‡	650u	.50	4	8	F330	MO001AC
35	CD4094BH	8	1	SPS	5.0MΔ†	MCX	2.0m‡	0.0	10	.05‡	9.95	250n‡	650u	.50	5	C	F330	CH7
36	CD4094BW	8	1	SPS	5.0MΔ†	MCX	2.0m‡	0.0	10	.05‡	9.95	250n‡	650u	.50	5	C	F330	MO004AG
37	DM86L70W	8	1	SPS	7.0M‡	BTX	45m	0.0	5.0	.70	2.0	120n‡	3.6m	.40	0	7	F345a	FL41
38#	GZF100D	8	1	SPS	7.0M‡	MCX	45m	0.0	5.0	1.5	3.5	180n	1.6m	.40	4	8	F326	ML125a
39	HD1-54C164	8	1	SPS	8.0M†	MCX	50n‡†	0.0	10	2.0	8.0	150n	1.0u	1.0	4	8	F310	ML93c
40	HD1-74C164	8	1	SPS	8.0M†	MCX	50n‡†	0.0	10	2.0	8.0	150n	1.0u	1.0	4	8	F310	ML93c
41	HD9-54C164	8	1	SPS	8.0M†	MCX	50n‡†	0.0	10	2.0	8.0	150n	1.0u	1.0	5	C	F310	TO86
42	HD9-74C164	8	1	SPS	8.0M†	MCX	50n‡†	0.0	10	2.0	8.0	150n	1.0u	1.0	4	8	F310	TO86
43	RT808	8	1	SPS	10M	BTX	860m	0.0	5.0	.30	3.3†	150n	1.0u	1.0	0	7	F269	
44	DM76L70F	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	2.0m	.30	5	C	F345a	FL43
45	DM76L70J	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	2.0m	.30	5	C	F345	ML93d
46	DM76L70N	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	2.0m	.30	5	C	F345	ML180
47	DM78L70F	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	2.0m	.30	5	C	F345a	FL43
48	DM86L70F	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	3.6m	.40	0	7	F345a	FL43
49	DM86L70J	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	3.6m	.40	0	7	F345	ML93d
50	DM86L70N	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	3.6m	.40	0	7	F345	ML180
51	DM88L70F	8	1	SPS	12M†‡	BTX	45m	0.0	5.0	.70	2.0	160n‡	3.6m	.40	5	C	F345	ML180
52	JANM38510/02802AAA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
53	JANM38510/02802AAB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
54	JANM38510/02802AAC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
55	JANM38510/02802ABA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
56	JANM38510/02802ABB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
57	JANM38510/02802ABC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
58	JANM38510/02802ACA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
59	JANM38510/02802ACB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
60	JANM38510/02802ACC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
61	JANM38510/02802ADA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
62	JANM38510/02802ADB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
63	JANM38510/02802ADC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
64	JANM38510/02802BAA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
65	JANM38510/02802BAB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
66	JANM38510/02802BAC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
67	JANM38510/02802BBA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG(2) No. REGISTERS
(3) OP. CODE(4) MAX W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		@ OUT (V)	- +			LOGIC/BLOCK	OUTLINE
1	JANM38510/02802BBB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
2	JANM38510/02802BBC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
3	JANM38510/02802BCA	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
4	JANM38510/02802BCB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
5	JANM38510/02802BCC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
6	JANM38510/02802BDA	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
7	JANM38510/02802BBB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
8	JANM38510/02802BDC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
9	JANM38510/02802CAA	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
10	JANM38510/02802CAB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
11	JANM38510/02802CAC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21a
12	JANM38510/02802CBA	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
13	JANM38510/02802CBB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
14	JANM38510/02802CBC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL21
15	JANM38510/02802CCA	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
16	JANM38510/02802CCB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
17	JANM38510/02802CCC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	ML137
18	JANM38510/02802CDA	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
19	JANM38510/02802CDB	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
20	JANM38510/02802CDC	8	1	SPS	12M*	BTX	120m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL22
21	JANM38510/02802STD	8	1	SPS	12M*	BTX	148m	0.0	5.0	.80	2.0	110n	4.0m	.40	5	C	F179	FL35
22	SN54L164J	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	4.0m	.40	5	C	F179	ML66b
23	SN54L164N	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	4.0m	.40	5	C	F179	ML71
24	SN54L164T	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	4.0m	.40	5	C	F179	TO84
25	SN74L164J	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	4.0m	.40	0	7	F179	ML66b
26	SN74L164N	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	4.0m	.40	0	7	F179	ML71
27	SN74L164T	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	4.0m	.40	0	7	F179	TO84
28#	ZN54L164E	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	8.0m	.40	5	C	F458	ML71e
29#	ZN54L164J	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	8.0m	.40	5	C	F458	ML64f
30#	ZN74L164E	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	8.0m	.40	0	7	F458	ML71e
31#	ZN74L164J	8	1	SPS	12M	BTX	88m	0.0	5.0	.80	2.0	84n	8.0m	.40	0	7	F458	ML64f
32	DM54L164AJ	8	1	SPS	14M	BTX	45m	0.0	5.0	.70	2.0	135n	2.0m	.30	5	C	F179	ML93d
33	DM54L164AN	8	1	SPS	14M	BTX	45m	0.0	5.0	.70	2.0	135n	2.0m	.30	5	C	F179	ML180
34	DM54L164AW	8	1	SPS	14M	BTX	45m	0.0	5.0	.70	2.0	135n	2.0m	.30	5	C	F179	FL41
35	DM74L164AJ	8	1	SPS	14M	BTX	45m	0.0	5.0	.70	2.0	135n	3.6m	.40	0	7	F179	ML93d
36	DM74L164AN	8	1	SPS	14M	BTX	45m	0.0	5.0	.70	2.0	135n	3.6m	.40	0	7	F179	ML180
37	DM74L164AW	8	1	SPS	14M	BTX	45m	0.0	5.0	.70	2.0	135n	3.6m	.40	0	7	F179	FL41
38	MC54164AF	8	1	SPS	14M*	BTX	185m	0.0	5.0	.40%	2.4	50n	8.0m	.40	5	C	F179	TO86
39	MC54164AL	8	1	SPS	14M*	BTX	185m	0.0	5.0	.40%	2.4	50n	8.0m	.40	5	C	F179	ML66
40	MC74164AF	8	1	SPS	14M*	BTX	185m	0.0	5.0	.40%	2.4	50n	8.0m	.40	0	7	F179	TO86
41	MC74164AL	8	1	SPS	14M*	BTX	185m	0.0	5.0	.40%	2.4	50n	8.0m	.40	0	7	F179	ML66
42	MC74164AP	8	1	SPS	14M*	BTX	185m	0.0	5.0	.40%	2.4	50n	8.0m	.40	0	7	F179	ML124
43#	GZF1100P	8	1	SPS	14M	MCX	50u	0.0	10	3.0	7.0	90n	1.6m	4.75	4	8	F317	ML
44	JANM38510/00903AAA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
45	JANM38510/00903AAB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
46	JANM38510/00903AAC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
47	JANM38510/00903ABA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
48	JANM38510/00903ABB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
49	JANM38510/00903ABC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
50	JANM38510/00903ACA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
51	JANM38510/00903ACB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
52	JANM38510/00903ACC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
53	JANM38510/00903ADA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
54	JANM38510/00903ADB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
55	JANM38510/00903ADC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
56	JANM38510/00903BAA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
57	JANM38510/00903BAB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
58	JANM38510/00903BAC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
59	JANM38510/00903BBA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
60	JANM38510/00903BBB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
61	JANM38510/00903BBC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
62	JANM38510/00903BCA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
63	JANM38510/00903BCB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
64	JANM38510/00903BCC	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
65	JANM38510/00903BDA	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
66	JANM38510/00903BDB	8	1	SPS	18M	BTX	322m	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUC TURE CODE	OPER. POWER. DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		MIN (A)	MAX (A)			LOGIC/ BLOCK	OUTLINE
1	JANM385 10/00903BDC	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
2	JANM385 10/00903CAA	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
3	JANM385 10/00903CAB	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
4	JANM385 10/00903CAC	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21a
5	JANM385 10/00903CBA	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
6	JANM385 10/00903CBB	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
7	JANM385 10/00903CBC	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL21
8	JANM385 10/00903CCA	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
9	JANM385 10/00903CCB	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
10	JANM385 10/00903CCC	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	ML143
11	JANM385 10/00903CDA	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
12	JANM385 10/00903CDB	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
13	JANM385 10/00903CDC	8	1	SPS	18M	BTX	322m \square	0.0	5.0	.80	2.0	63n	8.0m	.40	5	C	F179	FL22
14	JANM385 10/30605AAA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
15	JANM385 10/30605AAB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
16	JANM385 10/30605AAC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
17	JANM385 10/30605ABA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
18	JANM385 10/30605ABB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
19	JANM385 10/30605ABC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
20	JANM385 10/30605ACA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
21	JANM385 10/30605ACB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
22	JANM385 10/30605ACC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
23	JANM385 10/30605ADA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
24	JANM385 10/30605ADB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
25	JANM385 10/30605ADC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
26	JANM385 10/30605BAA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
27	JANM385 10/30605BAB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
28	JANM385 10/30605BAC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
29	JANM385 10/30605BBA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
30	JANM385 10/30605BBB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
31	JANM385 10/30605BBC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
32	JANM385 10/30605BCA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
33	JANM385 10/30605BCB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
34	JANM385 10/30605BCC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
35	JANM385 10/30605BDA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
36	JANM385 10/30605BDB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
37	JANM385 10/30605BDC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
38	JANM385 10/30605CAA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
39	JANM385 10/30605CAB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
40	JANM385 10/30605CAC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21a
41	JANM385 10/30605CBA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
42	JANM385 10/30605CBB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
43	JANM385 10/30605CBC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL21
44	JANM385 10/30605CCA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
45	JANM385 10/30605CCB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
46	JANM385 10/30605CCC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	ML142
47	JANM385 10/30605CDA	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
48	JANM385 10/30605CDB	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
49	JANM385 10/30605CDC	8	1	SPS	20M*	BTD	149m	0.0	5.5	.70	2.0	62n	4.0m	.40	5	C	F179	FL22
50	54LS164J	8	1	SPS	25M \emptyset	BTD	135m	0.0	5.0	.70	2.0	36n \emptyset	4.0m	.40	5	C	F179	FL22 ML63c
51	54LS164W	8	1	SPS	25M \emptyset	BTD	135m	0.0	5.0	.70	2.0	36n \emptyset	4.0m	.40	5	C	F179	FL11c
52	74LS164J	8	1	SPS	25M \emptyset	BTD	135m	0.0	5.0	.80	2.0	36n \emptyset	4.0m	.40	0	7	F179	ML63c
53	74LS164W	8	1	SPS	25M \emptyset	BTD	135m	0.0	5.0	.80	2.0	36n \emptyset	4.0m	.40	0	7	F179	FL11c
54	DM7570J	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	5	C	F52	ML93d
55	DM7570W	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	5	C	F52	FL41
56	DM8570J	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	0	7	F422	ML93d
57	DM8570N	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	0	7	F422	ML180
58	DM8570W	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	0	7	F422	FL41
59	DM54164J	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	5	C	F179	ML93d
60	DM54164W	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	5	C	F179	FL41
61	DM74164J	8	1	SPS	25M \emptyset	BTX	270m	0.0	5.0	.80	2.0	42n \emptyset	8.0m	.40	0	7	F179	ML93d

7. SHIFT REGISTERS

IN ORDER OF (1) No.BITS/REG(2) No.REGISTERS
(3) OP.CODE(4) MAX W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN SINK CURRENT (A)	OUTPUT CURRENT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)						LOGIC/BLOCK	OUTLINE	
													OP. CODE	TEMP. CODE					
1	DM74164N	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	42n	8.0m	.40	0	7	F179	FL41	
2	FLJ441-74164	8	1	SPS	25M	BTX	285m	0.0	5.0	.80	2.0	42n	8.0m	.40	0	7	F179	ML	
3	FLJ445-84164	8	1	SPS	25M	BTX	285m	0.0	5.0	.80	2.0	42n	8.0m	.40	0	2	8	F179	ML
4	MIC54164J	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	37n	8.0m	.40	5	8	F179	TO116	
5	MIC64164J	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	37n	8.0m	.40	5	8	F179	TO116	
6	MIC74164J	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	37n	8.0m	.40	5	8	F179	TO116	
7	MIC74164N	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	37n	8.0m	.40	0	7	F179	ML71f	
8	N74164A	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	42n	8.0m	.40	0	7	F179	ML86	
9	N74164F	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	42n	8.0m	.40	0	7	F179	ML93b	
10	S54164A	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	8	F179	ML86	
11	S54164F	8	1	SPS	25M	BTX	270m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	8	F179	ML86b	
12	SN54LS164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.70	2.0	36n	4.0m	.40	5	7	F179	ML66b	
13	SN54LS164W	8	1	SPS	25M	BTX	80m	0.0	5.0	.70	2.0	36n	4.0m	.40	5	7	F179	MO004AA	
14	SN74LS164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	36n	4.0m	.40	5	7	F179	ML66b	
15	SN74LS164N	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	36n	4.0m	.40	5	7	F179	ML71	
16	SN54164J	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	ML66b	
17	SN54164W	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	MO004AA	
18	SN74164J	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	ML66b	
19	SN74164N	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	ML71	
20	ZN54164E	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	8	F458	ML71e	
21	ZN54164J	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	8	F458	ML64f	
22	ZN74164E	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	8	F458	ML71e	
23	ZN74164J	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	8	F458	ML64f	
24	SN54LS299W	8	1	SPS	35M	BTX	168m	0.0	5.0	.70	2.0	42n	4.0m	.40	5	8	F427	FL44	
25	DM54LS164J	8	1	SPS	36M	BTX	135m	0.0	5.0	.70	2.0	36n	4.0m	.40	5	7	F179	ML93d	
26	DM54LS164N	8	1	SPS	36M	BTX	135m	0.0	5.0	.70	2.0	36n	4.0m	.40	5	7	F179	ML180	
27	DM54LS164W	8	1	SPS	36M	BTX	135m	0.0	5.0	.70	2.0	36n	4.0m	.40	5	7	F179	FL41	
28	DM74LS164J	8	1	SPS	36M	BTX	135m	0.0	5.0	.80	2.0	36n	4.0m	.40	5	7	F179	ML93d	
29	DM74LS164N	8	1	SPS	36M	BTX	135m	0.0	5.0	.80	2.0	36n	4.0m	.40	5	7	F179	ML180	
30	DM74LS164W	8	1	SPS	36M	BTX	135m	0.0	5.0	.80	2.0	36n	4.0m	.40	5	7	F179	FL41	
31	uPB2164D	8	1	SPS	36M	BTX	150m	0.0	5.0	.80	2.0	42n	8.0m	.40	2	7	F244a	ML93f	
32	uPB74164C	8	1	SPS	36M	BTX	21m%	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F422	ML235	
33	AM25LS164DC	8	1	SPS	45M	BTX	150m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	ML63b	
34	AM25LS164DM	8	1	SPS	45M	BTX	150m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	ML63b	
35	AM25LS164FM	8	1	SPS	45M	BTX	150m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	FL11b	
36	AM25LS164PC	8	1	SPS	45M	BTX	150m	0.0	5.0	.80	2.0	42n	8.0m	.40	5	7	F179	ML89d	
37	25LS22JC	8	1	SPS	50M	BTX	325m	0.0	5.0	.80	2.0	30n	4.0m	.40	5	7	F428	ML	
38	25LS22JM	8	1	SPS	50M	BTX	325m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F428	ML	
39	25LS22WC	8	1	SPS	50M	BTX	325m	0.0	5.0	.80	2.0	30n	4.0m	.40	5	7	F428	ML	
40	25LS22WM	8	1	SPS	50M	BTX	325m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	7	F428	ML	
41	25LS23JC	8	1	SPS	50M	BTX	185m	0.0	5.0	.80	2.0	23n	4.0m	.40	5	7	F429	ML	
42	25LS23JM	8	1	SPS	50M	BTX	185m	0.0	5.0	.70	2.0	23n	4.0m	.40	5	7	F429	ML	
43	25LS23WC	8	1	SPS	50M	BTX	185m	0.0	5.0	.80	2.0	23n	4.0m	.40	5	7	F429	ML	
44	25LS23WM	8	1	SPS	50M	BTX	185m	0.0	5.0	.70	2.0	23n	4.0m	.40	5	7	F429	ML	
45	25LS299JC	8	1	SPS	50M	BTX	285m	0.0	5.0	.80	2.0	27n	4.0m	.40	5	7	F427	ML	
46	25LS299JM	8	1	SPS	50M	BTX	285m	0.0	5.0	.70	2.0	27n	4.0m	.40	5	7	F427	ML	
47	25LS299WC	8	1	SPS	50M	BTX	285m	0.0	5.0	.80	2.0	27n	4.0m	.40	5	7	F427	ML	
48	25LS299WM	8	1	SPS	50M	BTX	285m	0.0	5.0	.70	2.0	27n	4.0m	.40	5	7	F427	ML	
49	AM25LS23DC	8	1	SPS	50M	BTX	150m	0.0	5.0	.80	2.0	42n	4.0m	.40	5	7	F429	ML248	
50	AM25LS23DM	8	1	SPS	50M	BTX	150m	0.0	5.0	.70	2.0	42n	4.0m	.40	5	7	F429	ML248	
51	AM25LS23FM	8	1	SPS	50M	BTX	150m	0.0	5.0	.80	2.0	42n	4.0m	.40	5	7	F429	FL44	
52	AM25LS23PC	8	1	SPS	50M	BTX	150m	0.0	5.0	.80	2.0	42n	4.0m	.40	5	7	F429	ML161a	
53	AM25LS299DC	8	1	SPS	50M	BTX	150m	0.0	5.0	.80	2.0	42n	4.0m	.40	5	7	F427	ML248	
54	AM25LS299DM	8	1	SPS	50M	BTX	150m	0.0	5.0	.70	2.0	42n	4.0m	.40	5	7	F427	ML248	
55	AM25LS299FM	8	1	SPS	50M	BTX	150m	0.0	5.0	.70	2.0	42n	4.0m	.40	5	7	F427	FL44	
56	AM25LS299PC	8	1	SPS	50M	BTX	150m	0.0	5.0	.80	2.0	42n	4.0m	.40	5	7	F427	ML161a	
57	M5391P	8	1	SSS	50M	BTX	165m	0.0	5.0	.40%	2.4	40n	18m	.40	0	7	F35a	TO116	
58	JANM38510/02806STD	8	1	SSS	100k	BTX	36m	0.0	5.0	.70	2.0	150n	2.0m	.30	5	2	C	F91	FL35
59	uPD11A	8	1	SSS	100k	MPX	250m	0.0	5.0	.24	0.0	3.0u	2.0m	.30	5	2	C	F413	TO101
60	CM4021AE	8	1	SSS	600k	MCX	200m	0.0	5.0	.01%	4.99	1.0u	2.0m	.30	4	8	F125	ML4g	
61	CM4021AD	8	1	SSS	1.0M	MCX	200m	0.0	5.0	.01%	4.99	750n	2.0m	.30	5	8	F125	ML4g	
62	SN54L91J	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	2.0m	.30	5	7	F91	ML66b	
63	SN54L91N	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	2.0m	.30	5	7	F91	ML71	
64	SN54L91T	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	2.0m	.30	5	7	F91	TO84	
65	SN74L91J	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	3.6m	.40	5	7	F91	ML66b	
66	SN74L91N	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	3.6m	.40	5	7	F91	ML71	
67	ZN54L91E	8	1	SSS	6.5M	BTX	33m	0.0	5.0	.80	2.0	150n	3.6m	.40	5	8	F453	ML71e	
68	ZN54L91J	8	1	SSS	6.5M	BTX	33m	0.0	5.0	.80	2.0	150n	3.6m	.40	5	8	F453	ML64f	
69	ZN74L91E	8	1	SSS	6.5M	BTX	33m	0.0	5.0	.80	2.0	150n	3.6m	.40	5	8	F453		

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS / REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUC. TURE CODE	MAX OPER. DISS. (W)	RATED POWER SUP. SPAN.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE	
1	SW7491AJ	8	1	SSS	18M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F35	ML93
2	SW7491AN	8	1	SSS	18M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F35	ML64a
3#	TL7491AN	8	1	SSS	18M	BTX	304m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F242	ML71a
4#	uPB7491C	8	1	SSS	18M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F35	ML235
5	DM5491AJ	8	1	SSS	22M	BTX	250m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F91	ML93d
6	DM5491AN	8	1	SSS	22M	BTX	250m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F91	ML180
7	DM5491AW	8	1	SSS	22M	BTX	250m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F91	FL41
8	DM7491AJ	8	1	SSS	22M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F91	ML93d
9	DM7491AN	8	1	SSS	22M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F91	ML180
10	DM7491AW	8	1	SSS	22M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F91	FL41
11	9328FM	8	2																
12	RT807	8	2	PPS	10M	BTX	900m	0.0	5.0	.30	3.3t						5	C	F268
13#	uPD117C	8	2	SSS	100k	MPX	24	0.0	0.0	-9.3*	-3.7#	2.5u	80u	-13		2	7	F416	MO001AA
14	MC8328L	8	2	SSS	1.0M	BTX	250mt	0.0	5.0	.45%	2.4	70n	3.0m	.45		0	7	F38	ML5
15	MC8328P	8	2	SSS	1.0M	BTX	250mt	0.0	5.0	.45%	2.4	70n	3.0m	.45		0	7	F38	ML40a
16	MC9328L	8	2	SSS	1.0M	BTX	250mt	0.0	5.0	.40%	2.4	70n	3.0m	.40		5	C	F38	ML5
17	JANM38510/02803AEA	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
18	JANM38510/02803AEB	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
19	JANM38510/02803AEC	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
20	JANM38510/02803AFA	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
21	JANM38510/02803AFB	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
22	JANM38510/02803AFC	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
23	JANM38510/02803BEA	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
24	JANM38510/02803BEB	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
25	JANM38510/02803BEC	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
26	JANM38510/02803BFA	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
27	JANM38510/02803BFB	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
28	JANM38510/02803BFC	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
29	JANM38510/02803CEA	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
30	JANM38510/02803CEB	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
31	JANM38510/02803CEC	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	ML143
32	JANM38510/02803CFA	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
33	JANM38510/02803CFB	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
34	JANM38510/02803CFC	8	2	SSS	6.0M	BTX	268m	0.0	5.0	.70	2.0	125n	3.2m	.30		5	C	F301	FL31
35	93L28DC	8	2	SSS	10M	BTX	132m	0.0	5.0	.70	2.0	65nt	3.2m	.30		5	C	F301	FL31
36	93L28DM	8	2	SSS	10M	BTX	139m	0.0	5.0	.70	2.0	65nt	3.2m	.30		5	C	F1	ML15a
37	93L28FC	8	2	SSS	10M	BTX	132m	0.0	5.0	.70	2.0	65nt	3.2m	.30		0	7	F1	ML15a
38	93L28FM	8	2	SSS	10M	BTX	139m	0.0	5.0	.70	2.0	65nt	3.2m	.30		5	C	F1	FL14
39#	FLJ481-4932	8	2	SSS	10M	BTX	610m	0.0	5.0	.80	2.0	40n	16m	.40		0	7		ML
40#	FLJ485-49832	8	2	SSS	10M	BTX	610m	0.0	5.0	.80	2.0	40n	16m	.40		2	8		ML
41	JANM38510/15902AEA	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
42	JANM38510/15902AEB	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
43	JANM38510/15902AEC	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
44	JANM38510/15902AFA	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
45	JANM38510/15902AFB	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
46	JANM38510/15902AFC	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
47	JANM38510/15902BEA	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
48	JANM38510/15902BEB	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
49	JANM38510/15902BEC	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
50	JANM38510/15902BFA	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
51	JANM38510/15902BFB	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
52	JANM38510/15902BFC	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
53	JANM38510/15902CEA	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
54	JANM38510/15902CEB	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
55	JANM38510/15902CEC	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
56	JANM38510/15902CFA	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	ML143
57	JANM38510/15902CFB	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
58	JANM38510/15902CFC	8	2	SSS	13M	BTX	424m	0.0	5.0	.80	2.0	72n	16m	.40		5	C	F38	FL31
59	N8277B	8	2	SSS	15M	BTX	540m	0.0	5.0	.40%	2.6	40n	16m	.40		5	C	F38	FL31
60	N8277F	8	2	SSS	15M	BTX	540m	0.0	5.0	.40%	2.6	40n	16m	.40		0	7	F122	ML93b
61	TMSR16	8	2	SSS	15M	BTX	350m	0.0	5.0	.22t	3.3t	40n	16m	.40		0	7	F343a	ML60a
62	AM93L28DC	8	2	SSS	16M	BTX	126m	0.0	5.0	.70	2.0	110n	4.9m	.30		0	7	F1	ML127d
63	AM93L28DM	8	2	SSS	16M	BTX	126m	0.0	5.0	.70	2.0	110n	4.9m	.30		5	C	F1	ML62c
64	AM93L28FM	8	2	SSS	16M	BTX	126m	0.0	5.0	.70	2.0	110n	4.9m	.30		0	7	F1	FL33b
65	AM93L28PC	8	2	SSS	16M	BTX	126m	0.0	5.0	.70	2.0	110n	4.9m	.30		5	C	F1	ML89a
66	9328DC	8	2	SSS	30M	BTX	404m	0.0	5.0	.80	2.0	39n	16m	.40		0	7	F1	ML15a
67	9328DM	8	2	SSS	30M	BTX	423m	0.0	5.0	.80	2.0	39n	16m	.40		5	C	F1	ML15a
68	9328FC	8	2	SSS	30M	BTX	404m	0.0	5.0	.80	2.0	39n	16m	.40		0	7	F1	FL14
69	AM9328DC	8	2	SSS	30M	BTX	440m	0.0	5.0	.80	2.0	39n	16m	.40		0	7	F1	ML127k
70	AM9328DM	8	2	SSS	30M	BTX	385m	0.0	5.0	.80	2.0	39n	16m	.40		5	C	F1	ML62c
71	AM9328FM	8	2	SSS	30M	BTX	440m	0.0	5.0	.80	2.0	39n	16m	.40		5	C	F1	FL33b
72	AM9328PC	8	2	SSS	30M	BTX	385m	0.0	5.0	.80	2.0	39n	16m	.40		0	7	F1	ML89a
73	5521	8	3	SPS	20M	BTX	810m	0.0	5.0	.45	2.0	35ns	16m			0	6	F279	PL9
74	5520	8	3	SPS	20M	BTX	810m	0.0	5.0	.45	2.0	28ns	8.0m			0	6	F278	PL9

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS

(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE °C	DRAWINGS			
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/BLOCK	OUTLINE		
1	TMSR24	8	3	SSS	15MΔ	BTX∅	525m	0.0	5.0	2.2†	3.3†	40n			0	7	F344		
2	TMSR32	8	4	SSS	15MΔ	BTX∅	700m	0.0	5.0	2.2†	3.3†	40n			0	7	F344a		
3	T104	8	6	SSS	20M	BTX∅	1.1	4.7	5.3	.80	1.8	18n†	9.6m	.45		0	7		PL‡
4	512	10	1		5.0M	BDX	260m	0.0	7.0	.45	2.0	30n‡			0	7		PL‡	
5	512T	10	1		20M	BTX	300m	0.0	7.0	.45	2.0	25n‡			0	7		PL‡	
6#	MB454	10	1	PPS‡	4.0M*	BTX	60m†	0.0	5.0	.80	2.0	160n∅			0	7	F391	ML15	
7#	MB454M	10	1	PPS‡	4.0M*	BTX	60m†	0.0	5.0	.80	2.0	160n∅			0	7	F391	ML221	
8	N8202F	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		0	7	F302b	ML133
9	N8202N	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		0	7	F302b	ML135
10	N8202Q	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		0	7	F302b	FL3b
11	N8203F	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		0	7	F302c	ML133
12	N8203N	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		0	7	F302c	ML135
13	N8203Q	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		0	7	F302c	FL3b
14	S8202F	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		5	C	F302b	ML133
15	S8202N	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		5	C	F302b	ML135
16	S8202Q	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		5	C	F302b	FL3b
17	S8203F	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		5	C	F302c	ML133
18	S8203N	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		5	C	F302c	ML135
19	S8203Q	10	1	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40		5	C	F302c	FL3b
20	N8274B	10	1	PSS	25M∅	BTX	567m∅	0.0	5.0	.40%	2.6	40n∅	16m	.40		0	7	F168	ML89a
21	N8274F	10	1	PSS	25M∅	BTX	567m∅	0.0	5.0	.40%	2.6	40n∅	16m	.40		0	7	F168	ML60a
22	N8274W	10	1	PSS	25M∅	BTX	567m∅	0.0	5.0	.40%	2.6	40n∅	16m	.40		0	7	F168	FL25
23	S8274B	10	1	PSS	25M∅	BTX	567m∅	0.0	5.0	.40%	2.6	40n∅	16m	.40		5	C	F168	ML89a
24	S8274F	10	1	PSS	25M∅	BTX	567m∅	0.0	5.0	.40%	2.6	40n∅	16m	.40		5	C	F168	ML60a
25	S8274W	10	1	PSS	25M∅	BTX	567m∅	0.0	5.0	.40%	2.6	40n∅	16m	.40		5	C	F168	FL25
26	MM5081	10	1	SPS	50k	MPX		-16	0.0	-2.5	-7.0	2.0u	40u	-55		2	7	F69	ML63
27	3801-4-6H	10	1	SPS‡	500k	MPX	190m	27	0.0	-2.0	-9.0					5	8	F77	ML70
28	3801-9-6H	10	1	SPS‡	500k	MPX	190m	27	0.0	-2.0	-9.0					0	7	F77	ML70
29	N8273B	10	1	SPS	25M∅	BTX	540m∅	0.0	5.0	.40%	2.6	40n∅	9.6m	.40		0	7	F167	ML89a
30	N8273F	10	1	SPS	25M∅	BTX	540m∅	0.0	5.0	.40%	2.6	40n∅	9.6m	.40		0	7	F167	ML60a
31	N8273W	10	1	SPS	25M∅	BTX	540m∅	0.0	5.0	.40%	2.6	40n∅	9.6m	.40		0	7	F167	FL25
32	S8273B	10	1	SPS	25M∅	BTX	540m∅	0.0	5.0	.40%	2.6	40n∅	9.6m	.40		5	C	F167	ML89a
33	S8273F	10	1	SPS	25M∅	BTX	540m∅	0.0	5.0	.40%	2.6	40n∅	9.6m	.40		5	C	F167	ML60a
34	S8273W	10	1	SPS	25M∅	BTX	540m∅	0.0	5.0	.40%	2.6	40n∅	9.6m	.40		5	C	F167	FL25
35	5519	12			25MΔ	BTX	750m	0.0	5.0	.80	2.0	29n‡				0	7		PL11
36	I113	12	1		5.0M	BDX	445m†	5.0	5.0	0.0	5.0	35n				0	7	F381	PL‡
37	AM25L04DC	12	1	PPS	3.5MΔ	BTX	225m†	0.0	5.0	.70	2.0	140n	4.9m	.30		0	7	F257a	ML148
38	AM25O4DC	12	1	PPS	15M*	BTX	620m†	0.0	5.0	.80	2.0	45n∅	9.6m	.40		0	7	F257a	ML88d
39	AM25O4DM	12	1	PPS	15M*	BTX	550m†	0.0	5.0	.80	2.0	38n∅	9.6m	.40		5	C	F257a	ML88e
40	AM25O4FM	12	1	PPS	15M*	BTX	550m†	0.0	5.0	.80	2.0	38n∅	9.6m	.40		5	C	F257a	FL40
41	AM25O4PC	12	1	PPS	15M*	BTX	620m†	0.0	5.0	.80	2.0	38n∅	9.6m	.40		0	7	F257a	ML88c
42	AM25L04DM	12	1	PPS	25MΔ†	BTX	550m†	0.0	5.0	.80	2.0	38n	9.6m	.40		5	C	F257a	ML148
43	AM25L04FM	12	1	PPS	25MΔ†	BTX	550m†	0.0	5.0	.80	2.0	38n	9.6m	.40		5	C	F257a	FL33a
44	AM25L04PC	12	1	PPS	25MΔ†	BTX	620m†	0.0	5.0	.80	2.0	38n	9.6m	.40		0	7	F257a	ML72a
45	I768	16			25M	BTX	172m	0.0	7.0	.80	2.0	24n				0	7		PL‡
46	I769	16	1		20M	BTX		0.0	5.0	.80	2.0	40n				0	7		PL‡
47#	uPD118C	16	2	SSS	100k	MPX		24	0.0	-9.3*	-3.7#	2.5u	80u	-13		2	7	F416	MO001AA
48	S2001K	16	2	SSS	1.0M	MPG		28	0.0	-2.0	-10	475n				5	8	F48	CY7
49#	M122T1	16	2	SSS	1.0M	MPX	200m‡	27	0.0	-2.0	-9.0					0	7	F3a	TO100
50#	M122T8	16	2	SSS	1.0M	MPX	200m‡	27	0.0	-2.0	-9.0					5	8	F3a	TO100
51	SS5-8211-31	16	2	SSS	2.0M	MPN	160m	12	5.0	.80	3.5	250n	1.6m	.40		0	7	F442	ML5c
52	SS5-8212-12	16	2	SSS	2.0M	MPN	160m	12	5.0	.80	3.5	225n	1.6m	.40		0	7	F25d	ML250
53	SS5-8212-16	16	2	SSS	2.0M	MPN	160m	12	5.0	.80	3.5	225n	1.6m	.40		0	7	F25	TO78
54	SS6-8211-55	16	2	SSS	2.0M	MPN	200m	12	5.0	.80	3.5	300n	1.6m	.40		5	C	F442	ML1h
55	SS6-8212-16	16	2	SSS	2.0M	MPN	200m	12	5.0	.80	3.5	300n	1.6m	.40		5	C	F25	TO78
56	SS6-8212-69	16	2	SSS	2.0M	MPN	200m	12	5.0	.80	3.5	300n	1.6m	.40		5	C	F25c	ML125b
57	SS7-2016-31	16	2	SSS	2.0M	MPN	160m	12	5.0	.80	3.5	250n	1.6m	.40		0	7	F442a	ML5c
58	SS7-8212-30	16	2	SSS	2.0M	MPN	160m	12	5.0	.80	3.5	225n	1.6m	.40		0	7	F25c	ML64
59	MM4040H	16	2	SSS	2.2MΔ	MPX	221m∅	12	5.0	.80	3.0	300n	1.6m	.40		5	C	F256a	TO99
60	MM5040H	16	2	SSS	2.2MΔ	MPX	221m∅	12	5.0	.80	3.0	300n	1.6m	.40		0	7	F256a	TO99
61#	M120T1	16‡	3	SSS	250k	MPX	50m†	27	0.0	-2.0	-9.0	1.2u†	10u	-1.0		0	7	F3	TO100
62#	M120T8	16‡	3	SSS	250k	MPX	50m†	27	0.0	-2.0	-9.0	1.2u†	10u	-1.0		5	8	F3	TO100
63‡	CD40105BD	16	4	SSD	6.0MΔ†	MCX	500m‡	0.0	10	0.01%	10‡	45n†	1.8m	.50		5	C	F373	MO001AE
64‡	CD40105BE	16	4	SSD	6.0MΔ†	MCX	500m‡	0.0	10	0.01%	10‡	45n†	1.8m	.50		4	8	F373	MO001AE
65‡	CD40105BF	16	4	SSD	6.0MΔ†	MCX	500m‡	0.0	10	0.01%	10‡	45n†	1.8m	.50		5	C	F373	MO001AC
66‡	CD40105BH	16	4	SSD	6.0MΔ†	MCX	500m‡	0.0	10	0.01%	10‡	45n†	1.8m	.50		5	C	F373	CH‡
67‡	CD40105BK	16	4	SSD	6.0MΔ†	MCX	500m‡	0.0	10	0.01%	10‡	45n†	1.8m	.50		5	C	F373	MO004AG
68	SL7-4016-30	16	4	SSS	2.0M	MPN	450m†	12	5.0	.80	3.5	250n†	1.6m	.40		0	7	F441	ML64
69	SS5-1032-31	16‡	6	SSS	1.0M	MPX	200m†	12	5.0	.80	3.5	450n	1.6m	.40		0	7	F440	ML5c
70	SS6-1032-55	16‡	6	SSS	1.0M	MPX	200m†	12	5.0	.80	3.5	450n	1.6m	.40		5	C	F440	ML1h
71	RT813	17‡	2	SPS	10M	BTX∅	1.7	0.0	5.0	.30	3.3†					0	7	F271	
72	T113	18	1		10M	BTX	420m	4.8	5.2	0.0	5.0	8.0n				0	7		PL‡
73	MS618	24‡	4	SSS	2.5M	MCX	20n∅	10	0.0	.01%	9.99	700n				5	C	F59	ML‡
74	MM400H	25	2	SSD	1.0M	MPX	500m‡	5.0	5.0	2.0	-7.0		1.6m	.40		5	C	F54	TO99
75	MM401H	25	2	SSD	1.0M	MPX	500m‡	5.0	5.0	2.0	-7.0		1.6m	.40		600	∅	F54a	TO99
76	MM500H	25	2	SSD	1.0M	MPX	500m‡	5.0	5.0	2.0	-7.0		1.6m	.40		600	∅	F54	TO99
77	MM501H	25	2	SSD	1.0M	MPX	500m‡	5.0	5.0	2.0	-7.0		1.6m	.40		600	∅	F54a	TO99
78	S2002K	25																	

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS / REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE NO

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX CASE FREQ. (Hz)	5 STRUC. TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX. PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (A)		MIN. CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX (V)	MIN (V)		MIN (A)	MAX (A)			LOGIC/ BLOCK	OUTLINE	
1	AM28 12DM	32	8	SSS	500k*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293	ML7	
2	AM28 12ADC	32	8	SSS	1.0M*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293	ML7	
3	AM28 12ADM	32	8	SSS	1.0M*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293	ML7	
4	AM28 13DC	32	9	SSS	500k*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293a	ML7	
5	AM28 13DM	32	9	SSS	500k*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293a	ML7	
6	AM28 13ADC	32	9	SSS	1.0M*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293a	ML7	
7	AM28 13ADM	32	9	SSS	1.0M*	MPX		12	5.0	.80	4.0	200nt	1.6m	.40	0	7	F293a	ML7	
8	25 19B	40	6	SSS	2.0MΔ	MPG	640m	12	5.0	.60	3.4	350n	1.6m	.50	0	7	F129	ML85	
9	25 19I	40	6	SSS	2.0MΔ	MPG	640m	12	5.0	.60	3.4	350n	1.6m	.50	0	7	F129	ML171	
10	25 19F	40	6	SSS	2.0MΔ	MPX		5.0	0.0								F129	ML127r	
11	FR1502E02	40	9	SSS	250k	MPX	685m	12	5.0	.80	3.5	500n	1.6m	.40	0	7	F297	ML32a	
12	FR1502E01	40	9	SSS	500k	MPX	685m	12	5.0	.80	3.5	500n	1.6m	.40	0	7	F297	ML32a	
13	3351 2DC	40	9	SSS	1.0M	MPG	420m	12	5.0	.80	4.0		1.6m	.40	0	7	F472	ML192	
14	FR1502E	40	9	SSS	1.0M	MPX	685m	12	5.0	.80	3.5	500n	1.6m	.40	0	7	F297	ML32a	
15	3351 1DC	40	9	SSS	2.0M	MPG	520m	12	5.0	.80	4.0		1.6m	.40	0	7	F472	ML192	
16	uPD107C	48	2	SSD	100k	MPX		24	0.0	-9.3*	-3.7#	2.5u	80u	-13	2	7	F414	MO001AA	
17	MM402H	50	2	SSD	1.0M	MPX	500m	5.0	5.0	2.0	-7.0		1.6m	.40	600	0	5	F54b	TO99
18	MM403H	50	2	SSD	1.0M	MPX	500m	5.0	5.0	2.0	-7.0		1.6m	.40	600	0	5	F54c	TO99
19	MM502H	50	2	SSD	1.0M	MPX	500m	5.0	5.0	2.0	-7.0		1.6m	.40	600	0	5	F54b	TO99
20	MM503H	50	2	SSD	1.0M	MPX	500m	5.0	5.0	2.0	-7.0		1.6m	.40	600	0	5	F54c	TO99
21	MSM540	50	2	SSD	5.0MΔ	MCX	750u	.30	7.0	.80	3.6		15u	.20	10k	2	7	F392	ML64e
22	S2004K	50	2	SSS	1.0M	MPG		28	0.0	-2.0	-1.0	450n			5	8	F48	CY7	
23	SL5-2050-12	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25d	ML250	
24	SL5-2050-16	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25	TO78	
25	SL5-2050-30	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25a	ML64	
26	SL6-2050-16	50	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40	0	7	F25	TO78	
27	SL6-2050-69	50	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40	0	7	F25a	ML125b	
28	SL7-2050-30	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25e	ML64	
29	2509A	50	2	SSS	1.5MΔ	MPG	535m	5.0	5.0	.60	3.4	300n	1.6m	.50	0	7	F128	ML66	
30	2509K	50	2	SSS	1.5MΔ	MPG	535m	5.0	5.0	.60	3.4	300n	1.6m	.50	0	7	F128a	CY7	
31	uPD35 1C	60	3	PPD	100k	MCX		24	0.0	-9.0*	-4.0#	2.5u			1	7	F140d	MO001AC	
32	JANM38510/05705AEA	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
33	JANM38510/05705AEB	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
34	JANM38510/05705AEC	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
35	JANM38510/05705AFA	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
36	JANM38510/05705AFB	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
37	JANM38510/05705AFC	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
38	JANM38510/05705BEA	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
39	JANM38510/05705BEB	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
40	JANM38510/05705BEC	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
41	JANM38510/05705BFA	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
42	JANM38510/05705BFB	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
43	JANM38510/05705BFC	64	1	SSS	700k	MCX	200m	0.0	5.0	.88	3.95	1.5u	900u	.50	5	C	F253	FL31	
44	JANM38510/05705CEA	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
45	JANM38510/05705CEB	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
46	JANM38510/05705CEC	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
47	JANM38510/05705CFA	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	ML220	
48	JANM38510/05705CFB	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
49	JANM38510/05705CFC	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
50	CD4031AE	64	1	SSS	700k	MCX	200m	0.0	5.0	.85	3.95	1.5u	900u	.50	5	C	F253	FL31	
51	HBF4031AE	64	1	SSS	1.0M	MCX	14m	0.0	10	.05	9.95	800n	80u	0.5	4	8	F176	MO001AC	
52	HBF4031AF	64	1	SSS	1.0M	MCX	14m	0.0	10	.05	9.9	800n	80u	0.5	4	8	F176	MO001AB	
53	CD4031AD	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.95	400n	140u	0.5	5	0	F176	ML127c	
54	CD4031AF	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.95	400n	140u	.50	5	0	F176	MO001AC	
55	CD4031AK	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.95	400n	140u	.50	5	0	F176	CH5	
56	CD4031AK	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.95	400n	140u	.50	5	0	F176	MO004AG	
57	HBC4031AD	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.9	400n	140u	.95	5	0	F176	ML127c	
58	HBC4031AF	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.9	400n	140u	.95	5	0	F176	ML127c	
59	HBC4031AK	64	1	SSS	2.0M	MCX	15m	0.0	10	.05	9.9	400n	140u	.95	5	0	F176	MO004AG	
60	MC14557BCL	64	1	SSS	2.7M	MCX	1.0m	0.0	10	3.0	7.0	500n	1.1m	.50	4	8	F299	ML5	
61	MC14557BCP	64	1	SSS	2.7M	MCX	1.0m	0.0	10	3.0	7.0	500n	1.1m	.50	4	8	F299	ML145	
62	MC14557BAL	64	1	SSS	5.0M	MCX	100u	0.0	10	3.0	7.0	300n	1.3m	.50	5	0	F299	ML5	
63	HEF4031P	64	1	SSS	8.0M	MCX	400m	0.0	10	3.0	7.0	20nt	1.2m	.50	4	8	F436	ML48e	
64	MS6 12	64	1	SSS	25M	MCX	10u	0.0	10	.01	9.99	40n			5	0	F58	ML7	
65	uPD109A	64	2	SSD	100k	MPX		24	0.0	-24	0.0	2.0u	80u	-13	5	7	F415	TO101	
66	MM4001AH	64	2	SSD	2.5MΔ	MPX	119m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F68	TO100
67	MM4010AH	64	2	SSD	2.5MΔ	MPX	119m	12	5.0	.80	3.0	200n	1.6m	.40	10k	0	7	F193	TO100
68	MM5001AH	64	2	SSD	2.5MΔ	MPX	119m	12	5.0	.80	3.0	200n	1.6m	.40	10k	0	7	F68	TO100
69	MM5010AH	64	2	SSD	2.5MΔ	MPX	119m	12	5.0	.80	3.0	200n	1.6m	.40	10k	0	7	F193	TO100
70	MM5011A	64	2	SSD	2.5M	MPX	300m	12	5.0	.80	3.0		1.6m	.400	600				
71	SL5-2064-12	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25d	ML250	
72	SL5-2064-16	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25	TO78	
73	SL5-2064-30	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25a	ML64	
74	SL6-2064-16	64	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40	5	C	F25	TO78	
75	SL7-2064-30	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40	0	7	F25e	ML64	
76	MM5054D	64	2	SSS	1.5MΔ	MPG	300m	12	5.0	.80	3.5	300n	1.6m	.40	0	7	F227	ML177	
77	MM5054N	64	2	SSS	1.5MΔ	MPG	300m	12	5.0	.80	3.5	300n	1.6m	.40	0				

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED SUP. POWER SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE		
																			+	-
1♦	AM3341DC	64	4	SSD		MPS		12	5.0	80	4.0	250n	1.6m	40	0	7	F294	ML127k		
2♦	AM3341DM	64	4	SSD		MPS		12	5.0	80	4.0	250n	1.6m	40	5	7	F294	ML62c		
3♦	AM3341PC	64	4	SSD		MPS		12	5.0	80	4.0	250n	1.6m	40	0	7	F294	ML89a		
4	MM4105H	64Δ	4	SSD	1.4M	MPX	136m∅	12	5.0	80	3.5	200n	1.6m	40	10k	5	C	F68c	TO100	
5	MMS105H	64Δ	4	SSD	1.4M	MPX	136m∅	12	5.0	80	3.5	200n	1.6m	40	10k	2	7	F68c	TO100	
6	TMS3417JC	64	4	SSD	5.0M	MPX	400m	12	5.0	80	3.0	160n	1.6m	40	10k	2	8	F119	ML82	
7	TMS3417NC	64	4	SSD	5.0M	MPX	400m	12	5.0	80	3.0	160n	1.6m	40	10k	2	8	F119	ML48a	
8#	GZF1106D	64	4	SSS	2.0M	MCX		0.0	5.0	1.5	3.5	350n	1.6m	40	4	8	F327	ML134a		
9#	GZF1106P	64	4	SSS	4.0M	MCX	500u♦	0.0	10	3.0	7.0	175n	1.6m	4.75	4	8	F318	ML		
10	3326-4-5E	66	3	SSD	3.0M∅	MPX	180m	13	0.0	-3.0∅	-9.0	200n∅			5	8	F73	TO100		
11#	GWN105	68	1\$	SSD	500k	MPX				-10	-2.0		1.5m	23	10k	0	7	F104	TO73	
12	DL1-2080	80\$	2	SSD	2.0M	MPT	200m	12	12	11♦					10k	0	7	F19	ML9	
13	MM4007AAD	80	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F332	ML179	
14	MM4007AAH	80	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F256	TO99	
15	MMS007AAD	80	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F332	ML179	
16	MM5007AAH	80	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F256	TO99	
17	MM4052H	80	2	SSS	1.6MΔ	MPX	212m∅	12	5.0	80	3.0	300n	1.6m	40	5	8	F71	TO100		
18	MMS052H	80	2	SSS	1.6MΔ	MPX	212m∅	12	5.0	80	3.0	300n	1.6m	40	0	7	F71	TO100		
19	MM4021D	80	3	SSD	2.5M	MPX	163m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F140b	ML	
20	MM4021H	80	3	SSD	2.5M	MPX	163m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F68a	TO100	
21	MM4021N	80	3	SSD	2.5M	MPX	163m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F140b	ML2e	
22	MM5021D	80	3	SSD	2.5M	MPX	163m∅	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F140b	ML	
23	MM5021H	80	3	SSD	2.5M	MPX	163m∅	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F68a	TO100	
24	MM5021N	80	3	SSD	2.5M	MPX	163m∅	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F140b	ML2e	
25	MK1007P	80	4	SSD	2.5MΔ	MPI	220m†	12	5.0	80	3.5	200n	1.6m	40	10k	0	7	F152	ML22	
26	MMS023D	80	4	SSD	2.5MΔ	MPI	430m∅	12	5.0	80	3.5	200n	1.6m	40	10k	0	7	F334	ML177	
27	MMS023N	80	4	SSD	2.5MΔ	MPI	430m∅	12	5.0	80	3.5	200n	1.6m	40	10k	0	7	F334	ML178	
28	MM4020D	80	4	SSD	2.5M	MPX	212m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F140a	ML	
29	MM4020N	80	4	SSD	2.5M	MPX	212m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F140a	ML2e	
30	MMS020D	80	4	SSD	2.5M	MPX	212m∅	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F140a	ML	
31	MMS020N	80	4	SSD	2.5M	MPX	212m∅	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F140a	ML2e	
32	TMS3120JC	80	4	SSD	2.5M	MPX	355m	12	5.0	80	3.4	400n	1.6m	40	2	8	F119	ML206		
33	TMS3120NC	80	4	SSD	2.5M	MPX	355m	12	5.0	80	3.4	400n	1.6m	40	2	8	F119	ML209		
34	TMS3409JC	80	4	SSD	5.0M	MPX	400m	12	5.0	80	3.0	160n	1.6m	40	10k	2	8	F119	ML82	
35	TMS3409NC	80	4	SSD	5.0M	MPX	400m	12	5.0	80	3.0	160n	1.6m	40	10k	2	8	F119	ML48a	
36	2532B	80	4	SSS	1.5M	MPG	640m	12	5.0	60	3.4	400n	1.6m	50	0	7	F303	ML132		
37	ITT3347	80	4	SSS	2.0M	MPG	450m	12	5.0	80	4.0	200n	1.6m	40	0	7	F119	ML		
38	2532-1B	80	4	SSS	2.5MΔ	MPG		5.0	0.0						0	7	F400	ML85		
39#	M142B1	80	4	SSS	3.0MΔ	MNG	250m†	0.0	5.0	80	2.0	230n	1.6m	55	0	7	F152	ML60		
40#	M142D1	80	4	SSS	3.0MΔ	MNG	250m†	0.0	5.0	80	2.0	230n	1.6m	55	0	7	F152	ML158		
41	ITT3357	80	4	SSS	3.0M	MPG	450m	12	5.0	80	4.0	200n	1.6m	40	0	7	F119	ML		
42	TMS3126LC	96	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	TO99		
43	TMS3126NC	96	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	ML208		
44	MM4007XXD	100	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F332	ML179	
45	MM4007XXH	100	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F256	TO99	
46	MM5007XXD	100	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F332	ML179	
47	MM5007XXH	100	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F256	TO99	
48	1406T	100	2	SSD		MPG	80m♦	5.0	5.0	80	2.5	100n	200u	40	1.0M#	5	C		TO99	
49	1506T	100	2	SSD		MPG	80m♦	5.0	5.0	80	2.5	100n	200u	40	1.0M#	0	7		TO99	
50	1507T	100	2	SSD		MPG	80m♦	5.0	5.0	80	2.5	100n	200u	40	1.0M#	0	7		TO99	
51	1507T	100	2	SSD		MPG	80m♦	5.0	5.0	80	2.5	100n	200u	40	1.0M#	0	7		TO99	
52#	HD3506	100	2	SSD		MPG	600m∅	5.0	5.0	80	3.5				10k	2	7	F205	ML90a	
53#	HD3507	100	2	SSD		MPG	600m∅	5.0	5.0	80	3.5				10k	2	7	F205	ML90a	
54	MM406H	100	2	SSD	1.0M	MPX	500m∅	5.0	5.0	2.0	-7.0		1.6m	40	600	∅	5	C	F54d	TO99
55	MM407H	100	2	SSD	1.0M	MPX	500m∅	5.0	5.0	2.0	-7.0		1.6m	40	600	∅	5	C	F54e	TO99
56	MMS06H	100	2	SSD	1.0M	MPX	500m∅	5.0	5.0	2.0	-7.0		1.6m	40	600	∅	2	7	F54d	TO99
57	MMS07H	100	2	SSD	1.0M	MPX	500m∅	5.0	5.0	2.0	-7.0		1.6m	40	600	∅	2	7	F54e	TO99
58	AM1406HM	100	2	SSD	2.0M	MPG	500m∅	5.0	5.0	80	2.5	100n			80	5	C	F256	TO99	
59	AM1407HM	100	2	SSD	2.0M	MPG	500m∅	5.0	5.0	80	2.5	100n	200u	40	80	5	C	F256	TO99	
60	AM1506HC	100	2	SSD	2.0M	MPG	500m∅	5.0	5.0	80	2.5	100n			80	0	7	F256	TO99	
61	AM1507HC	100	2	SSD	2.0M	MPG	500m∅	5.0	5.0	80	2.5	100n	200u	40	80	0	7	F256	TO99	
62	M1406	100	2	SSD	2.0M	MPG	110m	5.0	5.0	80	3.5	100n	1.6m	40	6.0k	5	C	F133b	CY4a	
63	M1407	100	2	SSD	2.0M	MPG	110m	5.0	5.0	80	3.5	100n	1.6m	40	6.0k	5	C	F133b	CY4a	
64	M1506	100	2	SSD	2.0M	MPG	110m	5.0	5.0	80	3.5	100n	1.6m	40	6.0k	0	7	F133b	CY4a	
65	M1507	100	2	SSD	2.0M	MPG	110m	5.0	5.0	80	3.5	100n	1.6m	40	6.0k	0	7	F133b	CY4a	
66	MM4006AD	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F332	ML179	
67	MM4006AH	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F256	TO99	
68	MM4007D	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F332	ML179	
69	MM4007H	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F256	TO99	
70	MM5006AD	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F332	ML179	
71	MM5006AH	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F256	TO99	
72	MM5007D	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F332	ML179	
73	MM5007H	100	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F256	TO99	
74	2506T	100	2	SSD	3.0M∅	MPG	535m∅	5.0	5.0	1.0	3.2	150n∅			600	∅	0	7	F127	CY4c
75	2506V	100	2	SSD	3.0M∅	MPG	455m∅	5.0	5.0	1.0	3.2	150n∅			600	∅	0	7	F127a	ML87
76	2507T	100	2	SSD	3.0															

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		3	4	5	MAX OPER. POWER (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (A)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS				
		1	2					OPER. CODE	WORST CASE FREQ. (Hz)	STRUC. TURE CODE	NEG. (V)		POS. (V)	MAX '0' (V)			MIN '1' (V)	MIN. (A)	MAX. (A)	LOGIC/BLOCK	OUTLINE
1	MM5060AAN	128Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML116b			
2	MTS2107	128	2	SSS	1.5M	MPN	250m	12	5.0	70	3.5	250n	1.6m	40	0	7	F95h	TO99			
3	AM2809HM	128	2	SSS	2.0MΔ	MPG	528m∅	12	5.0	1.1	3.3	350n	1.6m	40	5	5	F289	TO99			
4	AM2810DC	128	2	SSS	2.0M*	MPG	245m∅	12	5.0	1.0	4.0	250n	1.6m	40	0	7	F290a	ML127k			
5	AM2810DM	128	2	SSS	2.0M*	MPG	355m∅	12	5.0	1.0	4.0	250n	1.6m	40	5	5	F290a	ML62c			
6	MTS2108	128	2	SSS	2.0M	MPN	340m	12	5.0	70	3.5	240n	1.6m	40	5	5	F95h	TO99			
7	SL5-C2100-16	128	2	SSS	2.0M	MPN	350m∅	12	5.0	80	3.5	200n	1.6m	40	0	7	F25	TO78			
8	SL5-C2128-12	128	2	SSS	2.0M	MPN	500m∅	12	5.0	80	3.5	300n	1.6m	40	0	7	F25d	ML250			
9	SL5-C2128-16	128	2	SSS	2.0M	MPN	500m∅	12	5.0	80	3.5	300n	1.6m	40	0	7	F25	TO78			
10	TMS3114JC	128Δ	2	SSS	2.0M	MPT	360m	12	5.0	60	3.5	350n	1.6m	50	2	8	F115	ML82			
11	TMS3114NC	128Δ	2	SSS	2.0M	MPT	360m	12	5.0	60	3.5	350n	1.6m	50	2	8	F115	ML48a			
12	AM2809HC	128	2	SSS	2.5MΔ	MPG	456m∅	12	5.0	1.1	3.3	300n	1.6m	40	0	7	F289	TO99			
13	AM2809PC	128	2	SSS	2.5MΔ	MPG	456m∅	12	5.0	1.1	3.3	300n	1.6m	40	0	7	F289	ML163			
14	AM2814DC	128	2	SSS	2.5MΔ*	MPG	255m∅	13	5.0	60	3.5	250n	1.6m	40	2	8	F291	ML62c			
15	AM2814DM	128	2	SSS	2.5MΔ*	MPG	364m∅	12.6	5.0	60	3.5	250n	1.6m	40	5	5	F291	ML62c			
16	AM2814PC	128	2	SSS	2.5MΔ*	MPG	255m∅	13	5.0	60	3.5	250n	1.6m	40	2	8	F291	ML89a			
17	TMS3128LC	128	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	TO99			
18	TMS3128NC	128	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	ML208			
19	MM4055D	128	4	SSS	1.0MΔ	MPG	163m∅	12	5.0	80	4.0	700n	1.6m	40	5	5	F340	ML177			
20	MM5055D	128	4	SSS	1.0MΔ	MPG	163m∅	12	5.0	80	4.0	700n	1.6m	40	0	7	F340	ML177			
21	MM5055N	128	4	SSS	1.0MΔ	MPG	163m∅	12	5.0	80	4.0	700n	1.6m	40	0	7	F340	ML178			
22	AM2855DC	128	4	SSS	2.5M	MPG	280m	12	5.0	80	4.0	280n	1.6m	40	0	7	F292	ML127k			
23	AM2855DM	128	4	SSS	2.5M	MPG	280m	12	5.0	80	4.0	280n	1.6m	40	5	5	F292	ML62c			
24	AM2855PC	128	4	SSS	2.5M	MPG	280m	12	5.0	80	4.0	280n	1.6m	40	0	7	F292	ML89a			
25	SL9-4128-28#1	128Δ	4	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147	ML64			
26	SL9-4128-69#1	128Δ	4	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147	ML9			
27	SL9-4128-28#2	128Δ	4	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147	ML64			
28	SL9-4128-69#2	128Δ	4	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147	ML9			
29	2522V	132	2	SSS	1.5MΔ	MPG	535m∅	12	5.0	60	3.4	350n	1.6m	50	0	7	F130	ML87			
30	MM5060ABD	132Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML202			
31	MM5060ABN	132Δ	2	SSS	1.5MΔ	MPT	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML116b			
32	TMS3129LC	132	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	TO99			
33	TMS3129NC	132	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	ML208			
34	MM5060ACD	133Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML202			
35	MM5060ACN	133Δ	2	SSS	1.5MΔ	MPT	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML116b			
36	TMS3113JC	133Δ	2	SSS	2.0M	MPT	360m	12	5.0	60	3.5	350n	1.6m	50	2	8	F115	ML82			
37	TMS3113NC	133Δ	2	SSS	2.0M	MPT	360m	12	5.0	60	3.5	350n	1.6m	50	2	8	F115	ML48a			
38	TMS3130LC	133	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	TO99			
39	TMS3130NC	133	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	ML208			
40	MM5060ADD	144Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML202			
41	MM5060ADN	144Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML116b			
42	MM5060XDD	144Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML202			
43	MM5060XXN	144Δ	2	SSS	1.5MΔ	MPG	442m∅	12	5.0	80	3.5	350n	1.6m	40	0	7	F130	ML116b			
44	TMS3132LC	144	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	TO99			
45	TMS3132NC	144	2	SSS	2.5MΔ	MPT	510m	12	5.0	1.1	3.2	250n	1.6m	40	2	8	F240	ML208			
46	CD4062AH	200	1	SSD	2.0MΔ	MCX	15m∅	0.0	10	0.5%	9.95	800n	3.2m	50	150	5	C	F262	CH10		
47	CD4062AK	200	1	SSD	2.0MΔ	MCX	15m∅	0.0	10	0.5%	9.95	800n	3.2m	50	150	5	C	F262	MO002AG		
48	CD4062AT	200	1	SSD	2.0MΔ	MCX	15m∅	0.0	10	0.5%	9.95	800n	3.2m	50	150	5	C	F262	MO006AG		
49	2511A	200	2	SSS	1.5MΔ	MPG	535m∅	5.0	5.0	60	3.4	300m∅	1.6m	50	0	7	F128a	ML86			
50	2511K	200	2	SSS	1.5MΔ	MPG	535m∅	5.0	5.0	60	3.4	300m∅	1.6m	50	0	7	F128a	CY7			
51	2529V	240	2	SSS	1.5MΔ	MPG	535m∅	5.0	5.0	60	3.4	300m∅	1.6m	50	0	7	F134e	ML163			
52	2528V	250	2	SSS	1.5MΔ	MPG	535m∅	5.0	5.0	60	3.4	300m∅	1.6m	50	0	7	F134e	ML163			
53#	HD3510	256	1	SSD	1.5MΔ	MPG	600m∅	5.0	5.0	80	3.5	90n	1.6m	50	10k	2	7	F324c	ML90a		
54	3383-9-5F	256	1	SSD	2.0M∅	MPG	155m∅	12	5.0	85	4.0	150n	1.6m	40	10k	0	7	F76	TO100		
55	MM4019XXD	256	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F332	ML179		
56	MM4019XXH	256	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F256	TO99		
57	MM5019XXD	256	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F332	ML179		
58	MM5019XXH	256	1	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F256	TO99		
59#	M125T1	256	2	SSD	1.0M∅	MPX	160m∅	27	0.0	-2.0	-1.0	350m∅	10u	-1.0	10k∅	0	7	F49	TO100		
60	MM4012D	256	2	SSD	2.5M	MPX	272m∅	12	5.0	80	3.0	250n	1.6m	40	10k	5	C	F195	ML		
61	MM4012N	256	2	SSD	2.5M	MPX	272m∅	12	5.0	80	3.0	250n	1.6m	40	10k	5	C	F195	ML2e		
62	MM4019D	256	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F332	ML179		
63	MM4019H	256	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F256	TO99		
64	MM5012D	256	2	SSD	2.5M	MPX	272m∅	12	5.0	80	3.0	250n	1.6m	40	10k	2	7	F195	ML		
65	MM5012N	256	2	SSD	2.5M	MPX	272m∅	12	5.0	80	3.0	250n	1.6m	40	10k	2	7	F195	ML2e		
66	MM5019D	256	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F332	ML179		
67	MM5019H	256	2	SSD	2.5MΔ	MPX	204m∅	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F256	TO99		
68	2527V	256	2	SSS	1.5M	MPG	535m	12	5.0	60	3.4	450n	1.6m	50	0	7	F130	ML163			
69	AM2856HC	256	2	SSS	2.5M	MPG	535m	12	5.0	80	4.0	280n	1.6m	40	0	7	F292a	TO100			
70	AM2856HM	256	2	SSS	2.5M	MPG	535m	12	5.0	80	4.0	280n	1.6m	40	5	5	F292a	TO100			
71	SL9-2256-23#1	256Δ	2	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147b	TO100			
72	SL9-2256-28#1	256Δ	2	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147d	ML64			
73	SL9-2256-69#1	256Δ	2	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147d	ML9			
74	SL9-2256-23#2	256Δ	2	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147b	TO100			
75	SL9-2256-28#2	256Δ	2	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7					

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG(2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (A)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		CURRENT	CLOCK			LOGIC/BLOCK	OUTLINE	
1	C2416	256	64	SSC	2.0M	MNG	1.0	5.0	12	80%	3.5	40nΔ	3.0m	45	0	7	F325	ML8d	
2	P2416	256	64	SSC	2.0M	MNG	1.0	5.0	12	80%	3.5	40nΔ	3.0m	45	0	7	F325	ML3	
3	MM4104H	380S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F68b	TO100
4	MM5104H	360S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F68b	TO100
5	3330-9.5F	480	1	SSD	2.0M	MPG	250m	0.0	5.0	85	4.0	150n	1.6m	40	10k	0	7	F74	TO100
6	3331-9.5F	500	1	SSD	2.0M	MPG	250m	0.0	5.0	85	4.0	150n	1.6m	40	10k	0	7	F74	TO100
7#	HD3505	512	1	SSD	2.0M	MPG	600m	5.0	5.0	80	3.5	150n	1.6m	40	10k	2	7	F204	ML88a
8	3329-9.5F	512	1	SSD	2.0M	MPG	250m	0.0	5.0	85	4.0	150n	1.6m	40	10k	0	7	F74	TO100
9	M1405A	512	1	SSD	2.0M	MPG	400m	5.0	5.0	80	3.5	250n	1.6m	50	10k	0	7	F30	CY7a
10	T405K	512	1	SSD	2.0MΔ	MPX	535m	5.0	0.0	80	5.0	30u*						F401	CY7c
11	2505K	512	1	SSD	2.5MΔ	MPG	535m	5.0	5.0	80	3.0	100m			500	0	7	F30	CY7c
12	MM4016D	512S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F223	ML177
13	MM4016H	512S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F65	TO100
14	MM5016D	512S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F223	ML177
15	MM5016H	512S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F65	TO100
16	MM5016N	512S	1	SSD	2.5MΔ	MPX	170m	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F134b	ML116b
17	2524V	512	1	SSD	3.0MΔ	MPG	535m	5.0	5.0	80	3.0	100m	1.6m	50	500	0	7	F131	ML87
18	AM2805HM	512	1	SSD	3.0MΔ	MPG	60m	5.0	5.0	80	3.0	5.0n*	1.0uΔ	40	400	0	7	F288	TO100
19	1405A	512	1	SSD	4.0MΔ	MPG	60m	5.0	5.0	80	3.0	5.0n*	1.0uΔ			0	7	F288	TO100
20	AM2805HC	512	1	SSD	4.0MΔ	MPG	60m	5.0	5.0	80	3.0	5.0n*	1.0uΔ			0	7	F288	TO100
21	AM2807PC	512	1	SSD	4.0MΔ	MPG	60m	5.0	5.0	80	3.0	5.0n*	1.0uΔ			0	7	F288b	ML163
22	MT52100	512	1	SSD	5.0M	MPN	300m	5.0	5.0	1.0	3.5	80n			10k	2	8	F120k	TO100
23	MM4057D	512	1	SSS	1.0MΔ	MPG	163m	12	5.0	80	4.0	700n	1.6m	40	0	7	F340b	ML202	
24	MM5057D	512	1	SSS	1.0MΔ	MPG	163m	12	5.0	80	4.0	700n	1.6m	40	0	7	F340b	ML202	
25	MM5057N	512	1	SSS	1.0MΔ	MPG	163m	12	5.0	80	4.0	700n	1.6m	40	0	7	F340b	ML116b	
26	AM2857DC	512	1	SSS	2.5M	MPG	250m	12	5.0	80	4.0	280n	1.6m	40	0	7	F292b	ML164	
27	AM2857DM	512	1	SSS	2.5M	MPG	250m	12	5.0	80	4.0	280n	1.6m	40	5	C	F292b	ML164	
28	AM2857PC	512	1	SSS	2.5M	MPG	250m	12	5.0	80	4.0	280n	1.6m	40	0	7	F292b	ML163	
29	SL9-1512-23#1	512Δ	1	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147a	TO100	
30	SL9-1512-28#1	512Δ	1	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147c	ML64	
31	SL9-1512-69#1	512Δ	1	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147c	ML9	
32	SL9-1512-23#2	512Δ	1	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147a	TO100	
33	SL9-1512-28#2	512Δ	1	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147c	ML64	
34	SL9-1512-69#2	512Δ	1	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147c	ML9	
35#	HD3503	512	2	SSD	2.0M	MPG	600m	5.0	5.0	80	3.5	340n	1.6m	50	10k	2	7	F29a	ML90a
36	DL9-2512-23#1	512Δ	2	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147b	TO100
37	DL9-2512-28#1	512Δ	2	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147d	ML64
38	DL9-2512-69#1	512Δ	2	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147d	ML9
39	1403ATA	512	2	SSD	2.5MΔ	MPX	238m	5.0	0.0	80	3.5	10u*						F133	CY4c
40	1403AV	512	2	SSD	2.5MΔ	MPX	238m	5.0	0.0	80	3.5	10u*						F134	ML163
41	MM4017D	512S	2	SSD	2.5MΔ	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F225	ML177
42	MM4017H	512S	2	SSD	2.5MΔ	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F333	TO100
43	MM5017D	512S	2	SSD	2.5MΔ	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F225	ML177
44	MM5017H	512S	2	SSD	2.5MΔ	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F333	TO100
45	MM5017N	512S	2	SSD	2.5MΔ	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	0	7	F225	ML178
46	AM1403A59F#2	512	2	SSD	3.0M	MPG	200m	9.0	5.0	-1.0	-2.0	110n	1.6m	50	15M#	0	7	F255a	FL33a
47	AM1403A#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	15M#	0	7	F255a	T099
48	AM1403A5HM#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	5	C	F255a	T099
49	AM1403A5C#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	0	7	F255a	ML89a
50	DL9-1403A15#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	0	7	F120a	T099
51	DL9-1403A26#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	0	7	F120c	ML7
52	DL9-1403A55#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	0	7	F120c	ML65
53	DL9-2512-23#2	512Δ	2	SSD	4.0M	MPG	440m	12	5.0	80	3.5	260n	1.6m	50	10k	0	7	F147b	TO100
54	DL9-2512-28#2	512Δ	2	SSD	4.0M	MPG	440m	12	5.0	80	3.5	260n	1.6m	50	10k	0	7	F147d	ML64
55	DL9-2512-69#2	512Δ	2	SSD	4.0M	MPG	440m	12	5.0	80	3.5	260n	1.6m	50	10k	0	7	F147d	ML9
56	1403A	512	2	SSD	5.0M	MPG	500m	5.0	5.0	80	2.4	100n	1.6m	50	5	C	CY7	CY7	
57	AM1403A#1	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	2.5M#	0	7	F255a	T099
58	AM1403A5H#1	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255a	T099
59	AM1403A5C#1	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255a	ML89a
60	DL9-1403A15#1	512	2	SSD	5.0M	MPG	525m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F120a	T099
61	DL9-1403A26#1	512	2	SSD	5.0M	MPG	525m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F120c	ML7
62	DL9-1403A55#1	512	2	SSD	5.0M	MPG	525m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F120c	ML65
63#	M136T1	512	2	SSD	5.0M*	MPG	500m	5.0	5.0	80	3.5	60n	1.6m	50	100	0	7	F29a	T099
64	M1403A	512	2	SSD	5.0M	MPG	500m	5.0	5.0	80	3.5	90n	1.6m	50	10k	0	7	F133	CY4f
65	MM1403AH	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.3	90n	1.6m	50	10k	0	7	F133	T099
66	MM1403AN	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.3	90n	1.6m	50	10k	0	7	F134c	ML116b
67	2503TA	512	2	SSD	8.0M	MPG	535m	5.0	5.0	60	3.4	90n			500	0	7	F29a	CY4d
68	2503V	512	2	SSD	8.0M	MPG	535m	5.0	5.0	60	3.4	90n			500	0	7	F29a	ML87
69	AM1403A51F	512	2	SSD	1.0M	MPG	250m	5.0	5.0	-1.0	-2.0	90n	1.6m	50	2.5M#	5	C	F255a	FL33a
70	AM1403A51T	512	2	SSD	1.0M	MPG	250m	5.0	5.0	-1.0	-2.0	90n	1.6m	50	2.5M#	5	C	F255a	T099
71	AM1403A59F#1	512	2	SSD	1.0M	MPG	250m	5.0	5.0	-1.0	-2.0	90n	1.6m	50	2.5M#	0	7	F255a	FL33a
72	AM2803HC	512	2	SSD	1.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255a	T099
73	AM2803HM	512	2	SSD	1.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255a	T099
74	AM2803PC	512	2	SSD	1.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7		

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/BLOCK	OUTLINE		
																		-	+
1	MT1404A	1024	1	SSD	5.0M	MPG	500m	5.0	5.0	80	3.5	90n	1.6m	50	10k	0	7	F133a	CY4f
2	MM1404AH	1024	1	SSD	5.0M	MPG	600m	5.0	5.0	80	3.3	90n	1.6m	50	10k	0	7	F133a	TO99
3	MM1404AN	1024	1	SSD	5.0M	MPG	600m	5.0	5.0	80	3.3	90n	1.6m	50	10k	0	7	F134d	ML116b
4	MM5024AH	1024	1	SSD	5.0M	MPG	600m	5.0	5.0	80	3.3	90n	1.6m	50	10k	0	7	F133c	TO99
5	2504TA	1024	1	SSD	8.0M	MPG	535m	5.0	5.0	60	3.4	90n	1.6m	50	500	0	7	F29b	CY4d
6	2504V	1024	1	SSD	8.0M	MPG	535m	5.0	5.0	60	3.4	90n	1.6m	50	500	0	7	F29b	ML87
7	AM1404A51F	1024	1	SSD	10M	MPG	250m	5.0	5.0	-10	-2.0	90n	1.6m	50	2.5M#	5	C	F255	FL33a
8	AM1404A51T	1024	1	SSD	10M	MPG	250m	5.0	5.0	-10	-2.0	90n	1.6m	50	2.5M#	5	C	F255	TO99
9	AM1404A59F#1	1024	1	SSD	10M	MPG	250m	5.0	5.0	-10	-2.0	90n	1.6m	50	2.5M#	0	7	F255	FL33a
10	AM2804HC	1024	1	SSD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255	TO99
11	AM2804HM	1024	1	SSD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255	TO99
12	AM2804PC	1024	1	SSD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255	ML163
13	AM2533DC	1024	1	SSS	1.5M	MPG	150m	12	5.0	80	2.0	300n	1.6m	40		0	7	F287	ML164
14	AM2533V	1024	1	SSS	1.5M	MPG	150m	12	5.0	80	3.2	300n	1.6m	40		0	7	F287	ML163
15	MM5058N	1024	1	SSS	1.5M	MPG	456m	12	5.0	80	3.5	300n	1.6m	40		0	7	F238	ML116b
16	2533V	1024	1	SSS	1.5M	MPX	535m	12	5.0	60	3.4	300n	1.6m	50		0	7	F238	ML87a
17	AM2833DC	1024	1	SSS	2.0M	MPG	175m	12	5.0	80	2.0	300n	1.6m	40		0	7	F287	ML164
18	AM2833DM	1024	1	SSS	2.0M	MPG	210m	12	5.0	80	2.0	300n	1.6m	40		5	C	F287	ML164
19	AM2833PC	1024	1	SSS	2.0M	MPG	175m	12	5.0	80	2.0	300n	1.6m	40		0	7	F287	ML163
20	AM3355DC	1024	1	SSS	4.0M	MPG		12	5.0	40%	4.0	215m	1.6m	40		0	7	F287	ML164
21	AM3355PC	1024	1	SSS	4.0M	MPG		12	5.0	40%	4.0	215m	1.6m	40		0	7	F287	ML163
22	C2401	1024	2	SSD	1.0k	MNG	1.0	0.0	5.0	65	2.2		5.0m	45		0	7	F106	ML10c
23	P2401	1024	2	SSD	1.0k	MNG	1.0	0.0	5.0	65	2.2	500n	6.3m	45	25k	0	7	F106	ML89a
24	MM4025D	1024	2	SSD	1.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	60k	5	C	F335	ML177
25	MM4026D	1024	2	SSD	1.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	60k	5	C	F336	ML177
26	AM9401DC	1024	2	SSD	2.0M	MNG	315m	0.0	5.0	65	2.2	320n	1.6m	45	25k	0	7	F106	ML127k
27	AM9401DM	1024	2	SSD	2.0M	MNG	315m	0.0	5.0	65	2.2	320n	1.6m	45	25k	5	C	F106	ML62c
28	AM9401PC	1024	2	SSD	2.0M	MNG	315m	0.0	5.0	65	2.2	320n	1.6m	45	25k	0	7	F106	ML89a
29	MM5025D	1024	2	SSD	3.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	10k	0	7	F335	ML177
30	MM5025N	1024	2	SSD	3.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	10k	0	7	F338	ML203
31	MM5026D	1024	2	SSD	3.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	10k	0	7	F336	ML177
32	MM5026N	1024	2	SSD	3.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	10k	0	7	F336	ML178
33	CCD450DC	1024	9	SSC	1.0M	MNG	250m	2.5	12	80	2.2	180n	2.0m	40	100k	0	5	F348	ML134c
34	CCD450ADC	1024	9	SSC	2.0M	MNG	250m	2.5	12	80	2.2	140n	2.0m	40	100k	0	5	F348	ML134c
35	MM4027F	2048	1	SSD	1.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	60k	5	C	F337	FL36
36	MM5027F	2048	1	SSD	3.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	10k	0	7	F337	FL36
37	MM5027N	2048	1	SSD	3.0M	MPG	409m	12	5.0	80	3.3	80n	1.6m	40	10k	0	7	F339	ML116b
38	TMS3064JL	4096	16	SSC	5.0M	MNG	260m	5.0	12	40%	2.7	15n	3.2m	40	400k	0	7	F473	ML206

20. SPECIAL MEMORY DEVICES

IN ORDER OF: (1) FUNCT CODE (2) NO. WORDS
(3) BITS/WD (4) OP MODE (5) STRUCT & (6) TYPE NO.

LINE No.	6] TYPE No.	1] FUNCT-ION CODE	2] ORGANIZATION		4] OP MODE	5] STRUCTURE CODE	MAX. ACCES TIME (S)	MAX. OPER. PWR. DISS. (W)	RATED PWR. SUPPLY SPAN		INPUT LOGIC LEVELS		MIN. SINK CURRENT (A)	OUTPUT CURRENT (V)	OUTPUT TEMP. RNG. °C	GENERAL DESCRIPTION	DRAWINGS					
			No. WORDS	3] BITS per WORD					NEG. (V)	POS. (V)	MAX. '0' (V)	MIN. '1' (V)					LOGIC	SINK	CURRENT (V)	TEMP. CODE	LOGIC/BLOCK	OUT-LINE
1	MM4220BNJ	ATN	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#					Z19	ML133a				
2	MM5220BNJ	ATN	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#					Z19	ML133a				
3	MM5220BNN	ATN	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#					Z19	ML183				
4	S8771B	ATN	512	10	SS	MPI	450n	1.0	12	5.0	60	4.0			0 6		B109a	ML13b				
5	N8220B	CAM	4	2	SW	BTX	65n	590m	0.0	5.0	80	2.0	30m	40	0 7		Z21	ML132				
6	C3104	CAM	4	4	SW	BTD	30n	625m†	0.0	5.0	85	2.0	15m	45	0 7		Z13	ML34c				
7	SCM5533D	CAM	8	8	SW	MCX	250n	6.0m*	0.0	10	05%	9.95	360u%	9.5	5 C		Z12	ML195				
8	SCM5533H	CAM	8	8	SW	MCX	250n	6.0m*	0.0	10	05%	9.95	360u%	9.5	5 C		Z12	CH‡				
9	EA4080	COS	512	10	SC	MPX	725n	205m	12	12	10	3.0			5 8		B38	ML41				
10	82S100I	PLA	48	8	SE	BTX	50n	600mt	0.0	5.0	80	2.0	9.6m	45	0 7	16 VAR	Z24	ML218				
11	82S101I	PLA	48	8	SE	BTX	50n	600mt	0.0	5.0	80	2.0Δ	9.6m	45	0 7	16 VAR	Z24	ML218				
12	IM5200CJG	PLA	48	8	SE	BDX	100n\$	675m†	0.0	5.0	80	2.0	50uΔ#	5.5	0 7		Z4	ML188				
13▼	93458DC	PLA	48	8	SE	BTD	25nΔ†		0.0	5.0	80	2.0Δ	16m	45	0 7	16 VAR	Z28	ML192a				
14▼	93458DM	PLA	48	8	SE	BTD	25nΔ†		0.0	5.0	80	2.0Δ	16m	45	5 C	16 VAR	Z28	ML192a				
15▼	93459DC	PLA	48	8	SE	BTD	25nΔ†		0.0	5.0	80	2.0	16m	45	0 7	16 VAR	Z28	ML192a				
16▼	93459DM	PLA	48	8	SE	BTD	25nΔ†		0.0	5.0	80	2.0	16m	45	5 C	16 VAR	Z28	ML192a				
17	SN54S330J	PLA	50	6	SE	BTD	35n†\$	550mtØ	0.0	5.0	80	2.0	20m	50	5 C	12 VAR	Z25	ML213				
18	SN54S331J	PLA	50	6	SE	BTD	35n†\$	610mtØ	0.0	5.0	80	2.0	20m	50	5 C	12 VAR	Z25	ML213				
19	SN74S330J	PLA	50	6	SE	BTD	35n†\$	550mtØ	0.0	5.0	80	2.0	20m	50	0 7	12 VAR	Z25	ML213				
20	SN74S330J	PLA	50	6	SE	BTD	35n†\$	550mtØ	0.0	5.0	80	2.0	20m	50	0 7	12 VAR	Z25	ML161				
21	SN74S331J	PLA	50	6	SE	BTD	35n†\$	610mtØ	0.0	5.0	80	2.0	20m	50	0 7	12 VAR	Z25	ML213				
22	SN74S331N	PLA	50	6	SE	BTD	35n†\$	610mtØ	0.0	5.0	80	2.0	20m	50	0 7	12 VAR	Z25	ML161				
23	DM7575J	PLA	96	8	SC	BTX	100n†	550mt	0.0	5.0	80	2.0	12m	40	5 C	14 VAR	Z14	ML133a				
24	DM7576J	PLA	96	8	SC	BTX	100n†	550mt	0.0	5.0	80	2.0	12m	40	5 C	14 VAR	Z14	ML133a				
25	DM8575J	PLA	96	8	SC	BTX	100n†	550mt	0.0	5.0	80	2.0	12m	40	0 7	14 VAR	Z14	ML133a				
26▼	DM8575N	PLA	96	8	SC	BTX	100n	550mt	0.0	5.0	80	2.0	12m	40	5 C	14 VAR	Z14	ML183				
27	DM8576J	PLA	96	8	SC	BTX	100n†	550mt	0.0	5.0	80	2.0	12m	40	0 7	14 VAR	Z14	ML133a				
28▼	DM8576N	PLA	96	8	SC	BTX	100n	550mt	0.0	5.0	80	2.0	12m	40	5 C	14 VAR	Z14	ML183				
29	MM4220DFJ	QBF	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#			5 C		Z19	ML133a				
30	MM5220DFJ	QBF	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#			0 7		Z19	ML133a				
31	MM5220DFN	QBF	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#			0 7		Z19	ML183				
32	S8890	RYG	64	1	SS	MPI			12	0.0	-10	-70			0 7	10 RHY	Z22	ML14c				
33#	M253B1XX	RYG	384	8	SC	MPG		120m	12	5.0	90	3.5			0 7	12 RHY	Z17a	ML31c				
34#	M253D1XX	RYG	384	8	SC	MPG		120m	12	5.0	90	3.5			0 7	12 RHY	Z17a	ML173				
35#	M253B1AA	RYG	384	8	SS	MPG		120m	12	5.0	90	3.5			0 7	12 RHY	Z17	ML31c				
36#	M253D1AA	RYG	384	8	SS	MPG		120m	12	5.0	90	3.5			0 7	12 RHY	Z17	ML173				
37#	M250D1	RYG	432	8	SC	MPN		180mt	0.0	18	8.0	17	100uΔ	18	0 7	12 RHY	Z15	ML173				
38#	M254B1XX	RYG	432	8	SC	MPN		180m	0.0	18	8.0	17			0 7	8 RHY	Z18	ML31c				
39#	M252B1XX	RYG	480	8	SC	MPG		120m	12	5.0	90	3.5			0 7	15 RHY	Z16a	ML60				
40#	M252D1XX	RYG	480	8	SC	MPG		120m	12	5.0	90	3.5			0 7	15 RHY	Z16a	ML158				
41#	M252B1AA	RYG	480	8	SS	MPG		120m	12	5.0	90	3.5			0 7	15 RHY	Z16	ML60				
42#	M252D1AA	RYG	480	8	SS	MPG		120m	12	5.0	90	3.5			0 7	15 RHY	Z16	ML158				
43	MCM6550L	RYG	7168	1	SC	MNM	1.0m*	500m	0.0	5.0	60	3.0	2.0m	40	0 7		Z5	ML189				
44	MCM6550P	RYG	7168	1	SC	MNM	1.0m*	500m	0.0	5.0	60	3.0	2.0m	40	0 7		Z5	ML190				
45	S8771#1	SCN	512\$	10	SS	MPI	450nt	1.0	12	5.0	60	4.0			0 6		B109	ML13b				
46	S8771A	SCN	512	10	SS	MPI	450n	1.0	12	5.0	60	4.0			0 6		B109a	ML13b				
47	S8771#2	SCN	1024\$	5	SS	MPI	450nt	1.0	12	5.0	60	4.0			0 6		B109	ML13b				
48	MM4220BMJ	SIN	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#			5 C		Z19	ML133a				
49	MM5220BMJ	SIN	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#			0 7		Z19	ML133a				
50	MM5220BMN	SIN	128	8	SS	MPX	650nØ	300mØ	12	12	10*	4.0#			0 7		Z19	ML183				
51	MM4232AEJ	SIN	512	8	SS	MPX	1.0uØ	629mØ	12	5.0	1.0	3.0\$	1.6m	40	5 C		Z20	ML133a				
52	MM5232AEJ	SIN	512	8	SS	MPX	1.0uØ	629mØ	12	5.0	1.0	3.0\$	1.6m	40	0 7		Z20	ML133a				
53	MM5232AEIN	SIN	512	8	SS	MPX	1.0uØ	629mØ	12	5.0	1.0	3.0\$	1.6m	40	0 7		Z20	ML183				
54	EA4079	SIN	512	10	SC	MPX	725n	205m	12	12	10	3.0			5 8		B38	ML41				
55	EA3801	SIN	1024	12	DC	MPX	2.5u	350m	12	12	-2.0	-10			0 7		B93	ML‡				
56▼	NC7035	SYS	16	18	SE	MPX	1.8m	360m	18	0.0	-7.0	-1.0	500u	-1.0	2 8	Non-VOL	Z27	ML‡				
57▼	NC7033	SYS	21	16	SE	MPN	10u	420m	30	0.0	-4.6	-80	500u	-1.0	0 7	Non-VOL	Z26	ML‡				

21. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER
SEQUENCE

TYPE No.	MFRS	MILM-38510/	TYPE No.	MFRS	MILM-38510/	TYPE No.	MFRS	MILM-38510/	TYPE No.	MFRS	MILM-38510/	TYPE No.	MFRS	MILM-38510/
M38510/00901AAA	9C none	AMEND 3	M38510/00902AEA	9C none	AMEND 3	M38510/00903BCB	9C SIC	AMEND 3	M38510/00905AEC	9C none	AMEND 3	M38510/02801AAB	28B AMEND 2	AMEND 3
M38510/00901AAB	9C none	AMEND 3	M38510/00902AEB	9C none	AMEND 3	M38510/00903BCC	9C none	AMEND 3	M38510/00905AFA	9C none	AMEND 3	M38510/02801AAC	28B AMEND 2	USAF 28B AMEND 2
M38510/00901AAC	9C none	AMEND 3	M38510/00902AEC	9C none	AMEND 3	M38510/00903BDA	9C none	AMEND 3	M38510/00905AFB	9C none	AMEND 3	M38510/02801ABA	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ABA	9C none	AMEND 3	M38510/00902AFA	9C none	AMEND 3	M38510/00903BDB	9C none	AMEND 3	M38510/00905AFC	9C none	AMEND 3	M38510/02801ABB	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ABB	9C none	AMEND 3	M38510/00902AFB	9C none	AMEND 3	M38510/00903BDC	9C none	AMEND 3	M38510/00905BEA	9C MOTA	AMEND 3	M38510/02801ABC	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ABC	9C none	AMEND 3	M38510/00902AFC	9C none	AMEND 3	M38510/00903CAA	9C none	AMEND 3	M38510/00905BEB	9C MOTA	AMEND 3	M38510/02801ABD	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ACA	9C none	AMEND 3	M38510/00902BEA	9C MOTA SIC	AMEND 3	M38510/00903CAB	9C none	AMEND 3	M38510/00905BEC	9C none	AMEND 3	M38510/02801ACE	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ACB	9C none	AMEND 3	M38510/00902BEB	9C MOTA SIC	AMEND 3	M38510/00903CAC	9C none	AMEND 3	M38510/00905BFA	9C MOTA	AMEND 3	M38510/02801ACF	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ACC	9C none	AMEND 3	M38510/00902BEC	9C none	AMEND 3	M38510/00903CBA	9C none	AMEND 3	M38510/00905BFB	9C MOTA	AMEND 3	M38510/02801ACG	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ADA	9C none	AMEND 3	M38510/00902BFA	9C MOTA SIC	AMEND 3	M38510/00903CBB	9C none	AMEND 3	M38510/00905BFC	9C none	AMEND 3	M38510/02801ACH	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ADB	9C none	AMEND 3	M38510/00902BFB	9C MOTA SIC	AMEND 3	M38510/00903CBC	9C none	AMEND 3	M38510/00905CEA	9C MOTA	AMEND 3	M38510/02801ADI	28B AMEND 2	USAF 28B AMEND 2
M38510/00901ADC	9C none	AMEND 3	M38510/00902BFC	9C none	AMEND 3	M38510/00903CCA	9C SIC	AMEND 3	M38510/00905CEB	9C MOTA	AMEND 3	M38510/02801ADJ	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BAA	9C MOTA	AMEND 3	M38510/00902CEA	9C MOTA SIC	AMEND 3	M38510/00903CCB	9C SIC	AMEND 3	M38510/00905CEC	9C none	AMEND 3	M38510/02801ADK	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BAB	9C MOTA	AMEND 3	M38510/00902CEB	9C MOTA SIC	AMEND 3	M38510/00903CCC	9C none	AMEND 3	M38510/00905CEC	9C none	AMEND 3	M38510/02801ADL	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BAC	9C MOTA	AMEND 3	M38510/00902CEC	9C none	AMEND 3	M38510/00903CDA	9C none	AMEND 3	M38510/00905CEC	9C MOTA	AMEND 3	M38510/02801ADM	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BBA	9C none	AMEND 3	M38510/00902CFA	9C MOTA SIC	AMEND 3	M38510/00903CDB	9C none	AMEND 3	M38510/00905CFB	9C MOTA	AMEND 3	M38510/02801ADN	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BBB	9C none	AMEND 3	M38510/00902CFB	9C MOTA SIC	AMEND 3	M38510/00903CDC	9C none	AMEND 3	M38510/00905CFC	9C none	AMEND 3	M38510/02801ADP	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BBC	9C none	AMEND 3	M38510/00902CFC	9C none	AMEND 3	M38510/00904AEA	9C none	AMEND 3	M38510/00906AEA	9C none	AMEND 3	M38510/02801ADQ	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BCA	9C MOTA SIC	AMEND 3	M38510/00903AAA	9C none	AMEND 3	M38510/00904AEB	9C none	AMEND 3	M38510/00906AEB	9C none	AMEND 3	M38510/02801ADA	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BCB	9C MOTA SIC	AMEND 3	M38510/00903AAB	9C none	AMEND 3	M38510/00904AEC	9C none	AMEND 3	M38510/00906AEC	9C none	AMEND 3	M38510/02801ADB	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BCC	9C none	AMEND 3	M38510/00903AAC	9C none	AMEND 3	M38510/00904AFA	9C none	AMEND 3	M38510/00906AFA	9C none	AMEND 3	M38510/02801ADC	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BDA	9C none	AMEND 3	M38510/00903ABA	9C none	AMEND 3	M38510/00904AFB	9C none	AMEND 3	M38510/00906AFB	9C none	AMEND 3	M38510/02801ADE	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BDB	9C none	AMEND 3	M38510/00903ABB	9C none	AMEND 3	M38510/00904AFC	9C none	AMEND 3	M38510/00906AFC	9C none	AMEND 3	M38510/02801ADF	28B AMEND 2	USAF 28B AMEND 2
M38510/00901BDC	9C none	AMEND 3	M38510/00903ABC	9C none	AMEND 3	M38510/00904AFC	9C none	AMEND 3	M38510/00906AFC	9C none	AMEND 3	M38510/02801ADG	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CAA	9C MOTA	AMEND 3	M38510/00903ACA	9C none	AMEND 3	M38510/00904BEA	9C MOTA	AMEND 3	M38510/00906BEA	9C MOTA	AMEND 3	M38510/02801ADH	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CAB	9C MOTA	AMEND 3	M38510/00903ACB	9C none	AMEND 3	M38510/00904BEB	9C MOTA	AMEND 3	M38510/00906BEB	9C MOTA	AMEND 3	M38510/02801ADI	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CAC	9C MOTA	AMEND 3	M38510/00903ACC	9C none	AMEND 3	M38510/00904BEC	9C none	AMEND 3	M38510/00906BEC	9C none	AMEND 3	M38510/02801ADJ	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CBA	9C none	AMEND 3	M38510/00903ACC	9C none	AMEND 3	M38510/00904BFA	9C MOTA	AMEND 3	M38510/00906BFA	9C MOTA	AMEND 3	M38510/02801ADK	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CBB	9C none	AMEND 3	M38510/00903ADA	9C none	AMEND 3	M38510/00904BFB	9C MOTA	AMEND 3	M38510/00906BFB	9C MOTA	AMEND 3	M38510/02801ADL	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CBB	9C none	AMEND 3	M38510/00903ADB	9C none	AMEND 3	M38510/00904BFC	9C none	AMEND 3	M38510/00906BFC	9C none	AMEND 3	M38510/02801ADM	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CBC	9C none	AMEND 3	M38510/00903ADC	9C none	AMEND 3	M38510/00904CEA	9C MOTA	AMEND 3	M38510/00906CEA	9C MOTA	AMEND 3	M38510/02801ADN	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CCA	9C MOTA SIC	AMEND 3	M38510/00903BAA	9C none	AMEND 3	M38510/00904CEB	9C MOTA	AMEND 3	M38510/00906CEB	9C MOTA	AMEND 3	M38510/02801ADP	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CCB	9C MOTA SIC	AMEND 3	M38510/00903BAB	9C none	AMEND 3	M38510/00904CEC	9C none	AMEND 3	M38510/00906CEC	9C none	AMEND 3	M38510/02801ADQ	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CCC	9C none	AMEND 3	M38510/00903BAC	9C none	AMEND 3	M38510/00904CFA	9C MOTA	AMEND 3	M38510/00906CFA	9C MOTA	AMEND 3	M38510/02801ADR	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CDA	9C none	AMEND 3	M38510/00903BBA	9C none	AMEND 3	M38510/00904CFB	9C MOTA	AMEND 3	M38510/00906CFB	9C MOTA	AMEND 3	M38510/02801ADS	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CDB	9C none	AMEND 3	M38510/00903BBB	9C none	AMEND 3	M38510/00904CFC	9C none	AMEND 3	M38510/00906CFC	9C none	AMEND 3	M38510/02801ADT	28B AMEND 2	USAF 28B AMEND 2
M38510/00901CDC	9C none	AMEND 3	M38510/00903BBC	9C none	AMEND 3	M38510/00905AEA	9C none	AMEND 3	M38510/02801AAA	28B AMEND 2	USAF 28B AMEND 2	M38510/02801CAC	28B AMEND 2	USAF 28B AMEND 2
M38510/00901STD	9C none	AMEND 3	M38510/00903BCA	9C SIC	AMEND 3	M38510/00905AEB	9C none	AMEND 3						USAF

21. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/
M38510/02801CBA	none	28B AMEND 2	M38510/02802BBB	none	28B AMEND 2	M38510/02803BEA	none	28B AMEND 2	M38510/02804CFB	none	28B AMEND 2	M38510/02805CAC	none	28B AMEND 2
M38510/02801CBB	none	USAF 28B AMEND 2	M38510/02802BBC	none	USAF 28B AMEND 2	M38510/02803BEB	none	USAF 28B AMEND 2	M38510/02804CFC	none	USAF 28B AMEND 2	M38510/02805CBA	none	USAF 28B AMEND 2
M38510/02801CBC	none	USAF 28B AMEND 2	M38510/02802BCA	none	USAF 28B AMEND 2	M38510/02803BEC	none	USAF 28B AMEND 2	M38510/02805AAA	none	USAF 28B AMEND 2	M38510/02805CBB	none	USAF 28B AMEND 2
M38510/02801CCA	NSC	USAF 28B AMEND 2	M38510/02802BCB	none	USAF 28B AMEND 2	M38510/02803BFA	none	USAF 28B AMEND 2	M38510/02805AAB	none	USAF 28B AMEND 2	M38510/02805CBC	none	USAF 28B AMEND 2
M38510/02801CCB	NSC	USAF 28B AMEND 2	M38510/02802BCC	none	USAF 28B AMEND 2	M38510/02803BFB	none	USAF 28B AMEND 2	M38510/02805AAC	none	USAF 28B AMEND 2	M38510/02805CCA	none	USAF 28B AMEND 2
M38510/02801CCC	NSC	USAF 28B AMEND 2	M38510/02802BDA	none	USAF 28B AMEND 2	M38510/02803BFC	none	USAF 28B AMEND 2	M38510/02805ABA	none	USAF 28B AMEND 2	M38510/02805CCB	none	USAF 28B AMEND 2
M38510/02801CDA	NSC	USAF 28B AMEND 2	M38510/02802BDB	none	USAF 28B AMEND 2	M38510/02803CEA	none	USAF 28B AMEND 2	M38510/02805ABB	none	USAF 28B AMEND 2	M38510/02805CCC	none	USAF 28B AMEND 2
M38510/02801CDB	NSC	USAF 28B AMEND 2	M38510/02802BDC	none	USAF 28B AMEND 2	M38510/02803CEB	none	USAF 28B AMEND 2	M38510/02805ABC	none	USAF 28B AMEND 2	M38510/02805CDA	none	USAF 28B AMEND 2
M38510/02801CDC	NSC	USAF 28B AMEND 2	M38510/02802CAA	none	USAF 28B AMEND 2	M38510/02803CEC	none	USAF 28B AMEND 2	M38510/02805ACA	none	USAF 28B AMEND 2	M38510/02805CDB	none	USAF 28B AMEND 2
M38510/02801STD	none	USAF 28B AMEND 2	M38510/02802CAB	none	USAF 28B AMEND 2	M38510/02803CFA	none	USAF 28B AMEND 2	M38510/02805ACB	none	USAF 28B AMEND 2	M38510/02805CDC	none	USAF 28B AMEND 2
M38510/02802AAA	none	USAF 28B AMEND 2	M38510/02802CAC	none	USAF 28B AMEND 2	M38510/02803CFB	none	USAF 28B AMEND 2	M38510/02805ACC	none	USAF 28B AMEND 2	M38510/02806STD	none	USAF 28B AMEND 2
M38510/02802AAB	none	USAF 28B AMEND 2	M38510/02802CBA	none	USAF 28B AMEND 2	M38510/02803CFC	none	USAF 28B AMEND 2	M38510/02805ADA	none	USAF 28B AMEND 2	M38510/05701AAA	none	USAF 28B AMEND 2
M38510/02802AAC	none	USAF 28B AMEND 2	M38510/02802CBB	none	USAF 28B AMEND 2	M38510/02804AEA	none	USAF 28B AMEND 2	M38510/02805ADB	none	USAF 28B AMEND 2	M38510/05701AAB	none	USAF 28B AMEND 2
M38510/02802ABA	none	USAF 28B AMEND 2	M38510/02802CBB	none	USAF 28B AMEND 2	M38510/02804AEB	none	USAF 28B AMEND 2	M38510/02805ADC	none	USAF 28B AMEND 2	M38510/05701AAC	none	USAF 28B AMEND 2
M38510/02802ABB	none	USAF 28B AMEND 2	M38510/02802CCA	none	USAF 28B AMEND 2	M38510/02804AEC	none	USAF 28B AMEND 2	M38510/02805BAA	none	USAF 28B AMEND 2	M38510/05701ACA	none	USAF 28B AMEND 2
M38510/02802ABC	none	USAF 28B AMEND 2	M38510/02802CDB	none	USAF 28B AMEND 2	M38510/02804AFA	none	USAF 28B AMEND 2	M38510/02805BAB	none	USAF 28B AMEND 2	M38510/05701ACB	none	USAF 28B AMEND 2
M38510/02802ACA	none	USAF 28B AMEND 2	M38510/02802CCB	none	USAF 28B AMEND 2	M38510/02804AFB	none	USAF 28B AMEND 2	M38510/02805BAC	none	USAF 28B AMEND 2	M38510/05701ACC	none	USAF 28B AMEND 2
M38510/02802ACB	none	USAF 28B AMEND 2	M38510/02802CDA	none	USAF 28B AMEND 2	M38510/02804AFC	none	USAF 28B AMEND 2	M38510/02805BBA	none	USAF 28B AMEND 2	M38510/05701ADA	none	USAF 28B AMEND 2
M38510/02802ACB	none	USAF 28B AMEND 2	M38510/02802CDB	none	USAF 28B AMEND 2	M38510/02804BEA	none	USAF 28B AMEND 2	M38510/02805BAB	none	USAF 28B AMEND 2	M38510/05701ADB	none	USAF 28B AMEND 2
M38510/02802ACC	none	USAF 28B AMEND 2	M38510/02802CDC	none	USAF 28B AMEND 2	M38510/02804BEB	none	USAF 28B AMEND 2	M38510/02805BAC	none	USAF 28B AMEND 2	M38510/05701ADC	none	USAF 28B AMEND 2
M38510/02802ADA	none	USAF 28B AMEND 2	M38510/02802STD	none	USAF 28B AMEND 2	M38510/02804BEC	none	USAF 28B AMEND 2	M38510/02805BBA	none	USAF 28B AMEND 2	M38510/05701BAA	none	USAF 28B AMEND 2
M38510/02802ADB	none	USAF 28B AMEND 2	M38510/02803AEA	none	USAF 28B AMEND 2	M38510/02804BFA	none	USAF 28B AMEND 2	M38510/02805BBB	none	USAF 28B AMEND 2	M38510/05701BAB	none	USAF 28B AMEND 2
M38510/02802ADC	none	USAF 28B AMEND 2	M38510/02803AEB	none	USAF 28B AMEND 2	M38510/02804BFB	none	USAF 28B AMEND 2	M38510/02805BBC	none	USAF 28B AMEND 2	M38510/05701BAC	none	USAF 28B AMEND 2
M38510/02802BAA	none	USAF 28B AMEND 2	M38510/02803AEC	none	USAF 28B AMEND 2	M38510/02804BFC	none	USAF 28B AMEND 2	M38510/02805BCA	none	USAF 28B AMEND 2	M38510/05701BCA	NSC	USAF 28B AMEND 2
M38510/02802BAB	none	USAF 28B AMEND 2	M38510/02803AFA	none	USAF 28B AMEND 2	M38510/02804CEA	none	USAF 28B AMEND 2	M38510/02805BCB	none	USAF 28B AMEND 2	M38510/05701BCB	NSC	USAF 28B AMEND 2
M38510/02802BAC	none	USAF 28B AMEND 2	M38510/02803AFB	none	USAF 28B AMEND 2	M38510/02804CEB	none	USAF 28B AMEND 2	M38510/02805BCC	none	USAF 28B AMEND 2	M38510/05701BCD	NSC	USAF 28B AMEND 2
M38510/02802BBA	none	USAF 28B AMEND 2	M38510/02803AFC	none	USAF 28B AMEND 2	M38510/02804CEC	none	USAF 28B AMEND 2	M38510/02805BDA	none	USAF 28B AMEND 2	M38510/05701BAA	NSC	USAF 28B AMEND 2
		USAF			USAF	M38510/02804CFA	none	USAF	M38510/02805CAB	none	USAF	M38510/05701CDB	NSC	USAF 28B AMEND 2
												M38510/05702AEA	RCA	USAF 28B AMEND 2

21. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER
SEQUENCE

TYPE No.	MFRS	MIL-M-38510/	TYPE No.	MFRS	MIL-M-38510/	TYPE No.	MFRS	MIL-M-38510/	TYPE No.	MFRS	MIL-M-38510/	TYPE No.	MFRS	MIL-M-38510/
M38510/05702AEB	none	57A 1	M38510/05705AFA	none	57A 1	M38510/07602AFA	none	76	M38510/20101AJC	none	201	M38510/20101CZA	none	201
M38510/05702AEC	none	57A 1	M38510/05705AFB	none	57A 1	M38510/07602AFB	none	76		AMEND	1		AMEND	1
M38510/05702AFA	none	57A 1	M38510/05705AFC	none	57A 1	M38510/07602AFC	none	76		USAF	201	M38510/20101CZB	none	201
M38510/05702AFB	none	57A 1	M38510/05705BEA	NSC	57A 1	M38510/07602BEA	none	76	M38510/20101AKA	none	201		AMEND	1
M38510/05702AFC	none	57A 1	M38510/05705BEB	RCA	57A 1	M38510/07602BEB	none	76		AMEND	1		AMEND	1
M38510/05702BEA	RCA	57A 1	M38510/05705BEC	NSC	57A 1	M38510/07602BEC	none	76	M38510/20101AKB	none	201	M38510/20101CZC	none	201
M38510/05702BEB	NSC	57A 1	M38510/05705BFA	NSC	57A 1	M38510/07602BFA	none	76		AMEND	1		AMEND	1
M38510/05702BEC	NSC	57A 1	M38510/05705BFB	RCA	57A 1	M38510/07602BFB	none	76	M38510/20101AKC	none	201	M38510/20102AJA	none	201
M38510/05702BFA	NSC	57A 1	M38510/05705BFC	NSC	57A 1	M38510/07602BFC	none	76		AMEND	1		AMEND	1
M38510/05702BFB	NSC	57A 1	M38510/05705BFC	NSC	57A 1	M38510/07602CEA	none	76	M38510/20101AZA	none	201	M38510/20102AJB	none	201
M38510/05702BFC	NSC	57A 1	M38510/05705CEA	NSC	57A 1	M38510/07602CEB	none	76		AMEND	1		AMEND	1
M38510/05702CEA	RCA	57A 1	M38510/05705CEB	RCA	57A 1	M38510/07602CEC	none	76	M38510/20101AZB	none	201	M38510/20102AJC	none	201
M38510/05702CEB	NSC	57A 1	M38510/05705CEC	NSC	57A 1	M38510/07602CFA	none	76		AMEND	1		AMEND	1
M38510/05702CEC	NSC	57A 1	M38510/05705CFA	RCA	57A 1	M38510/07602CFB	none	76	M38510/20101AZC	none	201	M38510/20102AKA	none	201
M38510/05702CFA	NSC	57A 1	M38510/05705CFB	RCA	57A 1	M38510/07602CFC	none	76		AMEND	1		AMEND	1
M38510/05702CFB	NSC	57A 1	M38510/15901AEA	NSC	57A 1	M38510/15901AEB	none	159A 2	M38510/20101BJA	none	201	M38510/20102AKB	none	201
M38510/05702CFC	NSC	57A 1	M38510/15901AEB	NSC	57A 1	M38510/15901AEC	none	159A 2		AMEND	1		AMEND	1
M38510/05703AEA	RCA	57A 1	M38510/15901AEC	NSC	57A 1	M38510/15901AFA	none	159A 2	M38510/20101BJB	none	201	M38510/20102AKC	none	201
M38510/05703AEB	none	57A 1	M38510/15901AFA	NSC	57A 1	M38510/15901AFB	none	159A 2		AMEND	1		AMEND	1
M38510/05703AEC	none	57A 1	M38510/15901AFB	NSC	57A 1	M38510/15901AFC	none	159A 2	M38510/20101BJC	HAS	201	M38510/20102AZA	none	201
M38510/05703AFA	none	57A 1	M38510/15901AFC	NSC	57A 1	M38510/15901AEB	none	159A 2		AMEND	1		AMEND	1
M38510/05703AFB	none	57A 1	M38510/15901AEB	NSC	57A 1	M38510/15901BEB	none	159A 2	M38510/20101BJD	none	201	M38510/20102AZB	none	201
M38510/05703AFC	none	57A 1	M38510/15901BEB	NSC	57A 1	M38510/15901BEC	none	159A 2		AMEND	1		AMEND	1
M38510/05703BEA	RCA	57A 1	M38510/15901BEC	NSC	57A 1	M38510/15901BFA	none	159A 2	M38510/20101BKA	none	201	M38510/20102AZC	none	201
M38510/05703BEB	NSC	57A 1	M38510/15901BFA	NSC	57A 1	M38510/15901BFB	none	159A 2		AMEND	1		AMEND	1
M38510/05703BEC	NSC	57A 1	M38510/15901BFB	NSC	57A 1	M38510/15901BFC	none	159A 2	M38510/20101BKB	none	201	M38510/20102BJA	none	201
M38510/05703BFA	NSC	57A 1	M38510/15901BFC	NSC	57A 1	M38510/15901CEA	none	159A 2		AMEND	1		AMEND	1
M38510/05703BFB	NSC	57A 1	M38510/15901CEA	NSC	57A 1	M38510/15901CEB	none	159A 2	M38510/20101BKC	none	201	M38510/20102BJB	none	201
M38510/05703BFC	NSC	57A 1	M38510/15901CEB	NSC	57A 1	M38510/15901CEC	none	159A 2		AMEND	1		AMEND	1
M38510/05703CEA	RCA	57A 1	M38510/15901CEC	NSC	57A 1	M38510/15901CFA	none	159A 2	M38510/20101BKD	none	201	M38510/20102BJC	none	201
M38510/05703CEB	NSC	57A 1	M38510/15901CFA	NSC	57A 1	M38510/15901CFB	none	159A 2		AMEND	1		AMEND	1
M38510/05703CEC	NSC	57A 1	M38510/15901CFB	NSC	57A 1	M38510/15901CFB	none	159A 2	M38510/20101BZA	none	201	M38510/20102BKA	none	201
M38510/05703CFA	NSC	57A 1	M38510/15901CFB	NSC	57A 1	M38510/15902AEA	none	159A 2		AMEND	1		AMEND	1
M38510/05703CFB	NSC	57A 1	M38510/15902AEA	NSC	57A 1	M38510/15902AEB	none	159A 2	M38510/20101BZB	none	201	M38510/20102BKB	none	201
M38510/05703CFC	NSC	57A 1	M38510/15902AEB	NSC	57A 1	M38510/15902AEC	none	159A 2		AMEND	1		AMEND	1
M38510/05704AEA	RCA	57A 1	M38510/15902AEC	NSC	57A 1	M38510/15902AFA	none	159A 2	M38510/20101BZC	none	201	M38510/20102BKC	none	201
M38510/05704AEB	none	57A 1	M38510/15902AFA	NSC	57A 1	M38510/15902AFB	none	159A 2		AMEND	1		AMEND	1
M38510/05704AEC	none	57A 1	M38510/15902AFB	NSC	57A 1	M38510/15902AFC	none	159A 2	M38510/20101BZD	none	201	M38510/20102BZA	none	201
M38510/05704AFA	RCA	57A 1	M38510/15902AFC	NSC	57A 1	M38510/15902BEA	none	159A 2		AMEND	1		AMEND	1
M38510/05704AFB	none	57A 1	M38510/15902BEA	NSC	57A 1	M38510/15902BEB	none	159A 2	M38510/20101CJA	none	201	M38510/20102BZB	none	201
M38510/05704AFC	none	57A 1	M38510/15902BEB	NSC	57A 1	M38510/15902BEC	none	159A 2		AMEND	1		AMEND	1
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M38510/05704BEB	NSC	57A 1	M38510/15902BFA	NSC	57A 1	M38510/15902BFB	none	159A 2		AMEND	1		AMEND	1
M38510/05704BEC	NSC	57A 1	M38510/15902BFB	NSC	57A 1	M38510/15902BFC	none	159A 2	M38510/20101CJC	HAS	201	M38510/20102BZD	none	201
M38510/05704BFA	NSC	57A 1	M38510/15902BFC	NSC	57A 1	M38510/15902CEA	none	159A 2		AMEND	1		AMEND	1
M38510/05704BFB	NSC	57A 1	M38510/15902CEA	NSC	57A 1	M38510/15902CEB	none	159A 2	M38510/20101CKA	none	201	M38510/20102CJA	none	201
M38510/05704BFC	NSC	57A 1	M38510/15902CEB	NSC	57A 1	M38510/15902CEC	none	159A 2		AMEND	1		AMEND	1
M38510/05704CEA	RCA	57A 1	M38510/15902CEC	NSC	57A 1	M38510/15902CFA	none	159A 2	M38510/20101CKB	none	201	M38510/20102CJB	none	201
M38510/05704CEB	NSC	57A 1	M38510/15902CFA	NSC	57A 1	M38510/15902CFB	none	159A 2		AMEND	1		AMEND	1
M38510/05704CEC	NSC	57A 1	M38510/15902CFB	NSC	57A 1	M38510/15902CFC	none	159A 2	M38510/20101CKC	none	201	M38510/20102CJC	none	201
M38510/05704CFA	NSC	57A 1	M38510/15902CFC	NSC	57A 1	M38510/20101AJA	none	201		AMEND	1		AMEND	1
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M38510/05704CFC	NSC	57A 1	M38510/20101AJB	NSC	57A 1					AMEND	1		AMEND	1
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M38510/05705AEB	none	57A 1		NSC	57A 1					AMEND	1		AMEND	1
M38510/05705AEC	none	57A 1		NSC	57A 1				M38510/20101CKF	none	201	M38510/20102CKC	none	201
				NSC	57A 1					AMEND	1		AMEND	1

21. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER
SEQUENCE

TYPE No.	MFRS	MILM-38510/
M38510/30606AAB	none	306 USAF
M38510/30606AAC	none	306 USAF
M38510/30606ABA	none	306 USAF
M38510/30606ABB	none	306 USAF
M38510/30606ABC	none	306 USAF
M38510/30606ACA	none	306 USAF
M38510/30606ACB	none	306 USAF
M38510/30606ACC	none	306 USAF
M38510/30606ADA	none	306 USAF
M38510/30606ADB	none	306 USAF
M38510/30606ADC	none	306 USAF
M38510/30606BAA	none	306 USAF
M38510/30606BAB	none	306 USAF
M38510/30606BAC	none	306 USAF
M38510/30606BBA	none	306 USAF
M38510/30606BBB	none	306 USAF
M38510/30606BBC	none	306 USAF
M38510/30606BCA	none	306 USAF
M38510/30606BCB	none	306 USAF
M38510/30606BCC	none	306 USAF
M38510/30606BDA	none	306 USAF
M38510/30606BDB	none	306 USAF
M38510/30606BDC	none	306 USAF
M38510/30606CAA	none	306 USAF
M38510/30606CAB	none	306 USAF
M38510/30606CAC	none	306 USAF
M38510/30606CBA	none	306 USAF
M38510/30606CBB	none	306 USAF
M38510/30606CBC	none	306 USAF
M38510/30606CCA	none	306 USAF
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M38510/30607CEA	none	306 USAF
M38510/30607CEB	none	306 USAF
M38510/30607CEC	none	306 USAF
M38510/30607CFA	none	306 USAF
M38510/30607CFB	none	306 USAF
M38510/30607CFC	none	306 USAF

MILITARY DOCUMENTS

Department of Defense Index of Specifications and Standards dated 1 July 1976, Supplement dated November 1976.

Device Manufacturers Qualifications on Test Reference Letter.

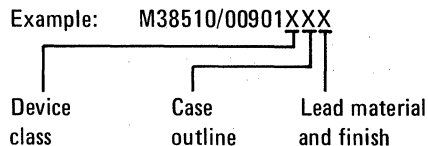
MIL-M-0038510B (USAF) Military Specification, General Specification for Microcircuits, dated 1 October 1973, Supplement 1B, dated 3 May 1976, used in lieu of MIL-M-38510C, Military Specification, dated 1 March 1976, Supplement 1B, dated 10 December 1976.

QPL-38510-28 Qualified Products List (Part I) of Products Qualified Under Military Specification MIL-M-38510, dated 1 April 1977. Qualified Products List (Part II) of Products Qualified Under Military Specification MIL-M-38510, dated 1 April 1977, Amendment, dated 4 April 1977. products. Therefore, manufacturers listed on QPL-38510 shall "JAN" mark and ship the specific part numbered devices for which they are listed, providing all required quality conformance inspections have been successfully completed. They have not been subjected to all the tests required for qualification under the latest effective issue of MIL-M-38510; however, the manufacturers have performed sufficient similar tests to indicate that the products have the potential of complying with the MIL-M-38510 requirements.

MIL-STD-833A Military Standard; Test Methods and Procedures for Microelectronics, dated 15 November 1974, Notice 2, dated 1 March 1976.

MIL-STD-1562 Military Standard; List of Standard Microcircuits, dated 5 November 1974.

NOTE: The 3-letter suffix at the end of the type number represents device class (degree of quality assurance testing), case outline and lead material finish as shown below:



21A. COMMERCIAL-TO-MILITARY TYPE NUMBER CROSS-REFERENCE

COMMERCIAL TYPE No.	MILITARY TYPE No.
4006A	M38510/20101----
4014A	M38510/20201----
4015A	M38510/20202----
4021A	M38510/20101----
4031A	M38510/20102----
4034A	M38510/05701----
4035A	M38510/05702----
54L91	M38510/05703----
54L95	M38510/05704----
54L164	M38510/05705----
54LS95	M38510/05706----
54LS96	M38510/05707----
54LS164	M38510/02806----
54LS194	M38510/02801----
54LS195	M38510/02802----
54LS295	M38510/30603----
54LS395	M38510/30604----
5495	M38510/30605----
5496	M38510/30601----
54164	M38510/30602----
54165	M38510/30606----
54194	M38510/30607----
54195	M38510/00901----
76L70	M38510/00902----
93L00	M38510/00903----
93L28	M38510/00904----
HYPROM 512	M38510/00905----
IM5603A	M38510/00906----
IM5623	M38510/02805----
MCM5303	M38510/02804----
MCM5304	M38510/02803----

22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

DRAWING PREFIX ASSIGNMENTS

LOGIC/BLOCK DRAWINGS

- A: RAMs
- B: ROMs
- C: Character Generators
- E: Code Converters
- F: Shift Registers
- Z: Miscellaneous

OUTLINE DRAWINGS

- CH: Chip
- CY: TO-5 type (non-JEDEC)
- FL: Flat package (non-JEDEC)
- ML: Molded or encapsulated package not included in other categories
- MO: Standard JEDEC outline
- PL: Printed circuit board
- TO: Standard JEDEC outline
- : Package style only shown; no dimensions.

NOTES

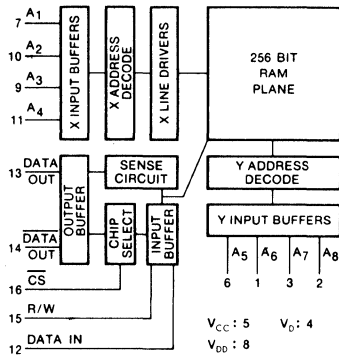
These outline drawings are intended as a guide for the user. They should not be used for construction purposes without first checking with the appropriate manufacturer.

These drawings are referenced in the Technical Sections of this D.A.T.A.BOOK in accordance with information supplied by the manufacturers.

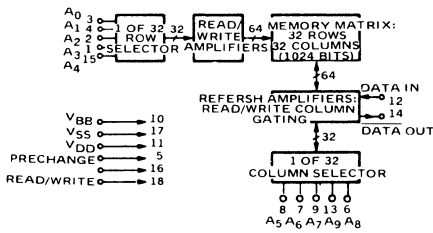
The DO and TO drawings have been reproduced from JEDEC Registration Data Files with the permission of the National Electrical Manufacturer's Association - Electronic Industries Association. JEDEC designations are assigned only to outlines submitted by the JC-11 Committee on Mechanical Standardization. The procedure of assigning and announcing the JEDEC designation constitutes registration.

All drawings have circular symmetry unless otherwise indicated.

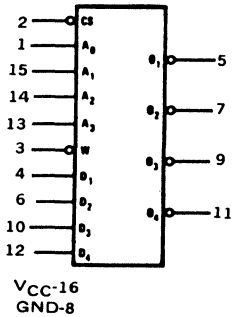
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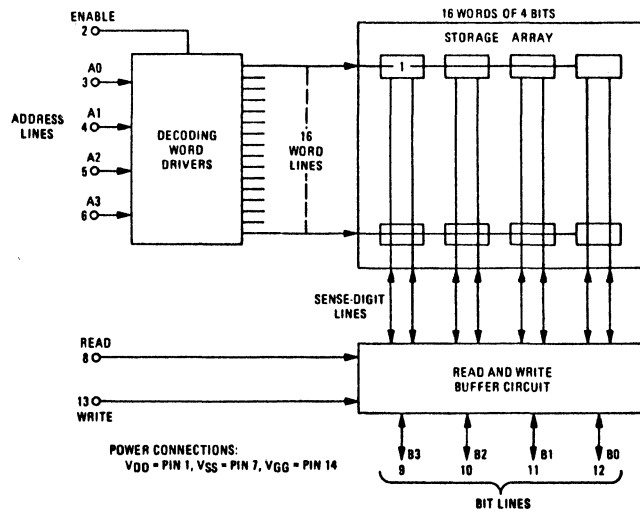
A2



A4



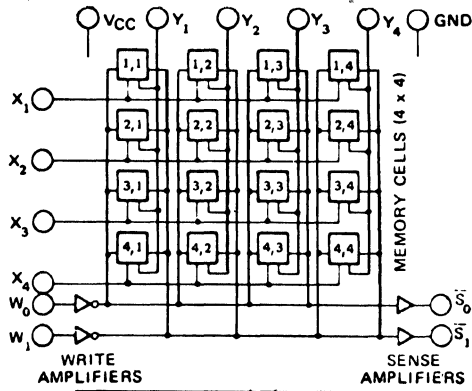
A8



22. LOGIC/BLOCK DRAWINGS

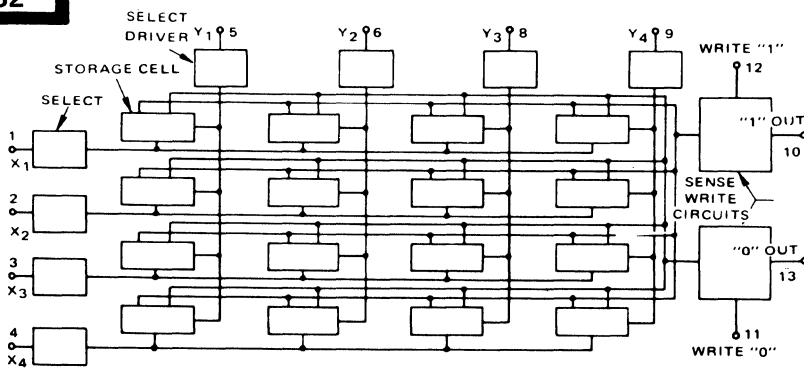
IN DRAWING NUMBER
SEQUENCE

A27

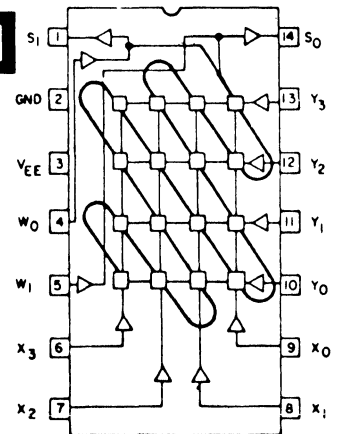


	X1	X2	X3	X4	Y1	Y2	Y3	Y4	S1	S0	W1	W0	VCC	GND
A27	3	2	1	14	5	6	7	8	12	11	13	9	4	10
A27a	1	2	3	4	13	12	11	10	6	8	5	9	14	7

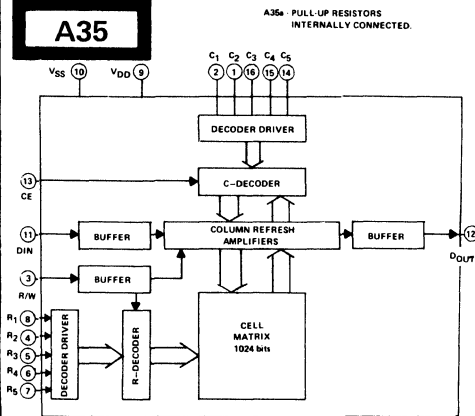
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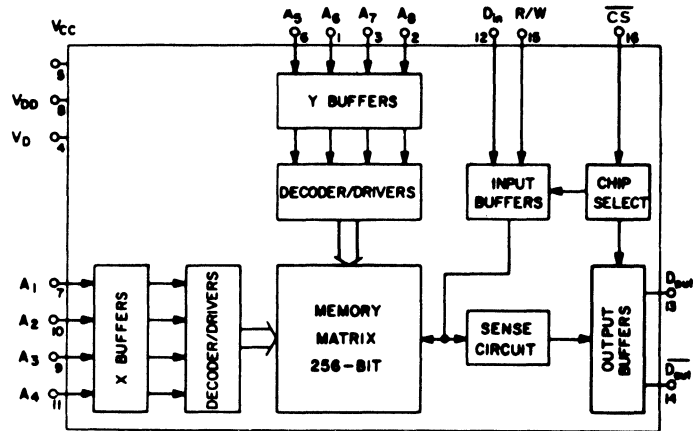
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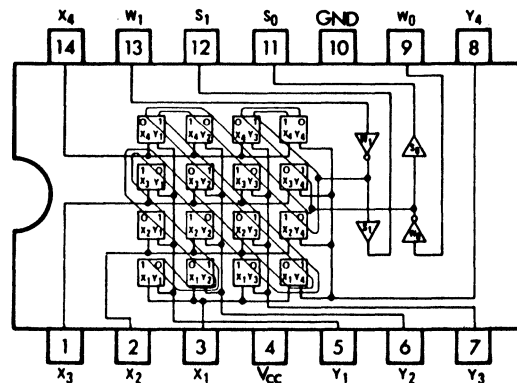
A35



A36

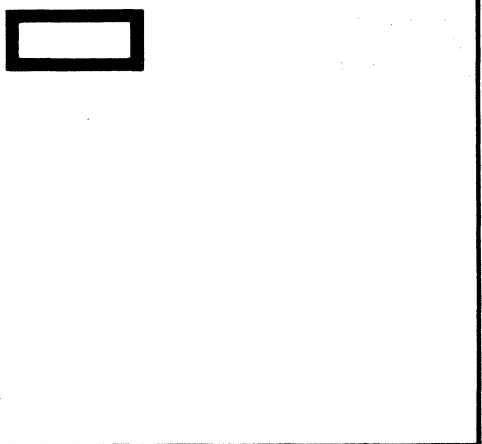
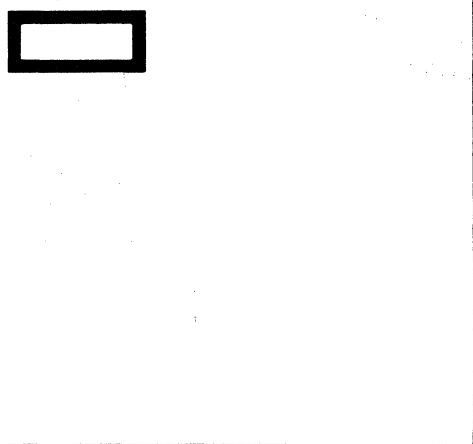
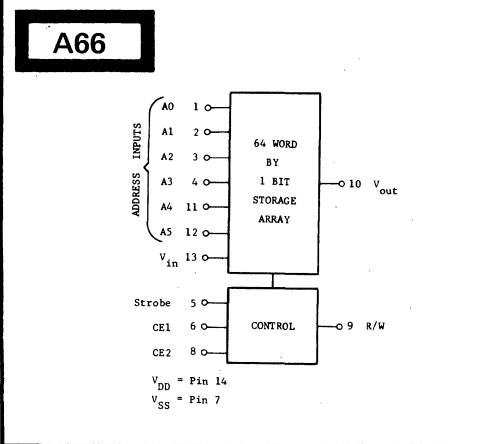
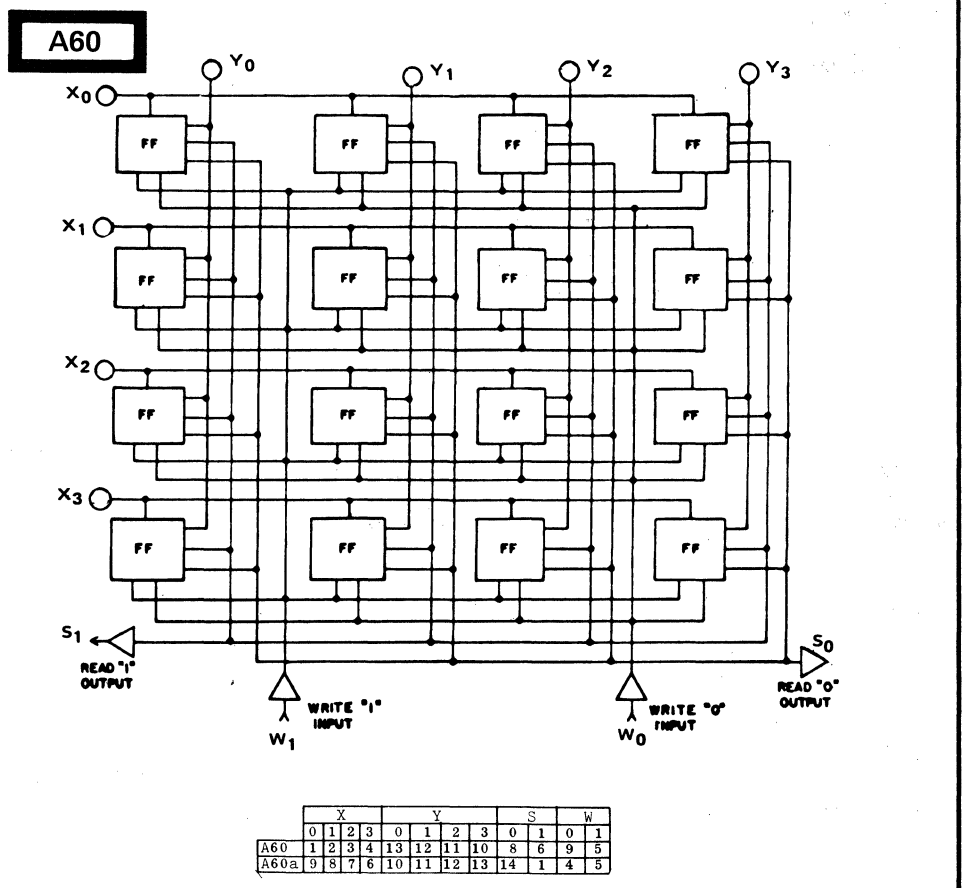
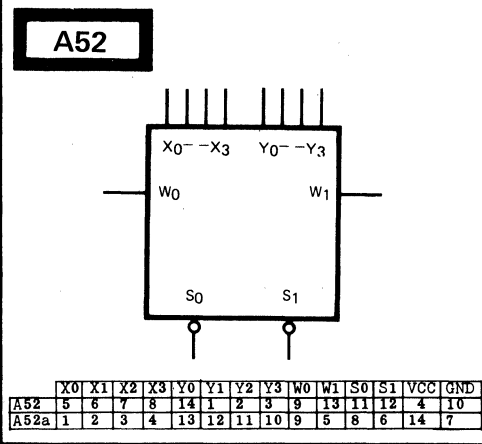
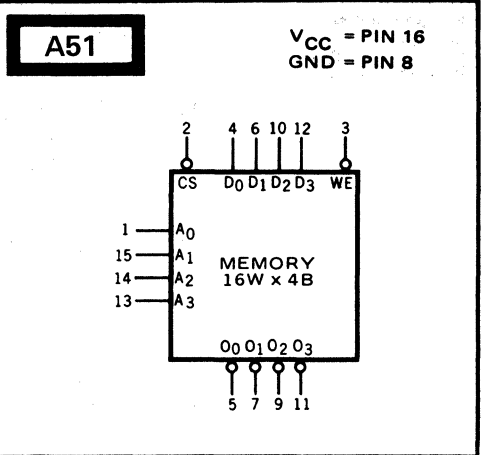
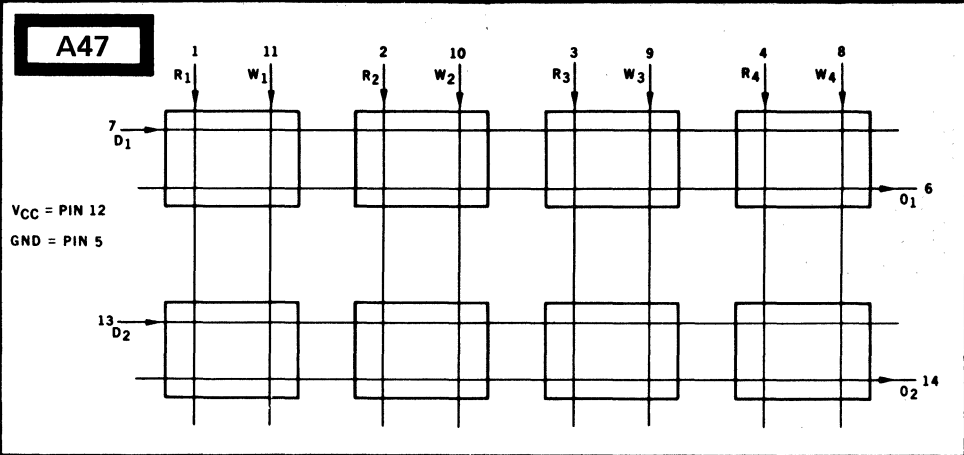


A45



22. LOGIC/BLOCK DRAWINGS

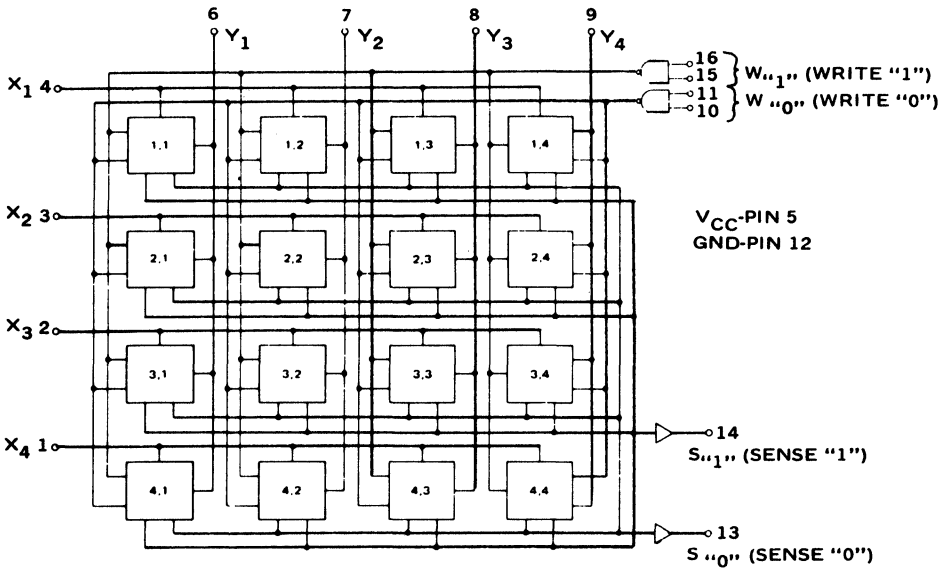
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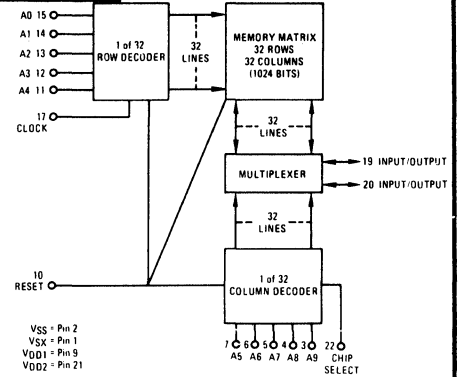
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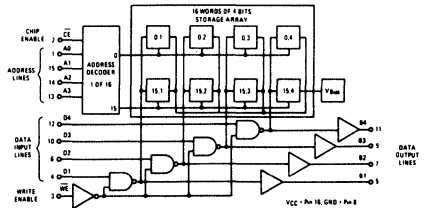
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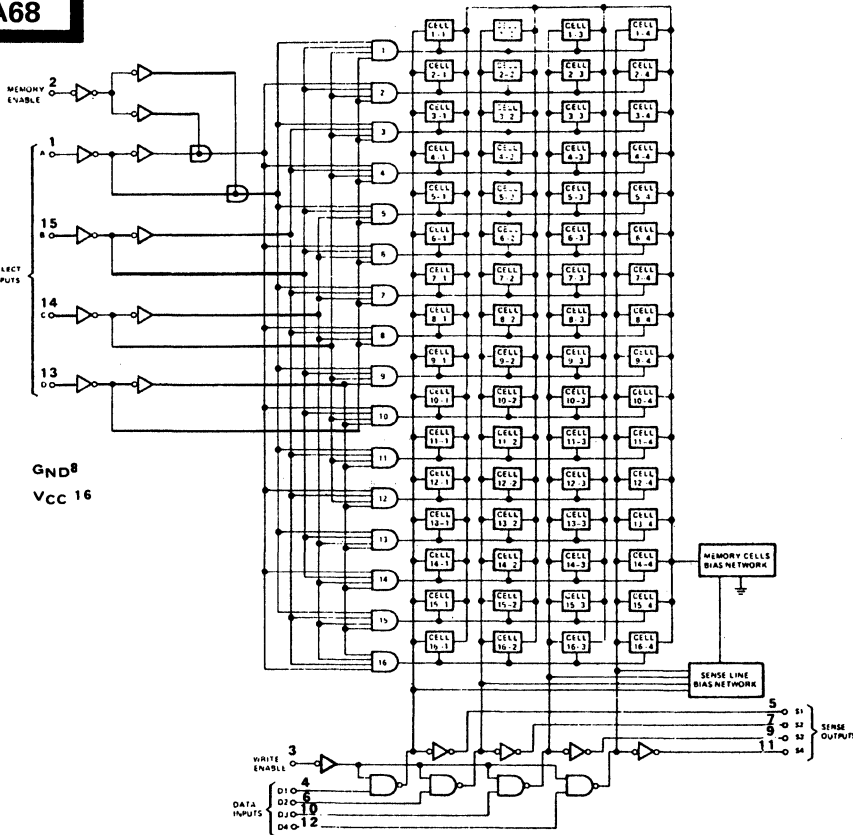
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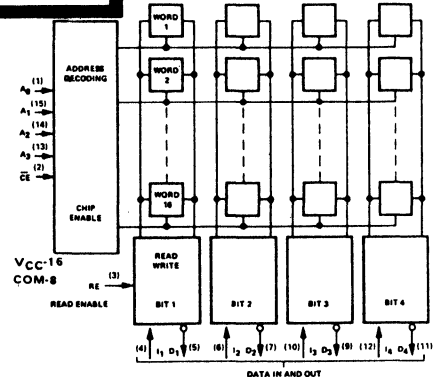
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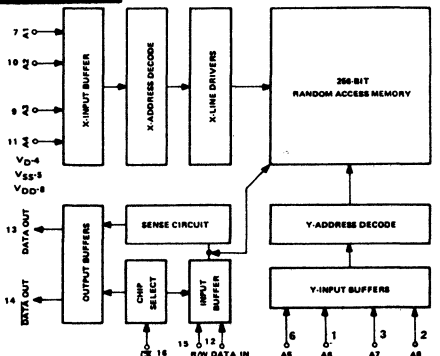
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A73

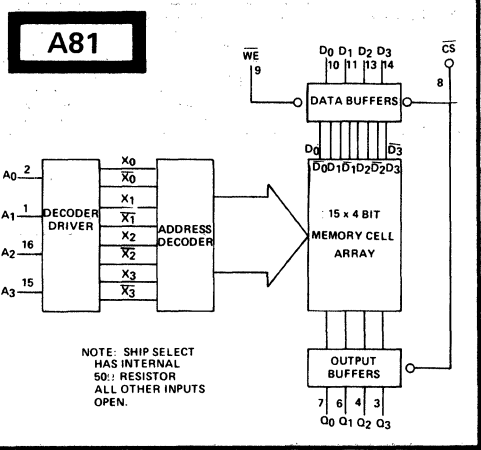
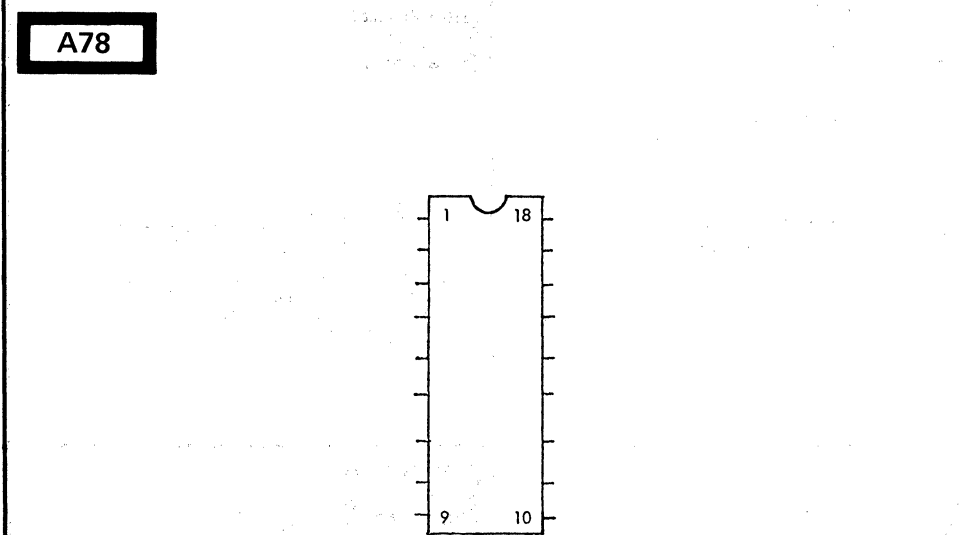
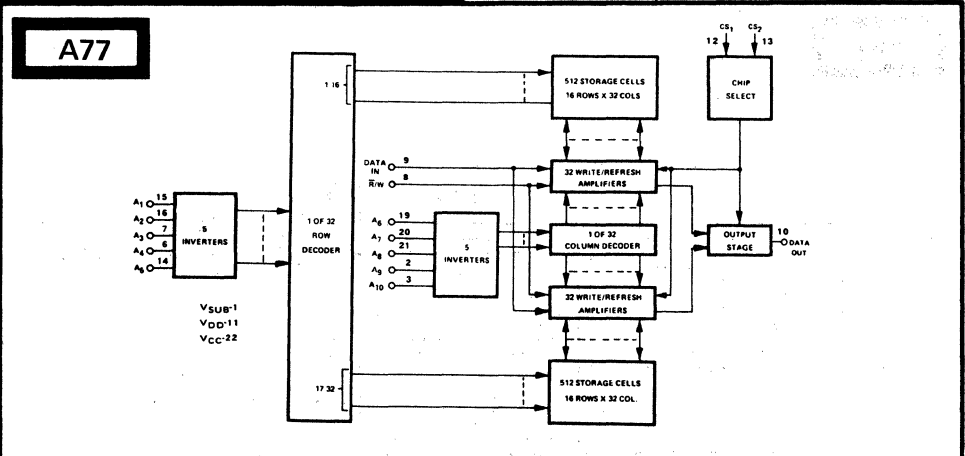
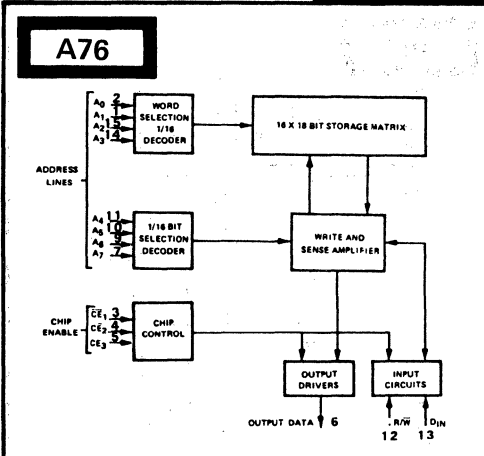


A74



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE



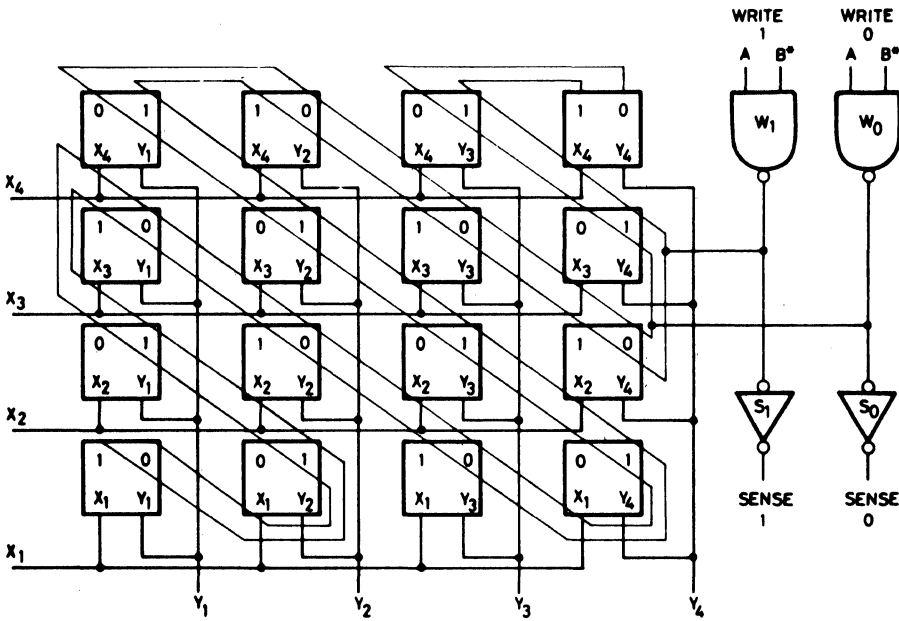
Pin Numbers

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A76	CE2	CE3	A0	A1	A2	A3	A4	DO	GND	A5	A6	A7	A8	A9	WE	D1	CE1	VCC
A76a	A0	A4	RW	A1	A2	A3	A5	A6	NC	VBB	VDD	VSS	PRE	DI/	CE	A9	A8	A7
													CHANGE	OUT				
A78b	A3	A2	A1	A0	A5	A6	A7	VSS	QD	CS2	DY/O1	DY/O2	DY/O3	DY/O4	CE1	R/W	A4	VCC
A78c	A4	A3	A2	A1	A0	BUS7	BUS6	BUS5	VSS	BUS4	BUS3	BUS2	BUS1	BUS0	CS	MRD	MWR	VDD
A78d	VB5	I/O	A0	A1	A2	R/W	CE	A3	A4	VDD	A5	A6	A7	A8	A9	A10	A11	VSS
A78e	A4	A3	A2	A1	A0	DY	D5	D6	VSS	D4	D3	D2	D1	D0	CS	RD	WR	VDD
A78f	V5X	A9	A8	A7	A6	A5	VREF	RESET	A4	A3	A2	A1	A0	C1/CS1	I/O	I/O	VDD	V5X

22. LOGIC/BLOCK DRAWINGS

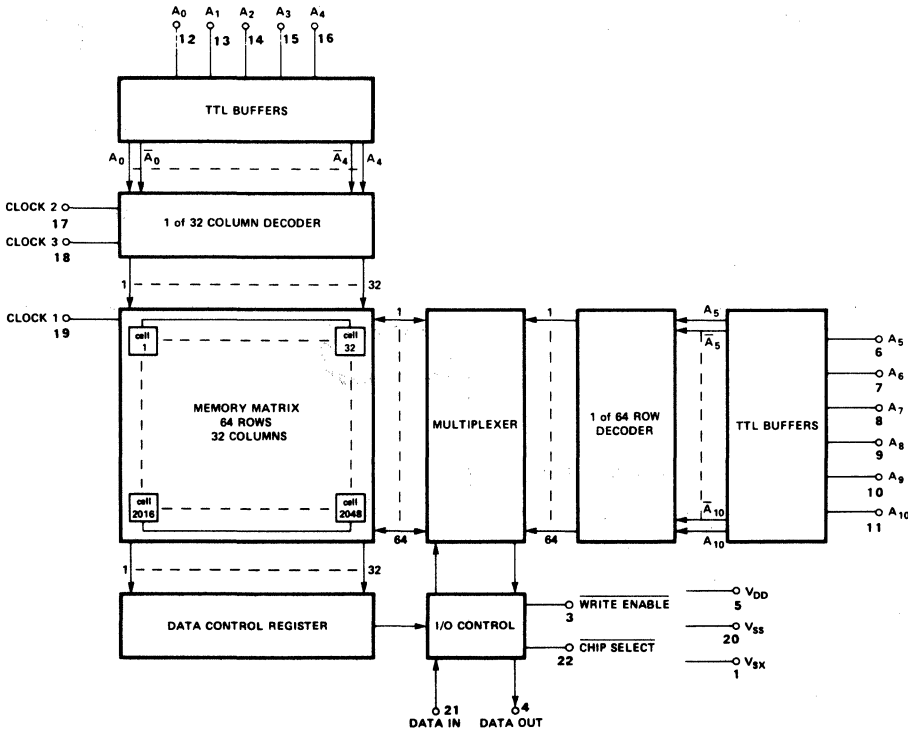
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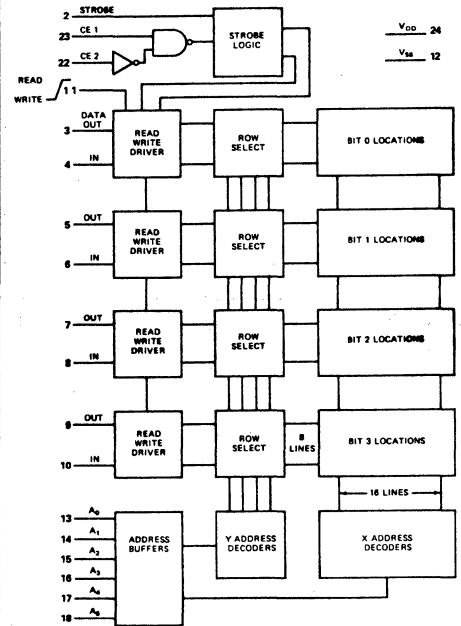


* NOTE: GATED INPUTS (AS SHOWN) ARE AVAILABLE ON A84 ONLY. A84a HAS ONE W₀ AND ONE W₁ INPUT.

A87



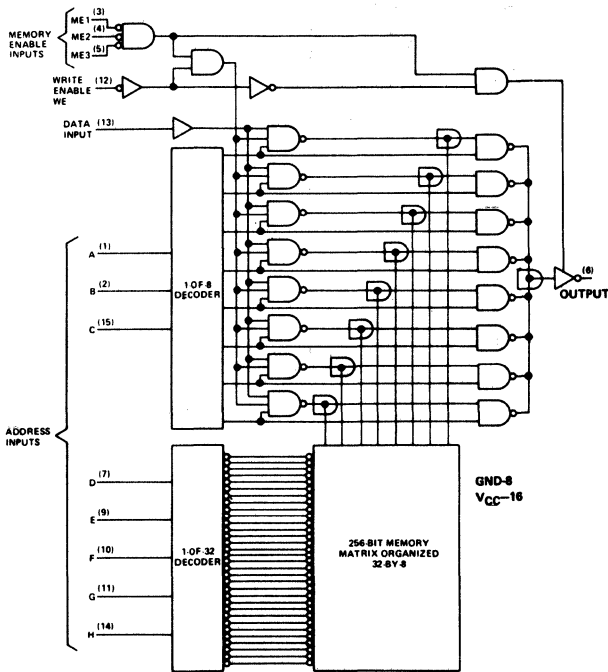
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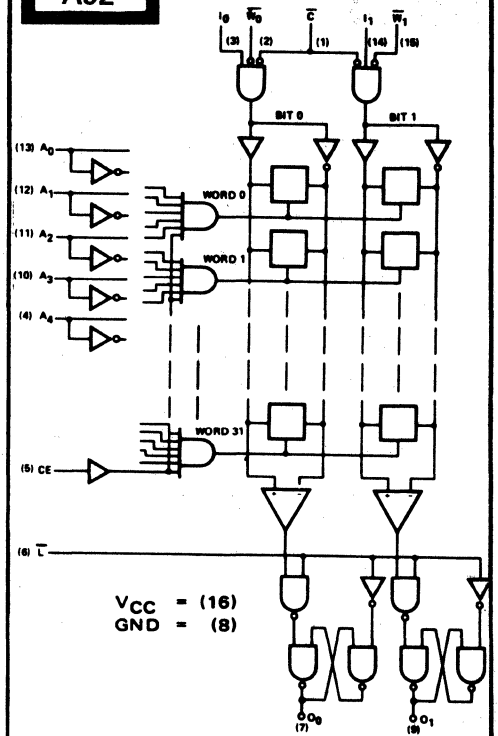
22. LOGIC/BLOCK DRAWINGS

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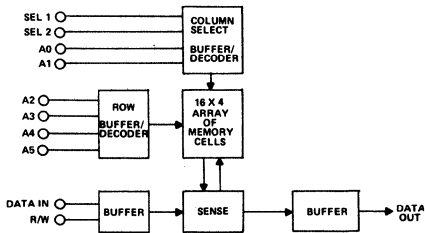
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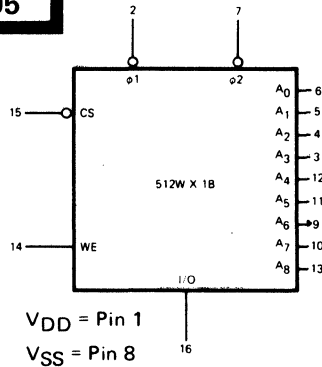
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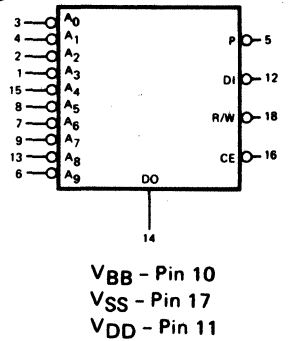
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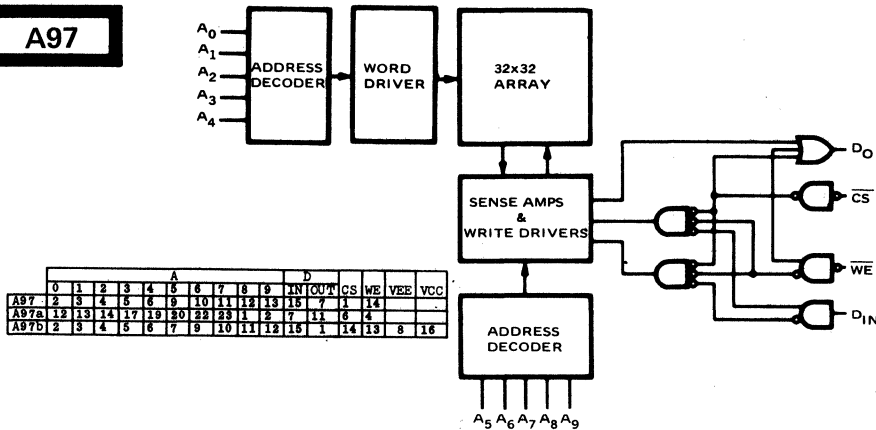
A95



A96



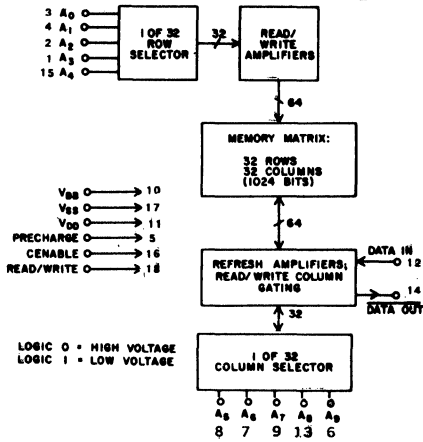
A97



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A98

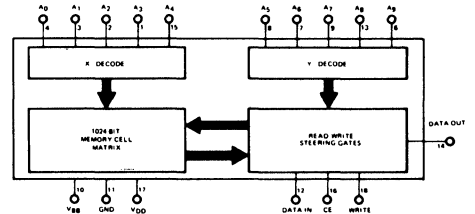


A99

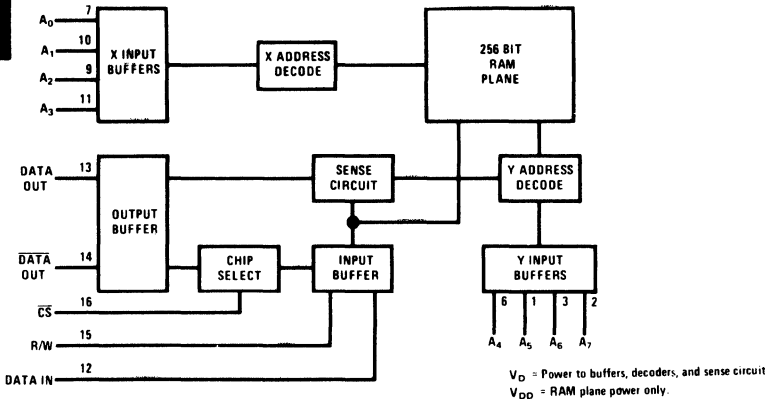


		PIN NUMBERS															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A99	A6	A8	A7	VGG	VSS	A5	AV	VCC	A3	A2	A4	DI	DO	VDD	R/W	CS	
A99a	A	WE	DI	S1	D2	S2	GND	S3	D3	S4	D4	D	C	B	VCC		
A99b	A1	A0	CS1	CS2	CS3	DO	A4	GND	A5	A6	A7	WE	DI	A3	A2	VCC	
A99c	CS	A0	A1	A2	A3	A4	DOUT	VSS	A5	A6	A7	A8	A9	R/W	DIN	VDD	
A99d	A3	A2	A1	A0	A5	A6	A7	VSS	DI/01	DI/02	DI/03	DI/04	CE	WE	A4	VCC	
A99e	VBB	DIN	W	RAS	A0	A2	A1	VDD	VCC	A5	A4	A3	CS	DOUT	CAS	VSS	
A99f	VBB	DIN	W	RAS	A0	A2	A1	VDD	VCC	A5	A4	A3	A6	DOUT	CAS	VSS	
A99g	A6	A5	R/W	A1	A2	A3	A4	A0	GND	VCC	DIN	DOUT	CE	A9	A8	A7	
A99h	CS	A0	A1	A2	A3	A4	DOUT	GND	A5	A6	A7	A8	A9	WE	DIN	VCC	

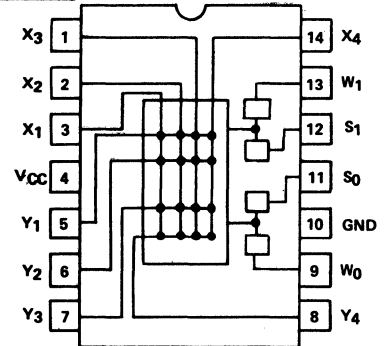
A101



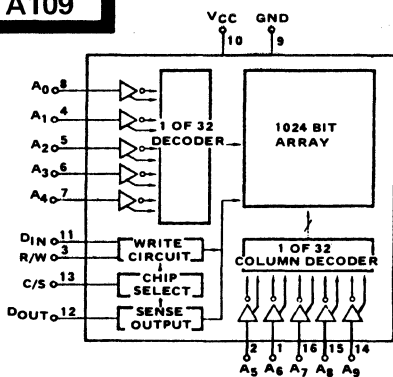
A102



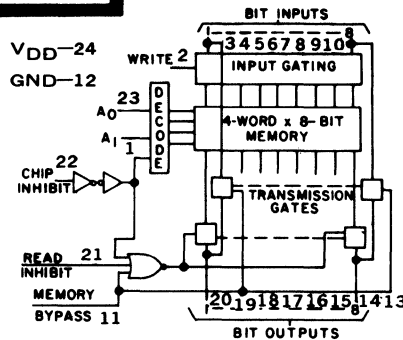
A107



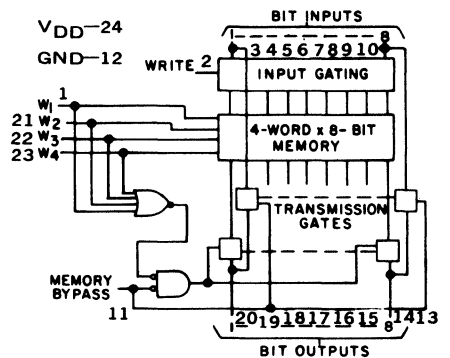
A109



A110



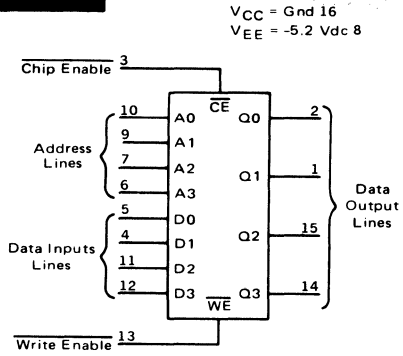
A111



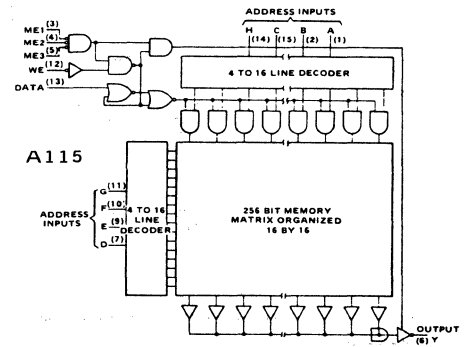
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

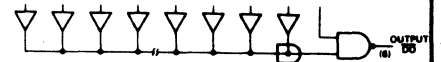
A114



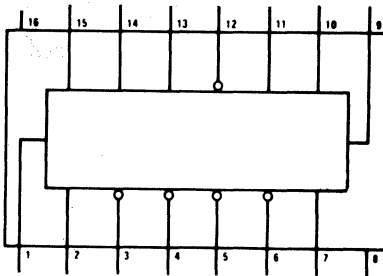
A115



A115a SAME AS ABOVE EXCEPT
OUTPUT IS AS SHOWN BELOW.

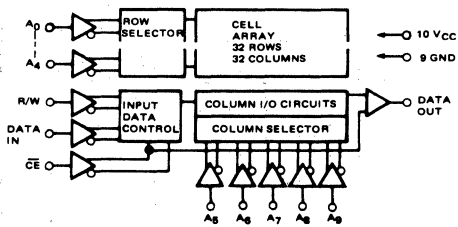


A117

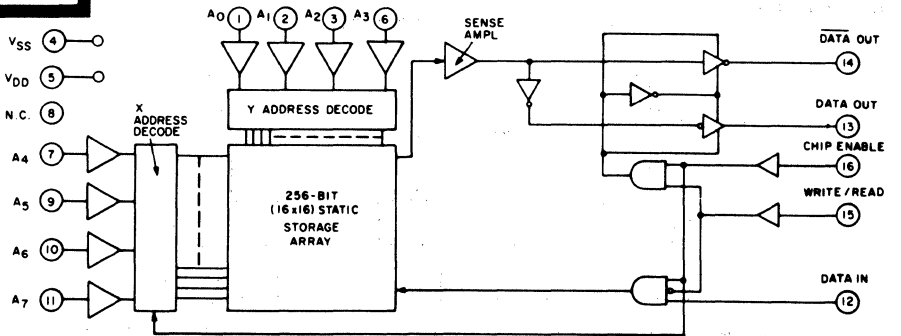


PIN NUMBERS																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
A117	A	B	CE1	CE2	CE3	DOUT	D	GND	E	F	G	WE	DM	H	C	VCC
A117a	D3	D4	R*	Ra	Q4	Q3	GND	Q2	Q1	READ	WRITE	B	A	D1	VCC	

A118



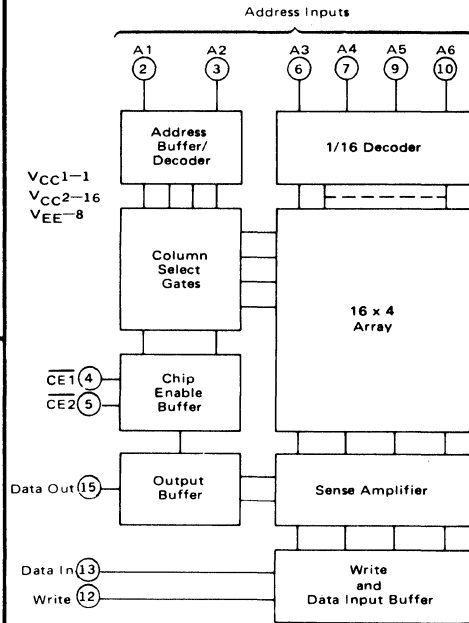
A121



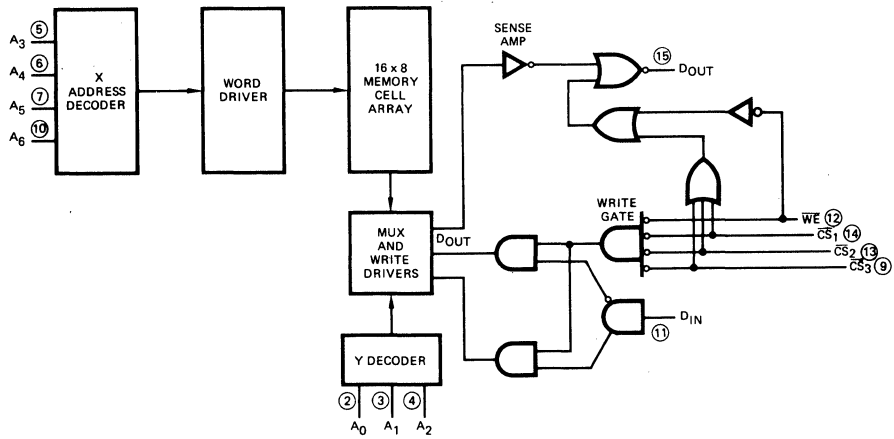
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A126



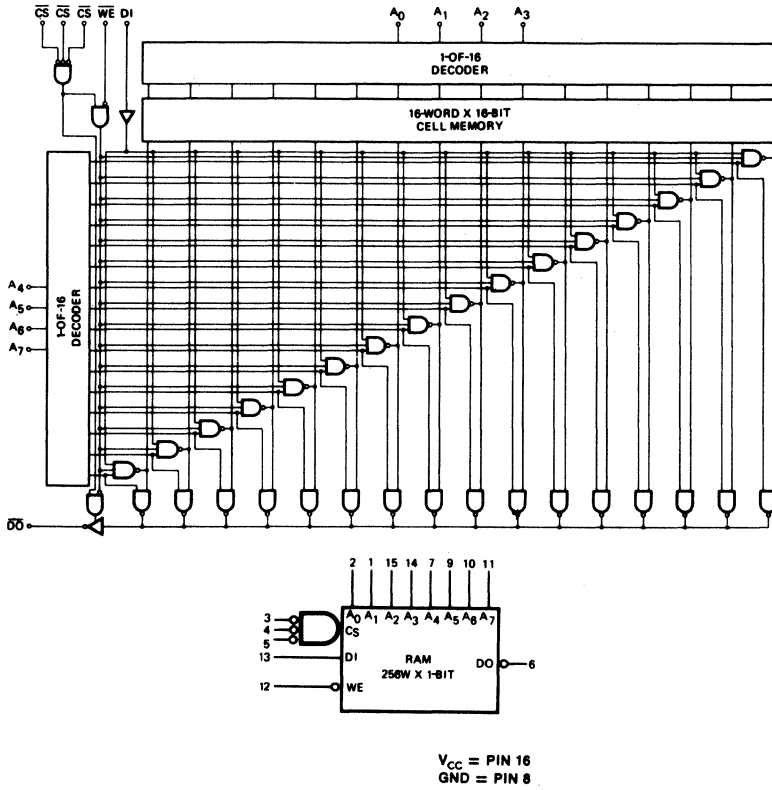
A128



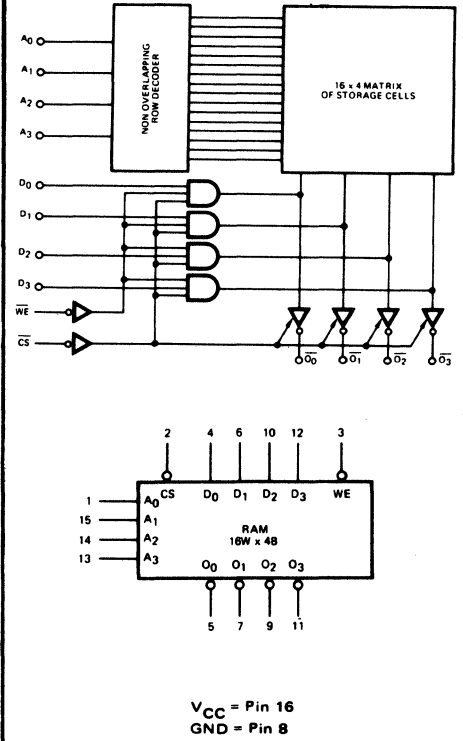
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

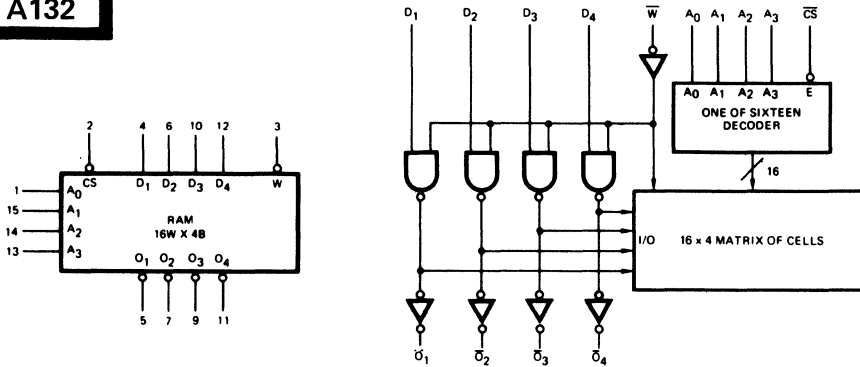
A130



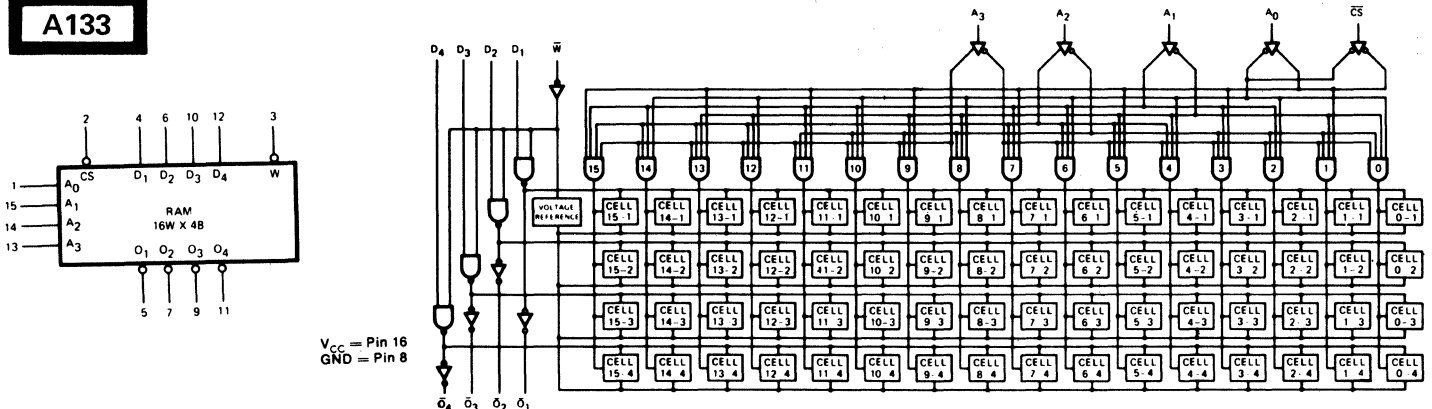
A131



A132



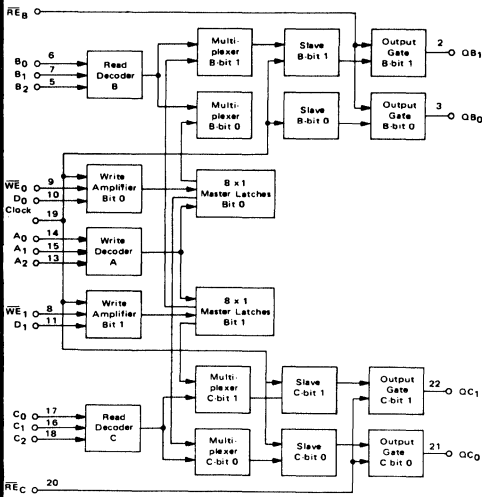
A133



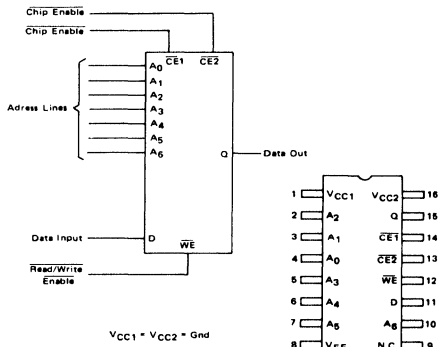
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

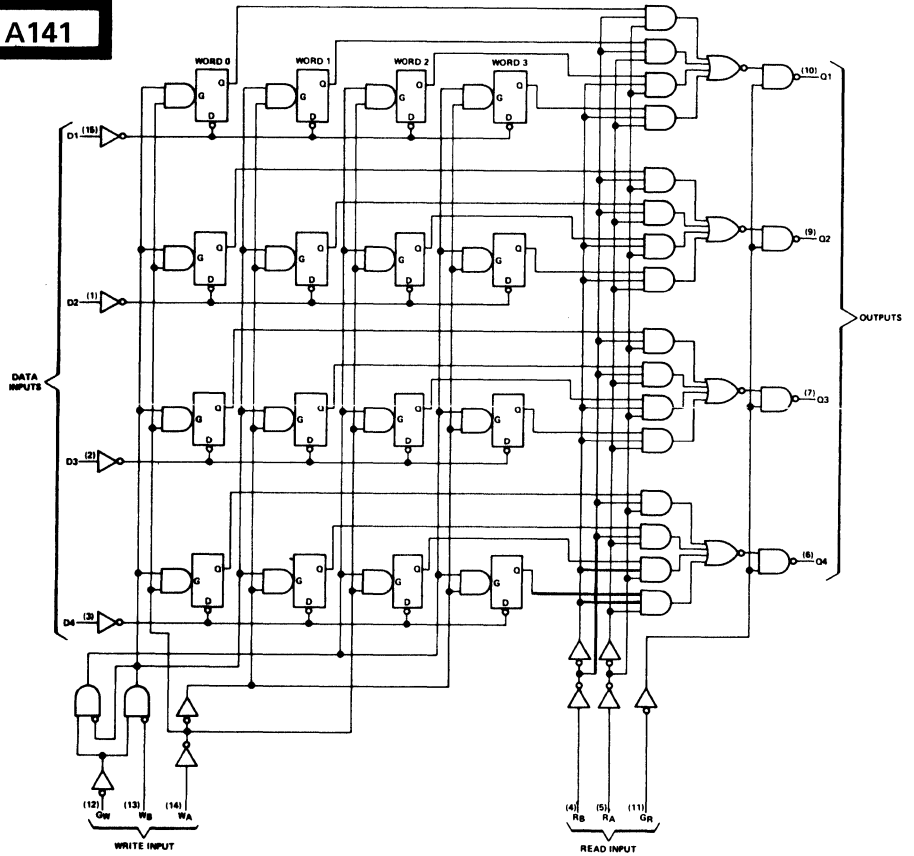
A134



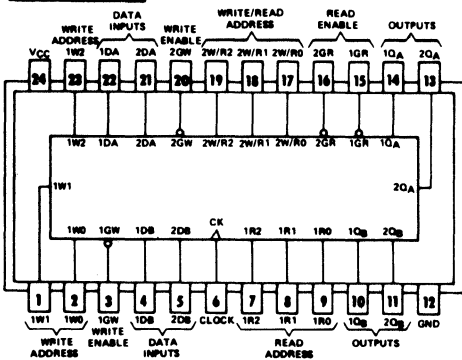
A136



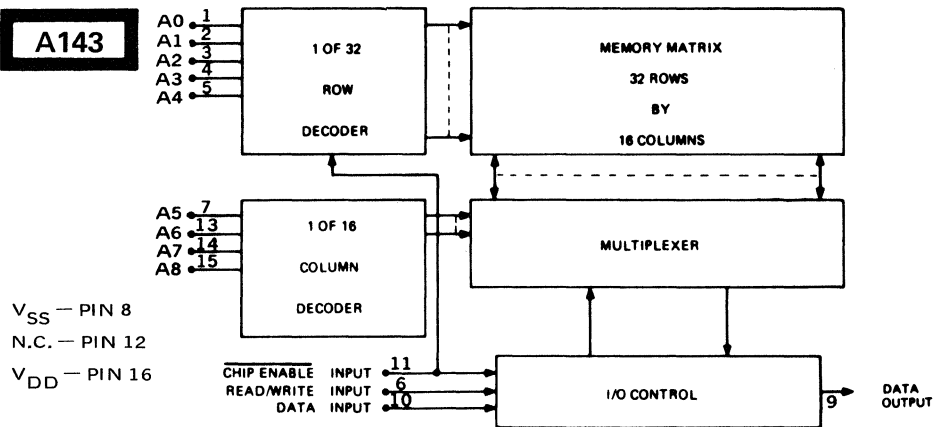
A141



A142



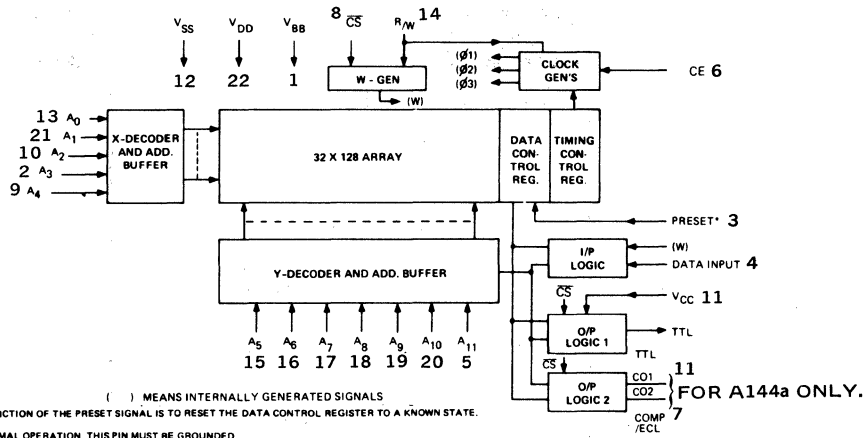
A143



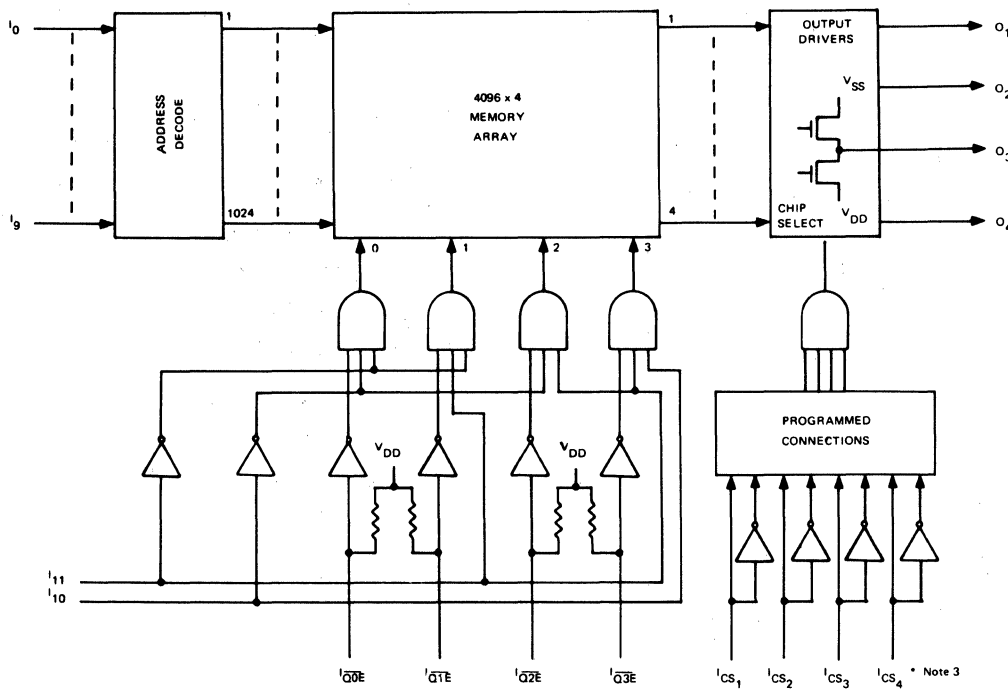
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A144



A146



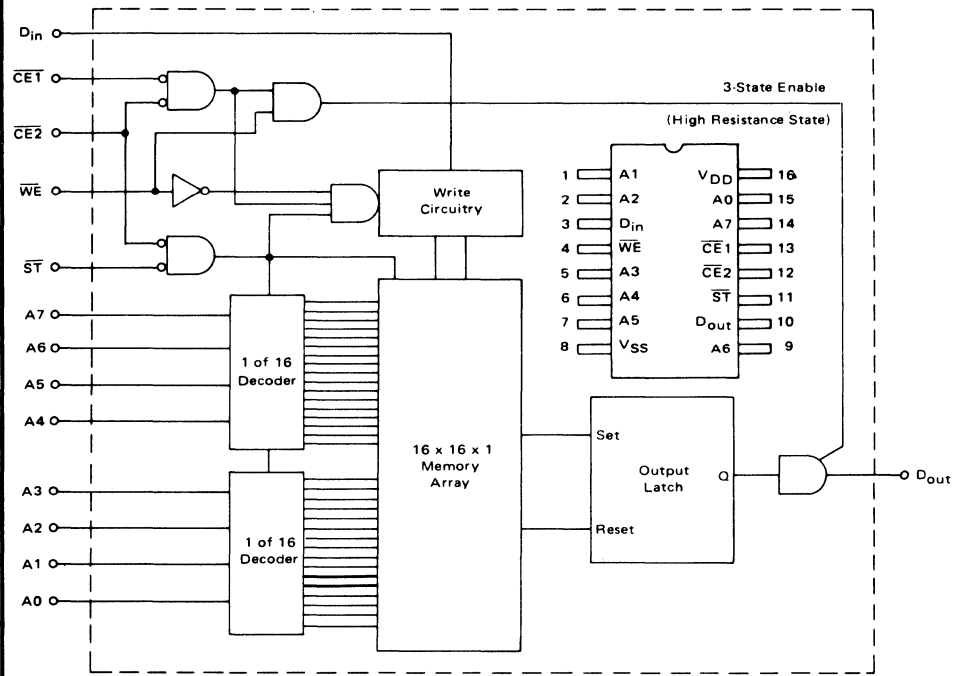
A146	
Pin/Function	Pin/Function
1	V _{SS} (+5V)
2	NC
3	φ1 READ
4	I ₀
5	I ₁
6	I ₂
7	I ₃
8	I ₄
9	I ₅
10	I ₆
11	I ₇
12	I ₈
13	I ₉
14	I ₁₀
15	V _{GG} (-12V)
16	O ₄
17	O ₃
18	O ₂
19	O ₁
20	I ₁₁
21	I _{CS3}
22	I _{CS2}
23	I _{CS1}
24	V _{DD} (GRD)

A146a	
Pin/Function	Pin/Function
1	V _{SS}
2	φ1 READ
3	NC
4	I ₀
5	I ₁
6	I ₂
7	I ₃
8	I ₄
9	I ₅
10	I ₆
11	I ₇
12	I ₈
13	I _{QOE}
14	I _{QTE}
15	I _{Q2E}
16	I _{Q3E}
17	I ₉
18	I ₁₀
19	V _{GG}
20	O ₄
21	O ₃
22	O ₂
23	O ₁
24	I ₁₁
25	I _{CS3}
26	I _{CS2}
27	I _{CS1}
28	V _{DD}

22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A147



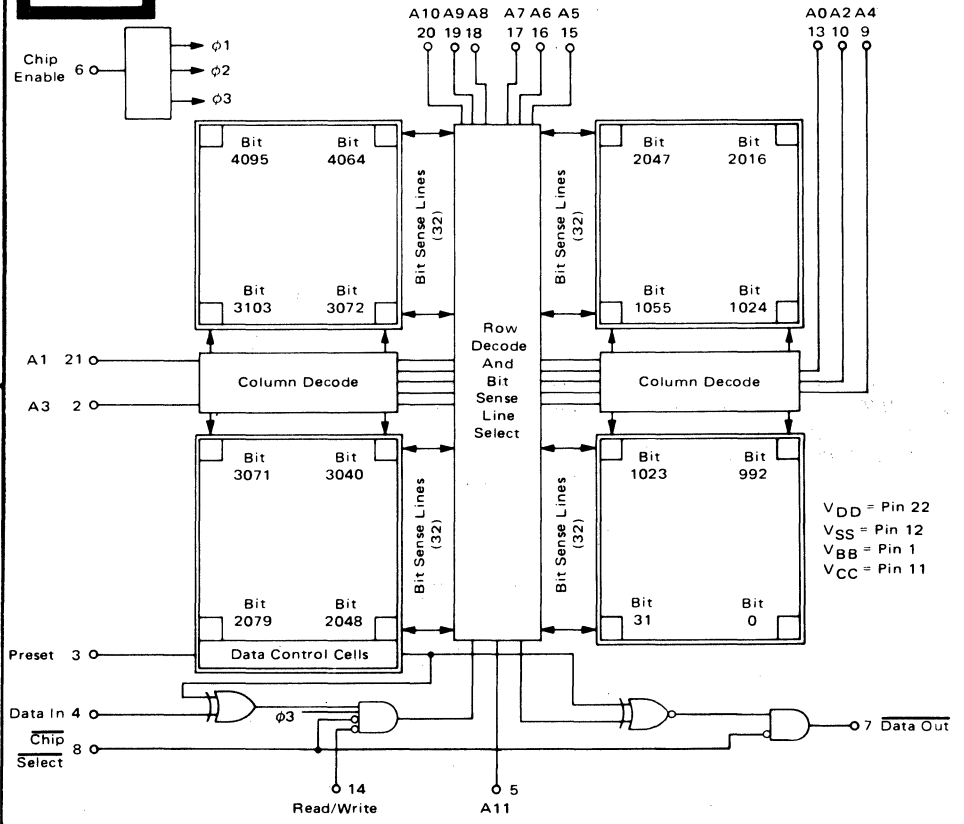
[]

[]

[]

[]

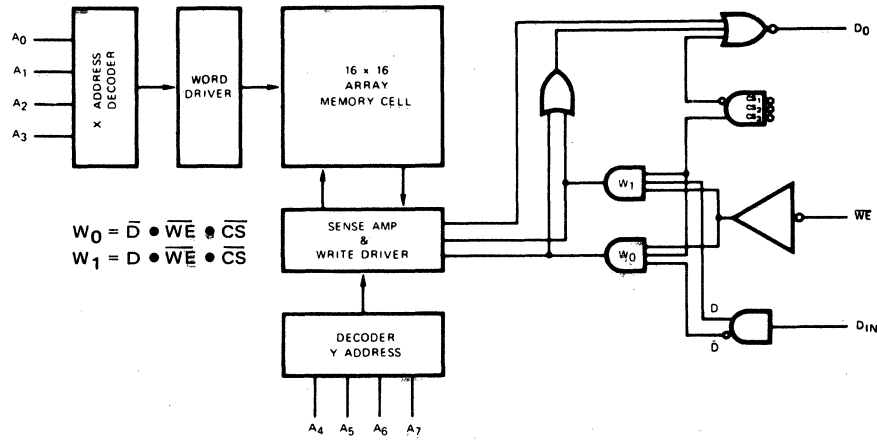
A148



22. LOGIC/BLOCK DRAWINGS

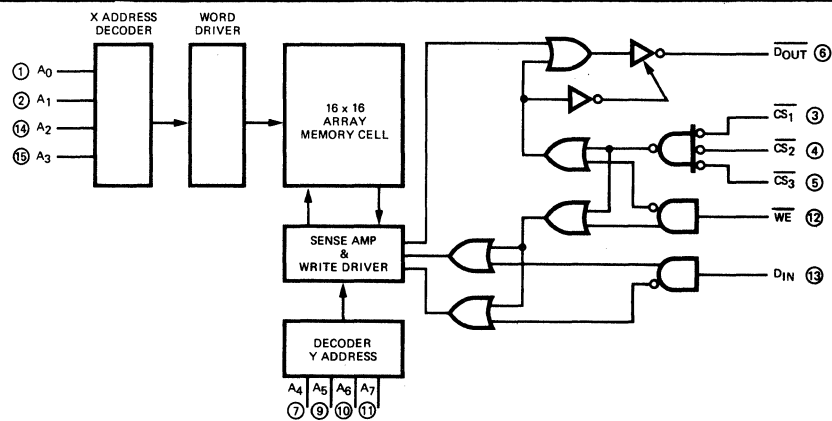
IN DRAWING NUMBER SEQUENCE

A150

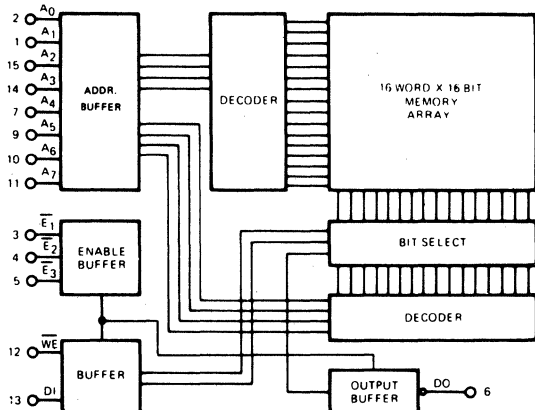


	A							CS			WE	DIN	REMARKS		
	0	1	2	3	4	5	6	7	1	2				3	
A150	1	2	3	4	9	10	11	12	15	5	6	7	14	18	
A150a	1	2	14	15	7	9	10	11	6	3	4	5	12	13	NON-INVERTED DO
A150b	1	2	3	4	12	13	14	15	11	5	6	7	10	9	
A150c	1	2	7	9	10	11	14	15	6	3	4	5	12	13	

A153



A154



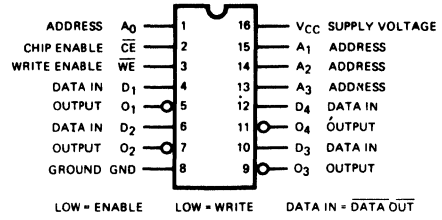
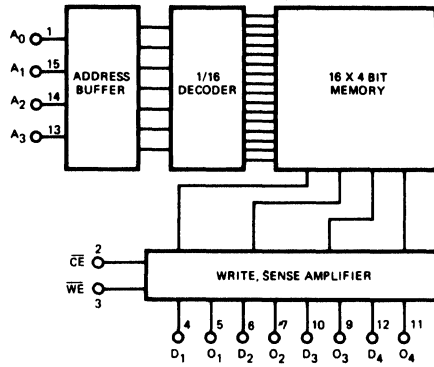
ADDRESS	A1	1	16	VCC	SUPPLY VOLTAGE
ADDRESS	A0	2	15	A2	ADDRESS
ENABLE	E1	3	14	A3	ADDRESS
ENABLE	E2	4	13	DI	DATA IN
ENABLE	E3	5	12	WE	WRITE ENABLE
DATA OUT	DO	6	11	A7	ADDRESS
ADDRESS	A4	7	10	A6	ADDRESS
GROUND	GND	8	9	A5	ADDRESS

LOW = ENABLE LOW = WRITE DATA IN = DATA OUT

22. LOGIC/BLOCK DRAWINGS

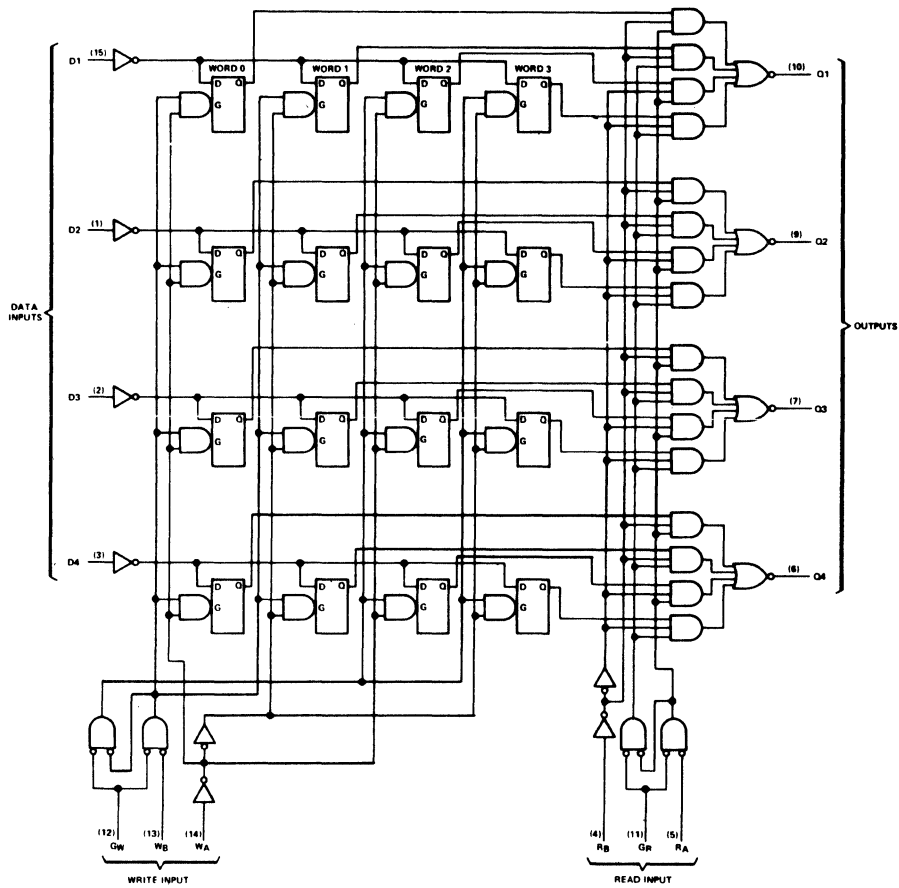
IN DRAWING NUMBER
SEQUENCE

A155



V_{CC}/V_{DD}-PIN 16
GND/V_{SS}-PIN 8

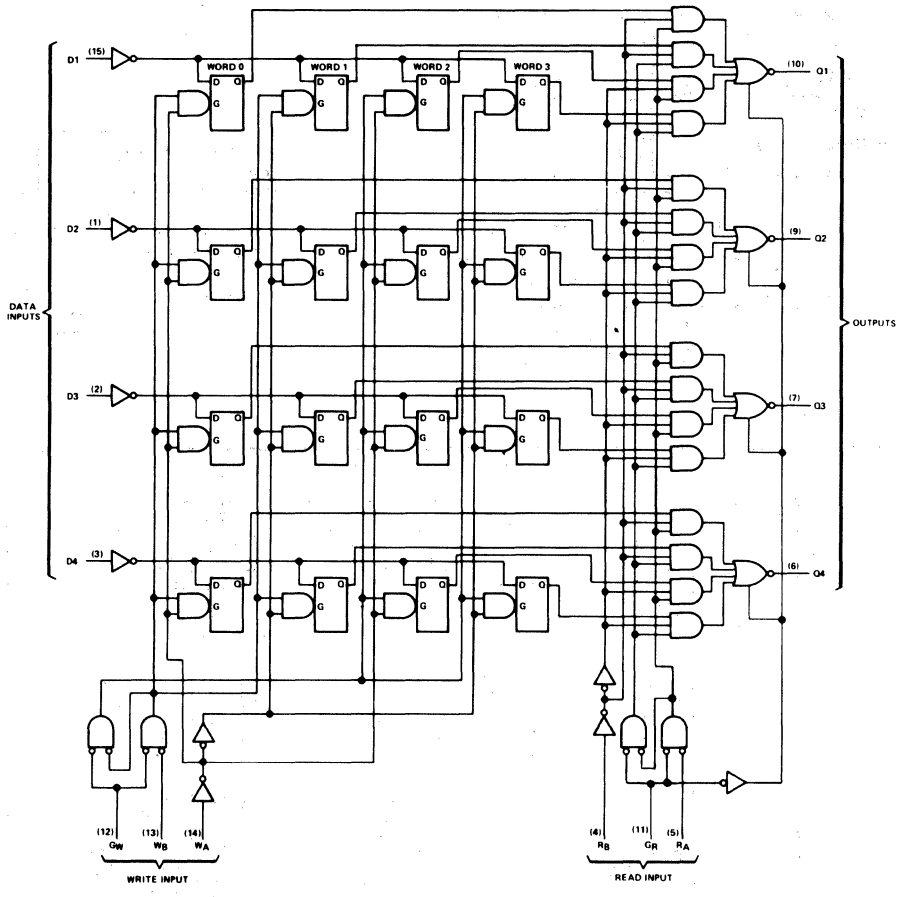
A156



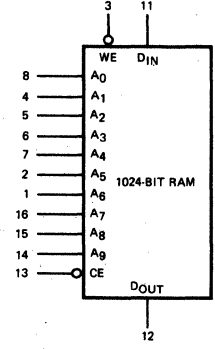
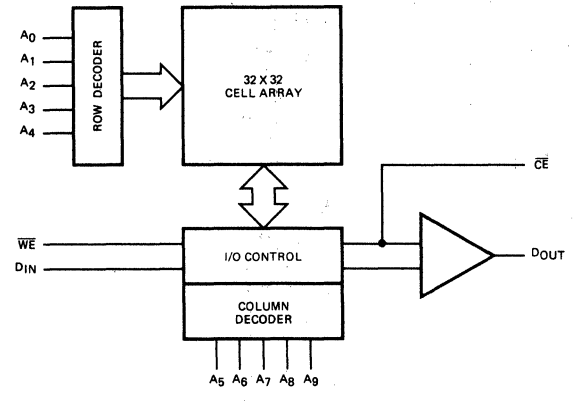
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A157

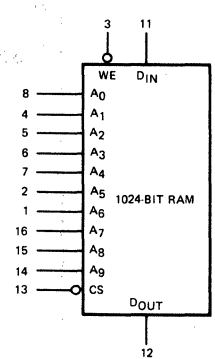
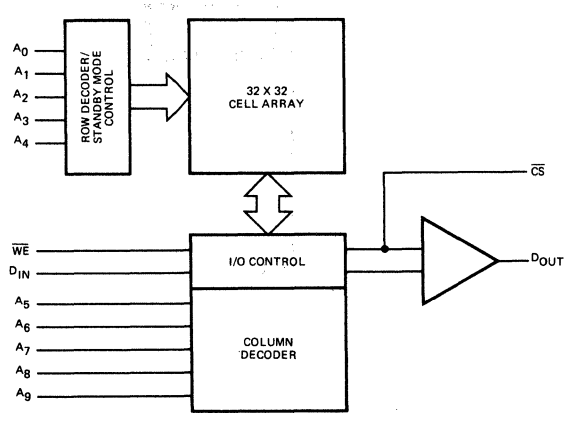


A158



VCC = Pin 10
GND = Pin 9

A159

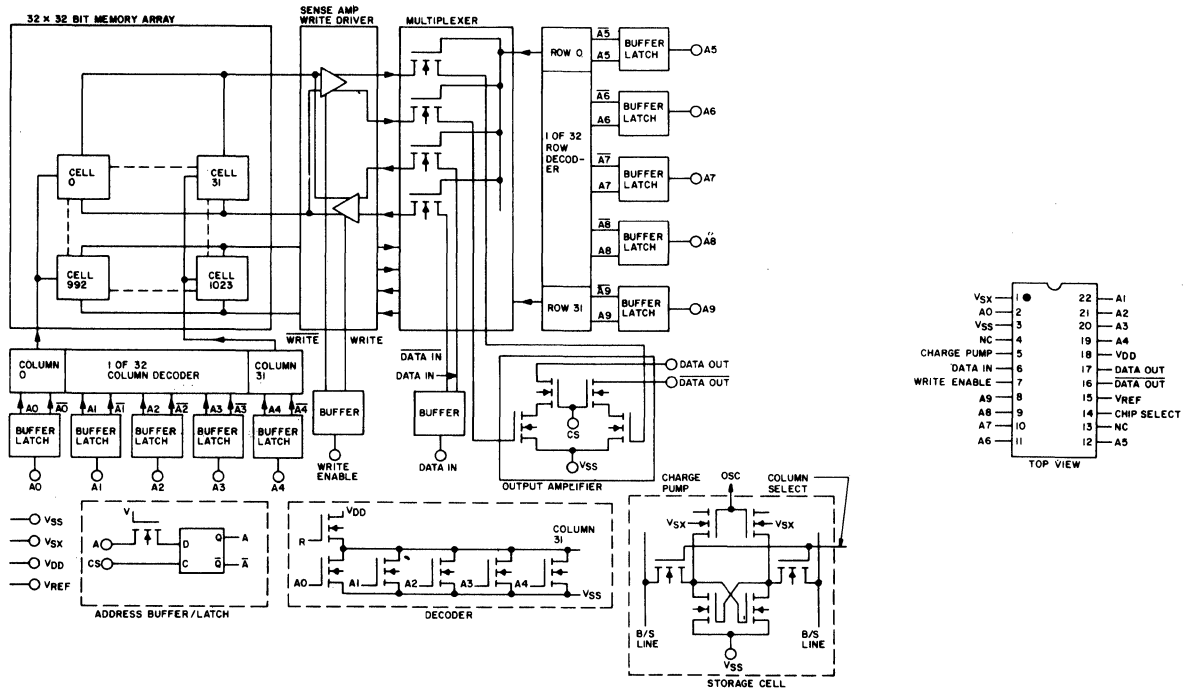


VCC = Pin 10
GND = Pin 9

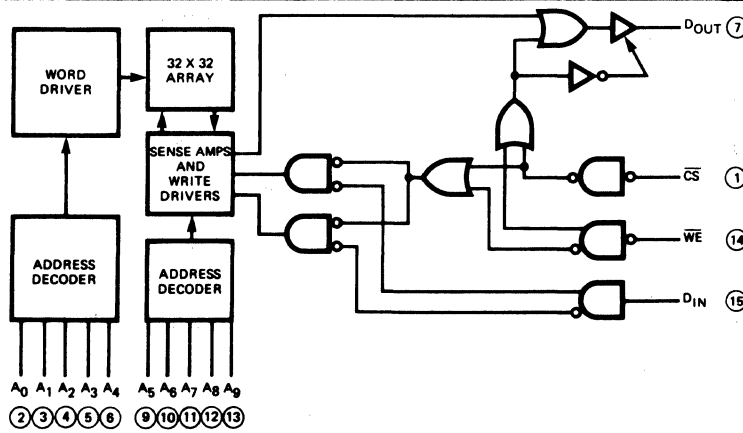
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

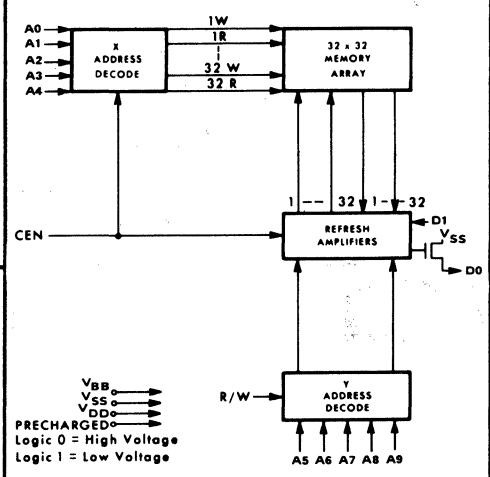
A162



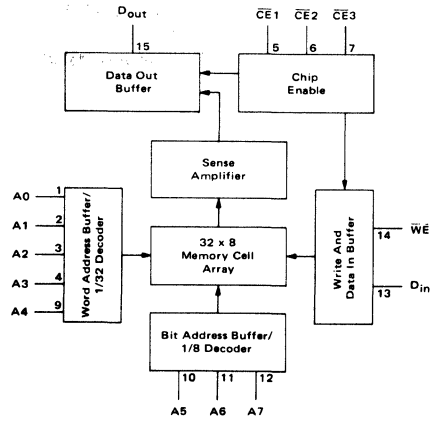
A163



A164



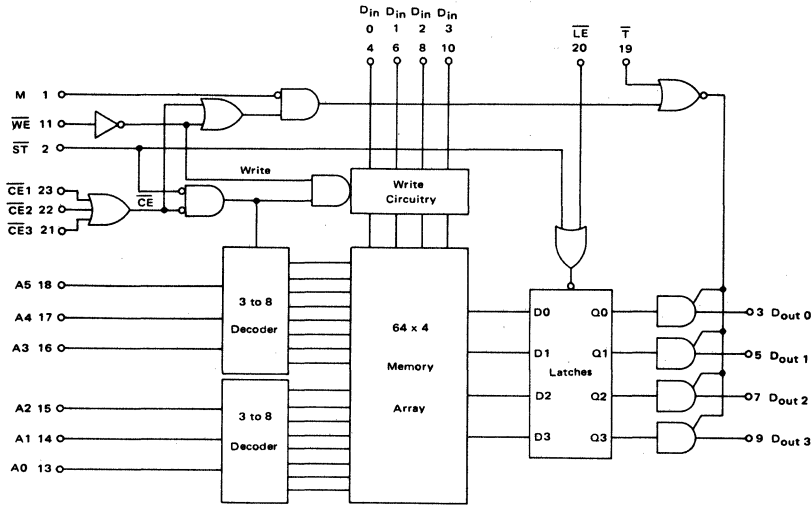
A165



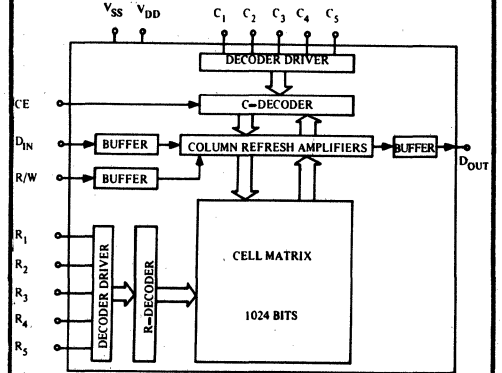
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

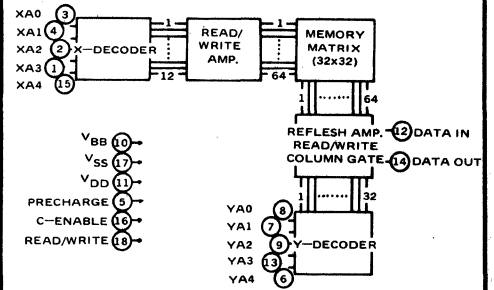
A166



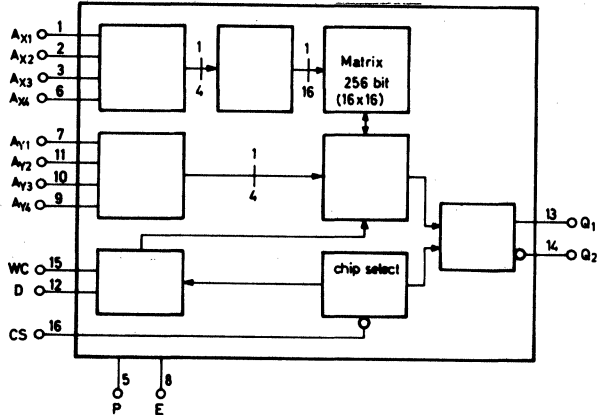
A167



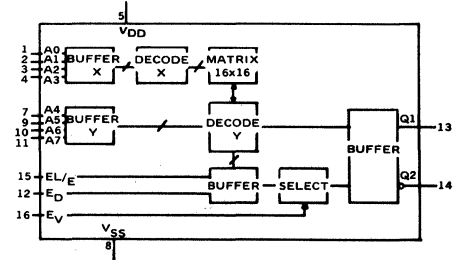
A168



A170

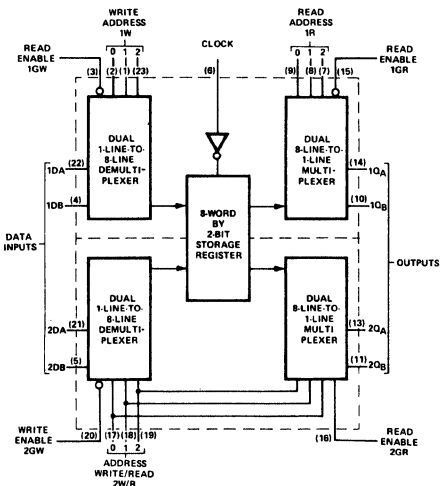


A171

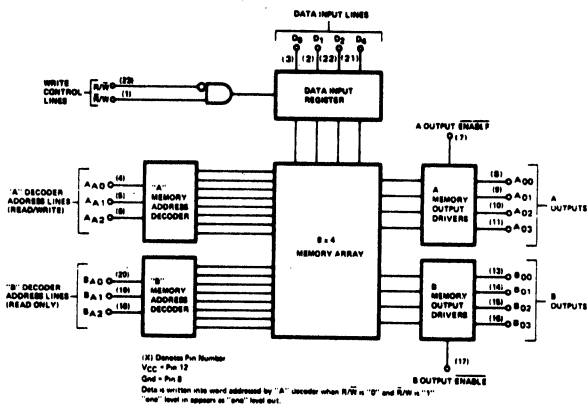


22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

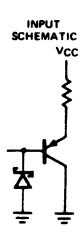
A172



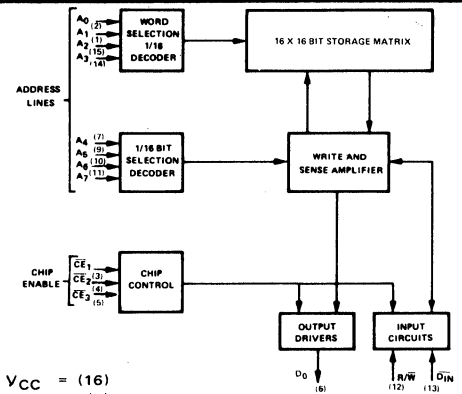
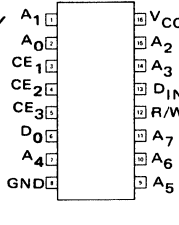
A173



A174

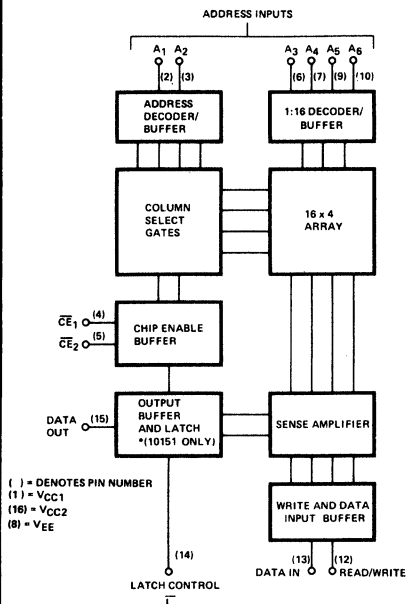


OUTPUT SCHEMATIC A174a ONLY



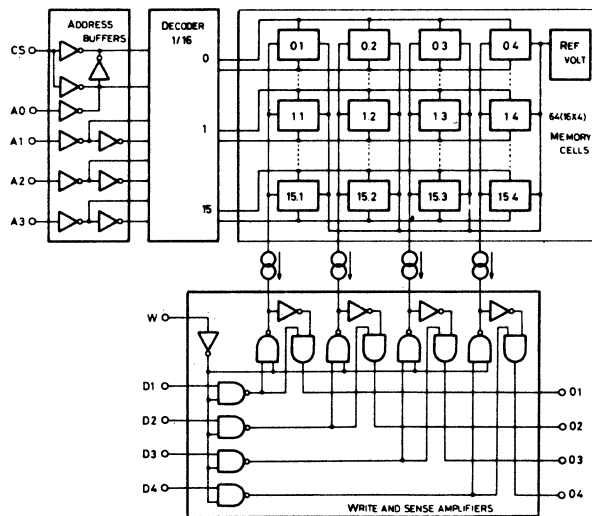
"ONE" LEVEL IN ON DATA INPUT APPEARS AS "ZERO" V_{CC} = (16)
 LEVEL OUT. Chip is enabled when CE₁ = CE₂ = CE₃ = "0" GND = (8)
 () = Denotes Pin Numbers

A175



A175a — PIN 14 N.C.

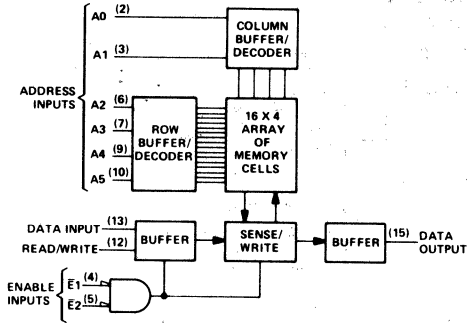
A176



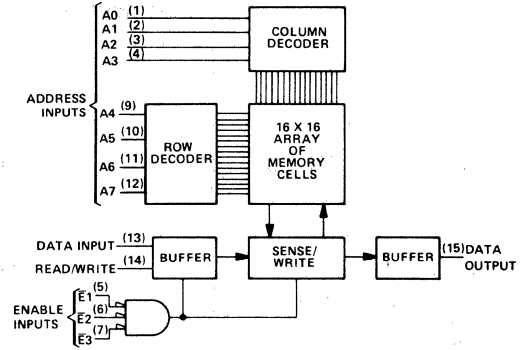
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

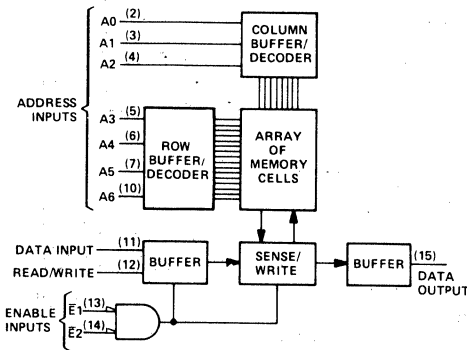
A177



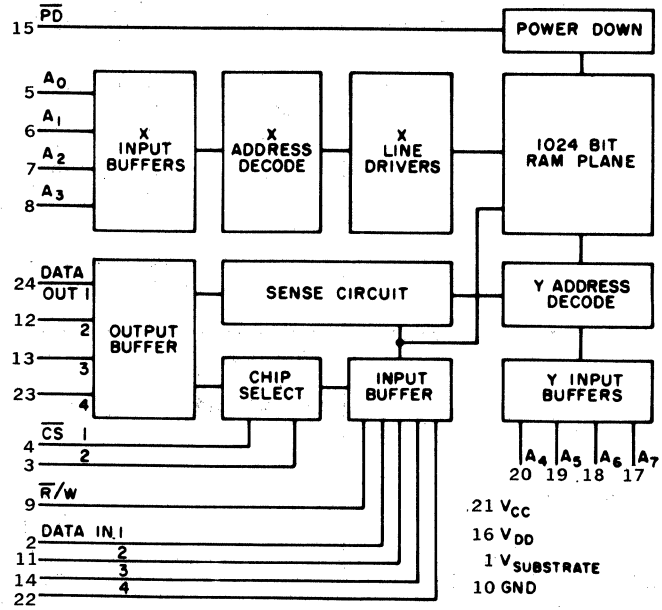
A178



A180



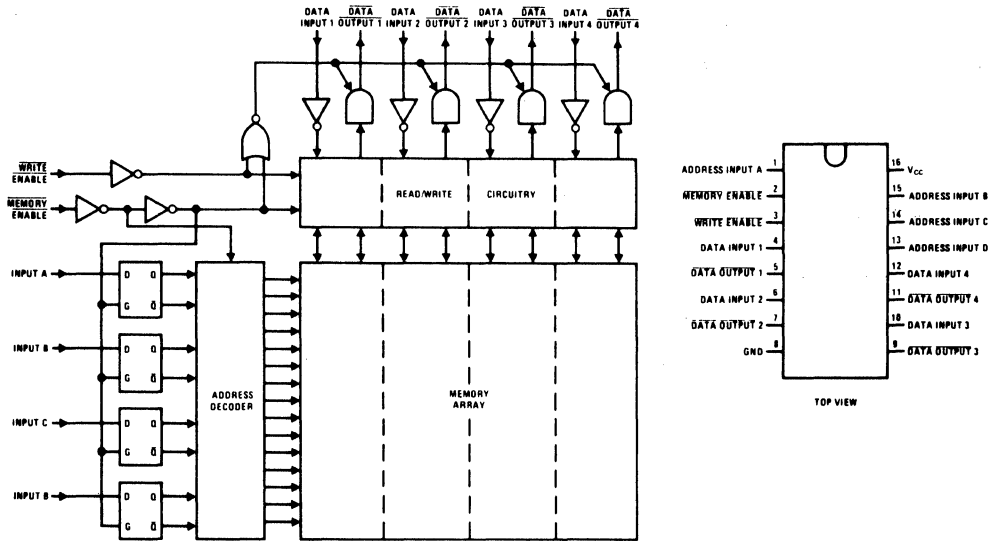
A181



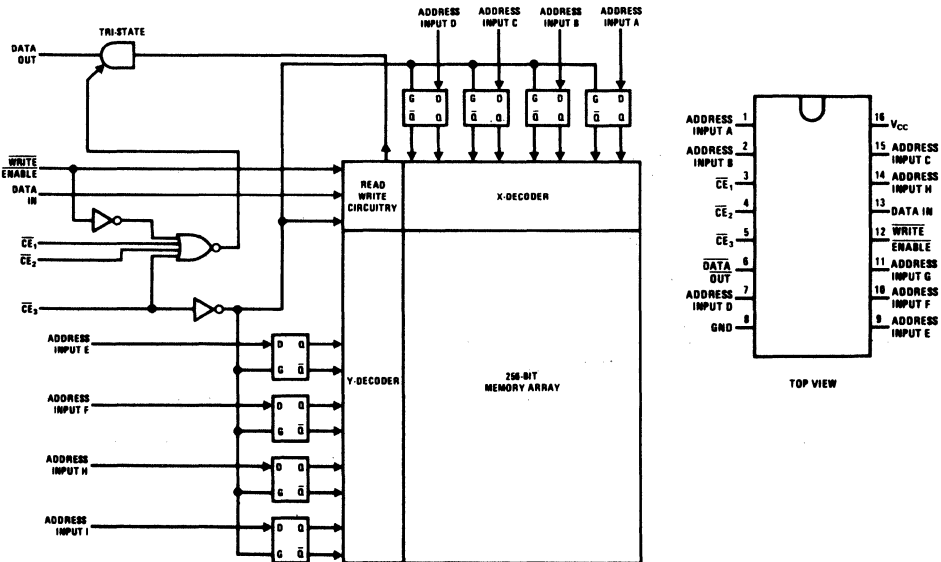
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A182



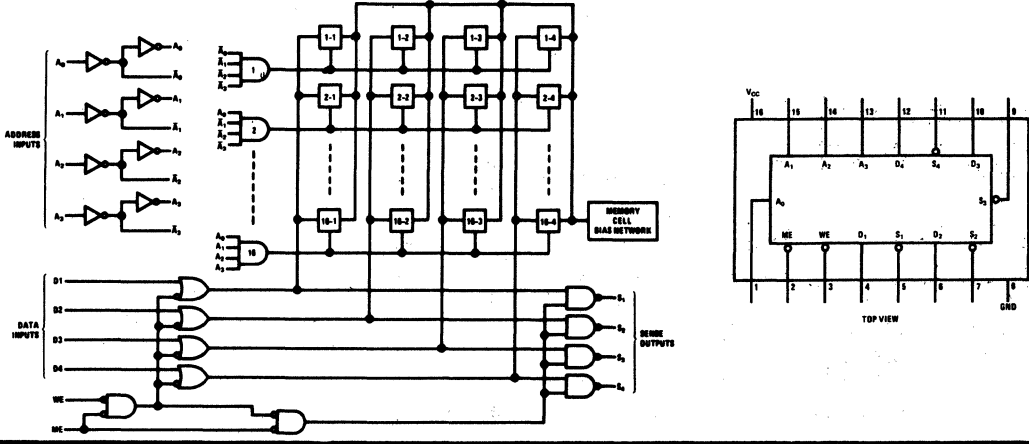
A183



22. LOGIC/BLOCK DRAWINGS

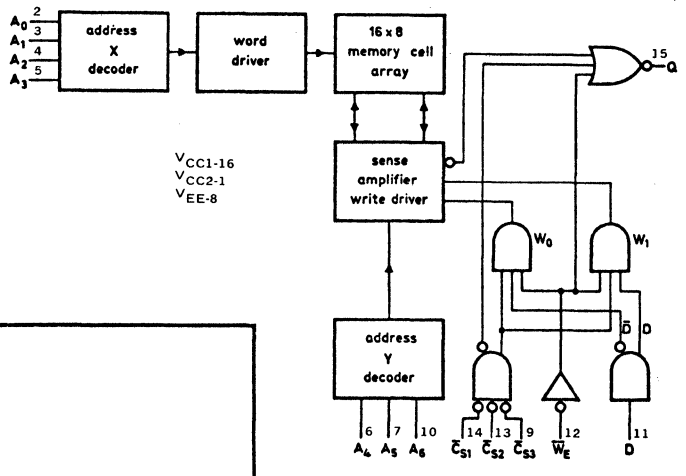
IN DRAWING NUMBER SEQUENCE

A184

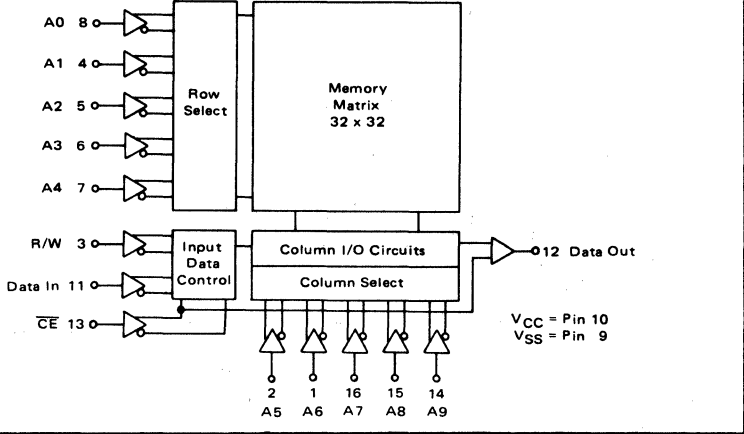


[]

A186

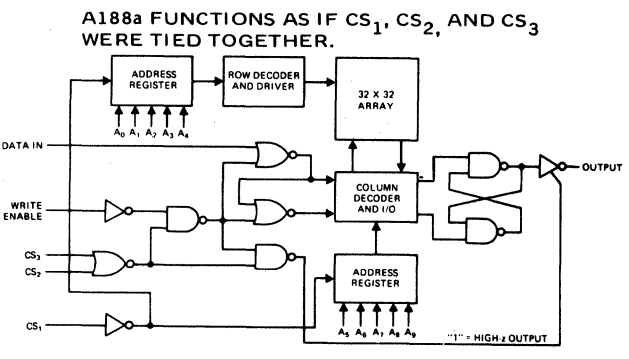


A187



[]

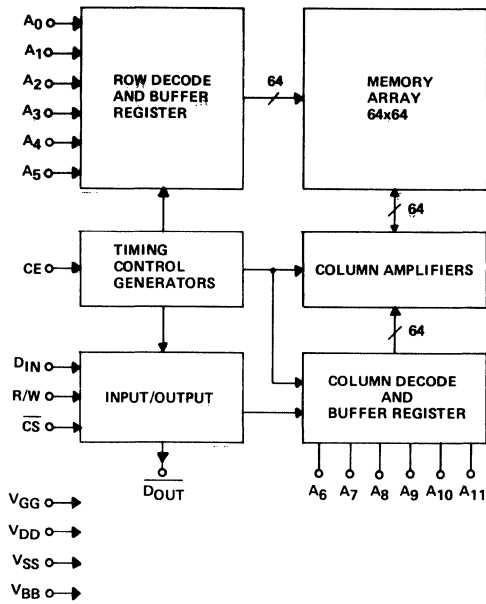
A188



22. LOGIC/BLOCK DRAWINGS

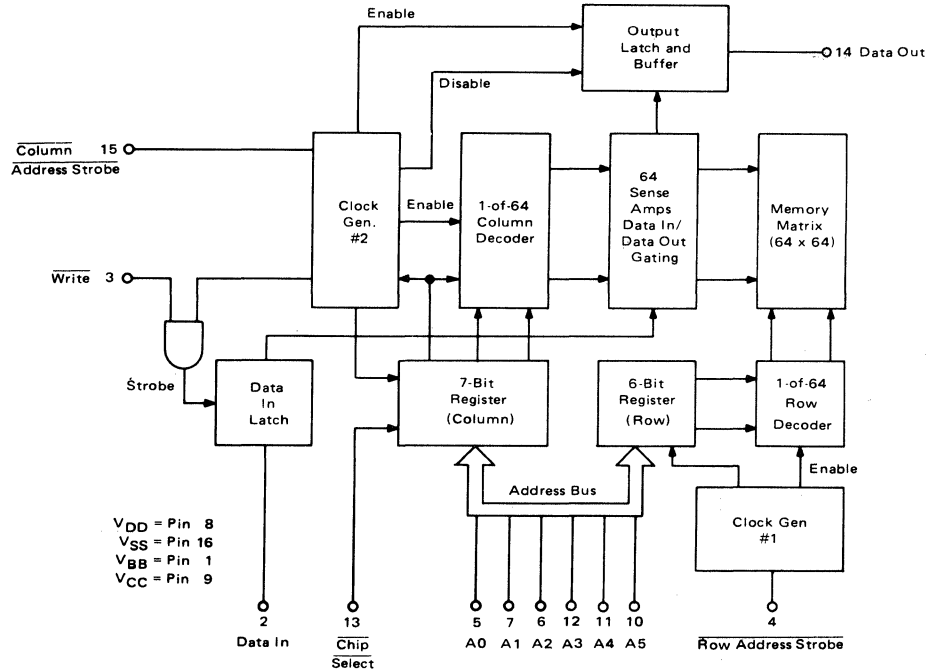
IN DRAWING NUMBER SEQUENCE

A189



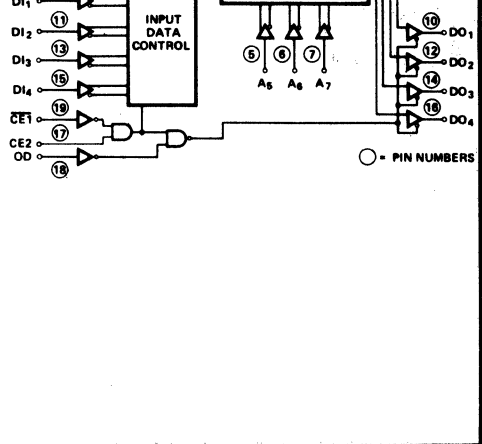
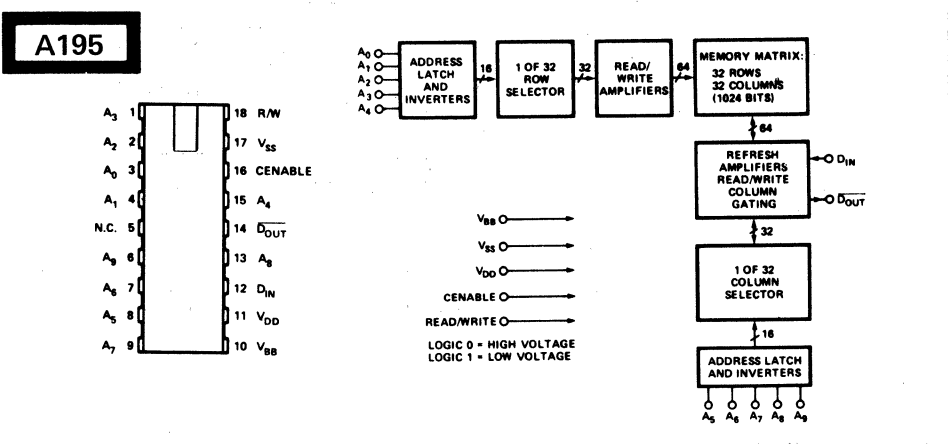
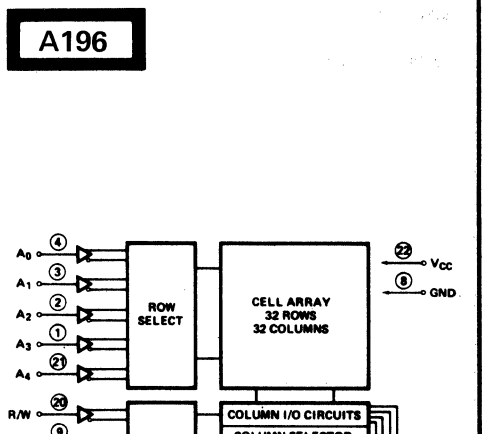
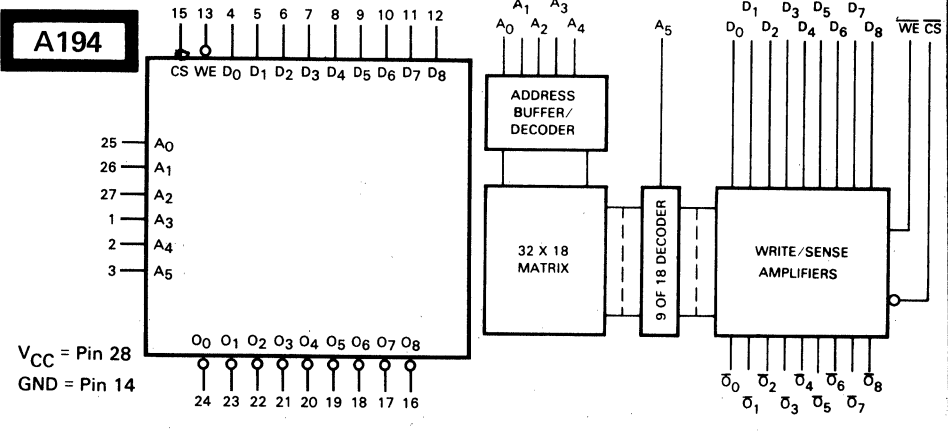
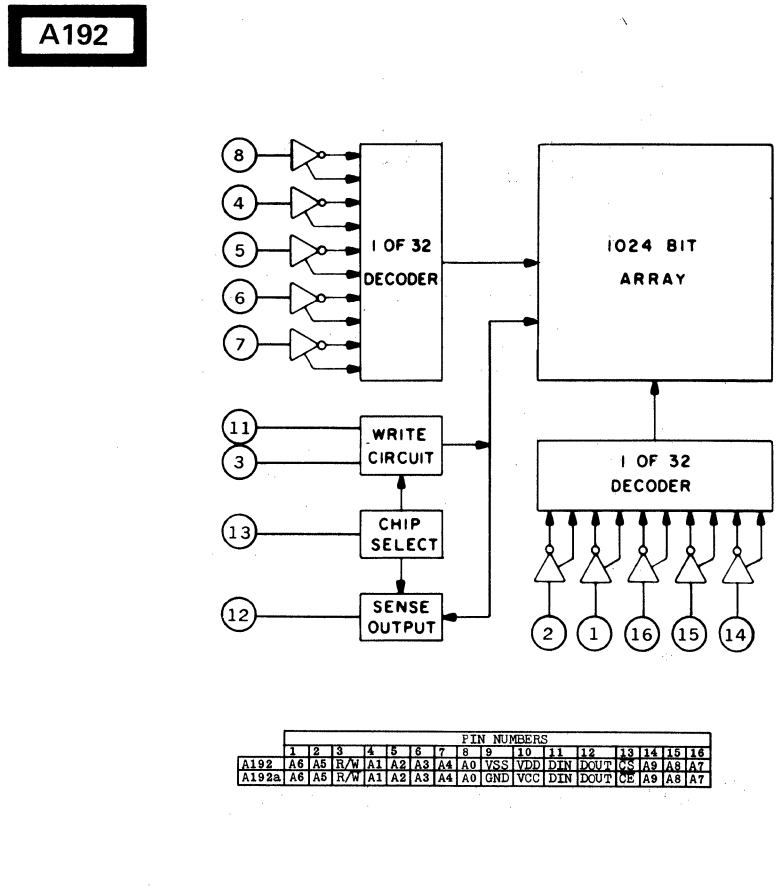
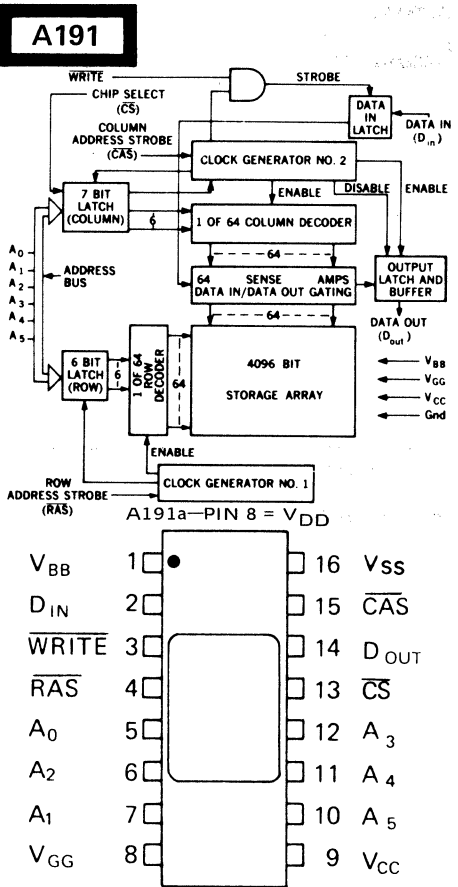
		PIN NUMBERS																					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A189	VBB	A9	A10	A11	CS	DIN	DOUT	A0	A1	A2	VDD	R/W	A3	A4	A5	NC	CE	VGG	A6	A7	A8	VSS	
A189a	VBB	A9	A10	A11	CS	DIN	DOUT	A0	A1	A2	VCC	WE	A3	A4	A5	NC	CE	VDD	A6	A7	A8	VSS	

A190



22. LOGIC/BLOCK DRAWINGS

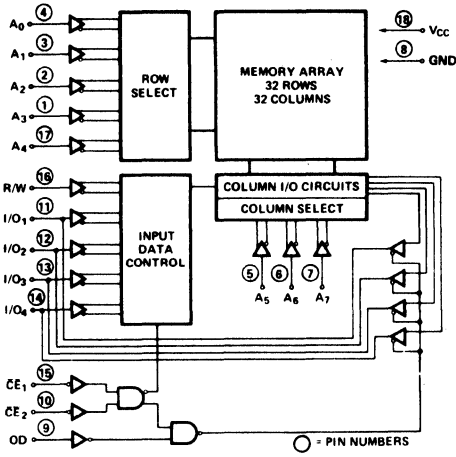
IN DRAWING NUMBER SEQUENCE



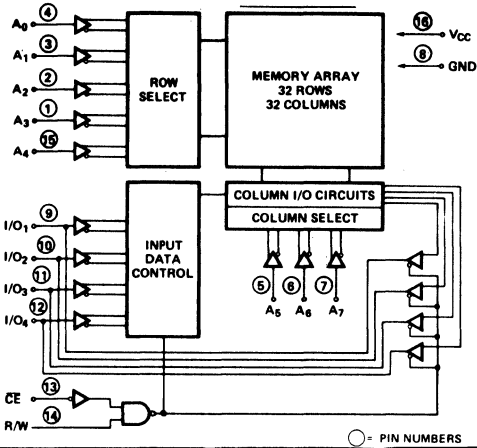
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

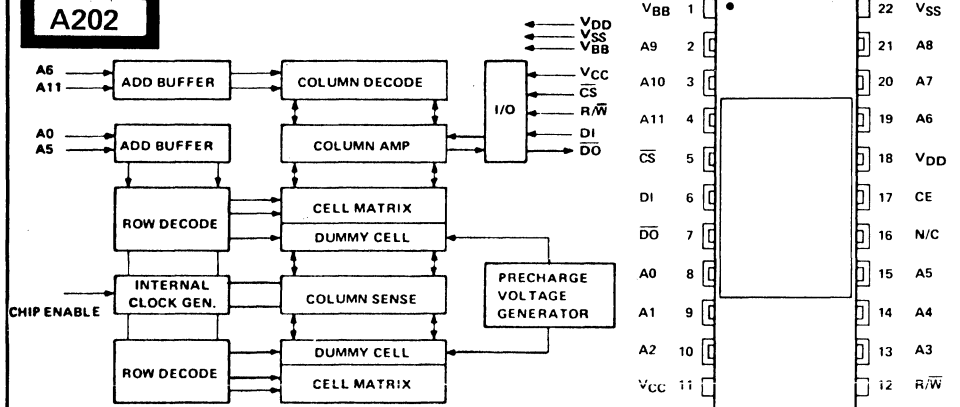
A200



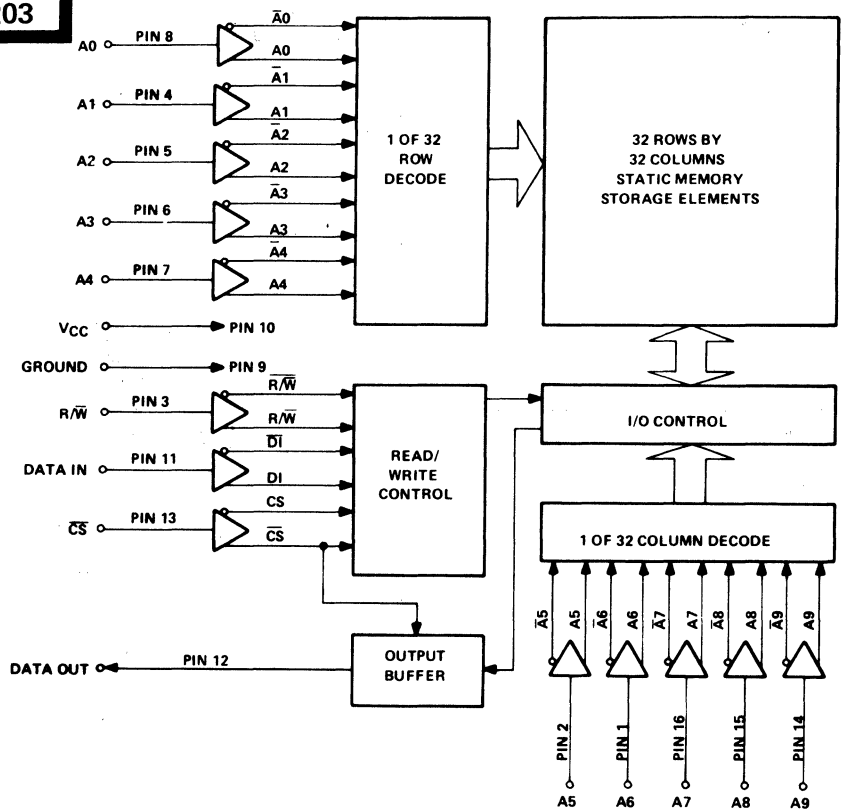
A201



A202



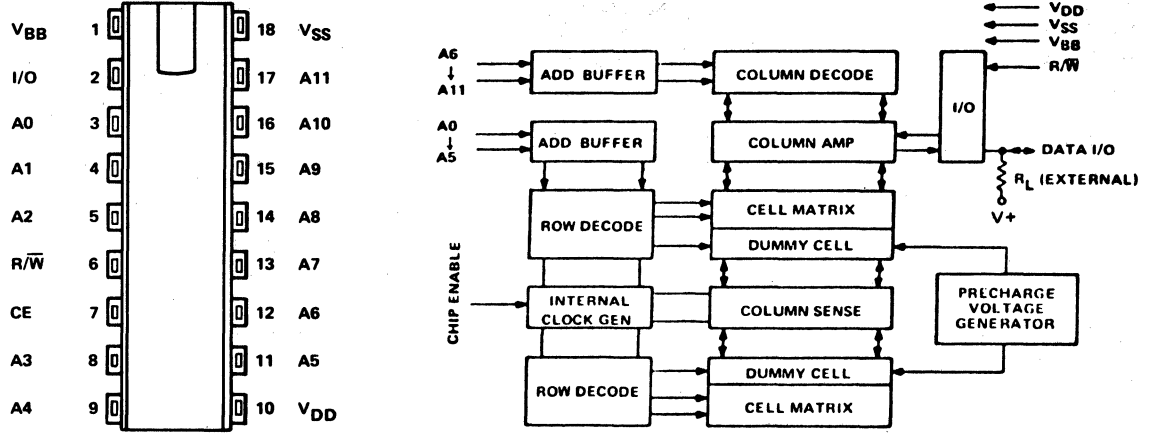
A203



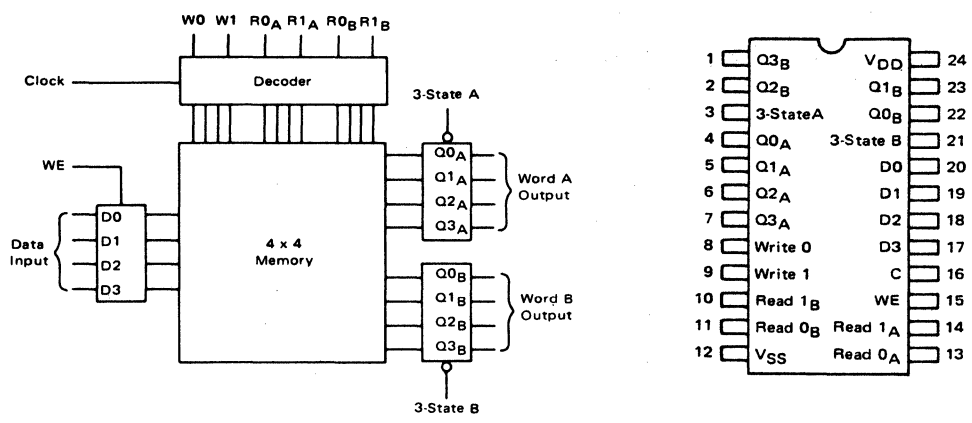
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

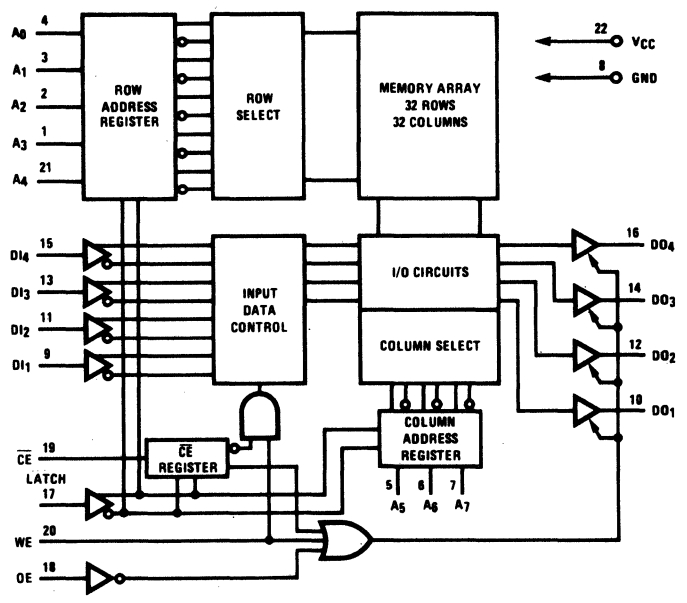
A204



A205



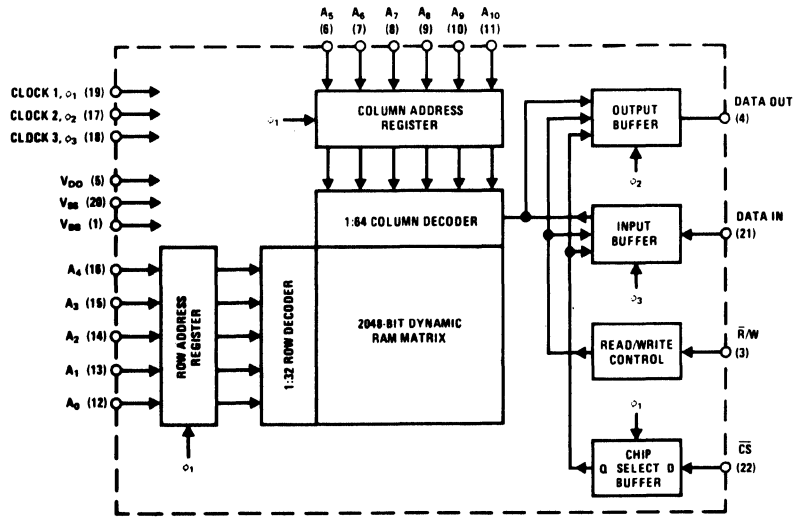
A206



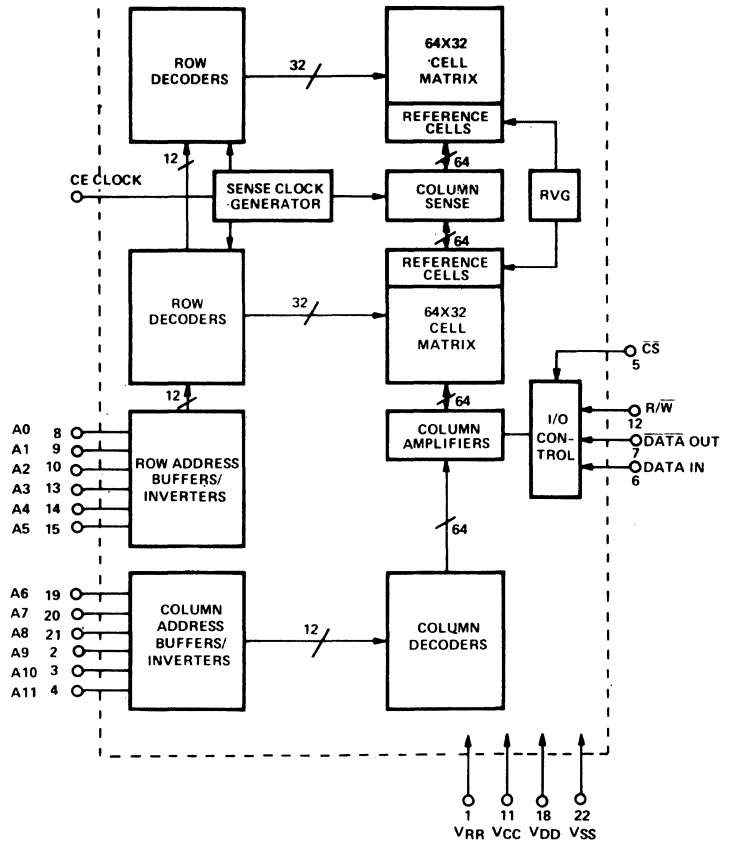
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A207



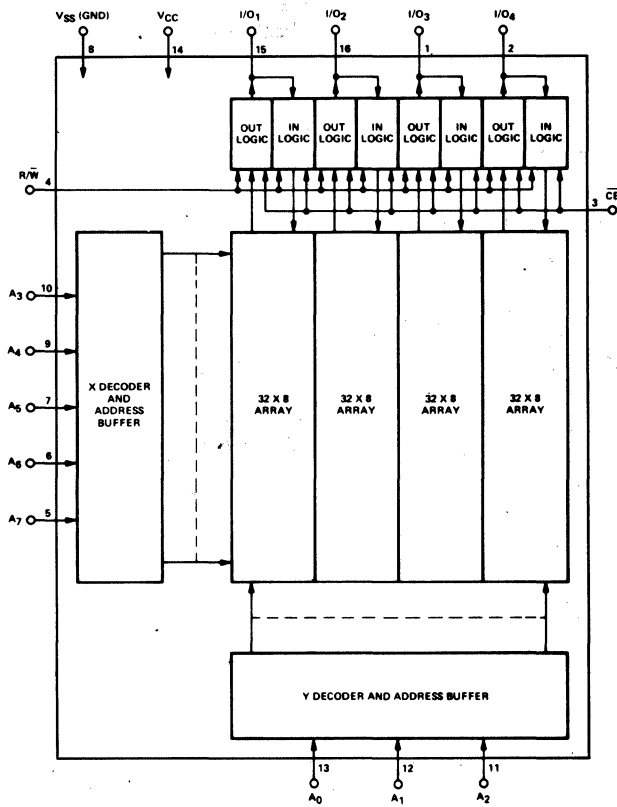
A208



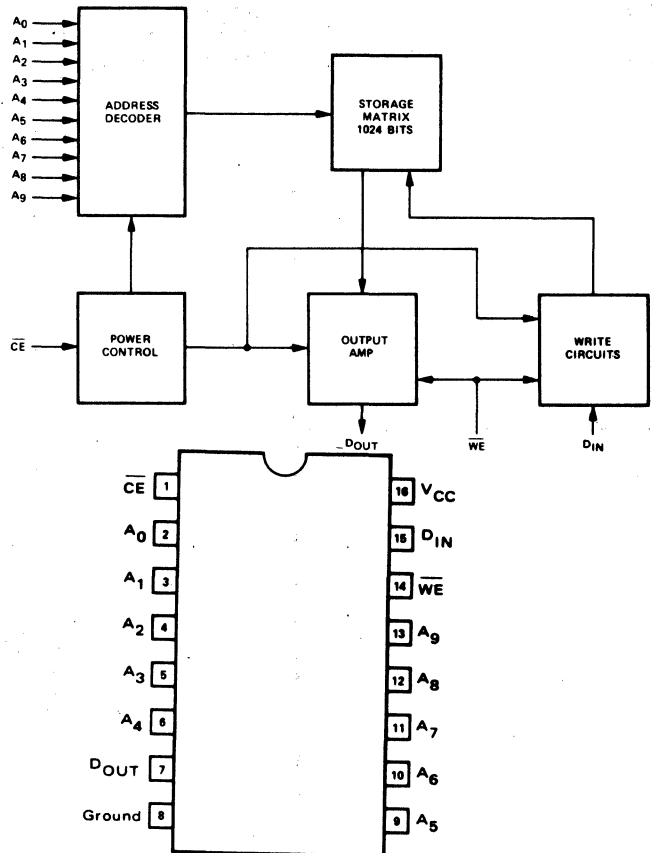
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A209



A210

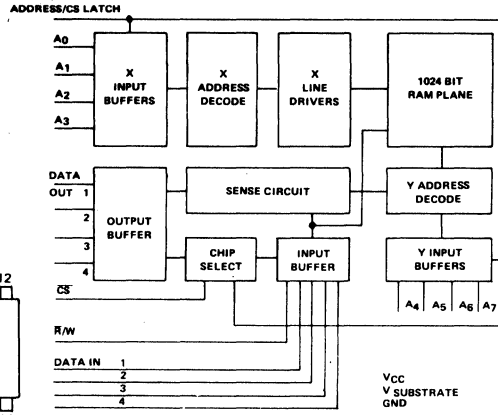
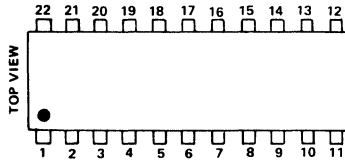


22. LOGIC/BLOCK DRAWINGS

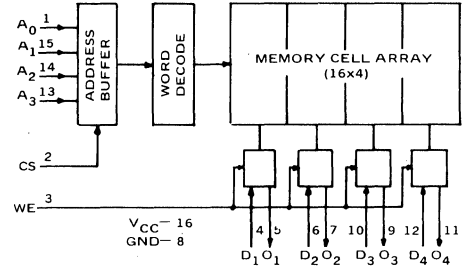
IN DRAWING NUMBER SEQUENCE

A213

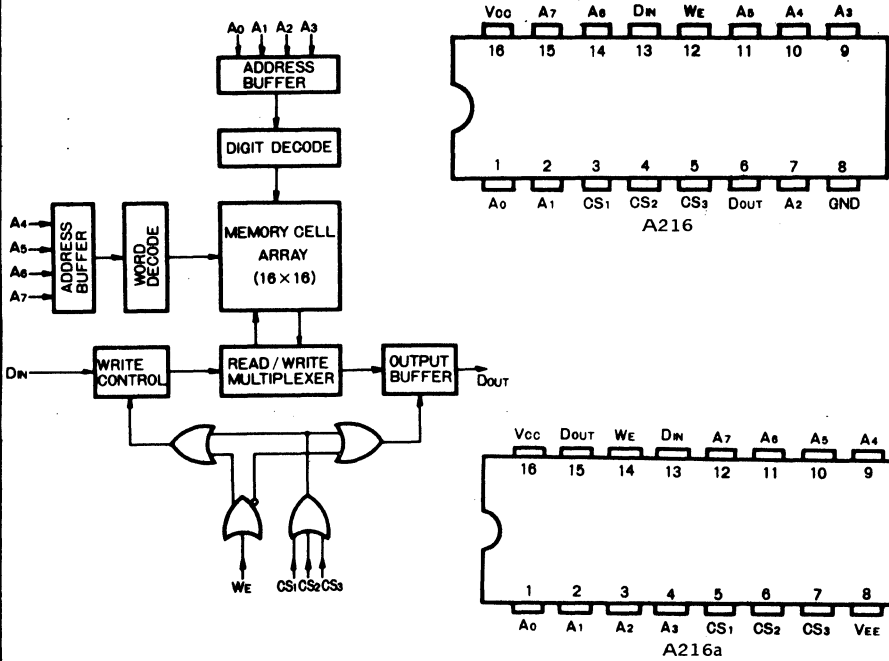
PIN	FUNCTION	PIN	FUNCTION
1	V Substrate	12	Data Out 1
2	Data Out 3	13	Data In 1
3	Data In 3	14	CS
4	A ₇	15	A ₀
5	A ₆	16	A ₁
6	A ₅	17	A ₂
7	A ₄	18	A ₃
8	Address/CS Latch	19	R/W
9	VCC	20	Gnd
10	Data In 4	21	Data In 2
11	Data Out 4	22	Data Out 2



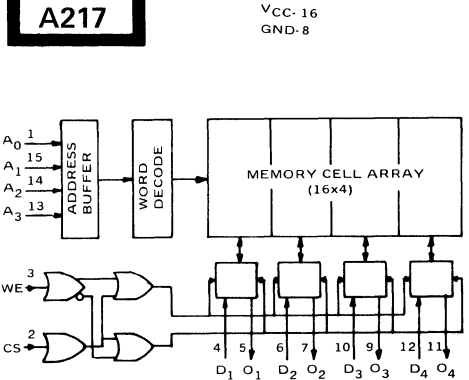
A215



A216



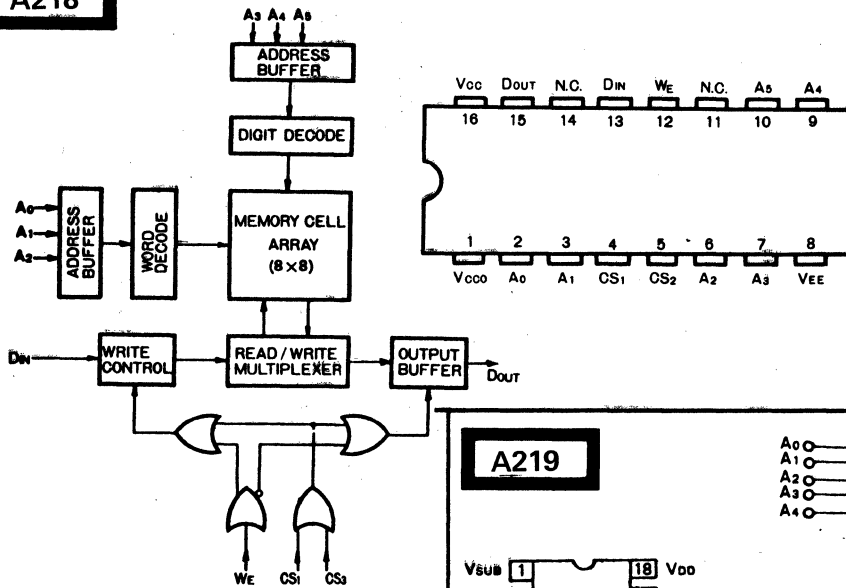
A217



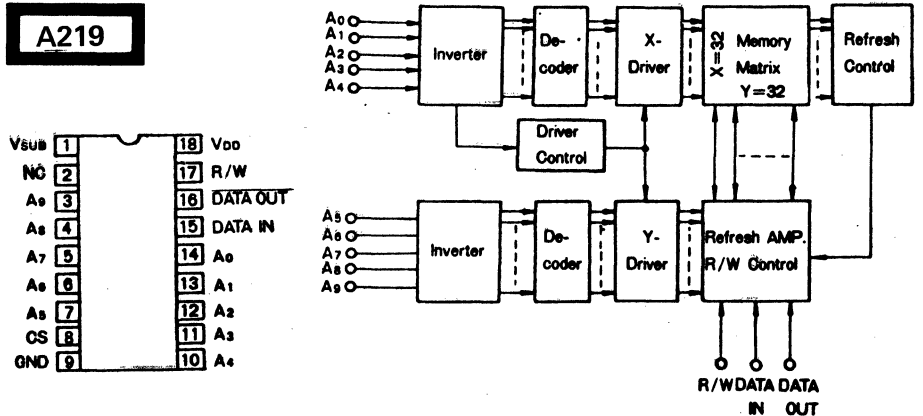
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

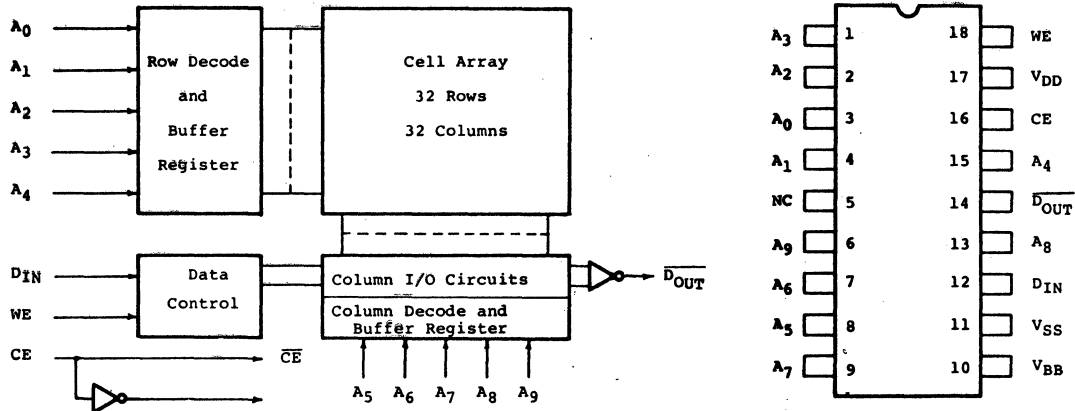
A218



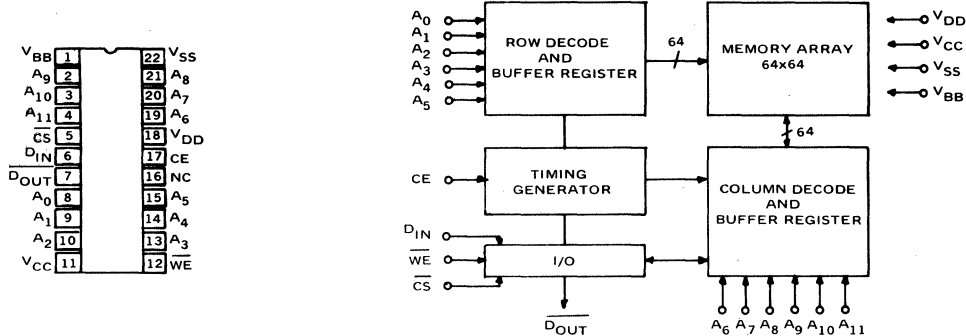
A219



A220



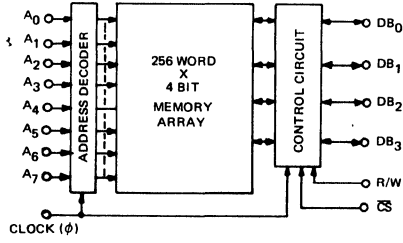
A221



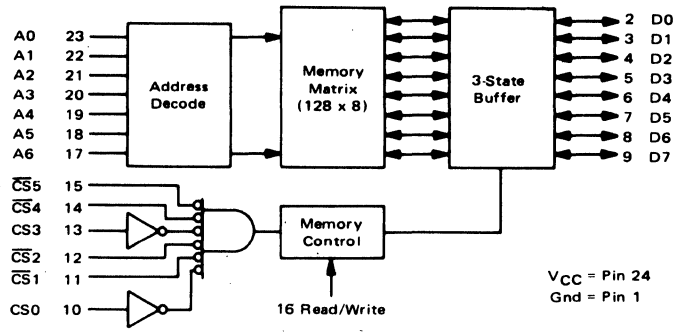
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

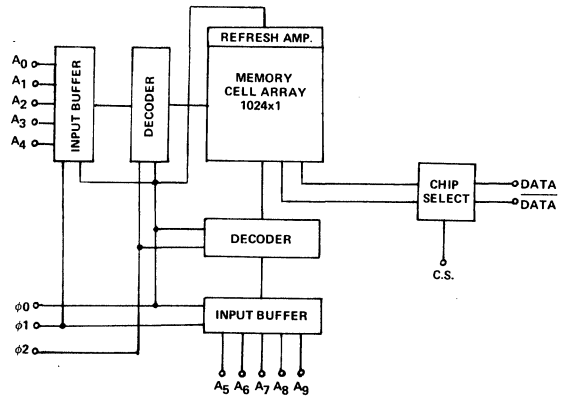
A222



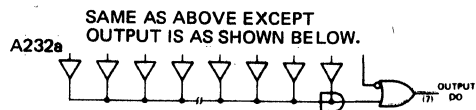
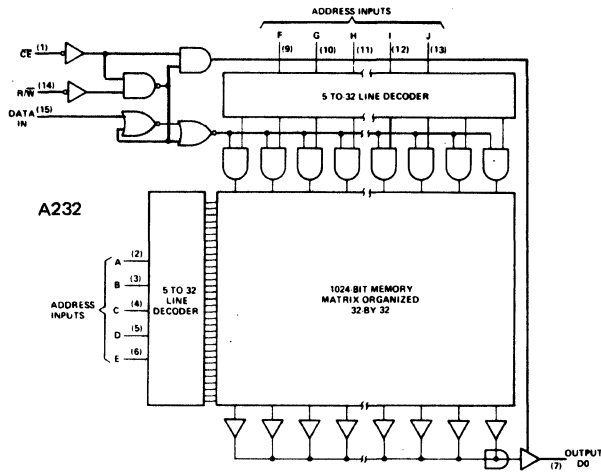
A223



A226



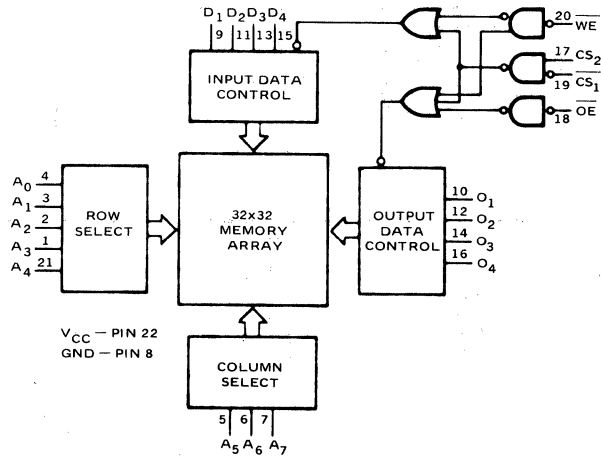
A232



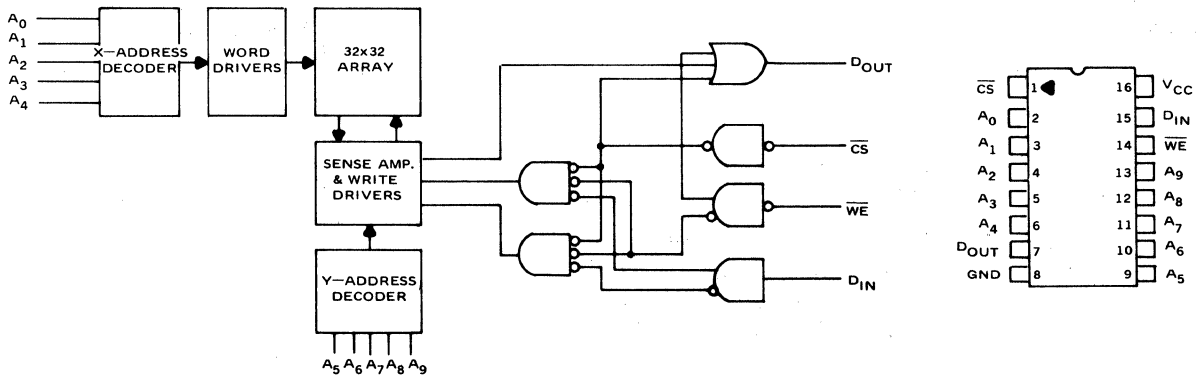
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

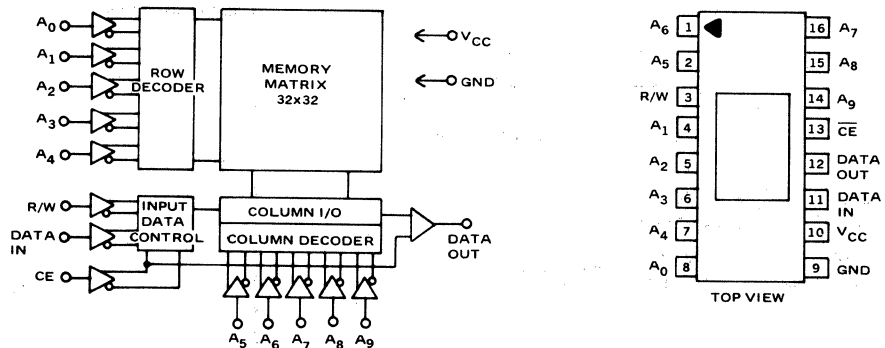
A233



A235



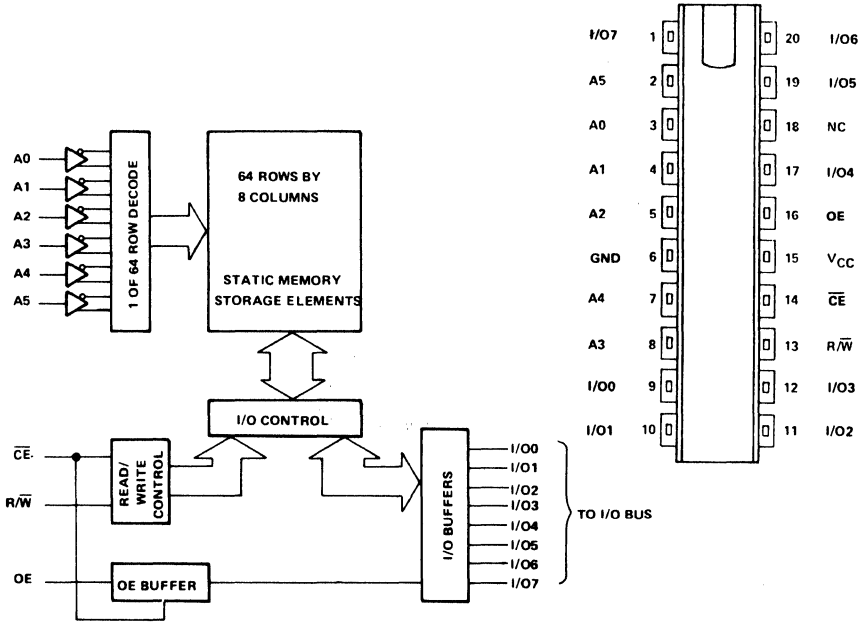
A236



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A237

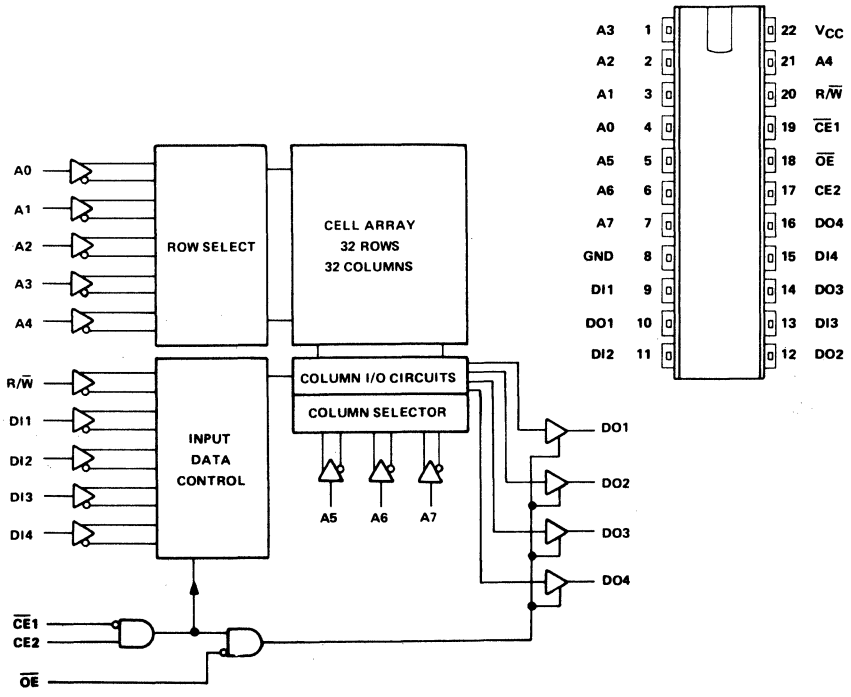


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A238

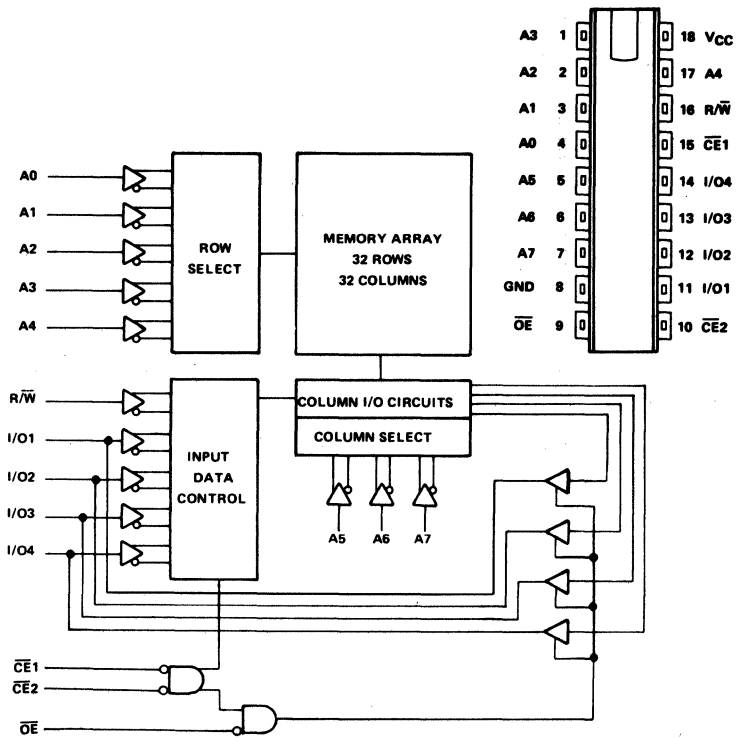


[]

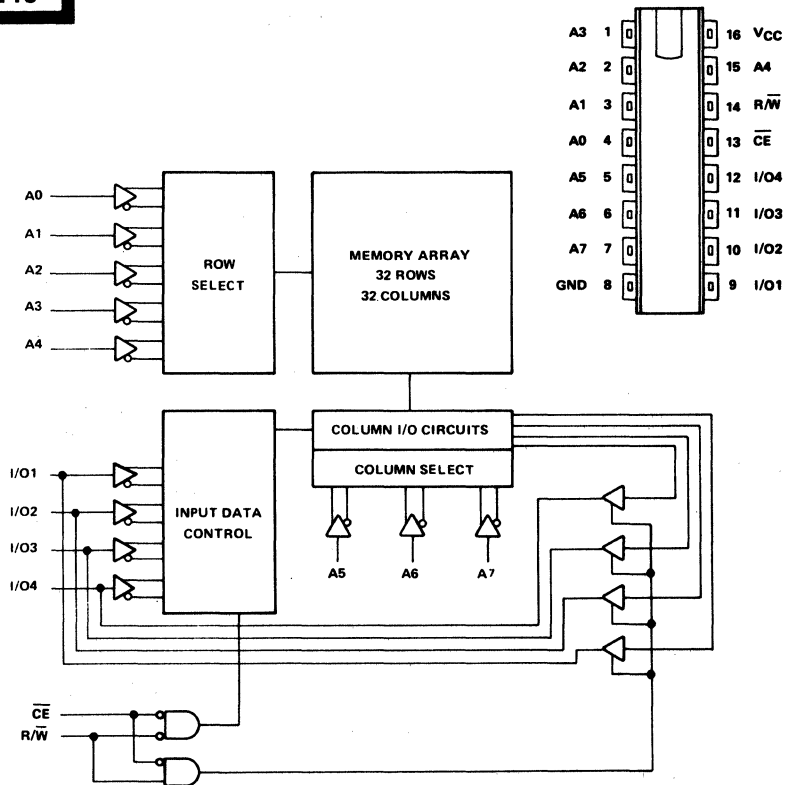
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A239



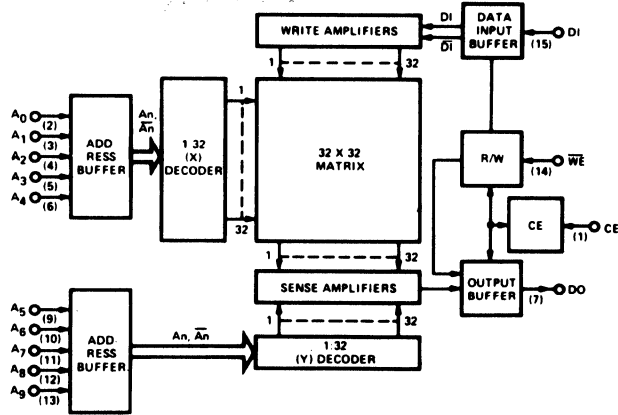
A240



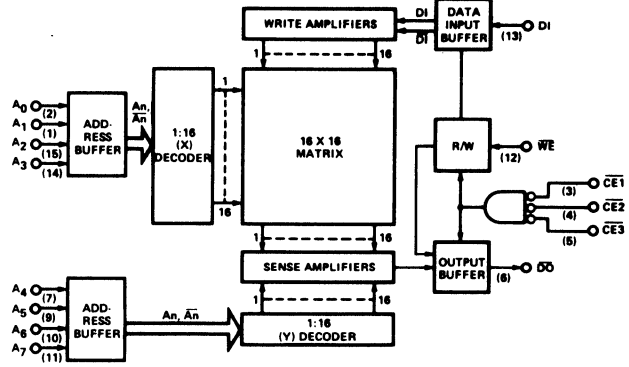
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

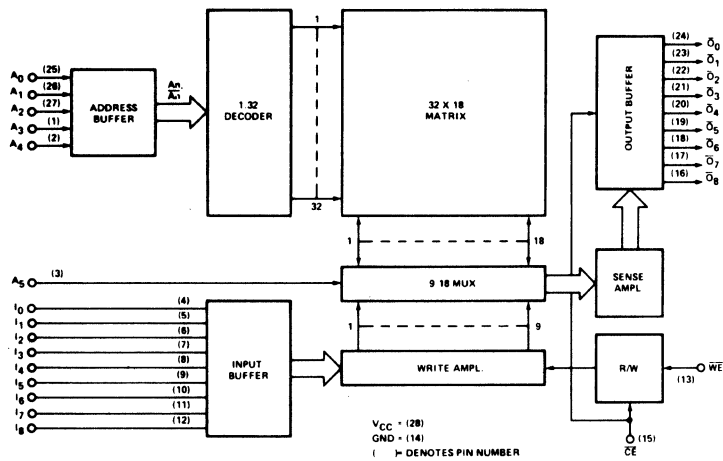
A242



A243



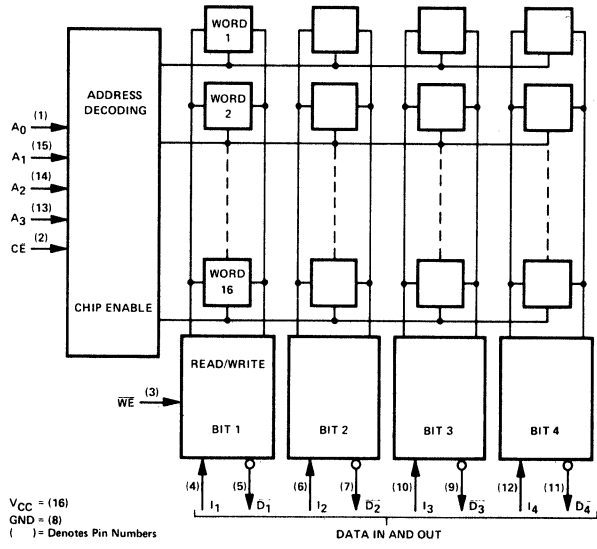
A244



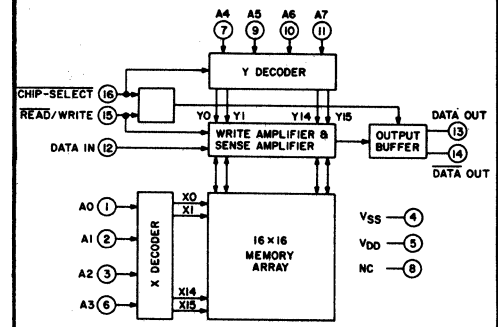
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A245



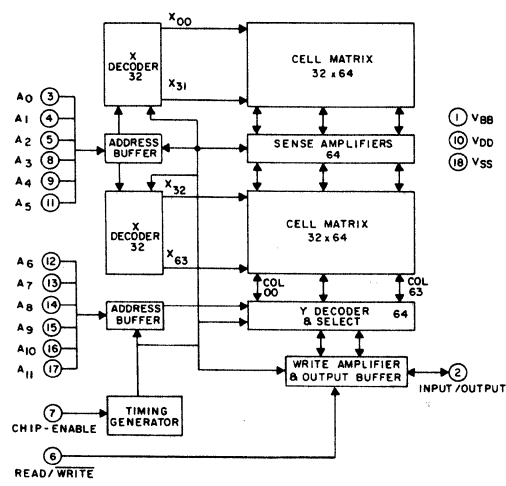
A247



A246

A248

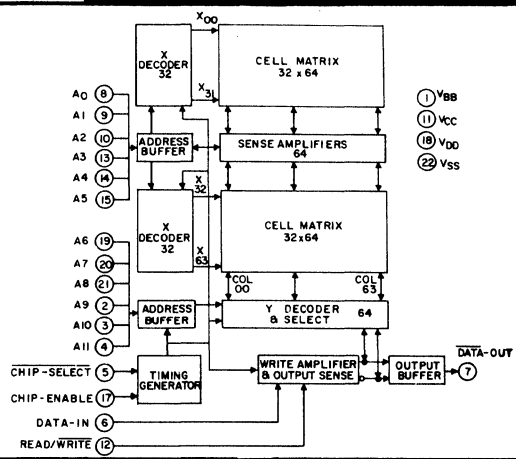
A248



22. LOGIC/BLOCK DRAWINGS

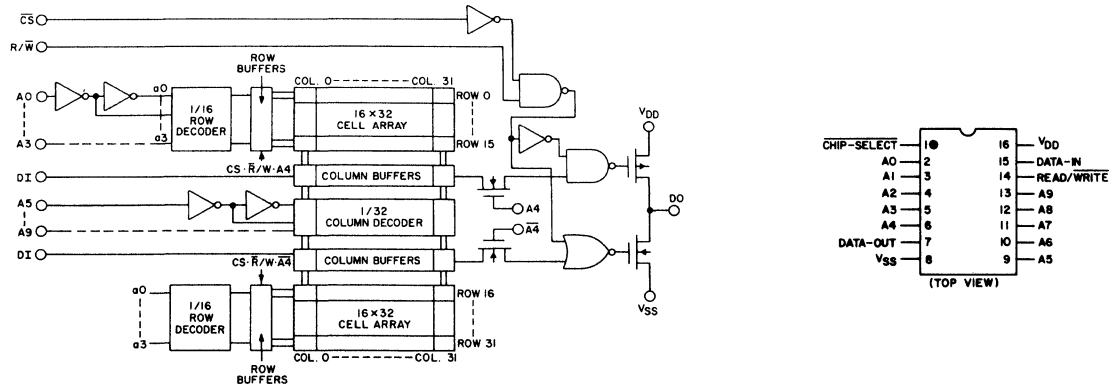
IN DRAWING NUMBER SEQUENCE

A249



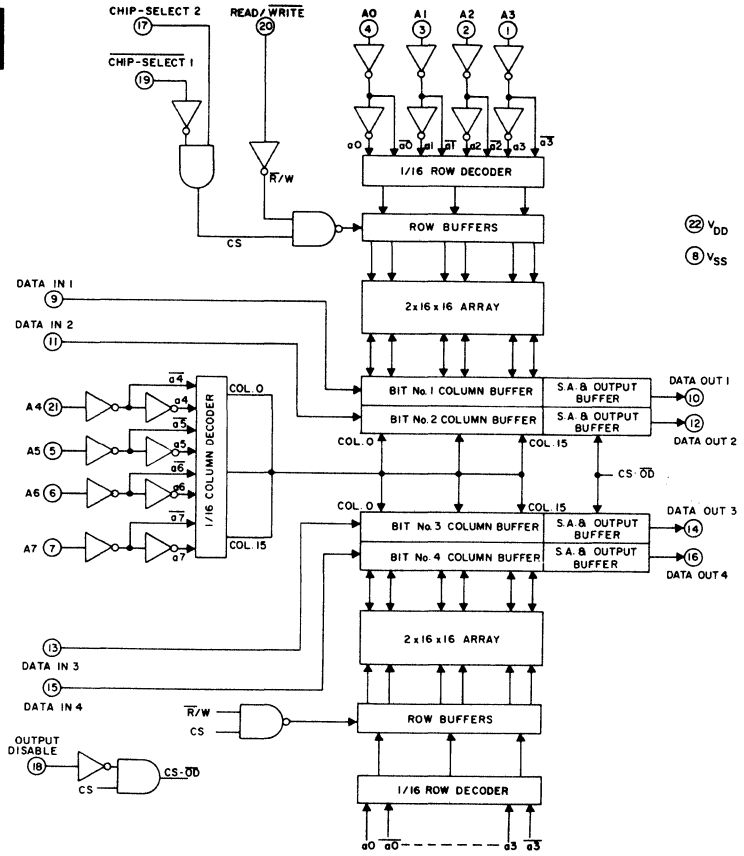
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A251



[Empty box]

A252

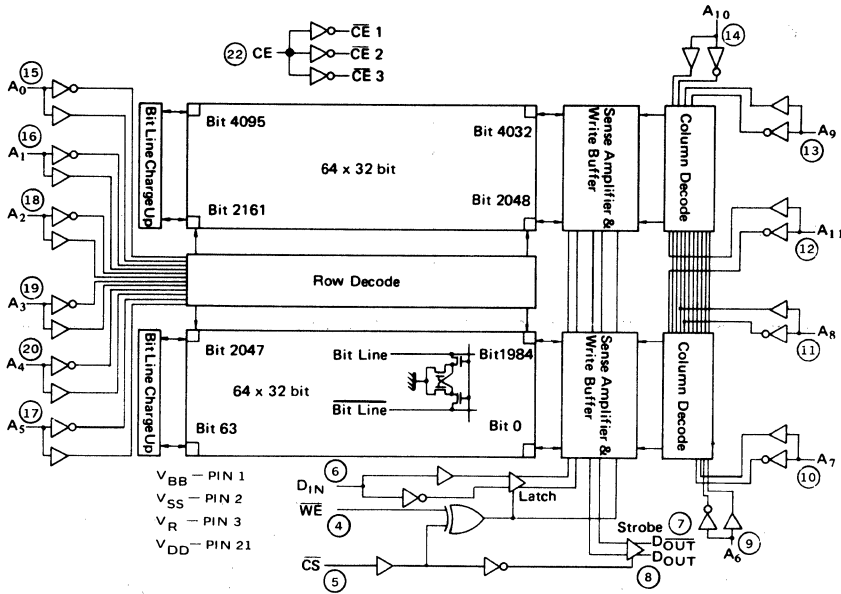


[Empty box]

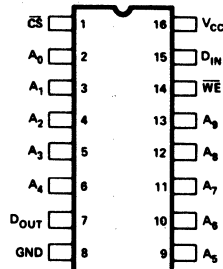
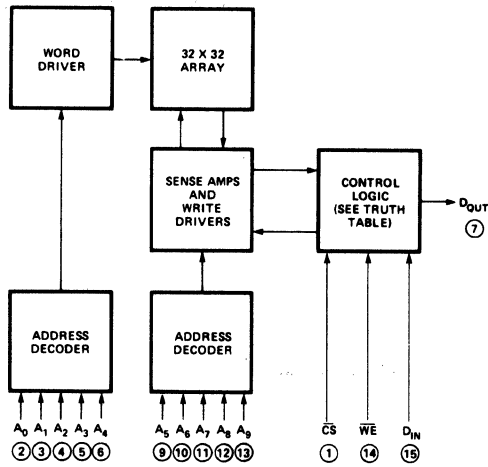
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A255



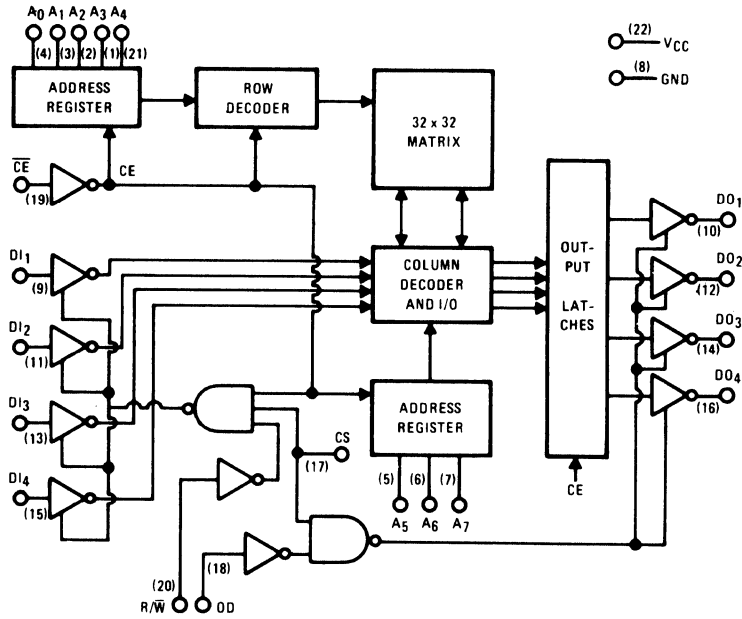
A256



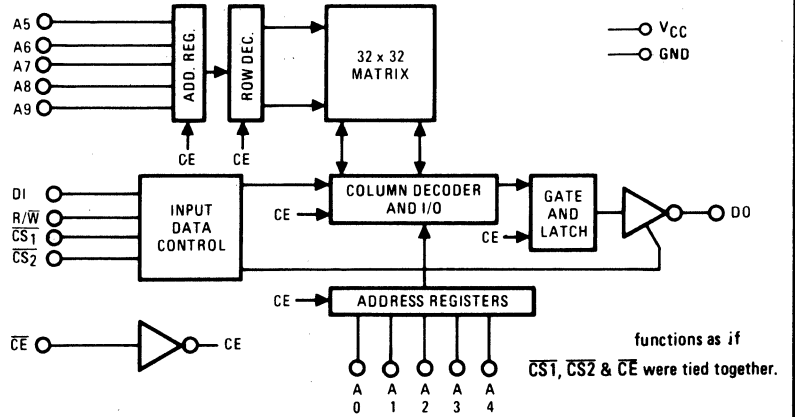
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A257



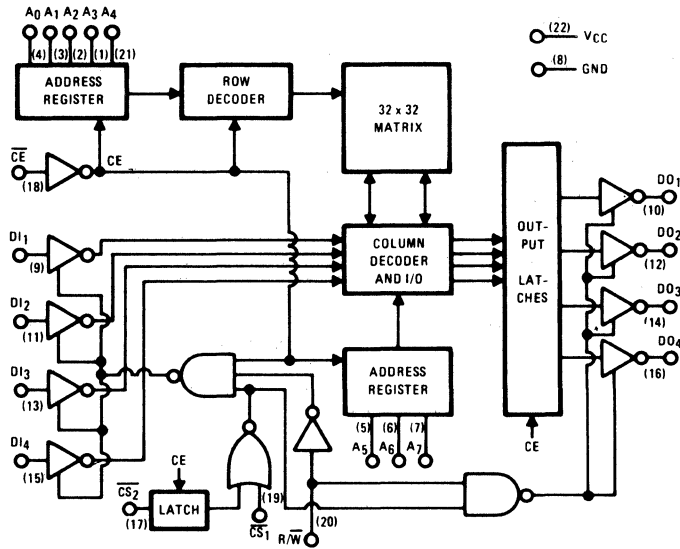
A258



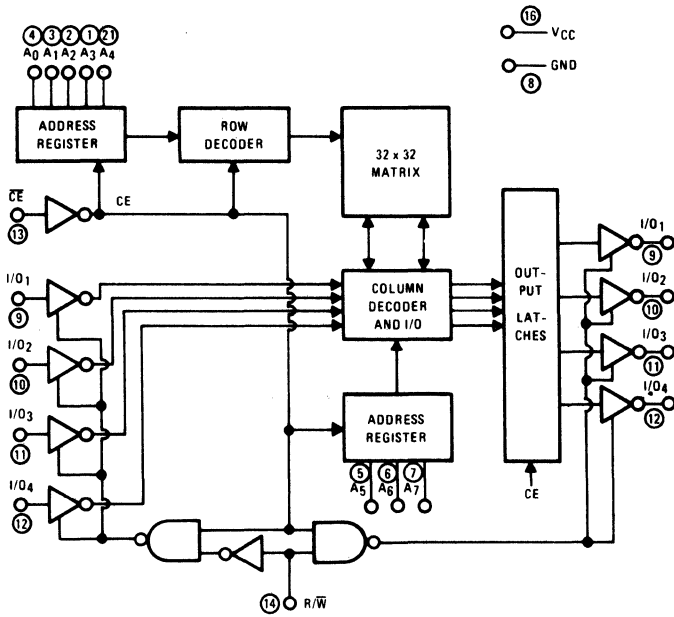
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A259



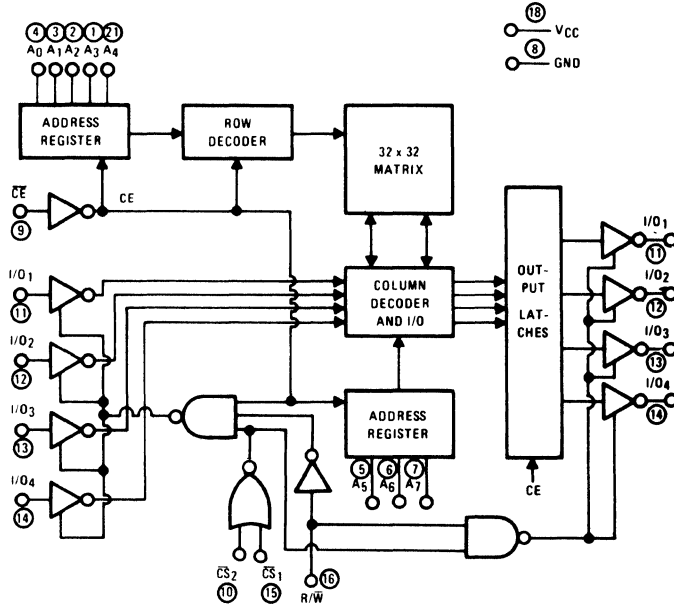
A260



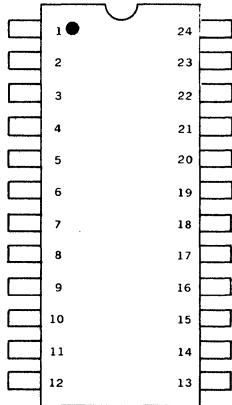
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A261

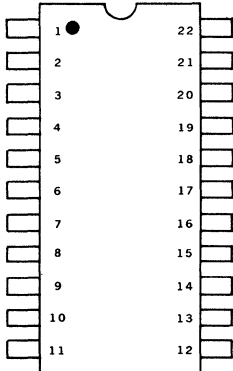


A262



PIN NUMBERS																								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
A262	VSS	D0	D1	D2	D3	D4	D5	D6	D7	E0	E1	E2	E3	E4	E5	R/W	A6	A5	A4	A3	A2	A1	A0	VCC

A263

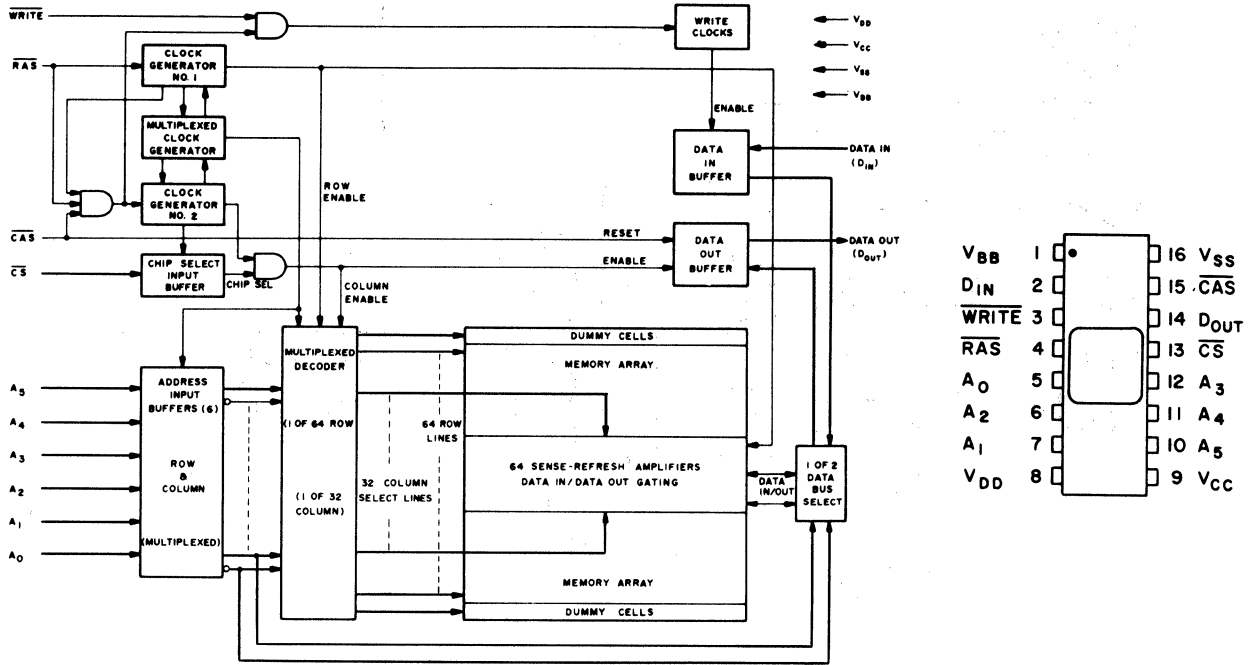


PIN NUMBERS																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
A263	A3	A2	A1	A0	A5	A6	A7	VSS	DIN1	DOUT1	DIN2	DOUT2	DIN3	DOUT3	DIN4	DOUT4	CS	OUT	DISABLE	CS	R/W	A4	VDD
A263a	A3	A2	A1	A0	A5	A6	A7	VSS	D10	D00	D11	D01	D12	D02	D13	D03	CS2	TRD	CS1	MMR	A4	VDD	
A263b	A3	A2	A1	A0	A5	A6	A7	GND	D11	D01	D12	D02	D13	D03	D14	D04	CE2	OD	CE1	R/W	A4	VCC	
A263c	VSX	A0	VSS	NC	QF	DIN	WE	A9	A8	A7	A8	A5	A10	CS	VREF	DOUT	DOUT	VDD	A4	A3	A2	A1	
A263d	VBB	A9	A10	A11	CS	DIN	DOUT	A0	A1	A2	VCC	WE	A3	A4	A5	A12	CE	VDD	A6	A7	A8	VSS	
A263e	A3	A2	A1	A0	A5	A6	A7	VSS	D11	D01	D12	D02	D13	D03	D14	D04	CE2	OD	CE1	WE	A4	VCC	
A263f	VBB	A3	Preset	DIN	A11	CE	DOUT	CS	A4	A2	VCC	VSS	A0	R/W	A5	A6	A7	A8	A9	A10	A1	VDD	

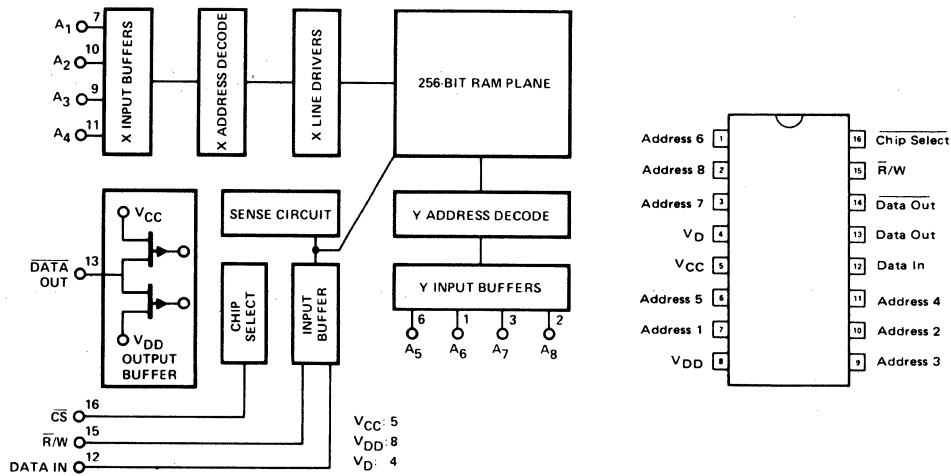
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A264



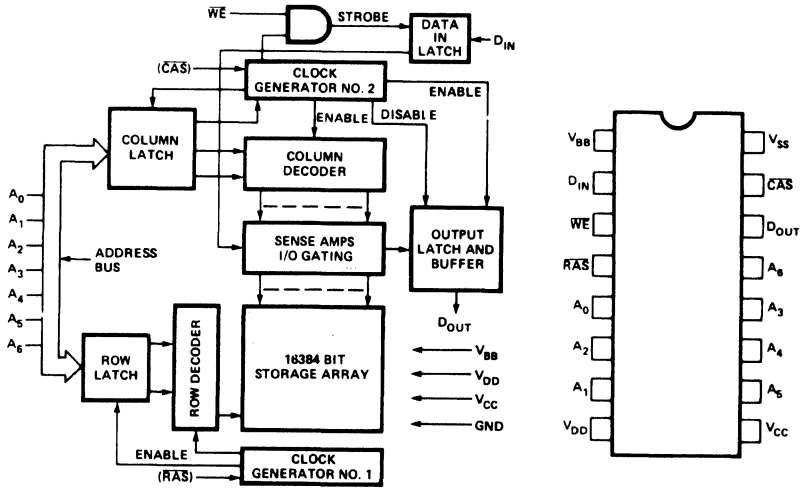
A265



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A266

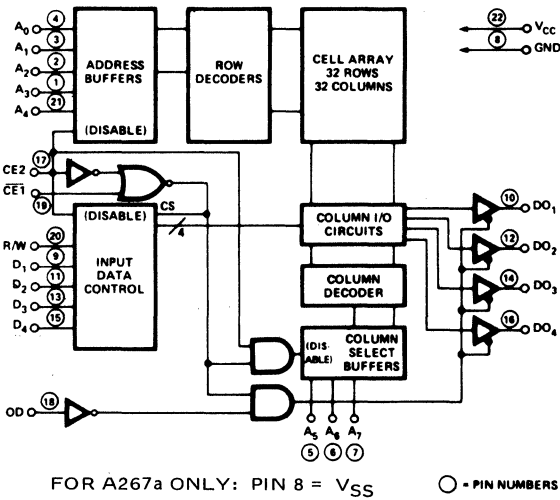


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A267



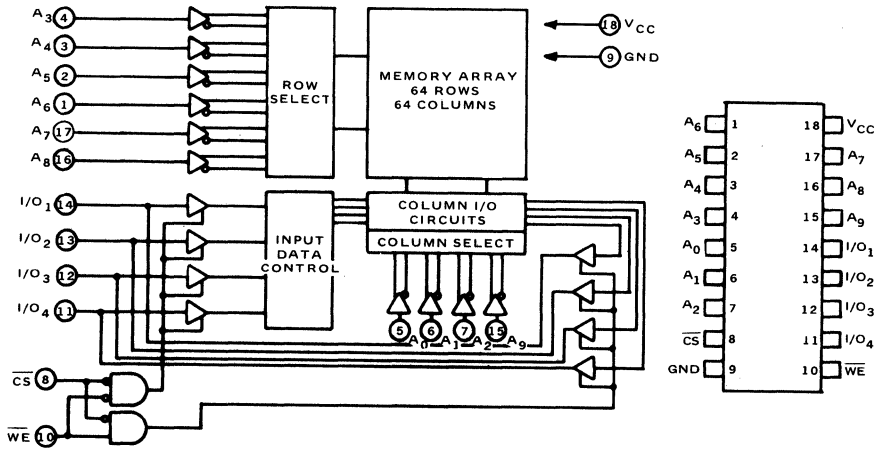
FOR A267a ONLY: PIN 8 = V_{SS} ○ - PIN NUMBERS

[Empty box]

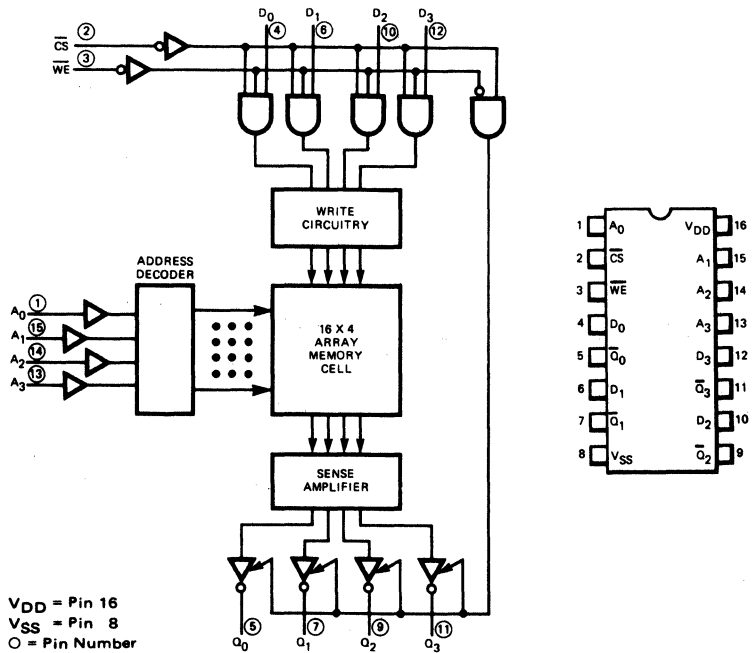
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A268



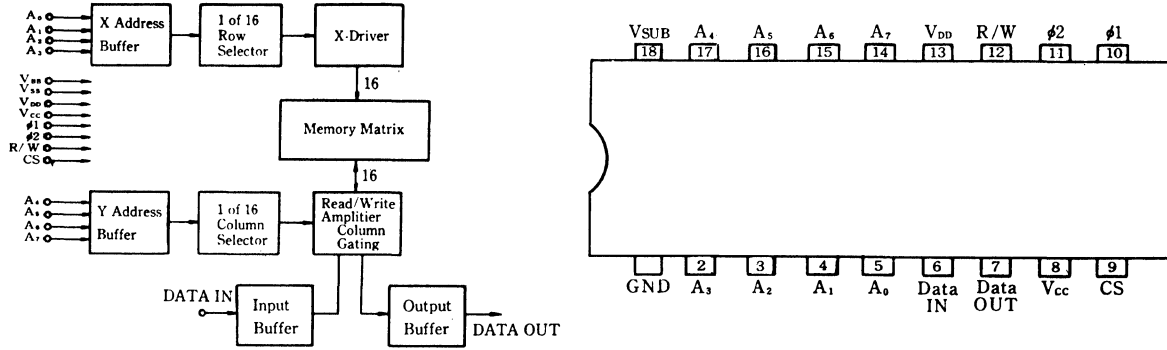
A269



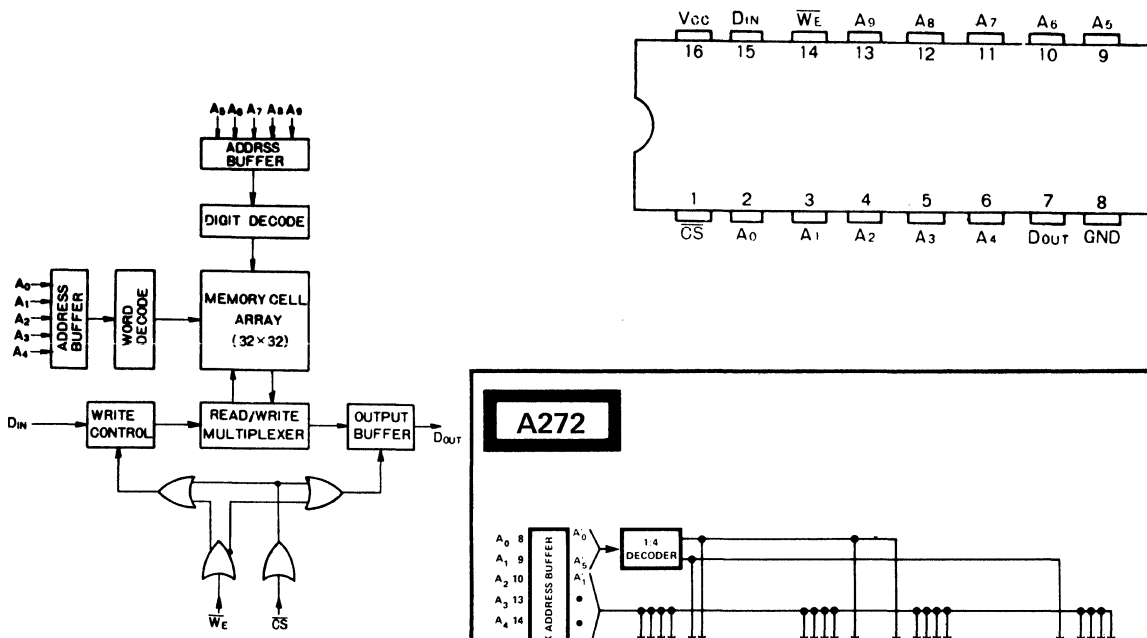
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

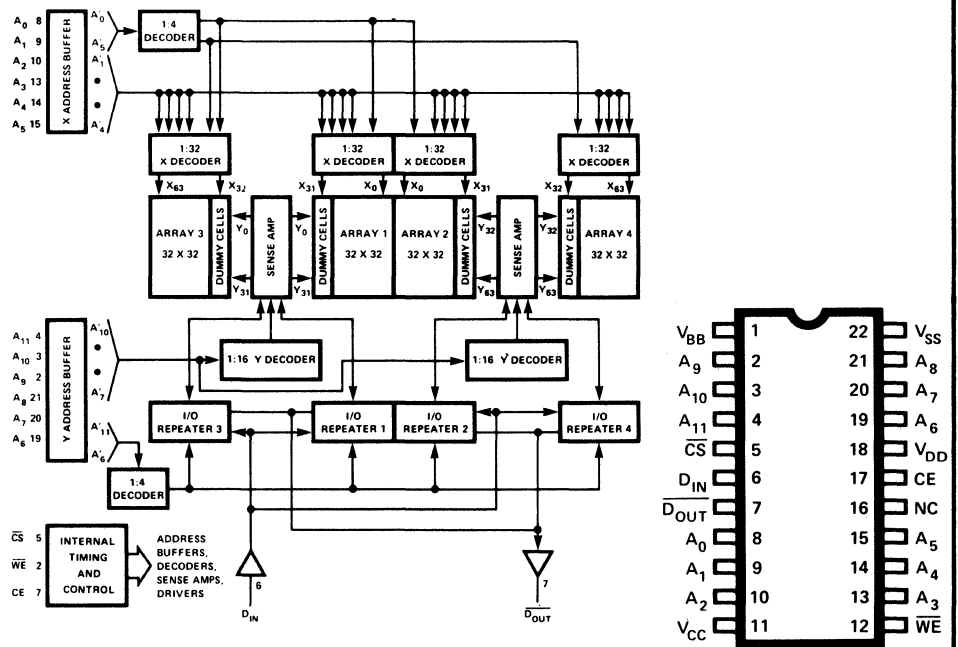
A270



A271



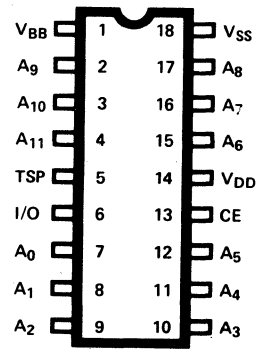
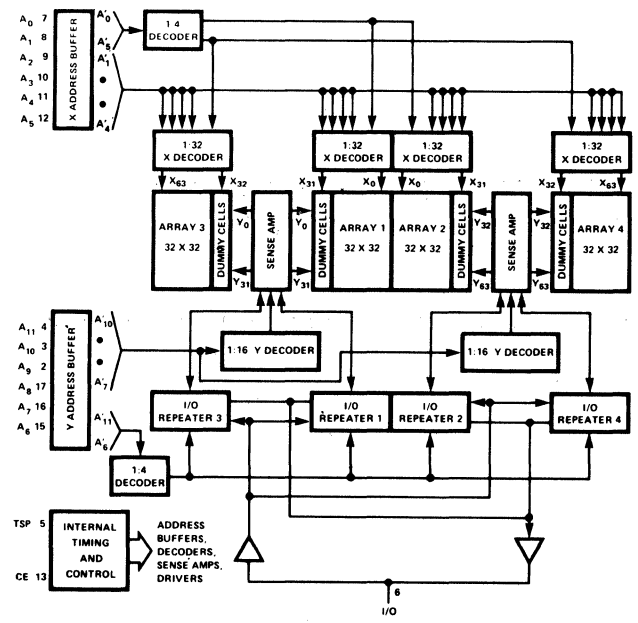
A272



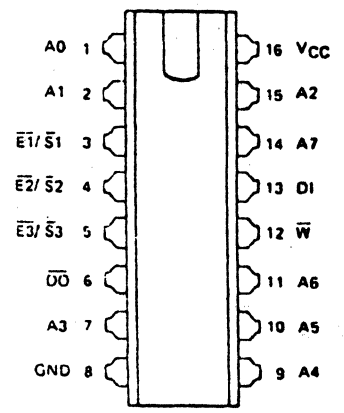
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A273

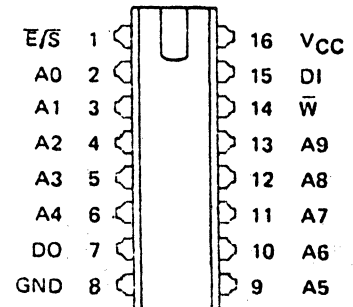


A275



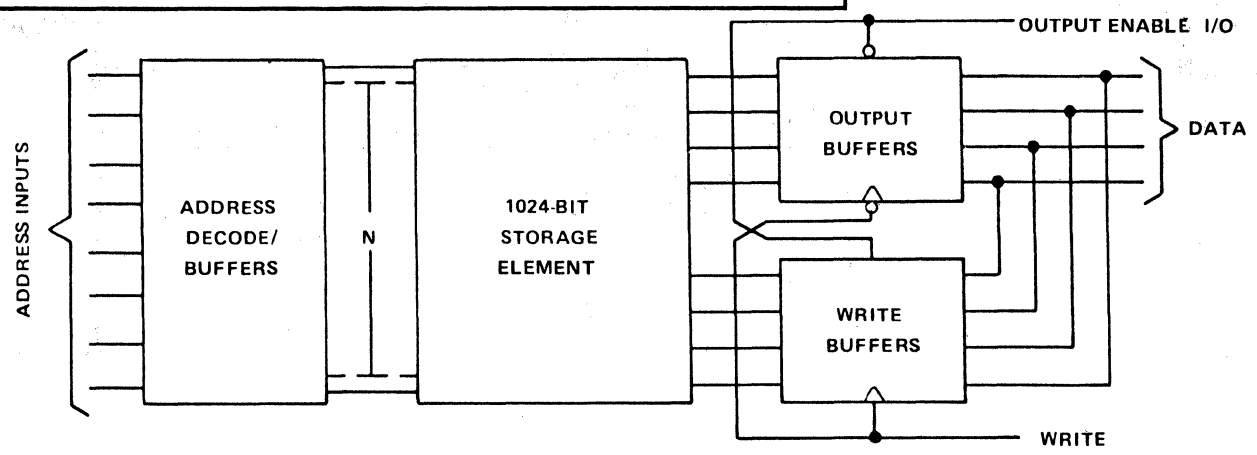
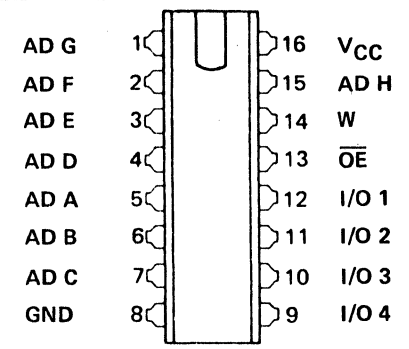
Pin assignments are same for all packages
 $\bar{E}1, \bar{E}2, \bar{E}3$ = Chip-Enable for A275a
 $\bar{S}1, \bar{S}2, \bar{S}3$ = Chip-Select for A275

A276

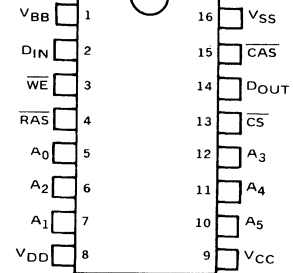
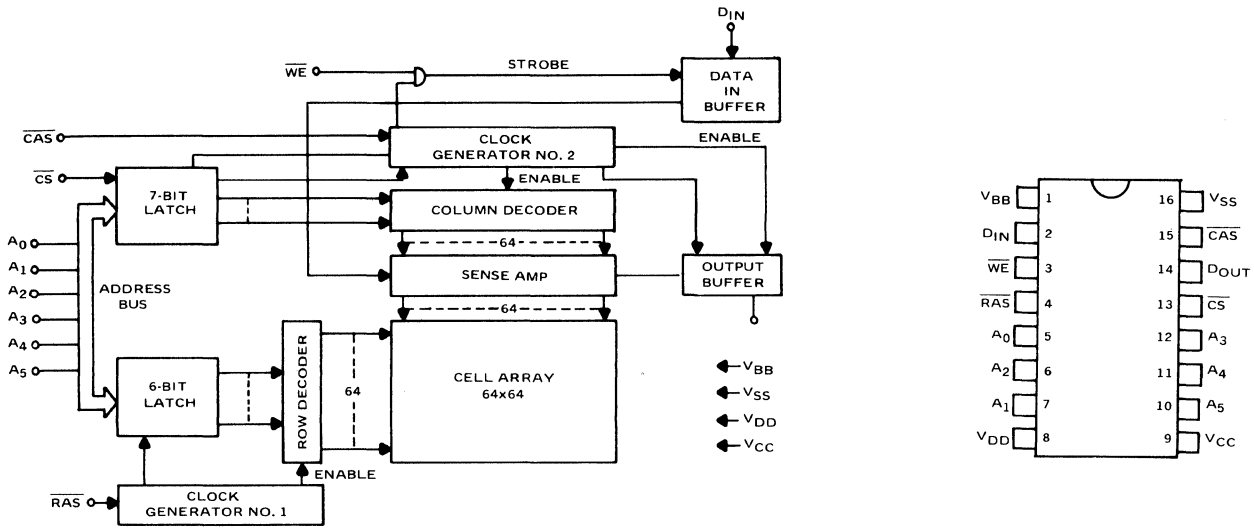


Pin assignments are same for all packages
 \bar{E} = Chip-Enable for A276a
 \bar{S} = Chip-Select for A276

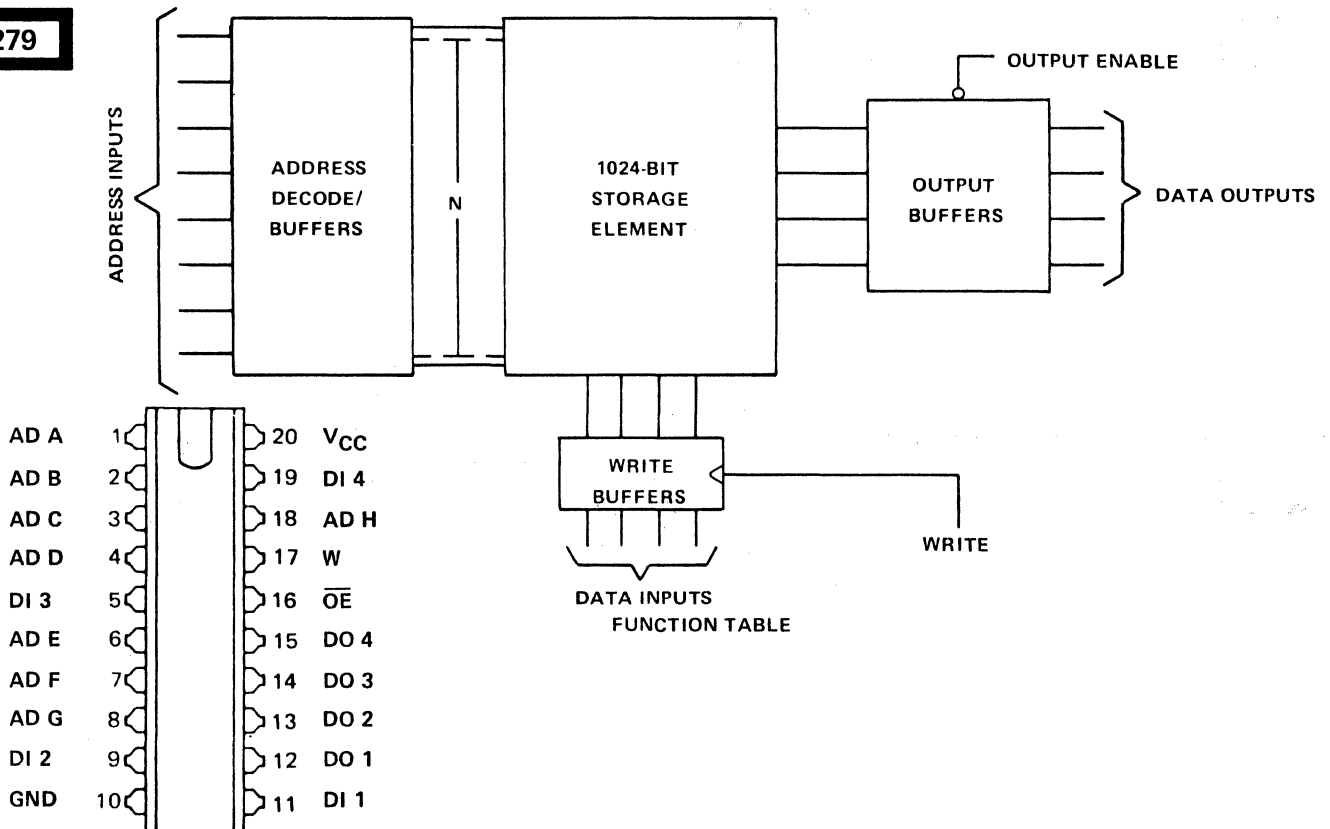
A277



A278



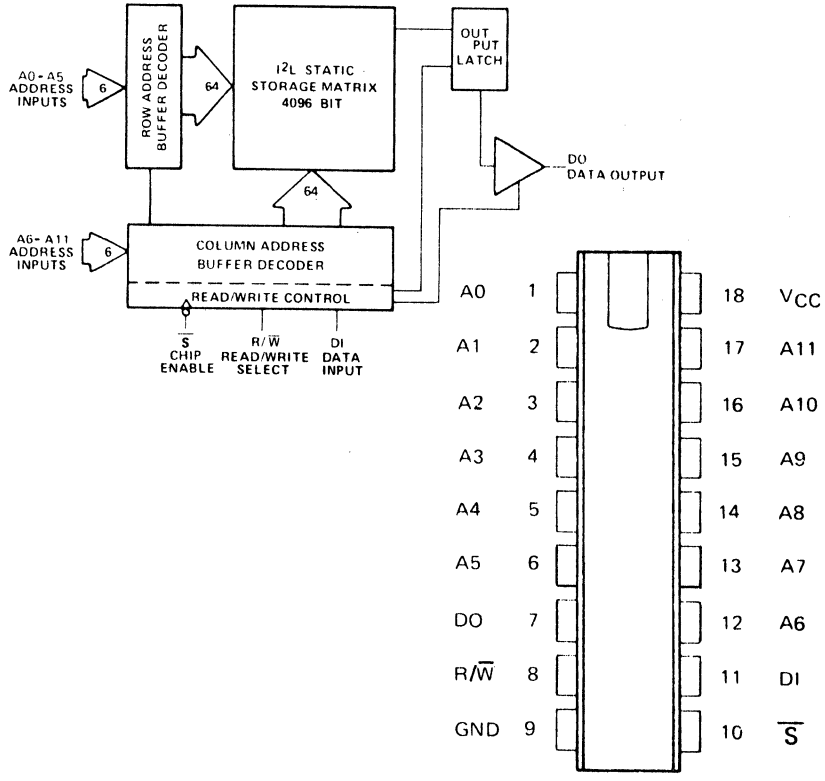
A279



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A280

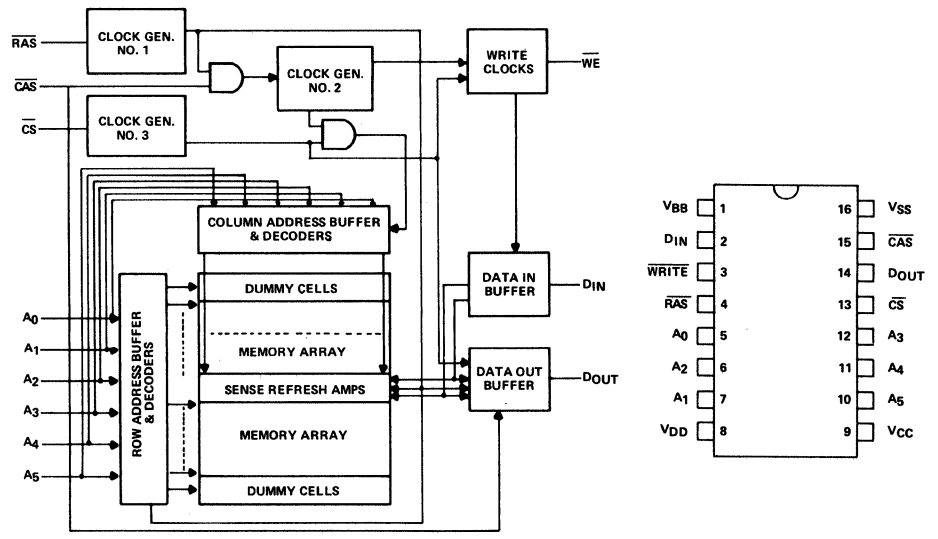


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[Empty box]

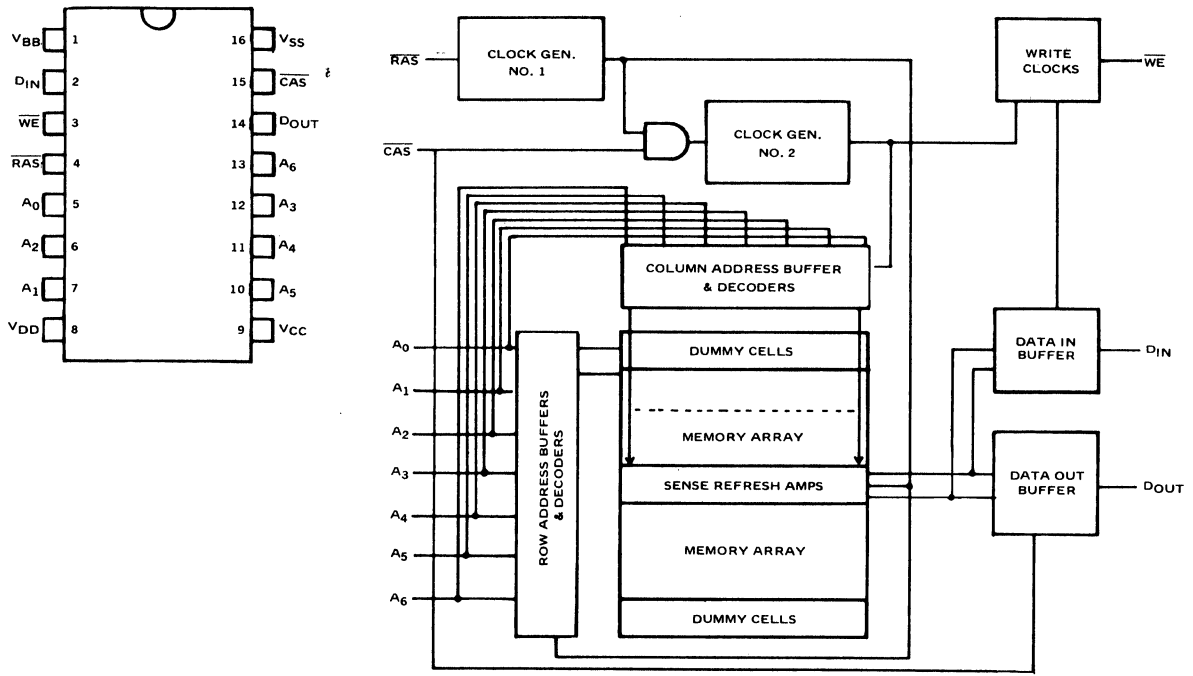
A281



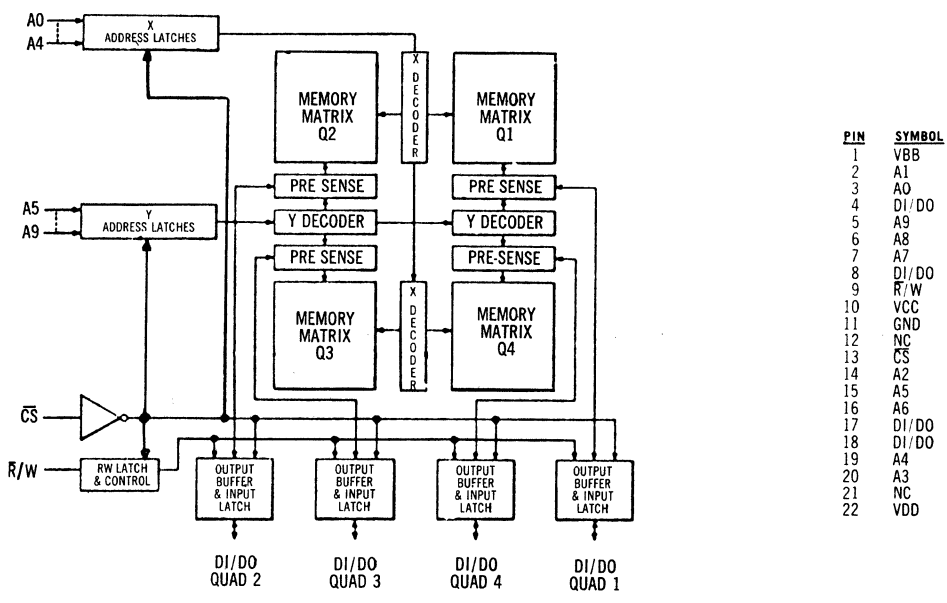
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22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

A282



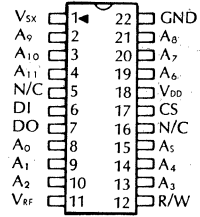
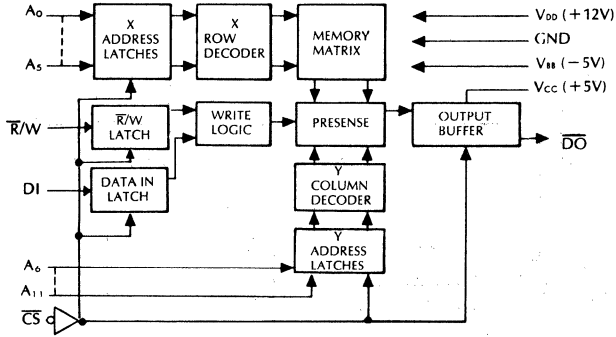
A283



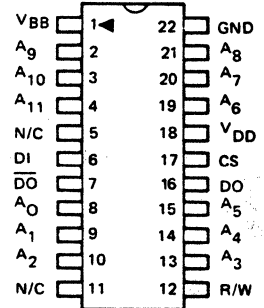
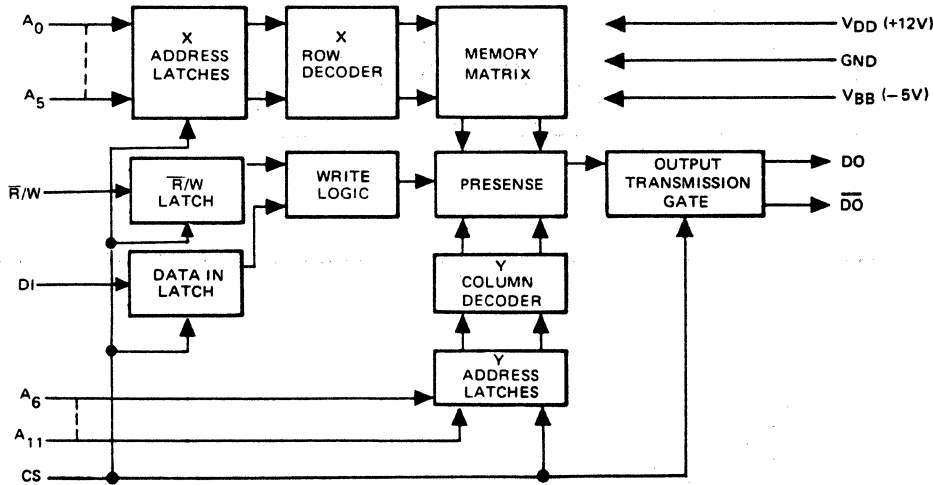
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A284



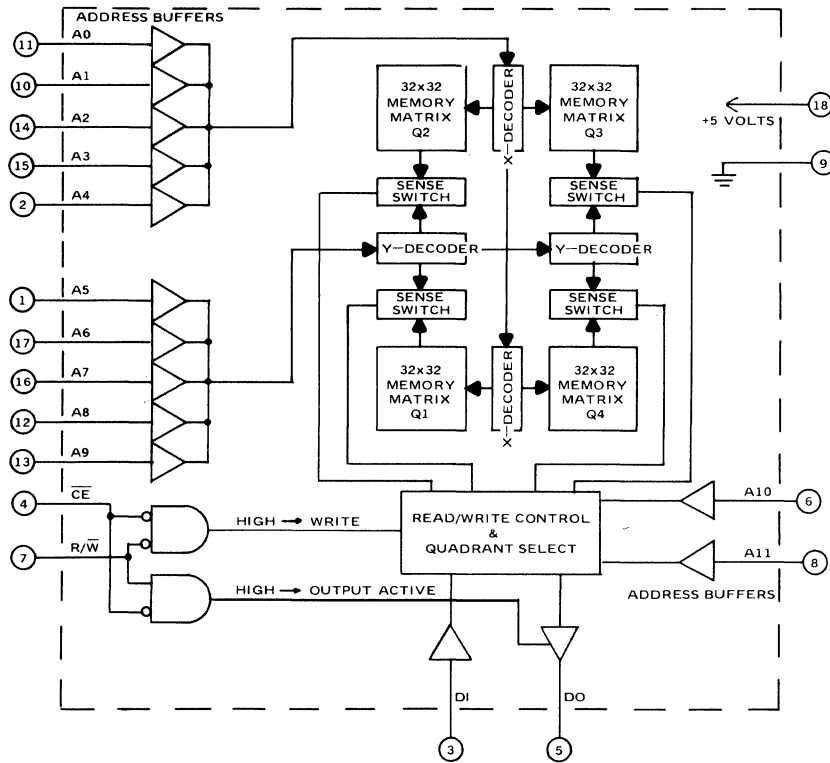
A285



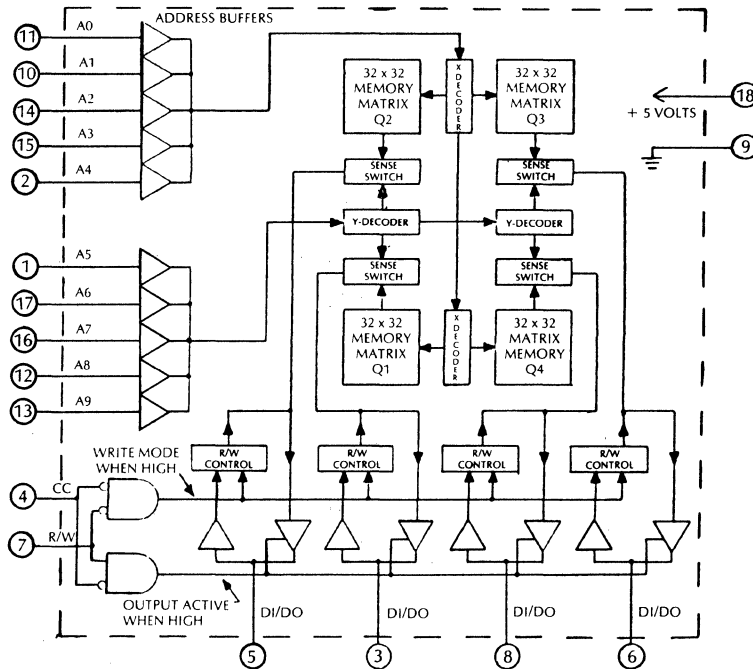
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A286



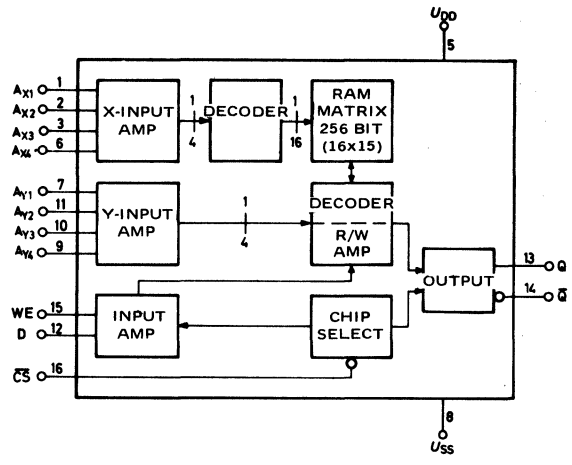
A287



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A288

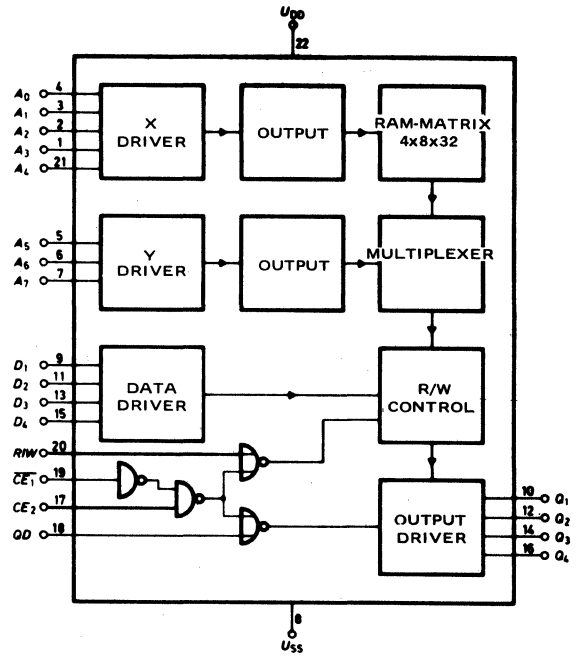


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A289

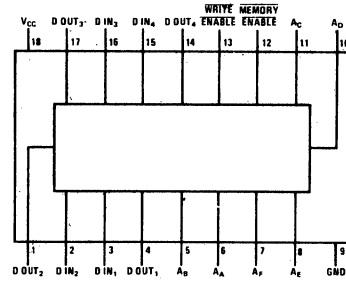
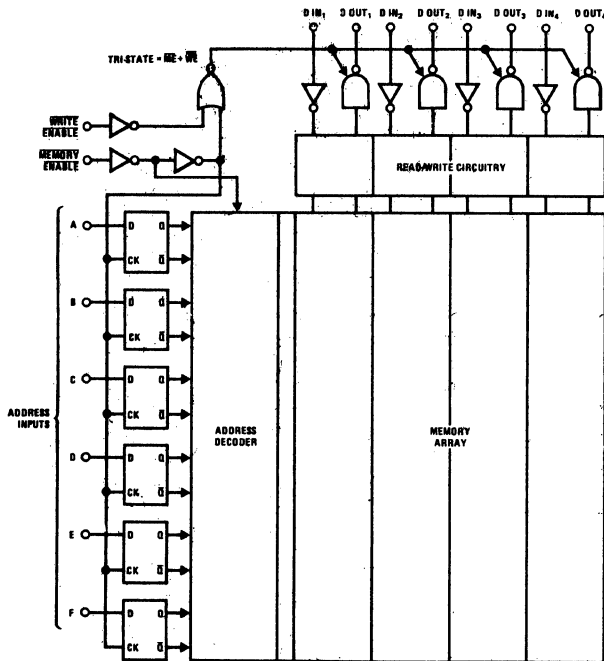


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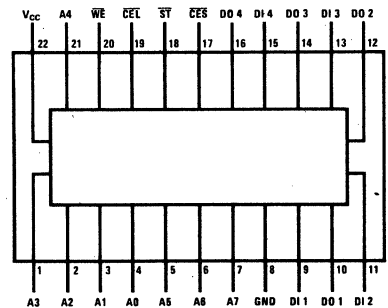
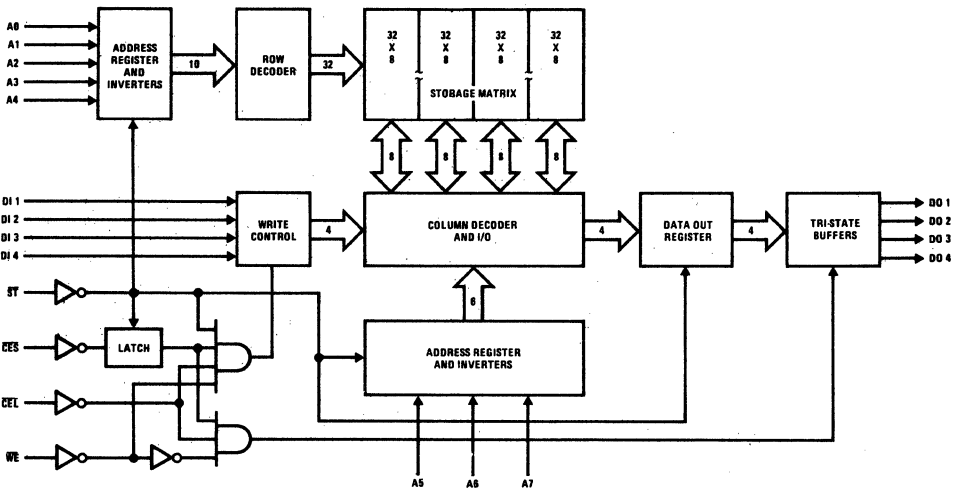
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A290



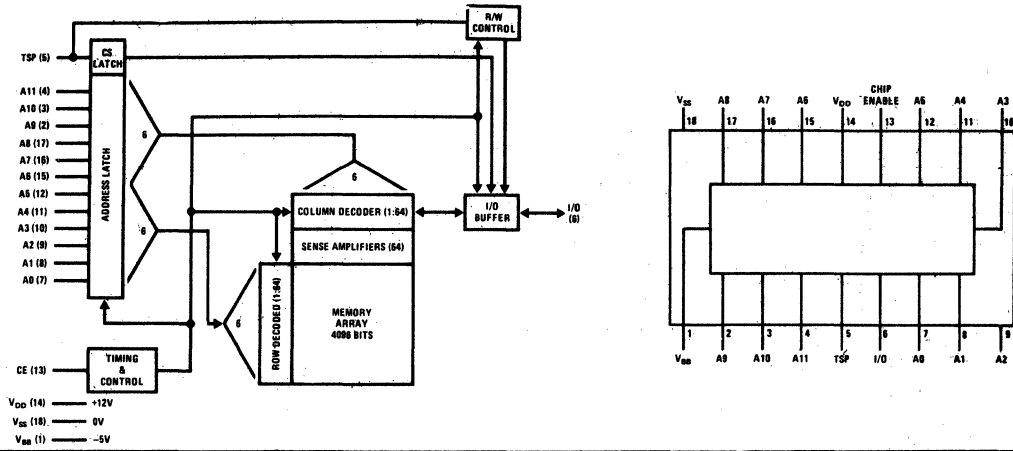
A291



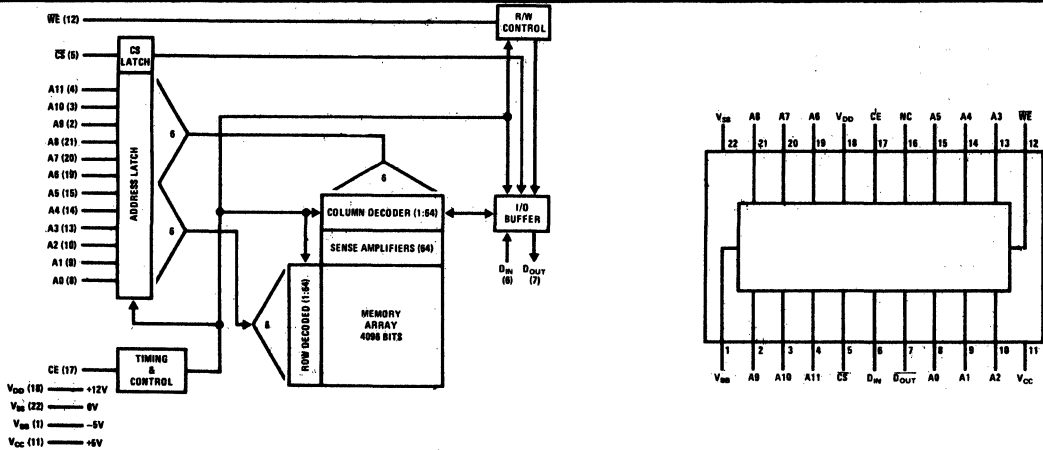
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

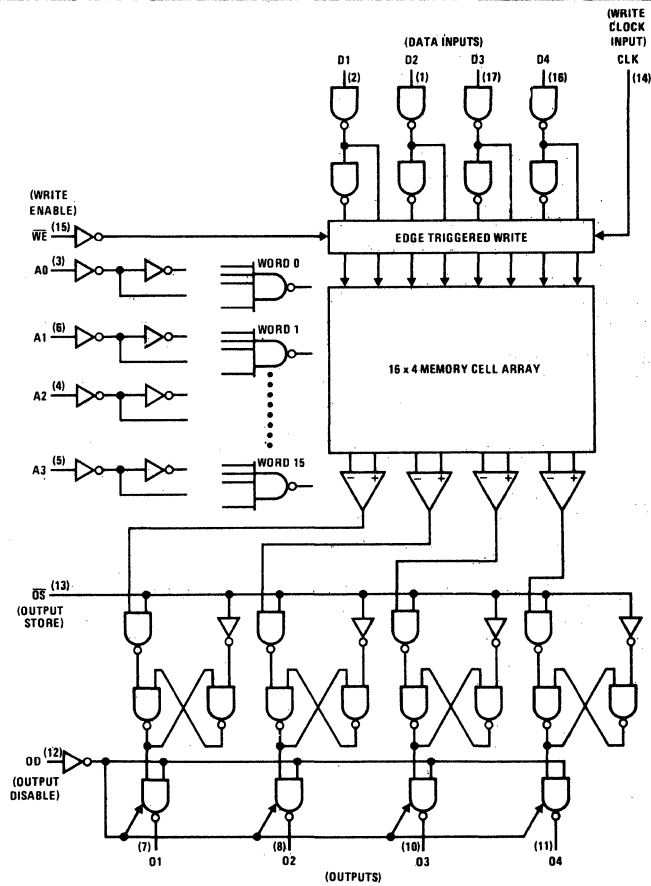
A292



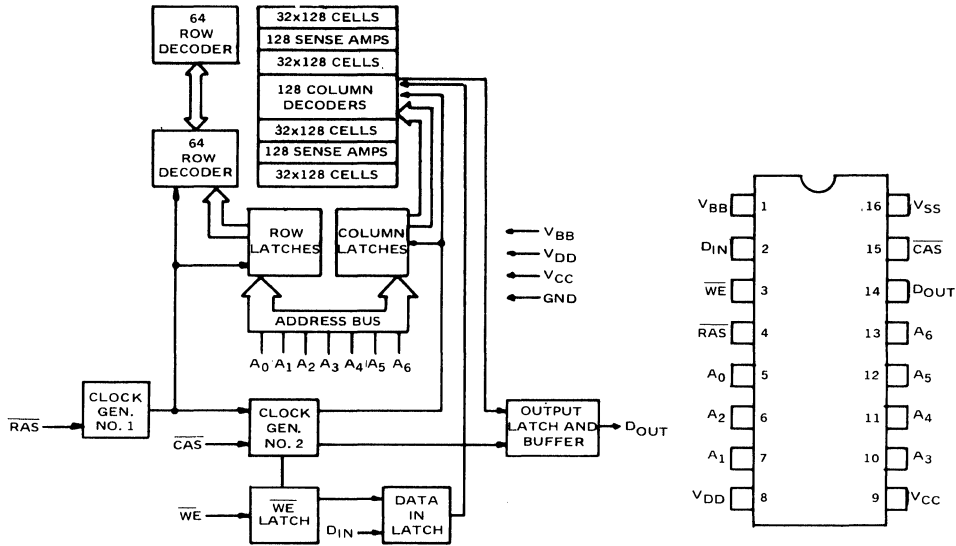
A293



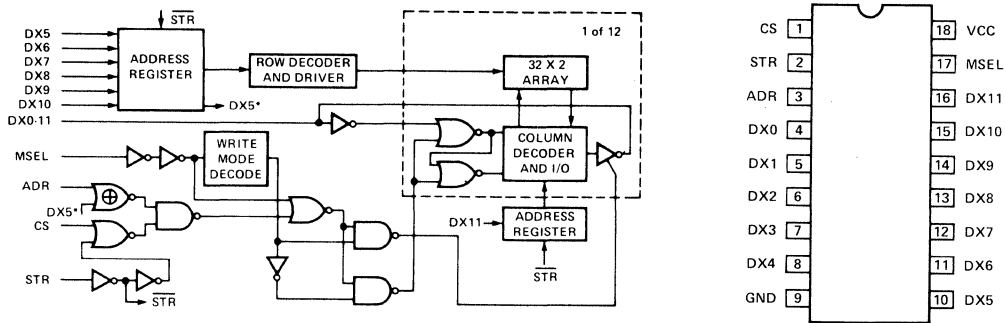
A294



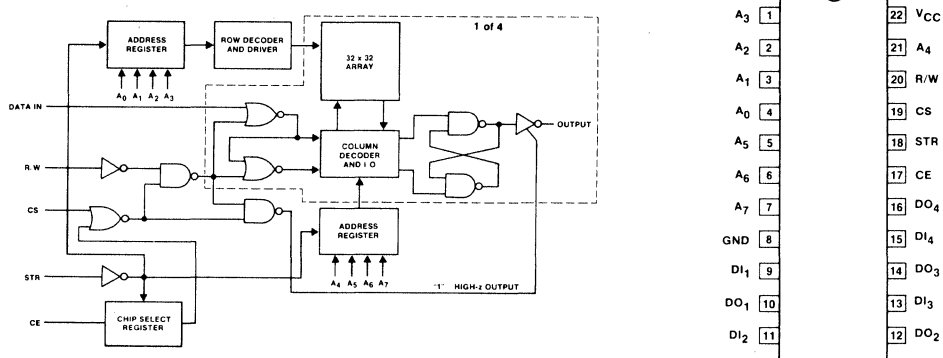
A295



A296



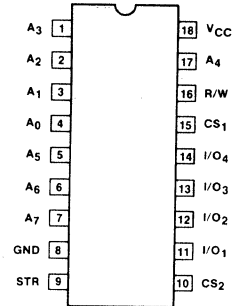
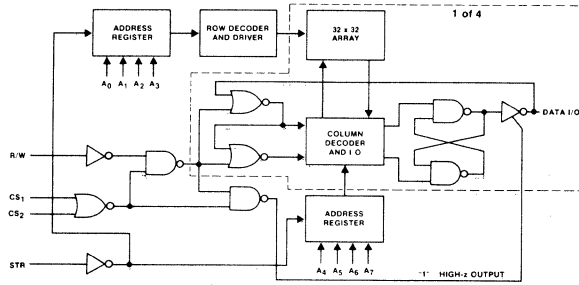
A297



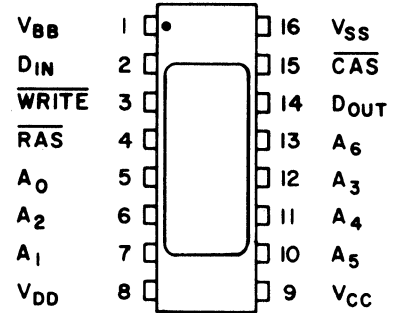
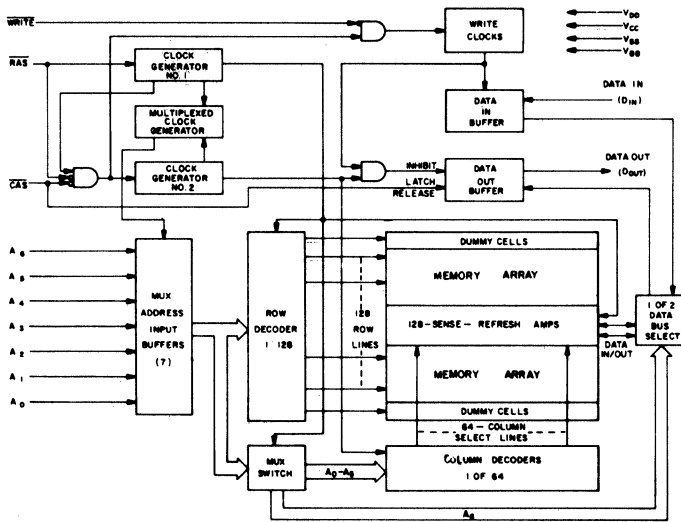
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A298



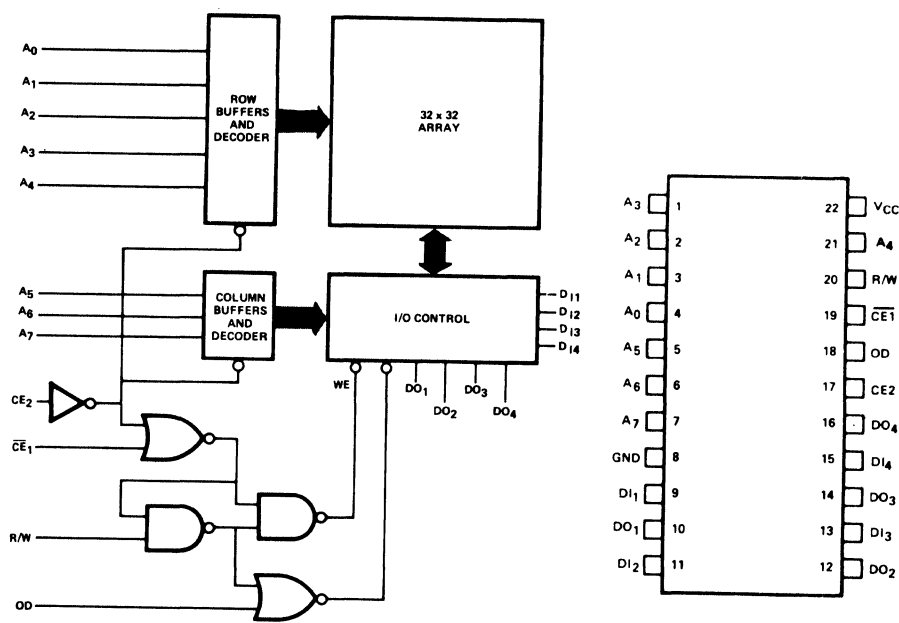
A299



22. LOGIC/BLOCK DRAWINGS

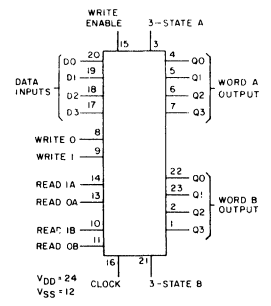
IN DRAWING NUMBER SEQUENCE

A300

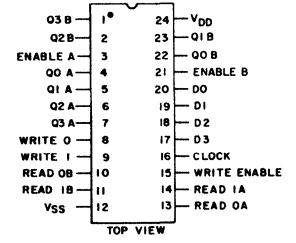
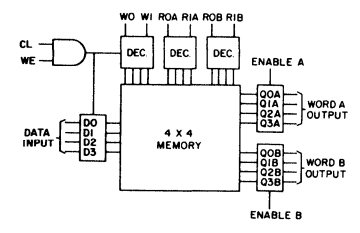


OD - OUTPUT DISABLE
WE - WRITE ENABLE

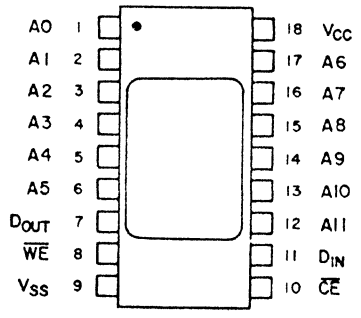
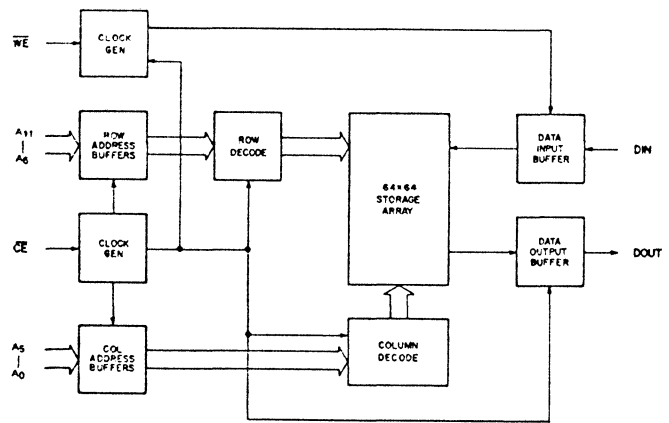
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A302



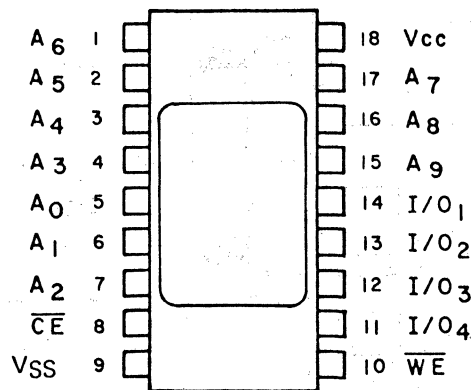
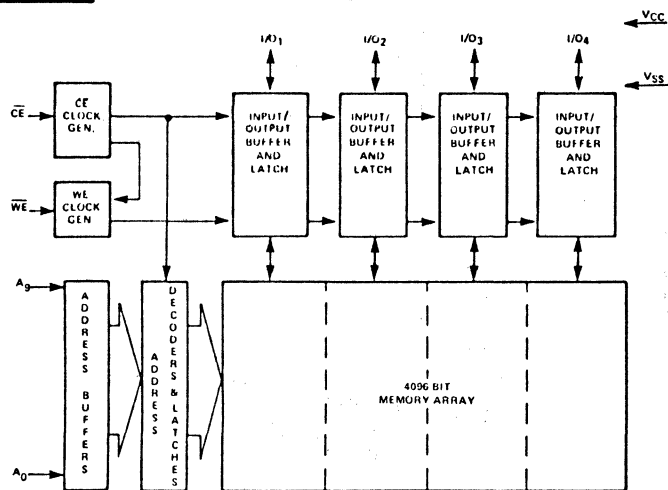
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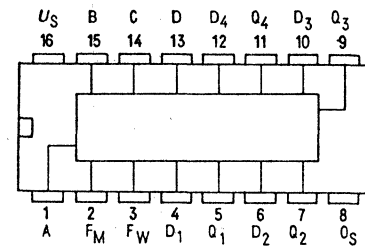
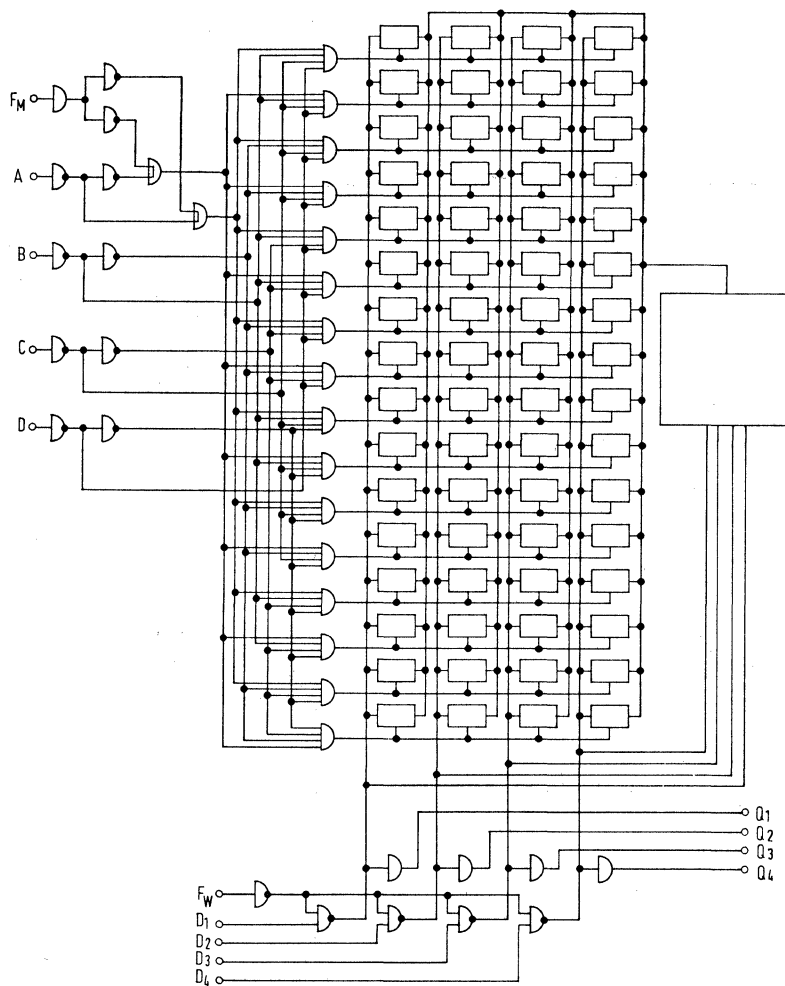
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A304



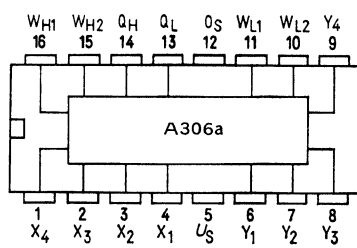
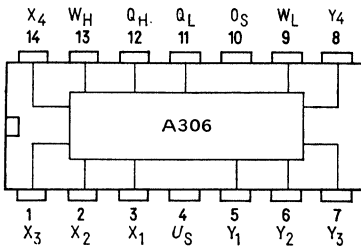
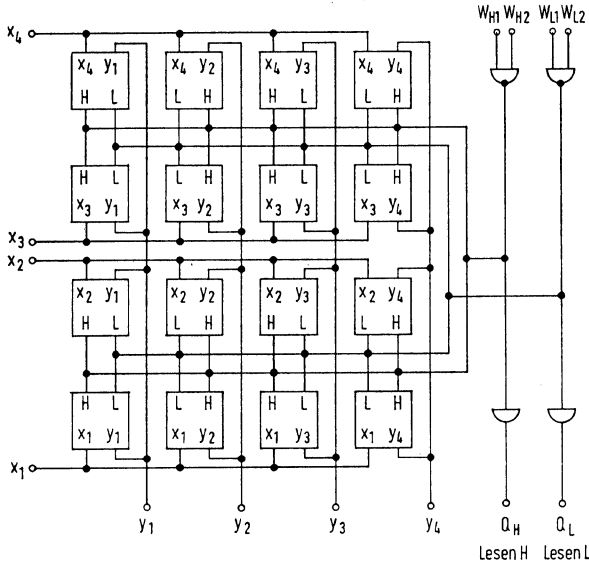
A305



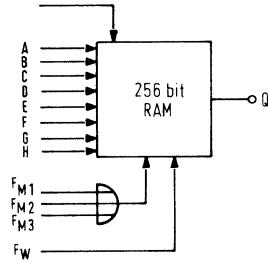
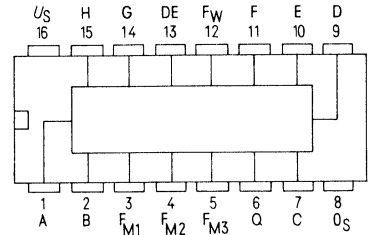
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

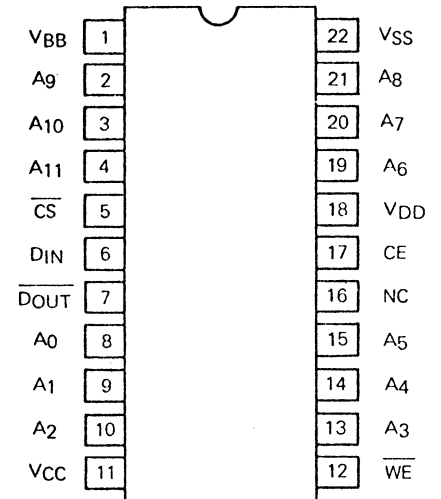
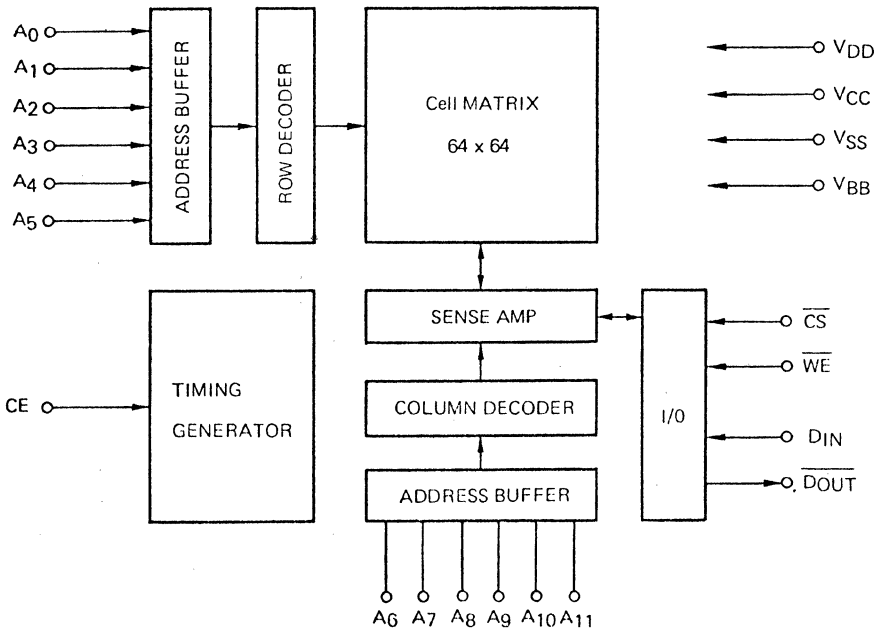
A306



A307



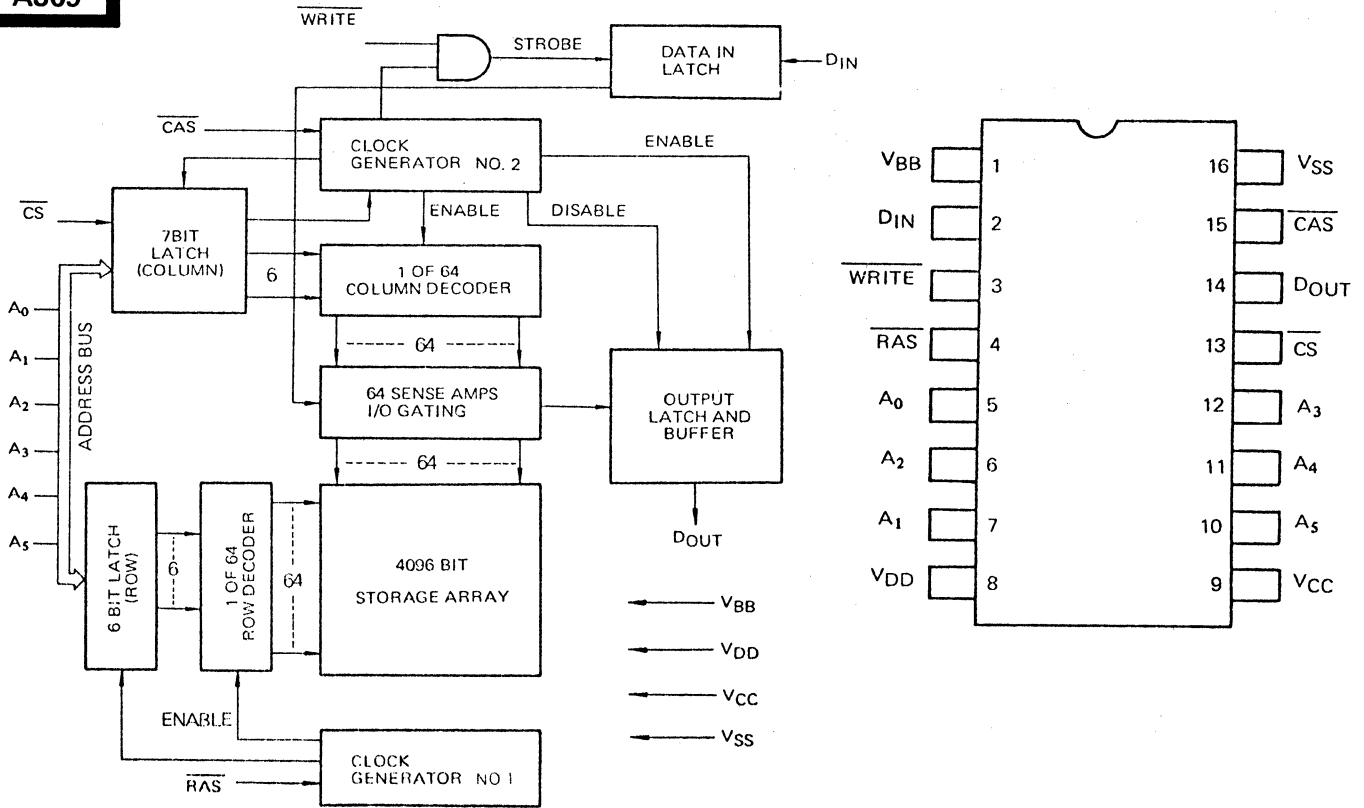
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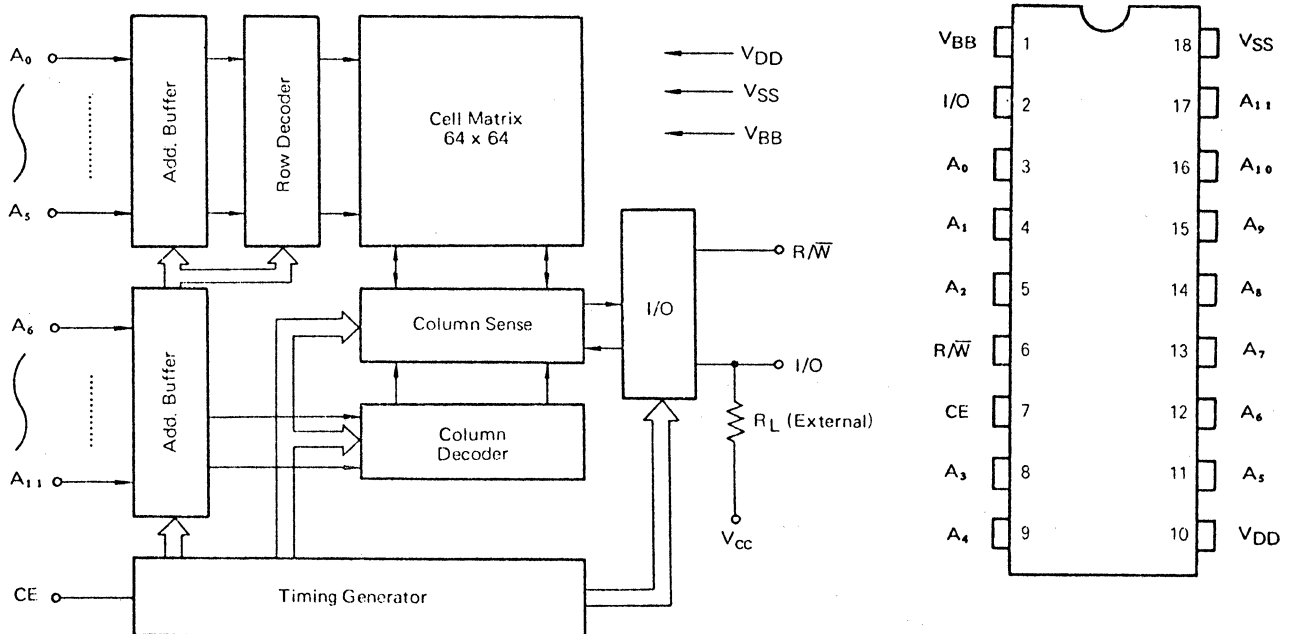
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A309



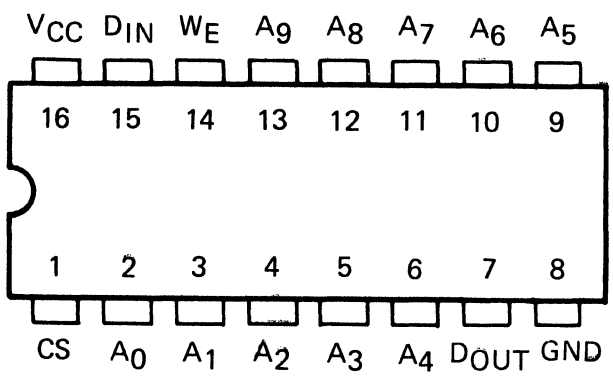
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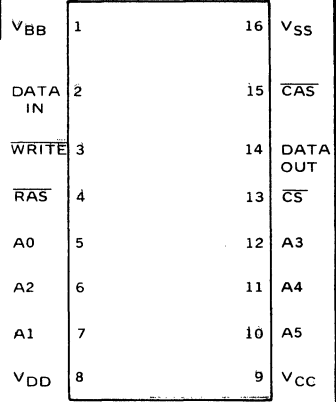
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

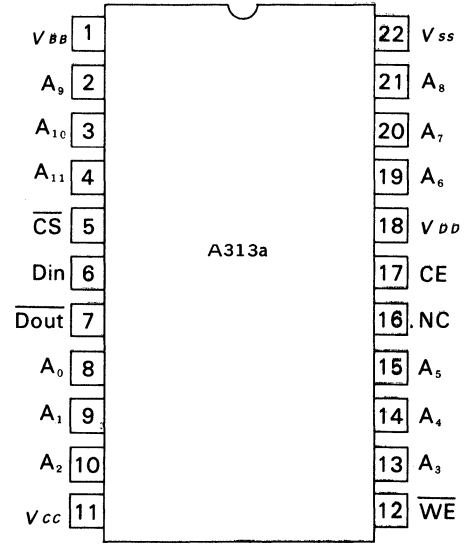
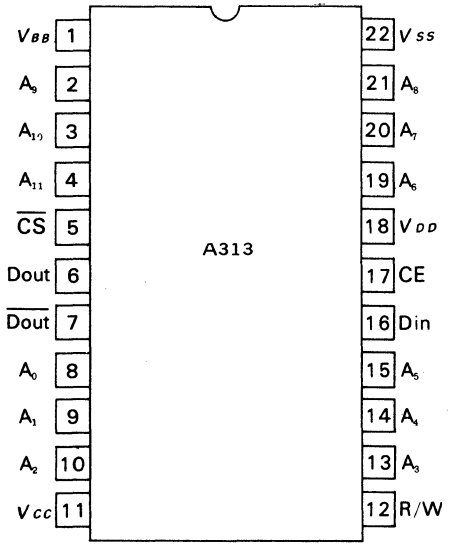
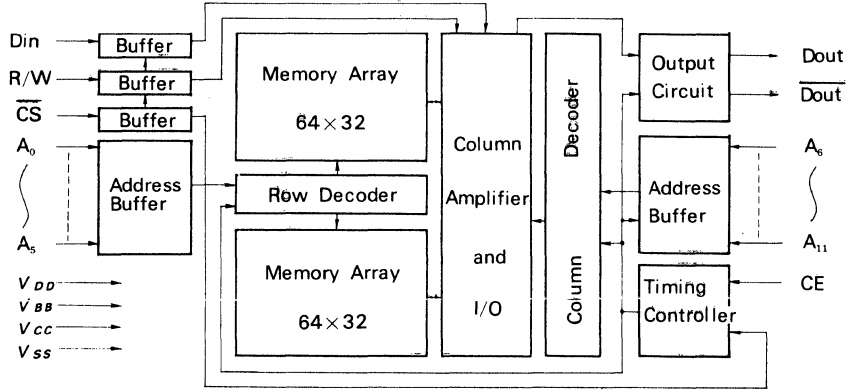
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A312



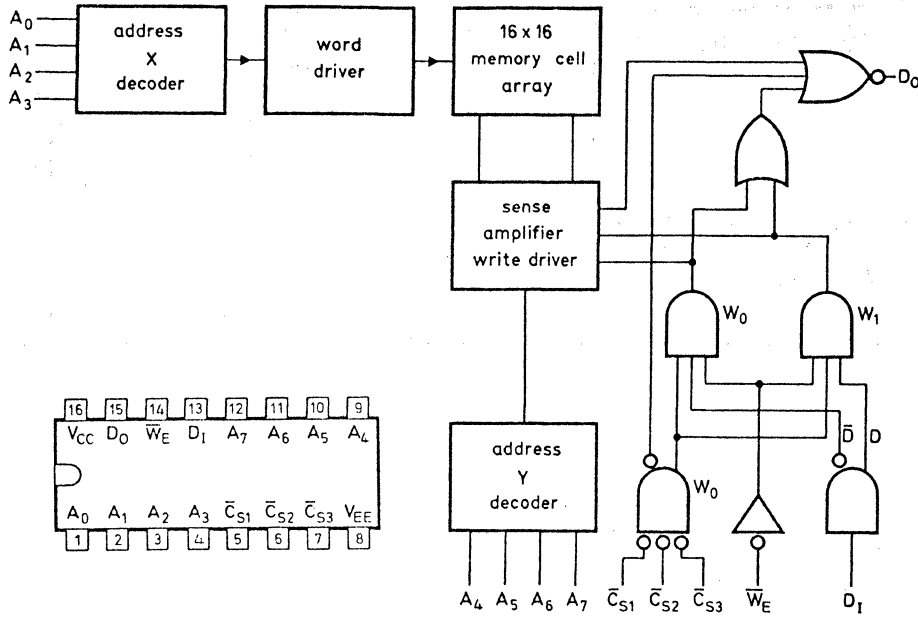
A313



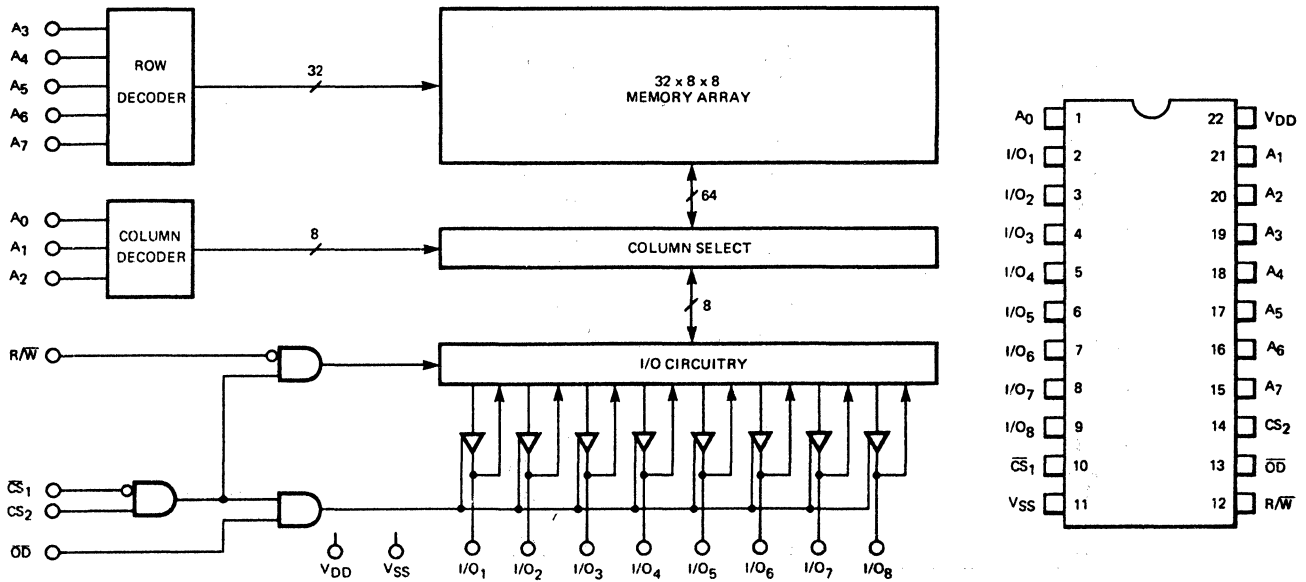
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A314



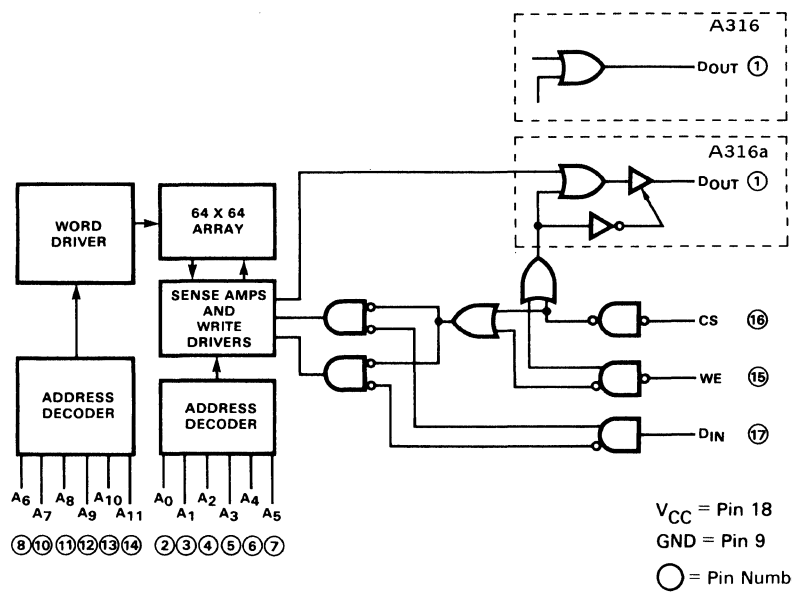
A315



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A316

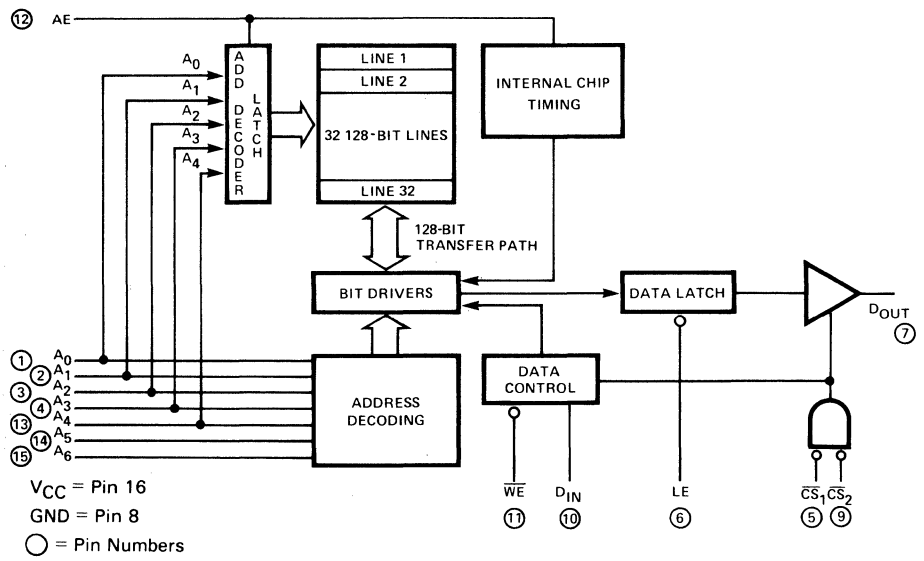


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[Empty box]

[Empty box]

A317

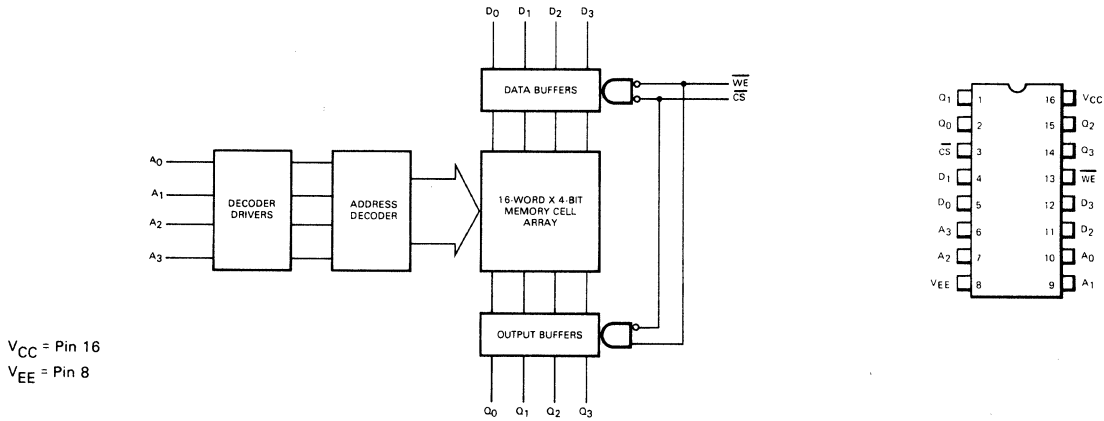


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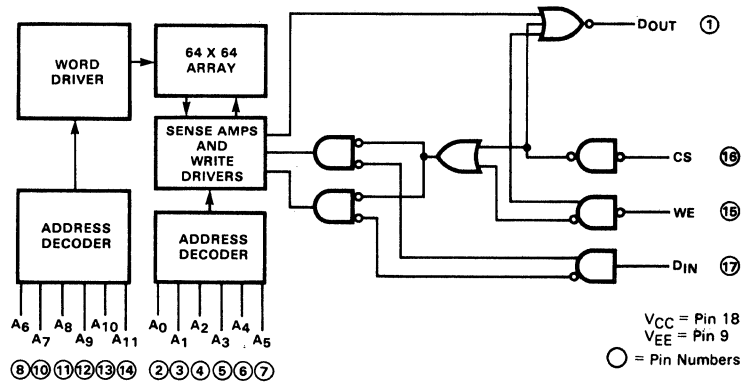
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

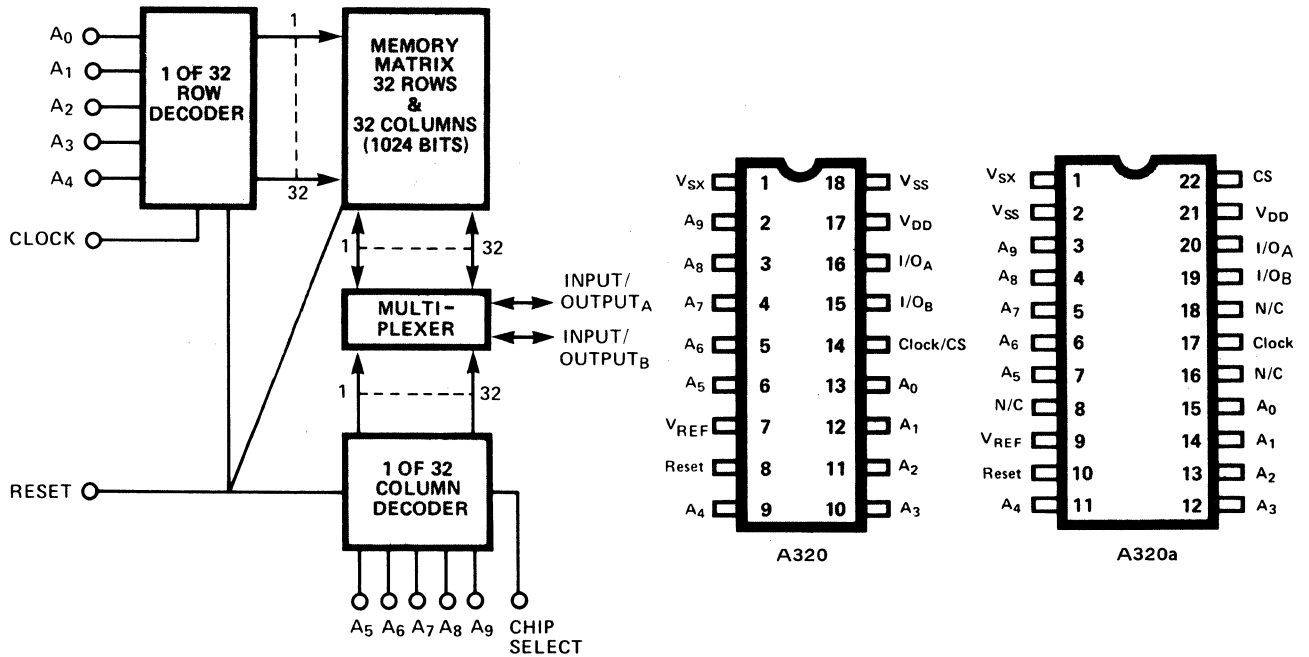
A318



A319



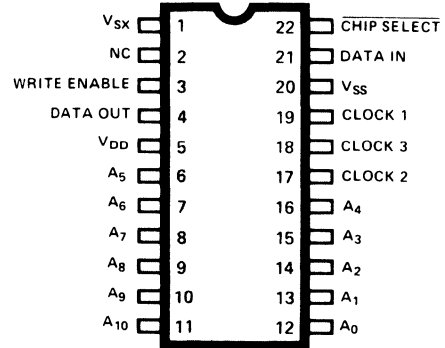
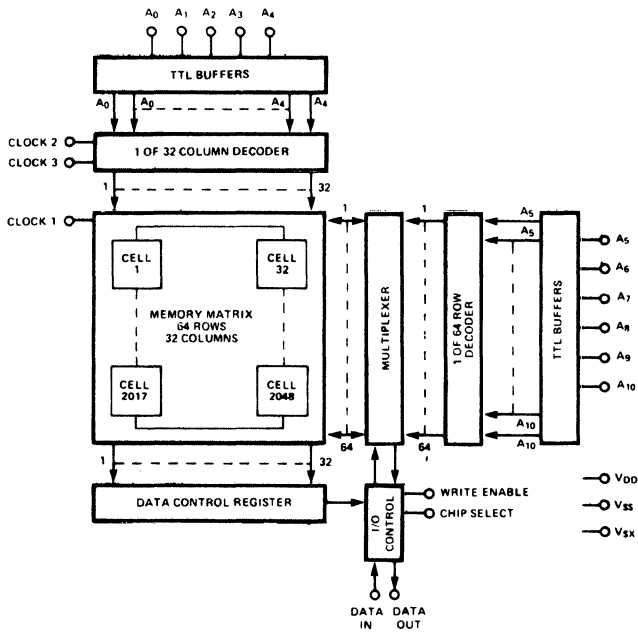
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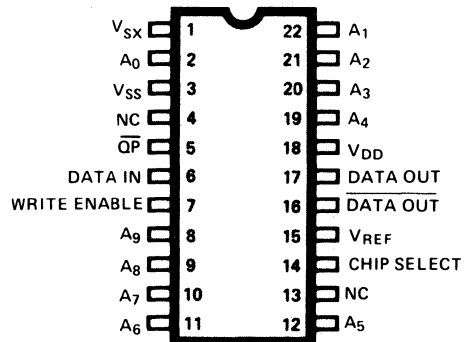
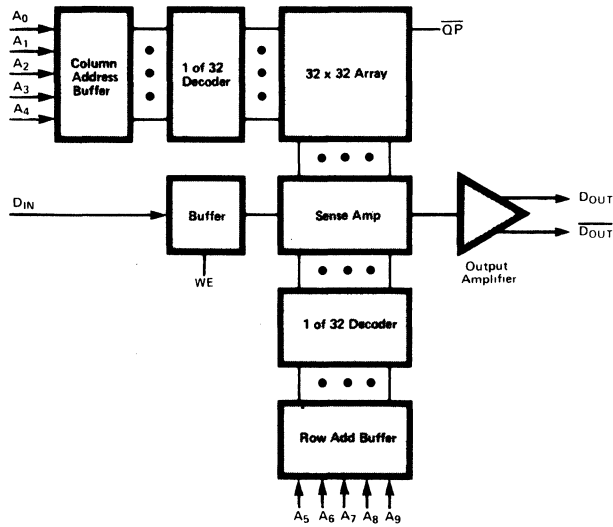
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A321



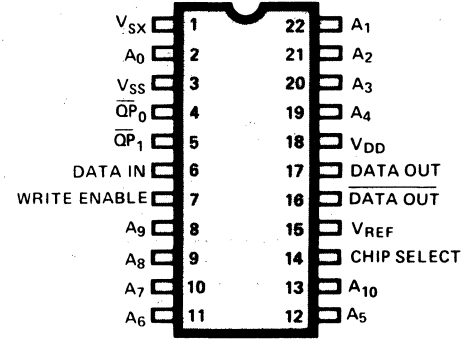
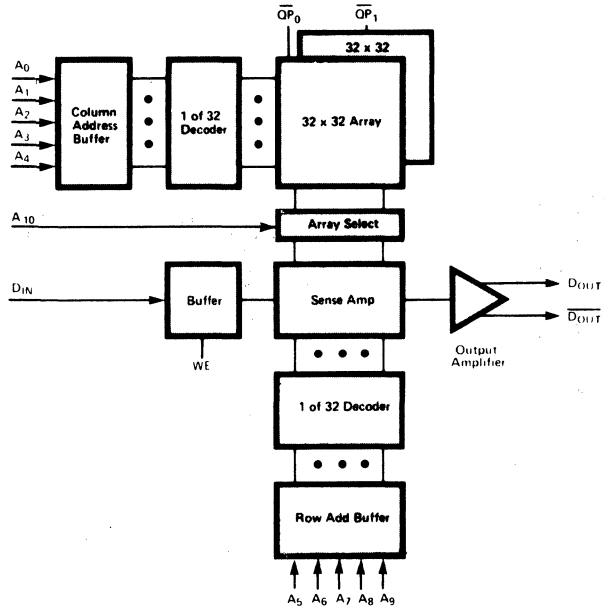
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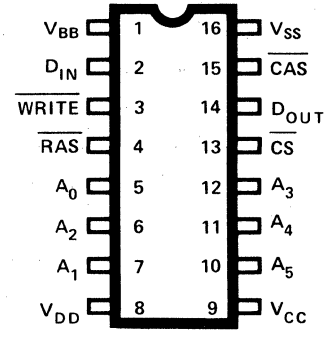
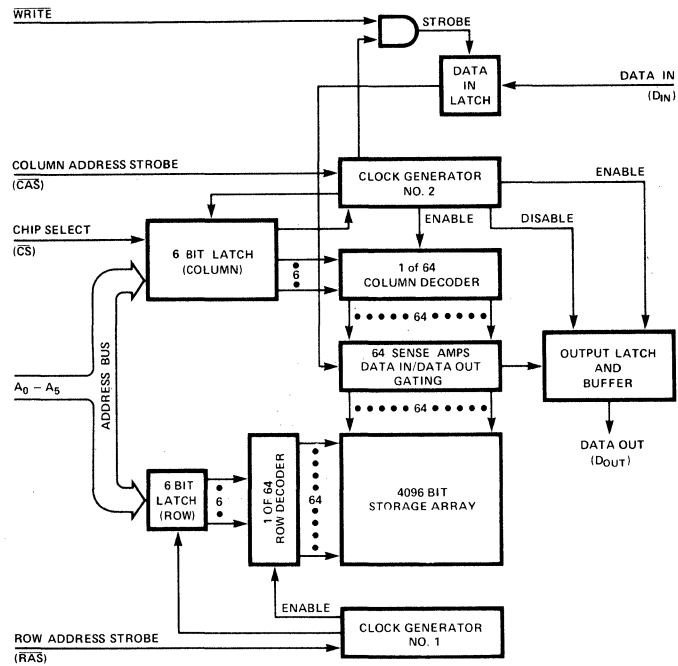
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A323



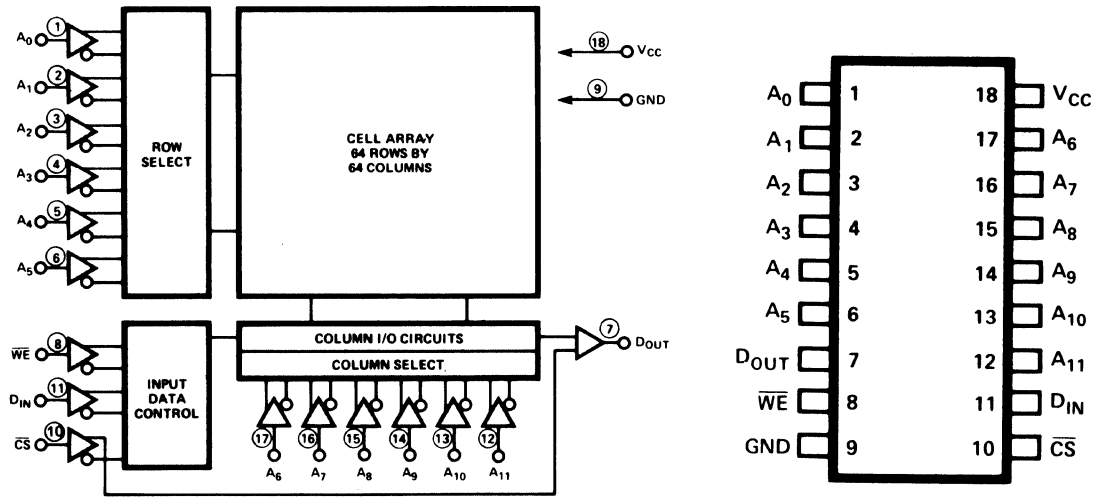
A324



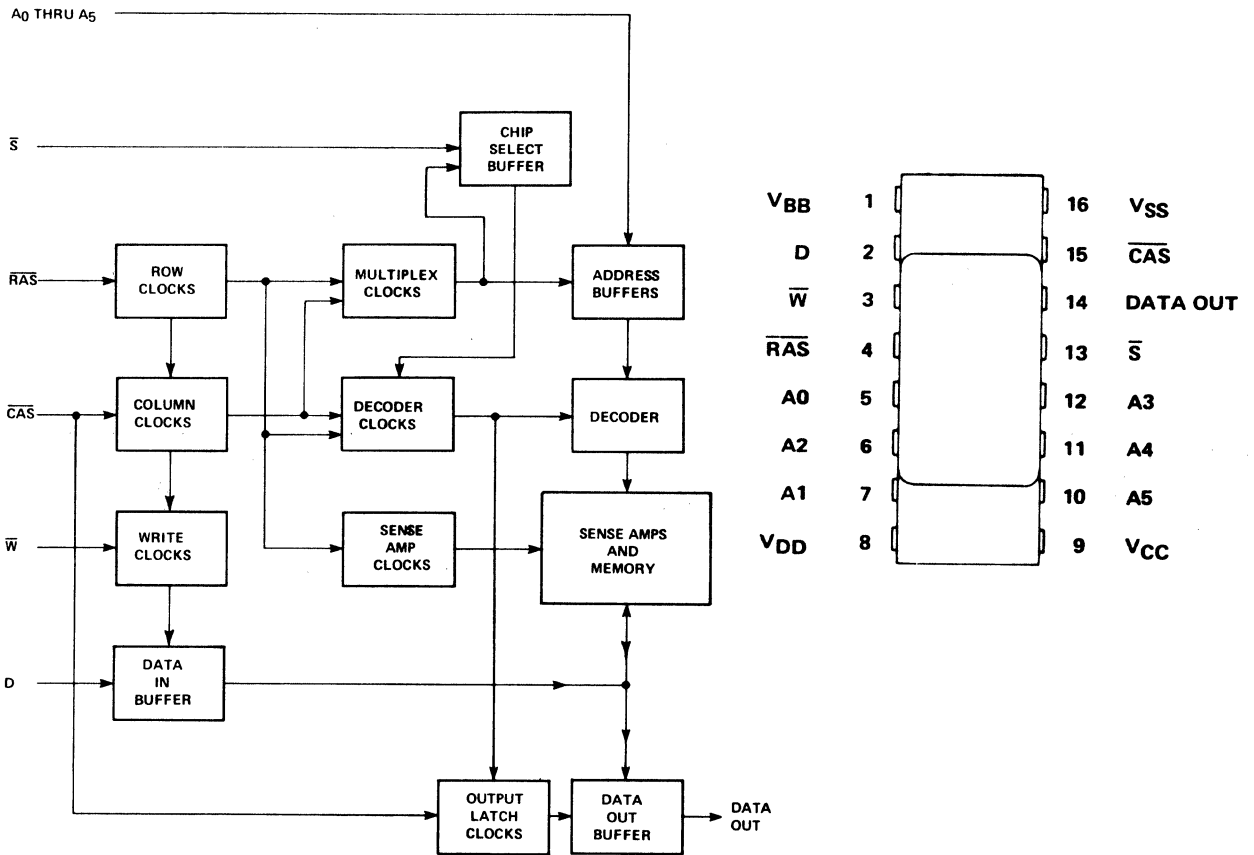
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

A325



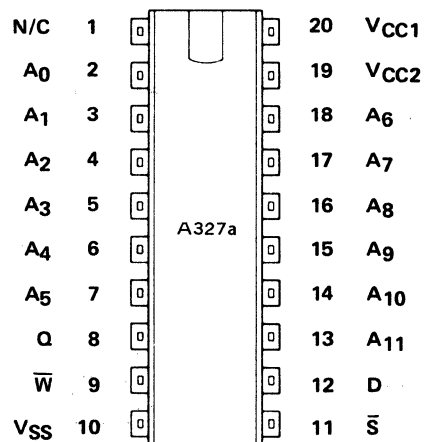
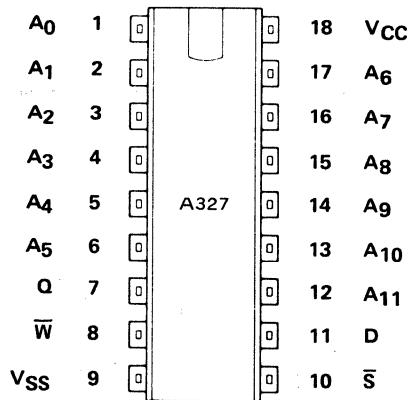
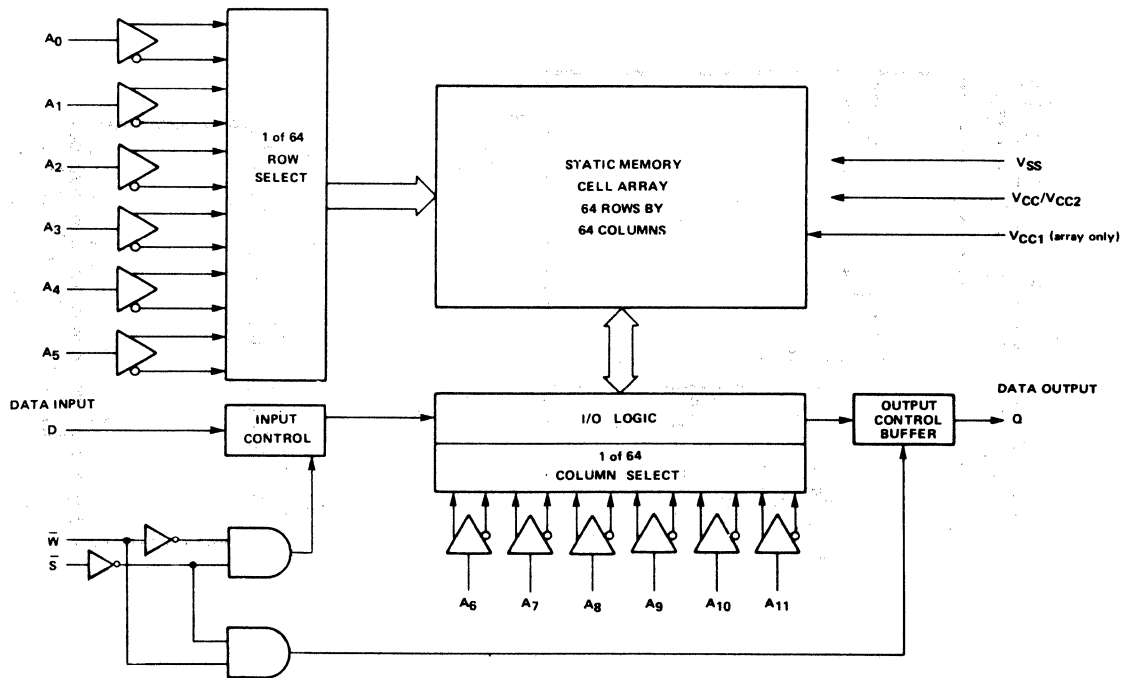
A326



22. LOGIC/BLOCK DRAWINGS

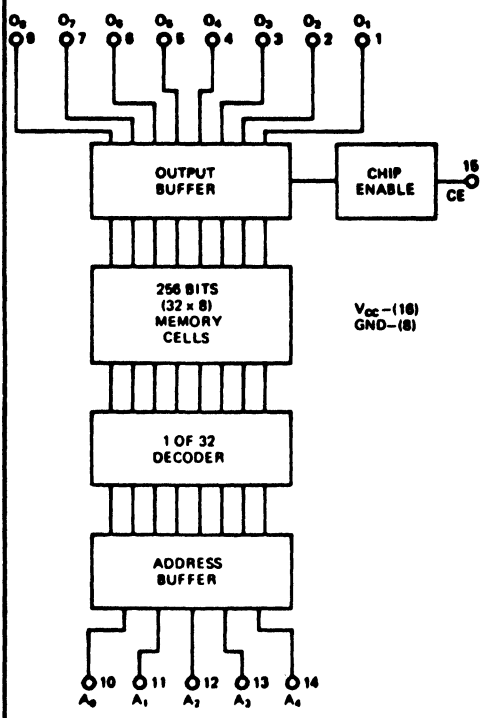
IN-DRAWING NUMBER
SEQUENCE

A327

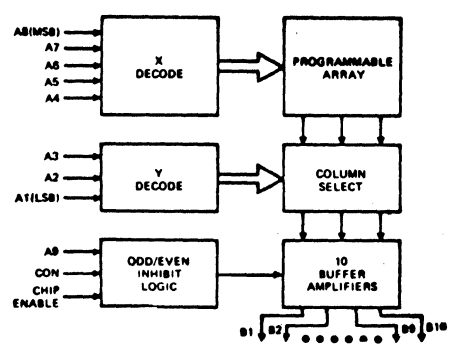


22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

B1

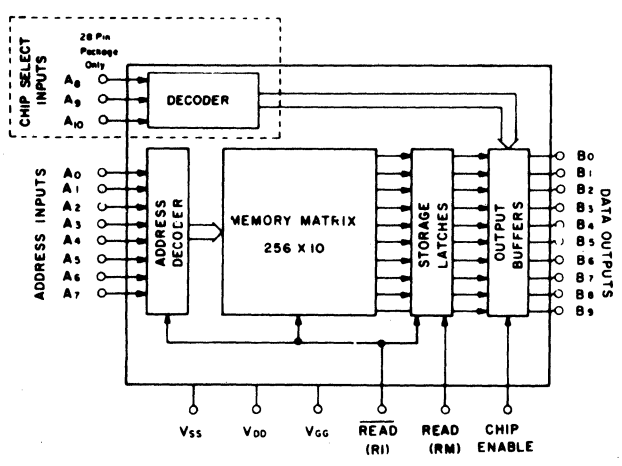


B3



	A										B										CON	CHIP ENABLE	VSS	VDD	VGG	
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	15	14	12	24	16	
B3	3	2	1	21	20	19	18	17	13	4	5	6	7	8	9	10	11									
B3a	3	2	1	21	20	19	18	17	16	7	8	9	10	11												
B3b	1	24	23	21	20	19	18	17	13	2	3	4	5	6	7	8	9	10	11	15	14	12	22	16		
B3c	23	22	21	20	19	18	17	16	13	11	10	9	8	7	6	5	4	3	2	14	15	24	12	1		

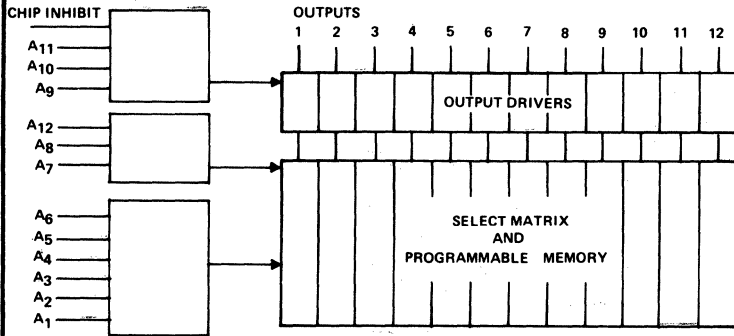
B7



22. LOGIC/BLOCK DRAWINGS

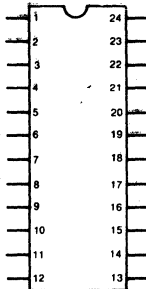
IN DRAWING NUMBER SEQUENCE

B9



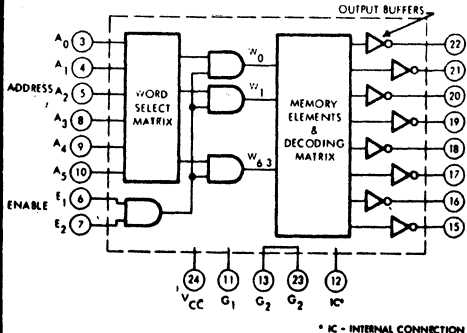
C1	A											C1-P15											VCC	VDD	VGG			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10				11	12	
B9	9	19	18	17	16	15	14	13	12	11	10	8	7	6	5	4	3	2	1									
B9a	10	20	19	18	16	15	14	22	23	13	12	11	8	7	6	5	4	3	2	1								
B9b	17	25	24	22	21	20	19	26	27	16	15	14	12	11	10	9	8	7	6	5	4	3	2	1				
B9c	3	2	1	24	23	22	21	20	19	6	5	4	18	16	15	14	13	12	11	10	9							
B9d	5	4	3	2	1	28	27	22	21	8	7	6	20	18	17	16	15	14	13	12	11							
B9e	11	21	20	19	17	16	15	22	23	14	13	12	NC	8	7	6	5	4	3	2	1	NC	NC	NC	NC	NC	NC	NC
B9f	9	19	18	17	16	15	NC	14	13	12	11	10	NC	8	7	6	5	4	3	2	1	NC	NC	NC	NC	NC	NC	NC
B9g	12	24	19	18	17	16	15	4	3				2	6	7	8	9	10										
B9h	12	24	23	22	21	20	19	4	3				2	6	7	8	9	10										
B9j	16	22	21	20	19	18	17	23	24	15	14	13		11	10	9	8	7	6	5	4	3	2	1	28			
B9k	9	19	18	17	16	15	14	13	12	11				8	7	6	5	4	3	2	1					20	21	23
B9m	9	19	18	17	16	15	14	13	12	11				8	7	6	5	4	3	2	1					20	21	23
B9n	9	19	18	17	16	15	14	13	12					8	7	6	5	4	3	2	1					20	21	23
B9p	9	19	18	17	16	15	14	13	12	11	10			8	7	6	5	4	3	2	1					20	21	23

B11

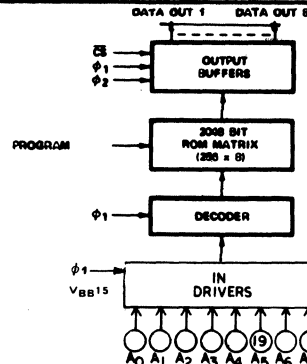


		PIN NUMBERS																							
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B11	A6	NC	NC	NC	A5	A4	A3	A2	A1	B1	NC	GND	B2	B3	B4	B5	B6	B7	B8	CT1	CT2	NC	A0	VCC	
B11a	A3	A2	A1	B1	B2	B3	B4	B5	B6	B7	B8	VSS	A9	CT	CM	VGG	A8	A7	A6	A5	A4	NC	NC	VDD	
B11b	A3	A2	A1	B1	B2	B3	B4	B5	B6	B7	B8	VCC	A9	CE	MC	VGG	A8	A7	A6	A5	A4	NC	NC	VGT	
B11c	VSS	VGG	A5	A4	A3	A2	A1	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	Inh							
B11d	VSS	VGG	A5	A4	A3	A2	A1											Inh	A11	A10	A9	A8	A7	A6	
B11e	VSS	VGG	A5	A4	A3	A2	A1											Inh	A11	A10	A9	A8	A7	A6	
B11f	VSS	VGG	A5	A4	A3	A2	A1											A12	A11	A10	A9	A8	A7	A6	
B11g	A6	A5	A4	A3	A2	A1	A0	O8	O7	O6	O5	GND	O4	O3	O2	O1	CS	CS	CS	HS	HS	A8	A7	VCC	
B11h	A7	A6	A5	A4	A3	A2	A1	A0	O1	O2	O3	GND	O4	O5	O6	O7	O8	CS4	CS3	CS2	CS1	VCC2	A8	VCC1	
B11i	A7	A6	A5	A4	A3	A2	A1	A0	BUS0	BUS1	BUS2	VSS	BUS3	BUS4	BUS5	BUS6	BUS7	CEO	MRD	CS2	CS1	NC	CLOCK	VDD	
B11k	A7	A6	A5	A4	A3	A2	A1	A0	BUS0	BUS1	BUS2	VSS	BUS3	BUS4	BUS5	BUS6	BUS7	NC	NC	CS	NC	NC	A8	VDD	
B11m	A7	A6	A5	A4	A3	A2	A1	A0	O1	O2	O3	VSS	O4	O5	O6	O7	O8	NC	NC	CS	NC	NC	A8	VDD	
B11n	CS	A0	A1	A2	SA	A3	A4	A5	A8	A7	Ø	VBB	VSS	VDD	MS	Ø	O6	O5	O4	O3	O2	O1	O0	VCC	
B11p	A7	A6	A5	A4	A3	A2	A1	A0	O1	O2	O3	VSS	O4	O5	O6	O7	O8	CS2	VDD	CS1	VBB	A9	A8	VCC	
B11q	ADH	ADU	ADP	ADL	ADD	ADC	ADL	ADA	DO1	DO2	DO3	GND	DO4	DO5	DO6	DO7	DO8	S4	S3	S2	S1	NC	ADY	VCC	
B11r	A2	A1	A0	O1	O2	O3	O4	O5	O6	O7	O8	VCC	PRD	CS	VBB	VGG	A7	A6	A5	A4	A3	VCC	VCC	VDD	

B17

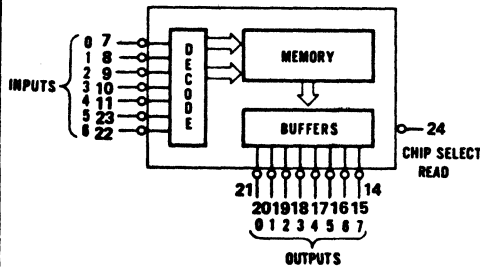


B18



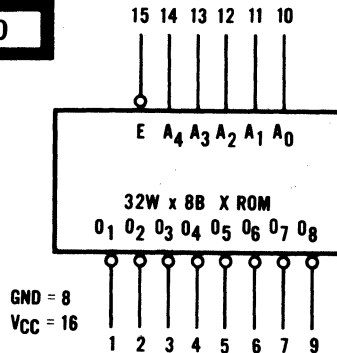
	DATA OUT								A											VDD	VCC	VGG	VBB	
	1	2	3	4	5	6	7	8	CS	Ø1	Ø2	PROG	0	1	2	3	4	5	6					7
B18	4	5	6	7	8	9	10	11	14	23	22	13	3	2	1	21	20	19	18	17	24	12	16	15
B18a	4	5	6	7	8	9	10	11	14	23	22	NC	3	2	1	21	20	19	18	17	24	12	16	NC

B19



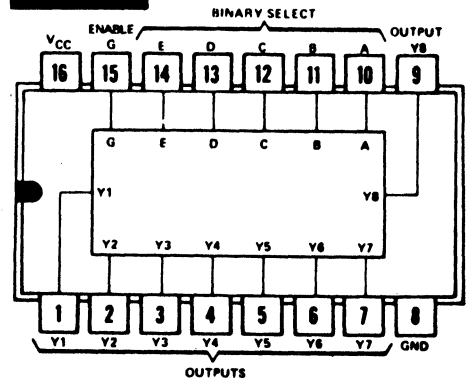
*WHEN CHIP SELECT READ IS AT GROUND THE OUTPUTS ARE FLOATING.

B20



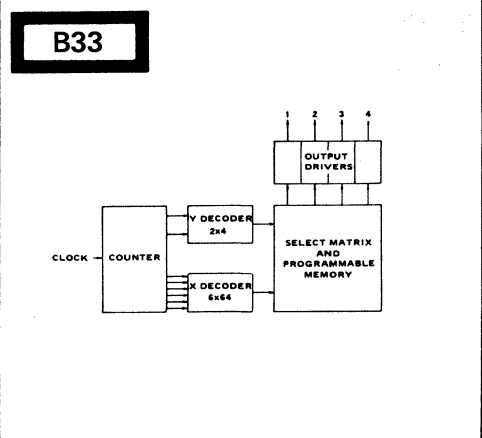
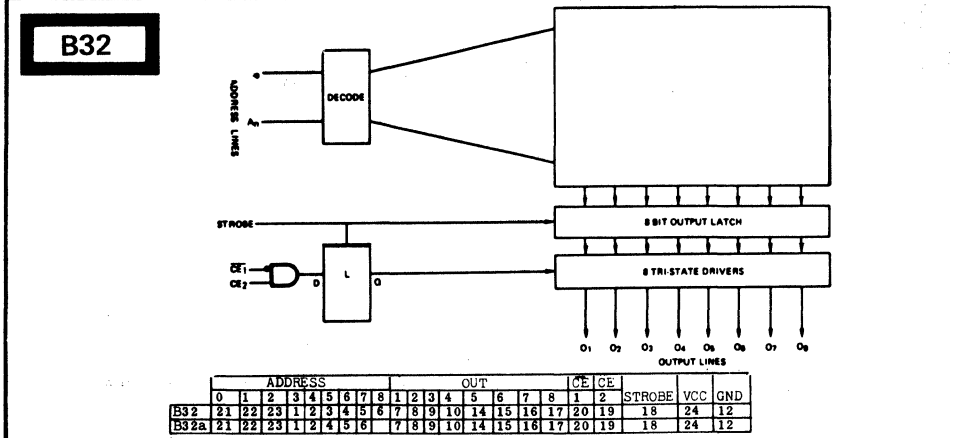
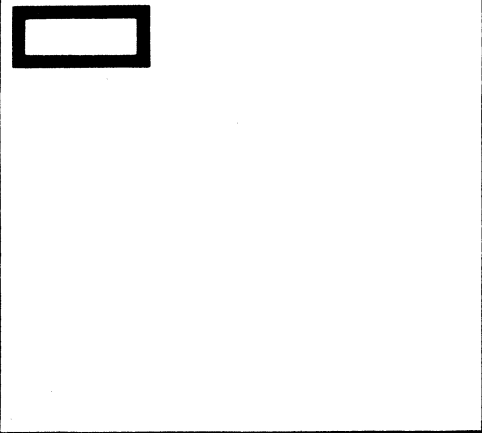
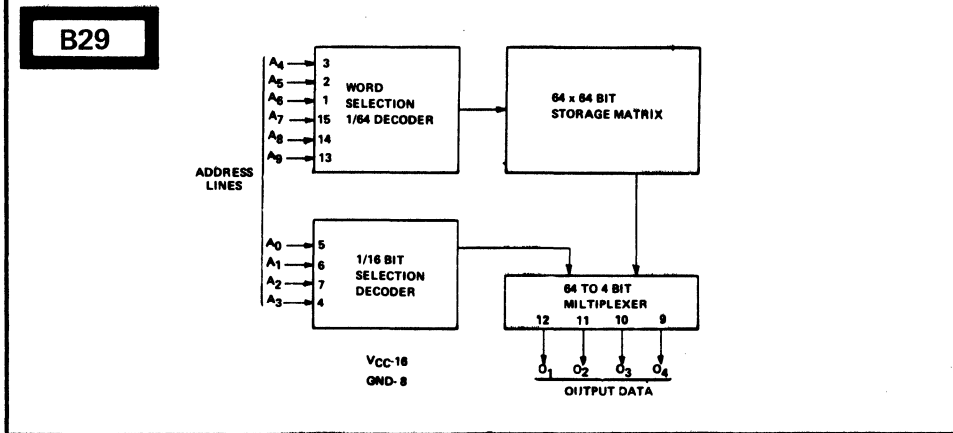
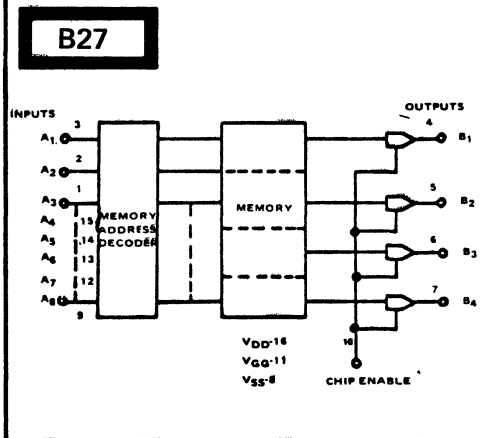
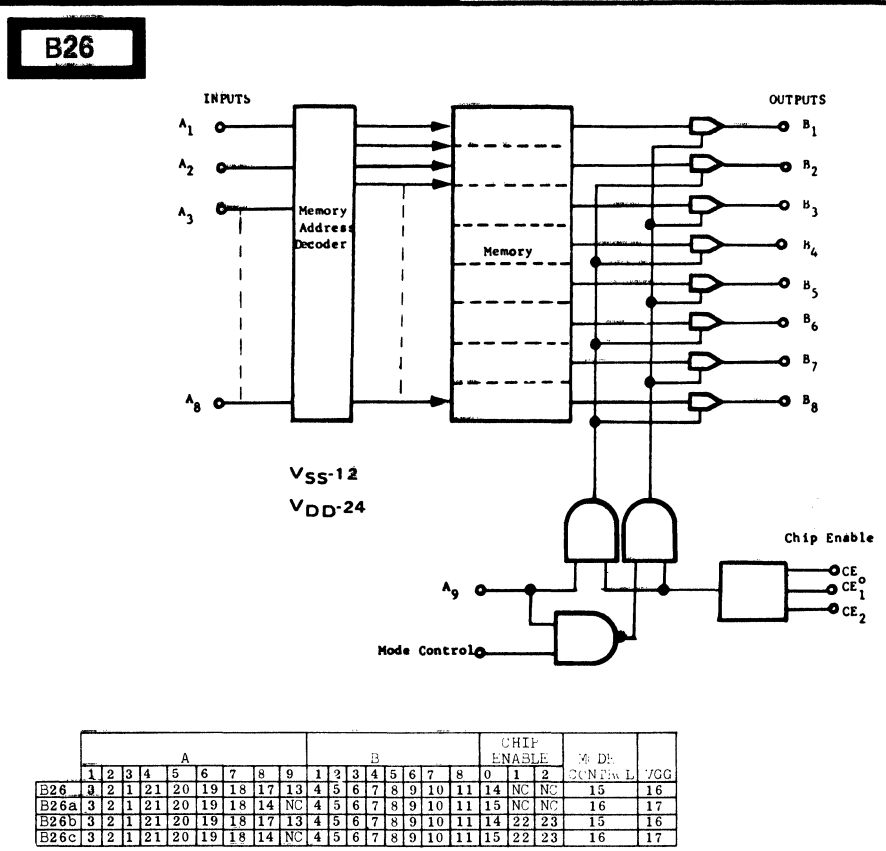
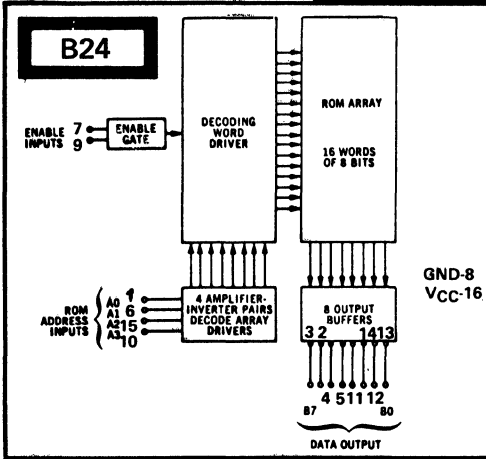
PAIRED DEVICES
B20 T154DIA/T154DIB

B21



22. LOGIC/BLOCK DRAWINGS

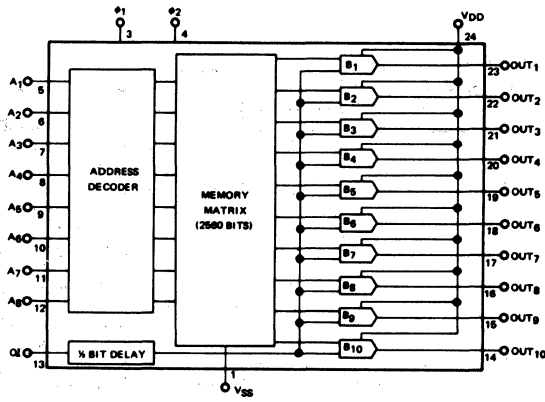
IN DRAWING NUMBER SEQUENCE



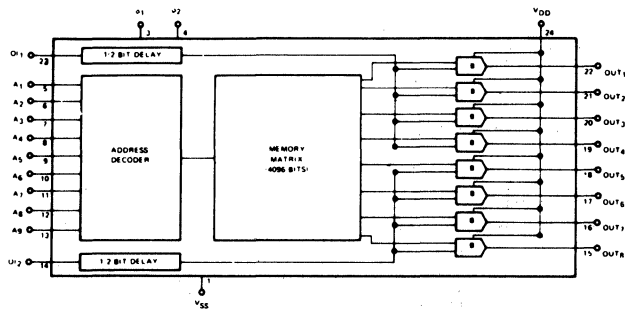
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

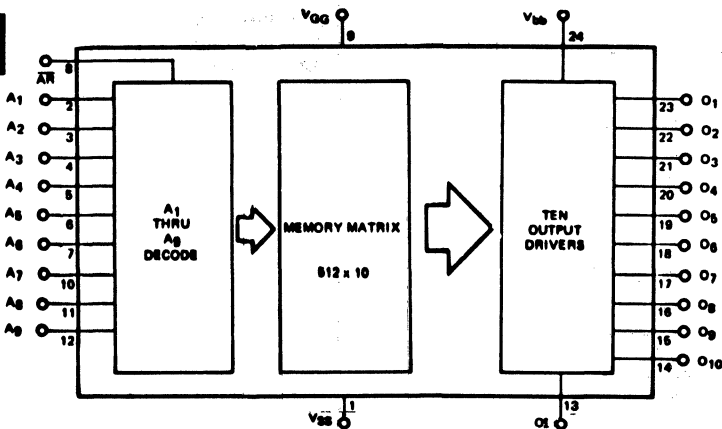
B35



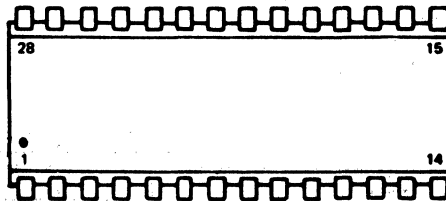
B36



B38



B42

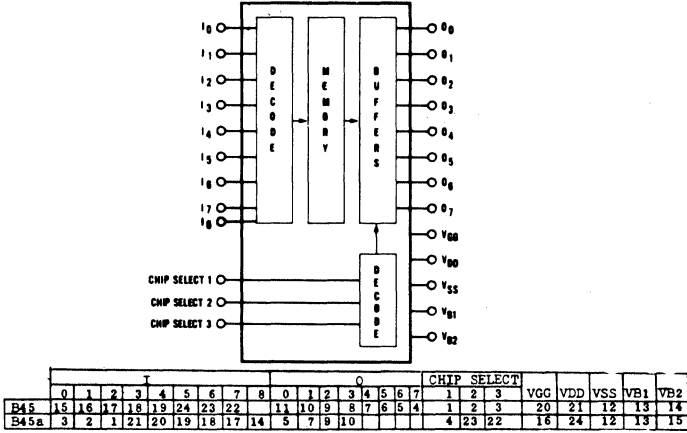


PIN NUMBERS																												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
B42	O2	O3	O4	A1	A2	D1	D2	D3	D4	D5	D6	D7	D8	NC	NC	NC	VSS	C4	C2	C3	C1	B4	B3	B2	B1	A4	A3	O1
B42a	D1	C4	VSS	O1	O2	O4	O3	O5	O6	O7	VSS	A2	A1	B1	B2	B3	B4	C1	C3	C2	D8	D7	D6	D5	D4	D3	D2	
B42b	O11	O10	O9	O8	O7	O6	O5	O4	O3	O2	O1	VDD	A13	A10	A9	C7	A5	A5	A4	A3	A2	A1	A7	A3	NC	VSS	NC	C12
B42c	O12	O11	O10	O9	O8	O7	O6	O5	O4	O3	O2	O1	VDD	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1	CS1
B42d	CS1	CS2	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	VBB	VSS	VDD	O7	O6	O5	O4	O3	O2	O1	O0	RE	CS4	CS3	VCC
B42e	A7	A6	A5	A4	A3	A2	A1	A0	O1	O2	O3	VSS	VCC	VBB	PG	VCL	O4	O5	O6	O7	O8	NC	VDD	CS	NC	A9	A8	VCC

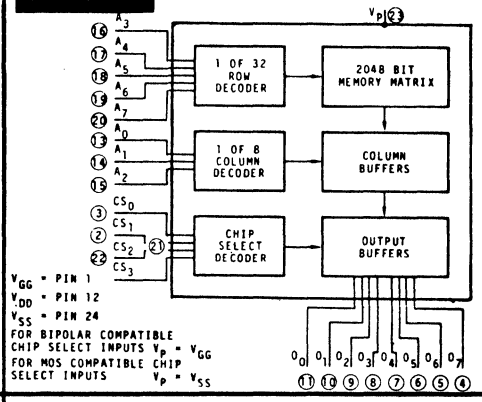
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

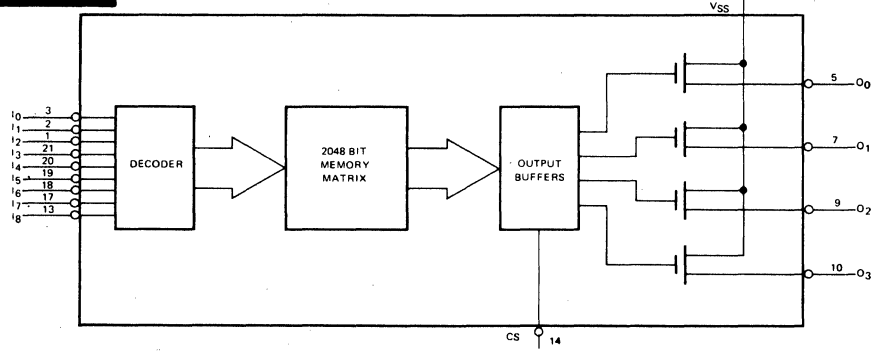
B45



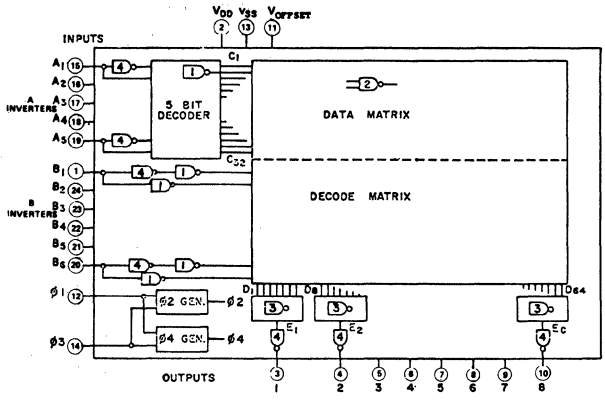
B46



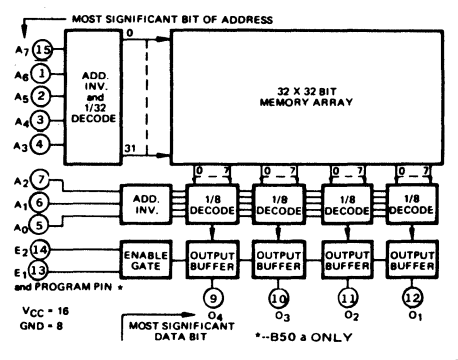
B47



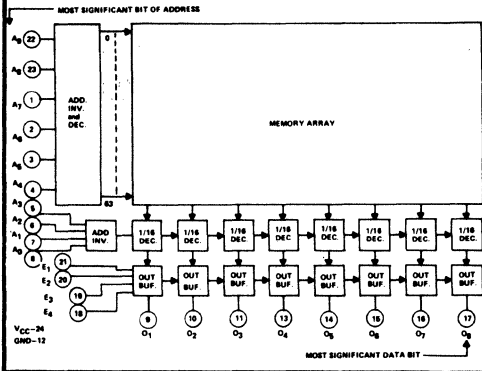
B49



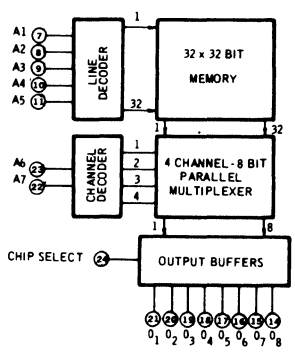
B50



B53



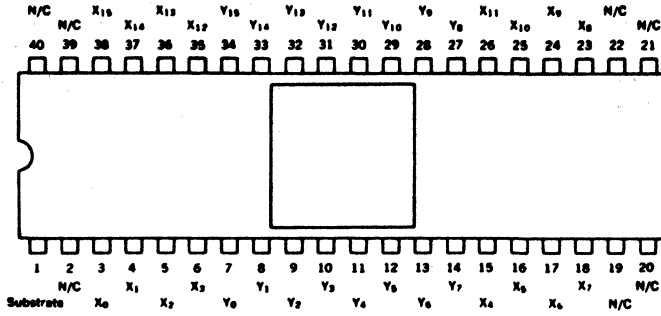
B57



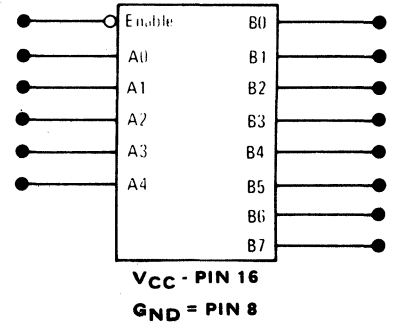
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

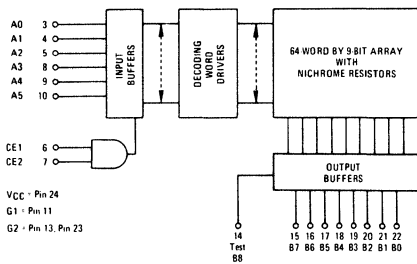
B59



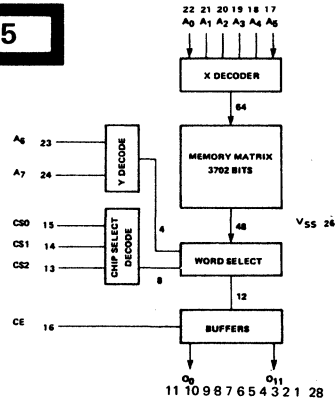
B60



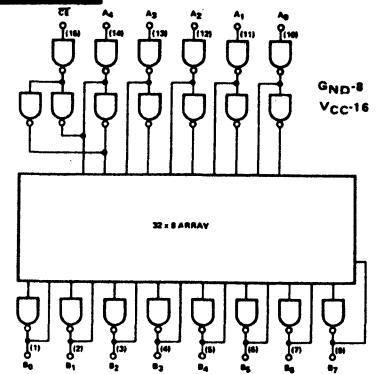
B61



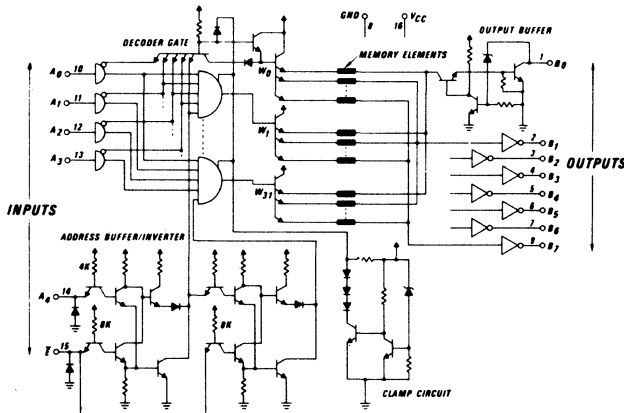
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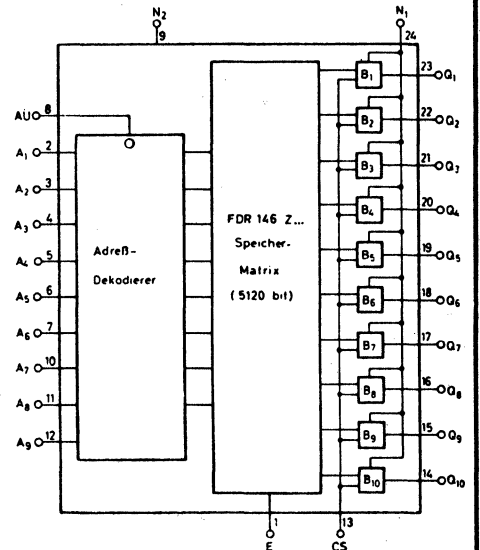
B67



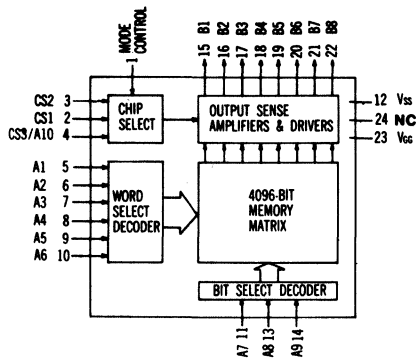
B70



B71

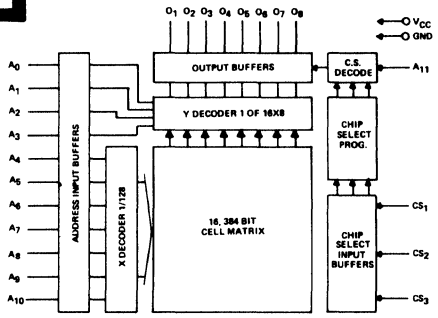


B73



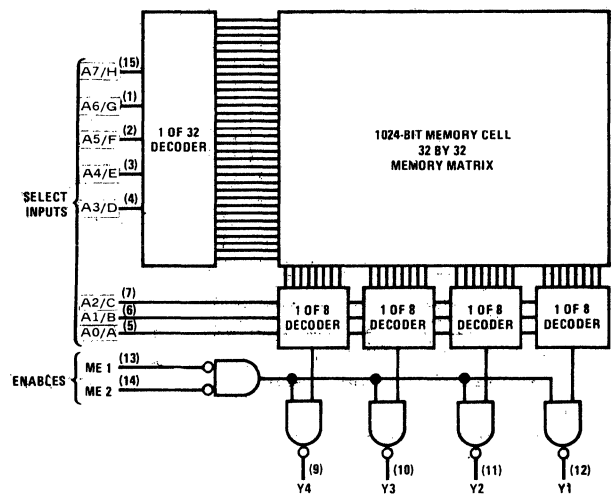
22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

B78



	A											O								CS			VCC	GND							
	0	1	2	3	4	5	6	7	8	9	10	11	0	1	2	3	4	5	6	7	8	9	10	11	1	2	3				
B78	1	2	3	4	5	6	7	8	9	10	11	NC	23	22	21	20	19	18	17	16	15	14	13	24	12						
B78a	1	2	3	4	5	6	7	8	9	10	11	16	23	22	21	20	NC	NC	NC	NC	15	14	13	24	12						
B78b	5	6	7	8	9	10	11	1	2	3	4	NC	23	22	21	20	19	18	17	16	15	14	13	24	12						
B78c	8	7	6	5	4	3	2	1	23	22	19	NC	9	10	11	13	14	16	18	17	NC	20	18	21	24	12					

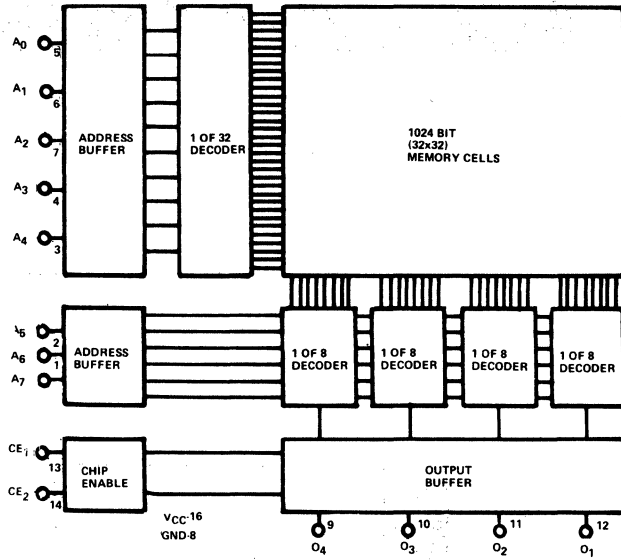
B80



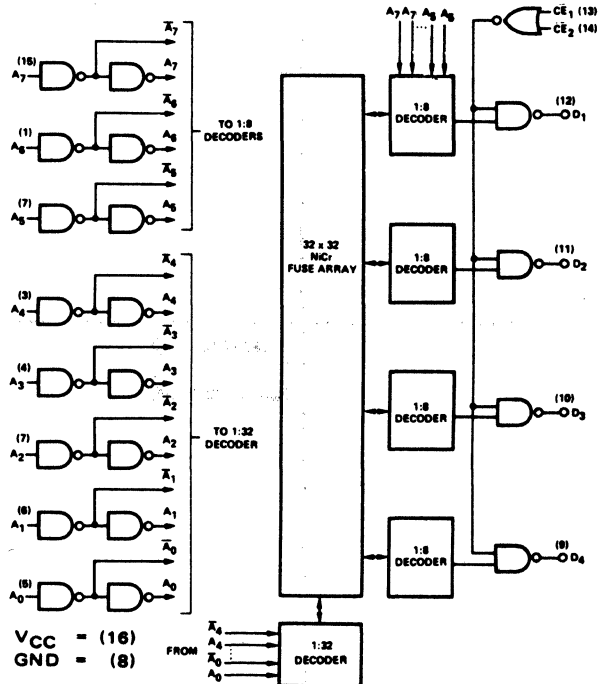
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B82



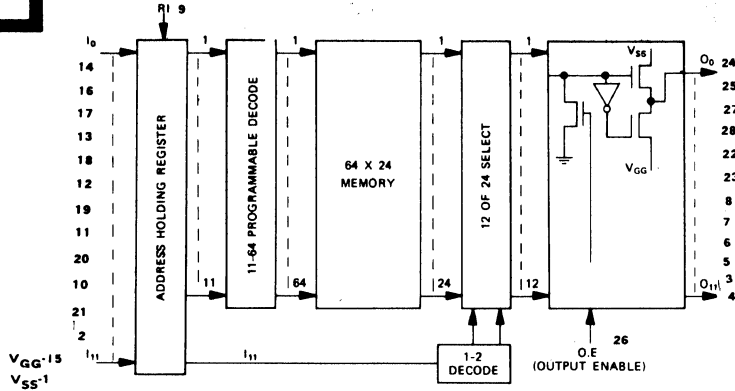
B87



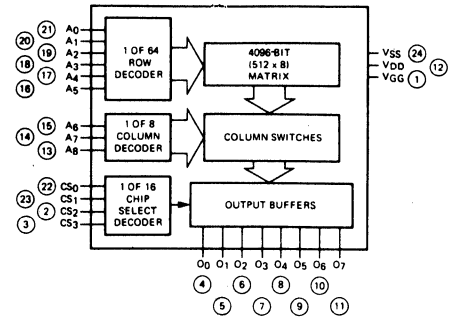
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

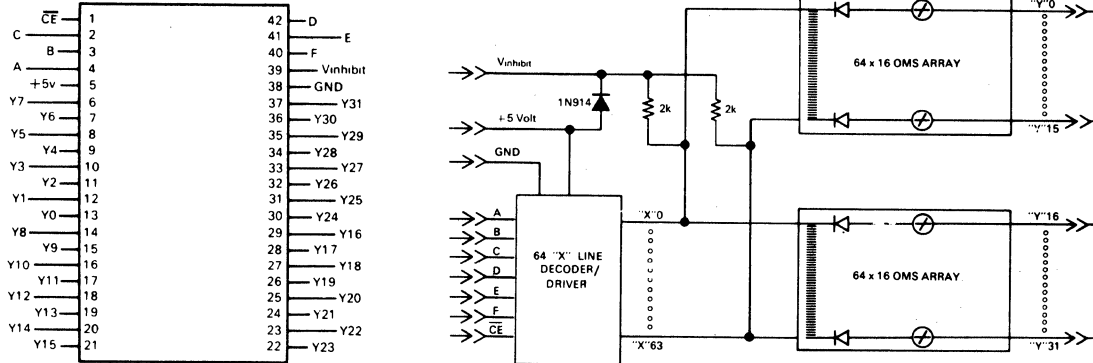
B89



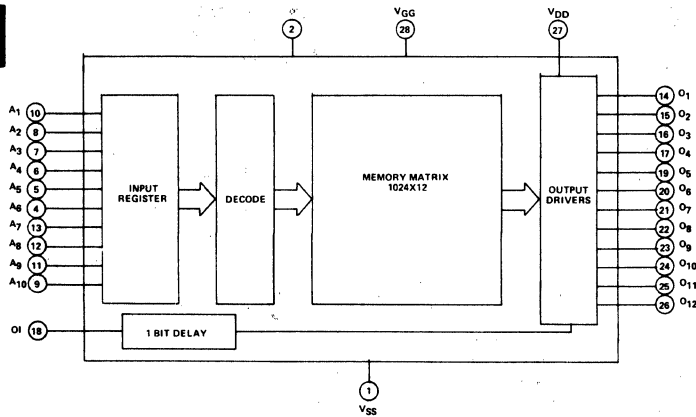
B90



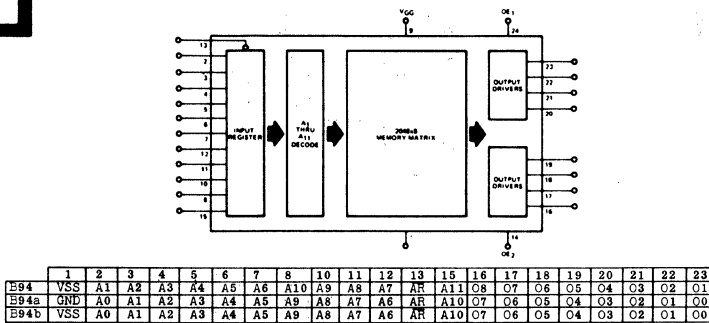
B91



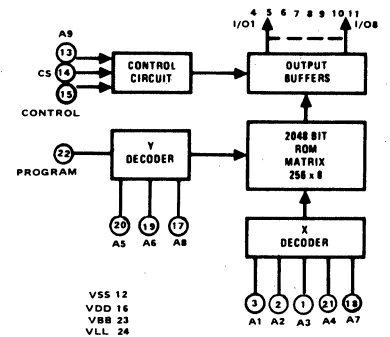
B93



B94

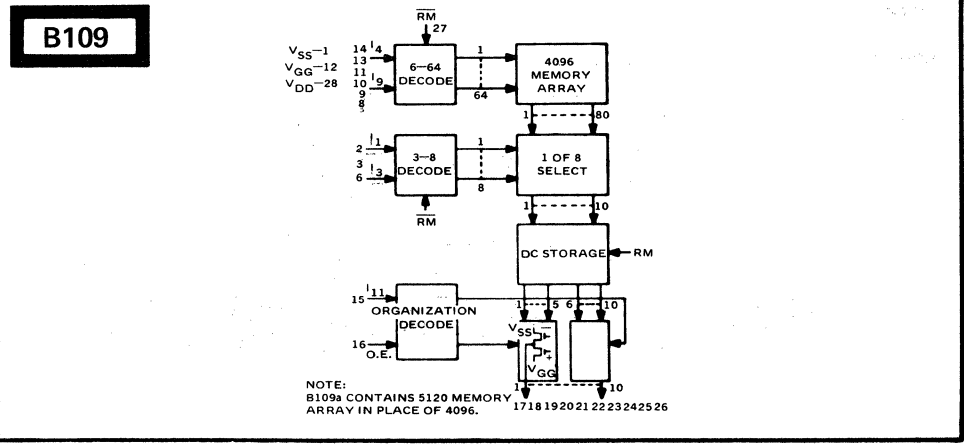
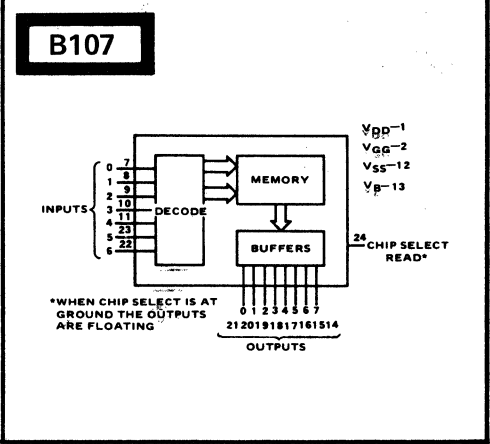
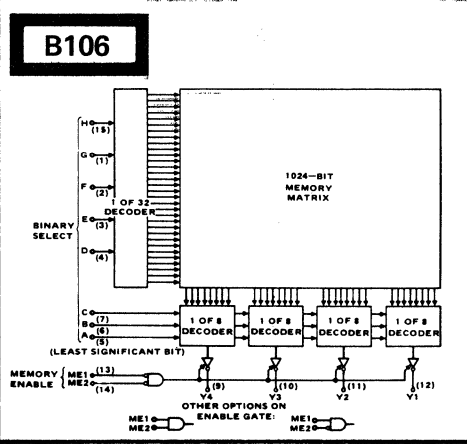
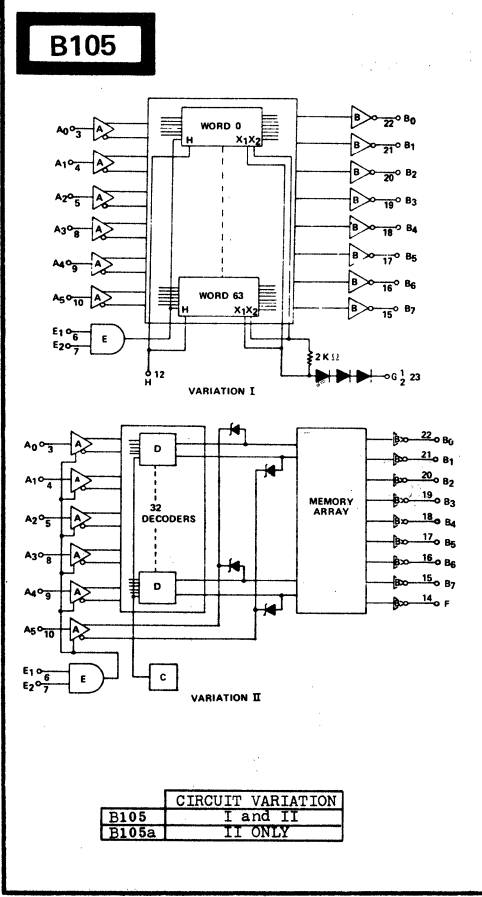
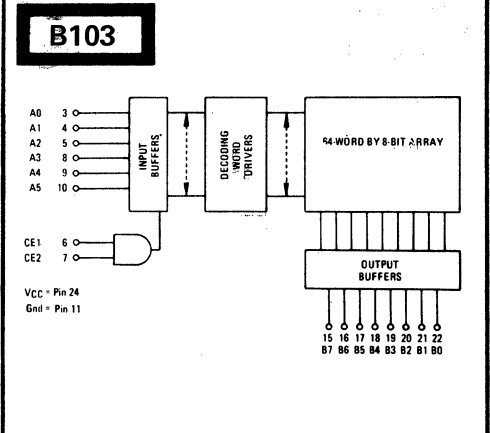
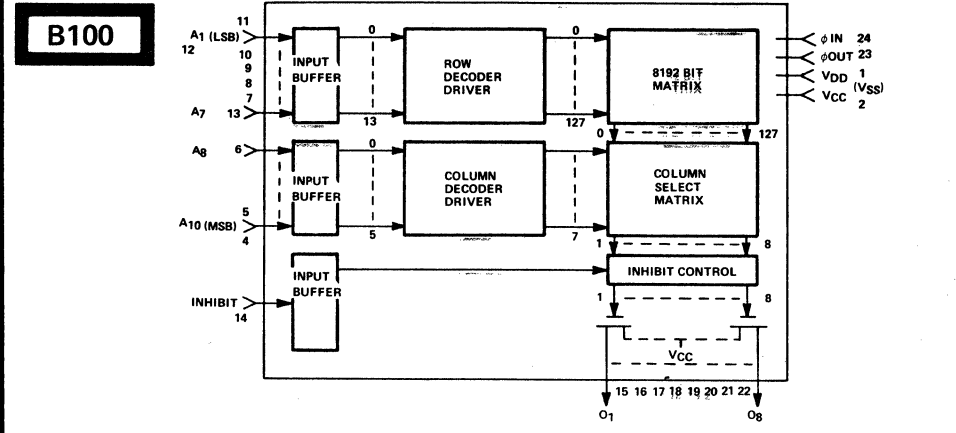
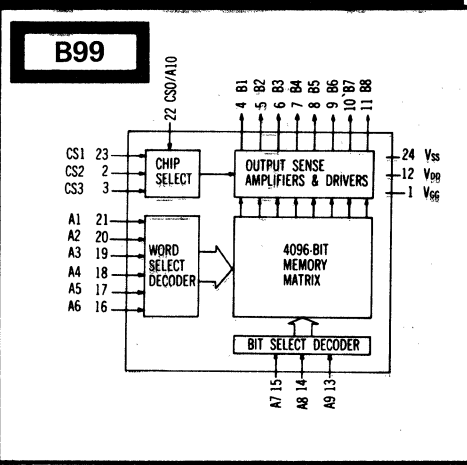
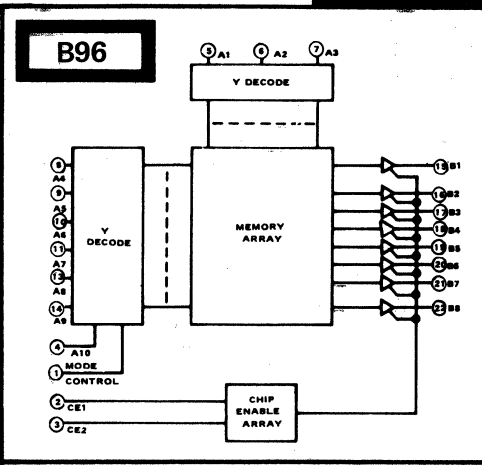


B95



22. LOGIC/BLOCK DRAWINGS

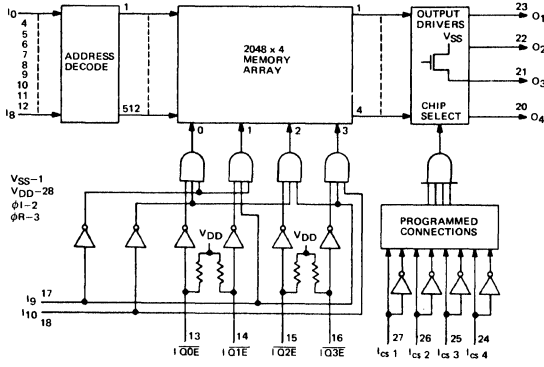
IN DRAWING NUMBER
SEQUENCE



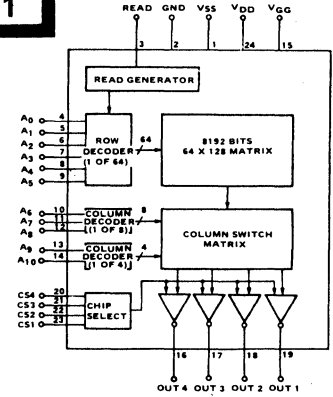
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

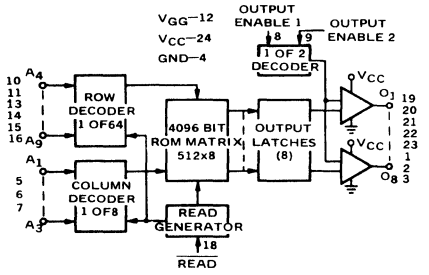
B110



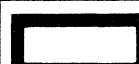
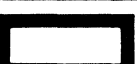
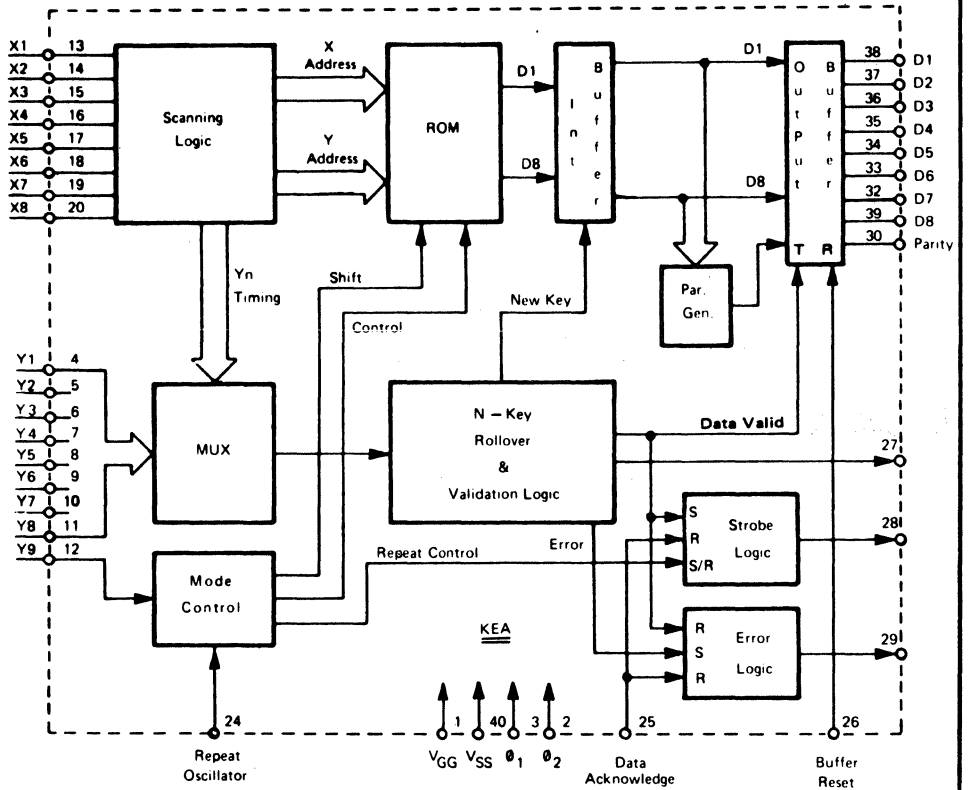
B111



B112

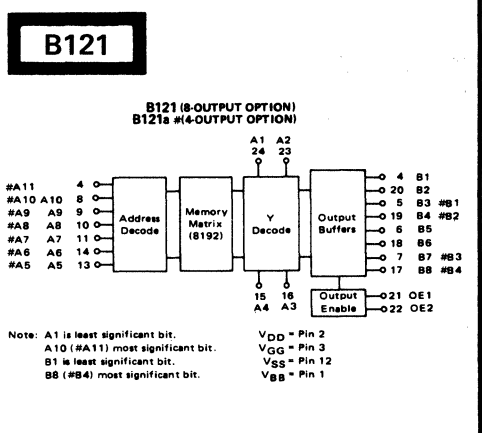
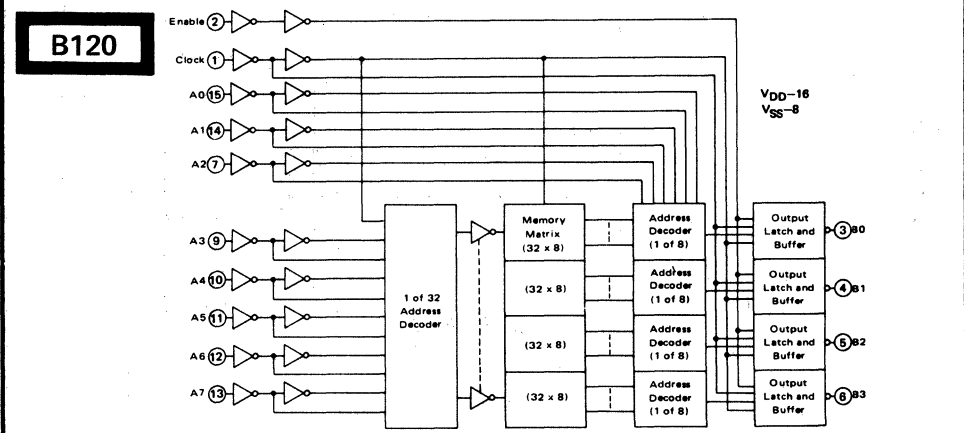
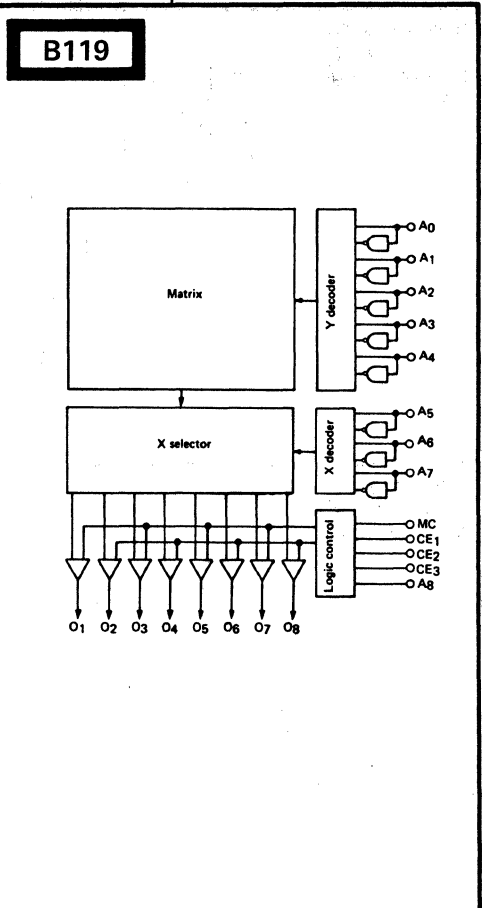
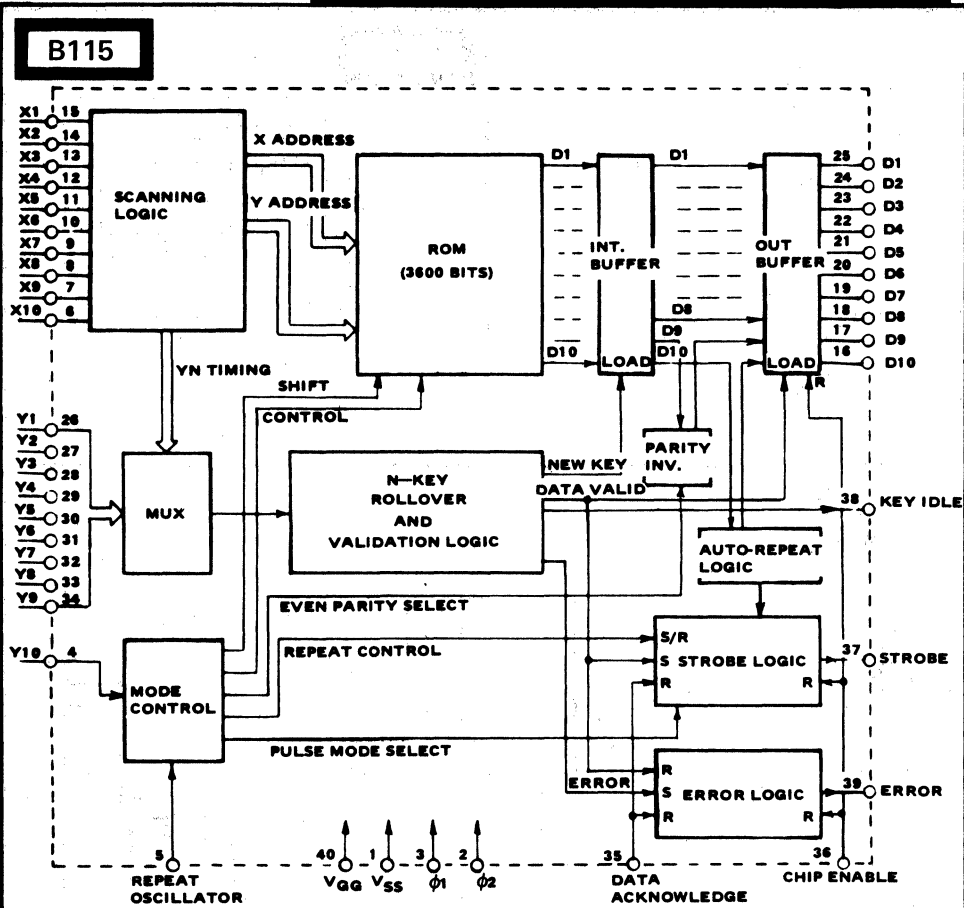


B113



22. LOGIC/BLOCK DRAWINGS

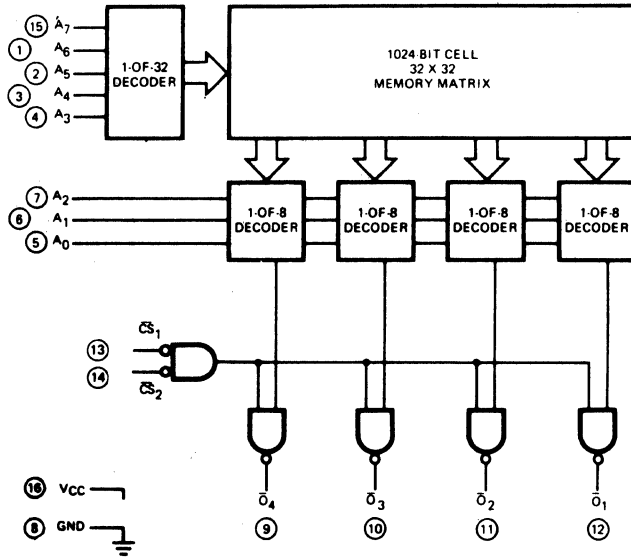
IN DRAWING NUMBER SEQUENCE



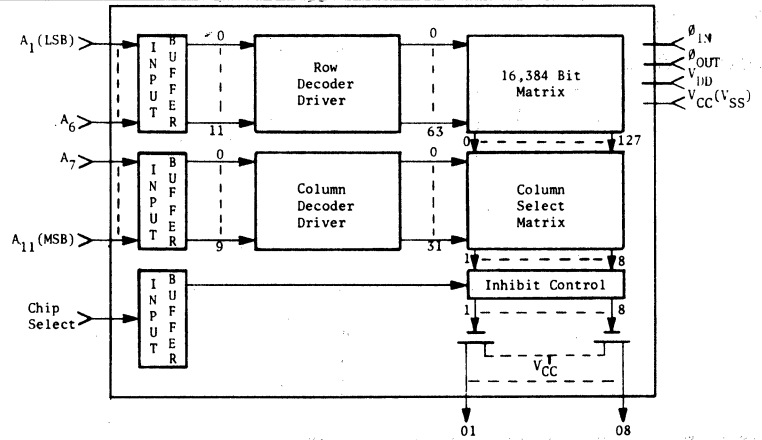
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

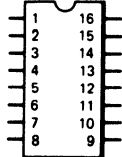
B123



B124



B126

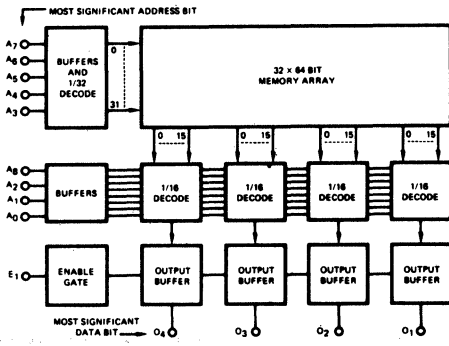


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	REMARKS
B126a	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	O_4	O_3	O_2	O_1	E_1	A_8	A_7	V_{CC}	ENABLE-E1 LOW
B126b	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	O_5	O_4	O_3	O_2	O_1	E_1	A_7	V_{CC}	ENABLE-E1 LOW
B126c	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	O_4	O_3	O_2	O_1	E_2	A_7	V_{CC}	ENABLE-E1 LOW and E2 LOW	
B126d	O_1	O_2	O_3	O_4	O_5	O_6	O_7	GND	O_8	O_9	O_{10}	O_{11}	A_3	A_4	E_1	V_{CC}	ENABLE-E1 LOW
B126e	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	O_4	O_3	O_2	O_1	CS	A_8	A_7	V_{CC}	SELECT CS LOW
B126f	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	O_4	O_3	O_2	O_1	A_9	A_8	A_7	V_{CC}	NO SELECT INPUTS
B126g	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	B_4	B_3	B_2	B_1	C_{11}	C_{12}	A_7	V_{CC}	
B126h	V_{CC}	A_1	A_2	A_0	A_6	A_5	A_7	VEE	A_3	A_4	CS	CE	Q_1	Q_0	V_{CC}		
B126i	A_0	A_1	A_2	A_3	CS_0	CS_1	CS_2	VEE	A_4	A_5	A_6	A_7	D	ME	Q	V_{CC}	
B126k	A_6	A_5	A_4	A_3	A_0	A_1	A_2	GND	O_4	O_3	O_2	O_1	CS_1	CS_2	A_7	V_{CC}	

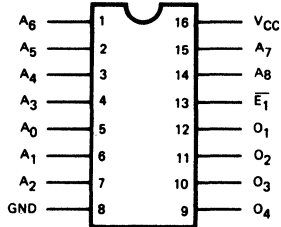
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

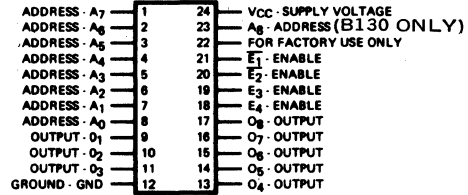
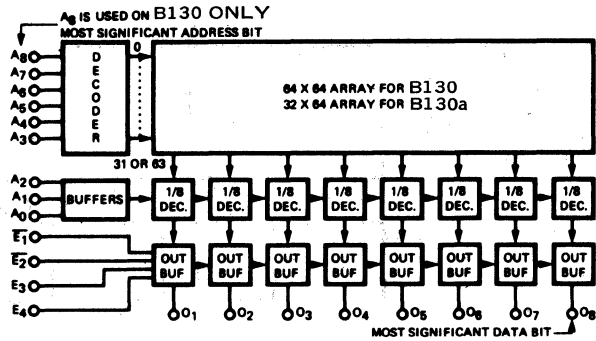
B129



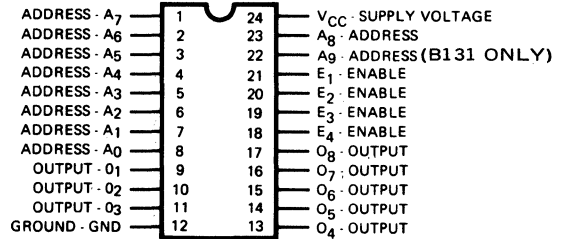
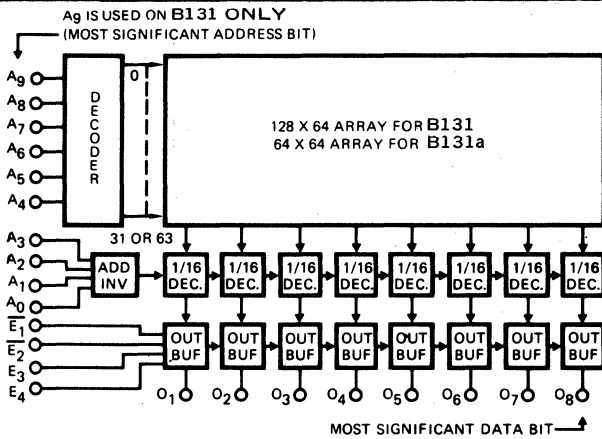
V_{CC} = 16
GND = 8



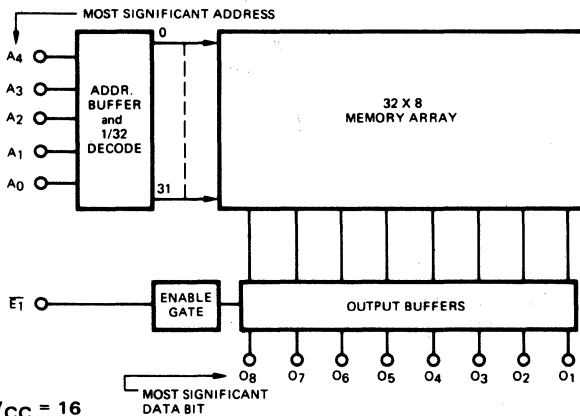
B130



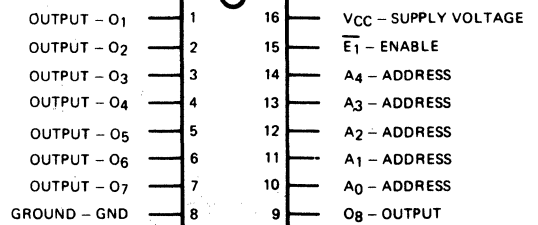
B131



B132



V_{CC} = 16
GND = 8

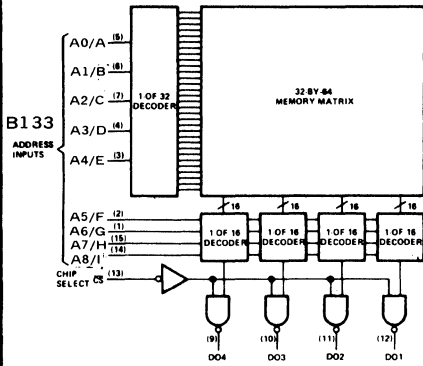


LOW = ENABLE

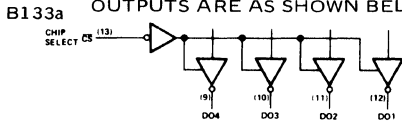
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

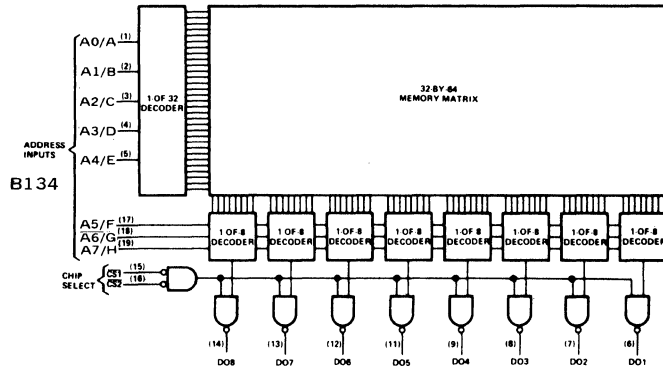
B133



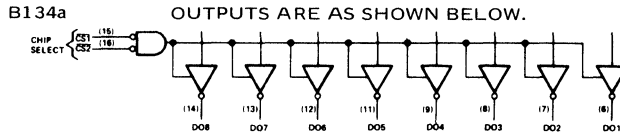
SAME AS ABOVE EXCEPT OUTPUTS ARE AS SHOWN BELOW.



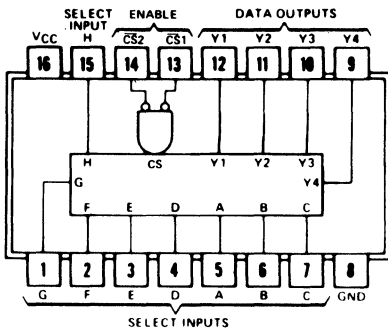
B134



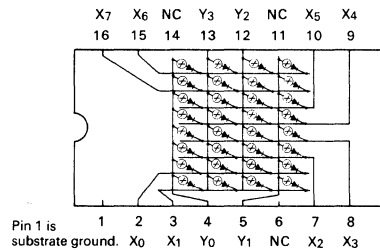
SAME AS ABOVE EXCEPT OUTPUTS ARE AS SHOWN BELOW.



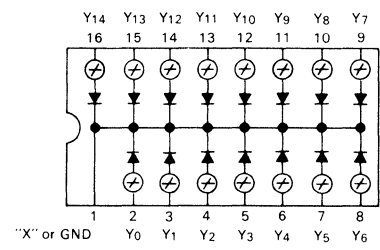
B135



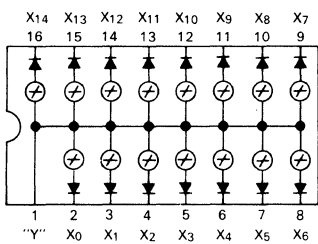
B137



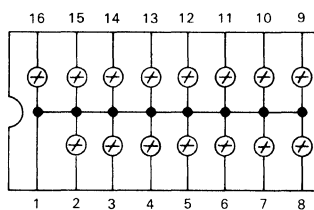
B138



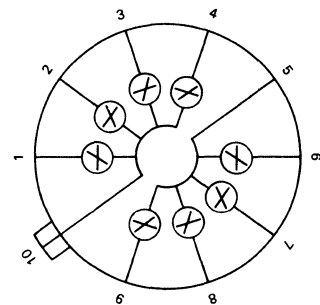
B139



B140



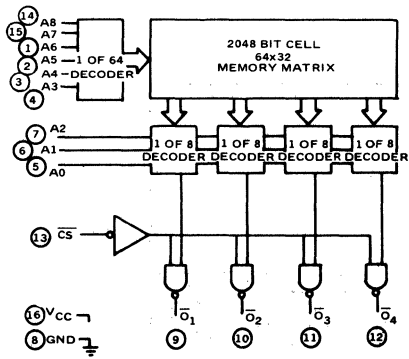
B141



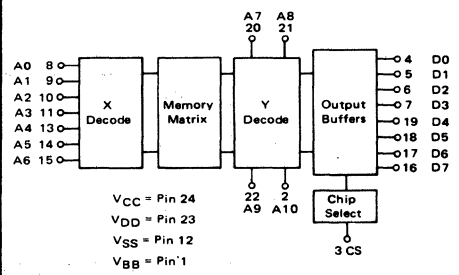
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

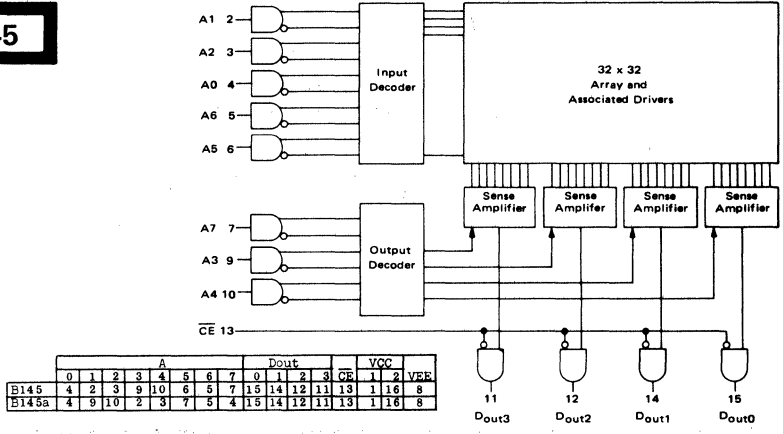
B143



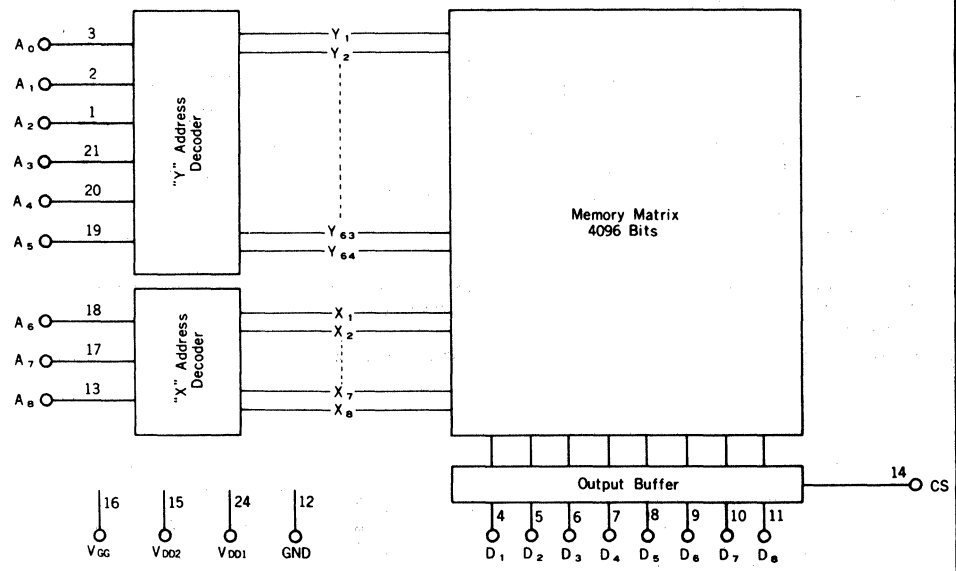
B144



B145



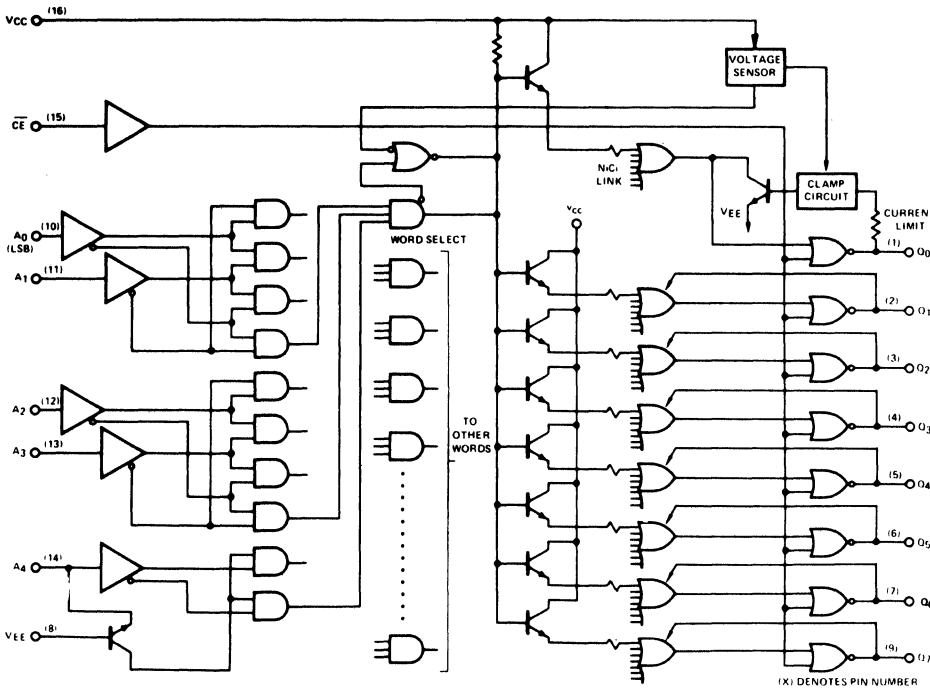
B148



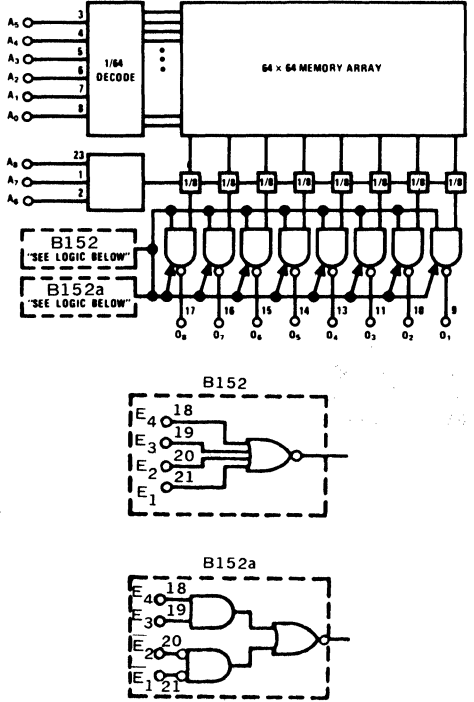
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

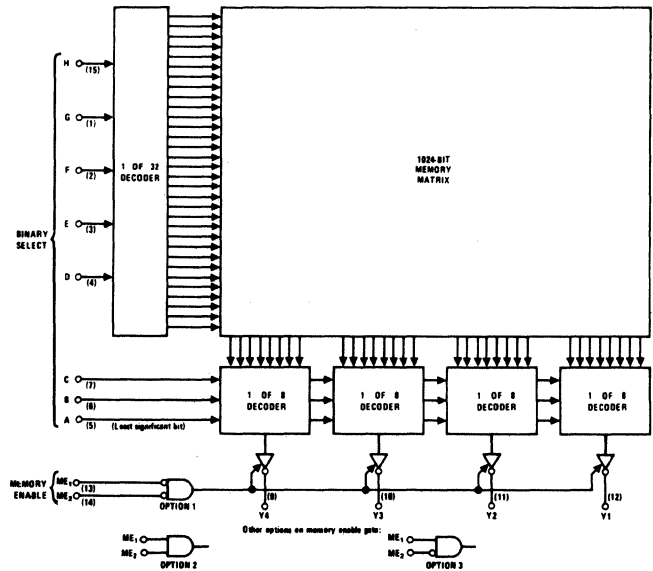
B149



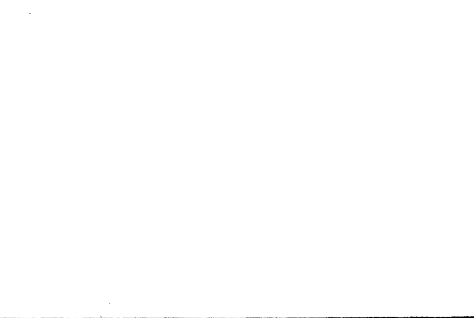
B152



B153



B154



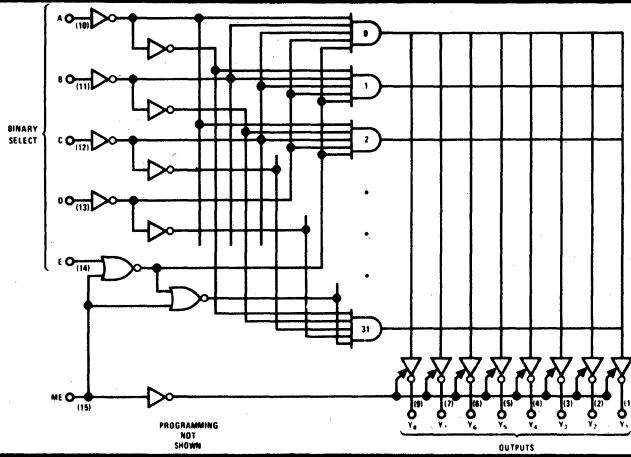
B155



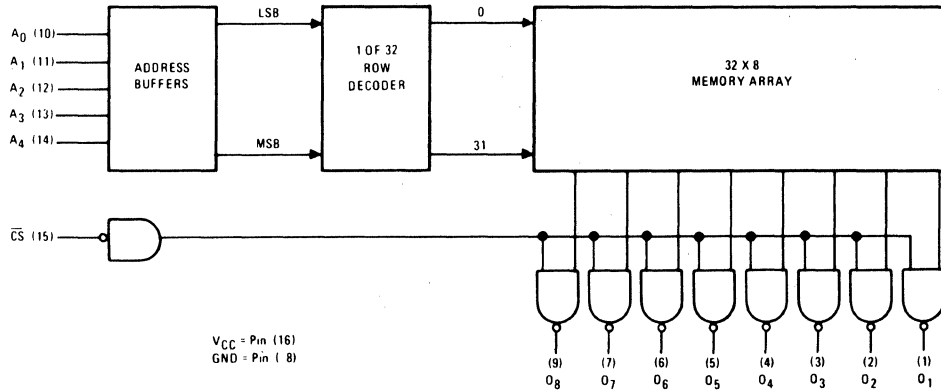
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

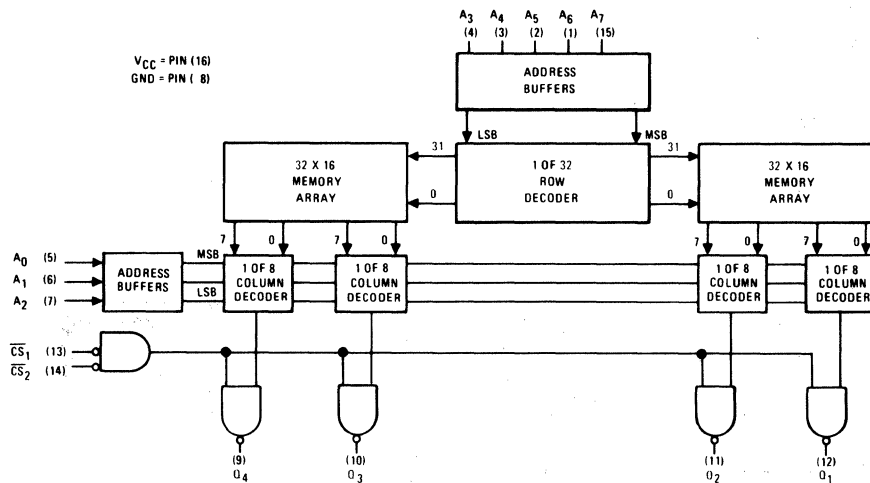
B154



B156



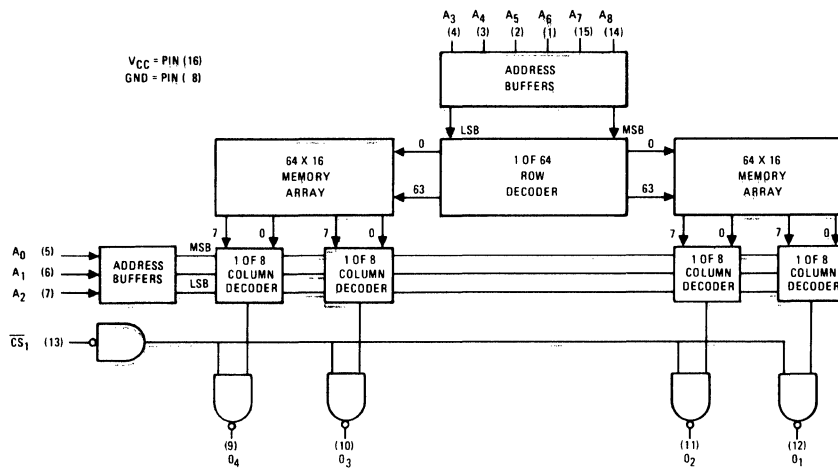
B157



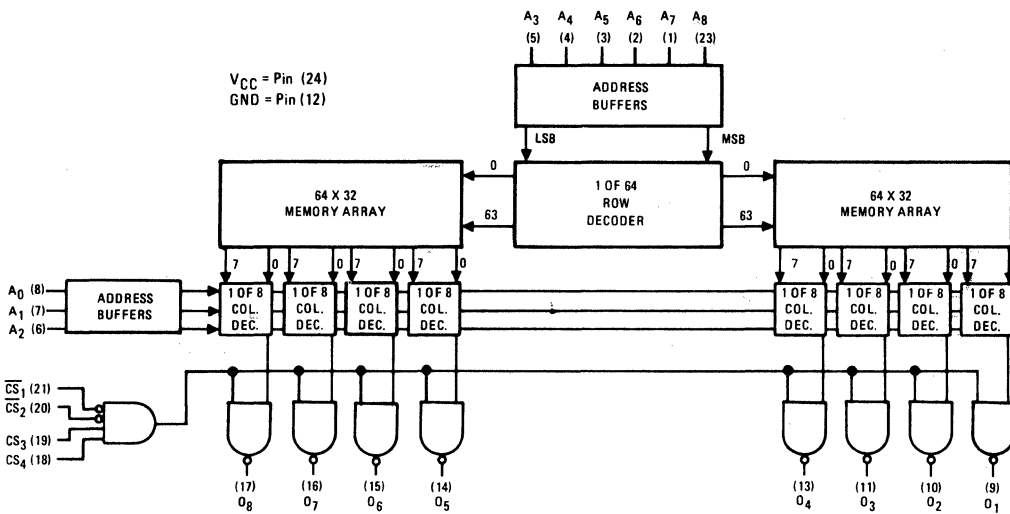
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B158



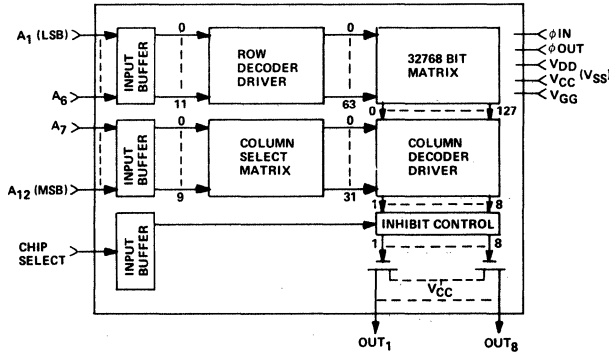
B159



22. LOGIC/BLOCK DRAWINGS

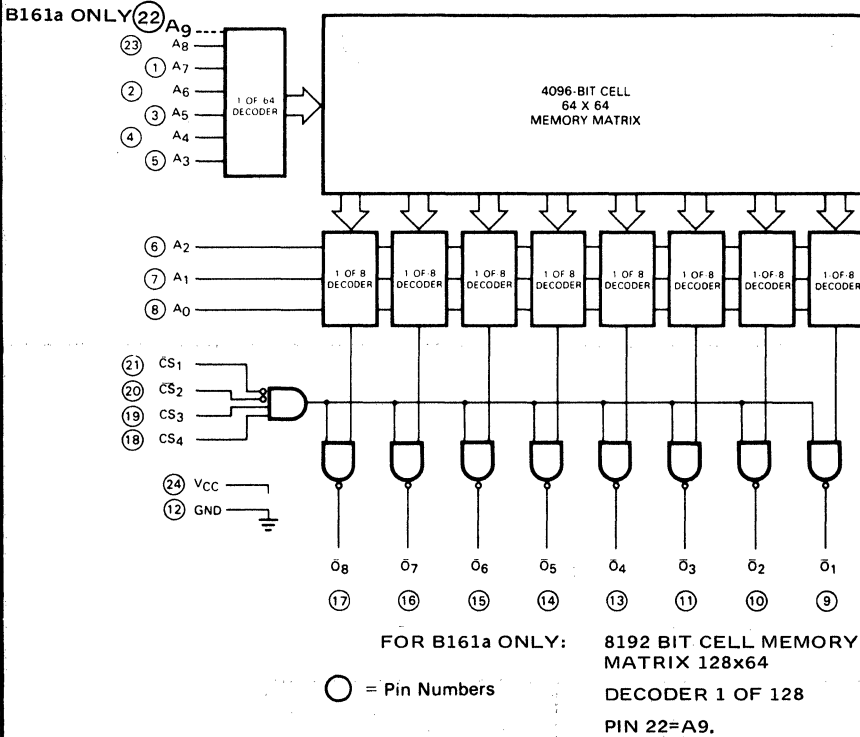
IN DRAWING NUMBER SEQUENCE

B160

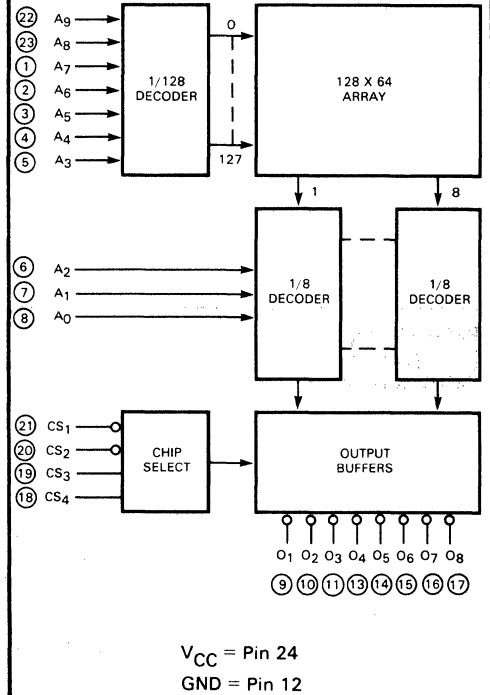


P/N	FUNCTION	P/N	FUNCTION
1	VDD	15	A ₈
2	A ₁₂	16	A ₉
3	A ₁₀	17	A ₇
4	A ₁	18	OUT ₁
5	A ₂	19	OUT ₂
6	A ₃	20	OUT ₃
7	A ₄	21	OUT ₄
8	A ₅	22	OUT ₅
9	A ₆	23	OUT ₆
10	VSS	24	OUT ₇
11	φIN	25	OUT ₈
12	φOUT	26	CHIP SELECT
13	VGG	27	NC
14	A ₁₁	28	NC (VSS)

B161



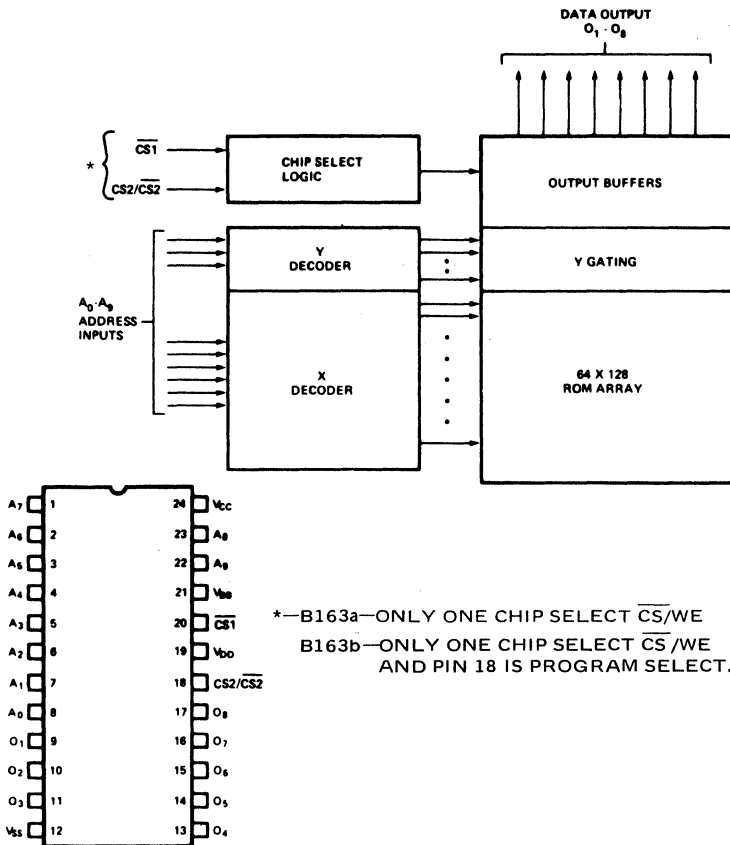
B162



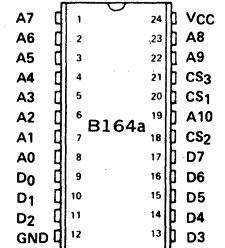
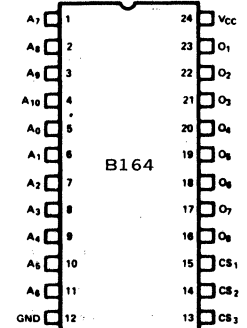
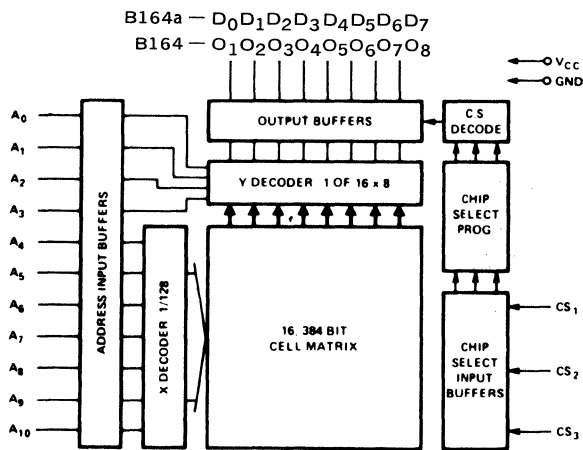
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B163



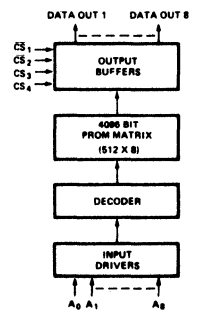
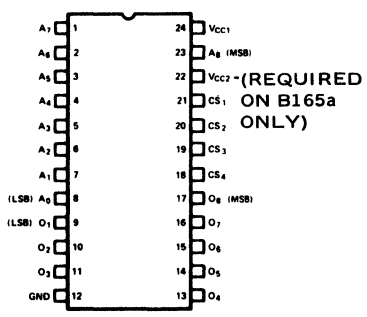
B164



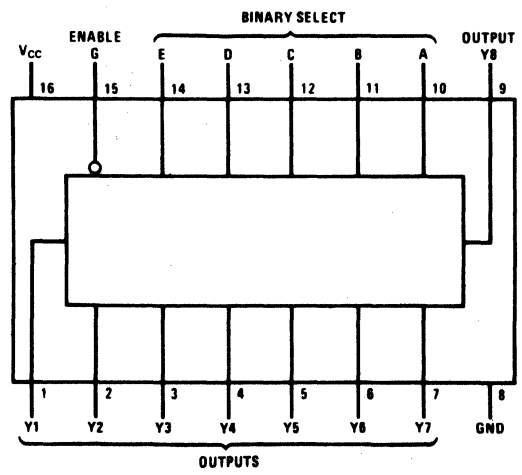
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

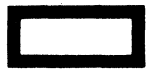
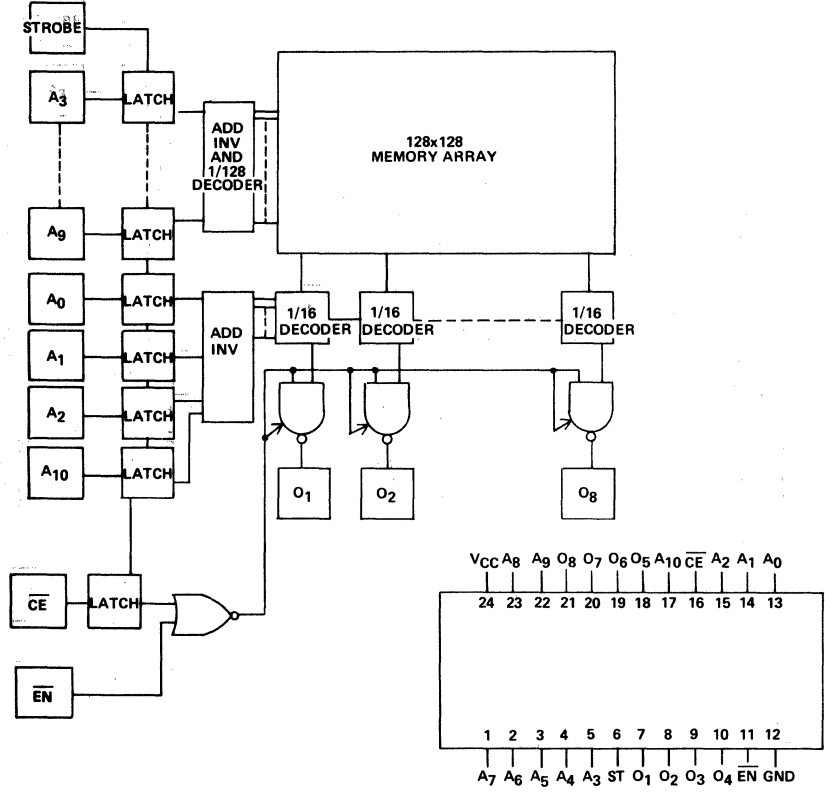
B165



B168



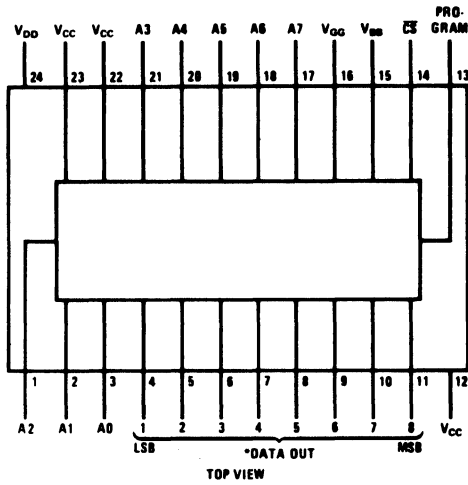
B169



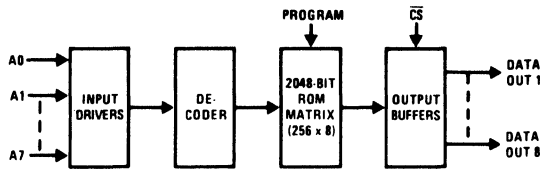
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

B170

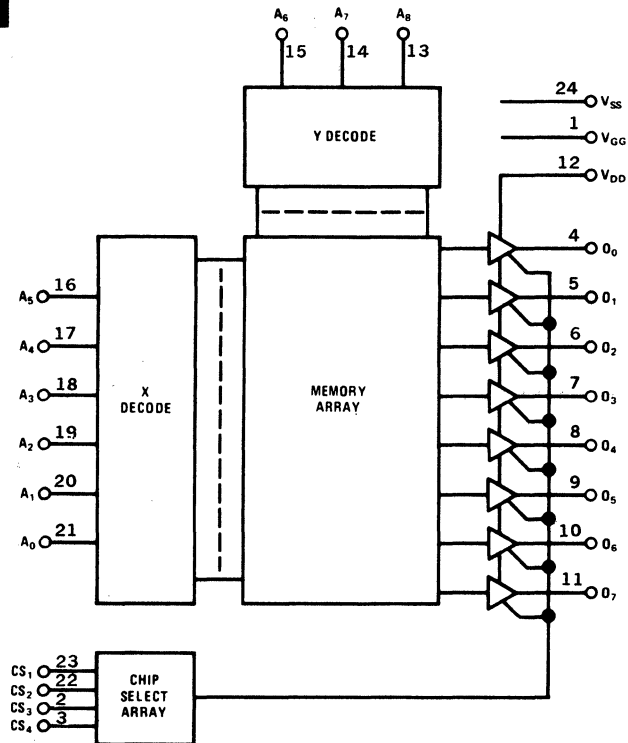


*This pin is the data input lead during programming.



Note: In the read mode a logic "1" at the address inputs and data outputs is a high and logic "0" is a low.

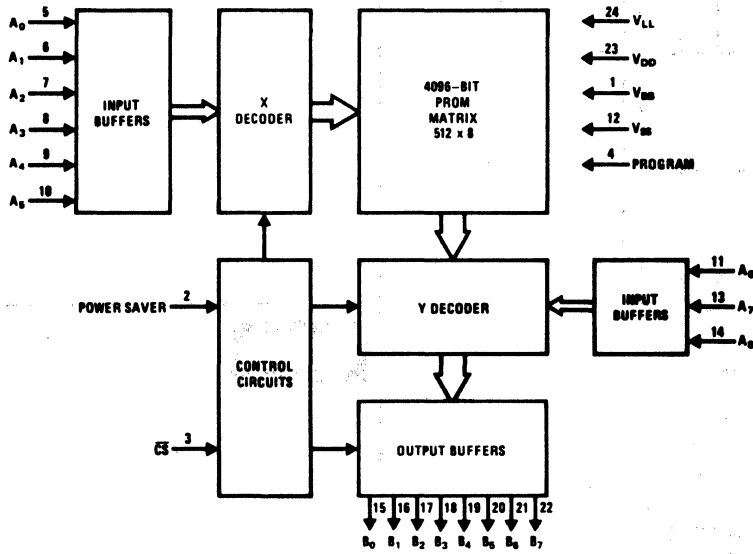
B171



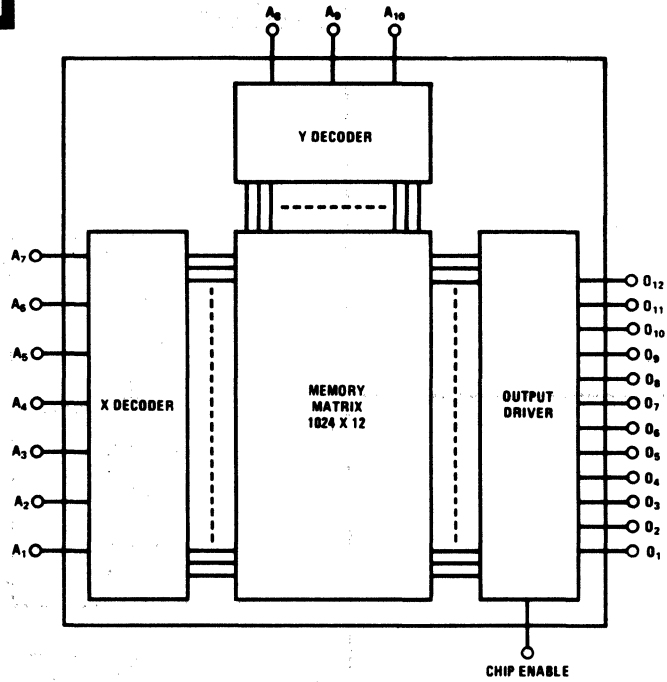
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B172



B174

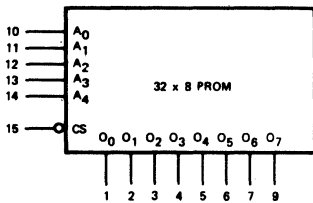
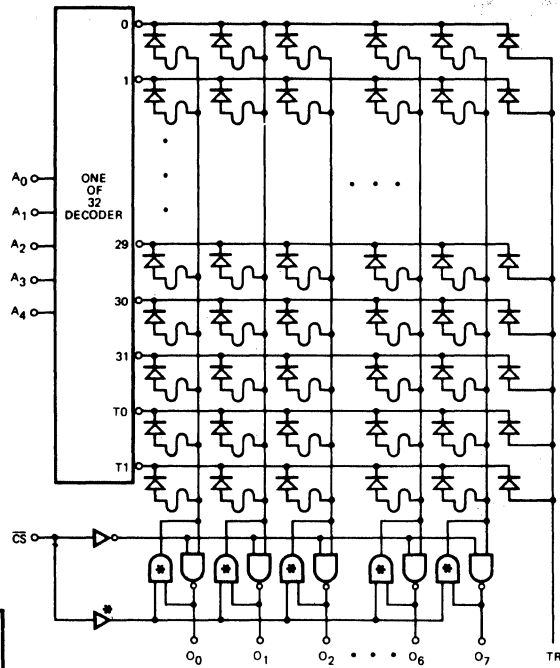


	A										O										CE	VSS	VDD	VGG			
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	11	12	18	1	21	26	
B174	10	9	7	6	5	4	13	12	11	9	14	15	16	17	19	20	21	22	23	24	25	26	18	1	21	26	
B174a	10	8	7	6	5	4	13	12	11	9	14	15	16	17	19	20	21	22	23	24	25	26	18	1	21	26	

22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

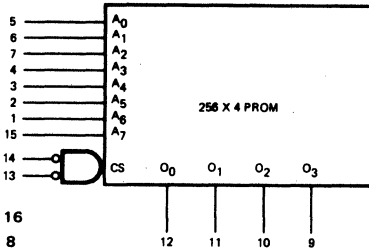
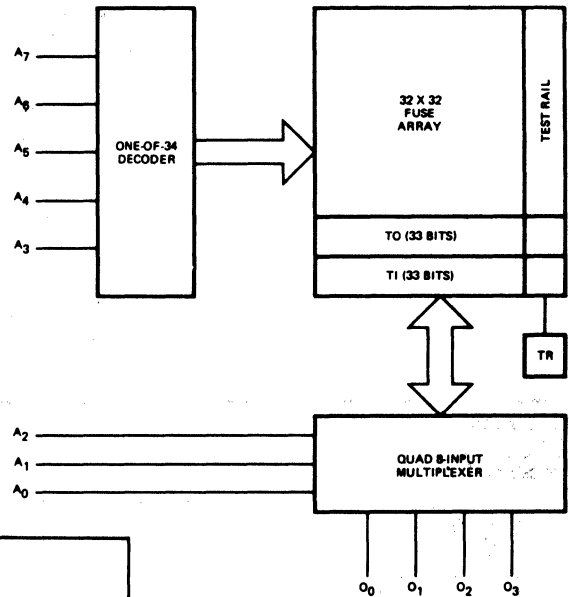
B175



VCC = Pin 16
GND = Pin 8

* = High Voltage Gate for Programming
T0 = Test Word
T1 = Test Word
TR = Test Rail

B176



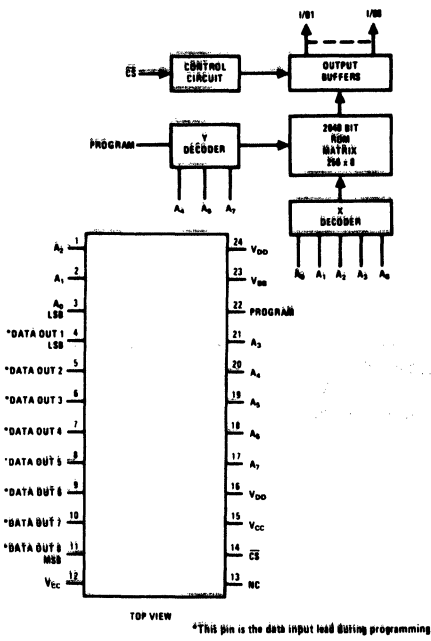
VCC = Pin 16
GND = Pin 8

TO = Test Word
TI = Test Word
TR = Test Rail

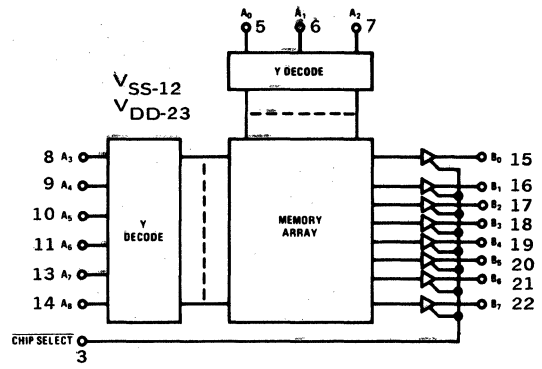
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

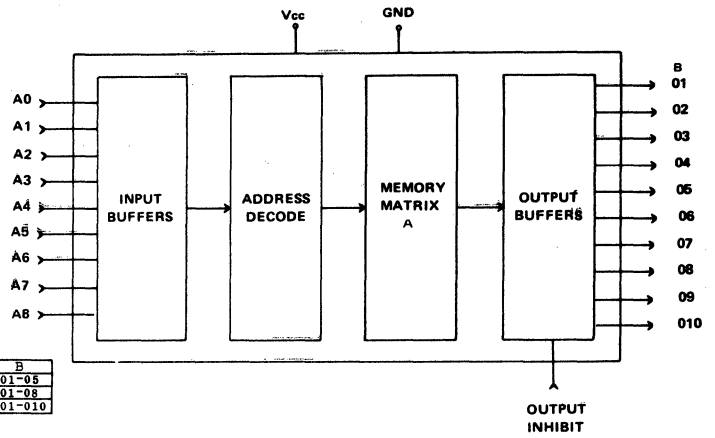
B177



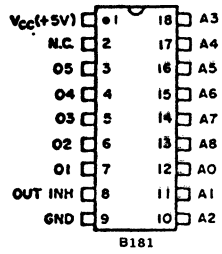
B178



B181



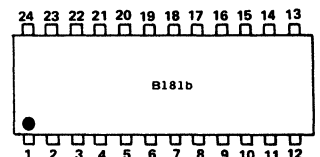
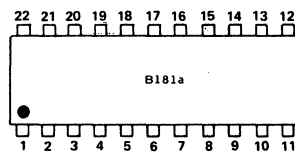
	A	B
B181	512x5	01-05
B181a	512x8	01-08
B181b	512x10	01-010



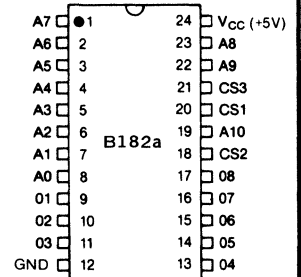
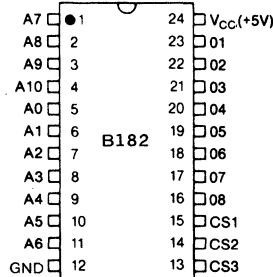
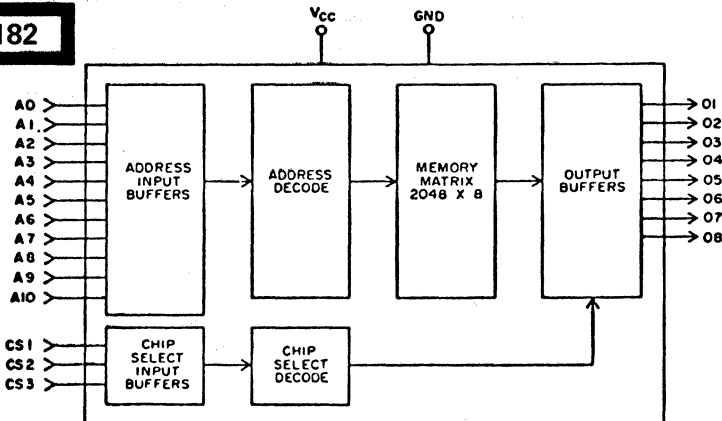
PIN	FUNCTION	PIN	FUNCTION
1	GND	12	Output Inhibit
2	A8	13	N.C.
3	A7	14	N.C.
4	A6	15	Out 8
5	A5	16	Out 7
6	A4	17	Out 6
7	A3	18	Out 5
8	Vcc	19	Out 4
9	A2	20	Out 3
10	A1	21	Out 2
11	A0	22	Out 1

PIN	FUNCTION	PIN	FUNCTION
1	GND	13	Output Inhibit
2	A8	14	Out 10
3	A7	15	Out 9
4	A6	16	Out 8
5	A5	17	Out 7
6	A4	18	Out 6
7	A3	19	Out 5
8	N.C.	20	Out 4
9	Vcc	21	Out 3
10	A2	22	Out 2
11	A1	23	Out 1
12	A0	24	N.C.

A0 - A8 ADDRESS INPUTS
O1 - O8 DATA OUTPUTS
OUT INH OUTPUT INHIBIT
N.C. NO CONNECTION



B182

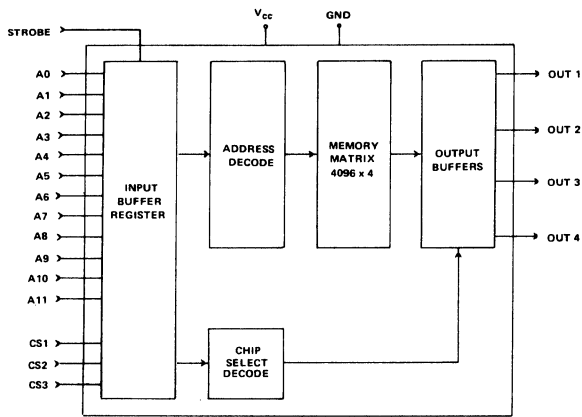


22. LOGIC/BLOCK DRAWINGS

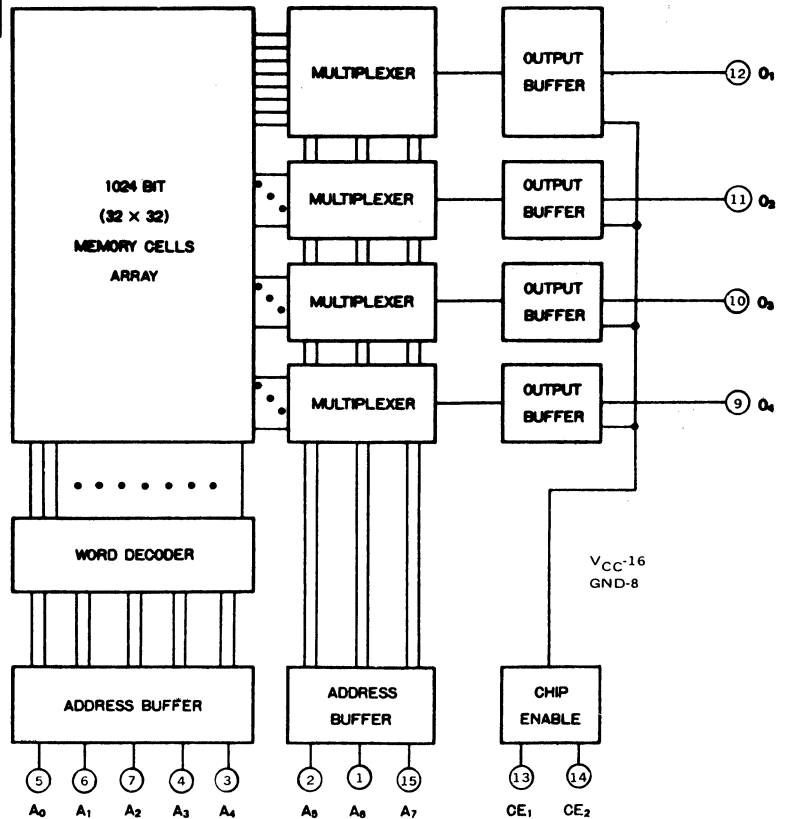
IN DRAWING NUMBER
SEQUENCE

B183

PIN	FUNCTION	PIN	FUNCTION
1	V _{cc}	13	A ₉
2	Address/CS Latch	14	A ₁₀
3	N.C.	15	N.C.
4	A ₀	16	Out 4
5	A ₁	17	Out 3
6	A ₂	18	Out 2
7	A ₃	19	Out 1
8	A ₄	20	A ₁₁
9	A ₅	21	CS ₃
10	A ₆	22	CS ₂
11	A ₇	23	CS ₁
12	A ₈	24	GND



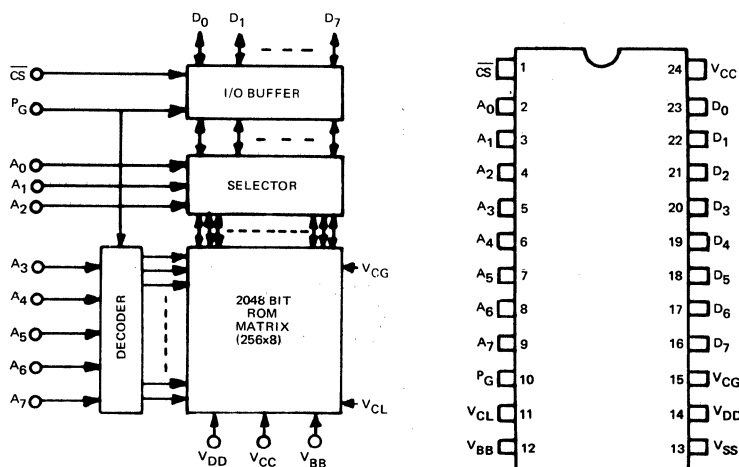
B184



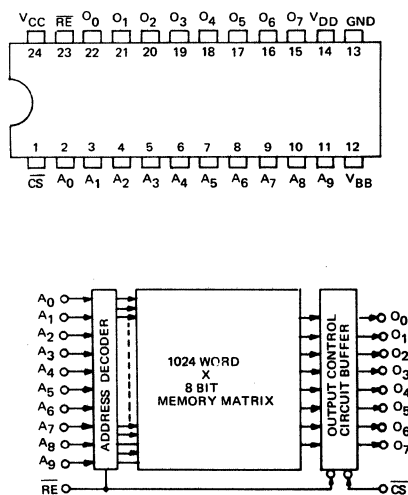
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

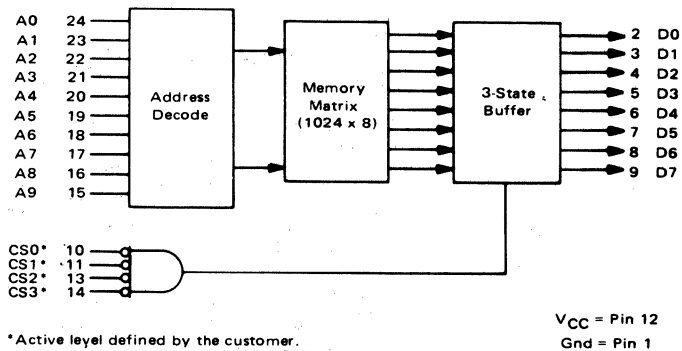
B185



B186



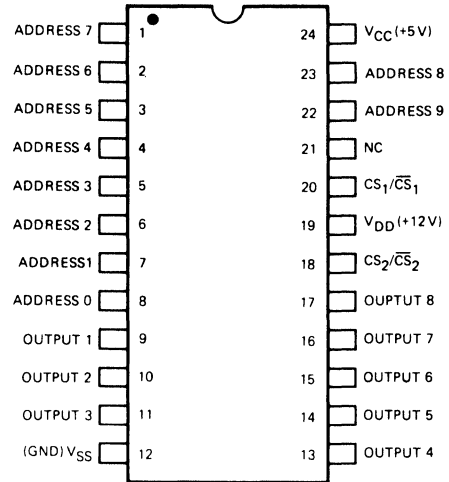
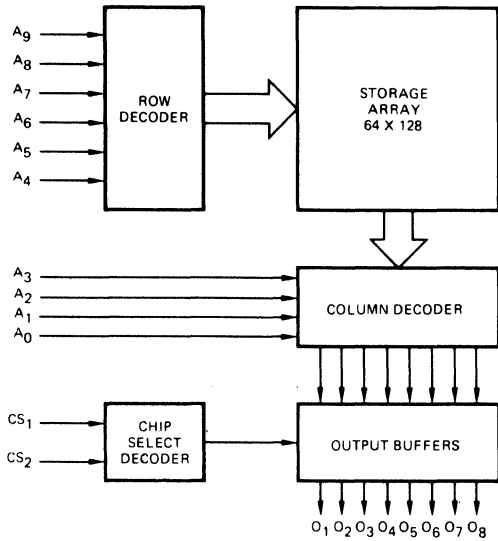
B187



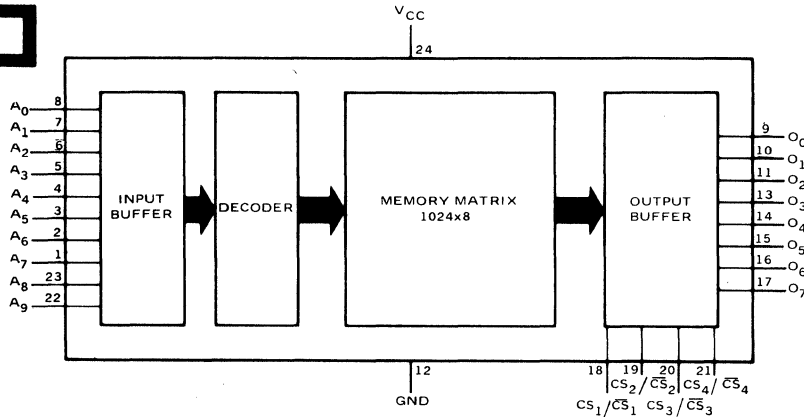
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

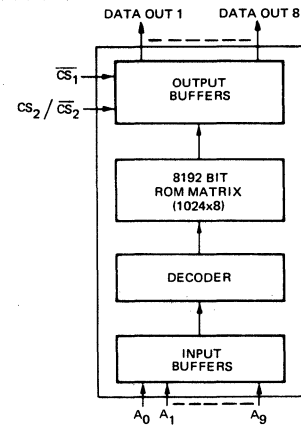
B188



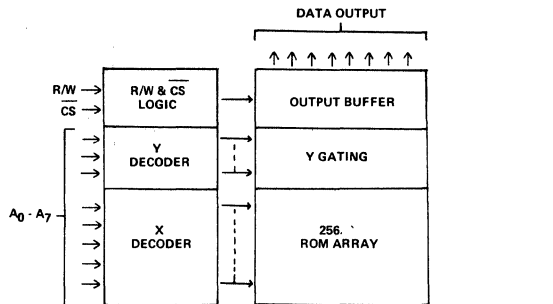
B189



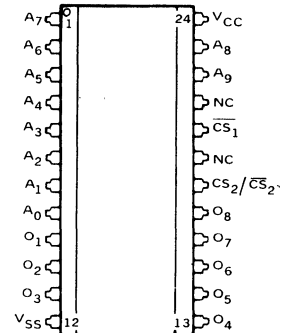
B190



B191



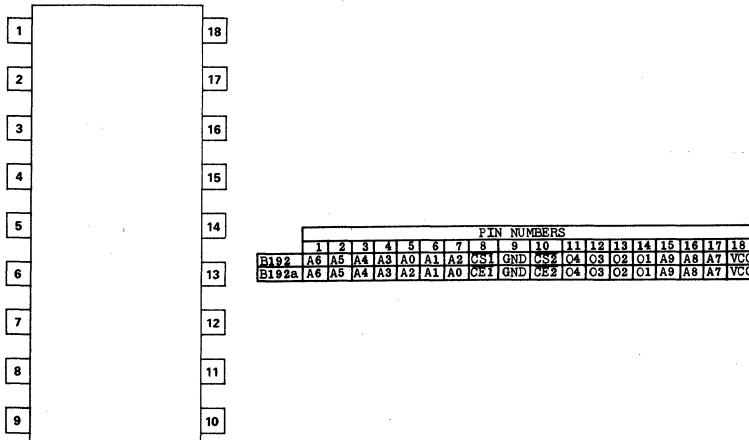
DATA OUTPUT														A										VDD	VCC	VGG	VBB	NC
1	2	3	4	5	6	7	8	CS	RW	PR	0	1	2	3	4	5	6	7	24	12	16	15	23					
B191	4	5	6	7	8	9	10	11	14	22	13	3	2	1	21	20	19	18	17									



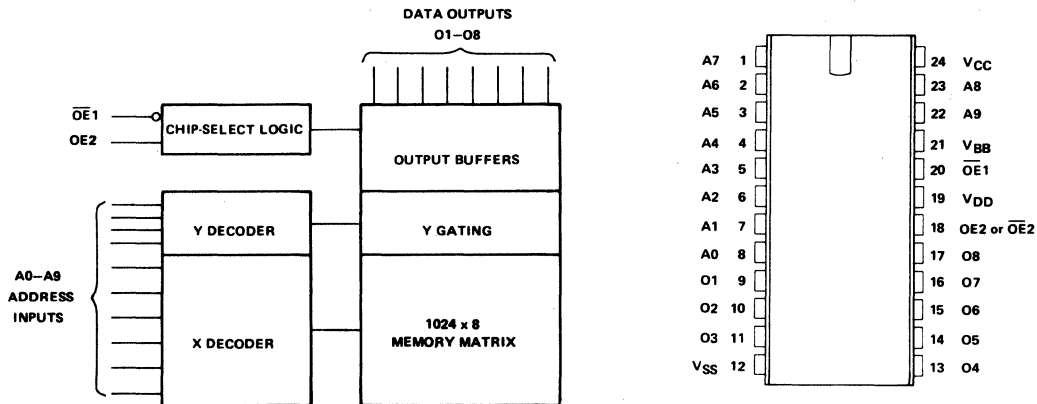
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

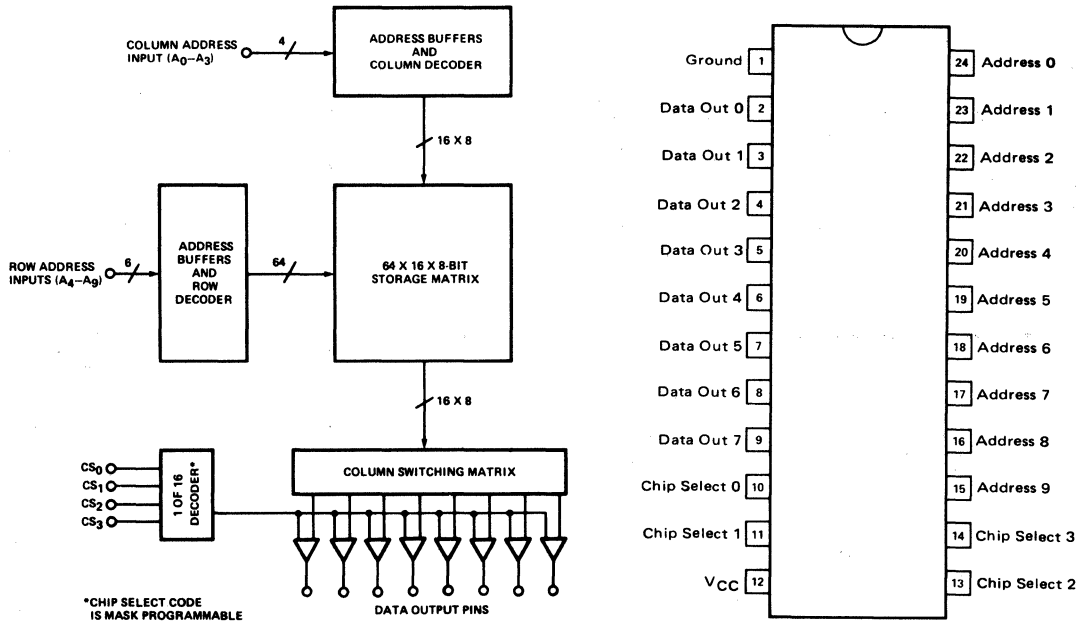
B192



B194



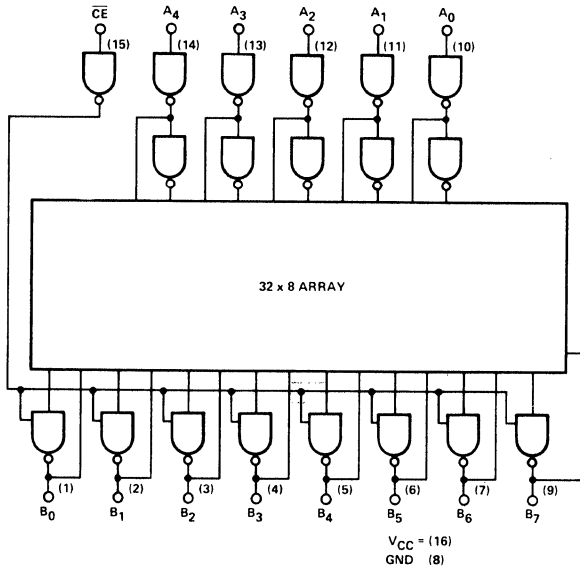
B195



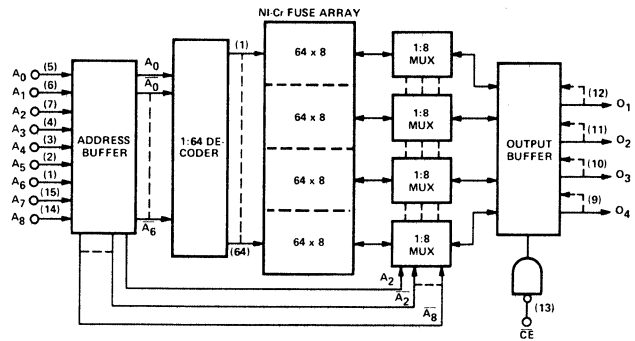
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

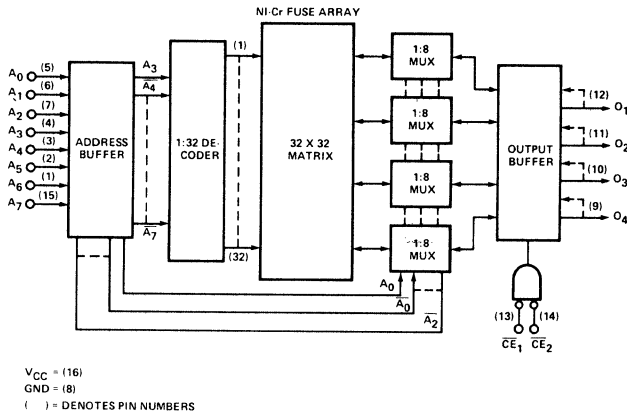
B196



B197



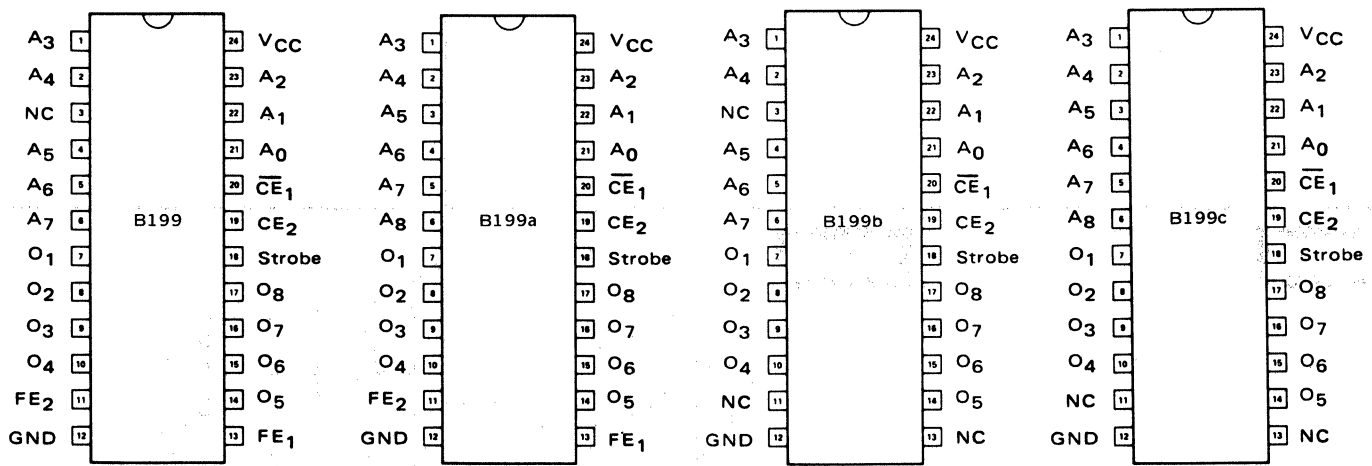
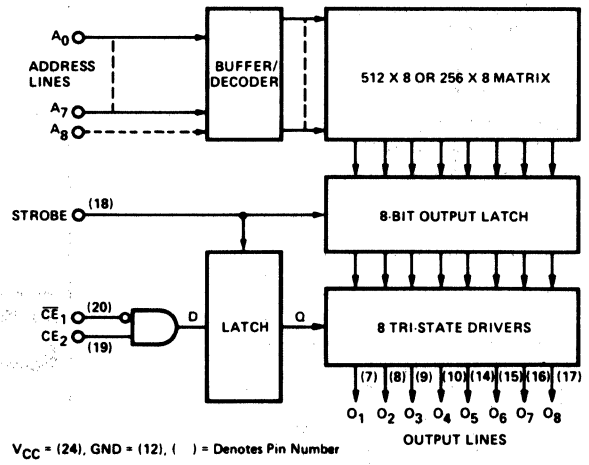
B198



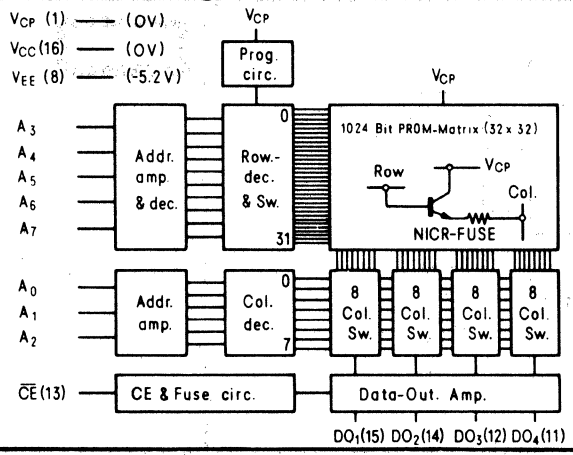
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B199



B200



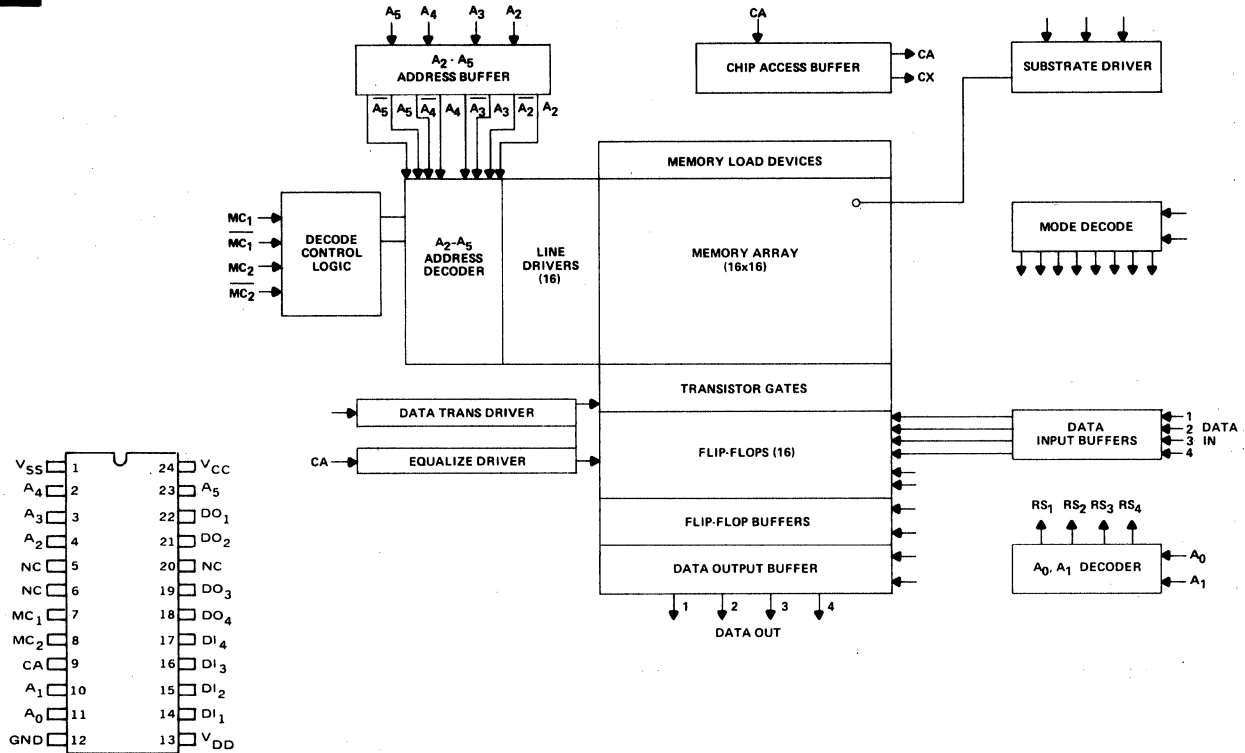
	A0	A1	A2	A3	A4	A5	A6	A7
B200	4	2	3	9	10	6	5	7
B200a	6	7	9	2	3	4	5	10

D.A.T.A.

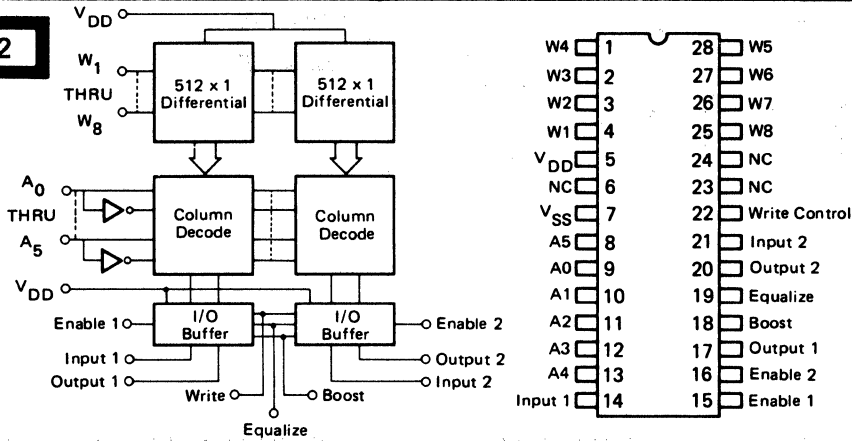
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

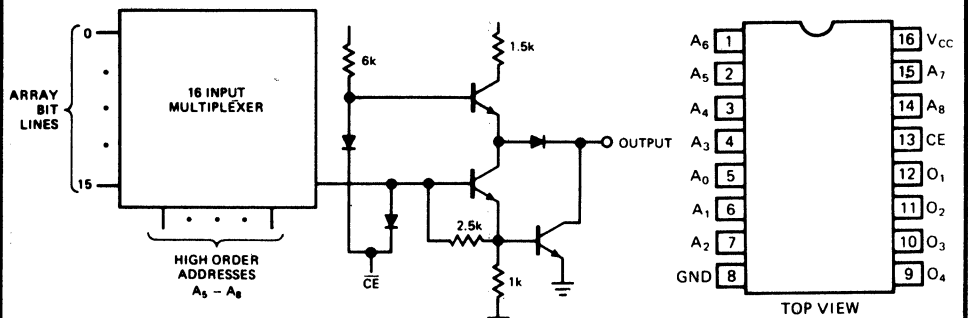
B201



B202



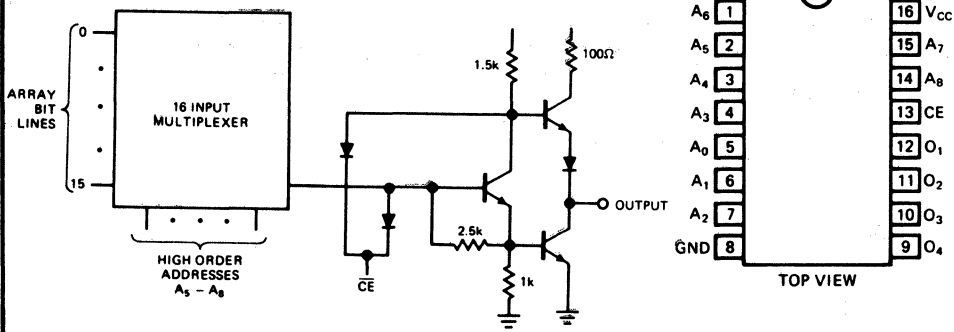
B203



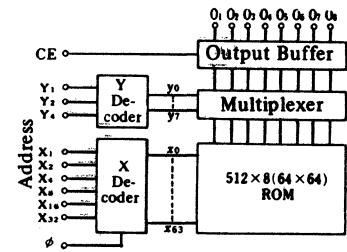
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

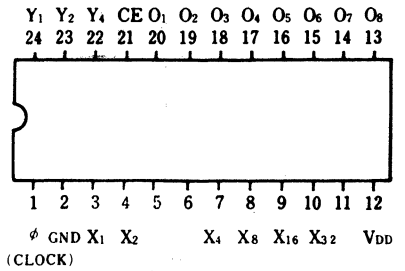
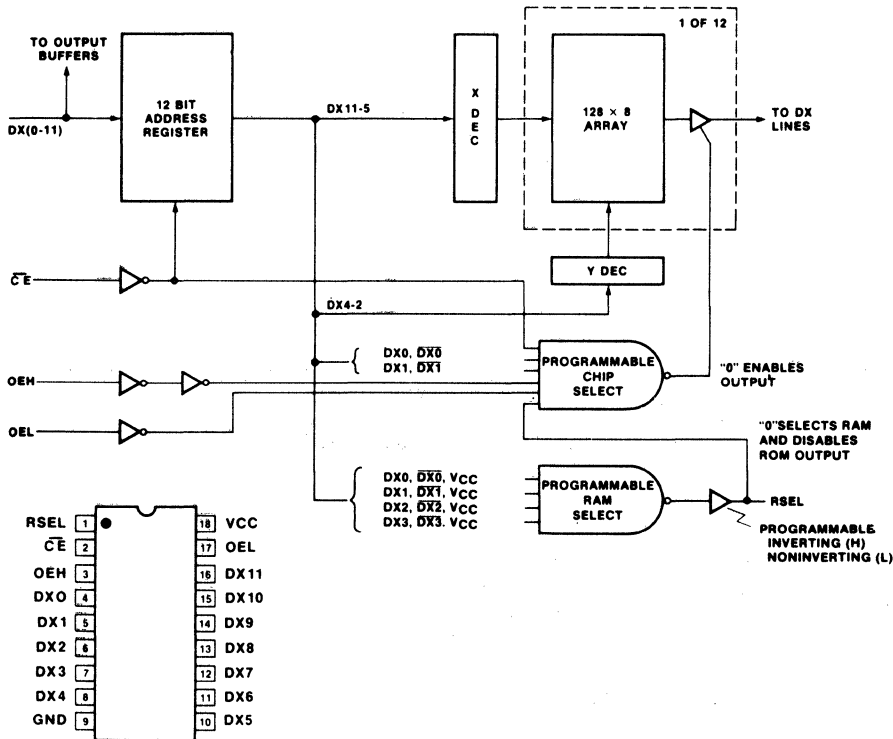
B204



B205



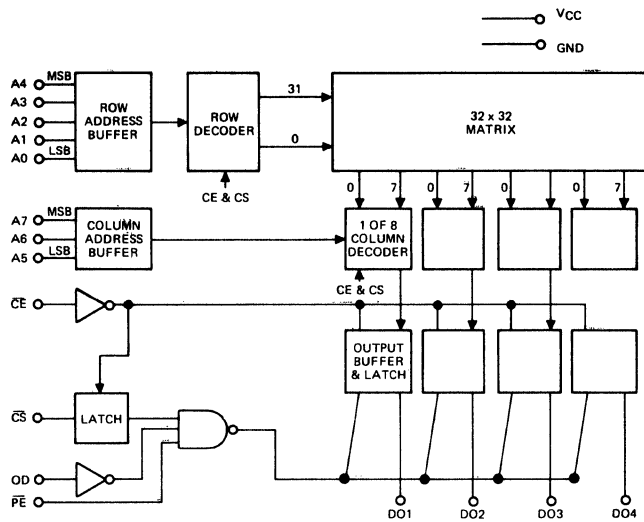
B206



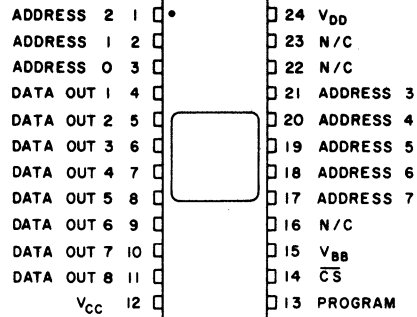
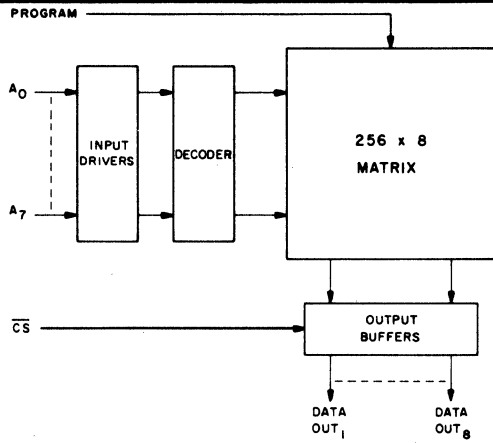
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

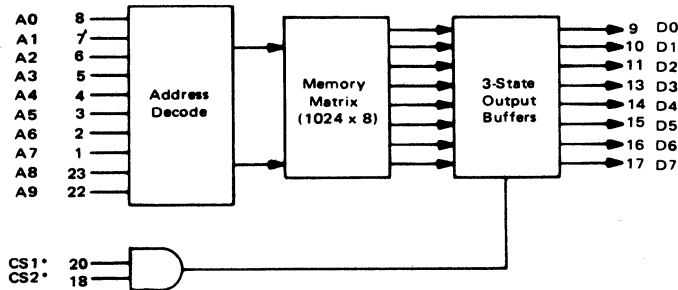
B207



B208



B209



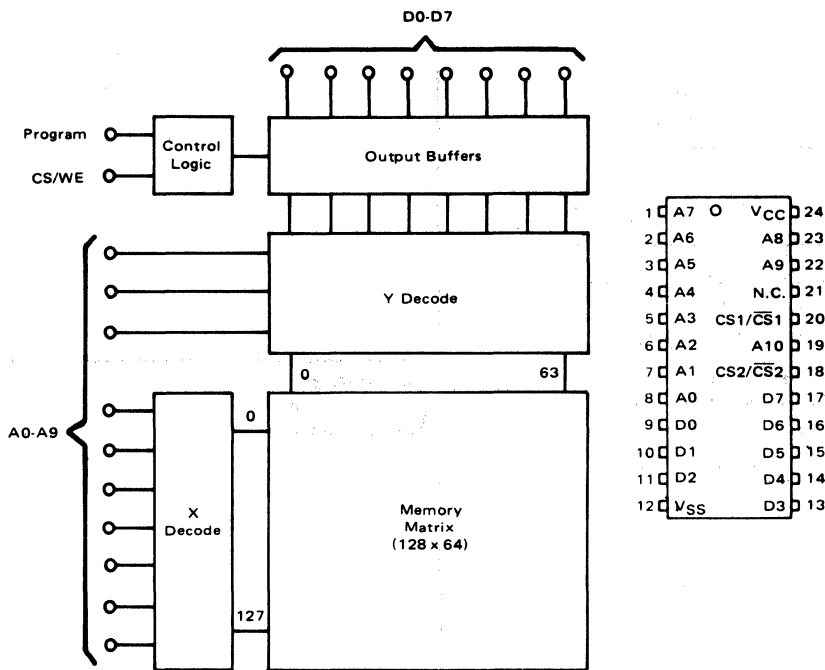
* Active level defined by the customer.

V_{CC} = Pin 24
Gnd = Pin 12

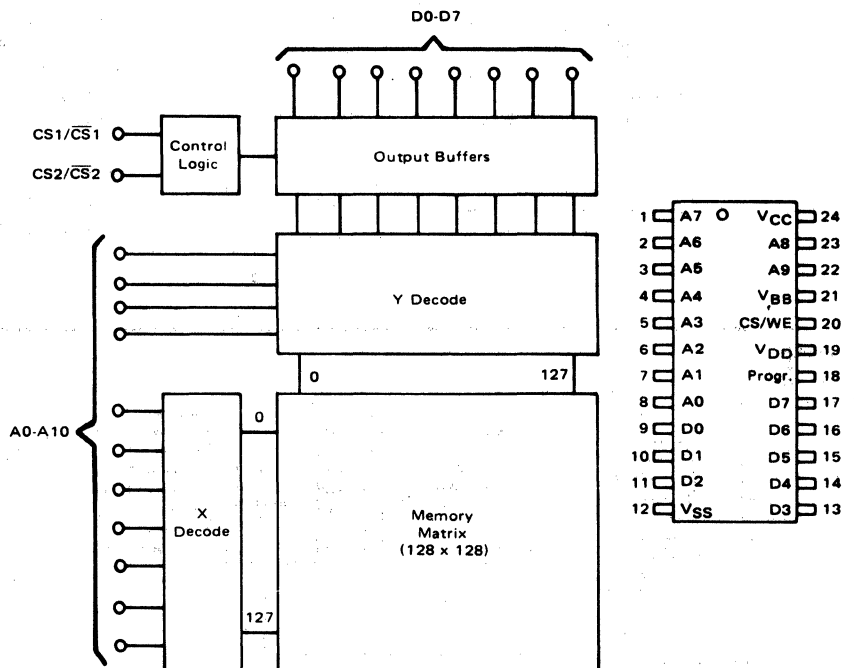
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B210



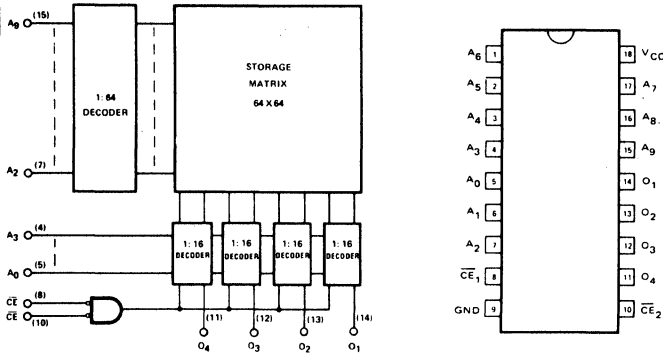
B211



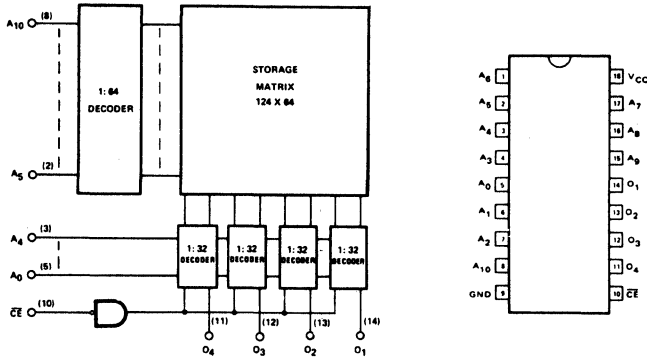
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

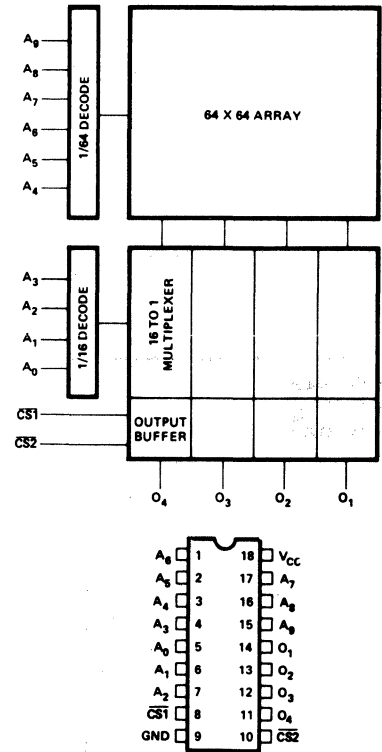
B212



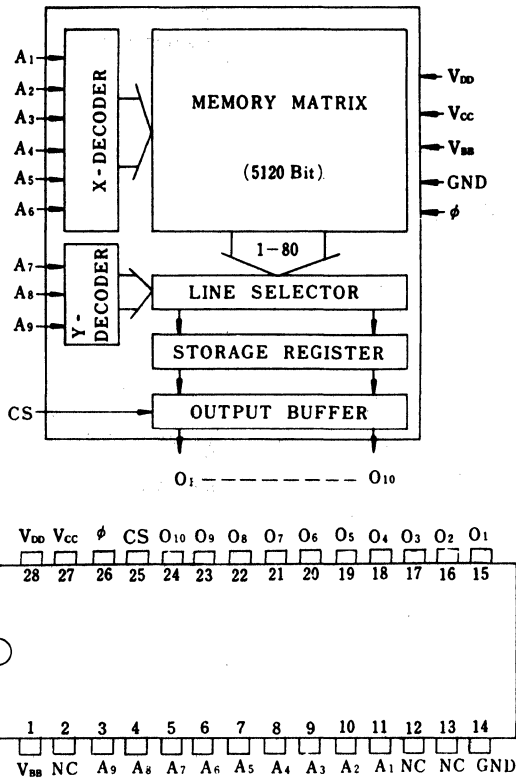
B213



B214



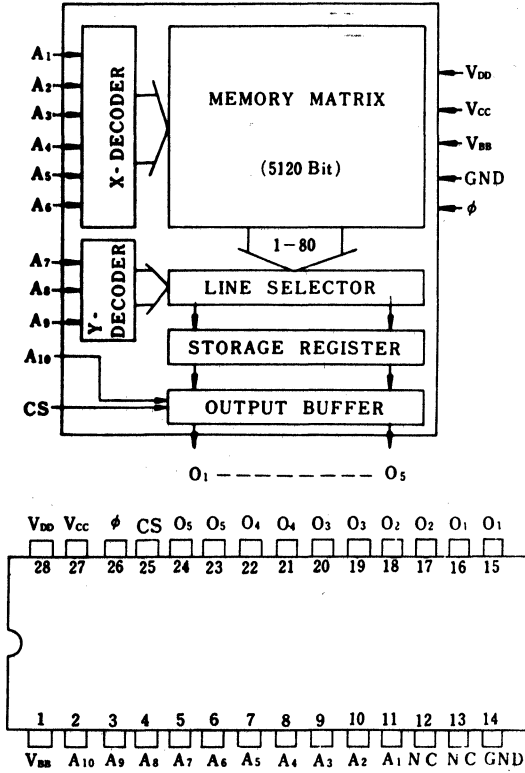
B215



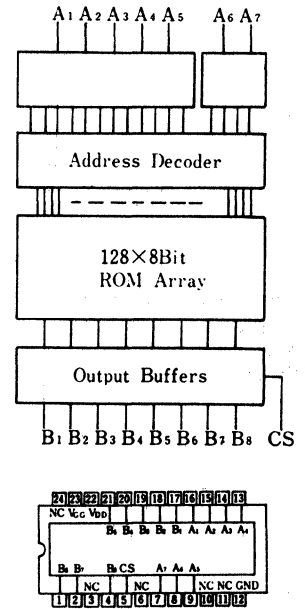
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

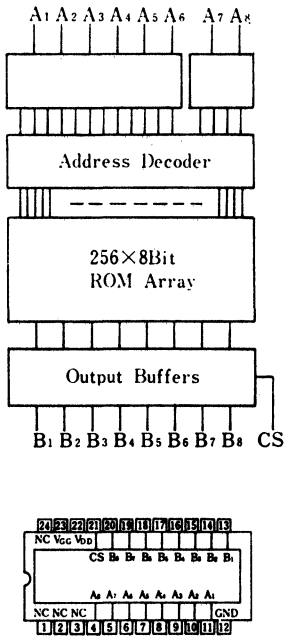
B216



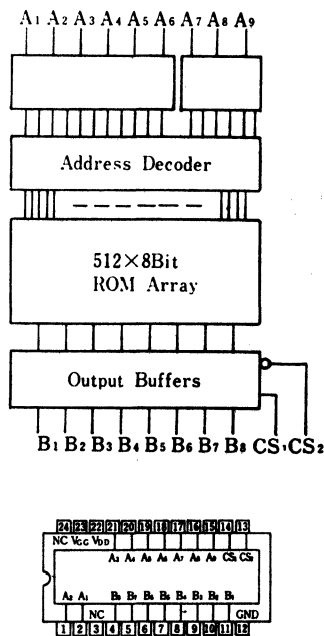
B217



B218



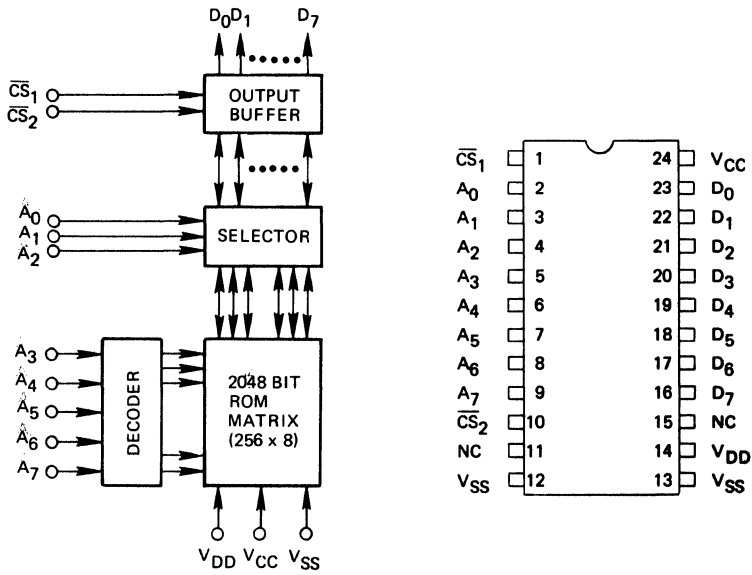
B219



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B220

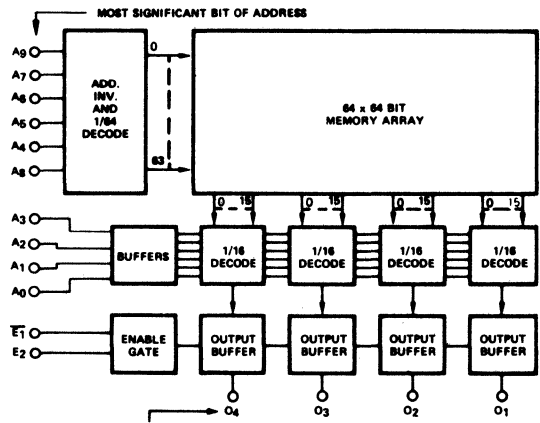


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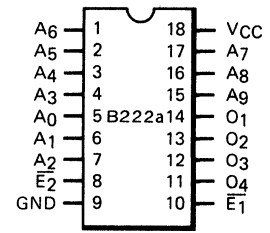
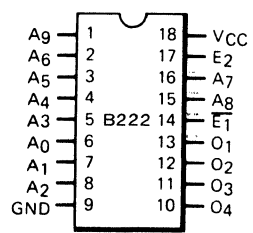
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[]

B222



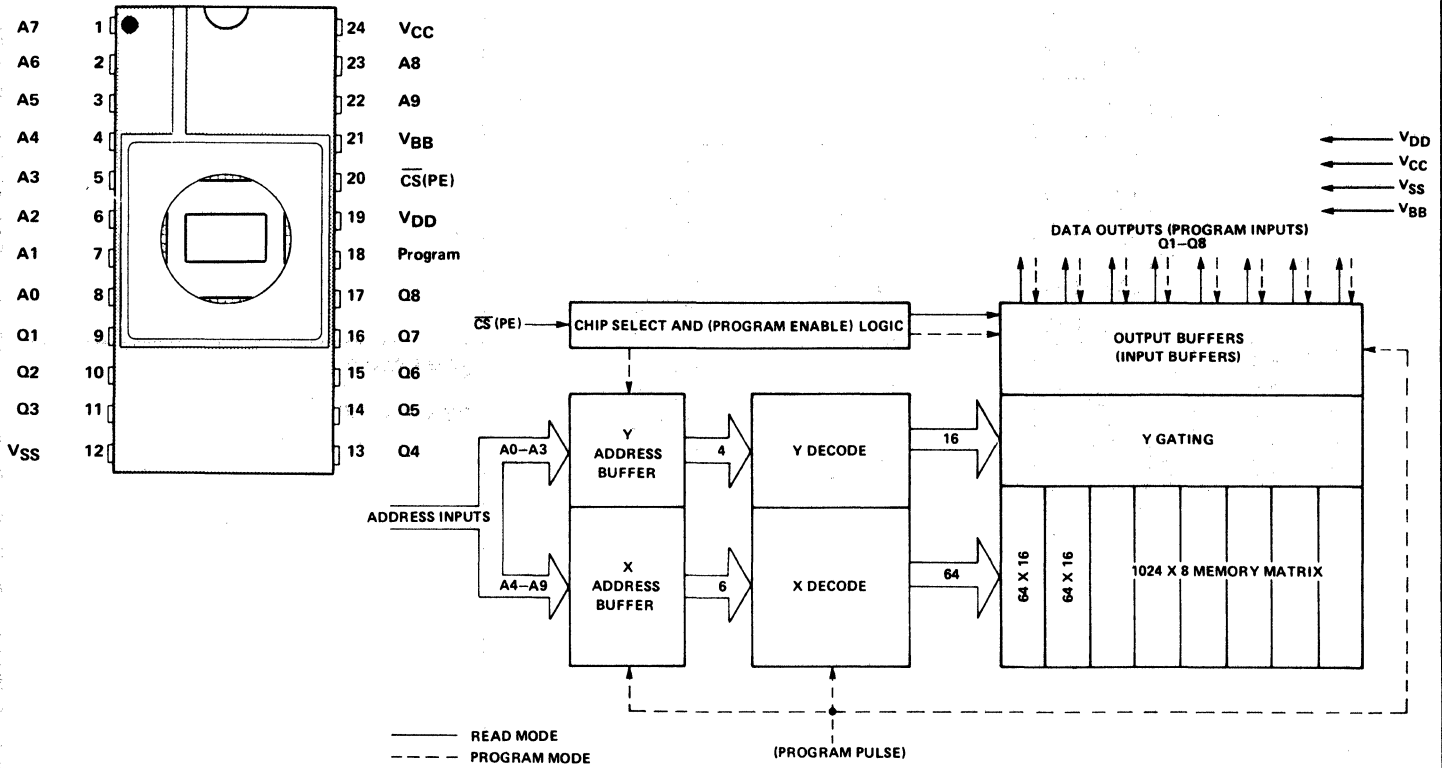
VCC = 18
GND = 9



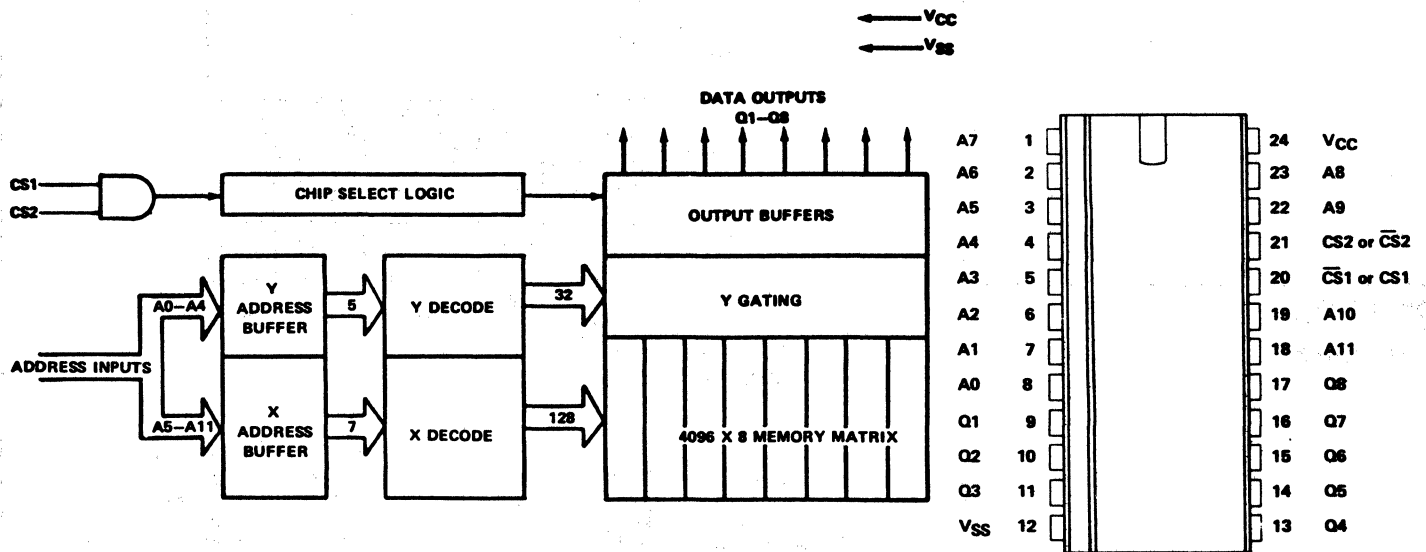
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B225



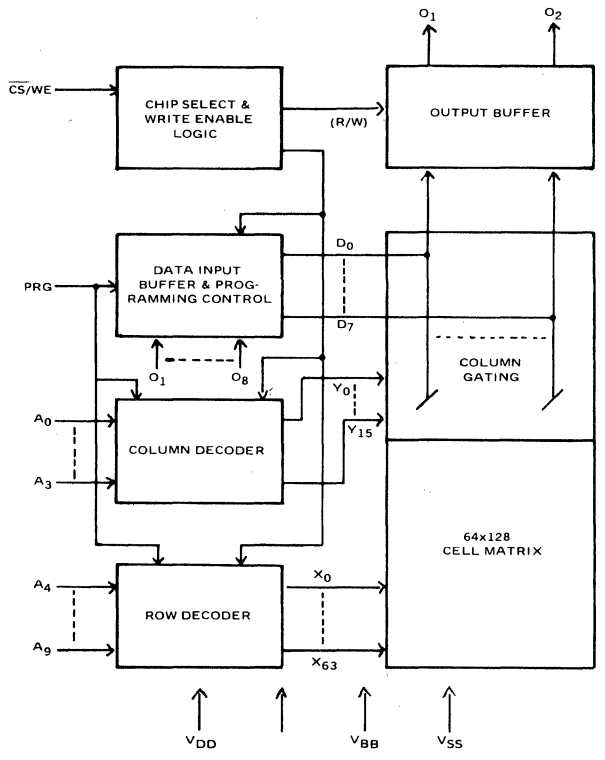
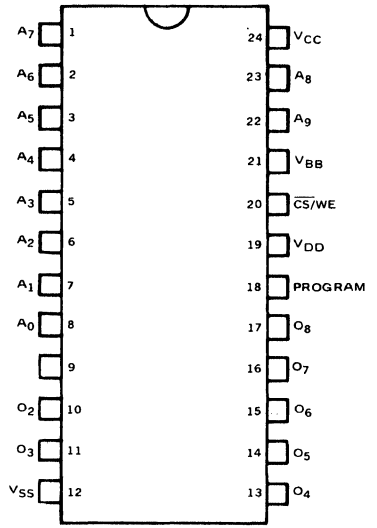
B226



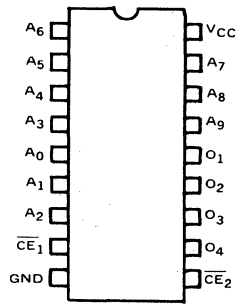
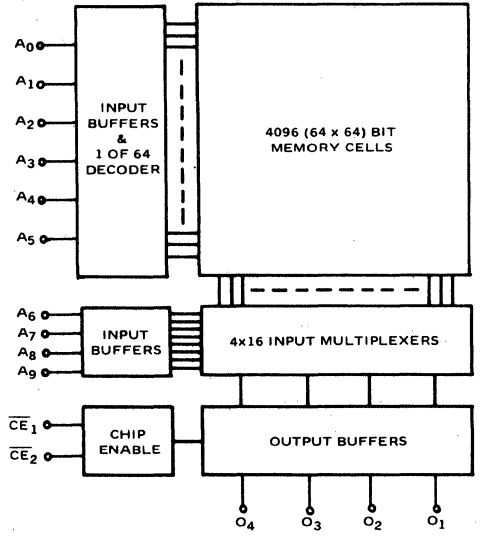
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

B227



B228



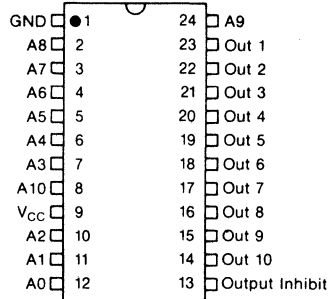
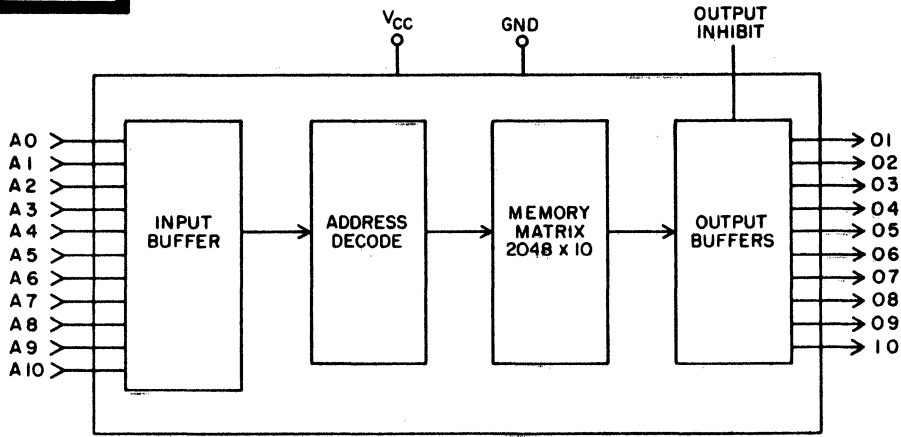
[Empty box]

[Empty box]

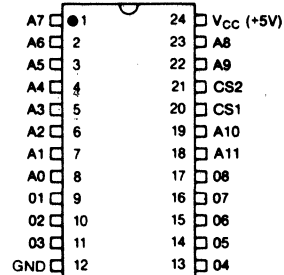
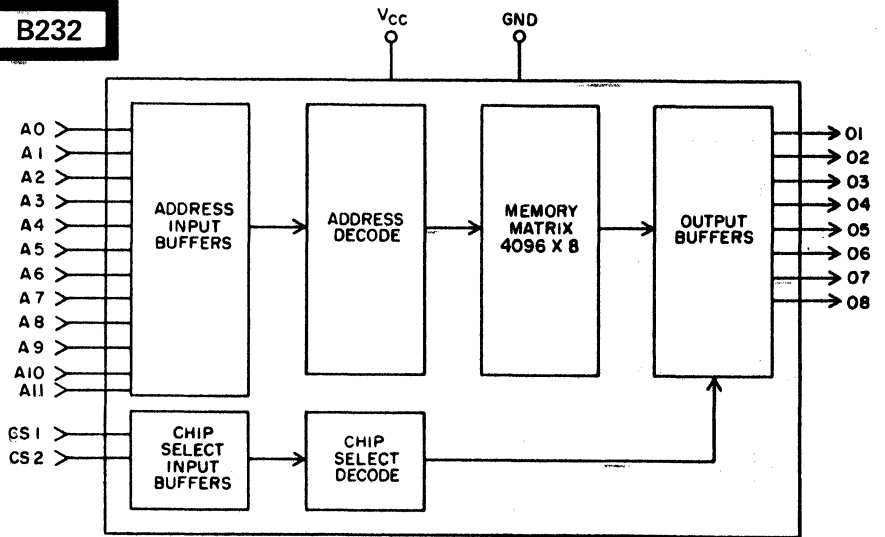
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

B231



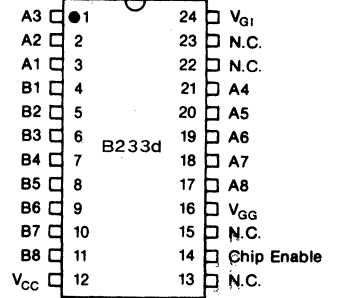
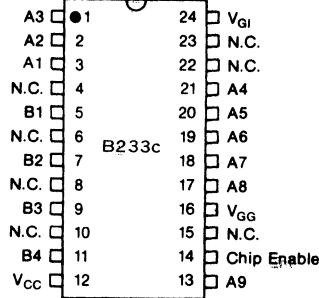
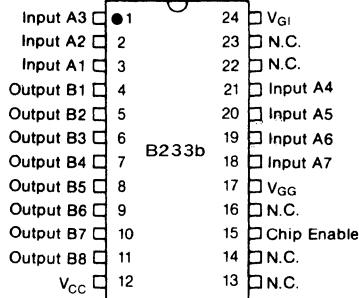
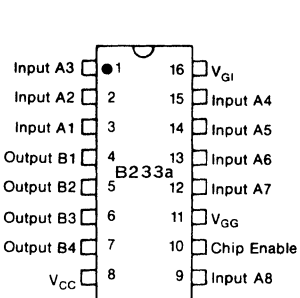
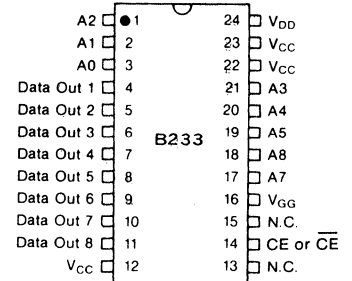
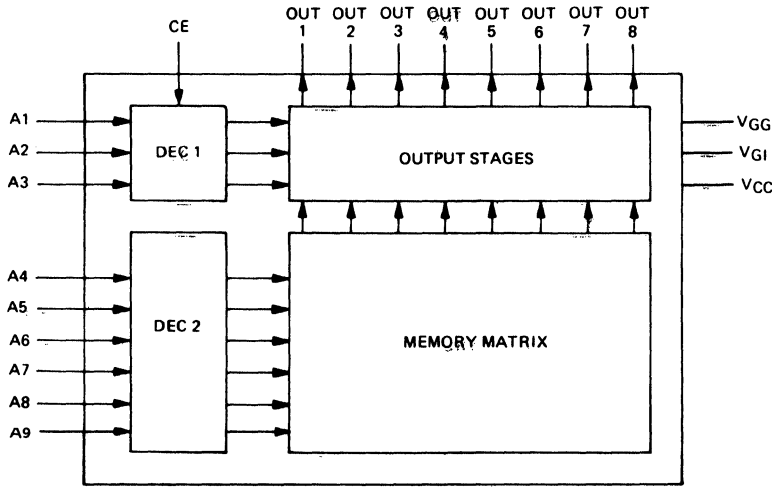
B232



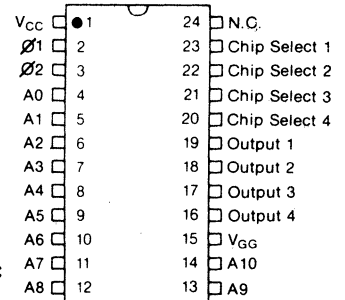
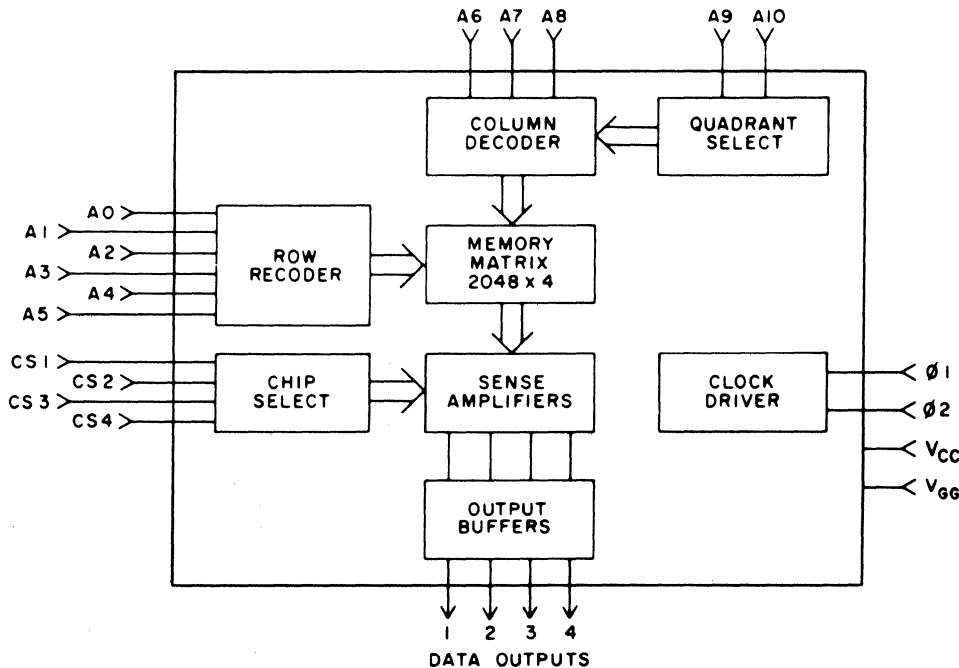
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B233



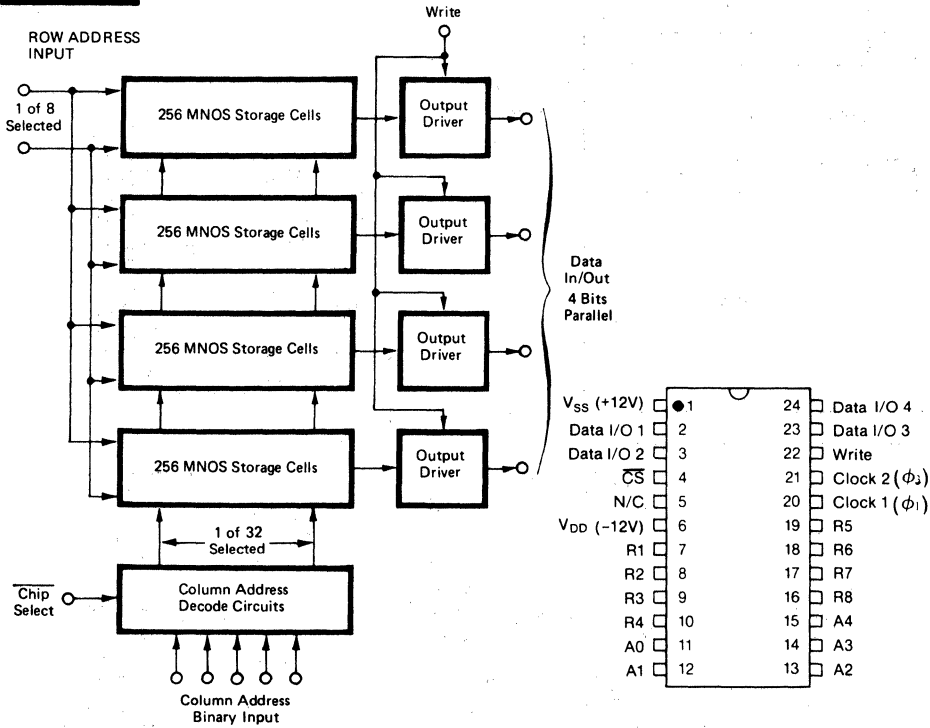
B234



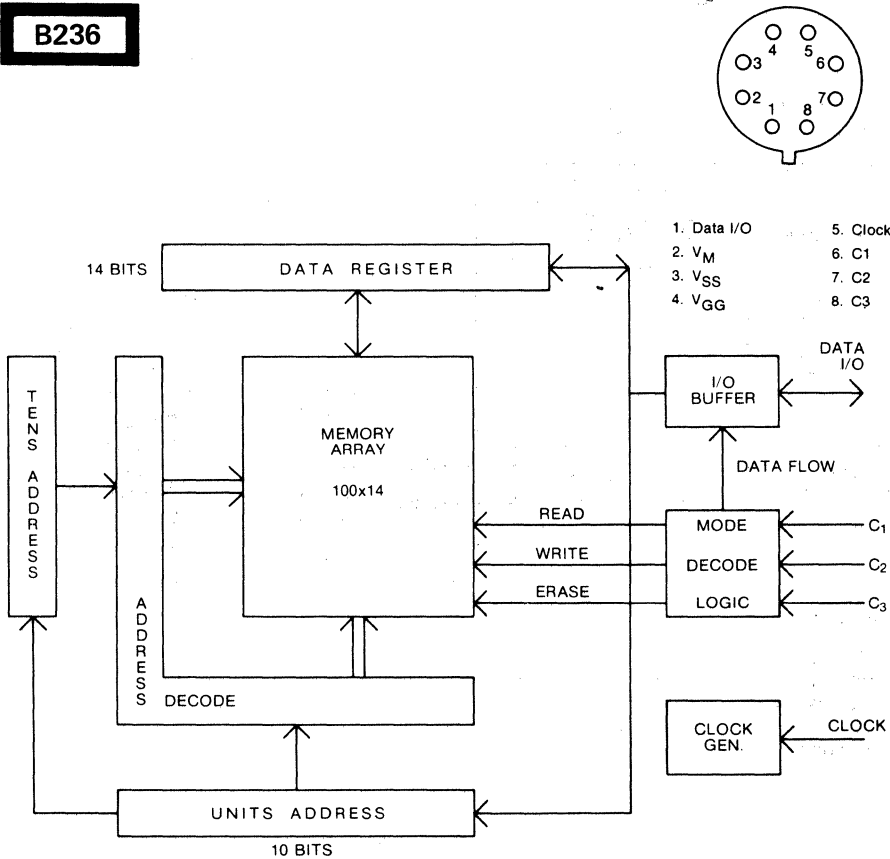
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

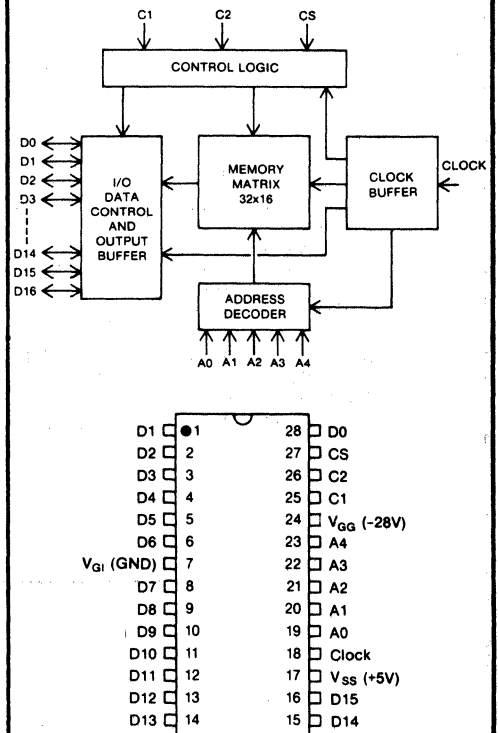
B235



B236



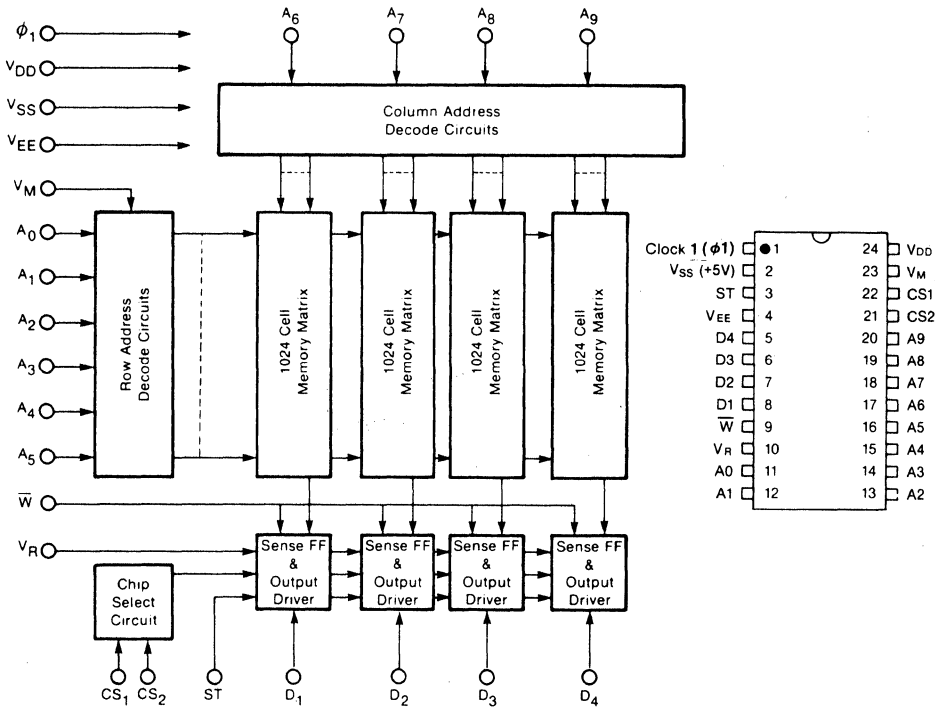
B237



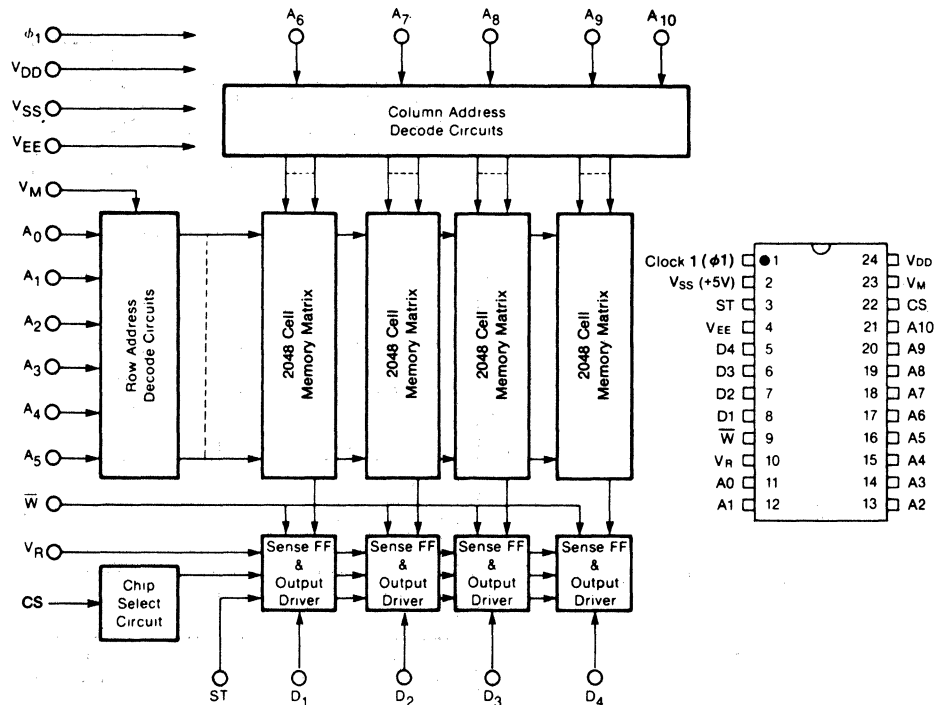
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

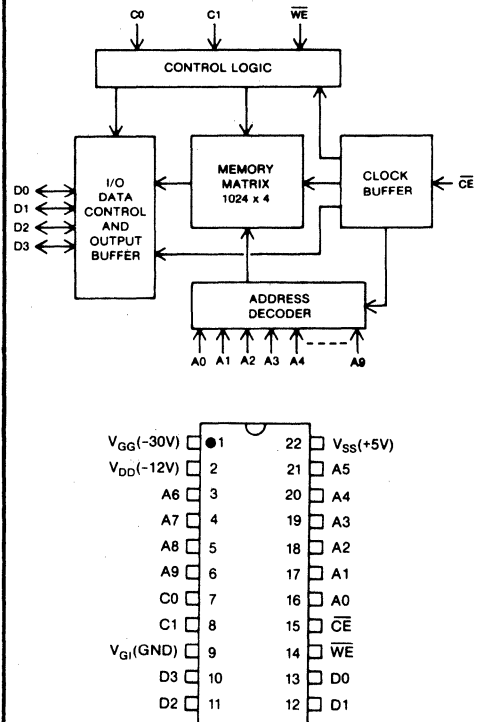
B238



B239



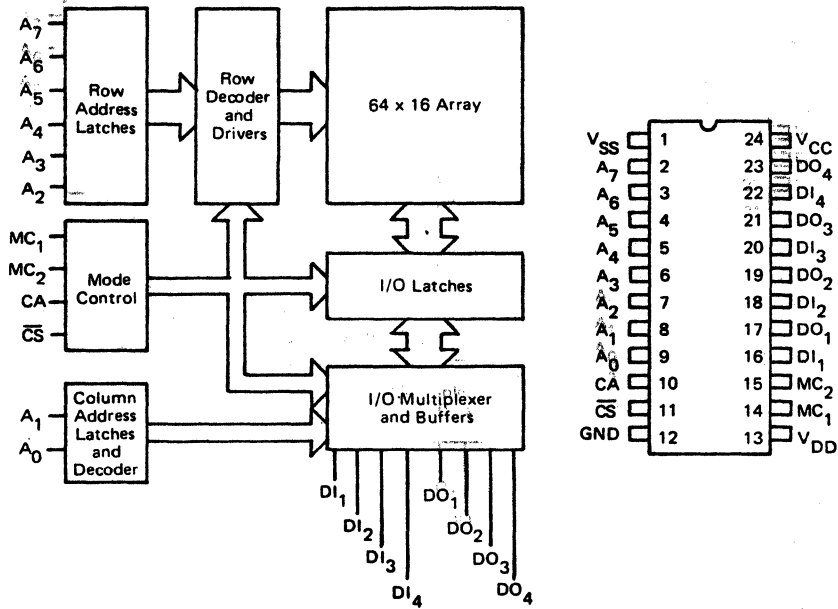
B240



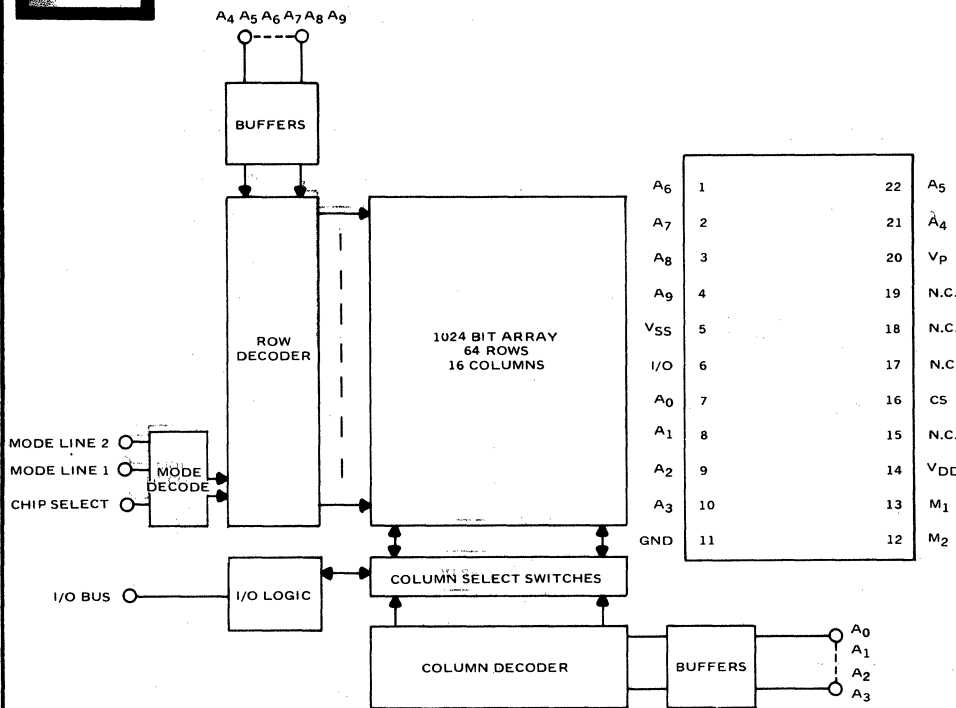
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

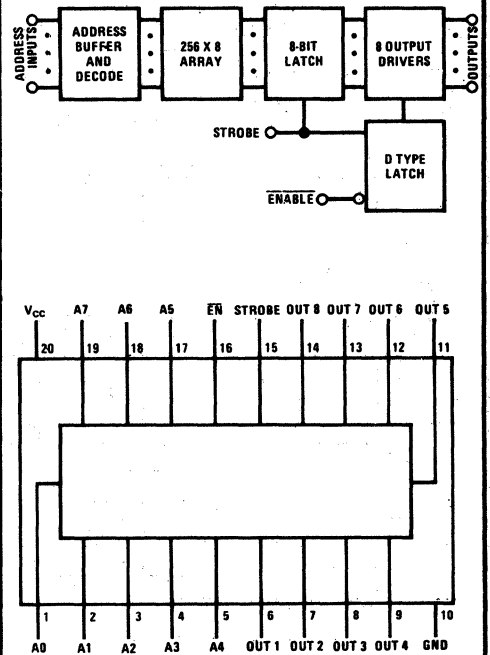
B241



B242



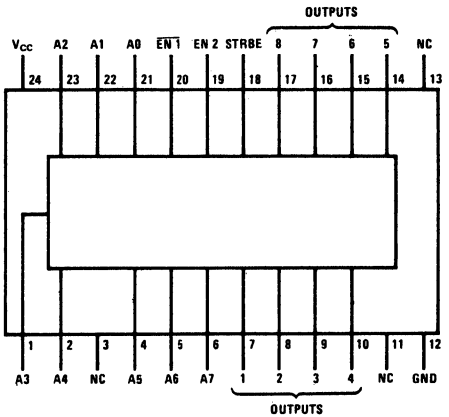
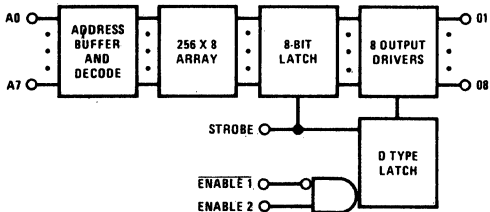
B243



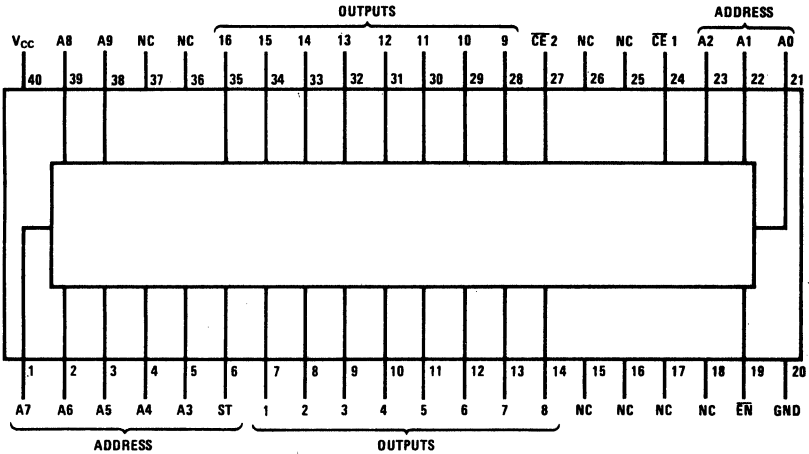
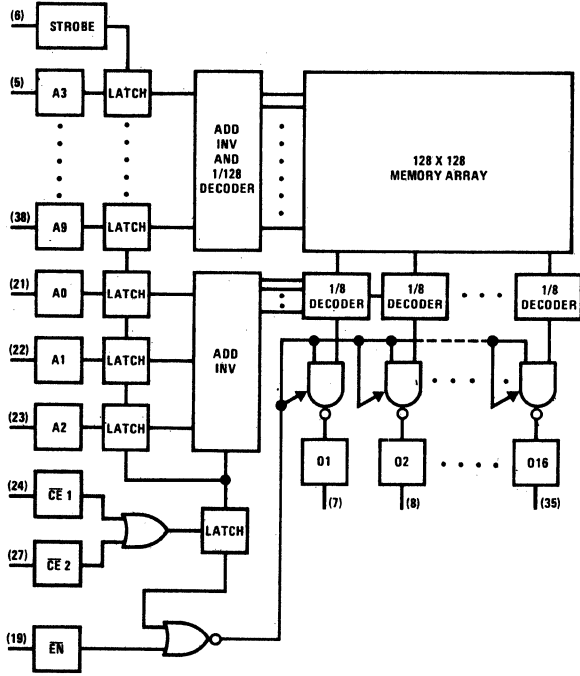
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

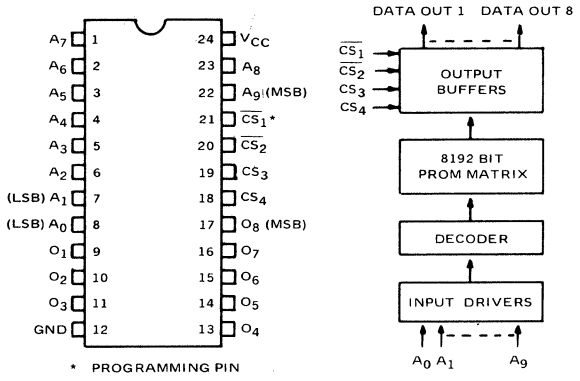
B244



B245



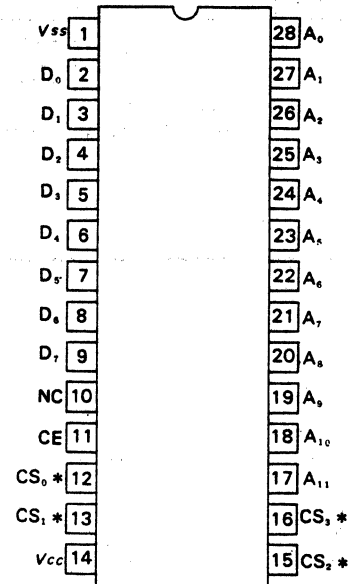
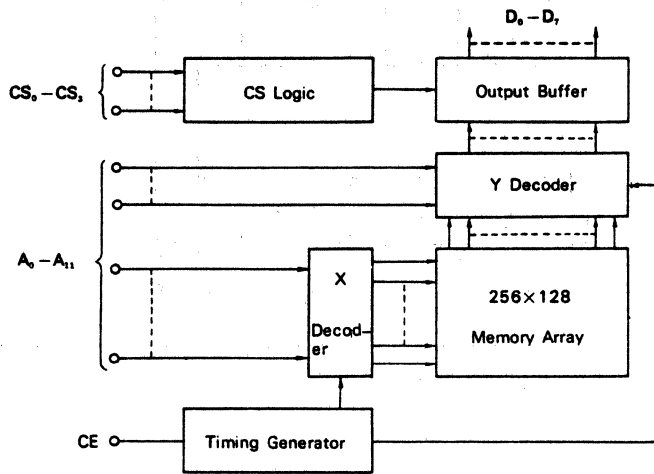
B246



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

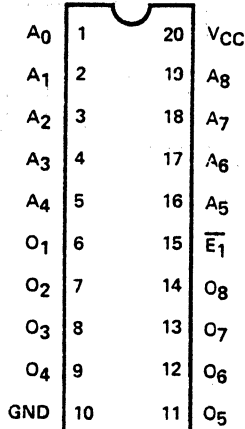
B247



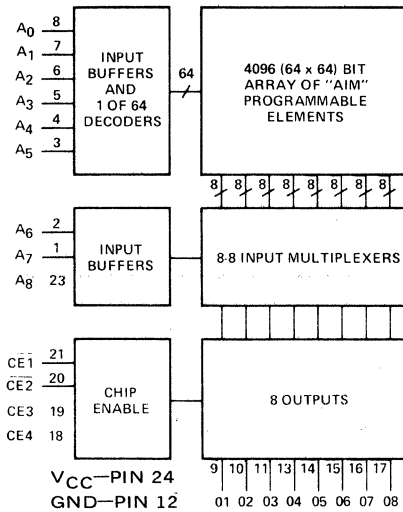
(Top View)

*Mask Programmable

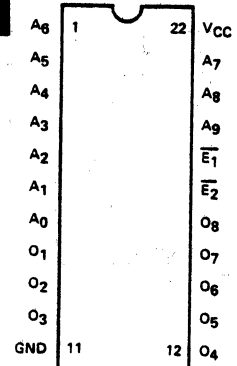
B249



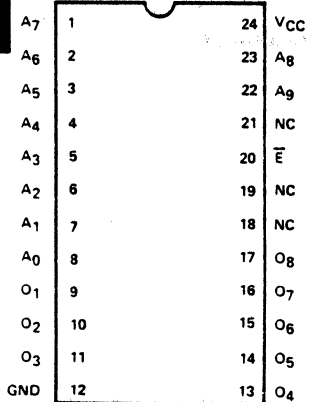
B250



B251



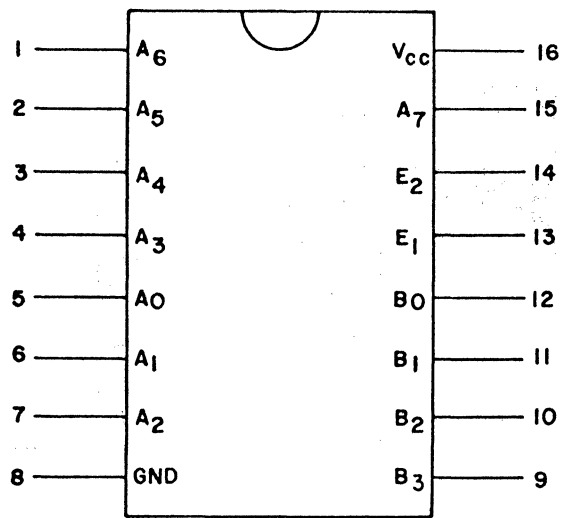
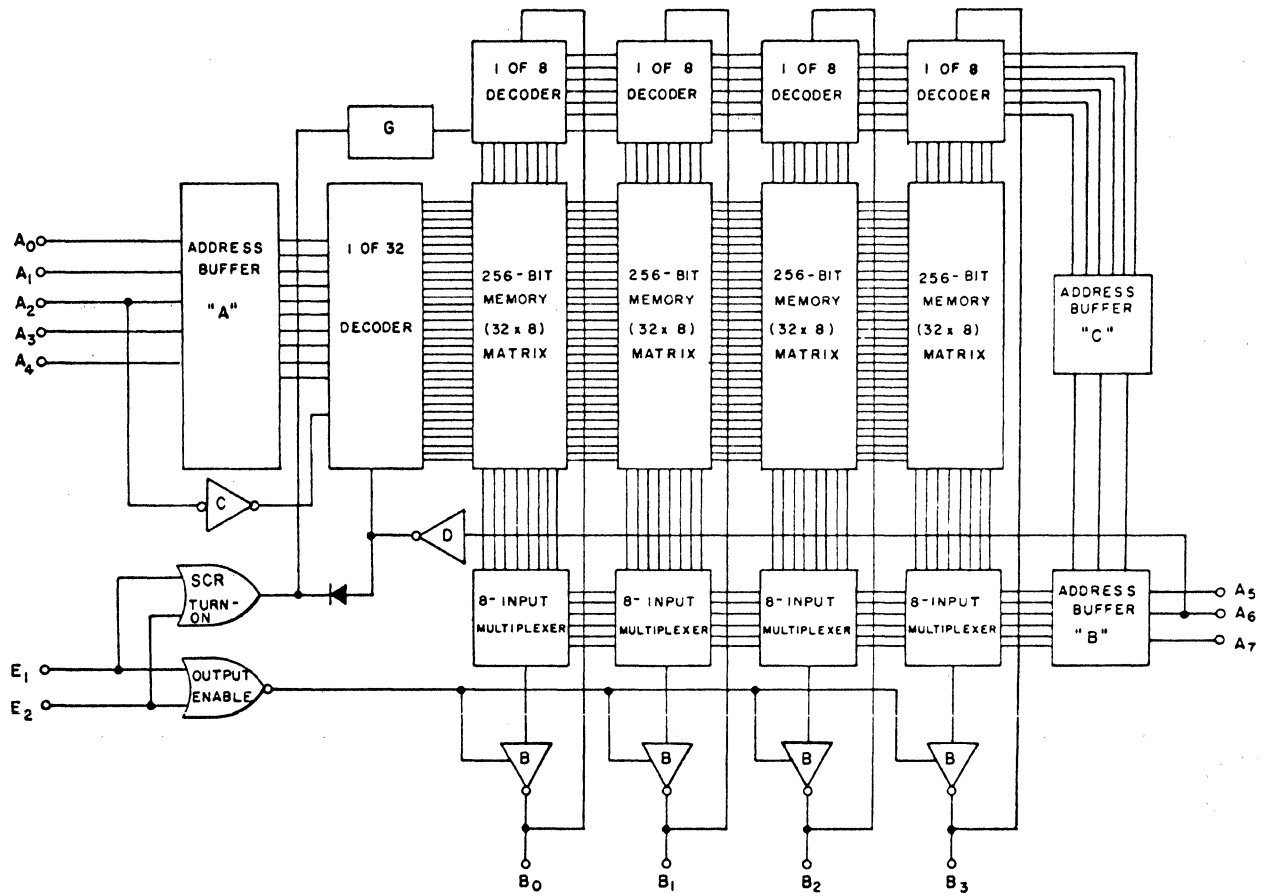
B252



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

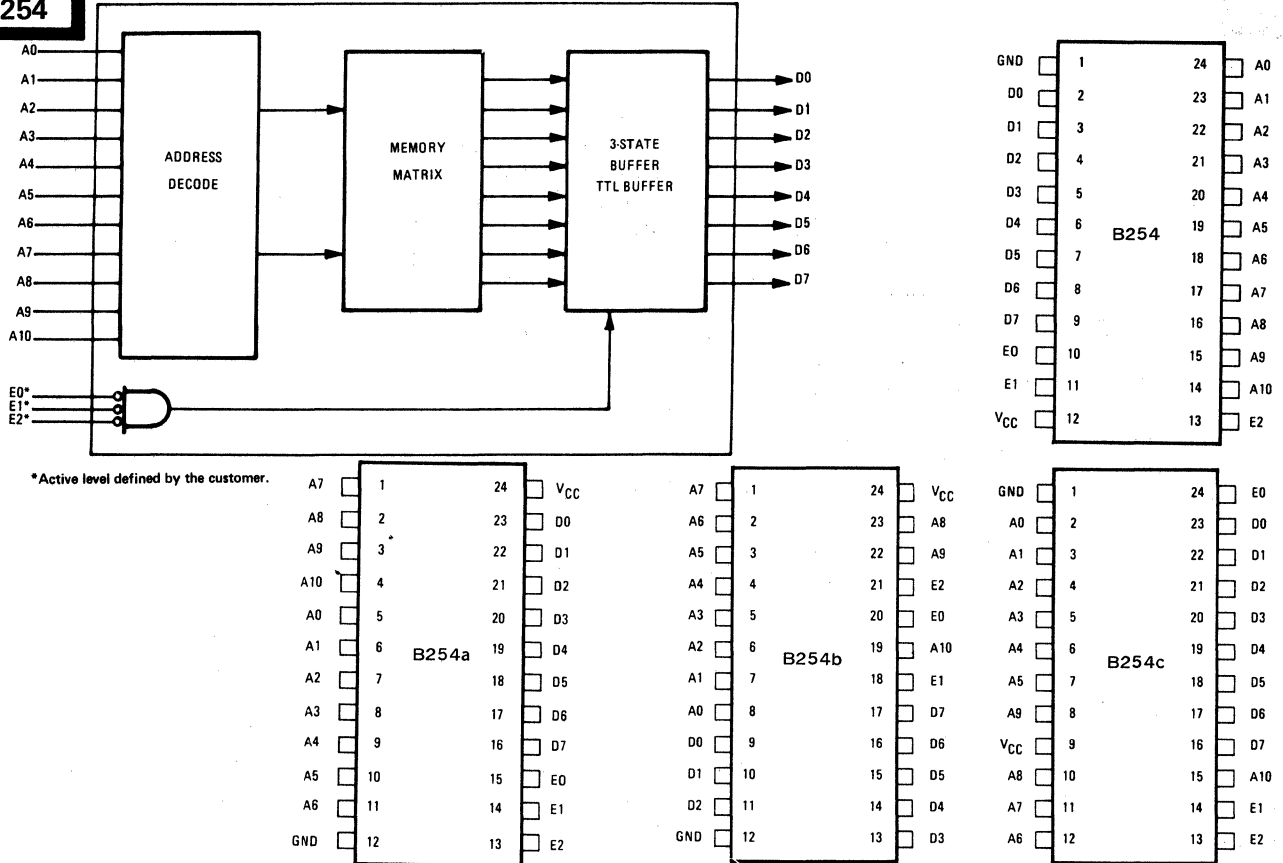
B253



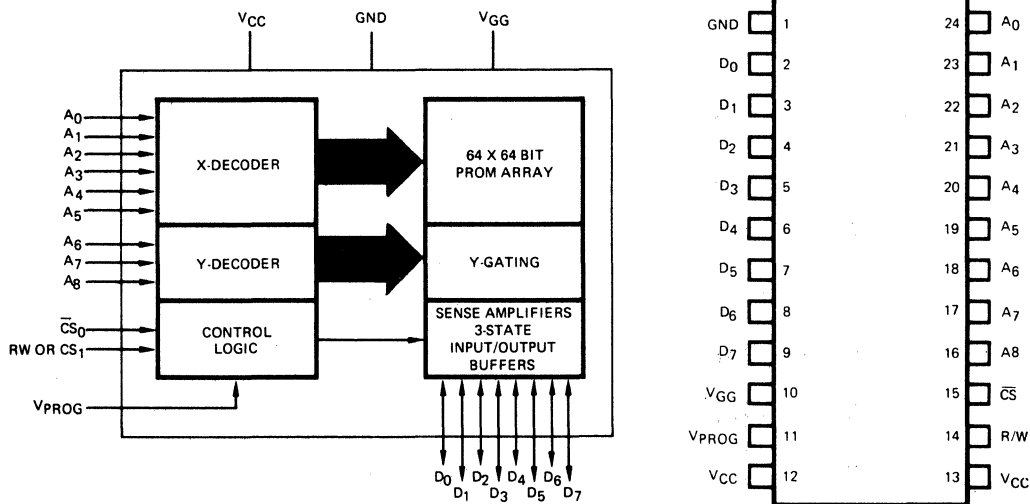
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

B254



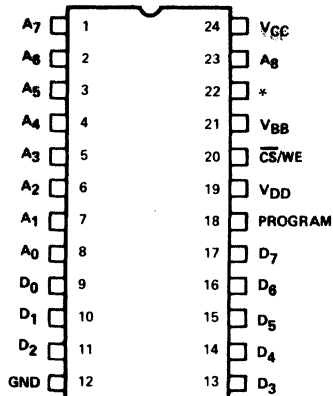
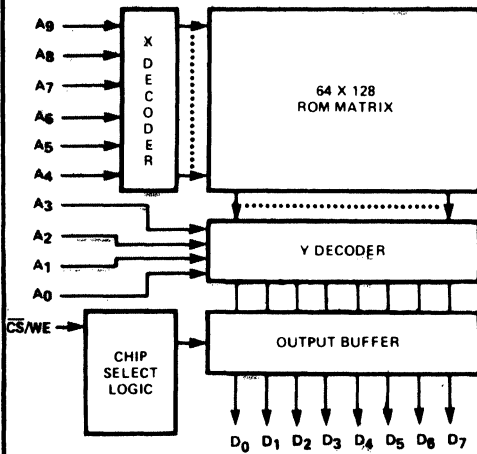
B255



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

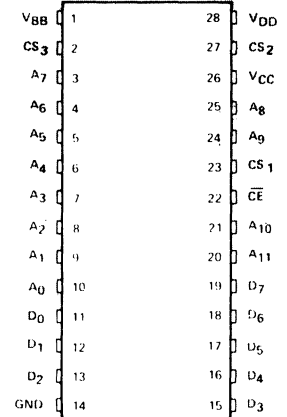
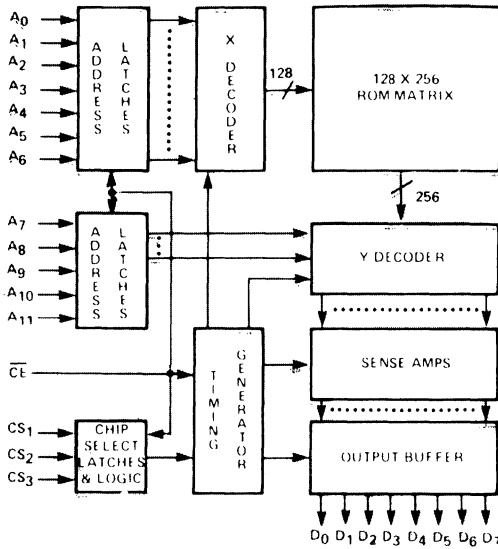
B256



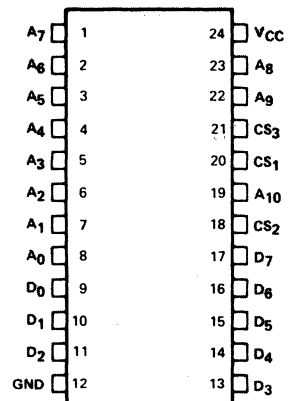
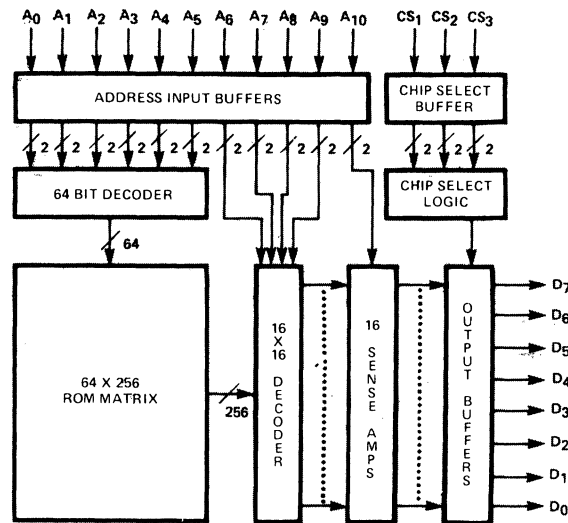
* B256: PIN 22=VSS

B256a: PIN22=A9

B257



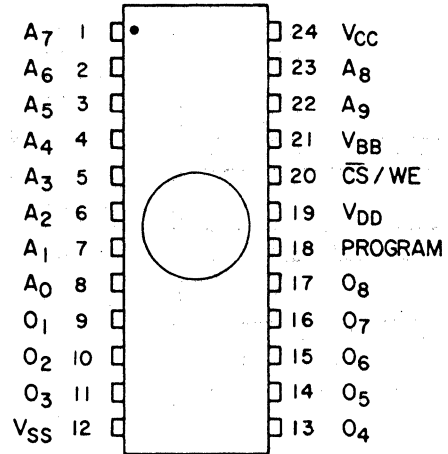
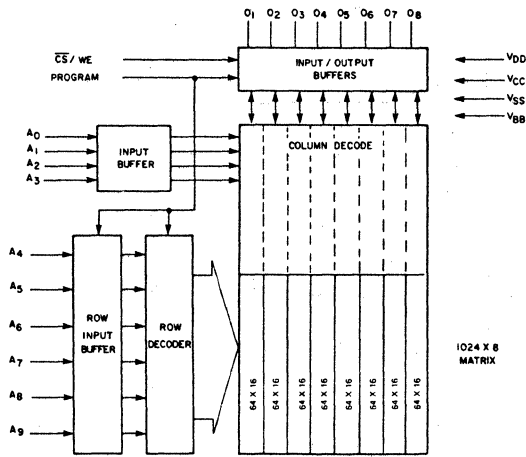
B258



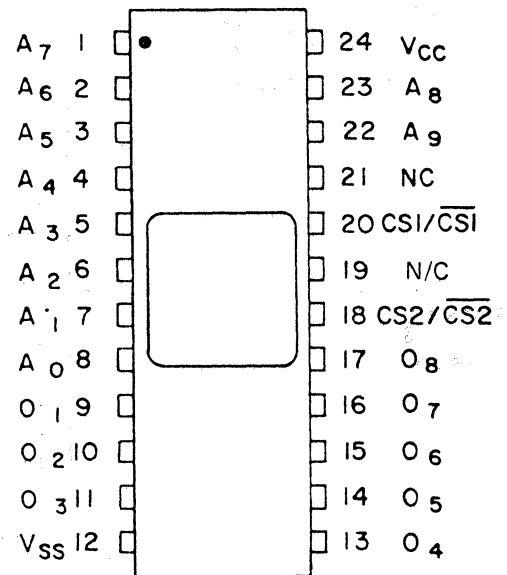
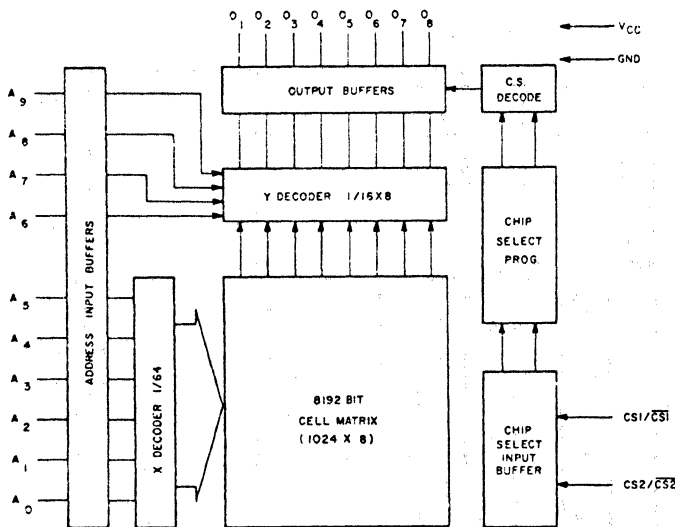
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B259



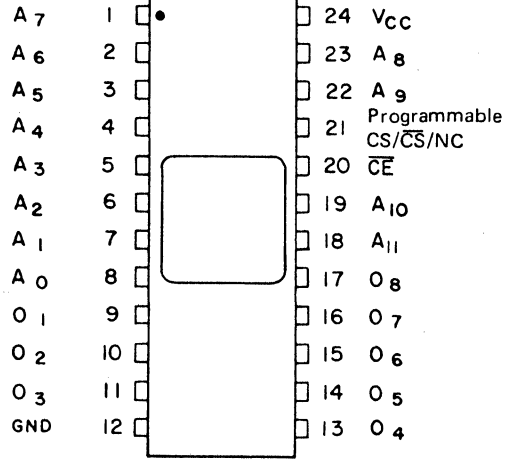
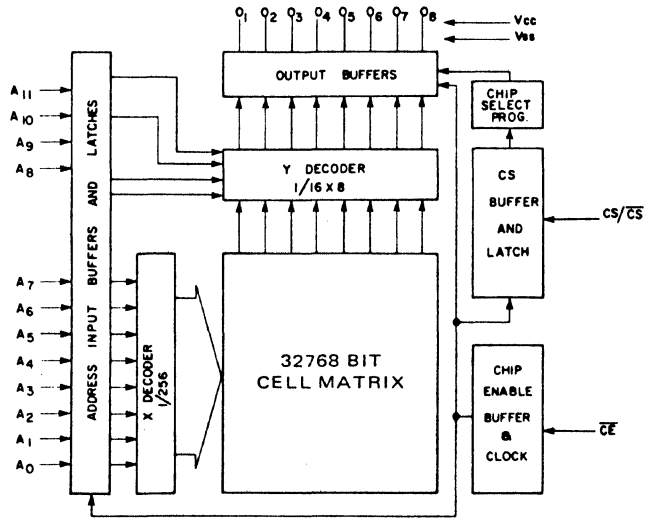
B260



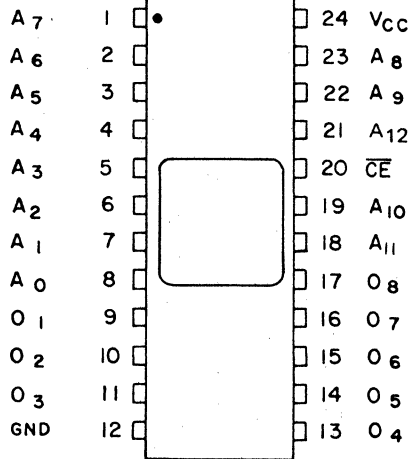
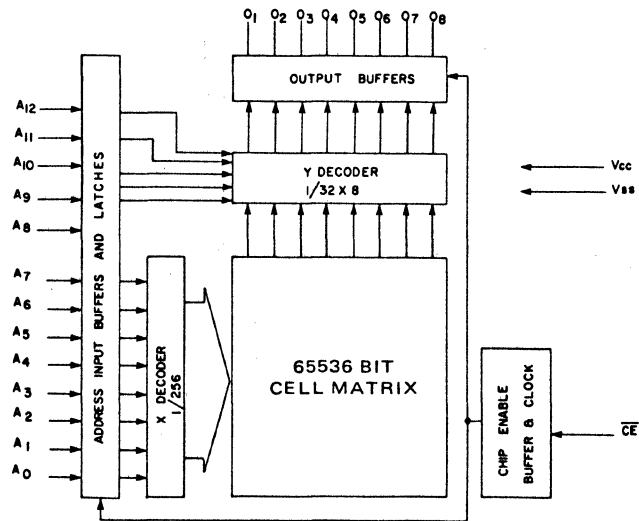
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

B261



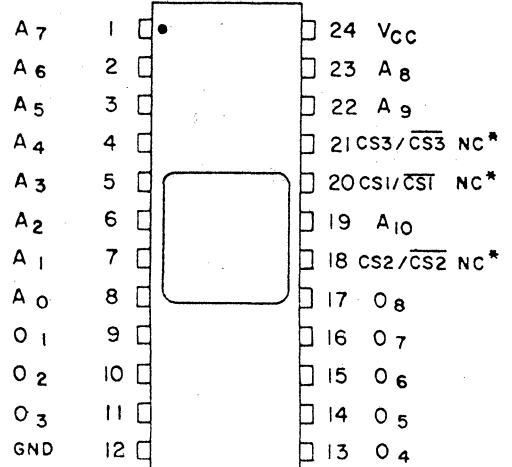
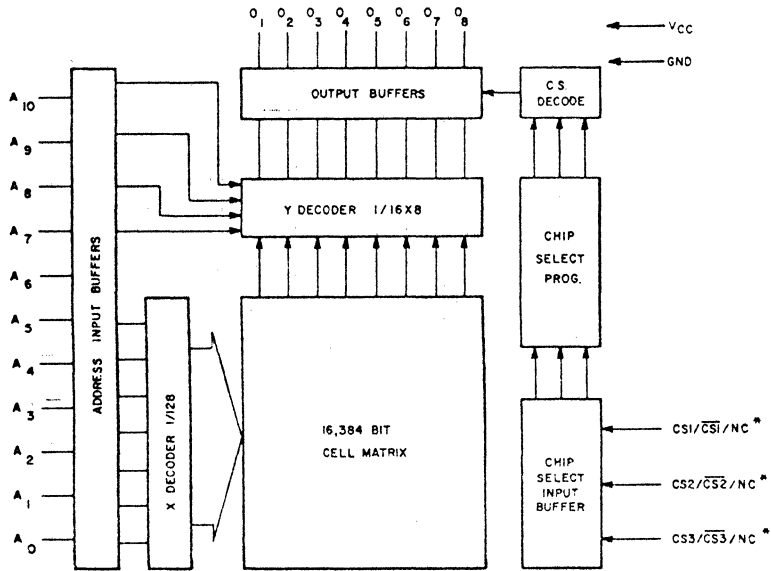
B262



22. LOGIC/BLOCK DRAWINGS

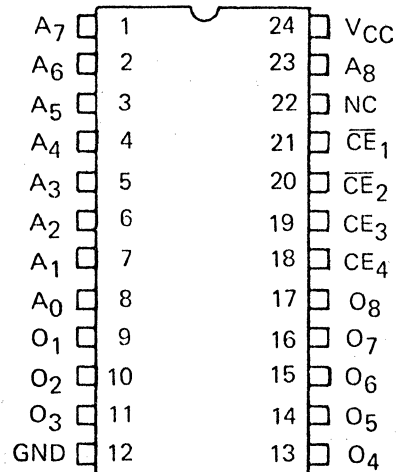
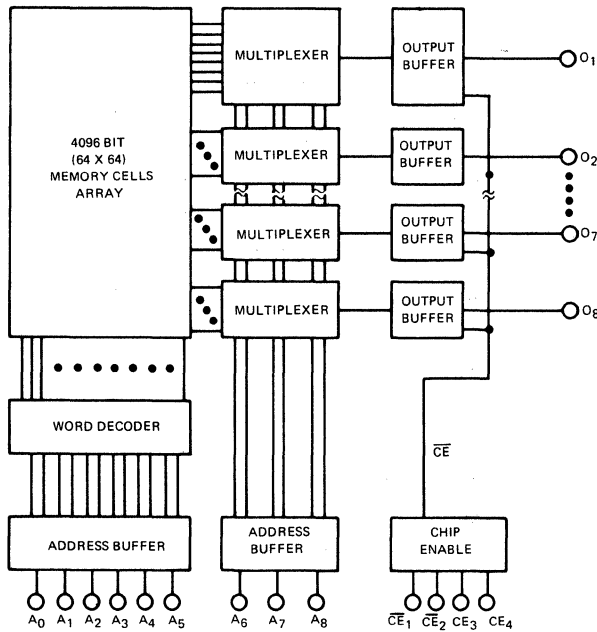
IN DRAWING NUMBER SEQUENCE

B263



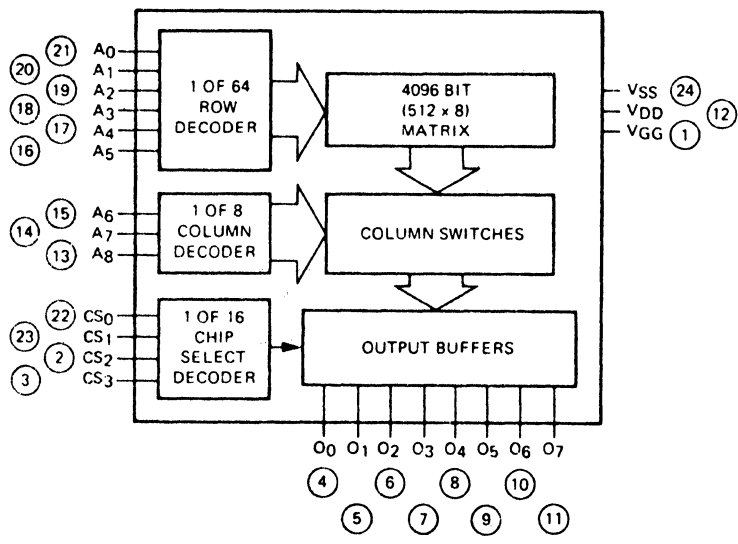
*Programmable Chip Selects

B264



22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

B265



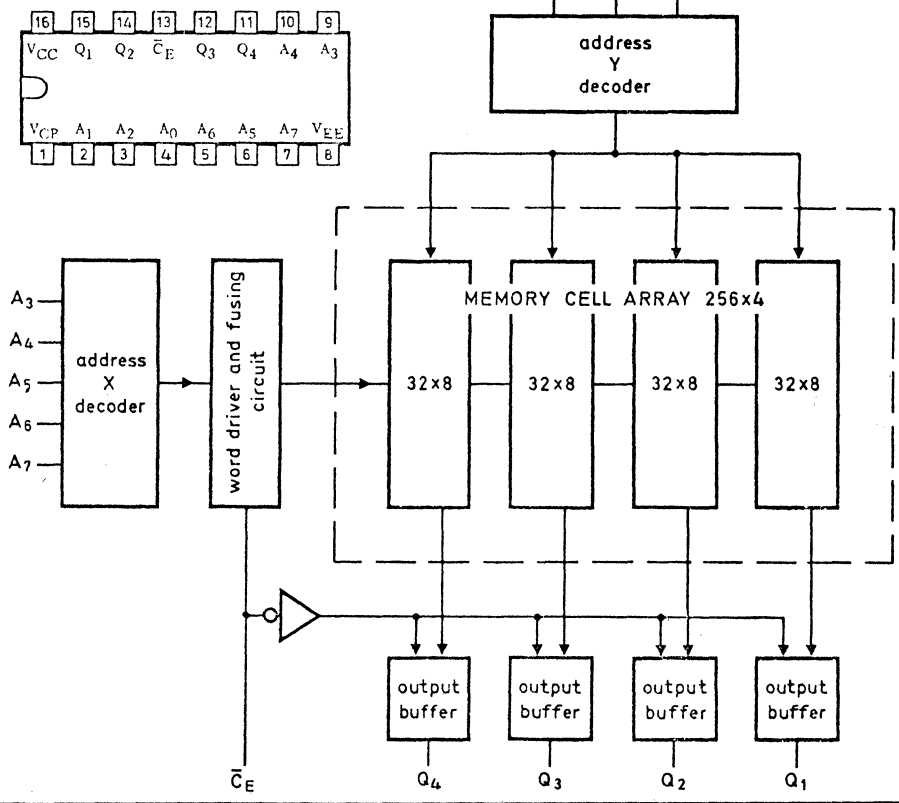
[]

[]

[]

[]

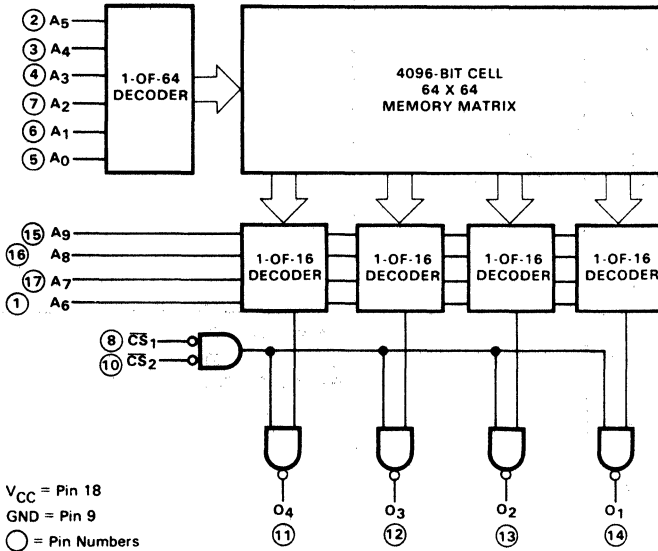
B266



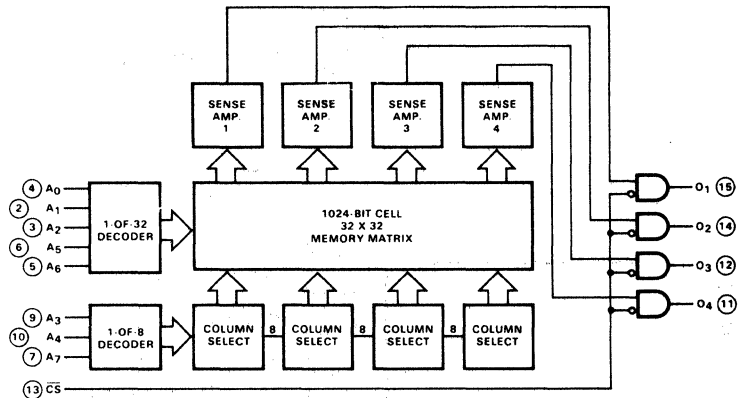
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

B267



B268



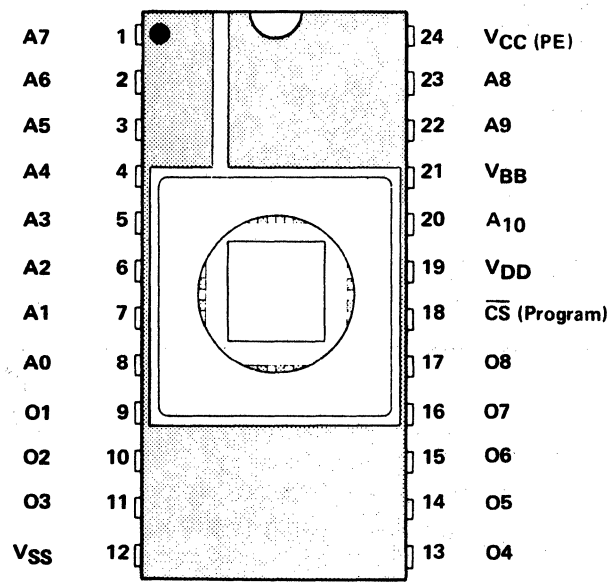
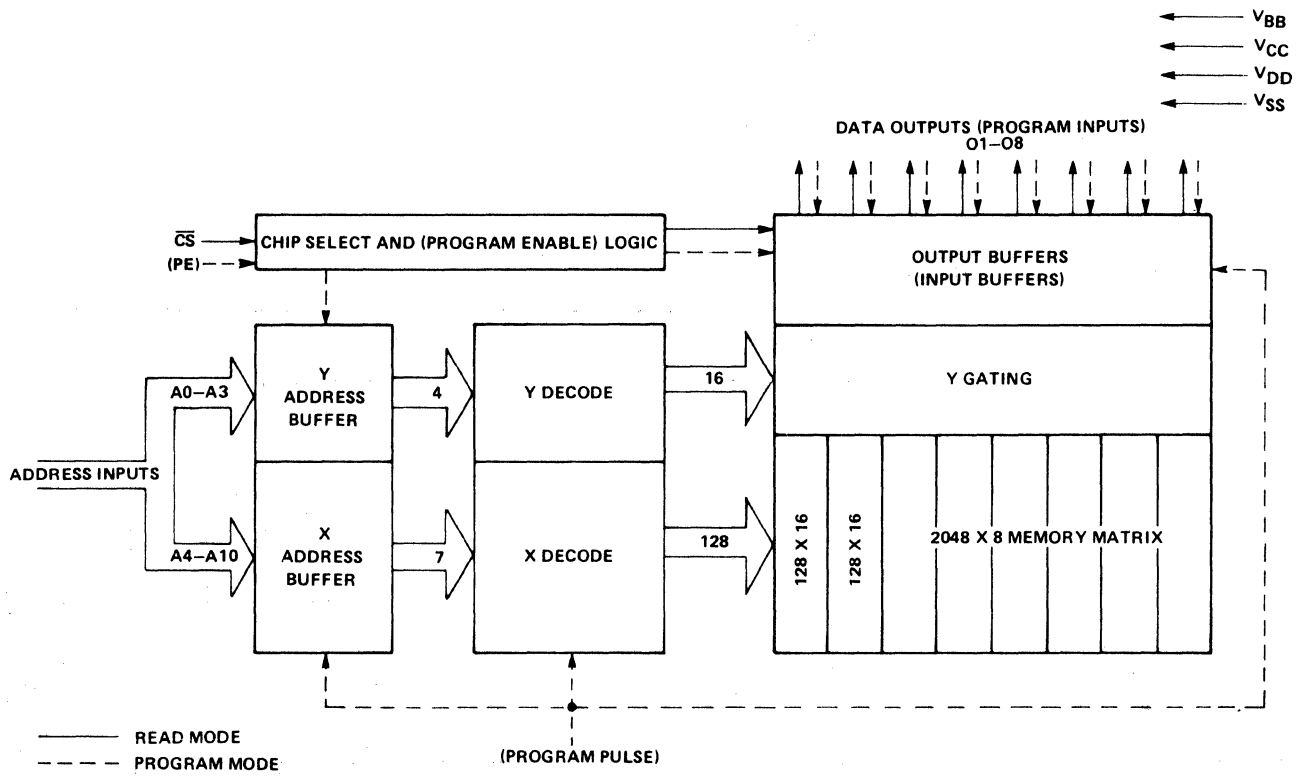
V_{CP} = GND (Read only) = Pin 1
V_{CP} = +12 V (Programming only) = Pin 1
V_{CC} = GND = Pin 16

V_{EE} = Pin 8
○ = Pin Numbers

22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

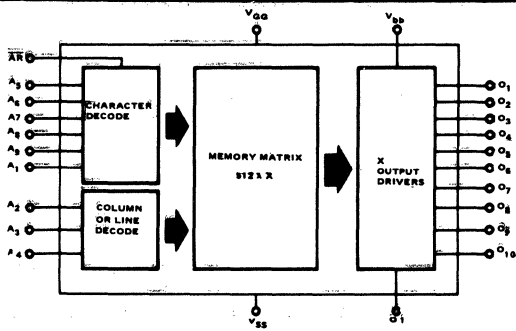
B269



22. LOGIC/BLOCK DRAWINGS

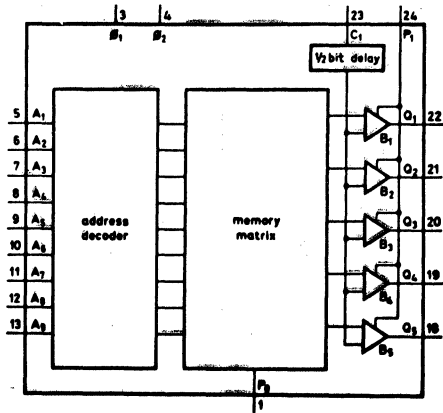
IN DRAWING NUMBER SEQUENCE

C5



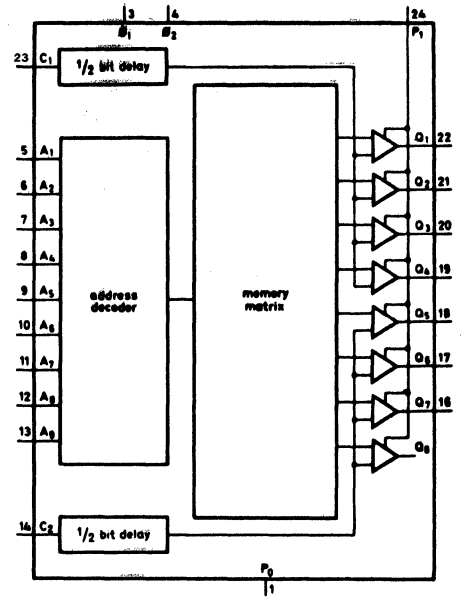
	1	2	3	4	5	6	7	8	9	AR	VBB	VGG	VSS	OI	1	2	3	4	5	6	7	8	9	10
C5	2	3	4	5	6	7	10	11	12	8	24	9	1	13	23	22	21	20	19	18	17	16	15	14
C5a	2	3	4	5	6	7	10	11	12	8	24	9	1	13	21	20	19	18	17	NA	NA	NA	NA	NA
C5b	14	13	12	11	10	9	6	5	4	8	15	7	1	NA	16	17	18	2	3	NA	NA	NA	NA	NA

C7

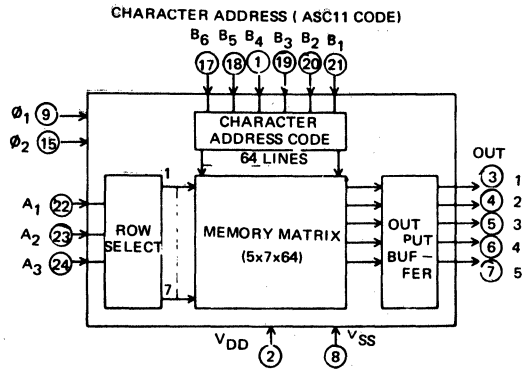


PAIRED DEVICES
C7 FDR116Z1/FDR116Z2

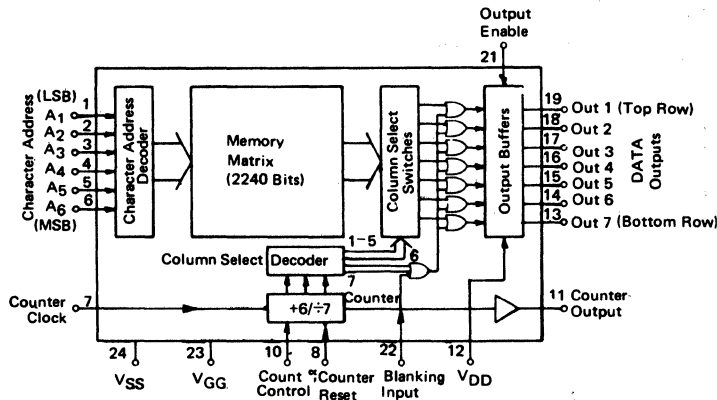
C8



C9



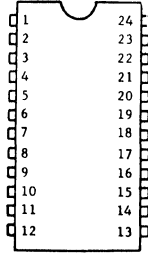
C12



22. LOGIC/BLOCK DRAWINGS

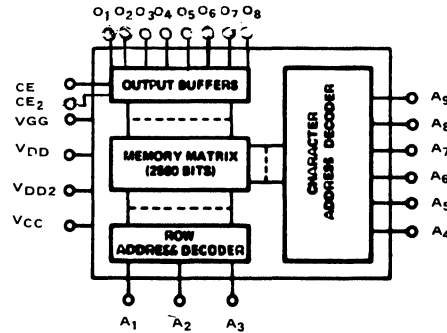
IN DRAWING NUMBER SEQUENCE

C14



		PIN NUMBERS																								REMARKS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
C14	R1 R2	NC	R3	A4	A5	I	DC	OUT	NC	CE	B1	GND	B2	B3	NC	NC	B4	B5	A3	A2	NC	NC	A1	VCC	CM2800-0/CM2900-02 PAIRED DEVICES	
C14a	L1 L2	LO	NC	NC	NC	B1	B2	B3	B4	B5	VSS	NC	CE	VDD	A0	A1	A2	A3	A4	A5	NC	NC	VDD			
C14b	S0	B7	B6	B5	B4	B3	B2	B1	O1	O2	O3	GND	O4	O5	O6	O7	NC	NC	E2	E1	S3	S2	S1	VCC	S0, S1, S2, S3 USED FOR CHARACTER SCAN	
C14c	S0	B7	B6	B5	B4	B3	B2	B1	O1	O2	O3	GND	O4	O5	O6	O7	O8	O9	E2	E1	S3	S2	S1	VCC		

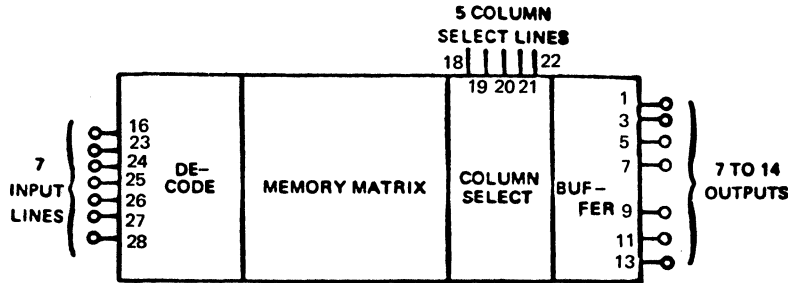
C15



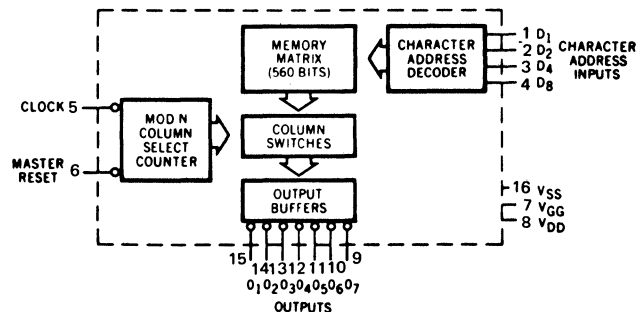
		ADDRESS										OUT													
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	CE	VDD	VDD2	VCC	VGG	
C15		14	15	16	17	18	19	20	21	22	23	4	5	6	7	8					11	12	24	1	
C15a		14	15	16	17	18	19	20	21	22	23	4	5	6	7	8					10	12	11	24	1
C15b		14	15	16	17	18	19	20	21	22	23	10	9	8	7	6	5	4	3	1	12	11	24	23	

C16

PAIR DEVICES	
C16	FMS4177JC/FMS4178JC FMS4177NC/FMS4178NC



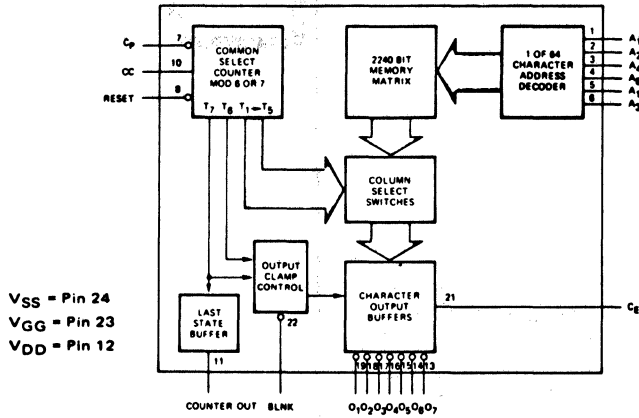
C17



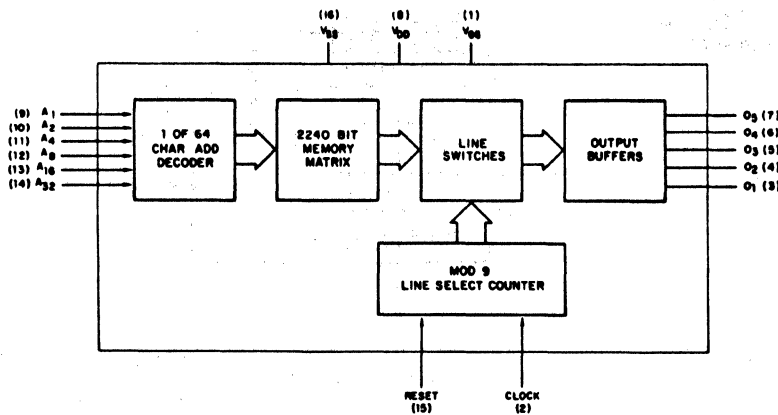
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

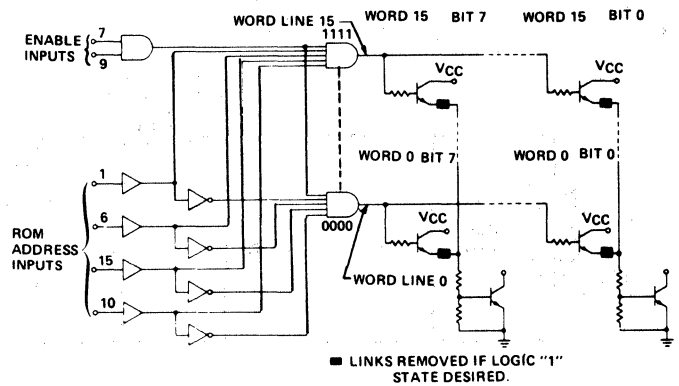
C18



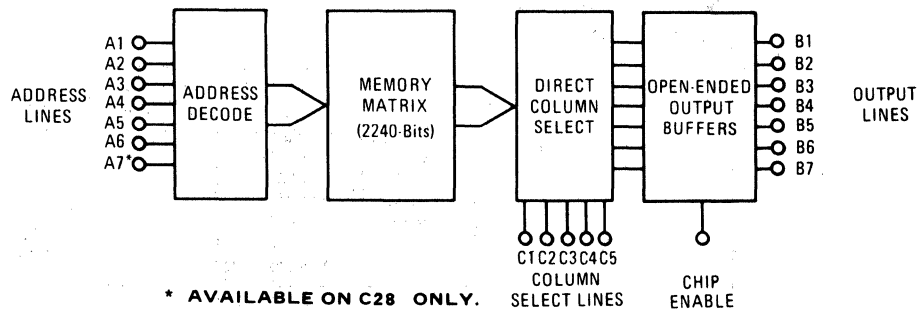
C19



C26



C28



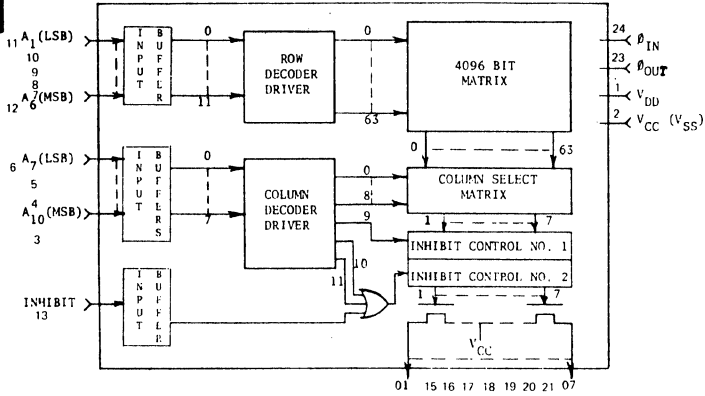
* AVAILABLE ON C28 ONLY.

	A							B							C				CE	VSS	VGG	VDD	
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	3	1	2	12
C28	23	22	21	20	19	13	24	4	5	6	7	8	9	10	14	15	16	17	18				
C28a	27	26	25	24	23	16	1	3	5	7	9	11	13	18	19	20	21	22	28	17	15	14	
C28b	27	26	25	24	23	16	18	1	3	5	7	9	11	13	18	19	20	21	22		17	15	14

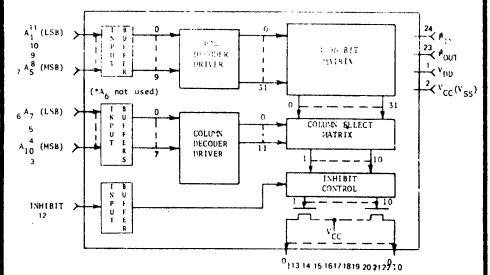
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

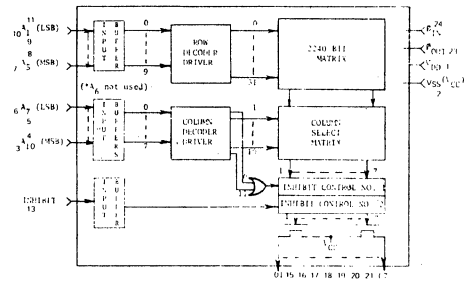
C32



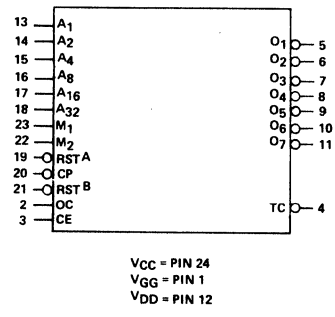
C33



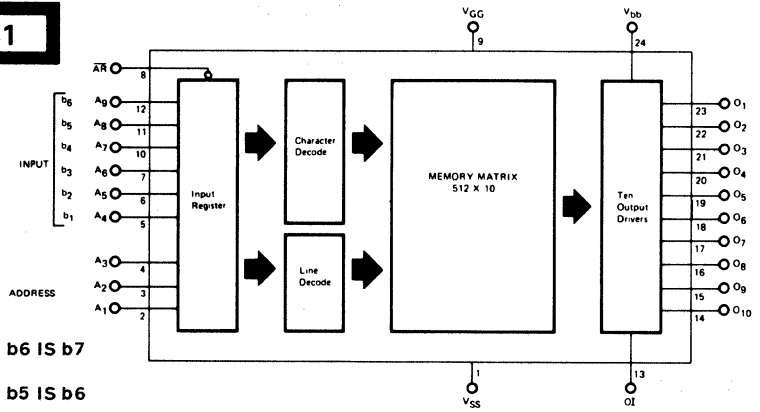
C34



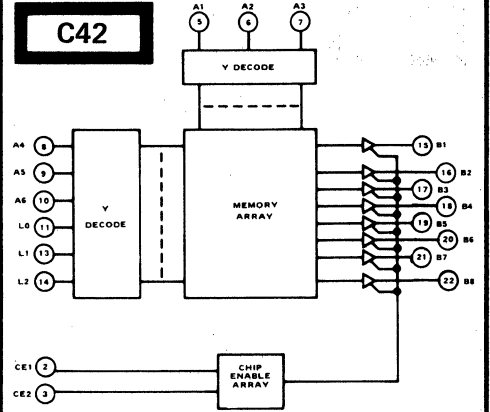
C40



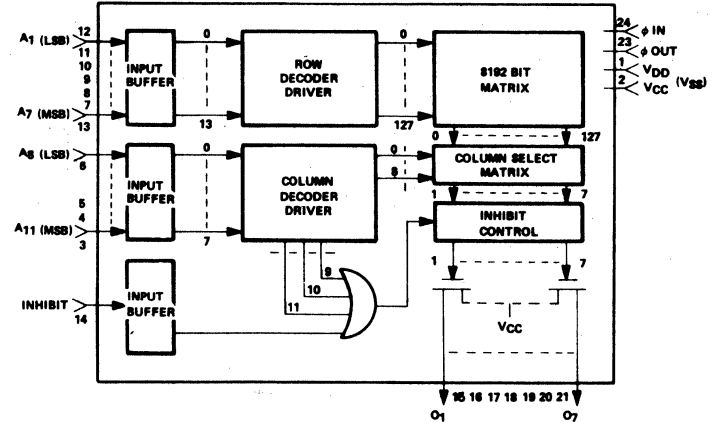
C41



C42



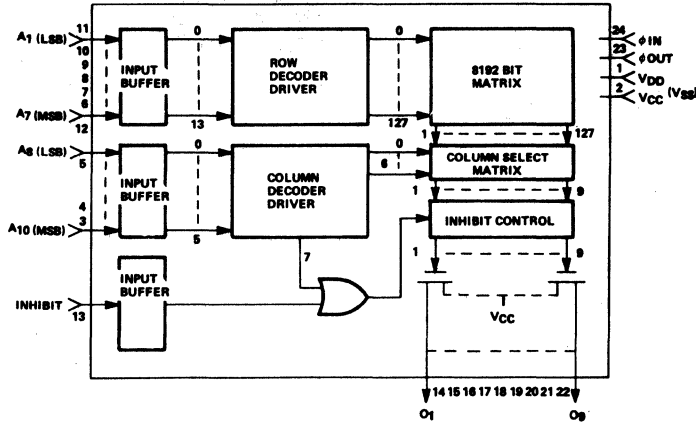
C43



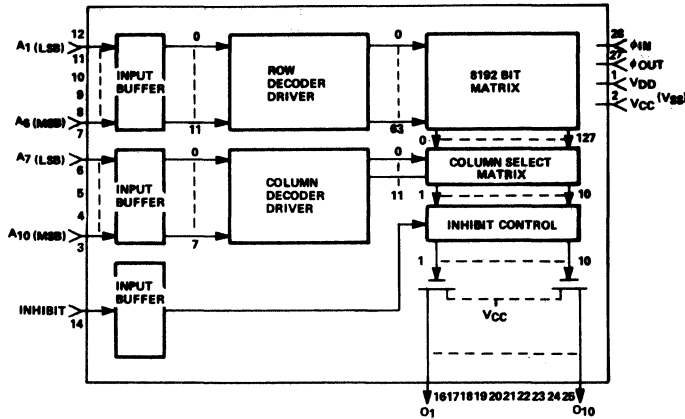
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

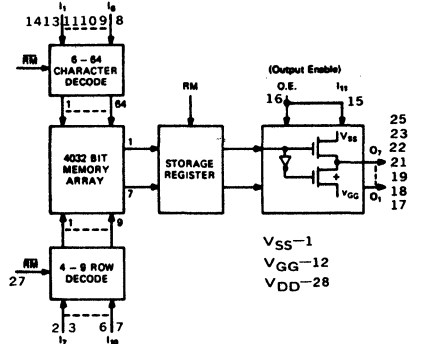
C44



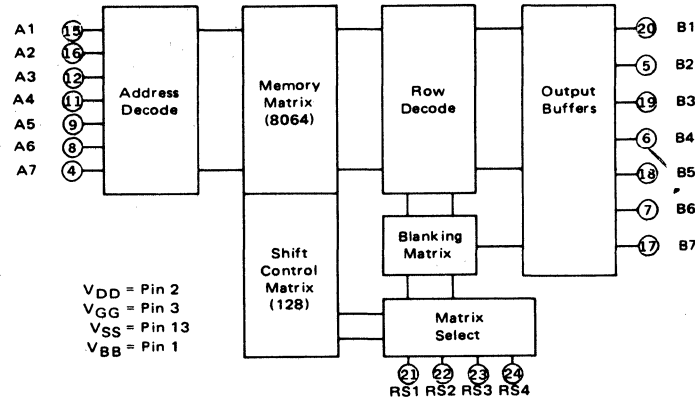
C45



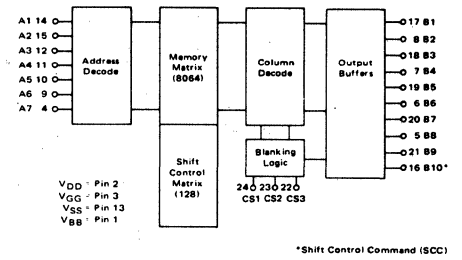
C47



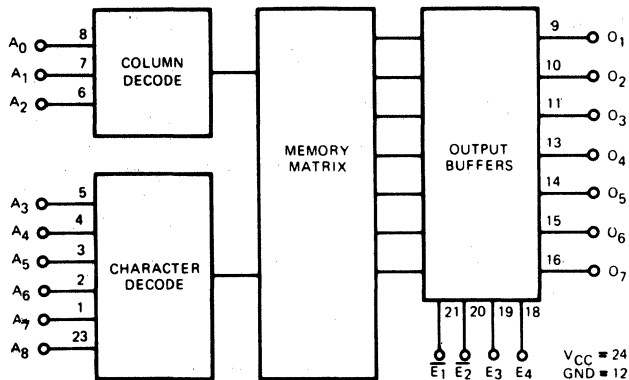
C50



C51



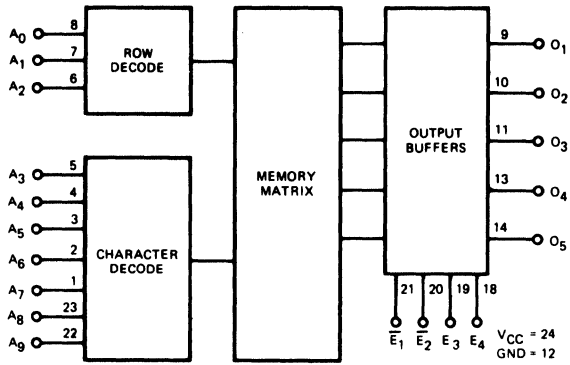
C52



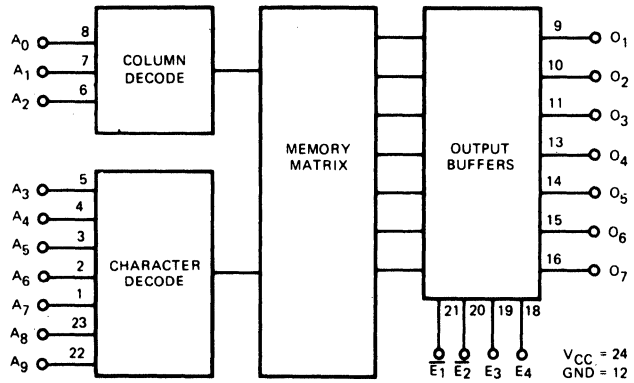
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

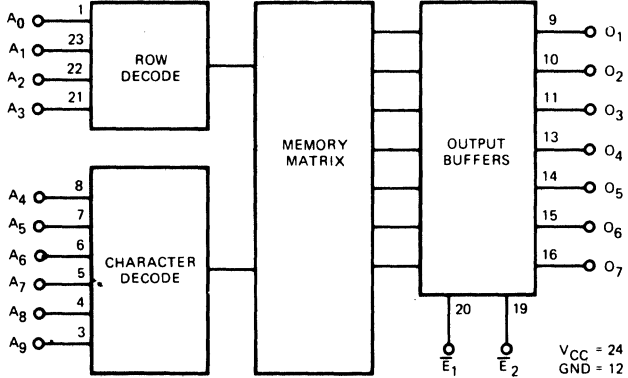
C53



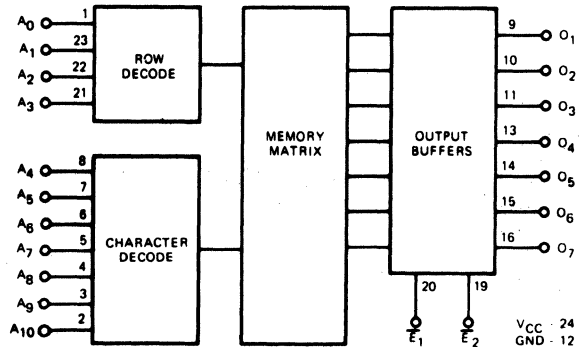
C54



C55



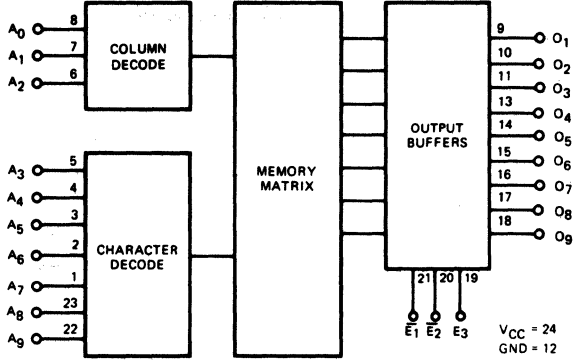
C56



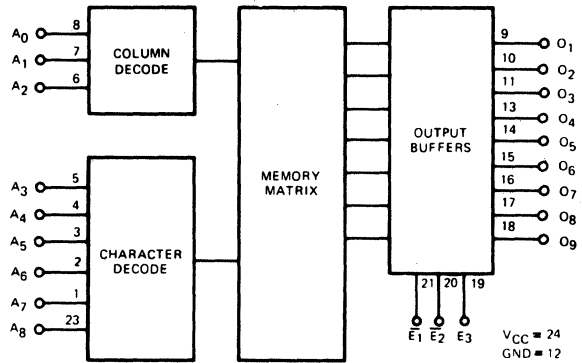
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

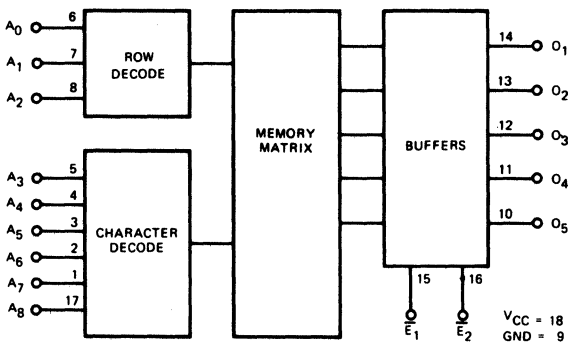
C57



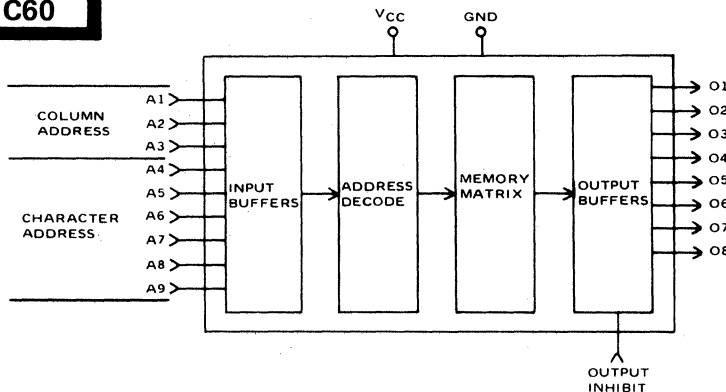
C58



C59



C60



N.C.	1	24	V _{CC} (+5V)
N.C.	2	23	N.C.
N.C.	3	22	A ₉
O ₁	4	21	A ₈
O ₂	5	20	A ₇
O ₃	6	19	A ₆
O ₄	7	18	A ₅
O ₅	8	17	A ₄
N.C.	9	16	A ₃
GND	10	15	A ₂
OUT INH	11	14	A ₁
N.C.	12	13	N.C.

A₁ - A₉ ADDRESS INPUTS
O₁ - O₅ DATA OUTPUTS
OUT INH OUTPUT INHIBIT
N.C. NO CONNECTION

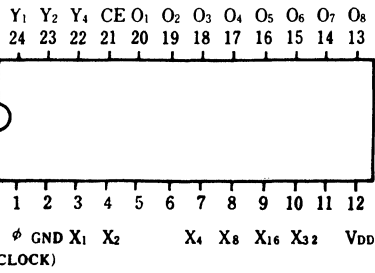
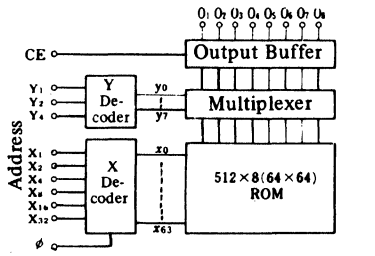
PIN FUNCTION	PIN FUNCTION
1	OUT INH.
2	N.C.
3	OUT 8
4	OUT 7
5	OUT 6
6	OUT 5
7	OUT 4
8	OUT 3
9	OUT 2
10	OUT 1
11	GND
12	N.C.
13	N.C.
14	A ₁
15	A ₂
16	A ₃
17	A ₄
18	A ₅
19	A ₆
20	A ₇
21	A ₈
22	A ₉
23	N.C.
24	V _{CC} (+5V)

ORGANIZATION	OUTPUT
C60	512x8 01-8
C60a	384x8 01-8

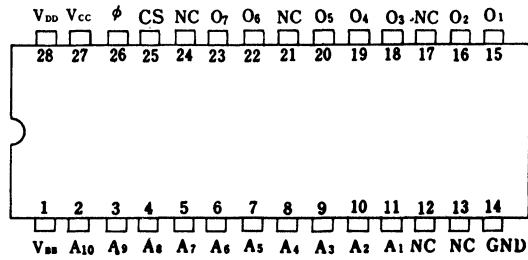
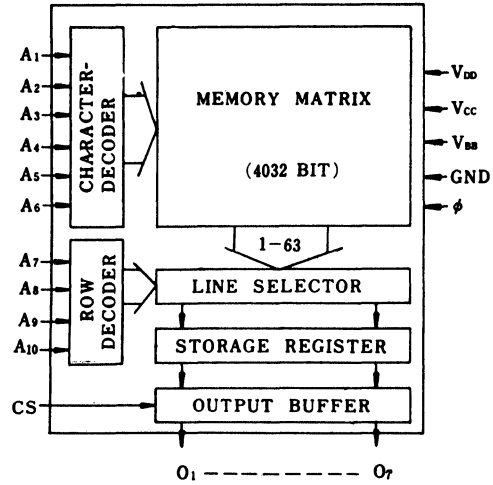
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

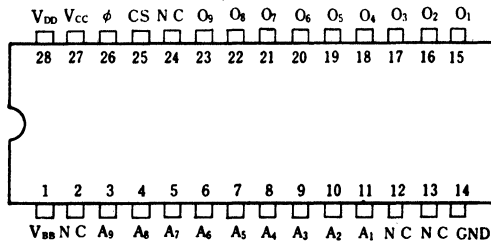
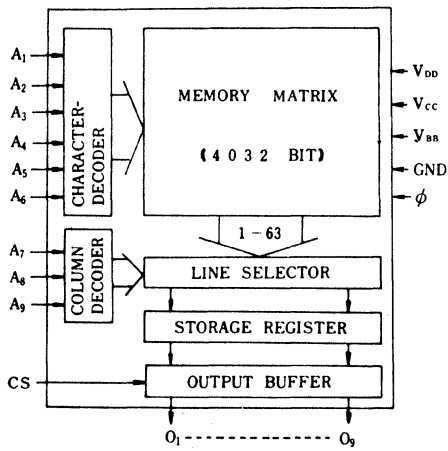
C61



C62



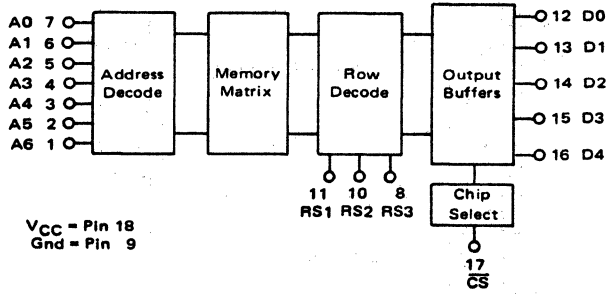
C63



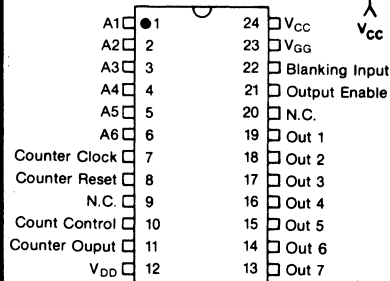
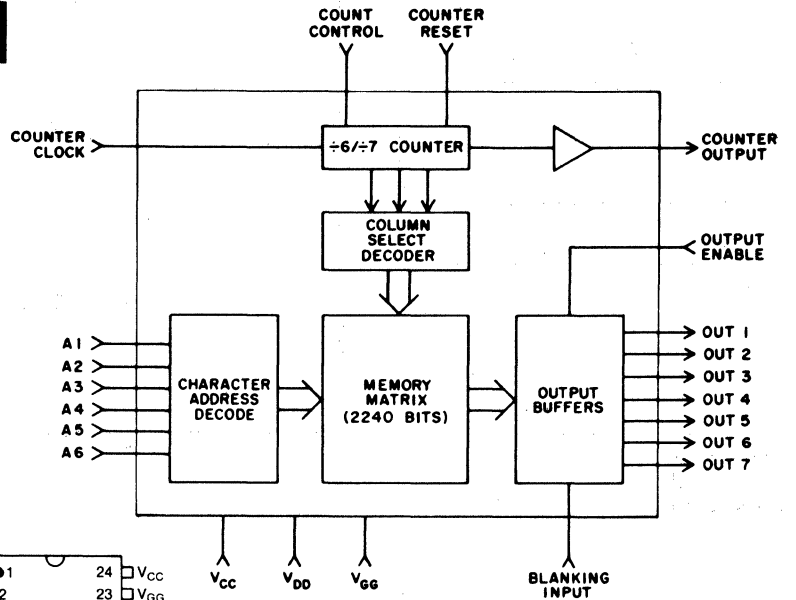
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

C64



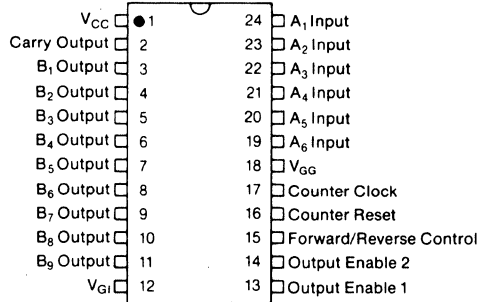
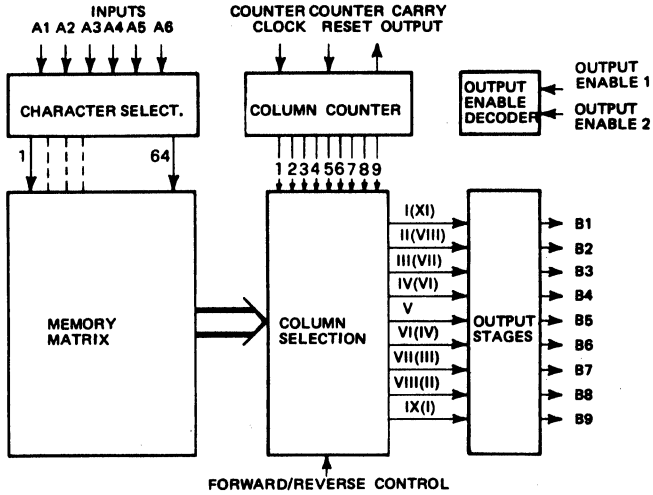
C65



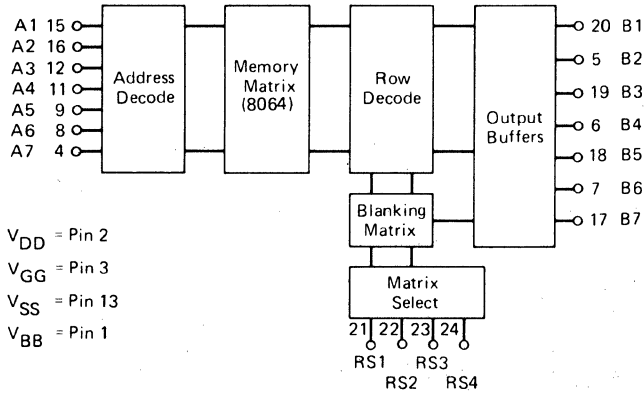
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

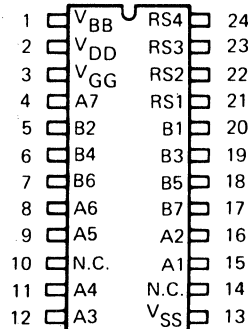
C66



C67



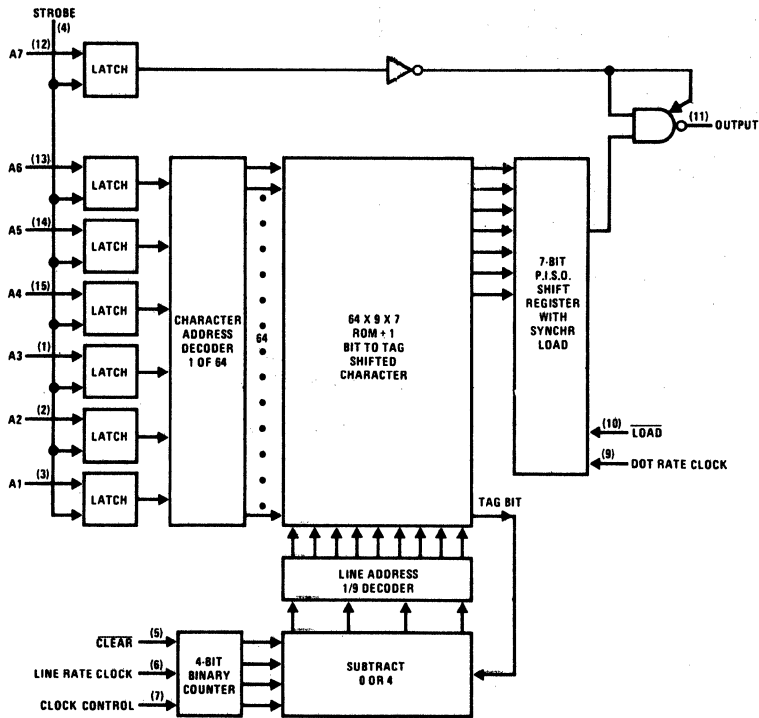
V_{DD} = Pin 2
V_{GG} = Pin 3
V_{SS} = Pin 13
V_{BB} = Pin 1



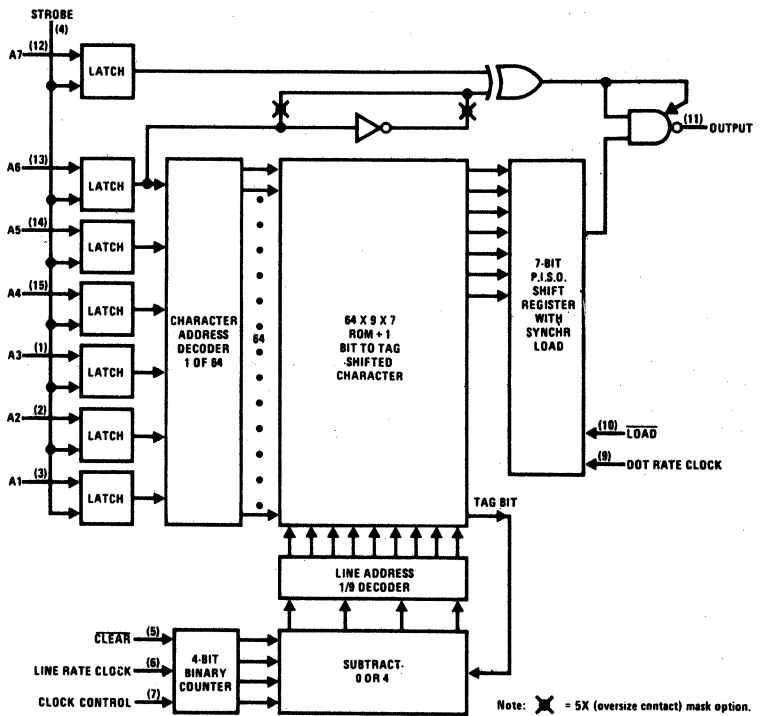
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

C68

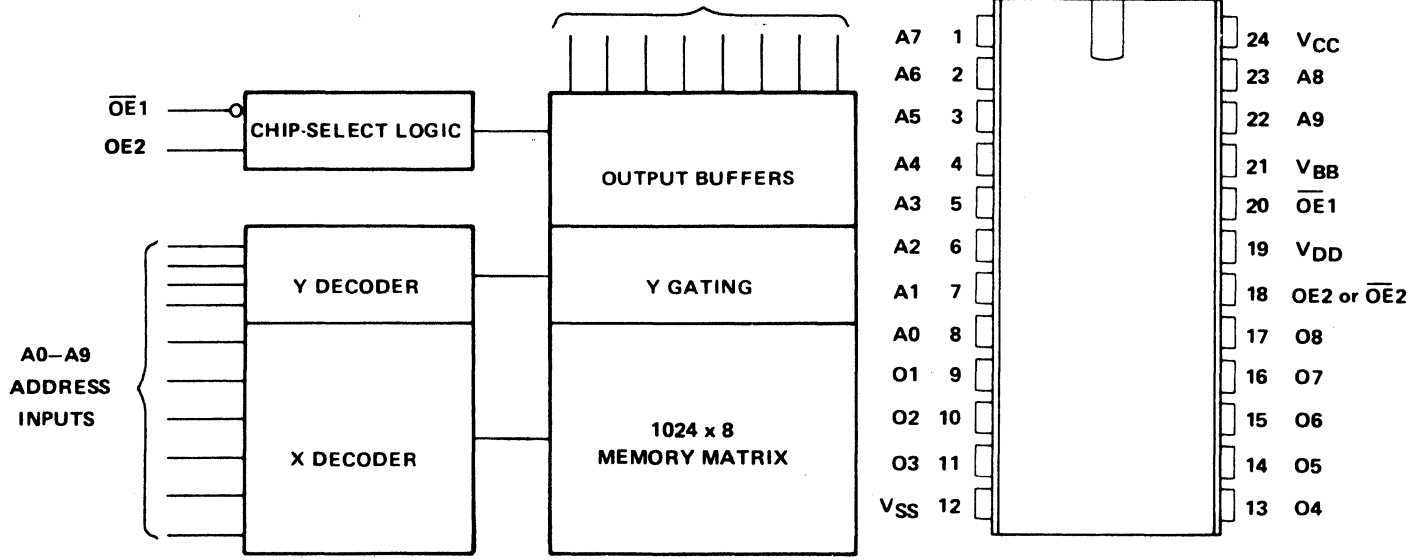


C69



C70

DATA OUTPUTS
O1-O8

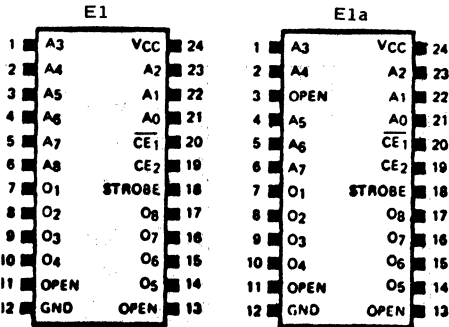


<div style="border: 2px solid black; width: 50px; height: 20px; margin-bottom: 10px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin-bottom: 10px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin-bottom: 10px;"></div>
<div style="border: 2px solid black; width: 50px; height: 20px; margin-bottom: 10px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin-bottom: 10px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin-bottom: 10px;"></div>

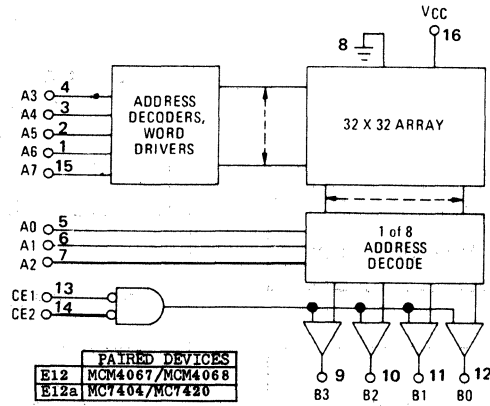
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

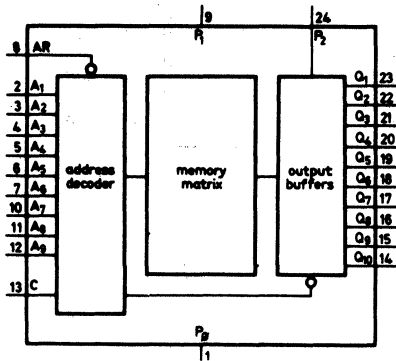
E1



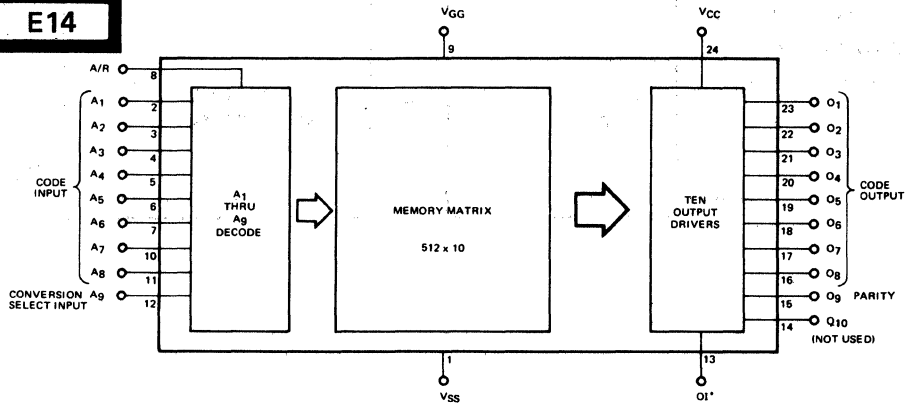
E12



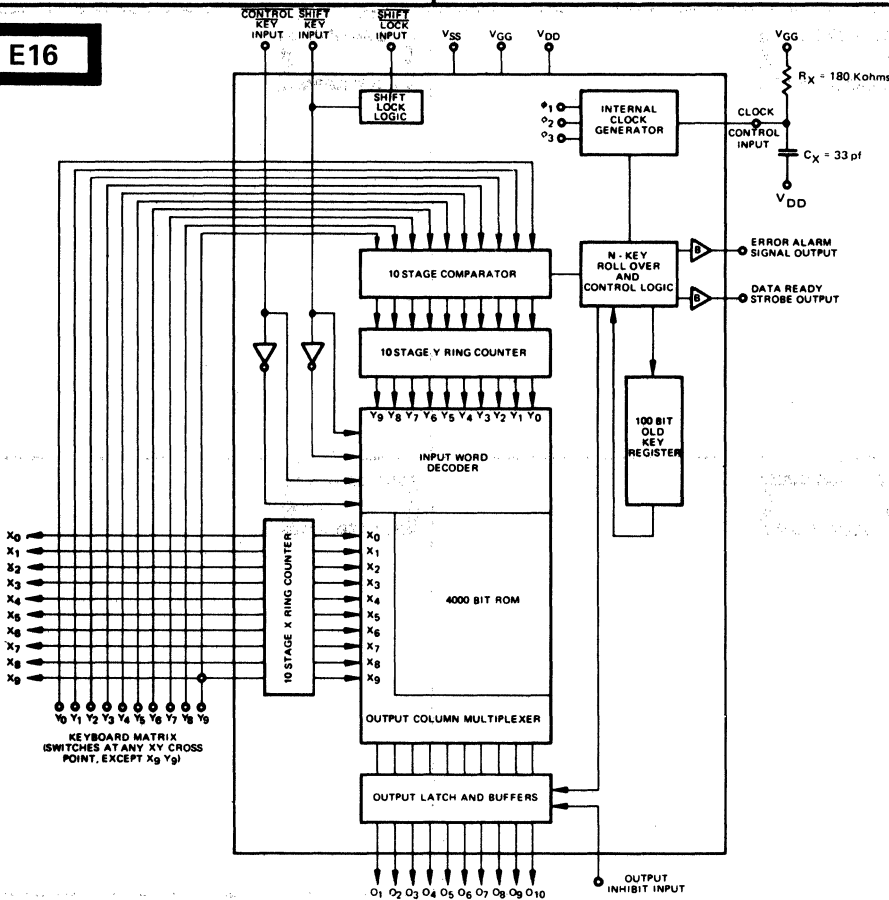
E13



E14



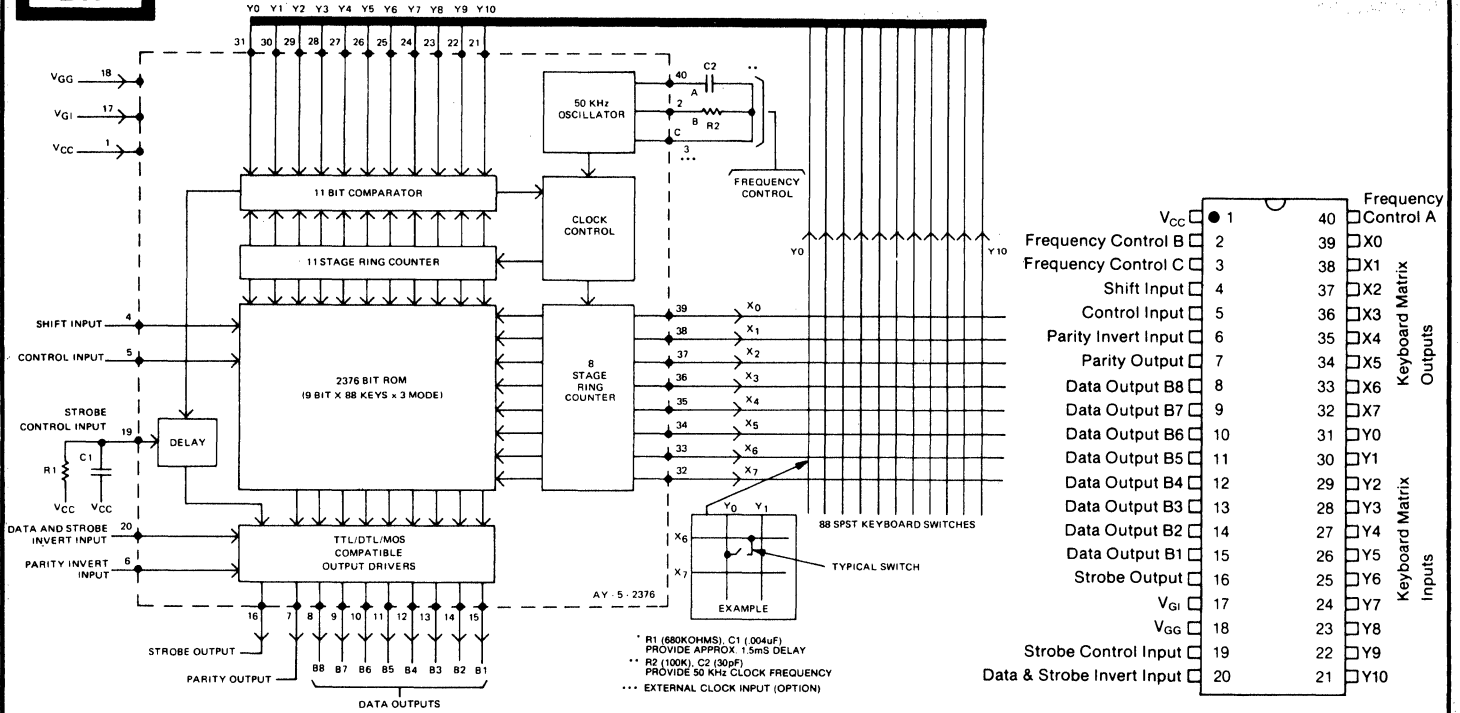
E16



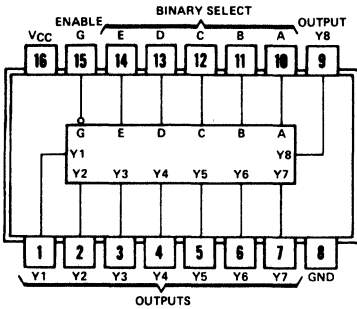
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

E17



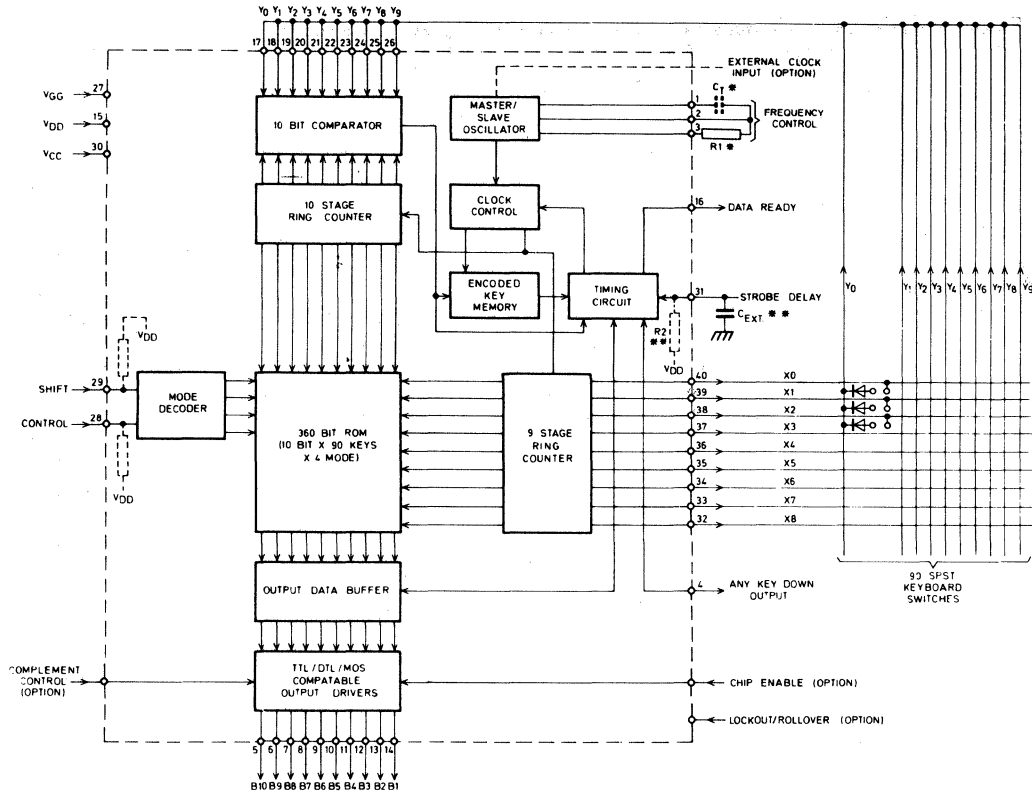
E18



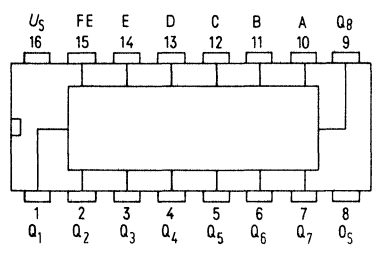
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

E19



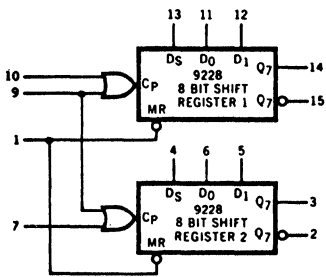
E20



22. LOGIC/BLOCK DRAWINGS

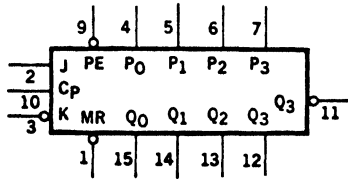
IN DRAWING NUMBER SEQUENCE

F1



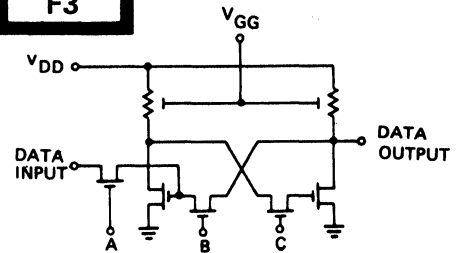
V_{CC} = Pin 16
Gnd = Pin 8

F2



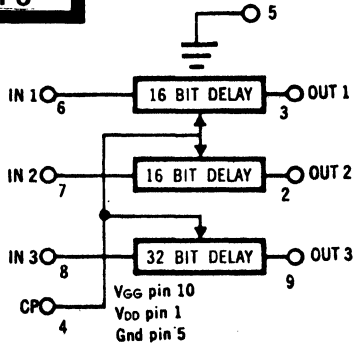
V_{CC} = PIN 16
GND = PIN 8

F3

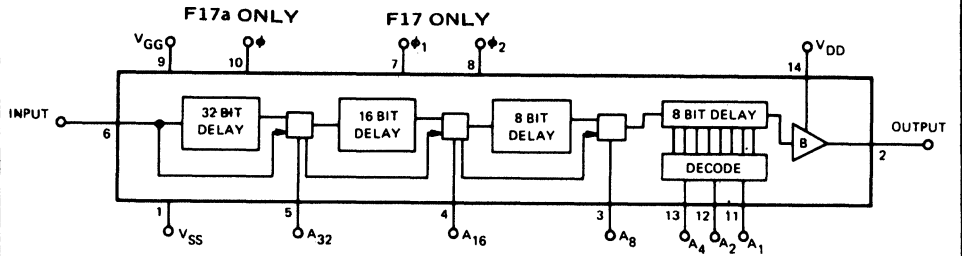


CKT No.	DATA INP	DATA OUTP	A	B	C	VDD	VGG	GND
F3	1	8	7	4	4	4	10	6
	2	1	9	4	4	4	10	6
	3	3	2	4	4	4	10	6
F3a	1	3	9	8	2	2	10	6
	2	4	7	8	2	2	10	6
F3b	1	2	1	8	7	7	10	6
	2	3	4	8	7	7	10	6

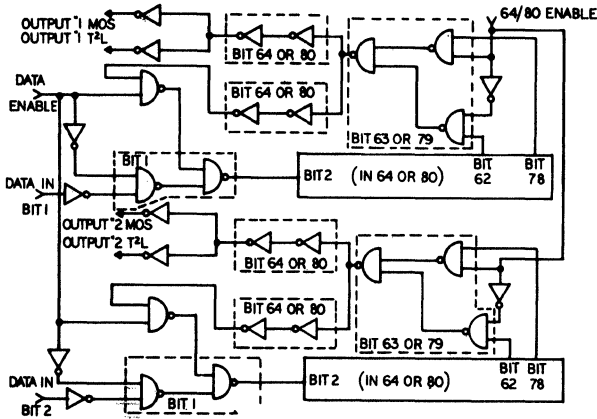
F6



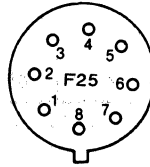
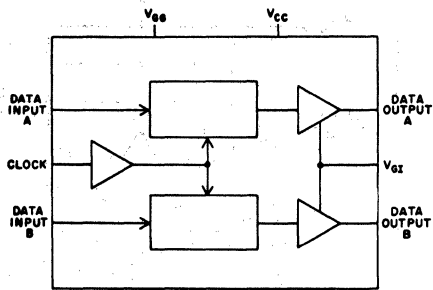
F17



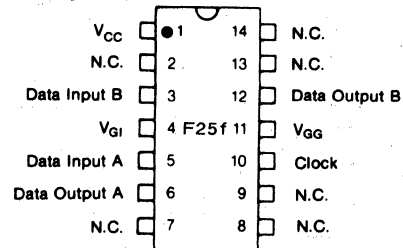
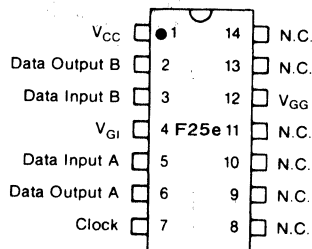
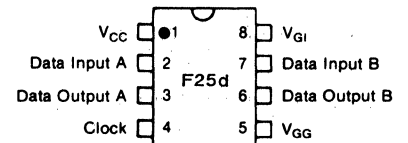
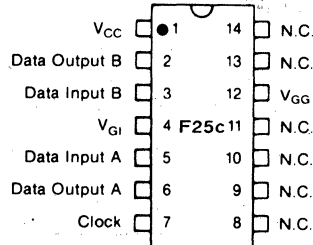
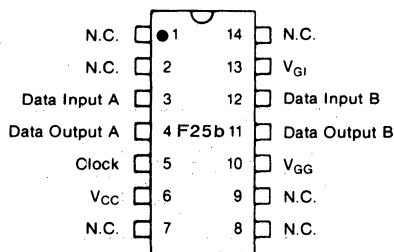
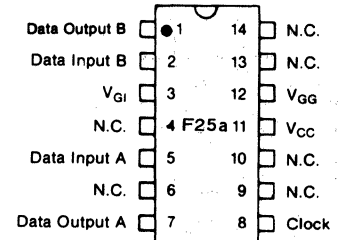
F19



F25



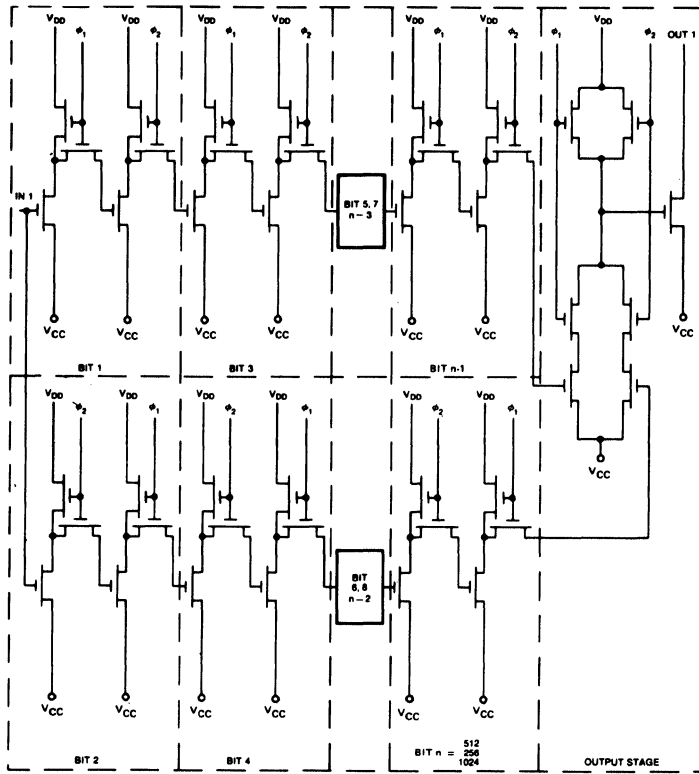
- 1 Data Input A
- 2 Data Output A
- 3 Clock
- 4 V_{CC}
- 5 V_{GG}
- 6 Data Output B
- 7 Data Input B
- 8 V_{GI}



22. LOGIC/BLOCK DRAWINGS

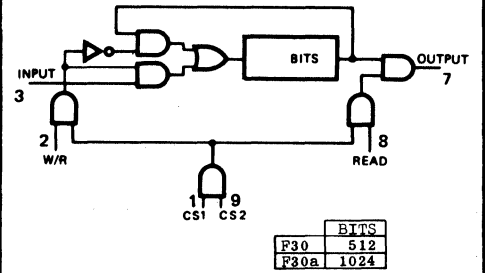
IN DRAWING NUMBER SEQUENCE

F29



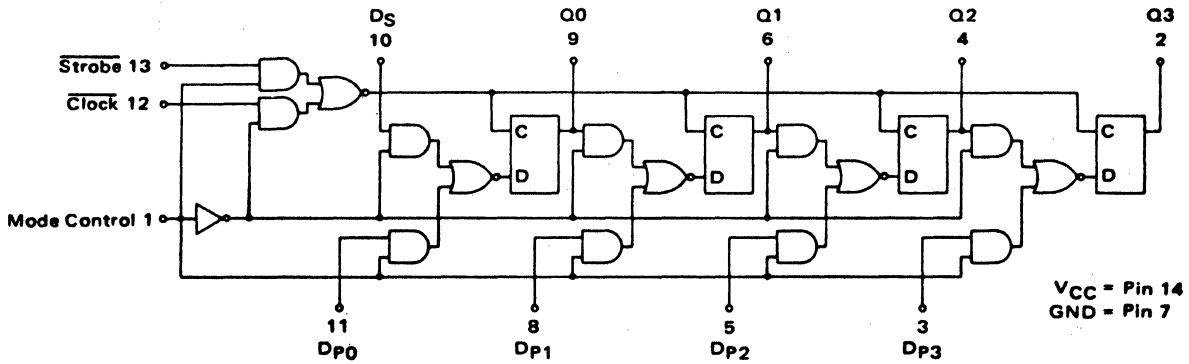
NO. OF BITS	COMMENT
F29 256	3 MORE IDENTICAL REGISTERS
F29a 512	1 MORE IDENTICAL REGISTER
F29b 1024	ONLY REGISTER

F30



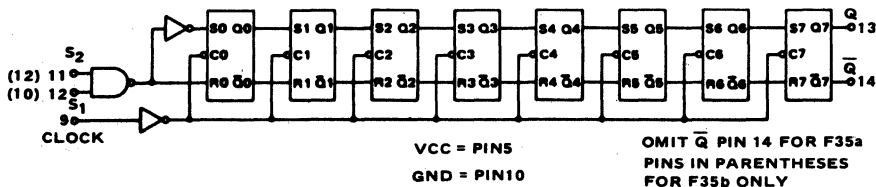
	BITS
F30	512
F30a	1024

F31



VCC = Pin 14
GND = Pin 7

F35



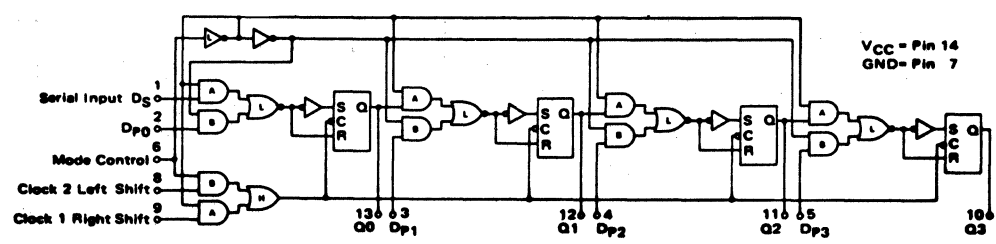
VCC = PINS
GND = PIN10

OMIT Q PIN 14 FOR F35a
PINS IN PARENTHESES
FOR F35b ONLY

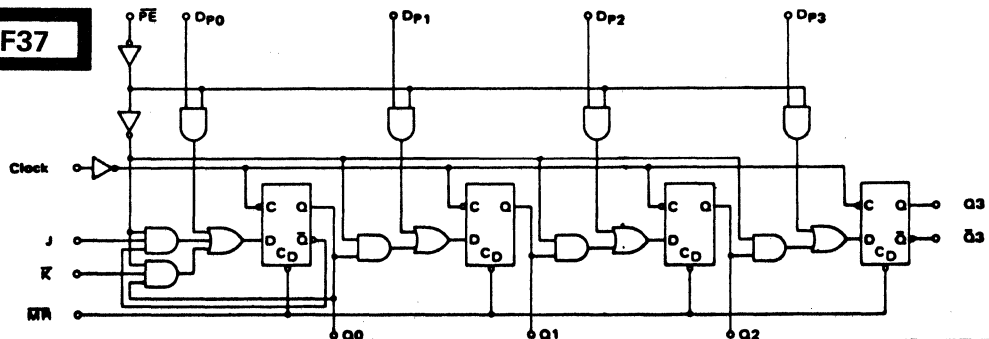
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

F36

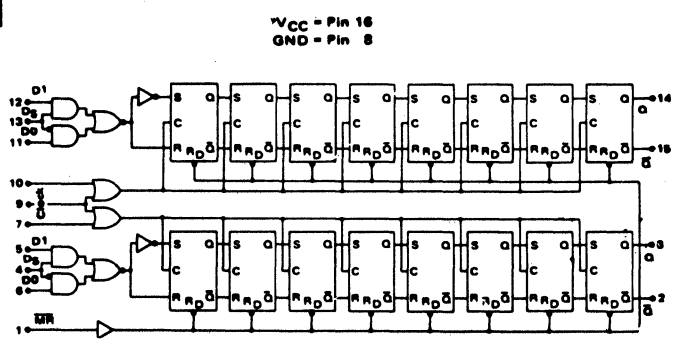


F37

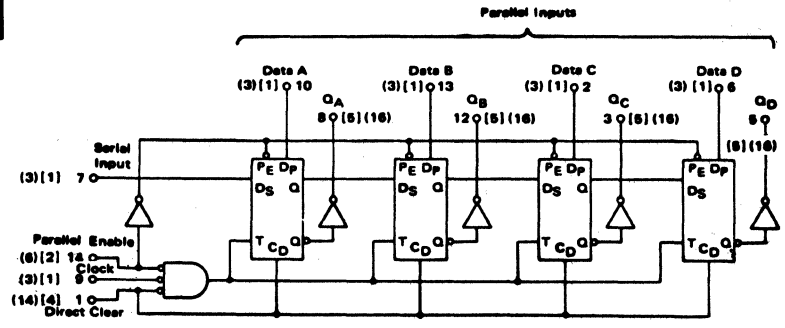


	CLOCK	J	K	MR	Q	DP	PE	VCC	GND
F37	10	2	3	1	15 14 13 12	11 4 5 6 7 9	16	8	
F37a	1	11	12	9	13 15 3 7	6 10 14 2 5 4	16	8	

F38



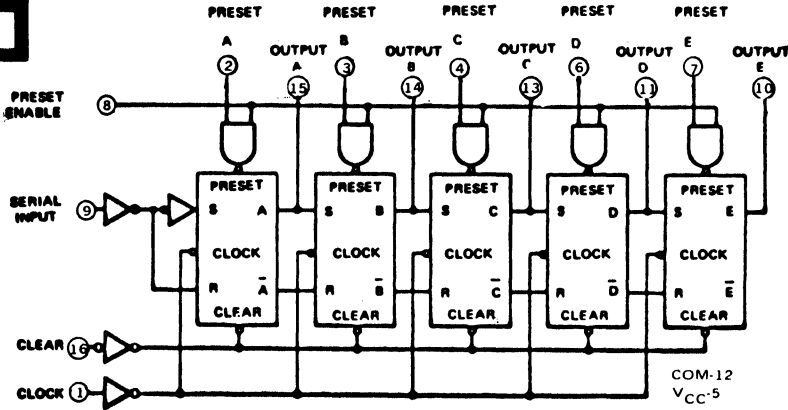
F39



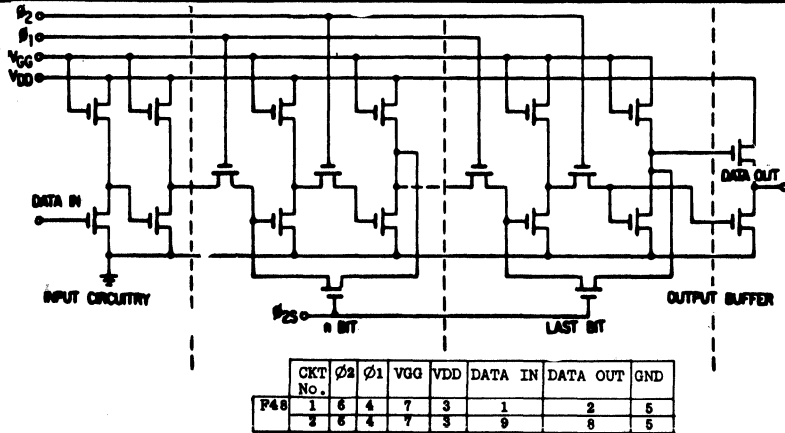
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

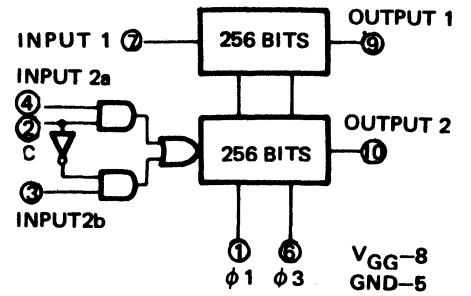
F40



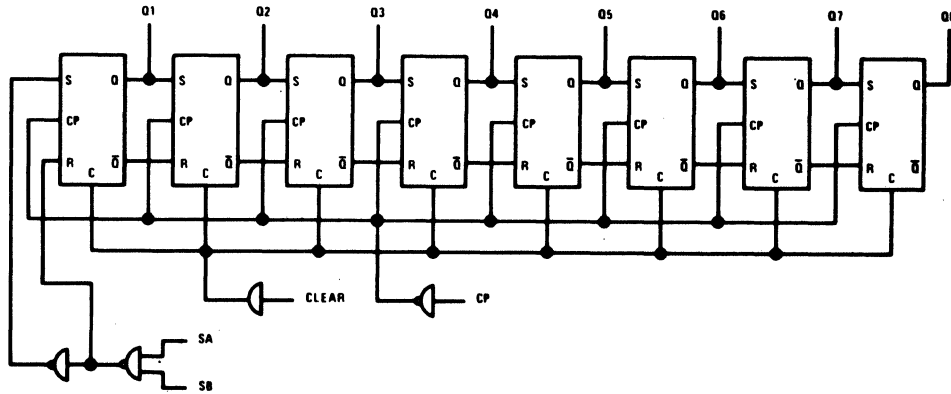
F48



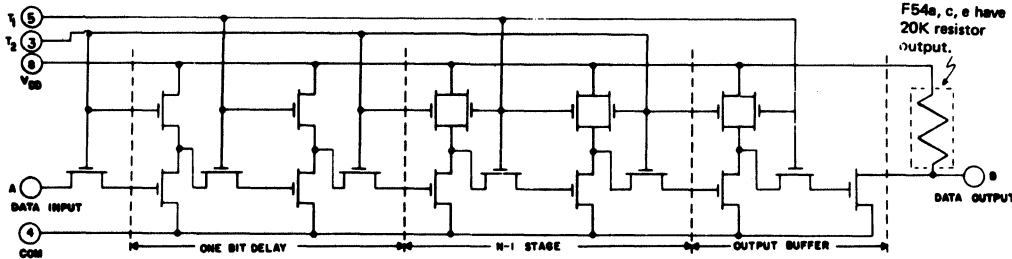
F49



F52



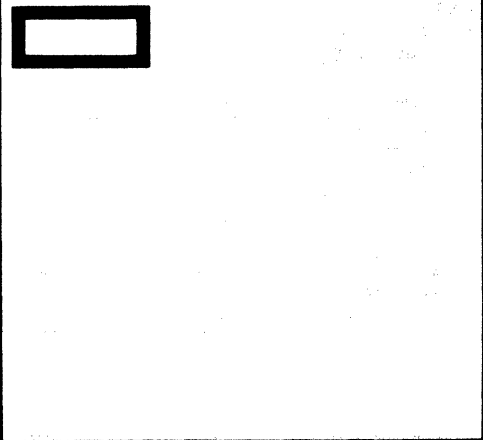
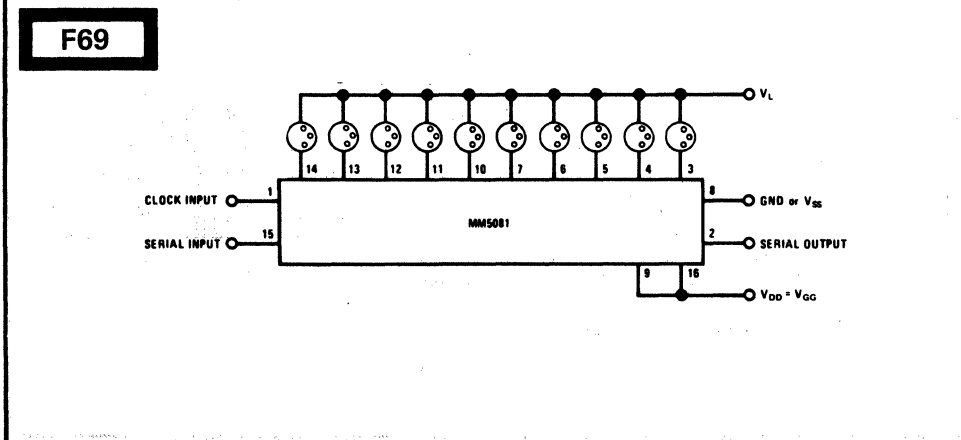
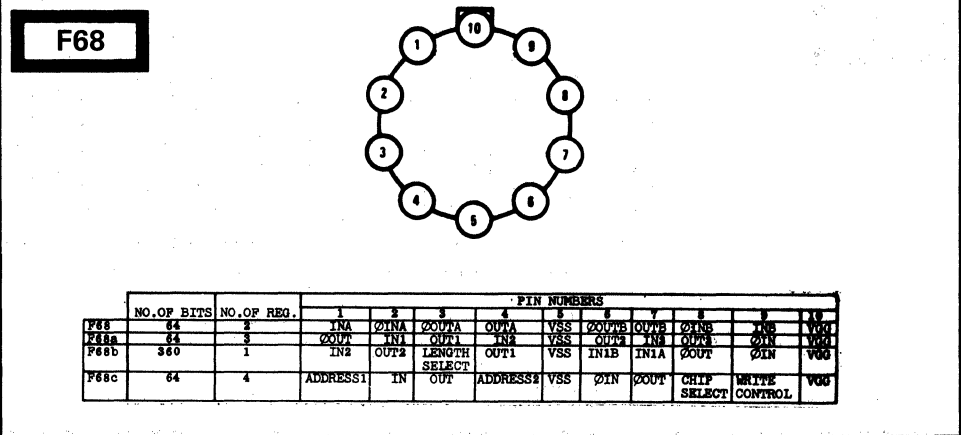
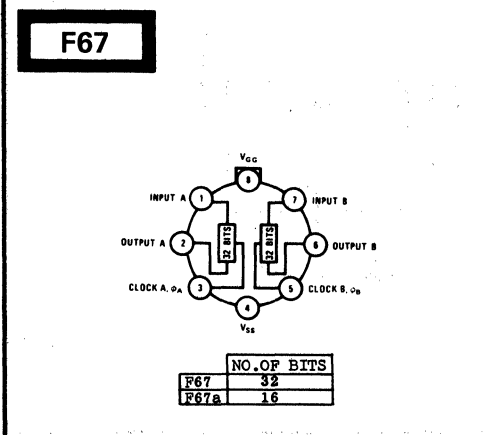
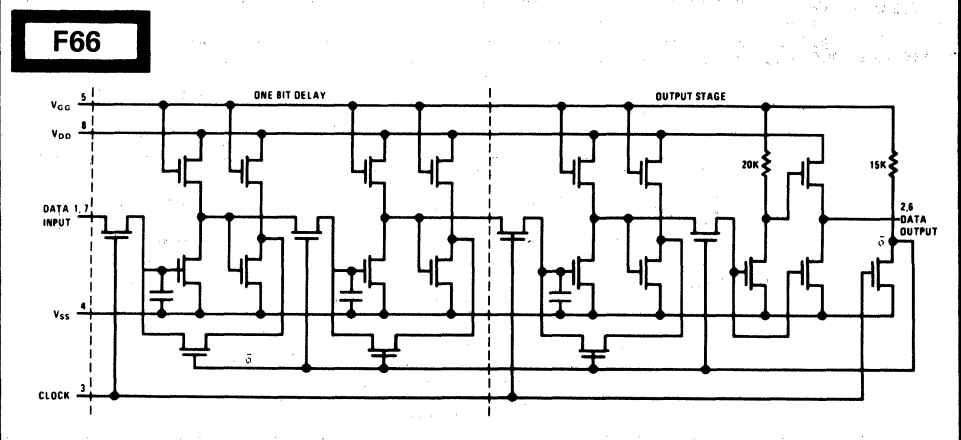
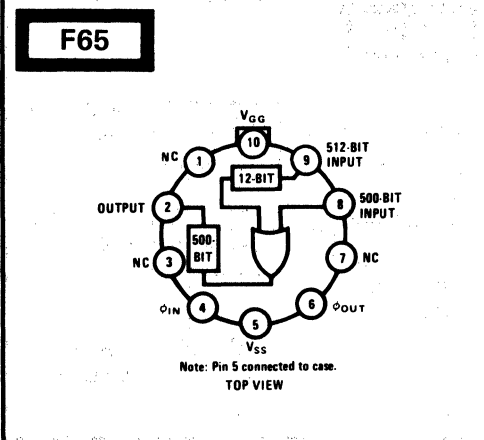
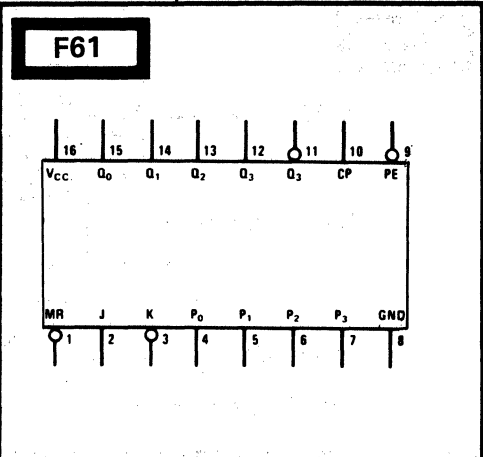
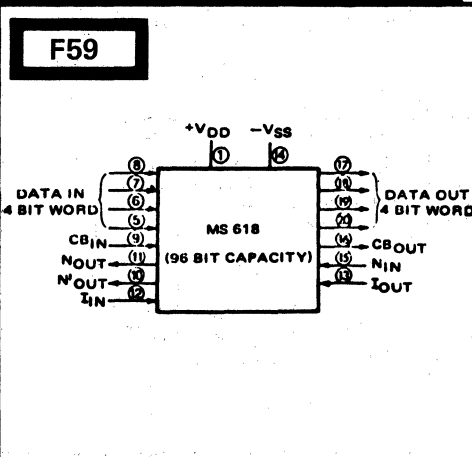
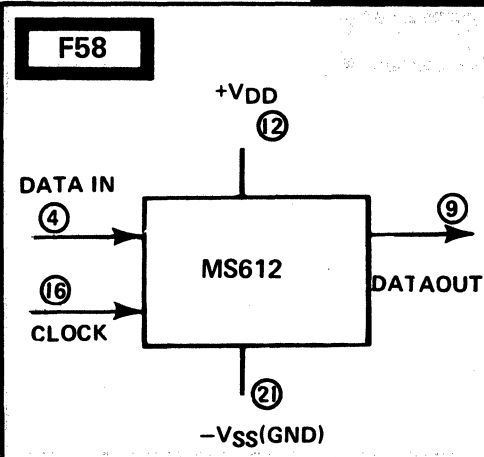
F54



CKT NO.	A	B	NO. OF BITS
F54, a	1	1	2
F54, c	2	7	6
F54, d	1	1	2
F54, e	2	7	6

22. LOGIC/BLOCK DRAWINGS

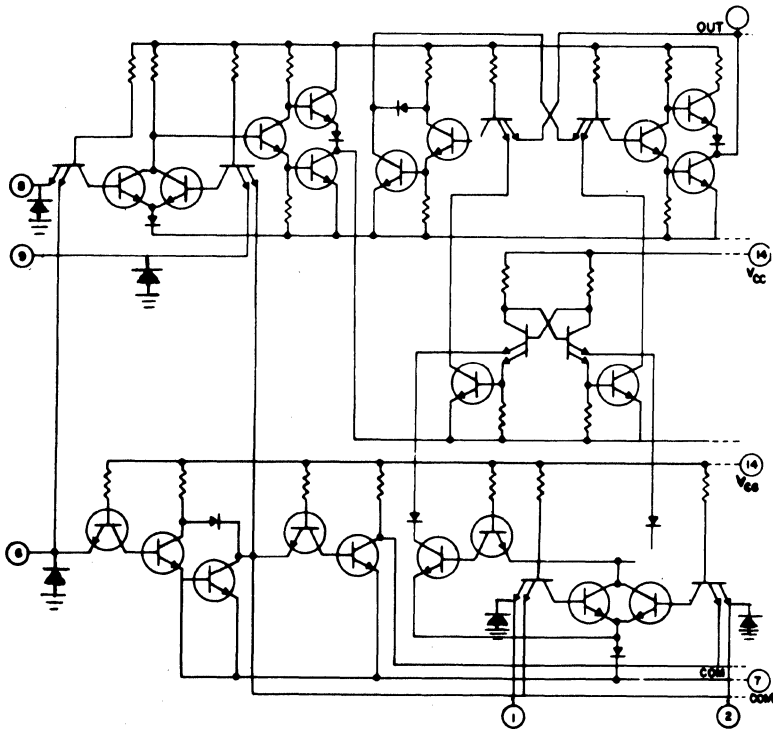
IN DRAWING NUMBER SEQUENCE



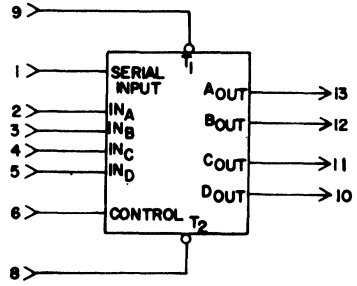
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

F70

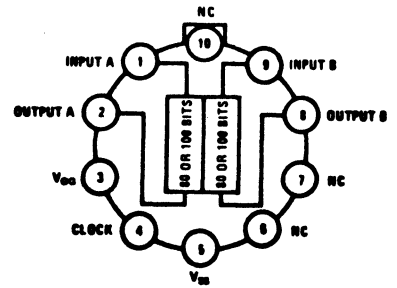


CLAMPING DIODES
FOR F70a ONLY

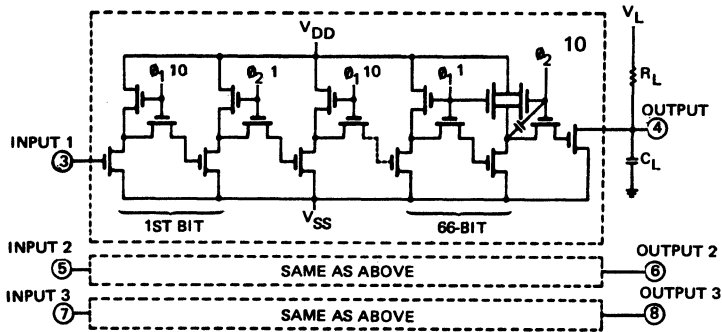


F71

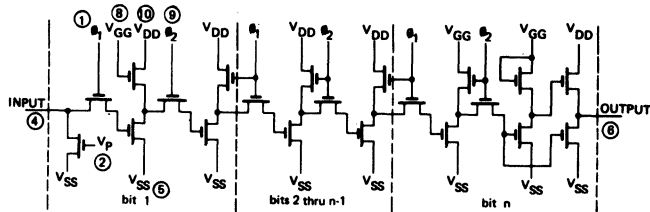
	No. OF BITS
F71	80
F71a	100



F73



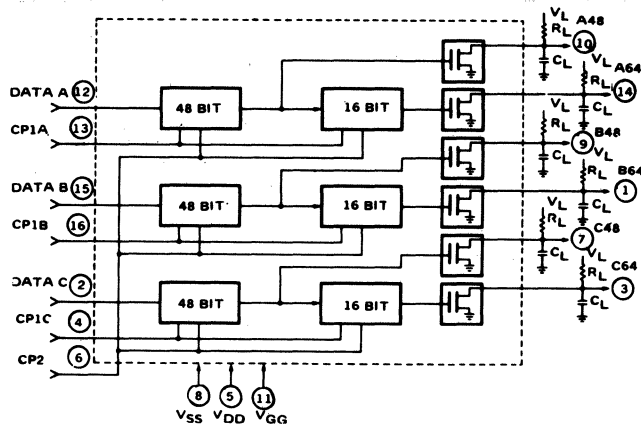
F74



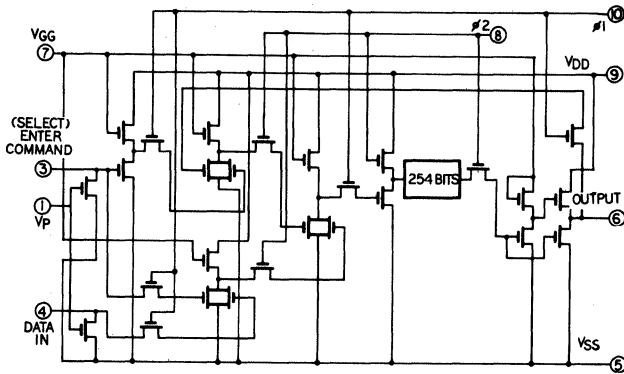
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

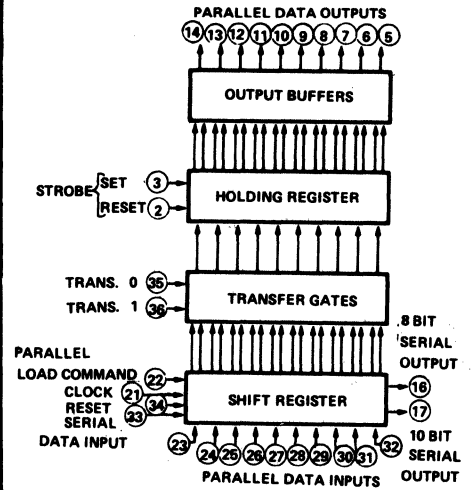
F75



F76

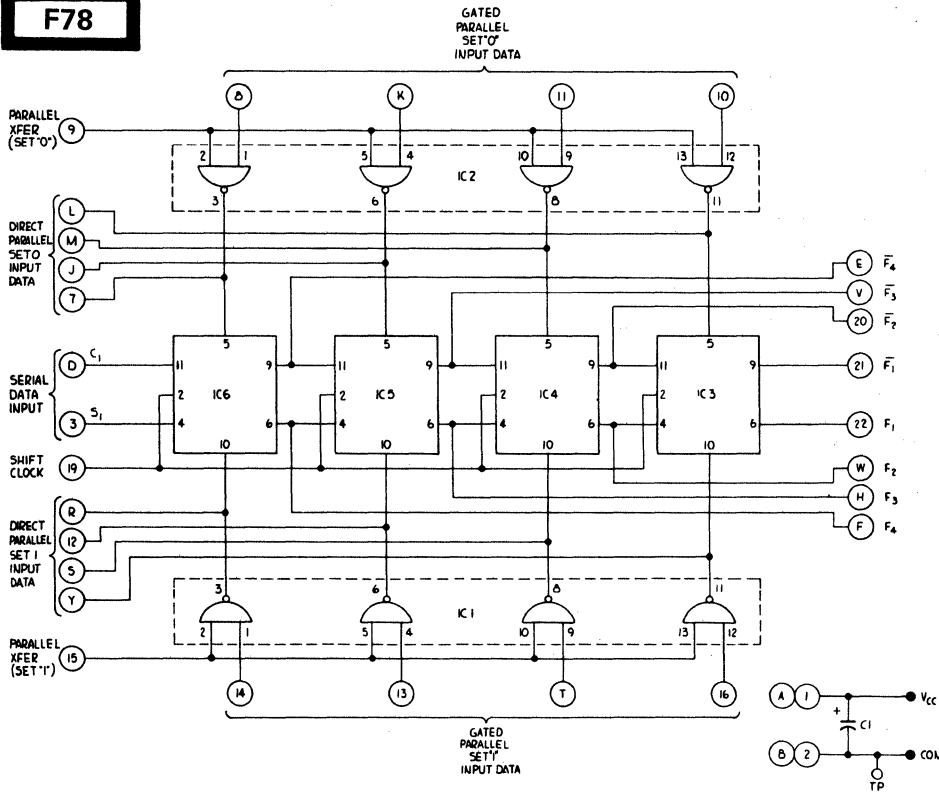


F77



VGG 18
GND 19

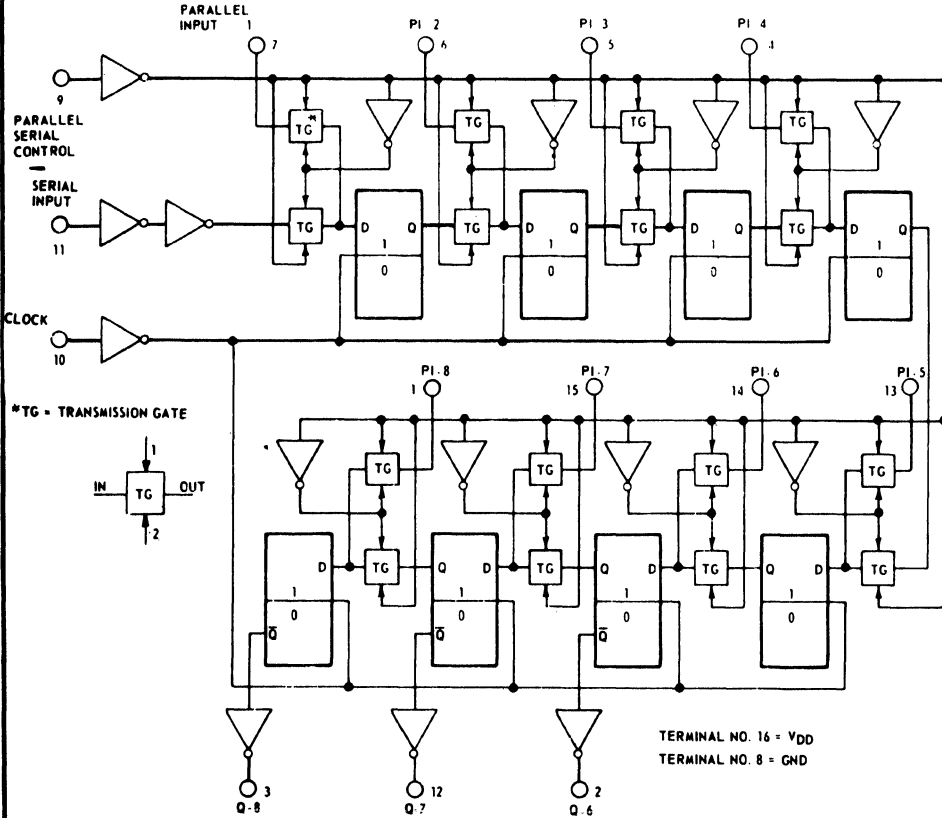
F78



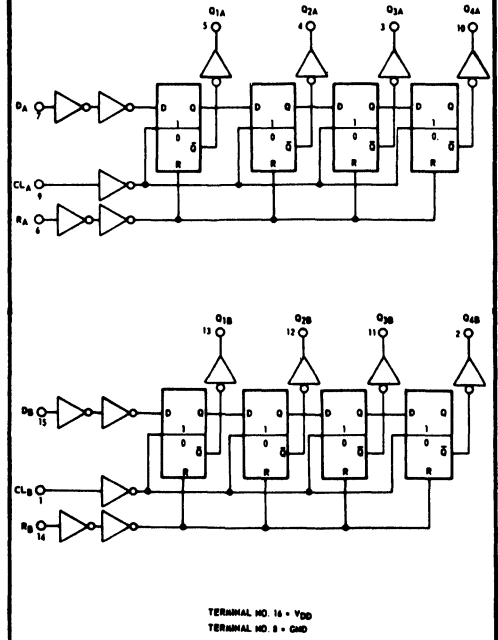
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

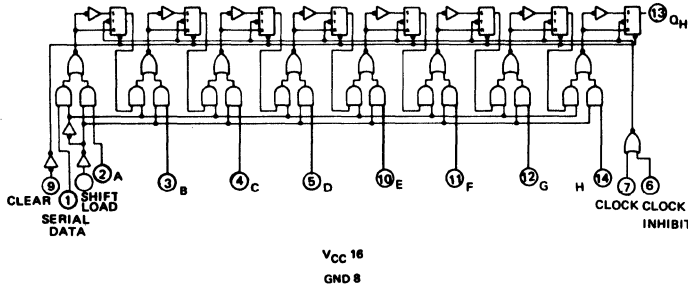
F79



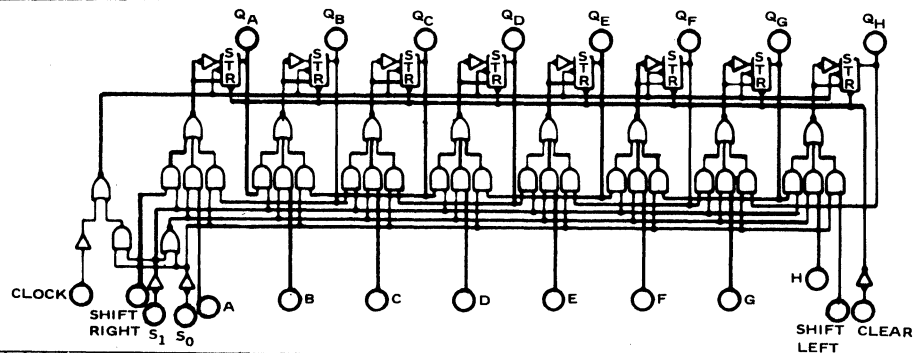
F80



F88



F89

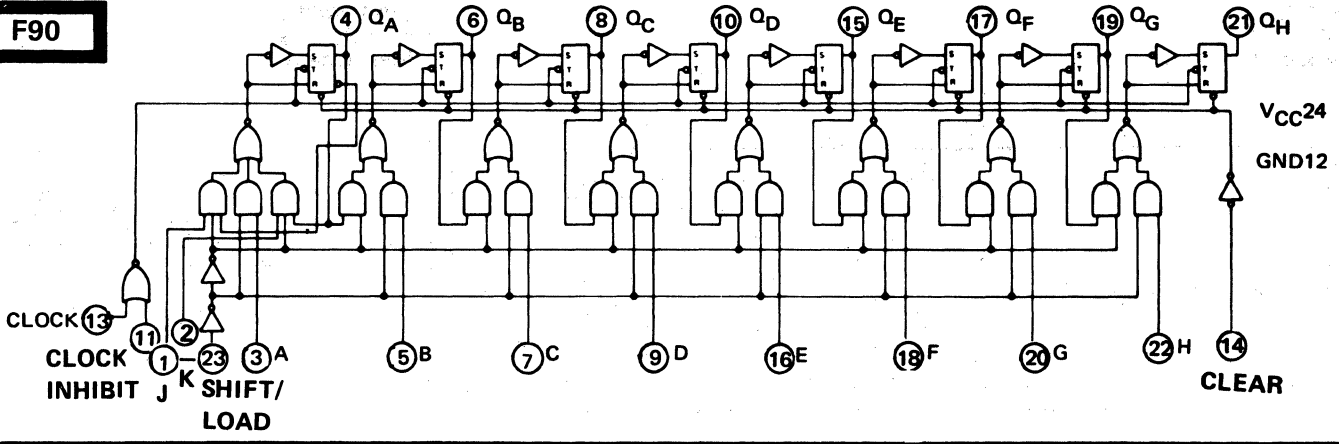


	NO. OF BITS	CLOCK	SHIFT R	S1	S0	Q																			
						A	B	C	D	E	F	G	H	VCC	GND										
F89	8	11	2	23	1	3	5	7	9	15	17	19	21	22	13	4	6	8	10	14	16	18	20	24	12
F89a	4	11	2	10	9	3	4	5	6					7	1	15	14	13	12					16	8

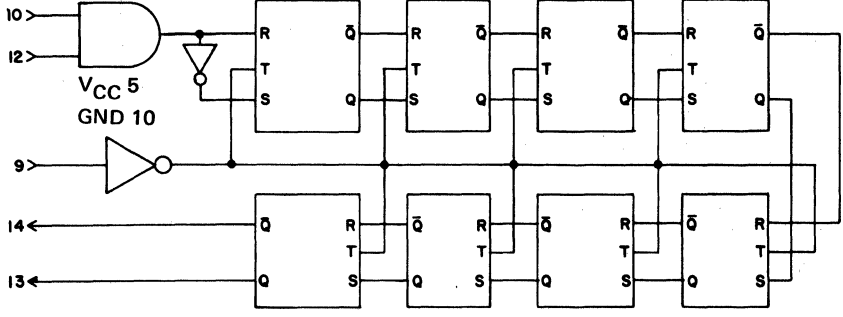
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

F90

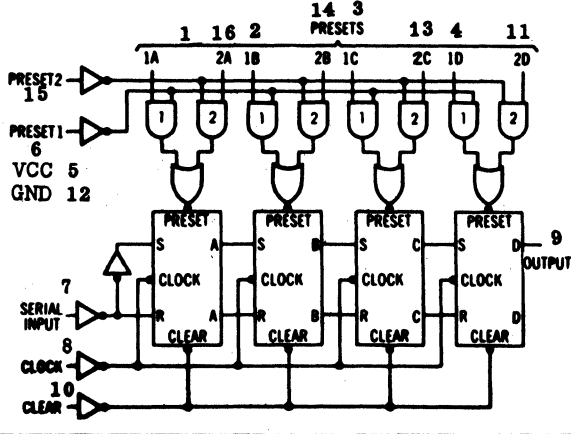


F91



*FOR MP STYLE PACKAGE THIS TERMINAL IS PIN NO.11

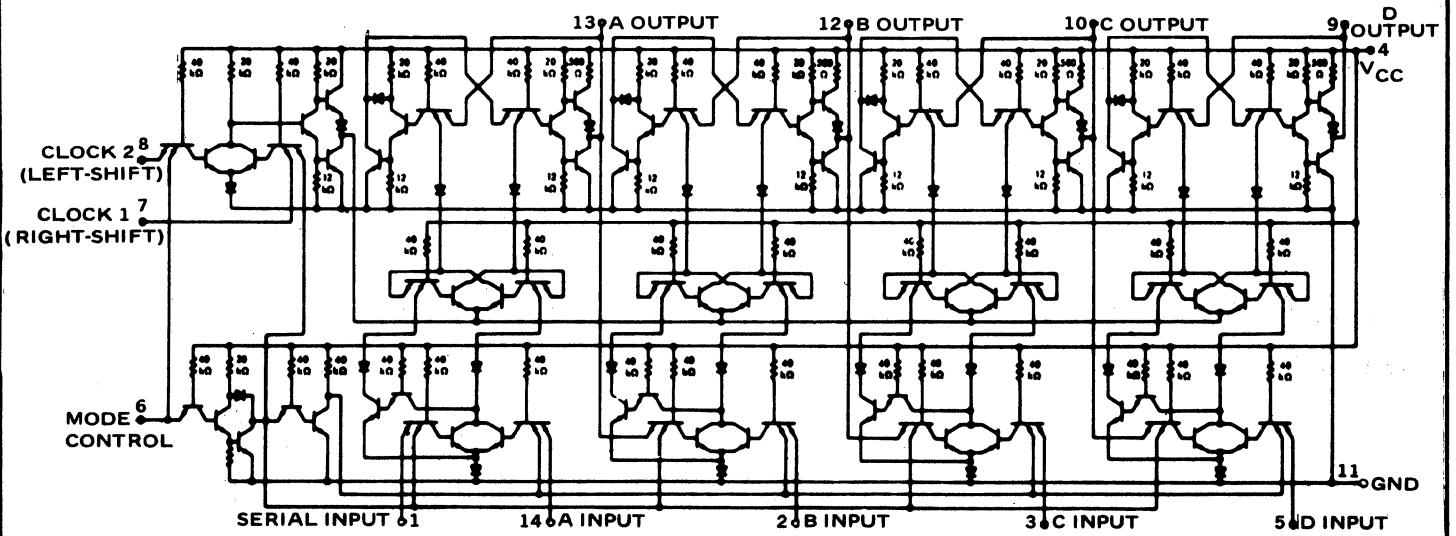
F92



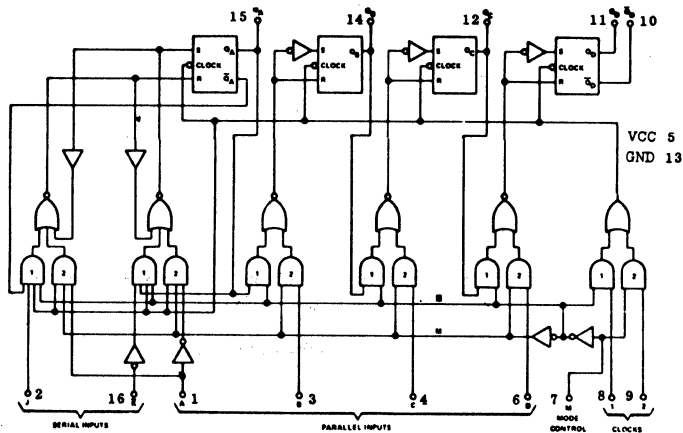
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

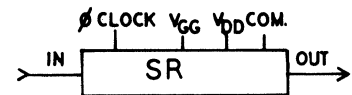
F93



F94



F95

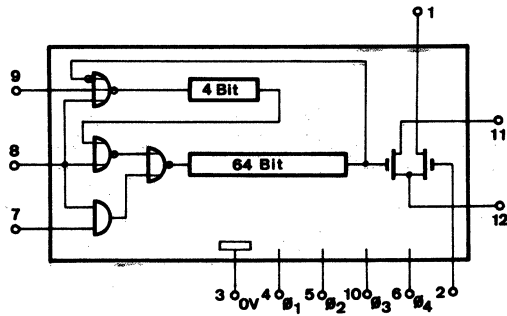


	CKT	NO. OF BITS	IN	COM	VGG	VDD	COM
F95	1	25	1	2	4	7	3 5
	2	25	9	8	6	7	3 5
F95a	1	32	1	2	4	7	3 5
	2	32	9	8	6	7	3 5
F95b	1	50	1	2	4	7	3 5
	2	50	9	8	6	7	3 5
F95c	1	100	1	2	4	7	3 5
	2	100	9	8	6	7	3 5
F95d	1	128	1	2	4	7	3 5
	2	128	9	8	6	7	3 5
F95e	1	16	3	9	8	6	10 5
	2	16	4	7	2	6	10 5
F95f	1	100	1	2	5		8 4
	2	100	7	6	3		8 4
F95g	1	25	6	3	7	12	1 4
	2	25	8	2	7	12	1 4
	3	25	9	14	7	12	1 4
	4	25	11	13	7	12	1 4
F95h	1	64	1	2	3	5	4 8
	2	64	7	6	3	5	4 8

22. LOGIC/BLOCK DRAWINGS

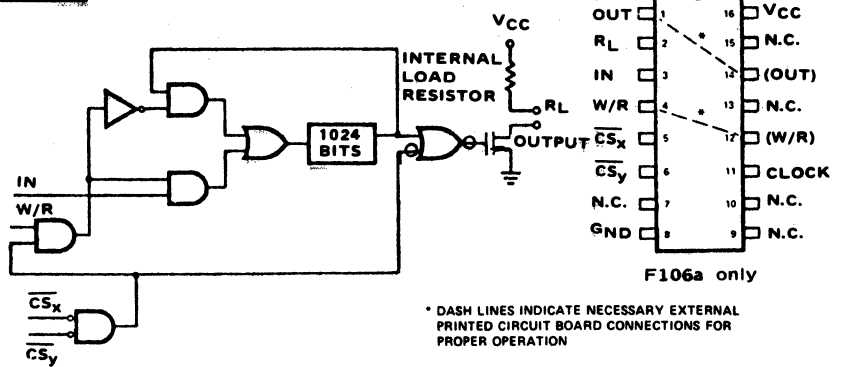
IN DRAWING NUMBER
SEQUENCE

F104



F106

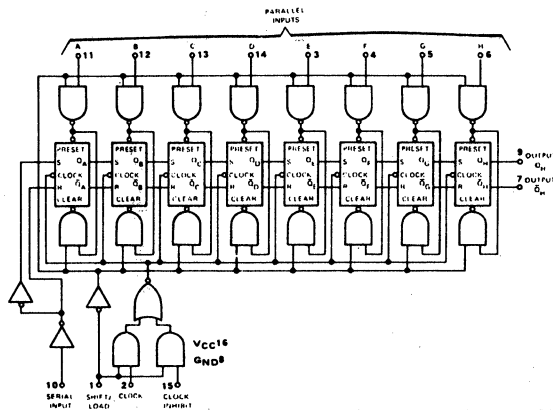
F106	NC.	OF	CKTS	IN	W/R	ESX	CSY	OUT	RL	VCC	GND	CLOCK
	1			3	4	5	6	1	2	16	8	11
	2			15	12	5	6	14	13			



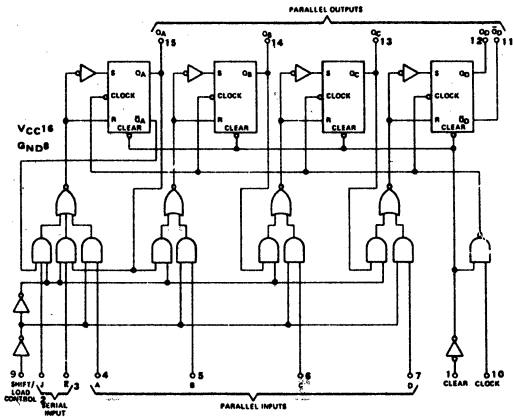
F106a only

* DASH LINES INDICATE NECESSARY EXTERNAL PRINTED CIRCUIT BOARD CONNECTIONS FOR PROPER OPERATION

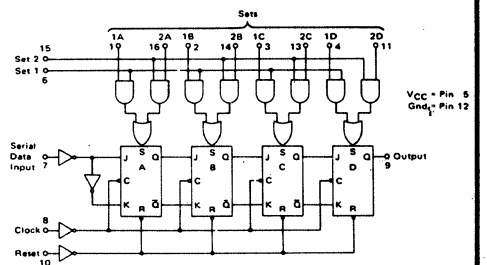
F107



F108



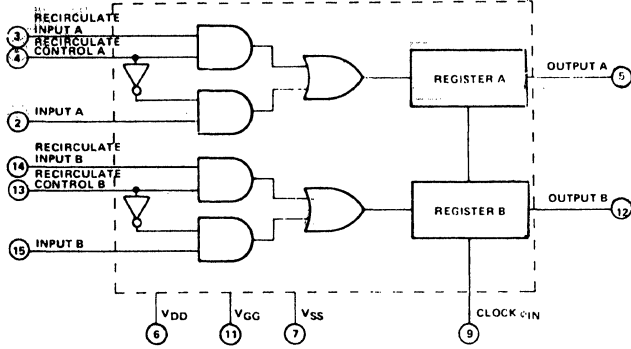
F110



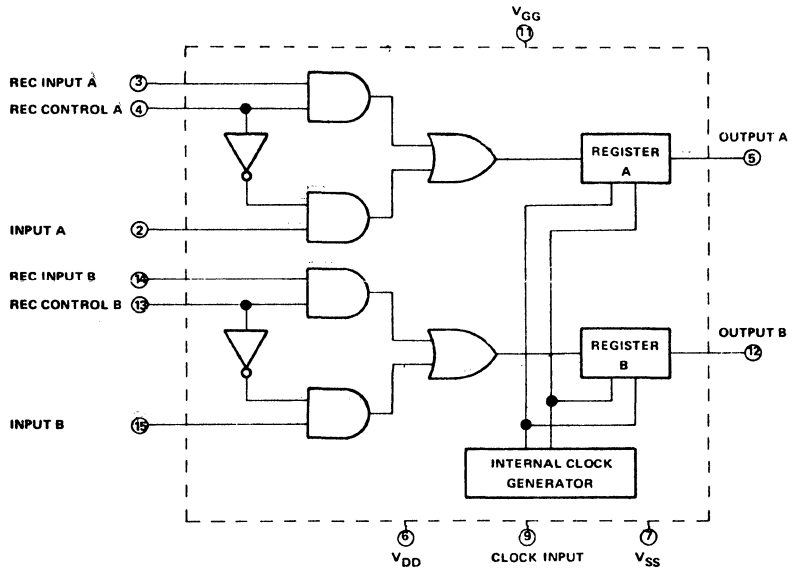
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

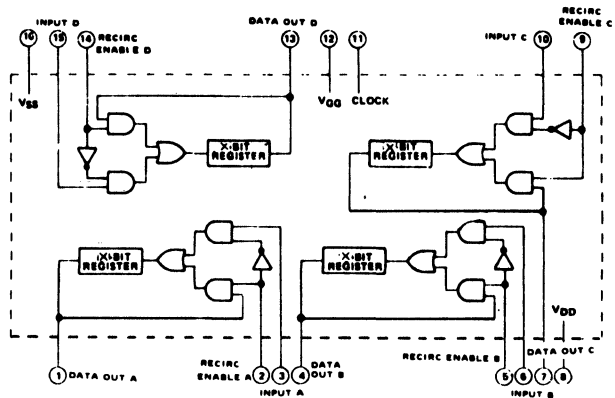
F113



F115



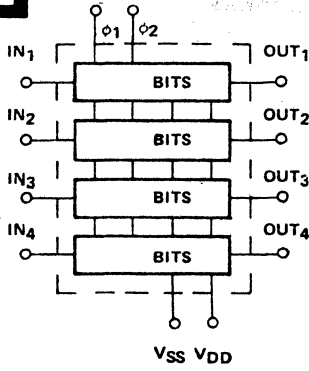
F119



22. LOGIC/BLOCK DRAWINGS

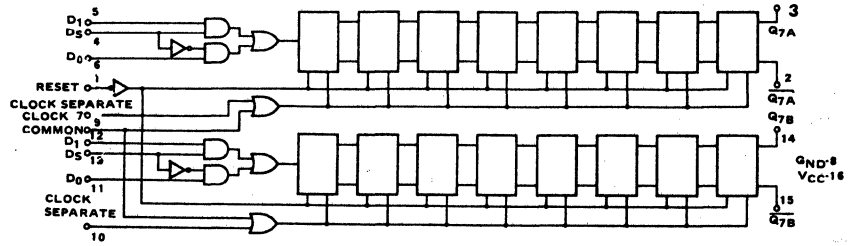
IN DRAWING NUMBER
SEQUENCE

F120

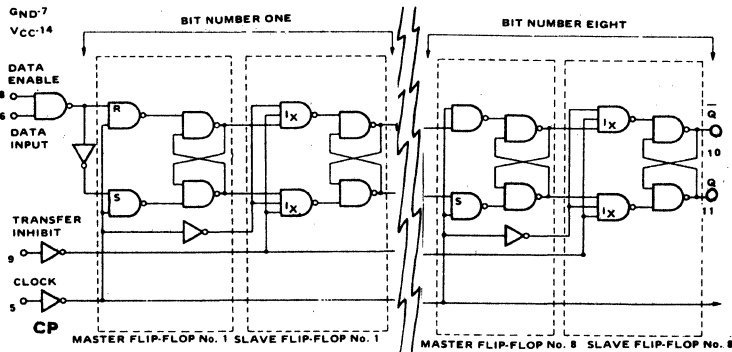


	REG	BITS	IN	OUT	Ø1	Ø2	VSS	VDD	GND
F120	1	256	3	1	4	11	5	12	
	2		8	6					
	3		10	9					
	4		16	14					
F120a	1	512	2	1	3	7	4	8	
F120b	1	1024	2	5	3	7	4	8	
F120c	1	512	3	14	4	11	5	12	
	2		10	6					
F120d	1	1024	3	6	4	11	5	12	
F120e	1	64	1	2	14	5	7	8	13
	2		3	4					
	3		9	10					
	4		11	12					
F120f	1	2	1	2	5	3	4	8	
	2		7	6					
F120g	1	256	1	2	5	3	4	8	
F120h	1	100	1	2	5	3		8	4
	2		7	6					
F120j	1	32	1	2	3		5	8	4
	2		7	6					
F120k	1	512	2	9	4	6	5	10	

F122



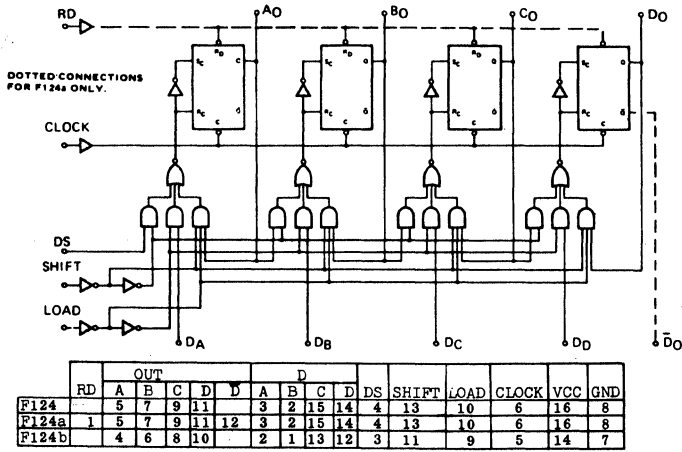
F123



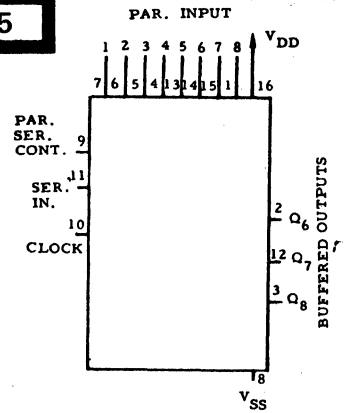
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

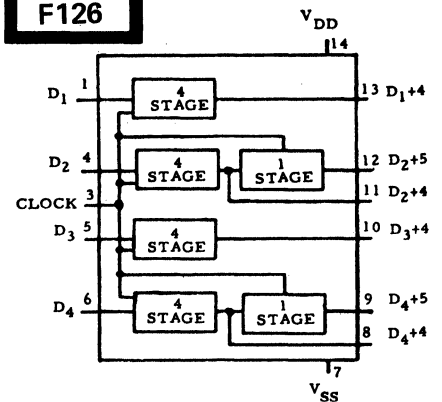
F124



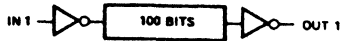
F125



F126



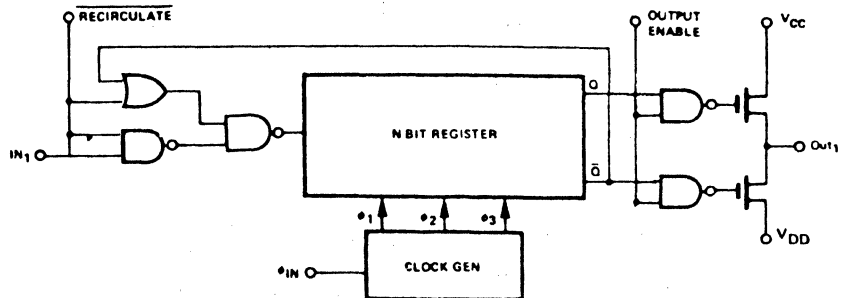
F127



	PKG	CKT	IN	OUT	CLOCK IN	CLOCK OUT	VCC	VDD
F127	CY	1	1	2	3	5	4	8
F127a	ML	1	5	6	7	1	8	4
		2	3	2	7	1	8	4

F128

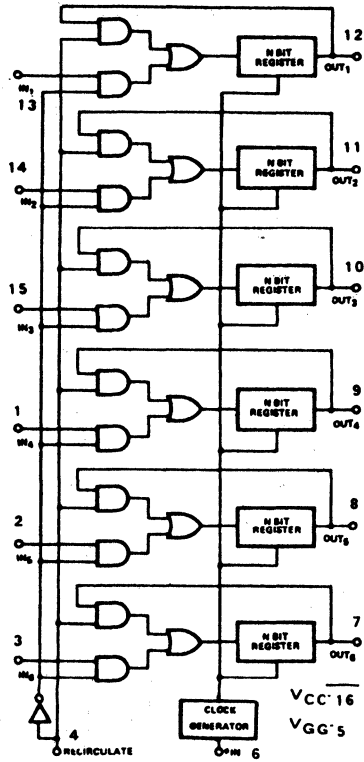
	PKG	CKT	RECIRCULATE	IN	OUT	ØIN	OUTPUT ENABLE	VCC	VDD	VGG
F128	ML	1	1	2	3	8	9	14	7	10
		2		13	12					
F128a	CY	1	10	1	2	4	6	5	3	7
		2		9	8					



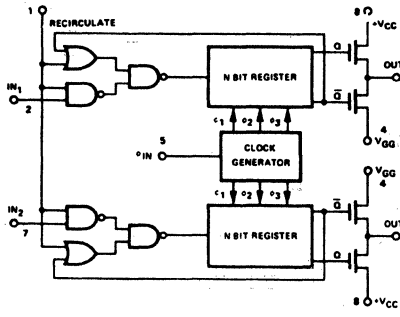
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

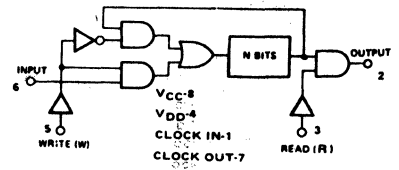
F129



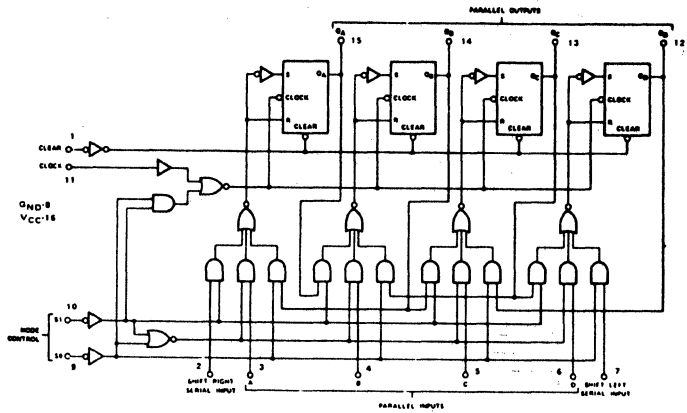
F130



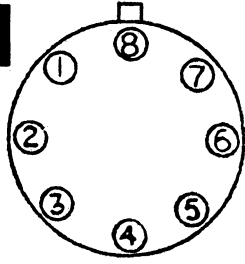
F131



F132

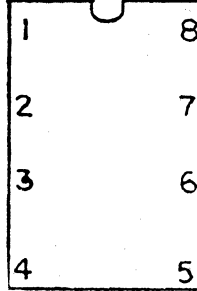


F133



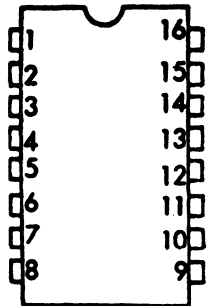
		PIN NUMBERS							
		1	2	3	4	5	6	7	8
F133	O1	In1	O1	VCC	O2	In2	O2	VDD	
F133a	NC	In	O1	VCC	OUT	NC	O2	VDD	
F133b	INA	OUTA	O1n	VSS	OUTB	INB	INB	VGG	
F133c	NC	IN	O1	VSS	OUT	RES	O2	VDD	
F133d	Inp1	OUTP1		VSS	VGG	OUTP2	Inp2	VDD	

F134



		PIN NUMBERS							
		1	2	3	4	5	6	7	8
F134	O1	In1	O1	VCC	O2	In2	O2	VDD	
F134a	NC	In	O1	VCC	OUT	NC	O2	VDD	
F134b	NC	OUT	O1n	VSS	OUTA	In	In	VGG	
F134c	O2	O2	VDD	O1	O1	O1	VCC		
F134d	OUT	O2	NC	VDD	In	O1	NC	VCC	
F134e	RECIRCULATE	In1	OUT1	VGG	O2n	OUT2	In2	VCC	

F140

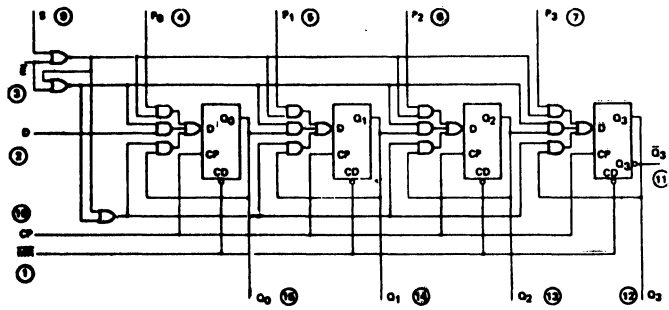


		PIN NUMBERS															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F140	OUT1	NC	In1	O1	VCC	OUT2	NC	In2	OUT3	In3	O2	VDD	NC	OUT4	NC	In4	
F140a	OUT	NC	InA	OUTA	InB	OUTB	NC	VSS	NC	InC	OUTC	InD	OUTD	NC	O1n	VGG	
F140b	OUT	NC	InA	OUTA	InB	OUTB	NC	VSS	NC	NC	OUTB	InC	OUTC	NC	O1n	VGG	
F140c	O12	D11	I1	I1	Y2	I2	O21	GND	X	O22	I3	Y3	Y4	I4	VDD	I	
F140d	I1	O1	O1	I2	O2	O2	I3	GND	C3	O3	O2	O1	O3	O3	O1	VDD	
F140e	CLEAR	Q1	Q1	D1	D2	Q2	Q2	GND	CLOCK	Q3	Q3	D3	D4	Q4	Q4	VCC	

22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

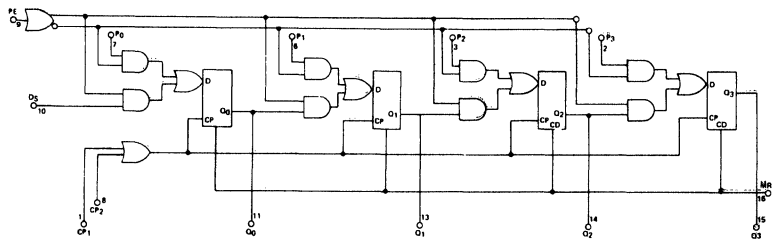
F141



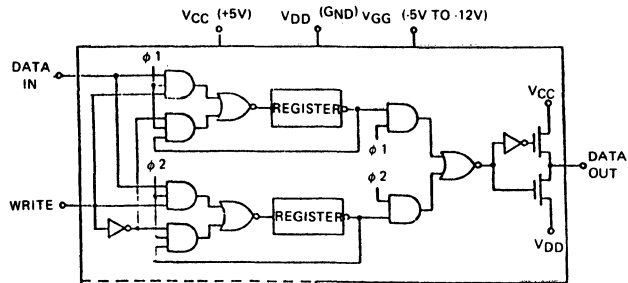
[Empty box]

[Empty box]

F142



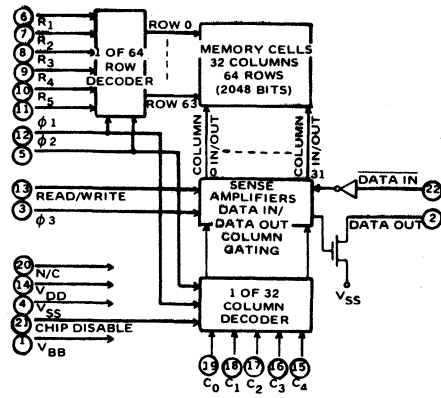
F147



	PKG	DATA IN				DATA OUT				CLOCK	WRITE	VCC	VGG	VDD
		1	2	3	4	1	2	3	4					
F147	ML	3	6	9	12	2	7	8	14	4	13	1	6	10
F147a	CN	3	NC	NC	NC	5	NC	NC	NC	10	2	1	9	8
F147b	CN	3	6	NC	NC	4	5	NC	NC	10	2	1	9	8
F147c	ML	6	NC	NC	NC	8	NC	NC	NC	2	4	1	14	13
F147d	ML	6	9	NC	NC	7	8	NC	NC	2	4	1	14	13

[Empty box]

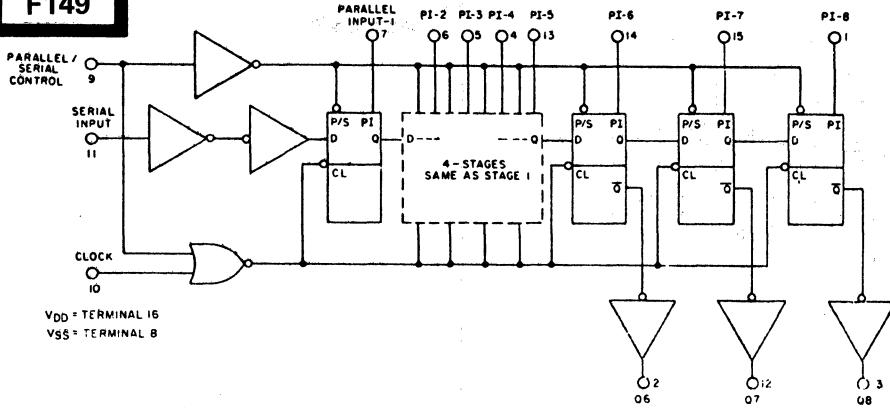
F148



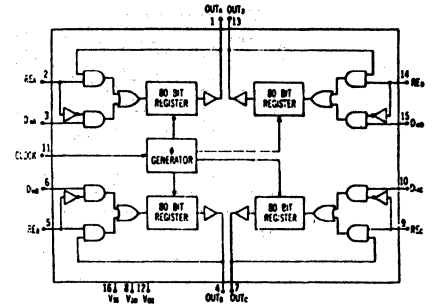
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

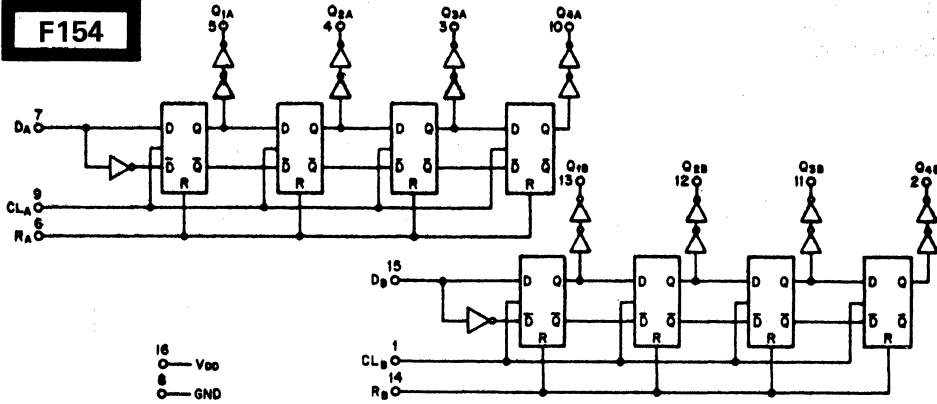
F149



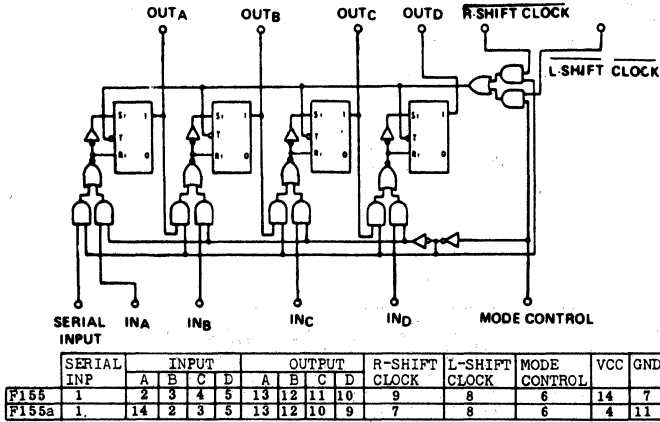
F152



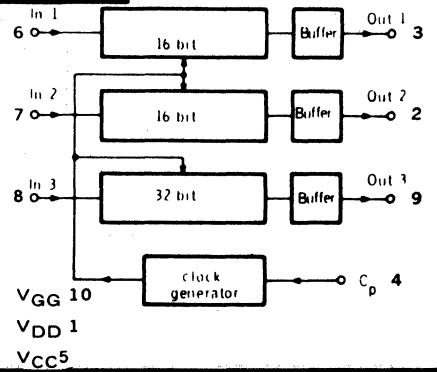
F154



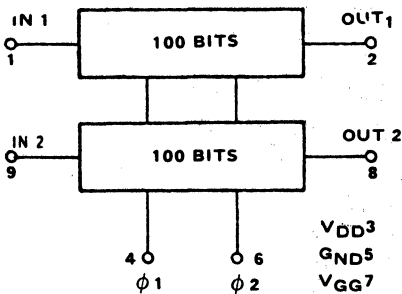
F155



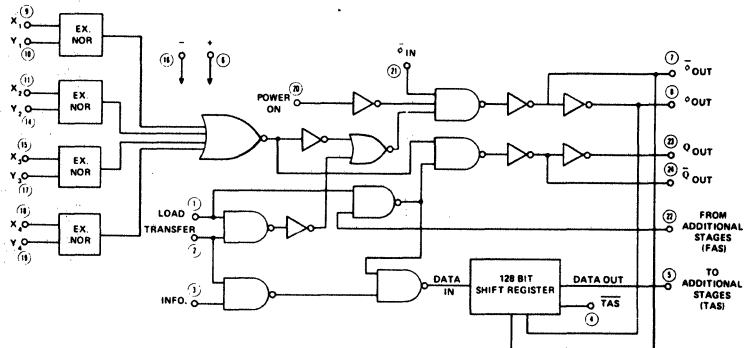
F163



F164



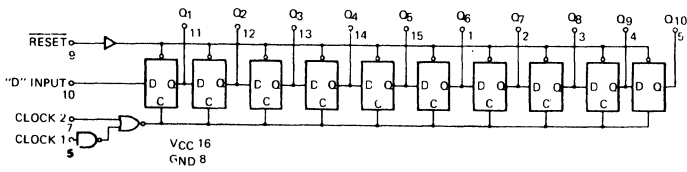
F165



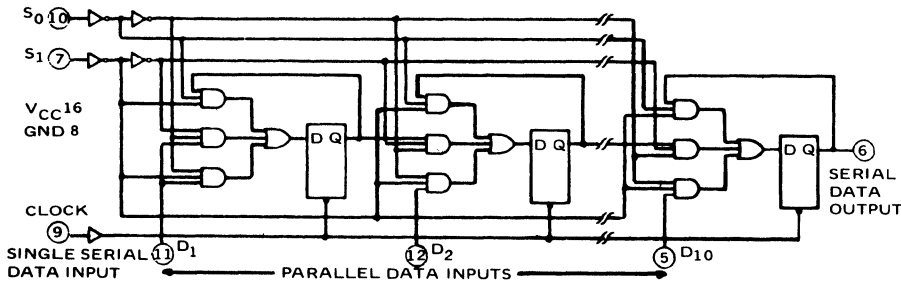
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

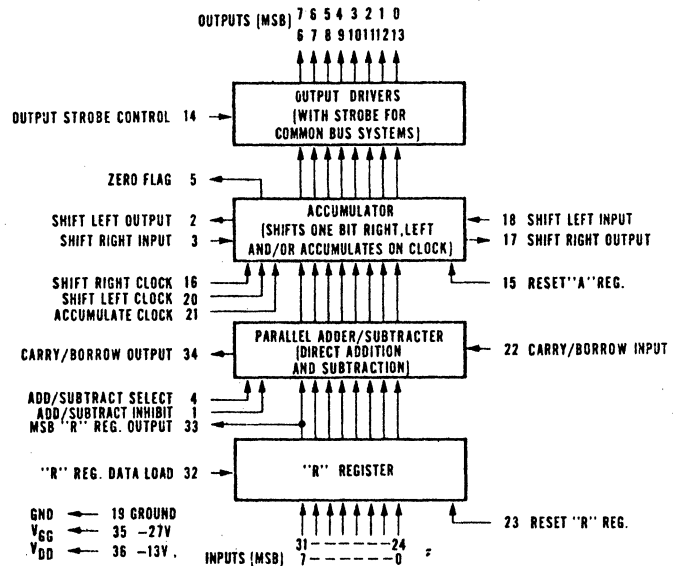
F167



F168



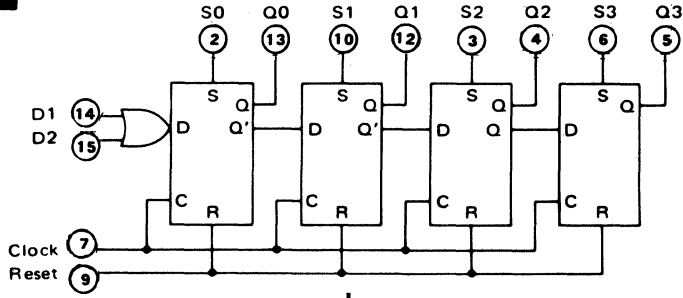
F171



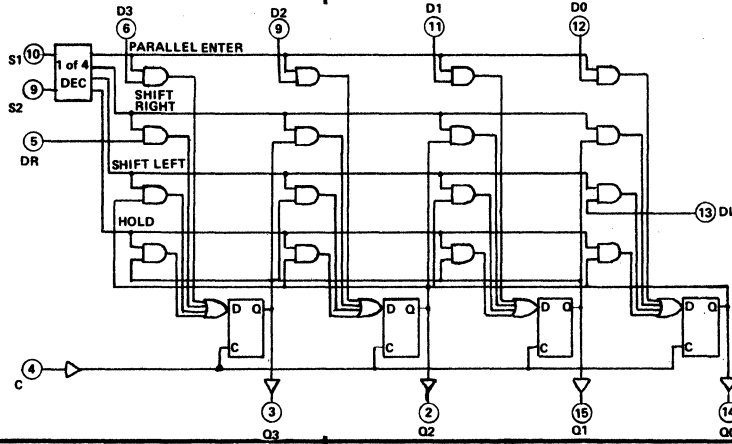
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

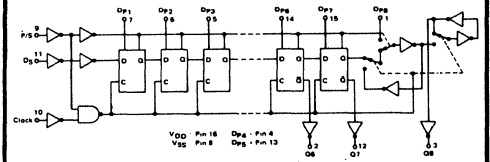
F173



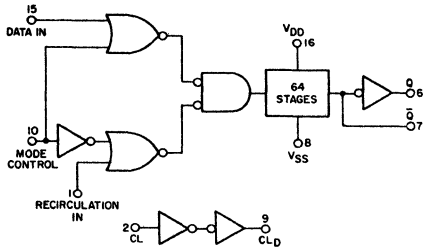
F174



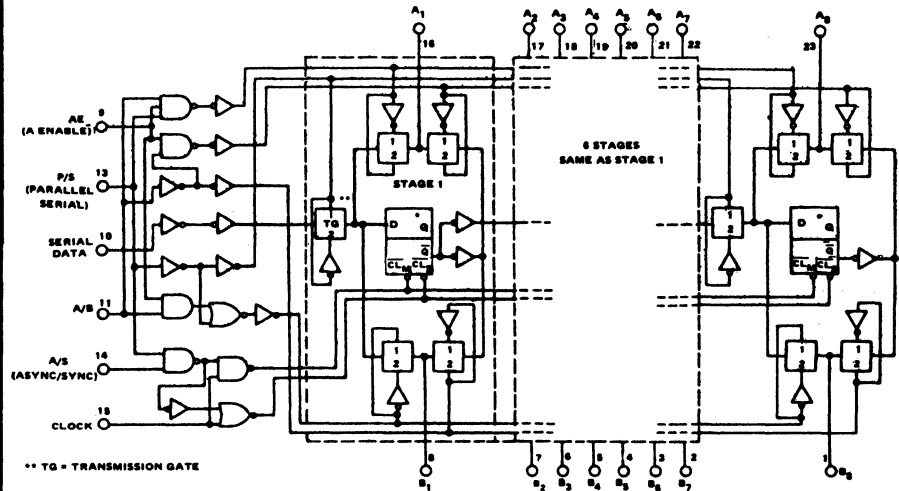
F175



F176

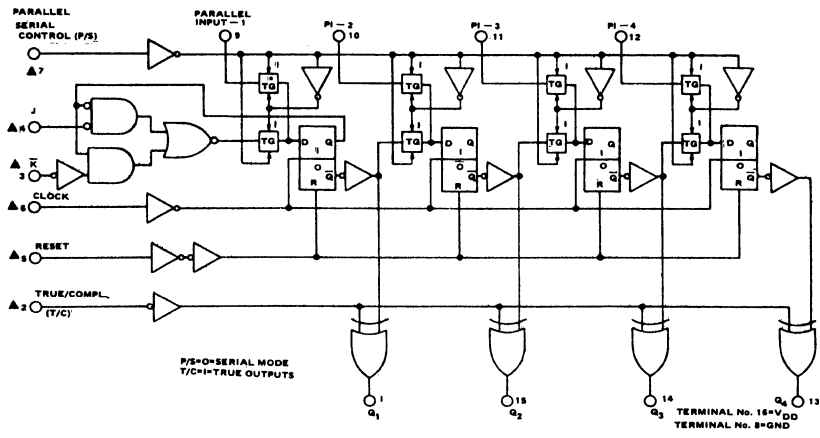


F177

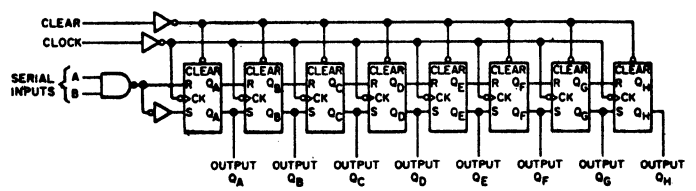
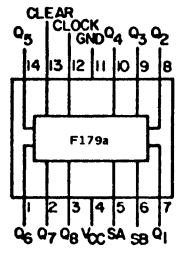
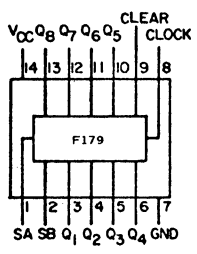


22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

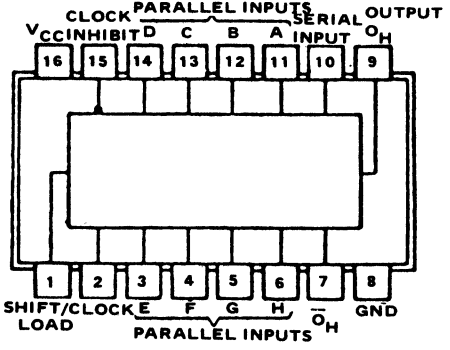
F178



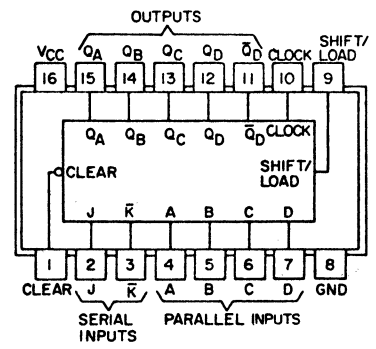
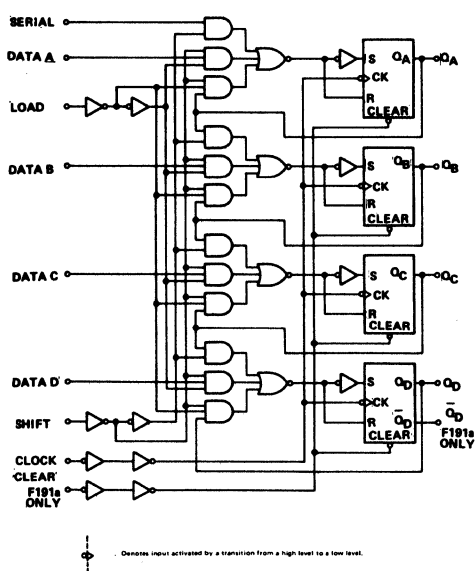
F179



F180



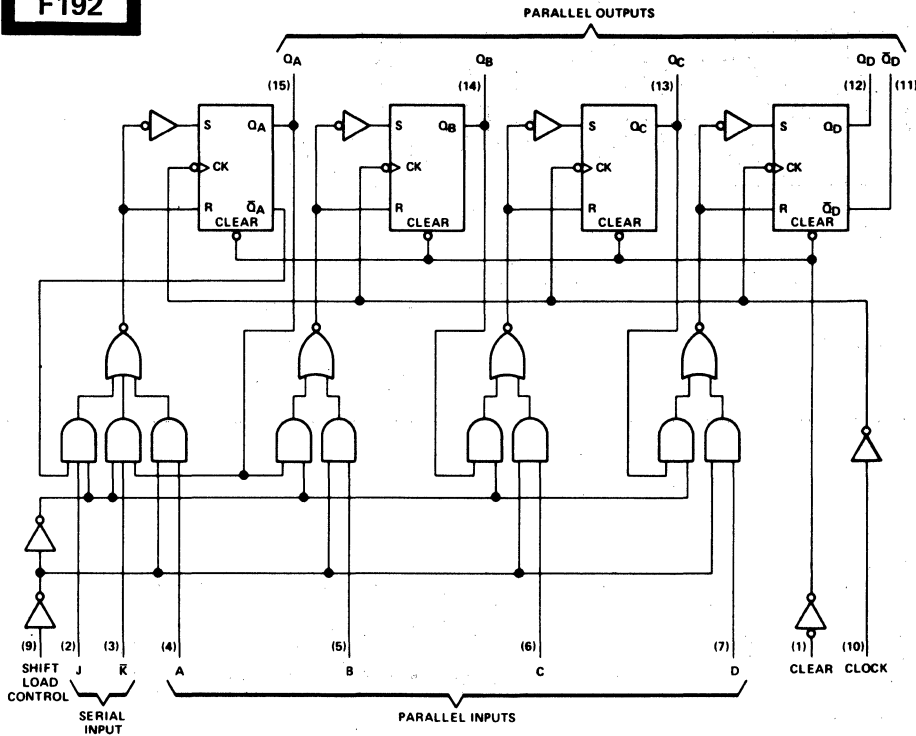
F191



22. LOGIC/BLOCK DRAWINGS

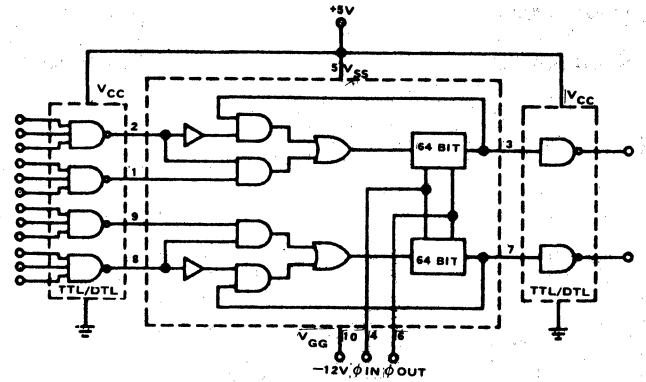
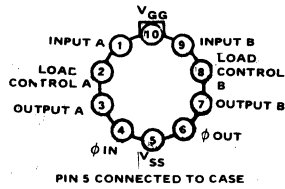
IN DRAWING NUMBER SEQUENCE

F192

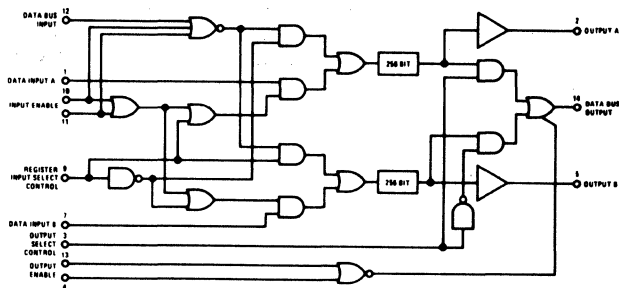


	DATA				SERIAL		OUTPUT								
	A	B	C	D	IN	SHIFT	CK	A	B	C	D	LOAD	VCC	GND	
F192	2	1	13	12	3	11	5	4	6	8	10	NA	9	14	7
F192a	3	2	15	14	4	13	6	5	7	9	11	12	10	16	8

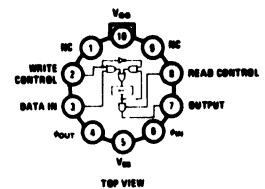
F193



F195



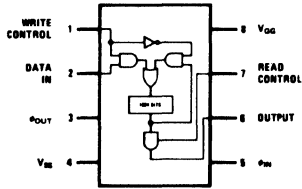
F196



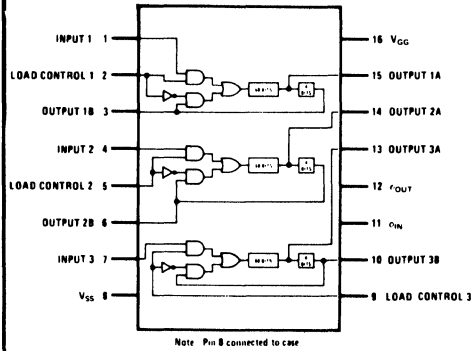
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

F197

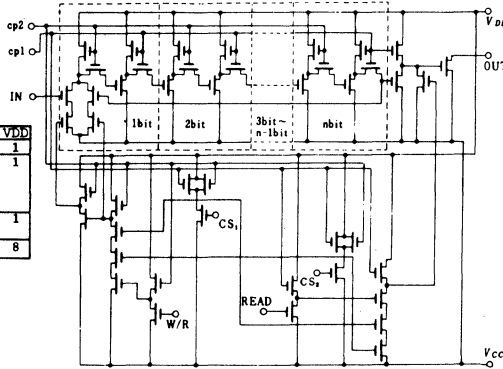


F198

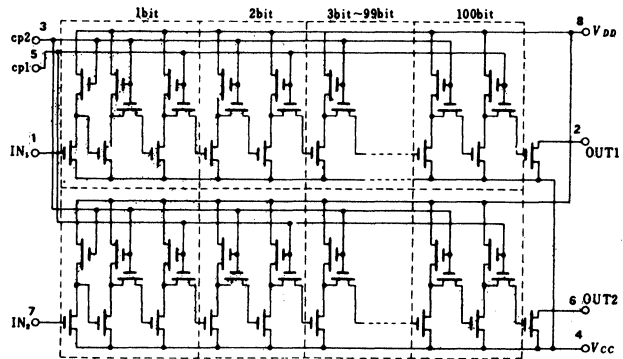


F204

	CKT NO.	IN	CP1	CP2	CS1	CS2	READ	W/R	OUT	VCC	VDD
F204	1	5	6	11	2	16	13	4	12	8	1
F204a	1	11	9	15			2	7	10	8	1
	2	14							12		
	3	4							3		
	4	6							5		
F204b	1	6	9	15			2	7	3	8	1
	2	14							10		
F204c	1	2	5	8			1	3	6	4	8

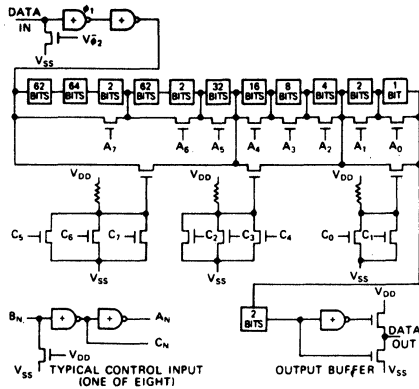


F205



F208

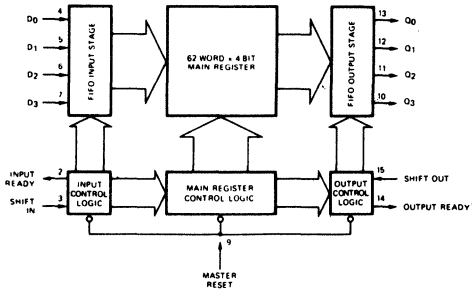
PIN	FUNCTION
1	B6
2	B7
3	B5
4	B3
5	B2
6	B4
7	B1
8	B0
9	DATA IN
10	OUT 2-257
11	VGG
12	O1
13	O2
14	VSS



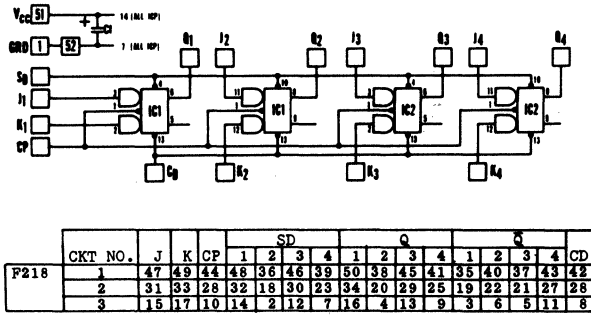
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

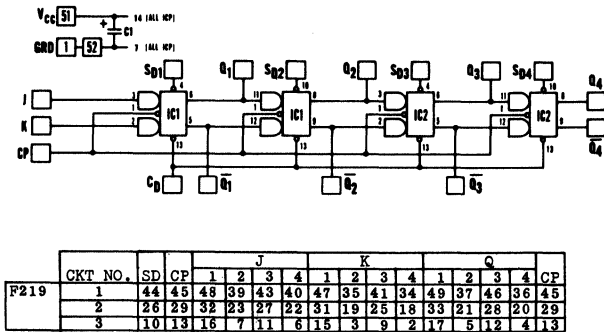
F209



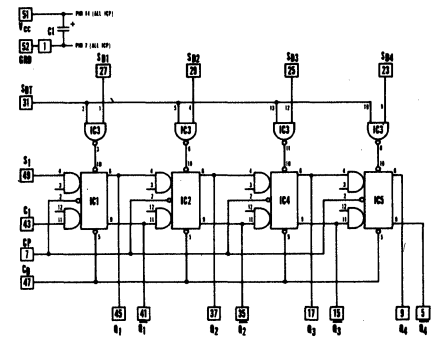
F218



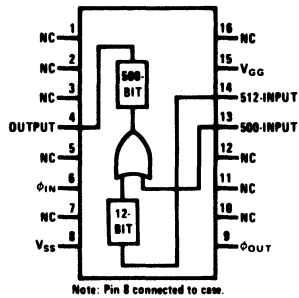
F219



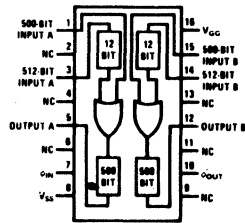
F220



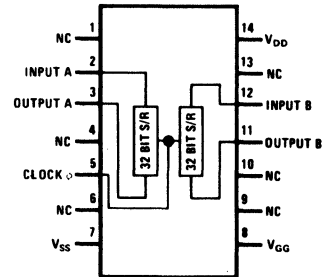
F223



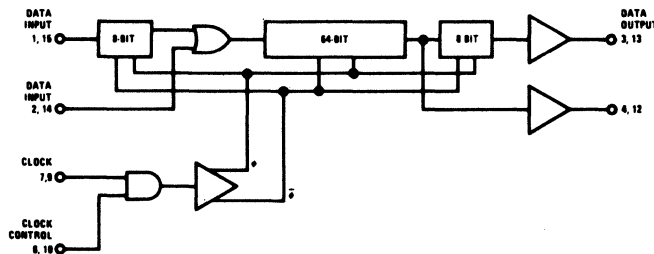
F225



F226



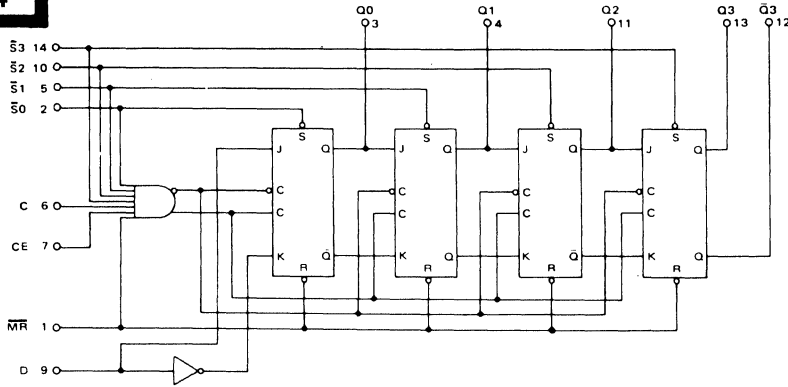
F227



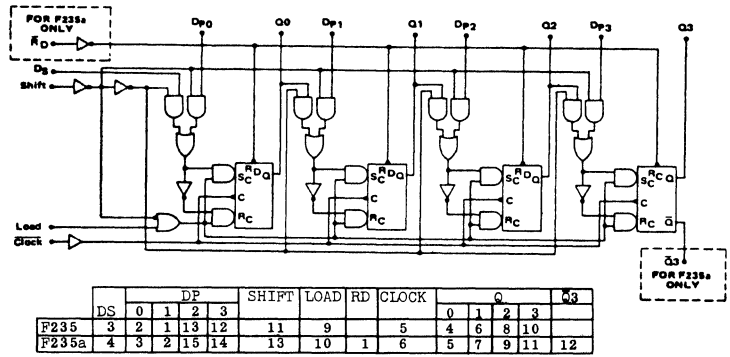
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

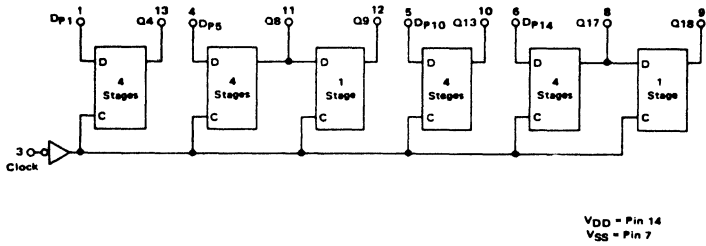
F234



F235

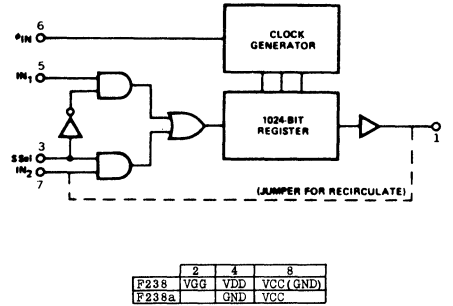


F236

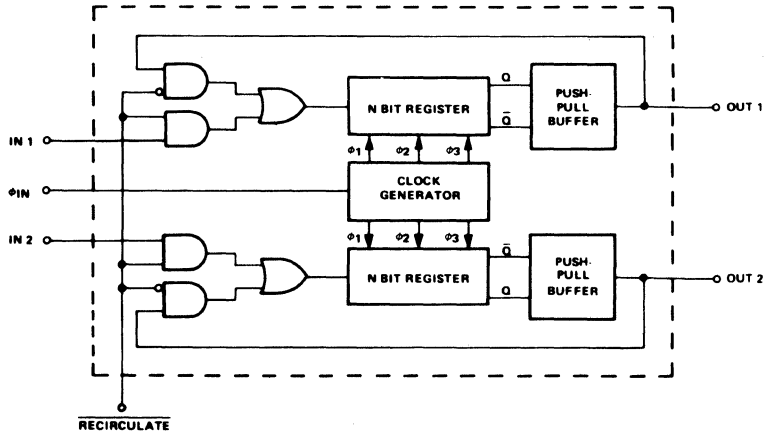


VDD = Pin 14
VSS = Pin 7

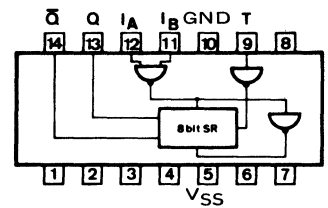
F238



F240



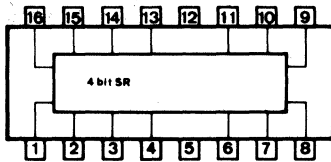
F242



22. LOGIC/BLOCK DRAWINGS

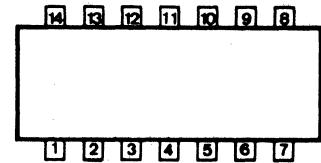
IN DRAWING NUMBER SEQUENCE

F243



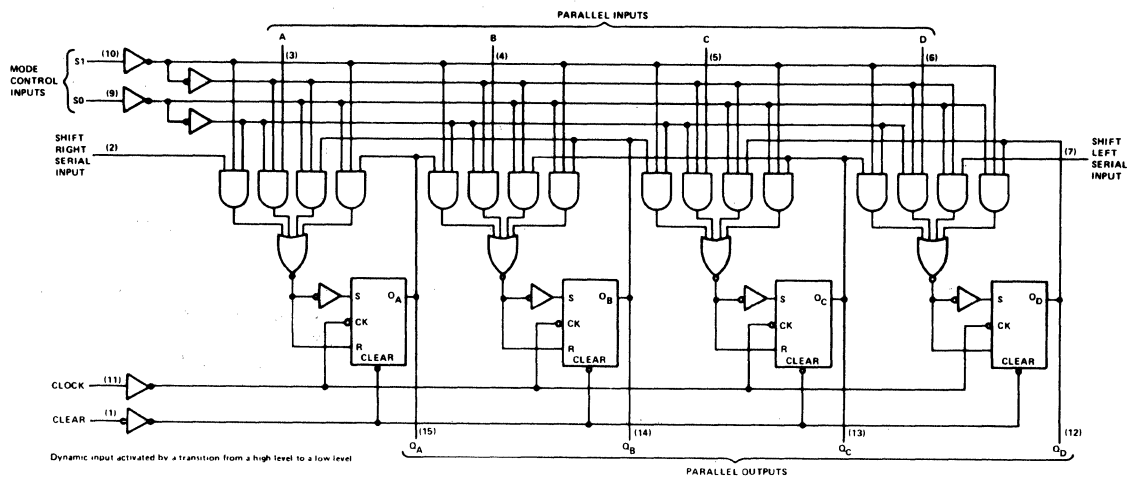
		PIN NUMBERS															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F243	IA1	IB1	IC1	ID1	VSS	SI	ST	T	Q	R	ID2	Gnd	IC2	IB2	S2	IA2	
F243a	T	IA	IB	IC	VSS	ID	IE	S	ST	Q	QD	Gnd	QC	QB	QS	H	
F243b	CLEAR	J	K	A	B	C	L	GND	SHIFT/LOAD	CLOCK	QD	QD	QC	QB	QA	VCC	

F244

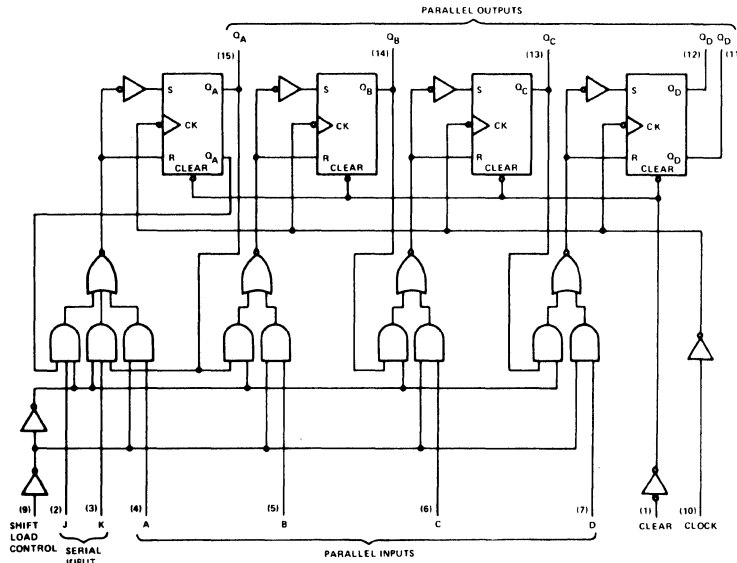


		PIN NUMBERS													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
F244	S1	IA	IB	IC	ID	BA	GND	TSL	TSR	QA	QB	QC	QD	VSS	
F244a	A	B	CA	CB	CC	CD	GND	CLOCK	CLR	QE	QF	QG	QH	VCC	

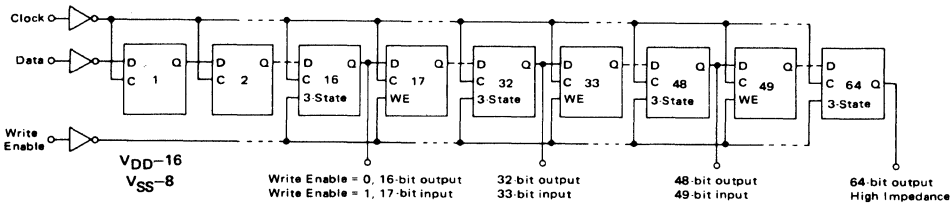
F245



F246

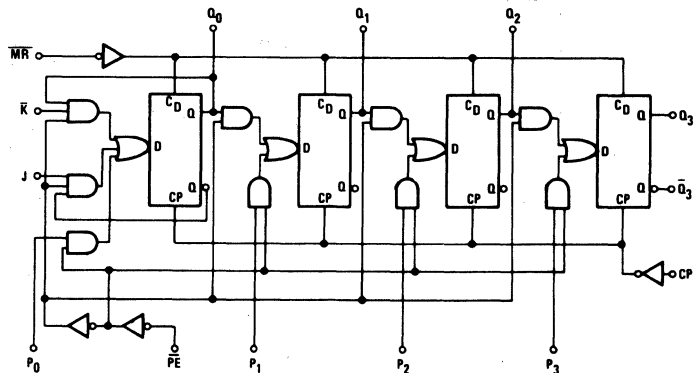


F248



	CKT	CLOCK	16OUT/17IN	48OUT/49IN	WE	64OUT	32OUT/33IN	DATA
F248	1	4	1	2	3	5	6	7
	2	12	15	14	13	11	10	9

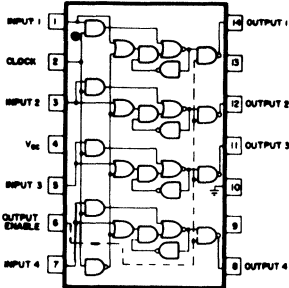
F249



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

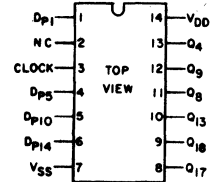
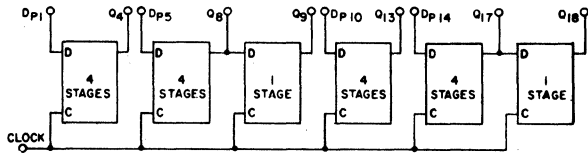
F250



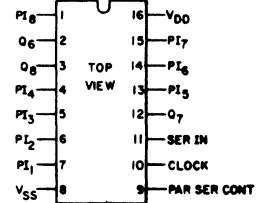
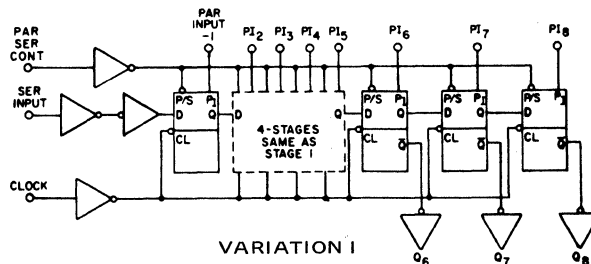
F250—TWO 5K PULLUP RESISTORS ARE PROVIDED IN THE PACKAGE AND ARE INTERNALLY CONNECTED TO V_{CC} AND BROUGHT OUT ON PINS 9 AND 13.

F250a—OUTPUT ENABLE AND ALL CONNECTIONS EXCLUDED. (DOTTED LINE PORTION.)

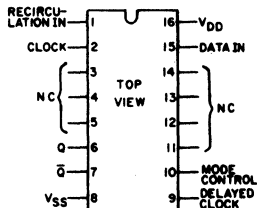
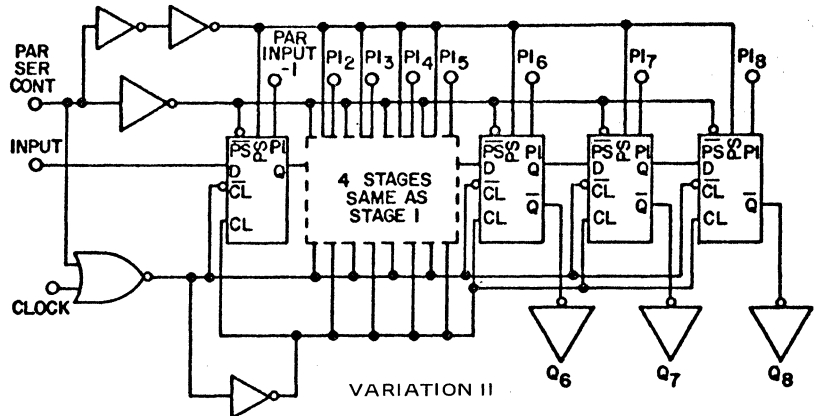
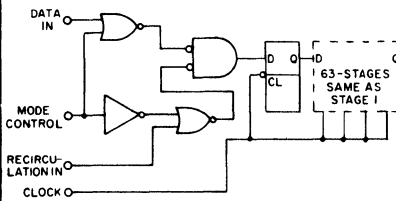
F251



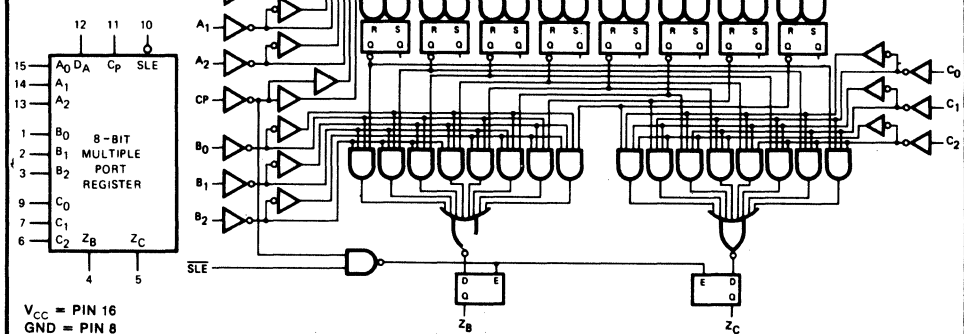
F252



F253



F254

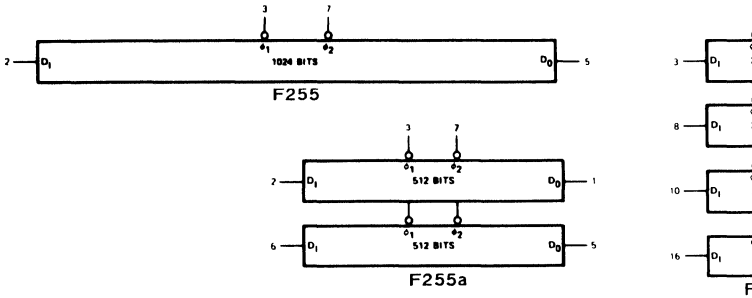


V_{CC} = PIN 16
 GND = PIN 8

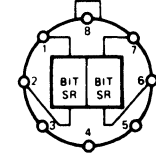
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

F255

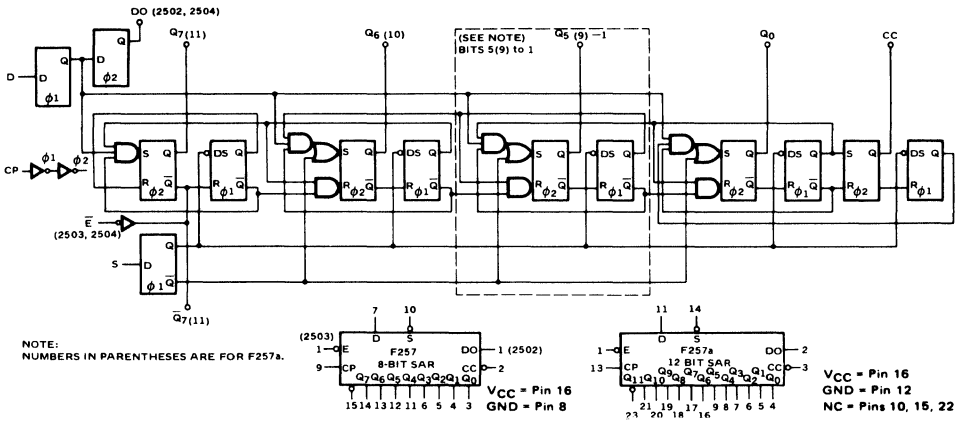


F256

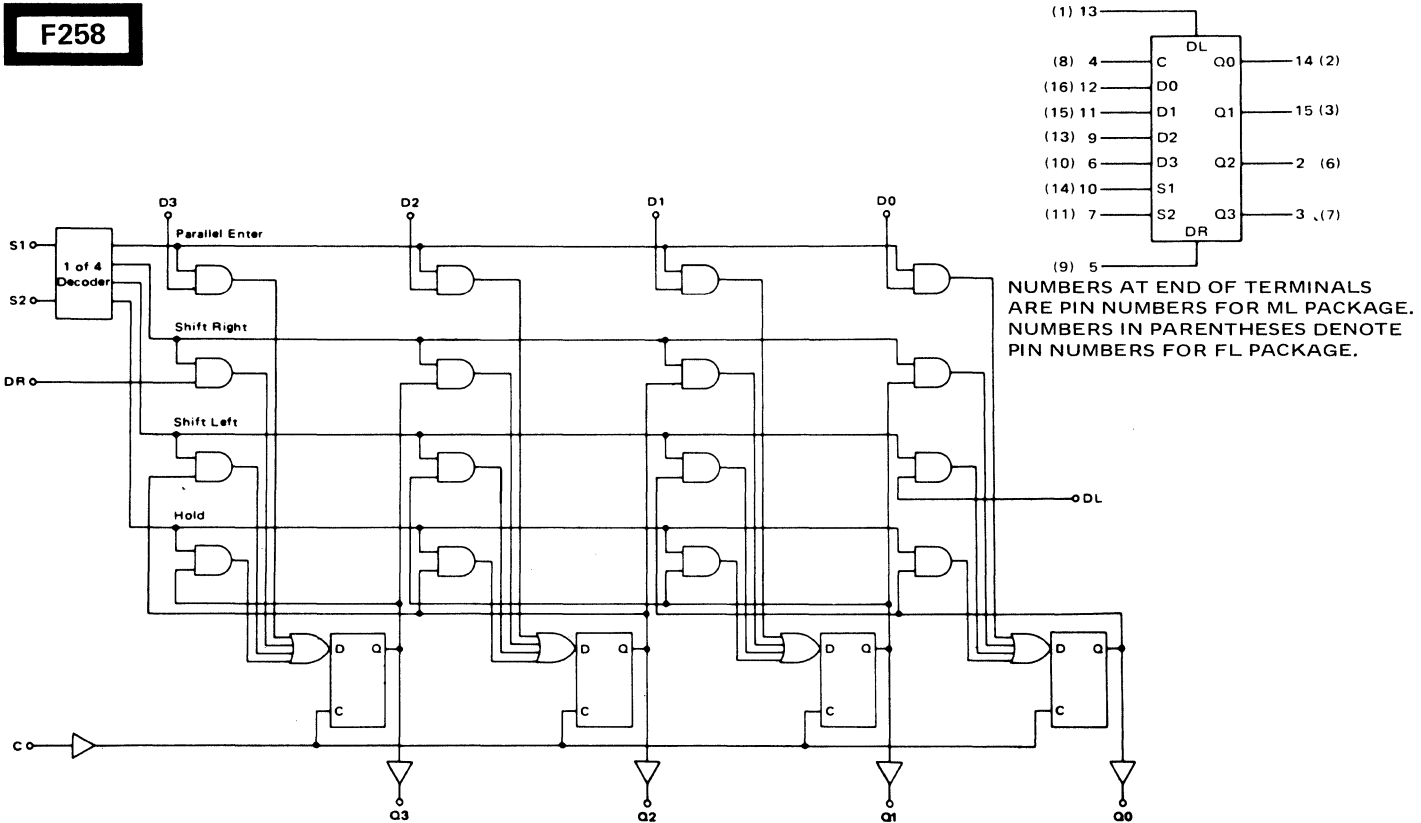


PIN NUMBERS								
1	2	3	4	5	6	7	8	
F256	Inp1	OUTP1	Q2	VCC	Q1	OUTP2	Inp2	VDD
F256a	Inp1	OUTP1	V0	VSS	VGG	OUTP2	Inp2	VDD

F257



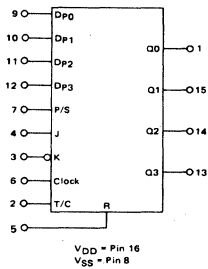
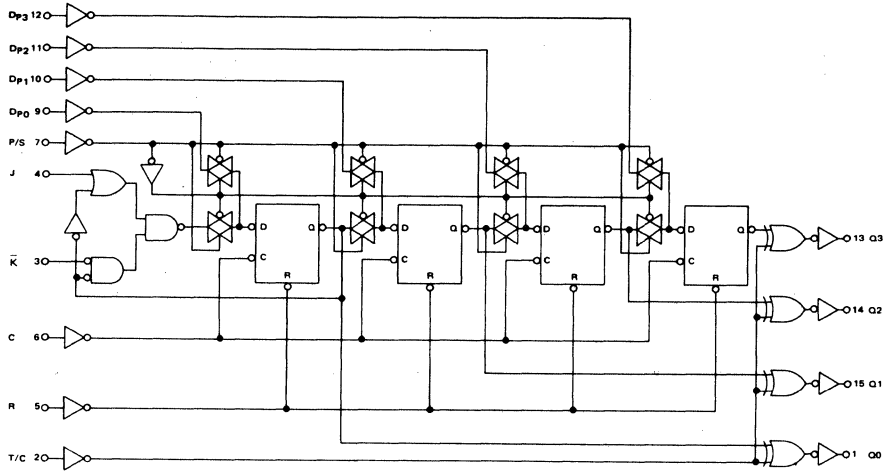
F258



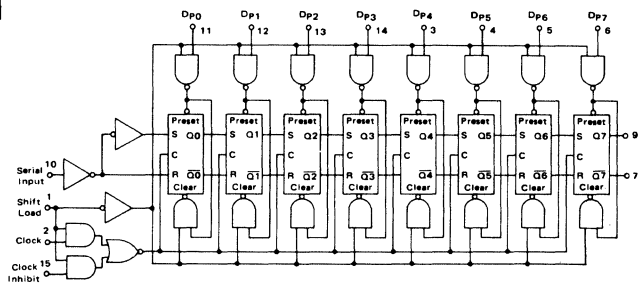
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

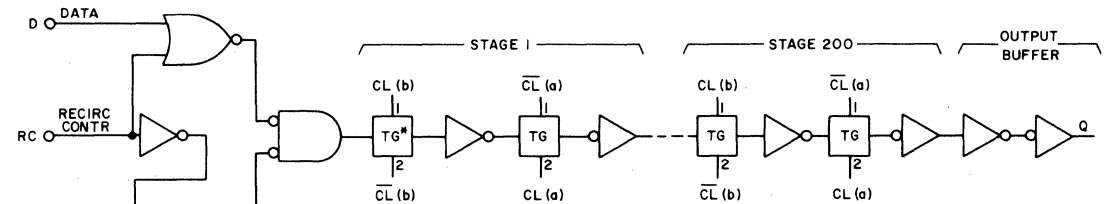
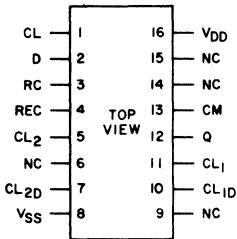
F259



F261



F262



* TRANSMISSION GATE INPUT TO OUTPUT IS:
 (a) A BIDIRECTIONAL LOW IMPEDANCE WHEN CONTROL INPUT IS "LOW" AND CONTROL INPUT 2 IS "HIGH"
 (b) AN OPEN CIRCUIT WHEN CONTROL INPUT 1 IS "HIGH" AND CONTROL INPUT 2 IS "LOW"

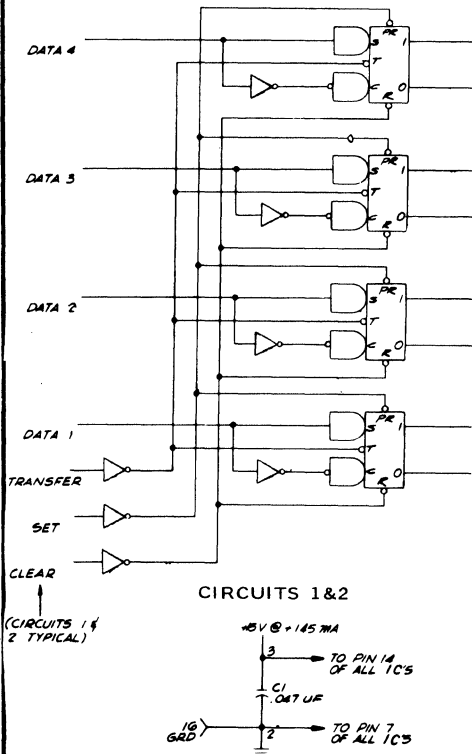
CL (a) = INTERNAL CLOCK IN PHASE WITH CL₁
 CL (b) = INTERNAL CLOCK IN PHASE WITH CL₂

CL₁ = PHASE 1 OF 2-PHASE CLOCK
 CL_{1D} = DELAYED CL₁
 CL₂ = PHASE 2 OF 2-PHASE CLOCK
 CL_{2D} = DELAYED CL₂

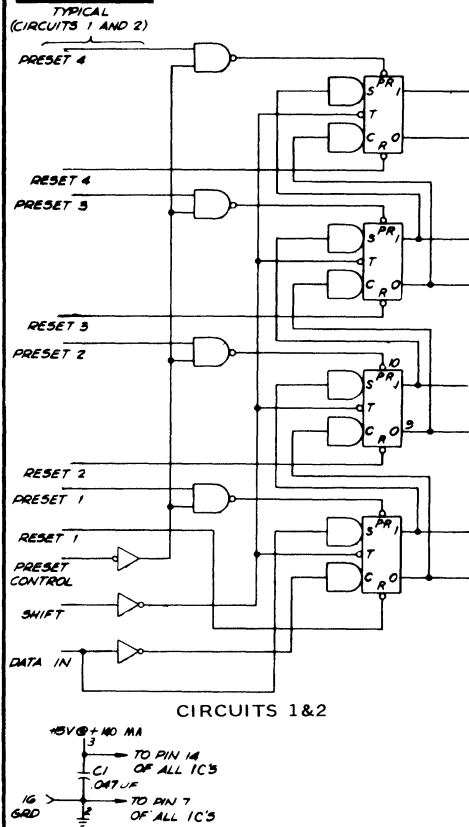
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

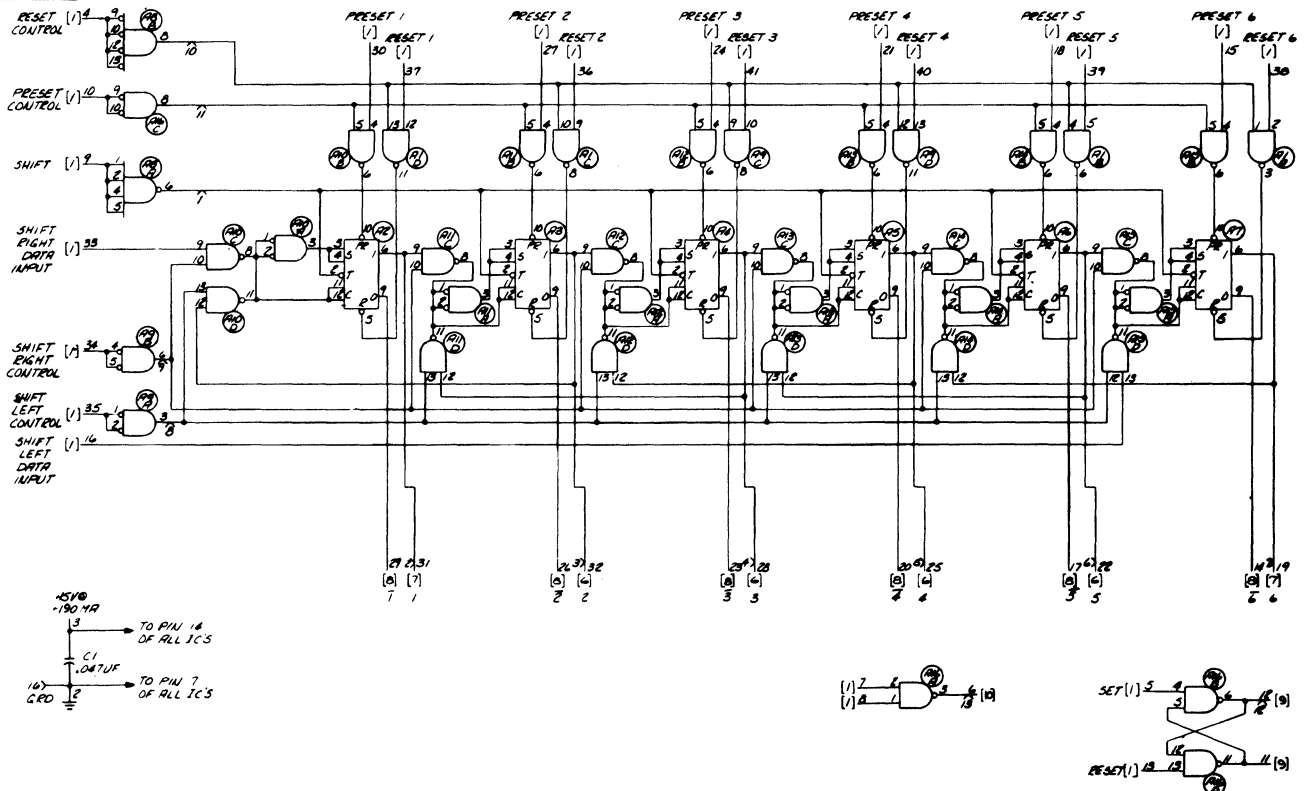
F263



F264



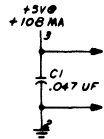
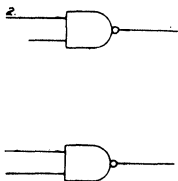
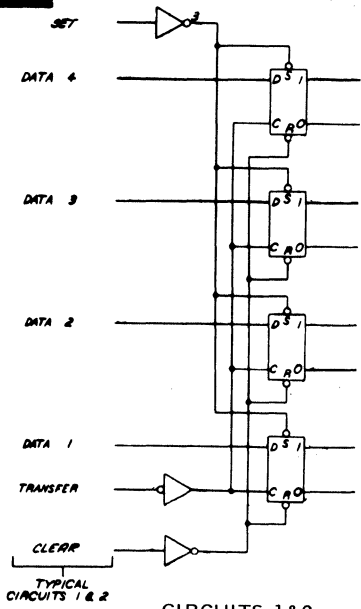
F265



22. LOGIC/BLOCK DRAWINGS

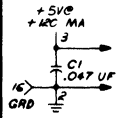
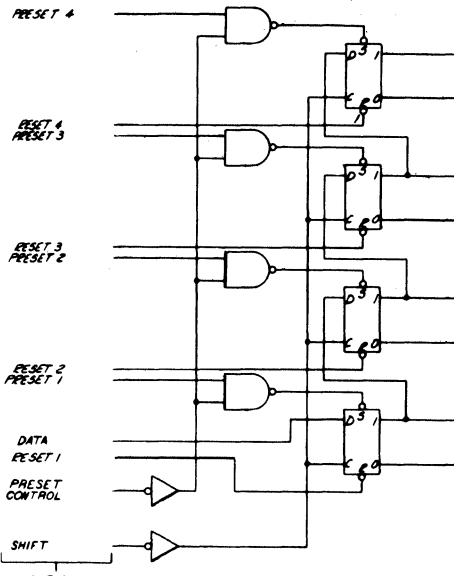
IN DRAWING NUMBER SEQUENCE

F266



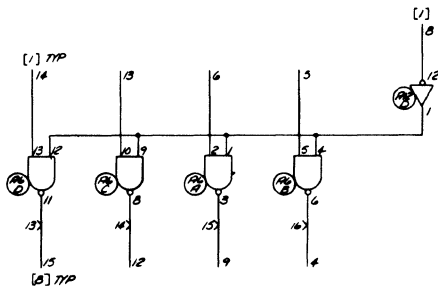
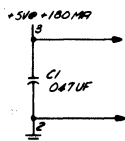
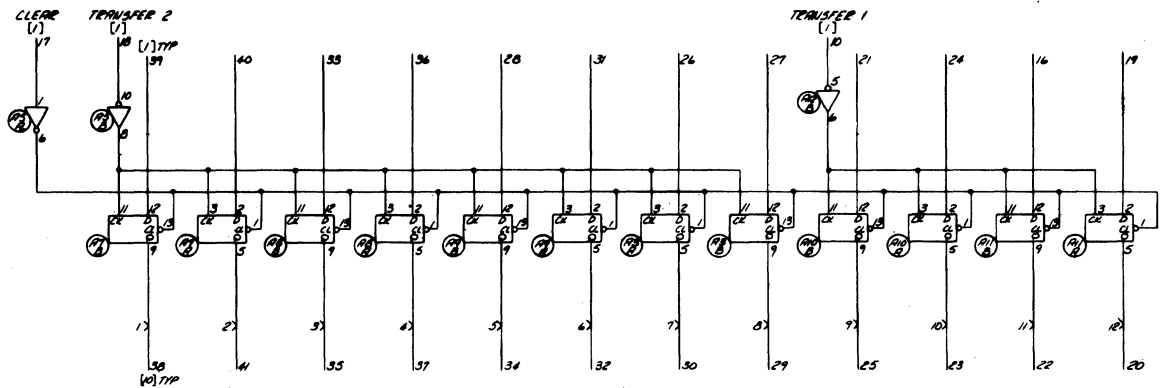
CIRCUITS 1 & 2

F267



CIRCUITS 1 & 2

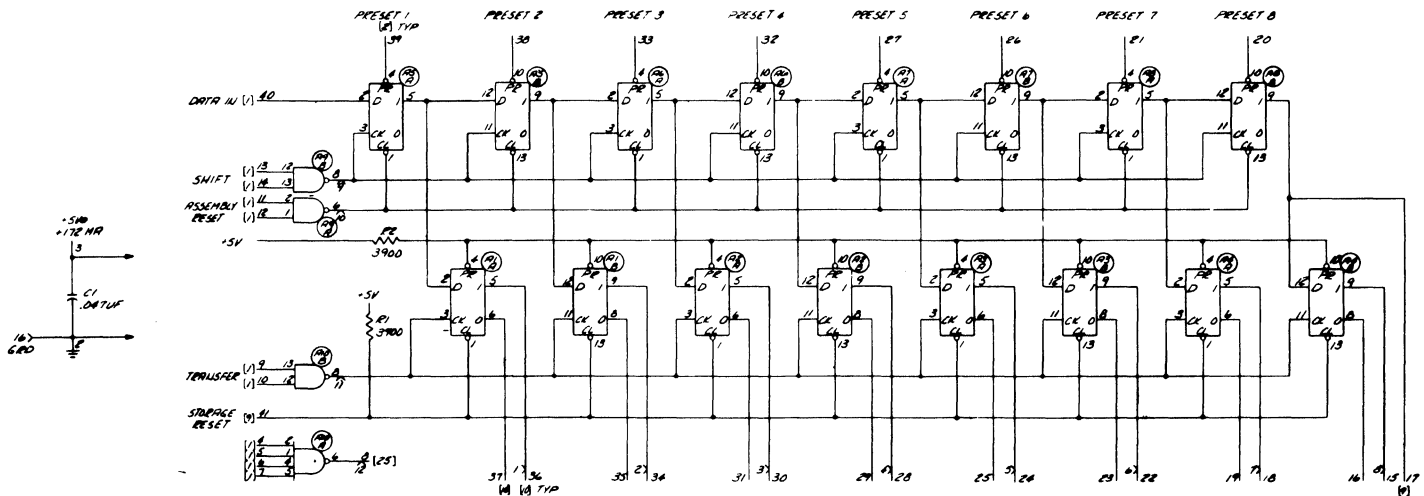
F268



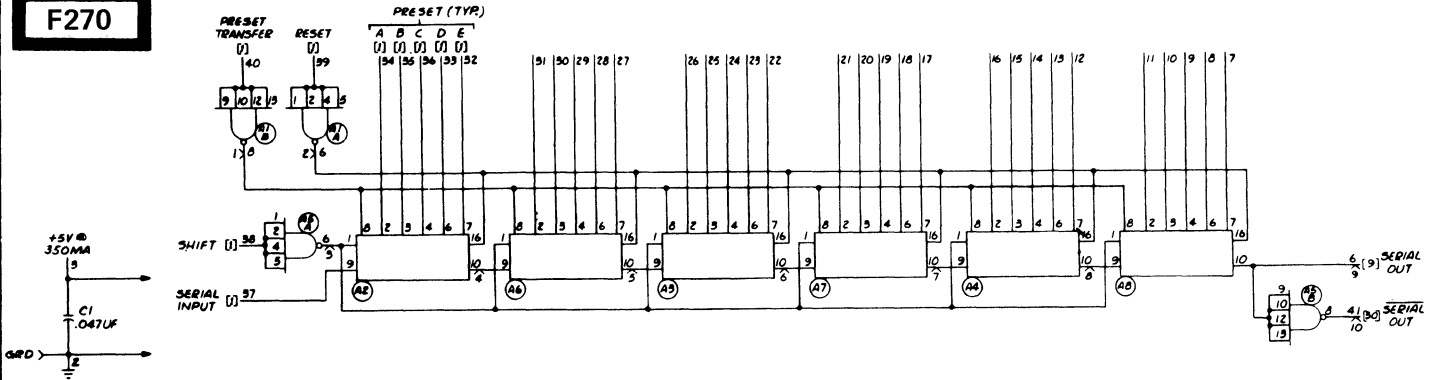
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

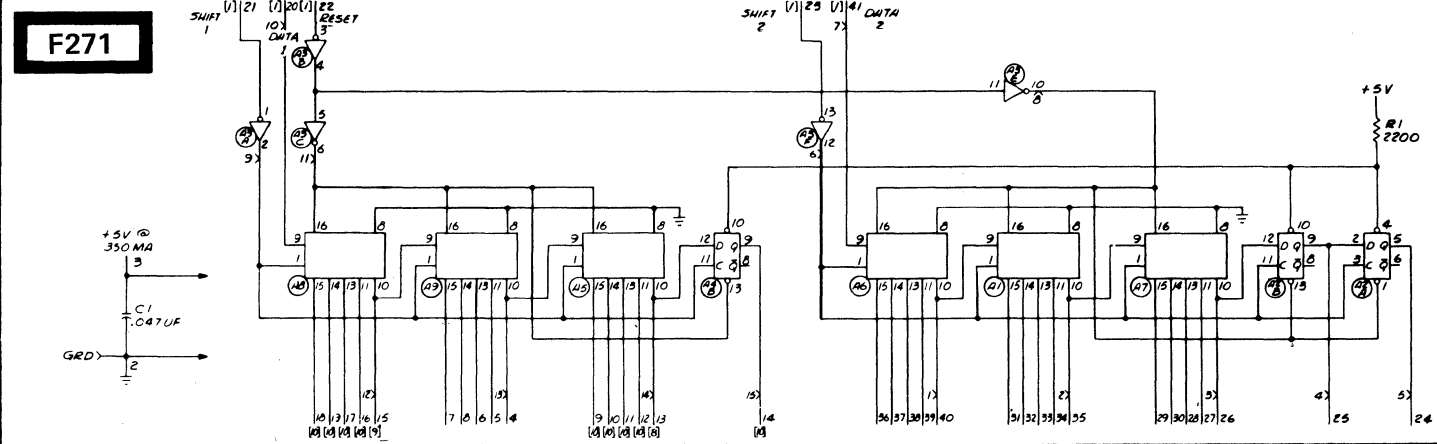
F269



F270



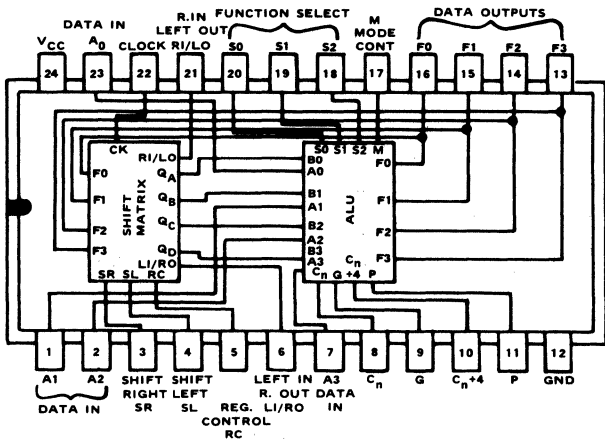
F271



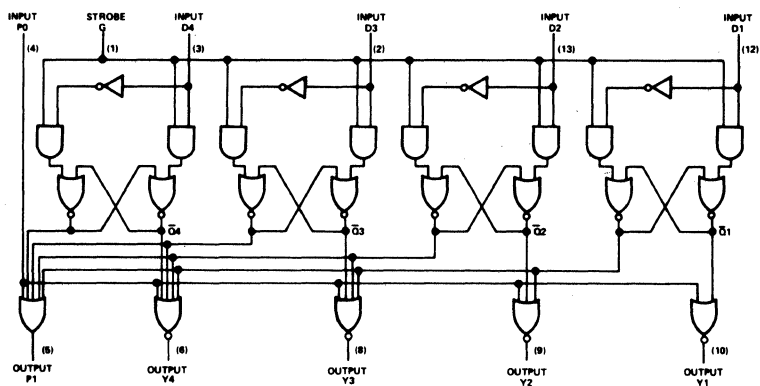
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

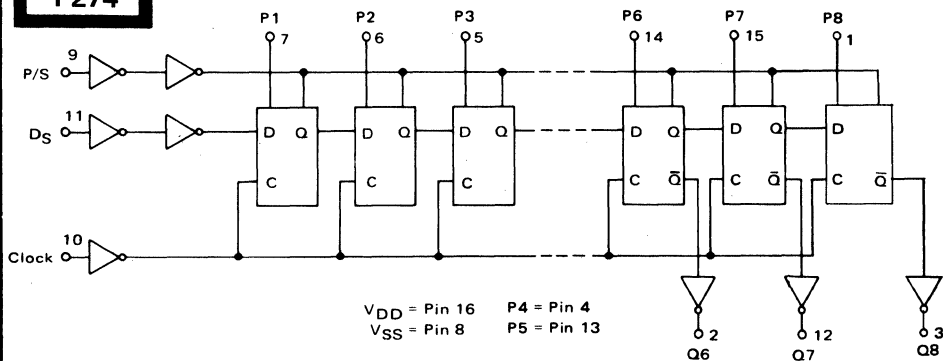
F272



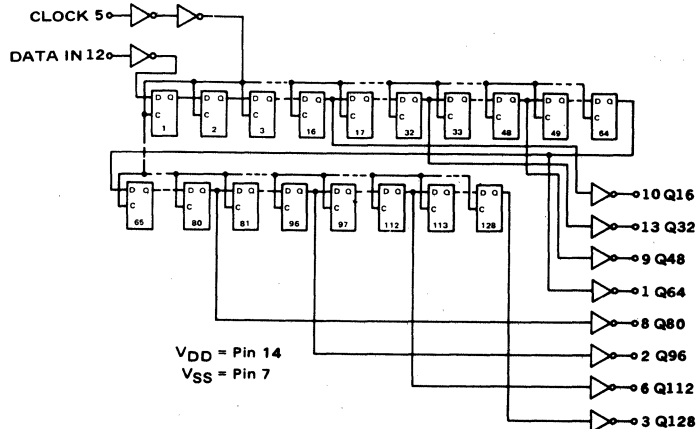
F273



F274



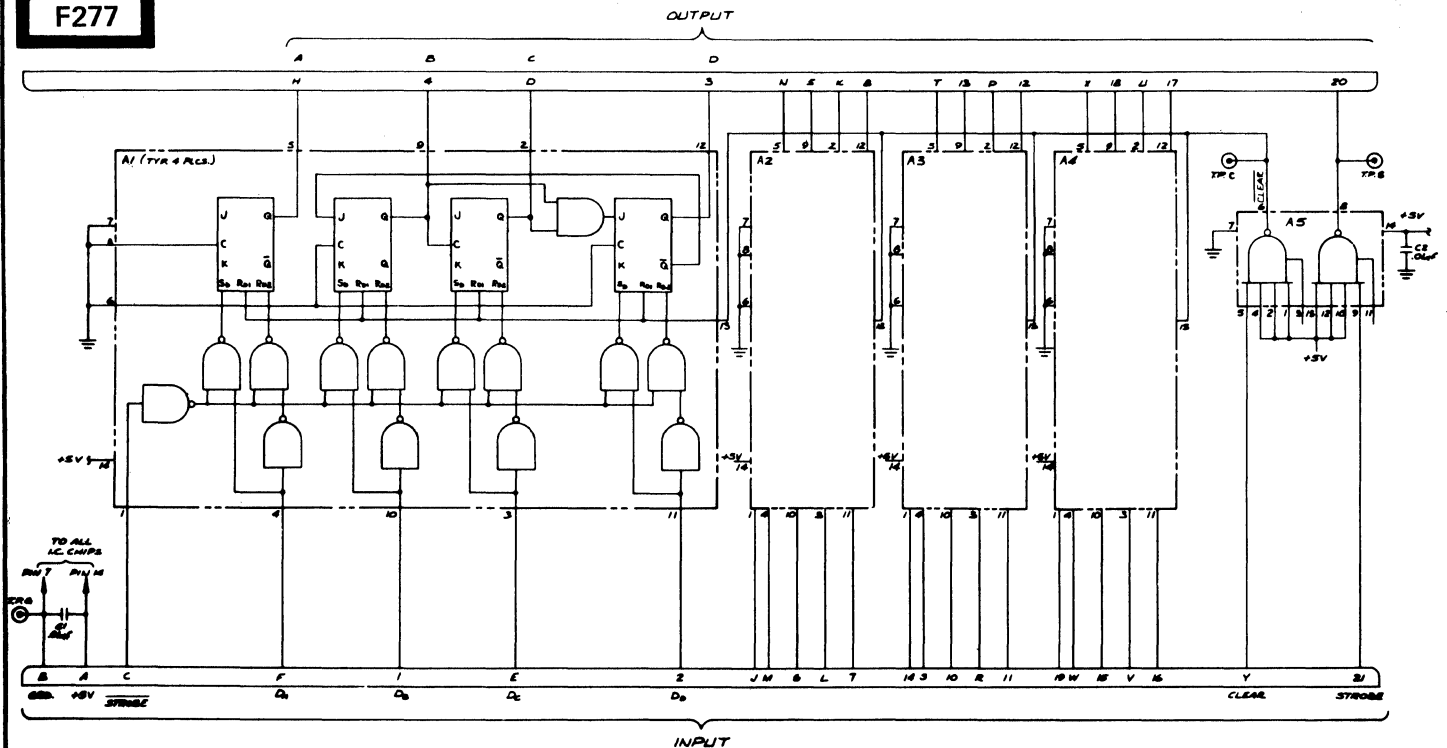
F275



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

F277



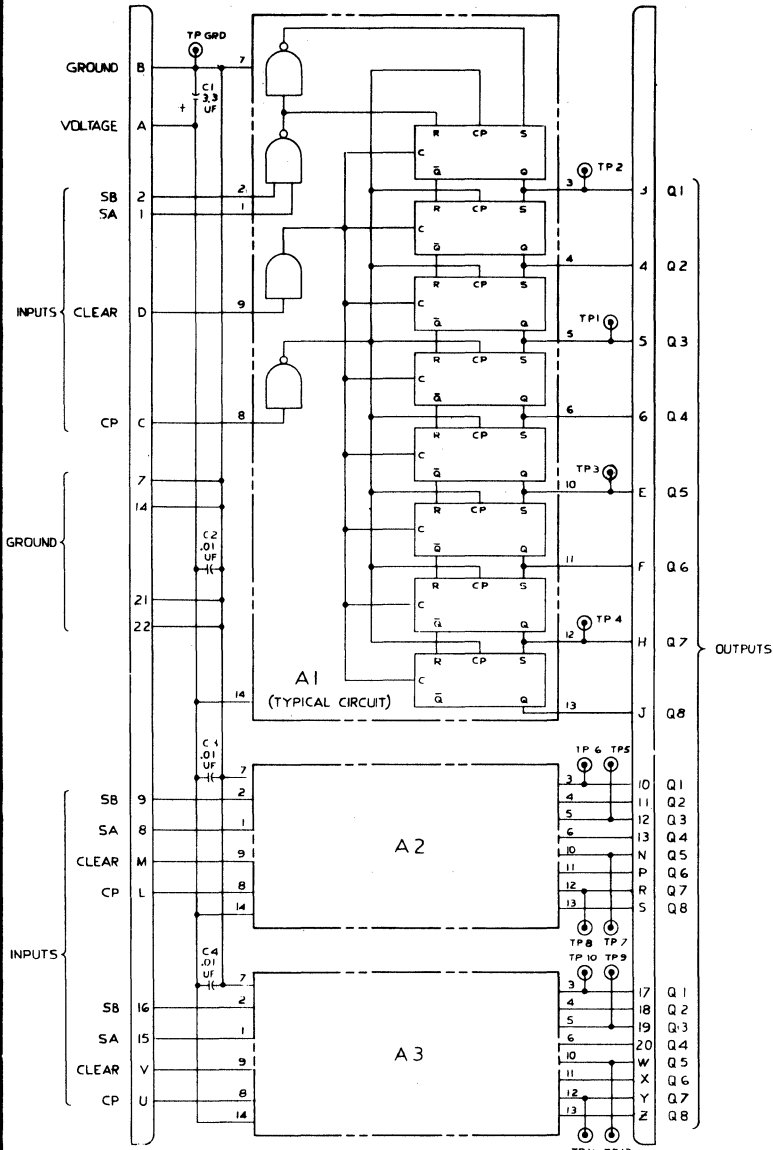
NOTES:
 1- IC CHIPS A1 THRU A4 ARE BINNED
 N B80A (DECADE COUNTER/STORAGE REGISTER).
 2- I.C. CHIP A5 IS D.T.C. NO. 01492-010 (DUAL 4 POWER NAND)

<div style="border: 2px solid black; width: 50px; height: 20px; margin: 5px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin: 5px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin: 5px;"></div>
<div style="border: 2px solid black; width: 50px; height: 20px; margin: 5px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin: 5px;"></div>	<div style="border: 2px solid black; width: 50px; height: 20px; margin: 5px;"></div>

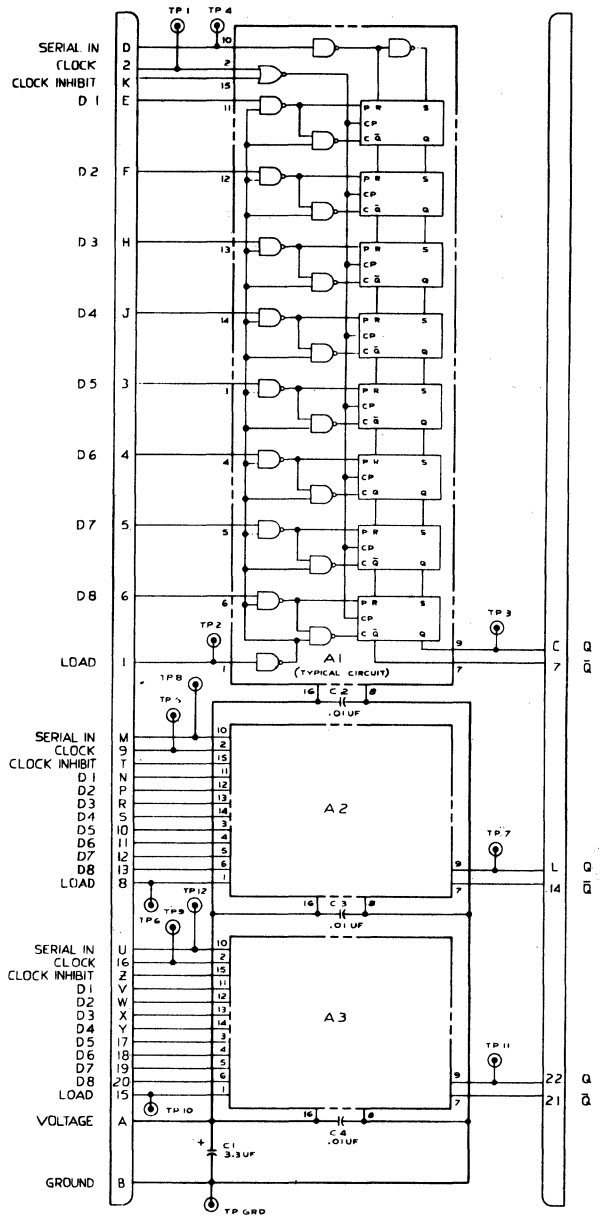
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

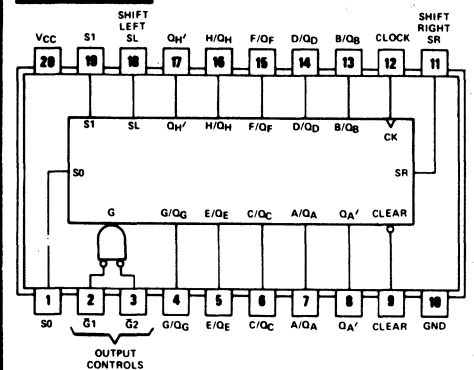
F278



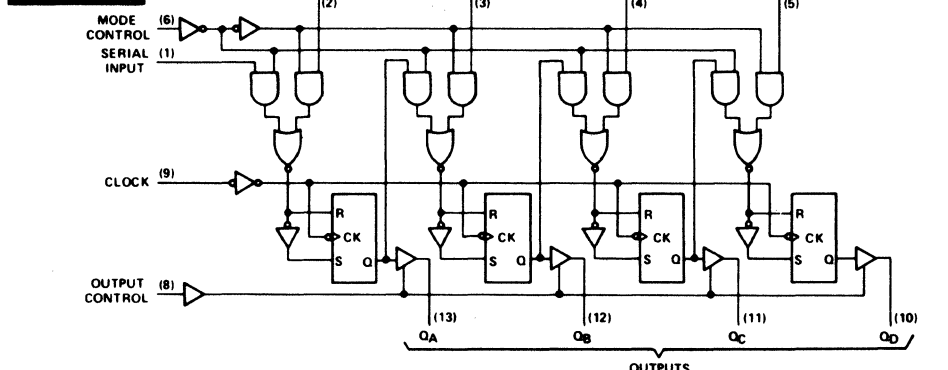
F279



F281



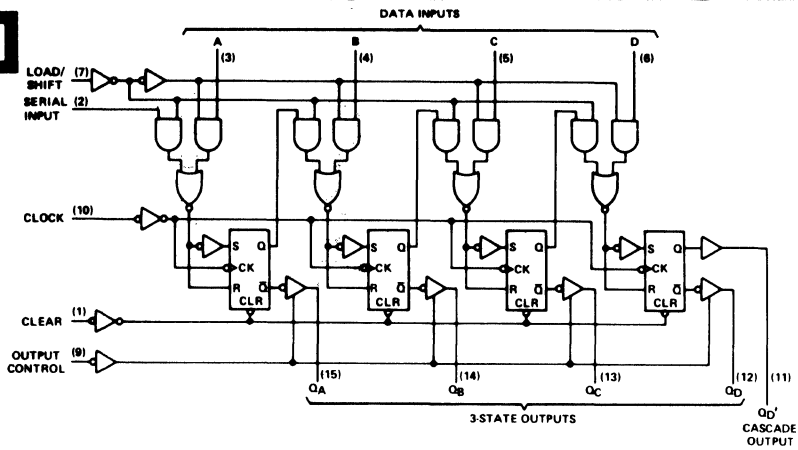
F282



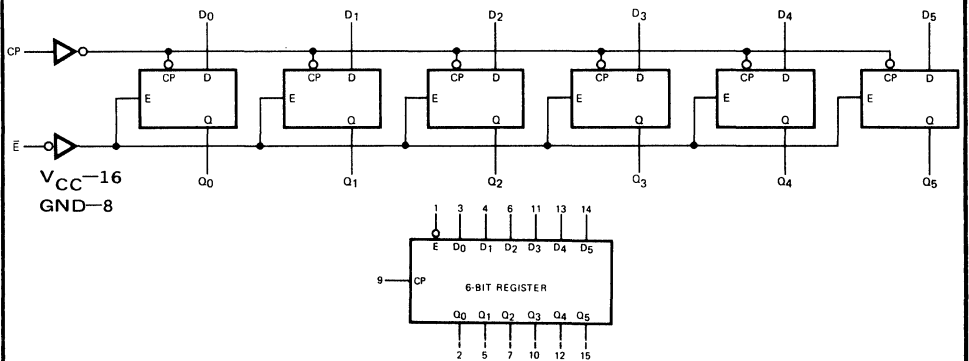
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

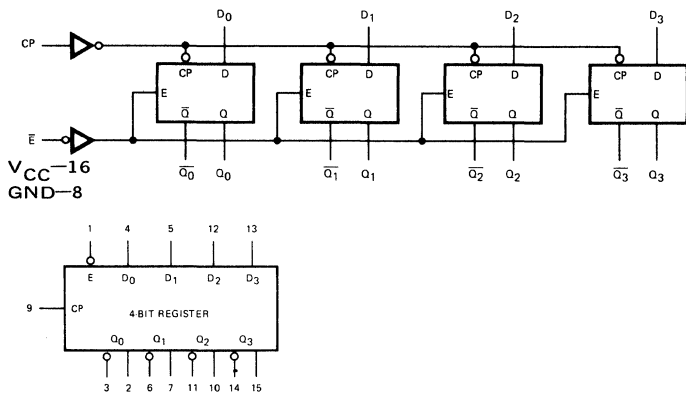
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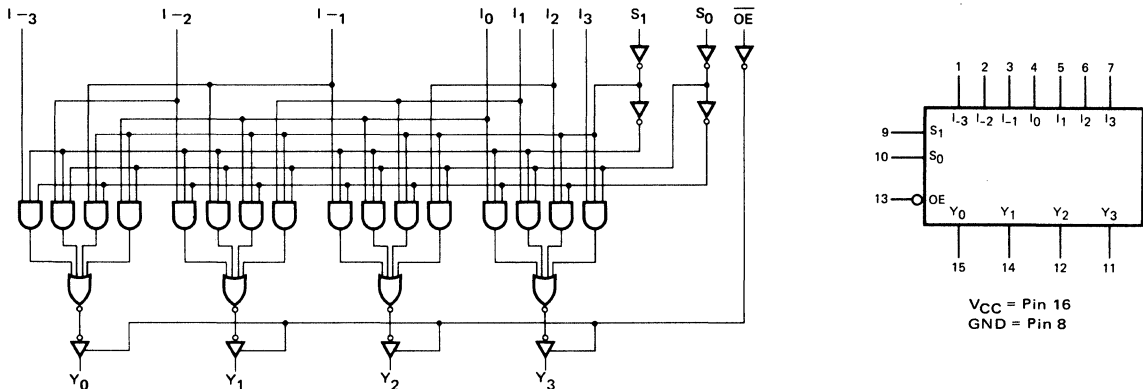
F284



F285



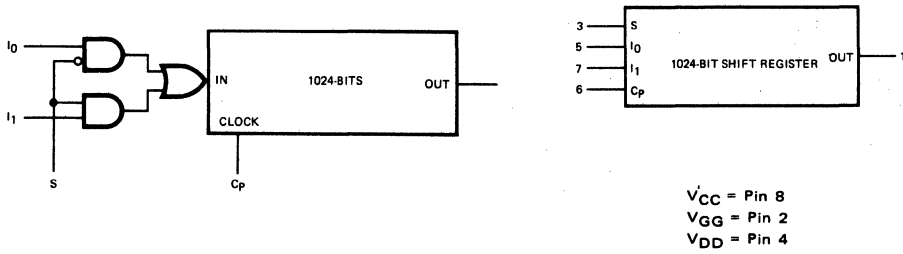
F286



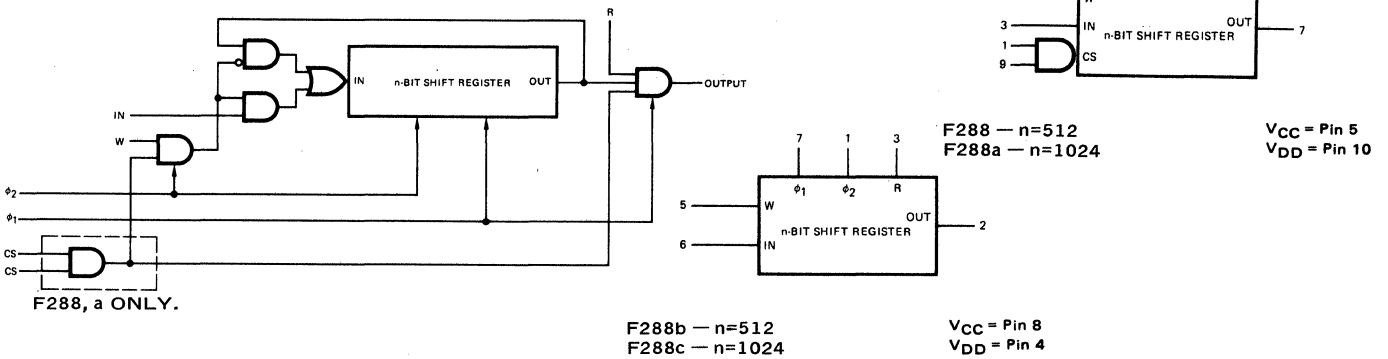
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

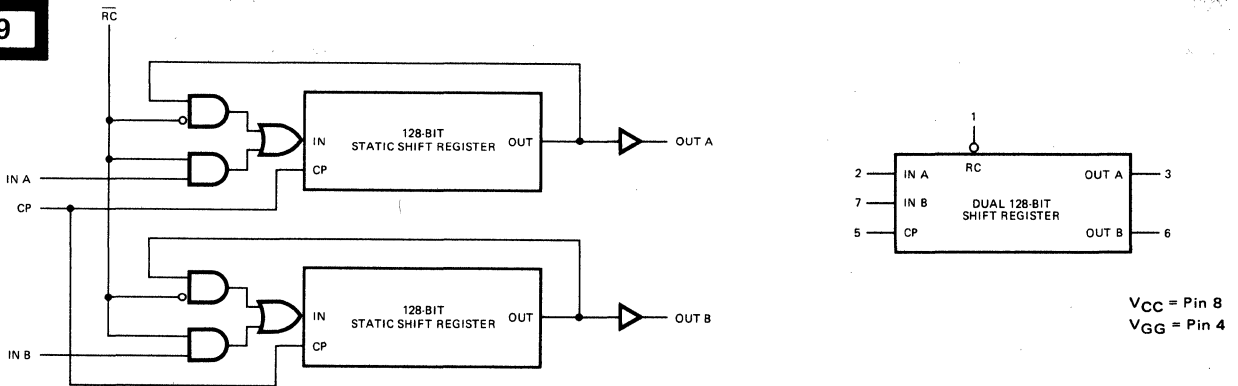
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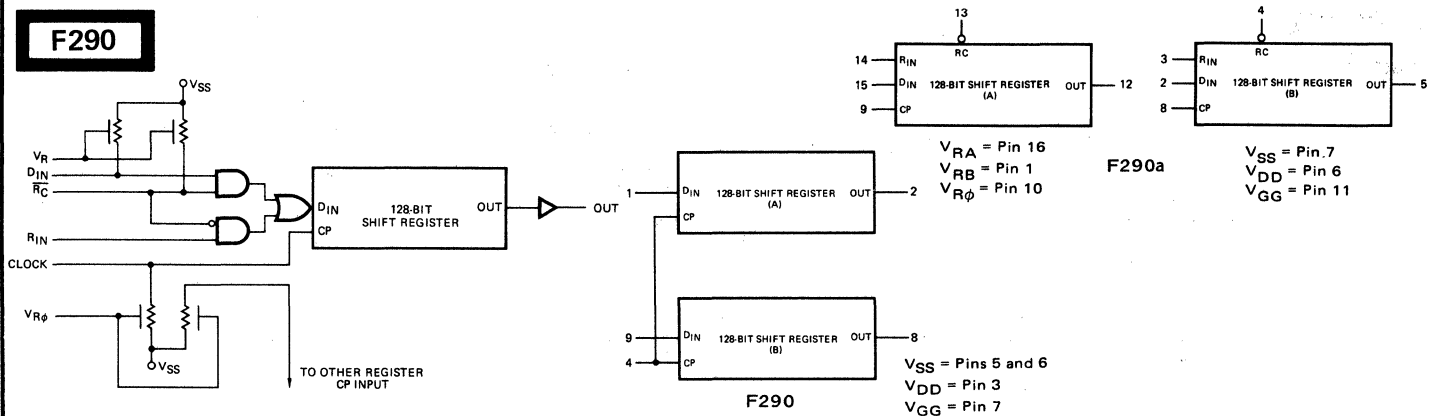
F288



F289



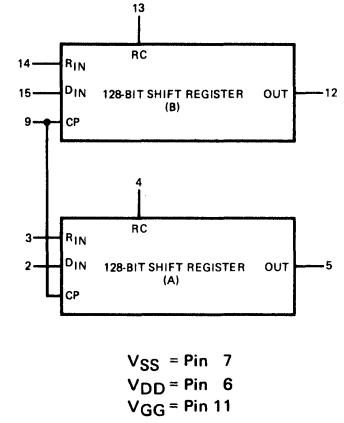
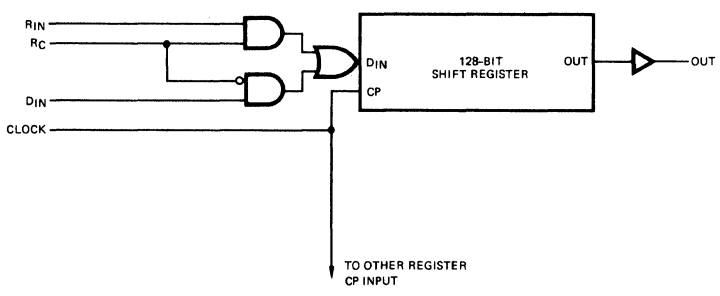
F290



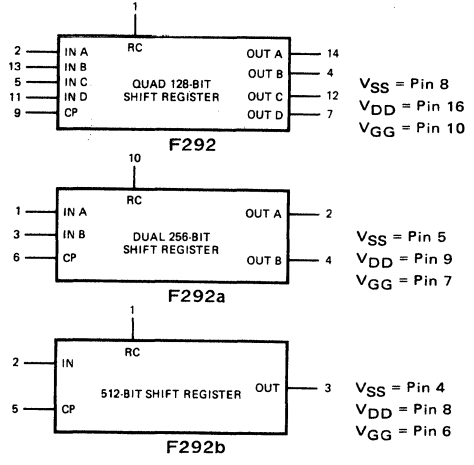
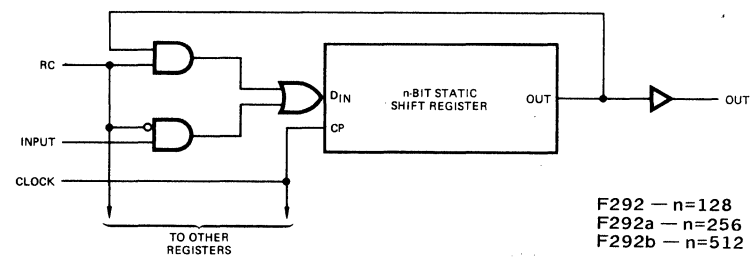
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

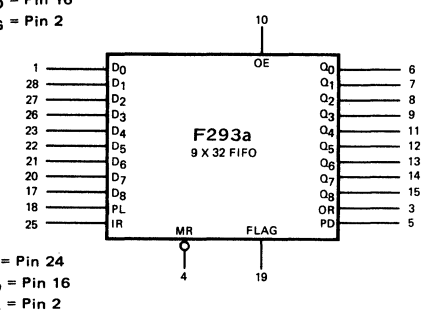
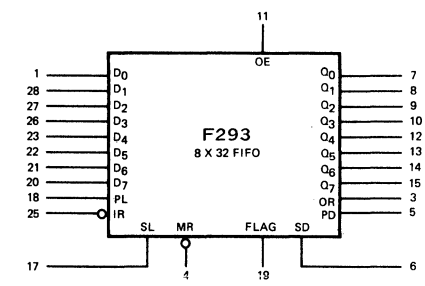
F291



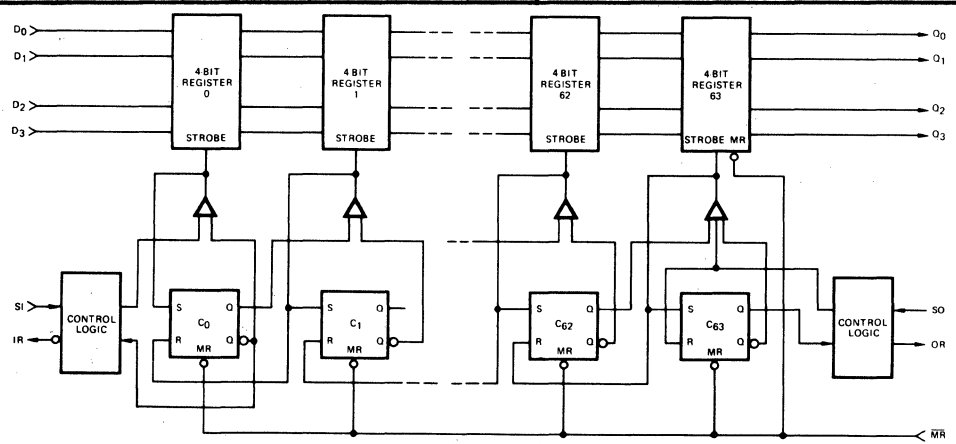
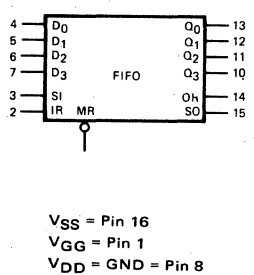
F292



F293



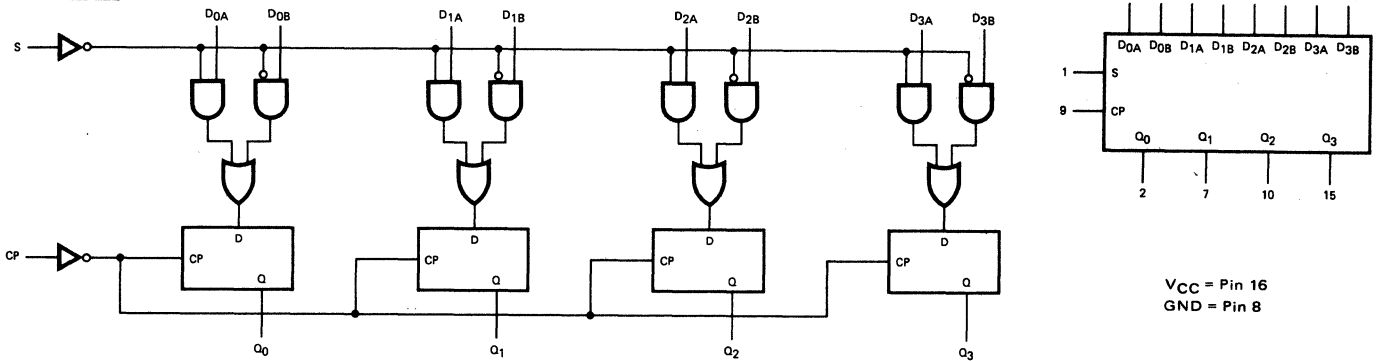
F294



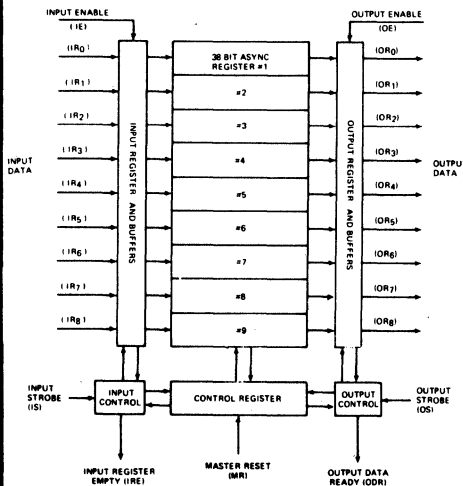
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

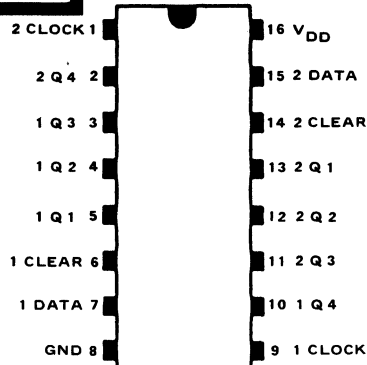
F295



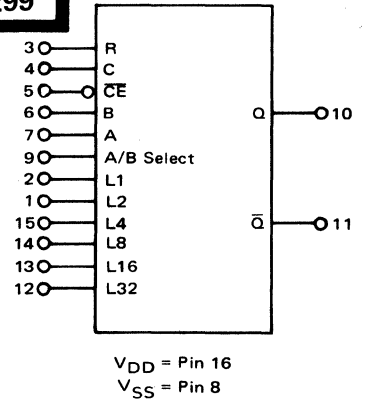
F297



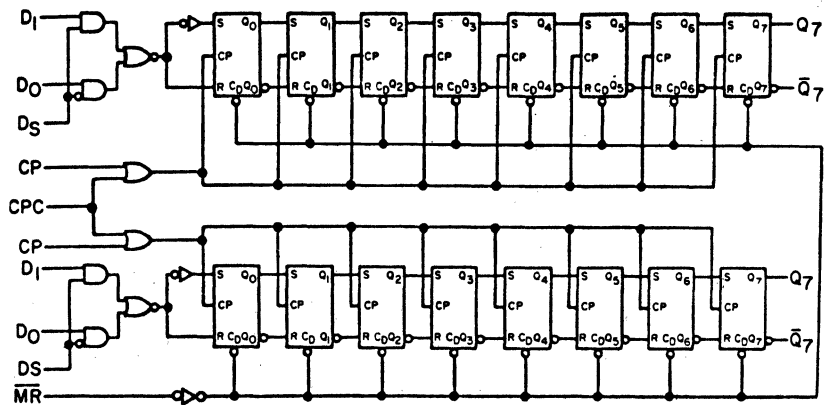
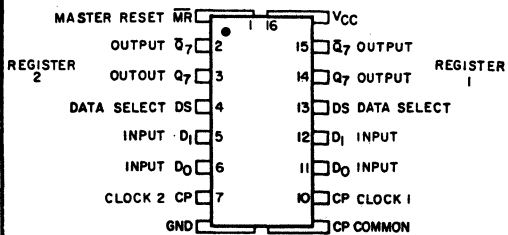
F298



F299



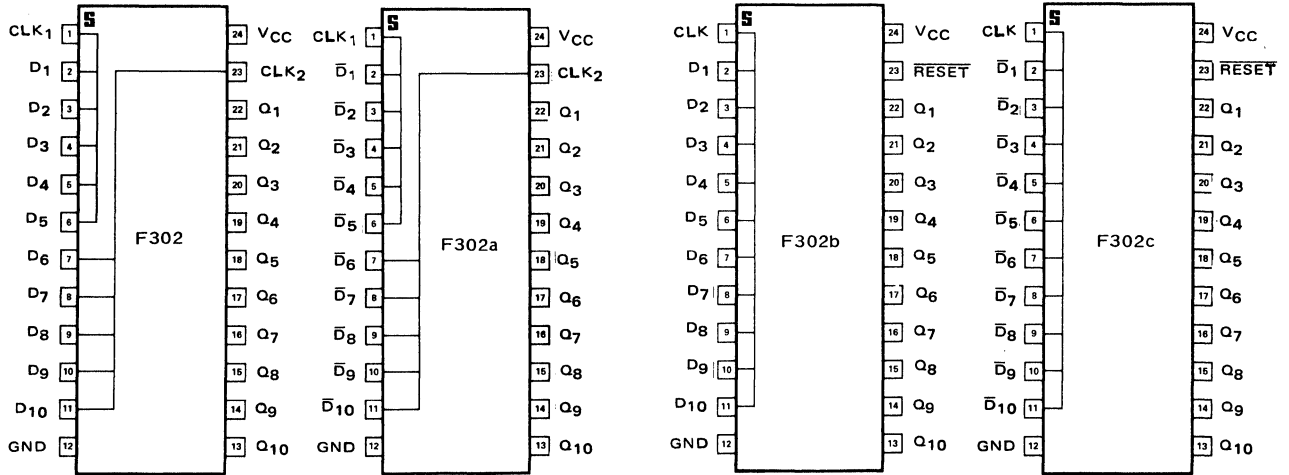
F301



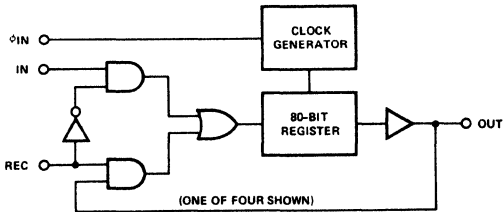
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

F302

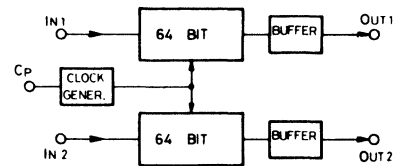


F303

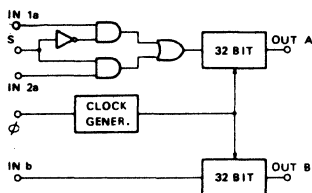


- | | |
|------------------|-------------------|
| 1. OUT 1 | 16. VCC |
| 2. Recirculate 1 | 15. IN 4 |
| 3. IN 1 | 14. Recirculate 4 |
| 4. OUT 2 | 13. OUT 4 |
| 5. Recirculate 2 | 12. VGG |
| 6. IN 2 | 11. phi IN |
| 7. OUT 3 | 10. IN 3 |
| 8. VDD (Ground) | 9. Recirculate 3 |

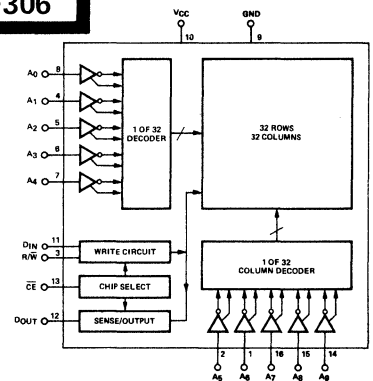
F304



F305



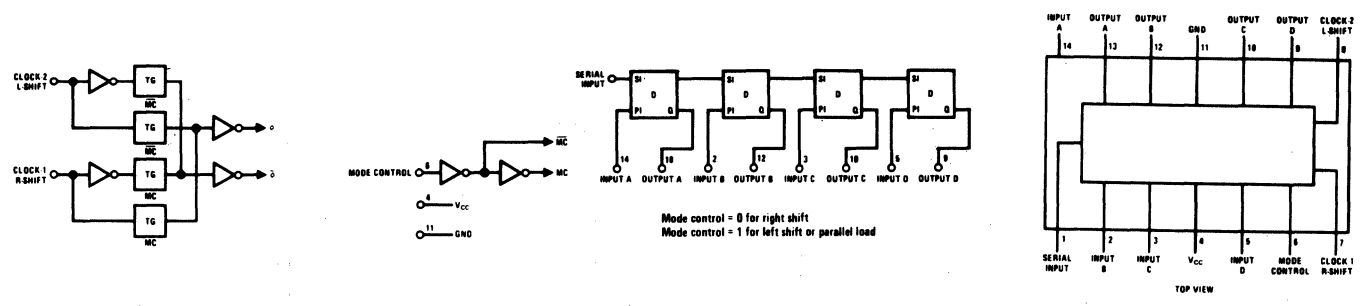
F306



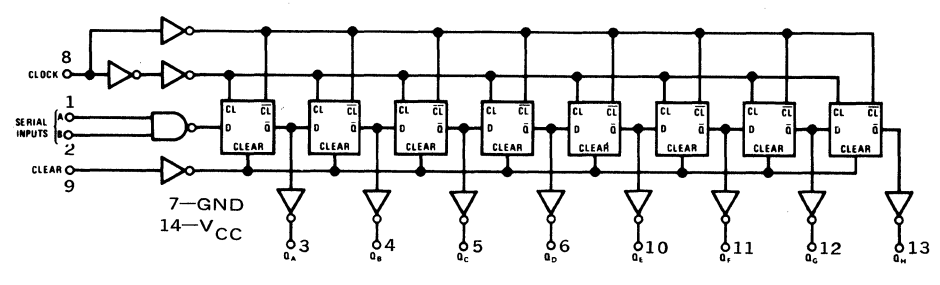
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

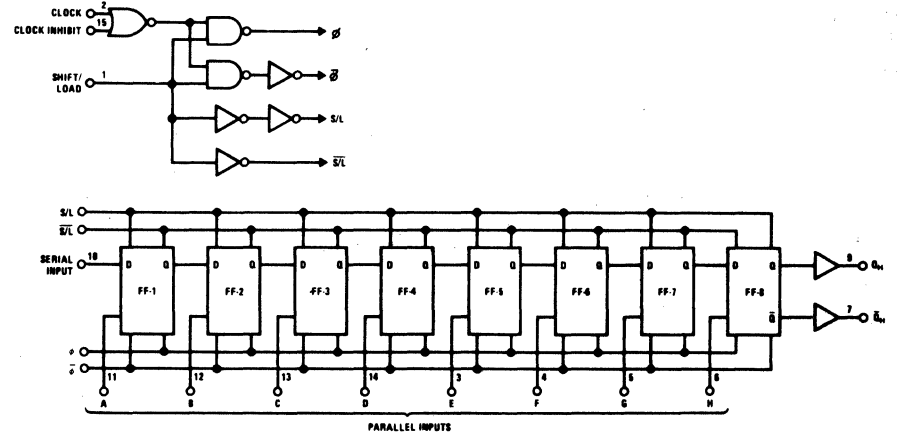
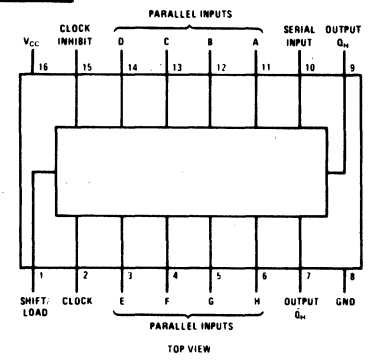
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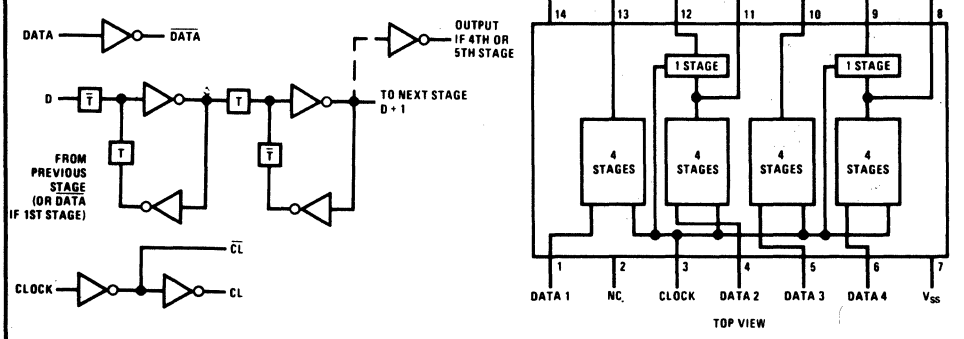
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F311



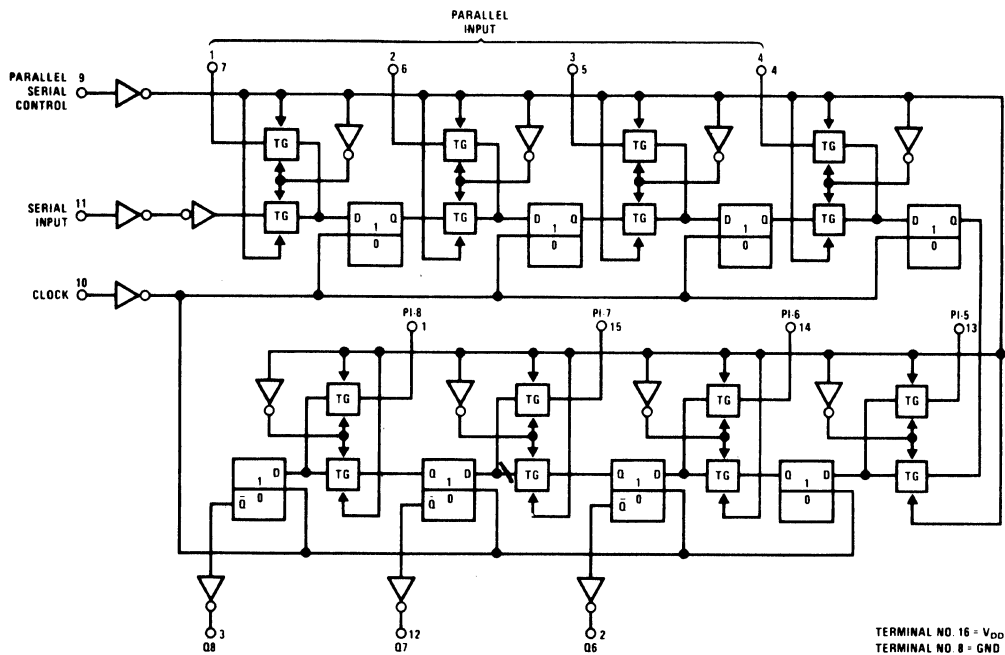
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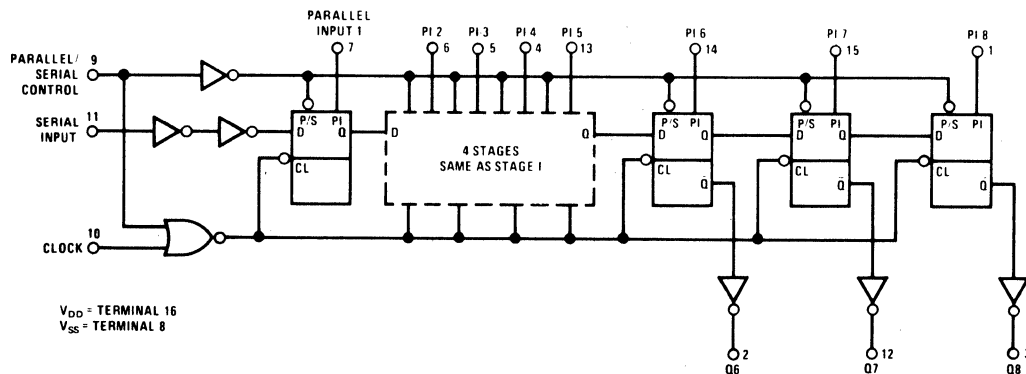
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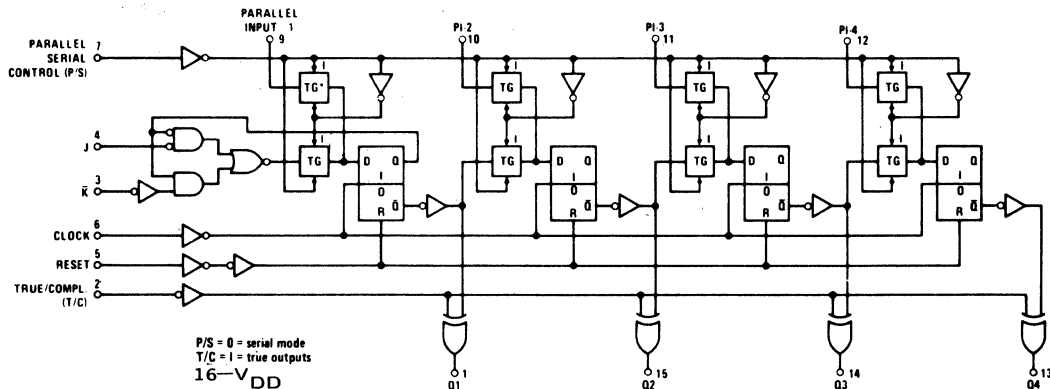
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F314



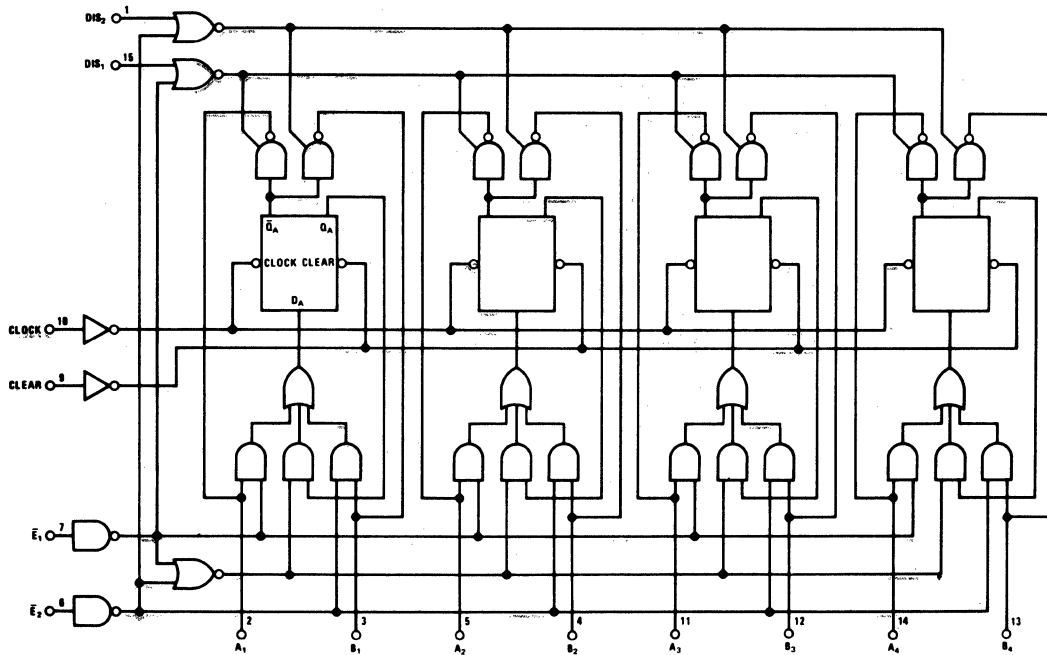
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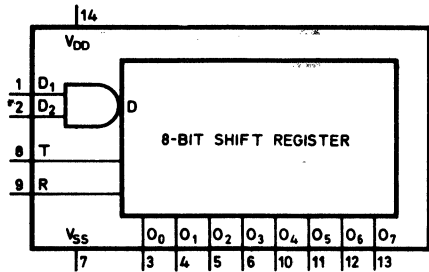
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IN DRAWING NUMBER SEQUENCE

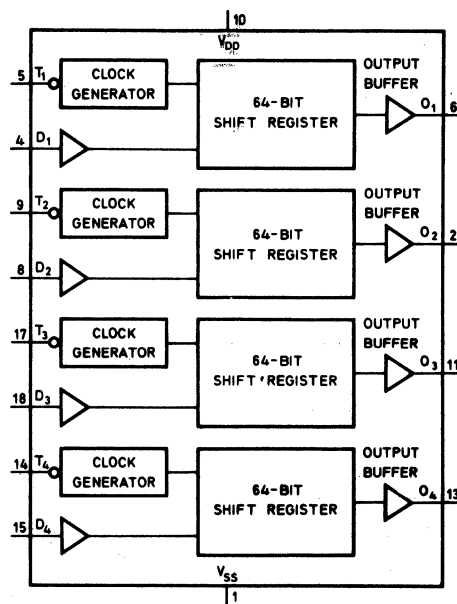
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F317



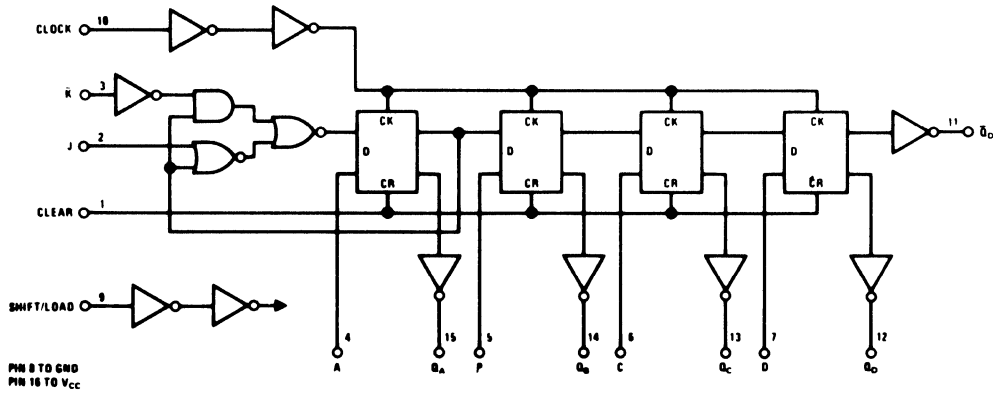
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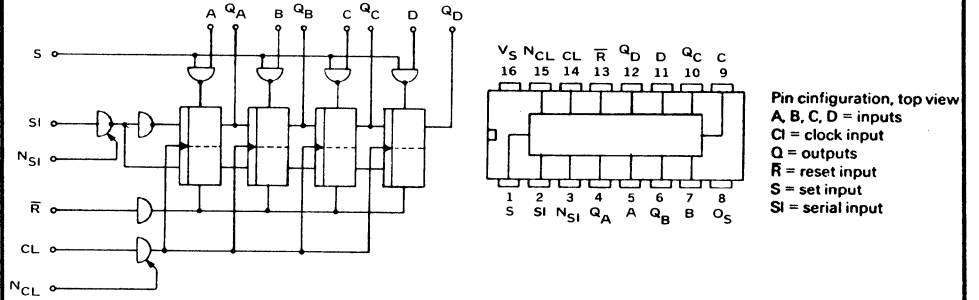
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IN DRAWING NUMBER SEQUENCE

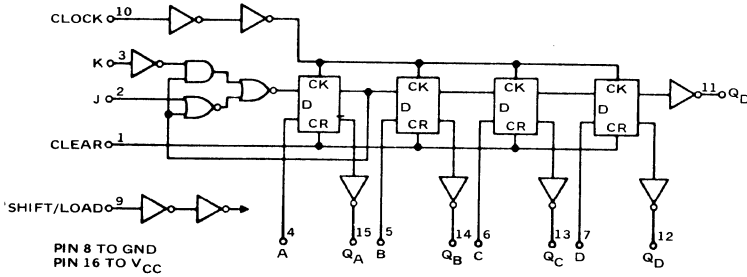
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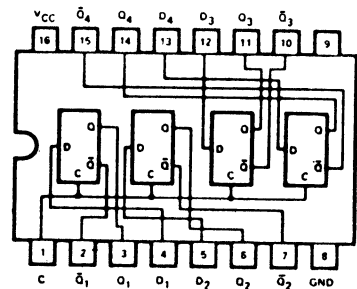
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F323



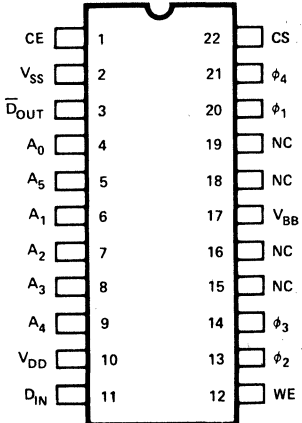
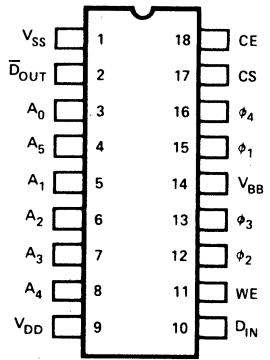
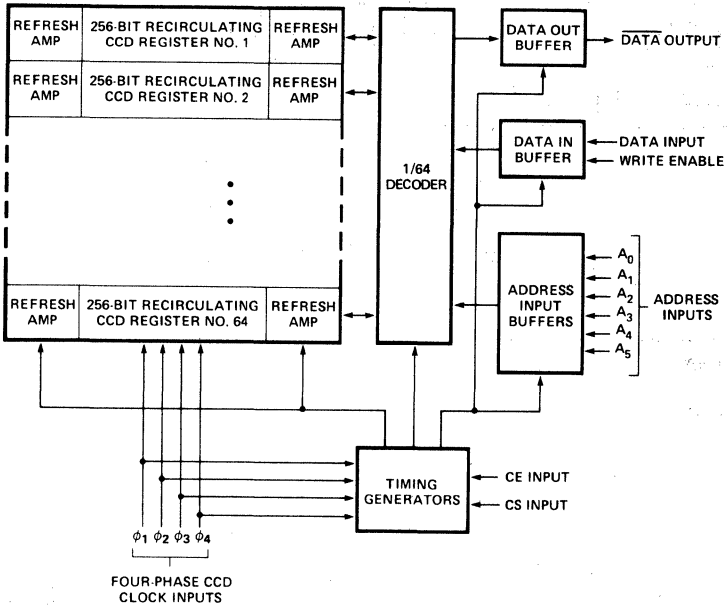
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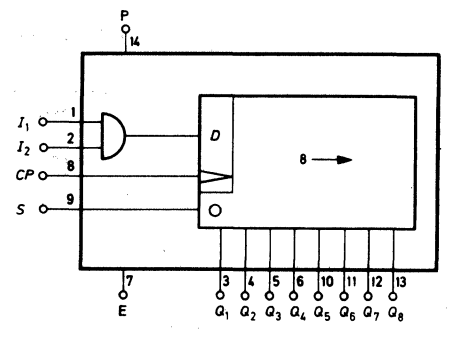
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

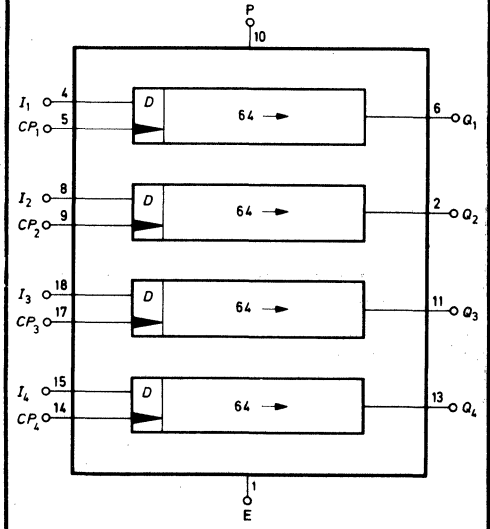
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F236



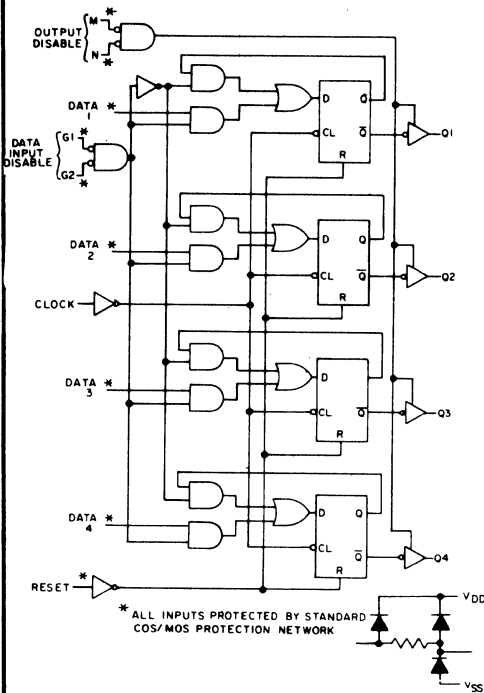
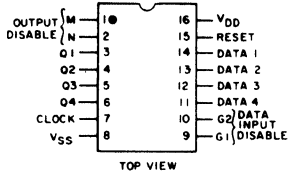
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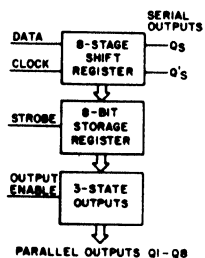
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IN DRAWING NUMBER
SEQUENCE

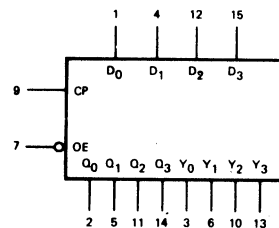
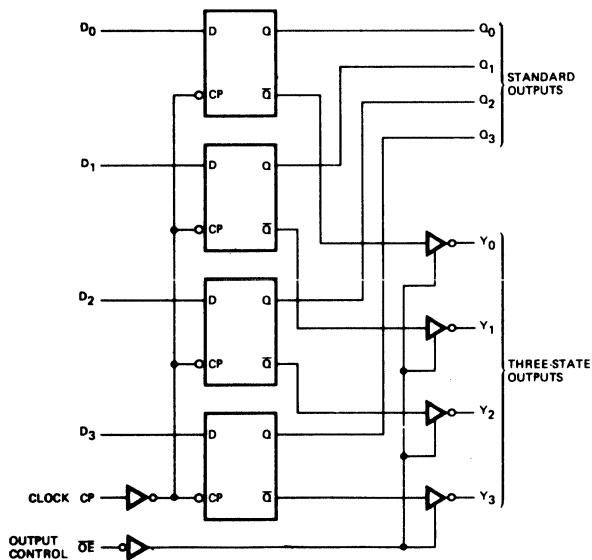
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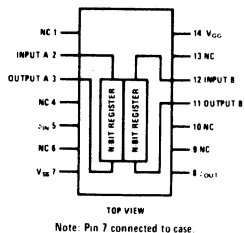
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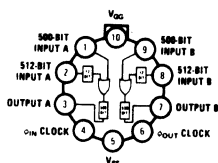
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F332



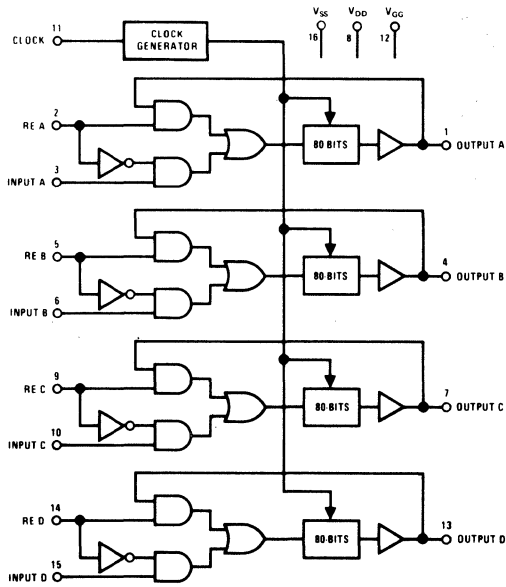
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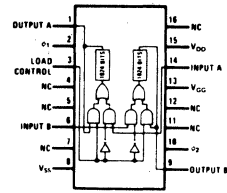
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

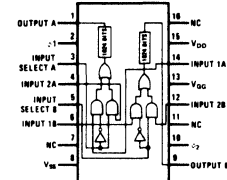
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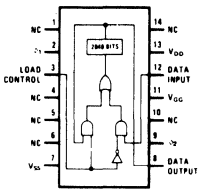
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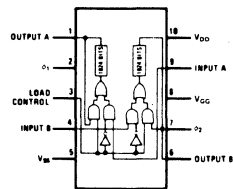
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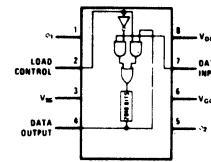
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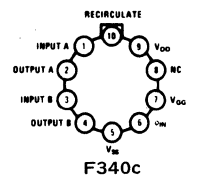
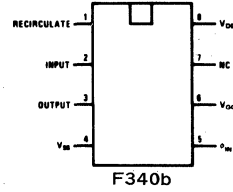
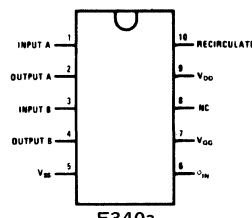
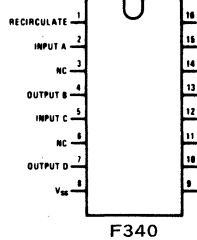
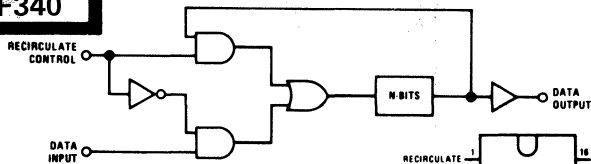
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F339



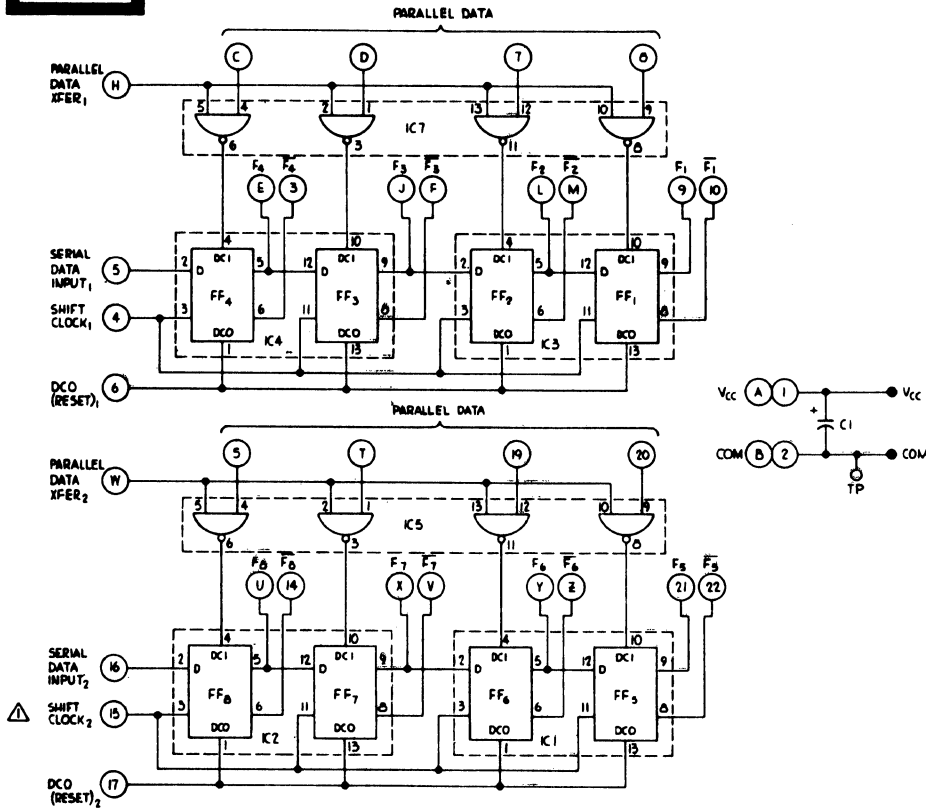
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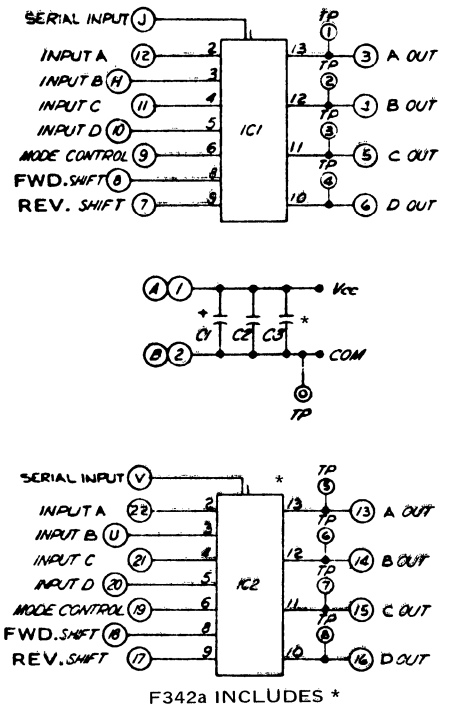
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

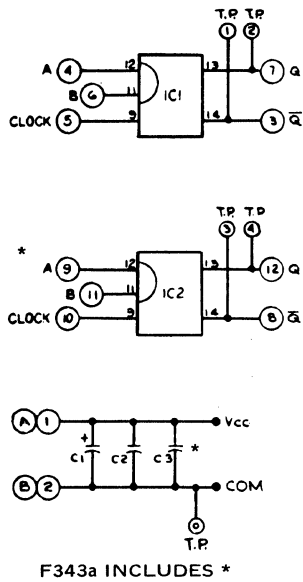
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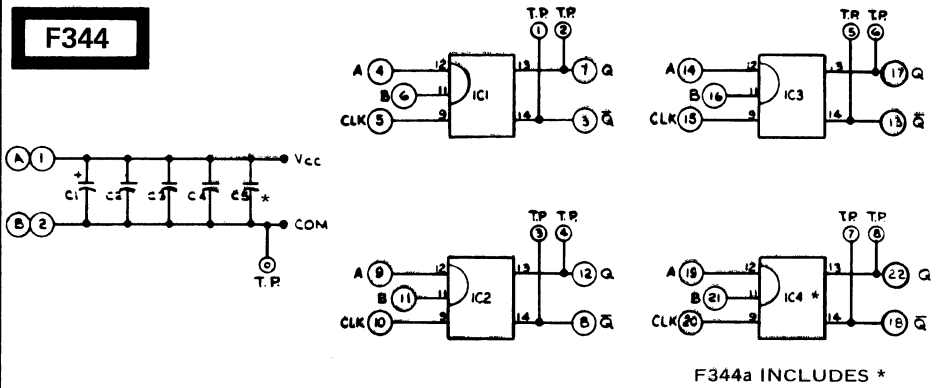
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F343



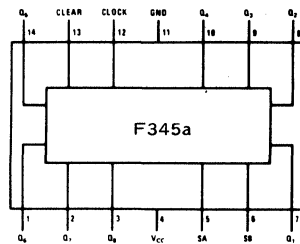
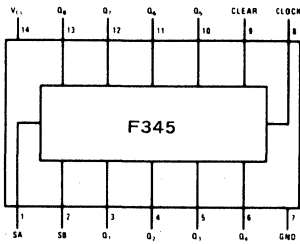
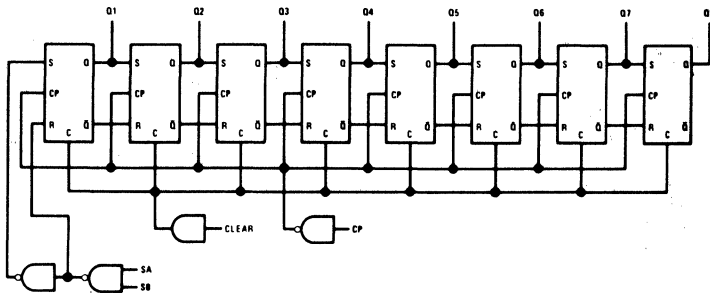
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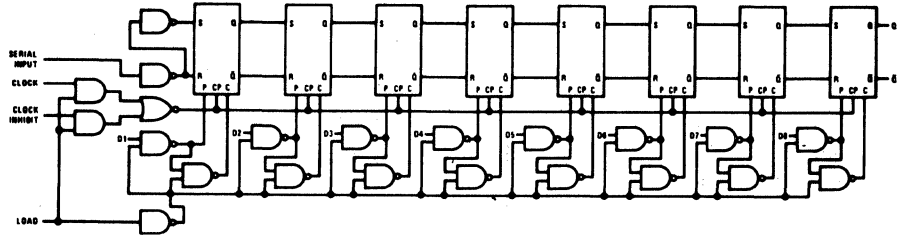
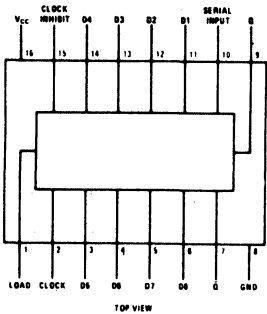
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IN DRAWING NUMBER SEQUENCE

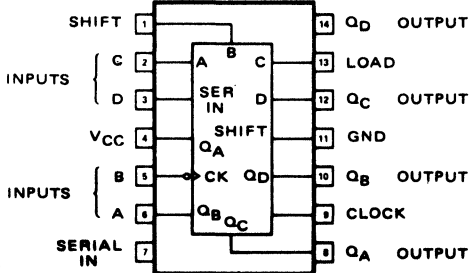
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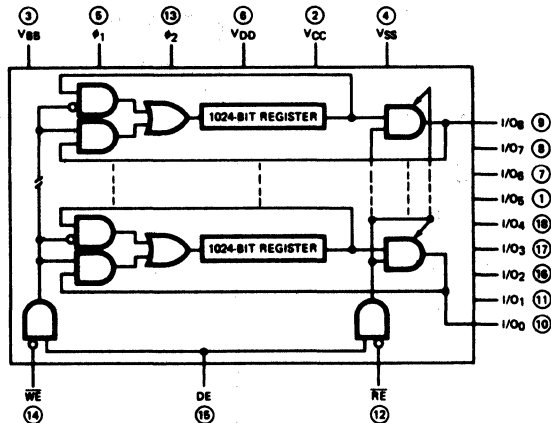
F346



F347



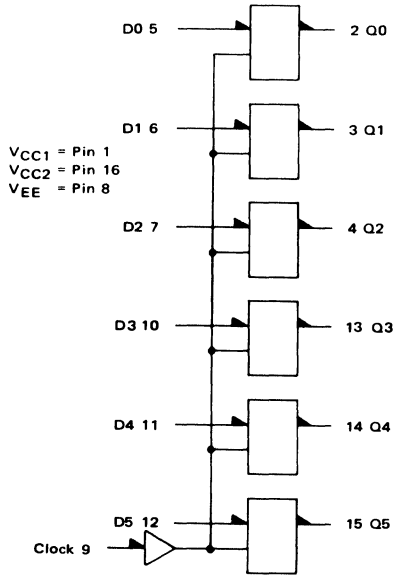
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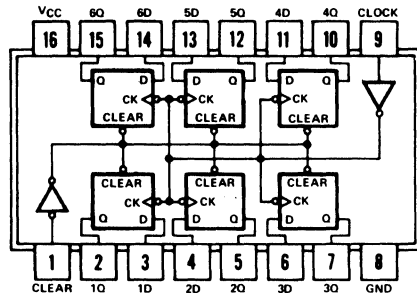
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

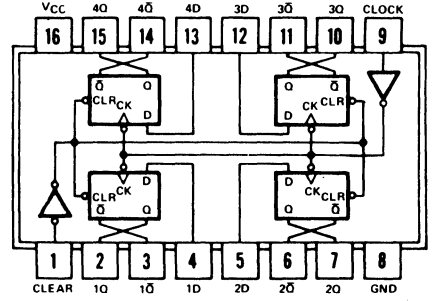
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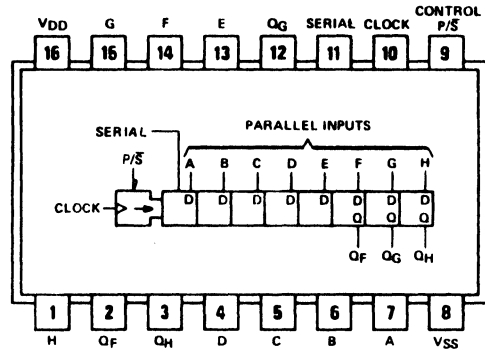
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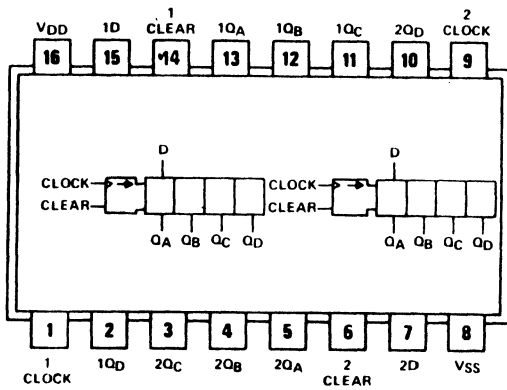
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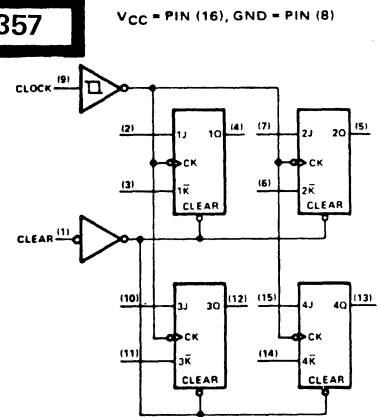
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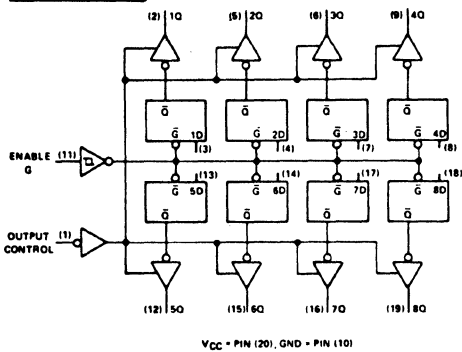
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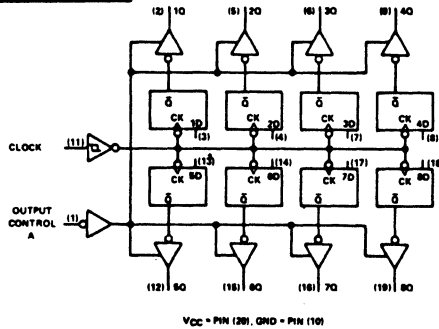
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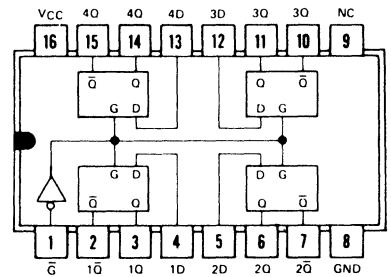
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F359



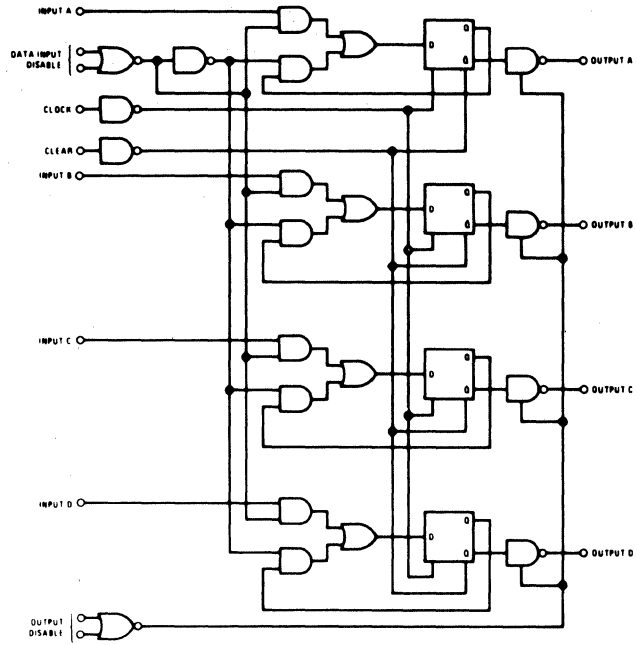
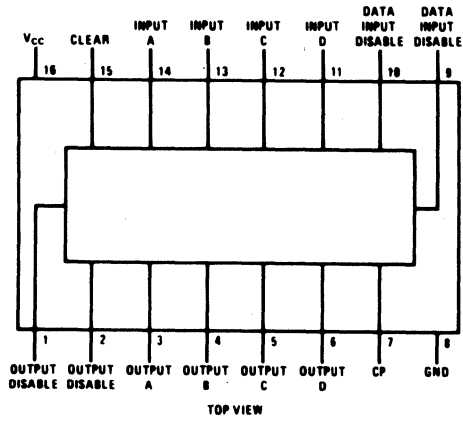
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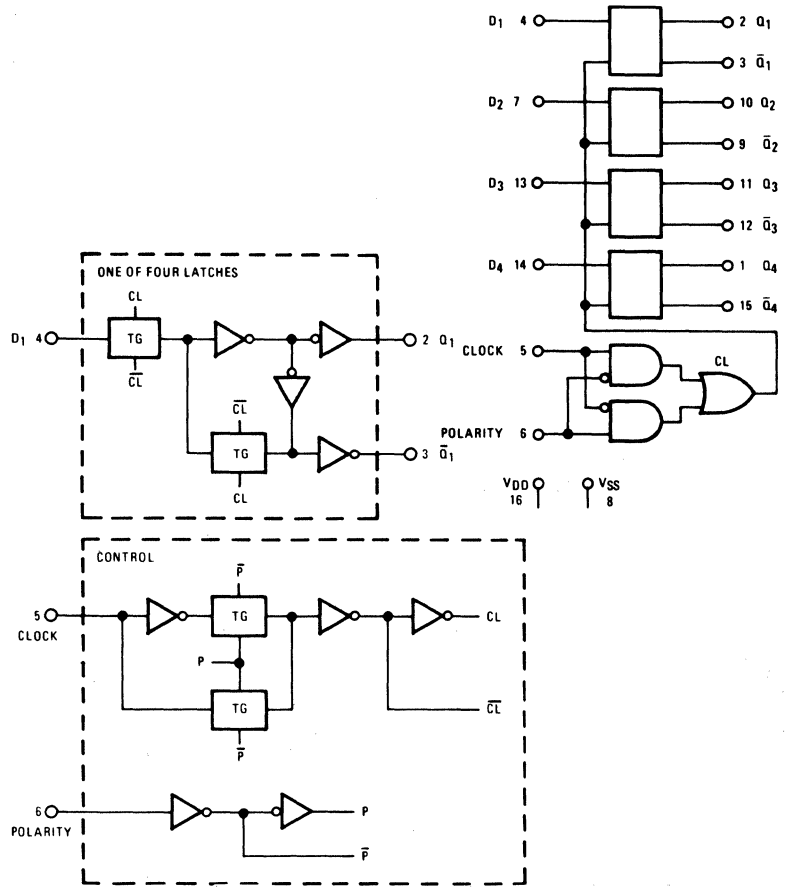
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

F361



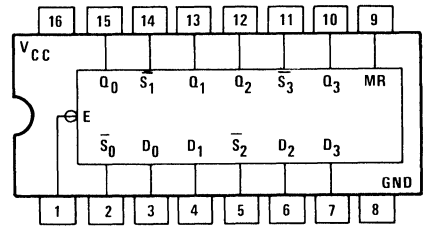
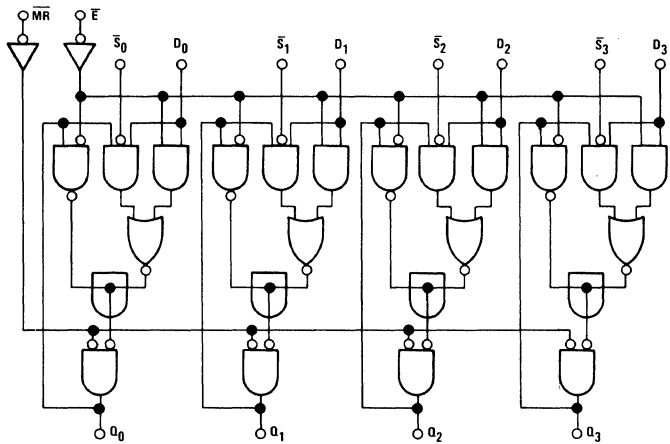
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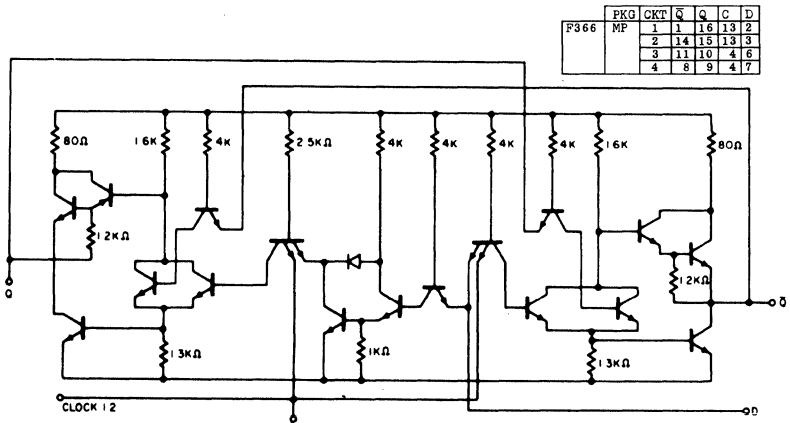
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

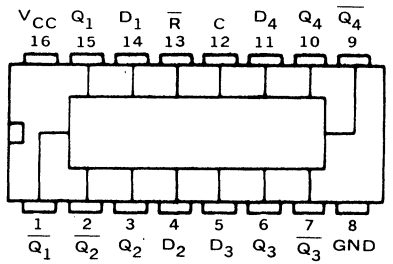
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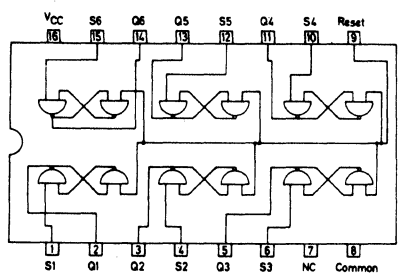
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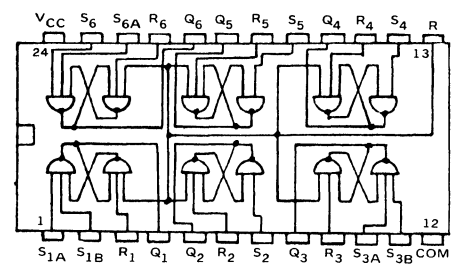
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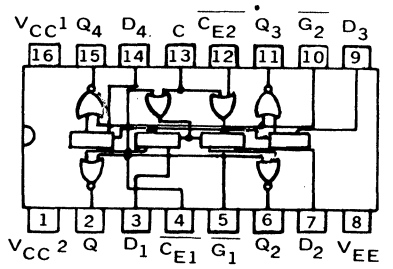
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F369



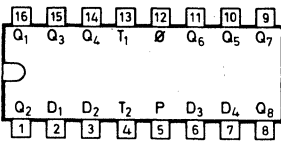
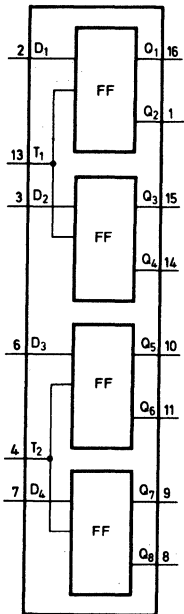
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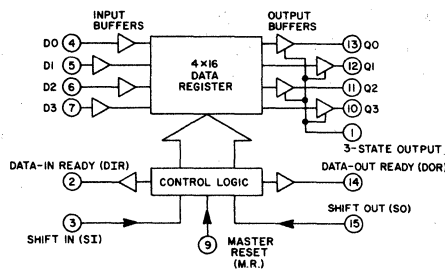
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

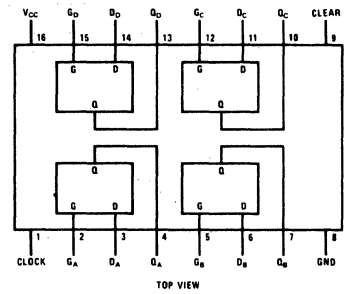
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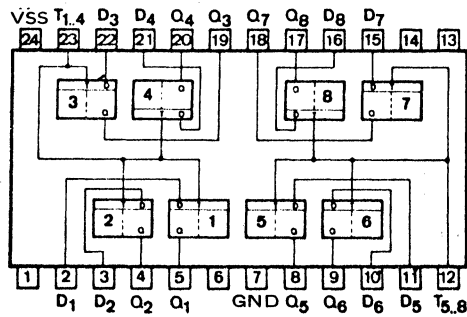
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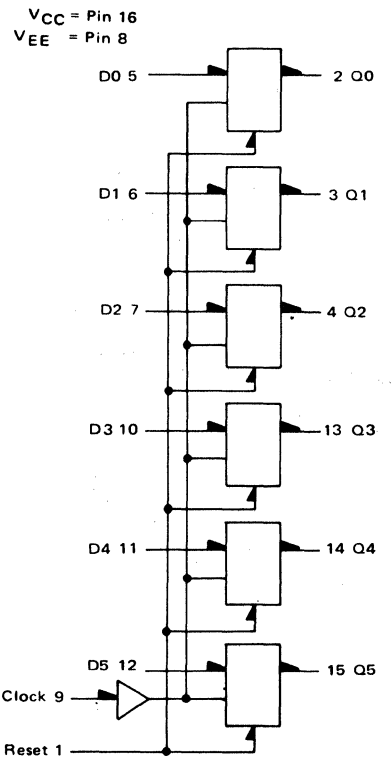
F374



F375

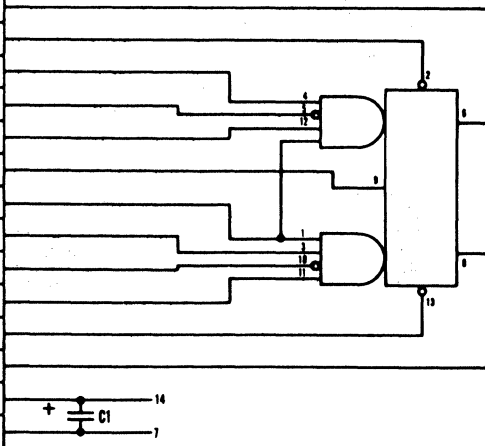


F378

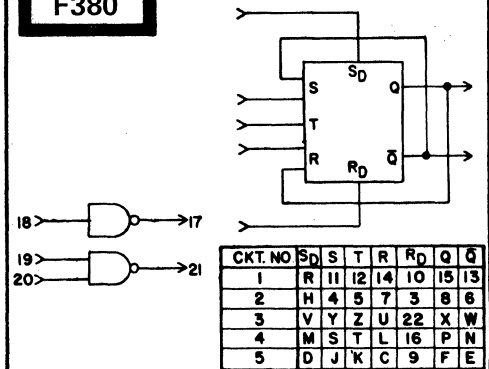


F379

FUNCTION	CONNECTOR PINS			
	IC1	IC2	IC3	IC4
Q	50	38	26	14
SD	46	34	22	10
J1	48	36	24	12
J	47	35	23	11
J2	40	28	16	4
CP	39	27	15	8
JK	44	32	20	3
K1	49	37	25	13
K	42	30	18	6
K2	41	29	17	5
CD	45	33	21	9
Q̄	43	31	19	7
Vcc	51			
GRD	1	52		



F380

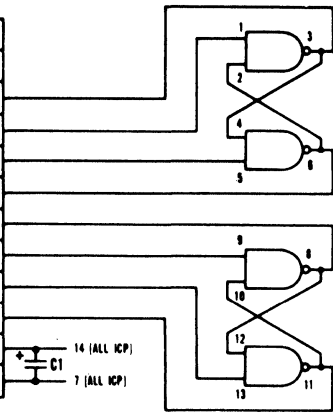


22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

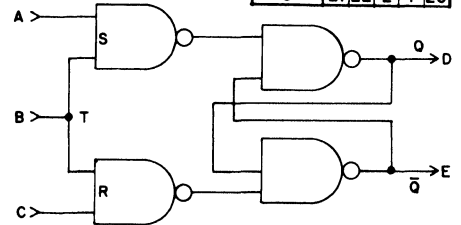
F381

FUNCTION	CONNECTOR PINS					
	IC1	IC2	IC3	IC4	IC5	IC6
Q	45	37	29	21	13	5
S	43	35	27	19	11	3
R	47	39	31	23	15	7
\bar{Q}	49	41	33	25	17	9
Q	44	36	28	20	12	4
S	46	38	30	22	14	6
R	50	42	34	26	18	10
\bar{Q}	48	40	32	24	16	8
Vcc	51					
GRD	1					52



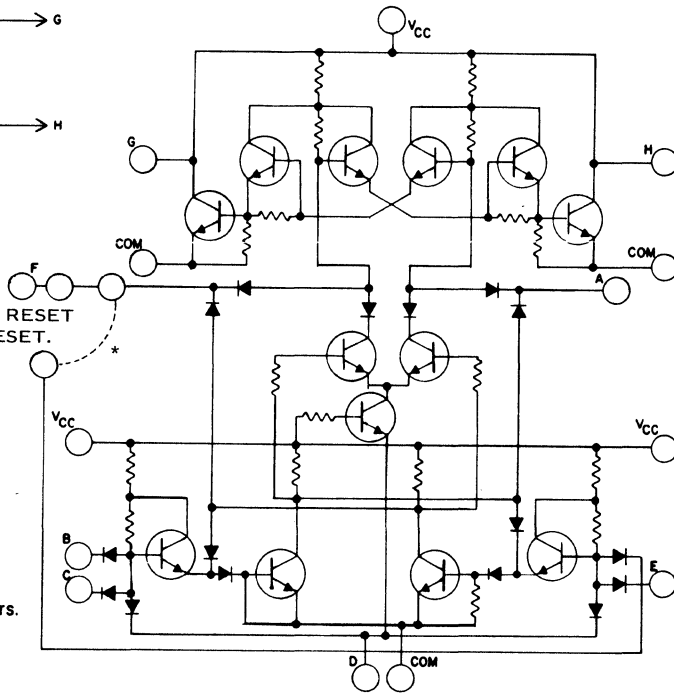
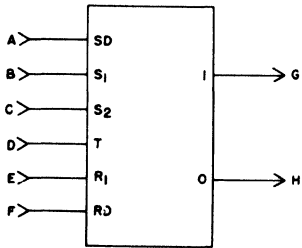
F383

CKT. NO.	A	B	C	D	E
1	C	3	4	E	D
2	6	7	H	F	5
3	J	8	9	L	K
4	I	12	N	M	10
5	P	13	14	S	R
6	16	17	U	T	15
7	V	18	19	X	W
8	21	22	Z	Y	20



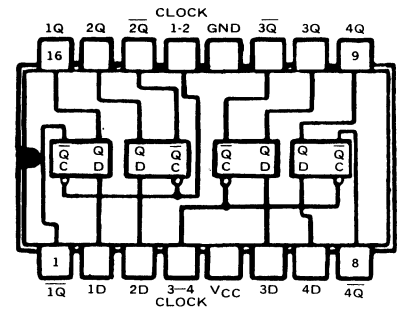
F384

CKT. NO.	A	B	C	D	E	F	G	H	Vcc	COM
1	2	6	5	7	9	8	1	10	34	3
2	17	13	12	14	15	16	11	18		
3	25	21	20	22	23	24	19	26		
4	31	29	28	30	33	32	27	36		

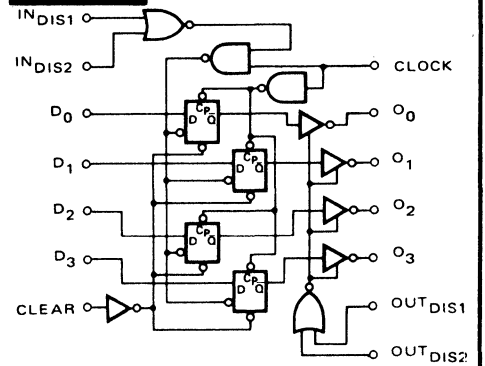


* NOTE: THE DIRECT RESET WIRED AS SECOND RESET.

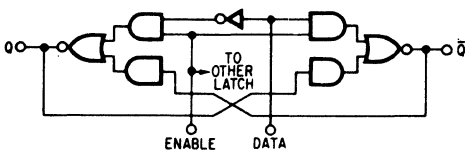
F386



F387

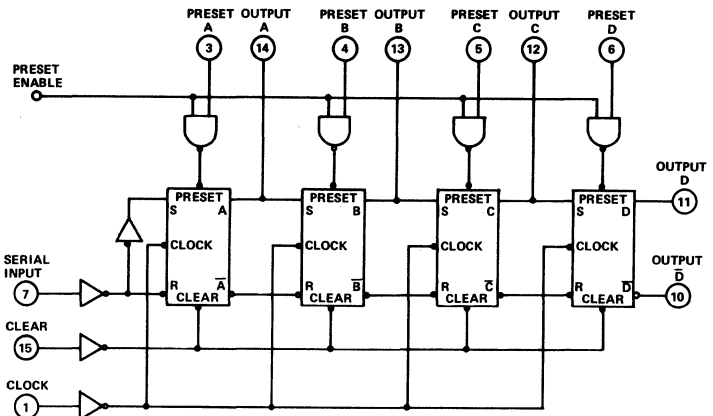


F388

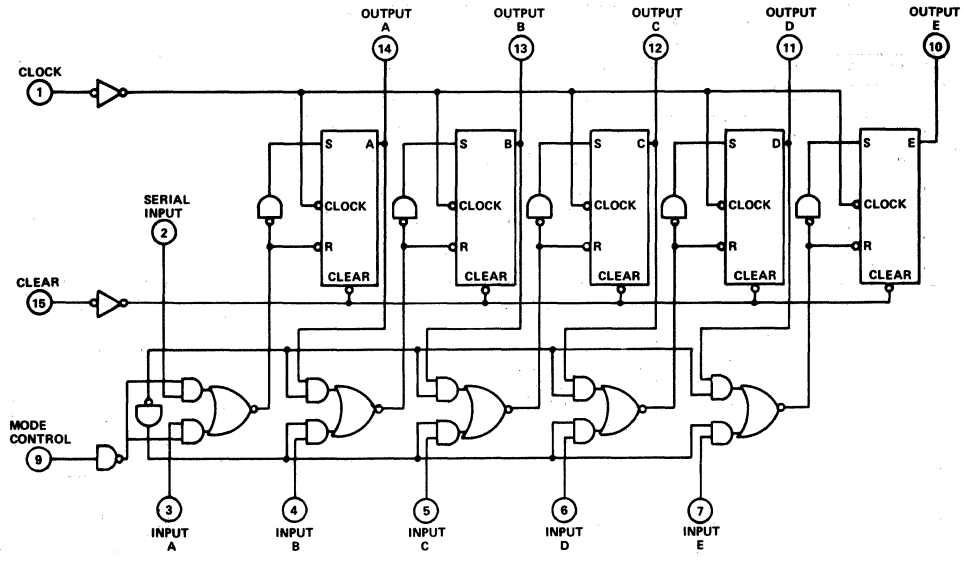


CKT	Q	E	D	Q	Vcc	GND
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2	5	15	1	6	16	8
3	11	7	13	12	16	8
4	10	7	14	9	16	8

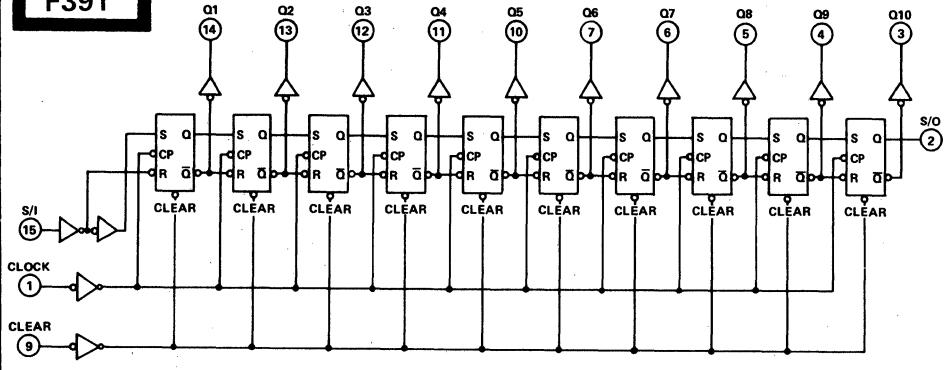
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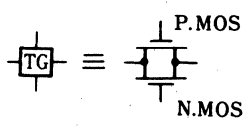
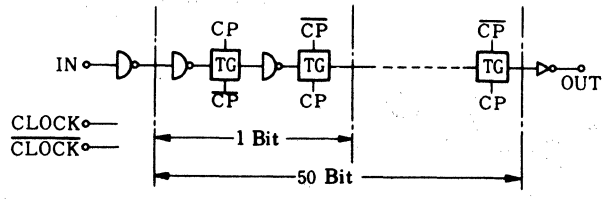
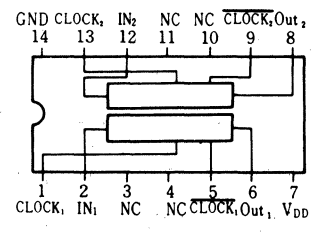
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F391



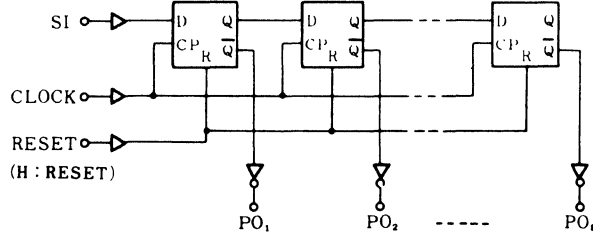
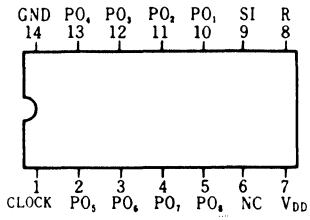
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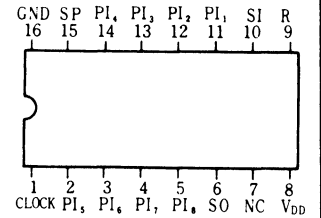
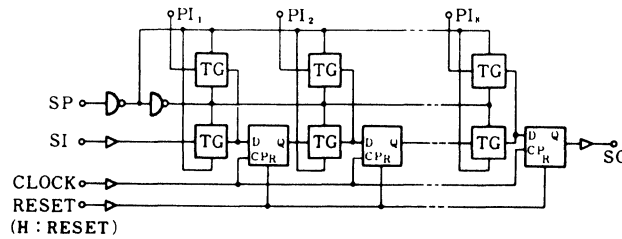
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IN DRAWING NUMBER
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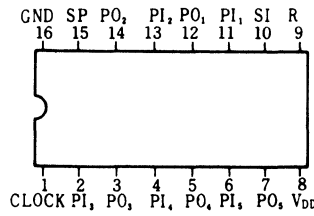
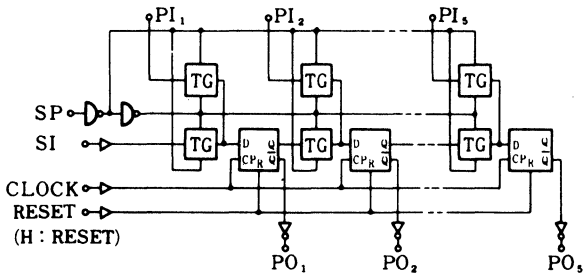
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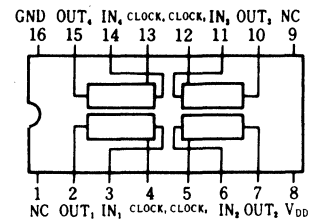
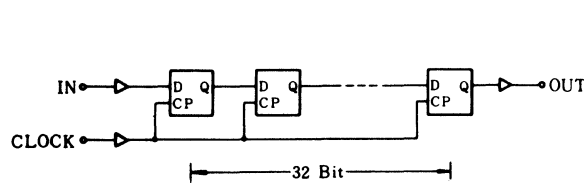
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F395



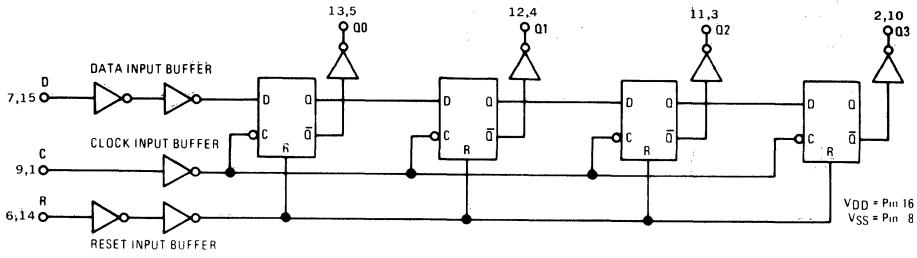
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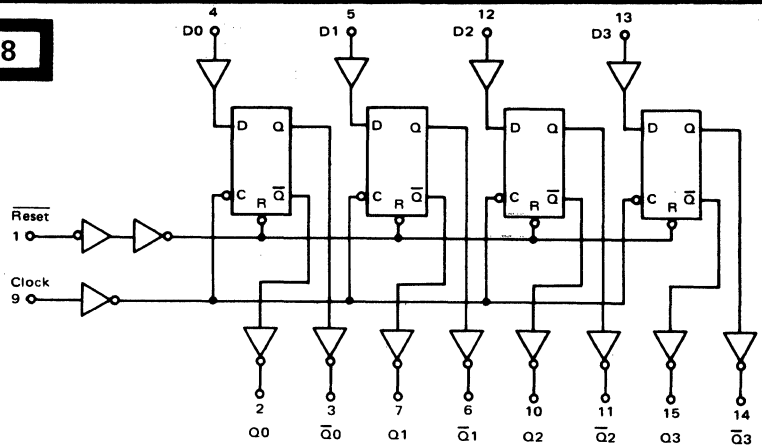
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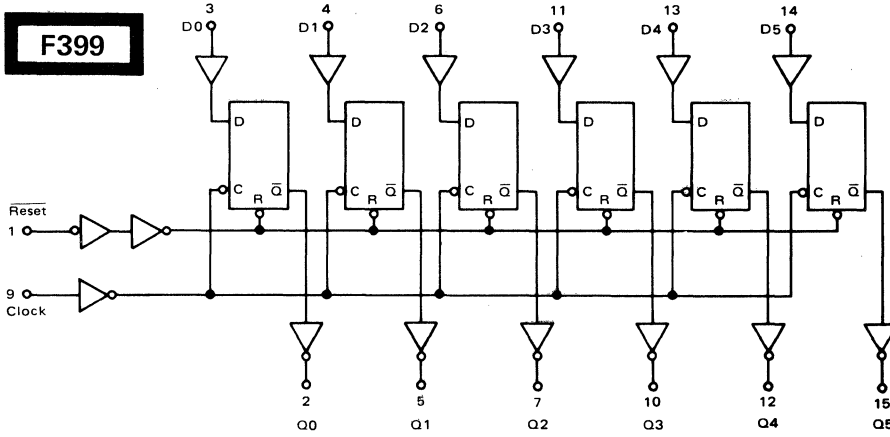
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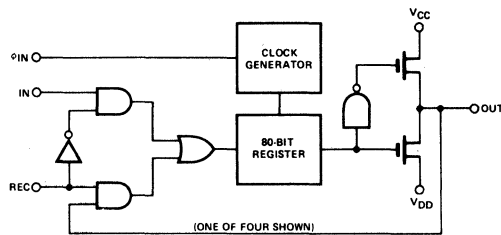
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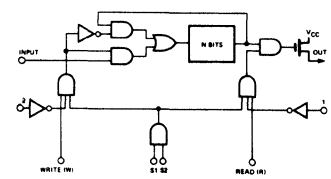
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F400



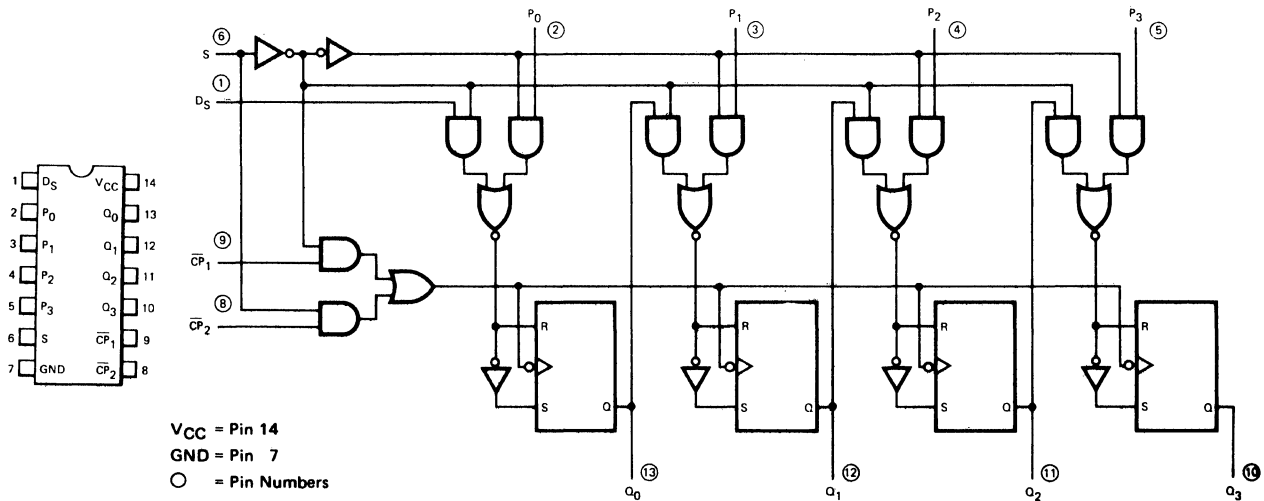
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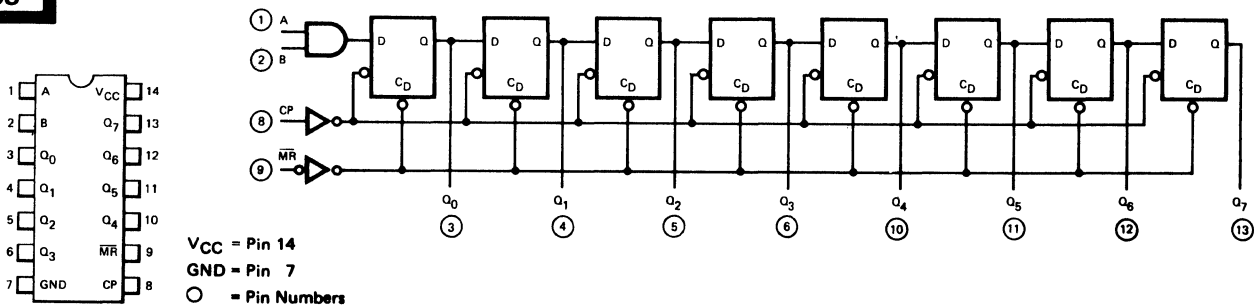
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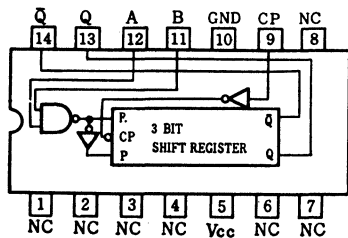
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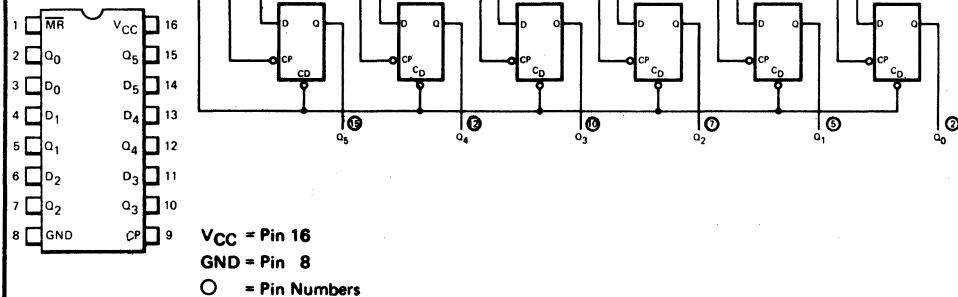
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F404

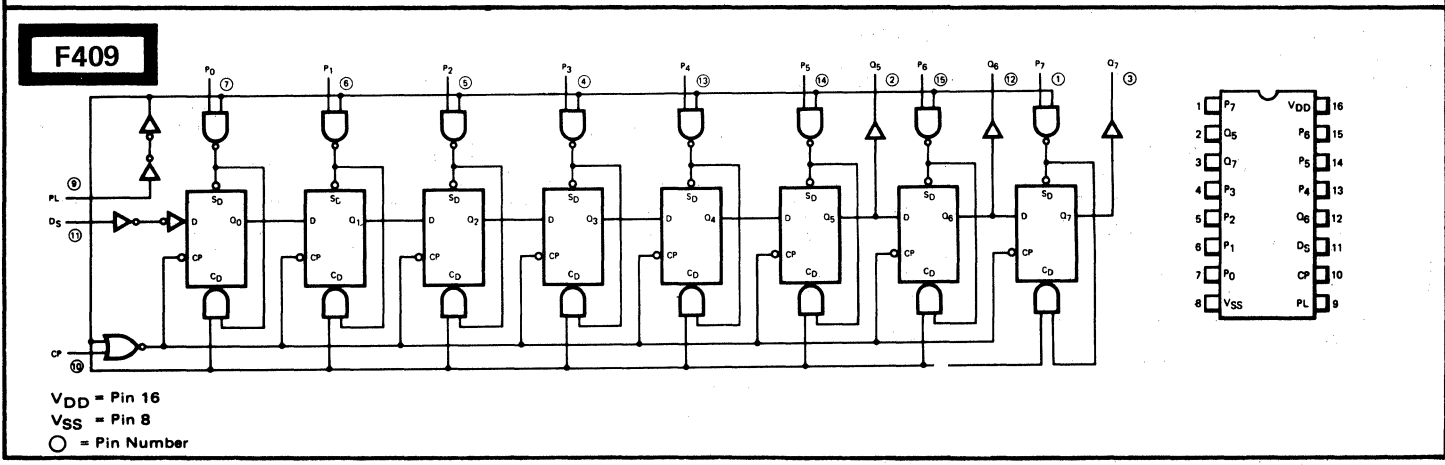
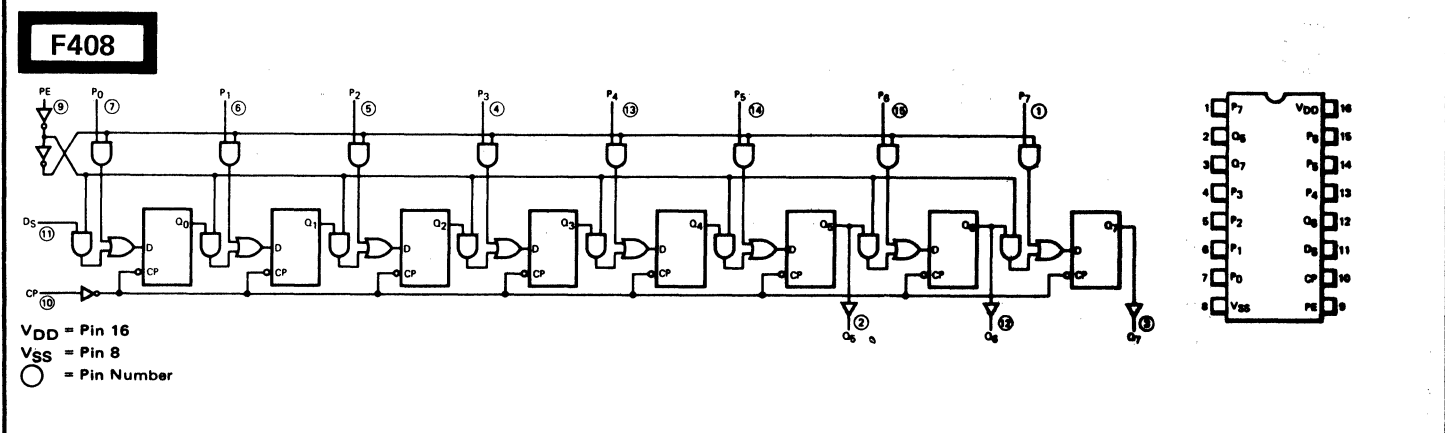
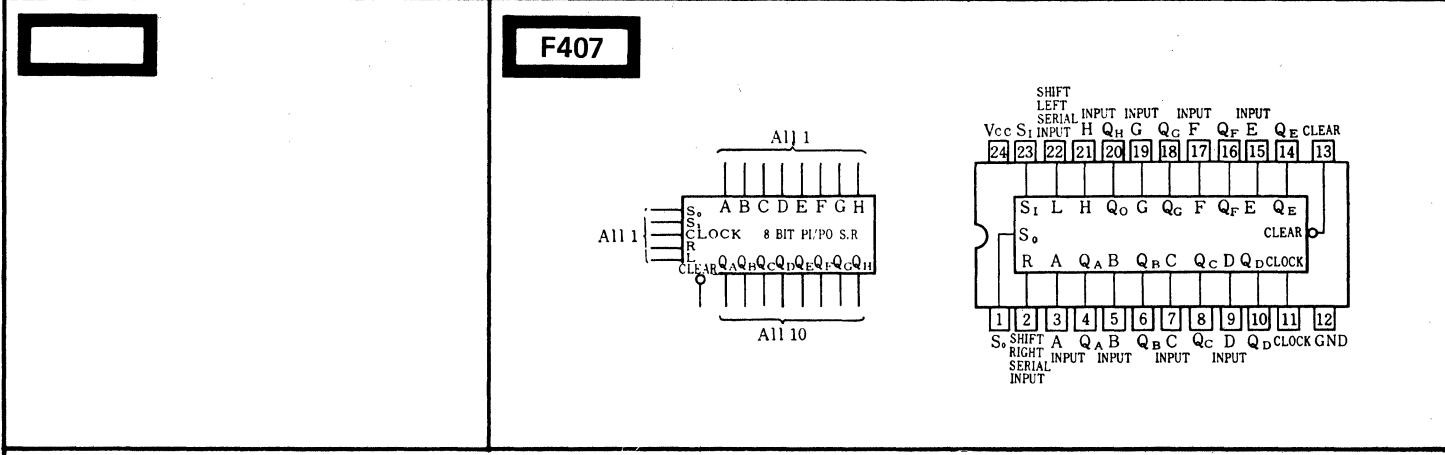
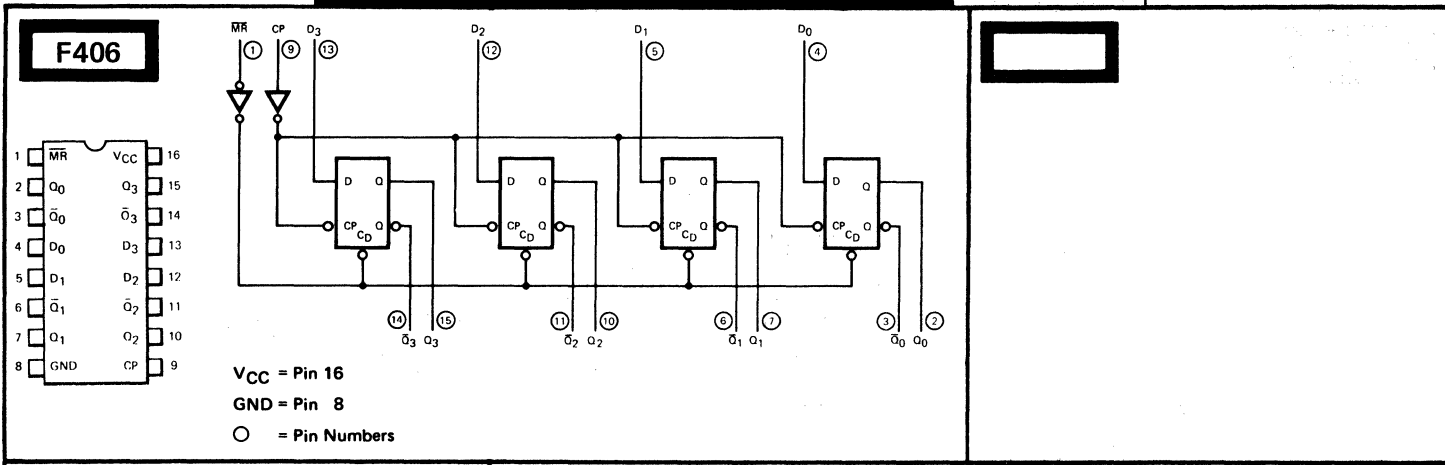


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22. LOGIC/BLOCK DRAWINGS

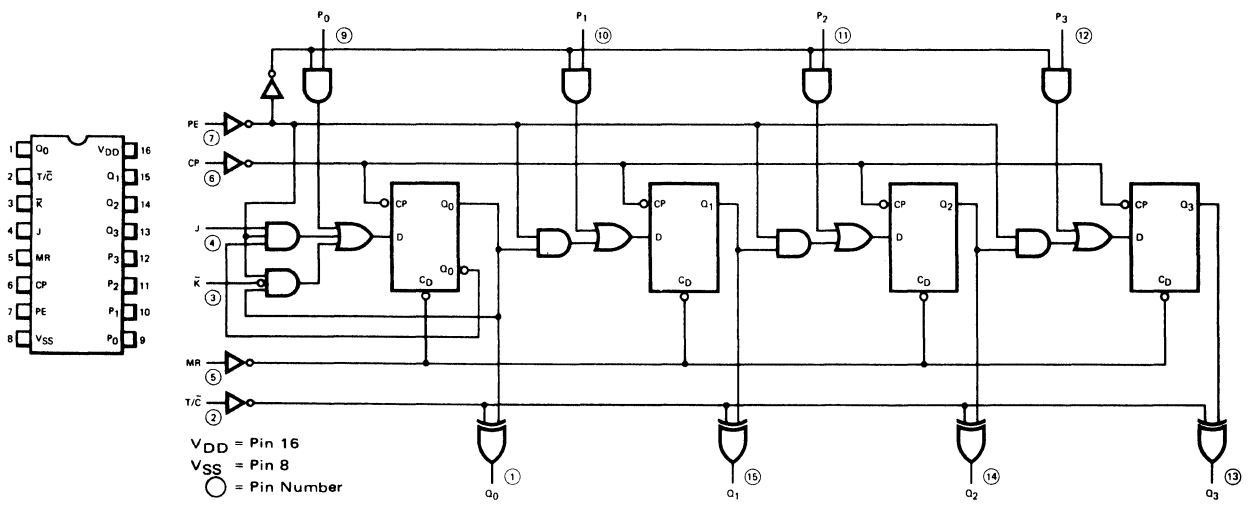
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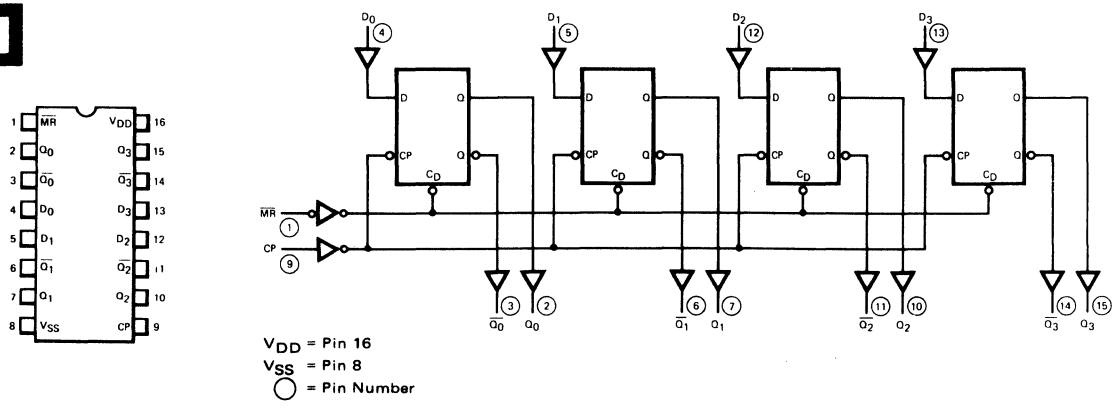
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IN DRAWING NUMBER SEQUENCE

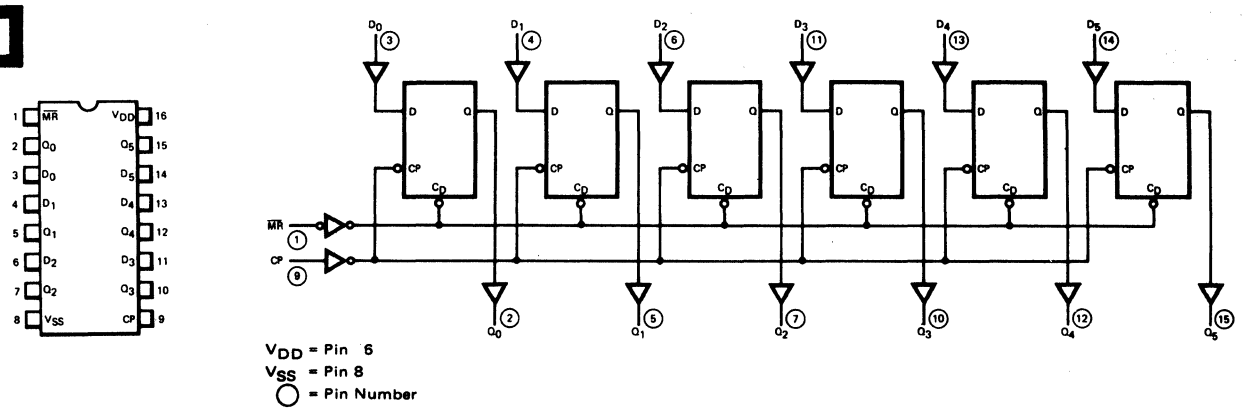
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F411



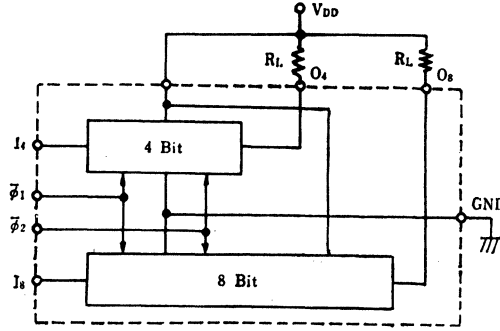
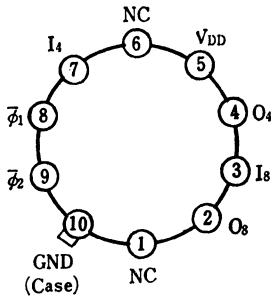
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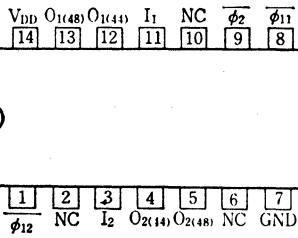
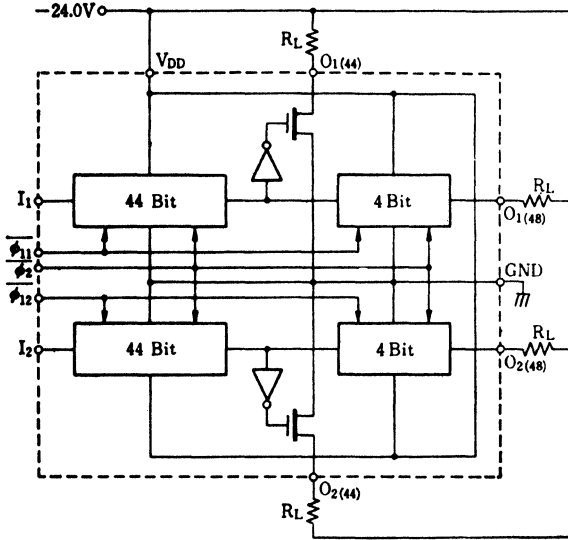
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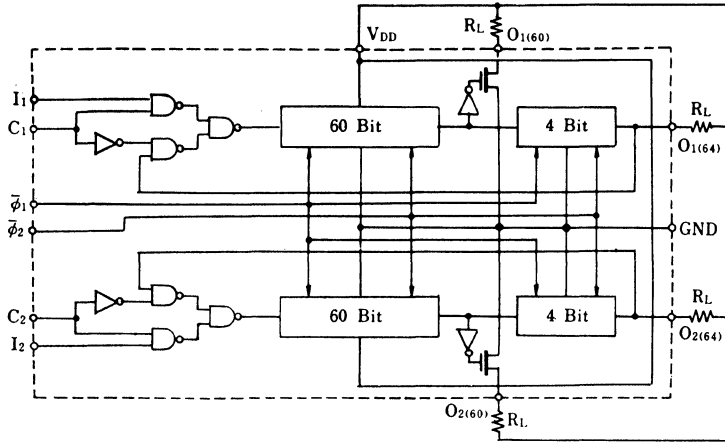
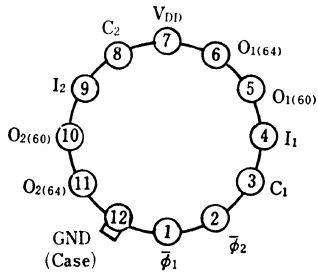
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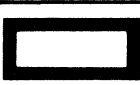
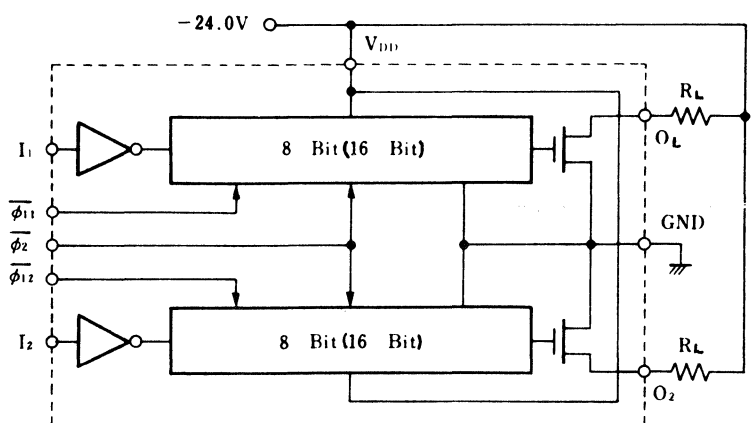
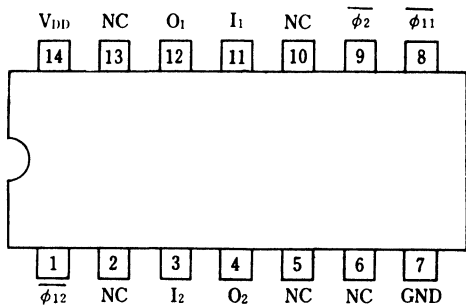
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F415



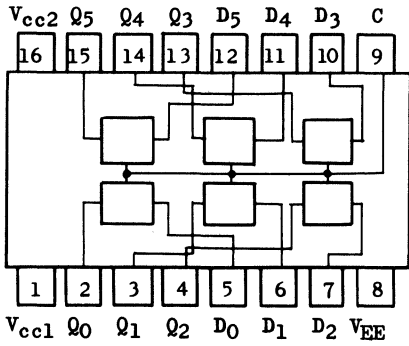
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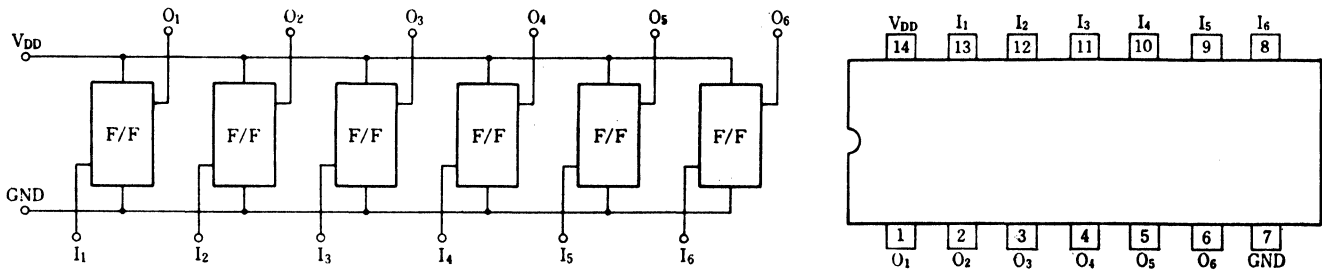
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IN DRAWING NUMBER
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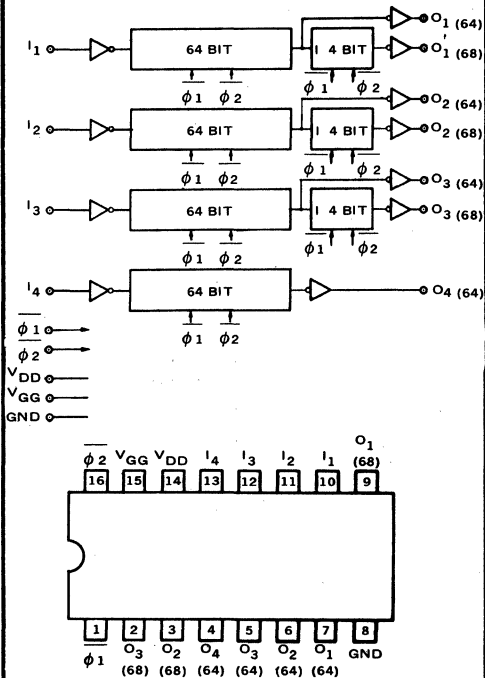
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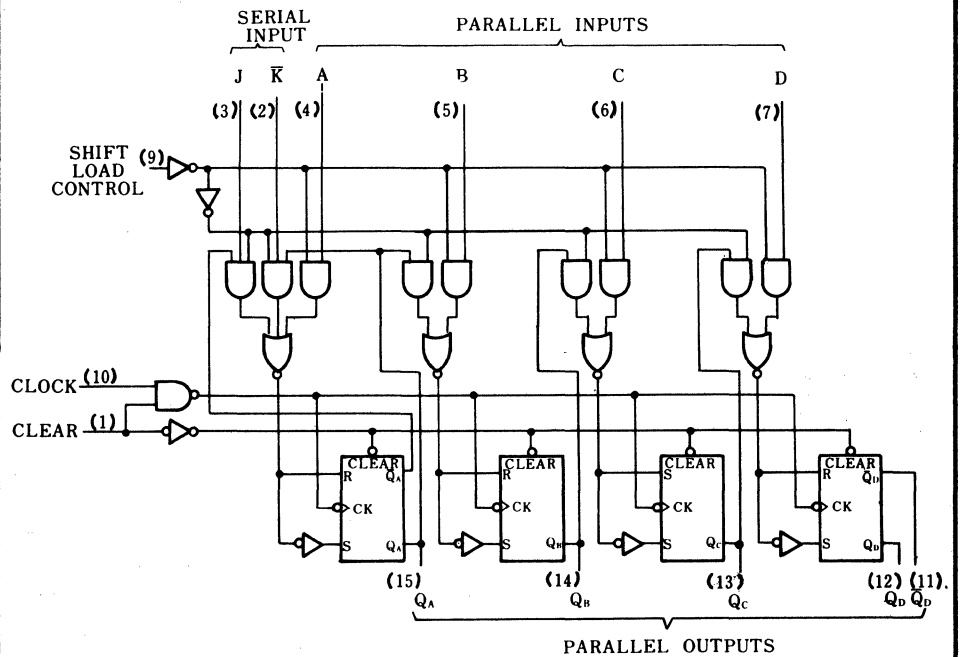
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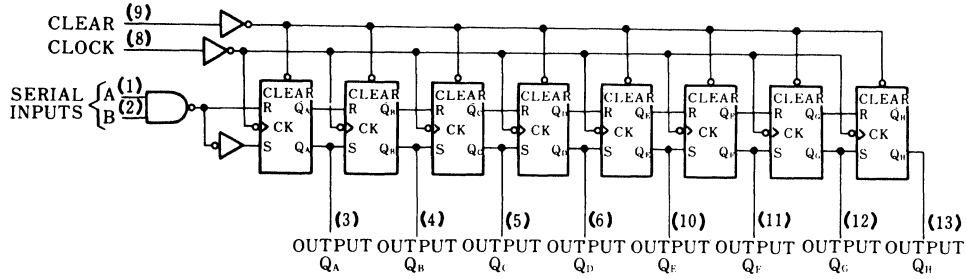
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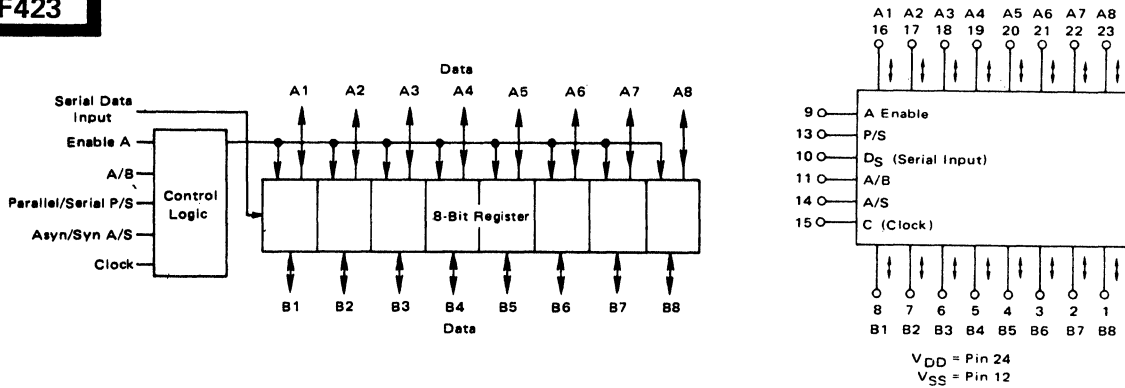
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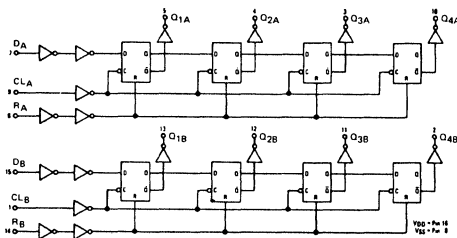
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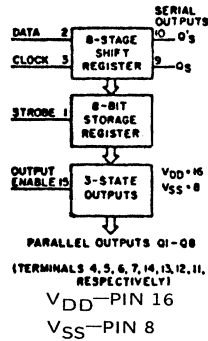
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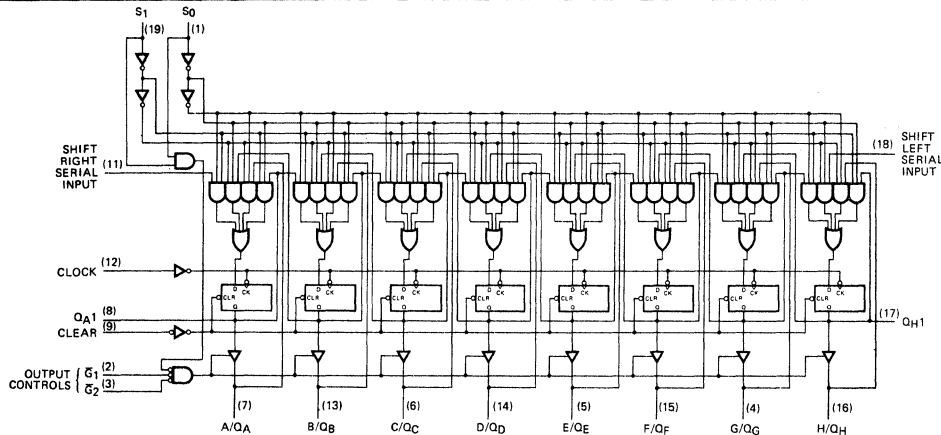
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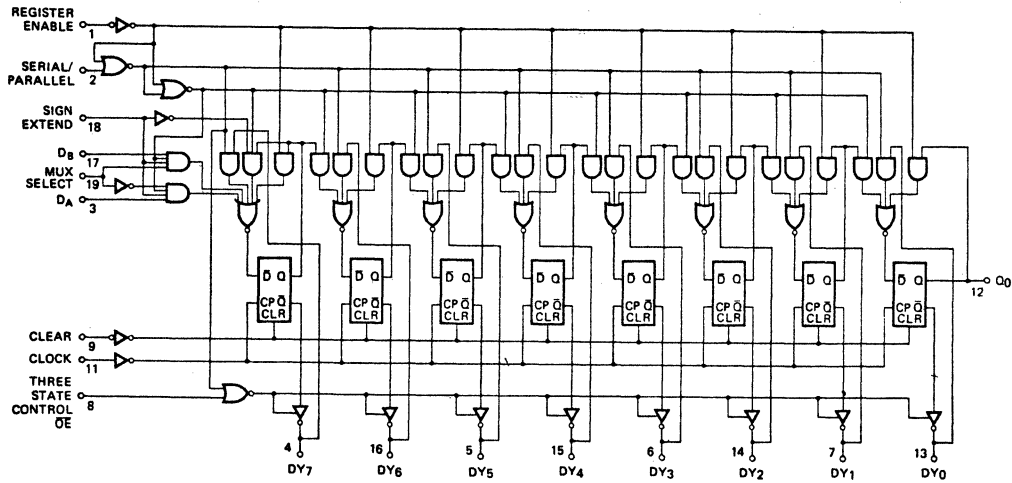
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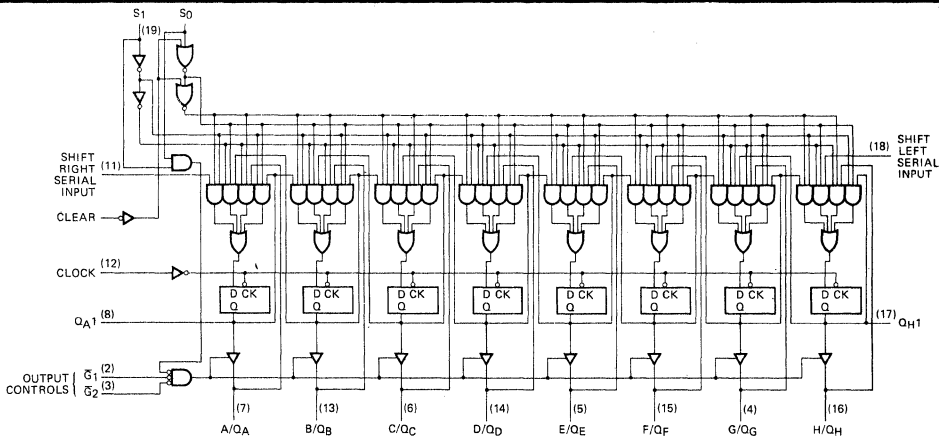
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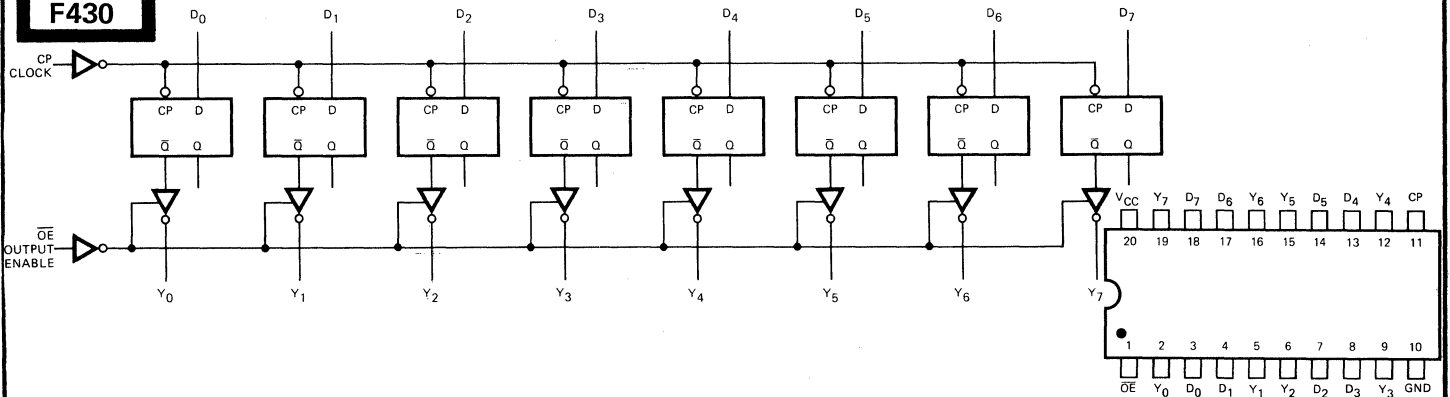
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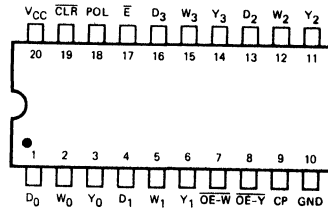
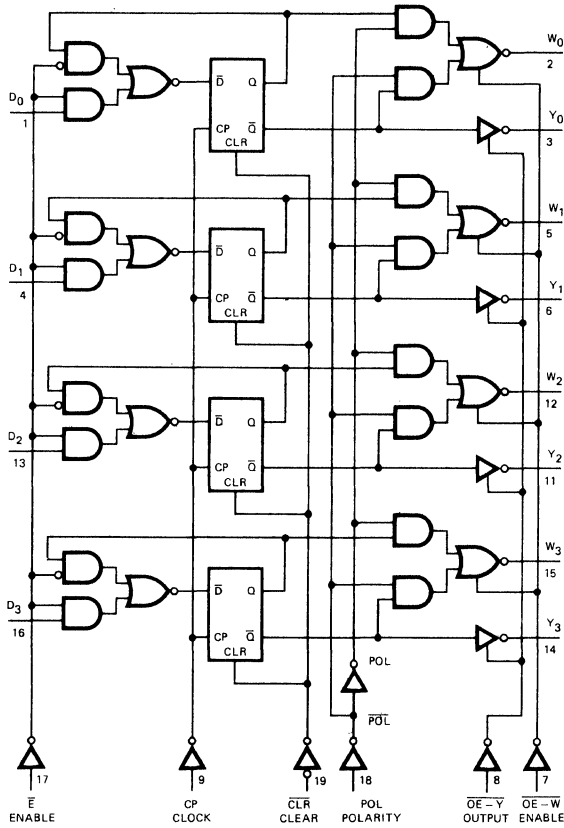
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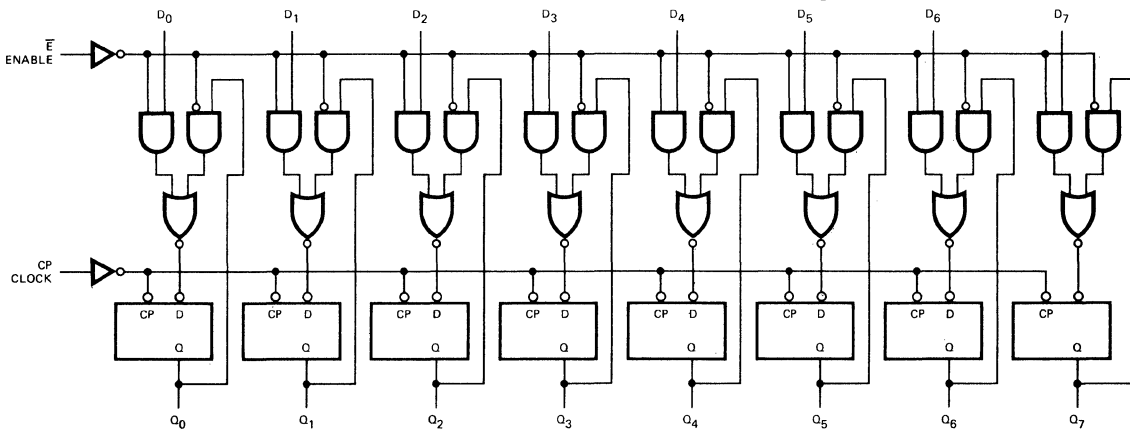
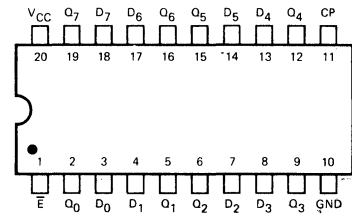
22. LOGIC/BLOCK DRAWINGS

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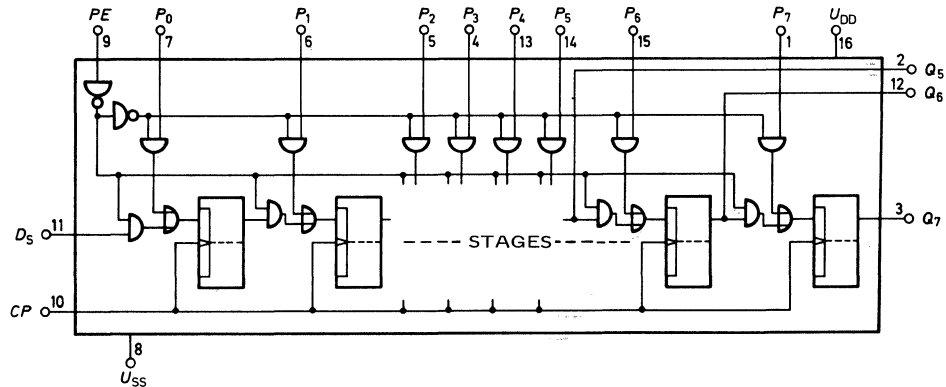
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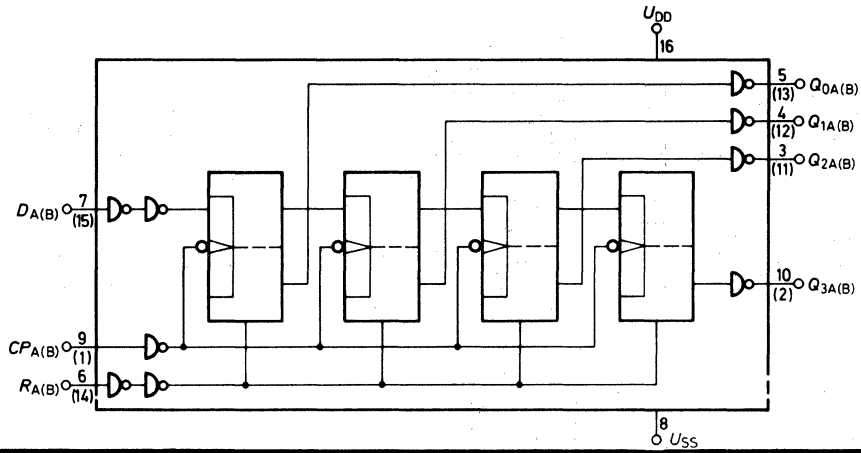
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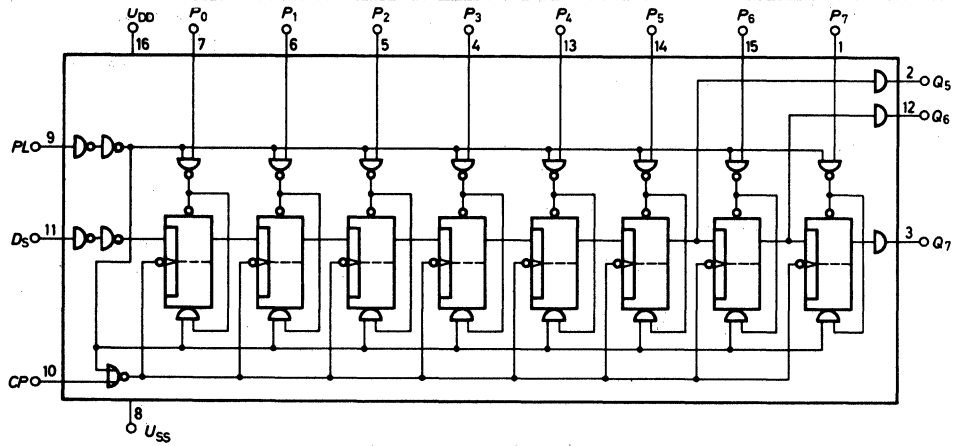
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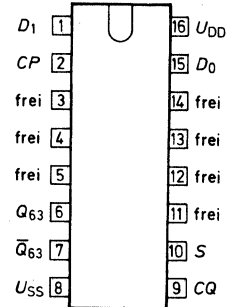
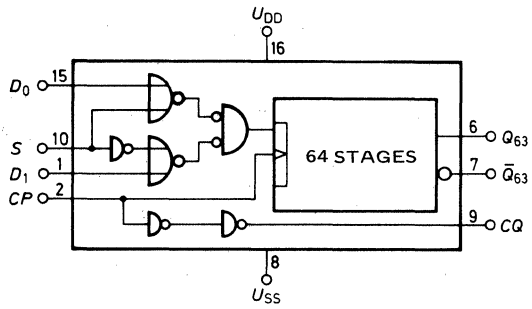
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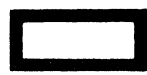
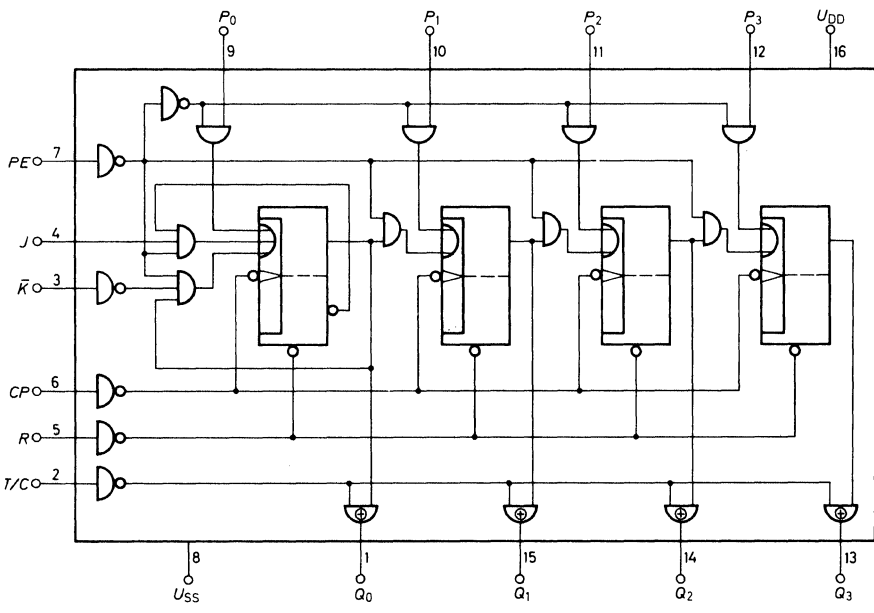
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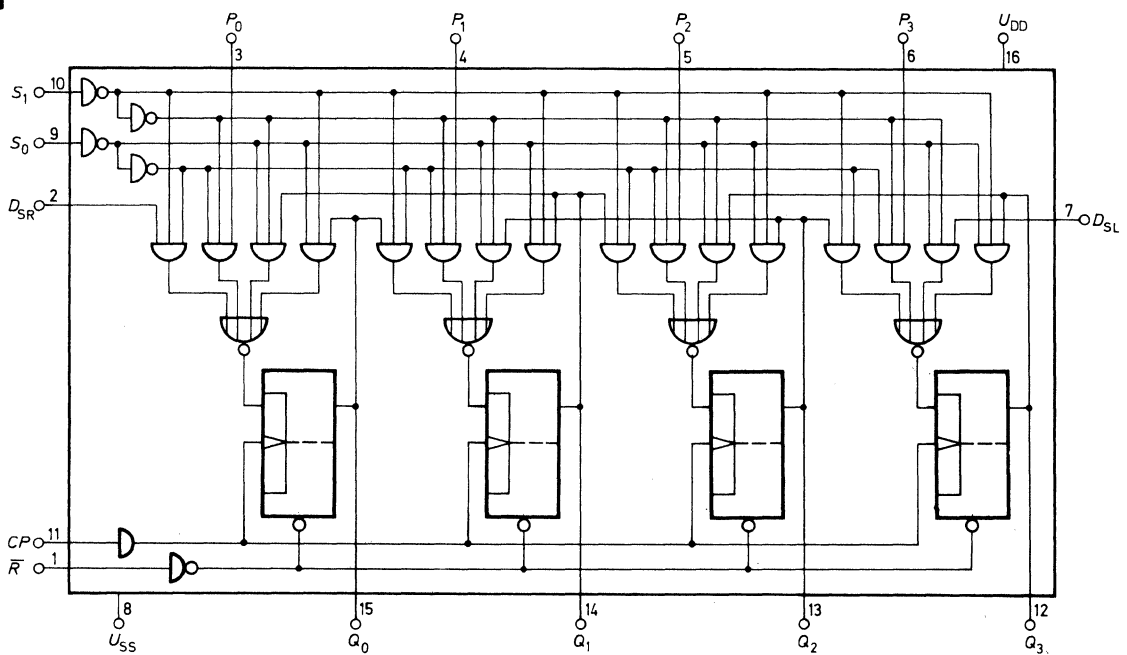
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F437



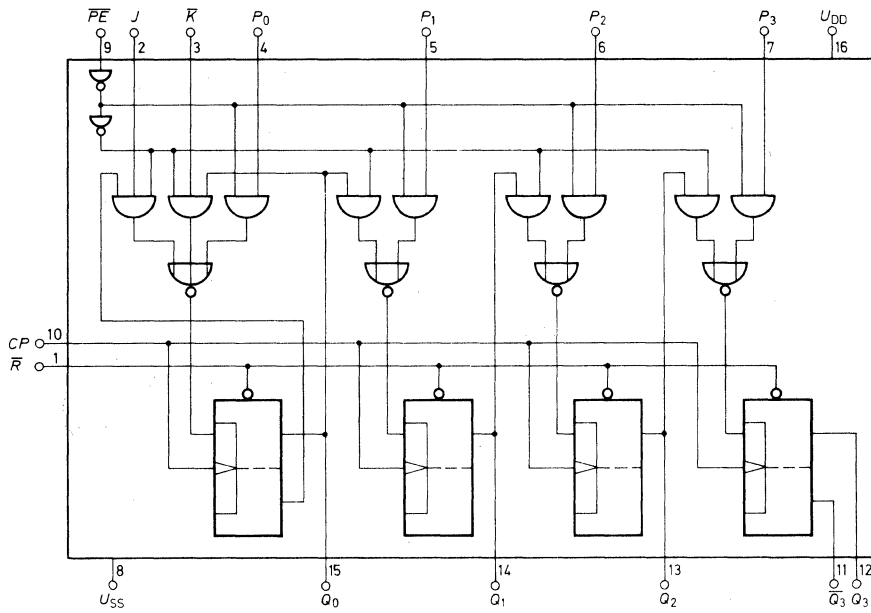
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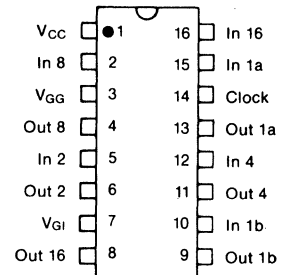
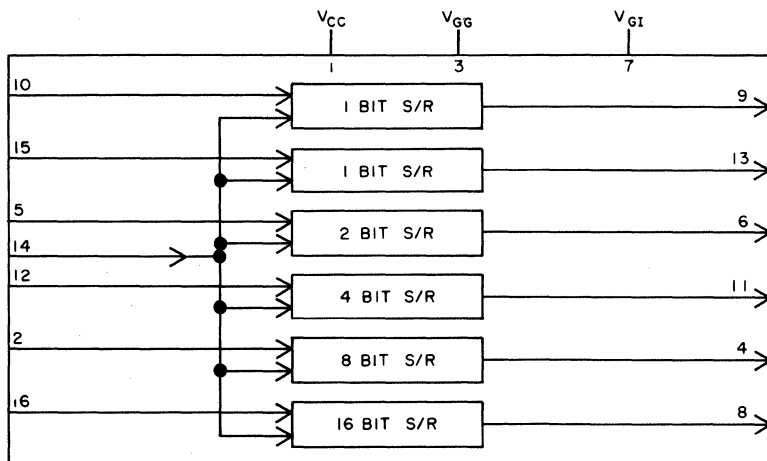
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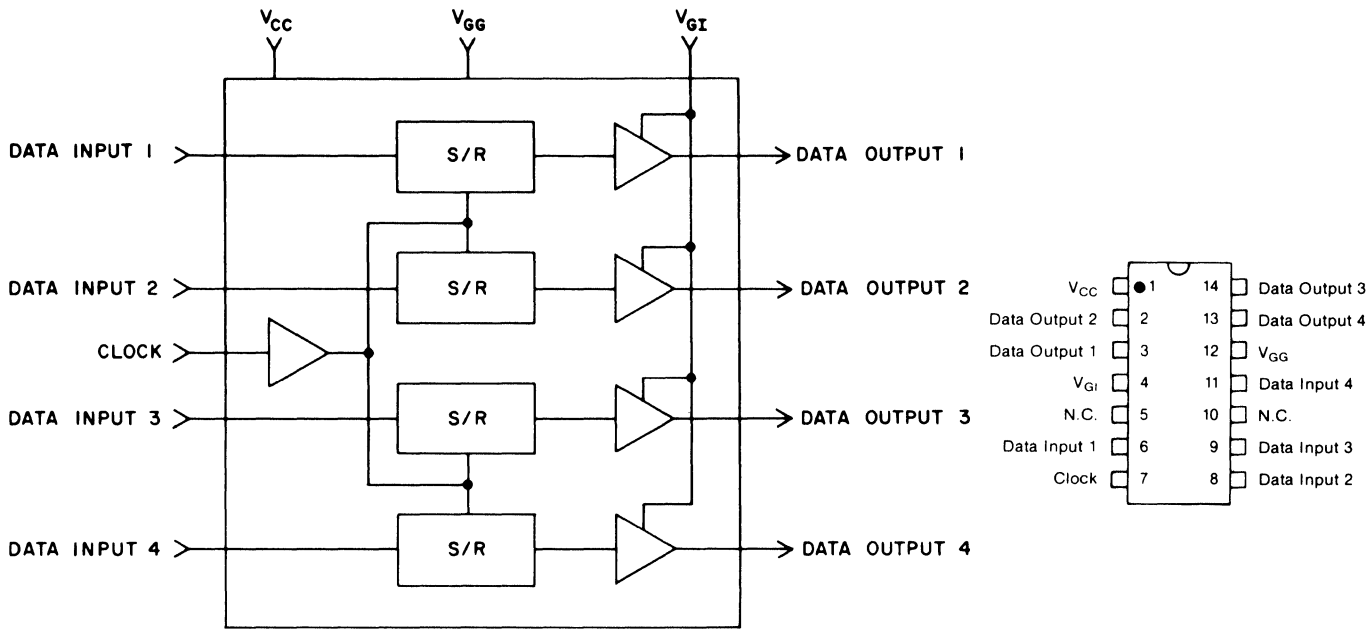
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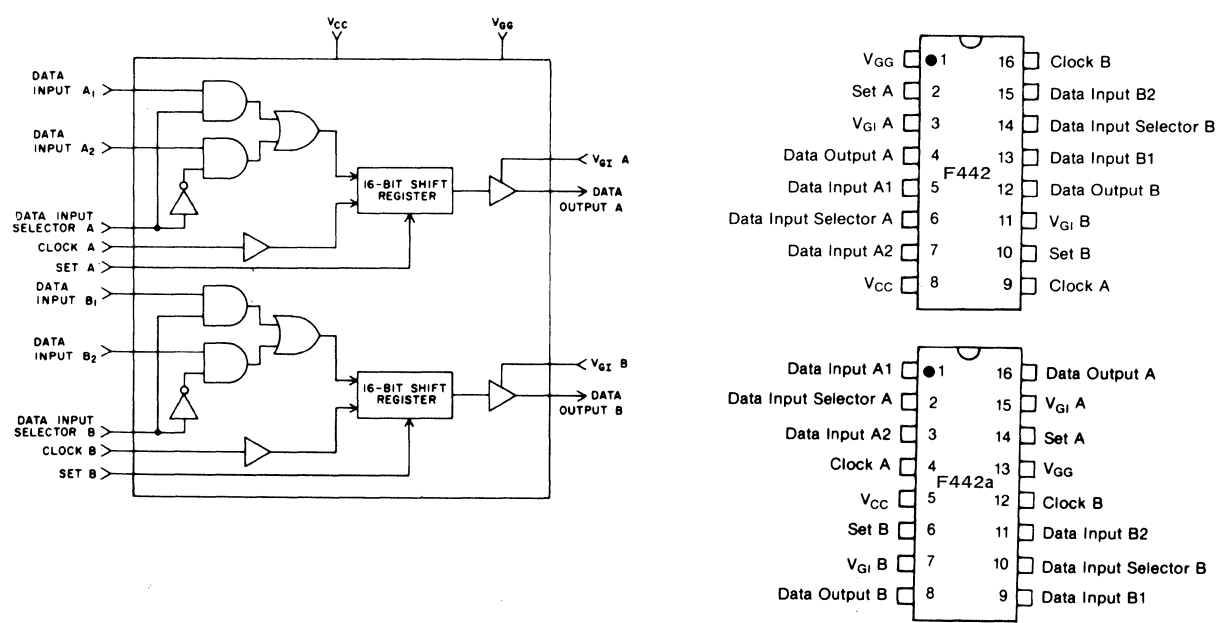
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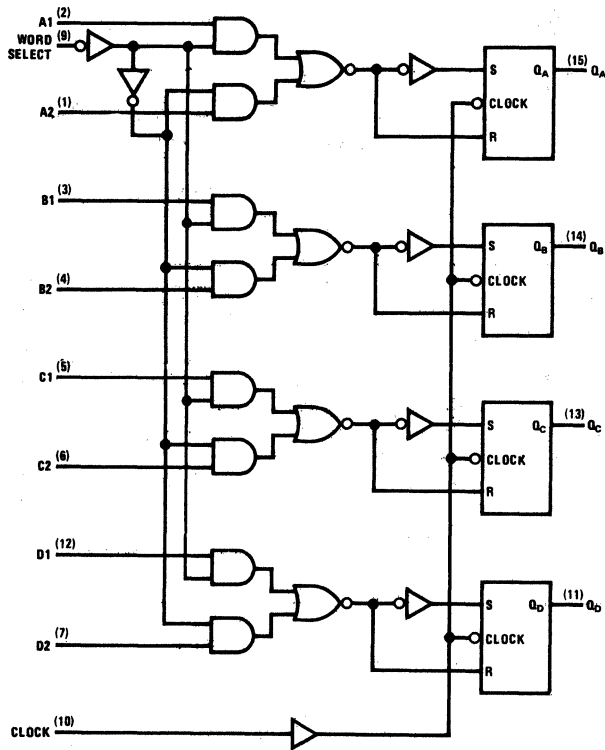
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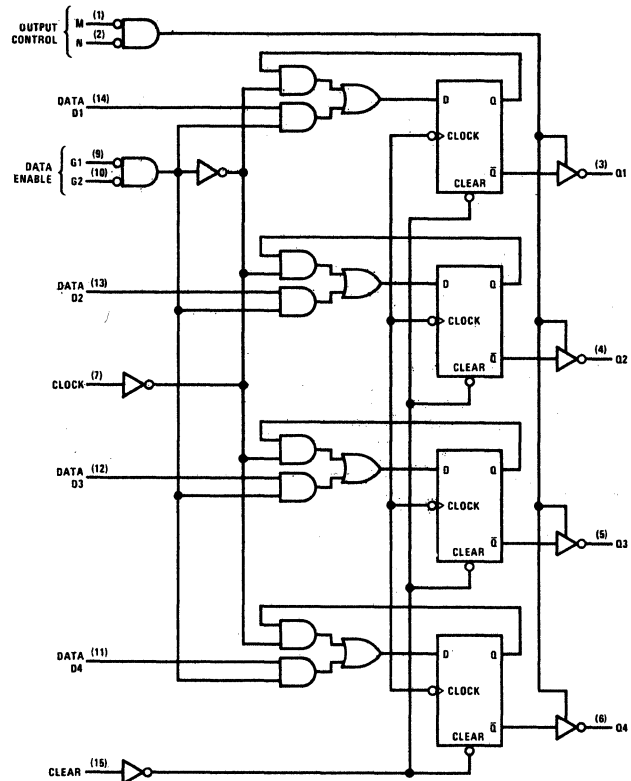
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IN DRAWING NUMBER SEQUENCE

F443



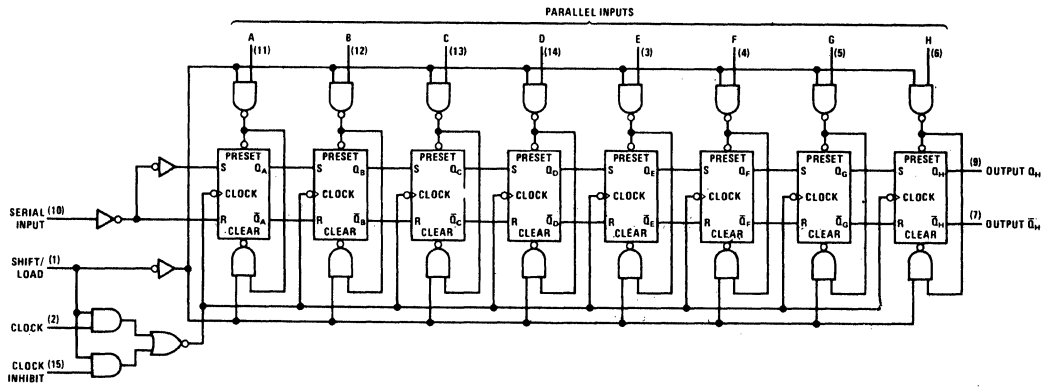
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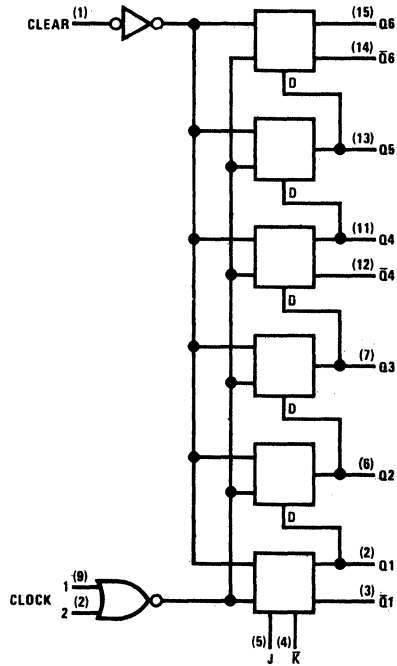
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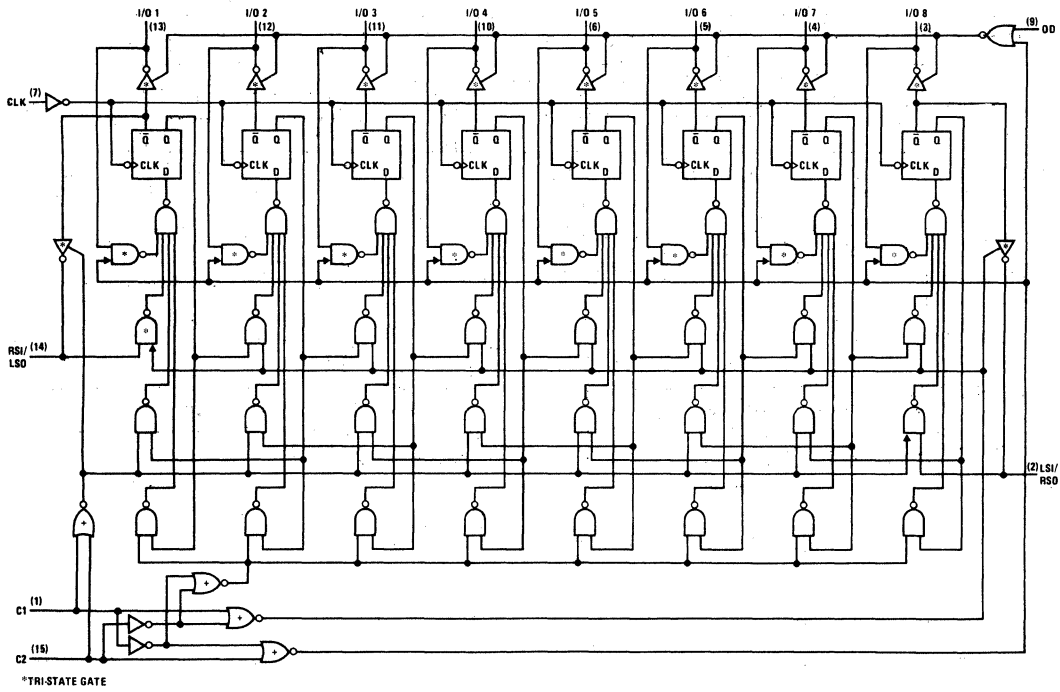
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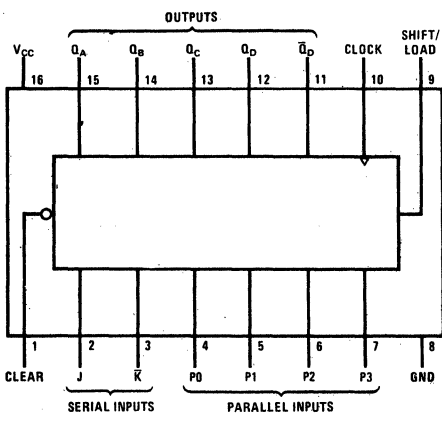
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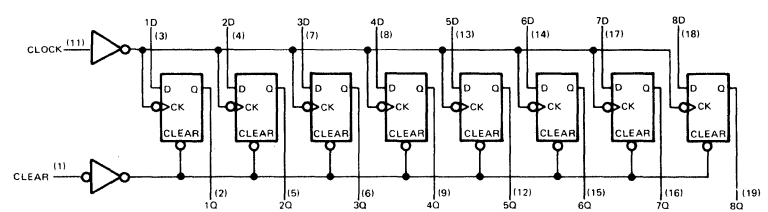
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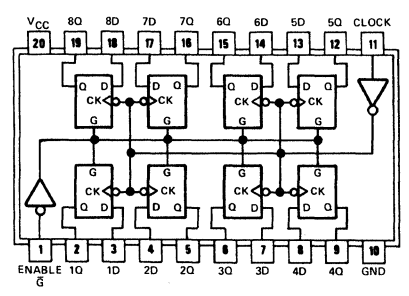
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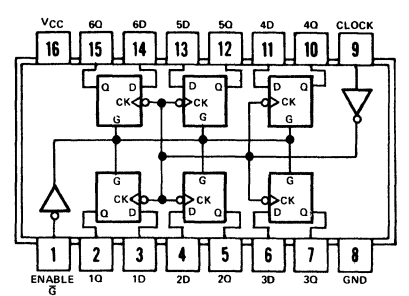
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F450



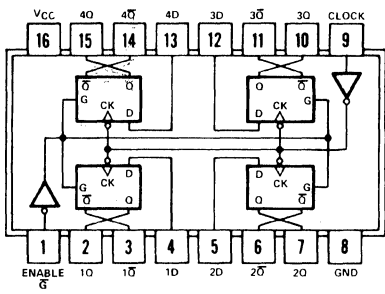
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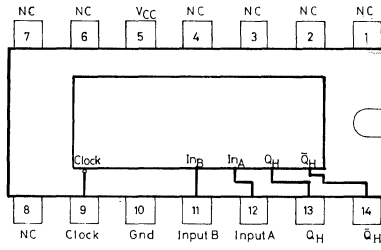
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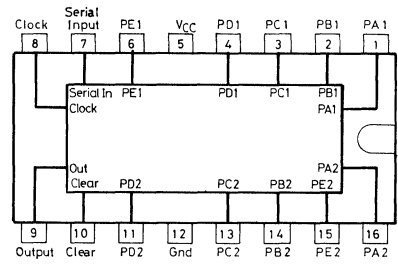
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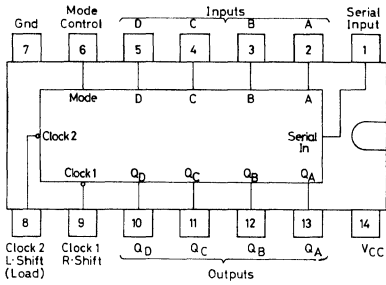
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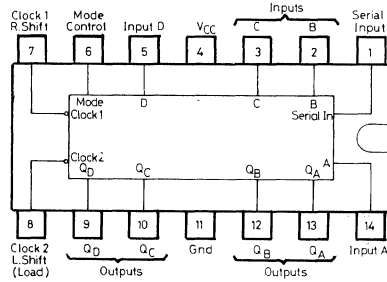
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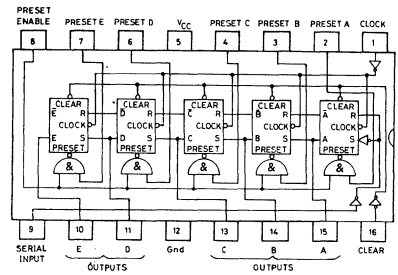
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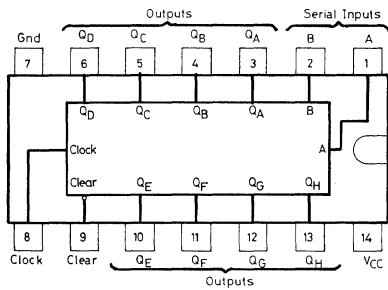
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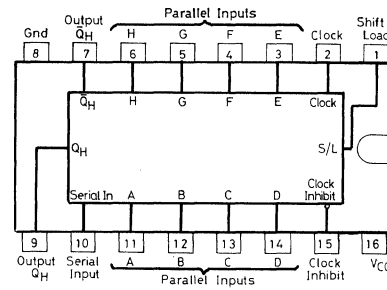
F457



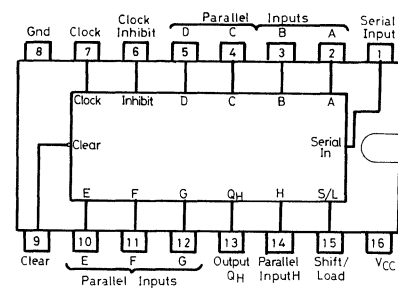
F458



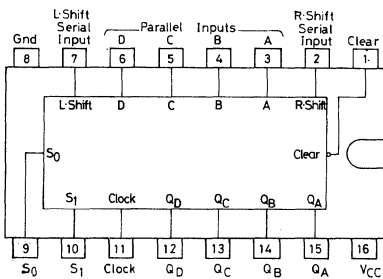
F459



F460



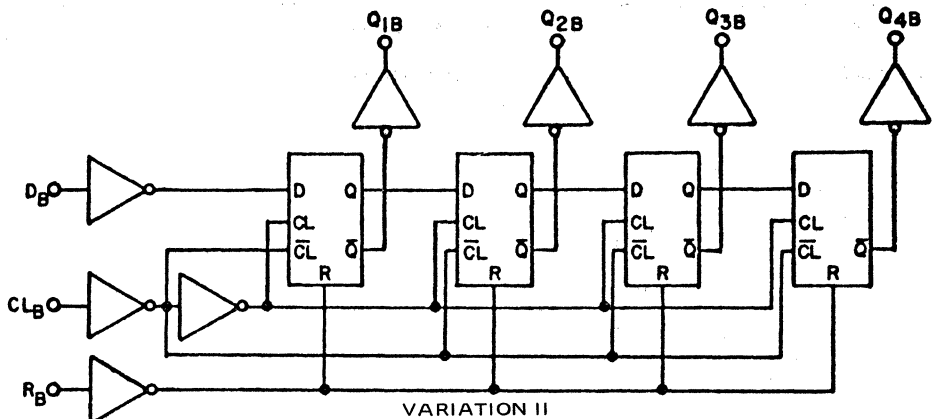
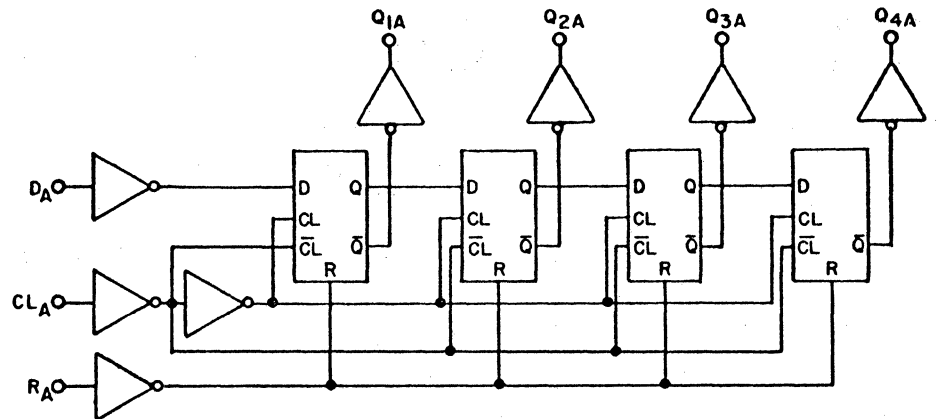
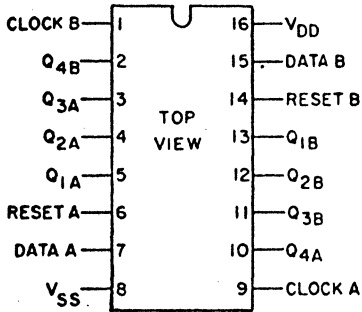
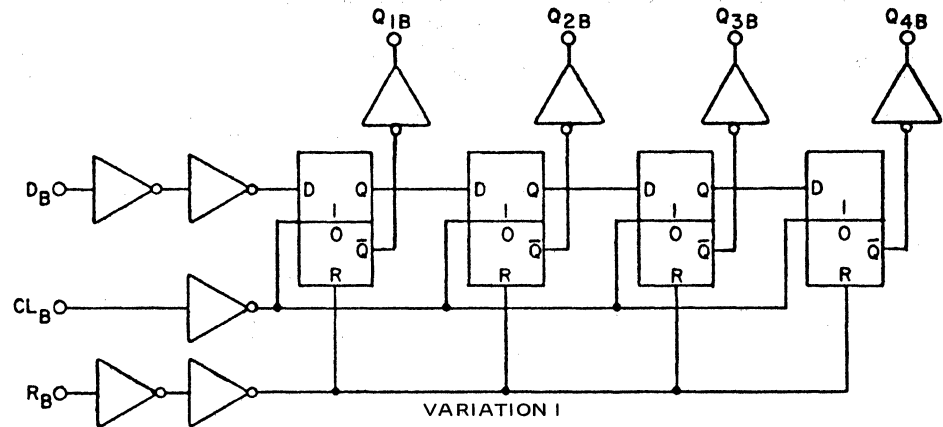
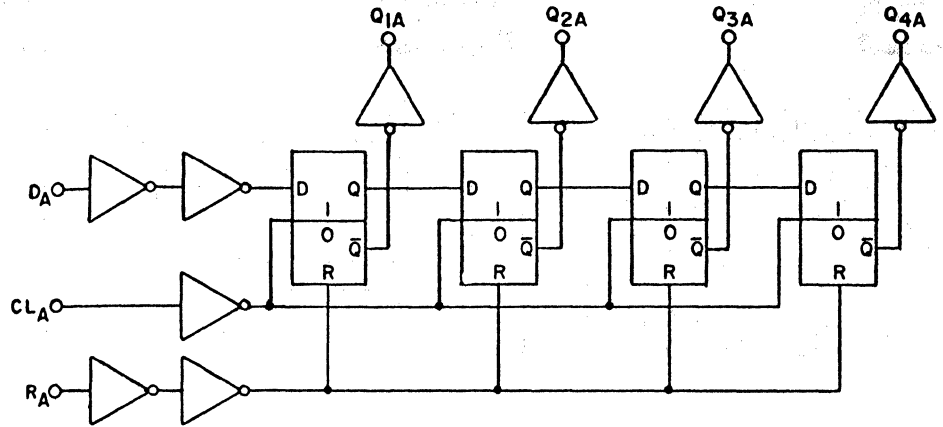
F461



22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

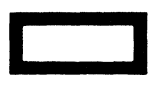
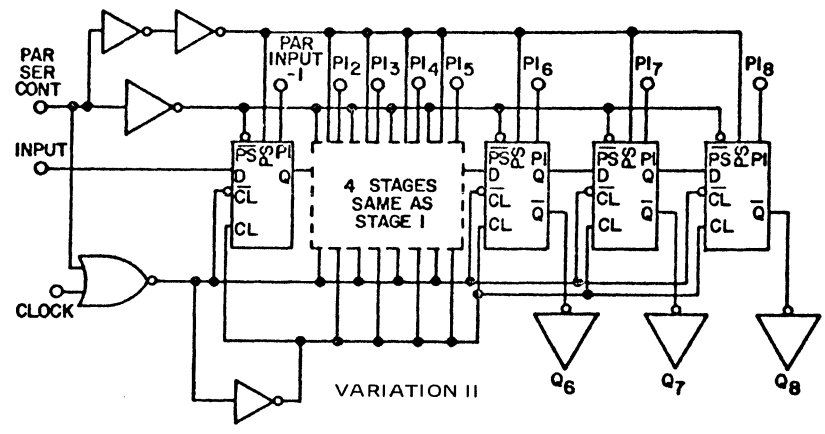
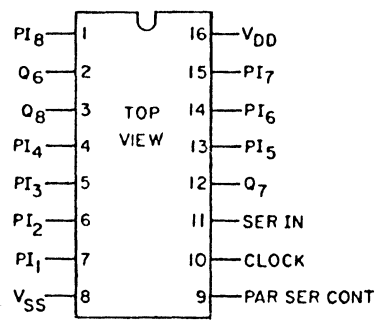
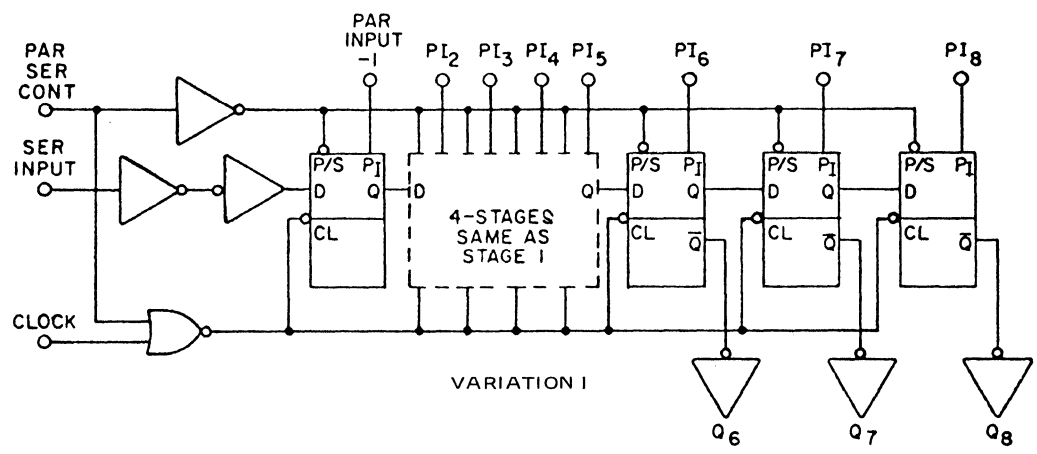
F462



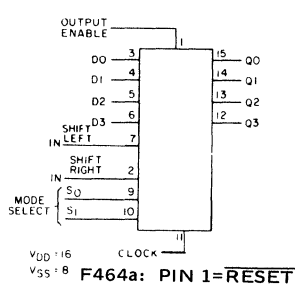
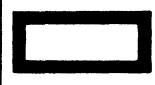
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

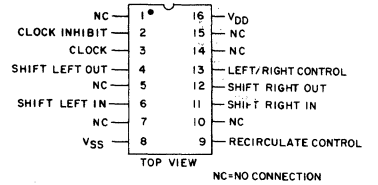
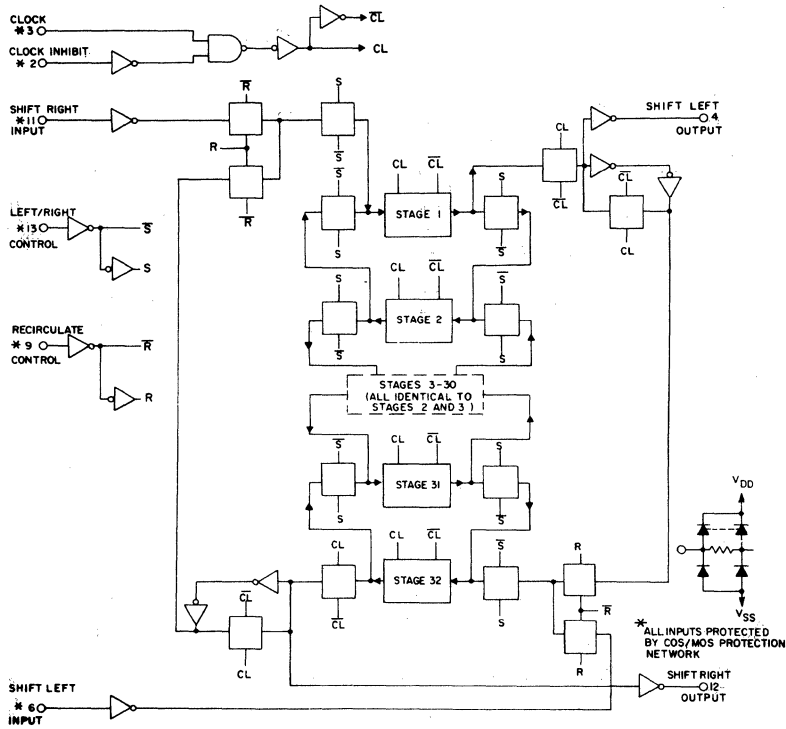
F463



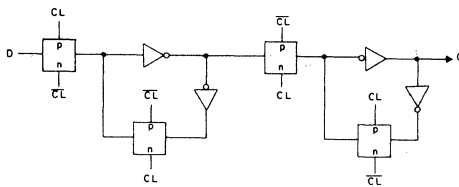
F464



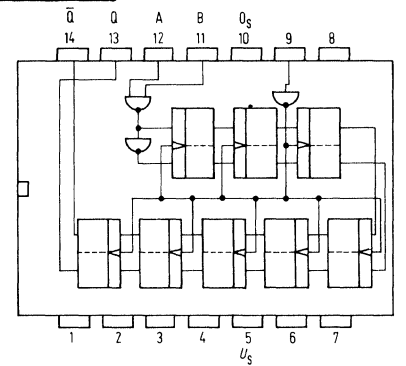
F465



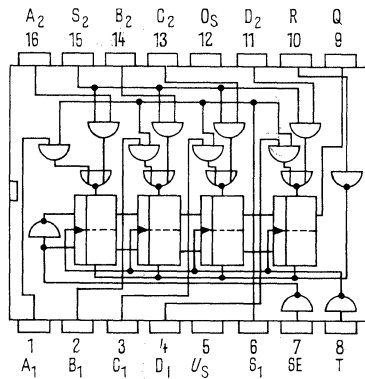
DETAIL OF TYPICAL D-TYPE M-S FLIP-FLOP



F466



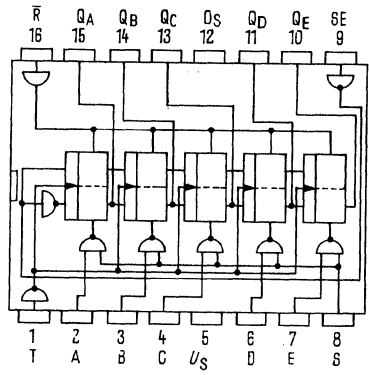
F467



22. LOGIC/BLOCK DRAWINGS

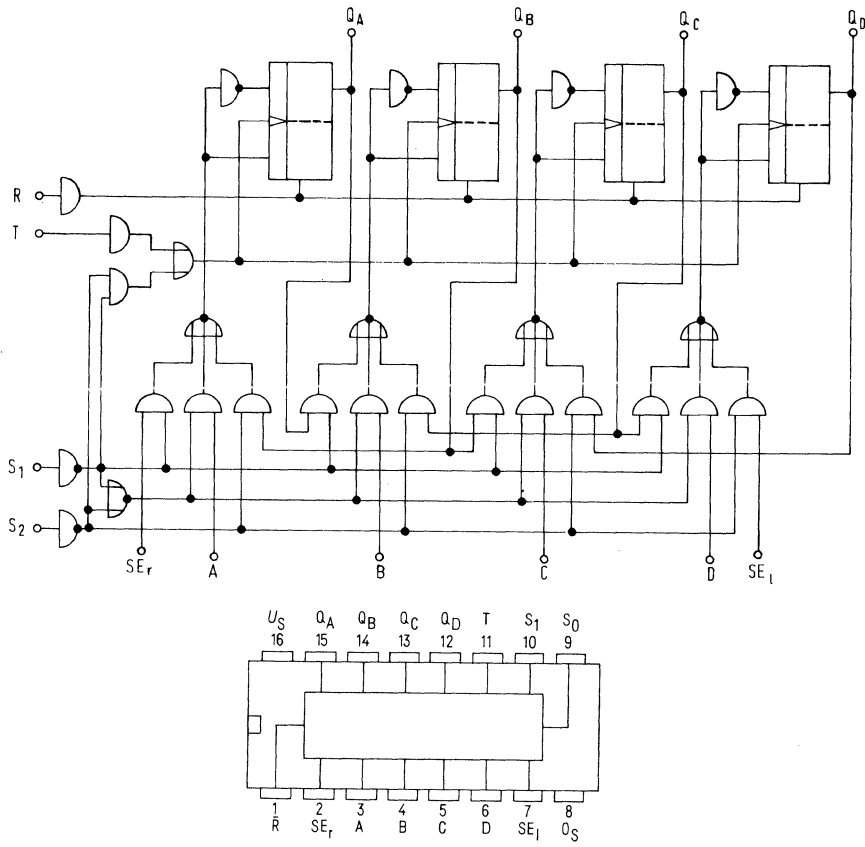
IN DRAWING NUMBER
SEQUENCE

F468



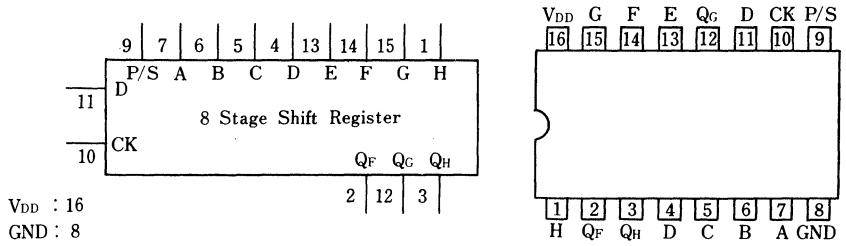
[Empty box]

F469

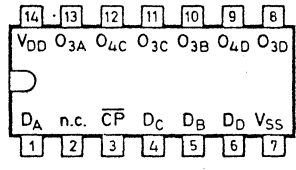
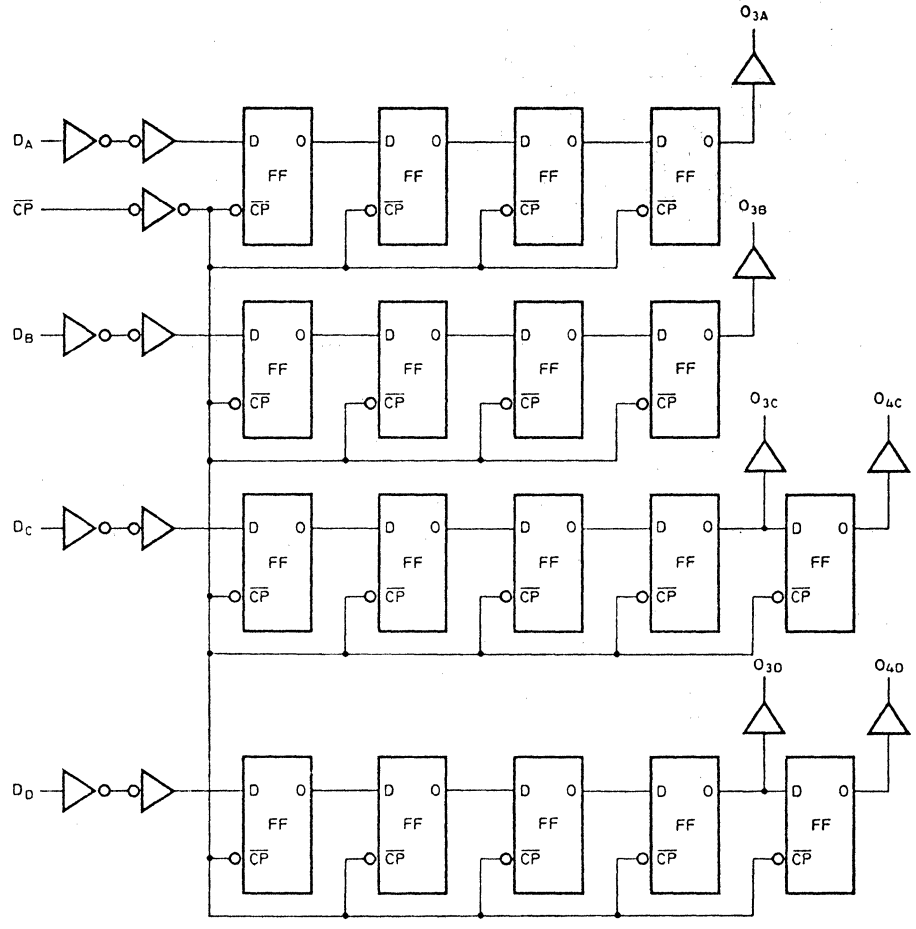


[Empty box]

F470



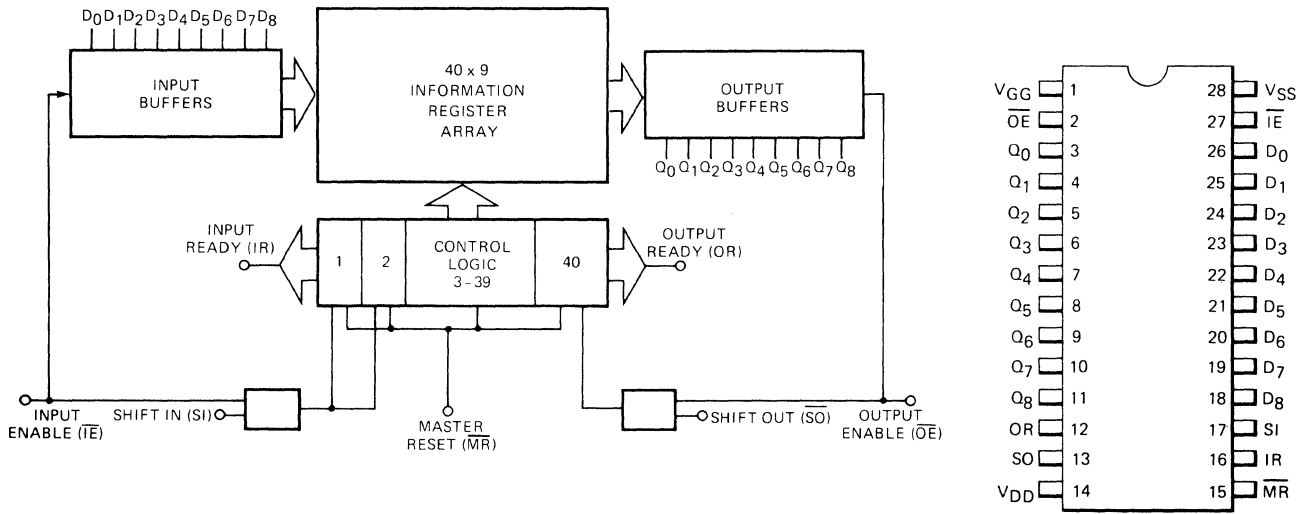
F471



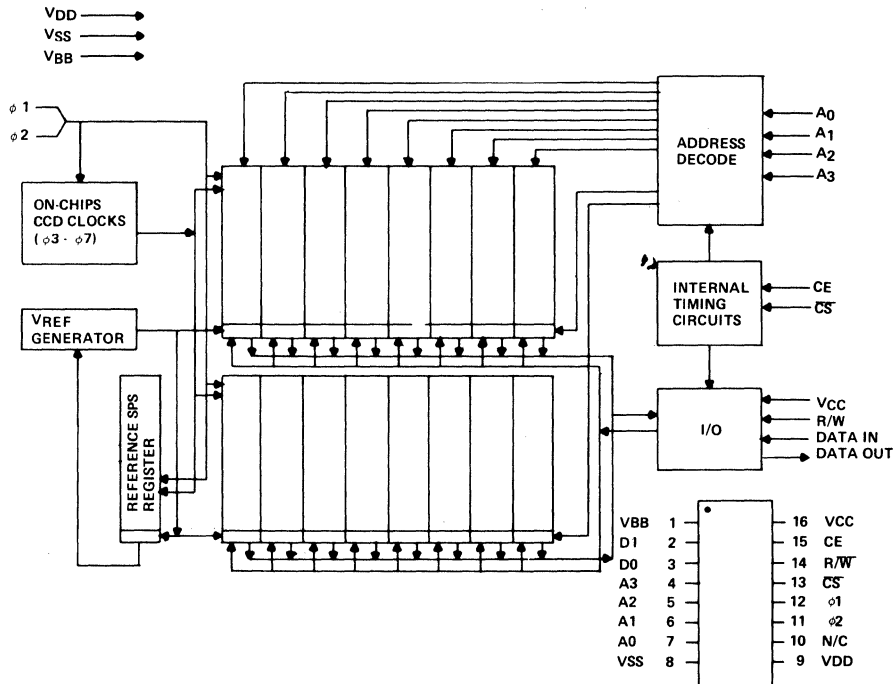
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

F472



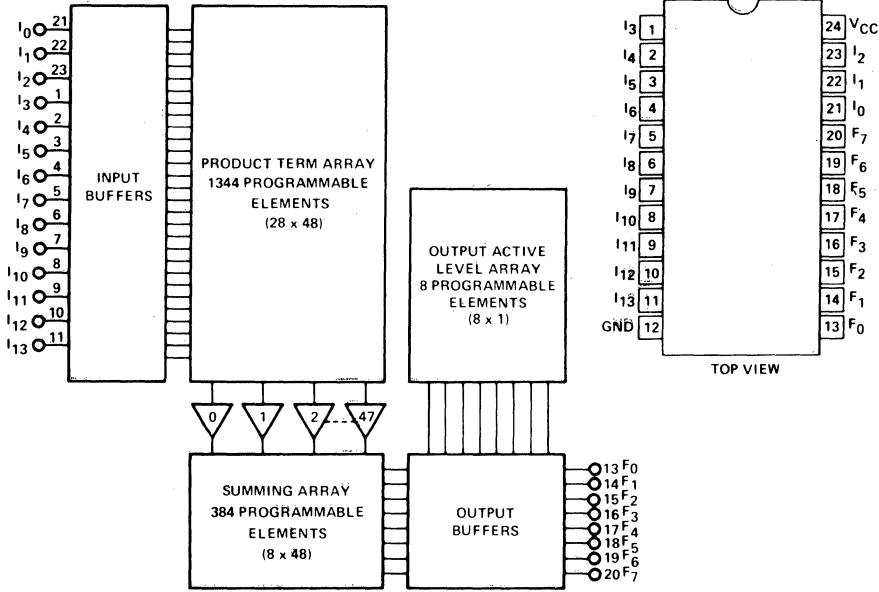
F473



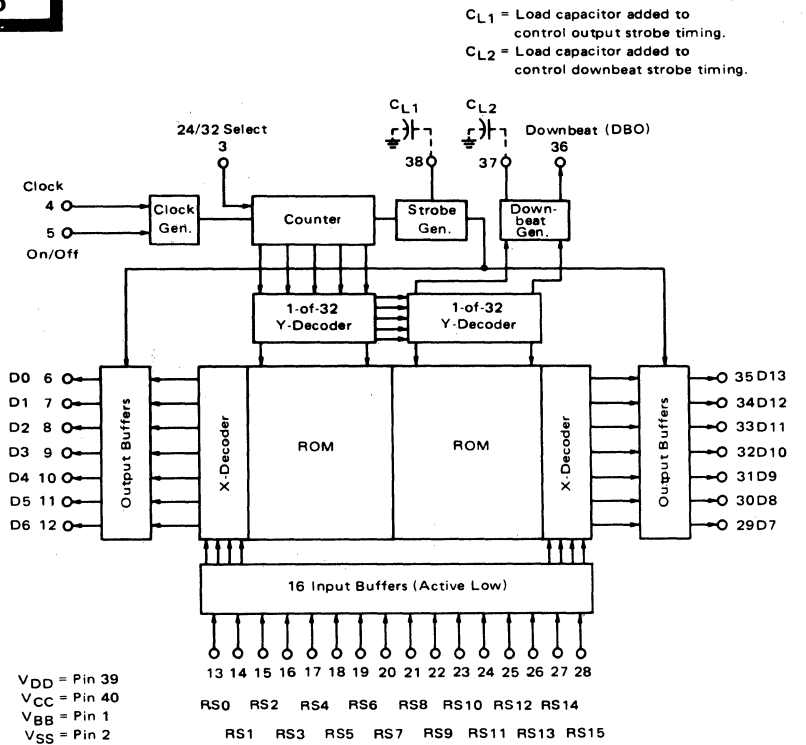
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

Z4

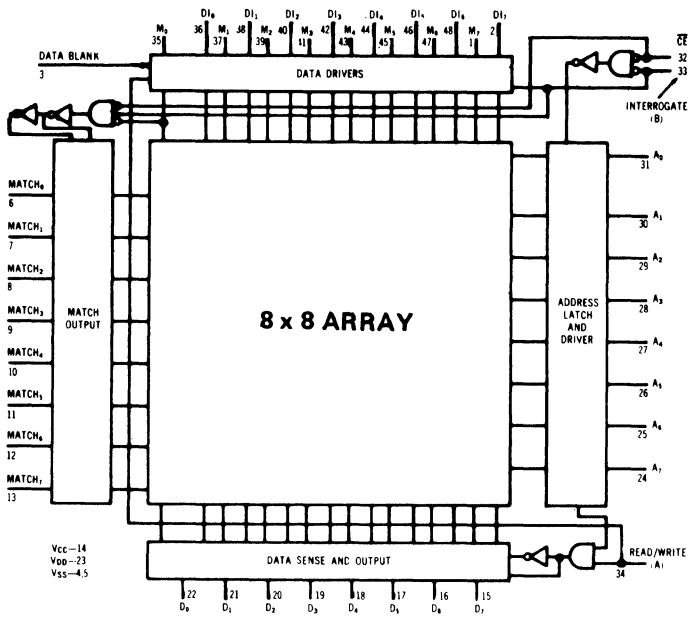


Z5

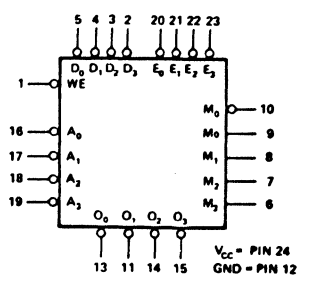


22. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

Z12

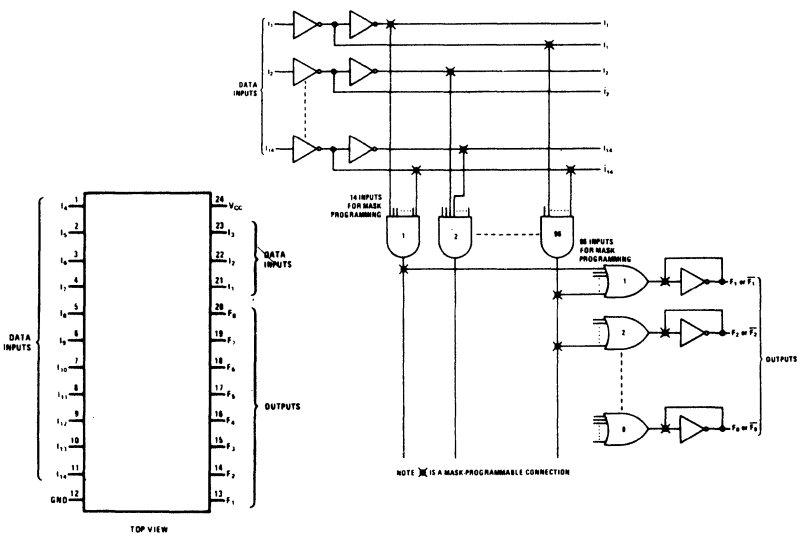


Z13



[Empty box]

Z14

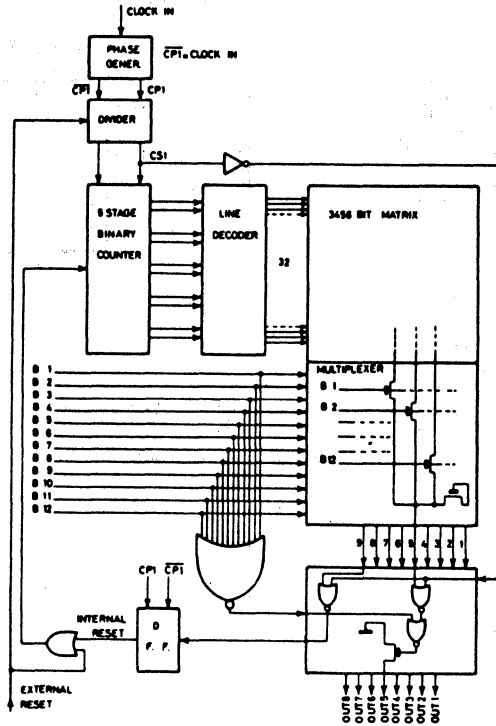


[Empty box]

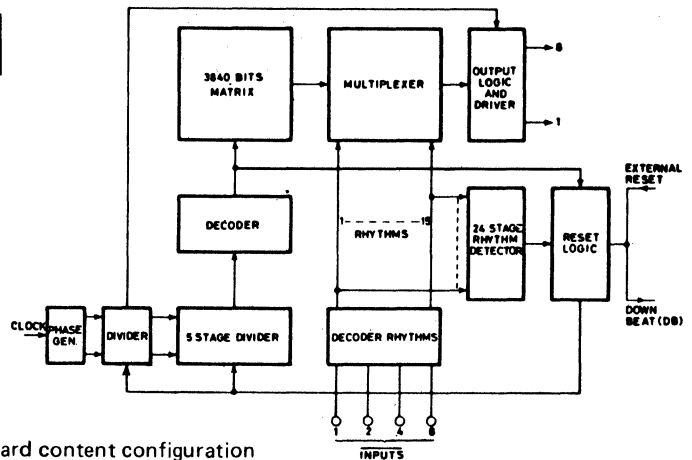
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

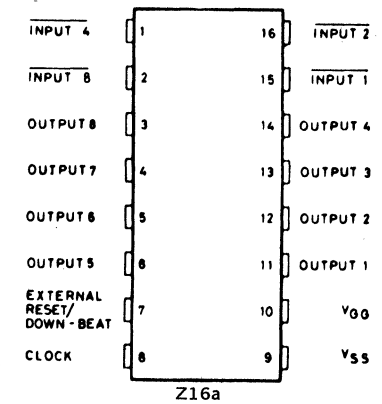
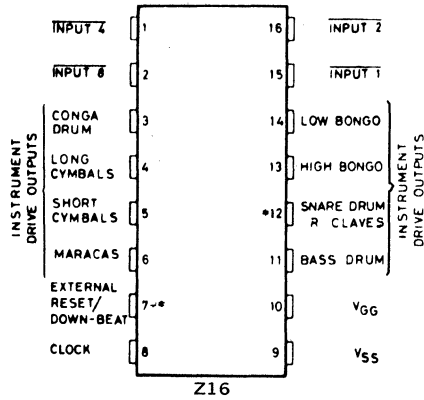
Z15



Z16



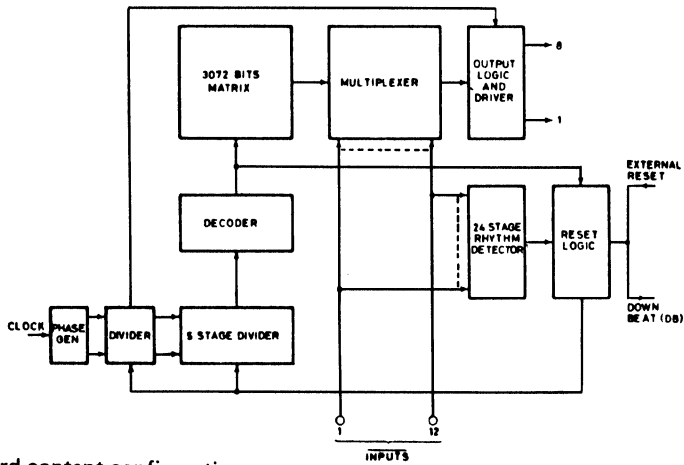
Standard content configuration



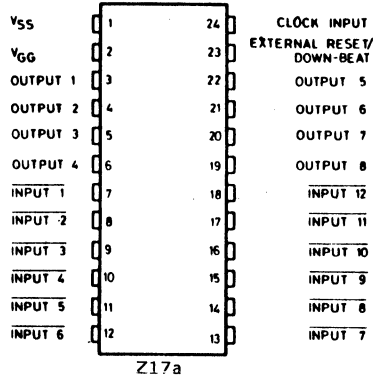
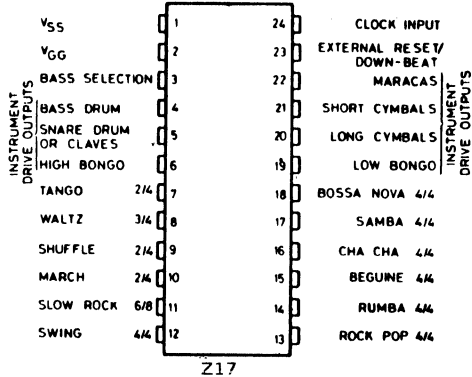
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

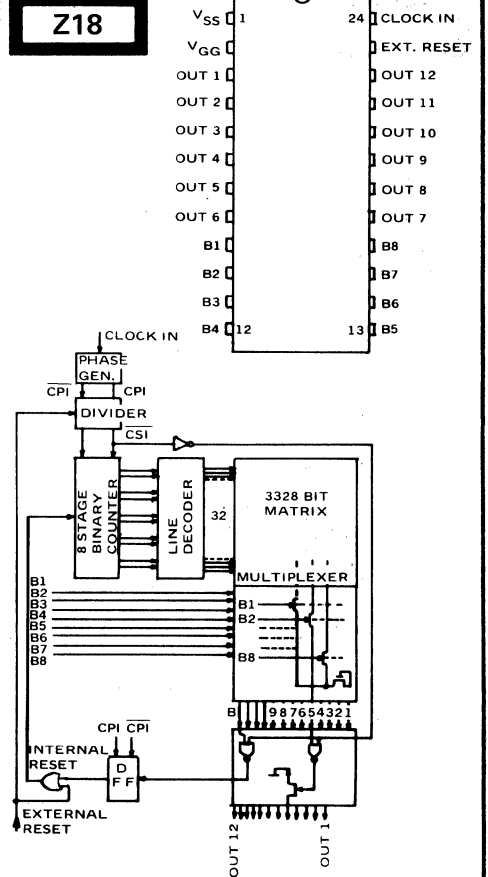
Z17



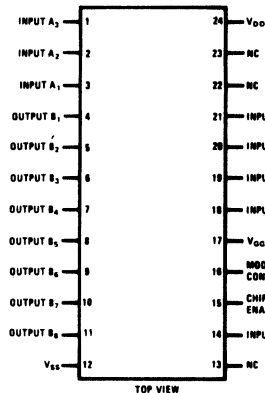
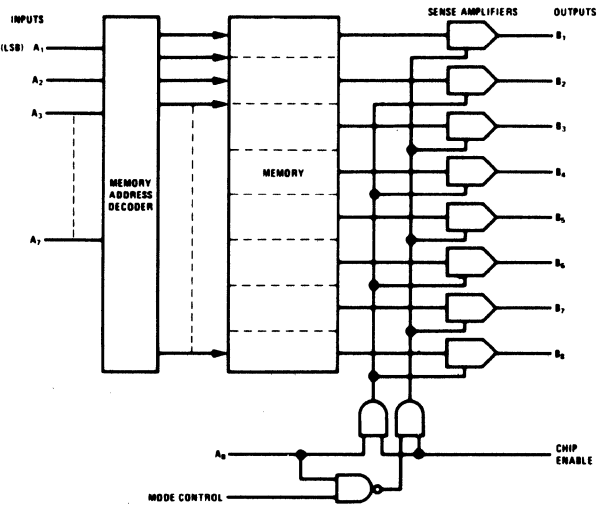
Standard content configuration



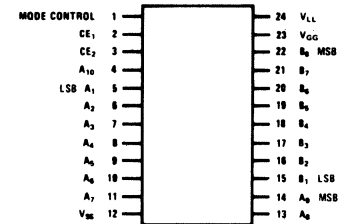
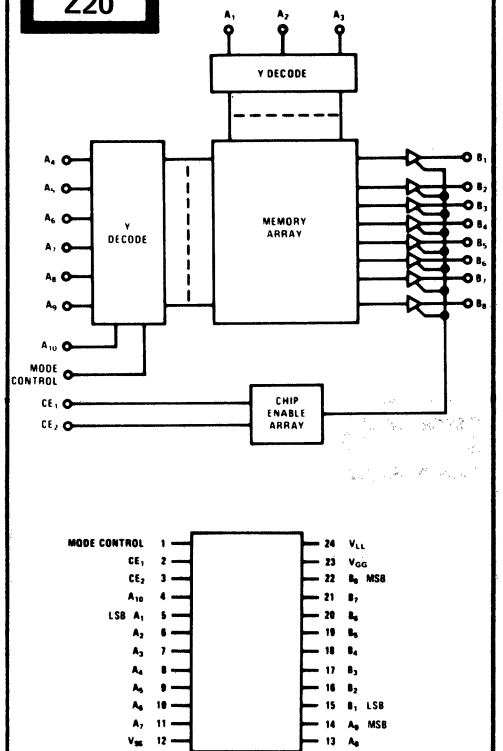
Z18



Z19



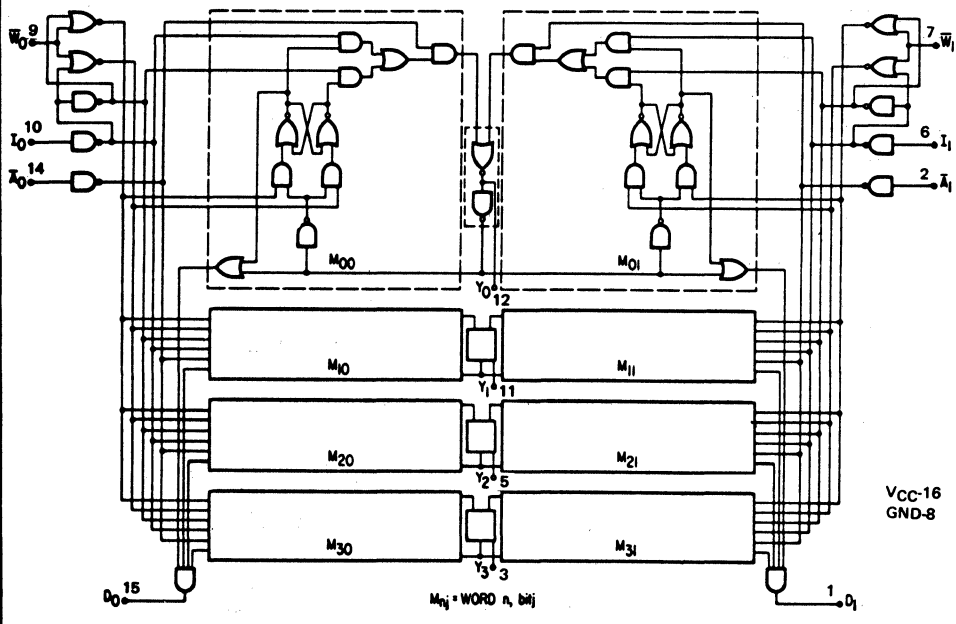
Z20



22. LOGIC/BLOCK DRAWINGS

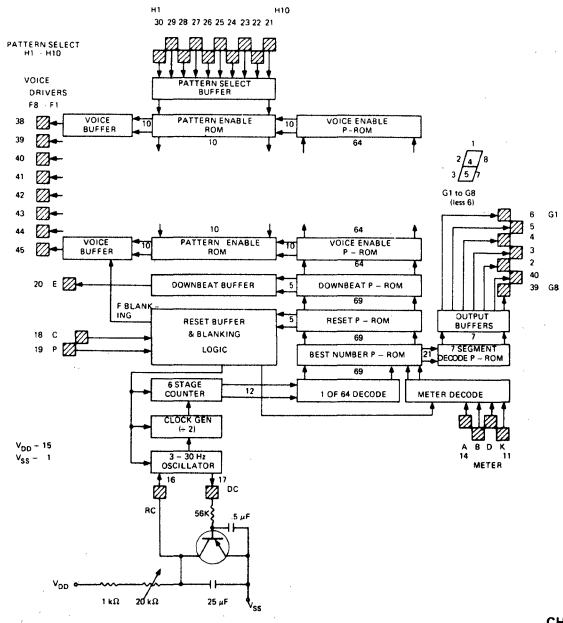
IN DRAWING NUMBER SEQUENCE

Z21



Z22

Z22

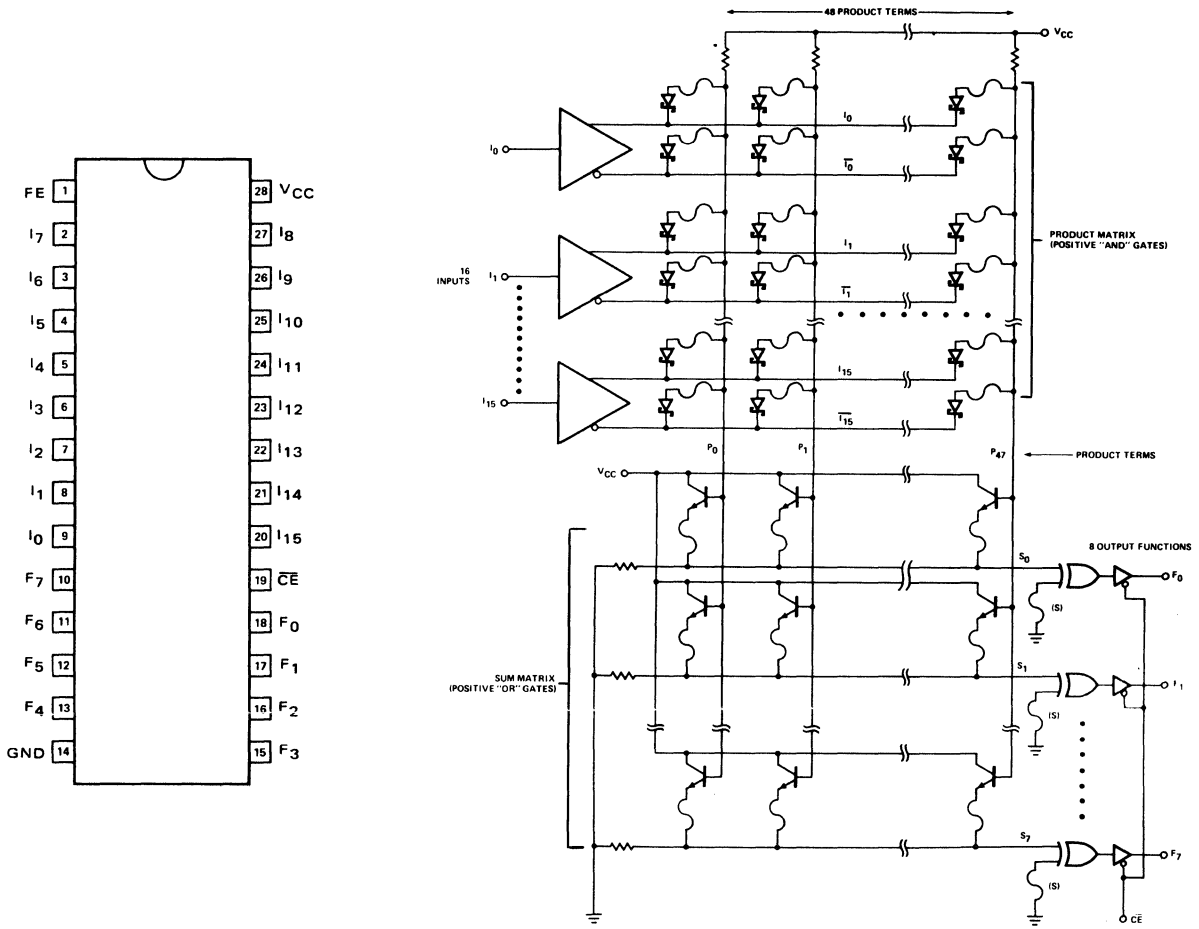


VSS	1	40	G7
G5	2	39	G8
G4	3	38	F1
G3	4	37	F2
G2	5	36	F3
G1	6	35	F4
	7	34	F5
	8	33	F6
	9	32	F7
K	10	31	F8
D	11	30	H1
B	12	29	H2
A	13	28	H3
VDD	14	27	H4
RC	15	26	H5
DUMP	16	25	H6
CHARGE	17	24	H7
	18	23	H8
	19	22	H9
E	20	21	H10

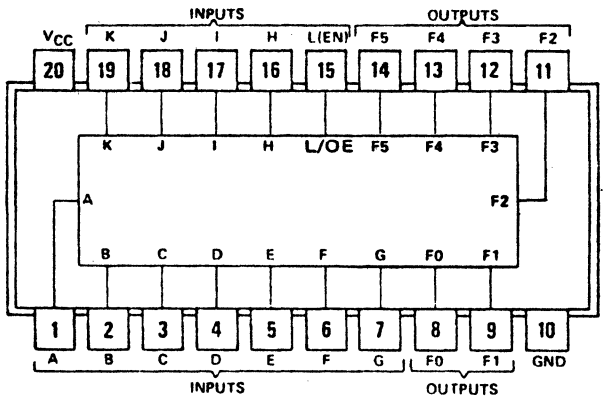
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

Z24



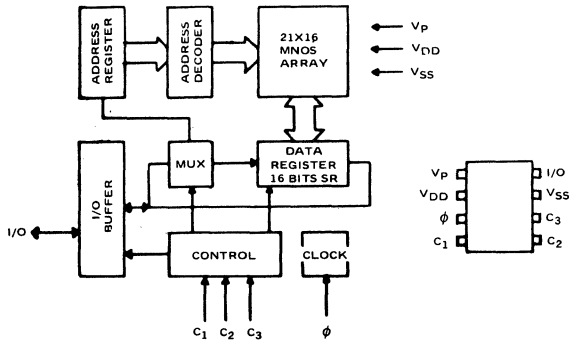
Z25



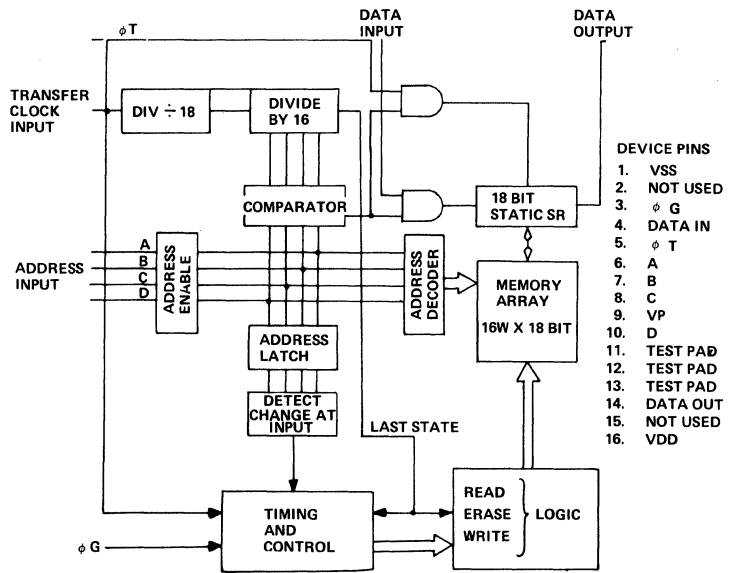
22. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER SEQUENCE

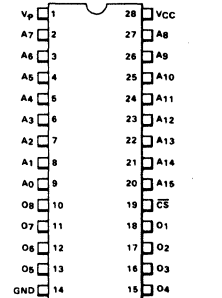
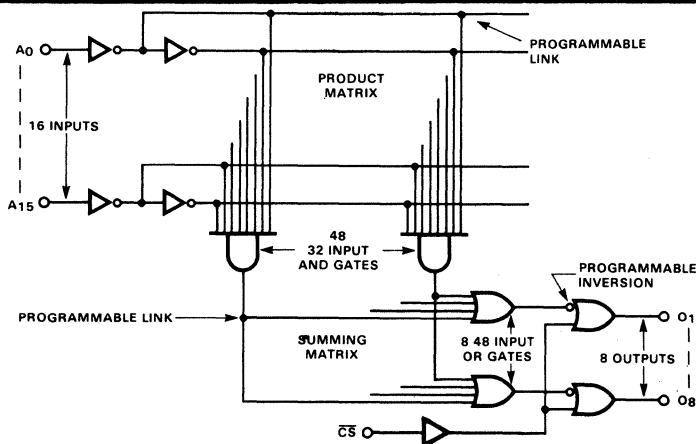
Z26



Z27



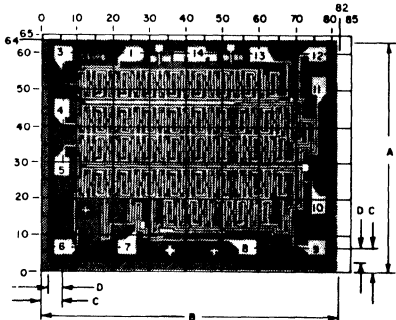
Z28



23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

CH1

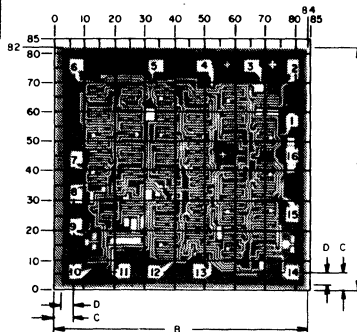


DIMENSIONS
Grid Graduations Are In Mils (10^{-3} Inch)

	Mils	Millimeters
A	61 - 69	1.550 - 1.752
B	79 - 87	2.007 - 2.209
C	4 - 10	0.102 - 0.254
D	3.3 - 4.3	0.084 - 0.109
CHIP THICKNESS:		
	5 - 9	0.127 - 0.228

Millimeter dimensions are derived from the basic inch dimensions as indicated.

CH2

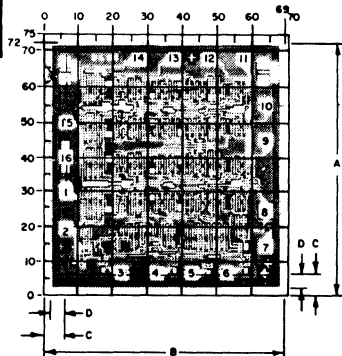


DIMENSIONS
Grid Graduations Are In Mils (10^{-3} Inch)

	Mils	Millimeters
A	79 - 87	2.007 - 2.209
B	81 - 89	2.058 - 2.260
C	4 - 10	0.102 - 0.254
D	3.3 - 4.3	0.084 - 0.109
CHIP THICKNESS:		
	5 - 9	0.127 - 0.228

Millimeter dimensions are derived from the basic inch dimensions as indicated.

CH3



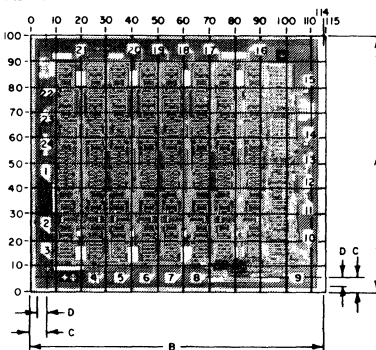
DIMENSIONS

Grid Graduations Are In Mils (10^{-3} Inch)

	MILS	MILLIMETERS
A	69 - 77	1.753 - 1.955
B	66 - 74	1.677 - 1.879
C	4 - 10	0.102 - 0.254
D	3.3 - 4.3	0.084 - 0.109
CHIP THICKNESS:		
	5 - 9	0.127 - 0.228

Millimeter dimensions are derived from the basic inch dimensions as indicated.

CH4



DIMENSIONS

Grid Graduations Are In Mils (10^{-3} Inch)

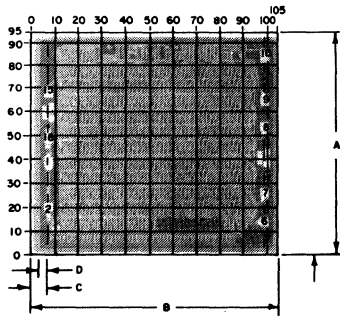
	Mils	Millimeters
A	97 - 105	2.464 - 2.667
B	111 - 119	2.820 - 3.022
C	4 - 10	0.102 - 0.254
D	3.3 - 4.3	0.084 - 0.109
CHIP THICKNESS:		
	5 - 9	0.127 - 0.228

Millimeter dimensions are derived from the basic inch dimensions as indicated.

23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

CH5



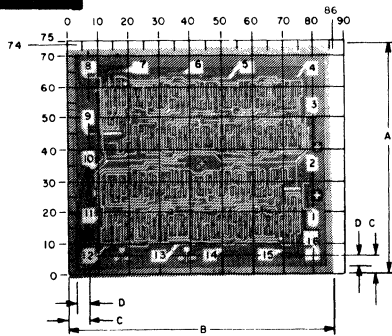
DIMENSIONS

Grid Graduations Are In Mils (10^{-3} Inch)

	Mils	Millimeters
A	92 - 100	2.337 - 2.540
B	102 - 110	2.591 - 2.794
C	4 - 10	0.102 - 0.254
D	3.3 - 4.3	0.084 - 0.109
CHIP THICKNESS:		
	5 - 9	0.127 - 0.228

Millimeter dimensions are derived from the basic inch dimensions as indicated.

CH6



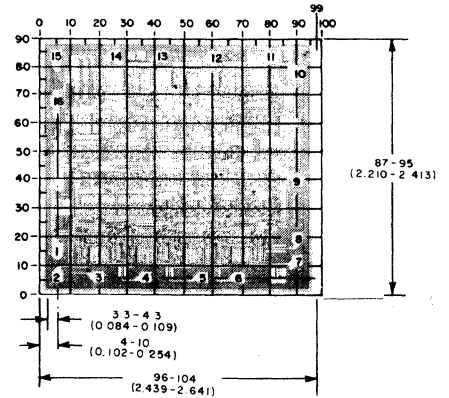
DIMENSIONS

Grid Graduations Are In Mils (10^{-3} Inch)

	Mils	Millimeters
A	71 - 79	1.804 - 2.006
B	83 - 91	1.194 - 1.397
C	4 - 10	0.102 - 0.254
D	3.3 - 4.3	0.084 - 0.109
CHIP THICKNESS:		
	5 - 9	0.127 - 0.228

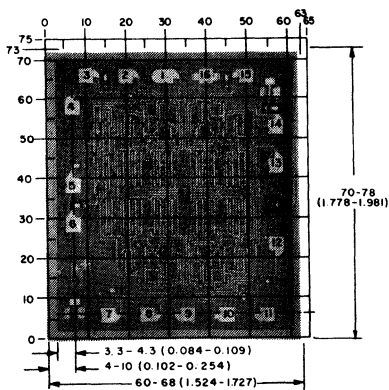
Millimeter dimensions are derived from the basic inch dimensions as indicated.

CH7



Dimensions in parentheses are in millimeters and are derived from the basic inch dimensions as indicated. Grid graduations are in mils (10^{-3} inch).

CH8

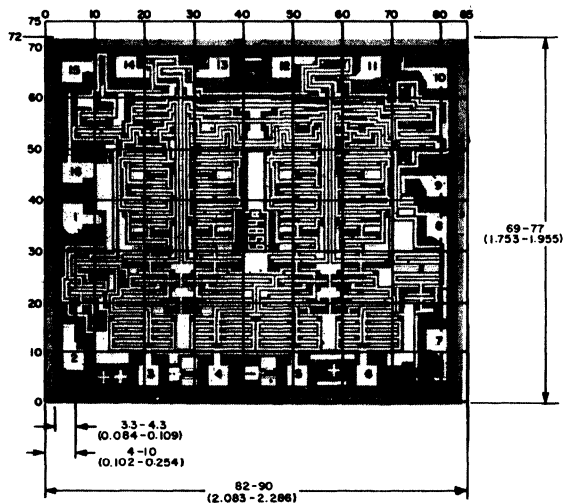


Dimensions in parentheses are in millimeters and are derived from the basic inch dimensions as indicated. Grid Graduations are in Mils (10^{-3} inch).

23. OUTLINE DRAWINGS

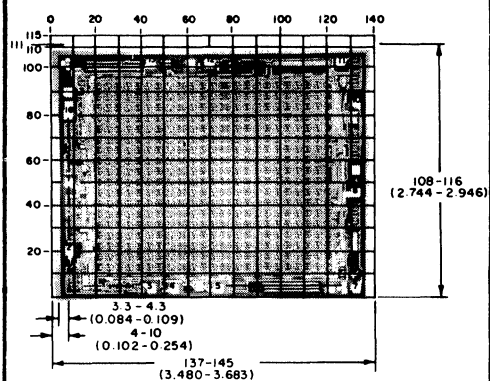
IN DRAWING NUMBER
SEQUENCE

CH9



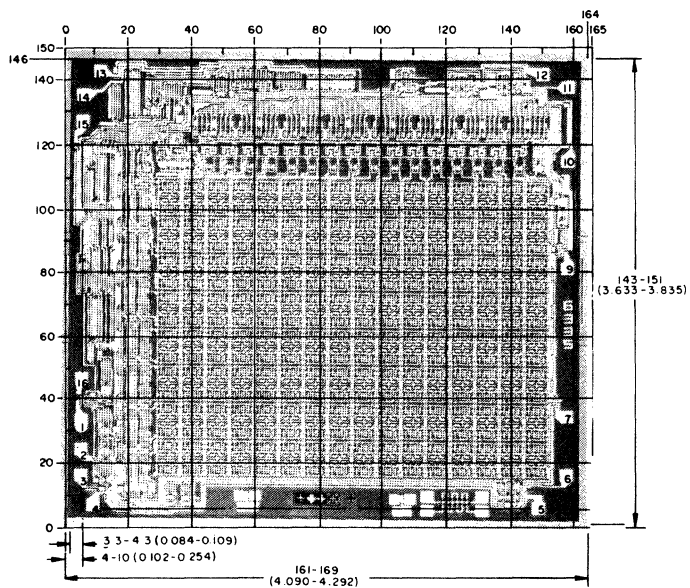
Dimensions in parentheses are in millimeters and are derived from the basic inch dimensions as indicated. Grid graduations are in mils (10^{-3} inch).

CH10



Dimensions in parentheses are in millimeters and are derived from the basic inch dimensions as indicated. Grid graduations are in mils (10^{-3} inch).

CH11

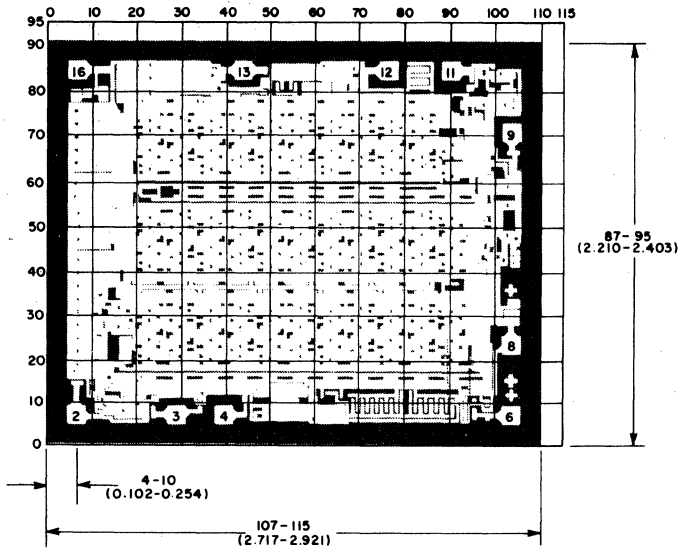


Dimensions in parentheses are in millimeters and are derived from the basic inch dimensions as indicated. Grid Graduations are in Mils (10^{-3} inch).

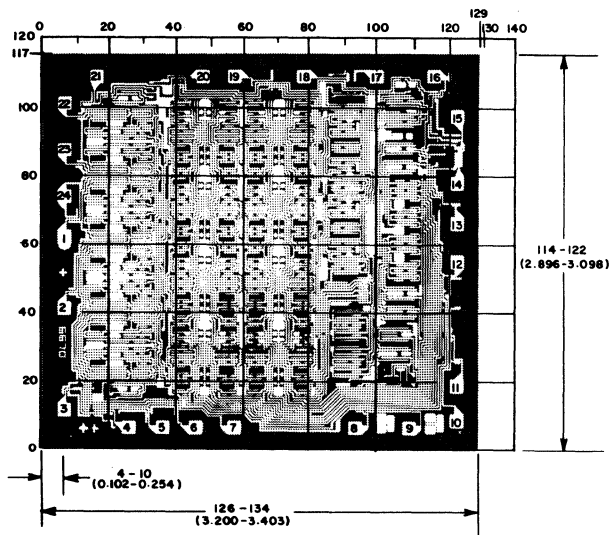
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

CH12



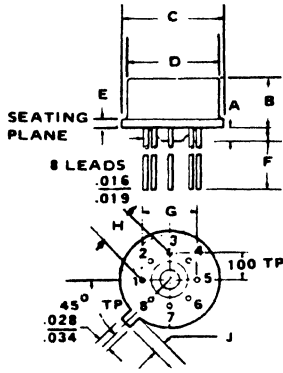
CH13



23. OUTLINE DRAWINGS

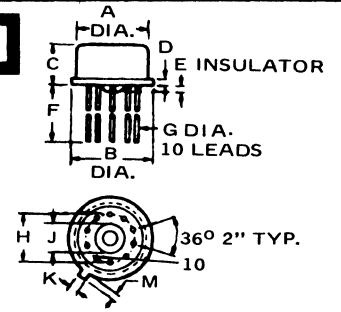
IN DRAWING NUMBER
SEQUENCE

CY4



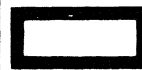
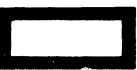
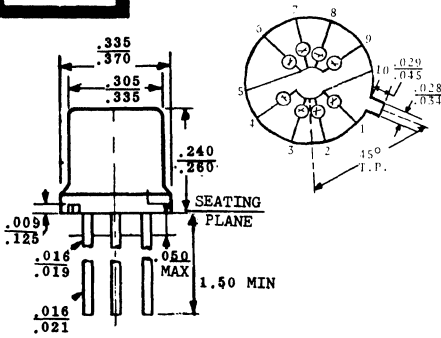
	A	B	C	D	E	F	G	H	J
CY4	.040	.165	.335	.305	.040	.500	.200		.029
	MAX	.185	.370	.335	MAX	MIN	T.P.		.045
CY4a	.050	.165	.335	.305	.040	.500	.200		.029
	MAX	.185	.370	.335	MAX	MIN	T.P.		.045
CY4b	.050	.240	.335	.305	.040	.500	.200		.029
	MAX	.260	.370	.335	MAX	MIN	T.P.		.045
CY4c	.015	.165	.355	.315	.020	.500	.190	.120	.029
	.045	.185	.370	.325	.030	.562	.210	.160	.040
CY4d	.015	.165	.355	.315	.020	.500	.220	.120	.029
	.045	.185	.370	.325	.030	.562	.230	.160	.040
CY4e	.015	.240	.355	.325	.030	.500	.230		.029
	.050	.260	.362	MAX	MIN				.045
CY4f	.040	.165	.335	.305	.040	.500	.230		.029
	MAX	.185	.370	.335	MAX	MIN			.045

CY7



	A	B	C	D	E	F	G	H	J	K	M
CY7	.315	.365	.160	.020	.015	.750	.016	.220	.120	.028	.029
	.325	.370	.185	.030	.045	.810	.019	.240	.160	.034	.040
CY7a	.305	.335	.165	.040	.050	.500	.016	.230		.028	.029
	.335	.370	.185	MAX	MAX	MIN	.019			.034	.045
CY7b	.305	.335	.240	.040	.010	.500	.016	.230	.160	.028	.029
	.335	.370	.260	MAX	.040	MIN	.019	TP	MAX	.034	.045
CY7c	.315	.355	.165	.020	.015	.500	.016	.220	.120	.028	.029
	.325	.370	.185	.030	.045	.562		.240	.160	.034	.040

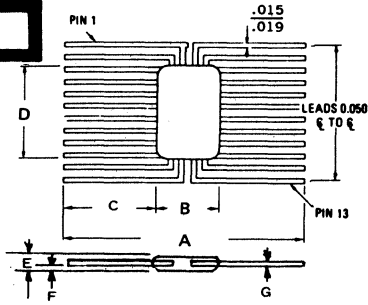
CY8



23. OUTLINE DRAWINGS

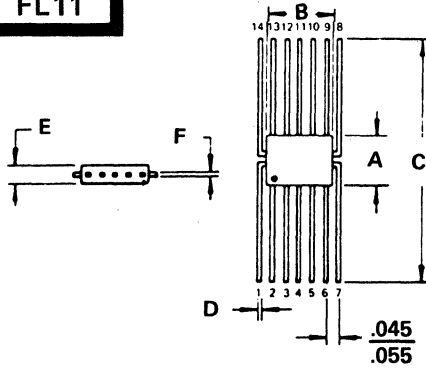
IN DRAWING NUMBER
SEQUENCE

FL3



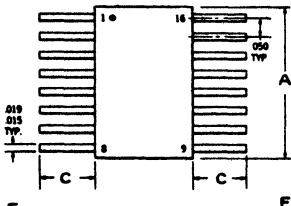
	A	B	C	D	E	F	G
FL3	.973	.285	.355	.408	.043		
	MAX	MAX	MIN	MAX	.063		
FL3a	.990	.270	.360	.390	.034	.016	.003
	MAX	MAX	MAX	MAX	.044	.023	.004
FL3b	.940	.245	.330	.370	.040	.011	.003
	MAX	MAX	MAX	MAX	.040	.011	.003
FL3c	.855	.385	.250	.365	.060	.020	.004
	MAX	MAX	MIN	MAX	.078	.030	.006

FL11



	A	B	C	D	E	F
FL11	.165	.240	.865	.014	.065	.003
	MAX	MAX	MIN	.017	MAX	.005
FL11a	.160	.240	.760	.010	.040	.003
	MAX	MAX	MIN	.019	.070	.006
FL11b	.230	.230	.900	.014	.030	.003
	MAX	MAX	MIN	.019	.070	.006
FL11c	.240	.240	.740	.015	.055	.004
	MAX	MAX	MIN	.019	.080	.006

FL14

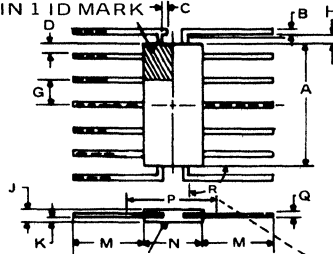


NOTES:
All dimensions in inches
Leads are gold-plated Kovar
Package weight is 0.4 gram

	A	B	C	D	E	F
FL14	.370	.245	.250	.038	.004	.060
	MAX	MAX	MIN		.006	.085
FL14a	.370	.247	.250		.003	.053
	MAX	MAX	MIN		.006	.065
FL14b	.390	.270	.260		.004	.045
	MAX	MAX	MIN			.060
FL14c	.360	.240	.070			.030
	MAX	MAX	MIN			.070
FL14d	.370	.245	.330	.011	.003	.040
	MAX	MAX	MIN	.039	.004	.070
FL14e	.385	.270	.360		.003	.050
	MAX	MAX	TYP		.005	.060
FL14f	.395	.270	.330	.025	.003	.070
	MAX	MAX	MIN		.007	MAX
FL14g	.371	.247	.250	.024	.004	.049
	MAX	MAX	MIN	TYP	.006	.090
FL14h	.371	.247	.250	.024	.004	.055
	MAX	MAX	MIN	TYP	.006	.080

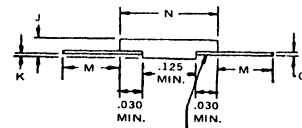
FL21

INDEX AREA,
NOTCH OR
PIN 1 ID MARK



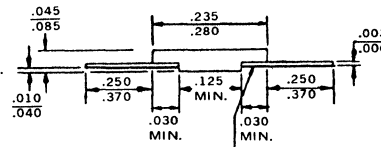
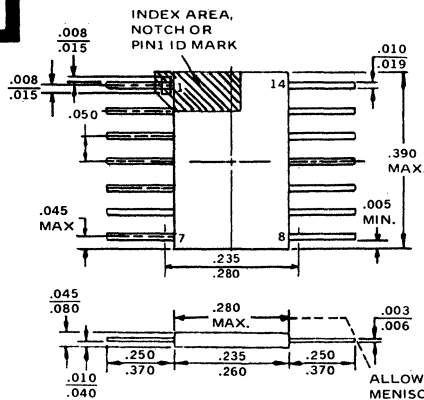
SEATING PLANE
ALLOWS FOR OFF-CENTER LID,
MENISCUS AND GLASS OVERRUN

	A	B	C	D	G	H	J	K	M	N	P	Q	R
FL21	.280	.010	.008	.005	.050	.004	.030	.010	.165	.120	.220	.003	30°
	MAX	.019	.015	MIN		MIN	.070	.040	.390	.200	MAX	.006	30°
FL21a	.280	.010	.008	.005	.050	.004	.030	.010	.250	.240	.280	.003	30°
	MAX	.019	.015	MIN		MIN	.085	.040	.370	.260	MAX	.006	30°



OPTIONAL CONFIGURATION
FOR F21 ONLY - IF IT IS
USED, NO ORGANIC OR
POLYMERIC MATERIAL SHALL
BE MOLDED TO THE BOTTOM
OF THE PACKAGE TO COVER
THE LEADS.

FL22



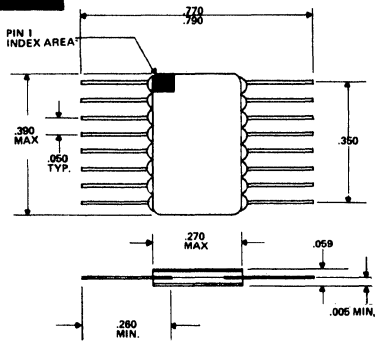
OPTIONAL CONFIGURATION -
IF IT IS USED, NO ORGANIC OR
POLYMERIC MATERIALS SHALL BE
MOLDED TO THE BOTTOM OF
THE PACKAGE TO COVER THE
LEADS.

ALLOWS FOR OFF-CENTER LID,
MENISCUS AND GLASS OVERRUN

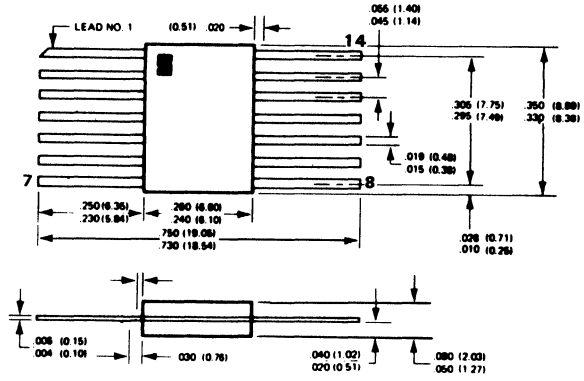
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

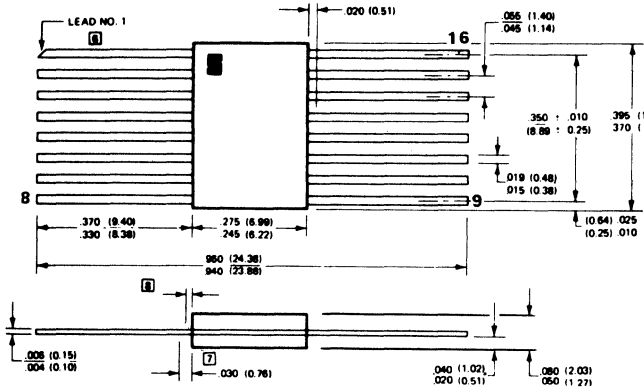
FL23



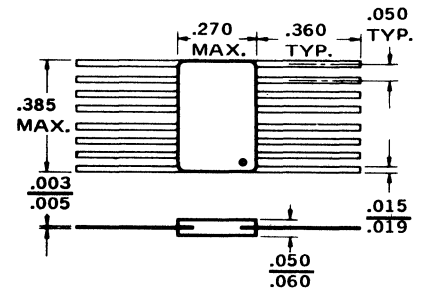
FL24



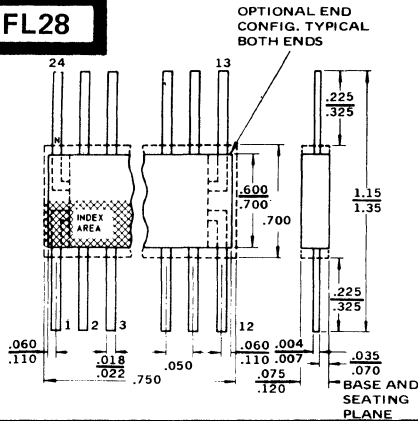
FL25



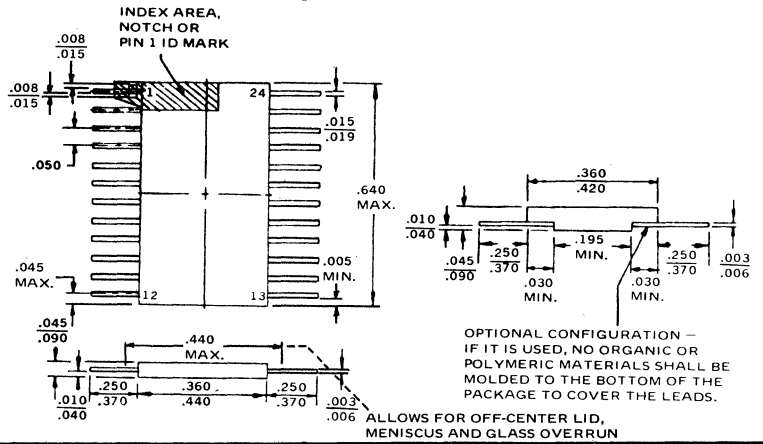
FL27



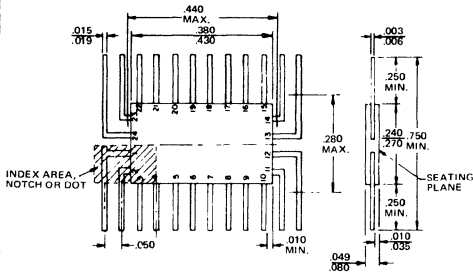
FL28



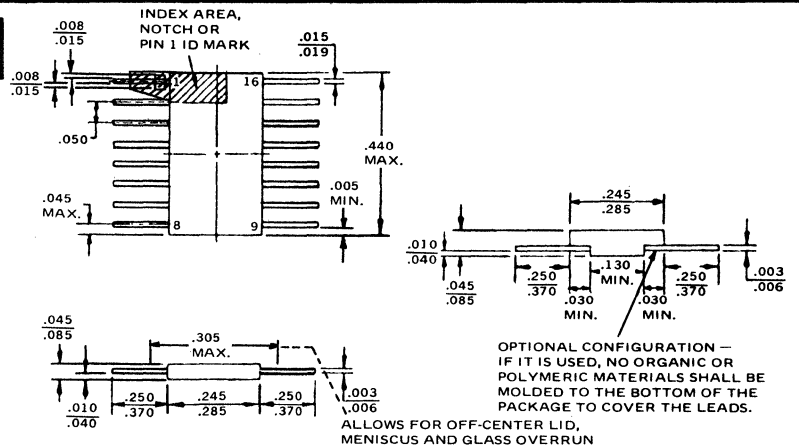
FL29



FL30



FL31



23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

FL33

	A	B	C	D
FL33	.240	.360	.070	.930
	.280	.410	MAX	.980
FL33a	.390	.390	.045	.930
	MAX	MAX	.065	.980
FL33b	.245	.370	.030	.900
	.280	.410	.070	.980

FL34

MILLIMETERS		INCHES	
MIN	MAX	MIN	MAX
A	0.40	0.16	0.370
B	0.22	0.80	0.245
C	1.50	2.00	0.060
D	0.30	0.40	0.015
E	0.08	0.15	0.005
G	1.27	1.27	0.050
H	0.60	0.60	0.025
K	0.25	0.40	0.370
L	18.97	-	0.745
M	-	0.51	0.020
N	-	0.38	0.015

NOTES:
1 LEAD NO. 1 IDENTIFIED BY TAB ON LEAD OR DOT ON COVER
2 LEADS WITHIN 0.13 mm (0.005") TOTAL OF TRUE POSITION AT MAXIMUM MATERIAL CONDITION.

FL35

INDEX AREA: A DOT OF CONTRASTING COLOR SHALL BE LOCATED ADJACENT TO AND INDICATING PIN 1 AND SHALL BE WITHIN THE SHADED AREA SHOWN. ANY OTHER DOTS SHALL ALSO BE LOCATED IN THIS AREA.

FL36

FL37

FL39

FL40

FL41

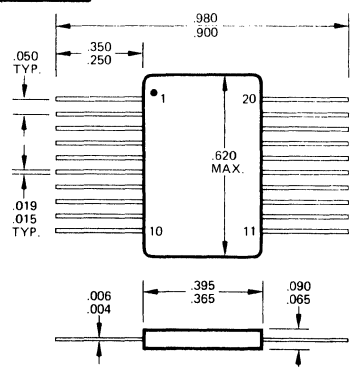
FL42

FL43

23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

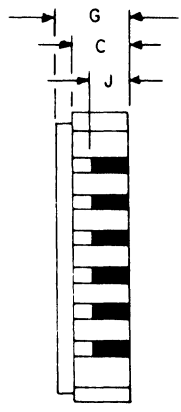
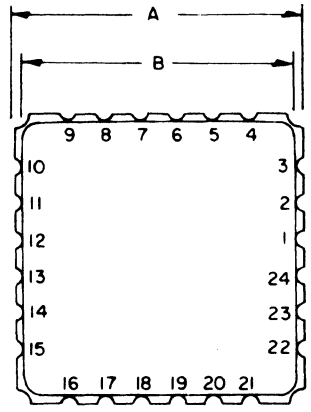
FL44



[Empty box]

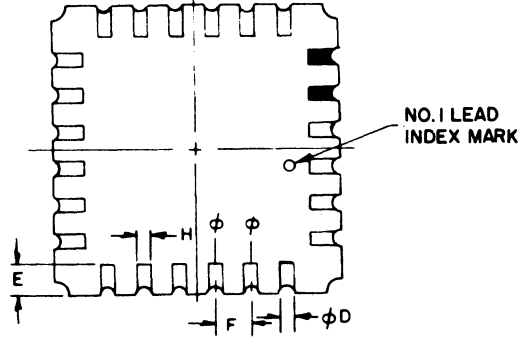
[Empty box]

FL45



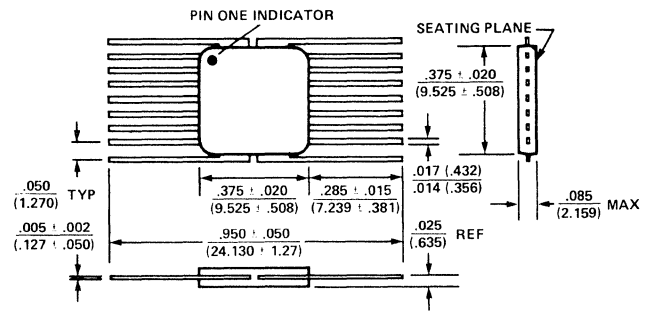
TOP VIEW

BOTTOM VIEW



SYMBOL	DIMENSIONS			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.410	.395	10.41	10.03
B	.385	.375	9.78	9.52
C	.075	.040	1.91	1.02
∅ D	.020	.010	0.51	0.25
E	.040	.030	1.02	0.76
F	.035	.045	1.40	1.14
G	.100	.050	2.54	1.27
H	.025	.015	0.64	0.38
J	-	.025	-	0.64

FL46

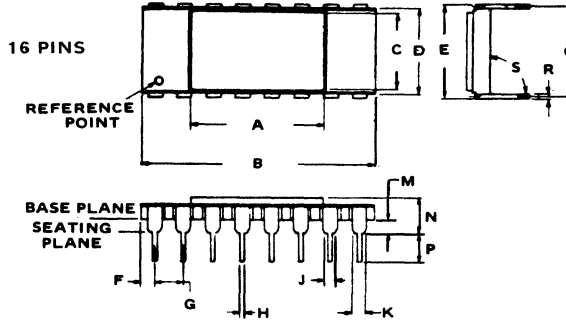


[Empty box]

23. OUTLINE DRAWINGS

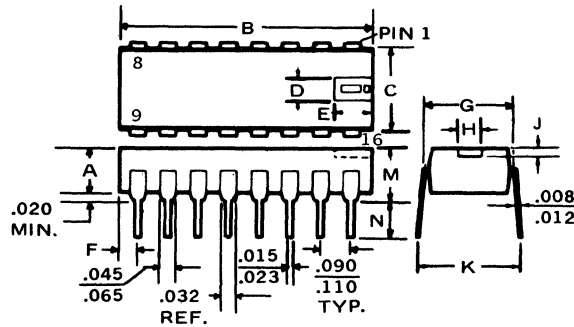
IN DRAWING NUMBER SEQUENCE

ML1



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	NOTCH
ML1		.800 MAX			.320 MAX		.092 .108				.018 MIN	.180 MAX		.300			
ML1a		.808 MAX			.294 MAX		.092 .108				.015 MIN	.194 MAX	.130	.294 .400			
ML1b	.462 .468	.790 .810	.273 .279	.275 .295	.320 MAX	.045 .055	.090 .110	.016 .020	.031 .035	.048 .052	.025 .050	.198 MAX	.100 .158	.300 MIN	.008 .012		90° 95°
ML1c		.740 .870	.275 .310	.275 .320	.290 MAX		.090 .110	.016 .023		.040 .070	.020 MIN	.180 MAX	.125 MIN	.290 .320	.008 .015		YES
ML1d	.500 MAX	.780 .810			.290 MAX			.016 .020			.020 .050	.140 MAX	.125 .175	.300 MIN	.008 .012		
ML1e	.485 MAX	.810 MAX		.295 MAX		.040 .060		.015 .020			.020 .060	.165 MAX	.125 MIN	.300	.008 .012		
ML1f		.790 .810		.302 .318	.310		.095 .105	.016 .020		.054	.095	.220 MAX	.165 MAX				YES
ML1g		.790 .810	.300 TYP	.340 TYP				.016 .020	.054 TYP		.025 .045	.141 MAX	.130	.340 TYP			YES
ML1h	.350 .430	.735 .830	.240 .295			.030 .060	.090 .110	.015 .020	.040 .055		.020	.175 MIN	.150 MIN	.290 .310	.008 .012		NO NOTCH
ML1j		.810 MAX		.275 .295	.290 .310		.100 TYP	.015 .020			.020	.200 MIN	.090 MIN		.008 .012		NO
ML1k	.430 .470	.770 .810	.265 .285	.278 .300	.290		.090 .100	.015 .020		.045 .065	.025 MIN	.110 MIN	.125 MIN	.375 NOM	.010 .012		YES

ML2

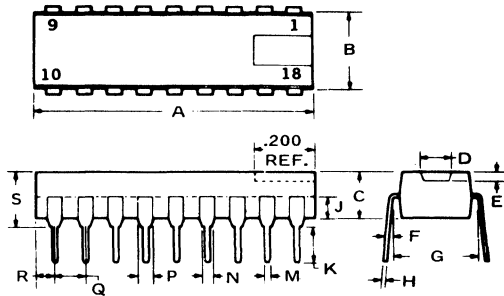


	A	B	C	D	E	F	G	H	J	K	M	N
ML2	.130 .155	.820 .850	.245 .255	.075	.125	.062	.290 .310	.075	.025	.290 .410	.200 MAX	.100 MIN
ML2a	.145 .155	.820 .850	.245 .255	.075	.125	.062	.290 .310	.075	.025	.290 .410	.200 MAX	.100 MIN
ML2b	.082 .100	.750 MAX	.265 MAX				.300 .310			.330 .370	.200 MAX	.100 MIN
ML2c	.180	.800	.270				.300			.200 MAX	.100 MIN	
ML2d	.125 .155	.745 .855	.245 .255	.060 .075	.060 .125	.025 .063	.290 .310	.080 .075	.025	.290 .410	.200 MAX	.100 MIN
ML2e	.140 MAX	.890 MAX	.260 MAX	.080	.080	.030			.030	.310 .350	.175 MAX	.125 MIN
ML2f	.170	.744 .857	.240 .267				.324 MAX			.290 .375	.185 MAX	.122 .150
ML2g		.870 MAX	.260 MAX				.300 TYP			.350 MAX	.200 MAX	.130 TYP
ML2h	.180	.881	.240 .255				.324			.290 .375	.200 MAX	.104 .150
ML2j		.870 MAX	.220 .280						.020 .040	.200 MAX	.100 MIN	
ML2k	.181 MAX	.870 MAX	.240 .263				.094 .311	.287 MAX		.301 .348	.200 MAX	.125 MIN
ML2m	.170 MAX	.744 .850	.241 .251				.324 MAX			.289 .375	.185 MAX	.125 .153
ML2n	.169 .177	.866 MAX				.061	.291 .307			.275 .322	.196 MAX	.110 .129

23. OUTLINE DRAWINGS

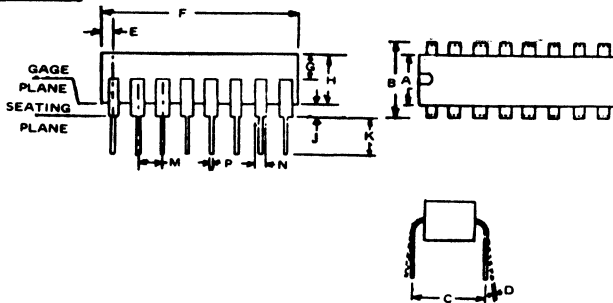
IN DRAWING NUMBER SEQUENCE

ML3



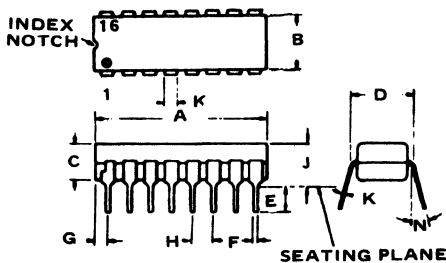
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	REMARKS
ML3	.905	.240	.140	.100	.025	15°	.290	.008	.075	.100	.016	.032	.045	.090	.0575	.200	NOTCH
	.925	.260	.160	REF	REF	MAX	MIN	.012	REF	.150	.024	REF	.065	.110	REF	MAX	
ML3a	.905	.240	.140	.100	.025	15°	.290	.008	.075	.100	.016	.032	.045	.090	.0575	.200	DOT AT PIN 1
	.925	.260	.160	REF	REF	MAX	MIN	.012	REF	.150	.024	REF	.065	.110	REF	MAX	
ML3b	.920						.290	.008		.125	.015	.033	.060	.100	.030	.200	NOTCH
	MAX						.310	.013		MIN	.021	MIN		.070	MAX		
ML3c	.911	.302				15°	.300	.014		.118	.023	.032	.062	.100	.050	.200	NOTCH R .025
	MAX	MAX				MAX	TYP	MAX		MIN	MAX	MAX	MAX	TYP	MAX		
ML3d	.930	.220	.180			15°	.290	.008		.090	.015			.100		.200	DOT AT PIN 1
	MAX	.280	MAX			MAX	.310	.012		MIN	.020			TYP		MAX	
ML3e	.920	.250	.180			15°	.290	.008		.090	.015			.100		.200	
	MAX	.295	MAX			MAX	.310	.012		MIN	.020			TYP		MAX	
ML3f	.890	.240	.130				.300	.008		.100	.014	.032	.040	.090		.200	NOTCH
	.920	.260	.140				.400	.015		MIN	.023	TYP	.065	.110		MAX	
ML3g	.885	.252				15°	.300	.009		.100	.019			.055	.100	.181	NOTCH
	MAX					MAX				MIN						MAX	
ML3h	.890	.251	.139		.020		.290	.009		.125	.016		.060	.090	.050	.159	NOTCH
	.910	.261	.149		.030		.310	.011		MIN	.020			.110	TYP	.169	

ML4



	A	B	C	D	E	F	G	H	J	K	M	N	P	REMARKS	
ML4	.265	.300	.300	.008	.050	.800	.050	.090	.020	.100	.045	.015			
	.285	.325		.012	.100	.840	.090	.200		.160	.070	.021			
ML4a	.244	.300	.350	.007		.818		.100	.050	.125	.100			.020	NOTCHED
	MAX	MAX	MAX	.009											
ML4b	.265	.300	.350	.010		.800		.160	.020	.125	.100			.019	NOTCHED
	MAX	MAX	MAX			MAX									
ML4c	.300	.326	.007	.800	.180	.020	.100	.100						.015	
	MAX	MAX	.014	MAX	MAX	.165								.023	
ML4d	.220	.290	.290	.008	.747	.200			.100	.090	.030	.014		NOTCHED OR DOT	
	.280	.310	.310	.015	.815	MAX			MIN	.110	.070	.023			
ML4e	.866	.326	.007	.800	.180	.020	.100	.100						.015	
	MAX	MAX	.014	MAX	MAX	.165								.023	
ML4f	.265	.300	.330	.009	.750			.082		.130	.100	.050	.017	DOT ONLY	
	MAX	.310	.390	.011	.100										
ML4g	.240	.300	.300	.008	.745	.100	.020	.125	.100	.020	.125	.100		.014	
	.260	.325		.012	.785		.135	.065	.160					.020	
ML4h	.270	.300	.300	.007	.760	.150	.020	.125	.100					.015	NOTCHED
	MAX	MAX	MAX	.013		MIN								.021	
ML4j	.245		.290	.008	.045	.745		.125	.020	.100	.090	.032	.015	NOTCHED	
					MAX	MAX				MIN	MIN	.110	REF	.023	
ML4k	.276	.325	.300	.014	.050	.787		.180	.020	.188	.100	.032	.023	NOTCHED	
	MAX	MAX	MAX	MAX	MAX	MAX		MAX	MIN	MIN					

ML5

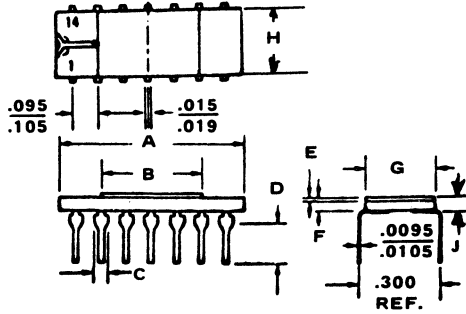


	A	B	C	D	E	F	G	H	J	K	L	M	N	REMARKS
ML5	.740	.240	.135	.290	.115	.015	.015	.090	.170	.006			0°	
	.780	.275	.165	.325	.135	.020	.035	.110	.200	.012			15°	
ML5a	.795	.256		.300	.118	.020		.100	.197	.008	.019	.239		
	MAX	MAX		TYP	MIN	TYP		TYP	MAX	.014	MIN	.384		
ML5b	.815	.240	.025	.290	.115	.015	.052	.100	.160	.008			10°	
	MAX	.260	.035	.310	.135	.020	.072		.180	.012				
ML5c	.760	.245	.115	.290	.120	.015		.090	.130	.008			15°	NO INDEX NOTCH
	.780	.255	.125	.310	.130	.021		.110	.160	.012			MAX	
ML5d	.795	.220	.180	.290	.090	.015		.100	.200	.008			15°	
	MAX	.235	MAX	.310	MIN	.020		TYP	MAX	.012			MAX	
ML5e	.810	.250	.180	.290	.090	.015		.100	.200	.008			15°	
	MAX	.295	MAX	.310	MIN	.020		TYP	MAX	.012			MAX	
ML5f	.759		.129	.300	.135	.018	.029	.100		.059				
	MAX		MAX	MAX	MAX									

23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

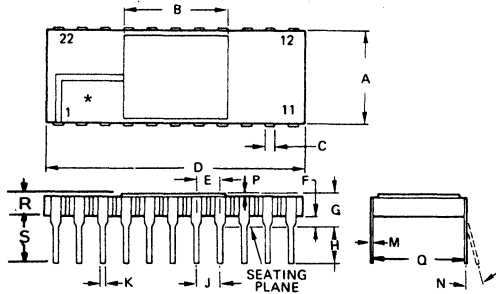
ML6



	A	B	C	D	E	F	G	H	J
ML6	.735 .745	.395 .405	.045 .050	.160	.013 .017	.055 .065	.270 .280	.270 .280	
ML6a	.720 .760	.360 .420	.040 MIN	.090			.255 .285	.255 .295	.100 MIN

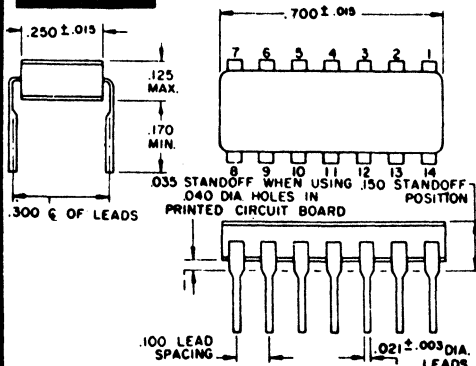
ML8

* - NOT INCLUDED IN ML8b AND ML8h.

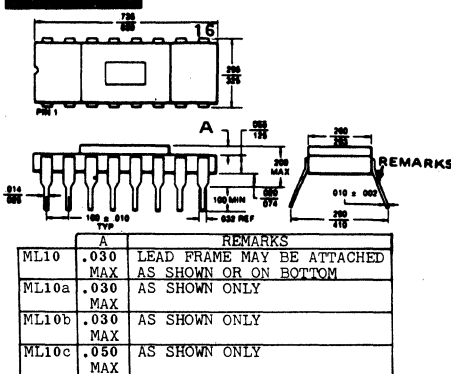


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML8	.380 400		.032 REF		.020 MIN	.042 REF	.200 REF			.017 .023	.008 .012	0N 15*	.050 .070	.400		
ML8a	.375 .405	.425 REF	.040 REF	1.065 1.100	.095 .105	.025 .050	.085 .130	.125 .150	1.00 T.P.	.017 .023	.008 .012	0*				
ML8b	.397 401			1.102 MAX	.090 .109	.019 MAX	.141 MAX	.110 MIN	.090 MIN	.013 .025	.008 .013			.338 .464		
ML8c	.380 395			1.065 1.095		.035 MIN	.085 200	.125						.400		
ML8d	.380 400		.043 .060	1.090 1.110		.020 .050	200 MAX	.100 .150	.100	.016 .023	.010	0*	20*	.390 .410		
ML8e	.340 360		.060 TYP	1.09 1.11		.020 MIN	.160 .150	.100	.100	.016 .023	.010	0*	15*	.400		
ML8f	.380 420		.040 REF	1.065 1.100		.025 .050		.140 .150	.100	.017 .023	.008	7*		.380 .420	.085 .145	.125 .175
ML8g	.370 390	.450 MAX	.050	1.100		.165 MAX	.165 MAX	.125 MIN	.090 .110	.017 .023	.008 .012			.400 REF		
ML8h	.340 425			1.065 1.095		.020 .050	.190 MAX	.115 .140	.090 .110	.015 .021	.008 .012			.400 REF		
ML8j	.385			1.10 MAX		.020 MIN	200 MAX	.100 MIN	.100	.020 .010				.400		
ML8k	.380 TYP			1.150 TYP		.020 MIN		.135 .145	.100 TYP	.018 TYP	.011 MAX			.400 TYP		
ML8m	.400 TYP			1.070 TYP				.155 .160	.100 TYP	.018 TYP	.011 MAX			.400 TYP		
ML8n	.390 410		.040 MAX	1.100		.020 MIN	.185 MAX	.120 .180	.100	.015 .021	.010					
ML8p	.388 435			1.069 1.091							.008 .012			.400 REF		
ML8q	.389		.051	1.082 1.109	.090 1.09	.019	.199	.098	.090 .109	.014 .022	.007 .014	0*	15*			.118
ML8r	.340 425			1.065 1.095		.020 .050		.135 .175	.100 .110	.018 .021	.011 .012			.400 REF	.140 MAX	.135 .155
ML8s	.380 420		.040 REF	1.065 1.100	1.00 BSC	.020 .050	.085 145	.125 .175	.100 BSC	.017 .023	.008 .012	7*		.380 .420	.060 .030	.150 .225
ML8t	.330 350	.425 REF	.035 REF	1.065 1.095	.090 1.10	.030 .050	.180 MAX	.130 .175	.090 .110	.017 .023	.008 .012		.013 TYP	.390 .410	.143 .160	.160 .225
ML8u	.380 400		.040 REF	1.060 1.100		.015 MIN	.170 MAX	.100 MIN	.090 .110	.014 .023	.008 .015			.380 .400	.085 .135	
ML8v	.380 400		.043 REF	1.080 1.110	1.00	.020 .060	200 MAX	.100 .150	.100	.016 .023	.010	0*	20*	.390 .410	.054 .080	
ML8w	.440 MAX			1.100 MAX			.160 MAX									

ML9



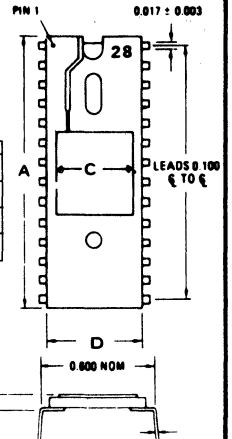
ML10



	A	REMARKS
ML10	.030 MAX	LEAD FRAME MAY BE ATTACHED AS SHOWN OR ON BOTTOM
ML10a	.030 MAX	AS SHOWN ONLY
ML10b	.030 MAX	AS SHOWN ONLY
ML10c	.050 MAX	AS SHOWN ONLY

ML13

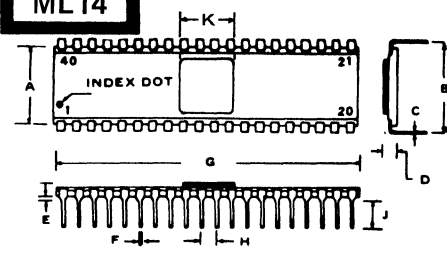
	A	B	C	D
ML13	1.38 MAX	.068 .074	.510 MAX	
ML13a	1.18 MAX	.074 .087	.510 MAX	
ML13b	1.415 MAX	.110 MAX	.480 .595	
ML13c	1.380 MAX	.074 .087	.510 MAX	



23. OUTLINE DRAWINGS

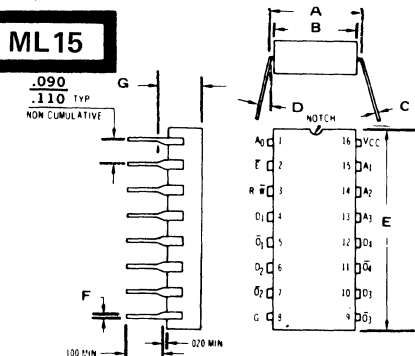
IN DRAWING NUMBER SEQUENCE

ML14



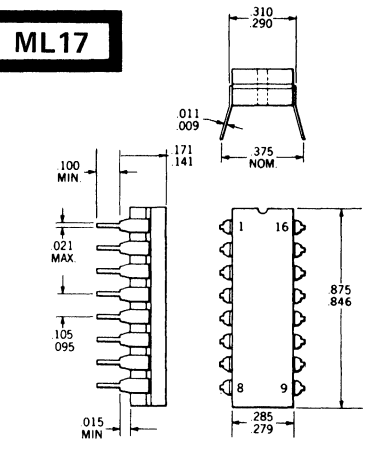
	A	B	C	D	E	F	G	H	J	K
ML14	.500	.600	.011	.130	.020	.021	2.00	.100	.125	
			MAX		MIN	MAX				
ML14a		.385	.010	.185	.020	.015	2.02	.085	.120	
		MAX		MIN	MAX					
ML14b	.510	.600	.011	.130	.025	.021	2.01	.100	.200	
			MAX		MIN	MAX			MIN	
ML14c		.600	.010		.020		2.04	.100	.090	
		NOM	NOM		MIN		MAX	NOM	MIN	
ML14d	.590	.600	.008	.165	.020	.016	2.020	.090	.125	.520
	MAX		MAX	MAX	MAX	MAX	MAX	MIN		

ML15

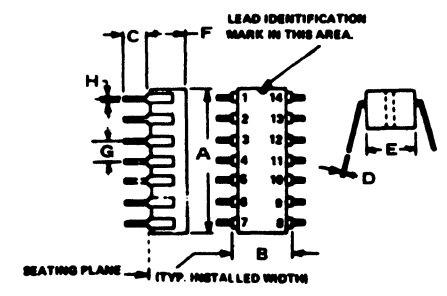


	A	B	C	D	E	F	G
ML15	.325	.220	.008	0°	.750	.015	.200
	MAX	.280	.015	15°	.785	.023	MAX
ML15a	.290	.265	.009		.755	.016	.170
	MAX	.291	.011		.758	.020	.219

ML17

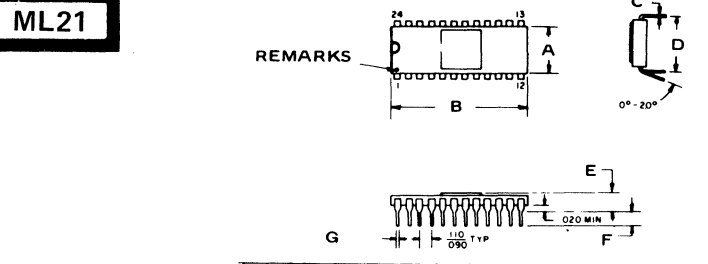


ML19



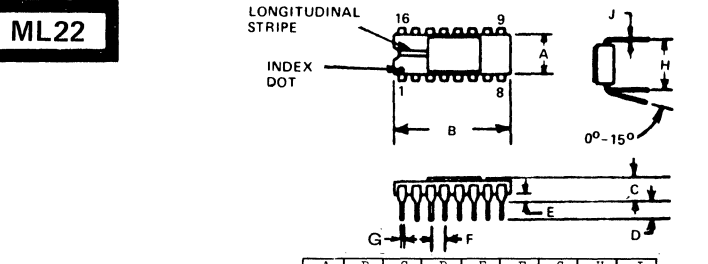
	A	B	C	D	E	F	G	H
ML19	.780	.290	.150	.009		.200	.090	.015
	MAX	MAX	MIN	MIN		MAX	MAX	MAX
ML19a	.685	.325	.100	.008	.240	.200	.090	.015
	MAX	MAX	MIN	MIN	MAX	MAX	MAX	MAX
ML19b	.685	.305	.130	.009	.235	.200	.090	.015
	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
ML19c	.775	.350	.150		.200	.200	.090	.015
	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
ML19d	.789	.326	.100	.007		.200	.090	.015
	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
ML19e	.660	.290	.100	.008	.220	.200	.090	.015
	MAX	MAX	MIN	MIN	MAX	MAX	MAX	MAX
ML19f	.755	.290	.130	.008	.280	.200	.090	.015
	MAX	MAX	MIN	MIN	MAX	MAX	MAX	MAX
ML19g	.785	.310		.014		.185		
	MAX	MAX		MAX		MAX		

ML21



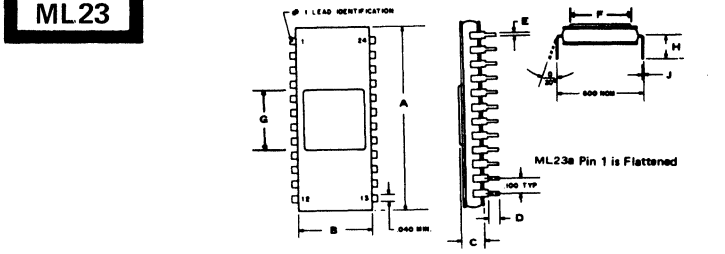
	A	B	C	D	E	F	G	REMARKS
ML21	.475	1.13	.008	.590	.160	.090	.014	INDEX DOT ONLY
	MAX	MAX	MIN	MAX	MIN	MIN	MAX	
ML21a	.520	1.25	.010	.600	.180	.125	.019	NOTCH ONLY
	MAX	MAX	MAX	MAX	MAX	MAX	MAX	
ML21b	.545	1.300	.010	.650	.195	.215	.020	INDEX DOT ONLY
	MAX	MAX	MAX	MAX	MAX	MAX	MAX	
ML21c	.495	1.24	.010	.600	.157	.090	.015	NO INDEX DOT NO NOTCH
	MAX	MAX	MAX	MAX	MAX	MIN	MAX	

ML22



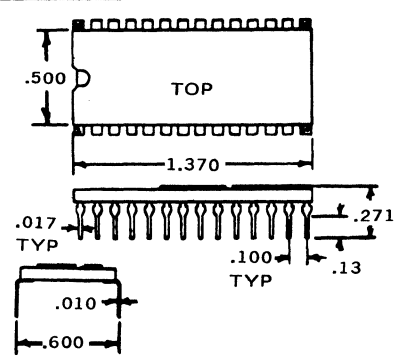
	A	B	C	D	E	F	G	H	J
ML22	.240	.740	.160	.090	.020	.090	.014	.290	.008
	MAX	MAX	MIN	MIN	MIN	MIN	MIN	MAX	MAX
ML22a	.235	.735	.200	.115	.015	.090	.015	.290	.008
	MAX	MAX	MAX	MAX	MIN	MIN	MIN	MAX	MAX
ML22b	.245	.810	.110	.090	.020	.100	.014	.410	.010
	MAX	MAX	MIN	MIN	MIN	MIN	MIN	MAX	MAX
ML22c	.288	.787	.218	.099	.019	.090	.014	.299	.005
	MAX	MAX	MIN	MIN	MIN	MIN	MIN	MAX	MAX

ML23



	A	B	C	D	E	F	G	H	J
ML23	1.250	.515	.110	.125	.015			.250	.0085
	MAX	MAX	MAX	MAX	TYP			TYP	MAX
ML23a	1.250	.515	.110	.125	.015			.250	.0085
	MAX	MAX	MAX	MAX	TYP			TYP	MAX
ML23b	1.300	.495	.137	.090	.015	.397	.397		.010
	MAX	MAX	MIN	MIN	MAX	MAX	MAX		TYP

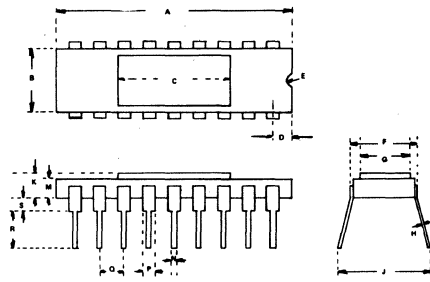
ML24



23. OUTLINE DRAWINGS

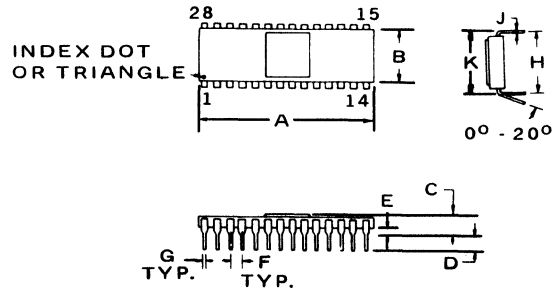
IN DRAWING NUMBER
SEQUENCE

ML25



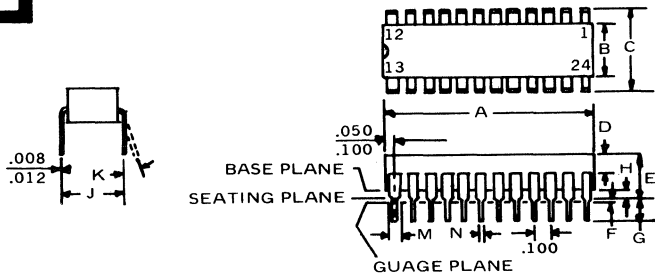
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML25	.900	.280				.280	.010	.300	.090		.032	.054	.100	.230	.040	
ML25a	.890	.278	.460	.040	.025	.290	.271	.009	.375	.125	.065	.016	.040	.095	.125	.040
	.910	.288	.470	.060		.310	.281	.011		.155	.085	.020	.045	.105	.175	.060

ML29



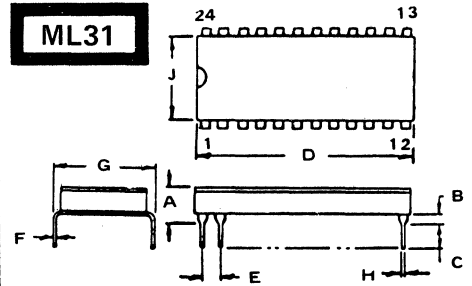
	A	B	C	D	E	F	G	H	J	K
ML29	1.33	.475	.160	.090	.020	.090	.014	.590	.008	.590
	1.47	.530	MAX	MIN	MIN	.110	.020	.650	.015	.650
ML29a	1.40	.530	.200	.125	.040	.090	.018	.610	.010	.610
	MAX	MAX	MAX	MIN	.060	.110	.020	.650		MAX

ML30



	A	B	C	D	E	F	G	H	J	K	M	N	REMARK
ML30	1.18	.490	.600	.015	.090	.020	.100		.300	2°	.045	.015	NC NOTCH
	1.22	.520	.625	.050	.200		.150			15°	.070	.021	
ML30a	1.22	.500	.545		.110		.100	.040		0°		.015	
	1.26	.520	.600		.150		.140			15°		.018	
ML30b	1.25	.520	.600		.180		.125	.020	.650		MAX	.010	
					MAX								
ML30c	1.23	.515			.150		.100	.025	.750			.016	
	1.29	.575			.273		.200	.063	MAX			.026	
ML30d	1.23	.520	.625		.220		.100	.030	.750	0°	.055	.015	
	1.28	.550	MAX		MAX		MIN	MIN	MAX	15°		.023	
ML30e	1.15	.480	.600	.020	.090	.000	.100	.020	.600	0°	.045	.015	NC NOTCH
	1.22	.520	.625	.080	.150	.030	.180	.065		15°	.055	.020	
ML30f	1.23	.500			.160			.020	.605	5°		.016	
	1.27	.540			.200			.030		15°		.020	
ML30g	1.14	.515	.590		.200	.015	.125	.015	.590	0°	.030	.014	
	1.29	.610	.620		.280	.080	.200	.080	.620	15°	.070	.023	
ML30h	1.244	.540		.075	.150		.125	.075	.600	0°	.060	.018	
	1.256						MIN		.650	15°		TYP	

ML31

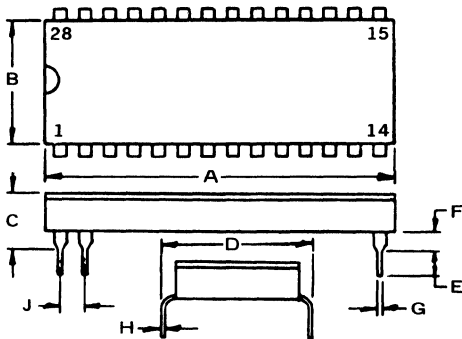


	A	B	C	D	E	F	G	H	J
ML31	.150	.075	.145	1.17	.100	.010	.100	.800	.500
ML31a	.100	.051	.140	1.17	.100	.010	.100	.800	.500
ML31b	.100		.171	1.37	.100	.010	.600	.017	.500
ML31c	.158	.024	.130	1.22	.100	.009	.600	.018	
				MAX					

23. OUTLINE DRAWINGS

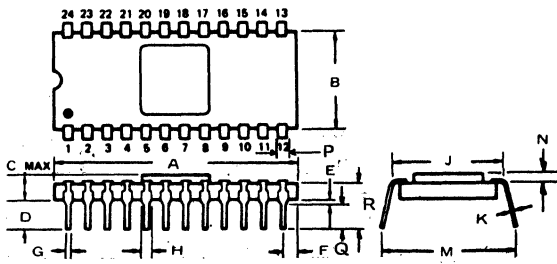
IN DRAWING NUMBER
SEQUENCE

ML32



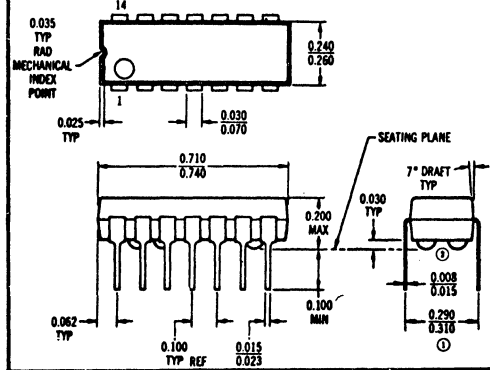
	A	B	C	D	E	F	G	H	J
ML32	1.37	.500	.150	.600	.145	.075	.017	.010	.100
ML32a	1.40	.500	.150	.600	.145	.075	.017	.010	.100
ML32b	1.37		.100	.550	.160	.081	.017	.010	.100
ML32c	1.378	.566	.199	.600	.100	.019	.014	.007	.090
			MAX		MIN	MIN	.022	.011	.109

ML34

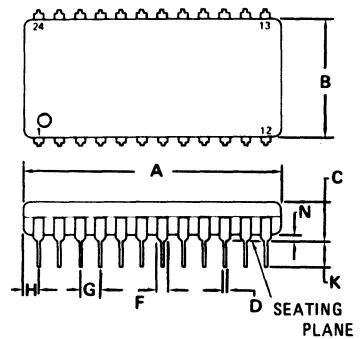


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R
ML34	1.225	.545	.125	.140	.040		.022	.032	.610	.012		.050	.060		
	1.175	.490	MAX	TYP	REF		.015	TYP	.590	.008		MAX	.043		
ML34a	1.300	.520	.090	.185	.050	.053	.020	.055	.600	.012	.650				
	1.200	.480	MAX	.135	.020	.047	.015	.040		.008	.600				
ML34b	1.17	.490	.150	.140	.040		.015	.032	.590	.008		.075	.043		
	1.22	.545	MAX				.022		.610	.012		MAX	.060		
ML34c	1.17	.490	.125	.165	.040		.015	.032	.590				.043		
	1.30	.550	MAX				.022		.610				.060		
ML34d	1.25							.100	.600		.600			.090	.220
	MAX													MIN	MAX
ML34e	1.17	.490	.150		.015		.015	.045	.590					.050	
	1.30	.545	MAX		.065		.023	.055	.610					.170	
ML34f	1.310	.480	.180		.020		.015		.590	.008				.090	
	MAX	.580	MAX		MIN		.020		.610	.012				MIN	
ML34g	1.250		.200		.020				.600	.010				.090	
	MAX		MAX		MIN									MIN	

ML38

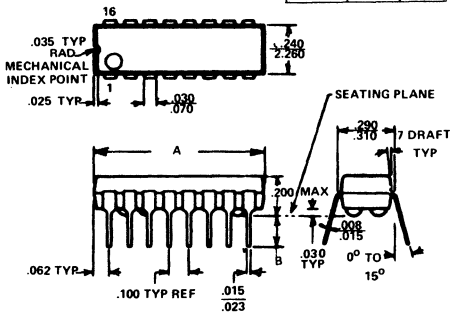


ML39

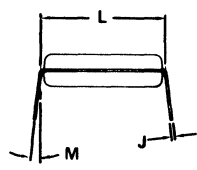


ML40

	A	B
ML40	.860	.100
	MAX	MIN
ML40a	.810	.115
	.840	.135



	A	B	C	D	F	G	H	J	K	L	M	N
ML39	1.235	.340	.180	.014	.040	.095	.070	.008	.120	.580	0°	.020
	1.265	.560	.200	.020	.060	.105	.080	.012	.140	.600	10°	.040
ML39a	1.180	.480	.090	.015	.045	.100	.020	.008	.100	.800	15°	.020
	1.220	.520	.150	.020	.055	TYP	.060	.012	.160	TYP	MAX	.065
ML39b	1.235	.340	.165	.014	.040	.100	.065	.008	.115	.600	15°	.020
	1.265	.560	.200	.020	.065	TYP	.090	.012	.140	TYP	MAX	.040
ML39c	1.290	.550	.225									
	MAX	MAX	MAX									
ML39d	1.220	.600	.175									
	MAX	MAX	MAX									

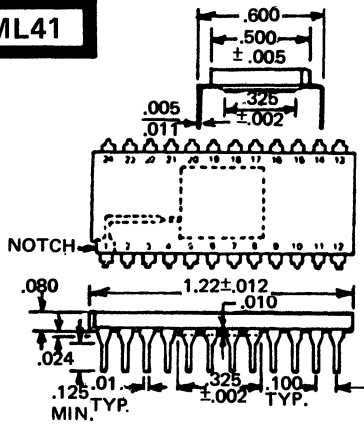


NOTES:
1. LEADS, TRUE POSITIONED WITHIN 0.25 mm (0.010) DIA AT SEATING PLANE AT MAXIMUM MATERIAL CONDITION (DIM. "D")
2. DIM "L" TO CENTER OF LEADS WHEN FORMED PARALLEL.

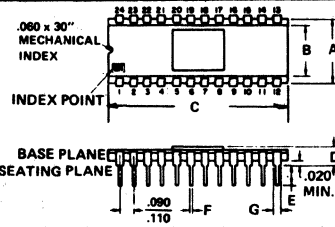
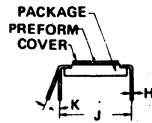
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

ML41

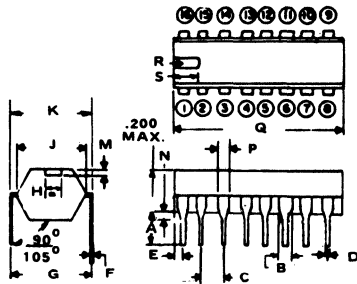


ML47



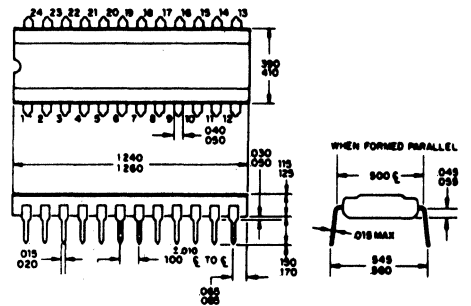
	A	B	C	D	E	F	G	H	J	K	REMARKS
ML47	.450 .470	.355 .365		.150 MAX	.050 .150	.017 .023	.045 .055	.007 .011	.490 .510	0° 20°	
ML47a	.470 .530		1.14 MIN	.070 MIN	.100 MIN	.015 .022		.009 .011	.750 MAX		INDEX POINT ONLY NO NOTCH
ML47b	.500		1.20 MAX	.130 MAX	.100 MAX	.021 .185		.011 MAX	.600		INDEX POINT ONLY
ML47c	.490 .580		1.10 MAX	.140 MAX	.120 MAX	.017 .023		.008 .012	.590 .670		INDEX POINT ONLY
ML47d	.500		1.40 MAX	.130 MAX	.190 MAX	.021 MAX		.011 MAX	.600		INDEX POINT ONLY
ML47e	.480 .510		1.19 MAX	.100 MAX	.145 MAX	.015 .021	.045 .050	.008 .012	.625 .675		

ML48

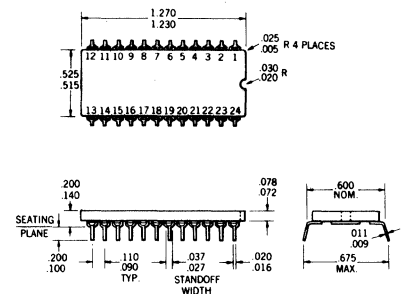


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML48	.125 MIN	.033 MIN	.100	.015 .021	.100	.008 .014	.300 .350	.080	.240 .280	.290 .310	.010	.020 MIN	.070 MAX	.870 MAX	.093	.180
ML48a	.140 MIN	.038 MIN	.100	.018		.008 .014	.300 .350		.240 .280	.290 .310	.010			.870 MAX		
ML48b	.125 MIN	.033 MIN	.100	.014 .020	.031 MAX	.017			7.37			.020		.881 MAX		
ML48c	.120 MIN		.100	.015 .023	.008 .015			.070 .090	.220 .280		.020 MIN	.020	.030 .070	.870 MAX	.083 MAX	.180 MAX
ML48d	.180 TYP			.095 .105	.020				.300 TYP			.020 MIN		.870 MAX		
ML48e	.120 .183		.100	.014 .021	.086	.009	.300 .374			.324		.020 MIN		.888 MAX		

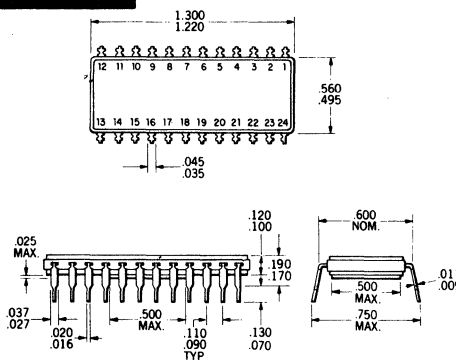
ML50



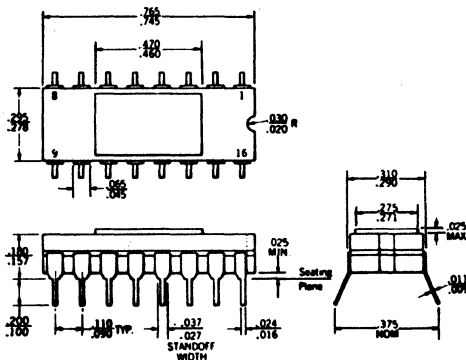
ML51



ML52



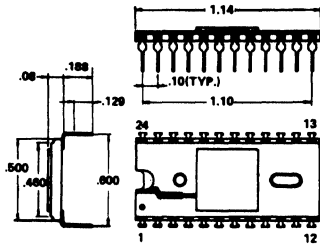
ML57



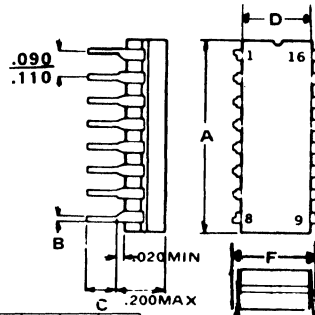
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

ML59

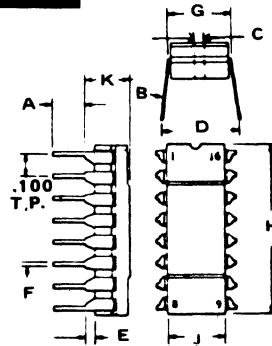


ML60



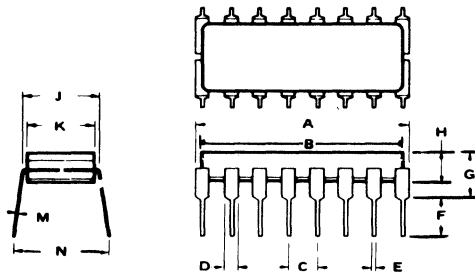
	A	B	C	D	E	F
ML60	.785	.020	.150	.290	.350	
				.310	MAX	
ML60a	.755	.015	.130	.280	.325	.290
	.785	.025	MIN	MAX	.395	.310
ML60b	.740	.015	.115	.240		.325
	.780	.020	.135	.275		MAX
ML60c	.799	.014	.099		.299	.335
	MAX	.020	.149			MAX

ML61



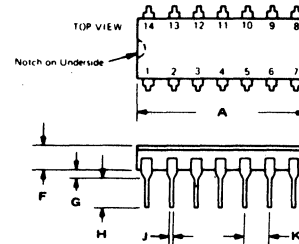
	A	B	C	D	E	F	G	H	J	K
ML61	.100	.009		.375	.015	.033	.290	.750	.240	.200
	MIN	.011			MIN	MAX	.310	.785	.260	MAX
ML61a	.130	.008	.050	.300	.020	.015	.290	.755	.245	.200
	MIN	.014		.350	MIN	.023	.310	.785	.260	MAX
ML61b	.115	.008		.290	.015	.015	.290	.735	.235	.200
	.135	.015		.410	MIN	.023	.325	.815	.290	MAX
ML61c	.130	.008		.325	.020	.015	.290	.755	.280	.200
	MIN	.014		.375	MIN	.023	.310	.785	MAX	MAX
ML61d	.125	.008		.325	.020	.015	.290	.755	.280	.145
	.165	.014		.395	.040	.023	.315	.785	MAX	.175
ML61e	.125	.008		.020	.015	.290	.750	.245	.160	
	.160	.012			.040	.020	.310	.780	.275	.200

ML62



	A	B	C	D	E	F	G	H	J	K	M	N
ML62	.740		.090	.055	.019	.100	.200	.090	.290	.235	.009	.375
	.780		.110			MIN	MAX	.110	.310	.265	.011	
ML62a		.700	.080	.040	.015	.100	.200	.145	.290	.245		
			.110	MIN	MIN	MAX	MAX	.310	.275			
ML62b	.780	.725	.090		.015	.105	.180		.320	.265	.010	.310
	MAX	MAX	.110		.019	.145	MAX		MAX	MAX		.350
ML62c	.730		.080	.030	.015	.100	.200	.120	.290	.230	.008	.350
	.770		.110	.070	.023	MIN	MAX	.310	.265	.015	NOM	

ML63

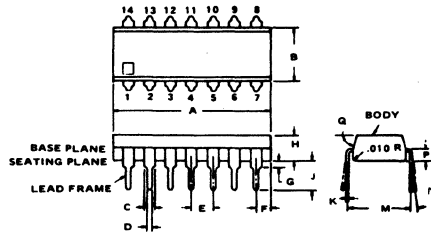


	A	B	C	D	E	F	G	H	J	K
ML63	.685	.300	.246	.350	.009	.104	.050	.125	.020	.100
	.715		.256		.011	MAX	MIN	MIN		
ML63a	.725	.300	.265	.310	.010	.180	.020	.105	.015	.090
	MAX	MAX	MAX	.350		MAX		.145	.019	.110
ML63b	.660	.290	.230	.350	.008	.120	.020	.100	.015	.090
	.785	.310	.265		.011	.180	.080	MIN	.023	.110
ML63c	.750	.308	.245		.009	.140	.015	.125	.016	.100
	.785	.314	.271		.011	.185	.060	.200	.020	TYP

23. OUTLINE DRAWINGS

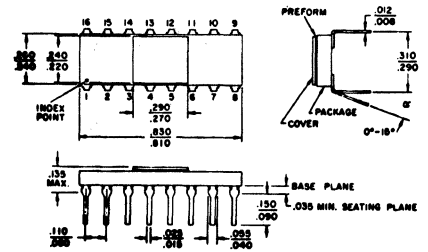
IN DRAWING NUMBER SEQUENCE

ML64

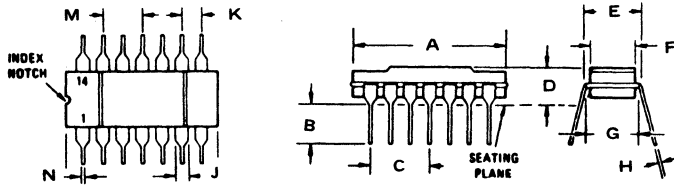


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	REMARKS
ML64	.780	.245	.080	.018	.090	.065	.015	.135	.135	.015	.290	0*	.060	70*	
ML64a	.780	.255	.084	.021	.110	.085	.035	.125	.155	.030	.310	20*			INDEX NOTCH
ML64b	.775	.235	.085	.018	.090		.020	.140	.180	.008	.320				INDEX NOTCH
ML64c	.785	.244	.081	.018	.100		.019	.196	.101	.007	.300	0*			INDEX
ML64d	.757			.018	.100	.084	.020	.133	.165	.014		7*			INDEX DOT
ML64e	.745	.240	.080	.014	.100		.020					0*			
ML64f	.770	.280	.085	.020			.050					15*			
ML64f	.800	.252		.018	.100		.019	.181	.149		.300				
	MAX			.020				.188							

ML65

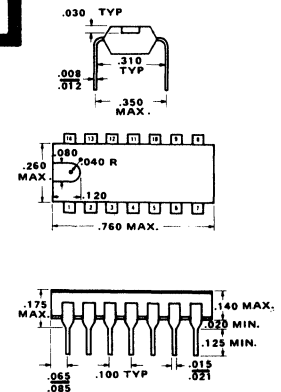


ML66

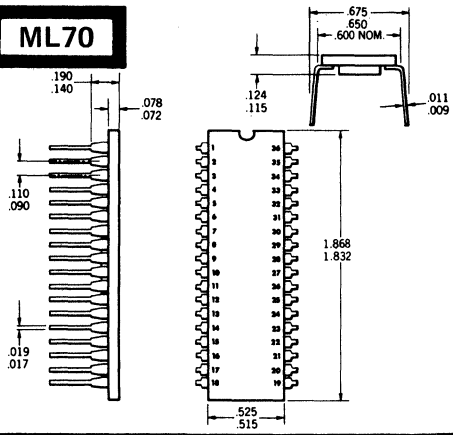


	A	B	C	D	E	F	G	H	J	K	M	N
ML66	.660	.100	.290	.200	.325	.220	.290	.008	.030	.090	.190	.015
	.780	MIN	.310	MAX	MAX	.280	.310	.015	.070	.110	.210	.023
ML66a	.755	.130		.200	.245	.290	.008	.070	.100			.015
	.785	MIN		MAX	.280	.310	.014	MAX				.023
ML66b	.755	.130		.200	.325	.280	.290	.008	.070	.090		.015
	.785	MIN		MAX	.375	.310	.014	MAX	.110			.023
ML66c	.755	.149		.198	.300	.244		.007	.062	.100		.017
	MIN			MAX				.014				.019

ML69

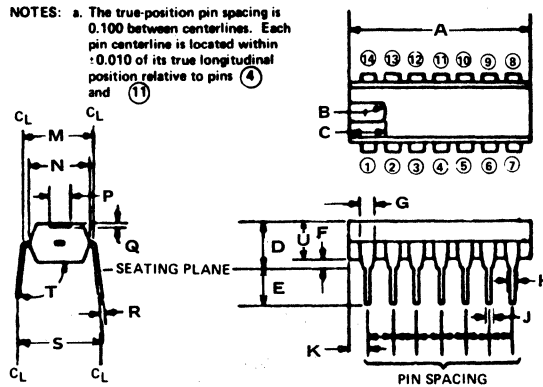


ML70



ML71

NOTES: a. The true-position pin spacing is 0.100 between centerlines. Each pin centerline is located within ±0.010 of its true longitudinal position relative to pins ④ and ⑪

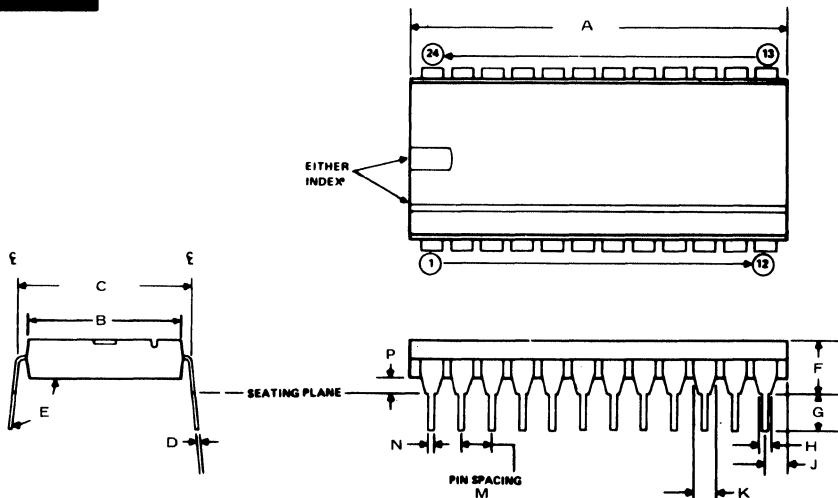


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	T	U
ML71	.710	.093	.110	.200	.125	.020	.070	.033	.015	.055	.290	.240	.080	.010	.008	.300	90°	
	.770			MAX	MIN			MIN	.021	.095	.310	.260			.014	.350	105°	
ML71a	.783			.200	.125	.020		.036	.015	.055	.290			.014	MAX			
	MAX			MIN	MIN			MIN	.018	.094	.310							
ML71b	.670		.110	.185	.135	.035	.055	.033	.019	.065		.258	.080	.030	.010	.350	75°	
				MAX	MIN			MIN	.085				NOM				105°	
ML71c	.770	.093	.110	.200	.110	.014	.055	.033	.015	.065		.240	.080	.030	.008	.290	75°	
	MAX	NOM		MAX	.125	.020	.065	MIN		.085		.310			.008	MAX	105°	
ML71d	.710	.093	.110	.200	.125	.020	.070	.038	.015	.055		.240	.080	.010	.008	.300	75°	
	.770	NOM		MAX	MIN			MIN	.021	.095		.260			.014	.350	105°	
ML71e	.759		.059		.135		.059		.018	.079	.300							.129
	MAX				MAX													MAX
ML71f	.748	.098		.200	.110	.019	.045		.019	.074	.300	.251			.010	.300	90°	
																	105°	
ML71g	.767			.185	.120	.020	.047		.014	.086	.324				.009	.300		
	MAX			MAX	.153	MIN			.020		MAX				.374			

23. OUTLINE DRAWINGS

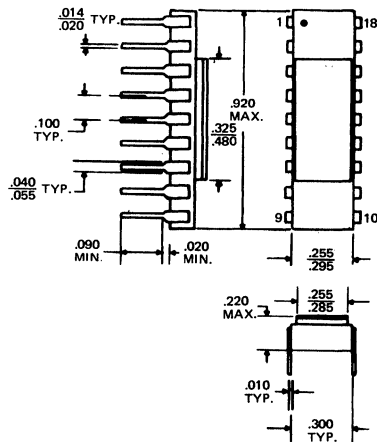
IN DRAWING NUMBER SEQUENCE

ML72

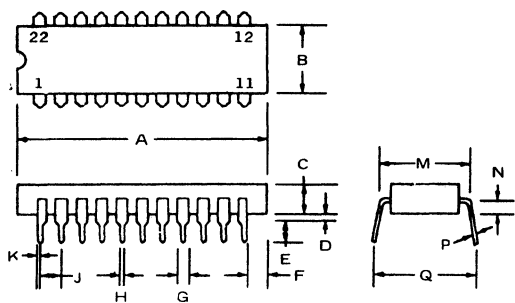


	A	B	C	D	E	F	G	H	J	K	M	N	P	REMARKS
ML72	1.310 MAX	.650 .675	.626 .625	.008 .014	90° 105°	.200 MAX	.125 MIN	.033 MIN	.095 MAX	.070 MAX	.100 MAX	.015 MIN	.020 MIN	NOTCH ONLY
ML72a	1.245 MAX	.585 .595	.625 .675	.008 .014	90° 105°	.200 MAX	.125 MIN	.033 MIN	.095 MAX	.070 MAX	.100 MAX	.015 MIN	.020 MIN	NOTCH ONLY
ML72b	1.290 MAX	.590 .610	.590 .610	.008 .014	90° 105°	.200 MAX	.125 MIN	.033 MIN	.055 MAX	.060 MAX	.100 MAX	.015 MIN	.020 MIN	EITHER INDEX
ML72c	1.310 MAX	.550 .610	.590 .610	.008 .014	90° 105°	.200 MAX	.125 MIN	.033 MIN	.095 MAX	.070 MAX	.100 MAX	.015 MIN	.020 MIN	NOTCH ONLY
ML72d	1.270 MAX	.515 .590	.590 .610	.008 .012	90° 105°	.200 MAX	.090 MIN				.100 MAX	.018 MIN	.020 MIN	NOTCH AND DOT AT PIN 1
ML72e	1.310 MAX	.480 .590	.590 .610	.008 .012	90° 105°	.200 MAX	.090 MIN				.100 TYP	.015 TYP	.015 MIN	NOTCH ONLY

ML73

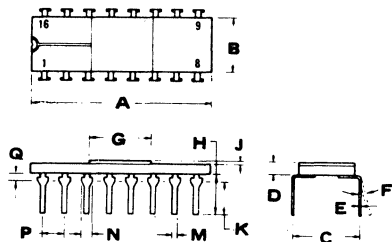


ML77



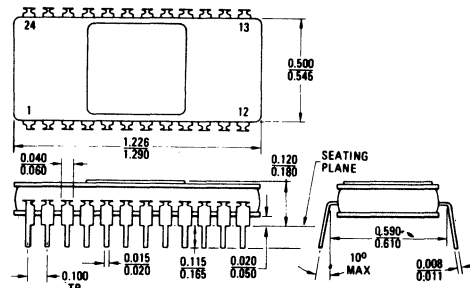
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	REMARKS
ML77	1.080 MAX	.270 .340	.170 MAX	.030 MIN	.150 MIN	.010 MIN	.060 TYP	.015 REF	.100 REF	.025 MAX	.400 MAX	.045 REF	.008 .012	.370 .480	
ML77a	1.079 MAX	.358 MAX	.165 MAX	.047 MAX	.118 MAX	.050 MAX	.059 MAX	.016 MAX	.100 MAX		.400 MAX		.009 MAX	.425 MAX	
ML77b	1.141 MAX	.180 MAX	.020 MIN	.114 MIN	.078 MAX	.047 MAX	.015 TYP	.100 TYP			.429 MAX		.009 MAX	.400 .490	
ML77c	1.130 MAX	.320 .380	.180 MAX	.020 MIN	.090 MIN	.040 TYP	.015 TYP	.100 TYP			.390 .410		.008 .012		
ML77d	1.110 MAX	.355 .395	.185 MAX	.015 MIN	.090 MIN	.040 TYP	.015 TYP	.100 TYP			.390 .410		.008 .012		
ML77e	1.12 MAX	.360 MAX	.165 MAX	.035 MIN	.100 MIN		.020 TYP	.100 TYP			.400 MAX		.010 MAX		
ML77f	1.079 MAX	.181 MAX	.019 MIN	.100 MIN	.050 MAX		.014 TYP	.100 TYP			.413 MAX		.010 MAX		
ML77g	1.070 TYP	.380 TYP	.020 MIN	.100 MIN			.019 TYP	.100 TYP							
ML77h	1.060 1.090	.364 .380	.170 MAX	.020 MIN	.150 MIN	.025 TYP	.056 TYP	.018 TYP	.100 TYP		.420 MAX		.009 .011	.515 MAX	

ML78



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	REMARKS
ML78	.805 .835	.270 .280	.300 MAX	.060 .085	.008 .012	0° 7°	.400 MAX	.180 .210	.016 MAX	.135 .190	.015 .020	.045 .055	.100 MAX	.020 .055	
ML78a	.818 MAX	.272 MAX	.300 MAX	.078 MAX	.010 MAX	0° 15°	.378 MAX			.080 .149	.016 MAX	.050 MAX	.100 MAX	.039 MAX	NO INDEX NOTCH

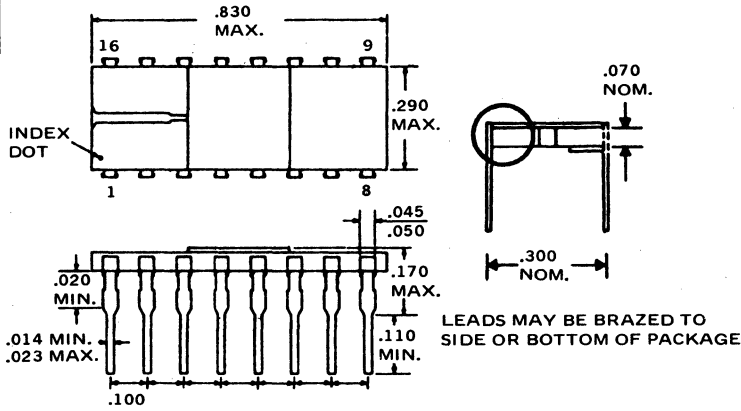
ML79



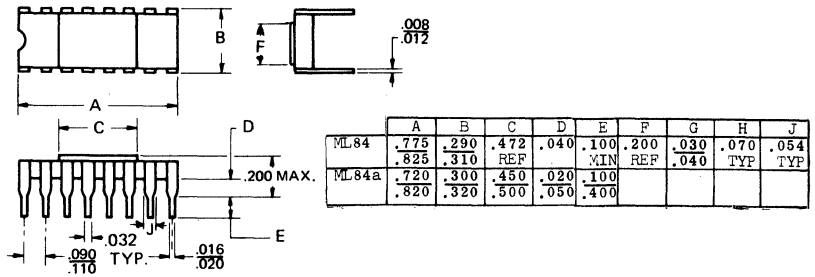
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

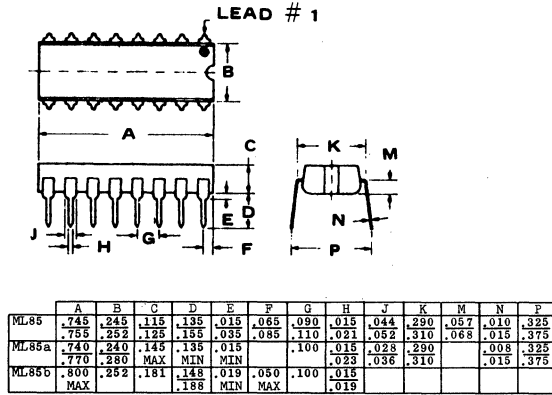
ML82



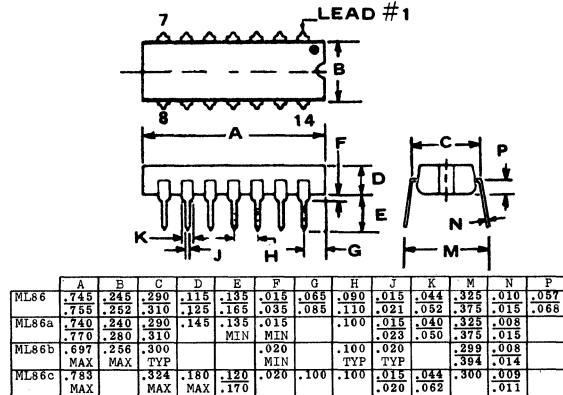
ML84



ML85



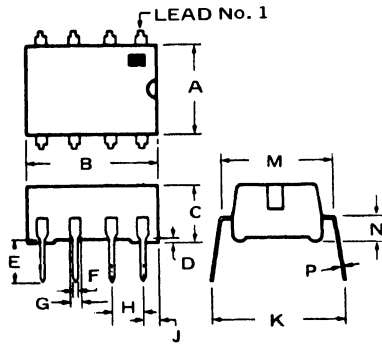
ML86



23. OUTLINE DRAWINGS

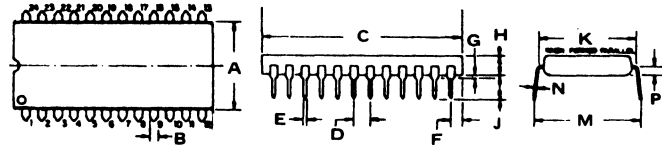
IN DRAWING NUMBER
SEQUENCE

ML87



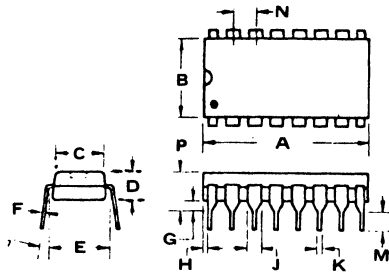
	A	B	C	D	E	F	G	H	J	K	M	N	P
ML87	.250	.365	.155	.010	.015	.044	.090	.025	.325	.290	.100	.010	
	MAX	.375	.165	MIN	.020	.050	.110	.045	.375	.310	MAX		
ML87a	.245	.365	.155	.010	.120	.015	.044	.090	.025	.325	.290	.075	.010
	.252	.375	.165	.020	.135	.021	.052	.110	.045	.375	.310	.085	.015

ML88



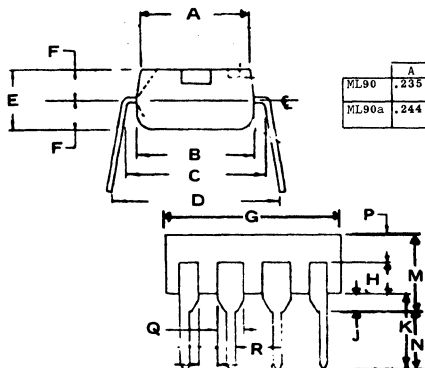
	A	B	C	D	E	F	G	H	J	K	M	N	P	REMARKS
ML88	.540	.040	1.24	.090	.015	.065	.030	.115		.600	.645	.015	.045	
	.550	.050	1.25	.110	.020	.085	.050	.125		.650	.655	MAX	.055	
ML88a	.527		1.25	.090	.017		.020	.208	.120	.590		.007		INDEX NOTCH ONLY
				.110	.019							.014		
ML88b	.530		1.240	.100	.015		.050	.170	.175	.600		.007		INDEX NOTCH ONLY
			1.250		.021		TYP					.015		
ML88c	.525		1.24	.090	.015		.030	.180	.145	.585	.825	.003		INDEX NOTCH
	.535		1.25	.110	.022		NOM	MAX	MIN	.595	.675	.011		
ML88d	.510	.045	1.23	.090	.015		.020	.180	.145	.590	.700	.009		INDEX NOTCH
	.540	.065	1.29	.110	.023		.060	MAX	MIN	.620	NOM	.011		
ML88e	.500		1.22	.090	.015		.020	.180	.145	.590	.650	.005		INDEX DOT
	.545		1.29	.110	.023		MIN	MAX	MIN	.610	NOM	.015		
ML88f	.580		1.190	.090	.015	.030	.030	.080			.590	.008		
	.610		1.230	.110	.021	.065	.070	.120			.620	.012		
ML88g	.515	.045	1.230	.090	.027		.025	.125	.037	.600	.750	.009		INDEX NOTCH
	.575	.065	1.290	.110	.037		.063	.210	.175	TYP	MAX	.011		

ML89



	A	B	C	D	E	F	G	H	J	K	M	N	P
ML89	.760	.250	.235	.130	.300	.010	.040	.020	.060	.020	.130	.092	.180
	.765											.108	MAX
ML89a	.745	.245		.115	.290	.010	.015	.020	.044	.015	.120	.090	.130
	.755	.252		.125	.310	.015	.035	.030	.054	.021	.135	.110	.160
ML89b	.750	.235		.180	.325	.008	.020			.015	.090	.200	
	.880	.275			MAX	.015				.023	MIN	.110	MAX
ML89c	.787	.252			.300		.020	.043			.141	.100	.181
	MAX	MAX			MIN		MIN				MAX		MAX
ML89d	.745	.245		.290	.325	.009	.020			.018	.125	.090	.200
	.755	.255		.310	.375	.011	MIN			.022	MIN	.110	MAX
ML89e	.850		.250	.130	.300	.010	.100			.060	.018	.130	.165
										TYP	TYP	MAX	
ML89f	.748	.251			.307	.008	.020	.039	.047	.017	.129	.092	.159
		TYP			.387	.013	.040	.047	.055	.021	.153	.108	.179
ML89g	.760	.248			.300	.008	.019		.051	.014	.110	.100	.200
						.014	MIN			.022	MIN		
ML89h	.760	.267			.300	.008	.019		.051	.014	.110	.100	.200
						.014	MIN			.022	MIN		

ML90

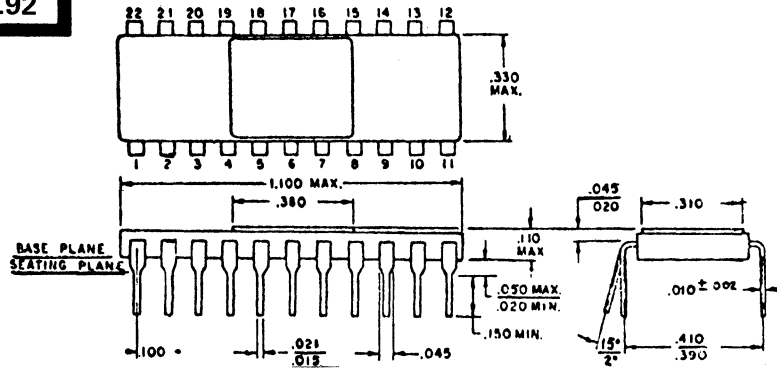


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R
ML90	.235	.250	.300	.360	.130	.065		.070	.030	.150		.060	.060	.020	
				MAX											
ML90a	.244	.244	.300		.179		.377		.019	MIN	.199	.100		.050	.007
															.014

23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

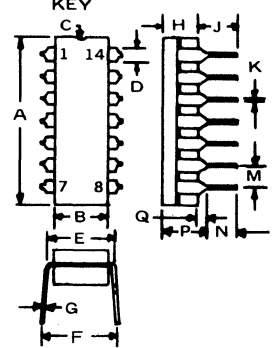
ML92



ML93

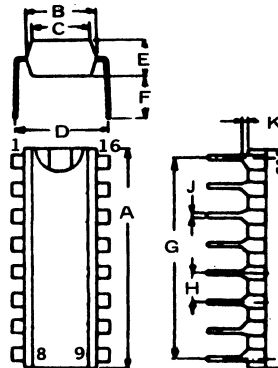
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q
ML93	.750	.245	.025	.057	.290	.350	.009	.160	.180	.015	.090	.140	.200	.020
ML93a	.755	.275		.065	.310	.400	.012	MAX	MAX	.018	.110	MAX	MAX	.055
ML93b	.755	.280		.070	.290	.335	.008	.145	.145	.015	.090	.125	.165	.020
ML93c	.785	MAX		MAX	.315	.395	.014	.175	.205	.023	.110	.165	.215	.040
ML93d	.785	.260	.025	.055	.290	.360	.008			.021	.090	.125	.200	.020
ML93e	.799	.299		.065	.320	.410	.012			.022	.110	MIN	MAX	.070
ML93f	.785	MAX		MAX	.300			.180	.149	.016	.100	.130	.200	.019
ML93g	.745	.240	.039	.059	.299		.009	.180	.120	.018	.100	.100	.199	.020
ML93h	.770	.260		.065	TYP	.325	.012			.020	TYP	.150	.160	.065
ML93i	.715	.240		.040	.300	.300	.008			.014	.100	.125	.120	.020
ML93j	.770	.260		.065	TYP	.325	.012			.020	TYP	.150	.160	.065

PIN LOCATING KEY

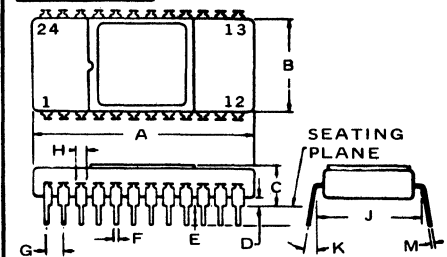


ML94

	A	B	C	D	E	F	G	H	J	K
ML94	.787	.255	.210	.330	.129	.160	.700	.090	.017	.030
ML94a	MAX	MAX						.110		
ML94b	.755	.244			.179	.120		.090	.007	.019
ML94c	.854	.355		.298	.177	.187		.110	.014	
ML94d	TYP	MAX		MAX	MIN	MIN		.090	.015	.019
ML94e	.740	.252		.330	.126	.125		.100	.018	.025
ML94f	MAX	MAX		MAX	MAX	MAX				
ML94g	.870	.240		.290	.180	.140	.700	.100	.015	.020
ML94h	MAX	.260		.310	MAX	MIN	TP	TP	.021	MIN

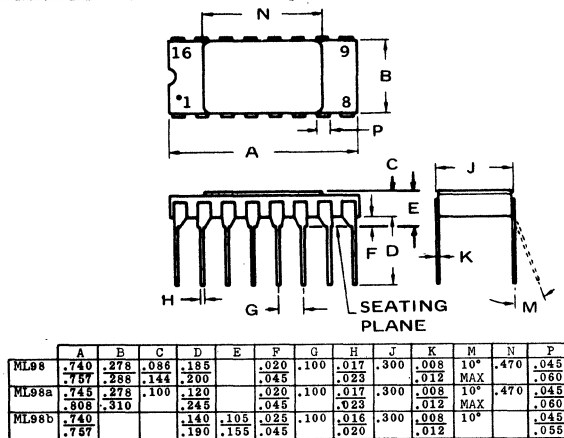


ML95



	A	B	C	D	E	F	G	H	J	K	M
ML95	1.10	.500	.120	.020	.115	.015	.100	.040	.590	10°	.008
ML95a	1.29	.545	.180	.050	.165	.020		.060	.610	MAX	.011
ML95b	1.14	.500	.120	.020	.115	.015	.100	.040	.590	10°	.011
ML95c	1.29	.560	.180	.050	.165	.020		.060	.610	MAX	.012

ML98

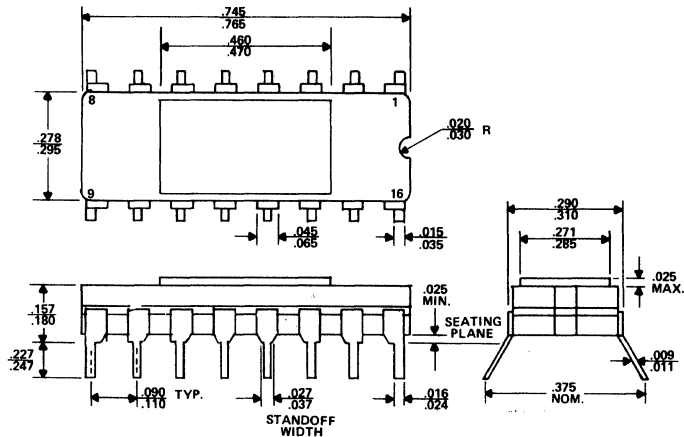


	A	B	C	D	E	F	G	H	J	K	M	N	P
ML98	.740	.278	.086	.185		.020	.100	.017	.300	.008	10°	.470	.045
ML98a	.737	.268	.144	.200		.045	.100	.023		.012	MAX		.060
ML98b	.745	.278	.100	.120		.020	.100	.017	.300	.008	10°	.470	.045
ML98c	.808	.310		.245		.045		.023	.012	MAX			.060
ML98d	.740			.140	.105	.025	.100	.016	.300	.008	10°		.045
ML98e	.787			.190	.155	.045		.020		.012			.055

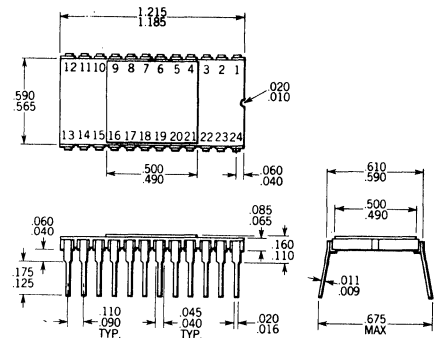
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

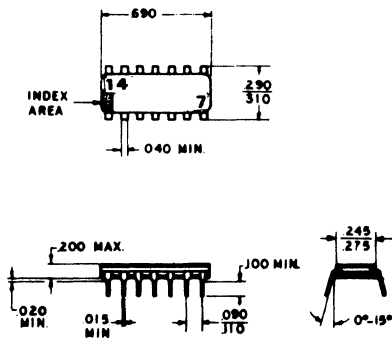
ML102



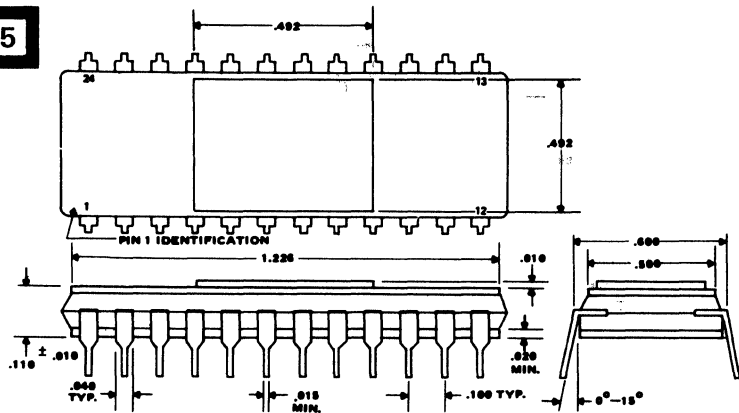
ML103



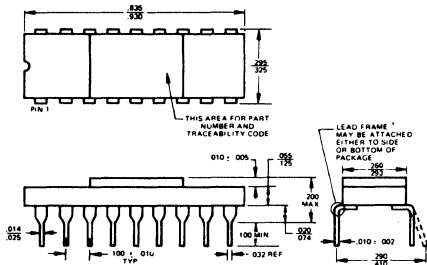
ML104



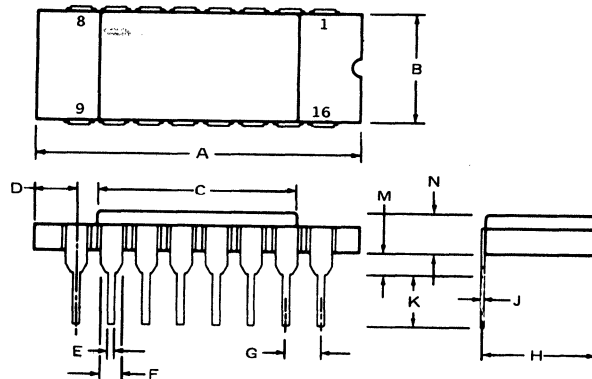
ML105



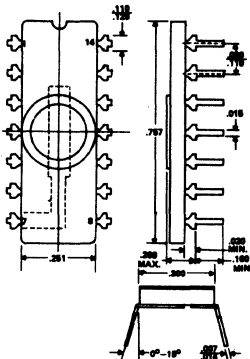
ML106



ML107



ML109

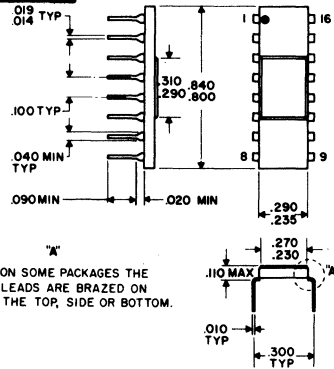


	A	B	C	D	E	F	G	H	J	K	M	N
ML107	.740	.280	.420	.020	.015	.045	.090	.290	.008	.100	.030	.080
	.830	.310	.470	.065	.021	.060	.110	.320	.012	.140	.060	.120
ML107A	.740	.280		.020	.015	.045	.090	.290	.008	.125	.025	.080
	.830	.310		.065	.021	.060	.110	.320		.175	.055	.120

23. OUTLINE DRAWINGS

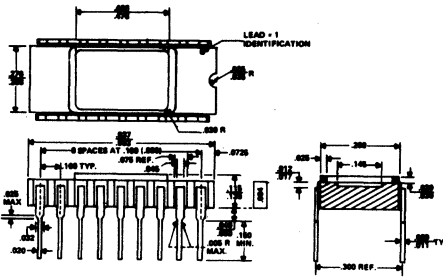
IN DRAWING NUMBER SEQUENCE

ML110

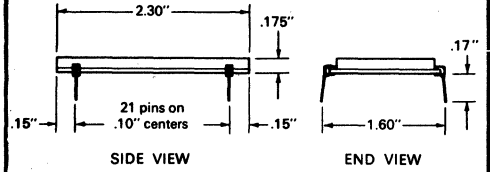


"A"
ON SOME PACKAGES THE LEADS ARE BRAZED ON THE TOP, SIDE OR BOTTOM.

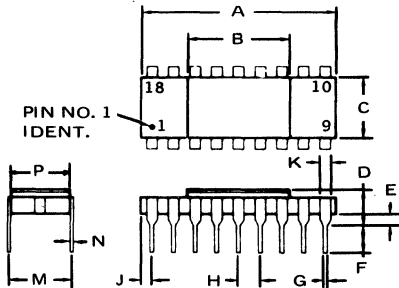
ML112



ML113

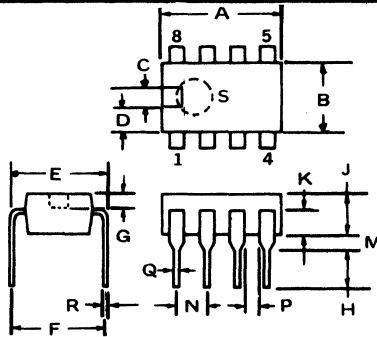


ML115



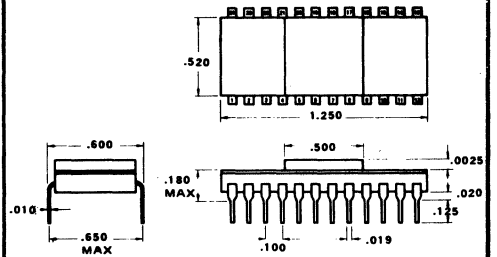
	A	B	C	D	E	F	G	H	J	K	M	N	P
ML115	.915		.310	.140	.020	.125	.018	.100	.050	.050	.300	.008	.292
	MAX			MAX	MIN	MIN						.011	
ML115a	.910	.490	.295	.165	.020	.125	.015	.090	.040	.054	.300	.008	
	MAX	MAX	MAX	MAX	.060	MIN	.020	.110	.060			.012	
ML115b	.900	.460	.284	.155	.035	.135	.016	.100	.050		.300	.008	.320
	MAX	MAX	MAX	MAX		MAX	.020		MAX			.012	MAX
ML115c	.880	.275	.200	.015	.100	.014	.090			.040	.280	.008	
	.920		.305	MAX	MIN	MIN	.023	.110		.065	.380	.015	
ML115d	.890	.275	.200	.020	.100	.016	.090	.045	.043			.008	.290
	.915		.295	MAX	.060	.150	.023	.110	.065	.060		.012	.310

ML116

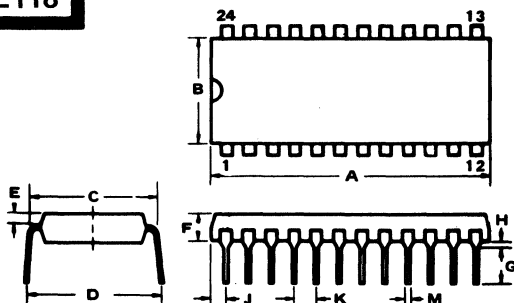


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML116	.400	.245	.080	.085	.300	.300	.075	.125	.128	.065	.020	.100	.040	.016	.001	NA
	MAX	.255			.320	.350	MAX	MIN	.132	MAX				.020	.010	
ML116a	.380	.245	.065	.065	.290	.290	.025	.100	.125		.020	.090		.018	.008	NA
	MAX	.255	.075	.075	.310	.410		.150	.155		MIN	.110		.023	.012	
ML116b	.400	.245			.300	.310	.030	.125	.125	.065	.020	.100		.018	.015	.092
	MAX	.255			.320	.350	MAX	MIN	.135		MIN	.100		.021	.019	DIA

ML117



ML118

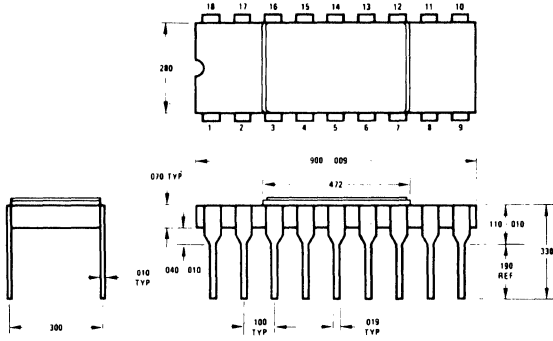


	A	B	C	D	E	F	G	H	J	K	M
ML118	1.25	.540	.610	.624	.075	.160	.125	.030	.075	.100	.010
		MAX		.650			MIN	MIN			
ML118a	1.22		.600	.600	.055	.125	.137	.035	.056	.100	.014
				.649	.062	.200	.150	.047	.056		.020
ML118b	1.25		.600	.625		.181	.114	.019	.086	.100	.010
	MAX					MIN	MIN	MAX			
ML118c	1.22		.543	.600	.055	.125	.137	.035	.066	.100	.001
	1.25		.559	.649	.062	.200	.150	.047	.086		
ML118d	1.20	.500		.600		.170	.100	.020		.080	.015
	1.30	.600		.730		.200	.150	.050		.110	.023
ML118e	1.31	.550	.550		.090			.020	.070	.100	.018
	MAX							TYP		REF	TYP
ML118f	1.23	.530	.590			.145		.020	.070	.100	.016
	1.25	.550	.610			.165		MIN	REF	TYP	.023
ML118g	1.307	.541	.590	.606		.181	.125	.019	.094	.099	.018x.011
	1.322	.561	.610	.649		MAX	MIN	MAX			
ML118h	1.259	.499	.599	.599		.157	.110	.031		.100	.017

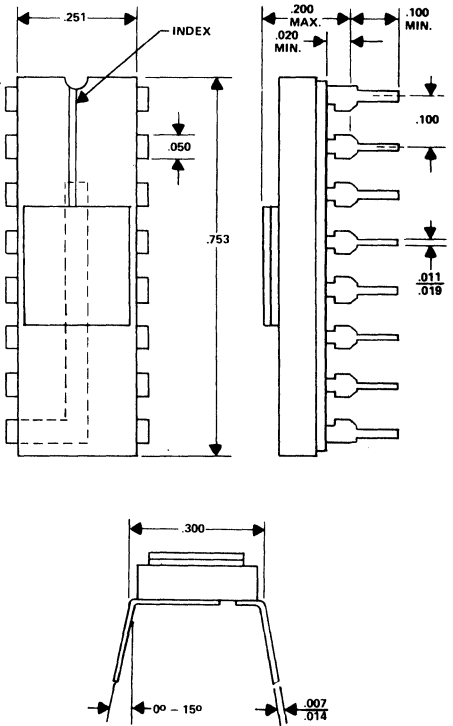
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

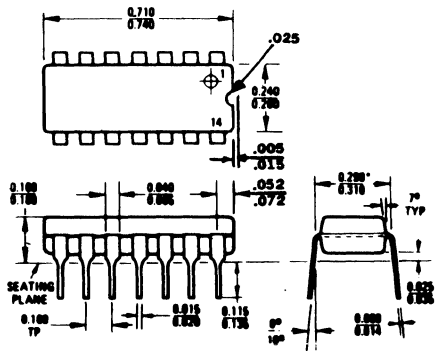
ML119



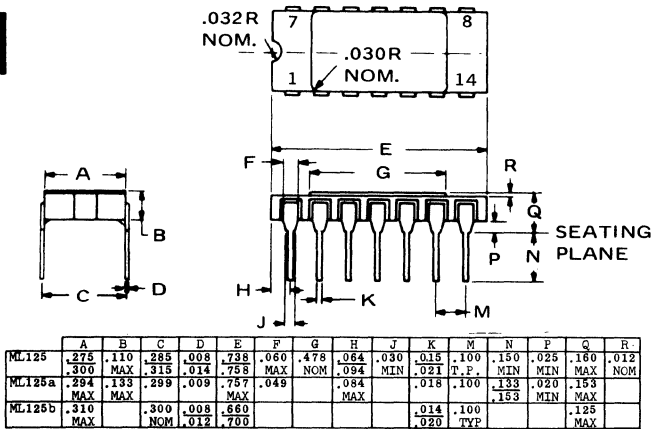
ML120



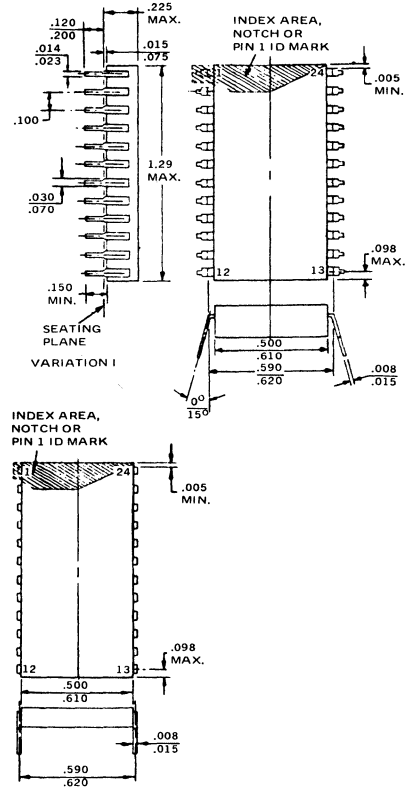
ML124



ML125



ML126

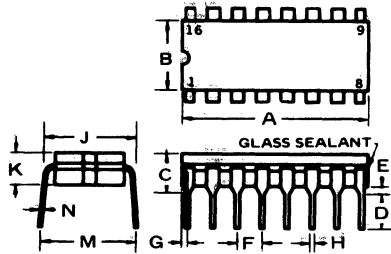


IF IT IS USED, NO ORGANIC OR POLYMERIC MATERIALS SHALL BE MOLDED TO THE BOTTOM OF THE PACKAGE TO COVER THE LEADS.

23. OUTLINE DRAWINGS

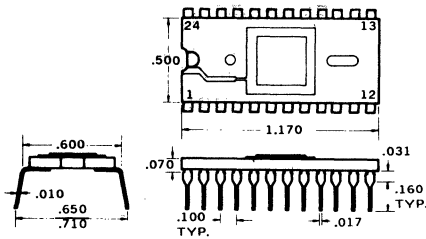
IN DRAWING NUMBER SEQUENCE

ML127

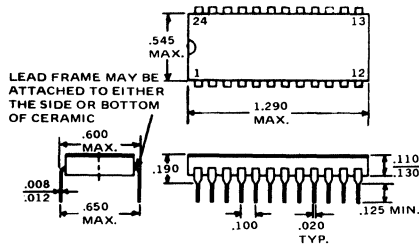


	A	B	C	D	E	F	G	H	J	K	M	N
ML127	.785 MAX	.280 MAX	.175	.130 MIN	.020	.090 MIN	.050 MAX	.015 MAX	.310 MAX	.160 MAX	.300 MAX	.008 MAX
ML127a	.290 MAX	.220 MAX	.100 MAX	.020 MIN	.090 MAX	.015 MAX	.015 MAX	.023 MAX			.290 MAX	.008 MAX
ML127b	.750 MAX	.245 MAX	.160 MAX	.125 MAX	.020 MAX	.100 MAX	.020 MAX	.015 MAX	.290 MAX			.008 MAX
ML127c	.787		.220 MAX			.100	.017		.290 MAX		.410	.009
ML127d	.760					.100	.017			.110	.300	.009
ML127e	.755 MAX	.265 MAX	.170 MAX	.100 MIN	.020 MIN	.090 MAX	.015 MAX	.016 MAX			.375	.009
ML127f	.785 MAX	.280 MAX	.270 MAX	.125 MIN	.020 MAX	.090 MAX	.050 MAX	.016 MAX	.290 MAX	.160 MAX	.360 MAX	.008 MAX
ML127g	.799 MAX		.200 MAX	.100 MAX	.014 MAX	.100 MAX	.050 MAX	.012 MAX	.324 MAX		.299	.008 MAX
ML127h	.765	.248	.175	.105 MAX	.025	.100		.015 MAX	.300	.150	.300 MIN	.008 MAX
ML127j	.750 MAX	.245 MAX	.200 MAX	.125 MIN	.020	.090 MAX	.015 MAX	.016 MAX	.325 MAX	.180 MAX	.400 MAX	.009 MAX
ML127k	.750 MAX	.265 MAX	.200 MAX	.125 MIN	.080 MAX	.090 MAX	.010 MAX		.290 MAX		.380 MAX	.009 MAX
ML127m	.785 MAX	.291 MAX		.105 MAX	.125 MAX	.020 MAX	.090 MAX	.015 MAX	.290 MAX		NOM	.011
ML127n	.763 MAX	.283 MAX	.200 MAX	.100 MIN	.020 MIN	.100	.020		.300		.315	.360
ML127p	.735 MAX	.290 MAX	.220 MAX	.100 MAX	.020 MAX	.090		.015 MAX	.290 MAX	.160 MAX	.290 MAX	.008 MAX
ML127q	.833 MAX	.830 MAX	.325 MAX	.150 MAX	.060	.110		.023 MAX	.325 MAX		.410 MAX	.012
ML127r	.755 MAX	.310 MAX	.165 MAX	.125 MAX	.020 MAX	.090 MAX	.015 MAX	.015 MAX	.290 MAX	.145 MAX	.008 MAX	.014
ML127s	.750 MAX	.245 MAX	.200 MAX	.100 MAX	.015 MAX	.090 MAX	.015 MAX	.016 MAX	.290 MAX		.375 MAX	.009 MAX
ML127t	.785 MAX	.271 MAX		.165 MIN		.110	.045	.020	.310		NOM	.011
ML127u	.745 MAX	.240 MAX	.155 MAX	.100 MAX	.020 MAX	.100	.015	.014	.300			.008 MAX
ML127v	.820 MAX	.240 MAX	.200 MAX	.100 MAX	.015 MAX	.090 MAX		.014 MAX	.325 MAX		.300 MAX	.008 MAX
ML127w	.744 MAX	.259 MAX	.200 MAX	.125 MAX	.020	.100		.014 MAX	.290 MAX		.311 MAX	.008 MAX
	.783	.279		.149				.022	.309		.397	.013

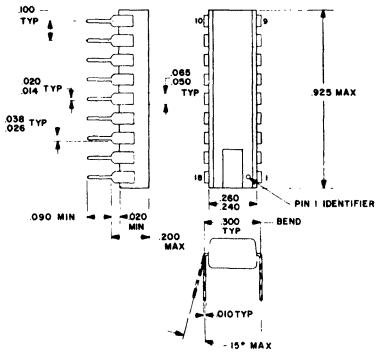
ML128



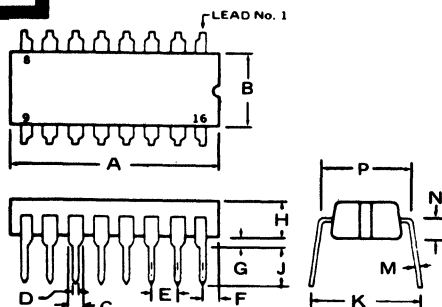
ML130



ML131



ML132

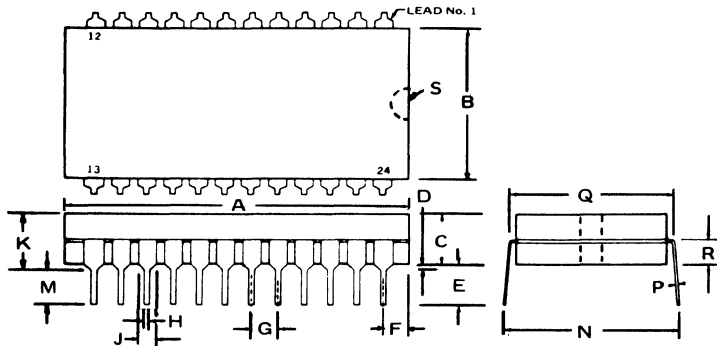


	A	B	C	D	E	F	G	H	J	K	M	N	P
ML132	.745 MAX	.245 MAX	.044 MAX	.015 MAX	.090 MAX	.020 MAX	.015 MAX	.115 MAX	.120 MAX	.325 MAX	.010 MAX	.057 MAX	.290 MAX
ML132a	.750 MAX	.235 MAX	.030 MAX	.015 MAX	.090 MAX	.030	.035 MAX	.125 MAX	.135 MAX	.375 MAX	.015 MAX	.068 MAX	.310 MAX
ML132b	.748	.251	.045	.019	.100		.019 MIN	.181 MAX	.110	.300	.010		

23. OUTLINE DRAWINGS

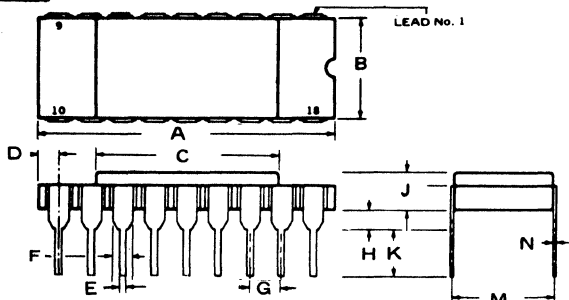
IN DRAWING NUMBER
SEQUENCE

ML133



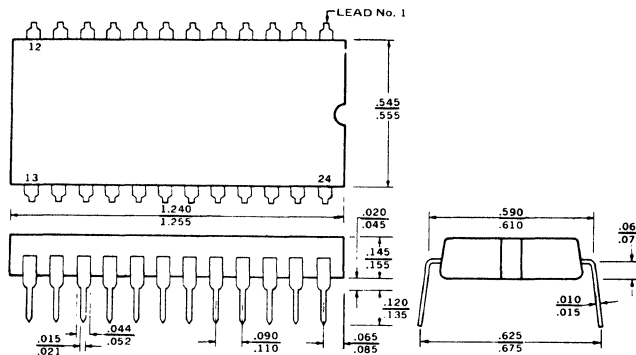
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML133	1.235 MAX	.560 MAX	.200 MIN	.125 .140	.125 .100	.060 .100	.090 .110	.015 .023	.076 MAX			.600 .650	.008 .014	.590 .610	.100	NA
ML133a	1.290 MAX	.515 .525	.020 .070	.120 .200		.060 .100	.090 .110	.016 .020	.050 .060	.200 MAX	.125 MIN	.660 .710	.008 .012	.590 .620	.160 MAX	.025 RAD
ML133b	1.200 MAX	.500 .600	.170 .200	.020 .050	.120 .200		.090 .110	.015 .023	.045 .070	.220 MAX	.100 .150	.600 .730	.008 .012	.550 .650	.070 .110	
ML133c	1.230 MAX	.510 .530	.140 .180	.015 MIN	.115 MIN		.090 .110	.014 .023	.040 .065	.220 MAX	.100 MIN	.600 .700	.008 .015	.625 MAX		YES
ML133d	1.33 MAX	.531 MIN		.019 MIN			.100		.059	.199 MAX	.100 MIN		.009	.598		
ML133e	1.260 MAX	.600		.020 MIN		.080 MAX	.100	.018 TYP	.060 TYP	.200 MAX	.120 MIN	.625 MIN	.010 TYP			NA
ML133f	1.30 MAX	.520 MAX	.205 MAX	.020			.100	.016 .024	.055 MIN	.225 MAX	.125 MIN	.600	.006 .014			.059

ML134

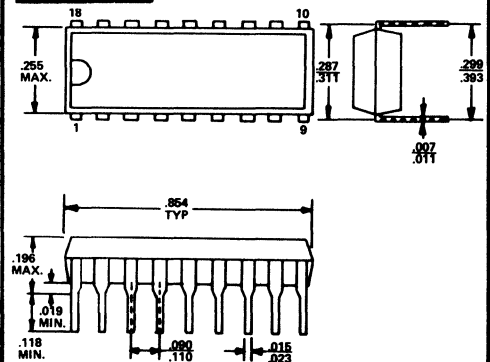


	A	B	C	D	E	F	G	H	J	K	M	N
ML134	.890 .930	.280 .310	.420 .470	.030 .065	.015 .021	.045 .060	.090 .110	.030 .070	.080 .120	.100 .140	.290 .320	.008 .012
ML134a	.921 MAX	.294 MAX		.059 MAX	.053 MAX	.020	.100	.029	.147 MAX	.133 .153	.299 .300	.009 .008
ML134b	.890 .910	.278 .298			.015 .021		.090 .110	.025 .045	.105 MAX	.135 .155	.300 .300	.008 .012
ML134c	.890 .910	.278 .298			.020 TYP	.040 TYP	.095 .105	.040 .060		.170 .190	.300 .320	.010 TYP
ML134d	.890 .915	.280 .300		.035 .065	.015 .021	.054	.100	.020 .045	.155 MAX	.125 .150	.300 .300	.008 .012
ML134e	.890 .920	.300 .320			.018 .020	.051 .057	.090 .110	.025 .035	.095 .105	.125 .135	.300 .330	.009 .011
ML134f	.900	.285			.016 TYP	.043 TYP	.100 TYP	.040 TYP	.150	.125	.300	.008 .012
ML134g	.890 .910	.286 .294			.016 .020	.054 TYP	.100 TYP	.025 .045	.085 .105	.120 .140	.300 .350	.009 .011
ML134h	.870 .910	.250 .300			.014 .024	.052 .054	.090 .110	.015 MIN	.140 .170	.100 MIN	.300 .400	

ML135



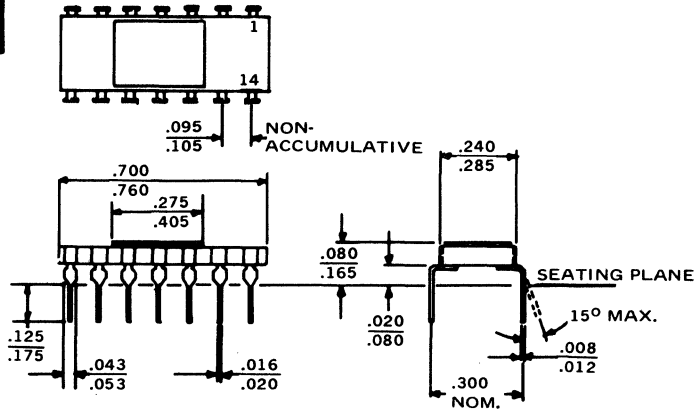
ML136



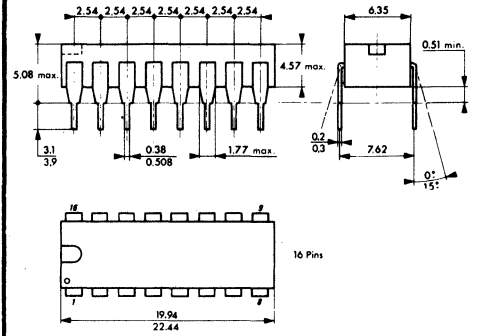
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

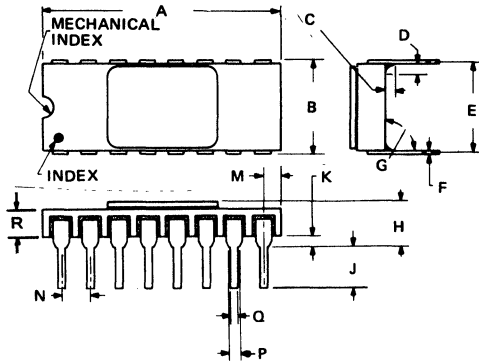
ML137



ML139

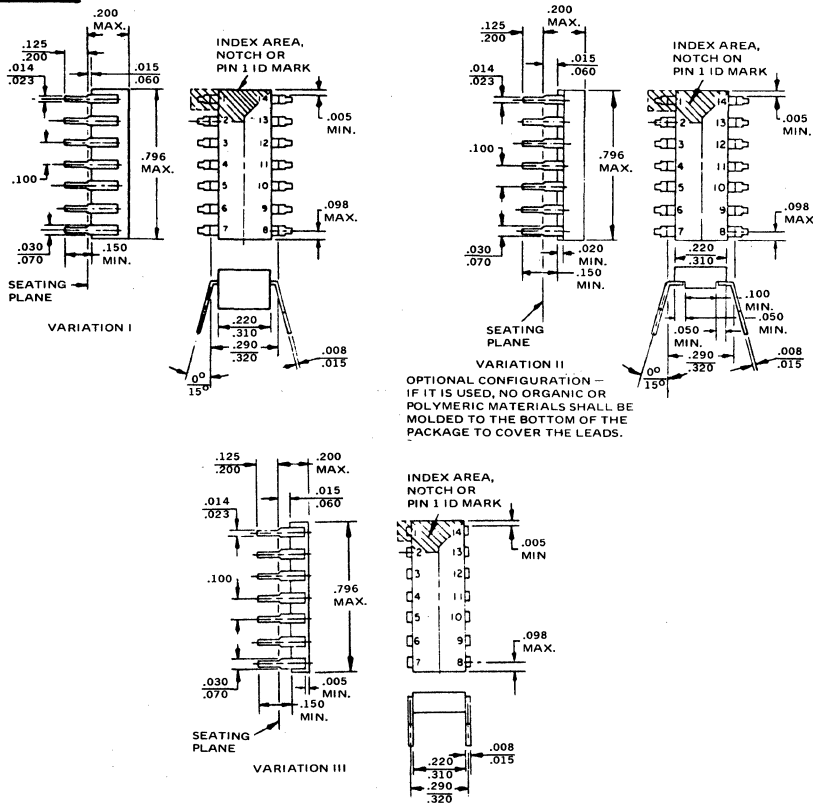


ML140



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	REMARK
ML140	.830 MAX	.295 MAX	.020 MAX	.040 MAX	.290 MIN	.008 MIN	90° 105°	.200 MAX	.125 MIN	.020 MIN	.015 MIN	.090 MIN	.027 MIN	.015 MIN		
ML140a	.820 MAX	.320 MAX			.300 MAX			.150 MAX	.130 MIN	.018 MIN		.092 MIN	.015 MIN	.019 MIN		
ML140b	.790 MAX	.285 MAX			.280 MIN	.008 MIN		.170 MAX	.140 MIN	.020 MIN	.032 MIN	.100 MIN	.030 MIN	.015 MIN		
ML140c	.800 MIN	.310 MIN			.340 TYP	.010 TYP	90° 105°	.150 TYP	.130 TYP	.035 TYP		.100 TYP	.054 TYP	.013 TYP		
ML140d	.795 MIN	.287 MIN			.279 MIN	.008 MIN	90° 105°	.133 MIN	.125 MIN	.035 MIN	.051 MIN		.314 MIN	.017 MIN		
ML140e	.780 MIN	.275 MIN			.290 MIN	.008 MIN	90° 105°	.160 MAX	.120 MIN	.020 MIN	.050 MIN	.090 MIN	.032 MIN	.015 MIN	.070 MIN	NO INDEX
ML140f	.792 MIN	.270 MIN			.290 MIN	.008 MIN	90° 105°	.200 MAX	.120 MIN	.020 MIN	.087 MAX	.090 MIN	.032 MIN	.015 MIN	.067 MIN	INDEX DOT
ML140g	.780 MIN	.275 MIN			.310 MIN	.012 MIN	90° 105°	.200 MAX	.140 MIN	.045 MIN	.110 MIN	.090 MIN	.032 MIN	.014 MIN	.023 MIN	
ML140h	.820 MAX	.310 MAX			.380 MAX	.015 MAX		.200 MAX	.100 MIN	.015 MIN	.110 MIN	.090 MIN	.032 MIN	.014 MIN	.023 MIN	

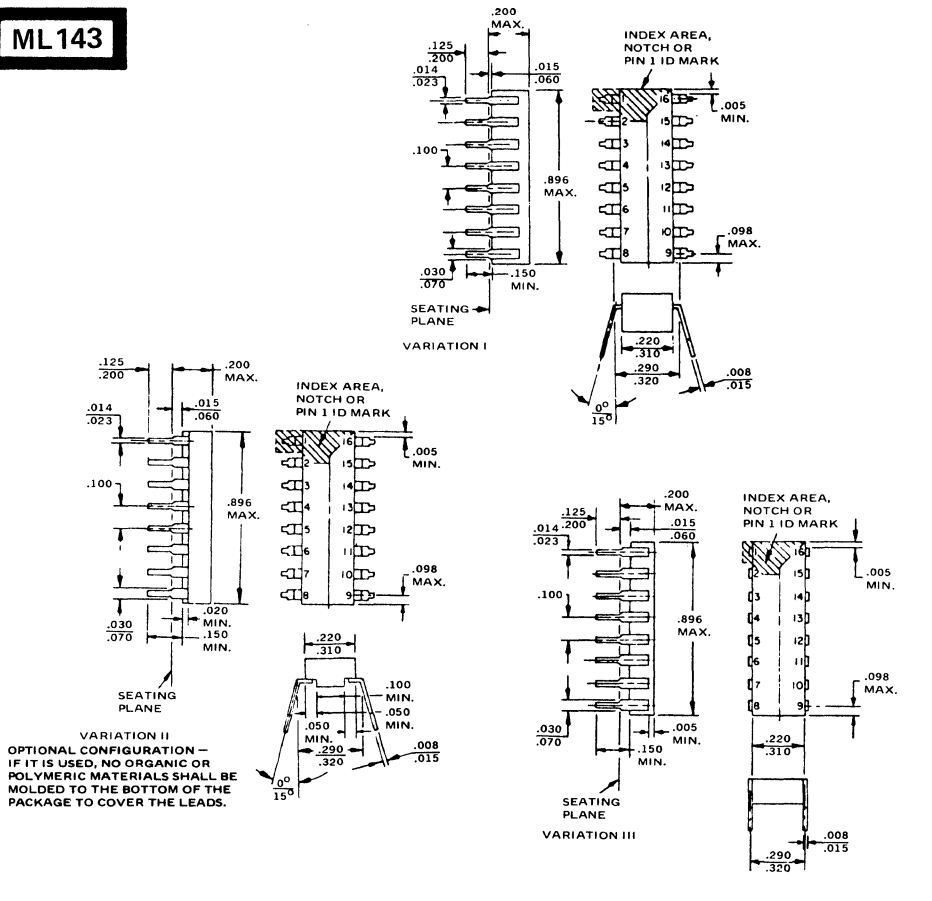
ML142



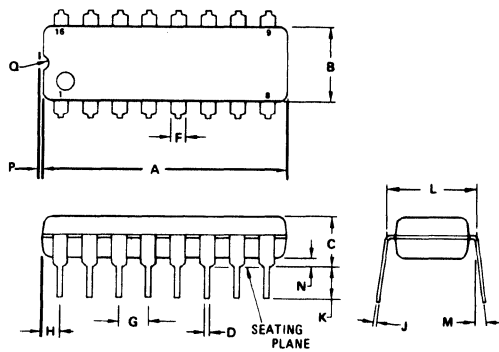
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

ML143



ML145

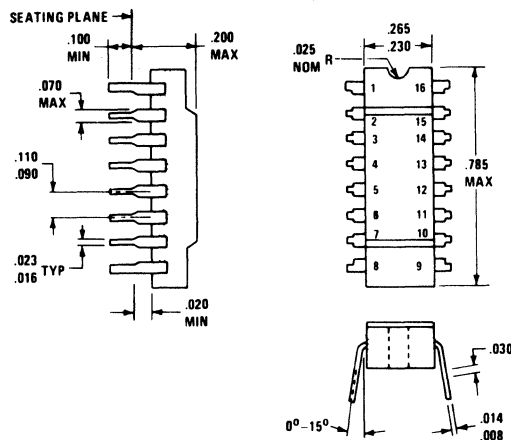


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	20.70	21.34	0.815	0.840
B	6.10	6.60	0.240	0.260
C	4.06	4.57	0.160	0.180
D	0.38	0.51	0.015	0.020
F	1.02	1.52	0.040	0.060
G	2.54 BSC		0.100 BSC	
H	1.32	1.83	0.052	0.072
J	0.20	0.30	0.008	0.012
K	2.92	3.43	0.115	0.135
L	7.37	7.87	0.290	0.310
M	— 10°		— 10°	
N	0.51	1.02	0.020	0.040
P	0.13	0.38	0.005	0.015
Q	0.51	0.76	0.020	0.030

NOTES:

- LEADS WITHIN 0.13 mm (0.005) RADIUS OF TRUE POSITION AT SEATING PLANE AT MAXIMUM MATERIAL CONDITION.
- DIMENSION "L" TO CENTER OF LEADS WHEN FORMED PARALLEL

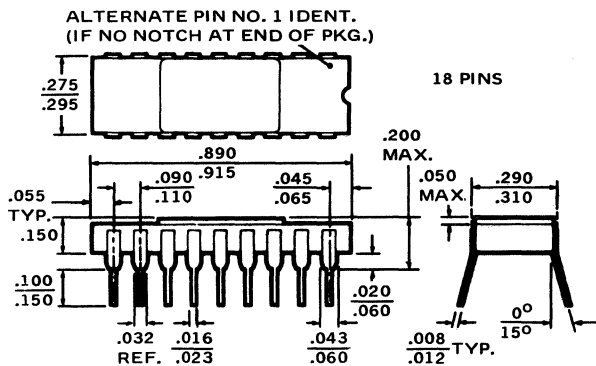
ML146



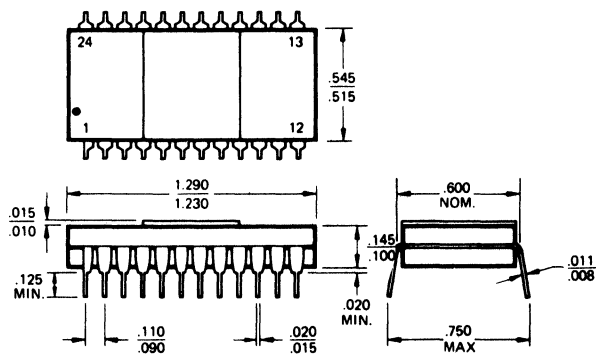
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

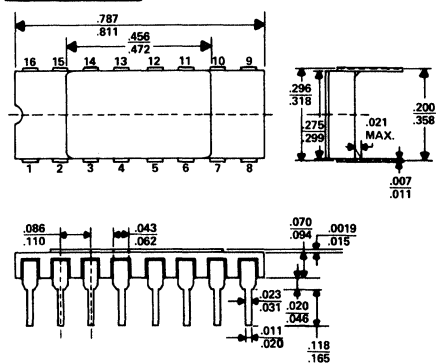
ML147



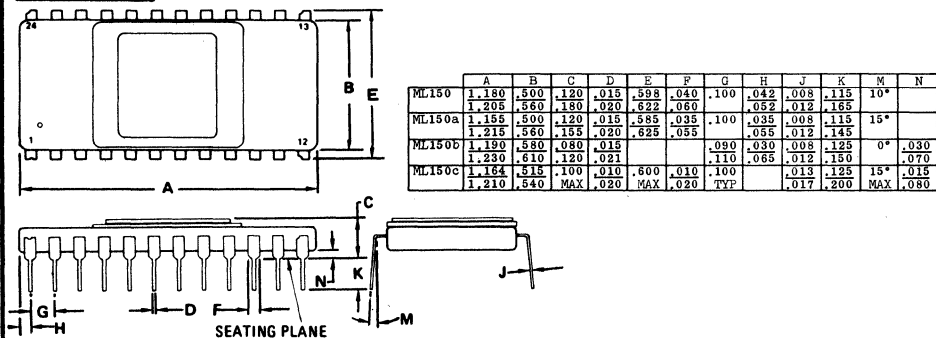
ML148



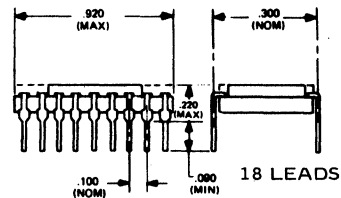
ML149



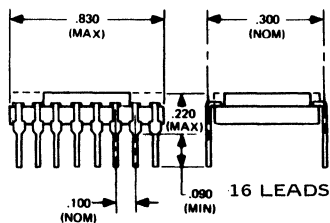
ML150



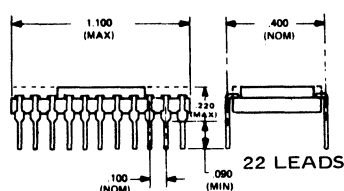
ML152



ML153



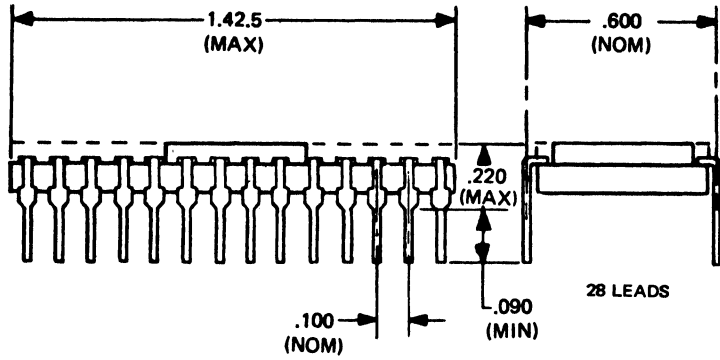
ML154



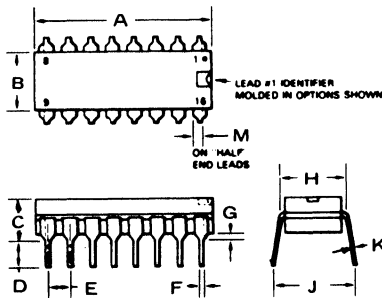
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

ML155

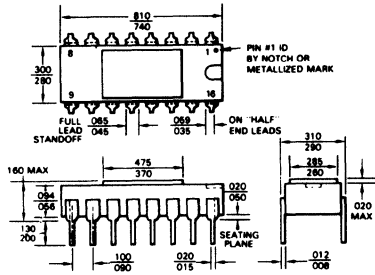


ML157

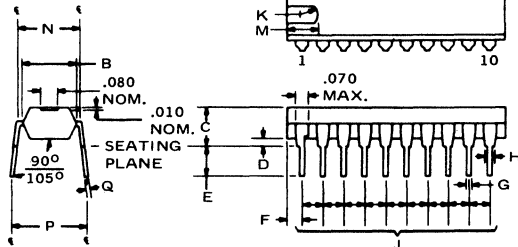


	A	B	C	D	E	F	G	H	J	K	M
ML157	.750	.240	.200	.100	.090	.016	.015	.300	.375	.008	.035
	.865	.260	MAX	.150	.110	.020	.050			.012	.055
ML157a	.750	.240	.200	.100	.100	.015	.020	.295		.008	
	.785	.255	MAX	MIN		.021	.040	.350		.012	
ML157b	.745	.240	.120	.125	.100	.014	.020	.300	.300	.008	
	.785	.250	.200	.150		.020	.065	.325		.012	
ML157c	.740	.250	.200	.100	.090	.014	.015	.325	.300	.008	
	.780	.300	MAX	MIN	.110	.023	MIN	MAX	.400	.015	
ML157d	.745	.245	.200	.100	.090	.016	.015	.290	.375	.009	
	.785	.271	MAX	.165	.110	.020	MIN	.310	NOM	.011	

ML158

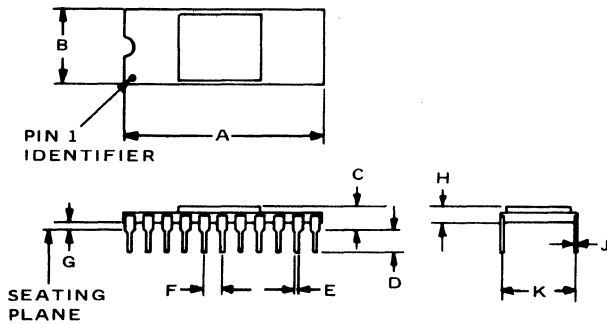


ML161



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q
ML161	1.070	.240	.200	.020	.125	.075	.015	.033	.100	.093	.160	.290	.300	.008
	MAX	.260	MAX	MIN	.155	MAX	.021	MIN				.310	.350	.014
ML161a	1.015	.255	.200		.125		.018	.045	.090			.290	.325	
	1.025	.265	MAX		MIN		.022	.065	.110			.310	.375	
ML161b	.990	.300	.190											
	MAX	MAX	MAX											
ML161c	1.010	.300	.175											
	MAX	MAX	MAX											

ML162

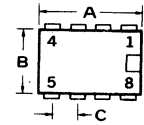


	A	B	C	D	E	F	G	H	J	K
ML162	1.06	.395	.180	.090	.015	.090	.020	.125	.008	.400
	1.09	.425	MAX	.130	.021	.110	.050	MAX	.012	REF
ML162a	1.050	.380	.170	.100	.014	.090	.015	.065	.008	.380
	1.100	.400	MAX	MIN	.023	.110	MIN	.135	.015	.480

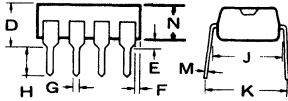
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

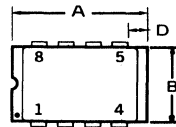
ML163



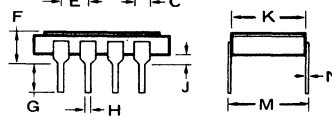
	A	B	C	D	E	F	G	H	J	K	M	N
ML163	.375	.245	.090	.200	.020	.010	.018	.120	.290	.325	.009	
	.385	.255	.110	MAX	TYP	MIN	.022	MIN	.310	.375	.011	
ML163a	.370	.245		.148	.020			.125	.305	.300	.009	.128
	.390	.252		MIN				MIN	.315	.350	.011	.138



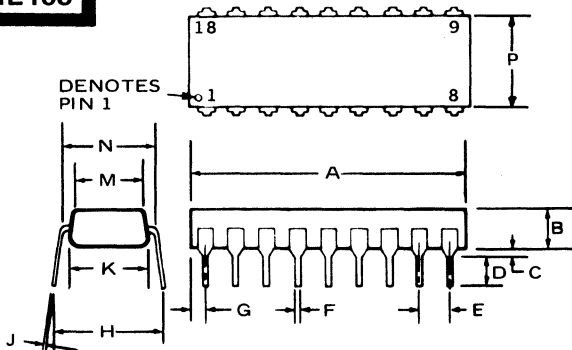
ML164



	A	B	C	D	E	F	G	H	J	K	M	N
ML164	.530		.040	.010	.090	.105	.125	.017	.020	.290	.290	.008
	MAX		.060	MIN	.110	.155	.200	.023	.080	.310	.320	.015
ML164a	.535	.320			.095	.194	.130		.015	.300	.294	
	MAX	MAX			.105	MAX	TYP		MIN	TYP	.400	

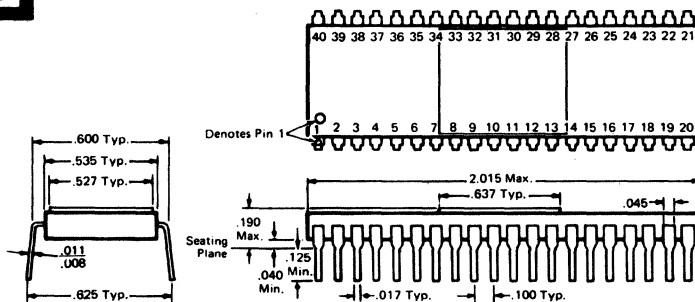


ML165



	A	B	C	D	E	F	G	H	J	K	M	N	P
ML165	.920	.180	.020	.120	.100	.018	.050	.350	.009	.250	.220	.300	
	MAX	MAX	MIN	MIN	TYP	TYP	TYP	TYP	.011	TYP	TYP	TYP	
ML165a	.915	.115	.015	.100	.090	.015	.060	.325	.010			.290	
	.925	.125	.035	.105	.110	.020	.070	.375	.015			.310	
ML165b	.865		.040	.130	.092	.020	.020		.010		.235	.300	.250
	MAX		TYP	TYP	.108	TYP	TYP		TYP			TYP	
ML165c	.897		.019	.100	.100	.018							.300
	TYP		MIN	TYP	TYP								TYP
ML165d	.900	.140	.030	.110	.100	.020						.290	.250
					TYP	TYP							

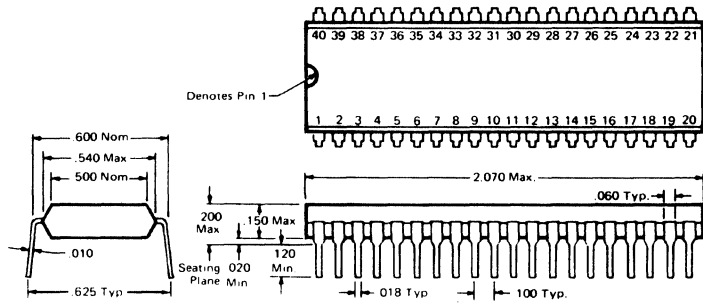
ML166



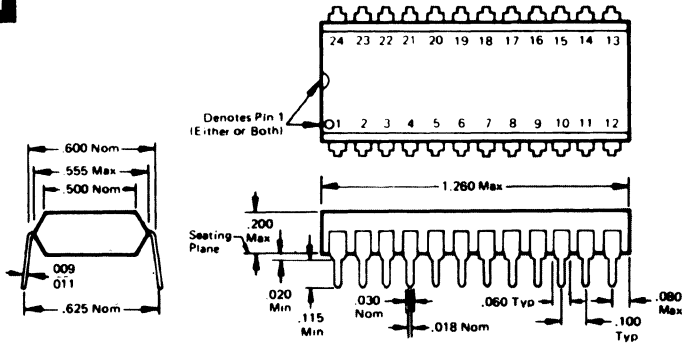
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

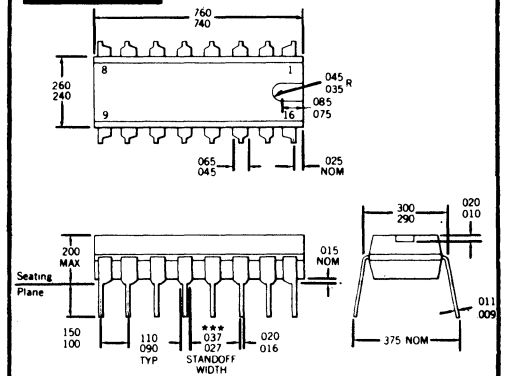
ML167



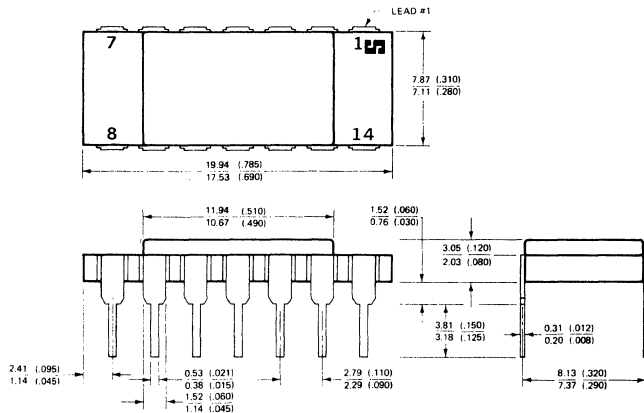
ML168



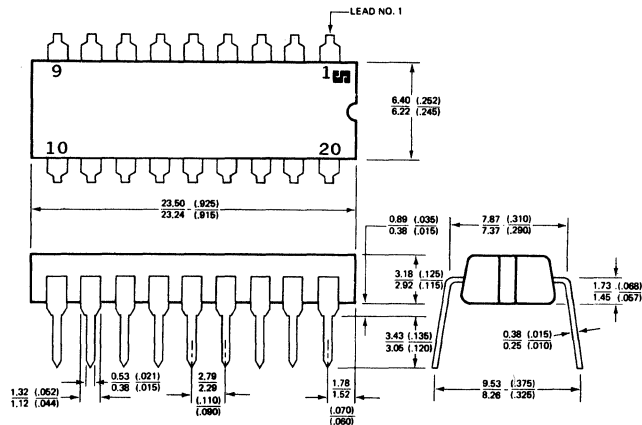
ML170



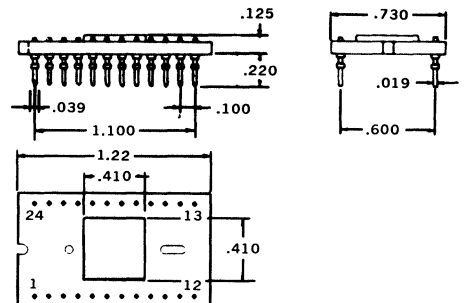
ML171



ML172



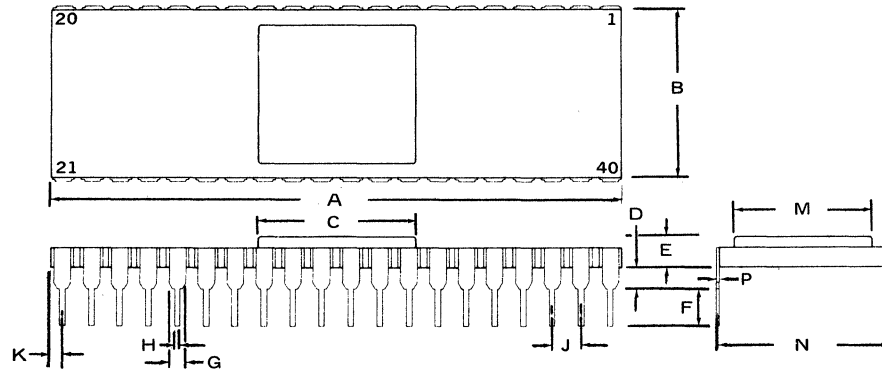
ML173



23. OUTLINE DRAWINGS

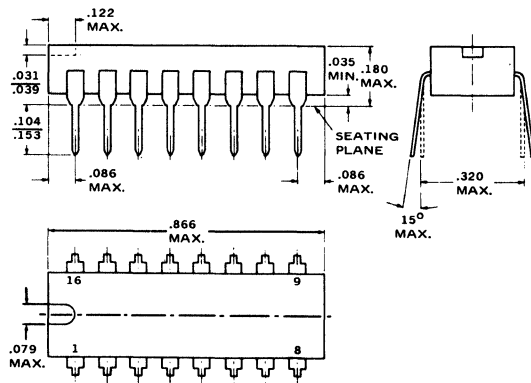
IN DRAWING NUMBER
SEQUENCE

ML174

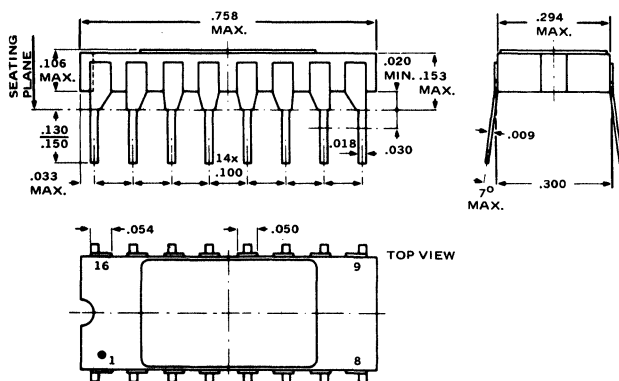


	A	B	C	D	E	F	G	H	J	K	M	N	P
ML174	1.980 2.030	.580 .610	.480 .510	.030 .070	.080 .120	.125 .150	.045 .060	.015 .021	.090 .110	.030 .065	.480 .510	.590 .620	.008 .012
ML174a	1.945 2.020		.530 MAX.	.020 .080	.080 .165	.125 .175	.043 .053	.014 .020	.095 .105			.600 TYP.	.008 .012

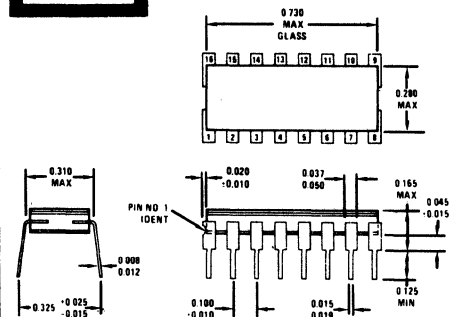
ML175



ML176



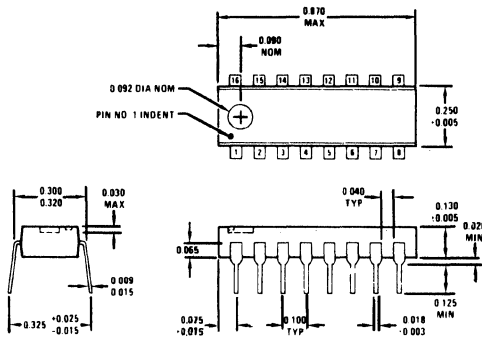
ML177



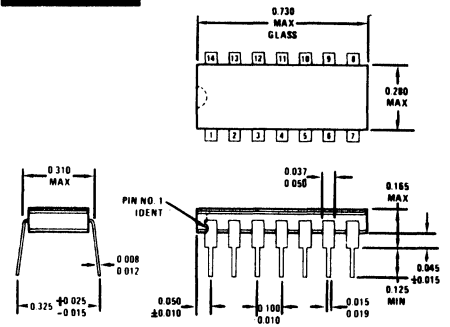
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

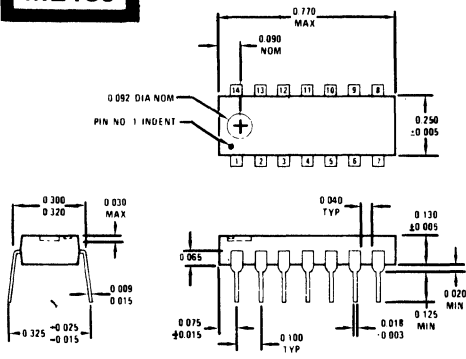
ML178



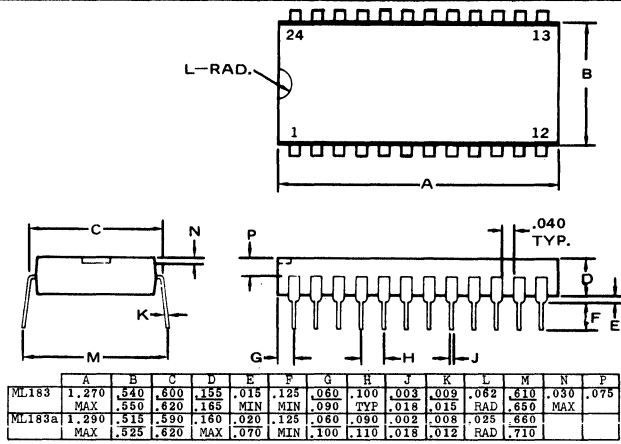
ML179



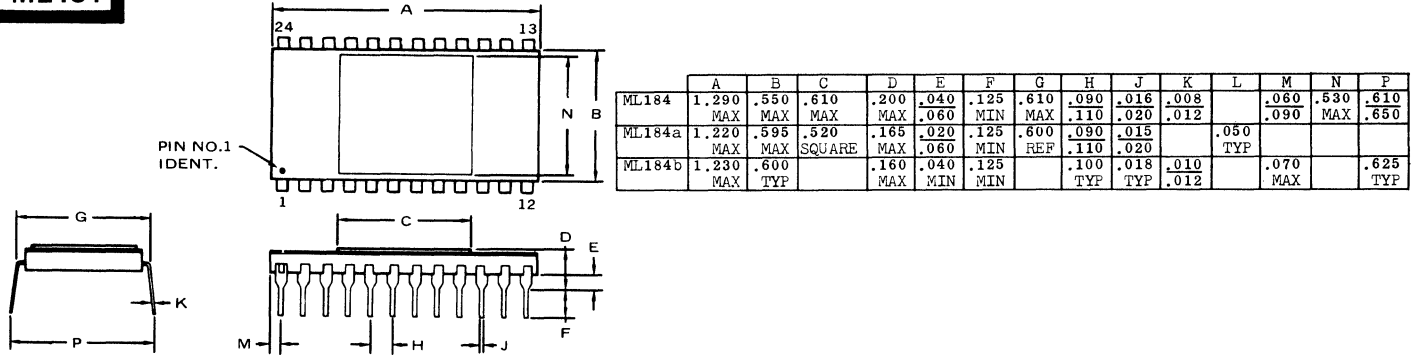
ML180



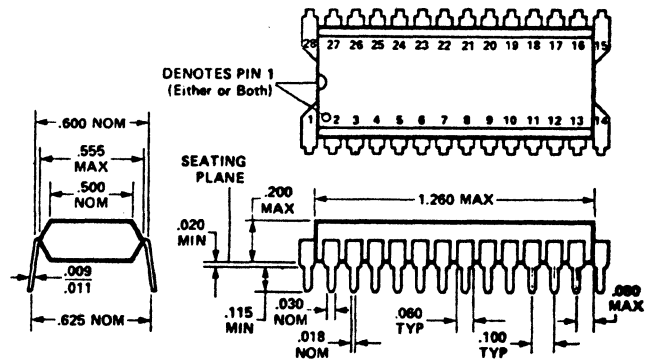
ML183



ML184



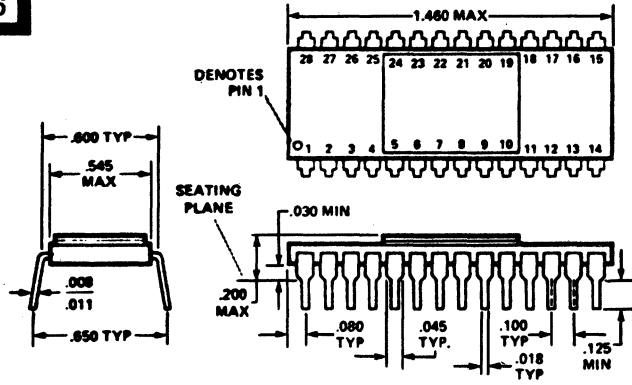
ML185



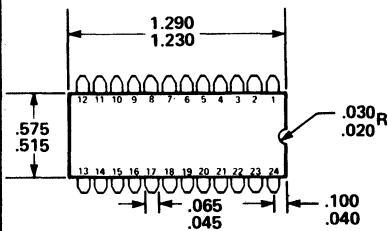
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

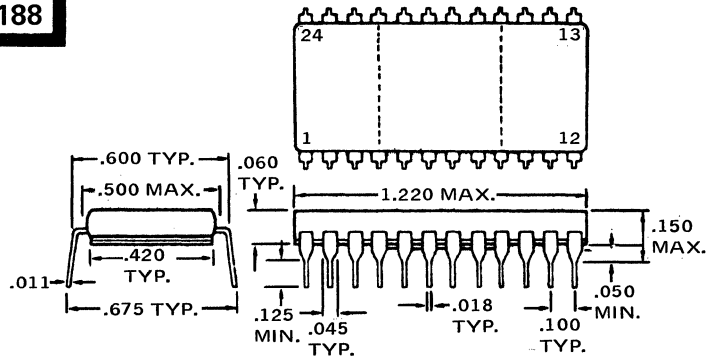
ML186



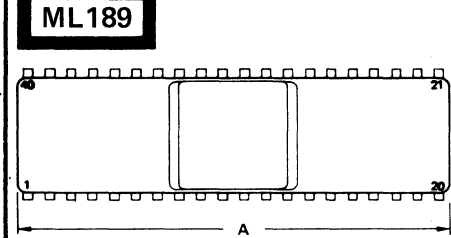
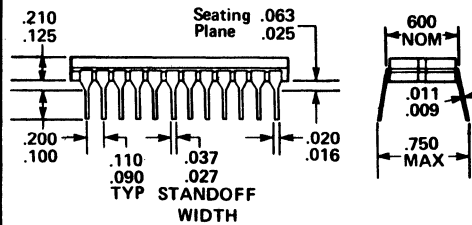
ML187



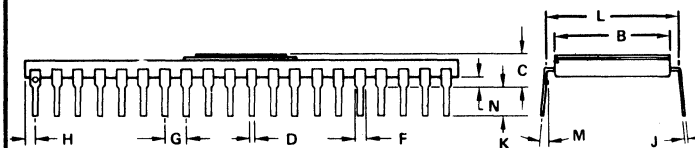
ML188



ML189

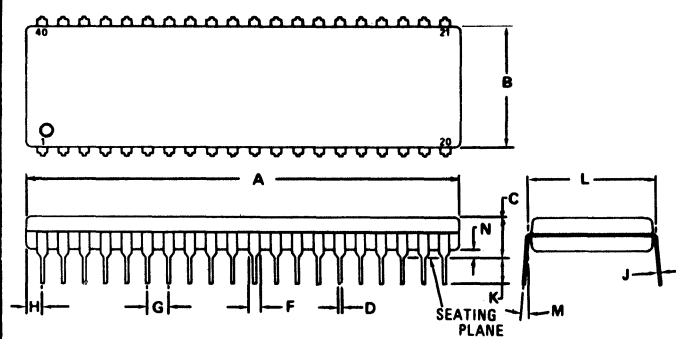


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	50.04	51.05	1.970	2.010
B	13.46	14.22	0.530	0.560
C	3.05	3.94	0.120	0.155
D	0.38	0.51	0.015	0.020
F	0.89	1.40	0.035	0.055
G	2.54 BSC		0.100 BSC	
H	0.89	1.40	0.035	0.055
J	0.20	0.28	0.008	0.011
K	3.05	3.68	0.120	0.145
L	14.86	15.87	0.585	0.625
M	15°		15°	
N	0.51	1.14	0.020	0.045



NOTES:
 1. LEADS WITHIN 0.13 mm (0.005) RADIUS OF TRUE POSITION AT SEATING PLANE AT MAXIMUM MATERIAL CONDITION.
 2. DIMENSION "L" TO INSIDE OF LEADS (MEASURED 0.51 mm (0.020) BELOW PACKAGE BASE)

ML190

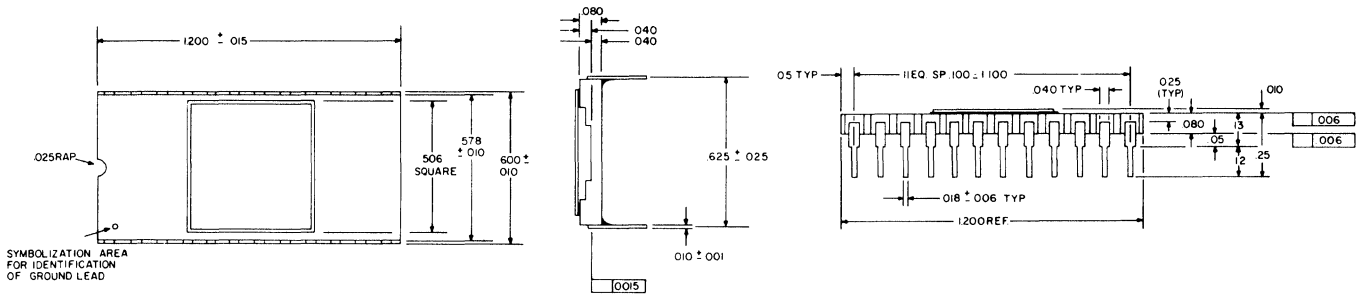


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	51.82	52.32	2.040	2.060
B	13.72	14.22	0.540	0.560
C	4.57	5.08	0.180	0.200
D	0.36	0.51	0.014	0.020
F	1.02	1.52	0.040	0.060
G	2.41	2.67	0.095	0.105
H	1.65	2.16	0.065	0.085
J	0.20	0.30	0.008	0.012
K	3.68	4.19	0.145	0.165
L	14.99	15.49	0.590	0.610
M	10°		10°	
N	0.51	1.02	0.020	0.040

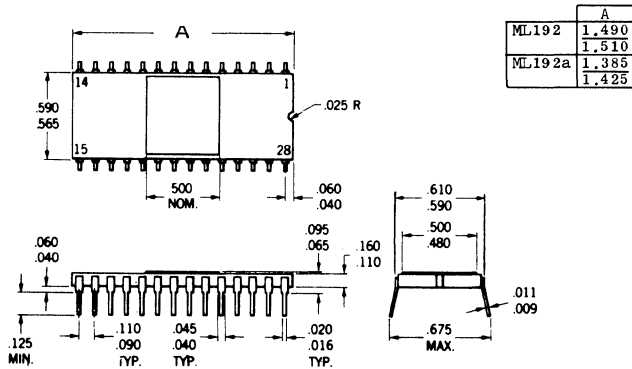
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

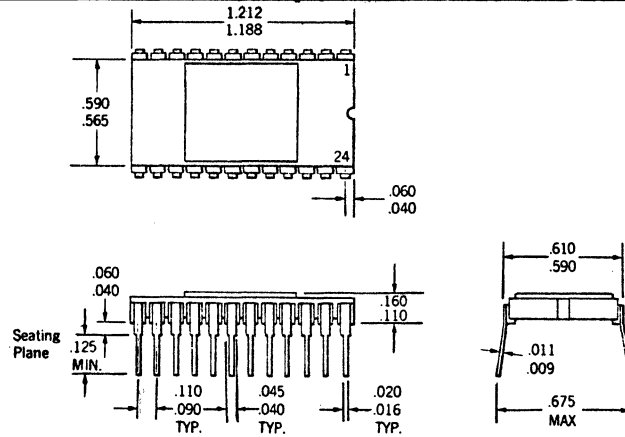
ML191



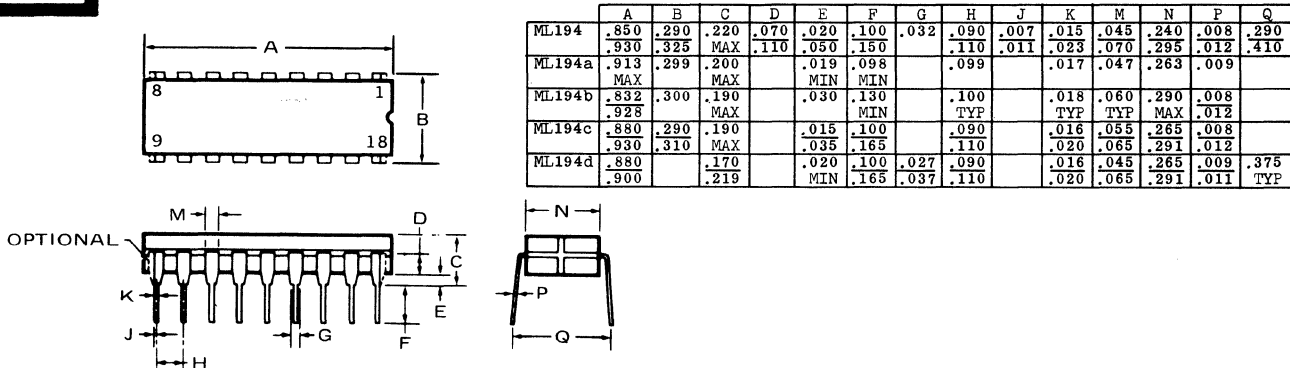
ML192



ML193



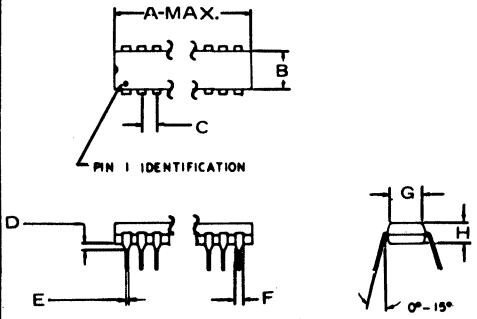
ML194



23. OUTLINE DRAWINGS

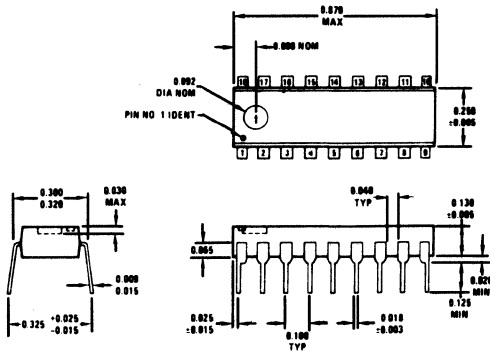
IN DRAWING NUMBER SEQUENCE

ML195

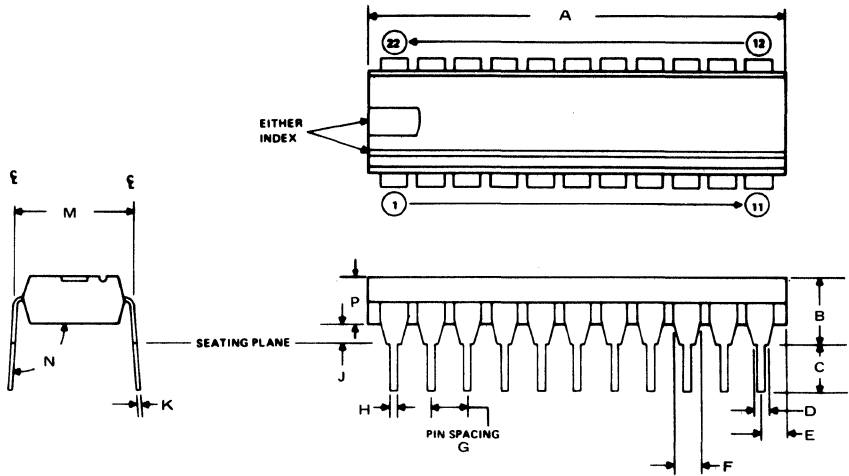


	A	B	C	D	E	F	G	H	No. OF PINS
ML195	2.40	.625	.100	.015	.017	.050	.516	.145	48
	MAX			TYP	TYP	TYP			

ML196

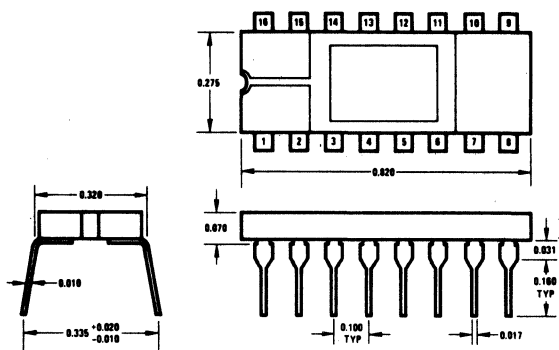


ML197



	A	B	C	D	E	F	G	H	J	K	M	N	P	REMARKS
ML197	1.120	.125	.035	.085	.090	.015	.020	.009	.400	.125	DOT AND NOTCH			
	MAX	MIN	.085	.110	.081	MIN	.420							
ML197a	1.100	.200	.125	.033	.030	.060	.100	.015	.020	.008	.390	90°		EITHER INDEX
	MAX	MAX	MIN	MIN	.070			.021	MIN	.014	.410	105°		

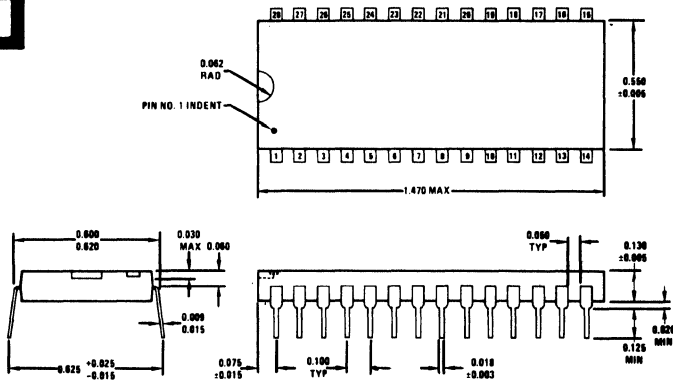
ML198



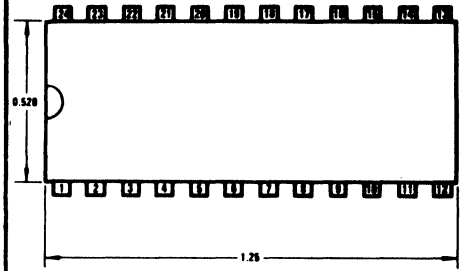
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

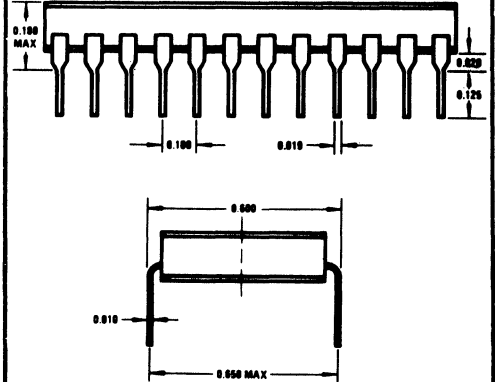
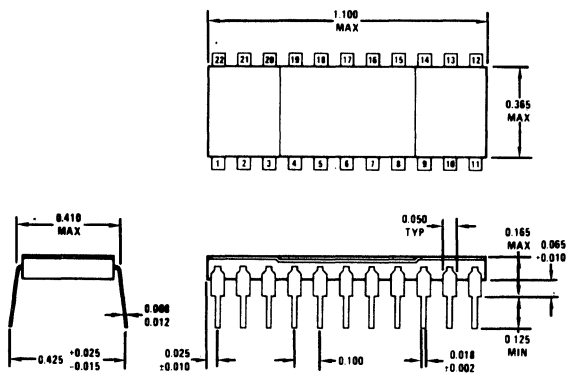
ML199



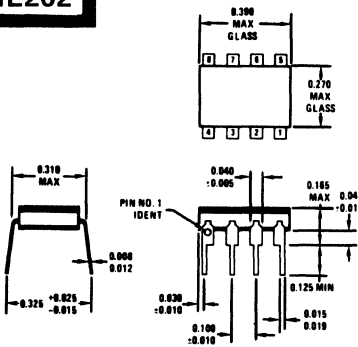
ML200



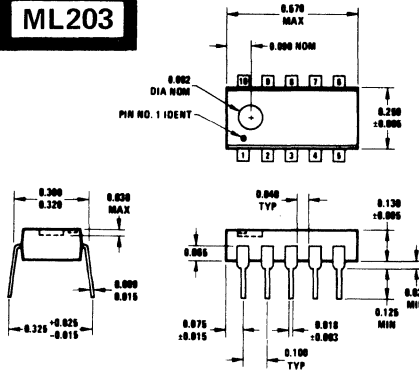
ML201



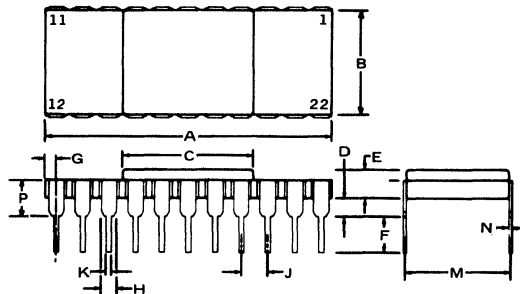
ML202



ML203



ML204

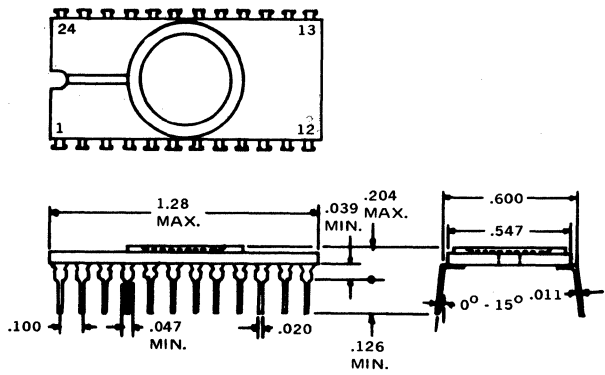


	A	B	C	D	E	F	G	H	J	K	M	N	P
ML204	1.040	.380	.490	.030	.080	.125	.030	.045	.090	.015	.390	.008	
	1.100	.410	.510	.070	.120	.150	.065	.060	.110	.021	.420	.012	
ML204a	1.100	.395	.450	.020	.080	.125		.050	.090	.017	.400	.008	.165
	MAX	MAX	MAX	.060	.120	MIN		TYP	.110	.023		.012	MAX

23. OUTLINE DRAWINGS

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SEQUENCE

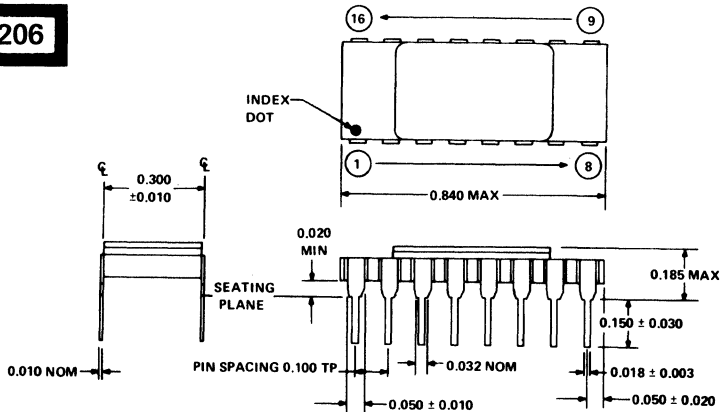
ML205



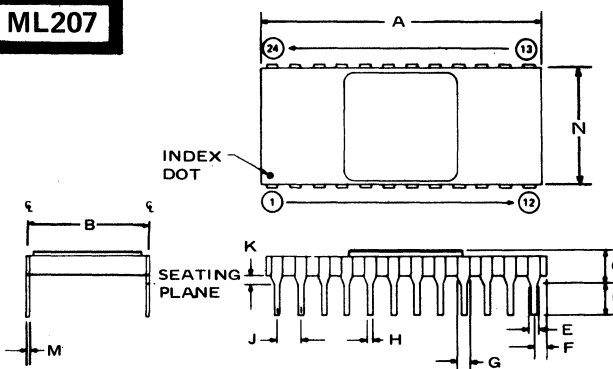
[Empty box]

[Empty box]

ML206

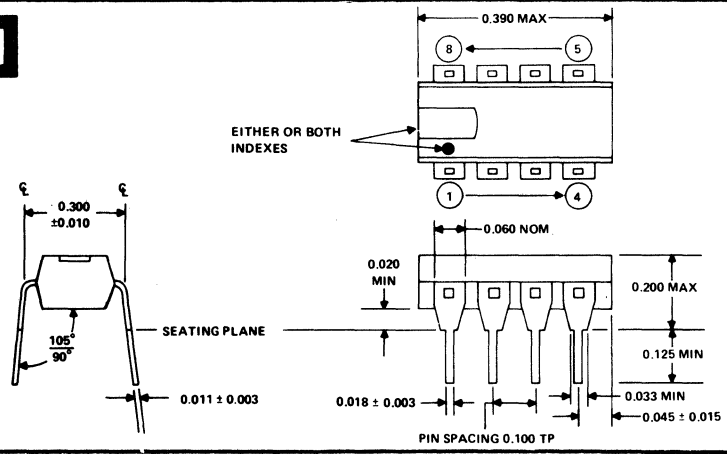


ML207



	A	B	C	D	E	F	G	H	J	K	M	N	REMARKS
ML207	1.290 MAX	.590 .610	.185 MAX	.120 .180	.032 NOM	.030 .070	.040 .060	.015 .021	.100 TYP	.020 MIN	.010 NOM		DOT
ML207a	1.185 1.216	.600	.196 MAX	.118 .141			.038 .044	.015 .023	.090 .109	.040 .059	.008 .012		DOT
ML207b	1.180 1.220	.585 .605	.120 .165	.100 .165		.030 .070		.015 .021	.100 TYP	.020 .060	.008 .012		DOT
ML207c	1.150 1.215	.600	.080	.125 .175	.043 .053			.014 .020	.095 .105	.020 .080	.008 .012		DOT
ML207d	1.290 MAX	.600		.125 MIN		.040 .060	.050 TYP	.016 .020	.090 .110	.020 .060	.008 .012		DOT
ML207e	1.186 1.214	.590 .610	.200 MAX	.120 .140		.035 .055	.036 .044	.015 .023	.090 .109	.040 .060	.008 .012	.578 .598	
ML207f	1.212		.160 MAX	.125 MIN		.050 TYP	.040 TYP	.020 TYP	.100 TYP	.040 MIN	.009 .011		
ML207g	1.178	.600	.199 MAX	.100 MIN			.050	.014 .022	.090 .109	.019 .011	.007 .011	.586	NOTCH
ML207h	1.178	.600	.199 MAX	.100 MIN			.050	.014 .022	.090 .109	.019 MIN	.007 .011	.586	NOTCH AND CONN
ML207j	1.188 1.212	.600	.132 .178	.160 TYP	.040 TYP			.016 .020	.098 .102	.040 .060			NOTCH AND CONN

ML208

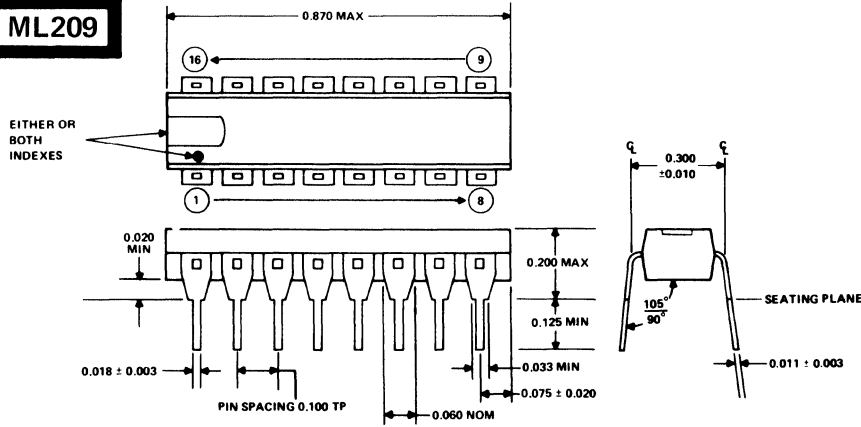


[Empty box]

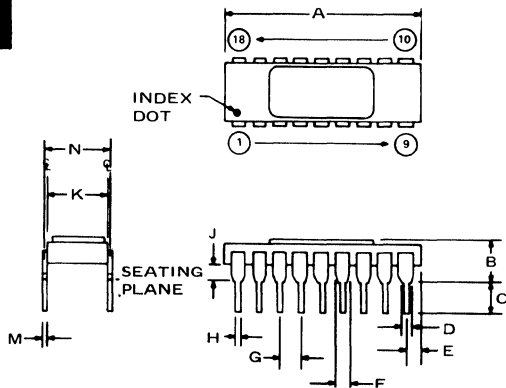
23. OUTLINE DRAWINGS

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ML209

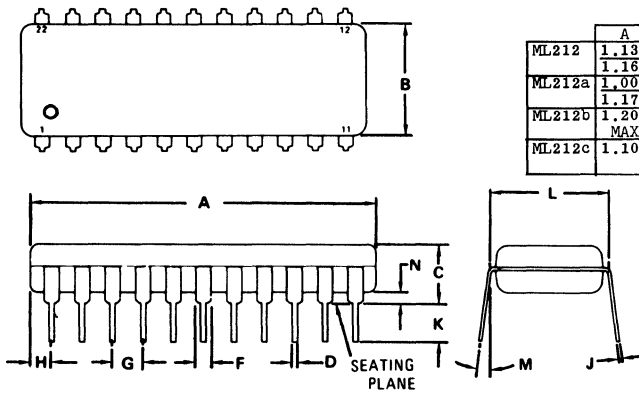


ML210



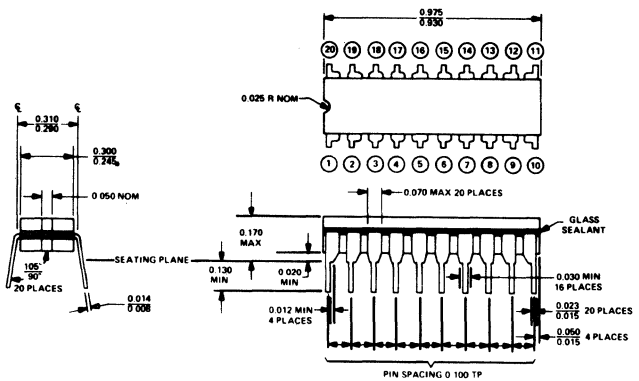
	A	B	C	D	E	F	G	H	J	K	M	N
ML210	.910 MAX	.185 MAX	.120 MAX	.032 MAX	.030 MAX	.040 MAX	.100 TYP	.015 TYP	.020 MIN	.290 MAX	.010	
ML210a	.880 MAX	.168 MAX	.123 MAX				.090 MAX	.018 MAX	.025 MAX		.008	.300
ML210b	.890 MAX	.180 MAX	.090 MAX					.015 MAX	.025 MAX	.278 MAX	.008	.300
ML210c	.910 MAX	.130 MAX					.045 MAX	.090 MAX	.015 MAX	.020 MAX	.008	.290
	.920 MAX	.170 MAX					.065 MAX	.110 MAX	.020 MAX	.050 MAX	.012	.310

ML212



	A	B	C	D	F	G	H	J	K	L	M	N
ML212	1.135 MAX	.340 MAX	.180 MAX	.014 MAX	.040 MAX	.095 MAX	.070 MAX	.008 MAX	.120 MAX	.380 MAX	0*	.020
ML212a	1.000 MAX	.340 MAX	.170 MAX	.014 MAX	.030 MAX	.095 MAX	.040 MAX	.008 MAX	.100 MAX	.380 MAX	0*	.020
ML212b	1.170 MAX	.360 MAX	.200 MAX	.022 MAX	.060 MAX	.105 MAX	.080 MAX	.012 MAX	.140 MAX	.400 MAX	15*	.040
ML212c	1.200 MAX	.400 MAX	.190 MAX									
	1.100 MAX	.345 MAX		.020 TYP	.035 TYP	.100 TYP			.100 MIN	.400 MAX		.035 TYP

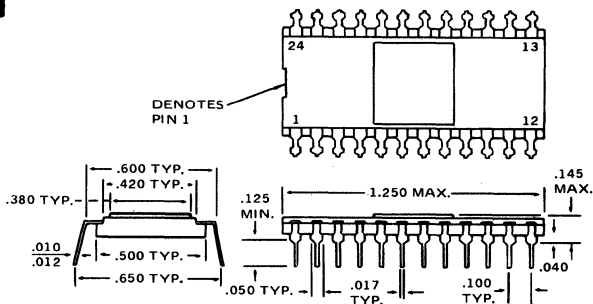
ML213



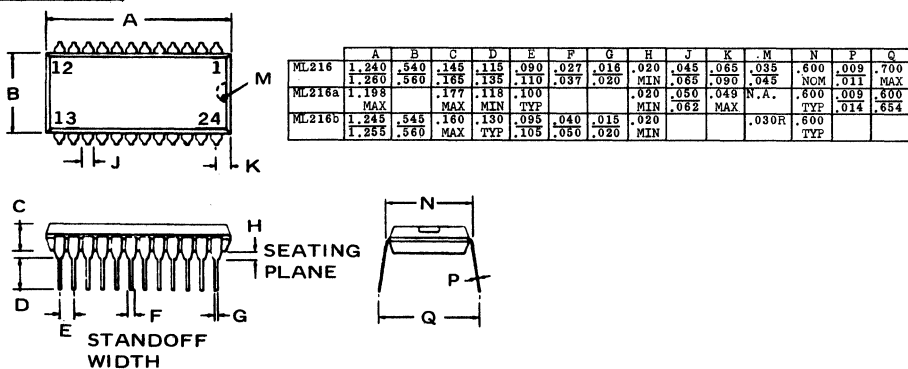
23. OUTLINE DRAWINGS

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SEQUENCE

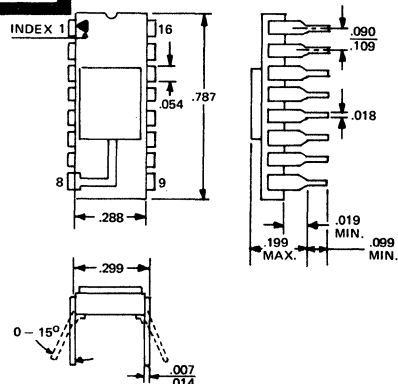
ML214



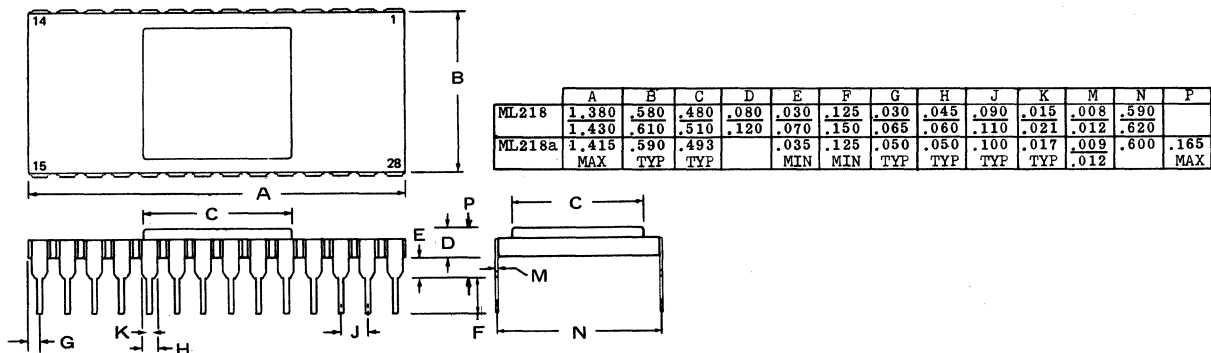
ML216



ML217



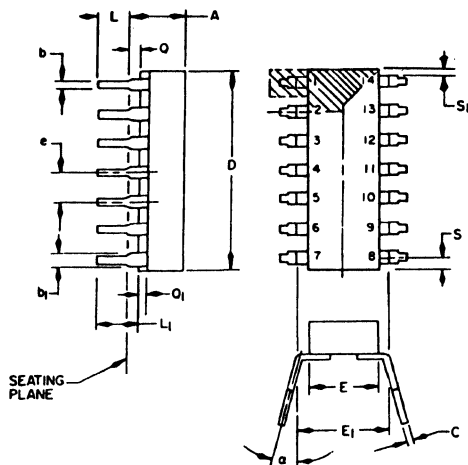
ML218



23. OUTLINE DRAWINGS

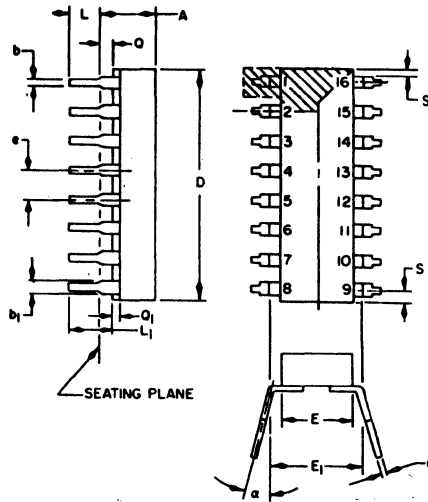
IN DRAWING NUMBER
SEQUENCE

ML219



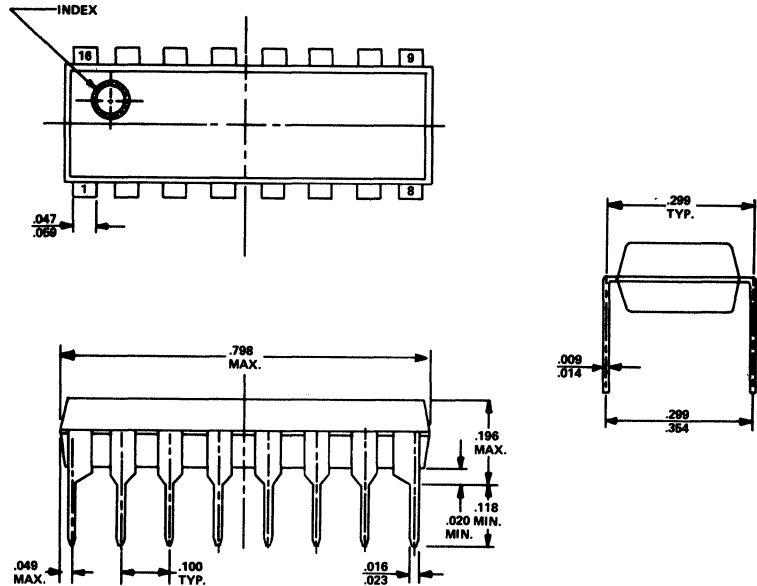
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A		.200		5.08
b	.014	.023	.36	.58
b ₁	.030	.070	1.02	1.78
c	.008	.015	.20	.38
D		.796		20.22
E	.220	.310	5.59	7.87
E ₁	.290	.320	7.37	8.13
e	.100 BSC		2.54 BSC	
L	.125	.200	3.18	5.08
L ₁	.150		3.81	
Q	.015	.060	.38	1.52
Q ₁	.020		.51	
S		.098		2.49
S ₁	.005		.13	
α	0°	15°	0°	15°

ML220



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A		.200		5.08
b	.014	.023	.36	.58
b ₁	.030	.070	1.02	1.78
c	.008	.015	.20	.38
D		.896		22.76
E	.220	.310	5.59	7.87
E ₁	.290	.320	7.37	8.13
e	.100 BSC		2.54 BSC	
L	.125	.200	3.18	5.08
L ₁	.150		3.81	
Q	.015	.060	.38	1.52
Q ₁	.020		.51	
S		.098		2.49
S ₁	.005		.13	
α	0°	15°	0°	15°

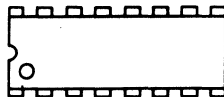
ML221



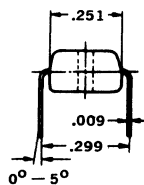
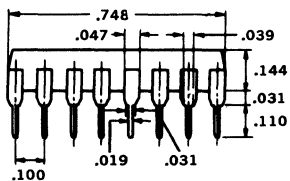
23. OUTLINE DRAWINGS

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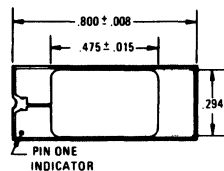
ML222



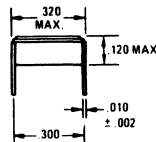
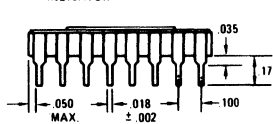
16 PINS



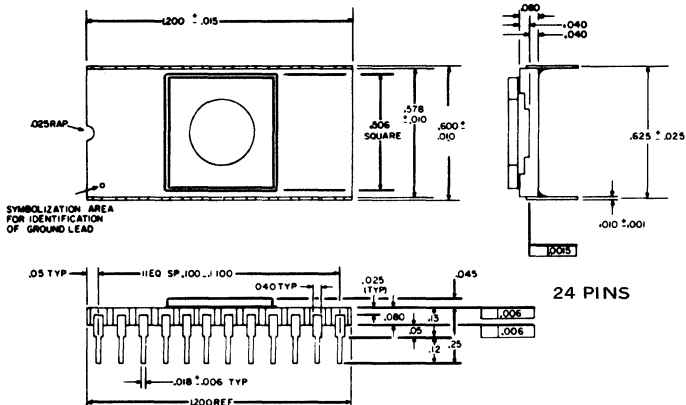
ML223



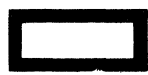
16 PINS



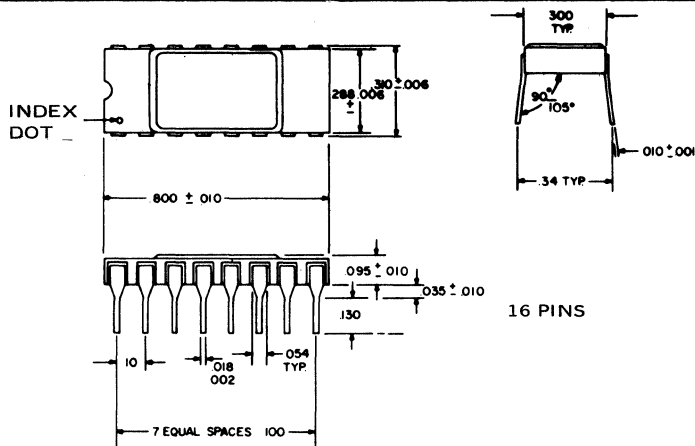
ML224



24 PINS



ML225

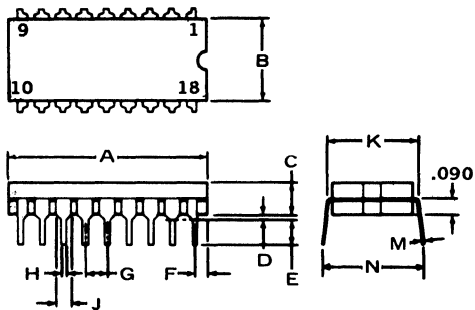


16 PINS

23. OUTLINE DRAWINGS

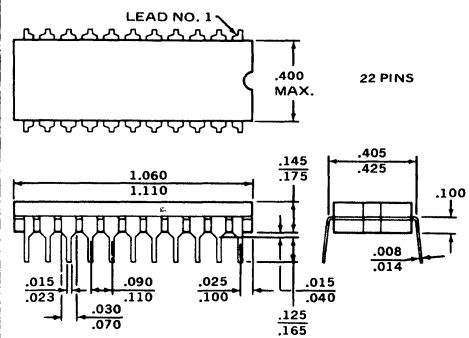
IN DRAWING NUMBER
SEQUENCE

ML226

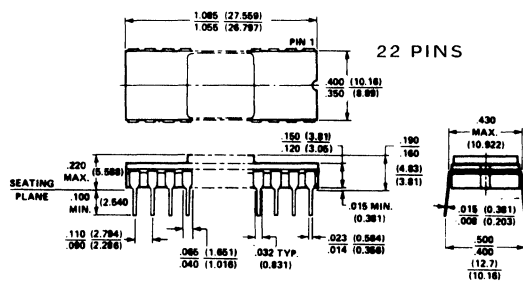


	A	B	C	D	E	F	G	H	J	K	M	N
ML226	.882	.310	.145	.015	.120	.018	.090	.015	.030	.290	.008	
	.925	MAX	.175	.040	.165	.050	.110	.023	.070	.320	.014	
ML226a	.880	.285	.145	.015	.125		.090	.015	.055	.290	.008	.325
	.910	.295	.175	.030	.145		.110	.023	.065	.320	.012	.385

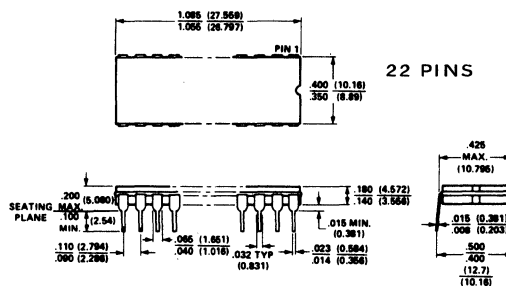
ML227



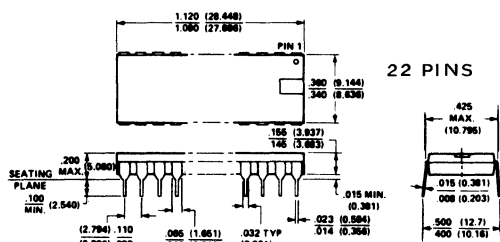
ML228



ML229



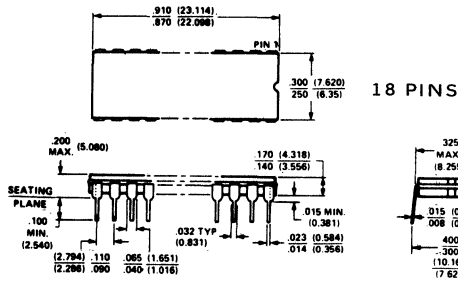
ML230



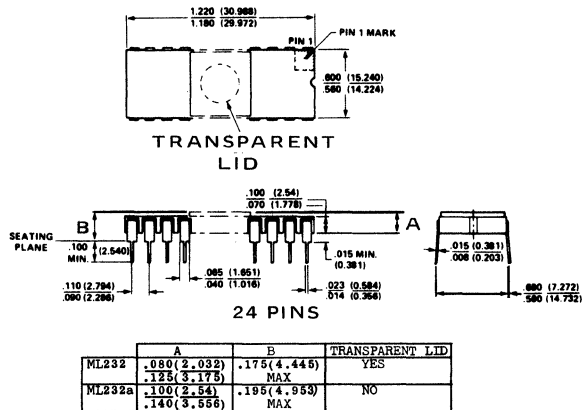
23. OUTLINE DRAWINGS

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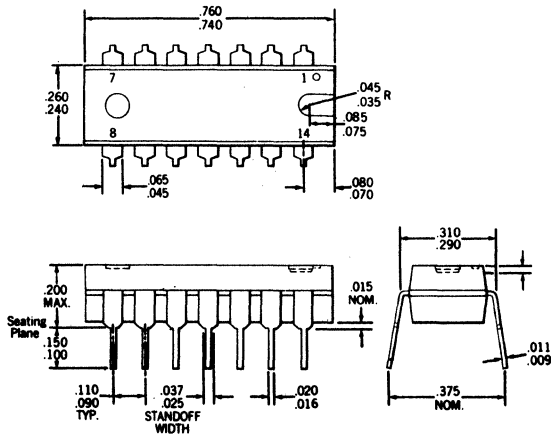
ML231



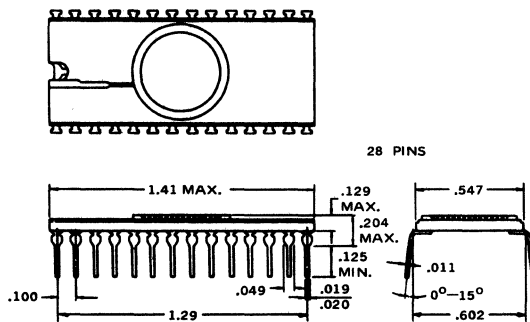
ML232



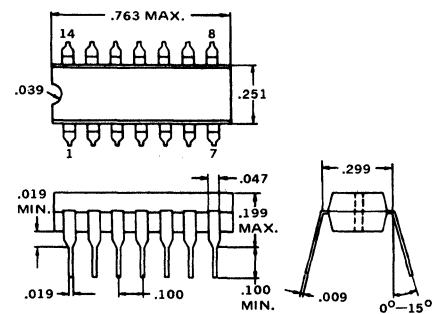
ML233



ML234



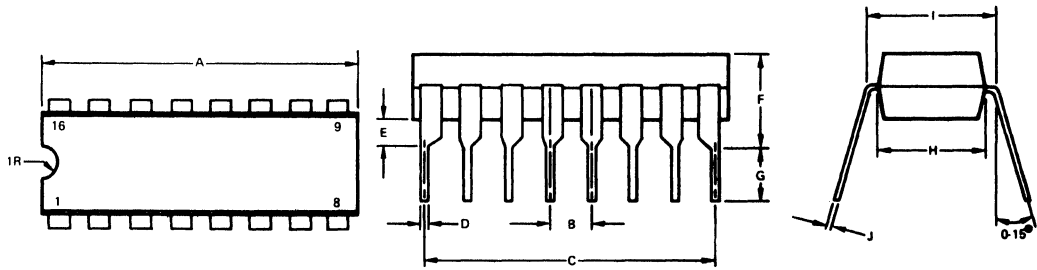
ML235



23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

ML236



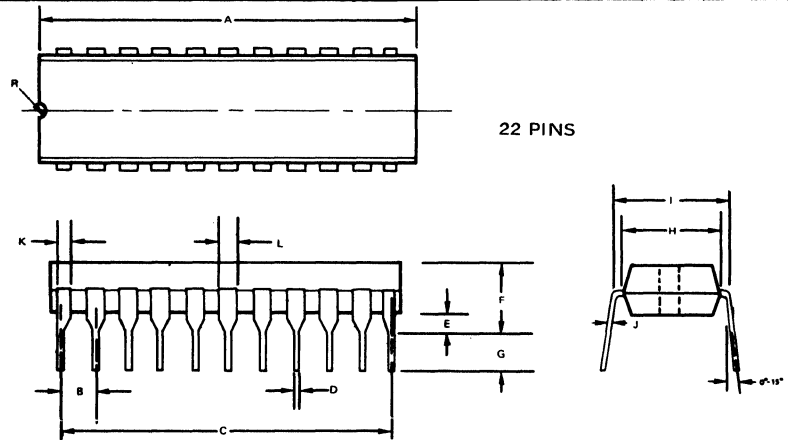
ITEM	MILLIMETERS	INCHES
A	19.4 MAX	0.76 MAX
B	2.54	0.10
C	17.78	0.70
D	0.5	0.02
E	0.5 MIN	0.02 MIN
F	4.55 MAX	0.18 MAX
G	2.54 MIN	0.10 MIN
H	8.4	0.25
I	7.82	0.30
J	0.25 +0.10 -0.05	0.01
R	1	0.039

Typical dimensions unless otherwise specified.

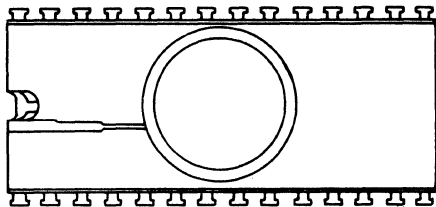
ML237

ITEM	MILLIMETER	INCHES
A	28.0 Max.	1.10 Max.
B	2.54	0.10
C	25.4	1.00
D	0.50	0.02
E	0.5 Min.	0.02 Min.
F	5.2 Max.	0.20 Max.
G	2.54 Min.	0.10 Min.
H	8.5	0.33
I	10.16	0.40
J	0.25 +0.10 -0.05	0.01 +0.004 -0.002
K	1.15	0.045
L	1.40	0.055
R	1.2	0.047

Typical Dimensions Unless Otherwise Specified.

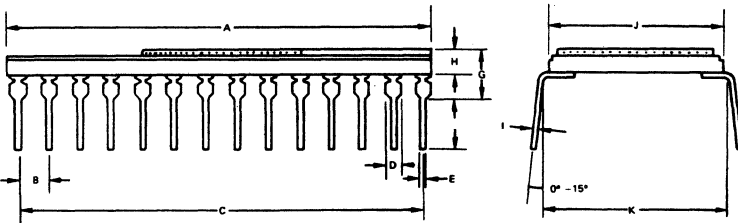


ML238

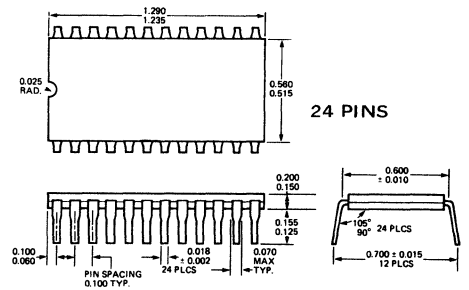


Item	Millimeters	Inches
A	38.0 Max.	1.41 Max.
B	2.54	0.1
C	33.0	1.29
D	1.27	0.05
E	0.50 ± 0.1	0.02 ± 0.004
F	3.2 Min.	0.13 Min.
G	5.2 Max.	0.20 Max.
H	3.3 Max.	0.13 Max.
I	0.30 ± 0.1	0.012 ± 0.004
J	13.9	0.55
K	15.3	0.60

Typical dimensions unless otherwise specified.



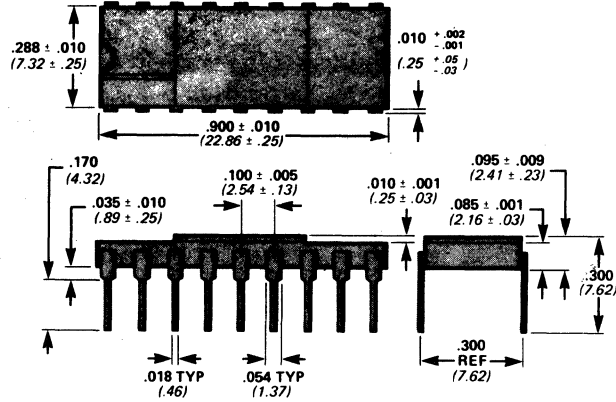
ML239



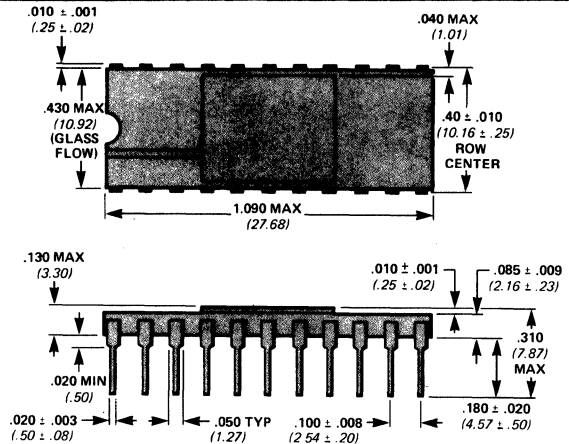
23. OUTLINE DRAWINGS

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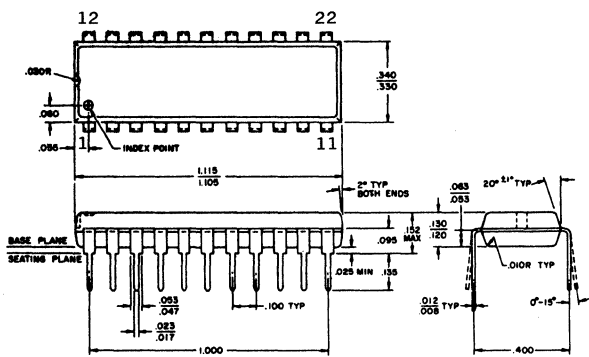
ML240



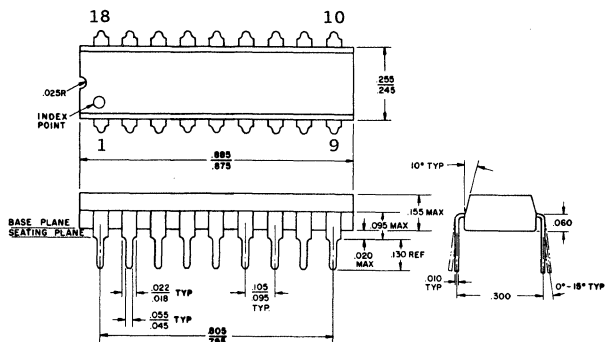
ML241



ML242



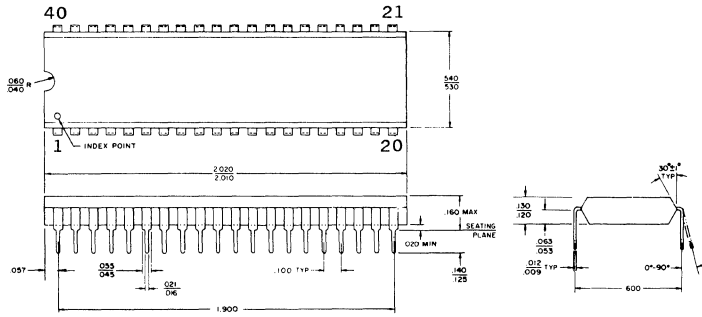
ML244



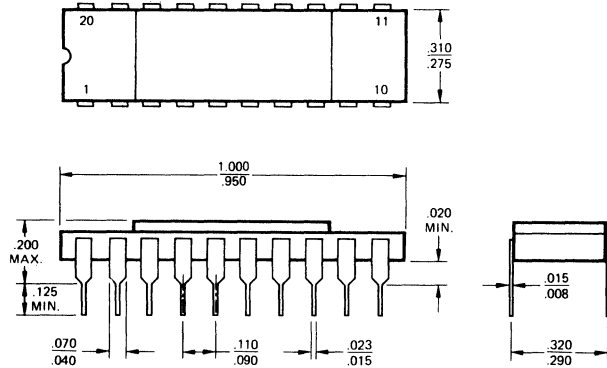
23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

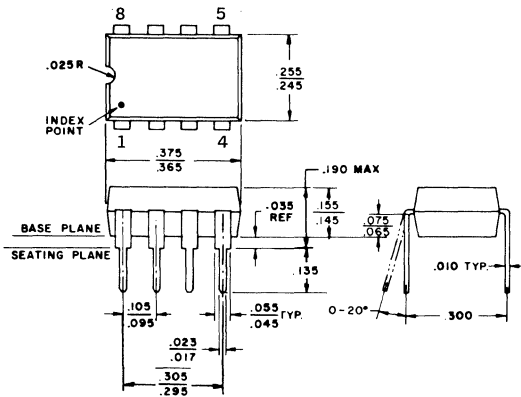
ML246



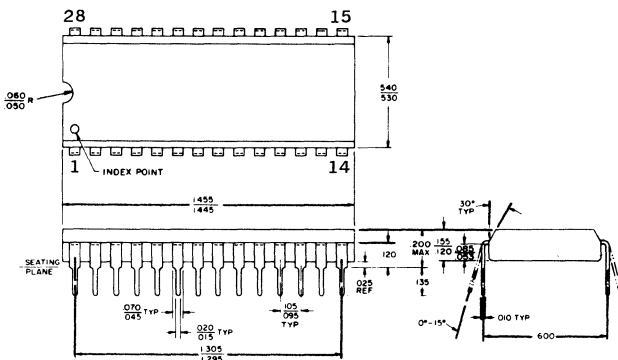
ML248



ML250



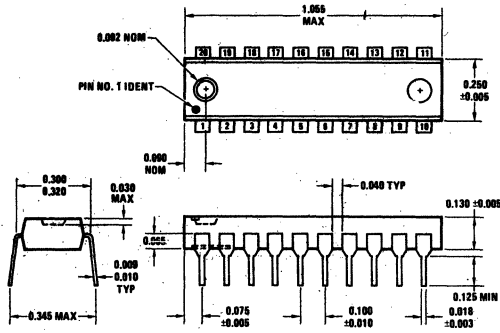
ML252



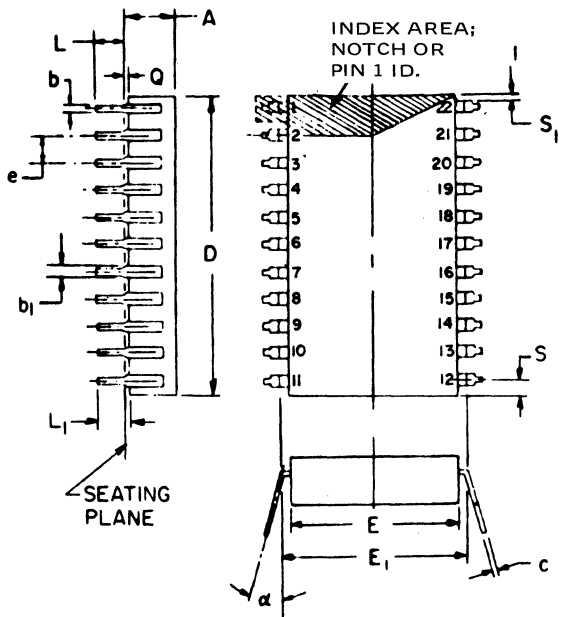
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

ML253



ML254

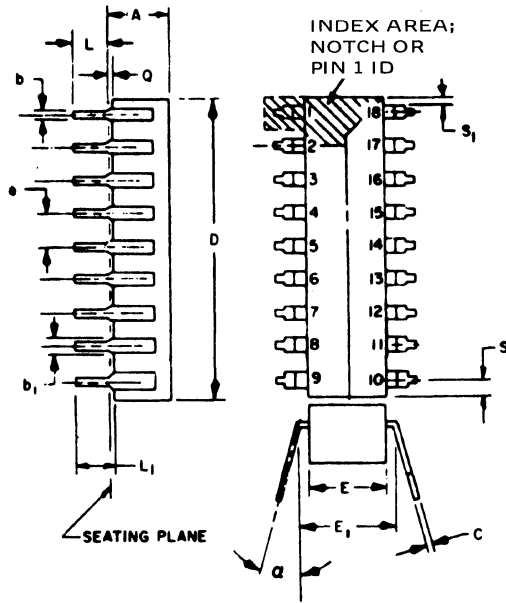


SYMBOL	DIMENSIONS			
	Inches		Millimeters	
	Min	Max	Min	Max
A		.225		5.72
b	.014	.023	.36	.58
b ₁	.030	.070	.76	1.78
c	.008	.015	.20	.38
D		1.100		27.94
E	.350	.390	8.89	9.91
E ₁	.390	.420	9.91	10.67
e	.100 BSC		2.54 BSC	
L	.120	.200	3.18	5.08
L ₁	.150		3.81	
Q	.015	.075	.38	1.91
S		.098		2.49
S ₁	.005		.13	
α	0°	15°	0°	15°

23. OUTLINE DRAWINGS

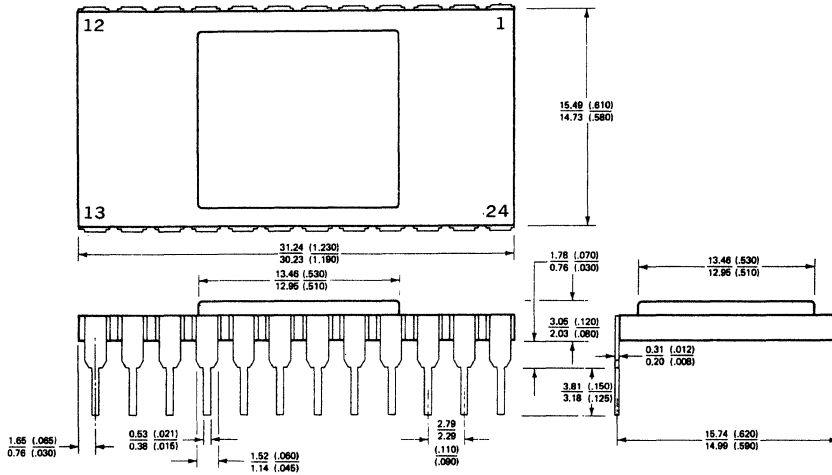
IN DRAWING NUMBER SEQUENCE

ML255



SYMBOL	DIMENSIONS			
	Inches		Millimeters	
	Min	Max	Min	Max
A		.200		5.08
b	.014	.023	.36	.58
b ₁	.030	.070	1.02	1.78
c	.008	.015	.20	.38
D		.096		25.29
E	.220	.310	5.59	7.87
E ₁	.290	.320	7.37	8.13
e	.100 BSC		2.54 BSC	
L	.125	.200	3.18	5.08
L ₁	.150		3.81	
Q	.015	.060	.38	1.52
S ₁	.005		.13	
S		.098		2.49
α	0°	15°	0°	15°

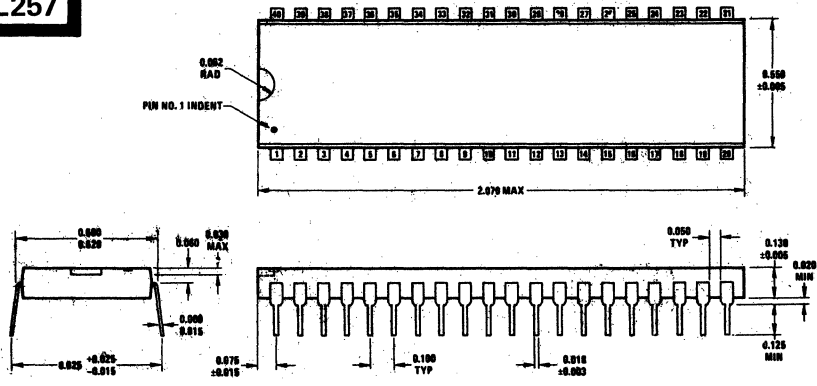
ML256



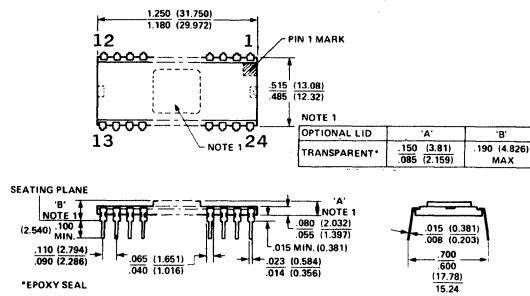
23. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

ML257



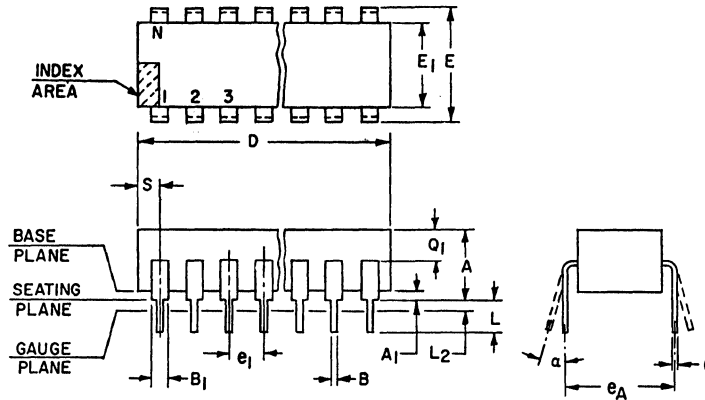
ML258



23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

MO001

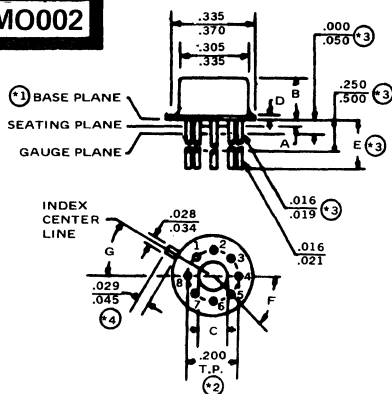


NOTES:

1. Refer to applicable symbol list.
2. Dimensioning and tolerancing per ANSI Y14.5-1973.
3. Leads within .005 radius of True Position (TP) at gauge plane with maximum material condition and unit installed.
4. e_1 and e_A applies in zone L_2 when unit installed.
5. α applies to spread leads prior to installation.
6. N is the maximum quantity of lead positions.
7. N_1 is the allowable quantity of missing leads.
8. E_1 does not include mold flash.
9. Outlines on which the seating plane is coincident with the base plane ($A_1 = 0$) terminal lead stand-offs are not required, and B_1 may equal B along any part of the lead above the seating/base plane.
10. Controlling Dimension: INCH

	A	A1	B	B1	C	D	E	E1	e1	eA	L	L2	s	N	N1	Q1	S	NOTES	
MO001AA	.200	.020	.015	.030	.008	.660	.325	.220	.100	.300	.100	.000	0°	14	0			1,2,10	
NOTES	MAX	MIN	.023	.070	.015	.785	MAX	.280	T.P.	T.P.	.030	15°	5	6	7				
MO001AB	.155	.020	.014	.050	.008	.745	.300	.240	.100	.300	.125	.000	0°	14	0	.040	.065	1,2,10	
NOTES	MAX	MIN	.020	.065	.012	.770	.325	.260	T.P.	T.P.	.150	.030	15°	5	6	7	.075	.090	
MO001AC	.155	.020	.014	.035	.008	.745	.300	.240	.100	.300	.125	.000	0°	16	0	.040	.015	1,2,10	
NOTES	MAX	MIN	.020	.065	.012	.785	.325	.260	T.P.	T.P.	.150	.030	15°	5	6	7	.075	.060	
MO001AD	.120	.020	.014	.050	.008	.745	.300	.240	.100	.300	.125	.000	0°	14	0	.050	.065	1,2,10	
NOTES	MAX	MIN	.020	.065	.012	.770	.325	.260	T.P.	T.P.	.150	.030	15°	5	6	7	.085	.090	
MO001AE	.120	.020	.014	.035	.008	.745	.300	.240	.100	.300	.125	.000	0°	16	0	.050	.015	1,2,10	
NOTES	MAX	MIN	.020	.065	.012	.785	.325	.260	T.P.	T.P.	.150	.030	15°	5	6	7	.085	.060	
MO001AF	.165	.015	.015	.045	.009	.750	.295	.245	.100	.300	.120	.000	2°	14	0	.050	.050	1,2,10	
NOTES	MAX	MIN	.045	.020	.070	.795	.325	.300	T.P.	T.P.	.160	.030	15°	5	6	7	.080	.110	
MO001AG	.165	.015	.015	.045	.009	.750	.295	.245	.100	.300	.120	.000	2°	16	0	.050	.010	1,2,10	
NOTES	MAX	MIN	.045	.020	.070	.795	.325	.300	T.P.	T.P.	.160	.030	15°	5	6	7	.080	.060	
MO001AH	.140	.015	.014	.044	.008	.730	.290	.240	.100	.300	.115	.000	0°	14	0	.050	.055	1,2,10	
NOTES	MAX	MIN	.020	.070	.012	.770	.320	.260	T.P.	T.P.	.155	.030	15°	5	6	7	.085	.095	
MO001AJ	.090	.020	.015	.035	.008	.685	.300	.240	.100	.300	.100	.000	0°	14	0	.060	.045	1,2,10	
NOTES	MAX	MIN	.023	.055	.012	.760	.325	.285	T.P.	T.P.	.150	.030	15°	5	6	7	.080	.090	
MO001AK	.090	.020	.015	.035	.008	.800	.300	.240	.100	.300	.100	.000	0°	16	0	.060	.040	1,2,10	
NOTES	MAX	MIN	.023	.055	.012	.840	.325	.285	T.P.	T.P.	.150	.030	15°	5	6	7	.080	.080	
MO001AL	.160	.020	.015	.044	.008	.815	.290	.240	.100	.300	.120	.000	0°	16	0	.050	.052	1,2,10	
NOTES	MAX	MIN	.020	.070	.012	.890	.350	.260	T.P.	T.P.	.150	.030	15°	5	6	7	.085	.095	

MO002



NOTES:

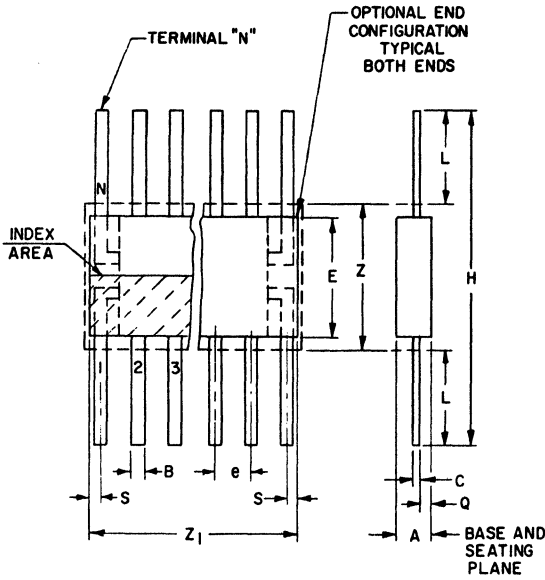
1. Refer to Rules for Dimensioning Axial Lead Product Outlines.
2. Leads at gauge plane within .007" radius of True Positions (TP) with maximum material condition.
3. Dim. .016" Min. and .019" Max. applies between .000" Min. and .050 Max. and .250" Min. and .500" Max. Dim. .016" Min. and .021" Max. applies between .250" Min. and .500" Max. and .500" from seating plane. Diameter is uncontrolled in .000" Min. and .050" Max. and .500".
4. Measured from Max. .370".

	A	B	C	D	E	F	NO. OF LEADS	NO. OF LEADS MISSING	G
MO002AA	.010	.240	.140	.040	.500	.45°	8	1	22.5° TP
MO002AB	.040	.260	.160	MAX	MIN	TP	8	3	0° TP
MO002AC	0	.240	0	MAX	MIN	TP	12	1	15° TP
MO002AD	0	.240	0	.040	.500	36°	10	1	18° TP
MO002AE	0	.240	0	.040	.500	60°	6	1	0° TP
MO002AF	0	.260	0	MAX	MIN	TP	8	3	0° TP
MO002AG	0	.165	0	.040	.500	45°	8	3	0° TP
MO002AH	0	.160	0	.040	.500	45°	8	3	0° TP
MO002AJ	0	.085	0	.040	.500	45°	8	3	0° TP
MO002AK	.010	.165	.140	.040	.500	45°	8	3	0° TP
MO002AL	.010	.165	.125	.020	.500	45°	8	3	0° TP
	.050	.165	.160	.040	.562	TP			

23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

MO004

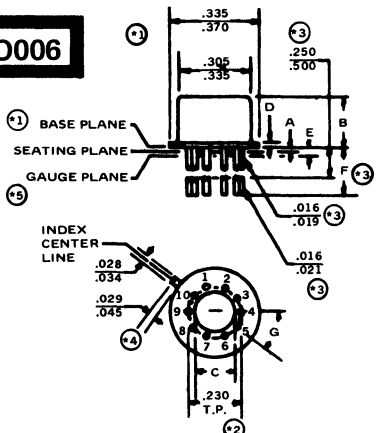


NOTES:

1. Refer to Rules for Dimensioning Peripheral Lead Outlines.
2. Leads within .005 radius of True Position (TP) at maximum material condition.
3. N is the maximum quantity of lead positions.
4. Z and Z₁ determine a zone within which all body and lead irregularities lie.
5. Controlling Dimensions: INCH

	A	B	C	e	E	H	L	N	Q	S	Z	Z ₁	NOTES
MO004AA	.008	.015	.003	.050	.200	.600	.150	14	.025	.000	.300	.350	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.050	.025	5	5	
MO004AB	.008	.013	.003	.050	.200	.600	.150	14	.005	.000	.300	.350	1,2,6
NOTES	.100	.017	.006	TP	.300	1.000	.350	4	.050	.025	5	5	
MO004AC	.008	.015	.003	.050	.200	.600	.150	14	.000	.000	.300	.350	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.097	.025	5	5	
MO004AD	.008	.016	.003	.050	.200	.600	.150	10	.005	.000	.300	.300	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.050	.050	5	5	
MO004AE	.008	.015	.003	.050	.200	.600	.150	10	.005	.000	.300	.250	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.050	.025	5	5	
MO004AF	.008	.015	.003	.050	.200	.600	.150	14	.005	.000	.300	.400	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.050	.050	5	5	
MO004AG	.008	.015	.003	.050	.200	.600	.150	14	.005	.000	.300	.400	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.050	.025	5	5	
MO004AH	.008	.015	.003	.050	.200	.600	.150	16	.005	.000	.300	.450	1,2,6
NOTES	.100	.019	.006	TP	.300	1.000	.350	4	.050	.050	5	5	

MO006



NOTES:

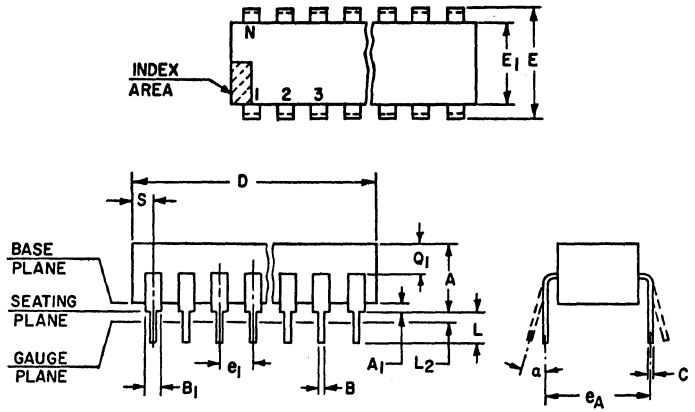
1. Refer to Rules for Dimensioning Axial Lead Product Outlines.
2. Leads at gauge plane within .007" radius of True Positions (TP) with maximum material condition.
3. Dim. .016" Min. and .019" Max. applies between .000" Min. and .050" Max. and .250" Min. and .500" Max. Dim. .016" Min. and .021" Max. applies between .250" Min. and .500" Max. and .500" from seating plane. Diameter is uncontrolled in .000" Min. and .050" Max. and .500".
4. Measured from Max. .370".
5. One (1) allowable missing lead.

	A	B	C	D	E	F	G	NO. OF LEADS
MO006AA	.010	.240	.140	.040	.050	.500	36*	10
	.040	.260	.160	MAX	MAX	MIN	TP	
MO006AB	0	.240	0	.040	.050	.500	36*	10
	0	.260	0	MAX	MAX	MIN	TP	
MO006AC	0	.140	0	.040	.050	.500	36*	10
	0	.160	0	MAX	MAX	MIN	TP	
MO006AD	.010	.165	.140	.040	.050	.500	36*	10
	.140	.185	.160	MAX	MAX	MIN	TP	
MO006AE	.010	.165	.140	.040	.050	.500	30*	12
	.040	.185	.160	MAX	MAX	MIN	TP	
MO006AF	0	.165	0	.020	.000	.500	36*	10
	0	.185	0	.040	.050	.562	TP	
MO006AG	0	.165	0	.020	.000	.500	30*	12
	0	.185	0	.040	.050	.562	TP	

23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

MO015

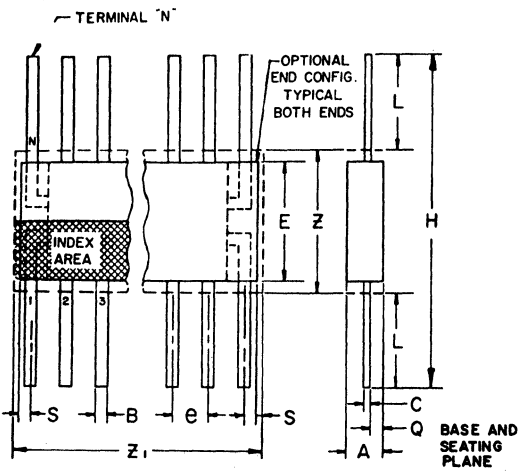


	A	A1	B	B1	C	D	E	E1	e1	eA	L	L2	a	N	N1	Q1	S	NOTES
MO015AA	.120	.020	.018	.028	.008	1.200	.600	.515	.100	.600	.100	.000	0°	24	0	.040	.040	1,2,10
NOTES	.150	.070	.020	.070	.012	1.290	.625	.580	TP	TP	.200	.030	15°	5	6	7	.075	.100
MO015AB	.120	.020	.018	.028	.008	.700	.600	.515	.100	.600	.100	.000	0°	16	0	.040	.040	1,2,10
NOTES	.150	.070	.020	.070	.012	.840	.625	.580	TP	TP	.200	.030	15°	5	6	7	.075	.100
MO015AC	.120	.020	.018	.028	.008	1.800	.600	.515	.100	.600	.100	.000	0°	36	0	.065	.040	1,2,10
NOTES	.150	.070	.020	.070	.012	1.890	.625	.580	TP	TP	.200	.030	15°	5	6	7	.080	.100
MO015AD	.100	.000	.015	.015	.008	1.170	.600	.515	.100	.600	.100	.000	0°	24	0	.020	.025	1,2,10
NOTES	.120	.070	.020	.055	.012	1.210	.625	.580	TP	TP	.200	.030	15°	5	6	7	.080	.050
MO015AE	.100	.000	.015	.015	.008	.770	.600	.515	.100	.600	.100	.000	0°	16	0	.020	.025	1,2,10
NOTES	.120	.070	.020	.055	.012	.810	.625	.580	TP	TP	.200	.030	15°	5	6	7	.080	.050
MO015AF	.100	.000	.015	.015	.008	1.770	.600	.515	.100	.600	.100	.000	0°	36	0	.020	.025	1,2,10
NOTES	.120	.070	.020	.055	.012	1.810	.625	.580	TP	TP	.200	.030	15°	5	6	7	.080	.050
MO015AG	.090	.020	.014	.050	.008	1.220	.600	.520	.100	.600	.125	.000	0°	24	0	.020	.050	1,2,10
NOTES	.120	.070	.020	.054	.012	1.290	.625	.550	TP	TP	.150	.030	15°	5	6	7	.065	.100
MO015AH	.100	.000	.015	.015	.008	1.380	.600	.485	.100	.600	.100	.000	0°	28	0	.020	.040	1,2,10
NOTES	.120	.070	.020	.055	.012	1.420	.625	.515	TP	TP	.200	.030	15°	5	6	7	.070	.070
MO015AJ	.100	.000	.015	.015	.008	1.980	.600	.485	.100	.600	.100	.000	0°	40	0	.020	.040	1,2,10
NOTES	.120	.070	.020	.055	.012	2.020	.625	.515	TP	TP	.200	.030	15°	5	6	7	.070	.070
MO015AK	.145	.030	.015	.040	.008	1.240	.600	.540	.100	.600	.100	.000	0°	24	0	.045	.065	1,2,10
NOTES	.175	.050	.020	.050	.015	1.260	.625	.560	TP	TP	.140	.030	15°	5	6	7	.075	.085

NOTES:

1. Refer to applicable symbol list.
2. Dimensioning and tolerancing per ANSI Y14.5-1973.
3. Leads within .127 radius of True Position (TP) at gauge plane with maximum material condition and unit installed.
4. e_1 and e_A applies in zone L_2 when unit installed.
5. α applies to spread leads prior to installation.
6. N is the maximum quantity of lead positions.
7. N_1 is the allowable quantity of missing leads.
8. E_1 does not include mold flash.
9. Outlines on which the seating plane is coincident with the base plane ($A_1 = 0$) terminal lead stand-offs are not required, and B_1 may equal B along any part of the lead above the seating/base plane.
10. Controlling Dimension: INCH

MO019



	A	B	C	e	E	H	L	N	Q	S	Z	Z1	NOTES
MO019AA	.008	.015	.003	.050	.300	.700	.150	24	.005	.000	.400	.650	1,2,8
NOTES	.120	.019	.006	TP	.400	1.200	.400	4	.050	.050	5	5	
MO019AB	.008	.018	.003	.050	.300	.700	.150	28	.005	.000	.400	.800	1,2,8
NOTES	.120	.022	.006	TP	.400	1.200	.400	4	.050	.075	5	5	
MO019AC	.065	.015	.003	.050	.300	.940	.270	24	.005	.000	.400	.650	1,2,8
NOTES	.120	.019	.006	TP	.400	1.200	.400	4	.050	.050	5	5	
MO019AD	.065	.015	.003	.050	.300	.940	.270	28	.005	.000	.400	.800	1,2,8
NOTES	.120	.019	.006	TP	.400	1.200	.400	4	.050	.050	5	5	

NOTES:

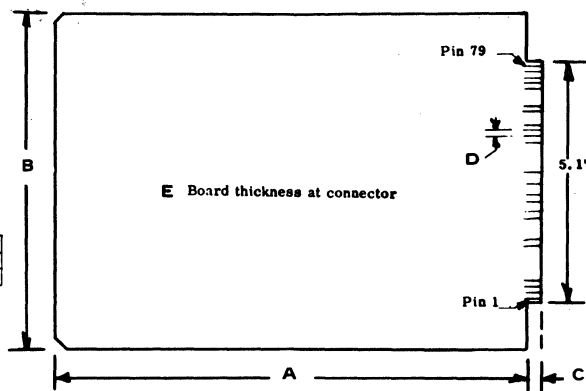
1. Refer to applicable symbol list.
2. Dimensioning and tolerancing per ANSI Y14.5-1973.
3. Leads within .005 radius of True Position (TP) at maximum material condition.
4. N is the maximum quantity of lead positions.
5. Z and Z_1 determine a zone within which all body and lead irregularities lie.
6. Controlling dimensions: INCH.

23. OUTLINE DRAWINGS

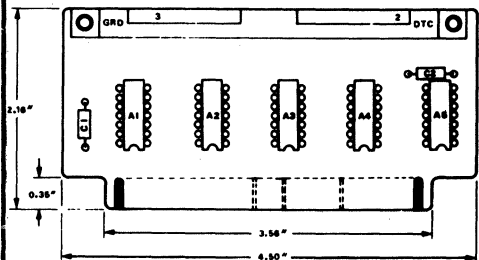
IN DRAWING NUMBER SEQUENCE

PL2

	A	S	C	D	E
PL2	9.70	7.00	.300	.125	.054 - .072
PL2a	7.50	6.00	.500		

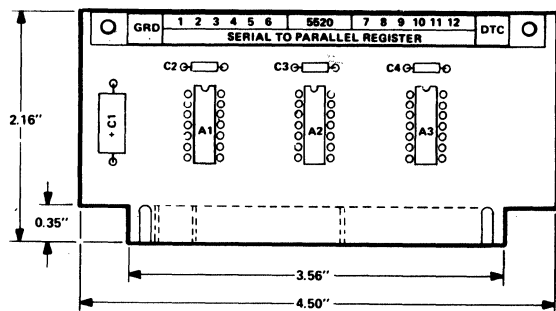


PL8



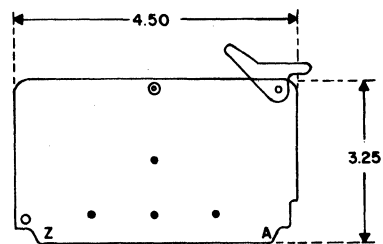
Key Slots Located Between Pins 10 & 11, 12 & 13, 16 & 16

PL9



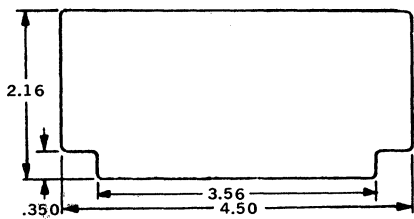
KEY SLOTS LOCATED BETWEEN PINS 1 & 2; 4 & 5; 13 & 14.

PL10

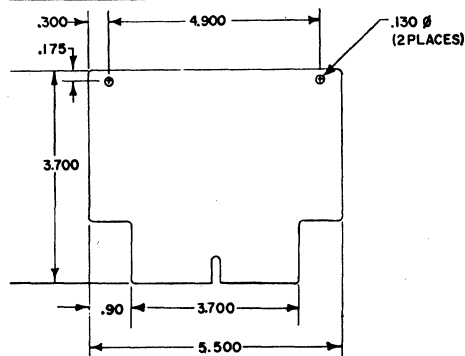


0625" THICK

PL11



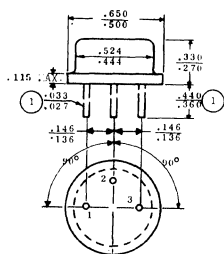
PL12



23. OUTLINE DRAWINGS

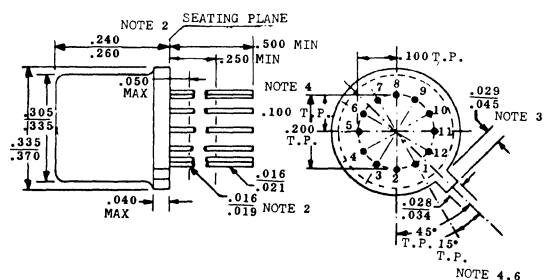
IN DRAWING NUMBER
SEQUENCE

T08



T08 Note: 1. Three Leads

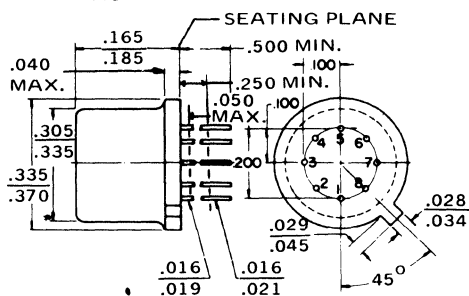
T073



NOTES:

- (Twelve Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
- (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
- Measured from maximum diameter of the product.
- Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054" (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
- The product may be measured by direct methods or by gage.
- Tab Centerline.

T078



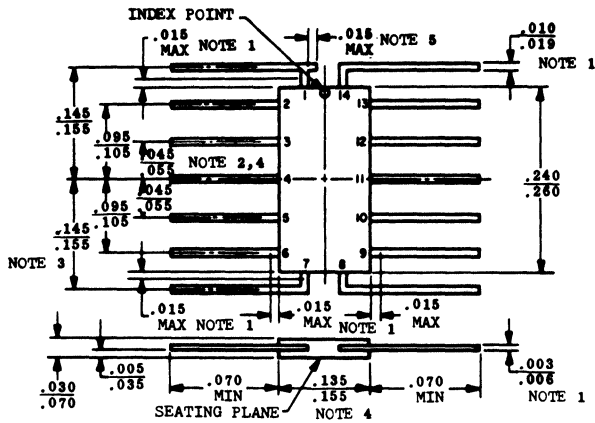
NOTES:

- (EIGHT LEADS). Maximum number of leads omitted in this outline, "three" (3). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
- (ALL LEADS) Dim. .016 Min and .019 Max. applies between Dim. .050 Max. and .250 Min. Dim. .016 Min and .021 Max. applies between .500" (12.70 MM) from seating plane. Diameter is uncontrolled in .050 Max. and beyond .500" (12.70 MM) from seating plane.
- Measured from maximum diameter of the product.
- Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054" (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
- The product may be measured by direct methods or by gage.
- Tab Centerline.

23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

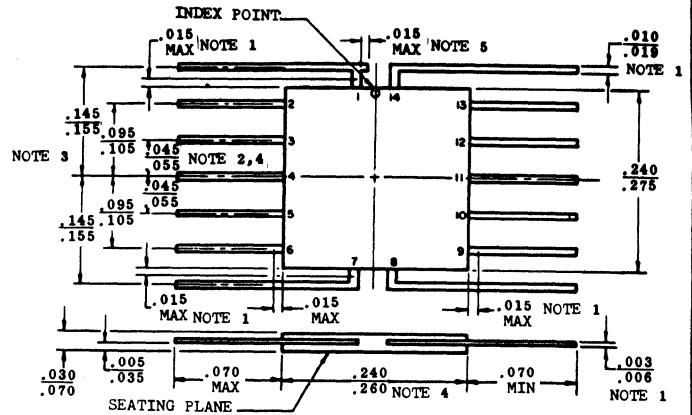
T084



NOTES:

1. Lead dimensions uncontrolled in this zone to allow for body and lead finish irregularities.
2. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.
3. Spacing and Angle of the end leads at the point of emergence of body is not controlled.
4. Lead spacing shall be measured within .030 (.762 mm) from the point of emergence from the body or, as in the case of end lead, from the point where the extension of the body outline intersects the end leads.
5. Mechanical Index, Optional.

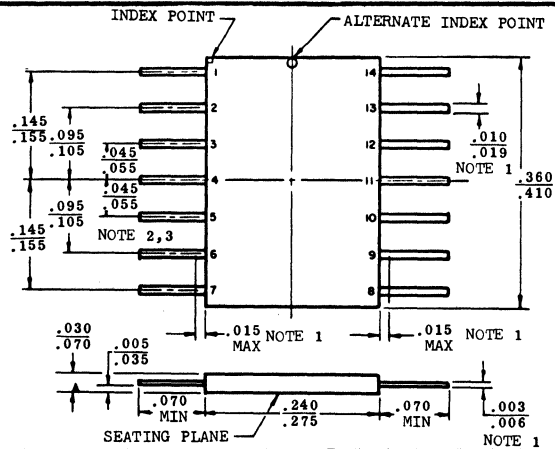
T086



NOTES:

1. Lead dimensions uncontrolled in this zone to allow for body and lead finish irregularities.
2. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.
3. Spacing and Angle of the end leads at the point of emergence of body is not controlled.
4. Lead spacing shall be measured within .030 (.762 mm) from the point of emergence from the body or, as in the case of end lead, from the point where the extension of the body outline intersects the end leads.
5. Mechanical Index, Optional.

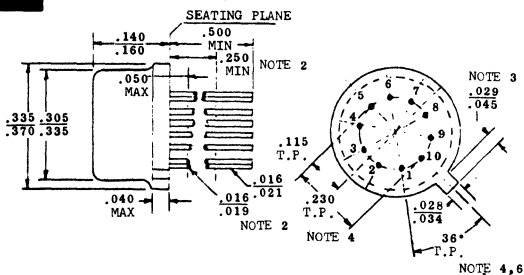
T087



NOTES:

1. Lead Dimensions uncontrolled in this zone to allow for body and lead finish irregularities.
2. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.
3. Lead spacing shall be measured within .030 (.762 mm) from the point of emergence from the body.

T097



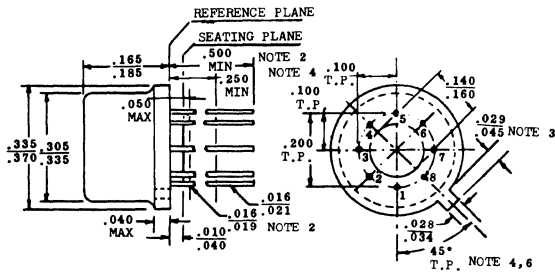
NOTES:

1. (Ten Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
2. (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054 (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gage.
6. Tab Centerline.

23. OUTLINE DRAWINGS

IN DRAWING NUMBER SEQUENCE

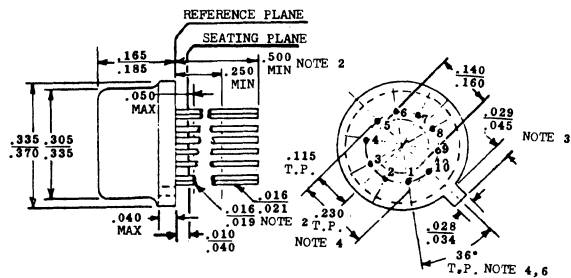
T099



NOTES:

- (Eight Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
- (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
- Measured from maximum diameter of the product.
- Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054 (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
- The product may be measured by direct methods or by gage.
- Tab Centerline.

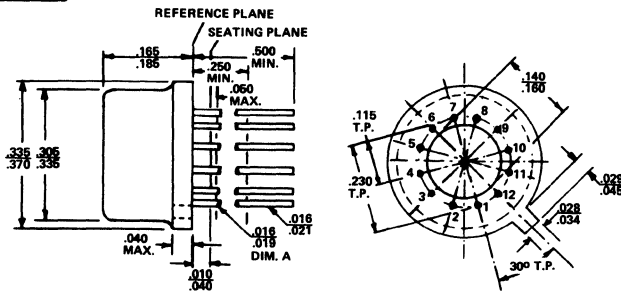
T0100



NOTES:

- (Ten Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
- (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
- Measured from maximum diameter of the product.
- Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054 (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
- The product may be measured by direct methods or by gage.
- Tab Centerline.

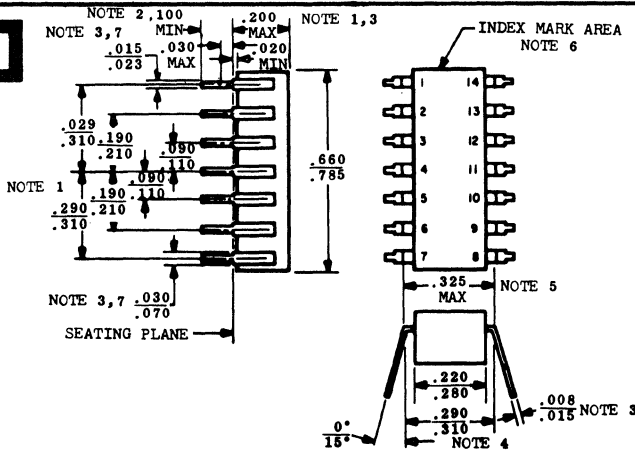
T0101



NOTES:

- (TWELVE LEADS). MAXIMUM NUMBER OF LEADS OMITTED IN THIS OUTLINE, "ONE" (1). THE NUMBER AND POSITION OF LEADS ACTUALLY PRESENT ARE INDICATED IN THE PRODUCT REGISTRATION. OUTLINE DESIGNATION DETERMINED BY THE LOCATION AND MINIMUM ANGULAR SPACING OF ANY TWO ADJACENT LEADS.
- (ALL LEADS). DIM. A APPLIES BETWEEN .050 MAX. AND .250 MIN. DIM. B APPLIES BETWEEN .250 MIN. AND .500" (12.70 MM) FROM REFERENCE PLANE. DIAMETER IS UNCONTROLLED IN .050 MAX. AND BEYOND .500" (12.70 MM) FROM REFERENCE PLANE.
- MEASURED FROM MAXIMUM DIAMETER OF THE PRODUCT.
- LEADS HAVING MAXIMUM DIAMETER .019" (.483 MM) MEASURED IN GAUGING PLANE .054" (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) BELOW THE REFERENCE PLANE OF THE PRODUCT SHALL BE WITHIN .007" (.178 MM) OF THEIR TRUE POSITION RELATIVE TO A MAXIMUM WIDTH TAB.
- THE PRODUCT MAY BE MEASURED BY DIRECT METHODS OR BY GAUGE.
- TAB CENTERLINE.

T0116



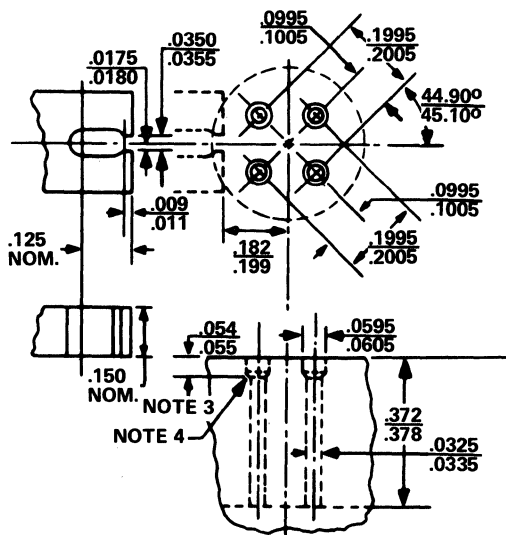
NOTES:

- Leads missing from their designated positions shall be counted when numbering leads for special applications.
- Lead spacing shall be measured within this zone.
- Typical all leads.
- Installed position of lead centers.
- Overall installed width.
- Index to be visible from top, this end only.
- Lead transition geometry from Dia .015 min to .023 max to Dia .030 min to .070 max optional on body side of seating plane.

JEDEC GAUGE DESIGNATIONS

The Gauge Designations below are referenced in the JEDEC TO Outline Drawings

GS1



NOTES:

1. THE LOCATION OF THE TAB LOCATOR WITHIN THE LIMITS INDICATED WILL BE DETERMINED BY THE TAB AND FLANGE DIMENSIONS OF THE DEVICE BEING CHECKED.

2. THE FOLLOWING GAUGING PROCEDURE SHALL BE USED:

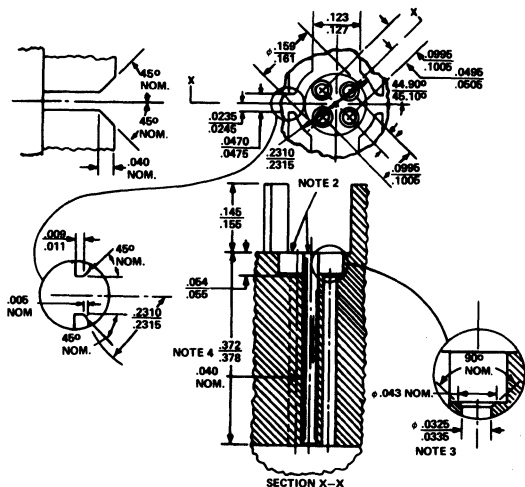
THE DEVICE BEING MEASURED SHALL BE INSERTED UNTIL ITS SEATING PLANE IS .125" (3.18 MM) ± .010" (.254MM) FROM THE SEATING SURFACE OF THE GAUGE. A FORCE OF 8 ± .5 OZ. SHALL THEN BE APPLIED PARALLEL AND SYMMETRICAL TO THE DEVICE'S CYLINDRICAL AXIS. WHEN EXAMINED VISUALLY AFTER THE FORCE APPLICATION (THE FORCE NEED NOT BE REMOVED) THE SEATING PLANE OF THE DEVICE SHALL BE SEATED AGAINST THE GAUGE.

THE USE OF A PIN STRAIGHTENER PRIOR TO INSERTION IN THE GAUGE IS PERMISSIBLE.

3. GAUGING PLANE.

4. DRILL ANGLE.

GS2



NOTE 1: THE FOLLOWING GAUGING PROCEDURE SHALL BE USED:

THE DEVICE BEING MEASURED SHALL BE INSERTED UNTIL ITS SEATING PLANE IS 0.125" ± .010" FROM THE SEATING SURFACE OF THE GAUGE. A FORCE OF 8 ± 0.5 OZ. SHALL THEN BE APPLIED PARALLEL AND SYMMETRICAL TO THE DEVICE'S CYLINDRICAL AXIS. WHEN EXAMINED VISUALLY AFTER THE FORCE APPLICATION (THE FORCE NEED NOT BE REMOVED) THE SEATING PLANE OF THE DEVICE SHALL BE SEATED AGAINST THE GAUGE.

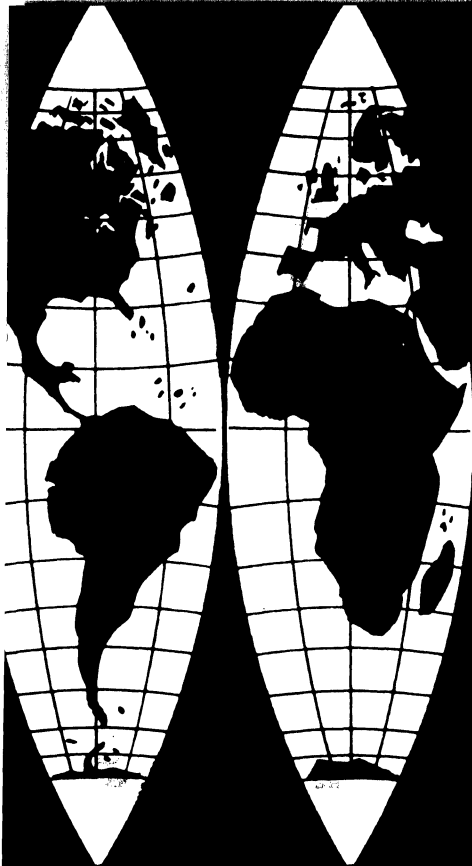
THE USE OF A PIN STRAIGHTENER PRIOR TO INSERTION IN THE GAUGE IS PERMISSIBLE.

A SPACER MAY BE USED TO OBTAIN THE 0.125" DISTANCE FROM THE GAUGE SEAT PRIOR TO FORCE APPLICATION.

NOTE 2: THESE SURFACES TO BE PARALLEL AND IN SAME PLANE WITHIN ± .001"

NOTE 3: FOUR HOLES.

NOTE 4: PRESSED IN.



MSI-LSI MEMORY

Manufacturers' Local Offices

These manufacturers have listed their local offices in this section for your convenience. Please contact the local office nearest you for any additional information you may need.

(MANUFACTURERS IN ORDER OF D.A.T.A. CODE LETTERS)

ALGG — AEG-TELEFUNKEN

	Zip Code	Telephone No.	Telex
Postfach 1109, Heilbronn, Germany	D7100	07131-8821	728746

FSC — FAIRCHILD SEMICONDUCTOR

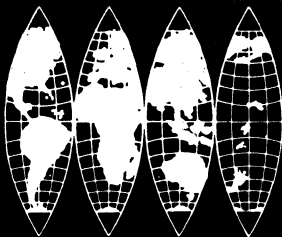
	Zip Code	Telephone No.	TWX
DIV. of FAIRCHILD CAMERA & INSTRUMENT CORP. 464 Ellis Street, Mountain View, California	94040	415-962-5011	910-379-6435 Cable FAIRSEMCO

ITL — INTEL CORPORATION

	Zip Code	Telephone No.	TWX
3065 Bowers Avenue, Santa Clara, California	95051	408-246-7501	910-338-0026 Telex 34-6372

U. S. SALES OFFICES

		Zip Code	Telephone No.	TWX	
CALIFORNIA	Santa Ana	Intel Corporation	92701	714-835-9642	910-595-1114
		1651 East 4th Street Suite 228			



Manufacturers' Local Offices

ITL — INTEL CORPORATION (Cont'd)

	Zip Code	Telephone No.	TWX
3065 Bowers Avenue, Santa Clara, California	95051	408-246-7501	910-338-0026 Telex 34-6372
ILLINOIS Oakbrook Intel Corporation 1000 Jorie Boulevard	60521	312-325-9510	910-651-5881
MASSACHUSETTS ....Chelmsford Intel Corporation 187 Billerica Road Suite 14A	01824	617-256-6567	710-343-6333
TEXAS Dallas Intel Corporation 2925 LBJ Freeway Suite 100	75234	214-241-9521	910-860-5487

EUROPEAN MARKETING OFFICE

BELGIUM Brussels Intel International ** Rue du Moulin a Papier 51-Boite 1	B-1160	(02)66030 10	Telex 24814
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ORIENT MARKETING OFFICE

JAPAN Tokyo Intel Japan Corporation ** Flower Hill Shinmachi E. Bldg. 1-23-9 Shinmachi, Setagaya-ku	154	(03)426-9261	781-28426
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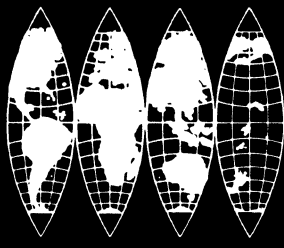
** Field Application Locations

MMI — MONOLITHIC MEMORIES INC.

1165 East Arques Avenue, Sunnyvale, California	Zip Code 94086	Telephone No. 408-739-3535	TWX 910-339-9229
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NECM — NEC MICROCOMPUTERS, INC.

5 Militia Drive, Lexington, Massachusetts	Zip Code 02173	Telephone No. 617-862-6410	TWX 710-326-6520 Telex 923434
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Manufacturers' Local Offices

NSC – NATIONAL SEMICONDUCTOR CORPORATION

2900 Semiconductor Drive, Santa Clara, California Zip Code Telephone No. TWX
 95051 408-737-5000 910-339-9240

SALES OFFICES AND REPRESENTATIVES

ALABAMA **Huntsville** National Semiconductor 35801 205-881-0622 810-726-2207
 (Dixie Regional Office)
 3322 Memorial Parkway, SW
 Suite 14

Interep Associates, Inc. 35801 205-881-3677
 3322 Memorial Parkway, SW
 No. 67

ARIZONA **Scottsdale** National Semiconductor 85251 602-945-8473 910-950-1195
 (Rocky Mountain Regional Office)
 7353 Sixth Avenue

Fred Board Associates 85252 602-994-9388 910-950-1195
 Post Office Box 1906

CALIFORNIA **Santa Clara** National Semiconductor 95051 408-247-6397 910-338-0537
 (Northwest Regional Office)
 1333 Lawrence Expressway
 Suite 258

Criterion Sales, Inc. 95050 408-243-3600
 2225J Martin Avenue

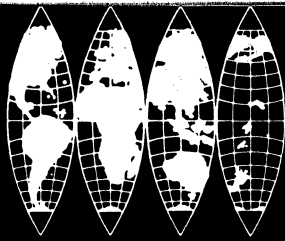
Irvine National Semiconductor 92714 714-957-1626
 (Area Office)
 17870 Sky Park Circle
 No. 108

Sherman Oaks National Semiconductor 91403 213-783-8272 910-495-1773
 (Los Angeles Regional Office)
 Valley Freeway Center Building
 15300 Ventura Boulevard
 Suite 405

San Diego National Semiconductor 92111 714-565-8411 910-335-1566
 (District Sales Office)
 8333 Clairemont Mesa Blvd.

S. R. Electronics 92121 714-455-0300 910-335-1566
 10951 Sorrento Valley Road

Tustin National Semiconductor 92680 714-832-8113 910-595-1523
 (Southern California Regional Office)
 17452 Irvine Blvd.
 Suite B

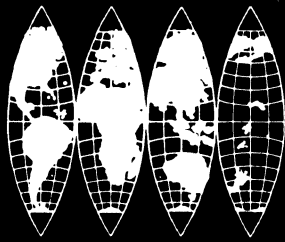


Manufacturers' Local Offices

NSC – NATIONAL SEMICONDUCTOR CORPORATION (Cont'd)

			Zip Code	Telephone No.	TWX
	2900 Semiconductor Drive, Santa Clara, California		95051	408-737-5000	910-339-9240
COLORADO	Denver	Electrodyne, Inc. **	80222	303-757-7679	910-931-0428
		4600 East Asbury Circle Suite 402			
CONNECTICUT	Wilton	National Semiconductor	06897	203-762-0378	710-479-3512
		(Northeast Area Sales Office) Piersall Building - Suite 415 Wilton Center			
	Westport	NRG Limited	06880	203-226-7527	710-457-2169
		50 Post Road			
FLORIDA	Fort Lauderdale	National Semiconductor	33309	305-772-6970	510-955-9708
		(Regional Office) 1001 NW 62nd Street Suite 100			
	Maitland	QXI	32751	305-647-1188	810-853-0260
		235 Maitland Avenue Suite 111			
	St. Petersburg	QXI	33713	813-821-2281	810-863-0354
		300 31st Street No. 319			
	Tamarac	QXI	33319	305-485-6030	
		4620 West Commercial Blvd. Suite C			
GEORGIA	Atlanta	Interep Associates, Inc.	30341	404-394-7756	810-757-0182
		7 Dunwoody Park Suite 112			
ILLINOIS	Mt. Prospect	National Semiconductor	60056	312-394-8040	910-689-3346
		(West-Central Regional Office) 800 East Northwest Highway Suite 203			
	Arlington Heights ...	Delta Technical Sales	60004	312-253-9440	910-687-2273
		3323 North Ridge Avenue			

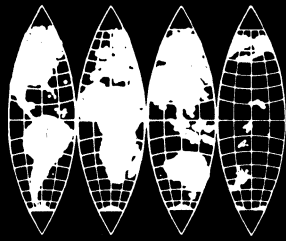
** Applications Engineer Available



Manufacturers' Local Offices

NSC – NATIONAL SEMICONDUCTOR CORPORATION (Cont'd)

		Zip Code	Telephone No.	TWX	
2900 Semiconductor Drive, Santa Clara, California		95051	408-737-5000	910-339-9240	
INDIANA	Indianapolis	National Semiconductor	46240	317-255-5822	810-341-3300
		(North-Central Regional Office) Post Office Box 40073			
		Advanced Component Sales	46226	317-545-6441	810-341-3233
	5746 Brendon Way West Drive Post Office Box 26407				
	Fort Wayne	Advanced Component Sales	46805	219-484-0722	810-332-1472
		1010 Memorial Way Suite 1			
IOWA	Cedar Rapids	Gassner & Clark Company	52402	319-393-5763	910-525-2051
		1834 Blairs Ferry Road NE			
MARYLAND	Glen Burnie	National Semiconductor	21061	301-760-5220	710-867-0508
		(Capitol Regional Office) 95 Aquahart Road Suite 204			
		TRIMARK, Inc.	21061	301-768-2800	710-867-0508
		95 Aquahart Road Suite 204			
MASSACHUSETTS	Lexington	National Semiconductor	02173	617-861-6090	710-326-6979
		(North-East Regional Office) 9 Meriam Street Suite 16			
		A/D Systems Sales, Inc.	02173	617-861-6370	
		594 Marrett Road			
MICHIGAN	Farmington Hills	National Semiconductor	48018	313-553-0600	810-242-2902
		(District Sales Office) 27650 Farmington Road			
		Grand Rapids	Representative of Electronic Products	49506	616-942-1320
		3501 Lake Eastbrook SE			
	Southfield	Representative of Electronic Products	48075	313-559-1080	810-224-4976
		North Park Office Plaza 17117 West 9-Mile Road Suite 420			

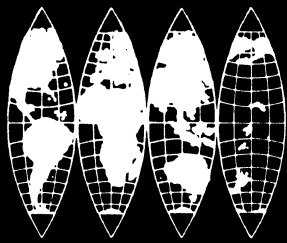


Manufacturers' Local Offices

NSC – NATIONAL SEMICONDUCTOR CORPORATION (Cont'd)

			Zip Code	Telephone No.	TWX
2900 Semiconductor Drive, Santa Clara, California			95051	408-737-5000	910-339-9240
MINNESOTA	Minneapolis	National Semiconductor	55431	612-888-3060	910-576-3415
		(Regional Office) 8200 Humboldt Avenue S.			
		Stan Clothier Company **	55435	612-944-3456	910-576-3415
		7423 Washington Avenue S.			
MISSOURI	Earth City	Cen Tech	63045	314-731-4220	910-762-0638
		514 Earth City Plaza			
	Raytown	Cen Tech	64111	816-358-8100	910-777-2007
		6310 Ash			
NEW JERSEY	Englewood Cliffs	National Semiconductor	07632	201-461-2789	710-991-9734
		(Mid-Atlantic Regional Office) 140 Sylvan Avenue			
	Fort Lee	New Jersey NECCO	07024	201-461-2789	Telex 134-526
		2460 Lemoine Avenue			
NEW MEXICO	Albuquerque	A. O. Electronics	87107	505-883-1003	TWX 910-989-1653
		Post Office Box 6505			
NEW YORK	Syracuse	National Semiconductor	13211	315-455-5868	
(Upstate)		(CAN-AM Regional Office) 104 Pickard Drive			
		Electra Sales Corporation	13211	315-455-5783	710-541-0418
		104 Pickard Drive			
	Poughkeepsie	National Semiconductor	12601	914-462-2380	510-248-0043
		(Regional Office) 576 South Road Room 128			
	Rochester	Electra Sales Corporation.....	14619	716-436-4030	
		474 Thurston Road		716-436-4037	
Metropolitan Area	Melville	LEJ Component Sales	11746	516-694-9090	
		401 Broad Hollow Road			
		National Semiconductor		516-921-2589	710-479-3512
		(Mid-Atlantic Regional Office)			

** Applications Engineer Available

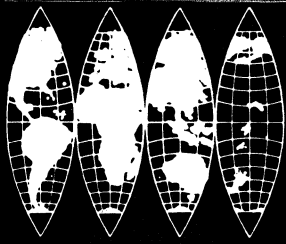


Manufacturers' Local Offices

NSC — NATIONAL SEMICONDUCTOR CORPORATION (Cont'd)

			Zip Code	Telephone No.	TWX
2900 Semiconductor Drive, Santa Clara, California.....			95051	408-737-5000	910-339-9240
NORTH CAROLINA ... Highpoint	Engineering Devices Corporation		27262	919-869-7200	
	Post Office Box 5067				
OHIO	Highland Heights ... National Semiconductor		44143	216-461-0191	810-427-2972
	(East Central Regional Office)				
	19 Alpha Park				
	Micro-Tec, Inc.		44143	216-461-0191	810-427-2972
	19 Alpha Park				
	Columbus	Micro-Tec, Inc.	43029	614-888-9761/2	
		6076 Busch Blvd.			
		Suite 3			
	Dayton	Micro-Tec, Inc.	45419	513-294-6441	810-459-1615
		1413 Acorn Drive			
OREGON	Beaverton	Vantage Corporation	97005	503-646-3466	
		3950 SW 102nd Street			
		Suite 122			
PENNSYLVANIA	Fort Washington	National Semiconductor	19034	215-628-8877	510-661-3986
		(Liberty Regional Office)			
		500 Office Center Drive			
	Huntington Valley ...	Omega Electronic Sales, Inc.	19006	215-947-4135	510-665-5485
		1 Fairway Palza			
		Philmont Avenue			
		Red Lion Road			
		Suite 210			
TEXAS	Dallas	National Semiconductor	75243	214-690-4552	910-867-4741
		(South-Central Regional Office)			
		13773 North Central Expressway			
		Suite 1132			
	El Paso	A. Q. Electronics	79903	915-545-2363	
		2211 East Missouri Street			
		Suite N-218			
	Garland	Carter Associates, Inc.	75040	214-276-7151	910-860-5097
		Post Office Box 87			
	Houston	Carter Associates Inc. **	77027	713-621-6930	
		3701 West Alabama Street			
		Suite 360			

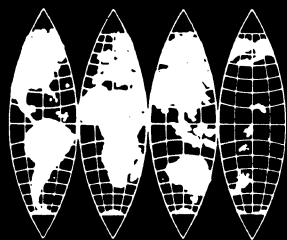
** Applications Engineer Available



Manufacturers' Local Offices

NSC – NATIONAL SEMICONDUCTOR CORPORATION (Cont'd)

		Zip Code	Telephone No.	TWX
2900 Semiconductor Drive, Santa Clara, California		95051	408-737-5000	910-339-9240
WASHINGTON	Bellevue			
	National Semiconductor	98005	206-454-4600	
	(District Sales Office)			
	300 120th NE Avenue			
	Building 7 - Suite 207			
	Vantage Corporation	98005	206-455-3460	
	300 120th NE Avenue			
	Building 7 - Suite 207			
CANADA	Bellevue			
(Western Provinces)	(Washington)			
	National Semiconductor	98005	206-455-3460	
	(District Sales Office)			
	300 120th NE Avenue			
	Building 2 - Suite 205			
	Vantage Corporation	98005	206-455-3460	
	300 120th NE Avenue			
	Building 2 - Suite 207			
(Eastern Provinces)	Downview			
	(Ontario)			
	National Semiconductor	M3J 2N5	416-661-8022	
	(District Sales Office)			
	286 Wildcat Road			
	Mississauga			
	(Ontario)			
	Canadian Micro Sales, Inc.	L4T 1G3	416-677-6633	610-492-4012
	2780 Slough Street			

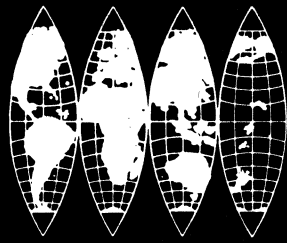


Manufacturers' Local Offices

PHIN — PHILIPS GLOEILAMPENFABRIEKEN

		Zip Code	Telephone No.	Cable
PRODUCT DIVISION ELCOMA				
Building BA, Eindhoven, Netherlands			(040) 79 11 11	PHILIPS EINDHOVEN
ARGENTINA	Buenos Aires	Fapasa I.y.C. Av. Crovara 2550	652-3983	
AUSTRALIA	Lane Cove	Philips Industries, Ltd. Elcoma Division 67 Mars Road	2066 N.S.W.	42 1261
AUSTRIA	Wien	Osterreichische Philips	A-1101	62 91 11
		Bauelemente Industrie G.m.b.H. Triesterstrasse 64		
BELGIUM	Bruxelles	M.B.L.E. 80 Rue des Deux Gares	B-1070	523 00 00
BRAZIL	Sao Paulo. SP	Ibrape S.A. Av. Paulista 2073-S/Loja	01311	278-7144
CANADA	Scarborough	Philips Electronics Ltd.	M1B 1M8	416-292-5161
	(Ontario)	Electron Devices Division 601 Milner Avenue		06-2221
DENMARK	Kobenhavn NV	Miniwatt A/S	DK-2400	(01) 69 16 22
		Emdrupvej 115A		

* Manufacturer Code inside () can be found in Section 25,
Manufacturers Code Names & Addresses

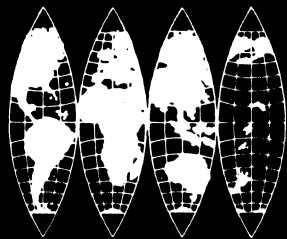


Manufacturers' Local Offices

PHIN — PHILIPS GLOEILAMPENFABRIEKEN (Cont'd)

			Zip Code	Telephone No.	Cable
PRODUCT DIVISION ELCOMA					
Building BA, Eindhoven, Netherlands				(040)79 11 11	PHILIPS EINDHOVEN
FINLAND	Helsinki 10	Oy Philips Ab	SF-00100	1 72 71	
		Elcoma Division Kaivokatu 8			
FRANCE	Paris 11	R. T. C. (RTCF)*	F-75540	355 44 99	
		La Radiotechnique Compelec 130 Avenue Ledru Rollin			
GERMANY	Hamburg 1	VALVO (VALG)*	D-2	(040) 3296-1	
		UB Bauelemente der Philips GmbH Valvo Haus Burchardstrasse 19			
HONG KONG	Kwai Chung N.T. (K.T.C.L.)	Philips Hong Kong Ltd.	289	12 24 51 21	
		Components Dept. Philips Industrial Building Kung Yip Street			
ITALY	Milano	Philips S.p.A.	I-20124	6994	
		Sezione Elcoma Piazza IV Novembre 3			
JAPAN	Tokyo	Nihon Philips Corporation	108	(435)5204-5	
		Shuwa Shinagawa Bldg. 26-33 Takamawa, 3-chome Minato-ku			
KOREA	Seoul	Philips Electronics Korea Ltd.		44-4202	
		Philips House 260-199 Itaewon-dong Yongsan-ku			

* Manufacturer Code inside () can be found in Section 25,
Manufacturers Code Names * Addresses

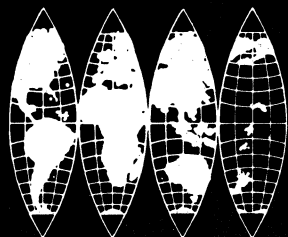


Manufacturers' Local Offices

PHIN — PHILIPS GLOEILAMPENFABRIEKEN (Cont'd)

		Zip Code	Telephone No.	Cable
PRODUCT DIVISION ELCOMA				
Building BA, Eindhoven, Netherlands			(040)79 11 11	PHILIPS EINDHOVEN
MEXICO	Mexico 6, D.F.	Electronica S.A. de C.V.	5-33-11-80	
		Varsovia No. 36		
NETHERLANDS	Eindhoven	Philips Nederland B. V.	NL-4510 (040) 79 33 33	
		Afd. Elonco Boschdijk 525		
NEW ZEALAND	Wellington	Philips Electronic Industries, Ltd.	873-156	
		Elcoma Division 70-72 Kingsford Smith Street		
NORWAY	Oslo 4	Electronica A/S	(02) 150590	
		Vitaminveien 11		
SOUTH AFRICA	Johannesburg	EDAC (Pty.) Ltd.	2001 24/6701	
		South Park Lane New Doornfontein		
SPAIN	Barcelona 7	Copresa S.A.	329 63 12	
		Balmes 22		
SWEDEN	Stockholm 27	Elcoma A.B.	S-10250 08/679780	
		Lidingovagen 50		
SWITZERLAND	Zurich	Philips A. G.	CH-8027 01/44 22 11	
		Elcoma Abteilung Edenstrasse 20		
TAIWAN.....	Taipei	Philips Taiwan Ltd.	57 13231	
		Elcoma Division San Min Bldg., 3rd Floor 57-1 Chung Shan N. Road		
UNITED KINGDOM ...	London	Mullard Ltd. (MULB)*	WC1E 7HD 01-580-6633	
		Mullard House Torrington Place		
UNITED STATES	California.....	Signetics Corporation (SIC)*	94086 408-739-7101	
		811 East Arques Avenue Sunnyvale		

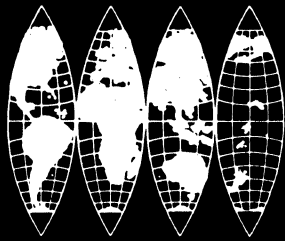
* Manufacturer Code inside () can be found in Section 25,
Manufacturers Code Names & Addresses



Manufacturers' Local Offices

SGAI — SGS-ATES COMPONENTI ELETTRONICI S.P.A.

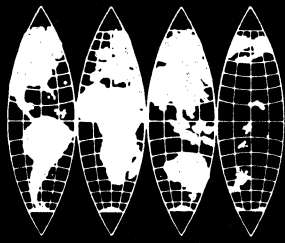
		Zip Code	Telephone No.	Telex	
Via C. Olivetti 2, Agrate Brianza, Italy		20041	39-650141	31436	
ENGLAND	Aylesbury Bucks	SGS-ATES (United Kingdom) Ltd. Walton Street	5977	83245	
FRANCE	Paris	SGS-ATES France SA	75643	5842730	(0/25938)
		Residence "Le Palatino" 17, Avenue de Choisy			
GERMANY.....	Wasserburg (Inn)	SGS-ATES Deutschland GmbH	809	08071-721	05-25143
		Postfach 1269			
ITALY	Milano	SGS-ATES Componenti Eletttronici S.p.A. ..	20149	4695651	31481
		Via Tempesta 2			
SINGAPORE	Singapore	SGS-ATES Singapore (PTE) Ltd.	12	531411	21412
		Lorong 4 and 6 Toa Payoh			
SWEDEN	Marsta	SGS-ATES Scandinavia AB	19501	0760/40120	10932
		Tingvallavagen 9J Postbox 30			
U.S.A.	Waltham	SGS-ATES Semiconductor Corporation.....	02154	617-891-3710	923495
	(Massachusetts)	79 Massasoit Street			



Manufacturers' Local Offices

SMI – EMM/SEMI, INC.

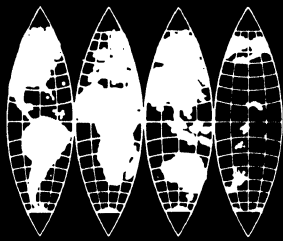
COMMERCIAL MEMORY PRODUCTS		Zip Code	Telephone No.
DIVISION OF ELECTRONIC MEMORIES & MAGNETICS CORP.			
3883 North 28th Avenue, Phoenix, Arizona		85017	602-263-0202
CALIFORNIA	Los Alamitos	Electronic Memories	90720
		3662 Katella Suite 216	213-598-8705
	Burlingame	Electronic Memories	94101
		1633 Bayshore Highway Suite 120	415-692-4250
ILLINOIS	Des Plaines	Electronic Memories	60018
		1400 East Touhy Avenue Suite 440	312-297-7090
MASSACHUSETTS	Lexington	Electronic Memories	02173
		2 Militia Drive	617-861-9650
MINNESOTA	Hopkins	Electronic Memories	55343
		810 South 1st Street Andrews Building, Suite 230	612-933-7115
NEW JERSEY	Cherry Hill	Electronic Memories	08034
		498 North Kings Highway Lafferty Plaza, Suite 105	609-779-7911
NEW YORK	Melville	Electronic Memories	11746
		150 Broad Hollow Road	516-423-5800
TEXAS	Dallas	Electronic Memories	75243
		13773 No. Central Expressway Keystone Park, Suite 1455	214-231-2539



Manufacturers' Local Offices

THCF — THOMSON CSF

			Zip Code	Telephone No.	Telex
DIVISION SEMICONDUCTEURS SESCOSEM					
50, Rue Jean Pierre Timbaud, BP 120, Courbevoie, France			F-92403	788-50-01	SESCO 610560 F
AFRICA (South)	Dunswart	Allied Electric (Pty) Ltd. Post Office Box 6090	1508	52-8232/3	8-7823 Cable "SOLIDSTATE" DUNSWART
AUSTRALIA	Kingsgrove (NSW)	IRH Components Post Office Box 70	2208	50111	21123
AUSTRIA	Wien	Transalpina Electronica Ltd. Elisabethstrasse 8	A 1010	56.15.71	Inland 12 717
BELGIUM NETHERLANDS	Bruxelles 5	Thomson S. A. — N. V. Avenue Louise 363 Bte 10	B-1050	648 64 85	23 113
BRAZIL	Sao Paulo	Thomson CSF Componentes do Brasil Caixa Postal 4854		616.483	TESAFIBRA EMBRATEL SP 309171 SAP PAULO
CANADA	Toronto (Ontario)	Canadian General Electric Co., Ltd. 189 Dufferin Street		416-537-4481	06-23238
DENMARK	Copenhagen	Scan Supply 20 Nannasgade	DK-2200	193 5030	9037 SCAPLY
ENGLAND	Basingstoke	Thomson-CSF (U.K.) Ltd. Ringway House - Bell Road Danneshill Hants		256 29 155	858865
FINLAND	Helsinki 25	OY Sufra AB Ruusulankatu 20 A 12		49.01.37	Pierrejoly Helsinki
FRANCE	Aix En Provence	Sescosem Service Commercial 15, rue Camille Pelletan	F-13102	(91) 27 98 15	410665
	Saint Egreve	Sescosem Service Commercial	F-38120	(76) 758112	204780
GERMANY	Munchen 25	Thomson CSF GmbH Fallstrasse 42	D-8000	89 76 751	522.916



Manufacturers' Local Offices

THCF — THOMSON CSF (Cont'd)

			Zip Code	Telephone No.	Telex
DIVISION SEMICONDUCTEURS SESCOSEM					
50, Rue Jean Pierre Timbaud, BP 120, Courbevoie, France			F-92403	788-50-01	SESCO 610560 F
ITALY	Milano	Sescosem Italiana	I-20.125	68 84 141	36301 Ducati
		Via Melchiorre Gioia, 72			
MOROCCO	Casablanca	SFRM		27-91-00	21924
		40 Blvd. de la Resistance		27-91-23	
		Palais Mirabeau			
NORWAY	Oslo 6	Feiring AS		(2) 686360	16 435
		Post Office Box 101			
		Bryn			
PORTUGAL	Lisbon	Sd. Com Rualdo		P.P.C. 33725	16447 Rualdo
		Rua S. Jose 15			Lisbonne
SPAIN	San Juan Despi	Componentes Electronicos S.A.		319.46. 50	53077
	(Barcelona)	Poligono Industrial, Font Santa			
		Calle, H.S./N			
SWEDEN	Solna 3	Elektrholm AB	S-17 103	82.02.80	19.389
		Dalvagen 12			
SWITZERLAND	Berne 9	Modulator S. A.	CH-3000	23 21 42	32.431
		Fischerweg 11.13			
U. S. A.	California	Nucleonic Products Company, Inc.	91303	(213)887-1010	651.479
		6660 Variel Avenue			
		Canoga Park			

25. MANUFACTURERS CODES, NAMES & ADDRESSES

QPL
MFR.
DESIG.

FSCM
No.

DATA
MFRS.
CODE

MANUFACTURERS' CODES, NAMES, AND ADDRESSES

	ABA	—	Abacus Division, Information Control Corp., 9610 Bellanca Ave., Los Angeles, CA	90045
	D1597— ALGG	*—	AEG-Telefunken, Postfach 1109, D7100 Heilbronn, Germany	
	31471— AMI	*—	American Micro-Systems, Inc., 3800 Homestead Rd., Santa Clara, CA	95051
CDWN—	34335— AMV	*—	Advanced Micro Devices, Inc., 901 Thompson Pl., Sunnyvale, CA	94086
	14506— DTC	—	Data Tech, Div. Penril Corp., 2700 Fairview Rd., Santa Ana, CA	92704
	33297— EAI	*—	Electronic Arrays, Inc., 550 E. Middlefield Rd., Mountain View, CA	94043
	54800— ECD	—	Energy Conversion Devices, Inc., 1675 W. Maple Rd., Troy, MI	48084
	26611— FCAJ	*—	Fujitsu Ltd., IC Division, 1015 Kamikodanaka, Kawasaki, Japan	
	12264— FERB	*—	Ferranti Ltd., Electronics Dept., Gem Mill, Fields New Rd., Chadderton, Oldham OL9 8NP, England	
CFJ —	07263— FSC	*—	Fairchild Semiconductor, 464 Ellis St., M/S 20-1050, Mountain View, CA	94040
CAKK—	14936— GIC	*—	General Instrument Corp., 600 W. John St., Hicksville, NY	11802
CDWO—	HAS	*—	Harris Semiconductor, P.O. Box 883, Melbourne, FL	32901
	92645— HITJ	*—	Hitachi, Ltd., Semiconductor & IC Div., 1450 Josuihonmachi, Kodaira City, Tokyo, Japan	
CDPR —	32293— INL	*—	Intersil, Inc., 10900 No. Tantau Ave., Cupertino, CA	95014
	D8849— INTG	—	Intermetall, Halbleiterwerk der Deutsche ITT Inc., GmbH, 78 Freiburg, Hans-Bunte-Strasse 19, Germany	
	34649— ITL	*—	Intel Corporation, 3065 Bowers Ave., Santa Clara, CA	95051
CIT —	15238— ITT	*—	ITT Semiconductors, 74 Commerce Way, Woburn, MA	01801
	ITTB	—	ITT Semiconductors, Maidstone Rd., Foots Cray, Sidcup, Kent, England	
	01619— MATJ	*—	Matsushita Electronics Corp. (Panasonic), 1 Kotari-Yakemachi, Nagaokakyo, Kyoto 617, Japan	
	90144— MITJ	—	Mitsubishi Electric Corp., Kita-Itami Works, 4-1 Muzuhara, Itami-Shi, Hyogo-Ken, Post Code 664, Japan	
	50364— MMI	*—	Monolithic Memories, Inc., 1165 E. Arques Ave., Sunnyvale, CA	94086
	33214— MON	—	Aydin-Monitor, 401 Commerce Dr., Fort Washington, PA	19034
	50088— MOS	*—	Mostek Corp., 1215 W. Crosby Rd., Carrollton, TX	75000
CGG —	04713— MOTA	*—	Motorola Semiconductor Products, Inc., 5005 E. McDowell Rd., HO500, Phoenix, AZ	85017
	51284— MTY	*—	MOS Technology, Inc., Valley Forge Corporate Ctr., 950 Rittenhouse Rd., Norristown, PA	19401
	92726— MULB	*—	Mullard Ltd., Mullard House, Torrington Pl., London WC1E 7HD, England	
	94091— NECJ	*—	Nippon Electric Co., Ltd., 1753 Shimonumabe, Nakahara-ku, Kawasaki, Japan	

* — See Section 26 for
Manufacturers Logos

Manufacturers shown in bold print have local offices,
which are included in Section 24 of this D.A.T.A. BOOK

25. MANUFACTURERS CODES, NAMES & ADDRESSES



MANUFACTURERS' CODES, NAMES, AND ADDRESSES

QPL MFR. DESIG.	FSCM No.	DATA MFRS. CODE	MANUFACTURERS' CODES, NAMES, AND ADDRESSES
		NECM	*- NEC Microcomputers, Inc., Five Militia Dr., Lexington, MA 02173
	54335	NIT	*- Nitron, 10420 Bubb Rd., Cupertino, CA 95014
	08257	NPC	*- Nucleonic Products Co., Inc., 6660 Variel Ave., Canoga Park, CA 91304
CCXP	27014	NSC	*- National Semiconductor Corp., 2900 Semiconductor Dr., Santa Clara, CA 95051
	S4071	OKIJ	- OKI Electric Industry Co., Ltd., Electronic Prod. Sec. Intl. Div., 10-3 Shibaura 4-chome, Minato-ku, Tokyo 108, Japan
	08967	PHIN	- N. V. Philips Gloeilampenfabrieken, Product Div., Elcoma, Bldg. BA, Eindhoven, Netherlands
	K0467	PLSB	- Plessey Semiconductors, Cheney Manor, Swindon, Wiltshire, England
		RAG	- Ragen Semiconductor, Inc., 53 So. Jefferson Rd., Whippany, NJ 07981
CRC	02735	RCA	*- RCA Corporation, Solid State Div., Route 202, Somerville, NJ 08876
	12556	RTCF	- R. T. C. LaRadiotechnique-Compelec, 130, Ave. Ledru-Rollin, 75540 Paris Cedex 11, France
CRP	07933	RTN	*- Raytheon Company, 350 Ellis St., Mountain View, CA 94042
	A3500	SGAI	*- SGS-ATES Componenti Elettronici S.p.A., Via C. Olivetti 2, 20041 Agrate Brianza, Milan, Italy
CDKB	18324	SIC	- Signetics Corp., 811 E. Arques Ave., Sunnyvale, CA 94086
	92346	SIEG	*- Siemens Aktiengesellschaft, Semicon. Div., Balanstrasse 73, D8000, Munich 8, Germany
		SMI	*- EMM/SEMI, A Sub. of Electronic Memories, 3883 No. 28th Ave., Phoenix, AZ 85017
CDGD	22229	SOD	*- Solitron Devices, Inc., 8808 Balboa Ave., San Diego, CA 92123
	31019	SSS	*- Solid State Scientific, Inc., Montgomeryville, PA 18936
		SST	*- Solid State, Inc., 46 Farrand St., Bloomfield, NJ 07003
	27318	SWM	- Stewart-Warner Microcircuits, Inc., 730 E. Evelyn Ave., Sunnyvale, CA 94086
CCAB	03877	TEC	- Transatron Electronic Corp., 168-182 Albion St., Wakefield, MA 01880
	F5602	THCF	- Thomson CSF, Div. Semiconducteurs SESCOSEM, 50 rue Jean Pierre Timbaud, BP120, 92403 Courbevoie, France
CGO	01295	TII	*- Texas Instruments, Inc., Components Group, P.O. Box 5012, Dallas, TX 75222
		TRW	- TRW Monolithic IC's, 300 W. "O" St., Ogalalla, NB 69153
	15818	TSC	*- Teledyne Semiconductor, 1300 Terra Bella Ave., Mountain View, CA 94043
	D2540	VALG	- Valvo GmbH, P.O. Box 993, D2000, Hamburg 1, Germany
		WDC	*- Western Digital Corp., 3128 Red Hill Ave., Box 2180, Newport Beach, CA 92663
	07764	WLD	*- Wyle Computer Products, 3200 Magruder Blvd., Hampton, VA 23666

* - See Section 26 for
Manufacturers Logos

Manufacturers shown in bold print have local offices,
which are included in Section 24 of this D.A.T.A.BOOK

26. MANUFACTURERS LOGOS

IN MFR.
CODE ORDER



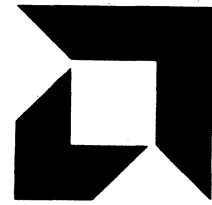
TFK

(Product Identifier)

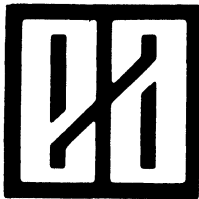
ALGG – AEG-Telefunken



AMI – American Microsystems, Inc.



AMV – Advanced Micro Devices, Inc.



EAI – Electronic Arrays, Inc.



FCAJ – Fujitsu Ltd.



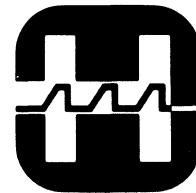
FERB – Ferranti, Ltd.



FSC – Fairchild Semiconductor



GIC – General Instrument Corp.



HAS – Harris Semiconductor

26. MANUFACTURERS LOGOS

IN MFR.
CODE ORDER



HITJ – Hitachi, Ltd.



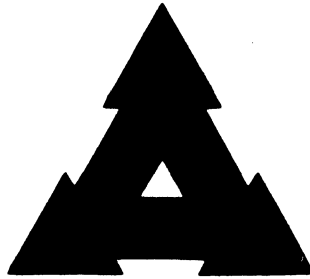
INL – Intersil, Inc.



ITL – Intel Corp.



ITT – ITT Semiconductors



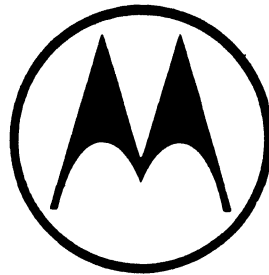
MATJ – Matsushita Electronics Corp.



MMI – Monolithic Memories, Inc.



MOS – Mostek Corp.



MOTA – Motorola Semiconductor Products, Inc.



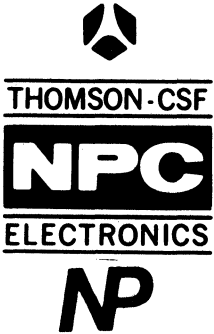








MTY – MOS Technology Inc.



MULB – Mullard Ltd.

26. MANUFACTURERS LOGOS IN MFR.
CODE ORDER

 <p>NECJ – Nippon Electric Co., Ltd.</p>	<p>NEC microcomputers, inc.</p> <p>NECM – NEC Microcomputers, Inc.</p>	 <p>A DIVISION OF MCDONNELL DOUGLAS CORPORATION</p> <p>NIT – Nitron</p>
 <p>(Product Identifier)</p> <p>NPC – Nucleonic Products Co., Inc.</p>	 <p>NSC – National Semicon. Corp.</p>	 <p>RCA – RCA Corp., Solid State Div.</p>
 <p>RTN – Raytheon Company</p>	 <p>SGAI – SGS-ATES Componenti Elettronici S.p.A.</p>	<p>SIEMENS</p> <p>SIEG – Siemens Aktiengesellschaft, Semiconductor Div.</p>
	 <p>Unique Semiconductor Identifier</p>  <p>SMI – Semi, Inc., A Div. of E.M.& M. Corp.</p>	

26. MANUFACTURERS LOGOS

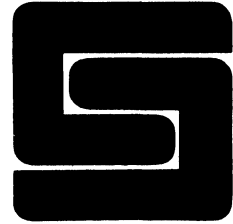
IN MFR.
CODE ORDER



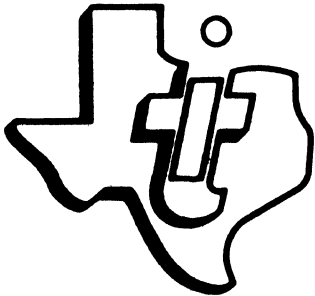
SOD – Solitron Devices, Inc.



SSS – Solid State Scientific, Inc.



SST – Solid State, Inc.



TII – Texas Instruments, Inc.



TSC – Teledyne Semiconductor



WDC – Western Digital Corp.

WYLE COMPUTER PRODUCTS
A DIVISION OF WYLE LABORATORIES

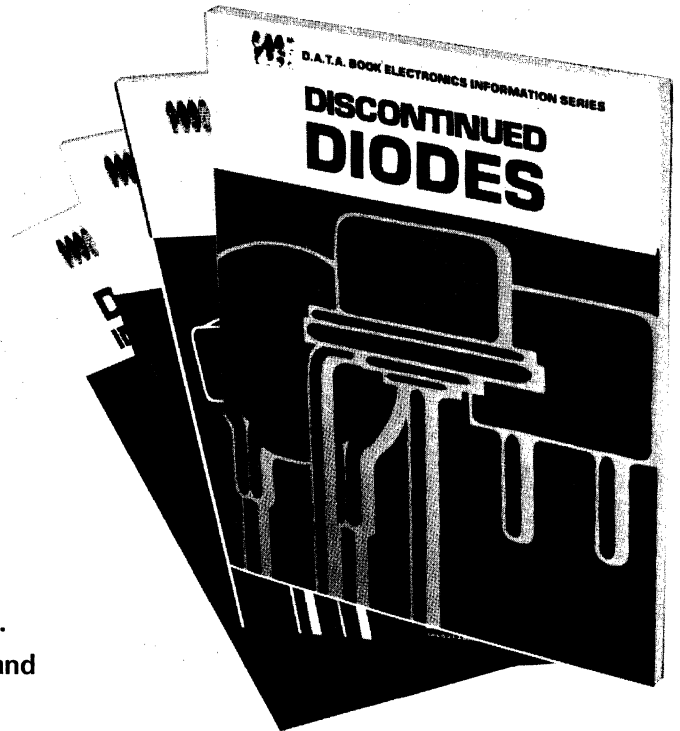
WLD – Wyle Computer Products

How to find replacements

Compare electrical characteristics — not just type numbers!

Substituting for an obsolete device by type number alone can be difficult, frustrating and downright dangerous to equipment. You need the complete electrical and physical characteristics of the obsolete device to be sure of your substitution. And that's what the four D.A.T.A.BOOKS of discontinued devices give you.

They are the only comprehensive sources for information on devices no longer manufactured. The technical data presentation coincides with that of the current D.A.T.A.BOOK in the same field, providing you with the fastest, most accurate method of selecting optimum substitutions and replacements for discontinued types. All ex-manufacturers are identified. Each book is updated and published annually.



D.A.T.A.BOOK OF DISCONTINUED TRANSISTORS

More than 11,500 types — along with characteristics — which have become obsolete since 1956.

Technical data presentation coincides with that of the TRANSISTOR D.A.T.A.BOOK to facilitate substitutions. Together they provide the fastest, most accurate method of selecting optimum replacement for discontinued types.

\$20.50

D.A.T.A.BOOK OF DISCONTINUED THYRISTORS

Provides you with technical information on SCR's and PNP devices which are no longer manufactured. 7100 discontinued SCR's from all known manufacturers which appeared at any time in the THYRISTOR D.A.T.A.BOOK.

\$15.50

D.A.T.A.BOOK OF DISCONTINUED INTEGRATED CIRCUITS

More than 18,000 worldwide Digital and Linear IC's — along with characteristics — which have become obsolete since 1965 — are included. Technical presentation coincides with that of the DIGITAL IC, LINEAR IC and MEMORY D.A.T.A.BOOKS to facilitate substitution and replacement.

\$20.50

D.A.T.A.BOOK OF DISCONTINUED SEMICONDUCTOR DIODES

Facilitates substitution when used with the SEMICONDUCTOR DIODE D.A.T.A.BOOK. Lists over 24,000 types no longer manufactured — reference diodes, general purpose, standard/fast recovery rectifiers, MW mixer and video detectors, varactors, tunnel diodes and more. A "must" for complete replacement data.

\$20.50

Check your needs and order on THE D.A.T.A.BOOKS order card in front of book.

CORDURA

D.A.T.A., INC.

A Cordura Company

45 U.S. Highway 46
Pine Brook, New Jersey 07058
Telephone 201-227-3740

INTERPRETER SYMBOLS & CODES

TYPE No. CROSS INDEX & TECHNICAL SECTIONS

△ Indicators of separate manufacturers producing same type number (non-JEDEC) whose characteristics are not the same.
 # This manufacturer-identifying symbol (assigned by D.A.T.A.) is an integral part of the type number (in Type No. Cross Index, Technical Data Sections) to avoid the possibility of confusing the device of one manufacturer with the devices of the others.

Example:	Type No.	Manufacturer	Description
(simulated information)	DD31	CCD	Shift Register
	DD31	CLC	RAM
	DD31	ZEL	ROM

1, #2... The modifier is designated by D.A.T.A. to distinguish between type no. designations which give only one type no. but have more than one electrical function or package.
 %... (Sect. 4 & 6) Device requires companion device to complete code; see logic drawing.
 - PR... Suffix indicates device is a preliminary type.
 - RT... Suffix indicates device is a replacement type.

LINE NO.
▼ - New Type
◆ - Revised Specification
- Manufactured Outside U.S.A.

SYMBOLS & CODES COMMON TO ALL TECHNICAL SECTIONS

NOTE: UNLESS OTHERWISE INDICATED, ALL CHARACTERISTICS APPLY OVER THE ENTIRE OPERATING TEMPERATURE RANGE.

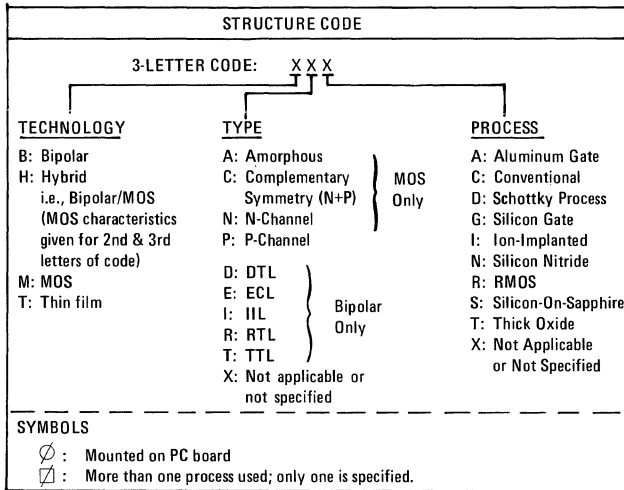
MAX. OPERATING POWER DISSIPATION
† - Typical
* - Minimum
% - Per bit
◆ - Quiescent power dissipation
◇ - Absolute maximum
∅ - At 25°C

INPUT LOGIC LEVEL: MAX. '0'
† - Typical
* - Minimum
% - Output (not Input) value given. (This also applies for value given for '1' level.)
◆ - Bipolar load only; can be adjusted for the MOS load. (Applies for '1' level value, also)
∅ - At 25°C

MINIMUM OUTPUT SINK CURRENT
† - Typical
- Maximum
◆ - Minimum output source current
◇ - Minimum output high current
△ - Maximum output leakage current
∅ - Minimum driving (fanout) current
◇ - Absolute max. rated output current
∅ - At 25°C

OUTLINE DRAWINGS
CY - TO 5-type (non-JEDEC)
CH - Chip Package
FL - Flat package (non-JEDEC)
ML - Molded or encapsulated package not included in other categories.
MO - Standard JEDEC outline
PL - Printed circuit board
TO - Standard JEDEC outline
☑ - Package style only shown; no dimensions.

LOGIC/BLOCK DRAWINGS	
A - RAMs	E - Code Converters
B - ROMs	F - Shift Registers
C - Character Generators	Z - Special Devices
§ - Optional Terminal Connections available; consult manufacturer	



OPERATING TEMPERATURE CODE

0 - 0 up to 10°C	▼ - USED IN NEGATIVE COLUMN TO INDICATE VALUE IS POSITIVE
1 - 10 up to 20°C	
2 - 20 up to 30°C	EXAMPLES OF OPERATING TEMP. RANGE CODE:
3 - 30 up to 40°C	
4 - 40 up to 50°C	5 C
5 - 50 up to 60°C	Min. value Lies between -50°C and -60°C
6 - 60 up to 70°C	Max. value Lies between +120°C and +130°C
7 - 70 up to 80°C	O R
8 - 80 up to 90°C	1 ▼ 8
9 - 90 up to 100°C	Min. value Lies between +10°C and +20°C
A - 100 up to 110°C	Max. value Lies between +80°C and +90°C
B - 110 up to 120°C	
C - 120 up to 130°C	
D - 130 up to 140°C	
E - 140 up to 150°C	
F - 150 up to 160°C	
G - 160 up to 170°C	
H - 170 up to 180°C	
J - 180 up to 190°C	
K - 190 up to 200°C	

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1) No. WORDS (2) No. BITS/WORD (3) MODE (4) STRUCTURE (5) MAX. ACCESS TIME (6) TYPE No. DRAWINGS

LINE No.	TYPE No.	ORGANIZATION		STRUCTURE CODE	MAX. ACCESS TIME (s)	MAX. WRITE CYCLE TIME (s)	MAX. OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN. OUTPUT SINK CURRENT (A)	MIN. CLOCK FREQ. (Hz)	OPER. TEMP. RANGE (°C)	LOGIC/BLOCK	OUTLINE
		No. WORDS	2 BITS PER WORD					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					
3	4	5	7	8	10	11	13	15	16							

3 § - No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
 § - More than one circuit

4 § - No. of bits/word variable
 △ - Multi-word output

• SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

▼ TYPE NO. SYMBOLS AND CODES AT TOP OF INTERPRETER CARD

5 LETTER
 D - Dynamic
 S - Static

SYMBOL
 % - Type can be operated in either mode (dynamic or static); listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
 § - Multifunction circuit; see circuit diagram

7 † - Typical
 * - Minimum
 § - Propagation delay
 ∅ - At 25°C
 ◆ - Other than 25°C

8 † - Typical
 * - Minimum
 § - Min. write-pulse width
 △ - Max. read-write cycle time
 ∅ - At 25°C
 % - Sum of min. write-pulse width and max. write-pulse delay time

10 11 # - Absolute max.

13 † - Typical
 # - Maximum
 △ - Open collector/drain output
 § - Three-state output

15 ◆ - V_{in}

16 † - Typical
 # - Maximum
 △ - Max. refresh time (inverted)
 ∅ - At 25°C

NOTE: This column applies for dynamic (not static) devices.

INTERPRETER SYMBOLS & CODES

3. READ ONLY MEMORIES (ROMS)

LINE No.	TYPE No.	ORGANIZATION		OP. MODE	MAX. ACCESS TIME (s)	MAX. OPER. POWER DISS. (W)	RATED POWER SUP. SPAN	INPUT LOGIC LEVELS		MIN. OUTPUT SINK CURRENT (A)	OPER. TEMP. RANGE (°C)	GENERAL DESCRIPTION	DRAWINGS	
		No. WORDS	PER WORD					MAX. '0'	MIN. '1'				LOGIC BLOCK	OUTLINE
3	▼	3	4	5	7	9	10	12	14	17				

3 \$ - No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
§ - More than one circuit

4 \$ - No. of bits/word is variable

14 ◆ - V_{in}

5 2-LETTER CODE: X X

<p>OPERATING MODE</p> <p>D: Dynamic (see description column for max. refresh time or min. clock freq.)</p> <p>S: Static</p>	<p>PROGRAM CODE</p> <p>C: Mask programmable: custom program</p> <p>E: Electrically programmable</p> <p>S: Mask programmable: standard program (see the description column for program).</p>
--	--

SYMBOLS

‰: Type can be operated in either mode (dynamic or static): listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type number; see Cross Index.

7 † - Typical
* - Minimum
\$ - Propagation delay
Δ - Cycle time
⊕ - At 25°C
◆ - Other than 25°C

17 PR - Program
fc - Min. clock frequency
TR - Max. refresh time
Vol - Volatile
FO - Fanout
CS - Chip select
Std - Standard
KE - Key encoder
TA - Transistor Array device
RMM - Read mostly memory
PLA - Programmable Logic Array - no. of words represents no. of product terms
EPROM - Electrically programmable ROM

9 10 # - Absolute max.

12 † - Typical
- Maximum
Δ - Open collector/drain output
§ - Three-state output

4. CHARACTER GENERATORS

LINE No.	TYPE No.	USE CODE	No. CHARACTERS	BITS PER CHAR.	No. OUTPUTS	STRUCTURE CODE	MAX. ACCESS TIME (s)	MAX. OPER. POWER DISS. (W)	RATED POWER SUP. SPAN	INPUT LOGIC LEVELS		MIN. OUTPUT SINK CURRENT (A)	OPER. TEMP. RANGE (°C)	DRAWINGS
										MAX. '0'	MIN. '1'				LOGIC BLOCK	OUTLINE
3	▼	3	4	5	6	8	10	11	13	15				

3 3-LETTER CODE X X X

FONT

<p>OPERATING MODE</p> <p>D: Dynamic</p> <p>S: Static</p>	<p>A: ASCII</p> <p>B: Alpha</p> <p>C: Custom</p> <p>E: EBCDIC</p> <p>H: Hollerith (compressed)</p> <p>N: Numeric</p> <p>S: Selectric</p>	<p>DISPLAY</p> <p>A: Row or Column scan</p> <p>C: Raster: Column Scan</p> <p>R: Raster: Row Scan</p> <p>S: Segment or dot</p> <p>T: CRT</p>
---	--	--

SYMBOLS

§ - Does not scan complete line; scans characters by sections

☐ - Scans two lines at the same time.

‰ - Operates in more than one mode; indicated by the addition of D.A.T.A. modifier (#1, #2, etc.) to type number

\$ - Includes Japanese font

⊕ - Includes Greek font

4 \$ - No. of characters variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type number.
☐ - No. shown represents only half of complete code; other half is generated by companion device.

8 † - Typical
* - Minimum
\$ - Propagation delay
Δ - Cycle time
⊕ - At 25°C
◆ - Other than 25°C

5 \$ - No. of bits/character is variable.
☐ - Two devices required to generate complete scan.
§ - No. of bits/character includes shift control.

10 11 # - Maximum

6 LETTER CODE:
A: 7 x 8 Array

13 † - Typical
- Maximum
Δ - Open collector/drain output
§ - Three-state output

SYMBOLS:
§ : Individual characters scanned by one-half the outputs

15 ◆ - V_{in}

• SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

▼ TYPE NO. SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER CARD

INTERPRETER
SYMBOLS & CODES

**SYMBOLS & CODES COMMON
TO ALL TECHNICAL SECTIONS**

LINE NO.
▼ - New Type
◆ - Revised Specification
- Manufactured Outside U.S.A.

NOTE: UNLESS OTHERWISE INDICATED, ALL CHARACTERISTICS APPLY OVER THE ENTIRE OPERATING TEMPERATURE RANGE.

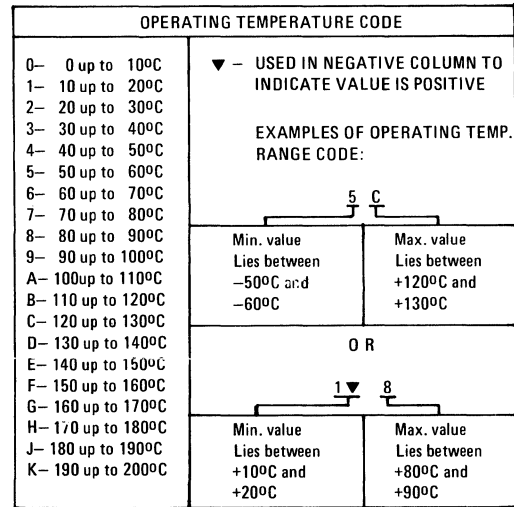
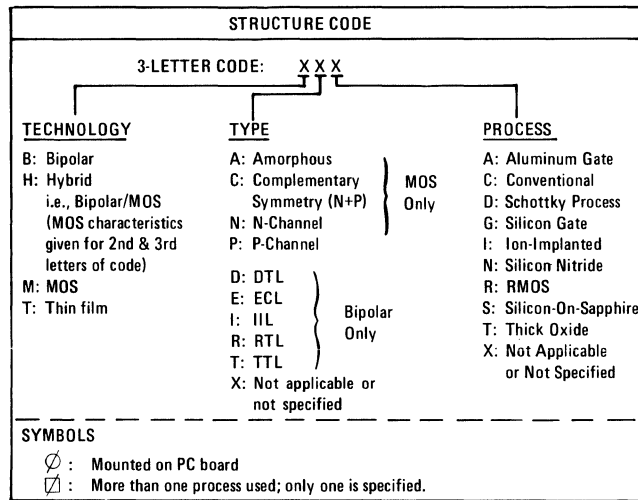
OUTLINE DRAWINGS	
CY	- TO 5-type (non-JEDEC)
CH	- Chip Package
FL	- Flat package (non-JEDEC)
ML	- Molded or encapsulated package not included in other categories.
MO	- Standard JEDEC outline
PL	- Printed circuit board
TO	- Standard JEDEC outline
☑	- Package style only shown; no dimensions.

MAX. OPERATING POWER DISSIPATION
† - Typical
* - Minimum
% - Per bit
◆ - Quiescent power dissipation
☑ - Absolute maximum
⊘ - At 25°C

INPUT LOGIC LEVEL: MAX. '0'
† - Typical
* - Minimum
% - Output (not Input) value given. (This also applies for value given for '1' level.)
◆ - Bipolar load only; can be adjusted for the MOS load. (Applies for '1' level value, also)
⊘ - At 25°C

MINIMUM OUTPUT SINK CURRENT
† - Typical
- Maximum
\$ - Minimum output source current
△ - Minimum output high current
◆ - Maximum output leakage current
% - Minimum driving (fanout) current
☑ - Absolute max. rated output current
⊘ - At 25°C

LOGIC/BLOCK DRAWINGS	
A - RAMs	E - Code Converters
B - ROMs	F - Shift Registers
C - Character Generators	Z - Special Devices
§ - Optional Terminal Connections available; consult manufacturer	



6. CODE CONVERTERS

LINE No.	TYPE No.	CONVERSION CODE	No. WORDS	No. CODE BITS	M O D	STRUC TURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT CURRENT (A)	OPER. TEMP. RANGE CODE	LOGIC/BLOCK DRAWINGS
									NEG. (V)	POS. (V)	MAX (V)	MIN (V)			
3	4	5	6	7	8	10	12	13	15	17					

3 4 NUMBER:

- 1 - USASCII
- 2 - EBCDIC
- 3 - Selectric
- 4 - BCD
- 5 - Binary
- 6 - Hollerith
- 7 - 96-column
- 8 - Key Encoded
- 9 - Custom
- 10 - Baudot
- 11 - EIA RS244A

SYMBOL: ("From" column)

% - Device has more than one conversion capability; listed on separate lines.

5

- \$ - No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
- § - More than one circuit
- ◆ - No. of words per separate code conversion

6 7

- ☑ - Includes even parity bit
- ⊘ - Includes odd parity bit
- § - Includes both odd and even parity bits

8

- LETTER**
- D - Dynamic
 - S - Static

SYMBOL

- % - Type can be operated in either mode (dynamic or static); listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.

10

- † - Typical
- * - Minimum
- \$ - Propagation delay
- △ - Cycle time
- ⊘ - At 25°C
- ◆ - Other than 25°C
- % - Key bounce delay

12 13

- # - Absolute max.

15

- † - Typical
- # - Maximum
- △ - Open collector/drain Output
- § - Three-state output

17

- ◆ - V_{in}

• SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

▼ TYPE NO. SYMBOLS AND CODES AT TOP OF INTERPRETER CARD

INTERPRETER SYMBOLS & CODES

7. SHIFT REGISTERS

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX. WORST CASE FREQ. (Hz)	MAX. STRUCTURE CODE	MAX. OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX. PROP. DELAY (s)	MIN. OUTPUT SINK CURRENT (A)	MIN. OPER. CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1. BITS PER REGISTER	2. No. REGS					NEG. (V)	POS. (V)	MAX. '0' (V)	MIN. '1' (V)					LOGIC/BLOCK	OUTLINE
3	4	5	6	9	10	12	13	15	16								

IN ORDER OF: (1) No. BITS/REG (2) No. REGISTERS (3) OP. CODE (4) MAX. W/C FREQ. (5) STRUCTURE CODE (6) TYPE No.

- 3** ‡ - No. of bits/register made variable by internal gating
- § - Individual registers contain different numbers of bits; max. no. is specified (see schematic)
- △ - Accumulator
- ◻ - No. of bits/register made variable by custom programming; max. no. is specified

- 4** ‡ - Separate input and/or output is made available for connection to intermediate stages

- 6** † - Typical
- * - Minimum
- △ - Max. clock rate
- ⊘ - Max. toggle freq.
- ⊘ - At 25°C
- ◻ - Data repetition rate

- 9 10** # - Absolute max.

- 12** † - Typical
- # - Maximum
- △ - Open collector/drain output
- § - Three-state output

- 13** † - Typical
- * - Minimum
- △ - Transition time
- § - Average propagation delay
- ⊘ - At 25°C
- ◻ - Read Access Time

- 15** ◆ - V_{in}

- 16** † - Typical
- # - Maximum
- △ - Max. refresh time (inverted)
- ⊘ - At 25°C

NOTE: This column applies for dynamic (not static) devices

5 3-LETTER CODE: X X X

INPUT P: Parallel S: Series	OUTPUT P: Parallel S: Series	OPERATING MODE D: Dynamic S: Static C: Charge Coupled (CCD)
--	---	---

SYMBOLS

- ‡ - Chip contains associated circuitry
- § - Multifunction circuit; application depends on external connections
- ⊘ - Type can be used in either dynamic or static mode; listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no. (see Cross Index)
- ▼ - FIFO Memory (1st In, 1st Out)
- * - Device contains additional memory storage (see logic diagram)

20. SPECIAL MEMORY DEVICES

LINE No.	TYPE No.	FUNCTION CODE	ORGANIZATION		MODESTRUC. CODE	MAX. ACCESS TIME (s)	MAX. OPER. PWR. DISS. (W)	RATED PWR. SUPPLY SPAN		INPUT LOGIC LEVELS		MIN. SINK CURRENT (A)	OUTPUT TEMP. RANGE CODE	GENERAL DESCRIPTION	LOGIC/BLOCK	OUTLINE
			1. No. WORDS	2. No. WORDS				3. BITS per WORD	4. OP. CODE	5. PROG. CODE	NEG. (V)						POS. (V)	MAX. '0' (V)	MIN. '1' (V)
3	4	5	6	8	10	11	13	15	18							

IN ORDER OF: (1) FUNCTION CODE (2) NO. WORDS (3) BITS/WD (4) OP. MODE (5) STRUCTURE CODE (6) TYPE NO.

- 3** ATN - Arc Tan
- CAM - Content Addressable Memory (CAM)
- COS - Cosine
- MUL - Multipliers
- PLA - Programmable Logic Array (PLA)
- QBF - Quick Brown Fox
- RYG - Rhythm
- SCN - Sine-Cosine
- SIN - Sine
- TRA - Transistor Array
- SYS - Special Memory Systems and Subsystems

- 4** ‡ - No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
- § - More than one circuit

- 5** ‡ - No. of bits/word is variable

6 2-LETTER CODE: X X

OPERATING MODE D: Dynamic (see description column for max. refresh time or min. clock freq.) S: Static	PROGRAM CODE C: Mask programmable: custom program E: Electrically programmable S: Mask programmable: standard program (see the description column for program) W: Addressable writing
---	--

SYMBOLS

- ⊘ : Type can be operated in either mode (dynamic or static); listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type number; see Cross Index.

- 8** † - Typical
- * - Minimum
- § - Propagation delay
- △ - Cycle time
- ⊘ - At 25°C
- ◆ - Other than 25°C

- 10 11** # - Absolute max.

- 13** † - Typical
- # - Maximum
- △ - Open collector/drain output
- § - Three-state output

- 15** ◆ - V_{in}

- 18** RHY - Rhythms
- VAR - Variable
- VOL - Volatile

• SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

▼ TYPE NO. SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER CARD

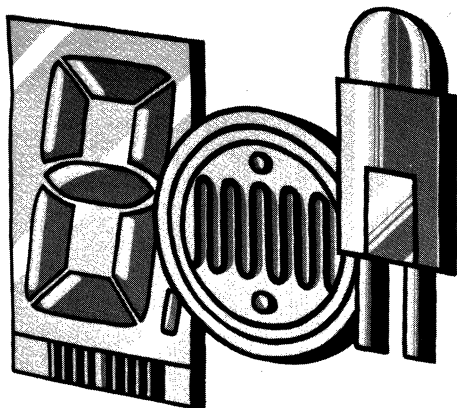
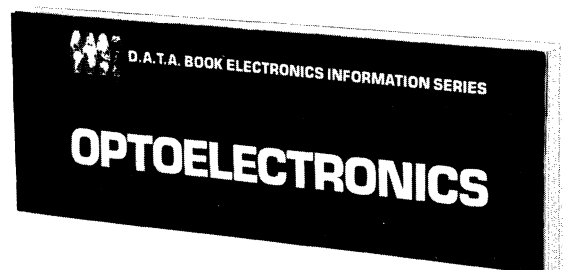
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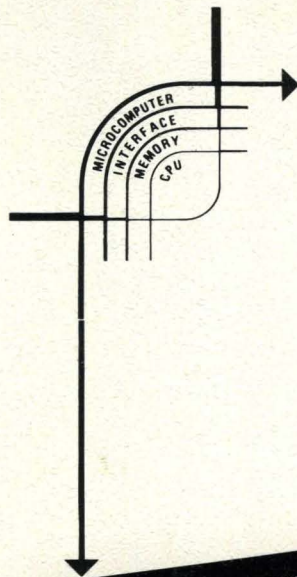
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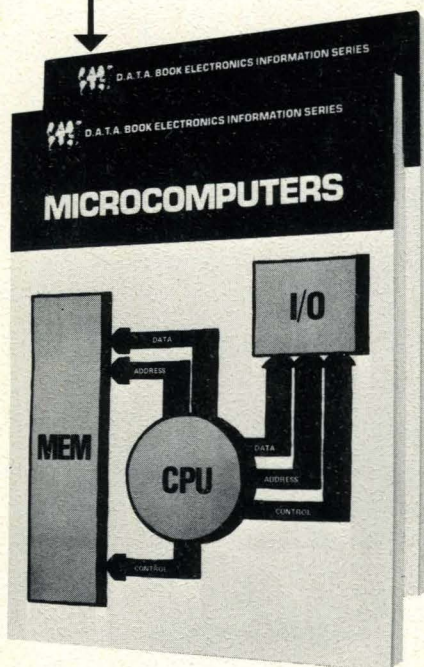
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