VOLUME 26 BOOK 37
DECEMBER 1981

MICROCOMPUTER SYSTEMS

JANUARY 1982 THROUGH JUNE 1982 — EDITION 2

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ELECTRONIC INFORMATION SERIES

VOLUME 26 BOOK 37
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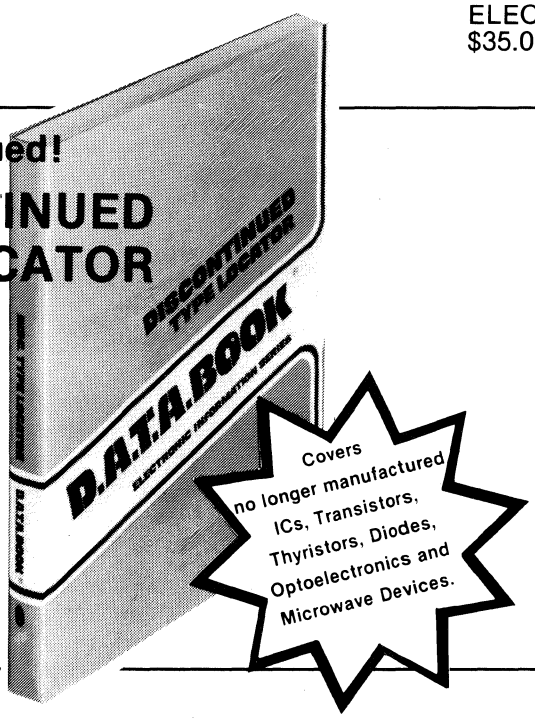

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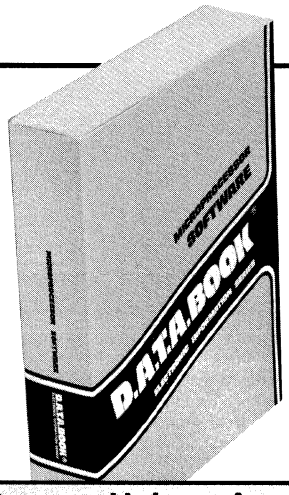

ENGINEERING MICROPROCESSOR SOFTWARE D.A.T.A.BOOK

Features a Unique Application and Microprocessor Organization:

- **Organized by package and processor to give you side by side comparison of packages that will work on your hardware.**
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(See the back of this card for illustrative examples.)

Software searches, comparisons and selections can now be as simple, quick and sure as those for hardware.

D.A.T.A., Inc. has applied its unique data selection and organization skills to this growing area to make this new information service possible. However, textual material has been greatly expanded giving you the most information possible while preserving D.A.T.A.'s unique method of standardizing information. The result is easy comparison of packages.

How Software Data is Organized

This wealth of software data is organized exactly as your design: It is sorted by general type of software package, with the package identified by the microprocessor upon which it will operate, then by the manufacturer's title.

'For example, if you require a debugging package to operate on a 6800 processor, you turn to the debugging package index. There locate the first 6800 processor. All specific programs, such as Operating Systems Assemblers Compilers, etc. are organized into sections. Alternately, you can turn to an index of 6800 software and find all available packages.

No other reference guide exists offering the same ease of comparison based upon this logical microprocessor organization.

Covers Packages of Interest to Engineers

Coverage is extensive, as you'll discover when you examine this new book. It puts detailed information at your fingertips on these general types of programs:

- Resident Software
- Cross System Software
- Systems Support Software
- Application Software

Extensive Information Provides Impartial Evaluation Aid

With this great quantity of coverage you also get data in depth. For example, depending upon the package, you can learn **merely at a glance:**

- ✔ Language
- ✔ ANSI Standard
- ✔ Language Extensions
- ✔ Software Requirements
- ✔ Date of Introduction
- ✔ Number of Installations
- ✔ Minimum and Maximum Word Length
- ✔ Memory Requirements
- ✔ Peripheral Requirements
- ✔ Support Available
- ✔ Vendor Name and Address
- ✔ and more

While D.A.T.A. continues its tradition of not evaluating items, information presented in the new software book can help you make judgements before expending any effort and money.

For instance, availability of documentation and user manuals will give you an idea of how much effort you must devote to making a program operational. Number of installations will provide insight to the popularity, and all that implies, of a program. Evaluative value of the other information will become apparent upon examination of the reference guide.

Profiles Vendors as Well as Gives Names and Addresses

Moreover, since packaged software production is a new field, with many "unknown" vendors and many more vendors sure to appear, this new D.A.T.A.BOOK gives detailed information on each company. Included is a summarization of packages available from each.

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Announcing the forthcoming publication of this new D.A.T.A.BOOK. It is organized by package and processor, enabling you to quickly identify software packages operating on your hardware.

Using expanded textual descriptions, it gives you details allowing you to determine operating language, language extensions, memory peripheral requirements and more. All data are presented in a standardized format to make comparisons easier. Full vendor reports are also given so you can decide intelligently among the many and growing sources of software packages.

GENERAL TYPES OF SOFTWARE PACKAGES REFERENCED:

- Resident Software
- Cross System Software
- System Support Software
- Application Software

Partial Vendor List:

Advanced Micro Devices
Digital Equipment Corp.
Fairchild/North America Sales
Hitachi, Ltd. Semicon & Integ. Cir.
Hughes Aircraft Co.
Intel Corporation
Mitsubishi Elect. Corp.
Motorola Semiconductor Products
RCA Corporation-Solid State Div.
Signetics Corporation
Tektronix, Inc.

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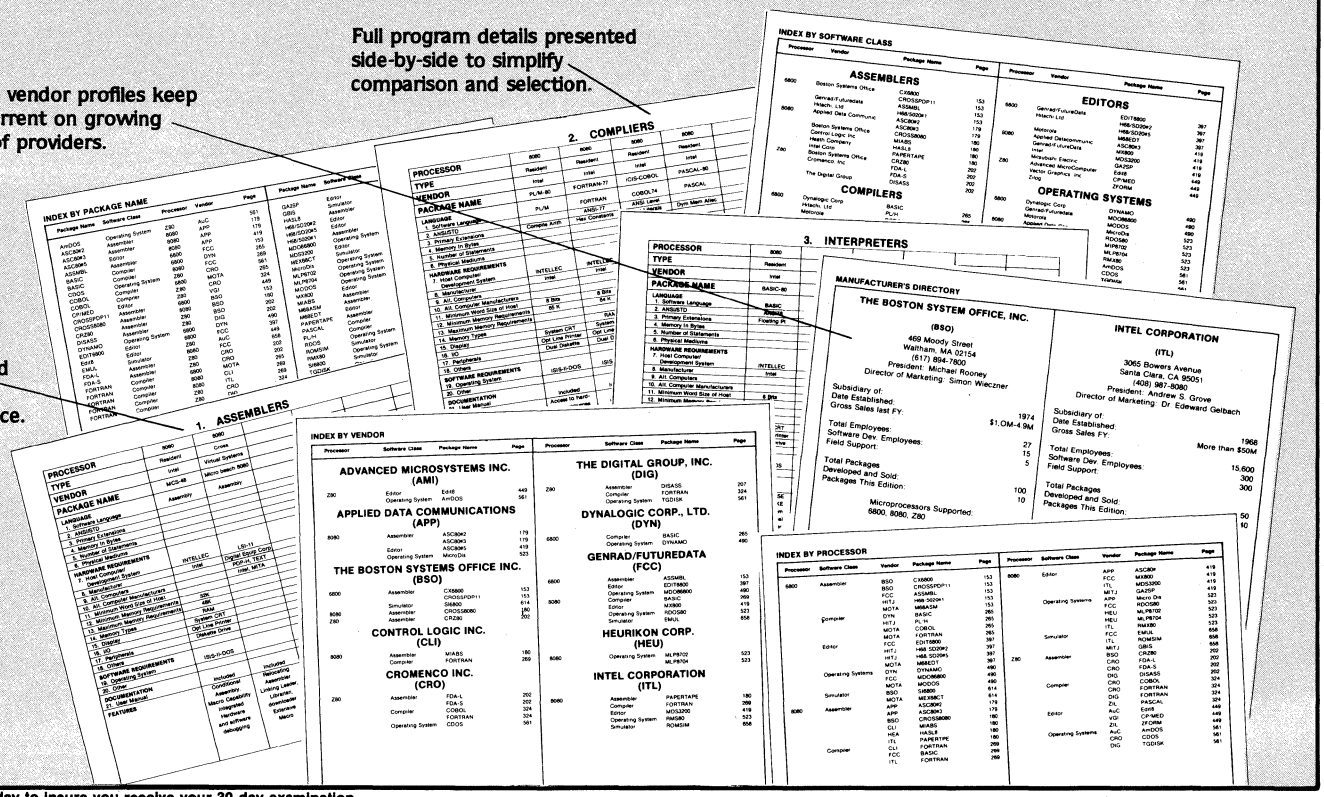

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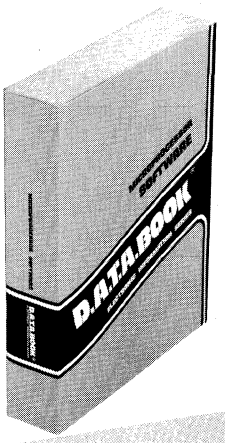

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ELECTRONIC INFORMATION SERIES

VOLUME 26 BOOK 37 DECEMBER 1981

MICROCOMPUTER SYSTEMS

JANUARY 1982 THROUGH JUNE 1982 — EDITION 2

1,911 TYPES 76 MANUFACTURERS

TABLE OF CONTENTS

EDITORIAL POLICY & PROCEDURES

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 micro-computer boards. While a book such as this can not 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.

BOOK ORGANIZATION

This book deals with the design level of board based products. It is currently limited to standard boards which mean that custom boards and boards designed for "unusual" bus structure will not be listed. The CPU section is organized by bus structure and microprocessor which will be reasonably close. This section lists all boards with processor capability from the CPU (Central Processing Unit) to the computer on a board. The support board sections are organized by function, bus structure and specific application. Another section of value at this design level is the enclosures. The drawing section of this book combines physical and block drawings in one place.

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.

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 and devices soon-to-be available 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.

HOW TO USE THIS BOOK

2 BASIC WAYS:

	If you know:	And need to know:	Read:
1	Electrical & mechanical requirements	A type number	Explanation 1
2	A type number	The electrical and/or mechanical characteristics or its circuit and outline configuration or who manufactures it or an equivalent type	Explanation 2

1

If you know: the electrical and mechanical requirements (including military):
And need to know: a suitable type number:

a. Select from the Table of Contents the Technical Section corresponding to the known device type.

b. Turn to that section. Symbols and codes used in these technical sections are explained in the "Interpreter" pages at the back of the book.

c. Notice the sequencing parameters in top right corner of the page

7. SUPPORT ENCLOSURES

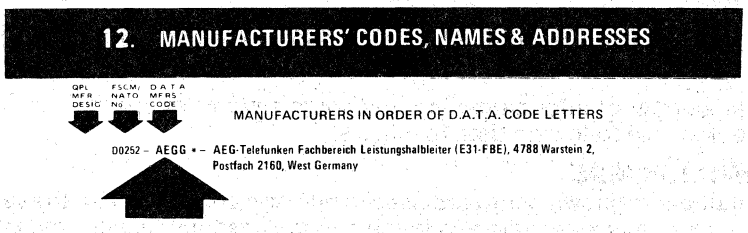
IN ORDER OF: (1)BUS CODE (2)NO.OF SLOTS (3)PWR. MAX. (4)VOLT MAX. (5)TYPE NUMBER

LINE No.	[5] TYPE NUMBER	[1] BUS CODE	[2] S #L OTS	[3] POWER SUPPLY PWR. MAX (W)	[4] VOLT MAX (V)	CURR MAX (A)	PHYSICAL DIMENSIONS INTERNAL HEIGHT (M)	INTERNAL WIDTH (M)	INTERNAL LENGTH (M)	EXTERNAL HEIGHT (M)	EXTERNAL WIDTH (M)	EXTERNAL LENGTH (M)	MFG. CODE	COMMENTS	DRAWING NUMBER
1▼	MSDATA1981	EXOR	2	16	2.0	0.5	5.75m	9.75					TEST	This Is a Test Enclosures	
2▼	MSDATA1985	LSI	5	4.0	3.0	2.5	9.22m	7.10					TEST		
3▼	MSDATA187	LSI	10	2.0	2.0	1.5	6.25m	8.20					TEST	This is Another Enclosure	

d. Locate the type numbers that are in general agreement with your requirements. Because of the sequencing these types will appear together; select your type number. Military types are prefaced with JAN.

e. If you need the manufacturer, use the manufacturer code from the Type Index page.

f. Turn to Section 12.



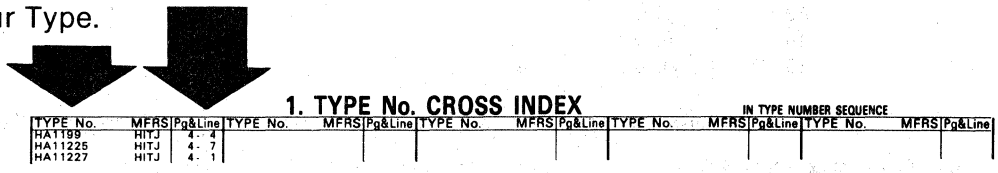
g. Find the manufacturer code and thus the name.

h. Local offices of the manufacturer can be found in Section 10 and the logo of the company in Section 11.

If you know: the type number (including military which has JAN prefix):
First: Turn to Section 1, the TYPE NUMBER CROSS INDEX and find your type number.

If you need to know:

a. The electrical characteristics:
Note the page and line number beside your Type.



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	TYPE No.	MFRS	Pg&Line
HA1199	HITJ	4- 4															
HA11225	HITJ	4- 7															
HA11227	HITJ	4- 1															

Locate that page and line number, and you will find the electrical characteristics.

or b. The circuit and outline drawings:
Those numbers are in the last column

6. MISCELLANEOUS BOARDS — IN ORDER OF: (1)BUS CODE (2)NOM. (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOM DE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	MISC SIG. LVLS	TYPES OF EQUIPMENT INTERFACED	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1▼	9010-6070	LSI	MIS	1	16					5.0	3.2	12	2.5		16	16	LVDT Input Module	DSI	
2▼	9010-6070#1	LSI	MIS	Amplifies Transducer Output Signals to Produce Full Scale ±10VDC at 10mA															
3▼	9010-6080	LSI	MIS	1	16					5.0	1.7	12	0.5		16	16	DC Strain Guage Module	DSI	

and the drawings are in section 9, numbered as indicated.

or c. Who manufactures it:
Use the manufacturer code

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	TYPE No.	MFRS	Pg&Line
HA1199	HITJ	4- 4															
HA11225	HITJ	4- 7															

and refer to Section 12 for complete manufacturer information.
Local offices are listed in Section 10. Logos are in Section 11.

or d. An equivalent type:
Survey the type numbers with similar electrical parameters surrounding the known number to determine the suitable alternatives.

Symbols and codes used in these technical sections are explained in the "Interpreter" pages at the back of the book.

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

Power	Prefix	Symbol
10^{12}	tera	T
10^{9}	giga	G
10^{6}	mega	M
10^{3}	kilo	k
10^{2}	hecto	h
10	deka	da
10^{-1}	deci	d
10^{-2}	canti	c
10^{-3}	milli	m
10^{-6}	micro	μ
10^{-9}	nano	n
10^{-12}	pico	p
10^{-15}	femto	f
10^{-18}	atto	a

Recommended by International Committee on Weights and Measures. Adopted by National Bureau of Standards

EXPLANATION

Value of Data To Be Entered	Basic Unit In Column Heading	Actual Entry
3 milliamperes	A (amperes)	3.0m
9 megaohms	Ω (ohms)	9.0M
0.5 volt	V (volts)	500m*
10 amperes	A (amperes)	10

*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.

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.

Note:
The symbols and codes used herein are explained on the Interpreter Pages in back of the book.

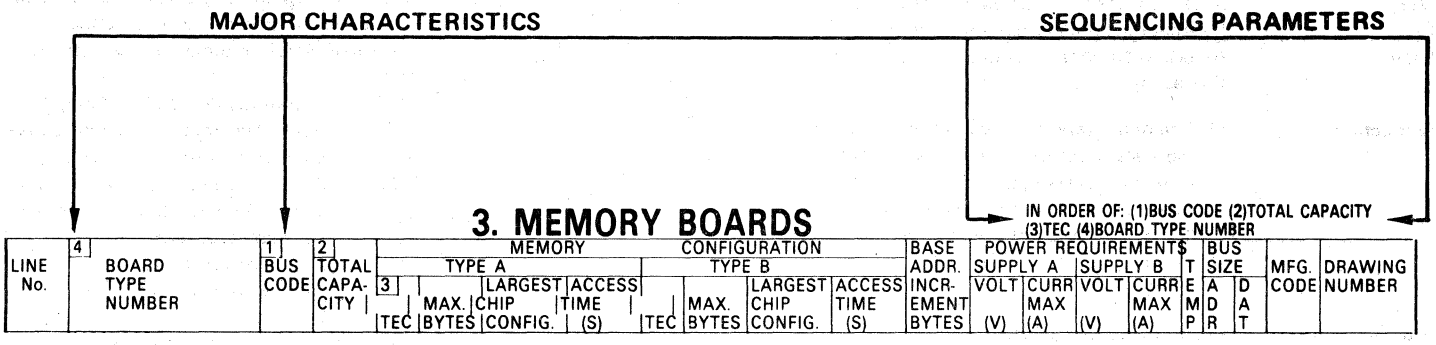
HOW TYPE NUMBERS ARE SEQUENCED IN THE TYPE NUMBER CROSS INDEX

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

Rules	Examples
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 indentified at the top 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 parameters. 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.

GENERAL TERMS AND DEFINITIONS

Address (ISO) A character or group of characters that identifies a register, a particular part of storage, or some other data source or destination. (ANDIP)

Addressing Modes The methods of specifying the location(s) of data or program segments in memory or other locations.

ANSI American National Standards Institution.
ISO International Standards Organization.
ANDIP American National Dictionary of Information Processing.

Architecture
(1) The organizational structure of a computing system, mainly referring to the CPU or microprocessor, but also including other hardware and software.
(2) The specification of the relationships between the parts of a computer system. (ANDIP).

Baud A unit of signalling speed equal to the number of discrete conditions or signal events per second. (ANDIP)
NOTE: For example, one baud equals one bit per second in a train of binary signals or one 3-bit value per second in a train of signals each of which can assume one of eight (2^3) different states.

Binary-Coded Decimal (BCD)
A number coding system in which each decimal digit is represented by a binary numeral (usually 4 bits). EXAMPLE: The decimal number 23 becomes the coded number 0010 0011 in BCD using the 8-4-2-1 binary code. (Abbreviated from ANDIP)

Bit In the pure binary numberation system, either of the digits 0 or 1. (ANDIP)
NOTE: Synonymous with binary digit. (ANDIP)

Byte A binary character string operated upon as a unit and usually shorter than a computer word. (ANDIP)
NOTE: A byte is usually 8 bits.

Central Processing Unit (CPU)
A unit of a computer that includes circuits controlling the interpretation and execution of instructions. Synonymous with central processor, main frame. (ANDIP)

Clock (ISO) A device that generates periodic signals from which synchronism may be maintained. (ANDIP)

Cycle (of a Memory) A sequence of operations necessary to perform one or more of the functions of the memory.
NOTE: The end of a cycle is to be understood as the earliest instant at which a subsequent cycle can start with correct functioning of the memory.

Data Bus A bus used to communicate data internally and externally to and from CPU, memory, and peripheral devices.

Direct Memory Access (DMA)
A method of inserting input/output data into storage or obtaining input/output data from storage directly, without involving the usual flow of data through the processor.

Dynamic (Read/Write) Memory
A read/write memory in which the cells require the repetitive application of control signals generated inside or outside the integrated circuit in order to retain stored data.
NOTE 1: The words "read/write" may be ommitted from the term when no misunderstanding will result.
NOTE 2: Such repetitive application of the control signals is normally called a refresh operation.
NOTE 3: A dynamic memory may use static addressing or sensing circuits.
NOTE 4: Contrast with static (read/write) memory.

Electrically Alterable Read-Only Memory (EAROM)
A synonym for an electrically erasable programmable read-only memory.

Electrically Erasable Programmable Read-Only Memory (EEPROM)
A reprogrammable read-only memory in which cells may be erased electrically and in which each cell may be reprogrammed electrically.

Erasable Programmable Read-Only Memory (EPROM)
A reprogrammable read-only memory in which all cells may be simultaneously erased using ultraviolet light and in which each cell may be reprogrammed electrically.

Handshaking A colloquial term that describes the method used by a modem (or other input-output device) to establish a communication link for eventual data transmission by means of a sequential acknowledgement of offer and acceptance.

Instruction (ISO) In a programming language, a meaningful expression that specifies one operation and identifies its operands, if any. (ANDIP)

Instruction Cycle The process of fetching an instruction from memory and executing it.

Jump (ISO) In the execution of a computer program, a departure from the implicit or declared order in which instructions are being executed. (ANDIP)
NOTE: This is sometimes referred to as unconditional branch or unconditional jump.

Loop (ISO) A set of instructions that may be executed repeatedly while a certain condition prevails. (ANDIP)
NOTE: In some implementations, no test is made to discover whether the condition prevails until the loop has been executed once.

GENERAL TERMS AND DEFINITIONS

Machine Cycle The basic central processing unit (CPU) cycle in which one basic machine instruction is completed.

NOTE 1: This includes, but is not limited to, operations wherein an address may be sent to memory and one word (data or instruction) may be read or written or in which a fetched instruction may be executed.

NOTE 2: One machine cycle is made up of several clock cycles.

Main Storage (ISO) A storage device whose storage cells can be addressed by a computer program and from which instructions and data can be loaded directly into registers from which the instructions can be executed or from which the data can be operated upon. (ANDIP) See mass storage.

NOTE: For microprocessors this is usually internal RAM and/or ROM.

Microcomputer A computer system whose central processing unit (CPU) is a microprocessor.

NOTE: A basic microcomputer includes a microprocessor, memory, and input/output facility, which may or may not be on one chip.

Modem A device that modulates and demulates signals transmitted over data communication facilities. (ANDIP)

NOTE: The word "modem" was derived from "modulator-demodulator".

Nibble A binary character string operated upon as a unit and shorter than a byte.

NOTE: A nibble is usually four bits.

Nonvolatile Memory A memory in which the data content is retained when power is no longer supplied to it

Peripheral Equipment (ISO) In a data processing system, any equipment, distinct from the central processing unit, that may provide the system with outside communication or additional facilities. (ANDIP)

Programmable Logic Array (PLA)
An array of logic elements whose interconnections can be programmed (usually mask-programmed, sometimes field-programmed) to perform a specific logic function.

NOTE: The PLA is typically a large AND gate driving a large OR gate.

Programmable Read-Only Memory (PROM)
A field-programmable read-only memory that can have the data content of each memory cell altered only once.

Random-Access Memory (RAM)
A memory that permits access to any of its address locations in any desired sequence with similar access time to each location.

NOTE: The term RAM, as commonly used, denotes a read/write memory.

Read (ISO) To acquire or to interpret data from a storage device, from a data medium, or from another source. (ANDIP)

Read-Only Memory (ROM)
A memory in which the contents are not intended to be altered during normal operation.

NOTE: Unless otherwise qualified, the term ROM implies that the data content is determined by the structure of the memory and is unalterable.

Serial Transmission The sequential transmission of the bits of a byte or word by transmitting on a single channel or bus line.

Stand-Alone System A system that is complete within itself and does not require connection to another computer system to operate.

Static (Read/Write) Memory
A read/write memory in which the data is retained in the absence of control circuits generated inside or outside the integrated circuit.

NOTE 1: The words "read/write" may be omitted from the term when no misunderstanding will result.

NOTE 2: A static memory may use dynamic addressing or sensing circuits.

NOTE 3: Contrast with dynamic (read/write) memory.

Universal Asynchronous Receiver Transmitter (UART)
Universal Synchronous Receiver Transmitter (USRT)
Universal Synchronous/Asynchronous Receiver Transmitter (USART)
A circuit used in asynchronous, synchronous, or synchronous/asynchronous, respectively, data communication applications to provide all the necessary logic to recover data in a serial-in, parallel-out fashion and to transmit data in a parallel-in, serial-out fashion.

NOTE: It is usually full-duplex, i.e., can transmit and receive simultaneously with the option to handle various data word lengths.

Vectored Interrupt An interrupt system in which each interrupt can be immediately serviced without having to determine which interrupt has occurred by polling.

Volatile Memory A memory in which the data content is lost when power is no longer supplied to it.

Word A character string or a binary element string that it is convenient for some purpose to consider as an entity. (ANDIP)

Write To make a permanent or transient recording of data in a storage device or on a data medium. (ANDIP)

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△-Registered with JEDEC by this manufacturer

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	DTL	29 - 67
ST-6800A2C	DTL	29 - 68
	DTL	29 - 69
ST-6800ADX32D		29 - 70
	DTL	
	DTL	29 - 71
ST-6800ADX32S		29 - 72
	DTL	
	DTL	29 - 73
ST-6800ADX48D		29 - 74
	DTL	
	DTL	29 - 75
ST-6800ADX48S		29 - 76
	DTL	
	DTL	29 - 77
ST-6800B1A	DTL	30 - 11
	DTL	29 - 78
	DTL	29 - 79
ST-6800B1B	DTL	30 - 12
	DTL	29 - 80
ST-6800B1C	DTL	30 - 13
	DTL	29 - 81
ST-6800B2A	DTL	30 - 14
	DTL	29 - 82
ST-6800B2B	DTL	30 - 15
	DTL	29 - 83
ST-6800B2C	DTL	30 - 16
	DTL	29 - 84
ST-6800C1A	DTL	30 - 17
	DTL	29 - 85
	DTL	29 - 86
ST-6800C1B	DTL	30 - 18
ST-6800C1C	DTL	30 - 19
	DTL	30 - 20
ST-6800C2A	DTL	30 - 21
	DTL	30 - 22
ST-6800C2B	DTL	30 - 23
	DTL	30 - 24
ST-6800C2C	DTL	30 - 25
	DTL	30 - 26
	DTL	30 - 27
ST-6800DA4A	DTL	30 - 35
	DTL	30 - 36
ST-6800DA8B	DTL	30 - 37
	DTL	30 - 38
ST-LSI12	DTL	31 - 71
	DTL	31 - 72
	DTL	31 - 73
ST-LSI16-S0P2		31 - 74
	DTL	
	DTL	31 - 75
ST-LSI16-S0X1		31 - 76
	DTL	
	DTL	31 - 77
ST-LSI16-S0X2		31 - 78
	DTL	
	DTL	31 - 79
ST-LSI16-S2X1		31 - 80
	DTL	
	DTL	31 - 81
ST-LSI16-S2X2		31 - 82
	DTL	
	DTL	31 - 83
	DTL	31 - 84
ST-LSI16D0D2	DTL	31 - 85
	DTL	31 - 86
ST-LSI16D0P1	DTL	31 - 87
	DTL	31 - 88
	DTL	31 - 89
ST-LSI16D2D1	DTL	32 - 20
	DTL	32 - 21
ST-LSI16D2D2	DTL	32 - 22
	DTL	32 - 23
ST-LSI16D2P1	DTL	32 - 24
	DTL	32 - 25
	DTL	32 - 26
ST-LSI16D2P2	DTL	32 - 27
	DTL	32 - 28
ST-LSI32-S0X2		31 - 90
	DTL	
ST-LSI32-S2P1		32 - 29
	DTL	
ST-LSI32-S2P2		32 - 30
	DTL	
	DTL	31 - 91
ST-LSI32S0D2	DTL	31 - 92
	DTL	31 - 93
ST-LSI32S0P1	DTL	31 - 94
	DTL	31 - 95
ST-LSI32S0P2	DTL	31 - 96
	DTL	31 - 97
ST-LSI32S0X1	DTL	33 - 63
ST-LSI32S2P1	DTL	32 - 32
	DTL	32 - 33
	DTL	32 - 34
ST-LSI32S2P2	DTL	32 - 35
	DTL	32 - 36
ST-LSI-ADX32S		31 - 99
	DTL	
ST-LSI-DA4A	DTL	32 - 50
	DTL	32 - 51
ST-LSI-DA4B	DTL	32 - 52
	DTL	32 - 53
ST-LSI-RLY	DTL	31-100
	DTL	31-101
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	BAPC	37 - 64
	BAPC	37 - 65
STD-CMEM	BAPC	20 - 73
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	BAPC	16 - 2
STD-CPIO	BAPC	37 - 66
	BAPC	37 - 67
	BAPC	37 - 68
STD-CSIO	BAPC	37 - 69
	BAPC	37 - 70
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	BAPC	37 - 62
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SUE-1/10-AB1	MEG	34-107
	MEG	34-108
	MEG	34-109
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SUE-1/10-CDO	MEG	35 - 1
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	DRC	25 - 65
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	MEG	26 - 62
	MEG	26 - 63
	MEG	26 - 64
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	NECM	13 - 94
	NECM	13 - 95
TM990-100M-1	TII	15 - 1
	TII	15 - 2
TM990-100M-2	TII	15 - 3
	TII	15 - 4
TM990-100M-3	TII	15 - 5
	TII	15 - 6
TM990-100MA-1		15 - 7
	TII	
	TII	15 - 8
TM990-100MA-2		15 - 9
	TII	
	TII	15 - 10
TM990-101M-1	TII	15 - 11
	TII	15 - 12
TM990-101M-2	TII	15 - 13
	TII	15 - 14
TM990-101M-3	TII	15 - 15
	TII	15 - 16
TM990-101MA-1		15 - 17
	TII	
	TII	15 - 18
TM990-101MA-10		15 - 19
	TII	
	TII	15 - 20
TM990-101MA-2		15 - 21
	TII	
	TII	15 - 22
TM990-101MA-3		15 - 23
	TII	
	TII	15 - 24
TM990-180M-1	TII	15 - 25
	TII	15 - 26
TM990-189	TII	14-104
	TII	14-105
TM990-201-41	TII	21 - 80
	TII	21 - 81
TM990-201-42	TII	21-102
	TII	21-103
TM990-201-43	TII	22 - 2
	TII	22 - 3
TM990-201-44	TII	22 - 4
TM990-203-21	TII	21 - 85
	TII	21 - 86
TM990-203-22	TII	21-104
	TII	21-105
TM990-203-23	TII	22 - 13
	TII	22 - 14
TM990-203A-13		22 - 11
	TII	
	TII	22 - 12
TM990-204-1	TII	21 - 70
	TII	21 - 71
TM990-204-2	TII	21 - 73
	TII	21 - 72
TM990-204-3	TII	21 - 90
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TM990-206-41	TII	21 - 74
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TM990-206-42	TII	21 - 92
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Δ-Registered with JEDEC by this manufacturer

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

Δ-Registered with JEDEC by this manufacturer

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 CPU TYPE GENERIC	2 BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	RAM TYPE	ROM BYTES	ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	MFG. CODE	DRAWING NUMBER
1	9010-1101						200nA														DSI	
2				Interfaces with all M80 memory,I/O through connection combus																		
3▼				NSC800 CPU;Instruction word size 8,16,or 24-bits																		
4	MCS8004			1	8			16k		32k		1	48	5.0		12		1	16	8	MSCC	
5				Am9511 APU on board provided 32 bit floating/fixed point arithmat																		
6▼#	CPU-012-311		EURO			4.0M	1.0u	2.1k		8.0k	2532g	1	6	5.0	1.0			1	16	8	EURF	2EU002
7	M68SAC1		EXOR					384		3k		4	8						16	8	MOTA	
8			EXOR	Operate with dynamic or static memories,interface with 2mA loop																		
9	MLSI-KD11F		LSI					8k					16						16	16	MDB	
10			LSI	CPU,DMA 16-bit I/O port,automatic vector and priority interupt																		
11▼	KDF11-AA	LSI11/23	LSI		99	13.8m								5.0	2.0	12	0.2		22	16	DEC	
12▼	KDF11-HK	LSI11/23	LSI		99	13.8m		256k						5.0	6.2	12	0.2		22	16	DEC	
13▼	KDF11-LK	LSI11/23	LSI		99	13.8m		256k						5.0	6.2	12	0.2		22	16	DEC	
14▼	681-1-00175	MIPROC16	UNIF		8	2-86MHz	350n						32	5.0				2	16	16	PLM	2UB001
15▼		MIPROC16	UNIF	Processor board w/83 basic instructions includes 5.6 to 11.2 usec																		
16▼		MIPROC16	UNIF	Multiply and divide; 64k words address range and 256 word pages																		
17▼	STD-NSC800▼	NSC800	STD	1	4	1.0M	7.0u	4.0kS	TC5516	2.0kS	27C16			5.0	.08			3	16	8	BAPC	2ST004
18	7803	Z-80	STD			2.5M		4.0k	2114g	8.0k	2716g			5.0	1.7				16	8	PRO	2SD002
19		Z-80	STD	EPROM/RAM sockets onboard;tristate address;data,control bus																		
20	CB2Z-80	Z-80	S100			2.0M		2.0k	4016g	4.0k	2732g		8	8.0	.75				16	8	SSM	
21		Z-80	S100	Z80 uC w/(2.0/4.0)MHz DIP SW select operation w/ pwr on reset																		
22		Z-80	S100	pwr on jump,8 added addr lines ctl d by port FE yields extend																		
23		Z-80	S100	addressing beyond 65K																		
24	SCC	Z-80	S100			4.0m		1.0k	4045g	8.0k	2716g	1	48	8.0	1.4	18	.07	1	16	8	CRO	
25		Z-80	S100	Stand-alone card w/program baud rate;24 bits bi-direct i/O																		
26	ZPU	Z-80	S100			4.0m								8.0	1.1			1	16	8	CRO	
27		Z-80	S100	2/4MHz SW SEL; PWR up vectoring to 16 SW relocate ADDR on 4K bdry																		
28#	ZBC-80	Z-80A	MULT		16	4.0M	.75u	16k		40k	2708g	1	48	5.0	4.0	12	.80	1	16	8	MATC	2MU007
29#		Z-80A	MULT	Also reg -5V/250ma and -12V/300ma, 6 programmable 16 bit timers																		
30#		Z-80A	MULT	RS232C serial I/O, boot on reset,bus arbitr, pseudo DMA-150Kbytes																		
31	Z80-MCB4	Z80	MCZ					4k		4k			16	5.0	2.0			1	16	8	ZIL	
32		Z80	MCZ	7.7x7.5in,programmable full duplex serial I/O port with RS-232																		
33	Z80-MCB16	Z80	MCZ					16k		4k			16					1	16	8	ZIL	
34		Z80	MCZ	Like Z80-MCB4 except with 16K RAM,14 separate baud rates 50-38.4K																		
35		Z80	MULT	Programmable I/O,DMA for mass transfer of data,Uniform monitor																		
36▼	CCS-1143	Z80	PROP			2.0m		1k		16k		1		5.0	1.2	12	525m		16	8	CLI	
37▼		Z80	PROP	One serial interrface port w/either 20mA current/loop or RS232-C																		
38	MK77851-0	Z80	STDZ	1		2.5M	1.6u	2k	2114g	8k	2Kx8		40	5.0	1.2			1	16	8	MOS	2ST003
39		Z80	STDZ	Complete Z-80 on a sm card 4.5 in by 6.5 in I/O fully buffered TTL																		
40	MK78122	Z80	STDZ	1	8			4k	MK4027g	8k		1	32	5.0	1.5	12	175m	1	16	8	MOS	
41		Z80	STDZ	Lge number of RAM-PROM-ROM comb possible; current or RS232-C																		
42	MK78124	Z80	STDZ	1	8			16k	MK4116g	8k		1	32	5.0	1.5	12	175m	1	16	8	MOS	
43		Z80	STDZ	Same as MK78122 but with 16K bytes of RAM																		
44▼	IOP	Z80	S100			4.0M		16k	4116g	16k	2732g			8.0	1.5	18	100m	1	16	8	CRO	
45▼		Z80	S100	The IOP can stand alone or used as an I/O satellite processor for																		
46▼		Z80	S100	the S100; Address config PROM 0000 to 1FFFH, RAM 4000H to 7FFFH																		
47	MPB-100	Z80	S100			4.0M				2k									16	8	SDS	
48		Z80	S100	2 or 4MHz operation.Power-on jump to any 4k boundary.																		
49	QUAY90F/MPS	Z80	S100			2.5M		5k	4027g	1k	2708g	1	2	5.0	1.9	12	.75		16	8	QUY	2S1002
50		Z80	S100	Similar to QUAY90MPS,only supports 16Kx1(65kB max)dynamic RAM																		
51	QUAY90MPS	Z80	S100			2.5M		5k	4027g	1k	2708g	1	2	5.0	1.9	12	.75		16	8	QUY	2S1002
52		Z80	S100	4kx8 bits dynamic RAM, 1kx8 bits Static RAM,UART w/RS232C and 20ma																		
53		Z80	S100	Current loop,baud rate 110-9600 SW selectable,counter timer																		
54	QUAY94MPS	Z80	S100			4.0M		65k	4116g	1k	2716g	1	2	5.0	1.9	12	.75		16	8	QUY	2S1002
55		Z80	S100	Similar to QUAY90MPS,include 2.5MHz clock,provide jumper select-																		
56		Z80	S100	able,waite state control,65k byte RAM memory,fully expandable																		
57	SBC-100	Z80	S100					1k		8k	2716g	1	1						16	8	SDS	
58		Z80	S100	Software programmable baud rate generator.4-channel counter/timer																		
59	SBC-200	Z80	S100			4.0M													16	8	SDS	
60		Z80	S100	Similar to SBC-100 with RS-232 serial interface.4MHz operation																		
61	VECTORMZ80CPU	Z80	S100		3	2.4		1k	2114	12k	2732	1	3	8.0	970m	16	120m		16	8	VGI	
62		Z80	S100	Also w/4-0MHz,3 8-bits parallel ports,one serial RS-232C port																		
63		Z80	S100	programmable odd or even or no parity,two mode interrupts																		
64	Z80-Kit	Z80	S100					2k					2						16	8	SDS	
65		Z80	S100	On-board PROM programmer for single voltage PROM.On-board keyboard																		
66		Z80	S100	and display.Expansion provision for mounting two S-100 connectors.																		
67		Z80	S100	Up to 5 programmable breakpoints.SW select PROM/Monitor restart																		
68#	CLZ80-4/2	Z80	ZZZZ		3			4.0k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
69#		Z80	ZZZZ	CLZ80 w/ 4k bytes of RAM,MO-Z software on EPROM																		
70#	CLZ80-4/8	Z80	ZZZZ		3			4.0k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
71#		Z80	ZZZZ	CLZ80 w/ 4k bytes of RAM, MO-Z software pkg on EPROM																		
72#		Z80	ZZZZ	Fully vectored interrupts;DMA capability, serial-asynch-synch																		
73#		Z80	ZZZZ	I/F w/selectable baud rate (50/9600)baud,single pwr supply,																		
74#		Z80	ZZZZ	fully buffered bus;MODEM CONTROL capability;Z80 instruction set																		
75#	CLZ80-16	Z80	ZZZZ		3			16k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
76#	CLZ80-16/2	Z80	ZZZZ		3			16k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
77#		Z80	ZZZZ	CLZ80 w/ 16k bytes of RAM, MO-Z software on EPROMM																		
78#	CLZ80-16/8	Z80	ZZZZ		3			16k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
79#		Z80	ZZZZ	CLZ80 w/ 16k bytes of RAM, FR-Z software on EPROM																		
80#																						
81▼#	CLZ804	Z80	ZZZZ		3			4.0k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
82▼#		Z80	ZZZZ	Fully vectored interrupts;DMA capability,Serial-asynch-synch																		
83▼#		Z80	ZZZZ	I/F w/selectable baud rate (50/9600)baud,single pwr supply;																		
84▼#		Z80	ZZZZ	fully buffered bus;MODEM control capability;Z80 instruction set																		
85▼#	CLZ808	Z80	ZZZZ		3			16k				1	32	5.0	1.5			1	16	8	SGAI	2ZZ011
86▼#		Z80	ZZZZ	CLZ80 w/ 16k bytes of RAM																		
87	PCS1880	Z80	ZZZZ	1	5	8M		1k	2114g	6k	2716g	1		5.0	1.5	12	200m	2			PCS	2ZZ002
88		Z80	ZZZZ	RS-232,20ma current loop,or parity line switch selectable baud																		
89		Z80	ZZZZ	ates from 50-9600 baud.Switch selectable base starting address																		
90	PCS1880A	Z80	ZZZZ	1	5	8M		1k	2114g	6k	2716g	1		5.0	1.5	12	200m	2	16	8	PCS	2ZZ002
91		Z80	ZZZZ	Similar to PCS1880 but with the hardware Math Chip																		
92	ZPB-A	Z80A	S100		8	4.0M		1k	2708g					8.0	0.7				16	8	NOR	
93		Z80A	S100	Auto-jump branch to any 16-bitaddress,twice as fast as an 8080up																		
94	ZPB-PROM	Z80A	S100		8	4.0M								8.0	0.7				16	8	NOR	
95		Z80A	S100	Similar to ZPB-A but with option of PROM in the board																		
96	MCS8001	Z80Z	MULT	1	8	2.5M		8k		16k		1	48	5.0					16	8	MSCC	
97		Z80Z	MULT	2k Byte monitor. RS-232C,TTL,20 ma.Current loop,serial port(8215A)																		
98		Z80Z	MULT	also works w/4MHz,DMA used foron board memory,																		
99▼	B1017	Z8001	MULT	1	8	4.0	750n			4.0k	2716g			5.0	5.9	12	.05†	1	24	16	CDC	2MU009
100▼		Z8001	MULT	Z8000CPU board with paged-segmented memory mgmt circuitry,full																		
101▼		Z8001	MULT	multi-master capabilities;socket for optional 9511 arithmetic																		
102▼		Z8001	MULT	processor allows trig functions; APU runs at 2MHz; word sizes																		
103▼		Z8001	MULT	permitted are 16, 32, 48, or 64 bits instruction 8 or 16 data																		
104#	MC1600	1600	STAD		2									5.0	.50	12	.10	1	16	16	GICB	2SA001
105#		1600	STAD	Mem stack pointer,DMA,RTC interrupt,Pwr fail interrupt																		
106	CDP18S601	1802	PROP			2.0M		4.0k		4.0k	1834g	1	25	5.0	.01				3		RCA	2PR002
107		1802	PROP	Features incl pwr-on reset, single pwr sup, RS232C/20mA SIO																		
108▼	CDP18S602▼	1802	PROP					2.0k		4.0k	2716g	1	21	5.0	8.0m				3		RCA	2PR001
109		1802	PROP	Selectable clk freq: (2.5,1.2, 0.6, 0.3)MHz;UART w/14 selectable																		
110		1802	PROP	baud rates from 50/19.2kbaud, RS2C/20mA																		

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] CPU TYPE GENERIC	[2] BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	RAM TYPE	ROM BYTES	ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	MFG. CODE	DRAWING NUMBER
1	CDP18S603	1802	PROP			2.0M		1.0k		4.0k	1834g	1	25	5.0	7.0m			3			RCA	2PR002
2		1802	PROP	Single 5V pwr sup;4 flag inputs; Q serial data output																		
3	CDP18S604	1802	PROP			2.0M		512		2.0k	2716g	1	23	5.0	4.0m			3			RCA	
4		1802	PROP	X-tal controlled clk, pwr-on reset, RS232C/20mA SIO; CMOS																		
5	CDP18S604A	1802	PROP			2.0972M		1.0k		4.0k	2732g		23	5.0	4.0m			3			RCA	
6		1802	PROP	Single 5V pwr sup;x-tal controlled clk																		
7	CDP18S605	1802	PROP					2.0k		4.0k	2716g			5.0	8.0m			3			RCA	
8		1802	PROP	Selectable clk freq: (2.5, 1.2, 0.6, 0.3)MHz;UART w/14 select																		
9		1802	PROP	baud rates from 50/19.2k baud																		
10	H18CPU	2900	ZZZZ	8																	HACC	2ZZ014
11		2900	ZZZZ	/30 microprogrammed instructions,throughput-700 KOPS to 850 KOPS																		
12		2900	ZZZZ	11 user registers,11 addressing modes,built-in diagnostics,built-																		
13		2900	ZZZZ	in support equipment interface,8 interrupt priority levels																		
14	OCM1	3850	PROP	4		2.0M		1k		8k		1	1	5.0		12	255m					2PR007
15		3850	PROP	Up to 64 programmable I/O lines,RS232 interface,4k-byte EPROM and																		
16		3850	PROP	PROM sockets,contain a built in teletype op sys called fairbug-1																		
17		3850	PROP	64-Byte scratch pad memory,up to 4 programmable timers																		
18	MK77850-0	3880	STDZ	1		2.5M	1.6u	256		4k	2Kx8			5.0	1.2			1	16	8	MOS	2ST001
19		3880	STDZ	Customer provided EPROM, Flex MEM decode, fully buffered, Z80 CPU																		
20	MK77850-4	3880	STDZ	1		4.0M	1.0u	256	2Kx8	4k	2Kx8			5.0	1.2			1	16	8	MOS	2ST001
21		3880	STDZ	4MHz version of MK77850-0																		
22	MK77853-0	3880	STDZ	1		2.5M	1.6u		2Kx8		4Kx8			5.0	1.2			1	16	8	MOS	2ST002
23		3880	STDZ	Flex MEM decode on 1K bound, bidirect busses for ext DMA																		
24	MK77853-4	3880	STDZ	1		4.0M	1.0u	6k	2Kx8	12k	4Kx8			5.0	1.2			1	16	8	MOS	2ST002
25		3880	STDZ	4MHz version of MK77853-0																		
26	MP-100	602	NOVA	1				128k		128k				5.0		12		1	16	16	DGC	
27		602	NOVA	Standard and High-Speed Data Channel,Operate with D/A,A/D,Dig I/O																		
28	6950JR.	6100	ZZZZ					3.0kB	256x1					5.0						12	INL	
29		6100	ZZZZ	Tutorial system;Socket for CMOS ROM (IM6312/12A),256x12 RAM,Four																		
30		6100	ZZZZ	expansion,4 bit address/data display,calculator type keyboard																		
31	SYM1	6502	EXOR			1.0M		4k	2114g	8k	2716g		51	5.0					16	8	SYK	
32		6502	EXOR	Fully assembled,5 on-board programmable interval timers,standard																		
33		6502	EXOR	interfaces,15 bidirectional TTL lines,Expansion port for add-on																		
34	C2-0	6502	OS48					4.0k		8.0k	2716g	1		5.0		-9					OHS	
35		6502	OS48	BASIC-in-ROM or 2716 EPROMs; serial port																		
36	C3-0	6502A	OS48					1.0M		8.0k		1		5.0		-9					OHS	
37		6502A	OS48	Also has Z-80 and 6800 uP; machine code monitor																		
38	MBC010-65	6512	EXOR			1.0M		1k	2114g	8k	2716g		20	5.0	1.5			1	16	8	SYK	
39		6512	EXOR	Similar to MBC010-68 but with 6512 Microprocessor																		
40	MBC020-65	6512	EXOR			1.0M		3k		8k	2716g		20	5.0	1.9	12	50m	1	16	8	SYK	
41		6512	EXOR	ACIA for RS-232,VIA provides 20 I/O lines and two 16-bit counter/																		
42		6512	EXOR	Timers,power-on reset,reset SW,tontron logic goc DoA;inAorpooates																		
43		6512	EXOR	Ditect videe intedface tircuitrc to vtdeo monttar; ompocite tr																		
44		6512	EXOR	Sedarate syoc;vidpo out ut;dualrintenyity o output,Dual Intens																		
45▼#	CPU-001-010	6800	EURO			921.6k		256		8.0k	2716g			5.0	1.3			1	16	8	EURF	2EU001
46▼#		6800	EURO	will accept substitute EPROMS MCM2716,TMS2516,MCM2532,TMS2532																		
47▼#	CPU-001-030	6800	EURO			921.6k		256		2.0k	2708g			5.0	1.3	12		1	16	8	EURF	2EU001
48▼#		6800	EURO	substitute EPROMS MCM2708, 3 voltage types for max 2k byte																		
49▼#	CPU-001-210	6800	EURO			1.0M		256		8.0k	2716g			5.0	1.3	12		1	16	8	EURF	2EU001
50▼#		6800	EURO	substitute 1 voltage EPROMS; MCM2716, TMS2516, MCM2532, TMS2532																		
51▼#	CPU-001-230	6800	EURO			1.0m		256		2.0k	2708g			5.0	1.3	12		1	16	8	EURF	2EU001
52▼#		6800	EURO	will accept 2 pieces of 3 voltage EPROMS like MCM2708 for 2k/byte																		
53	M68MM01	6800	EXOR					1k		4k				5.0	1.1	12	.26	2	16	8	MOTA	2EX001
54		6800	EXOR	1 MHz crystal controlled clk,On-board reset circuitry,three PIAS																		
55	M68MM01A	6800	EXOR					1k		4k		1	2	5.0	1.1	12	.26	2	16	8	MOTA	2EX002
56		6800	EXOR	One MC6850(ACIA) with RS-232C interface,On-board reset circuitry																		
57	M68MM01A1	6800	EXOR					1k		4k		1	2	5.0	1.1	12	.26	2	16	8	MOTA	2EX002
58		6800	EXOR	Similar to M68MM01A but with four connectors																		
59	M68MM02	6800	EXOR											5.0	1.0			2	16	8	MOTA	2EX005
60▼	MBC01A2	6800	EXOR			1.0M		4.0k		32k				5.0	1.1	12	25m	2	16	8	SKY	
61▼		6800	EXOR	Direct replacement for M68MM01A2(Motorola Micromodule);Serial Port																		
62▼		6800	EXOR	w/RS232C;Four parallel ports;Power-On reset circuitry;Dynamic																		
63▼		6800	EXOR	Memory refresh circuit;Four mating connector supplies w/MBC01A2-1																		
64	MBC010-68	6800	EXOR			1.0M		1k	2114g	8k	2716g		20	5.0	1.5			1	16	8	SYK	
65		6800	EXOR	Similar to MBC020-68 but video features,1K byte RAM (po er rrad)																		
66	MBC020-68	6800	EXOR			1.0M		3k		8k	2716g		20	5.0	1.9	12	50m	1	16	8	SYK	
67		6800	EXOR	Similar to MBC020-65 but with 6800 Microprocessor																		
68#	MONOCARTE2	6800	EXOR			2.0M		64k				2		5.0	3.0	12	.80		16	16	EFCF	2EX007
69#		6800	EXOR	(2) RS232 I/O ports,200ns ram access,TV/CRT controller-16 lines by																		
70#		6800	EXOR	64 Character-full ASC11 code-5x7 dot matrix,controls up to 4																		
71#		6800	EXOR	Floppy s-single/double sided,single/double density,external bus																		
72#		6800	EXOR	for peripherals,18.9x32.4 cm																		
73	CMC68/15	6800	PROP	8		1.0M		1k	2114g				1	32	5.0	1.7			1	16	8	RCI	2PR003
74		6800	PROP	Sockets for 4 or 8K bytes ROM PROM or EPROM,Serial I/O port with																		
75		6800	PROP	EIA or Loop TTY,3 programmable interval timers,cycle steal DMAC.																		
76	CMC68/15B	6800	PROP	8		1.0M		1k	2114g				1	32	5.0	1.7			1	16	8	RCI	2PR003
77		6800	PROP	Similar to CMC68/15 but with using a 2 MHz clock																		
78	CMC68/15C	6800	PROP	8		1.0M		1k	2114g				1	20	5.0	1.7			1	16	8	RCI	2PR004
79		6800	PROP	Similar to CMC68/15 but with 2 port and 20 parallel I/O lines																		
80	CMC68/15G	6800	PROP	8		1.0M		1k	2114g				1	32	5.0	1.7			1	16	8	RCI	2PR005
81		6800	PROP	Similar to CMC68/15 in addition of a GPIB(IEE 488) controller																		
82	MCL45	6800	PROP			1.0M		512	6810g	4.0k	2708g	1	32	5.0	.60						WTK	
83	MCV45	6800	PROP			1.0M		512	6810g	4.0k	2708g	1	32	5.0	.60	12					WTK	
84♦		6800	PROP	Programmable UART, 8 program control lines, 3 pwr sub																		
85	7802	6800	STD			1.0M		4.0k	2114g	8.0k				5.0	1.9				16	8	PRO	2SD003
86		6800	STD	EPROM/RAM sockets onboard;Pwr-on/Push button reset,tristate bus																		
87▼	ACS10A-16	6800	STD					16k		14k	2kx8	1	16	5.0	3.0	12	1.0	1	16	8	DTR	
88▼		6800	STD	(2) 16 bit prble timers, Parity gen/det,4 DMA channels w/16-bit																		
89▼		6800	STD	addr count reg/Halt steal/Tri-state cycle steal mode,																		
90▼		6800	STD	Data chaining,I/O port baud prgble 50-19,200 baud,False start bit																		
91▼		6800	STD	detect,1-1 1/2-2 stop bits,Parity gen/det,Full/half dupl,echo																		
92▼		6800	STD	RS232,Vectored interrupts,50 pin flat cable I/O conn;Disk contr																		
93▼		6800	STD	w/prble read/write format,up to 4 units,13 cntr regs, 10 macro cmd																		
94▼	ACS10A-32	6800	STD					32k		14k	2kx8	1	16	5.0	3.0	12	1.0	1	16	8	DTR	
95▼		6800	STD	Same as ACS-10-16 with 32K of Ram																		
96▼	ACS10A-48	6800	STD					48k		14k	2kx8	1	16	5.0	3.0	12	1.0	1	16	8	DTR	
97▼		6800	STD	Same as ACS-10A-16 with 48K of Ram																		
98▼	ACS12-PRO	6800	STD					40k				1	16	5.0	1.0	12	.20	1	16	8	DTR	
99▼		6800	STD	(2) 8bit pble I/O port w/handshake,(2) 16 bit timers,RS232 serial																		
100▼		6800	STD	port w/echo mode,fall 1/2 duplex,parity gen/det,15 baud rates -50																		
101▼		6800	STD	to 19,200,False start bit det;Also req -12V at .2 amp;4.5x9.6 inch																		
102#	CPU001	6800	ZZZZ			1.0M		256		8k				5.0	1.3			1	16	8	EURF	
103#		6800	ZZZZ	Optional xtal clock up to 2.5MHz.Memories are completly address																		
104#		6800	ZZZZ	decoded.Bus drivers included.Dynamic memory can be added																		
105▼#	H68SB02-1	6800	ZZZZ	1	2	3.69M	1.1u	2.0k	2114g	8.0k	2716g	1	32	5.0	3.2	12	34m		16	8	HITJ	
106▼#	H68SB03-1	6800	ZZZZ	1	2	3.69M	1.1u	1.0k	2114g	4.0k	2716g	1	32	5.0	2.7				16	8	HITJ	
107▼#	CPU-012-310	6802	EURO			4.0m	1.0u	2.1k		4.0k	2716g	1	6	5.0	1.0			1	16	8	EURF	2EU002
108▼#		6802	EURO	I/O peripherals for 3x8 pcs of TTL and 3x2 control interfaces																		
109▼#		6802	EURO	serial interfaces standard 20mal/lp and 3 rs422 interfaces																		
110	M68MM01B	6802	EXOR					128		4k			2	5.0	.35	5.0	.45	2	16	8	MOTA	2EX003

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] CPU TYPE GENERIC	[2] BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	RAM TYPE	ROM BYTES	ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	MFG. CODE	DRAWING NUMBER
1		6802	EXOR	Pww-on restsrt,202progrgmmable e/O liles,complt blm w/Mt6800C6800																		
2	M68MM01B1	6802	EXOR					256		4k		1	2	5.0	.55	12	.02	2	16	8	MOTA	2EX004
3		6802	EXOR	Power-on restart,20 programmable I-O Lines,Three 16-Bit binary PT																		
4	CMC68/04	6802	PROP		1	1.0M		256				1	16	5.0	425m				16	8	RCI	2PR006
5		6802	PROP	Sockets for 1,2 or 4K EPROM or ROM,Programmable interval timer,																		
6		6802	PROP	Interrupt input,Sockets for I/O buffers,Separate edge connectors																		
7	ADP550	6802	ZZZZ			1.0M		2k		8k			2	5.0	0.5						ADP	2ZZ010
8		6802	ZZZZ	Crystal control increasable up to 2MHz,Using other PROM/EPROM Up																		
9		6802	ZZZZ	to 16K bytes capacity,Option Serial(6850 ACIA) I/O																		
10	ADP560	6802	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
11		6802	ZZZZ	Flexibility in mix of EPROMs and RAMs,6800 compatible programming																		
12	ADP560AC	6802	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
13		6802	ZZZZ	Similar to ADP560,w/ACIA;w/o Timer;Ceramic package																		
14	ADP560AP	6802	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
15		6802	ZZZZ	Similar to ADP560,w/o ACIA;w/o Timer;Plastic package																		
16	ADP560ATC	6802	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
17		6802	ZZZZ	Similar to ADP560,w/ACIA;w/Timer;Ceramic packages																		
18	ADP560ATP	6802	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
19		6802	ZZZZ	Similar to ADP560,w/o ACIA;w/Timer;Plastic packages																		
20	ADP560C	6802	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m	12	25m				ADP	2ZZ009
21		6802	ZZZZ	Similar to ADP560,w/o ACIA;w/o Timer;Ceramic packages																		
22	ADP560P	6802	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m	12	25m				ADP	2ZZ009
23		6802	ZZZZ	Similar to ADP560,w/o ACIA;w/o Timer;Plastic packages																		
24	ADP560TC	6802	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m	12	25m				ADP	2ZZ009
25		6802	ZZZZ	Similar to ADP560,w/o ACIA;w/Timer;Ceramic packages																		
26	ADP560TP	6802	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m	12	25m				ADP	2ZZ009
27		6802	ZZZZ	Similar to ADP560,w/o ACIA;w/Timer;Plastic packages																		
28	ADP1020	6802	ZZZZ					4k	6116g		68764g			5.0	0.7						ADP	2ZZ008
29		6802	ZZZZ	Crystal clock 1us,tri-state bus buffers and control logic,DMA con																		
30		6802	ZZZZ	trol logic,automatic power-on reset,on-board reset switch logic																		
31#	CPU012	6802	ZZZZ					2k		2k		2	1					1	16	8	EURF	
32#		6802	ZZZZ	24-lines parallel I/O.6-control lines.Serial I/O interface 20mA																		
33#		6802	ZZZZ	and RS-422.Programmmable 16-bit counter.Automatic restart																		
34▼#	H62SC01-1	6802	ZZZZ	1	2	4.00M	1.0u	128		4.0k	2716g		16	5.0	1.0				16	8	HITJ	
35▼#	H62SC03-1	6802	ZZZZ	1	2	4.00M	1.0u	128		4.0k	2716g		32	5.0	1.0				16	8	HITJ	
36▼#	H62SC06-1	6802	ZZZZ	1	2	4.00M	1.0u	2.0k	6116g	2.0k	2716g		32	5.0	1.0				16	8	HITJ	
37▼#	H62SC09-1	6802	ZZZZ	1	2	4.00M	1.0u	128		8.0k	2732g		32	5.0	1.0				16	8	HITJ	
38▼#	H62SC12-1	6802	ZZZZ	1	2	4.00M	1.0u	2.0k	6116g	4.0k	2732g		32	5.0	1.0				16	8	HITJ	
39▼#	H62SC15-1	6802	ZZZZ	1	2	4.00M	1.0u	128		8.0k	2532g		32	5.0	1.0				16	8	HITJ	
40▼#	H62SC18-1	6802	ZZZZ	1	2	4.00M	1.0u	2.0k	6116g	4.0k	2532g		32	5.0	1.0				16	8	HITJ	
41▼	MIKUL6008-2	6806	EXOR	1	1	1.0M		2.0k		8.0k	2716g	2	32	5.0	800m	12	260m	2	16	8	TLI	2EX008
42▼#	CPU-019-210	6809	EURO			4.0M	1.0u	2.0k		4.0k	2716g			5.0	1.0			1	16	8	EURF	2EU003
43▼#	CPU-019-211	6809	EURO			4.0M	1.0u	2.0k		8.0k	2716g			5.0	1.0			1	16	8	EURF	2EU003
44▼#	CPU-019-212	6809	EURO			4.0M	1.0u	2.0k		16k	2716g			5.0	1.0			1	16	8	EURF	2EU003
45▼#	CPU-019-310	6809	EURO			4.0M	1.0u	2.0k		4.0k	2716g			5.0	1.0			1	16	8	EURF	2EU003
46▼#	CPU-019-311	6809	EURO			4.0M	1.0u	2.0k		8.0k	2716g			5.0	1.0			1	16	8	EURF	2EU003
47▼#	CPU-019-312	6809	EURO			4.0M	1.0u	2.0k		16k	2716g			5.0	1.0			1	16	8	EURF	2EU003
48		6809	EXOR	1 MHz Crystal controlled clock,On-board reset circuitry																		
49▼	M68MM19▼	6809	EXOR					2k						5.0					16	8	MOTA	2EX006
50▼		6809	EXOR	Monoboard MicroComputer module,has 4 Sockets for 2k or 4k eprom																		
51	M68MM19A	6809	EXOR					2k	2kx8			1	12	5.0					16	8	MOTA	2EX006
52		6809	EXOR	2 MHz crystal controlled clock,two 16-Bit index registers,see M19																		
53	M68MM19SB	6809	EXOR							6k	6kx8	1	12	5.0					16	8	MOTA	
54		6809	EXOR	6k of EPROM containing SUPERmon,SUPERlink,SUPERio,SUPERutil.																		
55▼		6809	EXOR	Serial I/O use two ACIAs,one w/RS232-C,one w/20ma current loop;PIA																		
56▼		6809	EXOR	mapped for 16 bit transfer;sockets for EPROM,Selectable Baud rate																		
57▼		6809	EXOR	generator;Program debugging support is available;parallel port not																		
58▼		6809	EXOR	buffered so bits may be programed as inputs or outputs;9600 Baud																		
59	ADP590	6809	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
60		6809	ZZZZ	Supply B is used if RS-232C installed,Flexibility mix EPROMs RAMs																		
61	ADP590AC	6809	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
62		6809	ZZZZ	Similar to ADP590,w/ACIA;w/o Timer;Ceramic packages																		
63	ADP590AP	6809	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
64		6809	ZZZZ	Similar to ADP590,w/ACIA;w/o Timer;Plastic packages																		
65	ADP590ATC	6809	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
66		6809	ZZZZ	Similar to ADP590,w/ACIA;w/Timer;Ceramic packages																		
67	ADP590ATP	6809	ZZZZ					2k	2114g	16k	2732g	1	4	5.0	650m	12	25m				ADP	2ZZ009
68		6809	ZZZZ	Similar to ADP590,w/ACIA;w/Timer;Plastic packages																		
69	ADP590C	6809	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m						ADP	2ZZ009
70		6809	ZZZZ	Similar to ADP590,w/o ACIA;w/o Timer;Ceramic packages																		
71	ADP590P	6809	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m						ADP	2ZZ009
72		6809	ZZZZ	Similar to ADP590,w/o ACIA,w/o Timer;Plastic packages																		
73	ADP590TC	6809	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m						ADP	2ZZ009
74		6809	ZZZZ	Similar to ADP590,w/o ACIA;w/Timer;Ceramic packages																		
75	ADP590TP	6809	ZZZZ					2k	2114g	16k	2732g		4	5.0	650m						ADP	2ZZ009
76		6809	ZZZZ	Similar to ADP590,w/o ACIA;w/Timer;Plastic packages																		
77	ADP1010	6809	ZZZZ					4k	4118g	16k	2732g			5.0	1.1						ADP	2ZZ008
78		6809	ZZZZ	Tri-State bus buffers and control logic,DMA Control logic,Automa-																		
79		6809	ZZZZ	tic power-on reset,On board system reset switch and logic																		
80	ADP1015	6809	ZZZZ					4k	4118g	16k	2732g			5.0	990m						ADP	2ZZ007
81		6809	ZZZZ	Crystal-clock 1us cycle,Tri-State bus buffers and control logic																		
82#	CPU019	6809	ZZZZ					2k		16k		1	1	5.0				1	16	8	EURF	2ZZ015
83#		6809	ZZZZ	Parallel I/O lines and 4 control lines,3 independent programble																		
84#		6809	ZZZZ	16-bit counters.Serial I/O interface RS232C.Bus drivers included																		
85▼#	H69SB01-1	6809	ZZZZ	1	5	3.69M	1.1u	2.0k	2114g	8.0k	2732g	1	32	5.0	2.8	12	34m		16	8	HITJ	
86	KD11HA	7270	LSI											5.0	1.2	12	.22	2	16	16	DEC	2LS001
87		7270	LSI	DMA for high-data-rate devices,for integration s-med size computr																		
88	KD11HF	7270	LSI					8k	8044g					5.0	1.2	12	.22	2	16	16	DEC	2LS001
89		7270	LSI	Like HD11HA plus 4kx16-bit read-write memory module M8044-AA																		
90▼	TM990-1481	74S481	TM90	2	15								16	5.0	9.0	12	.02	2	20	16	TII	2TM002
91▼		74S481	TM90	TMS processor board half of microcomputer designed around 74S481																		
92▼		74S481	TM90	bit-slice processor software compatible 9900/990 family member																		
93		8002	MULT	PROM-based monitor with debugging capability,three interval timer																		
94▼	AM96-4016	8002	MULT			4.0M		8k		12k		2	24						16	8	AMD	
95▼		8002	MULT	PROM-BASED MONITOR WITH DEBUGGING CAPABILITY,THREE INTERVAL TIMER																		
96▼	AM96-4116	8002	MULT			4.0M				8k		2	24						16	8	AMD	
97▼		8002	MULT	2 RS-232 SERIAL I/O PORTS,5 PROGRAMMABLE COUNTER-TIMER AT 4.0 MHZ																		
98▼	CBC800/204SCH▼	8080	CBUS	1	19	4.0k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
99▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
100▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
101▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,and 24-bits																		
102▼	CBC800/204SCL▼	8080	CBUS	1	19	2.5k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
103▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
104▼		8080	CBUS	RS-232c drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
105▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,and 24-bits																		
106▼	CBC800/204SIH▼	8080	CBUS	1	19	4.0k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
107▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
108▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
109▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,and 24-bits																		
110▼	CBC800/204SIL▼	8080	CBUS	1	19	2.5k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] CPU TYPE GENERIC	[2] BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	RAM TYPE	ROM BYTES	ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT	SUPPLY B CURR MAX (A)	T EMP	BUS SIZE A DR	BUS SIZE D AT	MFG. CODE	DRAWING NUMBER
1▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
2▼		8080	CBUS	RS-232c drivers and rcvrs;4 gen purpose Timers/counters;uses																		
3▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,and 24-bits																		
4▼	CBC800/208SCH▼	8080	CBUS	1	19	4.0k	1.6u*	8.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
5▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
6▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
7▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
8▼	CBC800/208SCL▼	8080	CBUS	1	19	2.5M	1.6u*	8.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
9▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
10▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
11▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
12▼	CBC800/208SIH▼	8080	CBUS	1	19	4.0M	1.6u*	8.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
13▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
14▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
15▼	CBC800/208SIL▼	8080	CBUS	1	19	2.5M	1.6u*	8.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
16▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
17▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
18▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
19▼	CBC800/216SCH▼	8080	CBUS	1	19	4.0M	1.6u*	16k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
20▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
21▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/counters;uses																		
22▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,or 24-bitsd																		
23▼	CBC800/216SCL▼	8080	CBUS	1	19	2.5M	1.6u*	16k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
24▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
25▼		8080	CBUS	RS-232c drivers and rcvrs;4 gen purpose Timers/counters;uses																		
26▼		8080	CBUS	NSC800 CPU;Intruction word size 8,16,or 24-bitsd																		
27▼	CBC800/216SIH▼	8080	CBUS	1	19	4.0M	1.6u*	16k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
28▼		8080	CBUS	CMOS uCT;Z80,8085,and 808 compatable;Async comm interface with																		
29▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
30▼		8080	CBUS	NSC800 CPU;Instruction word size 8,16,or 24-6bitsd																		
31▼		8080	CBUS	CMOS uCT;Z80,8085,and 8080 compatable;Async Comm interface with																		
32▼		8080	CBUS	RS-232C drivers and rcvrs;4 gen purpose timers/counters;uses																		
33▼		8080	CBUS	NSC800 CPu;Instruction word size 8,16,or 24-bits																		
34	9000-0080	8080	MULT				500nA												16	16	DSI	
35		8080	MULT	Eight-level vectored interrupt system,10 MSEC bUs busy time o																		
36	Am95-4006	8080	MULT			4.0M		4k	9114g			1	48						16	8	AMD	
37		8080	MULT	Arithmetic processing unit,sockets for 16K bytes of ROM or EPROM																		
38	BLC80/07	8080	MULT		4	2.048M	1.9u*	0.5k	2111g	4k	2708g		24	5.0	2.2	12	.15	1	16	8	NSC	2MU002
39		8080	MULT	488nS mem access time,programmable I/O,BLC/SBC series/80 compatible																		
40	BLC80/10	8080	MULT		6	2.048M	1.9u*	1k	2111g	4k	2308	1	48	5.0	2.9	12	.14	1	16	8	NSC	2MU003
41		8080	MULT	20 CI or RS232C serial I/O,BLC/SBC series/80 industrial compatible																		
42	BLC80/11	8080	MULT		6	2.048M	1.9u*	1k	2114g	8k	2716g	1	48	5.0	2.9	12	.14	1	16	8	NSC	
43		8080	MULT	20 CI or RS232C serial I/O,BLC/SBC series/80 industrial compatible																		
44	BLC80/11T	8080	MULT		6	2.048M	1.9u*	1k	9114g	8k	2716g			5.0	2.9	12	.14	4	16	8	NSC	
45		8080	MULT	Similar to BLC80/11,with extended temperature range -40 to 80°C																		
46	BLC80/12	8080	MULT			62.048M	1.9u*	2k	2114g	8k	2716g	1	48	5.0	2.9	12	.14	1	16	8	NSC	
47		8080	MULT	Similar to BLC80/11 but with 2k RAM and option of 4k ROM/PROM too																		
48	BLC80/12T	8080	MULT		6	2.048M	1.9u*	2k	9114g	8k	2716g			5.0	2.9	12	.14	4	16	8	NSC	
49		8080	MULT	Similar to BLC80/12,with extended temperature range -40 to 80°C																		
50	BLC80/14	8080	MULT		6	2.048M	1.9u*	4k	2114g	8k	2716g	1	48	5.0	2.9	12	.14	1	16	8	NSC	3MU007
51		8080	MULT	Similar to BLC80/12 but with 4k RAM and option of 4k-8k ROM/PROM																		
52	BLC80/14T	8080	MULT		6	2.048M	1.9u*	4k	9114g	8k	2716g			5.0	2.9	12	.14	4	16	8	NSC	3MU005
53		8080	MULT	Similar to BLC80/14,with extended temperature range -40 to 80°C																		
54	BLC80/204	8080	MULT		8	2.1504M	1.8u*	4k	5257g	8k	2708g	1	48	5.0	4.9	12	.35		16	8	NSC	3MU006
55		8080	MULT	Programmable RS232C,Multiple processor capability,6 bus masters																		
56▼	CBC800/204TCH▼	8080	MULT	1	19	4.0k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
57▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
58▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
59▼	CBC800/204TCL▼	8080	MULT	1	19	2.5k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
60▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
61▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
62▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
63▼	CBC800/204TIH▼	8080	MULT	1	19	4.0k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
64▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
65▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
66▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,and 24-bits																		
67▼	CBC800/204TIL▼	8080	MULT	1	19	2.5k	1.6u*	4.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
68▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
69▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
70▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
71▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
72▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
73▼	CBC800/208TCL▼	8080	MULT	1	19	2.5M	1.6u*	8.0k	6540g	32k	5316g	1	44	5.0	7.1m	12	5.6m	2	16	8	DIV	2MU008
74▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable; Async comm interface with																		
75▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
76▼		8080	MULT	NSC800 CPU;Instruction word Size 8,16,or 24-bits																		
77▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async comm interface with																		
78▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/Counters;uses																		
79▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
80▼	CBC800/208TIL▼	8080	MULT	1	19	2.5M	1.6u*	8.0k	6504g	32k	5316g	1	44	5.0	7.1m	12	5.6m	3	16	8	DIV	2MU008
81▼		8080	MULT	CMOS uCT;Z80,8085,and 8080,and 8080 compatable;Async comm interface with																		
82▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose Timers/counters;uses																		
83▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,or 24 bits																		
84▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,or 24-bits																		
85▼		8080	MULT	CMOS uCT;Z80,8085 and 8080 compatable;Async Comm interface with																		
86▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose timers/counters;uses																		
87▼		8080	MULT	NSC800 CPU;Instruction word size 8,16,or24-bits																		
88▼		8080	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async Comm interface with																		
89▼		8080	MULT	RS-232C drivers and rcvrs;4gen purpose timers/counters;uses																		
90▼		8080	MULT	NSC800 CPU;Instruction word size 8,26,or 24-bits																		
91▼		8080	MULT	RS-232C drivers and rcvrs;4 gen purpose timers/counters;uses																		
92▼		8080	MULT	NSC800 CPU;Instr word Size 8,16,or 24-bits																		
93	TK-80	8080	MULT			2.048M		512		768		2	24	5.0	1.0	12	150m		16	8	NECM	2MU006
94		8080	MULT	Expandable RAM and ROM to 1k,3programmable I/O,DMA transfer data																		
95		8080	MULT	Display/keyboard,CMOS RAM battery back up,audio cassette ext stor																		
96▼	CCS-1025	8080	PROP			2.0M		1k		5k		1	5	5.0	2.0	12	250m		16	8	CLI	
97▼	CCS-1025-1	8080	PROP			2.0m		1k		5k		1	5	5.0	3.5	12	250m		16	8	CLI	
98▼		8080	PROP	4-8bt/out pts,1-8bt/inpt-bus,20mA I/1p,differential pwr/sply-neg 9V																		
99▼		8080	PROP	Four 8-Bit output ports and one 8-bit parallel input buss with 4																		
100▼		8080	PROP	select signals: one serial interface: full duplex 20mA current loop																		
101▼	MCP-893	8080	PROP			2.0m							8	5.0		12		4	16	8	CLI	
102▼		8080	PROP	an 8-bit parallel processor w/Six-8bit-reg,8bit-acm,16bit-stk/pntr																		
103	CPU-TAI	8080	ZZZZ	8										5.0					16	8	TAI	
104		8080	ZZZZ	Interface to 64k bytes mem,interface for expansion directly to 1 28																		
105		8080	ZZZZ	8-bit in/output devices.Single level 8 groups w/priority interrupt																		
106	PCS1806	8080	ZZZZ	8		18M		1k		7k	2308g	1	16								PCS	
107		8080	ZZZZ	Software programmable baud rates 110 to 9600 baud,five 8-bit pro-																		
108		8080	ZZZZ	grammable interval timers,System DMA capability,500nsec mem cycle																		
109	PCS1810	8080	ZZZZ		8	18M		1k		3k	2708g	1		5.0	1.2	12	275m	2	16	8	PCS	2ZZ001
110		8080	ZZZZ	RS232 Serial I/O port or 20mA current loop,Full-duplex,Automatic																		

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] CPU TYPE GENERIC	[2] BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	ON BOARD MEMORY RAM TYPE	ON BOARD MEMORY ROM BYTES	ON BOARD MEMORY ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	T E M P	BUS SIZE A R	BUS SIZE D A T	MFG. CODE	DRAWING NUMBER
1		8080	ZZZZ	reset during power up or down,power Fail/Auto restart,Flexibus II																		
2	iSBC80/10A	8080A	MULT	1		2.0	2.0u	16k		8k	2716g	1	48	5.0	2.9	12	.15		16	8	ITL	
3		8080A	MULT	Programmable synch/asynch commo interface;0-64k onboard address																		
4	iSBC80/20-4	8080A	MULT	8		2.15M	1.9u	4k		8k	2716g	1	48	5.0	4.0	12	.09		16	8	ITL	
5		8080A	MULT	Programmable synch/asynch commo interface;0-64k onboard address																		
6#	SMP-E1	8080A	SMP	1		2.0M	8.8u☑					1		5.0		12		1	16	8	SIEG	
7#		8080A	SMP	8080uC w/ asynch serial I/O--20mA current loop;features																		
8#		8080A	SMP	pwr-on reset(to addr 0);compatible w/SMP80 bus																		
9	CB1A	8080A	S100			2.0M		1.0k	2114g	2.0k	2708g		8	8.0	.95	16	50m		16	8	SSM	
10		8080A	S100	8080uC w/ 1K of onboard scratchpad RAM,optional pwr-on jump																		
11		8080A	S100	1 bit status port,buffered lines;vector jump--any 2K boundry																		
12▼		80800	MULT	CMOS uCT;Z80,8085,and 8080 compatable;Async Comm interface with																		
13▼		80800	MULT	RS-232c drivers and rcvrs;4 gen purpose timers/counters;uses																		
14	Am95-4010	8085	MULT			4.0M				4k		2	24						16	8	AMD	
15		8085	MULT	(5) 16 bit programmable counter-timer w/8Ch interrupt controller																		
16	BLC80/05	8085	MULT	1	3	1.996M	2.0u*	0.5k	8155g	8k	2732g		22	5.0	2.6	12	7.0m	1	16	8	NSC	2MU001
17		8085	MULT	Multiple processor capability up to 6 bus masters,14-bit or timer																		
18▼#	SMP-E5-A2	8085	SMP			2.048M						1		5.0	800m	12	70m		16	8	SIEG	
19▼#	SMP-E5-A3	8085	SMP			3.072M						1		5.0	800m	12	70m		16	8	SIEG	
20▼#		8085	SMP	8085uC w/serial I/O DMA control,floating pt. processor																		
21▼#	SMP-E6-A3	8085	SMP	4	8	3.072M		1.0k		12k	2732g	1	16	5.0	700m				16	8	SIEG	
22▼#		8085	SMP	8085uC w/parallel and serial I/O,programable counters/timer,																		
23▼#		8085	SMP	interrupt control,memory(EPROM,CMOS RAM),expandable																		
24	7801	8085	STD	1	1	3.1M		4.0k	2114g	8.0k				5.0	1.4				16	8	PRO	2SD001
25		8085	STD	Tristate logic,XTAL-CLK CTL,fully buffered u-Processor																		
26	SSM-85/1	8085	ZZZZ	2	3		1.3u	1.3k		4k	2716g	1	3	5.0	1.0	12	60m				SSC	2ZZ012
27		8085	ZZZZ	1280 byte RAM for data and stack,six more vectored interrupts may																		
28		8085	ZZZZ	be added,2 programmable 8-bit I/O ports,1 programmable 6-bit I/O																		
29		8085	ZZZZ	port,programmable 14-bit counter/timer,monitor PROM (SSM-DEBUB)																		
30	SSM-85/2	8085	ZZZZ		3		1.3u	256		2k	2716g	1	3	5.0	0.4	15	60m				SSC	2ZZ013
31		8085	ZZZZ	One memory mapped input port(5 its),,S232 Seeiil I/O p rt,P,og- -ma																		
32		8085	ZZZZ	rammable 14-bit counter/timer,compatible with 8080 CPU																		
33	iSBC80/04	8085A	MULT		4	1.97M	2.0u	256		4k	2716g	1	22	5.0	.60				16	8	ITL	
34		8085A	MULT	Includes programmable 14 bit intervaltimer/event CTR;optimized																		
35		8085A	MULT	for standalone applications;uses static RAM;																		
36	iSBC80/05	8085A	MULT		4	1.97M	2.0u	512		4k	2716g	1	22	5.0	1.8				16	8	ITL	
37		8085A	MULT	Programmable 14 bit interval timer/event CTR;uses static RAM																		
38	iSBC80/30	8085A	MULT	12		2.76M	1.4u	16k		8k	2732g	1	24	5.0	3.5	12	.22		16	8	ITL	
39		8085A	MULT	Dual port dynamic RAM w/on-board refresh;synch/Asynch interface																		
40	MC85-001	8085A	MULT	12		5.0M		4.0k	4kx1	16k	2732g	1	48	5.0	5.0	12	.40	1	16	8	GMC	2MU001
41		8085A	MULT	3 Programmable 16 bit cntr,baud rate cntrl, 8 level bus arbitrate																		
42		8085A	MULT	CRT controller,prgble font,2K display ram,direct composite video																		
43		8085A	MULT	2K rom monitor, 80x24-7x7 display controller,60Hz																		
44	MC85-002	8085A	MULT	12		5.0M		4.0k	4kx1	16k	2732g	1	48	5.0	5.0	12	.40	1	16	8	GMC	2MU001
45		8085A	MULT	Same as MC85-001 except 64x16-7x9 display controller																		
46	MC85-011	8085A	MULT	12		5.0M		4.0k	4kx1	16k	2732g	1	48	5.0	5.0	12	.40	1	16	8	GMC	2MU001
47		8085A	MULT	Same as MC85-001 except 50Hz																		
48	MC85-012	8085A	MULT	12		5.0M		4.0k	4kx1	16k	2732g	1	48	5.0	5.0	12	.40	1	16	8	GMC	2MU001
49		8085A	MULT	Same as MC85-002 except 50Hz																		
50▼	ZX-80/05	8085A	MULT	1	3	4.9152	814n	1.0k		32k	2764g	1	22	5.0	1.0	12	20m	1	16	8	ZEN	
51▼		8085A	MULT	Replacement for INTEL SBC-80/05; MULTIBUS BUS-MASTER 3.9/9.8 MHz																		
52▼		8085A	MULT	Selectable for 8085A-2; sockets for max 32K bytes EPROM																		
53#	SMP-E2	8085A	SMP	5		3.0M						1		5.0		12		1	16	8	SIEG	
54#		8085A	SMP	8085uC w/ asynch/synch serial I/O w/software-select baud rates																		
55#		8085A	SMP	pwr-on reset(to addr 0);compatible w/ SMP80 bus,DMA facility																		
56#	SMP-E3	8085A	SMP	5		3.0M						1		5.0		12		1	16	8	SIEG	
57#		8085A	SMP	8085uC w/ asynch/synch serial I/O w/software-select baud rates																		
58#		8085A	SMP	pwr-on reset(to addr 0);compatible w/ SMP80 bus,DMA facility																		
59#		8085A	SMP	9511 APU w/ 4 basic operators plus trig functions etc w/fixed or																		
60#		8085A	SMP	floating-pt																		
61#	SMP-E4	8085A	SMP	5		3.0M		2.0k		16k	2732g	1	16	5.0				1	16	8	SIEG	
62#		8085A	SMP	8085uC w/asynch/synch serial I/O;parallel I/O lines,5 tim/ctr s																		
63#		8085A	SMP	maskable priority interrupt logic;4 EPROM sockets																		
64#	PCA8501	8085A	ZZZZ	5		2.5M	1.6u	1.0k	2114g	4.0k	2716g	1	48	5.0	.90	12		1	16	8	MITJ	2ZZ005
65#		8085A	ZZZZ	General-purpose w/8-bit uP; pwr-on reset, CMOS w/batt-backup or																		
66#		8085A	ZZZZ	NMOS-RAM MEM																		
67▼#	PCA8520G01	8085A	ZZZZ		1	3.6M	2.2u	256	2112gg	32k	2732g		24	5.0	1.3	-5	100m	1	16	8	MITJ	2ZZ016
68▼#		8085A	ZZZZ	Voice generating sngle board computer; voice recorded on EPROMs																		
69▼#		8085A	ZZZZ	reproduced by delta modulation system-messages max of 18sec long																		
70▼#		8085A	ZZZZ	(using 8 2732s); PCA8520G01 is less speaker and EPROMs																		
71▼#	PCA8520G02	8085A	ZZZZ		1	3.6M	2.2u	256	2112g	32k	2732g		24	5.0	1.3	-5	100m	1	16	8	MITJ	2ZZ016
72▼#		8085A	ZZZZ	Voice generating sgnle bd computer; voice recorded on EPROMs																		
73▼#		8085A	ZZZZ	reproduced by delta modulation system--message duration 18sec max																		
74▼#		8085A	ZZZZ	(using 8 2732s);PCA8520G02 comes with computer; 7-2716 EPROMs;																		
75▼#		8085A	ZZZZ	EPROMs for voice storage; speaker; instr manual																		
76▼#	PCA8540G01	8085A	ZZZZ	1	4	1.79M§	2.2u	256	8155g	4.0k	2716g	1	22	5.0	1.3	-5	0.2	1	16	8	MITJ	2ZZ017
77▼#		8085A	ZZZZ	color TV display sngle bd computer with NTSC system output(JAPAN)																		
78▼#		8085A	ZZZZ	less EPROM/s;and includes only 1 58725P ram for screen memory																		
79▼#	PCA8540G02	8085A	ZZZZ	1	4	1.79M§	2.2u	256	8155g	4.0k	2716g	1	22	5.0	1.3	-5	0.2	1	16	8	MITJ	2ZZ017
80▼#		8085A	ZZZZ	color TV display sngle bd computer for video monitor TV--																		
81▼#		8085A	ZZZZ	monochrome signals; less EPROMs but includes 1 58725P																		
82	iSBC86/12A	8086	MULT	1	9	5.00M	1.2u	32k		16k	2732g	1	24	5.0	5.2	12	.35		16	16	ITL	
83		8086	MULT	Sixteen bit HMOS CPU;dual port RAM w/onboard refresh synch/async																		
84		8086	MULT	commo interface,2 programmable 16 bit BCD/binary timer/CTR																		
85#	SMP-E8▼	8088	SMP			5.0M		4.0k		16k	2764g			5.0				1	16	8	SIEG	
86#		8088	SMP	16 bit 8088uC w/DMA facility;software compatiblity w/8086;2																		
87#		8088	SMP	EPROM sockets;extended address space																		
88	WD900	9000	PROP					64k				2	16	5.0	2.5	12	1.8				WDC	
89		9000	PROP	Two RS-232 asyn/synchronous ports,Floppy disk controller with DMA																		
90	95/4000/2	9080	MULT		8	2.0M	2.0u	4.0k		12k	2708g	2	48	5.0	3.2	12	300m	1	16	8	AUC	2MU005
91		9080	MULT	Features incl 9511-APU, 4 DMA channels w/block x-fer capability																		
92	95/4000/4	9080	MULT		8	4.0M	1.0u	4.0k		12k	2708g	2	48	5.0	3.2	12	300m	1	16	8	AUC	2MU005
93		9080	MULT	Features incl 9511-APU, 4 DMA channels w/block x-fer capability																		
94	95/4005/2	9080	MULT		8	2.0M	2.0u	4.0k		16k	2708g	2	48	5.0	3.2	12	300m	1	16	8	AUC	2MU005
95		9080	MULT	Features incl 9511-APU, 4 DMA channels w/block x-fer,1.2khz																		
96		9080	MULT	real time clk																		
97	95/4005/3	9080	MULT		8	3.0M	1.3u	4.0k		16k	2708g	2	48	5.0	3.2	12	300m	1	16	8	AUC	2MU005
98		9080	MULT	Features incl 9511-APU, 4 DMA channels w/block x-fer, 1.2khz																		
99		9080	MULT	real time clk																		
100	Am95-6011	9511	MULT																16	8	AMD	
101		9511	MULT	32bit floating-point arithmetic,16 and 32bit fixed-point arithmet																		
102	Am95-6012	9512	MULT																16	8	AMD	
103		9512	MULT	32 and 64 bit floating-point arithmetic,floating-point processor																		
104	TM990-189	9529	TM90	16				2k			4732g		16	5.0	1.8	12	0.2		20	16	TII	
105		9529	TM90	Stand-alone educational module for teaching uC fund,Alpha-numeric																		
106	990-160	9900	TM90	17		3.0M				2.0k	2716g			5.0	4.0	12	200m	1	20	16	DIF	
107		9900	TM90	Memory-mapping CPU provides access to 20 bit addr space (1M)																		
108		9900	TM90	for TM990 uC s compatible w/ TM990 uC bus, utilizes paged memory																		
109		9900	TM90	mapping: 256 4k byte pages (physical address space); onboard APU																		
110		9900	TM90	provides trig functions etc																		

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 CPU TYPE GENERIC	2 BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	RAM TYPE	ROM BYTES	ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	MFG. CODE	DRAWING NUMBER
1	TM990-100M-1	9900	TM90		16			1k		8k	2716g		16	5.0	1.3	12	0.2		20	16	TII	
2		9900	TM90	TMS uC board w/TI BUG m nitor i 2 TMT2708 EPEOR,E A TTA ser es																		
3	TM990-100M-2	9900	TM90		16			1k		8k	2716g		16	5.0	1.4	12	0.3		20	16	TII	
4		9900	TM90	TMS9900 uC board with unprogrammed TMS2708 EPROM s,EIA or diff LN																		
5	TM990-100M-3	9900	TM90		16			1k		8k	2716g		16	5.0	1.6	12	0.3		20	16	TII	
6		9900	TM90	TMS9900 uC board with fully expanded memory,EIA or diff Ln Dr jum																		
7▼	TM990-100MA-1	9900	TM90	2	15	3.0M		4.0k		8.0k	2716g		16	5.0	1.2	12	.10	2	20	16	TII	
8▼		9900	TM90	TMS uC board w/TIBUG monitor in two ROM/EPROMs																		
9▼	TM990-100MA-2	9900	TM90	2	15	3.0M		4.0k		8.0k	2716g		16	5.0	1.4	12	.10	2	20	16	TII	2TM001
10▼		9900	TM90	TMS uC board w/unprogrammed 2708 EPROMS; EIA or TTY Serial I/F opt																		
11	TM990-101M-1	9900	TM90		16			4k		8k	2716g		16	5.0	1.6	12	0.3		20	16	TII	
12		9900	TM90	TMS9900 uC board with TIBUG monitor in 2 TMS2200 EEROM anddTTY																		
13	TM990-101M-2	9900	TM90		16			4k		8k	2716g		16	5.0	1.6	12	0.3		20	16	TII	
14		9900	TM90	TMS9900 uC board with unprogrammed TMS2708 EPPOO ssand ultiirop																		
15	TM990-101M-3	9900	TM90		16			4k		8k	2716g		16	5.0	1.7	12	0.4		20	16	TII	
16		9900	TM90	TMS9900 uC board with fully expanded memory and TTY, EIA,microterm																		
17▼	TM990-101MA-1	9900	TM90	2	15	3.0M		4.0k		8.0k	2716g	2	16	5.0	1.8	12	.30	2	20	16	TII	2TM001
18▼		9900	TM90	TMS uC board w/TIBUG monitor in two ROM/EPROMs																		
19▼	TM990-101MA-10	9900	TM90	2	15	3.0M		4.0k		8.0k	2716g	2	16	5.0	1.8	12	.40	2	20	16	TII	2TM001
20▼		9900	TM90	TMS uC board w/ POWER BASIC; RS232C or TTY or MODEM serial I/O																		
21▼	TM990-101MA-2	9900	TM90	2	15	3.0M		4.0k		8.0k	2716g	2	16	5.0	1.8	12	.30	2	20	16	TII	2TM001
22▼		9900	TM90	TMS uC board w/unprogrammed 2716 EPROMS; RS232C or diff linedrop																		
23▼	TM990-101MA-3	9900	TM90	2	15	3.0M		4.0k		8.0k	2716g	2	16	5.0	1.8	12	.40	2	20	16	TII	2TM001
24▼		9900	TM90	TMS uC board w/2 serial I/O ports RS232C or MODEM or diff line drp																		
25	TM990-180M-1	9980	TM90		16			1k		2k	2708g		16	5.0	1.3	12	0.2		20	16	TII	
26		9980	TM90	TMS9980 CPU,TMS9901 programmable system interface,EIA or TTY term																		
27▼	TM990-U89	9980	TM90	2	4			2.0k		6.0k	4732g		16	5.0	.60†	12	.10†	2	20	16	TII	2TM003
28▼		9980	TM90	Self-contained microcomputer system designed as learning aid																		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	4 BOARD TYPE NUMBER	1 BUS CODE	2 TOTAL CAPACITY	MEMORY TYPE A 3 TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	CONFIGURATION TYPE B TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT	SUPPLY B CURR MAX (A)	T E M P	BUS SIZE A R	D A T	MFG. CODE	DRAWING NUMBER
1▼	CMOS 32k Static RAM/ROM-16 Skts,Bank Select to 1 Megabyte																				
2▼	Low power,TTL Compatable,Jumper select each socket																				
3▼#	AMS-D104	AMS8	16k	RD	16k								5.0					16	8	SIEG	
4▼#	AMS-D126-A1	AMS8	20k	RS	4.0k			EP	16k	2732g			5.0	1.2				16	8	SIEG	
5▼#		AMS8	20k	RS	Non-volatile static RAM MEM,also EPROM Sockets,compatible w/AMS bus																
6▼#		AMS8	20k	RS	Non-volatile static RAM MEM,also EPROM sockets,compatible w/AMS bus																
7▼#		AMS8	20k	RS	Non-volatile static RAM MEM,also EPROM sockets,compatible w/AMS bus																
8▼#	AMS-D127	AMS8	24k	RS	8.0k			EP	16k	2732g			5.0	1.2				16	8	SIEG	
9▼#	AMS-D105	AMS8	32k	RD	32k								5.0					16	8	SIEG	
10▼#	AMS-D128	AMS8	32k	RS	16k			EP	16k	2732g			5.0	1.2				16	8	SIEG	
11▼#	AMS-D106	AMS8	64k	RD	64k								5.0					16	8	SIEG	
12▼#	CRAM-108-230	EURO	8.0k	RS	2.1k		1.0u						5.0	0.5			1	16	8	EURF	3EU002
13▼#	CRAM-108-250	EURO	8.0k	RS	4.1k		1.0u						5.0	0.5			1	16	8	EURF	3EU002
14▼#	CRAM-108-290	EURO	8.0k	RS	8.2k		1.0u						5.0	0.5			1	16	8	EURF	3EU002
15▼#	RAM-108-220	EURO	8.0k	RS	2.0k		1.0u						5.0	1.3			1	16	8	EURF	3EU001
16▼#	RAM-108-240	EURO	8.0k	RS	4.1k		1.0u						5.0	1.3			1	16	8	EURF	3EU001
17▼#	RAM-108-280	EURO	8.0k	RS	8.2k		1.0u						5.0	1.3			1	16	8	EURF	3EU001
18▼#	EPROM-332-200	EURO	32k	EP	33k								5.0	1.8			1	16	8	EURF	3EU004
19▼#	EPROM-332-300	EURO	32k	EP									5.0	1.8			1	16	8	EURF	3EU004
20▼#	BMM-128-200	EURO	128k	BB									5.0	0.3	12		1	16	8	EURF	3EU003
21▼#	BMM-128-300	EURO	128k	BB									5.0	0.3	12		1	16	8	EURF	3EU003
22	M68MM06	EXOR	2k	RR	2k								5.0	1.5			2	16	8	MOTA	
23		EXOR	2k	RR	Micromodule family bus compatible,user selectable base address																
24	MEX6812-1	EXOR	2k	RS	2k		500nC					1k	5.0	1.0☑				16	8	MOTA	
25		EXOR	2k	RS	NMOS mem in 1k byte arrays,switch selectable RAM/ROM capability																
26	M68MM09	EXOR	4k	RS	4k							4k	5.0	0.3			2	16	8	MOTA	3EX002
27		EXOR	4k	RS	CMOS RAM,1.5 or 2.0MHz operation,RAM/ROM switch,parity option																
28	MM6800	EXOR	8k	CO	8k		350n						5.0	1.4	12	900m	1	16	8	MIM	
29		EXOR	8k	CO	Power monitoring for data protection,Pseudo-ROM/RAM partitioning																
30▼	MEK68RR▼	EXOR	8k	RD	4k		360n☑					16k	5.0				1	16	8	MOTA	
31▼		EXOR	8k	RD	2 ROM Arrays of 4 Sockets each,16 RAM Sockets Accept MCM2114 RAM																
32▼		EXOR	8k	RD	choosing 4K PROM, (2) MCM2114 Factory Installed,Accepts 1K,2K,4K																
33	MEX6815-3	EXOR	8k	RR	8k								5.0	0.6	12	.25	2	16	8	MOTA	
34		EXOR	8k	RR	2 Arrays NMOS,SW selectable base memory address for each mem array																
35▼																					
36▼		EXOR	8k	RR	Modular Expandability,Module Interchangeability,Low Power Battery																
37▼	MMS681021▼	EXOR	8k	RR	8k		280n☑						5.0		12		2	16	8	MOTA	
38▼		EXOR	8k	RR	Modular Expandability,Module Interchangeability,Low power Battery																
39▼	MBC008	EXOR	8.0k	RS	8.0k	2114g	500n						5.0	3.5			2	16	8	SYK	
40▼		EXOR	8.0k	RS	Modules contain address decoding, write protection, and data buffers																
41▼	MBC008L3	EXOR	8.0k	RS	8.0k	2114g	300n						5.0	2.5			2	16	8	SYK	
42▼		EXOR	8.0k	RS	Modules contain address decoding, wtite protection, and data buffers																
43▼	MBC008L	EXOR	8.0k	RS	8.0k	2114g	500n						5.0	2.5			2	16	8	SYK	
44▼		EXOR	8.0k	RS	Moudles contain address decoding, write portection, and data buffers																
45▼	MBC0083	EXOR	8.0k	RS	8.0k	2114g	300n						5.0	3.5			2	16	8	SYK	
46▼		EXOR	8.0k	RS	Modules contain address decoding, write protection, and data buffers																
47	MEX6808-22S	EXOR	8k	RS	8k		230n						5.0	2.6				16	8	MOTA	3EX004
48		EXOR	8k	RS	2MHz memory speed,NMOS eighteen 4kx1-bit provide 8kx8-bit RAM																
49▼	MMS68102A1▼	EXOR	9k	RR	9k		280n☑						5.0		12		2	16	8	MOTA	
50▼		EXOR	9k	RR	Similar to MMS68102A but with 8Kx9 memory																
51▼																					
52▼		EXOR	9k	RR	Similar to MMS68102A but with 8kx9 Memory																
53	CI-6800-2/16	EXOR	16k	RR	16k	4116g	225n					4.0k	5.0	1.0	12	.30	1	16	8	CII	
54		EXOR	16k	RR	9 bit dynamic RAM MEM w/onboard refresh: (hidden up to 1.5MHz,																
55		EXOR	16k	RR	cycle steal at 2MHz) optional onboard parity generator checker																
56		EXOR	16k	RR	designed for EXORCISER uC/ROCKWELL SYSTEM 65																
57	CI-6800/16	EXOR	16k	RR	16k	16kx1	300n					4.0k	5.0	.80	12	.22	1	16	8	CII	
58		EXOR	16k	RR	8 bit dynamic RAM MEM w/onboard refresh, 14 bit addr, 8 bit data																
59		EXOR	16k	RR	4k sw-select MEM blocks, designed for 6800 uC s																
60	M68MM04	EXOR	16k	RR	8k	68308g							5.0	.43	12	.52	2	16	8	MOTA	
61		EXOR	16k	RR	Up to sixteen 1k bit AROM or ROM devices,selectable base memory																
62▼	MBC016D	EXOR	16k	RR	16k								5.0	700m	12	120m	2	16	8	SYK	
63▼		EXOR	16k	RR	Hidden refresh; 1 or 2Mhz version;priority interrupts ;fully buffered																
64▼	MEK68MM16▼	EXOR	16k	RR	16k		360n☑										1	16	8	MOTA	
65▼		EXOR	16k	RR	Hidden Refresh,Mem Appears Static to the System,Refer to MEK68MM16																
66	MEX6816-1HR	EXOR	16k	RR	16k								5.0	1.0☑	12	.16☑	2	16	8	MOTA	3EX005
67		EXOR	16k	RR	Hidden refresh,even parity,jumper selectable mem map assignment																
68	MBC016	EXOR	16k	RS	16k	2114g	500n					8k	5.0	3.5			1	16	8	SYK	
69		EXOR	16k	RS	Includes address decoding,write protection,data buffering circuit																
70		EXOR	16k	RS	Memory implemented with 32 of 1kx4,System 65 and Motorola compatbl																
71▼	MBC016L3	EXOR	16k	RS	16k	2114g	300n					8k	5.0	2.5			1	16	8	SYK	
72▼		EXOR	16k	RS	Similar to MBC016 with 300nSec Access Time and Lower power																
73	MBC016L	EXOR	16k	RS	16k	2114g	500n					8k	5.0	2.5			1	16	8	SYK	
74		EXOR	16k	RS	Similar to MBC016 with low power																
75▼	MBC0163	EXOR	16k	RS	16k	2114g	300n					8k	5.0	3.5			1	16	8	SYK	
76▼		EXOR	16k	RS	Similar to MBC016 with different Access Time(300n Seconds)																
77	MEX6816-22S	EXOR	16k	RS	16k		230n						5.0	2.6☑				16	8	MOTA	3EX004
78		EXOR	16k	RS	2 MHz Mem speed,NMOS Thirty-Six 4kx1-bit provide 16kx8-bit RAM																
79▼	MIKUL6008-16	EXOR	16k	RS	16k	4104g	250n						5.0	375m			2	16	8	TLI	3EX007
80▼		EXOR	16k	RS	Contains RAM array,bus interface,address decoder,control logic;Two																
81▼		EXOR	16k	RS	independant 8k banks w/common bus interface;High speed static RAM																
82▼	MM68103A▼	EXOR	18k	RR	18k		475n☑						5.0		12		2	16	8	MOTA	
83▼		EXOR	18k	RR	Similar to MM68103-1 with 16Kx9,Micromodule Compatible,See 103A-1																
84	MMS68102A▼	EXOR	18k	RR	18k		280n☑						5.0		12		2	16	8	MOTA	
85		EXOR	18k	RR	Similar to MMS68102-1 but with 16kx9 memory,																
86▼		EXOR	18k	RR	Similar to MMS68102-1 but with 16kx9 Memory																
87▼																					
88▼	MIKUL6006-16	EXOR	32k	EP	32k	2716g	80n						5.0	700m	12	1.0	2	16	8	TLI	3EX0066
89▼		EXOR	32k	EP	Contains EPROM array;bus interface,address decoder,control logic																
90	CI-6800-2/32	EXOR	32k	RR	32k	4116g	225n					4.0k	5.0	1.0	12	.30	1	16	8	CII	
91		EXOR	32k	RR	9 bit dynamic RAM: 32k version of CI-6800-2;TTL compatible I/O																
92	CI-6800-2/48	EXOR	32k	RR	48k	4116g	225n					4.0k	5.0	1.0	12	.30	1	16	8	CII	
93		EXOR	32k	RR	9 bit dynamic RAM: 48k version of CI-6800-2;TTL compatible I/O																
94	CI-6800/32	EXOR	32k	RR	32k	16kx1	300n					4.0k	5.0	.80	12	.22	1	16	8	CII	
95		EXOR	32k	RR	32k version of CI-6800--8 bit dynamic RAM MEM																
96▼	MBC032D	EXOR	32k	RR	32k								5.0	700m	12	120m	2	16	8	SYK	
97▼		EXOR	32k	RR	Hidden refresh;1 or 2MHz version;priority interrupts;Fully buffered																
98▼	MEK68MM32▼	EXOR	32k	RR	32k		360n☑										1	16	8	MOTA	
99▼		EXOR	32k	RR	Capable of Operation in page Mode Configuration,Refer to MEK68MM16																
100	MEX6832-1HR	EXOR	32k	RR	32k								5.0	1.0☑	12	.16☑	2	16	8	MOTA	3EX005
101		EXOR	32k	RR	Hidden refresh,even parity,jumper selectable mem map assignment																
102	CI-6800/48	EXOR	48k	RR	48k	16kx1	300n					4.0k	5.0	.80	12	.22	1	16	8	CII	
103		EXOR	48k	RR	48k version of CI-6800--8 bit dynamic RAM MEM																
104	MEX6848-1HR	EXOR	48k	RR	48k								5.0	1.0☑	12	.16☑	2	16	8	MOTA	3EX005
105		EXOR	48k	RR	Hidden refresh,even parity,jumper selectable mem map assignment																
106	M68MM04A	EXOR	64k	EP	4k	2716g						3k	5.0	.65	12	.08	2	16	8	MOTA	3EX001
107		EXOR	64k	EP	2 independent blocks of eight 24-pin sockets for ROM,RAM or EPROM																
108▼	CI-6800-2/64	EXOR	64k	RR	64k	4116g	225n					4.0k	5.0	1.0	12	.30	1	16	8	CII	
109		EXOR	64k	RR	9 bit dynamic RAM: 64k version of CI-6800-2; TTL compatible I/O																
110	CI-6800/64	EXOR	64k	RR	64k	16kx1	300n					4.0k	5.0	.80	12	.22	1	16	8	CII	

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	4 BOARD TYPE NUMBER	1 BUS CODE	2 TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A 3 TEC	TYPE A MAX. BYTES	TYPE A LARGEST CHIP CONFIG.	TYPE A ACCESS TIME (S)	TYPE B TEC	TYPE B MAX. BYTES	TYPE B LARGEST CHIP CONFIG.	TYPE B ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	BUS SIZE T E M P	BUS SIZE A D R	BUS SIZE D A T	MFG. CODE	DRAWING NUMBER
1		EXOR	64k	RR	64k version of CI-6800-8 bit dynamic RAM MEM																
2▼	MBC048D	EXOR	64k	RR	48k								5.0	700m	12	120m	2	16	8	SYK	
3▼		EXOR	64k	RR	Hidden refresh;1 or 2MHz version;priority interrupts;Fully buffered																
4▼	MBC064D	EXOR	64k	RR	64k								5.0	700m	12	120m	2	16	8	SYK	
5▼		EXOR	64k	RR	Hidden refresh;1 or 2MHz Version;priority interrupts;Fully buffered																
6	MEX6864-1HR	EXOR	64k	RR	64k								5.0	1.0☑	12	.16☑	2	16	8	MOTA	3EX005
7		EXOR	64k	RR	Hidden refresh,even parity,jumper selectable mem map assignment																
8	RMP-004	LSI	4k	RO	4k	2716g												16	16	DPW	
9		LSI	4k	RO	Functionally identical to ROM-016,except reduced memory size																
10	MLSI-MRV001	LSI	8k	EP	8k	1702g							5.0	4.1	5.0	0.4		16	16	MDB	
11		LSI	8k	EP	Dual module,mounts in one-half quad slot,Refer to MRV000 and 002																
12	MRV11BA	LSI	8k	EP	8k			RS	.5k				5.0	.58	12	.34		16	16	DEC	3LS001
13		LSI	8k	EP	PROM and RAM address space independently configured via jumper																
14	MLSI-MRV002	LSI	8k	PR	8k	5623g							5.0	4.1	5.0	0.4		16	16	MDB	
15		LSI	8k	PR	Accomodates commercially available with 5624,Refer to MRV000-3																
16	MLSI-MRV003	LSI	8k	PR	8k	3625g							5.0	4.1	5.0	0.4		16	16	MDB	
17		LSI	8k	PR	Accomodates with fusible link PROMs or equivalent ROMs,See MRV003																
18	MLSI-MRV000	LSI	8k	RO	8k	2708g							5.0	4.1	5.0	0.4		16	16	MDB	
19		LSI	8k	RO	Accomodates 2704,switch selectable memory area allocation,See 001																
20	CI-1103/8	LSI	8.0k	RR	8.0k	4116g	325n					2.0k	5.0	1.0	12	.30	1	16	16	CII	
21		LSI	8.0k	RR	16 bit dynamic RAM MEM w/ on-board or ext refresh designed for																
22		LSI	8.0k	RR	LSI-11, onboard sw-select addr assignment; max 32																
23▼	MMS1111N3004▼	LSI	8k	RR	8k			RO					5.0		12			16	16	MOTA	
24▼		LSI	8k	RR	Starting RAM address on any 4K or 16K (Q Bus PPus) Boundry,2 Serial																
25▼		LSI	8k	RR	Interface ports,crystal-controlled System Clock,Refer MMS1111N3008																
26	VML1116/04	LSI	8k	RS	8k		250n					8k	5.0					16	16	CES	
27		LSI	8k	RS	Similar to VML1116/16 but 16k(4kx16) max bytes,Different power reg																
28	MXV11AA	LSI	12k	EP	4k	2732g	450n	RR	8k				5.0	1.2	12	0.1		16	16	DEC	
29		LSI	12k	EP	2 serial line meet RS-423 standard,baud rate max 38.4K,crystal clock																
30	MM1103	LSI	16k	CO	16k		400n						5.0	3.6	12	0.3	1	16	16	MIM	
31		LSI	16k	CO	Double density of/MMV-11A,Pin to pin compatiblity with MMV-11A																
32	RMS-016	LSI	16k	RO	16k	2716g												16	16	DPW	
33		LSI	16k	RO	May be used in stand-alone configuration if memory space is available																
34	ROM-016	LSI	16k	RO	16k	2716g												16	16	DPW	
35		LSI	16k	RO	Self contain bank switch controller incorporated within each module																
36	CI-1103/16	LSI	16k	RR	16k	4116g	325n					2.0k	5.0	1.0	12	.30	1	16	16	CII	
37		LSI	16k	RR	16 bit dynamic RAM: 16k version of CI-1103 w/TTL compatible I/O																
38▼	MMS1102-31▼	LSI	16k	RR	16k		300n						5.0	.85	12	0.4		16	16	MOTA	
39▼		LSI	16k	RR	No-Parity,Also Interface with Q Bus-plus,Refer to MMS1102-32																
40▼	MMS1102-31PC▼	LSI	16k	RR	16k		300n						5.0	1.1	12	0.4		16	16	MOTA	
41▼		LSI	16k	RR	On-Board Storage,Generation and detection logic,Refer MMS1102-32PC																
42▼		LSI	16k	RR	High Density,High Reliability,Byte Operation,Fast Access and Cycle																
43▼	MMS1111N3008▼	LSI	16k	RR	16k			RO					5.0		12			16	16	MOTA	
44▼		LSI	16k	RR	Also,2 Sockets for ROM-EPROM-PROM,Industry standard pinouts,Up to																
45▼		LSI	16k	RR	16 Bytes of Program Storage,ROM-EPROM/PROM Capa,Refer MMS1111N3016																
46	VML1116/08	LSI	16k	RS	16k		250n					8k	5.0					16	16	CES	
47		LSI	16k	RS	Similar to VML1116/16 but 16k(8kx16) max bytes,Different power reg																
48▼	MMS1110-1▼	LSI	24k	RR	24k		450n						5.0		12		1	16	16	MOTA	
49▼		LSI	24k	RR	High Density,High Reliability,Byte Operation,Fast Access and Cycle																
50	VML1116/12	LSI	24k	RS	24k		250n					8k	5.0					16	16	CES	
51		LSI	24k	RS	Similar to VML1116/16 but 24k(12kx16) max bytes,Different power reg																
52	CI-1103/32	LSI	32k	RR	32k	4116g	325n					2.0k	5.0	1.0	12	.30	1	16	16	CII	
53		LSI	32k	RR	16 bit dynamic RAM: 32k version of CI-1103 w/TTL compatible I/O																
54▼	MMS1102-32▼	LSI	32k	RR	32k		300n						5.0	.85	12	0.4		16	16	MOTA	
55▼		LSI	32k	RR	SW-Select,Start on any 4K word between 1-128K Refer MMS1102-34																
56▼																					
57▼	MMS1111N3016▼	LSI	32k	RR	32k			RO					5.0		12			16	16	MOTA	
58▼		LSI	32k	RR	Also,Asynchronous 8-Bit(No-Parity) or 7-Bit(With Parity) Data,Odd																
59▼		LSI	32k	RR	or Even Parity,One or Two Stop Bus,Refer MMS1111N3032																
60	MSV11DC	LSI	32k	RR	32k	8044g							5.0	1.7	12	.34		16	16	DEC	3LS002
61		LSI	32k	RR	Mem module perform DATI,DATO,DATOB,DATIO,and DATIOB BUS cycles-LSI																
62	NS11/03	LSI	32k	RR	32k		400n					4k	5.0	1.1	12	0.5	2	16	16	NSC	
63		LSI	32k	RR	Double-density RAM,full compatible with LSI11 and PDP11/03 process																
64	RMA-032	LSI	32k	RS	32k		450n											16	16	DPW	
65		LSI	32k	RS	With bank sw controller then up to 1024K words of memory accessible																
66	VML1116/16	LSI	32k	RS	32k		250n					8k	5.0	2.5				16	16	CES	
67		LSI	32k	RS	Addressable in 8k (16 bits) increaments to 128k,Freedom in DMA op.																
68	MXV11AC	LSI	36k	EP	4k	2532g	450n	RR	32k				5.0	1.2	12	0.1		16	16	DEC	
69		LSI	36k	EP	2 serial line meet RS-423 standard,baud rate max 38.4K,crystal clock																
70	MMS1110P▼	LSI	36k	RR	36k		450n						5.0		12		1	16	16	MOTA	
71		LSI	36k	RR	High density,high reliability,byte operation,fast access and cycle																
72	MRV11C	LSI	64k	RO	4k	2732	450n						5.0	0.8				16	16	DEC	3LS003
73		LSI	64k	RO	Choice of EPROM,18-BIT address,windoi mappiag,boo,stras cap biliby																
74▼	MMS1102-34▼	LSI	64k	RR	64k		300n						5.0	.85	12	0.4		16	16	MOTA	
75▼		LSI	64k	RR	3 SW to use I/O as Read/Write memory on Lowest 3K,Refer MMS1102-31																
76▼	MMS1102-34PC▼	LSI	64k	RR	64k		300n						5.0	1.1	12	0.4		16	16	MOTA	
77▼		LSI	64k	RR	3 SW to use I/O as Read/Write memory on Lowest 3K,Rfer MMS1102-31PC																
78▼	MMS1111N3032▼	LSI	64k	RR	64k			RO					5.0		12			16	16	MOTA	
79▼		LSI	64k	RR	RS-232C,RS-422 and RS-423 Compatible,Optional Band Rates,Compatibl																
80▼		LSI	64k	RR	with DEC DLV11 Series,Overrun,Framing,Parity ED,Refer MMS1111N3004																
81	MSV11DD	LSI	64k	RR	64k	8044g							5.0	1.7	12	.37		16	16	DEC	3LS002
82		LSI	64k	RR	Mem module perform DATI,DATO,DATOB,DATIO,and DATIOB BUS cycles-LSI																
83	NS23L	LSI	64k	RR	64k		190n						5.0	1.5	12	0.4	1	16	16	NSC	3MU008
84		LSI	64k	RR	Optional parity bits,256kB address range,22-bit addressing																
85	MSV11ED	LSI	72k	RR	72k	8045g							5.0	2.0	12	.41		16	16	DEC	3LS002
86		LSI	72k	RR	Include parity bits,look up atMSV11DB,no special power required																
87▼	MSV11-LF	LSI	128k	MOS	128k		230n					8kB	5.0	4.2				22	16	DEC	
88	MEM11	LSI	128k	RR	64k		375n						5.0		12			16	16	ADS	
89		LSI	128k	RR	Optional byte parity generation and error detection,16-22 bit addr																
90▼	MSV11-LK	LSI	256k	MOS	256k		230n					8kB	5.0	4.2				22	16	DEC	
91	Z80-PPB	MCZ															1	16	8	ZIL	3MC001
92		MCZ			Program and verify PROM contents from a disk file,list PROM contents																
93		MCZ			to a terminal,duplicate a PROM,programs 7610-1,7620-1,7640-1,etc.																
94	Z80-MDC	MCZ	12k	RR	.5k												1	16	8	ZIL	
95		MCZ	12k	RR	Refer to Z80-MDC in Section 4,16-bit CRC,MDC control 8 floppy disk																
96	Z80-RMB	MCZ	16k	RR	16k								5.0				1	16	8	ZIL	
97		MCZ	16k	RR	8 sockets for max 8 ROM or PROM,strapping option of 16Kx1 mem comp																
98	iSBC094	MULT	4k	RD	4k	5101g	750n						5.0	1.7				16	8	ITL	
99		MULT	4k	RD	CMOS RAM w/on-board rechargeable BATT and CHG circuit,96HRS retain																
100	RAM4	MULT	4k	RD	4k		400n					4k	5.0				1	16	8	ESI	
101		MULT	4k	RD	All IC s are in sockets,168 Hrs. Burn-In,Single 5V power supply.																
102	RAM4L	MULT	4k	RD	4k		400n					4k	5.0				1	16	8	ESI	
103		MULT	4k	RD	Similar to RAM4 with Battery backup																
104	BLC104	MULT	4k	RR	4k	4027g	575n	PR	8k	2708g	465n	4k	5.0	4.1	12	.65	1	16	8	NSC	3MU002
105		MULT	4k	RR	Refer sec 5,battery back-up,48 programmable I/O In,8 mask in interrupt																
106	BLC406	MULT	6k	RO	6k	1302g						2k	5.0	2.5			1	16	8	NSC	3MU003
107		MULT	6k	RO	2k and 4k banks provide flexibility,SW select mem addressing																
108	60402	MULT	8k	CO	8k		350n						5.0		12		2	16	8	DRC	
109		MULT	8k	CO	Compatible National Semiconductors MOSRAM 104,non-volatility																
110	68001	MULT	8k	CO	8k		250n						5.0		12		2	16	8	DRC	

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	4 BOARD TYPE NUMBER	1 BUS CODE	2 TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A 3 TEC	TYPE A MAX. BYTES	TYPE A LARGEST CHIP CONFIG.	TYPE A ACCESS TIME (S)	TYPE B TEC	TYPE B MAX. BYTES	TYPE B LARGEST CHIP CONFIG.	TYPE B ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	T E M P	BUS SIZE A D R	D A T	MFG. CODE	DRAWING NUMBER
1		MULT	8k	CO	8080 compatibility,non-volatility,zero error rate																
2	68007	MULT	8k	CO	8k		250n						5.0		12		2	16	8	DRC	
3		MULT	8k	CO	Compatible with INTEL SBC-80/10,non-volatility,zero error rate																
4	MM8080AL	MULT	8k	CO	8k		350n						5.0	1.4	12	900m	1	16	8	MIM	
5		MULT	8k	CO	Power monitoring for data protection,Pseudo-ROM/RAM partitioning																
6	RAM8	MULT	8k	RD	8k		400n					8k	5.0	2.0☑			1	16	8	ESI	
7		MULT	8k	RD	All IC s are in sockets,168 Hrs.Burn-In,Single 5V power supply.																
8	RAM8L	MULT	8k	RD	8k		400n					8k	5.0	1.7☑	1.7	1.0☑	1	16	8	ESI	
9		MULT	8k	RD	Similar to RAM8 with Battery backup																
10	MR80-8C	MULT	8k	RS	8k	4Kx1	450n					8.0k	5.0	5.3			1	16	8	CMC	3MU009
11		MULT	8k	RS	Same as MR80-32 except contains 8K CMOS RAM																
12	62104	MULT	10kB	CO	10kB		350n						5.0		12		2	16	8	DRC	
13		MULT	10kB	CO	Cambridge memories 1kx9 Unicore,non-volatility,zero error rate																
14	iSBC104	MULT	12k	RO	8k	2716g		RR	4k				5.0	2.8	12	.45		16	8	ITL	
15		MULT	12k	RO	Combination RAM,EPROM/w I/O expansion;jumper selected 1 msec cpk																
16	60407	MULT	16k	CO	16k		300n						5.0		12		2	16	8	DRC	
17		MULT	16k	CO	Compatible with National Semiconductors NORSRAM 104,non-volatility																
18	68006	MULT	16k	CO	16k		265n						5.0		12		2	16	8	DRC	
19		MULT	16k	CO	Compatible with INTEL SBC-80/10,non-volatility,zero error rate																
20	PROM16	MULT	16k	EP	16k	2708g	475n					16k	5.0	.56☑	12	.08†	1	16	8	ESI	
21		MULT	16k	EP	Also accepts 2308 ROM s,slight modification convert to PROM32(32k)																
22		MULT	16k	PR	Jumper options select devices,allowing twice standard mem capacity																
23	iSBC416	MULT	16k	PR	16k								5.0	.75				16	8	ITL	
24		MULT	16k	PR	EPROM/ROM MEM w/16 sockets for 16K/64K of EPROM/ROM,1K,2K,or 4K																
25		MULT	16k	PR	increments																
26	iSBC108	MULT	16k	RO	8k	2716g		RR	8k				5.0	2.8	12	.45		16	8	ITL	
27		MULT	16k	RO	Combined RAM/ROM w I/O expansion;jumper selected 1 msec timer																
28	95/1016	MULT	16k	RR	16k		330n						5.0	.80	12	.13	1	16	8	AUC	3MU010
29		MULT	16k	RR	Includes R/W data buffers,TTL compatible data/addr/ctl I/F s																
30	BLC016	MULT	16k	RR	16k	5271g	700n					4k	5.0	1.5	12	0.7	1	16	8	NSC	
31		MULT	16k	RR	16-64k bytes in single series/80 system,BLC/SBC fully compatible																
32	BLC116	MULT	16k	RR	16k	4116g	575n	PR	8k	2716g	465n	4k	5.0	4.6	12	.65	1	16	8	NSC	3MU002
33		MULT	16k	RR	Refer sec 5,similar to BLC104 but with 16k bytes dynamics RAM																
34	BLC8016	MULT	16k	RR	16k	5298g	430n					4k	5.0	3.0	12	.47	1	16	8	NSC	
35		MULT	16k	RR	Auxiliary power bus and memory protect logic for battery back up																
36	CI-8080/16	MULT	16k	RR	16k	16kx1	270n					4.0k	5.0	.80	12	.22	1	16	8	CII	
37		MULT	16k	RR	8 bit dynamic RAM MEM w/onboard refresh, 14bit addr, 8 bit data																
38		MULT	16k	RR	4k sw-select MEM blocks, designed for INTEL MDS800, SBC80/10																
39		MULT	16k	RR	pin-to-pin MULTIBUS compatibility																
40	iSBC016	MULT	16k	RR	16k		690n					16k	5.0	1.5	12	1.0		16	8	ITL	
41		MULT	16k	RR	Dynamic read/write MEM w/on-board refresh;independent 16K byte																
42		MULT	16k	RR	address selection																
43▼	MMS808101▼	MULT	16k	RR	16k		400n						5.0		12		2	16	8	MOTA	
44▼		MULT	16k	RR	Modular Expandibility(Address Select Jumpers),Modular Interchangbl																
45	RAM016	MULT	16k	RR	16k		450n					16k	5.0	3.2☑	12	0.6☑	1	16	8	ESI	
46		MULT	16k	RR	20 address bits allow 1MByte addressing,16-bit iSBC86/12 compatibl																
47▼	B1012/2/16K	MULT	16k	RS	16k		250n					16k	5.0	5.8			1	24	16	CDC	
48▼	BP-0200	MULT	16k	RS	16k	444g	450n					16k	5.0	1.2	3.6	200u	1	16	8	NECM	3MU014
49▼		MULT	16k	RS	Static CMOS RAM board w/battery backup 168 hrs continuous use																
50	MR80-16	MULT	16k	RS	16k	4Kx11	400n					8.0k	5.0	5.3			1	16	8	CMC	3MU009
51		MULT	16k	RS	Same as MR80-32 except contains 16K NMOS Ram																
52	MR80-16C	MULT	16k	RS	16k	4Kx1	450n					8.0k	5.0	5.3			1	16	8	CMC	3MU009
53		MULT	16k	RS	Same as MR80-32 except contains 16K CMOS RAM																
54	rMEM16K-BES	MULT	16k	RS	16k	4Kx1	150n						5.0	4.0			2	16	8	CES	
55		MULT	16k	RS	Bank select,Byte exchange buffer,hi speed Ram/Rom inhibit,page																
56		MULT	16k	RS	switching,1 Megabyte address decoding																
57	62102	MULT	20kB	CO	20kB		350n						5.0		12		2	16	8	DRC	
58		MULT	20kB	CO	Cambridge memories 1kx9 Unicore,non-volitility,zero error rate																
59	PAM-1/ES4	MULT	20k	RS	4.0k	2114g		EP	16k	2716g		4.0k	5.0	1.7	12		1	16	8	MEG	
60		MULT	20k	RS	RAM/ROM/EPROM MEM;RAM address space jumper selectable																
61	iSBC116	MULT	24k	RO	8k	2716g		RR	16k				5.0	2.8	12	450m		16	8	ITL	
62		MULT	24k	RO	Combined RAM/ROM/EPROM with I/O expansion;jumper select msec timer																
63▼	MSC4502	MULT	24k	RR	16k	4kx1	350n	EP	8k				5.0	2.5	12	0.5		16	8	MSCC	
64		MULT	24k	RR	Similar to MC4602,RAM expandable to 64k,EPROM expandable to 16k																
65	PAM-1/ES8	MULT	24k	RS	8.0k	2114g		EP	16k	2716g		4.0k	5.0	2.5			1	16	8	MEG	
66		MULT	24k	RS	RAM/ROM/EPROM MEM;RAM address space jumper select 4K or 8K blks																
67	60409	MULT	32k	CO	32k		300n						5.0		12		2	16	8	DRC	
68		MULT	32k	CO	Compatible with National Semiconductors MORSRAM 104,non-volatility																
69▼		MULT	32k	EP	accepts 2kx8 CMOS RAM or 2kx8 prom, any combination																
70	PROM32	MULT	32k	EP	32k	2716g	475n					16k	5.0	.72☑			1	16	8	ESI	
71		MULT	32k	EP	Also accepts 2316 ROM s,slight modification convert to PROM16(16k)																
72	BLC8432	MULT	32k	PR	32k	2716g	465n					8k	5.0	1.4	12		1	16	8	NSC	3MU004
73		MULT	32k	PR	Similar to BLC416 both have individual 1k/2k block enable/disable																
74	95/1032	MULT	32k	RR	32k		330n						5.0	1.0	12	.15	1	16	8	AUC	3MU010
75		MULT	32k	RR	Includes R/W data buffers,TTL compatible data/addr/ctl I/F s																
76▼	B1020/32K	MULT	32k	RR	32k		330n						5.0	2.3	12	.71†	1	24	16	CDC	
77▼		MULT	32k	RR	Dynamic RAM board Multibus compatible with dip switch address																
78▼		MULT	32k	RR	select-allows MEM blocks of 64K to reside on a 64K boundary																
79	BLC032	MULT	32k	RR	32k	5298g	430n					4k	5.0	3.0	12	.47	1	16	8	NSC	
80		MULT	32k	RR	Similar to BLC8016 but 32k Bytes,BLC/SBC products fully compatible																
81	CI-8080/32	MULT	32k	RR	32k	16kx1	270n					4.0k	5.0	.80	12	.22	1	16	8	CII	
82		MULT	32k	RR	32k version of CI-800-8 bit dynamic RAM MEM																
83	iSBC032	MULT	32k	RR	32k		450n					16k	5.0	3.2	12	.60		16	8	ITL	
84		MULT	32k	RR	Dynamic R/W MEM w/on-board refresh;independent 16K byte addr SEL																
85▼	MMS80810▼	MULT	32k	RR	32k		400n						5.0		12		2	16	8	MOTA	
86▼		MULT	32k	RR	Modular Expandibility(Address Select Jumpers),Modular Interchangbl																
87	RAM032	MULT	32k	RR	32k		450n					16k	5.0	3.2☑	12	0.6☑	1	16	8	ESI	
88		MULT	32k	RR	20 address bits allow 1MByte addressing,16-bit iSBC86/12 compatibl																
89▼	B1012/2/32K	MULT	32k	RS	32k		250n					16k	5.0	5.8			1	24	16	CDC	
90▼	B1012/3/32K	MULT	32k	RS	32k		350n					16k	5.0	5.8			1	24	16	CDC	
91	MR80-32	MULT	32k	RS	32k	4Kx1	400n					8.0k	5.0	5.3			1	16	87	CMC	3MU009
92		MULT	32k	RS	Byte parity,1M addr decoding,pwr fail sense,8 or 16 bit operation																
93		MULT	32k	RS	LED parity ind,pwr fail interrupt logic,USES NMOS STATIC RAM																
94	MR80-32C	MULT	32k	RS	32k	4Kx1	450n					8.0k	5.0	5.3			1	16	8	CMC	3MU009
95		MULT	32k	RS	Same as MR80-32 except contains 32K CMOS RAM																
96	MR80-BB	MULT	32k	RS	32k	4Kx1						8.0k	5.0	5.3	3.6	.50	1	16	8	CMC	3MU009
97		MULT	32k	RS	MR80 series with battery backup,450 ma Hr requirement																
98	BLC048	MULT	48k	RR	48k	5290g	430n					4k	5.0	3.0	12	.47	1	16	8	NSC	
99		MULT	48k	RR	Similar to BLC032 but 48k Bytes RAM board (using 16kx1-bit MM5290)																
100	CI-8080/48	MULT	48k	RR	48k	16kx1	270n					4.0k	5.0	.80	12	.22	1	16	8	CII	
101		MULT	48k	RR	48k version of CI-8080-8 bit dynamic RAM MEM																
102	iSBC048	MULT	48k	RR	48k		450n					16k	5.0	3.2	12	.60		16	8	ITL	
103		MULT	48k	RR	Dynamic R/W MEM w/on-board refresh;independent 16K BYTE ADDR SEL																
104	RAM048	MULT	48k	RR	48k		450n					16k	5.0	3.2☑	12	0.6☑	1	16	8	ESI	
105		MULT	48k	RR	20 address bits allow 1MByte addressing,16-bit iSBC86/12 compatibl																
106▼	BP-0220	MULT	48k	RS	16k	444g	450n	RO	32k	2732g	700n	16k	5.0	1.3	3.6	200u	1	16	8	NECM	3MU015
107▼		MULT	48k	RS	CMOS/EPROM board w/sockets(8) for 2716/2732 and battery backup.																
108▼	PROM-32/64	MULT	64k	EP	64k	2764g	22					4.0k	5.0	.75			1	20	16	ESI	
109▼		MULT	64k	EP	a/so accepts 2732g EPROMS, address selected by hex/rotary/s witches																
110	Am95-5032	MULT	64k	PR	64k	2732g												16	8	AMD	

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	4 BOARD TYPE NUMBER	1 BUS CODE	2 TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A 3 TEC	TYPE A MAX. BYTES	TYPE A LARGEST CHIP CONFIG.	TYPE A ACCESS TIME (S)	TYPE B TEC	TYPE B MAX. BYTES	TYPE B LARGEST CHIP CONFIG.	TYPE B ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	BUS SIZE T	BUS SIZE E	BUS SIZE M	BUS SIZE A	BUS SIZE D	BUS SIZE A T	MFG. CODE	DRAWING NUMBER
1		MULT	64k	PR	8bit and 16bit cpu compatibility,optional I/O section,all multibus																			
2	Am95-5132	MULT	64k	PR	64k																16	8	AMD	
3		MULT	64k	PR	Like Am-5032,20 bit address decoding,RAM-PROM coexist same mem spc																			
4	95/5032	MULT	64k	RO	64k	2732g							5.0	1.6	12	20m	1				16	8	AUC	
5		MULT	64k	RO	Includes SW-select data bus configuration(16/18),24 program I/O																			
6		MULT	64k	RO	lines,timer;also see Sec 5																			
7▼		MULT	64k	RR	Dynamic RAM board Multibus compatible with dip switch address																			
8▼		MULT	64k	RR	select-allows MEM blocks of 64K to reside on 64K boundary																			
9	BLC064	MULT	64k	RR	64k	5290g	430n					4k	5.0	3.0	12	.47	1				16	8	NSC	3MU001
10		MULT	64k	RR	Similar to BLC048 but 64k Bytes RAM board (using 16kx8-bits)																			
11	CI-8080/64	MULT	64k	RR	64k	16kx1	270n					4.0k	5.0	.80	12	.22	1				16	8	CII	
12		MULT	64k	RR	64k version of CI-8080--8 bit dynamic RAM MEM																			
13	iSBC064	MULT	64k	RR	64k		450n					16k	5.0	3.2	12	.60					16	8	ITL	
14		MULT	64k	RR	Dynamic R/W MEM w/on-board refresh;independent 16K BYTE ADDR SEL																			
15	RAM064	MULT	64k	RR	64k		450n					16k	5.0	3.2☑	12	0.6☑	1				16	8	ESI	
16		MULT	64k	RR	20 address bits allow 1MByte addressing,16-bit iSBC86/12 compatibl																			
17	rMEM64K-BE	MULT	64k	RRT	64k	16Kx1	250n						5.0	1.5	12		2				16	8	CES	3MU011
18		MULT	64k	RRT	Bank select,adjustable timing,1 Megabyte addr decoding,Byte																			
19		MULT	64k	RRT	exchange buffer,page switching,requires -12V also,304.8x171.5mm																			
20	rMEM64K-D	MULT	64k	RRT	64k	16Kx1	250n						5.0	1.5	12		2				16	8	CES	3MU012
21		MULT	64k	RRT	Sequential refresh for large ssy,jumper select 64/32K memory																			
22		MULT	64k	RRT	jumper select 8/16 bit bus master,1M addr decoding,page switching																			
23	60401	MULT	72kB	CO	72kB		350n						5.0		12		2				16	8	DRC	
24		MULT	72kB	CO	Compatible with National Semiconductors NORSRAM 104,non-volatility																			
25	MSC4602	MULT	80k	RR	64k	16kx1	350n	EP	16k	4kx8			5.0	2.5	12	0.5					16	8	MSCC	
26		MULT	80k	RR	Similar to MSC4502 and power disipation of 18 watts																			
27▼		MULT	96k	RR	Dynamic RAM board Multibus compatible with dip switch address																			
28▼		MULT	96k	RR	select-allows MEM blocks of 64K to reside on a 64K boundary																			
29▼	MR85	MULT	128k	NS	128k	16kx1	350n					128k	5.0	2.0	12	1.0	1				16	8	CMC	
30▼	B1014	MULT	128k	PR	128k	2732g							5.0	.5			1				24	16	CDC	
31▼		MULT	128k	PR	of eight PROMs each; board decodes full 24-bit address bus																			
32▼		MULT	128k	RR	Multibus PROM board-address between 2k AND 128k on the Multibus;																			
33▼		MULT	128k	RR	strap selectable for 2758,2716, or 2732 PROMS; organized as banks																			
34▼	B1020/128K	MULT	128k	RR	128k		330n						5.0	2.3	12	.71†	1				24	16	CDC	
35▼		MULT	128k	RR	Dynamic RAM board Multibus compatible with dip switch address																			
36▼		MULT	128k	RR	select-allows MEM blocks of 64K to reside on a 64k boundary																			
37	Am96-1000	MULT	128k	RRT	128k																16	8	AMD	
38		MULT	128k	RRT	32,64,96,128K byte storage options,operate w/ hi performance AmZ8000																			
39#	MEGA-1	MULT	128k	RRT	128k	16Kx1	425n						5.0	2.0	12	.40	1				16	8	MATC	3MU013
40#		MULT	128k	RRT	32, 64 or 128K version,prgmble config,single 12V battery backup																			
41	60406	MULT	144kB	CO	144kB		300n						5.0		12		2				16	8	DRC	
42		MULT	144kB	CO	Compatible with National Semiconductors MORSRAM 104,non-volatility																			
43	60408	MULT	288kB	CO	288kB		300n						5.0		12		2				16	8	DRC	
44		MULT	288kB	CO	Compatible with National Semiconductors MORSRAM 104,non-volatility																			
45	MCM10	PROP	256	RD	256	5101g						4.0k	5.0	.30									WTK	
46		PROP	256	RD	CMOS Memory,jumper selectable starting at 0000(HEX)																			
47	MCM11	PROP	256	RD	256	5101g						4.0k	5.0	.30									WTK	
48		PROP	256	RD	CMOS W/battery backup,jumper selectable start address 0000(HEX)																			
49	MCM20	PROP	512	RD	512	5101g						4.0k	5.0	.30									WTK	
50		PROP	512	RD	CMOS Memory,jumper selectable starting at 0000(HEX)																			
51	MCM21	PROP	512	RD	512	5101g						4.0k	5.0	.30									WTK	
52		PROP	512	RD	CMOS W/battery backup,jumper selectable start address 0000(HEX)																			
53	MCM40	PROP	1.0k	RD	1.0k	5101g						4.0k	5.0	.30									WTK	
54		PROP	1.0k	RD	CMOS Memory,jumper selectable starting at 0000(HEX)																			
55	MCM41	PROP	1.0k	RD	1.0k	5101g						4.0k	5.0	.30									WTK	
56		PROP	1.0k	RD	CMOS W/battery backup,jumper selectable start address 0000(HEX)																			
57	MCM80	PROP	2.0k	RD	2.0k	5101g						4.0k	5.0	.30									WTK	
58		PROP	2.0k	RD	CMOS Memory,jumper selectable starting at 0000(HEX)																			
59	MCM81	PROP	2.0k	RD	2.0k	5101g						4.0k	5.0	.30									WTK	
60		PROP	2.0k	RD	CMOS W/battery backup,jumper selectable start address 0000(HEX)																			
61	CDP18S627	PROP	4.0k	PR	4.0k	18U42g							5.0	8.0m			3						RCA	
62		PROP	4.0k	PR	16 sockets independently-programmable assign to any even 4k blk																			
63	MRA04	PROP	4.0k	RD	4.0k	4Kx1						4.0k	5.0	50m									WTK	
64		PROP	4.0k	RD	Dynamic RAM Memory,jumper selectable start address 0000(HEX)																			
65▼	CDP18S205V1▼	PROP	4.0k	RS	4.0k	1822g								10m			1						RCA	
66		PROP	4.0k	RS	Wide range pwr requirement:(4.0 to 10.5)Volts																			
67	CDP18S620	PROP	4.0k	RS	4.0k	5101g						4.0k	5.0	4.0m			2						RCA	3PR001
68		PROP	4.0k	RS	Static CMOS; single pwr supp																			
69	CDP18S624	PROP	4.0k	RS	4.0k								5.0	13m			2						RCA	
70		PROP	4.0k	RS	Static CMOS-RAM w/ NICAD batt backup 96 hour retention																			
71▼	MM1-RAM	PROP	4k	RS	4k	2102g	450n					1k	5.0								16	16	CLI	3PR008
72▼		PROP	4k	RS	(NMOS) 2k,3k,4k static 450nsec read/write semiconductor mem-1k/step																			
73▼	LSI-11	PROP	8k	EP	8k	2716g	50m					8k	5.0	1.2	12	330m	2				16	16	CLI	3PR010
74▼		PROP	8k	EP	allows programming of any memory location individual-sequence-randmm																			
75	MRA08	PROP	8.0k	RD	8.0k	4Kx1						4.0k	5.0	50m									WTK	
76		PROP	8.0k	RD	Dynamic RAM Memory,jumper selectable start address 0000(HEX)																			
77	CDP18S622	PROP	8.0k	RS	8.0k	5114g							5.0	13m			2						RCA	3PR002
78		PROP	8.0k	RS	Recharge NICAD battery backup w/96 hour retention; CMOS-RAM																			
79	CDP18S623	PROP	8.0k	RS		512x4							5.0	6.0m			2						RCA	
80		PROP	8.0k	RS	Static CMOS-RAM assignable to any even 8k byte blk in MEM																			
81▼	CDP18S660▼	PROP	10k	RS	2.0k			RO	8.0k	1834g			5.0	8.0m			2						RCA	
82		PROP	10k	RS	Combined I/O and MEM;ROM/EPROM sockets;also see Sec #5																			
83	MRA12	PROP	12k	RD	12k	4Kx1						4.0k	5.0	50m									WTK	
84		PROP	12k	RD	Dynamic RAM Memory,jumper selectable start address 0000(HEX)																			
85▼	LMA-595	PROP	16k	PR	8k	256g						8k	5.0	600m	-9	100m			8		16		CLI	
86▼		PROP	16k	PR	10to20 minute erase time, LP256/PROM,FET w/floating gate																			
87▼	LPM-596	PROP	16k	PR	8k	256g						8k	5.0	600m	-9	100m			8		16		CLI	
88▼		PROP	16k	PR	10to20 minute erase time,LP256/PROM, FET w/floating gate																			
89	MR004	PROP	16k	RD	16k	68308g						16k	5.0	.20	12	.70							WTK	
90♦		PROP	16k	RD	ROM/EPROM MEM w/4 sockets;jumper selectable start addr 0000(HEX)																			
91	MRA16	PROP	16k	RD	16k	4kx1						4.0k	5.0	50m									WTK	
92		PROP	16k	RD	Dynamic RAM memory,jumper selectable start address 0000(HEX)																			
93	M65-045	PROP	16k	RO	16k	2332g						4.0k	5.0	.50			2				16	8	RKW	3PR004
94		PROP	16k	RO	System 65 compatible PROM/ROM MEM; w/individual socket enable/																			
95		PROP	16k	RO	disable; sw-select addr assign; contains 16-24 pin sockets only																			
96		PROP	16k	RO	all ROM/all PROM permitted																			
97	CDP18S621	PROP	16k	RS	16k	5114g						16k	5.0	6.0m			2						RCA	
98		PROP	16k	RS	Static CMOS RAM; single pwr sup; any 4k byte block may be disabled																			
99	CDP18S621V1	PROP	16k	RS	16k	445Lg						16k	5.0	11m			2						RCA	
100		PROP	16k	RS	32-(1024x4)RAM asssgnanle totany 16k6yte blbckin iEM M																			
101	M65-031	PROP	16k	RS	16k	2114g	450n☑						5.0	3.0			2				16	8	RKW	3PR005
102		PROP	16k	RS	Static RAM MEM w/2 independent 8k-byte sections sw-select each has																			
103		PROP	16k	RS	separate write protect capacity, single pwr sup																			
104	M65-032	PROP	16k	RS	16k	2114g	250n☑						5.0	3.0			2				16	8	RKW	3PR005
105		PROP	16k	RS	250 nanosec version of M65-03; 16k static RAM MEM																			
106	CDP18S625	PROP	32k	PR	32k	1834g							5.0	10m			2						RCA	3PR003
107		PROP	32k	PR	CMOS-ROM/PROM assignable as/4 8 or 1ok bytebblk il MEM MEM																			
108	MR008	PROP	32k	RO	32k	68308g						16k	5.0	.20	12	.70							WTK	
109		PROP	32k	RO	ROM/EPROM MEM w/8 sockets;jumper selectable start addr 0000(HEX)																			
110	CDP18S629	PROP	32k	RS	32k	2kx8							5.0	27m			3						RCA	

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	[4] BOARD TYPE NUMBER	[1] BUS CODE	[2] TOTAL CAPACITY	MEMORY TYPE A [3] TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	MEMORY TYPE B TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	BUS SIZE T E M P	A D R	D A T	MFG. CODE	DRAWING NUMBER
1		PROP	32k	RS	Static-CMOS-RAM assignable to upper/lower 32k of 64k space (2 boards)																
2	MR012	PROP	48k	RO	48k	68308g						16k	5.0	.20	12	.70				WTK	
3		PROP	48k	RO	ROM/EPROM MEM w/12 sockets;jumper selectable;start addr 0000																
4	CDP18S626	PROP	64k										5.0	.10			2			RCA	
5		PROP	64k		16 Sockets for 2732-EPROM/2kx8 STATIC-RAM yielding 64k/32k MEM																
6	MR016	PROP	64k	RO	64k	68308g						16k	5.0	.20	12	.70				WTK	
7		PROP	64k	RO	ROM/EPROM MEM w/16 sockets;jumper selectable;start addr 0000																
8	RAM68	PROR	8k	RS	8k	2114g	450nC	RO		2708		1k	5.0	1[illegible]			1	16	8	RCI	M
9		PROR	8k	RS	8 ROM or EPROM sockets,definable address,fully buffered bus signal																
10		PROR	8k	RS	All IC s in sockets, Pin compatible with CMC-68 boards,2k Incr addr																
11▼	RAM6832	PROR	32k	RR	32k		300n						5.0	0.8	12	225m	15		8	RCI	
12▼	RAM6864	PROR	65k	RR	65k		300n						5.0	0.8	12	225m	16		8	RCI	
13▼		PROR	65k	RR	Invisible Refresh during phas 1,Pin Compatible with CMC68 boards.																
14	RMP-116	Q	16k	RO	16k	2716g														DPW	
15		Q	16k	RO	Like RMP-016,programmer built into board for prog 2716S in place																
16	ROM-116	Q	16k	RO	16k	2716g														DPW	
17		Q	16k	RO	Like RMP-116 except programming capability removed																
18	RMS-124	Q	24k	RO	24k	2716g														DPW	
19		Q	24k	RO	Its address allocation is determined entirely by a set wire jumpers																
20▼	RM65-3108	RM65	8.0k	RS	8.0k	2114g	450n					4.0k	5.0	1.9			2	16	8	RKW	3RM001
21▼		RM65	8.0k	RS	Static ram memory board arranged as 2 separately addresable 4k sec																
22▼		RM65	8.0k	RS	Edge connector card 4in by 6.25in; RM65 bus compatible; bank select																
23▼	RM65-3108E	RM65	8.0k	RS	8.0k	2114g	450n					4.0k	4.0	1.9			2	16	8	RKW	3RM001
24▼		RM65	8.0k	RS	Static ram memory board arranged as 2 separately addressable 4k																
25▼		RM65	8.0k	RS	sections; Eurocard 100mm by 160mm; RM65 bus compatible; bank select																
26▼	RM65-3216	RM65	16k	PR		2732g	450n	RO		2364g	450n	4.0k	5.0	.27#			2	16	8	RKW	3RM002
27▼		RM65	16k	PR	PROM/ROM board;edge connector version 4in by 6.25in; bank select																
28▼	RM65-3216E	RM65	16k	PR		2732g	450n	RO		2364g	450n	4.0k	5.0	.27#			2	16	8	RKW	3RM002
29▼		RM65	16k	PR	PROM/ROM board; Eurocard version 100mm by 160mm; bank select																
30▼	RM65-3132	RM65	32k	RR	32k	16kx1						4.0k	5.0	1.4			2	16	8	RKW	3RM003
31▼		RM65	32k	RR	Dynamic R/ M board 4in by 6.25in;RM65 compatible;bank select																
32▼	RM65-3132E	RM65	32k	RR	32k	16[illegible]x1						4.0k	5.0	1.4			2	16	8	RKW	3RM003
33▼		RM65	32k	RR	Dynamic RAM board; Eurocard version 100mm by 160mm; RM65 compatible																
34#	SMP-E131	SMP	2.0k	RD	2.0k	6518g							5.0	.16			1	16	8	SIEG	
35#		SMP	2.0k	RD	CMOS-RAM MEM w/ BATT backup, features incl pwr fail interrupt																
36#		SMP	2.0k	RD	program saves contents of internal reg																
37▼#	SMP-E132	SMP	4.0k	RS	4.0k								5.0					16	8	SIEG	
38▼#		SMP	4.0k	RS	Non-volatile static RAM MEM compatible w/SMP bus																
39#	SMP-E120	SMP	5.0k	RS	1.0k			EP	4.0k	2708g			5.0	.80	12	220m	1	16	8	SIEG	
40#		SMP	5.0k	RS	RAM/ROM/EPROM MEM compatible w/ SMP bus																
41#	SMP-E103-A1	SMP	8.0k	RS	8.0k	9214g							5.0	.65			1	16	8	SIEG	
42#		SMP	8.0k	RS	Static RAM MEM compatible w/SMP bus																
43▼#	SMP-E133	SMP	8.0k	RS	8.0k								5.0					16	8	SIEG	
44▼#		SMP	8.0k	RS	Non-volatile static RAM MEM compatible w/SMP bus																
45#	SMP-E123	SMP	16k	EP		2716g							5.0	.54			1	16	8	SIEG	
46#		SMP	16k	EP	EPROM MEM w/ sockets for 8 EPROMS; compatible w/ SMP bus																
47#	SMP-E114	SMP	16k	RR	2.0k	4116g							5.0	.45	12	75m	1	16	8	SIEG	
48#		SMP	16k	RR	Dynamic RAM MEM compatible w/SMP bus;incl onboard refresh																
49#	SMP-E104	SMP	16k	RS	16k	9214g							5.0	1.1			1	16	8	SIEG	
50#		SMP	16k	RS	Static RAM MEM compatible w/SMP bus																
51#	SMP-E125	SMP	20k	RS	4.0k			EP	16k	2716g			5.0	.76			1	16	8	SIEG	
52#		SMP	20k	RS	RAM/EPROM MEM w/ 8 EPROM sockets; compatible w/ SMP bus																
53#	SMP-E126	SMP	32k	EP	32k	2732g							5.0	.58			1	16	8	SIEG	
54#		SMP	32k	EP	EPROM MEM w/ 8 EPROM sockets; compatible w/ SMP bus																
55#	SMP-E115	SMP	32k	RR	32k								5.0	.45	12	150m	1	16	8	SIEG	
56#		SMP	32k	RR	Dynamic RAM MEM w/onboard refresh;compatible w/SMP bus																
57#	SMP-E127	SMP	36k	RS	4.0k	9214g		EP	32k	2732g			5.0	.81			1	16	8	SIEG	
58#		SMP	36k	RS	RAM/EPROM MEM w/ 8 EPROM sockets; compatible w/ SMP bus																
59▼#	SMP-E141	SMP	128k	BB	128k		40m						5.0	130	12	400m		16	8	SIEG	
60▼#	SMP-E142	SMP	256k	BB	256k		40m						5.0	200	12	800m		16	8	SIEG	
61#	PM1600	STAD	8k	PR	8k	2Kx8	1.0u☑						5.0	.50	-12	.50	1	16	16	GICB	3SA001
62#		STAD	8k	PR	Open coll TTL out (30 loads),1 TTL buffered load input,4Kx16 conf																
63#	RM1602	STAD	16k	RRT	16k	4Kx1	400n						5.0	.20	12	.50	1	16	16	GICB	
64#		STAD	16k	RRT	8Kx16 config,30 load open coll TTL out,1 TTL buffered load input																
65#	RM1601	STAD	16k	RS	16k	4Kx1	400n						5.0	.50	12	.50	1	16	16	GICB	3SA002
66#		STAD	16k	RS	8Kx16 config,30 load open coll TTL out,1 TTL buffered load input																
67	7702	STD	16k	PR	16k	2716g							5.0	.30				16	8	PRO	3SD002
68		STD	16k	PR	EPROM MEMORY, socket IC s sngle 5V PWR, buffered-tristate bus																
69	7701	STD	16k	RS	16k	2114g	475n					8.0k	5.0	2.1				16	8	PRO	3SD001
70		STD	16k	RS	SRAM MEMORY (Accepts PROMS but PROM-RAM mix not allowed)																
71	7703	STD	16k	RS	16k		250n					4.0k	5.0				1	16	8	PRO	3SD003
72		STD	16k	RS	CMOS SRAM MEMORY/w backup Cithium battery giving MEM protection																
73▼	STD-CMEM▼	STD	32k	RS	32k	2kx8	500n					2.0k	5.0	.04			3	16	8	BAPC	3ST003
74	MK77759	STDZ		EP		4Kx8		RS		2Kx8		4k	5.0				1	16	8	MOS	
75		STDZ		EP	Universal MEM card for STD-Z80 BUS user configurable ROM-EPROM-RAM																
76	MK77755	STDZ	4k	RS	4k	1Kx8	250n					4k	5.0	.80			1	16	8	MOS	
77		STDZ	4k	RS	Static RAM MEM expansion board for MD series uComputer																
78	MK77750-0	STDZ	8k	RR	8k	8kx1	350n					4k	5.0	.60	12	.25	1	16	8	MOS	3ST001
79		STDZ	8k	RR	RAM MEM expansion board for MD series uses MK4108 8K dynamic RAM																
80	MK77756	STDZ	8k	RS	8k	1Kx8	250n					4k	5.0	1.2			1	16	8	MOS	
81		STDZ	8k	RS	8K static RAM MEM expansion board for MD series uComputer																
82	MK77751	STDZ	16k	RR	16k	8Kx1	350n					4k	5.0	.60	12	.25	1	16	8	MOS	
83		STDZ	16k	RR	RAM MEM expand board for MOS MD series Z-80 base uC 2.5 MHz CLK																
84	MK77754-0	STDZ	16k	RR	16k	11Kx1	350n					4k	5.0	.60	12	.25	1	16	8	MOS	3ST001
85		STDZ	16k	RR	RAM MEM expansion board for MD series uses ML4116 16K dynamic RAM																
86	MK77754-4	STDZ	16k	RR	16k	16Kx1	200n					4k	5.0	.60	12	.25	1	16	8	MOS	3ST001
87		STDZ	16k	RR	RAM MEM expansion bd for MD series;faster version of MK77754-0																
88	MK77757	STDZ	16k	RS	16k	2Kx8	250n					4k	5.0	1.2			1	16	8	MOS	
89		STDZ	16k	RS	SRAM MEM expand board for MOS MD series Z80 base uC 2.5MHz or 4MHz																
90	MK77758	STDZ	32k	EP	32k	4Kx8	450n					4k	5.0				1	16	8	MOS	3ST002
91		STDZ	32k	EP	EPROM MEM expansion board, optional 4MHz operaton, 8 EPROM cap																
92	MK77752-0	STDZ	32k	RR	32k	16Kx1	350n					4k	5.0	.60	12	.25	1	16	8	MOS	3ST001
93		STDZ	32k	RR	RAM MEM expansion bd for MD series uses MK4116 16K dynamic RAM																
94	MK77752-4	STDZ	32k	RR	32k	16Kx1	200n					4k	5.0	.60	12	.25	1	16	8	MOS	3ST001
95		STDZ	32k	RR	RAM MEM expansion bd for MD series; faster version of MK77752-0																
96	MK78109	STE	16k	RR	16k	4Kx1	345n					4k	12	.80			1	16	8	MOS	
97		STE	16k	RR	RAM expand bd for Z-80 based OEM-80E U-Conputer with 32 MK4027s																
98	MK78110	STE	65k	RR	65k	16Kx1	345n					4k	12	.80			1	16	8	MOS	
99		STE	65k	RR	Expandable 16K RAM board for OEM-80E uC.																
100	MB3	S100	4.0k	EP	4.0k	1702A						4.0k	8.0	.25	-16	40m		16	8	SSM	
101		S100	4.0k	EP	EPROM MEM; dip sw-select addressing; buffered output data lines																
102	4KZ	S100	4k	RS	4k	21L02g	450n						8.0	.80			1	16	8	CRO	
103		S100	4k	RS	4K RAM card w/software SEL BAUD rate at 110-76.k;R232120mA i-face																
104	MB9	S100	4.0k	RS	4.0k		0.2u					4.0k	8.0	1.5				16	8	SSM	
105		S100	4.0k	RS	S-RAM/PROM MEM; vector jump w/pwr-on reset,jump disable,																
106		S100	4.0k	RS	buffered lines																
107	MM-S100	S100	8k	CO	8k		350n						8.0	1.5	16	1.0	1	16	8	MIM	
108		S100	8k	CO	Power monitoring for data protection,Pseudo-ROM/RAM partitioning																
109	PB1	S100	8.0k	EP	8.0k	2716g						4.0k						16	8	SSM	
110		S100	8.0k	EP	EPROM MEM w/programmer; 4 sockets, onboard program voltage;																

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	4 BOARD TYPE NUMBER	1 BUS CODE	2 TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A 3 TEC	TYPE A MAX. BYTES	TYPE A LARGEST CHIP CONFIG.	TYPE A ACCESS TIME (S)	TYPE B TEC	TYPE B MAX. BYTES	TYPE B LARGEST CHIP CONFIG.	TYPE B ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	T E M P	BUS SIZE A D R	D A T	MFG. CODE	DRAWING NUMBER
1		S100	8.0k	EP	buffered lines;program protect sw																
2	8KBS	S100	8k	PR	8k	2708g	450n						8.0	800m	18	400m	1	16	8	CRO	
3		S100	8k	PR	Self contained PROM programmer MEM BD, MEM bank select																
4	BSW-0	S100	8k	PR	8k	2708g	450n						8.0	500m	18	400m	1	16	8	CRO	N
5		S100	8k	PR	Memory board with PROM programmer																
6	8KSRB	S100	8k	RS	8k	2102g	450n					8k	8.0	1.3				16	8	VGI	
7		S100	8k	RS	Also with 250nSec access time,hardware write protect is SW select																
8	MB6B	S100	8.0k	RS	8.0k	2102g	0.5u					4.0k	8.0	2.0				16	8	SSM	
9		S100	8.0k	RS	Independent 4.0k addressing, fully buffered, Z80 compatible,																
10		S100	8.0k	RS	Optional battery backup,DMA compatible;phantom disable by jumper																
11	QUAY80SMB	S100	8k	RS	8k	2101g	450n					4k						16	8	QUAY	
12		S100	8k	RS	Independent 4k blocks mem protect,Wait state:Jumper selection 1-3																
13		S100	8k	RS	Buffered data:input and address lines Tri-state data output lines..																
14	12KPRB	S100	13k	RS	1k	2102g	450n	PR	12k	2708g		8k	8.0	450m	16			16	8	VGI	
15		S100	13k	RS	Board functionally divided in 2,block A 8k PROM,B 4k PROM/1k RAM																
16	MB8A	S100	16k	EP	16k	2708g						16k	8.0	.16	16	10m		16	8	SSM	
17		S100	16k	EP	EPROM MEM w/pwr-on/rest vector jump--256 byte incr,jump disable,																
18		S100	16k	EP	buffered lines; RAM/ROM overlay capability																
19	16KPR	S100	16k	PR	16k	2708g	450n						8.0	400m	18	800m	1	16	8	CRO	
20		S100	16k	PR	PROM MEM with programmer feature,bank select up to 8 banks																
21	CI-S100/16	S100	16k	RR	16k	16kx1	225n					4.0k	8.0	.80	18	.50	1	16	8	CII	
22		S100	16k	RR	8 bit dynamic RAM MEM w/onboard refresh, BATT backup cap, S100 bus																
23		S100	16k	RR	compatible design for S100 uC s; Onboard sw-select addr assignment																
24		S100	16k	RR	4k contiguous address blks, no wait state req d at 2/4 MHz																
25	RAM16-A	S100	16k	RR	16k							8k	8.0	0.6	16	0.4		16	8	NOR	
26		S100	16k	RR	parity error checking,200ns dynam RAM chips,perform bank switching																
27	16KZ	S100	16k	RRT	16k	4050-2g	200n						8.0	800m	18	500m	1	16	8	CRO	
28		S100	16k	RRT	RAM card w/bank select;dynamic refresh full-transparency																
29	16KSMB	S100	16k	RS	16k	2114g	300n					8k	8.0	1.8				16	8	VGI	
30		S100	16k	RS	8-SW selectable memory banks,memory protect:8k banks,sw accessable																
31	MB7	S100	16k	RS	16k	410g	0.3u					4.0k	8.0	.55	16	80m		16	8	SSM	
32		S100	16k	RS	Static RAM MEM w/ dip-sw,enables 16k blocks to be addressed start																
33		S100	16k	RS	from 4k boundaries; 8080/8085 compatible,phantom disable																
34	DB00	S100	28k	RS				PR	16k	2716g								16	8	OBJ	2S1001
35		S100	28k	RS	Similar to DB08 but there is no RAM on the boards																
36	DB08	S100	28k	RS	1k	2114g		PR	16k	2716g							1	16	8	OBJ	2S1001
37		S100	28k	RS	Board dis/enable by I/O commands,autt-jump on reset,bus line 67																
38		S100	28k	RS	disables MEM location 0000 during boot operation																
39	DB16	S100	28k	RS	2k	2114g		PR	16k	2716g								16	8	OBJ	2S1001
40		S100	28k	RS	Similar to DB08 but with 2k bytes of RAM on the board																
41	32KBS	S100	32k	PR	32k	2716g	450n						8.0	2.1			1	16	8	CRO	
42		S100	32k	PR	PROM programmer board uses 2716 s, no wait states at 2MHz																
43	EXPANDOPROM	S100	32k	PR	32k													16	8	SDS	
44		S100	32k	PR	Expandable ROM from 1k to 32k.Each EPROM is DIP sw selectable.DIP																
45		S100	32k	PR	switch for addressing on 16k/32k boundaries																
46	CI-S100/32	S100	32k	RR	32k	16kx1	225n					4.0k	8.0	.80	18	.50	1	16	8	CII	
47		S100	32k	RR	8 bit dynamic RAM: 32k version of CI-S100; TTL compatible I/O																
48▼	RAM16-B	S100	32k	RR	32k							8k	8.0	0.6	16	0.4		16	8	NOR	
49▼		S100	32k	RR	Similar to RAM-16-A but with 32k-byte Capacity																
50	48KDRB	S100	48k	RR	48k								8.0	250m	16	200m		16	8	VGI	
51		S100	48k	RR	Buffered data in/output,access time compatible with Z-80 at 4MHz																
52		S100	48k	RR	W/O wait states,DMA:Must not interrupt CPU longer than 2ms w/o ref																
53	CI-S100/48	S100	48k	RR	48k	16kx1	225n					4.0k	8.0	.80	18	.50	1	16	8	CII	
54		S100	48k	RR	8 bit dynamic RAM: 48k version of CI-S100; TTL compatible I/O																
55	EXPANDORAM	S100	64k	RD	64k	4215g												16	8	SDS	
56		S100	64k	RD	Expandable Mem from 8-64k bytes-DMA available.DIP sw for position-																
57		S100	64k	RD	ing boundaries.Bank selectable write protect.Phantom output disable																
58	64KDRB	S100	64k	RR	64k								8.0	350m	16	300m		16	8	VGI	
59		S100	64k	RR	Similar to 48KDRB with 64k bytes of memory																
60	CI-S100/64	S100	64k	RR	64k	16kx1	225n					4.0k	8.0	.80	18	.50	1	16	8	CII	
61		S100	64k	RR	8 bit dynamic RAM: 64k version of CI-S100; TTL compatible I/O																
62	64KZ	S100	64k	RS	64k	4116g	150n						8.0	1.5			1	16	8	CRO	
63		S100	64k	RS	RAM card w/SW select;MEM organized in 32k blocks																
64	EXPANDORAMII	S100	256k	RR	256k	4164g												16	8	SDS	
65		S100	256k	RR	Expandable mem from 16-256k bytes.DIP sw selectable boundaries page																
66		S100	256k	RR	Mode operation allows 8 memory boards on bus phantom output disable																
67		S100	256k	RR	Up to 4MHz operation.Invisible refreshing memory.																
68▼	MIKUL997	TM90	4.0kw	EA	4.0kw	3400g	1.0u						5.0	600m	12	300m	2	20	16	TLI	3TM006
69▼		TM90	4.0kw	EA	Word is 16bit contains EAROM array,sequencer,bus interface																
70▼	TM990-204-1	TM90	4.0k	RS	4.0k	6514g	800nC						5.0	2.0			2	20	16	TII	3TM003
71▼		TM90	4.0k	RS	Ram expansion board compatible w/TM9900-based modules; batt backup																
72▼																					
73▼	TM990-204-2	TM90	8.0k	RS	8.0k	6514g	800nC						5.0	2.3			2	20	16	TII	3TM003
74	TM990-206-41	TM90	8k	RS	8k	4045g	450n						5.0	1.3			2	20	16	TII	
75		TM90	8k	RS	Refer to 42,Configure expansion RAM into TM990-100M memory map																
76	990-110	TM90	10k	PR	8.0k	2716g		RD	2.0k	4045g		8.0k	5.0	1.3	12	100m	1	20	16	DIF	
77		TM90	10k	PR	Combined MEMORY I/O compatible w/ TM990 uC bus; each 2k word																
78		TM90	10k	PR	(1 word 16 bits) bank of EPROM may be individually disabled																
79		TM90	10k	PR	by 1 of 2 sw s;Also see sec 5 for I/O capability																
80	TM990-201-41	TM90	12k	EP	8k	2716g	450n	RS	4k	4045g	450n		5.0	1.0	12	.16	2	20	16	TII	
81		TM90	12k	EP	Refer to 42,Bus compatible with TM990-100M and TM990-101M uC module																
82▼	MIKUL995	TM90	12k	RS	8.0k	4104g	1.0uC	EPP	4.0	2708g	1.0uC		5.0	500m	12	500m	2	20	16	TLI	3TM004
83▼		TM90	12k	RS	Contains static RAM array,EPROM array,bus interface,address decoder																
84▼		TM90	12k	RS	control logic;RAM backup power,buffered Data and Address lines																
85	TM990-203-21	TM90	16k	RRT	16k	4027g							5.0	3.0	12	1.2	2	20	16	TII	
86		TM90	16k	RRT	Refer to 22,or cycle steal refresh,runs with no wait states 3MHz																
87▼	MIKUL996	TM90	16k	RS	16k	4104g	1.0uC						5.0	800m			2	20	16	TLI	3TM005
88▼		TM90	16k	RS	Bank switching,four independently addressable 4k banks;Contains RAM																
89▼		TM90	16k	RS	array,bus interface,address decoder,control logic;RAM backup power																
90▼	TM990-204-3	TM90	16k	RS	16k	6514g	800nC						5.0	2.9			2	20	16	TII	3TM003
91▼		TM90	16k	RS	Ram expansion board compatiblew/TM9900-based modules; batt backup																
92	TM990-206-42	TM90	16k	RS	16k	4045g	450n						5.0	2.1			2	20	16	TII	
93		TM90	16k	RS	Refer to 41,Configure the wait state for RAM for interface to uC																
94	990-040-001	TM90	23k	BB	23k	B023g	7.5m						5.0	1.0	12	200m	1	20	16	DIF	3TM001
95		TM90	23k	BB	Non-volatile magnetic storage (bubble) compatible w/ 990 uC bus;																
96		TM90	23k	BB	Maximum transfer rate: 6250 bytes/sec; single/multiple page modes																
97		TM90	23k	BB	Standby-pwr:(t5.0V at 1.0A, t12V at 200mA, -12V at 300mA)																
98▼	TM990-210A-1	TM90	23k	BB	23k	B0203S	7.3m						5.0	.90†	12	.02	1	20	16	TII	3TM002
99▼		TM90	23k	BB	Non-volatile magnetic storage (bubble) compatible w/990 uC bus																
100▼	TM990-210A-1L	TM90	23k	BB	23k	B0203S	7.3m						5.0	.90†	12	.02	2	20	16	TII	3TM002
101▼		TM90	23k	BB	Non-volatile magnetic storage (bubble) compatible w/990 uC bus																
102	TM990-201-42	TM90	24k	EP	16k	2716g	450n	RS	8k	4045g	450n		5.0	1.4	12	.22	2	20	16	TII	8
103		TM90	24k	EP	Refer to 41,EPROM expandable to 32K bytes,static RAM expandable 16K																
104	TM990-203-22	TM90	32k	RRT	32k	4116g							5.0	2.7	12	0.6	2	20	16	TII	
105		TM90	32k	RRT	Refer to 23,or cycle steal refresh,parity checking capability,DMA																
106	990-040-002	TM90	46k	BB	46k	B023g	7.5m						5.0	1.0	12	200m	1	20	16	DIF	3TM001
107		TM90	46k	BB	Same as 990-040-001 w/ 46k bytes storage capacity																
108▼	TM990-210A-2	TM90	46k	BB	46k	B0203S	7.3m						5.0	1.0†	12	.02†	1	20	16	TII	3TM002
109▼		TM90	46k	BB	Non-volatile magnetic storage (bubble) compatible w/990 uC bus																
110▼	TM990-210A-2L	TM90	46k	BB	46k	B0203S	7.3m						5.0	1.0†	12	.02†	2	20	16	TII	3TM002

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	[4] BOARD TYPE NUMBER	[1] BUS CODE	[2] TOTAL CAPACITY	MEMORY TYPE A [3] TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	CONFIGURATION TYPE B TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	T E M P	BUS SIZE A D R	D A T	MFG. CODE	DRAWING NUMBER
1▼		TM90	46k	BB	Non-volatile magnetic storage (bubble) compatible w/990 uC bus																
2	TM990-201-43	TM90	48k	EP	32k	2716g	450n	RS	16k	4045g	450n		5.0	2.1	12	.47	2	20	16	TII	
3		TM90	48k	EP	Refer to 42.1us cycle time(3MHz),TTO compatible interface																
4▼	TM990-201-44	TM90	48k	EP	32k	2716g	450n	RS	16k	2114g	200n		5.0	2.2†	12	.48†	2	20	16	TII	
5	TM990-305	TM90	48k	RS	16k	4045g		EP	32k				5.0	1.5	12	0.6		20	16	TII	
6		TM90	48k	RS	Refer to Sec 5,Interface with TM990-10X cpu,2 ± edge triggered int																
7▼	MIKUL998	TM90	64kw	EP	64kw	2732g	70n						5.0	1.5			2	20	16	TLI	3TM007
8▼		TM90	64kw	EP	Word is 16 bit;Contains EPROM array,bus interface,address decoder																
9▼		TM90	64kw	EP	control logic;8 independent 8k banks;Bank switching done by an on-board																
10▼		TM90	64kw	EP	CRU (Communications Register Unit) I/O ports;Sys on expandable																
11▼	TM990-203A-13	TM90	64k	RR	64k	4116g	150n						5.0	1.9†	12	.09†	2	20	16	TII	
12▼		TM90	64k	RR	Bus compatible with TM990 mods; parity error detect; DMA capability																
13	TM990-203-23	TM90	64k	RRT	64k	4116g							5.0	3.0	12	1.2	2	20	16	TII	
14		TM90	64k	RRT	Refer to 21,or cycle steal refresh,fits TM9e0-51090-510 TM990-510																
15	990-040-003	TM90	69k	BB	69k	B023g	7.5m						5.0	1.0	12	200m	1	20	16	DIF	3TM001
16		TM90	69k	BB	Same as 990-040-002 w/ 69k bytes storage capacity																
17▼	TM990-210A-3	TM90	69k	BB	69k	B0203S	7.3m						5.0	1.1†	12	.02†	1	20	16	TII	3TM002
18▼		TM90	69k	BB	Non-volatile magnetic storage (bubble) compatible w/990 uC bus																
19▼	TM990-210A-3L	TM90	69k	BB	69k	B0203S	7.3m						5.0	1.1†	12	.02†	2	20	16	TII	3TM002
20▼		TM90	69k	BB	Non-volatile magnetic storage (bubble) compatible w/990 uC bus																
21▼	MMS11182▼	UNIB	18k	RR	18k		550n						5.0	1.9	15	0.4	1	16	16	MOTA	
22▼		UNIB	18k	RR	Power Down/Card Select Option.Refer to MMS1118 and MMS1118-1 Also																
23▼	MMS11181▼	UNIB	27k	RR	27k		550n						5.0	1.9	15	0.4	1	16	16	MOTA	
24▼		UNIB	27k	RR	High Reliability,Modular Expandibility,S.C Mem Protection,See 18-2																
25▼	MMS1117-32▼	UNIB	32k	RR	32k		290n						5.0	2.0	15	.35		16	16	MOTA	
26▼		UNIB	32k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
27▼	MMS1117-32P▼	UNIB	32k	RR	32k		290n						5.0	2.0	15	.35		16	16	MOTA	
28▼		UNIB	32k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
29▼	MMS1117-32PC▼	UNIB	32k	RR	32k		290n						5.0	2.0	15	.35		16	16	MOTA	
30▼		UNIB	32k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
31▼	MMS1117-42▼	UNIB	32k	RR	32k		360n						5.0	2.0	15	.35		16	16	MOTA	
32▼		UNIB	32k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
33▼	MMS1117-42P▼	UNIB	32k	RR	32k		360n						5.0	2.0	15	.35		16	16	MOTA	
34▼		UNIB	32k	RR	One UNIBUS Load,Parity Data only, Fully UNIBUS Compatible																
35▼		UNIB	32k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
36▼	MMS1117-52▼	UNIB	32k	RR	32k		390n						5.0	2.0	15	.35		16	16	MOTA	
37▼		UNIB	32k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
38▼	MMS1117-52P▼	UNIB	32k	RR	32k		390n						5.0	2.0	15	.35		16	16	MOTA	
39▼		UNIB	32k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
40▼	MMS1117-52PC▼	UNIB	32k	RR	32k		390n						5.0	2.0	15	.35		16	16	MOTA	
41▼		UNIB	32k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
42▼	MMS1118▼	UNIB	36k	RR	36k		550n						5.0	1.9	15	0.4	1	16	16	MOTA	
43▼		UNIB	36k	RR	High Density,Fast Access and Cycle Times,Byte Operation,See 1118-1																
44▼	MMS1117-34▼	UNIB	64k	RR	64k		290n						5.0	2.0	15	.35		16	16	MOTA	
45▼		UNIB	64k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
46▼	MMS1117-34P▼	UNIB	64k	RR	64k		290n						5.0	2.0	15	.35		16	16	MOTA	
47▼	MMS1117-34P#ai	UNIB	64k	RR	64k		290n						5.0	2.0	15	.35		16	16	MOTA	
48▼		UNIB	64k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
49▼	MMS1117-34PC▼	UNIB	64k	RR	64k		290n						5.0	2.0	15	.35		16	16	MOTA	
50▼		UNIB	64k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
51▼	MMS1117-44▼	UNIB	64k	RR	64k		360n						5.0	2.0	15	.35		16	16	MOTA	
52▼		UNIB	64k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
53▼																					
54▼	MMS1117-44P▼	UNIB	64k	RR	64k		360n						5.0	2.0	15	.35		16	16	MOTA	
55▼		UNIB	64k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
56▼	MMS1117-44PC▼	UNIB	64k	RR	64k		360n						5.0	2.0	15	.35		16	16	MOTA	
57▼		UNIB	64k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
58▼	MMS1117-54▼	UNIB	64k	RR	64k		390n						5.0	2.0	15	.35		16	16	MOTA	
59▼		UNIB	64k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
60▼	MMS1117-54P▼	UNIB	64k	RR	64k		390n						5.0	2.0	15	.35		16	16	MOTA	
61▼		UNIB	64k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
62▼	MMS1117-54PC▼	UNIB	64k	RR	64k		390n						5.0	2.0	15	.35		16	16	MOTA	
63▼		UNIB	64k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
64▼	MMS1128N3-032▼	UNIB	64k	RR	64k		300n						5.0		12		2	16	16	MOTA	
65▼		UNIB	64k	RR	Refr 8N3-048,2 Speed options,Worse-Case AC limits Specified Card E																
66▼	MMS1128N4-032▼	UNIB	64k	RR	64k		350n						5-0		12		2	16	16	MOTA	
67▼		UNIB	64k	RR	Refr 8N4-048,Automatic Internal Refresh,Provison for external Refr																
68▼	MMS1128P3-032▼	UNIB	72k	RR	72k		300n						5-0		12		2	16	16	MOTA	
69▼		UNIB	72k	RR	Refr 8P3-048,On-Board parity and Parity Controller Standard																
70▼	MMS1128P4-032▼	UNIB	72k	RR	72k		350n						5-0		12		2	16	16	MOTA	
71▼		UNIB	72k	RR	Refr 8P4-048,On Board Parity and Parity Controller Standard																
72▼	MMS1117-36▼	UNIB	96k	RR	96k		290n						5.0	2.0	15	.35		16	16	MOTA	
73▼		UNIB	96k	RR	One UNIBUS Load,No Parity,Fully Compatible																
74▼	MMS1117-36P▼	UNIB	96k	RR	96k		290n						5.0	2.0	15	.35		16	16	MOTA	
75▼		UNIB	96k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
76▼	MMS1117-36PC▼	UNIB	96k	RR	96k		290n						5.0	2.0	15	.35		16	16	MOTA	
77▼		UNIB	96k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
78▼	MMS1117-46▼	UNIB	96k	RR	96k		360n						5.0	2.0	15	.35		16	16	MOTA	
79		UNIB	96k	RR	One UNIBUS load,no parity,fully UNIBUS compatible																
80▼																					
81▼	MMS1117-46P▼	UNIB	96k	RR	96k		360n						5.0	2.0	15	.35		16	16	MOTA	
82▼		UNIB	96k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
83▼	MMS1117-46PC▼	UNIB	96k	RR	96k		360n						5.0	2.0	15	.35		16	16	MOTA	
84▼		UNIB	96k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
85▼																					
86▼	MMS1117-56P▼	UNIB	96k	RR	96k		390n						5.0	2.0	15	.35		16	16	MOTA	
87▼		UNIB	96k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
88▼	MMS1117-56PC▼	UNIB	96k	RR	96k		390n						5.0	2.0	15	.35		16	16	MOTA	
89▼		UNIB	96k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
90▼	MMS1128N3-048▼	UNIB	96k	RR	96k		300n						5.0		12		2	16	16	MOTA	
91▼	MMS1128N3-048#ai	UNIB	96k	RR	96k		300n						5.0		12		2	16	16	MOTA	
92▼		UNIB	96k	RR	Refr 8N3-064 and-032,NO parity,Automatic Interal Refresh																
93▼	MMS1128N4-048▼	UNIB	96k	RR	96k		350n						5-0		12		2	16	16	MOTA	N
94▼		UNIB	96k	RR	Refr 8N4-064,Battery Backup Capability Standard																
95▼	MMS1128P3-048▼	UNIB	108k	RR	108k		300n						5-0		12		2	16	16	MOTA	
96▼		UNIB	108k	RR	Refr 8P3-064,Worst-Case AC Limits Specified at Card Edge																
97▼	MMS1128P4-048▼	UNIB	108k	RR	108k		350n						5-0		12		2	16	16	MOTA	
98▼		UNIB	108k	RR	Refr8P4-068,Worst-Case AC Limits Specified at Card Edge																
99▼	MMS1117-38▼	UNIB	128k	RR	128k		290n						5.0	2.0	15	.35		16	16	MOTA	
100▼		UNIB	128k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
101▼	MMS1117-38P▼	UNIB	128k	RR	128k		290n						5.0	2.0	15	.35		16	16	MOTA	
102▼		UNIB	128k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
103▼	MMS1117-38PC▼	UNIB	128k	RR	128k		290n						5.0	2.0	15	.35		16	16	MOTA	
104▼		UNIB	128k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																
105▼	MMS1117-48▼	UNIB	128k	RR	128k		360n						5.0	2.0	15	.35		16	16	MOTA	
106▼		UNIB	128k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																
107▼	MMS1117-48P▼	UNIB	128k	RR	128k		360n						5.0	2.0	15	.35		16	16	MOTA	
108▼		UNIB	128k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																
109▼	MMS1117-48PC▼	UNIB	128k	RR	128k		360n						5.0	2.0	15	.35		16	16	MOTA	
110▼		UNIB	128k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	[4] BOARD TYPE NUMBER	[1] BUS CODE	[2] TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A [3] TEC	TYPE A MAX. BYTES	TYPE A LARGEST CHIP CONFIG.	TYPE A ACCESS TIME (S)	TYPE B TEC	TYPE B MAX. BYTES	TYPE B LARGEST CHIP CONFIG.	TYPE B ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	BUS SIZE T	BUS SIZE E M P	BUS SIZE A D R	BUS SIZE D A T	MFG. CODE	DRAWING NUMBER
1▼		UNIB	128k	RR	One UNIBUS Load,No Parity,Fully UNIBUS Compatible																	
2▼	MMS1117-58P▼	UNIB	128k	RR	128k		390n						5.0	2.0	15	.35		16	16		MOTA	
3▼		UNIB	128k	RR	One UNIBUS Load,Parity Data only,Fully UNIBUS Compatible																	
4▼	MMS1117-58PC#ai	UNIB	128k	RR	128k		390n						5.0	2.0	15	.35		16	16		MOTA	
5▼		UNIB	128k	RR	One UNIBUS Load,Parity and Controller,Fully UNIBUS Compatible																	
6▼	MMS1119N3-064▼	UNIB	128k	RR	128k		300n						5-0		12			2	16	16	MOTA	
7▼		UNIB	128k	RR	Refr 9N3-096,No parity,2 Speed Options Available																	
8▼	MMS1119N4-064▼	UNIB	128k	RR	128k		350n						5.0		12			2	16	16	MOTA	
9▼		UNIB	128k	RR	Refer 9N4-096,No parity,2 Speed Optional Available																	
10																						
11▼	MMS1128N3-064▼	UNIB	128k	RR	128k		300n						5-0					2	16	16	MOTA	
12▼		UNIB	128k	RR	Refr 8N3-096 and-048,Starting Address Configurable at any 4kBound																	
13▼	MMS1128N4-064▼	UNIB	128k	RR	128k		350n						5.0					2	16	16	MOTA	
14▼		UNIB	128k	RR	Refr 8N4-096 and-128,2 speed option available,NO parity but optional																	
15▼	MMS1119P3-064▼	UNIB	144k	RR	144k		300n						5.0		12			2	16	16	MOTA	
16▼		UNIB	144k	RR	Refer 9P3-096,On Parity and Parity Comtroller Standard																	
17▼	MMS1119P4-064▼	UNIB	144k	RR	144k		350n						5.0		12			2	16	16	MOTA	
18▼		UNIB	144k	RR	Refer-9P4-096,On Board Parity and Parity Controller Standard																	
19▼	MMS1128P3-064▼	UNIB	144k	RR	144k		300n						5-0					2	16	16	MOTA	
20▼		UNIB	144k	RR	Refr 8P3-096,Starting Address Configurable at any 4k Boundry																	
21▼	MMS1128P4-064▼	UNIB	144k	RR	144k		350n						5-0					2	16	16	MOTA	
22▼		UNIB	144k	RR	Refr 8P4-096,Starting Address Configurable at any 4k Boundry																	
23▼	MMS1119N3-096▼	UNIB	192k	RR	192k		300n						5-0		12			2	16	16	MOTA	
24▼		UNIB	192k	RR	Refr 9N3-128,Worst-Case AC Limits Specified at Card Edge																	
25▼	MMS1119N4-096▼	UNIB	192k	RR	192k		350n						5-0		12			2	16	16	MOTA	
26▼		UNIB	192k	RR	Refer 9N4-128,Worst-Case AC Limits Specified at Card Edge																	
27▼	MMS1128N3-096▼	UNIB	192k	RR	192k		300n						5-0					2	16	16	MOTA	
28▼		UNIB	192k	RR	Refr 8N3-128,provisions for External Refresh Control																	
29▼	MMS1128N4-096▼	UNIB	192k	RR	192k		350n						5-0					2	16	16	MOTA	
30▼		UNIB	192k	RR	Refr 8N4-064 and-128, Worst-Case AC Limits Specified at Card Edge.																	
31▼	MMS1119P3-096▼	UNIB	216k	RR	216k		300n						5.0		12			2	16	16	MOTA	
32▼		UNIB	216k	RR	Refer 9P3-128,2 Speed Options Available See other for more informt																	
33▼	MMS1119P4-096▼	UNIB	216k	RR	216k		350n						5.0		12			2	16	16	MOTA	
34▼		UNIB	216k	RR	Refer 9P4-128,2Speed Options Available See other for more informt																	
35▼	MMS1128P3-096▼	UNIB	216k	RR	216k		300n						5-0					2	16	16	MOTA	
36▼		UNIB	216k	RR	Refr 8P3-128,Automatic Internal Refresh,provisions for external																	
37▼	MMS1128P4-096▼	UNIB	216k	RR	216k		350n						5-0					2	16	16	MOTA	
38▼		UNIB	216k	RR	Refr 8P4-128,Automatic Internal Refresh,Provisions for External																	
39▼	MMS1119N3-128▼	UNIB	256k	RR	256k		300n						5-0		12			2	16	16	MOTA	
40▼		UNIB	256k	RR	Refr 9N3-256,Starting Address Configurable at Any 4k Boundary																	
41▼	MMS1119N4-128▼	UNIB	256k	RR	256k		350n						5-0		12			2	16	16	MOTA	
42▼		UNIB	256k	RR	Refer 9N4-256,Starting Address Configuraable at Any 4k Boundry																	
43▼	MMS1128N3-128▼	UNIB	256k	RR	256k		300n						5-0					2	16	16	MOTA	
44▼		UNIB	256k	RR	Refr 8N3-032,Battery Backup Capability Standard																	
45▼	MMS1128N4-128▼	UNIB	256k	RR	256k		350n						5-0					2	16	16	MOTA	
46▼		UNIB	256k	RR	Refr 8N4-064. and -128,Starting Address Configurable at any 4K Bound																	
47▼	MMS1119P3-128▼	UNIB	288k	RR	288k		300n						5.0		12			2	16	16	MOTA	
48▼		UNIB	288k	RR	Refer 9P3-256,Worst-Case AC Limits Specified at Card Edge																	
49▼	MMS1119P4-128▼	UNIB	288k	RR	288k		350n						5.0		12			2	16	16	MOTA	
50▼		UNIB	288k	RR	Refer 9P4-256,Worst-Case AC Limits Specified at Card Edge																	
51▼	MMS1128P3-128▼	UNIB	288k	RR	288k		300n						5.0					2	16	16	MOTA	
52▼		UNIB	288k	RR	Refer 8P3-032,Battery Backup Capability Standard																	
53▼	MMS1128P4-128▼	UNIB	288k	RR	228k		350n						5-0					2	16	16	MOTA	
54▼		UNIB	288k	RR	Refr 8P4-032,Battery Backup Capability Standard																	
55	MMS3418	UNIB	288k	RR	288k		475n						5.0	2.0	15	1.0	2				MOTA	3UN001
56		UNIB	288k	RR	An Array of 144 high-density,w/16k dynamic RAM in eight rows of 18																	
57▼	MMS1119N3-256▼	UNIB	512k	RR	512k		300n						5-0					2	16	16	MOTA	
58▼		UNIB	512k	RR	Refr 9N3-512,Optional of I-O page Size;4k,8k,or 16k Byt																	
59▼	MMS1119N4-256▼	UNIB	512k	RR	512k		350n						5-0					2	16	16	MOTA	
60▼		UNIB	512k	RR	Refer 9N4-512,Optional Selection of I-O Page Size;4k,8k,or 16k Byt																	
61▼	MMS1119P3-256▼	UNIB	576k	RR	576k		300n						5.0					2	16	16	MOTA	
62▼		UNIB	576k	RR	Refer 9P3-512,Starting Adderss Configurable at Any 4k Boundary																	
63▼	MMS1119P4-256▼	UNIB	576k	RR	576k		350n						5.0					2	16	16	MOTA	
64▼		UNIB	576k	RR	Refer 9P4-512,Starting Address Configurable at Any 4k boundary																	
65▼	MMS1119N4-512▼	UNIB	1.0M	RR	1.0k		350n						5-0					2	16	16	MOTA	
66▼		UNIB	1.0M	RR	Refer 9N4-064,Automatic Internal Refresh,provisions External Refre																	
67▼	MMS1119N3-512▼	UNIB	1.2M	RR	1.2M		300n						5-0					2	16	16	MOTA	
68▼		UNIB	1.2M	RR	Refer 9N3-064,Automatic Internal Refresh,Provisions ExternalRefre																	
69▼	MMS1119P3-512▼	UNIB	1.2M	RR	1.2M		300n						5.0					2	16	16	MOTA	
70▼		UNIB	1.2M	RR	Refer 9P3-064,Optional Selection of I-O page Size;4.5k,9k,18k Byts																	
71▼	MMS1119P4-512▼	UNIB	1.2M	RR	1.2M		350n						5.0					2	16	16	MOTA	
72▼		UNIB	1.2M	RR	Refer 9P4-064,Optional Selection of I-O page Size;4.5k,9k,18k Byts																	
73▼	681-1-00433-000	UNIF	2.0kw	RS	2.0kw								5.0					2	16	16	PLM	3UB001
74▼		UNIF	2.0kw	RS	Memory card configured as program memory only																	
75▼	681-1-00433-001	UNIF	2.0kw	RS	2.0kw								5.0					2	16	16	PLM	3UB001
76▼		UNIF	2.0kw	RS	Memory card configured as data memory only																	
77▼	681-1-00433-002	UNIF	2.0kw	RS	2.0kw								5.0					2	16	16	PLM	3UB001
78▼		UNIF	2.0kw	RS	Memory card configured as data memory and includes a MEM ADDR REG																	
79▼	681-1-00407-000	UNIF	4.2kw	RS	.25kw			PR	5.0kw	93453g			5.0					2	16	16	PLM	3UB002
80▼		UNIF	4.2kw	RS	Applications MEM card w/4.0k words of program and 1k of data memory																	
81▼	681-1-00407-001	UNIF	4.2kw	RS	.25kw			PR	5.0kw	93453g			5.0					2	16	16	PLM	3UB002
82▼		UNIF	4.2kw	RS	Applications MEM card w/memory capacity plus MEM ADDR REG																	
83▼	681-1-00505-000	UNIF	8.0kw	PR	8.0kw	93453g							5.0					2	16	16	PLM	
84▼		UNIF	8.0kw	PR	Memory card w/32x18 pin dual-in-line sockets config for program MEM																	
85▼	681-1-00505-001	UNIF	8.0kw	PR	8.0kw	93453g							5.0					2	16	16	PLM	
86▼		UNIF	8.0kw	PR	Memory card with 32x18 pin dual-in-line sockets config for data MEM																	
87	M68K32DP	VERA	32k	RD	32k		345n					32k	5.0		12		2				MOTA	
88		VERA	32k	RD	EXORciser Bus compatible,Plus byte parity,Bytes/words addressable																	
89	M68K64DP	VERA	64k	RD	64k		345n					32k	5.0		12		2				MOTA	
90		VERA	64k	RD	EXORcizer Bus compatible,Plus byte parity,bytes/words addressable																	
91	M68K128DP	VERA	128k	RD	128k		345n					32	5.0	3.5	12	.75	2				MOTA	
92		VERA	128k	RD	EXORCIZER bus compatible,plus byte parity,bytes/words addressable																	
93	WMX1-TAI	ZZZZ	1k		1k		350n						5.0						16	8	TAI	
94		ZZZZ	1k		Similar to WMX4-TAI with 4k bytes of memory capacity																	
95	IMX1-TAI	ZZZZ	1k	RS	1k		250n						5.0						16	8	TAI	
96		ZZZZ	1k	RS	Similar to IMX4-TAI with 1k bytes of memory capacity																	
97	WMX2-TAI	ZZZZ	2k	CO	2k		350n						5.0						16	8	TAI	
98		ZZZZ	2k	CO	Similar to WMX4-TAI with 2k bytes of memory capacity																	
99	9000-1151	ZZZZ	2k	EP	2k	2176g															DSI	3ZZ001
100		ZZZZ	2k	EP	Self-programming EPROM modules,1pass,selectbble t sinil,random add																	
101	ADP1520	ZZZZ	2k	RD	2k							2k	5.0	215m							ADP	3Z012
102		ZZZZ	2k	RD	On-board trickle charge circuit,provision for external battery for																	
103		ZZZZ	2k	RD	long-term data retention,high speed CMOS mem does not slow system																	
104	9010-1332	ZZZZ	2k	RO	2k																DSI	
105	CM4500	ZZZZ	2k	RS	1k		1.0uC	PR	1k	1702g	1.0uC	256	8	0.7			2	16	8		PCS	3ZZ009
106		ZZZZ	2k	RS	Base address selections via on-card switches,TTL compatible																	
107	IMX2-TAI	ZZZZ	2k	RS	2k		250n						5.0						16	8	TAI	
108		ZZZZ	2k	RS	Similar to IMX4-TAI with 2k bytes of memory capacity																	
109#	RAM102	ZZZZ	2k	RS	2k		500n					2k	5.0	1.0			1				EURF	
110#		ZZZZ	2k	RS	NMOS static RAM.Also available in 1K-bytes RAM																	

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY
(3)TEC (4)BOARD TYPE NUMBER

LINE No.	[4] BOARD TYPE NUMBER	[1] BUS CODE	[2] TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A [3] TEC	TYPE A MAX. BYTES	TYPE A LARGEST CHIP CONFIG.	TYPE A ACCESS TIME (S)	TYPE B TEC	TYPE B MAX. BYTES	TYPE B LARGEST CHIP CONFIG.	TYPE B ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX (A)	T EMP	BUS SIZE ADR	BUS SIZE DAT	MFG. CODE	DRAWING NUMBER
1	9010-1230	ZZZZ	4k		4k															DSI	
2		ZZZZ	4k		Interfaced to maximum of eight devices, incuudingCCPU																
3	WMX4-TAI	ZZZZ	4k	CO	4k		350n						5.0		-5			16	8	TAI	
4		ZZZZ	4k	CO	DIP sw on board set any and/or all blocks of 512 bytes in module																
5		ZZZZ	4k	CO	as RAM/ROM.Thus ROM area is electronically reprogrammable,before																
6		ZZZZ	4k	CO	the DIP SW is set on the ROM side-address/data latching on board																
7	9000-1152	ZZZZ	4k	EP	2k	2176g														DSI	3ZZ001
8		ZZZZ	4k	EP	Self programming EPROM modules,1pass,selectable to singl,random add																
9	9010-1324	ZZZZ	4k	RO	4k		500n													DSI	
10	9010-1334	ZZZZ	4k	RO	4k															DSI	
11	CM4503	ZZZZ	4k	RO	4k		1.0uC					256	8	759m				2	8	16 PCS	3ZZ007
12		ZZZZ	4k	RO	16-Bit address decoding logic,TTL compatible,On-card voltage regu-																
13		ZZZZ	4k	RO	lation,Relocatable base address selection via on-card switches																
14	9000-0150	ZZZZ	4k	RR	4k	2104g	800n						5.0							DSI	3ZZ002
15		ZZZZ	4k	RR	Provisn for write protect,disable reading during bootstrap operatn																
16	CM4501	ZZZZ	4k	RS	4k		1.0uC					1k	8	.35				2	16	8 PCS	3ZZ008
17		ZZZZ	4k	RS	16-Bit address decoding,On-card voltage regulation,Battery backup																
18		ZZZZ	4k	RS	Base address selection via on-card switches,TTL compatible																
19	IMX4-TAI	ZZZZ	4k	RS	4k		250n						5.0					16	8	TAI	
20		ZZZZ	4k	RS	N-MOS memory using AMS-TOKOs 1024-bit static RAM (7040).Plugcom-																
21		ZZZZ	4k	RS	patible with TOKO WMX memory module single power supply at 5V																
22	9000-1153	ZZZZ	6k	EP	2k	2176g														DSI	3ZZ001
23		ZZZZ	6k	EP	Self programming EPROM modules,1pass,selectable to singl,random add																
24	9000-1154	ZZZZ	8k	EP	2k	2176g														DSI	3ZZ001
25		ZZZZ	8k	EP	Self programming EPROM modules,1pass,selectable to single,random add																
26#	EPROM306/E-6	ZZZZ	8k	EP	8k	1kx8						8k	5.0		12		1			EURF	
27	ADP1400	ZZZZ	8k	PR	8k	2708pg						8k	5.0	500m	12	360m				ADP	3ZZ014
28		ZZZZ	8k	PR	Same board may hold EPROMs and PROMs,unused address space can be																
29		ZZZZ	8k	PR	deactivated for use by other boards,contains system firmware																
30	9000-0151	ZZZZ	8k	RR	8k	2108g	800n						5.0							DSI	3ZZ002
31		ZZZZ	8k	RR	Provisn for write protect,disable reading during bootstrap operatn																
32	9000-0152	ZZZZ	8k	RR	8k	2108g	800n						5.0							DSI	3ZZ002
33		ZZZZ	8k	RR	Provisn for write protect,disable reading during bootstrap operatn																
34♦	ADP1500	ZZZZ	8k	RS	8k							8k	5.0	1.0						ADP	3ZZ013
35		ZZZZ	8k	RS	16 Sockets for 1-8k RAM,options,no more RAM chips needs be loaded																
36		ZZZZ	8k	RS	on board than are required by application,no steal cycles from MPUU																
37		ZZZZ	8k	RS	for refresh,fast cycle time causes no delaying the MPU clock																
38#	CRAM/RAM108	ZZZZ	8k	RS	8k		450n					8k	5.0	1.2	5.0	0.5	1			EURF	
39#		ZZZZ	8k	RS	Battery back-up logic NMOS static RAM or CMOS static RAM																
40▼#	H68CM08-1	ZZZZ	8.0k	RS	8.0k	4315g	468n						5.0	1.7				16	8	HITJ	
41	9000-1155	ZZZZ	10k	EP	2k	2176g														DSI	3ZZ001
42		ZZZZ	10k	EP	Self programming EPROM modules,1pass,selectable to singl,random add																
43	9000-1156	ZZZZ	12k	EP	2k	2176g														DSI	3ZZ001
44		ZZZZ	12k	EP	Self programming EPROM modules,1pass,selectable to single,random add																
45	9000-1157	ZZZZ	14k	EP	2k	2176g														DSI	3ZZ001
46		ZZZZ	14k	EP	Self programming EPROM modules,1pass,selectble to single,random add																
47	MM16P	ZZZZ	16k	CO	16k		350n						5.0	1.6	12	1.0	1	16	16	MIM	
48		ZZZZ	16k	CO	Power monitoring for data protection,no extension cycle require																
49	9000-1158	ZZZZ	16k	EP	2k	2176g														DSI	3ZZ001
50		ZZZZ	16k	EP	Self programming EPROM modules,1pass,selectble to single,random add																
51	ADP1416	ZZZZ	16k	PR	16k	2Kx8						16k	5.0	600m						ADP	3ZZ014
52		ZZZZ	16k	PR	Same board may hold EPROMs and PROMs,unused address space can be																
53		ZZZZ	16k	PR	deactivated use by other boards,2716-EPROM/2316-ROM campatible																
54	9000-0153	ZZZZ	16k	RR	16k	2116g	800n						5.0							DSI	3ZZ002
55		ZZZZ	16k	RR	Provisn for write protect,disable reading during bootstrap operatn																
56	MEX6816-22D	ZZZZ	16k	RR	16k								5.0	1.5☑	12	1.6☑	2			MOTA	3ZZ006
57		ZZZZ	16k	RR	Sw selectable base memory address on module,MOS mem,See MEX6832-22																
58▼#	H68SM16-1	ZZZZ	16k	RS	16k	2114g	450n						5.0	1.8				16	8	HITJ	
59▼#	RAZ80-16	ZZZZ	24k	RR	16k	4027g		RO	8.0k	2316g			5.0	1.0			1	16	8	SGAI	
60▼#		ZZZZ	24k	RR	Links fix beginning and end address of read/write,ROM memories;																
61▼#		ZZZZ	24k	RR	Sockets for ROM;available in ROM 2316,PROM 6381,EPROM 2708,2716																
62▼#	H68XM68-1	ZZZZ	24k	RS	8.0k	2114g	450n	PR	16k	2716g	450n		5.0	2.3				16	8	HITJ	
63	145-2051	ZZZZ	32k	EP	32k	2532							5.0				4			DIV	3ZZ003
64		ZZZZ	32k	EP	User selected EPROM;4k of CMOS 6654,16k of 2716,32k of 2532																
65#	EPROM332/E-6	ZZZZ	32k	EP	32k	4kx8						32k	5.0	1.7	5.0	.43	1			EURF	
66▼#	H68PM32-1	ZZZZ	32k	PR	32k	2716g	450n						5.0	1.9				16	8	HITJ	
67	PCS1813	ZZZZ	32k	RD	16k			EP	16k	2708g										PCS	
68		ZZZZ	32k	RD	In SPDOS 5k bytes of EPROM,In SPDS 16k bytes of RAM only.																
69	ADP1560	ZZZZ	32k	RR	32k							8k	5.0	600m	12	50m				ADP	3ZZ011
70		ZZZZ	32k	RR	Expansion of mem to 256k,optional parity,refresh transparent to CPU																
71	MEX6832-22	ZZZZ	32k	RR	32k								5.0	1.5☑	12	1.6☑	2			MOTA	3ZZ006
72		ZZZZ	32k	RR	Jumper selectable 1,1.5 or 2MHz memory speed,See MEX6848-22																
73▼	MMS1600-16▼	ZZZZ	32k	RR	32k		400n						5.0	1.6	12	0.6	1			MOTA	3ZZ005
74▼		ZZZZ	32k	RR	Similar to MMS1600-32 with Storage Capacity of 16kx16-bits																
75▼	MMS1600-16P▼	ZZZZ	36k	RR	36k		400n						5.0	1.6	12	0.6	1			MOTA	3ZZ005
76▼		ZZZZ	36k	RR	Similar to MMS1600-16 with Storage Capacity of 16kx18-bits																
77▼#	RAZ80-32	ZZZZ	40k	RR	32k	4116g		RO	8.0k	2316g			5.0	1.1			1	16	8	SGAI	
78▼#		ZZZZ	40k	RR	Links fix beginning and end addresses of read/write,ROM memories;																
79▼#		ZZZZ	40k	RR	Sockets for ROM;available in ROM 2316,PROM 6381,EPROM 2708,2716																
80▼#	H68DM48-1	ZZZZ	48k	RD	48k	4716g	250n						5.0	1.8	12	.80		16	8	HITJ	
81	MEX6848-22	ZZZZ	48k	RR	48k		230n						5.0	1.5☑	12	1.6☑	2			MOTA	3ZZ006
82		ZZZZ	48k	RR	Jumper selectable user map or exbug II dual map,see MEX6864-22																
83▼#	RAZ80-48	ZZZZ	56k	RR	48k	4116g		RO	8.0k	2316g			5.0	1.2			1	16	8	SGAI	
84▼#		ZZZZ	56k	RR	Links fix beginning and end addresses of read/write,ROM memories;L.																
85▼#		ZZZZ	56k	RR	Sockets for ROM;available in ROM 2316,PROM 6381,EPROM 2708,2716																
86▼#	BM4001	ZZZZ	64k	RD	64k	416							5.0	1.0	12	100m				TOSJ	
87▼#		ZZZZ	64k	RD	Os Specify as main or aux memory;high-speed file memory																
88	MEX6864-22	ZZZZ	64k	RR	64k		230n						5.0	1.5☑	12	1.6☑	2			MOTA	3ZZ006
89		ZZZZ	64k	RR	20 Pin header implementation of multi-paged memory,See MEX6832-22																
90▼	MMS1600-32▼	ZZZZ	64k	RR	64	400	n						5.0	2.3	12	1.3	1			MOTA	3ZZ005
91		ZZZZ	64k	RR	Use with general automation 110 and 220 type 16 bit computer																
92	9010-1200	ZZZZ	65k	RS	4k															DSI	
93		ZZZZ	65k	RS	Used in conjunction with other RAM,PROM,ROM to provide max 65K w d																
94	9010-1210	ZZZZ	65k	RS	1k															DSI	
95		ZZZZ	65k	RS	Used in conjunction with other RAM,PROM,ROM to provide max 65K WRD																
96▼	MMS1600-32P▼	ZZZZ	72k	RR	72k		400n						5.0	2.3	12	1.3	1			MOTA	3ZZ005
97▼		ZZZZ	72k	RR	Similar to MMS1600-32 with Storage Capacity of 32kx18-bits																
98▼#	H68ODM12	ZZZZ	128k	RD	128k	4864g	200n						5.0	2.7				23	16	HITJ	

4. CONTROLLER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE	1 BUS CODE	2 NC OO MD E	I/O PORTS SERIAL TYPE	SERIAL MAX BAUD RATE	PARALLEL BIT	PARALLEL S L I V G L	PARALLEL XFER RATE (BPS)	MAX. OPER. DIST. (M)	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1	DPA68/1M		ADA							5.0	250m				16		Dual port adapter	RCI	
2			ADA	CMC68 Services compatible,crystal clock 1MHz,fully buffered,all IC S in the															
3			ADA	Sockets,up to one megabyte capacity,allow 2 CMC processors share bulk Mem															
4▼	MIKUL6882	EXOR	CMC	RS42	153k	16	BFD			5.0	1.0	12	50m	2	16	8	COMMUNICATIONS PROCESSOR	TLI	
5▼		EXOR	CMC	Two serial ports,one w/RS232-c and 20ma current loop;IBM Bisync, HDLC,SDLC,															
6▼		EXOR	CMC	and other communication protocols; 6k static RAM,4k EPROM;Two parallel I/O															
7▼		EXOR	CMC	ports that can be combineed into one;3 counter/timers;contains uC unit															
8#	EFM-VE10	EXOR	DPY	R232	1.2k	7				5.0	1.0	12	.10		16	16	Display interface	EFCF	4EX002
9#		EXOR	DPY	RS232 baud rate sel 300-1200baud,adjustable composite video,16 lines															
10#		EXOR	DPY	of 64 char display,ASCII Kbd input,-12V/100ma reg.,247.5x146mm															
11	M68DIM1A	EXOR	DPY							5.0	1.5	12	.07		16	8	DISPLAY INTERFACE MODULE	MOTA	
12		EXOR	DPY	16 Lines of 32 characters,composite 625 lines positive or negative video															
13	M68DIM2A	EXOR	DPY							5.0	1.5	12	.07	1	16	8	DISPLAY INTERFACE MODULE	MOTA	4EX001
14		EXOR	DPY	16 Lines of 32 characters,one page memory,hardware row pointer															
15	MC6805	EXOR	MIS							5.0	2.5	12	.01	2	16	8	Support system	MOTA	
16		EXOR	MIS	Jumper selectable memory options macro assembler,self-test socket															
17	C03	LSI	DIC							5.0	3.5				16	16	CARTRIDGE DISC CONTROLLER	DRC	
18		LSI	DIC	Use a conservative design approach to insure that unit works reliably															
19	FDC11	LSI	DIC							5.0	1.5	12	.21		16	16	FLOPPY DISK CONVERTER	ADS	
20		LSI	DIC	Control max 4 disk drives diskette formatting capability															
21	MDC11	LSI	DIC							5.0	1.0	12	.03		16	16	MINIDISK CONTROLLER	ADS	
22		LSI	DIC	4kx16 EPROM DMA dynamic memory refresh controller minifloppy diskette															
23	VDC11	LSI	DPY	RS2C											16	16	VIDEO DISPLAY CONTROLLER	ADS	
24		LSI	DPY	Standard 80Hx24V character display,3 scrolling speeds,Ser or par keyboard															
25	1620DMA	LSI	MCS							5.0	3.0			1	16	16	Direct memory access sys	ANA	4LS007
26		LSI	MCS	Contains an 18-bit bus address register 16-bit word counter,6-bit final															
27		LSI	MCS	Channel register and comparator,control 1620TTL for digital I/O transfer															
28	1620TTL	LSI	MCS							5.0	3.0			1	16	16	Direct memory address sys	ADA	4LS004
29		LSI	MCS	Contains a 16-bit latched input/output data register,16-bit control sta-															
30		LSI	MCS	tus register with 3 read/write function bits and 3 read only status bus															
31	BSC-256	LSI	MCS												16	16	Bank switch controller	DPW	
32		LSI	MCS	Key to bank switching capability of system,com by means of daisy-chained															
33	MLSI-11B	LSI	MCS							5.0	1.6				16	16	DIRECT MEMORY ACCESS INTER	MDB	4LS004
34		LSI	MCS	Address decode circuitry,address work count and data registers,timing log															
35	S03-A	LSI	MCS												16	16	SMD CONTROLLER	DRC	
36		LSI	MCS	Maintinssfull sootwareecompaaibillty wwth DDC st ntard oderating systemS															
37	S03-B	LSI	MCS												16	16	SMD CONTROLLER	DRC	
38		LSI	MCS	Maintinssfull sootwareecompaaibillty wwth DDC st ntard oderating system															
39	S03-C	LSI	MCS												16	16	SMD CONTROLLER	DRC	
40		LSI	MCS	Maintinssfull sootwareecompaaibillty wwth DDC st ntard oderating system															
41	IBV11A	LSI	MIS							5.0	.8				16	16	Instrument bus interface	DEC	4LS002
42		LSI	MIS	PDP-11 software-compatible,software support available under fortran-4															
43	MLSI-SMU	LSI	MIS							5.0	1.0	12	0.1		16	16	SYSTEM MONITORING UNIT	MDB	4LS003
44		LSI	MIS	Includes switch panel and indicators,power on-off and failure sequencing															
45	MLSI-XYV11	LSI	MIS							5.0	0.9	12	0.4		16	16	INCREMENTAL PLOTTER INTERF	MDB	
46		LSI	MIS	XY-11 software compatible,multiple plotter address selection,option cable															
47	MLSI-DRV11C	LSI	PIO							5.0	1.3				16	16	PARALLEL LINE INTERFACE MO	MDB	
48		LSI	PIO	Multi address selection,multi interrupt vector,DEC DRV11 software compatb															
49	LPCL11	LSI	PRT												16	16	Line printer controller	CES	
50		LSI	PRT	Address selection by 10 position DIP sw,Vector address selected via a six															
51		LSI	PRT	position DIP sw providing choice of 000-370(octal),operation and program															
52		LSI	PRT	Same as LP-11/LS11,Transparent to host computers diagnostics/dr/op system															
53	MLSI-LP11	LSI	PRT							5.0	0.7				16	16	LINE PRINTER CONTROLLER	MDB	4LS005
54		LSI	PRT	Parallel interface for most popular line printer,DECLP-11 LS-11 compatibl															
55	MLSI-CR11	LSI	RPC							5.0	0.9				16	16	CARD READER CONTROLLER	MDB	
56		LSI	RPC	Parallel interface for most popular card readers, DEC CR-11 Softw compatbl															
57	MLSI-PC11	LSI	RPC							5.0	0.9				16	16	PAPER TAPE READER-PUNCH CO	MDB	
58		LSI	RPC	Parallel interface for most paper tape readers and paper tape punches															
59	PTCL11	LSI	RPC			8.0									16	16	Paper tape R/P controller	CES	
60		LSI	RPC	Address selection by 10 position DIP switch,Vector address selected via a															
61		LSI	RPC	5 position DIP switch providing choice of 000-370(octal),on-board jumper															
62	SLCL11	LSI	SRI	20CL	9.6k					5.0	600m	12		1	16	8	Serial line controller	CES	
63		LSI	SRI	50/9600 baud rates in 13 steps switch-select,none-even-odd parity select															
64	T03	LSI	TAP							5.0	3.5				16	16	MAGNETIC TAPE CONTROLLER	DRC	
65		LSI	TAP	128K word address range 2byte on-board STORaGE FoR DMA LaTENCY,UTILIZ															
66	1601GPT	LSI	TIM							5.0	0.8			1	16	16	General purpose timer	ANA	4LS006
67		LSI	TIM	16-bit up/down counter with on-board clock for system timer application															
68	KWV11A	LSI	TIM							5.0	1.7	12	.01		16	16	Programmable real-time clk	DEC	4LS001
69		LSI	TIM	Resolution of 16 Bits,4 programmable modes,to start ADV11A A-D converter															N
70		LSI	TIM	Quad module,mounts in 1 quad slot,PDP-11 software compatibility,4 clk rat															
71																			
72	Z80-MDC	MCZ	DIC			16	BID			5.0					16	8	Memory-disk controller brd	ZIL	
73		MCZ	DIC	Refer Z80-MDC Section 3,fl disk cont allows formatting and control by cpu															
74	Z80-VDB	MCZ	DPY												16	8	Video display board	ZIL	
75		MCZ	DPY	Refer Z80-VDB Section 5,display size is 24 lines with 80 characters a line															
76	95/6110	MULT	DIC							5.0	3.0	-5	150m	1	16	8	FLOPPY DISK CONTROLLER	AUC	
77		MULT	DIC	Controls a maximum of 4 drives compatible w/ Shugart 800 and 850,															
78		MULT	DIC	On board 1k byte static RAM; compatible w/IBM 3740 single density format															
79		MULT	DIC	On board DMA w/block x-fers up to 1 megabyte															
80	Am95-6110	MULT	DIC												16	8	FLOPPY DISK CONTROLLER	AMD	
81		MULT	DIC	Controls four BIn flexible drives single or double-sided,control firmware															
82	Am95-6120	MULT	DIC												16	8	INTELLIGENT FLOPY DISK CON	AMP	
83		MULT	DIC	Distributed I/O processor architecture,controls max 4M bytes of F-D storg															
84	Am95-6220	MULT	DIC												16	8	CARTRIDGE DISK CONTROLLER	AMD	
85		MULT	DIC	Manages max 80M bytes high speed disk storage,1M bytes bus addressing 20b															
86▼	B1015	MULT	DIC			8.0		500k		5.0	1.6	12	.01	1	24	16	Floppy Disk Controller	CDC	
87▼		MULT	DIC	Multibus dble-density floppy disk controller uses industry-std FD1791															
88▼		MULT	DIC	controller; a max of 4 std drives--either single/double may be used															
89▼	B1016	MULT	DIC					2.5M		5.0	3.7			1	24	16	Cartridge Disk Controller	CDC	
90▼		MULT	DIC	Multibus Cartridge disk controller bd--allows DMA transfers to/from max of															
91▼		MULT	DIC	4-std drives(max capacity 20 megabytes); data format															
92▼	B1023	MULT	DIC					10M		5.0	4.7			1	24	16	ANSI Winchester Disk Contr	CDC	
93▼		MULT	DIC	max of 8 std drives; onboard CRC error checking; microprogramed controllr															
94	BLC8201	MULT	DIC			8	TTT	624k		5.0	2.0	12	.06	1	16	8	Floppy disc controllerss	NSC	4MU001
95		MULT	DIC	Intelligent non-volatile bulk storage controller,DMA data transfers,multi															
96		MULT	DIC	Master bus control,on-board 8080A CPU,4k byte EPROM,1k byte RAM,see 8221															
97	BLC8221	MULT	DIC			8	TTT	624k		5.0	2.0	12	.06	1	16	8	Floppy disc controllers	NSC	4MU001
98		MULT	DIC	Similar to BLC8201 but instead of 2 This can control 4 recording surfaces															
99	BLC8222	MULT	DIC			8	TTT	1.3M		5.0	1.7	12	75m	1	16	89	Double density floppy disk	NSC	4MU002
100		MULT	DIC	Intelligent double density controller,R/W in IBM system 34,double density															
101		MULT	DIC	FM/MFM Selection under program control,controls 4 dual or single drives															
102▼	BP-2190	MULT	DIC							5.0	1.3	12	.15	1	16	8	Floppy Disk Controller	NECM	4MU012
103▼		MULT	DIC	Floppy controller w/on board RAM uses max of 4 std 8 inch or3 mini drives															
104#	FFD-1	MULT	DIC							5.0	2.5	12	.30	1	16	8	Floppy disk control w/Ram	MATC	4MU005
105#		MULT	DIC	Controls up to 4 single/double sided 8in drives,single/double density															
106#		MULT	DIC	32Kbytes 2 port Ram,DMA to on board or system Ram															
107	iSBC202	MULT	DIC							5.0	7.5	-5.	.20		16	8	DBL-DENSITY DISKETTE CONTR	ITL	
108		MULT	DIC	Controls std dble-density diskette drives;512k BYTE/DISK;shugart 800-1															
109		MULT	DIC	compatible;2 boards															
110	iSBC204	MULT	DIC							7.5	.20				16	8	FLEX DISKETTE CONTROLLER	ITL	

4. CONTROLLER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE	[1] BUS CODE	[2] NC OO MD E	I/O PORTS SERIAL TYPE	PARALLEL MAX BAUD RATE	BIT	S L I V G L	XFER RATE (BPS)	MAX. OPER. DIST. (M)	POWER REQUIREMENTS SUPPLY A VOLT	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	D A T	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1		MULT	DIC	Handles std-density diskette drives;single/dual sided;IBM3740 format															
2		MULT	DIC	Compatible with Shugart SA400,SA800,Memorex 550 drives etc															
3	iSBC206	MULT	DIC							5.0	6.5				16	8	DISK CONTROLLER	ITL	
4		MULT	DIC	Handles std 5440-type disk drives;single density,supports 4 drives															
5		MULT	DIC	compatible with CDC 9427H,Diablo 44B,Pertec D3422 drives;NRZ record															
6	MF85	MULT	DIC					62k		5.0	2.5	12	1.0	1	16	8	Floppy cntrl w/math subsys	CMC	4MU004
7		MULT	DIC	PLL data seperator,up to 4ea 51/4 and 8 in drives simultaneously,															
8		MULT	DIC	Single/double sided,single/double density,pgrble sect size,DMA 16 bit adr															
9▼	MF85MATH11A	MULT	DIC					62k		5.0	2.5	12	1.0	1	16	8	Floppy cntrl w/math subsys	CMC	4MU004
10▼		MULT	DIC	Same as MF85 with the AMD9511A math chip option															
11▼	MF85MATH12	MULT	DIC					62k		5.0	2.5	12	1.0	1	16	8	Floppy cntrl w/math subsys	CMC	4MU004
12▼		MULT	DIC	Same as MF85 with the AMD9512 math chip option															
13▼		MULT	DIC	two further versions (MF85-DIAG/20 and MF85-DIAG/85) w/diag ROM are avail															
14#	FG-01	MULT	DPY		TTL					5.0	.30	12	.10		16	8	A/D For graphics display	MATC	4MU008
15#		MULT	DPY	4,6 or 8 bit version,4 inputs software controlled,on bd sync allows lock															
16#	MSBC24/320	MULT	DPY							5.0	2.5				16	8	ALPHANUMERIC/GRAPHIC DSPLY	MATC	
17#		MULT	DPY	24x80 Alphanumeric/320x240 graphic display,4Kx8 MEM mapped interface															
18#		MULT	DPY	PROM 6x10 char gen,12Kx8 static Ram,normal/inverse video and on/off															
19#	MSBC2480	MULT	DPY						200 F	5.0					16	8	DISPLAY CONTROLLER	MATC	4MU006
20#		MULT	DPY	24 linesx80 char,4Kx8 Ram,EXT/int sync,built in memory refresh,built															
21#		MULT	DPY	in ASCII Kbd interface,normal/inverse/blink,scroll,800ns access															
22#	MSBC-512	MULT	DPY							5.0	.80	12	.20		16	8	Hi Res Graphics controller	MATC	
23#		MULT	DPY	US/European std,res of 240x256;240x512;480x512;240x1024,scroll															
24#	MSBC-PLL	MULT	DPY		1	ANA				5.0	250m	12	50m	1	16	8	Phase-locked loop	MATC	4MU011
25#		MULT	DPY	Also reg -12V/50ma,for mixing Matrox alphanumeric or graphics with															
26#		MULT	DPY	with standard video sig in CCTV or commercial installations															
27#	MSBCQV-1	MULT	DPY		TTL					5.0	1.5	12	30m		16	8	Quad alphanumerics cntrl	MATC	4MU010
28#		MULT	DPY	4 independent controllers,users prble 8or16 rows of 8,16,24 or 32 char															
29#		MULT	DPY	Drives 10 monitors per display,looks loke 2K of memory,Ext/int sync															
30#	NSBC-512	MULT	DPY							5.0	.80	12	.20		16	8	Hi speed vector plot gen	MATC	4MU009
31#		MULT	DPY	US/European std,res of 256x256;256x512;512x512,700,000 dots/sec plot															
32#	RGB-256	MULT	DPY		TTL					5.0	1.0	12	.40		16	8	Color imaging systems	MATC	
33#		MULT	DPY	16 gray levels or colors,8 bit video D/A,8 bit color encoder,seperate															
34#		MULT	DPY	image bit for RGB monitor,NTSC or PAL compat,composite color out															
35#	RGB-ALPHA	MULT	DPY							5.0	1.5				16	8	Color display controller	MATC	4MU007
36#		MULT	DPY	10-128 char/ap to 60 lines,software prble fonts,scroll and pan,light															
37#		MULT	DPY	Pen reg,hdware set up to 9 attributes/character,video on/off control															
38	BLC8228	MULT	KBD		8	TTT	624k			5.0	4.9	12	.22	1	16	8	Video monitor/keyboard	NSC	4MU003
39		MULT	KBD	Intelligent controller,DMA transfer,interrupt control,8080A CPU and control															
40		MULT	KBD	ROM,1k byte RAM,EPROM sockets,on-board video refresh memory,24 line															
41		MULT	KBD	by 80 character display array,full 128 ASC II character set,See BLC8229															
42	BLC8229	MULT	KBD		8	TTT	624k			5.0	4.9	12	.22	1	16	8	Video monitor/keyboard	NSC	4MU003
43		MULT	KBD	Similar to BLC8228 but with 25 line by 80 character display array															
44	ZT80	MULT	MIS							5.0	1.9	12	0.1	1	16	8	GPIB controller	ZIA	
45		MULT	MIS	High level interface commands,standard peripheral/instrument interface															
46		MULT	MIS	Talker/listener capability,easily programmed,1k-bytes RAM for buffering															
47	MT80	MULT	TAP		9		200k	6.1		5.0	3.5			1	16	8	Multibus tape system	CMC	
48		MULT	TAP	DMA interfaces up to 8 drives,7-9 track NRZI,dual dens NRZI1PE,all std															
49		MULT	TAP	densities to 1600 BPI,25/45/75/125 ips,max record length 4096 bytes															
50		MULT	TAP	min record size 1 byte,to 8K static RAM,RMX/ISIS driver,1600BPI at 125 ips															
51▼	MT86	MULT	TAP					200k	20 F	5.0				1	16	8	Magnetic Tape Controller	CMC	
52	QIM-1/MN	MULT	TAP					48k		5.0	1.4	12	12m	1	16	8	MINICARTRIDGE TAPE I/F	MEG	
53		MULT	TAP	Tape controller compatbble wQQANTXX 20 minccartiiggeddrvves;includes															
54		MULT	TAP	3 input plus 3 output ports,buffered date,address busses,hardware															
55		MULT	TAP	selected,software enabled interrupts;data x-fer rate jumper selectable															
56		MULT	TAP	(24k or 48k)bps;data written phase-encoded,blocked,at (800/1600)b/in															
57	QIM-1/MX	MULT	TAP							5.0	1.8	12	90m	1	16	8	CARTRIDGE TAPE I/F	MEG	
58		MULT	TAP	Tape controller compatible w/QANTEX 650 cartridge drives;provides ctl of															
59		MULT	TAP	max 8 units independent of CPU;ANSI/ECMA compatible,uses shared,added															
60		MULT	TAP	1k byte memory w/ 8080 uC;provides 3 Megabytes storage/cartridge DC300XL															
61	TIM-1/MX	MULT	TAP							5.0	1.8	12	90m	1	16	8	CARTRIDGE TAPE I/F	MEG	
62		MULT	TAP	Tape controller compatible w/TANDBERG TDC3000 cartridge drives;provides															
63		MULT	TAP	ctl of 4 units independent of CPU;ANSI/ECMA compatible,adds 1k bytes															
64		MULT	TAP	of memory to system (shared w/CPU)															
65	Am95-4620	MULT	TIM												16	8	R-TIME MULTITASK EXECUTIVE	AMD	
66		MULT	TIM	Task scheduling,interrupt handling and passing of parameters for R-T appl															
67	CA-9	OS48	PRT							5.0		-9					PRINTER I/F	OHS	
68		OS48	PRT	Parallel line printer I/F															
69	CA-12	OS48	PRT							5.0		-9					PRINTER I/F	OHS	
70		OS48	PRT	96 line remote parallel I/F;remote via 16 pin cable															
71	CA-6C	OS48	TAP	RS2C	300					5.0		-9					AUDIO CASSETTE I/F	OHS	
72		OS48	TAP	Kansas City standard 300 baud															
73	CA-7C	OS48	TAP	RS2C	8.0					5.0		-9					COMBINATION CASSETTE I/F	OHS	
74		OS48	TAP	Cassette I/F and two 8 bit DAC plus A/D capability;8 parallel I/O lines															
75	CDP18S651	PROP	DIC							5.0	250m	-5	3m	2			FLOPPY DISK CONTROLLER MOD	RCA	
76		PROP	DIC	Handles most disk drives;Shugart I/F															
77	MFC01	PROP	DIC							5.0	.50						FLOPPY CONTROLLER MODULE	WTK	
78		PROP	DIC	Controls 1-(5 or 8)inch drive;compatible w/Shugart SH800/801 etc															
79	MFC04	PROP	DIC							5.0	.50						FLOPPY CONTROLLER MODULE	WTK	
80		PROP	DIC	Controls max of 4-(8 or 8)inch drives;compatible w/Shugart SH800/801															
81		PROP	DIC	Pertec FD511/514,Memorex 550 etc															
82▼	HDSP-2470	PROP	DPY							5.0	400m				1		Dot Matrix Display Control	HPA	
83▼		PROP	DPY	Alphanumeric display controller;preprogramming microprocessor which provides															
84▼		PROP	DPY	decode,memory,and drive signals to interface w/HDSP-2000 display 64 Characters															
85▼	HDSP-2471	PROP	DPY							5.0	400m				1		Dot Matrix Display Control	HPA	
86▼		PROP	DPY	Alphanumeric display controller;preprogrammed microprocessor which provide															
87▼		PROP	DPY	decode,memory,and drive signals to interface w/HDSP-2000 display 128 chara															
88▼		PROP	DPY	Alphanumeric display controller;preprogrammed microprocessor which provide															
89▼		PROP	DPY	decode,memory,and drive signals to interface w/HDSP-2000 display;no ASC11															
90▼		PROP	DPY	decoder it uses a user programmed 1kx8 PROM;128 characters available															
91	MCI00	PROP	KBD							5.0	.50						CONSOLE I/O MODULE	WTK	
92		PROP	KBD	Front panel entry/display;16 hex-key input,LED-output,PIA connector															
93	MCI01	PROP	KBD							5.0	.50						CONSOLE I/O MODULE	WTK	
94		PROP	KBD	Front panel entry/display;16 touch-tone keys-in,LED-out,PIA connector															
95	MCI10	PROP	KBD							5.0	.50						CONSOLE I/O MODULE	WTK	
96		PROP	KBD	Front panel entry/display;16h ex-keys input,LED-out,50 pin connector															
97	MCI12	PROP	KBD							5.0	.50						CONSOLE I/O MODULE	WTK	
98		PROP	KBD	Front panel entry/display;16 blank-keys in,LED-out,50 pin connector															
99	MRI00	PROP	MCS							5.0	.50						RAM I/O CONTROLLER MODULE	WTK	
100		PROP	MCS	1MH/Z X-tal ctl clk; module provides refresh protocol for MRA RAM-MOD S															
101▼		PROP	SMS	complet listings under CINCH in DATA TRANSFER section of Data Bks-MS2															
102▼	LEI-517	PROP	SRI	RS2C	168	8	TTL			12	20m	9.0	16m		16	16	EIE INTERFACE BOARD	CLI	SPR016
103▼		PROP	SRI	6kbaud possible, 3-state parallel output buffered in both directions															
104▼	MM1-OPT	PROP	SRI	RS2C	9.6k	32	TTL			12		5.0			16	16	OPTIONS BOARD	CLI	5PR006
105▼		PROP	SRI	prgm-plugable-baud 110/9600,ASR35/35 I/lp tape, 20ma read/cont/current 1p.															
106▼	MSI-838	PROP	SRI	RS2C	9.6k	8	TTL			5.0		12			16	16	SERIAL INTRFACE BOARD	CLI	5PR011
107▼		PROP	SRI	serial/parallel conv/types 20mal/1p,TTL,EIA-RS232C; crystal/cont/oscilator															
108	CDP18S652	PROP	TAP											2			COMBINATION MEM TAPE I/O	RCA	
109		PROP	TAP	Two-cassette tape I/O ports w/MEM:1KbyYe CMMS RAA//4K4EPEOM;4 LED															
110	MCS00	PROP	TAP	RS2C	9.6k												CASSETTE/RS-232C I/F MOD	WTK	

4. CONTROLLER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE	1 BUS CODE	2 NC OO MD E	I/O PORTS SERIAL TYPE	SERIAL MAX BAUD RATE	PARALLEL BIT	PARALLEL S L I V G L	PARALLEL XFER RATE (BPS)	MAX. OPER. DIST. (M)	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1		PROP	TAP	Cassette prot 300 baud Kansas City std/2400 baud Manchester code;															
2		PROP	TAP	RS2C baud rates:(150 to 9600) baud sw-selectable w/7 positions															
3▼	RM65-5101	RM65	DIC						5.0	900m	12	100m	2	16	8	Floppy Disk Controller	RKW	4RM001
4▼		RM65	DIC	Floppy disk controller controls up to 4 std or mini drives single/dble															
5▼		RM65	DIC	sided; single on double density; edge connector card 4ub by 6.25in															
6▼	RM65-5101E	RM65	DIC						5.0	900m	12	100m	2	16	8	Floppy Disk Controller	RKW	4RM001
7▼		RM65	DIC	Floppy disk controller controls up to 4 std or mini drives single/dble															
8▼		RM65	DIC	sided; single or double density; Eurocard version 100mm X 160mm															
9▼#	SMP-E352	SMP	DPY						5.0	700m	12	50m		16	8	CRT Control	SIEG	
10▼#		SMP	DPY	Capable of text and graphics outputs to video devices;7x11 dot matrix;															
11▼#		SMP	DPY	2Bit charact word determine ASC11 thin/thick line pseudo-graphics															
12#	SMP-E341	SMP	FLO						5.0	1.2			1	16	8	FLOPPY DISK CONTROLLER	SIEG	
13#		SMP	FLO	Controller compatible w/shigart SA 400,Siemens FDD 100-5 etc having															
14#		SMP	FLO	2 mini-drives or std 2-drive types such as Shugart SA 800;single or															
15#		SMP	FLO	double-sided recording w/single density															
16#	SMP-E310	SMP	KBD						5.0	1.2			1	16	8	KEYBOARD CONTROLLER	SIEG	
17#		SMP	KBD	Controller for keyboards w/max 64 characters /2 ctl keys;designed															
18#		SMP	KBD	for SMP80 system;also useful for ctl of SWS/sensors;utilizes 8279 IC															
19▼#	SMP-E140	SMP	MCS						5.0	800m	12	100m		16	8	Bubble Board controller	SIEG	
20▼#	SMP-E360	SMP	MCS						5.0		15			16	8	Position Cont DC-MOTORS	SIEG	
21#	SMP-E355	SMP	PRT						5.0	.50	24	1.0	1	16	8	PRINTER CONTROLLER	SIEG	
22#		SMP	PRT	Controller for 20 column thermal printer;uses IC 8741,upper/lower case															
23#		SMP	PRT	characters (ASCII) at max 100 lines/min															
24▼#	SMP-E347▼	SMP	TAP						5.0	.90	12	.10	1	16	8	TAPE CASSETTE CONTROLLER	SIEG	
25#		SMP	TAP	Controller for mini-drives type Philips MDCR 220 or 2 Std-drives type															
26#		SMP	TAP	Teac MT2 01/03 etc;phase-ended recording;software ctl of x-fer rate															
27#	SMP-E302	SMP	TIM						5.0	.55			1	16	8	INTERRUPT CONTROLLER/TIMER	SIEG	
28#		SMP	TIM	Expansion of SMP CPU cards to 8 inputs(maskable)includes programmable															
29#		SMP	TIM	timer															
30#	SMP-E303	SMP	TIM						5.0	.80			1	16	8	INTERRUPT CONTROLLER/CTR	SIEG	
31#		SMP	TIM	Expansion of SMP CPU interrupts by 16 interrup request inputs;															
32#		SMP	TIM	interrupt or polled mode;incl 10 16-bit ctrs yielding 24hr clk,freq ctr															
33#	I/O1600	STAD	MUL	20CL					5.0	.50	12	.20	1	16	16	TTY-E1A READER-PUNCH	GICB	4SA001
34#		STAD	MUL	4 seperate channels and interrupts,paper tape read to 300cps,punch to															
35#		STAD	MUL	60 cps,full duplex,TTL compatible to I/O peripherals															
36	7320	STD	CSP			8.0	TTS		5.0	.80				16	8	PRIORITY INTERRUPT CARD	PRO	4SD001
37		STD	CSP	Prioritizes interrupt requests w/8 inputs universal:1-BYTE VECTOR PROM															
38		STD	CSP	Socket for Z-80 and 2650;polling 6800;RESTART GENERATOR,8085															
39	7303	STD	KBD						5.0	.60				16	8	KEYBOARD/DISPLAY CARD	PRO	4SD002
40♦		STD	KBD	program keys plus reset,repairable keys,socket IC s,one 5V PS															
41♦		STD	KBD	so see section 5 list															
42	ZT7488/18	STD	MIS						5.0	1.2			1	16	8	IEEE-488 controller	ZIA	4SD003
43		STD	MIS	Controls max 14 devices,data rates to 250k bytes/sec,select port address															
44	ZT7399	STD	TIM						5.0	480m			1	16	8	Dual BCD counter/timer	ZIA	4SD004
45		STD	TIM	4-decade,presetable,up-down counters,programmable limit register,zero de-															
46♦		STD	TIM	ction built-in,programmable 4-input digital mux,2 high current output															
47	MK77652-0	STDZ	DIC			8	BID		5.0	1.2	12	0.1	1	16	8	INPUT-OUTPUT CONTROLLER	MOS	
48		STDZ	DIC	Controls 1 to 4 five or eight inch drives,single-density operation															
49	MK78146	STDZ	DIC				TTL		12	6m	5.0	1.1	1	16	8	DISK CONTROLLER MODULE	MOS	4ST001
50		STDZ	DIC	IBM 3740 data entry sys, full-sector FIFO data buffering; use with OEM-80E															
51	MK77963-0	STDZ	DPY			8			5.0	1.2			1	16	8	SYS. CONTROLLER-DIAGNOSTIC	MOS	4ST003
52		STDZ	DPY	Diagnostic tool, MEM and/or diagnostic interface, 10Kx8 EROM OPR interface															
53	MK77650-0	STDZ	PIO			8	BIT		5.0	1.1			1	16	8	PARALLEL I/O CONTROLLER	MOS	
54		STDZ	PIO	Two control lines per port, all I/O lines fully buffered, 2.5MHz clk															
55	MK77650-4	STDZ	PIO			8	BID		5.0	1.1			1	16	8	PARALLEL I/O CONTROLLER	MOS	
56		STDZ	PIO	4.0 MHz CLK version of MK77650															
57	MK77967	STDZ	TIM			8			5.0	1.2			1	16	8	INTERRUPT-TIMER EXPAND MOD	MOS	4ST002
58		STDZ	TIM	Provides expanded external interrupt up to 40 devices, 4 timer channels															
59	4FDC	S100	DIC	RS2X	77k	8	TTL		8.0	1.0	18	.10	1	16	8	DISK CONTROLLER	CRO	
60		S100	DIC	Disk controller plus I/O interface also see listing in section 5															
61		S100	DIC	Drives up to 3 5-inch or 4 8-inch drives															
62▼	16FDC	S100	DIC	RS2X	77k				8.0	1.5	18	100m	1	16	8	Quad Capacity Disk Control	CRO	
63▼		S100	DIC	4 (5in or 8in) drives;UART type 5501;ROM type 2332;5 interval timers;															
64▼		S100	DIC	MAX formatted disk capacity (5in 390k;8in 1216k);interfaces crt terminal															
65	VERSAFLOPPY	S100	DIC					5.0M	5.0		12			16	8	Single density disk drive	SDS	
66		S100	DIC	IBM 3740 compatible soft-sectored format.Provides control for single sided															
67		S100	DIC	on double sided operation.Operates w/both 5 and 8 in drives.Controls max 4															
68		S100	DIC	drives simultaneously.Control and diagnostic software available in PROM															
69	VERSAFLOPPYII	S100	DIC											16	8	Enhanced flexible disk dr	SDS	
70		S100	DIC	IBM 3740 compatible soft-selectored format for single density drives.Drive															
71		S100	DIC	Select and side select circuitry.Phase locked loop data recovery circuits															
72		S100	DIC	operates w/Z80 CPU.Control and dianostic software available in PROM															
73	WD1000▼	S100	DIC						5.0		12			16	8	The Winchester Controller	WDC	
74		S100	DIC	SA1000/ST500 Interface,256 Byte buffer,automatic CRC checking/verification															
75		S100	DIC	DMA or programmed I/O transfers,controls up to 4 drivers and 4 R/W heads,															
76		S100	DIC	available apple II or apple II plus,TRS-80,and S100 type bus interface															
77	AVDB2	S100	DPY						8.0	910m	16	54m		16	8	Flashwriter II video board	VGI	
78		S100	DPY	24 lines of 80 characters,8x10 dots.RS-170 level composite sync,separate															
79		S100	DPY	TTL video and sync,Video outputs keyboard port:8-bits and strob															
80	AVDB	S100	DPY						8.0	1.2				16	8	Flashwriter video board	VGI	
81		S100	DPY	Generate a video display 64 characters by 16 lines (7x9 dot matrix),alpha-															
82		S100	DPY	numeric displays,character by character,reversed video,block/line graphic															
83	HRGDB	S100	DPY						8.0	750m				16	8	High resolution graphic	VGI	
84		S100	DPY	Operate in 1 of 2 modes,digital output/16 level gray scal used w/8k RAM															
85	QUAY80VMB	S100	DPY											16	8	Video output system	QUY	
86		S100	DPY	Memory 1kx8-bits(2102)static RAM,Display 6 bit ASCII 16 linesx64 charac-															
87		S100	DPY	ters,reverse video,curser,address jumper selectable															
88	VB1B	S100	DPY						8.0	1.4	16	30m		16	86	Memory-mapped VIDEO BOARD	SSM	
89		S100	DPY	Memory-mapped video I/F w/1k onboard RAM mapped onto 64x16 character															
90		S100	DPY	display,64/32 char/line w/16 lines;blk-on-white/white-on-blk display															
91	VB2	S100	DPY						8.0	1.1	-16	79m		16	8	I/O mapped VIDEO BOARD	SSM	
92		S100	DPY	64 char x 16 line display w/5w-select white-on-blk/blk-on-white,USA-TV															
93		S100	DPY	I/O ctl d;hardware ctl d linefeed,cursor,carriage-ret,b-space,clr															
94	VB3-80	S100	DPY											16	8	80 Character VIDEO BOARD	SSM	
95		S100	DPY	Std 80x24 or 80x51 full page display w/upper or lower case char;															
96		S100	DPY	US/Europe TV rate,memory mapped,KB port,4k bytes onboard RAM															
97	VDB-8024	S100	DPY											16	8	Video display board	SDS	
98		S100	DPY	Full 80 characters by 24 lines display(7x10 matrix).Composite or TTL video															
99		S100	DPY	Output on-board Z80 up.Forward and reverse scrolling capability.Keyboard															
100		S100	DPY	power and interface.Full cursor control.96 upper lower case character															
101	INT-B	S100	MIS			8.0								16	8	Interupt board	OBJ	4S1001
102		S100	MIS	8259 generates ØCALLØ type interrups,5 interrupts to bus,2-6K PROM on TMS-															
103		S100	MIS	2716,256 Bytes RAM,interrupts on timed intervals(100US-100MS board crystal															
104	PCG-K	S100	MIS						8.0					16	8	Programmable character gen	OBJ	
105		S100	MIS	adds software created characters to video display,works w/existing video															
106		S100	MIS	devices(motorola 9x7 matrix),2k character mem,full parallel K/B interface															
107	VDI-K	S100	MIS											16	8	VIDEO Display interface	OBJ	
108		S100	MIS	80x24/64x16 display,formats selected software,reverse video,character set															
109		S100	MIS	in PROM,Works with American/European TV standards,light pen,color monitor															
110▼	QDRT	S100	SRI		300k				8.0	1.5	18	100m	1	16	8	Quadart;Support Serial Pro	CRO	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

4. CONTROLLER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE	[1] BUS CODE	[2] NOM CODE	I/O PORTS SERIAL TYPE	SERIAL MAX BAUD RATE	PARALLEL BIT	PARALLEL SLIVG L	PARALLEL XFER RATE (BPS)	MAX. OPER. DIST. (M)	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T	BUS SIZE EMP	BUS SIZE ADR	BUS SIZE DAT	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1▼		S100	SRI	Serial protocols;Async Byte,Sync Bit,Modem handshaking;4 channels;																
2▼		S100	SRI	Vectored interrupts;Priotization Serial channels,Quadarts (daisy-chaining);																
3▼		S100	SRI	Control for Quadart comes from IOP uC thru a C-Bus; 4 Quadarts per C-Bus																
4▼	TM990-303A	TM90	DIC							5.0	2.1†	12	.10†	2	20	16		Floppy Disk Controller	TII	4TM001
5▼		TM90	DIC	Floppy disk ctlr compatible with Shugart,Qume, and CDC drives; std and																
6▼		TM90	DIC	mini disk sizes; max of 4 std or 3 mini can be daisy chained; sngle/dble																
7	990-170	TM90	DPY	RS2C						5.0	3.0	12	50m	1	20	16		VIDEO DISPLAY CONTROLLER	DIF	
8		TM90	DPY	Compatible w/TM990 uC bus,plugcompatible w/911-monitor/keyboard,																
9		TM90	DPY	7 x 11 character dot matrix or 5 x 7,128 ASCII																
10		TM90	DPY	characters in on-board ROM plus up to 256 user define characters (EPROM)																
11		TM90	DPY	screen refresh MEM is memory mapped to uP;contains parallelekeyboard I/F																
12	MEX6845	ZZZZ	CRT							5.0	2.0	12						CRT control support module	MOTA	
13		ZZZZ	CRT	Jumper selectable memory map assignment,fully decoded SW selectable addrs																
14▼#	BM4004	ZZZZ	DIC							5.0	500m							Floppy Disk Interface	TOSJ	
15	FDC-TAI	ZZZZ	DIC							5.0					16	8		Floppy disk control module	TAI	
16		ZZZZ	DIC	Expandable to 4 drives.Program controlled w/repertoire of 12 basic command																
17▼#	FLZ80	ZZZZ	DIC							5.0	900m			1	16	8		Floppy Disk Interface Bd	SGAI	
18▼#		ZZZZ	DIC	Controls 4 floppy disk drives;max of 2.5M byte of storage a parallel																
19▼#		ZZZZ	DIC	interface for a printer;optional APU for high speed execution of floating																
20▼#		ZZZZ	DIC	Point arithmetic;auto track/sector search;128bytes/sector,32 sector/track																
21▼#	H68HD03-1	ZZZZ	DIC							5.0	2.4	-12	60m		16	8		Floppy Disk Controller	HITJ	
22	PCS1812	ZZZZ	DPY							5.0	1.5	12	950m	3	16	8		CRT/KEYBOARD INTERFACE	PCS	4ZZ001
23		ZZZZ	DPY	1k RAM as a display buffer for CRT screen.Standard 64 ASCII character ge-																
24		ZZZZ	DPY	nerator,Software control of screen format,composite video output,video																
25		ZZZZ	DPY	horizontal sync and vertical sync TTL outputs,programmable cursor																
26▼#	VDZ80B	ZZZZ	DPY	RS2C	1.2k					5.0	1.3			1	16	8		Video interface board	SGAI	
27▼#		ZZZZ	DPY	Display has 1024 max on-screen characters composed of 16 lines of 64 or 40																
28▼#		ZZZZ	DPY	characters standard or user defined characters;cursor control																
29▼#	BM4301A	ZZZZ	FWP							5.0	1.3	12	50m					Controller	TOSJ	
30▼#		ZZZZ	FWP	Debugger;real time operation;Direct read/write registers and RAMs																
31▼#	BM4601A	ZZZZ	FWP							5.0	1.3	12	50m					Controller	TOSJ	
32▼#		ZZZZ	FWP	Debugger;real time operation;Direct read/write registers and RAMs																
33▼#	BM8401A	ZZZZ	FWP							5.0	1.0							Controller	TOSJ	
34▼#	PIZ80	ZZZZ	IOM	RS2C	19k	8.0	BID			5.0	1.3			1	16	8		Input/Output Expansion	SGAI	
35▼#		ZZZZ	IOM	Interrupt driven I/O;6 Modem Control lines per channel 2 control lines for																
36▼#		ZZZZ	IOM	paper tape readers;two independent serial channels (Synch/Async) Various																
37▼#		ZZZZ	IOM	sync protocol 5 programmable counter/timer channels w/1 input per channel																
38▼#	PIZ80A	ZZZZ	IOM			8.0	BID			5.0	850m			1	16	8		Input/Output Expansion	SGAI	
39▼#		ZZZZ	IOM	Interrupt driven I/O;4 program counter/timer channels w/1 input per channel																
40	DMA-TAI	ZZZZ	MCS															Direct memory access	TAI	
41		ZZZZ	MCS	Direct data transfer between memory and I/O,from/to any address of memoryy																
42		ZZZZ	MCS	w/data length in bytes from 1k to 64k.Backward-read/write is programmable																
43	PM5100	ZZZZ	MIS							8.0	1.3			2	8	16		Microcomputer control set	PCS	4ZZ007
44		ZZZZ	MIS	16 LED display,after/examine memory and all registers,programmable contr-																
45		ZZZZ	MIS	ol panel and load capability,Start,Stop,Continue and Reset functions																
46	HPC-TAI	ZZZZ	PRT							5.0					16	8		Printer interface module	TAI	
47		ZZZZ	PRT	5V single power supply.Continuous write mode.Interface to centronics-306																
48	TYC-HRC-TAI	ZZZZ	RPC							5.0					16	8		Paper-tape reader Int/face	TAI	
49		ZZZZ	RPC	Provides countinuous read mode via paper-tape reader,5V power supply																
50	1561	ZZZZ	SRI	RS2x	9.6k									1				Asynchronous Communication	GEN	
51		ZZZZ	SRI	Control up to 4 full duplex as asynchronous circuit,also standard interfaces																
52		ZZZZ	SRI	60/20ma current loop,double buffering for all characters both IN/Output																
53	1571	ZZZZ	SRI	RS2c	9.6k									1				Synchronous communication	GEN	
54		ZZZZ	SRI	Double characters buffering for all characters,both In/Output,programmable																
55		ZZZZ	SRI	Synch character/length and parity generation and full/half duplex select																
56	1575	ZZZZ	SRI	RS2C	9.6k													Synch data communication	GEN	
57		ZZZZ	SRI	Software selectable secondary station addressed,DMA to GA-16,Full/half																
58		ZZZZ	SRI	duplex w/full data set control,In/external clocking,fully transparent																
59	1578	ZZZZ	SRI	RS2C	9.6k													Synchronous data link comm	GEN	
60		ZZZZ	SRI	8-bit character format,secondary station-SW/programmable select address																
61	1579	ZZZZ	SRI	RS2C	9.6k													Synchronous data link comm	GEN	
62		ZZZZ	SRI	Full/half duplex,in/external clocking,DMA to GA-16 up to 2.5MHz,hardware																
63		ZZZZ	SRI	Zero insertion/deletion,triple character buffered,primary/secondary st op																
64	PM5082	ZZZZ	SRI	60CL	40k			10kF		8.0	975m	20	.09	2		8		8-Bit UART Serial/parallel	PCS	4ZZ006
65		ZZZZ	SRI	Asynchronous,full-duplex operation,parity framing and over-run error detec-																
66		ZZZZ	SRI	tion,Optically isolated and current limited inputs																
67▼#	BM4005	ZZZZ	TAP							5.0	800m							Digital Cassette interface	TOSJ	
68▼#		ZZZZ	TAP	Interface in which two digital cassette (10in/sec) connect to uC system																
69	CMC-TAI	ZZZZ	TAP							5.0					16	8		Cassette tape control	TAI	
70		ZZZZ	TAP	Expandable to 4 decks.Program controlled w/repertoire of 7-command sets																
71	PM5010	ZZZZ	TIM							8.0	0.9			2		16		Digital up/down Counter Mo	PCS	4ZZ002
72		ZZZZ	TIM	16-bit binary up/down Counter,presetable under Computer Control																
73	PM5011	ZZZZ	TIM							8.0	0.6			2				REAL TIM clock module	PCS	4ZZ005
74		ZZZZ	TIM	Programmable time bases,Crystal oscillator,Maskable interrupt capability																
75	PM5012	ZZZZ	TIM							8.0	0.9			2		16		16-Bit Interval Timer Modu	PCS	4ZZ004
76		ZZZZ	TIM	16-bit resolution interval timer,13 Computer programmable clock rates,Mask-																
77		ZZZZ	TIM	able interrupt capability,Time interval resolution of one microsecond																
78	PM5013	ZZZZ	TIM							8.0	775m	20	26m	2				Real Time Clock Detect Mod	PCS	4ZZ003
79		ZZZZ	TIM	Jumper selectable Time Bases,Cold or Hot start,powerfail Detect,Interrupt																
80#	PTM400	ZZZZ	TIM							5.0				1				Programmable timer module	EURF	
81#		ZZZZ	TIM	6-programmable 16-bit counters on the board with software cotrol.Select-																
82#		ZZZZ	TIM	able prescaler on two timers capable of 4MHz input																
83▼#	PTM40010	ZZZZ	TIM											1				Programmable Timer Module	EURF	
84▼#		ZZZZ	TIM	Similar to PTM400 but with Opto-isolated Input and output drivers																

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼				32 Single ended analog inputs;input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
2▼#	AMS-D218	AMS8	22PIO			2	8.0			5.0	1.0				16	8	Parallel I/O w/48 Optocoup	SIEG	
3▼#		AMS8	22PIO	Provides parallel I/O of data;galvanic separation by optocouplers															
4▼#	AMS-D219	AMS8	22PIO			2	8.0			5.0	1.0				16	8	Parallel I/O w/24 Optocoup	SIEG	
5▼#		AMS8	22PIO	Provides parallel I/O of data;galvanic separation using optocouplers for															
6▼#		AMS8	22PIO	the input and relays for the ooutput;interrupt operations are possible															
7▼#	AMS-D220	AMS8	22PIO			6	8			5.0					16	8	Parallel I/O	SIEG	
8▼	9010-2500	COM	22IOM			8	8.0								16	8	TTL-I/O Module	DSI	
9▼		COM	22IOM	Provides 32 non latching inputs and 32 latching TTL outputs															
10▼	9010-2550	COM	22IOM			8	8.0								16	8	TTL-I/O Module	DSI	
11▼		COM	22IOM	Provides 32 non-latching inputs and 32 latching TTL outputs 1 in accum															
12▼		COM	22IOM	equals a high level out.															
13▼	9010-2101	COM	22OIS			4	8.0								16	8	Isolated Input Module	DSI	
14▼		COM	22OIS	Provides 32 isolated input lines; dc inputs assignable in range of 5 to															
15▼		COM	22OIS	28 volts at 11.4 mA minimum organized as 4 ports 8 bits each.															
16▼	9010-2410	COM	22OIS			2	8.0										Isolated Output Module	DSI	
17▼		COM	22OIS	Provides 16 isolated output lines each switches a max of 2 amps at 0 to															
18▼		COM	22OIS	28VDC; Outputs are organized into 2 ports of 8 bits each															
19▼#	ADC-224-200	EURO	12ADC			4				5.0	0.3	12	.05	1	16	8	ANALOG/DIGITAL CONVERTER	EURF	5EU006
20▼#	ADC-224-300	EURO	12ADC			4				5.0	0.3	12	.05	1	16	8	ANALOG/DIGITAL CONVERTER	EURF	5EU006
21▼#	ADC-228-200	EURO	12ADC			8				5.0	0.3			1	16	8	ANALOG/DIGITAL CONVERTER	EURF	5EU008
22▼#	ADC-228-201	EURO	12ADC			8				5.0	0.3			1	16	8	ANALOG/DIGITAL CONVERTER	EURF	5EU008
23▼#	ADC-228-300	EURO	12ADC			8				5.0	0.3			1	16	8	ANALOG/DIGITAL CONVERTER	EURF	5EU008
24▼#	ADC-228-301	EURO	12ADC			8				5.0	0.3			1	16	8	ANALOG/DIGITAL CONVERTER	EURF	5EU008
25▼#	DAC-230-200	EURO	12DAC			4				5.0	0.3	12	.05	1	16	8	DIGITAL TO ANALOG CONVERTR	EURF	5EU007
26▼#	DAC-230-300	EURO	12DAC			4				5.0	0.3	12	.05	1	16	8	DIGITAL TO ANALOG CONVERTR	EURF	5EU007
27▼#	ACIA-534-200	EURO	22IOM		RS2C					5.0	0.3			1	16	8	I/O BOARD/MODULE	EURF	5EU005
28▼#	ACIA-534-201	EURO	22IOM		RS42					5.0	0.3			1	16	8	I/O BOARD/MODULE	EURF	5EU005
29▼#	ACIA-534-300	EURO	22IOM		RS2C					5.0	0.3			1	16	8	I/O BOARD/MODULE	EURF	5EU005
30▼#	ACIA-534-301	EURO	22IOM		RS42					5.0	0.3			1	16	8	I/O BOARD/MODULE	EURF	5EU005
31▼#	PIA-201-200	EURO	22IOM	16	TTL	4				5.0	0.3			1	16	8	I/O BOARD/MODULE	EURF	5EU003
32▼#	PIA-201-300	EURO	22IOM	16	TTL	4				5.0	0.3			1	16	8	I/O BOARD/MODULE	EURF	5EU003
33▼#	PIA-240-210	EURO	22IOM	64	TTL	16				5.0	0.4			1	16	8	I/O BOARD/MODULE	EURF	5EU004
34▼#	PIA-240-221	EURO	22IOM	64	TTL	16				5.0	0.4			1	16	8	I/O BOARD/MODULE	EURF	5EU004
35▼#	PIA-240-241	EURO	22IOM	64	TTL	16				5.0	0.4			1	16	8	I/O BOARD/MODULE	EURF	5EU004
36▼#	PIA-240-310	EURO	22IOM	64	TTL	16				5.0	0.4			1	16	8	I/O BOARD/MODULE	EURF	5EU004
37▼#	PIA-240-321	EURO	22IOM	64	TTL	16				5.0	0.4			1	16	8	I/O BOARD/MODULE	EURF	5EU004
38▼#	PIA-240-341	EURO	22IOM	64	TTL	16				5.0	0.4			1	16	8	I/O BOARD/MODULE	EURF	5EU004
39▼#	DOD-202-200	EURO	22OIM							5.0	.30			1	16	8	Output Driver Module	EURF	6EU002
40▼#	DOD-202-201	EURO	22OIM							5.0	.30			1	16	8	Output Driver Module	EURF	6EU002
41▼#	DOD-202-300	EURO	22OIM							5.0	.30			1	16	8	Output Driver Module	EURF	6EU002
42▼#	DOD-202-301	EURO	22OIM							5.0	.30			1	16	8	Output Driver Module	EURF	6EU002
43▼#	DII-203-200	EURO	22OIS			16				5.0	.30			1	16	8	Optoisolated Input Board	EURF	6EU001
44▼#	DII-203-201	EURO	22OIS			24				5.0	.30			1	16	8	Optoisolated Input Board	EURF	6EU001
45▼#	DII-203-300	EURO	22OIS			16				5.0	.30			1	16	8	Optoisolated Input Board	EURF	6EU001
46▼#	DII-203-301	EURO	22OIS			24				5.0	.30			1	16	8	Optoisolated Input Board	EURF	6EU001
47▼#	PIIO-205-200	EURO	22OIS							5.0	.30			1	16	8	Output Driver Module	EURF	
48▼#	PIIO-205-300	EURO	22OIS							5.0	.30			1	16	8	Output Driver Module	EURF	
49	M68MM15A	EXOR	12ADC			1	16			5.0	1.2				16	8	HIGH-LEVEL A/D MODULE	MOTA	5EX004
50	M68MM15A1	EXOR	12ADC			1	32			5.0	1.2				16	8	HIGH-LEVEL A/D MODULE	MOTA	5EX004
51	MP7208	EXOR	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
52		EXOR	12ADC	Design for EXORCISER uC s;8DI analog-in channels; 12-bits resolution															
53	MP7216	EXOR	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
54		EXOR	12ADC	Design for EXORCISER uC s; 16 SE analog-in channels; 12-bits resolution															
55	MP7218	EXOR	12ADC							5.0	.10	12	50m	2	16	8	ANALOG INPUT SYSTEM	BUB	5EX010
56		EXOR	12ADC	Design for EXORCISER uC s; 8-DI/16-SE analog inputs; 12-bits resolution															
57	MP7408	EXOR	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
58		EXOR	12ADC	Same as MP7408AO less analog outputs															
59	MP7432	EXOR	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
60		EXOR	12ADC	Same as MP7432AO less analog outputs															
61	MP7608	EXOR	12ADC							5.0	.10	12	50m	2	16	8	ANALOG INPUT SYSTEM	BUB	5EX012
62		EXOR	12ADC	Design for EXORCISER-uC system w/filtered inputs,overvoltage protect,															
63		EXOR	12ADC	8-DI analog-input channels at 12-bit resolution,voltage input system															
64▼	ST-6800A2A	EXOR	12ADC			16	12 b			5.0	1.2†			2	16	8	ANALOG INPUT BOARD	DTL	5EX015
65▼		EXOR	12ADC	A/D w/12bit resolution, memory-mapped architecture, designed for EXOR															
66▼	ST-6800A2B	EXOR	12ADC			32	12 b			5.0	1.2†			2	16	8	ANALOG INPUT BOARD	DTL	5EX015
67▼		EXOR	12ADC	32-sng/end-inpt w/out DC/DC conv, 12bit resolution 50Hz thruput															
68▼	ST-6800A2C	EXOR	12ADC			16	12 b			5.0	1.2†			2	16	8	ANALOG INPUT BOARD	DTL	5EX015
69▼		EXOR	12ADC	16 diff/inpt, w/out DC/DC conv, 12bit resolution, 50Hz thruput															
70▼	ST-6800ADX32D	EXOR	12ADC			32	12 b			5.0	1.2†			2	16	8	A/D EXPANDER BOARD	DTL	
71▼		EXOR	12ADC	32-differential inpt/chn, 12bit resolution, 50kHz thruput															
72▼		EXOR	12ADC	32-sng/end inpt/chn, 12bit resolution, 50kHz thruput															
73▼																			
74▼	ST-6800ADX48D	EXOR	12ADC			48	12 b			5.0	1.2†			2	16	8	A/D EXPANDER BOARD	DTL	
75▼		EXOR	12ADC	48-differential inpt/chn, 12bit resolution, 50kHz thruput															
76▼	ST-6800ADX48S	EXOR	12ADC			48	12 b			5.0	1.2†			2	16	8	A/D EXPANDER BOARD	DTL	
77▼		EXOR	12ADC	48-sng/end inpt/chn, 12bit resolution, 50kHz thruput															
78▼		EXOR	12ADC	A/D-D/A w/12 bit resolution, memory mapped, designed for 6800 EXOR ISER															
79▼		EXOR	12ADC	uC s w/16 sng/end-inpts, 2D/A outpt, includes on board DC/DC converter															
80▼		EXOR	12ADC	32 sng/end-inpt, 12bit resolution, 2D/A-outp, w/DC/DC converter															
81▼		EXOR	12ADC	16 diff/inpt w/12bit resolution, 12bit resolution,2D/A-outp,w/DC/DC con															
82▼		EXOR	12ADC	16 sng/end-inpt w/no DC/DC conv, 12bit resolution, w/2 D/A outputs															
83▼		EXOR	12ADC	32 sng/end-inpt w/no DC/DC conv, 12bit resolution, w/2 D/A outputs															
84▼		EXOR	12ADC	16 diff/inpt, w/no DC/DC conv, 12bit resolution, w/2 D/A outputs															
85▼		EXOR	12ADC	A/D-D/A w/12bit resolution, memory-mapped, designed for 6800-EXORCISER															
86▼		EXOR	12ADC	uC s w/16 sng/end-inpt, 1D/A outpt, includes DC/DC converter															
87	M68MM05A	EXOR	12AIO			8	12			5.0					16	8	MICROMODULE ANALOG I/O	MOTA	
88		EXOR	12AIO	Data acquisition,8 channel differential analog inputs,12-bit resolution															
89	M68MM05B	EXOR	12AIO			8	12			5.0					16	8	MICROMODULE ANALOG I/O	MOTA	
90		EXOR	12AIO	Data acquisition,16 channel single-ended analog input,12-bit resolution															
91	M68MM05C	EXOR	12AIO	3	3417	8	12			5.0					16	8	MICROMODULE ANALOG I/O	MOTA	
92		EXOR	12AIO	Analog output, 4 channel differential analog output,12-bit resolution															
93	M68MM15C	EXOR	12AIO			1	12a			5.0	0.6			2	16	8	ANALOG OUTPUT MODULES	MOTA	5EX005
94		EXOR	12AIO	Converts 12-bit digital input data into an equivalent voltage/current															
95	M68MM15CI	EXOR	12AIO			4	12a			5.0	0.6			2	16	8	ANALOG OUTPUT MODULE	MOTA	5EX005
96		EXOR	12AIO	Natural binary two csmplemInt itput uode,d-20 2d octput(strap optn)															
97	M68MM15CV	EXOR	12AIO			4	12a			5.0	0.6			2	16	8	ANALOG OUTPUT MODULE	MOTA	5EX005
98		EXOR	12AIO	Similar to M68MM15CI and strap selectable module base memory address															
99	MP7408AO	EXOR	12AIO							5.0	2.0			2	16	8	ANALOG INPUT/OUTPUT SYSTEM	BUB	5EX011
100		EXOR	12AIO	Design for EXORCISER uC s; 8-DI/16-SE analog inputs; 2 analog outputs															
101		EXOR	12AIO	8-bits resolution															
102	MP7432AO	EXOR	12AIO							5.0	2.0			2	16	8	ANALOG INPUT/OUTPUT SYSTEM	BUB	5EX011
103		EXOR	12AIO	Same as MP7432 w/(32-DI/64-SE)															
104▼	RTI-1230-8R	EXOR	12AIO				b			5.0	700m	15	30m	2	16	8	ANALOG INPUT SUBSYSTEM	ANA	
105▼		EXOR	12AIO	8-bit A/D input board w/resistor programmable gain amplifier															
106▼	RTI-1230-R	EXOR	12AIO				b			5.0	0.7	15	30m	2	16	8	ANALOG I/O SUBSYSTEM	ANA	
107▼		EXOR	12AIO	12 bit ADC, up to 32 input/channels, 0-20ma current loop input.															
108▼	RTI-1230-S	EXOR	12AIO				b			5.0	0.7	15	30m	2	16	8	ANALOG I/O SUBSYSTEM	ANA	
109▼		EXOR	12AIO	12bit ADC, up to 32 input/max w/software programmable gain amplifier															
110▼	RTI-1231-8R	EXOR	12AIO				b			5.0	900m	15	50m	2	16	8	ANALOG INPUT SUBSYSTEM	ANA	

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E P	BUS SIZE M	A D R	D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼		EXOR	12AIO	I/O board w/8-bit A/D and resistor programmable gain amplifier																
2▼	RTI-1231-R	EXOR	12AIO				b			5.0	0.9	15	50m	2		16	8	ANALOG COMBINATION I/O	ANA	
3▼		EXOR	12AIO	12bit ADC, up to 32 inpt/max, incl/programmable gain amp (resistor-type)																
4▼	RTI-1231-S	EXOR	12AIO				b			5.0	0.9	15	50m	2		16	8	ANALOG COMBINATION I/O	ANA	
5▼		EXOR	12AIO	12bit ADC, up to 32 inpt/max, incl.software programmable gain amplifier																
6▼	RTI-1232	EXOR	12AIO				b			5.0	350m	15	50m	2		16	8	ANALOG OUTPUT SUBSYSTEM	ANA	
7▼		EXOR	12AIO	Four independent 12-bit analog output, 4 software controlled high																
8▼		EXOR	12AIO	current logic driver outputs (output board w/4 DACS)																
9▼	RTI-1243	EXOR	12AIO				b			5.0	1.0	15	50m	2		20	16	OUTPUT SUBSYSTEM	ANA	
10▼		EXOR	12AIO	Output board with eight digital to analog converter																
11▼	ST-6800B1A	EXOR	12AIO			16	12 b			5.0	1.2†	15		2		16	8	ANALOG I/O BOARD	DTL	5EX015
12▼	ST-6800B1B	EXOR	12AIO			32	12 b			5.0	1.2†	15		2		16	8	ANALOG I/O BOARD	DTL	5EX015
13▼	ST-6800B1C	EXOR	12AIO			16	12 b			5.0	1.2†	15		2		16	8	ANALOG I/O BOARD	DTL	5EX015
14▼	ST-6800B2A	EXOR	12AIO			16	12 b			5.0	1.2†			2		16	8	ANALOG I/O BOARD	DTL	5EX015
15▼	ST-6800B2B	EXOR	12AIO			32	12 b			5.0	1.2†			2		16	8	ANALOG I/O BOARD	DTL	5EX015
16▼	ST-6800B2C	EXOR	12AIO			16	12 b			5.0	1.2†			2		16	8	ANALOG I/O BOARD	DTL	5EX015
17▼	ST-6800C1A	EXOR	12AIO			16	12 b			5.0	1.2†	15		2		16	8	ANALOG I/O BOARD	DTL	5EX015
18▼	ST-6800C1B	EXOR	12AIO			32	12 b			5.0	1.2†	15		2		16	8	ANALOG I/O BOARD	DTL	5EX015
19▼		EXOR	12AIO	32-sng/end-inpt, 12bit resolution, memory-mapped, designed for 6800-EXOR																
20▼	ST-6800C1C	EXOR	12AIO			16	12 b			5.0	1.2†	15		2		16	8	ANALOG I/O BOARD	DTL	5EX015
21▼		EXOR	12AIO	16-diff-A/D-inpt/chn, 12bit resolution, 1D/A-outpt, memory mapped																
22▼	ST-6800C2A	EXOR	12AIO			16	12 b			5.0	1.2†			2		16	8	ANALOG I/O BOARD	DTL	5EX015
23▼		EXOR	12AIO	16-sng/end-A/D-inpts, w/no-DC/DC converter, 12-bit-resolution																
24▼	ST-6800C2B	EXOR	12AIO			32	12 b			5.0	1.2†			2		16	8	ANALOG I/O BOARD	DTL	5EX015
25▼		EXOR	12AIO	32-sng/end-A/D-inptS, w/no-DC/DC converter, 12-bit resolution																
26▼	ST-6800C2C	EXOR	12AIO			16	12 b			5.0	1.2†			2		16	8	ANALOG I/O BOARD	DTL	5EX015
27▼		EXOR	12AIO	16-diff-A/D-inpts, w/no DC/DC converter, 12bit resolution																
28	MP7104	EXOR	12DAC							5.0	1.0			2		16	8	ANALOG OUTPUT SYSTEM	BUB	
29		EXOR	12DAC	Design for EXORCISER uC s; 4 analog-outputs; 12-bits resolution																
30	MP7504	EXOR	12DAC							5.0	1.8			2		16	8	ANALOG OUTPUT SYSTEM	BUB	
31		EXOR	12DAC	Design for EXORCISER uC s; 4 analog outputs at 8-bits resolution																
32		EXOR	12DAC	optically-isolated outputs w/ 600VDC between uC bus and outputs																
33▼	ST-6800-DA4B	EXOR	12DAC			4	12 o			5.0	1.2†			2		16	8	DIGITAL OUTPUT BOARD	DTL	5EX016
34▼		EXOR	12DAC	two memory locations required for each D/A channel,w/no DC/DC Converter																
35▼	ST-6800DA4A	EXOR	12DAC			4	12 o			5.0	1.2†			2		16	8	ANALOG OUTPUT BOARD	DTL	5EX016
36▼		EXOR	12DAC	4-digital to analog input channels,includes DC/DC converter																
37▼	ST-6800DA8B	EXOR	12DAC			8	12 o			5.0	1.2†	15	320m	2		16	8	ANALOG OUTPUT BOARD	DTL	5EX016
38▼		EXOR	12DAC	8-dig-to-analog inpt/chn, w/no DC/DC converter, requires extrnl pwr/sply																
39	MEX68PI2	EXOR	21PRT							5.0	2.0			2		16	8	PRINTER INTERFACE MODULE	MOTA	5EX007
40		EXOR	21PRT	Interfacing Development System and Centronics printer, jumper selectable																
41	MEX6850	EXOR	21SRI	RS2Y						5.0	.75	12	0.5	2		16	8	ACIA MODULE	MOTA	
42		EXOR	21SRI	8/9-bit transmission,program-selectable odd,even,or no parity																
43		EXOR	22ADC	16 single-ended or pseudo-differential or 8 true diff analog input ch																
44																				
45▼	MIKUL6064I	EXOR	22DIO							5.0	450m			2		16	8	64 INPUT Interface	TLI	5EX018
46▼		EXOR	22DIO	Contains 64 buffered data inputs w/Schmitt trigger invertersin eight																
47▼		EXOR	22DIO	consecutive 8-bytes,user selectable address;tri-state data bus output																
48▼	MIKUL6064O	EXOR	22DIO							5.0	700m			2		16	8	64 OUTPUT Interface	TLI	5EX019
49▼		EXOR	22DIO	Contains 64 TTL compatible open collector inverted driver outputs,and 8																
50	MP701	EXOR	22DIO							5.0	.40			2		16	8	uC-DIGITAL OUTPUT SYSTEM	BUB	5EX008
51		EXOR	22DIO	Designedfor motorola 6800 w/16 output channels using reed relays																
52	MP702	EXOR	22DIO							5.0	.70			2		16	8	uC-DIGITAL OUTPUT SYSTEM	BUB	5EX008
53		EXOR	22DIO	Same type as MP701 w/32 channels																
54	MP710	EXOR	22DIO							5.0	.40	12	.10	2		16	8	uC-DIGITAL INPUT SYSTEM	BUB	5EX009
55		EXOR	22DIO	Designed for EXORCISER-type uC w/24 opto-isolated in-channels:dry relay																
56▼	MIKUL6047	EXOR	22DPY					6.0kS		5.0	750m			2		16	8	CRT Display Interface	TLI	5EX017
57▼		EXOR	22DPY	Contains video display generator,video modulator,bus interface w/control																
58▼		EXOR	22DPY	logic;5 display modes;mixed modes(alphanumeric,semigraph) software cntrl																
59	M68MM03	EXOR	22IOM			4	8			5.0	0.8					16	8	Dedicated 32-32 Bit I/O	MOTA	5EX001
60		EXOR	22IOM	Users selectable I/O and base memory address, buffered address control																
61	MEX6820	EXOR	22IOM			2	8			5.0	2.0			2		16	8	INPUT/OUTPUT MODULE	MOTA	5EX006
62		EXOR	22IOM	8 controlled interrupt lines,Program controlled maskable interrupt																
63	MEX6821-8	EXOR	22IOM			4	8			5.0	2.0			2		16	8	Input-Output Module	MOTA	
64		EXOR	22IOM	Program controlled maskable interrupt capability,interface																
65	MIKUL6032	EXOR	22IOM			8	8			5.0	800m			2		16	8	32 input/output card	TLI	5EX013
66		EXOR	22IOM	32-bits of input and 32-bits of output,TTL compatible inputs and output																
67	MIKUL6064	EXOR	22IOM							5.0	800m			2		16	8	64 input card	TLI	5EX014
68		EXOR	22IOM	64 TTL/CMOS compatilbe inputs,consist of 8 latches each latch w/8 input																
69		EXOR	22IOM	conditioned by Schmit triggers for nois immunity,user selectable address																
70	M68MM13A	EXOR	22MIS			1	16 o			5.0						16	8	MICROMODULE DIGITAL OUTPUT	MOTA	5EX002
71		EXOR	22MIS	Isolated output(Contact closure),On-board inductive load transient prot																
72	M68MM13B	EXOR	22MIS			1	32 o			5.0						16	8	MICROMODULE DIGITAL OUTPUT	MOTA	5EX002
73		EXOR	22MIS	Similar to M68MM13A and both have full on-board address selection																
74	M68MM13C	EXOR	22OIS			1	8					12				16	8	MICROMODULE DIGITAL INPUT	MOTA	5EX003
75		EXOR	22OIS	2hannalseof op icalla isolsted eoltale in uts,ti,h gsoiation																
76	M68MM13D	EXOR	22OIS			1	8					12				16	8	MICROMODULE DIGITAL INPUT	MOTA	5EX003
77		EXOR	22OIS	24 Channels of optically isolated contact closure inputs,high isolation																
78▼	ST-6800A1A	EXOR	12ADC			16	12 b			5.0	1.2†	15		2		16	8	ANALOG INPUT BOARD	ATL	5EX015
79▼		EXOR	12ADC	A/D w/12-bit resolution, memory-mapped architecture, designed for 6800																
80▼		EXOR	12ADC	EXORCISER uC S, 16-Sng/end-inpt/chn, 50 kHZ thruput, w/DC/DC converter																
81▼	ST-6800A1B	EXOR	12ADC			32	12 b			5.0	1.2†	15		2		16	8	ANALOG INPUT BOARD	DTL	5EX015
82▼		EXOR	12ADC	A/D w/32-sng/end-inpt, 12bit resolution, 50 kHz thruput, w/DC/DC-convertr																
83▼	ST-6800A1C	EXOR	12ADC			16	12 b			5.0	1.2†			2		16	8	ANALOG INPUT BOARD	DTL	5EX015
84▼		EXOR	12ADC	A/D w/16-diff/inpt, 12bit resolution, 50 kHz thruput, w/DC-DC converter																
85▼	1012A1O	LSI	11ADC	16	ANA					5.0	750m	15	100m	1		16	16	Data Acquisition System	ADA	5LS022
86▼		LSI	11ADC	16-SE,16-Pseudo Differential, or 8-Differential Inputs;Input range ±10V;																
87▼		LSI	11ADC	100kHz,no prog gain;DC to DC converter not included-for use w/ADAC Sys																
88▼		LSI	11ADC	1000;Program Control/Program Interrupt Interface;12-bit resolution																
89▼	1012A1PGBP	LSI	11ADC	16	ANA					5.0	1.5			1		16	16	Data Acquisition System	ADA	5LS022
90▼		LSI	11ADC	16-SE,16-Pseudo Differential,or 8-Differential Inputs;Input Range ±10V;																
91▼		LSI	11ADC	100kHz,Prog gain 1,2,4,8;Dc to Dc converter included-for use in DEC																
92▼		LSI	11ADC	backplanes;Program Control/Program Interrupt Interface;12-bit resolution																
93▼	1012A3PGAO	LSI	11ADC	16	ANA					5.0	750m	15	100m	1		16	16	Data Acquisition System	ADA	5LS022
94▼		LSI	11ADC	16-SE,16-Pseudo Differential,or 8-Differential Inputs;Input range ±10V																
95▼		LSI	11ADC	35kHz,prog gain 1,2,5,10;Dc to Dc converter not included-for use w/ADAC																
96▼		LSI	11ADC	Sys 1000;Program Control/Program Interrupt Interface 12-bit resolution																
97▼	1012B3O	LSI	11ADC	16	ANA					5.0	750m	15	100m	1		16	16	Data Acquisition System	ADA	5LS022
98▼		LSI	11ADC	16-SE,16-Pseudo Differential,or 8-Differential Inputs;Input range 0-10V;																
99▼		LSI	11ADC	35kHz,no prog gain;DC to DC converter not included-for use w/ADAC Sys																
100▼		LSI	11ADC	1000;Program Control/Program Interrupt Interface;12-bit resolution																
101▼	1012C1PGAO	LSI	11ADC	16	ANA					5.0	750m	15	100m	1		16	16	Data Acquisition System	ADA	5LS022
102▼		LSI	11ADC	16-SE,16-Pseudo Differential,or 8-Differential Inputs;Input range ±5V;																
103▼		LSI	11ADC	100kHz,Prog gain-1,2,5,10;Dc to Dc converter not included-for use w/ADAC																
104▼		LSI	11ADC	Sys 1000;Program Control/Program Interrupt Interface;12-6bit resolution																
105▼	1012D3PGBP	LSI	11ADC	16	ANA					5.0	1.5			1		16	16	Data Acquisition System	ADA	5LS022
106▼		LSI	11ADC	16-SE,16-Pseudo Differential,or 8-Differential Inputs;Input range 0-5V;																
107▼		LSI	11ADC	35kHz,prog gain 1,2,4,8;Dc to Dc converter included-for use in DEC back-																
108▼		LSI	11ADC	planes;Program Control/Program Interrupt Interface;12-bit resolution																
109▼	1014AO	LSI	11ADC	16	ANA					5.0	750m	15	100m	1		16	16	Data Acquisition System	ADA	5LS023
110▼		LSI	11ADC	14-bit resolution;10kHz throughput rate;16-channels SE or Pseudo Diff,																

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼		LSI	11ADC	8-Diff inputs;Input range ±10V;Dc/Dc converter not included-use w/ADAC															
2▼		LSI	11ADC	Sys 1000;Prog Control/Program interrupt interface															
3▼	1014AP	LSI	11ADC	16	ANA					5.0	1.5			1	16	16	Data Acquisition System	ADA	5LS023
4▼		LSI	11ADC	14-bit resolution;10kHz throughput rate;16-channels SE or Pseudo Diff															
5▼		LSI	11ADC	8-Diff inputs;Input range ±10V;Dc/Dc converter included for use in DEC															
6▼		LSI	11ADC	backplanes;Prog control/program interrupt interface															
7▼	1014BO	LSI	11ADC	16	ANA					5.0	750m	15	100m	1	16	16	Data Acquisition System	ADA	5LS023
8▼		LSI	11ADC	14-bit resolution;10kHz throughput rate;16-channels SE or Pseudo Diff,															
9▼		LSI	11ADC	8-Diff inputs;Input range 0-10V;Dc/Dc converter not included-use w/ADAC															
10▼		LSI	11ADC	Sys 1000;Prog control/program interrupt interface															
11▼	1014BP	LSI	11ADC	16	ANA					5.0	1.5			1	16	16	Data Acquisition System	ADA	5LS023
12▼		LSI	11ADC	14-bit resolution;10kHz throughput rate;16-channels SE or Pseudo Diff															
13▼		LSI	11ADC	8-Diff inputs;Input range 0-10V;Dc/Dc converter included for use in DEC															
14▼		LSI	11ADC	backplanes;Prog control/program interrupt interface															
15▼	1014CO	LSI	11ADC	16	ANA					5.0	750m	15	100m	1	16	16	Data Acquisition System	ADA	5LS023
16▼		LSI	11ADC	14-bit resolution;10kHz throughput rate;16-channels SE or Pseudo Diff,															
17▼		LSI	11ADC	8-Diff inputs;Input range ±5V;Dc/Dc converter not included-use w/ADAC															
18▼		LSI	11ADC	Sys 1000;Prog control/program interrupt interface															
19▼	1014CP	LSI	11ADC	16	ANA					5.0	1.5			1	16	16	Data Acquisition System	ADA	5LS023
20▼		LSI	11ADC	14-bit resolution;10kHz throughput rate;16-channels SE or Pseudo Diff															
21▼		LSI	11ADC	8-Diff inputs;Input range ±5V;Dc/Dc converter included for use in DEC															
22▼		LSI	11ADC	backplanes;Prog control/program interrupt interface															
23▼	1113AD-A-00-0	LSI	11ADC							5.0	1.0	15	80m	2	16	16	Low Level Data Acquisition	ADA	5LS025
24▼		LSI	11ADC	Thermopile measurements;Software Selection of thermocouple types;Input															
25▼		LSI	11ADC	range ±10Vdc;Bridge completionmeasurements;Sampling time 5ms/ch;															
26▼		LSI	11ADC	12-bit resolution;Program control/Prog interrupt interface															
27▼	1113AD-A-00-P	LSI	11ADC							5.0	1.3			1	16	16	Low Level Data Acquisition	ADA	5LS025
28▼		LSI	11ADC	Thermopile meas;Software select of thermocouple types;Input rng ±10Vdc;															
29▼	1113AD-A-CJ-0	LSI	11ADC							5.0	1.0	15	80m	1	16	16	Low Level Data Acquisition	ADA	5LS025
30▼		LSI	11ADC	Thermopile measurements;Software Select of Thermocouple types;Input range															
31▼		LSI	11ADC	±10Vdc;Bridge completion meas;Same time 5ms/ch;12-bit resolution;															
32▼	1113AD-A-CJ-P	LSI	11ADC							5.0	1.3			1	16	16	Low Level Data Acquisition	ADA	5LS025
33▼		LSI	11ADC	Thermopile meas;Software select of thermocouple types;Input range ±10Vdc;															
34▼		LSI	11ADC	Bridge completion meas;Samp time 5ms/ch;12-bit resol;Prog control/prog															
35▼		LSI	11ADC	interrupt interface;DC/DC Converter for use in DEC backplane;Cold															
36▼		LSI	11ADC	junction circuitry included															
37▼	1113AD-B-00-0	LSI	11ADC							5.0	1.0	15	80m	2	16	16	Low Level Data Acquisition	ADA	5LS025
38▼		LSI	11ADC	Thermopile measurements;Software Selection of thermocouple types;Input															
39▼		LSI	11ADC	12-bit resolution;Program control/program interrupt interface															
40▼	1113AD-B-00-P	LSI	11ADC							5.0	1.3			1	16	16	Low Level Data Acquisition	ADA	5LS025
41▼		LSI	11ADC	Thermopile meas;Software select of thermocouple types;Input range 0-10Vdc;															
42▼		LSI	11ADC	Bridge completion meas;Samp time 5ms/ch;12-bit resol;Prog control/prog															
43▼		LSI	11ADC	interrupt interface;DC/DC Converter,for use in DEC backplane															
44▼	1113AD-B-CJ-0	LSI	11ADC							5.0	1.0	15	80m	1	16	16	Low Level Data Acquisition	ADA	5LS025
45▼		LSI	11ADC	Thermopile measurements;Software Select of thermocouple types;Input range															
46▼		LSI	11ADC	0-10Vdc;Bridge completion meas;Samp time 5ms/ch;12-bit resolution;															
47▼		LSI	11ADC	Prog control/prog interrupt interface;Cold junction cktry included															
48▼	1113AD-B-CJ-P	LSI	11ADC							5.0	1.3			1	16	16	Low Level Data Acquisition	ADA	5LS025
49▼		LSI	11ADC	Thermopile meas;Software Select of thermocouple types;Input rng 0-10Vdc;															
50▼		LSI	11ADC	Bridge completion meas;Samp time 5ms/ch;12-bit resol;Prog control/prog															
51▼		LSI	11ADC	interrupt interface;Dc/Dc converter for use in DEC backplane;Cold															
52▼		LSI	11ADC	junction circuitry included															
53	DLV11J	LSI	11SRI		20CL					5.0	1.0	12	.25	2	16	16	4 ASYNCHRONOUS SERIAL INTF	DEC	5LS006
54		LSI	11SRI	Include uART,1 channll as oompueer cnnsol devcc itteface w/HAULT,boot															
55	DLV11KA	LSI	11SRI		20CL					12	.27			2	16	16	EIA TO 20MA CONVERTER	DEC	
56		LSI	11SRI	EIA RS-232 to 20mA converter,20mA to EIA RS-232 converter,optional isol															
57	ADC11	LSI	12ADC			1	16			5.0	0.9	12	.25		16	16	Analog digital converter	ADS	
58		LSI	12ADC	12 bit resolution max 50KHz throughput,16 word fifo entire ADS															
59	ADV11A	LSI	12ADC			16	12			5.0	2.0	12	.45		16	16	ANALOG TO DIGITAL CONVERTR	DEC	5LS003
60		LSI	12ADC	16-Channel mux,sample-and-hold functions,auto-zeroing technique,self-ts															
61	DT1768	LSI	12ADC							5.0	1.0☑			2	16	16	ANALOG INPUT SYSTEM	DTI	
62		LSI	12ADC	Quad board,4 DI proprietary and 12 DI input channels															
63	DT2762	LSI	12ADC							5.0	1.0☑			2	16	16	ANALOG INPUT SYSTEM	DTI	
64		LSI	12ADC	DEC software compatible for use with LSI-11;35KHz thruput															
65	DT2764	LSI	12ADC							5.0	1.0			2	16	16	ANALOG INPUT SYSTEM	DTI	
66		LSI	12ADC	Thruput 31KHz at 10V input range;3.7KHz at 10mV input range															
67	DT2765	LSI	12ADC							5.0	1.0☑			2	16	16	ANALOG INPUT SYSTEM	DTI	
68		LSI	12ADC	Isolated low level,wide range inputs with 4 differential input channels															
69	MP1216	LSI	12ADC							5.0	1.0				16	16	ANALOG INPUT SYSTEM	BUB	5LS009
70		LSI	12ADC	Same as MP1216 less programmable amplifier feature															
71▼	ST-LSI12	LSI	12ADC							5.0	2.5			2	16	16	ANALOG INPUT BOARD	DTL	
72▼		LSI	12ADC	16-Sng/end or 8-diff-A/D-inpt/chn (jumper-selected), 50kHz thruput,															
73▼		LSI	12ADC	DC-DC converter, on board pacer clock w/programmable gain amplifier															
74▼	ST-LSI16-S0P2	LSI	12ADC			16	12 b			5.0	2.5	15		2	16	16	ANALOG INPUT BOARD	DTL	5LS021
75▼		LSI	12ADC	2-D/A impt/chn,50kHz thruput,12bit resolution,programmable/gain/amp															
76▼	ST-LSI16-S0X1	LSI	12ADC			16	12 b			5.0	2.5	15		2	16	16	ANALOG INPUT BOARD	DTL	5LS021
77▼		LSI	12ADC	on board DC/DC pwr/conv, 12bit-resolution, 50kHz thruput															
78▼	ST-LSI16-S0X2	LSI	12ADC			16	12 b			5.0	2.5	15		2	16	16	ANALOG INPUT BOARD	DTL	5LS021
79▼		LSI	12ADC	12bit resolution,50kHz thruput,no on board DC/DC Converter included															
80▼	ST-LSI16-S2X1	LSI	12ADC			16	12 b			5.0	2.5			2	16	16	ANALOG I/O BOARD	DTL	5LS021
81▼		LSI	12ADC	incl.2D/A chn, 12bit resolution, DC-DC pwr/conv on board, 50kHz thruput															
82▼	ST-LSI16-S2X2	LSI	12ADC			16	12 b			5.0	2.5			2	16	16	ANALOG I/O BOARD	DTL	5LS021
83▼		LSI	12ADC	16-A/D plus 2-D/A inpt/chn, 12bit resolution, 50kHz thruput															
84▼		LSI	12ADC	16-diff-A/D-inpt, 12bit resolution, 50kHz thruput,w/diff-inst-amp															
85▼	ST-LSI16D0D2	LSI	12ADC			16	12 b			5.0	2.5			2	16	16	ANALOG INPUT BOARD	DTL	5LS021
86▼		LSI	12ADC	16-diff-A/D-inpt/chn, 12bit resolution, 50kHz thruput,w/no DC-DC conv															
87▼	ST-LSI16D0P1	LSI	12ADC			16	12 b			5.0	2.5	15		2	16	16	ANALOG INPUT BOARD	DTL	5LS021
88▼		LSI	12ADC	16-differential-A/D inpt/chn, 50kHz thruput, 12bit resolution,															
89▼		LSI	12ADC	Programmable gain amplifier on board w/DC-DC converter															
90▼	ST-LSI32-S0X2	LSI	12ADC			32	12 b			5.0	2.5	15		2	16	16	ANALOG INPUT BOARD	DTL	5LS021
91▼		LSI	12ADC	32-sng/end-inpt/chn, 50kHz thruput, 12bit resolution w/diff-inst-amp															
92▼	ST-LSI32S0D2	LSI	12ADC			32	12 b			5.0	2.5			2	16	16	ANALOG INPUT BOARD	DTL	5LS021
93▼		LSI	12ADC	32-sng/end-inpt/chn, 50kHz thruput, 12bit resolution, w/no-DC/DC conv															
94▼	ST-LSI32S0P1	LSI	12ADC			32	12 b			5.0	2.5	15		2	16	16	ANALOG INPUT BOARD	DTL	5LS021
95▼		LSI	12ADC	32-sng/end-A/D-inpt/chn, 50kHz thruput, 12bit resolution, DC/DC pwr/conv															
96▼	ST-LSI32S0P2	LSI	12ADC			32	12 b			5.0	2.5			2	16	16	ANALOG INPUT BOARD	DTL	5LS021
97▼		LSI	12ADC	32-sng/end-inpt/chn, 50kHz thruput, 12bit resolution,w/no-DC/DC conv															
98▼		LSI	12ADC	32-sng/end inpt/chn, 12bit resolution, 50kHz thruput w/no amplifier															
99▼	ST-LSI-ADX32S	LSI	12ADC			32				5.0	2.5			2	16	16	SLAVE A/D MUX CHNL EXPANDR	DTL	5LS021
100▼	ST-LSI-RLY	LSI	12ADC			8	12 b			5.0	1.5			2	16	16	ANALOG INPUT BOARD	DTL	5LS020
101▼		LSI	12ADC	A/D w/8-diff inpt/chn, 12-bit resolution, isolated relay inputs															
102	DT2771	LSI	12ADM							5.0	1.0☑				16	16	DMA ANALOG OUTPUT SYSTEM	DTI	5LS001
103		LSI	12ADM	DMA D/A;DEC LSI-11/2,LSI-11/23 compatible															
104	DT2782	LSI	12ADM							5.0	1.5☑			2	16	16	DMA ANALOG INPUT SYSTEM	DTI	5LS001
105		LSI	12ADM	DMA A/D, DEC-LSI compatible w/ 35KHz thruput															
106	DT2784	LSI	12ADM							5.0	1.5☑			2	16	16	DMA ANALOG INPUT SYSTEM	DTI	5LS001
107		LSI	12ADM	Low level, wide range version of 2782															
108	DT1761	LSI	12AIO								1.0☑		5.0	2	16	16	ANALOG INPUT/OUTPUT SYSTEM	DTI	5LS012
109		LSI	12AIO	Two D/A outputs and 16 A/D input channels															
110	DT1765	LSI	12AIO							5.0	2.0☑			2	16	16	ANALOG INPUT/OUTPUT SYSTEM	DTI	

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1		LSI	12AIO	Low level A/D input version of DT1761															
2	DT1769	LSI	12AIO							5.0	1.0☑			2	16	16	ANALOG INPUT/OUTPUT SYSTEM	DTI	
3		LSI	12AIO	Quad board,4 DI input channels and 2 D/A output channels															
4	DT2781	LSI	12AIO												16	16	ANALOG INPUT/OUTPUT SYSTEM	DTI	
5		LSI	12AIO	DEC compatible analog I/O system with 25KHz high level inputs															
6	DT2785	LSI	12AIO											1	16	16	ANALOG INPUT/OUTPUT SYSTEM	DTI	
7		LSI	12AIO	Low level,wide range version of 2781															
8	MLSI-DT1761	LSI	12AIO		16	12				5.0	2.0				16	16	ANALOG INPUT-OUPUT MODULE	MDB	
9		LSI	12AIO	Two 12-bit D/A converters,program I/O interrupt interface,DMA interface															
10▼	RTI-1250-R	LSI	12AIO			b				5.0	1.4			2	16	16	ANALOG INPUT SUBSYSTEM	ANA	
11▼		LSI	12AIO	Basic function is 12bit ADC w/resistor programmable gain amplifier															
12▼	RTI-1250-S	LSI	12AIO			b				5.0	1.4			2	16	16	ANALOG INPUT SUBSYSTEM	ANA	
13▼		LSI	12AIO	12bit ADC w/software programmable gain amplifier															
14▼	RTI-1251	LSI	12AIO			b				5.0	1.5			2	16	16	COMBINATION ANALOG I/O	ANA	
15▼		LSI	12AIO	Includes resistor programmable gain amplifier w/2 multiplying DACs															
16▼	RTI-1252	LSI	12AIO			b				5.0	1.4			2	16	16	OUTPUT SUBSYSTEM	ANA	
17▼		LSI	12AIO	Output board with two trimmed D/A converters															
18▼	RTI-1254	LSI	12AIO			b				5.0	1.4			2	16	16	OUTPUT SUBSYSTEM	ANA	
19▼		LSI	12AIO	Output board with four trimmed digital to analog converters															
20▼	ST-LSI16D2D1	LSI	12AIO		16	12 b				5.0	2.5	15		2	16	16	ANALOG I/O BOARD	DTL	5LS021
21▼		LSI	12AIO	16 diff-inpt/chn,50kHz thruput, 12bit resolution, w/diff-instrument-amp															
22▼	ST-LSI16D2D2	LSI	12AIO		16	12 b				5.0	2.5			2	16	16	ANALOG I/O BOARD	DTL	5L021
23▼		LSI	12AIO	16diff-inpt/chn, 50kHz thruput, 12bit resolution, w/no DC-DCconverter															
24▼	ST-LSI16D2P1	LSI	12AIO		16	12 b				5.0	2.5	15		2	16	16	ANALOG I/O BOARD	DTL	5LS021
25▼		LSI	12AIO	16-diff-A/D-inpt/chn, 2D/A output/chn, 50kHz thruput, 12bit resolution															
26▼		LSI	12AIO	includes DC-DC converter and programmable gain amplifier															
27▼	ST-LSI16D2P2	LSI	12AIO		16	12 b				5.0	2.5			2	16	16	ANALOG I/O BOARD	DTL	5LS021
28▼		LSI	12AIO	16 diff-inpt/chn, 50kHz thruput, 12bit resolution,w/no-DC-DC converter															
29▼	ST-LSI32-S2P1	LSI	12AIO		32	12 b				5.0	2.5	15		2	16	16	ANALOG OUTPUT BOARD	DTL	5LS021
30▼	ST-LSI32-S2P2	LSI	12AIO		32	12 b				5.0	2.5	15		2	16	16	ANALOG OUTPUT BOARD	DTL	5LS021
31▼		LSI	12AIO	two-D/A-channels,w/programmable gain amplifier,w/no DC/DC Converter															
32▼	ST-LSI32S2P1	LSI	12AIO		32	12 b				5.0	2.5	15		2	16	16	ANALOG I/O BOARD	DTL	5LS021
33▼		LSI	12AIO	32-sng/end A/D inpt/chn, 50kHz thruput, 12bit resolution,2 D/A outpt/chn															
34▼		LSI	12AIO	DC-DC amplifier included,program gain amplifier included															
35▼	ST-LSI32S2P2	LSI	12AIO		32	12 b				5.0	2.5			2	16	16	ANALOG I/O BOARD	DTL	5LS021
36▼		LSI	12AIO	32-sng/end-inpt/ch, 50kHz thruput, 12 bit resolution, w/no DC-DC converter															
37	AAV11A	LSI	12DAC		4	12				5.0	1.5	12	0.4		16	16	4 CHANNEL 12-BIT D/A CONVE	DEC	5LS002
38		LSI	12DAC	Jumper selected output ranges and modes,bipolar mode and unipolar mode															
39	DT1762	LSI	12DAC							5.0	1.0☑			2	16	16	ANALOG INPUT SYSTEM	DTI	5LS010
40		LSI	12DAC	Compatible with PDP-11 software designed for LSI-11 up to 64 input channel															
41	DT1764	LSI	12DAC							5.0	1.0☑			2	16	16	ANALOG INPUT SYSTEM	DTI	5LS010
42		LSI	12DAC	Same as 1762 with low level signal input															
43	DT2766	LSI	12DAC							5.0	1.0☑			2	16	16	ANALOG OUTPUT SYSTEM	DTI	5LS011
44		LSI	12DAC	Plugs into LSI-11 backplane 4 D/A channels and 4 TTL digital outputs															
45	DT2767	LSI	12DAC							5.0	1.0☑			2	16	16	ANALOG OUTPUT SYSTEM	DTI	5LS011
46		LSI	12DAC	Same as DT2766 with 8 bit resolution															
47	MP1104	LSI	12DAC							5.0	1.2			2	16	16	ANALOG OUTPUT SYSTEM	BUB	
48		LSI	12DAC	4 analog output channels at 12-bits resolution;compatible w/DEC s															
49		LSI	12DAC	Q bus															
50▼	ST-LSI-DA4A	LSI	12DAC		4	12a				5.0	2.5	15		2	16	16	ANALOG OUTPUT BOARD	DTL	
51▼		LSI	12DAC	4-D/A-output/chn, 12bit resolution, w/DC-DC pwr/conv															
52▼	ST-LSI-DA4B	LSI	12DAC		4	12a				5.0	2.5	15		2	16	16	ANALOG OUTPUT BOARD	DTL	
53▼		LSI	12DAC	requires 15vdc at 160mA,12 bit resolution,w/no DC/DC converter															
54	DRV11B	LSI	12MCS							5.0	1.9				16	16	DMA INTERFACE	DEC	5LS004
55		LSI	12MCS	Buffered I/O data,transfer max 32K 16-bit words,16-bit CSR to control															
56	1616/OII	LSI	12OIS					5		5.0	1.2			1	16	16	Optically isolated I/O	ADA	5LS016
57		LSI	12OIS	Contain 2 registers,16-bit input data buffer and 16 position status and															
58		LSI	12OIS	control register,16-pairs output data and one pair output cotrol lines															
59	1616/OIO	LSI	12OIS							5.0	1.2			1	16	16	Optically isolated I/O	ADA	5LS015
60		LSI	12OIS	16-pair of output data lines/1-pair of output control lines,output															
61		LSI	12OIS	lines are latched,contain 2 registers,16 position status and output reg															
62	DZV11B	LSI	21MUX							5.0	1.1	12	.40		16	16	ASYNCHRONOUS MULTIPLEXER	DEC	5LS007
63		LSI	21MUX	Quad size,selectable baud rates of 50-9600,parity generation detection															
64▼	1750-00-0-0	LSI	21OIS	2	RS2Y					5.0	1.2	12	500m	1	16	16	Serial I/O Card	ADA	5LS024
65▼		LSI	21OIS	2-Ind Serial I/O Ports;Optically Iso 20mA current loop for direct TTY															
66▼		LSI	21OIS	connection;Choice of RS232C,RS422,RS423 EIA Interface;PROM not supplied;															
67▼		LSI	21OIS	Integral Bootstrap capability;Switch select baud rates 50-19.2kbps;does															
68▼		LSI	21OIS	not include optional cables															
69▼	1750-00-WXX-WXX	LSI	21OIS	22	RS2Y					5.0	1.2	12	500m	1	16	16	Serial I/O Card	ADA	5LS024
70▼		LSI	21OIS	2-Ind Serial I/O Ports;Optically Iso 20mA current loop for direct TTY															
71▼		LSI	21OIS	Dconnection;Choice of RS232C,RS422,RS423 EIA Interface;PROM not Supplied;															
72▼		LSI	21OIS	Integral bootstrap capability;Switch Select boud rates 50-19.2kbps;															
73▼		LSI	21OIS	Includes optional cables,consult Mfr for ordering information															
74▼	1750-01-0-0	LSI	21OIS	2	RS2Y					5.0	1.2	12	500m	1	16	16	Serial I/O Card	ADA	5LS024
75▼		LSI	21OIS	2-Ind Serial I/O Ports;Optically Iso 20mA current loop for direct TTY															
76▼		LSI	21OIS	connection;Choice of RS232C,RS422,RS423 EIA Interface;Supplied w/REVII															
77▼		LSI	21OIS	compatible bootstrap;Switch select baud rates 50-19.2kbps;does not															
78▼		LSI	21OIS	include optional cables															
79▼	1750-01-WXX-WXX	LSI	21OIS	22	RS2Y					5.0	1.2	12	500m	1	16	16	Serial I/O Card	ADA	5LS024
80▼		LSI	21OIS	2-Ind Serial I/O Ports;Optically Iso 20mA current loop for direct TTy															
81▼		LSI	21OIS	connection;Choice of RS232C,RS422,RS423 EIA Interfce;Supplied w/REVII															
82▼		LSI	21OIS	compatuble bootstrap;Switch baud rates 50-19.2kbps;Includes optional															
83▼		LSI	21OIS	cables,consult mfr for ordering information															
84▼	1750-02-0-0	LSI	21OIS	2	RS2Y					5.0	1.2	12	500m	1	16	16	Serial I/O Card	ADA	5LS024
85▼		LSI	21OIS	2-Ind Serial I/O Ports;Optically Iso 20mA current loop for direct TTY															
86▼		LSI	21OIS	connection;Choice of RS232C,RS422,RS423 EIA Interface;Unprogrammed PROMs															
87▼		LSI	21OIS	supplied;Switch selectable baud rates 50 to 19.2kbps;does not include															
88▼		LSI	21OIS	optional cables															
89▼	1750-02-WXX-WXX	LSI	21OIS	2	RS2Y					5.0	1.2	12	500m	1	16	16	Serial I/O Card	ADA	5LS024
90▼		LSI	21OIS	2-Ind Serial I/O Ports;Optically Iso 20mA current loop for direct TTY															
91▼		LSI	21OIS	connection;Choice of RS232C,RS423 EIA Interface;UnprogrammedPROMS															
92▼		LSI	21OIS	Supplied;Switch selectable boud rates 50 to 19.2kbps;includes optional															
93▼		LSI	21OIS	cubles,consult Mfr for ordering information															
94	DLV11E	LSI	21SRI		1	12				5.0	1.0	12	.18		16	16	ASYNCHRONOUS LINE INTERFAC	DEC	5LS005
95		LSI	21SRI	Full modern control,jumper-selectable data bit formats,external clk inp															
96	DLV11F	LSI	21SRI		1	12				5.0	1.0	12	.18		16	16	Asynchronous line interfac	DEC	5LS005
97		LSI	21SRI	Jumper-selectable data bit formats,support for Data Leads Only modem															
98	DUV11	LSI	21SRI		RS2C					5.0	.86	12	.32		16	16	LINE INTERFACE	DEC	5LS008
99		LSI	21SRI	Quad size,interfaces synchronous and isochronous communication data															
100	MLSI-DLV11	LSI	21SRI		RS2C					5.0	0.8	12	0.4		16	16	ASYNCHRONOUS SERIAL LINE I	MDB	
101		LSI	21SRI	Dip switch selectable baud rates and Uart parameters,75 to 19.2K baud															
102	MLSI-DLV11E	LSI	21SRI		RS2C					5.0	1.0	12	0.1		16	16	ASYNCHRONOUS DATASET INTER	MDB	
103		LSI	21SRI	Like MLSI-DLV11 plus fully software compatible with DL11E															
104	MLSI-DUV11	LSI	21SRI							5.0	1.5	12	0.1		16	16	SYNCHRONOUS SERIAL LINE IF	MDB	
105		LSI	21SRI	Dip switch selectable multiple serial line address,bell 201-303 compatb															
106	MSI11	LSI	21SRI	4	RS2C										16	16	Multiple serial interface	ADS	
107		LSI	21SRI	Also 20ma current loop,independent vector address,Q address for each ch															
108	1412DA-1AXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
109		LSI	22DAC	12-bit D/A converter,bus interface stand alone system,5US settling time															
110		LSI	22DAC	scope control,power supply andup to 4 third-wire sense de-															

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1		LSI	22DAC	tector,and 4-20 ma current loop are available,one 12-bit D/A s on board															
2	1412DA-1BXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
3		LSI	22DAC	Similar to 1412DA-1AXXX but with 0 to 10V output range															
4	1412DA-1CXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
5		LSI	22DAC	Similar to 1412DA-1XXX but with ±5V output range															
6	1412DA-1DXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ANA	5LS019
7		LSI	22DAC	Similar to 1412DA-1AXXX but with 0 to 5V output range															
8	1412DA-1EXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
9		LSI	22DAC	Similar to 1412DA-1AXXX but with ±2.5V output ranges															
10	1412DA-2AXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
11		LSI	22DAC	Similar to 1412DA-1AXXX but with 2 DACs on the board															
12	1412DA-2BXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
13		LSI	22DAC	Similar to 1412DA-1BXXX but with 2 DACx on the board															
14	1412DA-2CXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
15		LSI	22DAC	Similar to 1412DA-1CXXX but with 2 DACs on the board															
16	1412DA-2DXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
17		LSI	22DAC	Similar to 1412DA-1DXXX but with 2 DACs on the board															
18	1412DA-2EXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
19		LSI	22DAC	Similar to 1412DA-1EXXX but with 2 DACs on the board															
20	1412DA-3AXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
21		LSI	22DAC	Similar to 1412DA-1AXXX but with 3 DACs on the board															
22	1412DA-3BXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
23		LSI	22DAC	Similar oo 141DDA-1BXXX bu wit 3 DCCs o thebbaar															
24																			
25	1412DA-3DXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
26		LSI	22DAC	Similar to 1412DA-1DXXX but with 3 DACs on the board															
27	1412DA-3EXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
28		LSI	22DAC	Similar to 1412DA-1EXXX but with 3 DACs on the board															
29	1412DA-4AXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
30		LSI	22DAC	Similar to 1412DA-1AXXX but with 4 DACs on the board															
31	1412DA-4BXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
32		LSI	22DAC	Similar to 1412DA-1BXXX but with 4 DACs on the board															
33	1412DA-4CXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
34		LSI	22DAC	Similar to 1412DA-1CXXX but with 4 DACs on the board															
35	1412DA-4DXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
36		LSI	22DAC	Similar to 1412DA-1DXXX but with 4 DACs on the board															
37	1412DA-4EXXX	LSI	22DAC							5.0	0.5	15	150m	1	16	16	Digital to analog system	ADA	5LS019
38		LSI	22DAC	Similar to 1412DA-1EXXX but with 4 DACs on the board															
39	DAC11	LSI	22DAC		1	16									16	16	Digital to analog convertr	ADS	
40		LSI	22DAC	12 bit resolution,max 4 D/A channels,4 adjustable pulse output															
41	1632TTL	LSI	22DIO		4	8				5.0	1.2				1	16	16	TTL Digital input/output	ADA	5LS013
42		LSI	22DIO	4-8 or 2-16 bits none lached buffer,2 interrupt,16 bits status register															
43	1664TTL	LSI	22DIO		4	8				5.0	1.2				1	16	16	TTL Digital input/output	ADA	5LS014
44		LSI	22DIO	4-8 or 2-16 bits none latched buffer,contains 4 16-bits register															
45	DIO11	LSI	22DIO							5.0					16	16	64 line digital I/O module	ADS	
46		LSI	22DIO	4 16-Bit reg on 1 dual-width card,inputs are assignable at byte or bit															
47	1604/OPI	LSI	22IOM							5.0	1.0				1	16	16	Input/Output pulse card	ADA	5LS017
48		LSI	22IOM	Operates independent in either clock or frequency mode,contains four															
49		LSI	22IOM	16-bit counters and four 16-bit registers															
50	1604/POC	LSI	22IOM			0				5.0	1.0				1	16	16	Input/Output pulse card	ADA	5LS018
51		LSI	22IOM	Has 4 pulse output channels,capable of outputting pulse trains of 10US															
52		LSI	22IOM	to 50mS pulse widths,W/10U-50mS offtimes,OFF/ON times hardware controll															
53	DRV11	LSI	22PIO							5.0	0.9					16	16	PARALLEL LINE UNIT	DEC	
54		LSI	22PIO	Double size,16 Diode-Clamped data input lines,16 latched output lines															
55	DT2768	LSI	22PIO							5.0	1.2☑				1	16	16	PARALLEL DIGITAL I/O	DTI	
56		LSI	22PIO	DEC compatible parallel I/O non-isolated interface															
57	PIOL11	LSI	22PIO							5.0	900m							Parallel Input/Output	CES	
58		LSI	22PIO	Address selection by 10 position DIP switch,Vector address is selected															
59		LSI	22PIO	via a 5 position DIP sw providing choice of 000-370(octal),transparent															
60		LSI	22PIO	to host computers diagnostics,drivers,and operating systems															
61	LPI11	LSI	22PRT		1	8										16	16	Line printer interface	ADS	
62		LSI	22PRT	11 bit wide data path for full spacing control,3 diferent strobes,BK/RD															
63▼	ST-LSI32S0X1	LSII	12ADC		32	12 b				5.0	2.5				2	16	16	ANALOG INPUT BOARD	DTL	
64	DT1788	MCZ	12ADC					5		5.0	1.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
65		MCZ	12ADC	ZILOG MCB compatible with 4 proprietary and 12 DI input channels															
66	MP2216	MCZ	12ADC							5.0	1.6				2	16	8	ANALOG INPUT SYSTEM	BUB	
67		MCZ	12ADC	MP2216-AO w/othe D/A section															
68	DT1785	MCZ	12AIO							5.0	1.0☑				2	16	8	ANALOG INPUT/OUTPUT SYSTEM	DTI	5MC002
69		MCZ	12AIO	Low level,wide range version of 1781															
70	DT1789	MCZ	12AIO							5.0	1.0				2	16	8	ANALOG INPUT/OUTPUT SYSTEM	DTI	
71		MCZ	12AIO	Wide range,low level data acquisition for ZILOG Z-80 MCB w/4DI															
72		MCZ	12AIO	input channels and 2 non-isolated D/A output channels															
73	MP2216-AO	MCZ	12AIO							5.0	1.6				2	16	8	ANALOG I/O SYSTEM	BUB	5MC004
74		MCZ	12AIO	Design for Zilog s Z-80;32SE/16DI in-channels,2 out-channels,12 bit															
75		MCZ	12AIO	resolution															
76	Z80-AIB	MCZ	12AIO							5.0	1.5				1	16	8	ANALOG INPUT BOARD	ZIL	
77		MCZ	12AIO	12-bit ADD coneerter116 differettialoor 3 sinll--edde analog channels															
78	Z80-AIBN	MCZ	12AIO							5.0	1.5				1	16	8	ANALOG INPUT BOARD	ZIL	
79		MCZ	12AIO	Like Z80-AIB plus power supplies required 5,±15 volts															
80	Z80-AIO	MCZ	12AIO							5.0	1.5				2	16	8	ANALOG INPUT-OUTPUT BOARD	ZIL	5MC001
81		MCZ	12AIO	Like Z80-AIB plus two 12-bit D/ coneertess,Dobbee uufeered output															
82	Z80-AION	MCZ	12AIO							5.0	1.5				2	16	8	ANALOG INPUT-OUTPUT BOARD	ZIL	
83		MCZ	12AIO	Like Z80-AIO plus power supplies required 5,±15 volts															
84	Z80-VDB	MCZ	12DPY			256									1	16	8	VIDEO DISPLAY BOARD	ZIL	
85		MCZ	12DPY	Interface directly TtL horizontal,vedticar,vid ofdrtved of standard TV															
86	Z80-SIB	MCZ	21SRI	8											1	16	8	SERIAL INPUT-OUTPUT BOARD	ZIL	
87		MCZ	21SRI	Asyn,synchronous,or bi-sync operation,2 on board Z80-CTC programl timer															
88	Z80-IOB	MCZ	22PIO		8	8				5.0					1	16	8	PARALLEL I/O BOARD	ZIL	5MC002
89		MCZ	22PIO	64 programmable I/O lines,4 modes of operation,automatic interrupt vect															
90	DT1782	MQZ	12ADC							5.0	1.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
91		MQZ	12ADC	Compatible with Z-80 based MCB/MCS systems at 31KHz thruput															
92	DT1784	MQZ	12ADC							5.0	1.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
93		MQZ	12ADC	Low level version of 1782 with levels of 10mV															
94	DT1781	MQZ	12AIO							5.0	1.0☑				2	16	8	ANALOG INPUT/OUTPUT SYSTEM	DTI	5MC002
95		MQZ	12AIO	MCB/MCS compatible;31KHz thruput at 10V level															
96	DT1741	MULT	12ADC							5.0	2.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
97		MULT	12ADC	Compatible with INTEL BUS;35KHz thruput with 16 analog inputs															
98	DT1742	MULT	12ADC							5.0	2.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
99		MULT	12ADC	Same as 1741 but 64 channels															
100	DT1744	MULT	12ADC							5.0	2.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
101		MULT	12ADC	Low level version of 1742															
102	DT1748	MULT	12ADC							5.0	1.0☑				2	16	8	ANALOG INPUT SYSTEM	DTI	
103		MULT	12ADC	INTEL SBC-80,NATIONAL BLC-80 compatible;4 DI and 12 DI input channels															
104	iSBC711	MULT	12ADC			b				5.0	1.7					16	8	ANALOG INPUT BOARD	ITL	
105		MULT	12ADC	8 DI or 16 single-ended, non-isolated channels; 12 bit resolution															
106	MP8408	MULT	12ADC							5.0	1.0				2	16	8	ANALOG INPUT SYSTEM	BUB	
107		MULT	12ADC	Compatible w/INTEL-SBC80 uC s;8-DI analog inputs w/12-bit resolution															
108	MP8416	MULT	12ADC							5.0	1.0				2	16	8	ANALOG INPUT SYSTEM	BUB	
109		MULT	12ADC	Compatible w/INTEL-SBC80 uC s;16-SE analog inputs w/12-bit resolution															
110	MP8418	MULT	12ADC							5.0	1.2				2	16	8	ANALOG INPUT SYSTEM	BUB	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1		MULT	12ADC	MP8418 less analog outputs															
2	MP8608	MULT	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
3		MULT	12ADC	Same as MP8608-AO less analog outputs															
4	MP8616	MULT	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
5		MULT	12ADC	Same as MP8616-AO less analog outputs															
6	MP8632	MULT	12ADC							5.0	1.0			2	16	8	ANALOG INPUT SYSTEM	BUB	
7		MULT	12ADC	Same as MP8632-AO less analog outputs															
8▼	ST-711	MULT	12ADC		16	12 b				5.0	2.5			2	16	8	ANALOG INPUT BOARD	DTL	5MU012
9▼		MULT	12ADC	A/D w/16 diff-32 sng/end inpt/chn, 12bit resolution, 23k sample/sec thru															
10▼	ST-711RLY8D	MULT	12ADC		8	12 b				5.0	1.5	12	.07	2	16	8	RELAY MUX A/D PERIPHERAL	DTL	5MU014
11▼		MULT	12ADC	A/D w/8 diff/chn, 12bit resolution, 30 samples/sec thruput															
12▼	ST-711RLY16D	MULT	12ADC		16	12 b				5.0	1.5	12	.07	2	16	8	RELAY MUX A/D PE%%%%%RAL	DTL	5MU014
13▼		MULT	12ADC	A/D w/16 diff/chn, 12 bit resolution, 30 samples/sec thruput															
14▼	ST-800	MULT	12ADC		16	12 b				5.0	2.5			2	16	8	DMA ANALOG INPUT BOARD	DTL	
15▼	ST-800-8D	MULT	12ADC		8	12 b				5.0	1.3†			2	16	8	ANALOG INPUT BOARD	DTL	
16▼		MULT	12ADC	8-differential-inpt/chn, 12bit resolution, 50kHz thruput															
17▼	ST-800-16D	MULT	12ADC		16	12 b				5.0	1.3†			2	16	8	ANALOG INPUT BOARD	DTL	
18▼		MULT	12ADC	16-differential A/D inpt/chn, 12bit resolution, 50kHz thruput															
19▼																			
20▼	ST-800-32S	MULT	12ADC		32	12 b				5.0	1.3†			2	16	8	ANALOG INPUT BOARD	DTL	
21▼		MULT	12ADC	32-sng/end-A/D inpt/chn, 12bit resolution, 50kHz thruput															
22▼	ST-800-ADX32D	MULT	12ADC		32	12 b				5.0	1.3†			2	16	8	A.D SLAVE EXPANDER BOARD	DTL	
23▼		MULT	12ADC	32A/D-diff/inpt-chn, 12-bit resolution, 50kHz thruput															
24▼	ST-800-ADX32S	MULT	12ADC		32	12 b				5.0	1.3†			2	16	8	A/D SLAVE EXPANDER BOARD	DTL	
25▼		MULT	12ADC	32A/D-Sng/end-input/chn, 12-bit nesolution, sokHz thruput															
26▼	ST-800-ADX48D	MULT	12ADC		48	12 b				5.0	1.3†			2	16	8	A/D SLAVE EXPANDER BOARD	DTL	
27▼		MULT	12ADC	48 A/D-diff/inpt-chn, 12-bit resolution, 50kHz thruput															
28▼	ST-800-ADX48S	MULT	12ADC		48	12 b				5.0	1.3†			2	16	8	A/D SLAVE EXPANDER BOARD	DTL	
29▼		MULT	12ADC	48A/D-sng/end-inpt/chn, 12-bit resolution, 50kHz thruput															
30▼		MULT	12ADC	A/D w/max-16diff-32sng/end inpt, 12bit resolution, includesDMA logic,															
31▼		MULT	12ADC	35k sample/sec thruput, requires Intel DMA controller board															
32	DT1751	MULT	12AIO							5.0	2.0☑			2	16	8	ANALOG INPUT/OUTPUT SYSTEM	DTI	5MU002
33		MULT	12AIO	INTEL compatible analog I/O with 16 A/D channels and 2 D/A channels															
34	DT1755	MULT	12AIO							5.0	2.0☑			2	16	8	ANALOG INPUT/OUTPUT SYSTEM	DTI	5MU002
35		MULT	12AIO	Low level version of 1751															
36	DT1759	MULT	12AIO							5.0	1.0☑			2	16	8	ANALOG INPUT/OUTPUT SYSTEM	DTI	
37		MULT	12AIO	INTEL SBC-80 compatible w:h 4 DI input channels and 2 D/A outputs															
38▼	RTI-1200	MULT	12AIO		16	b		1k		5.0	1.2	15	40m	2	16	8	COMBINATION ANALOG I/O	ANA	
39▼		MULT	12AIO	Real time pacer clock system memory mapped I/O interface, 12bit ADC on															
40▼		MULT	12AIO	board,prom socket up to 32 input/char, sample and hold amplifier															
41▼	RTI-1201	MULT	12AIO		14	12 b				5.0	0.8	15	45m	2	16	8	ANALOG OUTPUT SYSTEM	ANA	
42▼		MULT	12AIO	4-DAC analog/outputs, 12 bit-resolution, memory mapped I/O interface															
43▼	RTI-1202-8R	MULT	12AIO		16	b				5.0	1.1	15	40m	2	16	8	ANALOG INPUT SUBSYSTEM	ANA	
44▼		MULT	12AIO	8bit ADC, memory mapped I/O interface, 32 input channels max															
45▼	RTI-1202-R	MULT	12AIO		16	b				5.0	1.1	15	40m	2	16	8	ANALOG INPUT SUBSYSTEM	ANA	
46▼		MULT	12AIO	memory mapped I/O interface, up to 32 input/channels 12-bit ADC															
47▼	ST-732	MULT	12AIO		16	12 b				5.0	2.5			2	16	8	ANALOG I/O BOARD	DTL	5MU012
48▼		MULT	12AIO	2-D/A outpt,16-diff-32-sng/end-inpt, 12bt-resolution, 23k sample/sec thr															
49	DT1841	MULT	12DAC							5.0	1.0☑			2	16	8	ANALOG OUTPUT SYSTEM	DTI	
50		MULT	12DAC	INTEL compatible;analog output at 35KHz thruput															
51	DT1842	MULT	12DAC							5.0	2.0☑			2	16	8	ANALOG OUTPUT SYSTEM	DTI	
52		MULT	12DAC	INTEL compatible;8 channels at 35KHz thruput															
53	DT1843	MULT	12DAC							5.0	1.0☑			2	16	8	ANALOG OUTPUT SYSTEM	DTI	
54		MULT	12DAC	INTEL compatible;8 channels at 8 bit resolution															
55	iSBC724	MULT	12DAC															ITL	
56		MULT	12DAC	4 independent 12 bit D/A; SW selectable ranges															
57	MP8304	MULT	12DAC							5.0	1.0			2	16	8	ANALOG OUTPUT SYSTEM	BUB	
58		MULT	12DAC	Compatible w/INTEL-SBC80 uC s;4 analog-outputs at 12-bits resolution															
59▼	ST-724	MULT	12DAC		4	12a				5.0	1.5	15		1	16	8	ANALOG OUTPUT BOARD	DTL	5MU013
60▼		MULT	12DAC	four D/A output chn, 12-bit resolution, memory-mapped															
61▼	ST-800-DA4	MULT	12DAC		4	12a				5.0	1.0	15	.32	2	16	8	ANALOG OUTPUT BOARD	DTL	
62▼	ST-800-DA8	MULT	12DAC		8	12a				5.0	1.0	15	.32	2	16	8	ANALOG OUTPUT BOARD	DTL	
63▼	ST-800-DAX4	MULT	12DAC		4					5.0	1.0	15	.32	2	16	8	D/A SLAVE EXPANDER BOARD	DTL	
64▼	ST-800-DAX8	MULT	12DAC		8					5.0	1.0	15	.32	2	16	8	D/A SLAVE EXPANDER BOARD	DTL	
65	DT3752	MULT	12DMS	1 RS2C	2	8 o	16k	16k		5.0	3.5	12	.20	1	16	8	INTELLIGENT ANALOG PERIPH	DTI	5MU001
66		MULT	12MDS	8085A uProcessor, 16K dual port, dynamic RAM DMA system w/serial I/O															
67	DT3754	MULT	12MDS	1 RS2C	2	8 o	16k	16k		5.0	3.5	12	.20	1	16	8	INTELLIGENT ANALOG PERIPH	DTI	5MU001
68		MULT	12MDS	Low level,wide range version oF 3752															
69	DT3755	MULT	12MDS	1 RS2C	2	8 o	16k	16k		5.0	3.5	12	.20	1	16	8	INTELLIGENT ANALOG PERIPH	DTI	5MU001
70		MULT	12MDS	Isolated,low level,wide range w/4 differential channels															
71▼	B1018	MULT	21SRI	8 RS2C						5.0	1.9	12	0.2	1	24	16	MULT Octal Serial I/F	CDC	
72▼		MULT	21SRI	Octal serial I/F board uses 2651 USARTs; 16 baud rates available															
73	BLC8534	MULT	21SRI	1 RS2C						5.0	2.0	12	.13	1	16	8	Communication expansion bd	NSC	
74		MULT	21SRI	Asyn/Synchronous,data format and parity,4 independentlc controlled CH															
75	BLC8538	MULT	21SRI	1 RS2C						5.0	2.9	12	.25	1	16	8	Comminication expansion bd	NSC	5MU007
76		MULT	21SRI	Similar to BLC8534 but with 8 independent controlled channels															
77▼	BP-0575	MULT	21SRI	5 RS2X						5.0	1.2	12		1	16	8	Serial Communication Ctlr	NECM	5MU015
78▼		MULT	21SRI	Asynch serial comm controller w/5 config channels; select Baud rate															
79	iSBC534	MULT	21SRI	4 RS2C	1	16				5.0	1.9		.28		16	8	FOUR-CHANNEL COMMUNICATION	TL	
80		MULT	21SRI	Synch/Asynch serial commo channels;individual programmable baud rate															
81		MULT	21SRI	generation for each channel															
82	MP801	MULT	22DIO							5.0	.30			2	16	8	uC-DIGITAL OUTPUT SYSTEM	BUB	5MU008
83		MULT	22DIO	Design for Intel s SBC80 w/ 16 out-channels using protected reed relays															
84	MP802	MULT	22DIO							5.0	.50			2	16	8	uC-DIGITAL OUTPUT SYSTEMS	BUB	5MU008
85		MULT	22DIO	Same type as MP801 w/32 channels															
86	MP810	MULT	22DIO							5.0	.40	12	.10	2	16	8	uC-DIGITAL INPUT SYSTEM	BUB	5MU009
87		MULT	22DIO	Design for Intel s SBC80 w/ 24 opto-isolated in-channels:dry relay															
88	Am95-3310	MULT	22IOM	8 RS2C											16	8	Communication expansion bd	AMD	
89		MULT	22IOM	4 Asyn-Syn serial I/O communication channel with programmable baud															
90	BLC508	MULT	22IOM		2	4				5.0	2.2			1	16	8	Input/Output expansion brd	NSC	5MU004
91		MULT	22IOM	Synchronization w/external devices,Interrupt for reduced syst overhead															
92	BLC501	MULT	22MCS							5.0	3.3			1	16	8	Direct Memory Access board	NSC	5MU003
93		MULT	22MCS	Interleaved mode data transfer rate up to 330K B/S,Burst mode data															
94		MULT	22MCS	nrans ertrate tp to bM bytss/sea,datl blotk trfnrfep uo to 64K bytes															
95	iSBC501	MULT	22MCS							5.0	3.4				16	8	DMA CHANNEL CONTROLLER	ITL	
96		MULT	22MCS	Direct transfers between MEM and up to 16 peripherals; block transfers															
97		MULT	22MCS	up to 64K bytes at up to 1-megabytes per sec; 8 level priority															
98		MULT	22MCS	interrupt															
99	BLC556	MULT	22OIS		6	8				5.0	1.6			1	16	8	Optically isolated I/O brd	NSC	5MU006
100		MULT	22OIS	Protects series/80 System from external voltage of up to 500VDC,Jumper															
101		MULT	22OIS	for user selection of interrupts,eliminates effects of ground loops															
102	iSBC556	MULT	22OIS	0						5.0	1.0				16	8	OPTICALLY ISOLATED I/O	ITL	
103		MULT	22OIS	48-optically-isolated I/O data lines; 1 interrupt level; input															
104		MULT	22OIS	voltage/current levels are 48V max; output volt/amp levels are 30V at															
105		MULT	22OIS	60mA															
106	SUE-1/10-ABCD	MULT	22OIS		3	8.0				5.0	.90			1	16	8	RELAY I/O PORT MODULE	MEG	
107	SUE-1/10-AB1	MULT	22OIS		3	8.0				5.0	.90			1	16	8	RELAY I/O PORT MODULE	MEG	
108		MULT	22OIS	Relay I/O Mod w/8 optically-isolated relays configured input															
109		MULT	22OIS	monitors w/16 added I/O lines;relays AC or DC in any combination max															
110		MULT	22OIS	rating:240V/5A fused;Multibus compatible,uses 8255PPI chip															

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1	SUE-1/10-CDO	MULT	22OIS			3	8.0			5.0	.90				1	16	8	RELAY I/O PORT OUTPUT	MEG	
2		MULT	22OIS	Relay I/O Mod w/8 optically-isolated relays configured as output															
3		MULT	22OIS	controls w/16 added I/O lines;relays AC/DC in any combination--max															
4		MULT	22OIS	rating:240V/5A fused;multibus compatible,uses 8255 PPI chip															
5	iSBC508	MULT	22PIO	0		8	8.0			5.0	2.6					16	8	GENERAL PURPOSE I/O BOARD	ITL	
6		MULT	22PIO	32-parallel I/O lines in; 32-parallel lines out; 1 level of interrupt															
7	iSBC517	MULT	22PIO	1	RS2C					5.0	2.4	12	.04			16	8	COMBINATION I/O	ITL	
8		MULT	22PIO	48-parallel I/O lines;synch/asynch commo interface; 1 msec RT-CLK															
9	iSBC519	MULT	22PIO	0						5.0	1.5					16	8	PROGRAMMABLE I/O BOARD	ITL	
10		MULT	22PIO	72-parallel I/O lines;vectoring w/8 interrupt levels;real-time clk															
11	735DAC	MULT	30DAC	4	ADA	4	12			5.0	1.8	15	110m	1	16	8	Digital to analog system	ANA	5MU011
12		MULT	30DAC	Third wire sense for ground noise rejection,8 discrete digital inputs															
13		MULT	30DAC	Memory mapped or isolated I/O,Two scope/recorder pen control circuits															
14▼	B1025	MULT	30IDP	8	RS2C	1	8.0	16k	4.0k	5.0	3.9	12	0.3	1	24	16	MULT Intelligent I/O Board	CDC	
15▼		MULT	30IDP	Octal serial I/F uses 2651 USARTS;2650 uProcessor connects 8 RS-232															
16▼		MULT	30IDP	ports to Multibus system; USARTS individually controlled; Baud rates															
17▼		MULT	30IDP	from 50 to 19.2k baud in 15 steps; board has one output uses 16 bit															
18▼		MULT	30IDP	I/O addressing															
19	iSBC544	MULT	30IDP	4	RS2C			16k	8k	5.0	3.4	12	.35			16	8	INTELLIGENT COMMO CONTROL	ITL	
20		MULT	30IDP	Communications controller/intelligent slave;also see Sec 6															
21	iSBC569	MULT	30IDP	1				2k	16k	5.0	2.6					16	8	INTELLIGENT DIGITAL I/O	ITL	
22		MULT	30IDP	Standalone digital I/O controller/slave expansion;also see sec 6															
23	BLC104	MULT	30IOM	26	RS2C	6	8	4k	8k	5.0	4.1	1.2	.65	1	16	8	MEMORY and I/O Board	NSC	3MU002
24		MULT	30IOM	Refer Sec 3,48 programmable I/O lines for Digital Control Application															
25	BLC116	MULT	30IOM	26	RS2C	6	8	16k	8k	5.0	4.6	12	.65	1	16	8	MEMORY and I/O Board	NSC	3MU002
26		MULT	30IOM	Refer Sec 3,Similar to BLC104,both plug-replacements for SBC116 and 104															
27	BLC517	MULT	30IOM	1	RS2C	6	8			5.0	2.4	12	.04	1	16	8	Input/Output Expansion brd	NSC	5MU005
28		MULT	30IOM	8 maskable interrupts,Baud rates of 75 to 38.4k,BLC/SBC series/80 compa															
29	95/5032	MULT	30PIO	1	RS2C					5.0	1.6	12	20m	1	16	8	COMBINED MEMORY/(I/O)	AUC	
30		MULT	30PIO	24 programmable I/O lines and programmable USART w/RS232C I/F (9551)															
31		MULT	30PIO	Also see Sec#3															
32▼	B1019	MULT	30SRI	4	RS2C	16	8.0			5.0	1.0	12	0.1	1	24	16	MULT Quad Serial I/F Board	CDC	
33▼		MULT	30SRI	Serial I/F board uses 4 8251 USARTs, 3 interval timers; programmable															
34▼		MULT	30SRI	baud rates from 75 to 19.2K baud in 9 steps															
35	DT1722	NONS	12ADC							5.0					2		8	DATA ACQUISITION SYSTEM	DTI	
36		NONS	12ADC	IMP OR PACE compatible 100,000 channels/sec option															
37	DT1723	NONS	12ADC												2		8	DATA ACQUISITION SYSTEM	DTI	
38		NONS	12ADC	PACE uComputer compatible;16 channels,35KHz															
39	CA-7S	OS48	12AIO	1	RS2C					5.0		-9						Combined A/D D/A BOARD	OHS	
40		OS48	12AIO	8 input channels;8 bit resolution;8 parallel I/O lines															
41	CA-11	OS48	12DPY							5.0								VIDEO I/F	OHS	
42		OS48	12DPY	32x64 character video display I/F w/upper and lower case graphics															
43	CA-10X	OS48	21SRI	16	RS2C					5.0		-9							OHS	
44		OS48	21SRI	2 to 16 ports at (75 to 19.2K)band w/synchronous or RS-232 option															
45	R24	PROP	11MOD							5.0		12			1	16	8	MODEM	RKW	5PR003
46		PROP	11MOD	Synch-serial 2400 bps DPSK modem using X-mitter differential PM and															
47		PROP	11MOD	recvr coherent phase detect w/HDPLX,FDPLX, and simplex modes;															
48		PROP	11MOD	compatible w/CCITT U.26 and LSTTL/CMOS digital I/F															
49▼	145-2071	PROP	12ADC			2	12			5.0	1.5m	15	22m	3	16	8	Analog Input Card	DIV	5PR022
50▼		PROP	12ADC	16-SE,16-pseudo-differential,or 8-differential analog input chs,Instr															
51▼		PROP	12ADC	amp w/prog gain;Sample-and-hold ckt;10-bit resolution;180us conversion															
52▼		PROP	12ADC	time;Mem mapped and std I/O modes;Input over volt protection;CMOS ckty															
53▼	145-2071R	PROP	12ADC			2	12			5.0	1.5m	15	22m	3	16	8	Analog Input Cardard	DIV	5PR022
54▼		PROP	12ADC	16-SE,16-pseudo-differential,or 8 differential analog input chs;Instr															
55▼		PROP	12ADC	amp w/prog gain;Sample-and-hold ckt;10-bit resolutgion;180us conversion															
56▼		PROP	12ADC	time;Memory mapped and std I/O modes;Input over volt protection;CMOS															
57▼		PROP	12ADC	circuitry;RMS converter															
58▼	145-2073	PROP	12ADC			1	12			5.0	26m	15	35m	3	16	8	Analog Output Card	DIV	5PR024
59▼		PROP	12ADC	8-Differential input channels;Instrumentation amplifier on each channel;															
60▼		PROP	12ADC	Span and offset adjustment on each channel;12-bit resolution;Memory															
61▼		PROP	12ADC	mapped operation;Built-in converter test hardware;CMOS Circuitry															
62	CDP18S648	PROP	12ADC			1	b			5.0	40m			3				A/D CONVERTER	RCA	
63		PROP	12ADC	8-bit resolution, 16SE/8DI input channels, ±2.5, or 0/2.5 V															
64	CDP18S658	PROP	12ADC			1	b			5.0	13m			3				A/D CONVERTER	RCA	
65		PROP	12ADC	8-bit resolution, 16SE/8DI input channels, 0/2.5 V															
66▼	MAD-835	PROP	12ADC		16	12	b			-10		10		2	16	16		ANALOG DATA/ACQ SYSTEM	CLI	
67▼		PROP	12ADC	16-sng/end or 8-tru/diff inpt/chn, combines 12bt-A/D-conv w/MUX system															
68	MAI01	PROP	12ADC			1	b			5.0	.60							A/D ANALOG I/F MODULE	WTK	
69		PROP	12ADC	1 SE analog input channel w/8-bit resolution, 1.8msec max A/D time															
70	MAI02	PROP	12ADC			1	b			5.0	.60							A/D ANALOG I/F MODULE	WTK	
71		PROP	12ADC	1 SE analog input channel w/12-bit resolution, 24msec max A/D time															
72	MAI03	PROP	12ADC			1	b			5.0	.60							MULTIPLEXED ANALOG A/D MOD	WTK	
73		PROP	12ADC	16 SE analog input channels w/8-bit resolution, 1.8msec max A/D time															
74	MAI04	PROP	12ADC			1	b			5.0								MULTIPLEXED ANALOG A/D MOD	WTK	
75		PROP	12ADC	16 SE analog input channels w/12-bit resolution															
76	CDP18S644	PROP	12AIO							5.0	.05				3			A/D and D/A CONVERTER	RCA	
77		PROP	12AIO	16 SE/8DI input channels, 2 independent D/A channels at 8-bit resolut															
78	CDP18S654	PROP	12AIO							5.0	15m				3			A/D and D/A CONVERTER	RCA	
79		PROP	12AIO	16SE/ 8DI input channels, 2 D/A channels; I/O volt range 0/2.5V; 8-bit															
80		PROP	12AIO	resolution															
81	MAI11	PROP	12AIO							5.0	.60							A/D D/A ANALOG I/F MODULE	WTK	
82		PROP	12AIO	1 SE analog input channels w/8-bit resolution, 1 8-bit resolution D/A															
83▼	MAS-842	PROP	12AIO			16	8	b		-10		10			16	16		DATA ACQUISITION SYSTEM	CLI	
84▼		PROP	12AIO	16 sng/end or 8 tru/Diff chn, 8-bit resolution, variable gain 1-1000 for															
85▼		PROP	12AIO	low level signal-conditioning of tri-state outputs															
86▼	MM1-A1	PROP	12AIO		16	12	b			5.0		10☑			16	16		ANALOG DATA/ACQ SYSTEM	CLI	
87▼		PROP	12AIO	32 sng/end or 16Diff/MUX-12bit-A/D inpts prog-gain 1,2,4,8, sample/hold															
88▼	MM1-AOS-4	PROP	12AIO			4	12a			2.5*		10☑	5.0m		16	16		ANALOG OUTPUT SYSTEM	CLI	
89▼		PROP	12AIO	D/A output voltage ranges; 5v,ovto5v,ovto10v, accepts optional pwr/Sply															
90▼	MM1-AOS-8	PROP	12AIO			4	12a			2.5*		10☑	5.0m		16	16		ANALOG OUTPUT SYSTEM	CLI	
91▼		PROP	12AIO	8/chan. D/A output volt/rnge 5v,0 to 5v,0vto10v, accpts DC/DC pwr/convrtr															
92▼	145-2072-1	PROP	12DAC			1	12			5.0	35m	15	29m	2	16	8	Analog Output Card	DIV	5PR023
93▼		PROP	12DAC	1-Analog Output channel;4-20mA current loop operation;Range and zero															
94▼		PROP	12DAC	adjustments for each channel;Over volt protection;Memory mapped oper															
95▼	145-2072-2	PROP	12DAC			2	12			5.0	35m	15	29m	2	16	8	Analog Output Card	DIV	5PR023
96▼		PROP	12DAC	2-Analog Output channels;4-20mA current loop operation;Range and zero															
97▼		PROP	12DAC	adjustments for each channel;Over volt protection on each output;Memory															
98▼		PROP	12DAC	mapped operation;CMOS circuitry															
99▼	145-2072-4	PROP	12DAC			4	12			5.0	35m	15	29m	2	16	8	Analog Output Card	DIV	5PR023
100▼		PROP	12DAC	4-Analog Output Channels;4-20mA current loop operation;Range and zero															
101▼		PROP	12DAC	adjustments for each channel;Over volt protection on each output;Memory															
102▼		PROP	12DAC	mapped operation;CMOS Circuitry															
103	CDP18S642	PROP	12DAC			2	a			5.0	24m	15	43m	2				D/A CONVERTER	RCA	5PR001
104		PROP	12DAC	12/8 bit resolution, bipolar/unipolar voltage output, current output															
105	CDP18S643	PROP	12DAC			1	b											A/D CONVERTER	RCA	5PR002
106		PROP	12DAC	12/8 bit resolution w/ 8DI/16SE analog input channels															
107	CDP18S647	PROP	12DAC			2	a			5.0	22m			3				D/A CONVERTER	RCA	
108		PROP	12DAC	8-bit resolution, 2 D/A channels; settling time 15 usec															
109	CDP18S657	PROP	12DAC			2	a			5.0	9.0m			3				D/A CONVERTER	RCA	
110		PROP	12DAC	8-bit resolution, 2 D/A channels; 0/2.5 V range; settling time 15usec															

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1	MAI10	PROP	12DAC			1	a			5.0	.60						D/A ANALOG I/F MODULE	WTK	
2		PROP	12DAC	1 8-bit resolution D/A output channel															
3	MAI20	PROP	12DAC			2	a			5.0	.60						D/A ANALOG I/F MODULE	WTK	
4		PROP	12DAC	2 8-bit resoltuion D/A output channel															
5▼	MDA-836-1	PROP	12DAC		5	12a				10		5.0		2	16	16	ANALOG OUTPUT SYSTEM	CLI	
6▼		PROP	12DAC	12 bit-resolution,D/A w/3 selectable outputs incl. hold/latch/output															
7▼	MDA-836-2	PROP	12DAC		5	12a				10		5.0		2	16	16	ANALOG OUTPUT SYSTEM	CLI	
8▼		PROP	12DAC	double output including hold/latch/output, 12-bit resolution															
9	CDP18S661	PROP	12DPY		1												VIDEO/AUDIO/KEYBOARD I/F	RCA	
10		PROP	12DPY	RCA VIDEO I/F system: 40 char per line x 24 lines; or 20x12 program															
11		PROP	12DPY	color/B-W program; keyboard parallel port incl; Audio: 8 octaves															
12	CDP18S661A	PROP	12DPY				2.0k			5.0	27m		2				VIDEO/AUDIO/KEYBOARD I/F	RCA	
13		PROP	12DPY	VIDEO I/F w/NTSC video signal; on-board page/character MEM; 8 program															
14	CDP18S661V3	PROP	12DPY		1		2.0k			5.0	10m		2				VIDEO/AUDIO/KEYBOARD I/F	RCA	
15		PROP	12DPY	VIDEO I/F w/PAL video signal; on-board page/character MEM; 8 program															
16		PROP	12DPY	colors;pprallee inpuu porttfor eyboord															
17▼	145-2076	PROP	12MIS	1 12						5.0	0.3m	15	23m	3	16	8	RTD Input Card	DIV	SPR018
18▼		PROP	12MIS	8-RTD input channels;handles wire 100Ω RTDs;Up to 1120°F usable range															
19▼		PROP	12MIS	Self calibration;Switch selectable range and zero values;On-board															
20▼		PROP	12MIS	excitation-precision current source;CMOS circuitry															
21▼	CINCH	PROP	12SMS	2 RS2C	32	12 b		4k	36k	10		5.0		2	16	16	INTELLIGENT DATA/ACQ CONTL	CLI	
22▼		PROP	12SMS	Z80 micro/comp provides analog and digital I/O w/2-RS232C communication															
23▼		PROP	12SMS	interface,IEEE-488 inst/intfce A/D conv, 16 diff/32sng-end inpts,12bt/															
24▼		PROP	12SMS	floating point processor,32-A/D or 4/8-D/A chn,16k-EPROM,4/16k RAM,															
25▼		PROP	12SMS	NVRAM and 4-20mA I/O converters															
26▼	145-2023DN	PROP	21DIO							5.0	50m	12	33m	2	16	8	RS-232C Serial I/O	DIV	5PR019
27▼		PROP	21DIO	Two completely independent serial I/O interfaces;Switch Selectable baud															
28▼		PROP	21DIO	rates from 50 to 19.2kbps;configurable as data terminal or data comm															
29▼		PROP	21DIO	equipment interface;software prog UART control;Strap Selectable I/O															
30▼		PROP	21DIO	addressing;CMOS circuitry															
31▼	145-2023DNT	PROP	21DIO	2 RS2C						5.0	50m	12	33m	3	16	8	RS-232C Serial I/O	DIV	5PR019
32▼		PROP	21DIO	Two completely independent serial I/O interfaces;switch selectable baud															
33▼		PROP	21DIO	rates from 50 to 19.2kBPS;Configurable as data terminal or data comm															
34▼		PROP	21DIO	equipment interface;software prog UART control;strap selectable I/O															
35▼		PROP	21DIO	addressing;CMOS Circuitry															
36▼	145-2023SN	PROP	21DIO	1 RS2C						5.0	50m	12	33m	2	16	8	RS-232C Serial I/O	DIV	5PR019
37▼		PROP	21DIO	Single RS-232 Serial I/O;Switch selectable baud rates from 50 to 19.2kbps															
38▼		PROP	21DIO	configurable as data terminal or data communication equipment															
39▼		PROP	21DIO	interface;Software programmable UART Control;Strap selectable I/O															
40▼		PROP	21DIO	Addressing;CMOS circuitry															
41▼	145-2023SNT	PROP	21DIO	1 RS2C						5.0	50m	12	33m	3	16	8	RS-232C Serial I/O	DIV	5PR019
42▼		PROP	21DIO	Single RS-232 Serial I/O;Switch selectable baud rates from 50 to 19.2k-															
43▼		PROP	21DIO	bps;configurable as data terminal or data communication equipment															
44▼		PROP	21DIO	interface;software programmable UART control;strap selectable I/O															
45▼		PROP	21DIO	addressing;CMOS circuitry															
46	CDP18S640	PROP	21DPY					256	2.0k	5.0	.35			2			CONTROL/DISPLAY MODULE	RCA	
47		PROP	21DPY	Includes 4 control sw s: RESET, RUN, PROGRAM, RUN UTILITY, STEP-															
48		PROP	21DPY	CONTINOUS, 6 hex digit display(LED);utility ROM onboard															
49▼	MEE-888	PROP	21IOM			2	8 o		256 w	5.0	850m				16	16	GEN. PURPOSE INTERFACE BUS	CLI	5 R013
50▼		PROP	21IOM	two pre-prog-PROMS on board,card fitsin any M-series memory slot															
51▼	MIV-843	PROP	21IOM	16 20cl						1.0*		5.0☑			16	16	4-20ma INPUT CARD	CLI	5PR010
52▼		PROP	21IOM	2-25pin DB-25A connectors for interface w/Data acquisition system															
53▼	MVI-844	PROP	21IOM	2 20CL	2	12 o				15	7.0m	-15	3.0m		16	16	VOLTAGE to CURRENT CONVRTR	CLI	5PR012
54▼		PROP	21IOM	volts between I/Ip out and common should not exceed 10v lenearity-loss															
55	CDP18S508	PROP	21SRI	1 RS2Y													UART I/F MODULE	RCA	
56		PROP	21SRI	Designed for 18S005 development system; 110/19.2K baud sw-select															
57	CDP18S641	PROP	21SRI	1 RS2X						5.0				2			UART INTERFACE MODULE	RCA	
58		PROP	21SRI	SW-SELECT-baud rate:(110 to 19.2k)baud in 6 steps; paper-tape run ctl															
59▼	MM1-OPT	PROP	21SRI	4 RS2C	4	8 j				12		5.0			16	16	OPTIONS BOARD	CLI	5PR006
60▼		PROP	21SRI	3-Options; peal time clock, serial interface, 32bit/TTL-I/O, 4/8b-pIII/O															
61	MS102	PROP	21SRI	2 RS2C						5.0		12					SERIAL I/O MODULE	WTK	
62		PROP	21SRI	Asynch serial I/O ports w/ x-tal ctl sw-select rates: (150/9.6K)baud															
63	MS104	PROP	21SRI	4 RS2C						5.0		12					SERIAL I/O MODULE	WTK	
64		PROP	21SRI	Asynch serial I/O ports w/ x-tal ctl sw-select rates: (150/9.6K) baud															
65	MS106	PROP	21SRI	6 RS2C						5.0		12					SERIAL I/O MODULE	WTK	
66		PROP	21SRI	Asynch serial I/O ports w/ x-tal ctl,sw-select rates: (150/9.6K)baud															
67	MS108	PROP	21SRI	8 RS2C						5.0		12					SERIAL I/O MODULE	WTK	
68		PROP	21SRI	Asynch serial I/O ports w/ x-tal ctl sw-select rates: (150/9.6K)baud															
69	RM65-5451	PROP	21SRI	2 RS2C						5.0	.40	12		2	16	8	ASYNCH COMMO I/F ADAPTER	RKW	5PR004
70		PROP	21SRI	ACIA interfaces 2 independent Asynch-serial I/O channels to system															
71		PROP	21SRI	65 uC bus;includes buffer lines,on board X-tal ref freq,program															
72		PROP	21SRI	baud rates; (50/19.2k)baud in 15 steps															
73	RM65-5451E	PROP	21SRi	RS2C													ASYNCH COMMO I/F ADAPTER	RKW	5PR004
74		PROP	21SRI	Eurocard version of RM65-5451															
75	600/8EDA-XX01-4	PROP	22DAC			1	12			5.0	1.2			1			Digital to analog system	ADA	5PR005
76		PROP	22DAC	Similar to 600/11DA-XX01-4 but these boards interfacing OMIBUS															
77▼	LBI-511	PROP	22DIO			6	4 j			5.0	200m				16	16	BUSS PORT CIRCUIT BOARD	CLI	SPR009
78▼		PROP	22DIO	24single inputs, tri-state, TTL or DTL logic, one control line per gate															
79▼	LDD-533	PROP	22DIO			16	8 o			5.0	115m				16	16	DIVICE ADDRES DECODER	CLI	5PR015
80▼		PROP	22DIO	intrnl/decode, accessable to user-four dual NOR inpts, w/inverter															
81▼		PROP	22DIO	one buffered inpt. and control per/TTL load, w/non-inverting latches															
82	MGP00	PROP	22IOM							5.0	1.0						488 I/F MODULE	WTK	
83		PROP	22IOM	Compatible w/ IEEE 488 std instrumentation bus; functions as a listener															
84		PROP	22IOM	talker, or controller; 45 kbyte/sec max x-fer rate															
85▼	MAS-839	PROP	22MUL			16	12 j			15	45m	5.0	350m		16	16	16-CH DATA/ACQ SYSTEM	CLI	5PR017
86▼		PROP	22MUL	consists of 2-8ch/mux, true-differential-inst/amp,sample/hold amp,															
87▼		PROP	22MUL	A/D converter, mux address, logic control circuits, 10v analog range															
88▼		PROP	22MUL	w/jumper T52 for random or sequential modes of operation															
89▼	145-2068	PROP	22OIS			2	16			5.0	160m			3	16	8	Binary Input Card	DIV	5PR020
90▼		PROP	22OIS	16 optically isolated inputs;memory mapped operation;stat															
91▼		PROP	22OIS	contact closure or open-collector inputs;over voltage and over current															
92▼		PROP	22OIS	input protection;CMOS circuitry															
93▼	145-2069	PROP	22OIS	20		2	16			5.0	160m			3	16	8	Binary Output Card	DIV	5PR021
94▼		PROP	22OIS	16 optically isolated outputs; memory mapped operation;status indicator															
95▼		PROP	22OIS	for each output;Built-in diagnostic hardware;Open collector transistor															
96▼		PROP	22OIS	output logic;Overvoltage and short-circuit protection network;CMOS															
97	CDP18S510	PROP	22PIO			4	8.0										BYTE I/O MODULE	RCA	
98		PROP	22PIO	Designed for 18S005 development system;															
99▼	CDP18S646	PROP	22PIO			4	8.0			5.0	3.0m			3			Parallel I/O Module	RCA	
100▼		PROP	22PIO	Open collector outputs In/Output ports may be used w/Pertec type disk															
101▼		PROP	22PIO	Sysem interface, and Centronics type parallel printer interface															
102▼	CDP18S660	PROP	22PIO					2.0k	8.0k	5.0	8.0m			2			Combination MEMORY and I/O	RCA	
103		PROP	22PIO	40 I/O lines programmable as bi-directional, input or output															
104	MP102	PROP	22PIO			2	8.0			5.0							PARALLEL I/O MODULE	WTK	
105		PROP	22PIO	2 Programmable ctl lines/port; 15 TTL loads per output I/O line															
106	MP104	PROP	22PIO			4	8.0			5.0							PARALLEL I/O MODULE	WTK	
107		PROP	22PIO	2 programmable ctl lines/port; 15 TTL loads per output I/O line															
108	MP106	PROP	22PIO			6	8.0			5.0							PARALLEL I/O MODULE	WTK	
109		PROP	22PIO	2 programmable ctl lines/port; 15 TTL loads per output I/O line															
110▼	RM65-5222	RM65	22IOM			4	8.0			5.0	.94			2	16	8	General Purpose I/O Module	RKW	6RM001

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼		RM65	22IOM	Parallel I/O interface and timer module;4 programmable timers 40 I/O															
2▼		RM65	22IOM	lines;2 8-bit shift registers for serial communications;edge connector															
3▼		RM65	22IOM	board 4in by 6.25in															
4▼	RM65-5222E	RM65	22IOM			4	8.0			5.0	.94			2	16	8	General Purpose I/O Module	RKW	6RM001
5▼		RM65	22IOM	Parallel I/O interface and timer module;4 programmable timers 40 I/O															
6▼		RM65	22IOM	lines;2 8-bit shift registers for serial communications;Eurocard board															
7▼		RM65	22IOM	100mm by 160mm															
8▼	RM65-7102	RM65	22IOM			2	8.0			5.0	1.0			2	16	8	IEEE-488 Bus I/F Module	RKW	5RM002
9▼		RM65	22IOM	General purpose bus I/F as defined in the IEEE-488 standard;complete															
10▼		RM65	22IOM	Controller,Talker and listener functions uses 9914 adapter;on-board															
11▼		RM65	22IOM	firmware implements all functions specified in IEEE-488;Edge-conn card															
12▼	RM65-7102E	RM65	22IOM			2	8.0			5.0	1.0			2	16	8	IEEE-488 Bus I/F Module	RKW	5RM002
13▼		RM65	22IOM	General purpose bus I/F as defined in the IEEE-488 Bus I/F Module;															
14▼		RM65	22IOM	complete controller, talker and listen															
15▼		RM65	30ADA	edge connector card 4in by 6.25in;On-board 1.8432MHz frequency Ref															
16▼		RM65	30ADA	parallel and parallel to serial data conversions;features programmable															
17▼		RM65	30ADA	baud rates from 50 to 19.2k baud in 15 steps;programmable word length															
18▼		RM65	30ADA	Eurocard version card size 100mm by 160mm;On-board 1.8432 freq ref															
19	MK78192	SDE	21SRI	4	RS2C					12	.12	5.0	1.2	1	16	8	SERIAL I/O MODULE	MOS	5SD001
20		SDE	21SRI	DTE or DCE, asynch-synch I/O, 2 full DPLX channel at 75 to 38.4 KPBS															
21#	SMP-E230	SMP	12ADC							5.0	.40	15	.60	1	16	8	ANALOG INPUT BOARD	SIEG	
22#		SMP	12ADC	Analog input w/16 SE/8 DI channels;neg/pos ranges;															
23#	SMP-E240	SMP	12DAC											1	16	8	ANALOG OUTPUT BOARD	SIEG	
24#		SMP	12DAC	Analog output w/4 channels out;1 shared D/A converter															
25▼#	SMP-E233	SMP	12PIO			16	12			5.0	400m	15			16	8	Parallel I/O	SIEG	
26▼#		SMP	12PIO	Analog input with 16 channels;galvanic separation by optocouplers															
27▼#	SMP-E242	SMP	12PIO			4	8.0			5.0	360m	15			16	8	Parallel I/O	SIEG	
28▼#		SMP	12PIO	Analog output with 4 channels;galvanic separation by optocouplers															
29▼#	SMP-E243	SMP	12PIO			2	12			5.0		15			16	8	Parallel I/O	SIEG	
30▼#		SMP	12PIO	Analog output with 2 channels;galvanic separation by optocouplers															
31#	SMP-E220	SMP	21SRI	2	20CL					5.0	.45	12	.16	1	16	8	SERIAL I/O BOARD	SIEG	
32#		SMP	21SRI	Serial I/O w/2 channels:synch/asynch x-fer at (50-19.2k)baud															
33▼#	SMP-E308	SMP	22MIS							5.0	620m				16	8	IEC BUS TALKER/LISTENER IF	SIEG	
34▼#		SMP	22MIS	Implementation of the IEC BUS interface function of talk and listen															
35▼#		SMP	22MIS	(according to IEC-625);tri-state line driver,TTL level;bus controllable															
36#	SMP-E211	SMP	22OIS							5.0	.85			1	16	8	OPTICALLY ISOLATED OUTPUT	SIEG	
37#		SMP	22OIS	Parallel output w/2 channels:8 opto-isolated outputs per channel															
38#	SMP-E212	SMP	22OIS							5.0	.45			1	16	8	OPTICALLY ISOLATED INPUT	SIEG	
39#		SMP	22OIS	Parallel input w/2 channels:8 opto-isolated inputs per channel															
40#	SMP-E203	SMP	22PIO							5.0	.60			1	16	8	PARALLEL OUTPUT BOARD	SIEG	
41#		SMP	22PIO	Parallel output w/16 relays prviding electrically isolated lines out;															
42#		SMP	22PIO	status of each relay is monitored by CPU;relays are rated 0.5A/10W															
43▼#	SMP-E206▼	SMP	22PIO							5.0	.50			1	16	8	PARALLEL OUTPUT BOARD	SIEG	
44#		SMP	22PIO	Parallel output w/16 relays providing electrically isolated lines out															
45#		SMP	22PIO	via 16 relays rated at 3A/90W															
46#	SMP-E207	SMP	22PIO							5.0	.70			1	16	8	PARALLEL OUTPUT BOARD	SIEG	
47#		SMP	22PIO	24 Relay version of SMP-E203															
48#	SMP-E200	SMP	22PRO			12				5.0	.36			1	16	8	PARALLEL I/O BOARD	SIEG	
49#		SMP	22PRO	Programm I/O card w/72 TTL compatible lines,compatible w/SMP bus															
50#	AD1600	STAD	ADC			1	16			5.0					16	16	ANALOG TO DIGITAL MODULE	GICB	5SA003
51#		STAD	ADC	12 bit A/D,±10V in,Throughput 25KHz std, 35-50 or 100KHz options															
52#	DA1600	STAD	DAC			4	1a			5.0					16	16	DIGITAL/ANALOG MODULE	GICB	5SA001
53#		STAD	DAC	4 independent 12 bit (2s complement) D/A,±10V,Addressable out															
54#	GP1600	STAD	IOM			2	16							1	16	16	GENERAL PURPOSE INTERFACE	GICB	5SA004
55#		STAD	IOM	(2) 16 bit addressable input/2 output ports, 2 status regs															
56#		STAD	IOM	addressable,Interrupt capab,Space for wire wrapping and sockets															
57#	AX1600	STAD	MIS	1	RS23	2	16		4k						16	16	AUXILLIARY MODULE	GICB	5SA002
58#		STAD	MIS	RS232 or 20ma loop SIO, 110-9600 baud selectable, 16 bit imput port															
59#		STAD	MIS	16 bit latched output port,Auto start up,Interrupt circuitry															
60▼	STD-SVC1	STD	AIO	1						5.0	.07	12	.03	2	16	8	Servo Valve Controller	BAPC	5ST008
61▼		STD	AIO	Uses DAV-08 and REF-01 to control M00G 62 Servo Value;One I/O port;															
62▼		STD	AIO	On-board feedback;Error and servo amps;span,offset adjust															
63▼	STD-CAM1	STD	DIO	1						5.0	.25			2	16	8	Reticon Camera I/F	BAPC	5ST007
64▼		STD	DIO	Pre-processes camera data to locate single object in field-view															
65▼		STD	DIO	Front/back lighted-jumper sel;Mode 2 interrupts															
66▼	STD-CPIO▼	STD	PIO			3	8.0			5.0	.05			3	16	8	CMOS Parallel Module I/O	BAPC	5ST009
67▼		STD	PIO	24 Bidirectional I/O for Opto 22 modules ,20mA 30 Volt in and out															
68▼		STD	PIO	On board interrupt logic,TTL Compatable															
69▼	STD-CSIO▼	STD	SRI	2	RS2C					5.0	.01	12	.03	3	16	8	CMOS Dual RS232 Serial I/O	BAPC	5ST101
70▼		STD	SRI	Uses two 6402 UARTS,Software compatable with 8251A;50-9600 baud															
71▼		STD	SRI	DTE/DCE Configuration;TTL,Z80/8085 Compatable															
72	DT2722	STD	12ADC							5.0	.75☑	12	.10		16	8	ANALOG INPUT SYSTEM	DTI	5ST006
73		STD	12ADC	MOSTEK STD Z-80 compatible; 12 bit analog input and A/D conversion															
74	DT2724	STD	12ADC							5.0	.75☑				16	8	ANALOG INPUT SYSTEM	DTI	
75		STD	12ADC	Wide range Z-80 compatible w/ 16 single-ended or 8 DI channels															
76	DT2725	STD	12ADC							5.0	.75☑	12	.10	2	16	8	ANALOG INPUT SYSTEM	DTI	
77		STD	12ADC	Four DI channels w/ wide range analog input capability															
78	DT2726	STD	12ADC							5.0	.40☑	12	.04	2	16	8	ANALOG OUTPUT SYSTEM	DTI	
79		STD	12ADC	STD-BUS compability; 4 D/A channels at 12 bit resolution															
80	MP4216	STD	12ADC							5.0	.45	15	45m	2	16	8	ANALOG INPUT SYSTEM	BUB	
81		STD	12ADC	Design for PRO-LOG uC;16DI analog-in channels;8-bits resolution															
82▼	RTI-1220-8	STD	12AIO		16	b				5.0	0.6	15	30m	2			ANALOG I/O SUBSYSTEM	ANA	
83▼		STD	12AIO	4-20ma current/loop input,sample/hold-amp, 8-bit A/D converter															
84▼	RTI-1220-12	STD	12AIO		16	b				5.0	0.6	15	30m	2			ANALOG I/O SYBSYSTEM	ANA	
85▼		STD	12AIO	4-20ma current-input w/ analog input and 12 bit A/D converter															
86▼	RTI-1221-8	STD	12AIO							5.0	0.6	15	30m	2			ANALOG I/O SUBSYSTEM	ANA	
87▼		STD	12AIO	44channel output, 10bit-DACS having 8bit accuracy, full 4-quadrant DACS															
88▼	RTI-1221-10	STD	12AIO							5.0	0.6	15	30m	2			ANALOG I/O SUBSYSTEM	ANA	
89▼		STD	12AIO	44channel output w/four 10bit DACS having 10-bit accuracy															
90▼	RTI-1225	STD	12AIO		18	b				5.0	750m			1	16	8	ANALOG I/O SUBSYSTEM	ANA	
91▼		STD	12AIO	16 channel of analog input and 2 channel of analog output, monolithic															
92▼		STD	12AIO	10 bit ADC differential/single ended inputs															
93	DT2727	STD	12DAC							5.0	.40☑	12	.04	2	16	8	ANALOG OUTPUT SYSTEM	DTI	
94		STD	12DAC	STD-BUS compatible w/ 4 D/A channels at 8 bit resolution															
95	MP4102	STD	12DAC							5.0	.18			2	16	8	ANALOG OUTPUT SYSTEM	BUB	
96		STD	12DAC	Design for PRO-LOG uC;analog-out channels;8-bits resolution															
97	7503	STD	12OIS			1	8.0			5.0	.25			1	16	8	OPTOISOLATED INPUT CARD	PRO	5SD004
98		STD	12OIS	Eight independent AC/DC/ inputs; independent LO/HI range selection															
99	7504-1	STD	12OIS			1	8.0a			5.0	.50			1	16	8	TRIAC OUTPUT CARD	PRO	5SD003
100		STD	12OIS	Eight Triac SSR contnolledeby d coded 8 b t ouoptt toro; zero-cross															
101		STD	12OIS	PWR switching; on card LED Triac status display															
102	7506	STD	12OIS			1	8.0a			5.0	.25			1	16	8	OPTOISOLATED INPUT CARD	PRO	
103		STD	12OIS	Eight independent AC/DC inputs; LO/HI independent selectable ranges															
104	7301	STD	21SRI	2	RS2X	1	4.0			5.0	.53	-12	.20		16	8	RS-232/TTY DRIVER-RECVR	PRO	5SD011
105		STD	21SRI	RS-232C/20mA(TTY),DTT/DCE ULL-PLEXXRS232 Seceitn np po 20K baud															
106		STD	21SRI	TTY section up to 300 BAUD															
107	7304	STD	21SRI	2	RS2C	1	8.0			5.0	.66	12	.12	1	16	8	DUAL UART CARD	PRO	5SD012
108		STD	21SRI	Two independent serial channels, up to 19.2KBAUD, DTE/DCE FULL-DPLEX															
109	7507	STD	22DIO			3	8.0			5.0	1.0				16	8	GENERAL PURPOSE INTERFACE	PRO	5SD002
110		STD	22DIO	Interfaces the STD BUS to OPTO-22 Corp STD I/O-MODULE mounting rack;															

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1		STD	22DIO	Controls up to 24 I/O modules on the mounting rack															
2	7501	STD	22PIO	16		2	8.0 o			5.2	1.0			1	16	8	MEDIUM POWER DC DRIVER	PRO	5SD006
3		STD	22PIO	Provides 16 independent DC output circuits; 225 mA sink rate per circuit															
4	7502	STD	22PIO			1	8.0 o			5.0	.40			1	16	8	SPST RELAY OUTPUT CARD	PRO	5SD005
5		STD	22PIO	Eight independent SPST dry reed relays; on card LED display															
6	7601	STD	22PIO			8	8.0			5.0	.48				16	8	TTL I/O PORT CARD	PRO	5SD010
7		STD	22PIO	I/O port lines accessed at 16-pin DIP sockets; I/O lines are TTL															
8	7602	STD	22PIO			8	8.0 o			5.0	.32				16	8	TTL OUTPUT PORT CARD	PRO	5SD009
9		STD	22PIO	Output port lines accessed at 16-pin DIP sockets; 5 TTL loads fanout per															
10		STD	22PIO	pine ine															
11	7603	STD	22PIO			8	8.0 j			5.0	.52				16	8	TTL INPUT PORT CARD	PRO	5SD008
12		STD	22PIO	Input port lines accessed at 16-pin DIP sockets; 4 low-pwr Schottky TTL															
13		STD	22PIO	loads fan-in per line, input buffers have 200MV hysteresis															
14	7604	STD	22PIO			8	8.0			5.0	.70				16	8	TTL CONFIGURABLE I/O CARD	PRO	5SD007
15		STD	22PIO	8 Ports configured as input/output or output w/readback; 4 TTL loads															
16		STD	22PIO	per input line															
17	7605	STD	22PIO			4	8.0			5.0	.80				16	8	PROGRAMMABLE TTL I/O CARD	PRO	
18		STD	22PIO	Programmable ports either input, output or output w/readback; 14 LSTTL															
19		STD	22PIO	loads/line in, 50 LSTTL loads/line out; universal uProcessor compatible															
20	7303	STD	30DPY			1	8.0			5.0	.60			1	16	8	DISPLAY/KEYBOARD CARD	PRO	
21		STD	30DPY	Eight-position alpha-num display w/ASCII coded input; 8 bit BIN LED															
22		STD	30DPY	display, on card I/O ports Also see Section 4															
23	MK77653	STDZ	12ADC			1	8 o			12	.03	5.0	600m	1	16	8	ANALOG INPUT BOARD	MOS	
24		STDZ	12ADC	16 single-end input channels, 8 bit resolution 2.5MHz; MD Series															
25	MK77655-0	STDZ	12ADC							5.0	.50	12	75m	1	16	8	ANALOG TO DIGITAL MODULE	MOS	
26		STDZ	12ADC	12 bit A/D, 16 single-end input channels, high level, expandable input															
27	MK77669-0	STDZ	12ADC							5.0	.60			1	16	8	ANALOG TO DIGITAL MODULE	MOS	
28		STDZ	12ADC	8 bit A to D with 16 single-end analog inputs 0 to 5 volts input range															
29	MK78177-26	STDZ	12ADC			1	8 o			5.0	2.0			2	16	8	ANALOG INPUT BOARD	MOS	
30		STDZ	12ADC	Wide range isol analog input with 4 diff input channels 12 bit resolut															
31▼	MK776534	STDZ	12ADC			1	8 o			12	.03	5.0	600m	1	16	8	ANALOG INPUT BOARD	MOS	
32▼		STDZ	12ADC	4 MHz version of MK77653															
33	MK77654	STDZ	12AIO							5.0	.75				16	8	ANALOG DATA ACQUISITION	MOS	5ST001
34		STDZ	12AIO	16 single-end analog inputs plus 2 analog output channels 10 bit A/D															
35	MK78172-42	STDZ	12AIO			1	8			5.0	2.0			2	16	8	ANALOG INPUT-OUTPUT BOARD	MOS	5ST004
36		STDZ	12AIO	16 sngl-end analog input channels at 35KHz thruput,high level input rge															
37	MK78172-56	STDZ	12AIO			1	8			5.0	2.0			2	16	8	ANALOG INPUT-OUTPUT BOARD	MOS	5ST004
38		STDZ	12AIO	32 Diff analog in channels at 35KHz thruput, high level input range															
39	MK78175-40	STDZ	12AIO			1	8			5.0	2.0			2	16	8	ANALOG INPUT-OUTPUT BOARD	MOS	
40		STDZ	12AIO	Low level, non-isolated input at 31KHz and 12 bit resolution															
41	MK77665-0	STDZ	12DAC							5.0	.55			1	16	8	DIGITAL TO ANALOG MODULE	MOS	
42		STDZ	12DAC	12 bit D/A, 4 independent channels, user select output ranges															
43	MK77666-0	STDZ	12DAC							5.0	.55	15	50m	1	16	8	DIGITAL TO ANALOG MODULE	MOS	
44		STDZ	12DAC	8 bit D/A, 4 independent channels, output ranges user selectable															
45	MK77651-0	STDZ	21SRI	2	20CL					12	.07	5.0	650m	1	16	8	SERIAL I/O MODULE	MOS	5ST003
46		STDZ	21SRI	Two independent full-duplex channels,asynch-synchronous opr,2.5MHz CLK															
47	MK77651-4	STDZ	21SRI	2	20CL					12	.07	5.0	650m	1	16	8	SERIAL I/O MODULE	MOS	5ST003
48		STDZ	21SRI	4.0MHz version of MK77651-0															
49	MK77753-0	STDZ	21SRI	1	RS2C			10k		12	.05	5.0	1.2	1	16	8	EPROM-UART MODULE	MOS	5ST005
50		STDZ	21SRI	RS-232 plus 20mA interface, baud-rate generator (110-19200 Baud)															
51	MK77753-4	STDZ	21SRI	1	RS2C			10k		12	.05	5.0	1.2	1	16	8	EPROM-UART MODULE	MOS	5ST005
52		STDZ	21SRI	RS-232 plus 20mA interface, 4MHz version of MK77753, selectable address															
53	MK77650-0	STDZ	22PIO			4	8 o			5.0	1.1			1	16	8	PARALLEL I/O CONTROLLER BD	MOS	5ST002
54	MK78110	STDZ	22PIO			4	8 o	65k		5.0	1.1	12	200m	1	16	8	COMB MEMORY-I/O BOARD	MOS	
55		STDZ	22PIO	Up to 65K RAM plus PIO I/O port capability each port fully buffered and															
56		STDZ	22PIO	has two handshake lines per I/O port, for MEM specs see Sect 3 (MK78110)															
57	AIB	S100	12AIO			1	8								16	8	Analog interface board	VGI	
58		S100	12AIO	4 A/D channels,8-bit digital port w/latched strobe can be used as key-															
59		S100	12AIO	board input port,resolution:16-1024 counts-software determined															
60	D/7A	S100	12AIO			1	8			8.0	400m	18	30m	1			ANALOG INTERFACE	CRO	5S1001
61		S100	12AIO	7 chan A to D/D to A, direct plug to CROMEMCO uC, 5.5 usec convert time															
62	PAIB	S100	12AIO		10					8.0	200m	16	40m		16	8	Precision analog board	VGI	
63		S100	12AIO	12-bits resolution,360us for full 12-bit conversion,8-input channels															
64		S100	12AIO	2-output channels,1-input and 5 output control ports															
65	CGI	S100	12DPY														TV DAZZLER CARDS	CRO	
66		S100	12DPY	Maps MEM onto color TV CRT 6 colors plus black and white 2 card slots,															
67		S100	12DPY	DMA at 1 megabyte/sec, requires minimum of 512 BYTES															
68	SDI	S100	12DPY			3a								1	16	8	COLOR GRAPHICS INTERFACE	CRO	
69		S100	12DPY	Nybble or bitmapped, high resolution up to 756x484 points, 16 colors															
70		S100	12DPY	48K of MEM required for high resol; 12K for low resol (378x242) pts															
71	MPC-4	S100	21MUL	4				1k	2k						16	8	Multi-port communicatoro	SDS	
72		S100	21MUL	On-board Z80 cpu.A real time clock.Programmable baud rate for individual															
73		S100	21MUL	Terminals.Two DARTs.4 buffered serial I/O ports-FIFO buffers. Four CTC															
74	4PIO	S100	22PIO			4	8			8.0	2.3			1	16	8	PARALLEL INTERFACE CARD	CRO	
75		S100	22PIO	Switch-select, parallel I-face w/24 opto-isol input(16 output) channel															
76	8PIO	S100	22PIO			8	8			8.0	1.5			1	16	8	PARALLEL INTERFACE CARD	CRO	
77		S100	22PIO	Status flag grouping, 8 sense switches, 2 bits opto-isol input															
78	IO2	S100	22PIO			2	8.0			8.0	.30				16	8	PARALLEL I/O BOARD	SSM	
79		S100	22PIO	PIO board w/1-input and 1-output port(256 port address)9 IC s															
80		S100	22PIO	prototyping area															
81	PRI	S100	22PRT			2				8.0	700m			1	16	8	PRINTER INTERFACE	CRO	
82		S100	22PRT	Printer interface either dot-matrix or full letters															
83	IO4-2	S100	30DIO	2	RS2Y	4				8.0	.95	16	.60		16	8	PARALLEL/SERIAL I/O BOARD	SSM	
84		S100	30DIO	Serial I/F (55/9600)baud;parallel I/F:latch type--8212															
85	TRT	S100	30DIO	2		2				8.0	1.0	18	80m	1			DIGITAL INTERFACE	CRO	
86		S100	30DIO	Serial plus parallel interface capability, 110 to 76.8 KBAUD															
87	BSIOB	S100	30IOM	1	RS2y	2	8								16	8	Bitstreamer I/O board	VGI	
88		S100	30IOM	2 input/2 output parallel ports/2 control lines,serial port operates at															
89		S100	30IOM	110 to 9600 baud,using 8251 programmable USART for controller															
90▼	RTI-1240-R	TM90	12AIO				b			5.0	1.1	15	40m	2	20	16	ANALOG INPUT SUBSYSTEM	ANA	
91▼		TM90	12AIO	Input board with resistor programmable gain amplifier															
92▼	RTI-1240-S	TM90	12AIO				b			5.0	1.1	15	40m	2	20	16	ANALOG INPUT SUBSYSTEM	ANA	
93▼		TM90	12AIO	Input board with software programmable gain amplifier															
94▼	RTI-1241-R	TM90	12AIO				b			5.0	1.1	15	50m	2	20	16	COMBINATION ANALOG I/O	ANA	
95▼		TM90	12AIO	Inp/out-brd with resistor programmable gain amplifier															
96▼	RTI-1241-S	TM90	12AIO				b			5.0	1.1	15	50m	2	20	16	COMBINATION ANALOG I/O	ANA	
97▼		TM90	12AIO	I/O board with software programmable gain amplifier															
98▼	RTI-1242	TM90	12AIO				b			5.0	900m	15	45m	2	20	16	OUTPUT SUBSYSTEMS	ANA	
99▼		TM90	12AIO	Output board with four digital to analog converters															
100	TM990-1240R	TM90	12AIO							5.0	1.4				20	16	ANALOG I/O SUBSYSTEMS	TII	5TM002
101		TM90	12AIO	Memory mapped I/O interface,12 bit resolution and accuracy,8 latched dr															
102	TM990-1241R	TM90	12AIO	4	20CL					5.0	1.5				20	16	ANALOG COMBINATION I/O INF	TII	5TM002
103		TM90	12AIO	Like TM990-1240R plus 2 channels of 12 bit analog output,±10V anal outp															
104	TM990-1241S	TM90	12AIO	4	20CL					5.0	1.5				20	16	ANALOG COMBINATION I/O INF	TII	5TM002
105		TM90	12AIO	Like TM990-1241R plus for software programmable, SW Break-Before-Make															
106	TM990-1243	TM90	12AIO			8	12			5.0	1.6				20	16	ANALOG OUTPUT SUBSYSTEMS	TII	5TM002
107		TM90	12AIO	8 channels of 12-bit analog output,8 high current logic driver outputs															
108	TM990-305	TM90	12IOM			16		16k	32k	5.0	1.5	2	0.6		20	16	COMBINATION MEMORY AND I/O	TII	
109		TM90	12IOM	Refer to Sec 3.Optically isolated I/O,Fit TM990-510 or TM990-520															
110▼	MIKUL902	TM90	21SRI	10	RS2C					5.0	2.0	12	200m	2	20	16	10 Chanel Async Serial I/O	TLI	5TM008

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼		TM90	21SRI	Contains 10 individual serial parts w/9902 ACC(Asynchronous Communica-															
2▼		TM90	21SRI	tions controller;the ACC is programmable for 1,1.5,2.0 stop bits															
3▼	TM990-307	TM90	21SRI	4	RS2C	1				5.0	.75	12	.08	2	20	16	Communication Expander	TII	5TM003
4▼		TM90	21SRI	Four serial RS-232C EIA ports,with 38K baud max(programmable)															
5▼	TM990-308	TM90	21SRI	1	RS2C					5.0	1.1	12	.20	2	20	16	Industrial Comm Module	TII	5TM004
6▼		TM90	21SRI	Intelligent slave on 990 bus provides I/F logic for serial communication															
7▼		TM90	21SRI	between 2 or more 990 systems features jumper select baud rates 9.6K max															
8▼	MIKUL991	TM90	22DIO		16	8.0				5.0	500m			2	20	16	32 input/96 output I/O	TLI	5TM009
9▼		TM90	22DIO	The 32 inputs is composed of 4input multiplexers,and the 96 outputs are															
10▼		TM90	22DIO	composed of 12 output addressable latches controlled by appropriate logic															
11▼	MIKUL993	TM90	22DPY			6.0kw				5.0	1.6			2	20	16	CRT Display Interface	TLI	5TM010
12▼		TM90	22DPY	Contains video display generator,video modulator,6kx16-bit static RAM															
13▼		TM90	22DPY	array,bus interface w/control logic; eleven display modes;RFoutput															
14	TM990-310	TM90	22IOM							5.0	0.8			2	20	16	I/O EXPANSION MODULE	TII	5TM001
15		TM90	22IOM	Max 48 I/O programmable input or output,compatible w/TM990 family cpu															
16▼	TM990-314-1	TM90	22IOP							5.0				2	20	16	IEEE-488 Interface Module	TII	5TM007
17▼		TM90	22IOP	Adapter module I/F enabling interface with general purpose I/F bus															
18	990-130	TM90	22OIS							5.0	1.3			1	20	16	ISOLATED I/O BOARD	DIF	
19		TM90	22OIS	Compatible w/TM990 uC bus;drives relays,lamps etc;contains 16 relay															
20		TM90	22OIS	ctl d contact outputs, 16 optically isolated inputs, 8 non-isolated															
21		TM90	22OIS	open collector outputs, 11 non-isolated TTL inputs															
22	990-110	TM90	22PIO							5.0	1.3	12	100m	1	20	16	COMBINED MEMORY I/O BOARD	DIF	
23		TM90	22PIO	48 I/O-Interrupt lines, 18 additional inputs (6 per 9901 chip) for															
24		TM90	22PIO	interrupt or digital input;contains 3 9901-IC s w/independent															
25		TM90	22PIO	jumpering to any of 15 bus interrupt levels; Also see Sec 3 for memory															
26▼	TM990-311	TM90	22PIO		3	16				5.0	.65			2	20	16	Buffered I/O Module	TII	5TM005
27▼		TM90	22PIO	48 Proigrammable I/O lines programmed in blocks of 8															
28	990-150	TM90	30PIO	2	RS2C	3				5.0	1.0	12	50m	1	20	16	Parallel/Serial I/O BOAD	DIF	
29		TM90	30PIO	Compatible w/TM990 uC bus; drives relays, lamps etc; 48 I/O-interrupt															
30		TM90	30PIO	lines, 18 invert/no-invert I/O-interrupt lines; 3 parallel port plus															
31		TM90	30PIO	2 serial port timers															
32▼	DAS-250A	TRI	12AIO		16	12 b				-10☑	56m	-15☑	165m	2	16	16	DATA ACQUISITION MODULE	DTL	5TR001
33▼		TRI	12AIO	250kHz thruput,double buffered gatable outputs 4,8,12,or 16 bit buses															
34▼	DAS-250B	TRI	12AIO		16	12 b				5.0☑	450m	-15☑	165m	2	16	16	DATA ACQUISITION MODULE,	DTL	5TR001
35▼		TRI	12AIO	stored open/collector input,tri-state outpt, bipolar inpt/voltage															
36▼	HDAS-8	TRI	12AIO		8	12 b				15☑		5.0☑		2	16	16	DATA ACQUISITION SYSTEM	DTL	5TR001
37▼		TRI	12AIO	hybrid-8chn/diff-inpt/chn, 12bit resolution, 50kHZ thruput, TTL/DTL-logc															
38▼	HDAS-16	TRI	12AIO		16	12 b				15☑		5.0☑		2	16	16	DATA ACQUISITION SYSTEM	DTL	5TR001
39▼		TRI	12AIO	16-sng/end-inpt, 12bit resolution, 50kHZ thruput, tri-state-TTL outputs															
40▼	MDAS-8D	TRI	12AIO		8	12 b				15☑	65m	-15☑	60m	2	16	16	MINI/MOD ACQUISITION SYSTM	DTL	5TR002
41▼		TRI	12AIO	programmable inputs: unipolar/0vto5v/0vto10v; bipolar/2.5v,5.0v,10v															
42▼		TRI	12AIO	8-differential inpt/chn, 12-bit resolution, 50kHZ thruput															
43▼	MDAS-16	TRI	12AIO		16	12 b				15☑	65m	-15☑	60m	2	16	16	MINI/MOD ACQUISITION SYSTM	DTL	5TR002
44▼		TRI	12AIO	16-sng/end-inpt/chn, inpts-programmable-unipolar/ovt05v/ovto10v															
45▼	MDXP-32	TRI	12MUX		32	b				15☑	10m	-15☑	4.0m	2	16	16	DATA ACQUISITION SYSTEM	DTL	5TR003
46▼	MDXP-32-1	TRI	12MUX		32	b				15☑	10m	-15☑	4.0m	2	16	16	DATA ACQUISITION SYSTEM	DTL	5TR004
47▼		TRI	12MUX	CMOS/MUX/input protection, 32-sng/end or 16-differential analog inpt/chn															
48▼		TRI	12MUX	32-sng/end or 16-differential analog inpt chan, expansion to256 channel															
49▼		TRI	12MUX	16-channel/MUX, 3-operating modes; free-run-sequential,trigger/seq,randm															
50▼		TRII	12MUX	contains; address counter,one address decoder, address detector, two															
51▼	DT1711DI14	UNIB	12AIO		2	14				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
52▼		UNIB	12AIO	8 Differential analog inputs;input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
53▼		UNIB	12AIO	60Hz 80dB;Linearity ±1/2LSB															
54▼	DT1711DI16	UNIB	12AIO		2	12				5.2	2.7			1	16	16	Analog I/O System	DTL	5UN002
55▼		UNIB	12AIO	16 Differential analog inputs;input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
56▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB															
57▼	DT1711DI32	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O Systems	DTI	5UN002
58▼		UNIB	12AIO	32 Differential analog inputs;input raanges ±5V,±10V,0-10V,0-5V;CMRR at															
59▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB															
60▼	DT1711DI	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
61▼		UNIB	12AIO	8 Differential analog inputs; input ranges,±5V,±10V,0-10V,0-10V,0-5V;CMRR at															
62▼		UNIB	12AIO	60Hz,74db;Linearity ±1/2LSB															
63▼	DT1711DIC	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
64▼		UNIB	12AIO	8 Differential analog inputs;input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
65▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB;100kHz throughput rate															
66▼	DT1711DIDMA	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
67▼		UNIB	12AIO	8 Differential analog inputs;input ranges,±5V,±10V,0-10V,0-5V,;CMRR at															
68▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB;Direct Memory Access															
69▼	DT1711DIPG	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
70▼		UNIB	12AIO	8 Differential analog inputs;input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
71▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB;Prog gain amp-gains of 1,2,4,and 8															
72▼	DT1711SE14	UNIB	12AIO		2	14				5.0	2.7			1	16	16	Analog I/O Systems	DTI	5UN002
73▼		UNIB	12AIO	16 Single ended analog inputs;input ranges, ±5V,±10V,0-10V,0-5V;CMRR at															
74▼		UNIB	12AIO	60Hz,80dB;Linearity ±1/2LSB															
75▼	DT1711SE32	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
76▼		UNIB	12AIO	32 Single ended analog inputs; input ranges,±5V,±10V,0-10V, 0-5V;CMRR at															
77▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB															
78▼	DT1711SE64	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
79▼		UNIB	12AIO	64 Single ended analog inputs; input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
80▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB															
81▼	DT1711SE	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
82▼		UNIB	12AIO	16 Single ended analog inputs; input ranges,±5V,±10V,0-10V,0-5V;CMRR aT															
83▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB															
84▼	DT1711SEC	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
85▼		UNIB	12AIO	16 Single ended analog inputs, input ranges,±5V,±10V,0-10V,0-5;CMRR at															
86▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB,100kHz throughput rate															
87▼	DT1711SEDMA	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
88▼		UNIB	12AIO	16 Single ended analog inputs, input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
89▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB;Direct Memory Access															
90▼	DT1711SEPG	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
91▼		UNIB	12AIO	16 Single ended analog inputs;input ranges±±5V,±10V,0-10V,0-5;CMRR at															
92▼		UNIB	12AIO	60Hz,74dB;Linearity ±1/2LSB;PRog gain amp-gains of 1,2,4,and 8															
93▼	DT1712DI14	UNIB	12AIO		1	14				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
94▼		UNIB	12AIO	8 Differential analog inputs;input range,,5V,±10V,0-10V,0-5V;CMRR at															
95▼		UNIB	12AIO	60Hz 80dB;35kHz throughput															
96▼	DT1712DI16	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
97▼		UNIB	12AIO	16 Differential analog inputs; input range,±5V,±10V,0-10V,0-5V;CMRR at															
98▼		UNIB	12AIO	60Hz,74dB;35kHz throughput															
99▼	DT1712DI32	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
100▼		UNIB	12AIO	32 Differential analog inputs;input rangez,±5V,±10V,0-10V,0-5V;CMRR at															
101▼		UNIB	12AIO	60Hz,74db;35kHz throughput															
102▼		UNIB	12AIO	8 Differential analog inputs;input range,±5V,±10V,0-10V,0-5V CMRR at															
103▼		UNIB	12AIO	Hz,74dB;35kHz throughput															
104▼	DT1712DIC	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
105▼		UNIB	12AIO	8 Differential analog inputs;input range,±5V,±10V,0-10V,0-5V;CMRR at															
106▼		UNIB	12AIO	60Hz,74dB;100kHz throughput															
107▼	DT1712DIDMA	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
108▼		UNIB	12AIO	8 Differential analog inputs;input range,±5V,±10V,0-10V,0-5V;CMRR at															
109▼		UNIB	12AIO	60Hz,74db;35kHz throughput;Direct Memory Access															
110▼	DT1712DIPG	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼		UNIB	12AIO	8 Differential analog inputs;input range,±5V,±10V,0-10V,0-5V;CMRR at															
2▼		UNIB	12AIO	60Hz,74dB;35kHz throughput;Prog gain amp-gain of 1,2,4,and 8															
3▼	DT1712SE14	UNIB	12AIO		1	14				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
4▼		UNIB	12AIO	16 Single ended analog inputs;input range,±5V,±10V,0-10V,0-5V;CMRR aT															
5▼		UNIB	12AIO	60Hz,80dB;35kHz throughput rate															
6▼	DT1712SE32	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
7▼		UNIB	12AIO	60Hz,74dB;35kHz throughput															
8▼	DT1712SE64	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
9▼		UNIB	12AIO	64 Single ended analog inputs; input ranges,±5V,±10V,0-10V,0-5V;CMRR aT															
10▼		UNIB	12AIO	60H/Z,74dB;35kHz throughput															
11▼	DT1712SE	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
12▼		UNIB	12AIO	16 Single ended analog inputs;input ranges,±5V,±10V,0-10V,05V;CMRR at															
13▼		UNIB	12AIO	Hz,74dB;35kHz throughput															
14▼	DT1712SEC	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
15▼		UNIB	12AIO	16 Single ended analog inputs;input ranges,±5V,±10V,0-10V,0-5V;CMRR at															
16▼		UNIB	12AIO	60Hz,74dB;100kHz throughput rate															
17▼	DT1712SEDMA	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
18▼		UNIB	12AIO	16 Single ended analog inputs;input range,±5V,±10V,0-10V,0-5V;CMRR at															
19▼		UNIB	12AIO	60Hz,74dB;35kHz throughput rate;Direct Memory Access															
20▼	DT1712SEPG	UNIB	12AIO		1	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
21▼		UNIB	12AIO	16 Single ended analog inputs; INPUT RANGES,±5V,±10V,0-10V,0-5V;CMRR at															
22▼		UNIB	12AIO	60Hz,74dB;35kHz throughput;Prog gain amp-gains of 1,2,4,and88															
23▼	DT1715	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
24▼		UNIB	12AIO	8 Differential analog inputs; input range,10mV to 10V,unipolar or bipolar															
25▼		UNIB	12AIO	converts to 16 SE inputs by changing two jumpers;CMRR at 60Hz,80dB;															
26▼		UNIB	12AIO	Linearity±1/2LSB															
27▼	DT1715DMA	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O Systems	DTI	5UN002
28▼		UNIB	12AIO	8 Differential analog inputs, input range,10mV to 10V,unipolar or bipolar															
29▼		UNIB	12AIO	converts to 16 SE inputs by changing two jumpers;CMRR at 60Hz,80dB;															
30▼		UNIB	12AIO	Linearity ±1/2LSB;Direct Memory Access															
31▼	DT1715R	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
32▼		UNIB	12AIO	8 Differential analog inputs; input range,10mV to 10V,unipolar or bipolar															
33▼		UNIB	12AIO	converts to 16 SE inputs by changing two jumpers;CMRR AT 60Hz,80dB;															
34▼		UNIB	12AIO	Linearity ±1/2LSB;inc kit w/7 precision gain res for gains-X1 to X1000															
35▼	DT1719	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analaog I/O System	DTI	5UN002
36▼		UNIB	12AIO	4 Differential analog inputs;input range,10mV TO 10V,unipolar or bipolar															
37▼		UNIB	12AIO	CMRR 126dB min;Linearity ±1/2LSB															
38▼	DT1719DMA	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
39▼		UNIB	12AIO	4 Differential analog inputs;input range,10mV to 10V,unipolar or bipolar															
40▼		UNIB	12AIO	CMRR 126dB min;Linearity ±1/2LSB;Direct Memory Access															
41▼	DT1719PG	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
42▼		UNIB	12AIO	4 Differential analog inputs;iput range,10mV TO 10V,unipolar or bipolar															
43▼		UNIB	12AIO	CMRR 126dB min;Linearity ±1/2LSB;Prog gain amp-gains of 1,10,100,500															
44▼	DT1719R	UNIB	12AIO		2	12				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
45▼		UNIB	12AIO	4 Differential analog inputs;input range,10mV to 10V,unipolar or bipolar															
46▼		UNIB	12AIO	CMRR 126dB min;Linearity ±1/2LSB;inc precision res gain kit															
47▼	DT171514	UNIB	12AIO		2	14				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
48▼		UNIB	12AIO	Differential analog inputs, input range,10mV to 10V,unipolar or bipolar															
49▼		UNIB	12AIO	converts to 16 SE inputs by changing two jumpers;CMRR at 60Hz,80dB;															
50▼		UNIB	12AIO	Linearity ±1/2LSB															
51▼	DT171514R4	UNIB	12AIO		2	14				5.0	2.7			1	16	16	Analog I/O System	DTI	5UN002
52▼		UNIB	12AIO	8 Differential analog inputs, input range,10mV to 10V,unipolar or bipolar															
53▼		UNIB	12AIO	converts to 16 SE inputs by changing two jumper;CMRR at 60Hz,80dB;															
54▼		UNIB	12AIO	Linearity ±1/2 LSB;inc kit of precision gain res for gains-X1 to X1000															
55	600/11DA-1A01-4	UNIB	22DAC		1	12				5.0	1.2			1	16	16	Digital to analog system	ANA	5UN001
56		UNIB	22DAC	Stand alone system,5 uSec selecting time,Scope control,±10V DAC Range															
57		UNIB	22DAC	Option of no third wire sense or 1 or 2 or 3 or 4 third wire sense															
58	600/11DA-1C01-4	UNIB	22DAC		1	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
59		UNIB	22DAC	Similar to 600/11DA-1A01-4 but with ±5V DAC Range															
60	600/11DA-1D01-4	UNIB	22DAC		1	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
61		UNIB	22DAC	Similar to 600/11DA-1A01-4 but with 0 to 5V DAC Range															
62	600/11DA-2A01-4	UNIB	22DAC	ADA	2	12				5.0	1.2			1	16	16	Digital to analog system	ANA	5UN001
63		UNIB	22DAC	Similar to 600/11DA-1A01-4 but with two 12-bit DACs															
64	600/11DA-2B01-4	UNIB	22DAC		2	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
65		UNIB	22DAC	Similar to 600/11DA-1B01-4 but with two 12-bit DACs															
66	600/11DA-2C01-4	UNIB	22DAC		2	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
67		UNIB	22DAC	Similar to 600/11DA-1C01-4 but with ±5V DAC Range															
68	600/11DA-2D01-4	UNIB	22DAC		2	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
69		UNIB	22DAC	Similar to 600/11DA-1D01-4 but with 0 to 5V DAC Range															
70	600/11DA-3A01-4	UNIB	22DAC		3	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
71		UNIB	22DAC	Similar to 600/11DA-1A01-4 but with three 12-bit DACs															
72	600/11DA-3B01-4	UNIB	22DAC		3	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
73		UNIB	22DAC	Similarto 600/11DA-1B01-4 but with three 12-bit DACs															
74	600/11DA-3C01-4	UNIB	22DAC		3	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
75		UNIB	22DAC	Similar to 600/11DA-1C01-4 but with three 12-bit DACs															
76	600/11DA-3D01-4	UNIB	22DAC		3	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
77		UNIB	22DAC	Similar to 600/11DA-1D01-4 but with three 12-bit DACs															
78	600/11DA-4A01-4	UNIB	22DAC	ADA	4	12				5.0	1.2			1	16	16	Digital to analog system	ANA	5UN001
79		UNIB	22DAC	Similar to 600/11DA-1A01-4 but with four 12-bit DACs															
80	600/11DA-4B01-4	UNIB	22DAC		4	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
81		UNIB	22DAC	Similar to 600/11DA-1B01-4 but with four 12-bit DACs															
82	600/11DA-4C01-4	UNIB	22DAC		4	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
83		UNIB	22DAC	Similar to 600/11DA-1C01-4 but with four 12-bit DACs															
84	600/11DA-4D01-4	UNIB	22DAC		4	12				5.0	1.2			1	16	16	Digital to analog system	ADA	5UN001
85		UNIB	22DAC	Similar to 600/11DA-1C01-4 but with four 12-bit DACs															
86▼	681-1-00306	UNIF	22PIO		6	16				5.0				2	16	16	Six channel parallel input	PLM	
87▼		UNIF	22PIO	Six 16 bit parallel channels;buffered and individually addressable															
88▼	681-1-00308	UNIF	22PIO		6	16				5.0				2	16	16	Six channel parralel out	PLM	
89▼		UNIF	22PIO	Six 16 bit parallel channels; buffered and individually addressable															
90▼	681-1-00403	UNIF	22PIO		2	16				5.0				2	16	16	Parallel I/F Card	PLM	5UB002
91	M68KVAM	VERA	22ADA							5.0	1.0			2	16	16	VERSAbus Adapter Module	MOTA	
92		VERA	22ADA	EXORbus ability to utilize,selectable interrupt levels and access bytes															
93	ADP1640/10	ZZZ	12ADC		1	16				5.0	320m	15	30m				Successive approximate ADC	ADP	5ZZ019
94		ZZZ	12ADC	10-bit conversion,Fast precise comparator,Tri-state buffers,Device add-															
95		ZZZ	12ADC	ress is jumper-selectable in address range DE00-DFF8,16 single/ended ch															
96	ADP1640/12	ZZZ	12ADC		1	16				5.0	320m	15	30m				Successive approximate ADC	ADP	5ZZ019
97		ZZZ	12ADC	Similar to ADP1640/10 but with high precision 12-bit D/A Conversion															
98	ADP1640/DF	ZZZ	12ADC		2	8				5.0	320m	15	30m				Successive approximate ADC	ADP	5ZZ019
99		ZZZ	12ADC	Similar to ADP1640/10 and ADP1640/12 with 8 differential channels															
100	ADP1640/SH	ZZZ	12ADC		1	16				5.0	320m	15	30m				Successive approximate ADC	ADP	5ZZ019
101		ZZZ	12ADC	Similar to ADP1640/10 and ADP1640/12 with sample and hold circuitry															
102	ADP1642	ZZZ	22ADC		1	16				5.0	480m	15	75m				Multiplexed 12-Bit ADC	ADP	5ZZ020
103		ZZZ	22ADC	Device address is selectable in address range DE00 to DFF8,Sample and															
104		ZZZ	22ADC	hold circuitry,Tri state buffers,handle 16 Single-ended/8 differential															
105	ADP1620/1	ZZZ	22DAC														Dual 10-Bit D/A Converter	ADP	
106		ZZZ	22DAC	4-20mA output current mode,jumper select address range DE00 to DFFC,Bus															
107		ZZZ	22DAC	address decoder and tri-state data buffers,One channel 10-bit DAC															
108	ADP1620/2	ZZZ	22DAC														Dual 10-Bit D/A Converter	ADP	
109		ZZZ	22DAC	Similar to ADP1620/2 but with two channel Digital to Analog Converter															
110▼	A856-16	ZZZZ	ADC		1	1 b				5.0	300m	15	150m	1			Analog/digital converter	ITI	

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D A R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼		ZZZZ	ADC	16 bit resolution,8us conversion time,Linearity ±10ppm,1 TTLfanout															
2▼		ZZZZ	ADC	Complementary offset binary, ±10V input range, 139.7x114.2x25.4 cm															
3	DAS400	ZZZZ	ADC			1	8 b			5.0	200m	15	25m	2			8 Channel DAS	HBC	
4		ZZZZ	ADC	0-10v or ±5V input range,12 bit A/D, 30K chan/sec throuput,sample/hld															
5	DT57C01	ZZZZ	12ADC							15	.05☑	-15	.05☑	2			DATA ACQUISITION MODULE	DTI	5ZZ002
6		ZZZZ	12ADC	CMOS version															
7	DT57C02	ZZZZ	12ADC							15	.04☑	5	.04	2			DATA ACQUISITION MODULE	DTI	5ZZ002
8		ZZZZ	12ADC	CMOS version of 5702															
9	DT57C03	ZZZZ	12ADC							15	.02	5.0	.08	2			DATA ACQUISITION MODULE	DTI	5ZZ002
10		ZZZZ	12ADC	CMOS version of 5703															
11	DT820	ZZZZ	12ADC							15		-15		2			DATA ACQUISITION MODULE	DTI	5ZZ002
12		ZZZZ	12ADC	Complete 50KHz thruput system;tristate,TTL compatible															
13	DT825	ZZZZ	12ADC							15		-15		2			DATA ACQUISITION MODULE	DTI	5ZZ002
14		ZZZZ	12ADC	16 Single-ended analog input version of DT820															
15	DT830	ZZZZ	12ADC							15		-15		2			DATA ACQUISITION MODULE	DTI	5ZZ002
16		ZZZZ	12ADC	10 bit resolution,30KHz thruput version															
17	DT835	ZZZZ	12ADC							15		-15		2			DATA ACQUISITION MODULE	DTI	5ZZ002
18		ZZZZ	12ADC	16 Single-ended analog inputs at 10 bit resolution,30KHz thruput rate															
19	DT1738	ZZZZ	12ADC							5.0	1.0☑			2			ISOLATED DATA ACQUISITION	DTI	
20		ZZZZ	12ADC	LSI 2,3, and 4 pluggable 4 differential proprietary channels,															
21		ZZZZ	12ADC	12 other channels															
22	DT1739	ZZZZ	12ADC							5.0	1.0☑			2			ISOLATED DATA ACQUISITION	DTI	
23		ZZZZ	12ADC	Non-isolated D/A output channels															
24	DT2009	ZZZZ	12ADC											2			DATA ACQUISITION MODULE	DTI	5ZZ002
25		ZZZZ	12ADC	100KHz thruput;compatible with MP6912 model;16 input channels															
26	DT2010	ZZZZ	12ADC							5.0	.24☑			2			DATA ACQUISITION MODULE	DTI	5ZZ002
27		ZZZZ	12ADC	Accepts 4 20mA current input channels at 12 bit resolution															
28	DT5701	ZZZZ	12ADC							15	.07☑	-15	.08☑	2			DATA ACQUISITION MODULE	DTI	5ZZ002
29		ZZZZ	12ADC	DTL/TTL LOGIC;35KHz THRUPUT;TRISTATE OUTPUTS															
30	DT5702	ZZZZ	12ADC							15	.04☑	5	.30	2			DATA ACQUISITION MODULE	DTI	5ZZ002
31		ZZZZ	12ADC	Wide range, TTL compatible w/ 16 single-ended or 8 DI channels															
32	DT5703	ZZZZ	12ADC							15	.02☑	5	.19	2			DATA ACQUISITION MODULE	DTI	5ZZ002
33		ZZZZ	12ADC	Isolated low level wide range TTL; 4 DI proprietary channels															
34	DT5710	ZZZZ	12ADC							5.0				2			DATA ACQUISITION MODULE	DTI	5ZZ002
35		ZZZZ	12ADC	100KHz thruput; 16 single-ended or 8 DI input channels															
36	DT5714	ZZZZ	12ADC							15	.04	5.0	.20	2			DATA ACQUISITION MODULE	DTI	5ZZ002
37		ZZZZ	12ADC	14 bit resolution w/16 single-ended or 8 DI input channels															
38	DT5716	ZZZZ	12ADC							15	.04	5.0	.20	2			DATA ACQUISITION MODULE	DTI	5ZZ002
39		ZZZZ	12ADC	16 bit resolution w/16 single-ended or 8 DI input channels															
40	DT6812	ZZZZ	12ADC							5.0	.30	15	.06	2			DATA ACQUISITION MODULE	DTI	5ZZ002
41		ZZZZ	12ADC	16 Single-ended input channels;compatible with MP6812 models															
42▼#	H68AN01-1	ZZZZ	12ADC							5.0	2.7				16	8	Analog Input Board	HITJ	
43	SDM853	ZZZZ	12ADC							15	50m	5.0	.30	2			DATA ACQUISITION MODULE	BUB	
44		ZZZZ	12ADC	16-SE/8-DI input channels at 12-bits resolution;30kHz thruput(MIN)															
45	SDM858	ZZZZ	12ADC											2			DATA ACQUISITION MODULE	BUB	
46		ZZZZ	12ADC	16-SE/8-DI input channels at 12-bits resolution;24usec A/D conversion															
47		ZZZZ	12ADC	time															
48#	DAC230/E-6	ZZZZ	12AIO							5.0	300m	12	20m	1			Quad analog output (4xDAC)	EURF	
49#		ZZZZ	12AIO	Selectable voltage/current output.Available w/1 or 2 or 3 analog output															
50	PCS1850	ZZZZ	12AIO		2	12				5.0	0.3↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
51		ZZZZ	12AIO	40 microsec throughput,12-bit resolution,100 megaohms input impedence,															
52		ZZZZ	12AIO	4 software programmable operating modes,Input voltage protected to ±35 V															
53	PCS1850A	ZZZZ	12AIO		2	12				5.0	0.6↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
54		ZZZZ	12AIO	Similar to PCS1850 with analog output and 16 single ended input															
55	PCS1850B	ZZZZ	12AIO		2	12				5.0	0.3↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
56		ZZZZ	12AIO	Similar to PCS1850 with 16 single ended input and programmable gain															
57	PCS1850C	ZZZZ	12AIO		2	12				5.0	0.6↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
58		ZZZZ	12AIO	Similar to PCS1850B with analog output															
59	PCS1850D	ZZZZ	12AIO		2	12				5.0	0.3↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
60		ZZZZ	12AIO	Similar to PCS1850 with Differential input															
61	PCS1850E	ZZZZ	12AIO		2	12				5.0	0.3↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
62		ZZZZ	12AIO	Similar to PCS1850D with analog outputs															
63	PCS1850F	ZZZZ	12AIO		2	12				5.0	0.3↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
64		ZZZZ	12AIO	Similar to PCS1850D with programmable gain															
65	PCS1850G	ZZZZ	12AIO		2	12				5.0	0.3↑	20	.25↑		16	8	CMOS Analog/Digital Module	PCS	5ZZ018
66		ZZZZ	12AIO	Similar to PCS1850D with analog outputs and programmable gain															
67	PCS1851	ZZZZ	12AIO		1	16				5.0	0.3	20	.25	2	16	8	Low Level CMOS A/D Module	PCS	5ZZ010
68		ZZZZ	12AIO	8 differential low level multiplexed analog input channels, 8 bipolar															
69		ZZZZ	12AIO	input ranges(±10mV to ±10Vdc),Jumper selectable Unipolar operation,12 bit															
70		ZZZZ	12AIO	resolution,32 usec throughput,Dual 12-bit multi-range analog outputs															
71	9010-6320	ZZZZ	12AMP														PROGABLE GAIN AMPLIFIER MO	DSI	
72		ZZZZ	12AMP	Provide differential input variable gain amplifier for analog input sys															
73	9010-7010	ZZZZ	12AMP														4-CHANNEL SAMPLE HOLD MOD	DSI	
74		ZZZZ	12AMP	±10V output from a single D/A converter and provide max 4 analog output															
75	DT2C14	ZZZZ	12DAC											2			D/A CONVERTER MODULE	DTI	
76		ZZZZ	12DAC	CMOS version of 214															
77	DT2C15	ZZZZ	12DAC							15	.05	5.0	.22	2			D/A CONVERTER MODULE	DTI	5ZZ003
78		ZZZZ	12DAC	CMOS version of 215															
79	DT212	ZZZZ	12DAC							15	.08	.40		2			D/A CONVERTER MODULE	DTI	5ZZ003
80		ZZZZ	12DAC	Complete point plotter module															
81	DT214	ZZZZ	12DAC							15	.05	5.0	.22	2			D/A CONVERTER MODULE	DTI	5ZZ003
82		ZZZZ	12DAC	Fully buffered 4 channel D/A w/ 12 bit resolution; STD Interface															
83	DT215	ZZZZ	12DAC							15	.05	5.0	.22	2			D/A CONVERTER MODULE	DTI	5ZZ003
84		ZZZZ	12DAC	Fully buffered 4 channel D/A w/8 bit resolution;STD interface															
85▼#	H68AT01-1	ZZZZ	12DAC							5.0	2.0				16	8	Analog Output Board	HITJ	
86	9005-0151	ZZZZ	12DIO														SLO-SYN STEPPER DRIVER MOD	DSI	
87		ZZZZ	12DIO	Provide a driver for slo-syn series and bifilar stepper motor															
88	9005-0162	ZZZZ	12DIO														SOLID STATE STEPPER MODULE	DSI	
89		ZZZZ	12DIO	Provide 12 step timer sequence,with separate adjustable times,mult modul															
90	9010-6210	ZZZZ	12MUX														8-CHANNEL RELAY MUX MODULE	DSI	
91		ZZZZ	12MUX	Like 9010-6220,Provide high voltage input isolation(Relay contacts)															
92	9010-6220	ZZZZ	12MUX														8-CHANNEL SOLID STATE MUX	DSI	
93		ZZZZ	12MUX	Multiplexes 8 differential analog input channels to an A/D converter															
94	9001-0601	ZZZZ	12OIS														120VAC SIGNAL CON INPUT	DSI	
95		ZZZZ	12OIS	Idealy for interfacing with contact operating in highly adverse envirm															
96	9003-0631	ZZZZ	12OIS														120VAC 2 AMP TRIAC OUTPUT	DSI	
97		ZZZZ	12OIS	With 6 switches which are desn dr 117VAC resistive and inductive loads															
98	9003-0636	ZZZZ	12OIS														120V AC 1 AMP TRIAC OUTPUT	DSI	
99		ZZZZ	12OIS	With 6 ckt interface,triac to be mounted near load,rated at one amp															
100	9010-3000	ZZZZ	12OIS														120V AC INPUT MODULE	DSI	
101		ZZZZ	12OIS	Provide a photoisolated input to interface AC Indust and Sys,8 TTL input															
102	9010-3100	ZZZZ	12OIS														120V AC OUTPUT MODULE	DSI	
103		ZZZZ	12OIS	provide an isolated output to interface A Industrial and Sys,8 TTL out															
104	PCS1825	ZZZZ	12OIS		2	8				5.0	150m				16	8	Optically Isolated AC Outp	PCS	5ZZ009
105		ZZZZ	12OIS	Optically isolated AC output,Individual output status indicators,Zero															
106		ZZZZ	12OIS	Voltage Crossover Switching,Flexibus II System bus compatible															
107▼#	BM4002	ZZZZ	21IOM	RS2C						5.0	700m	12	100m				General I/O Interface	TOSJ	
108▼#		ZZZZ	21IOM	Baud rate from 50-9600,Paper tape reader/punch;Printer directly connect															
109▼#	PCA8507	ZZZZ	21SRI	1	RS2C			6.0k	6.0k	5.0	1.0	12		1	16	8	Serial I/O Expansion Board	MITJ	5ZZ022
110▼#		ZZZZ	21SRI	Serial I/O expansion plus MEM on 145mm by 125mm board; includes timer															

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
1▼#		ZZZZ	21SRI	TTL/RS232C interface; designed for PCA8501/8540 computers; Memory cap is															
2▼#		ZZZZ	21SRI	12kbytes expand in 2k units RAM/ROM any mixture uses 58725P or 2716															
3	PCS1860	ZZZZ	21SRI	4	RS2C					5.0	1.3	12	85m	2	16	8	Quad Serial port Module	PCS	5ZZ011
4		ZZZZ	21SRI	Individual UARTS Tri-function ports,switch programmable character length,															
5		ZZZZ	21SRI	parity and number of stop bits,SW select baud rates 110-9600 baud															
6	9019-6421	ZZZZ	22ADC														12-BIT BINARY A/D CONVERTR	DSI	
7		ZZZZ	22ADC	Contains 2 TTL output ports (±1V) to control start of convrsion,MUX,AMP															
8	9019-6422	ZZZZ	22ADC														12-BIT BINARY A/B CONVERTR	DSI	
9		ZZZZ	22ADC	Similar to 9010-6421 except input voltage range is ±10 volts															
10	PM5054	ZZZZ	22ADC			16	12			8.0	0.7	20	0.7	2		16	16 Channel 12-Bit A/D Conv	PCS	5ZZ015
11		ZZZZ	22ADC	Unipolar or bipolar operation,gain of 1,2,5,or 10,12-bit resolution															
12	PCS1823	ZZZZ	22AIO			2	64										TTL Input/Output Module	PCS	
13		ZZZZ	22AIO	Interface with line printer and EPROM programmer and dual floppy disk															
14	9019-7224	ZZZZ	22DAC														12-BIT BINARY D/A CONVERTR	DSI	
15		ZZZZ	22DAC	Convert 12-bit binary values to an analog output voltage of ±10 volts															
16	9019-7225	ZZZZ	22DAC														12-BIT BINARY D/A CONVERTR	DSI	
17		ZZZZ	22DAC	Similar to 9010-7224 except the voltage range is 0 to 10 volts															
18	DT1735	ZZZZ	22DAC							5.0	2.0			2		8	ANALOG OUTPUT SYSTEM	DTI	5ZZ003
19		ZZZZ	22DAC	Compatible with COMPUTER AUTOMATION computer;8 D/A output channels															
20	PM5051	ZZZZ	22DAC			1	12			8.0	0.6	20	.15	2		16	12-Bit D/A ConverterModule	PCS	5ZZ016
21		ZZZZ	22DAC	12-bit resolution,3 jumper selectable standard output voltage and curr-															
22		ZZZZ	22DAC	ent ranges(±10V,±5V,0 to 10V and ±64mA,±32mA and 0 to 64mA).															
23▼#	H68DN01-1	ZZZZ	22DIO				32			5.0	1.4	24	.30			16 8	Digital Input Board	HITJ	
24▼#	H68DT01-1	ZZZZ	22DIO				32			5.0	2.4					16 8	Digital Output Board	HITJ	
25▼#	H68DX01-1	ZZZZ	22DIO				32			5.0	2.0	24	.20			16 8	Digital I/O Board	HITJ	
26	PM5001	ZZZZ	22DIO			1	16			8.0	1.1			2	8	16	16-Bit Digital I/O Module	PCS	5ZZ017
27		ZZZZ	22DIO	Flag and interrupt capability,TTL compatible,Tri-State logic bus interf															
28	PM5004	ZZZZ	22DIO							7.0	.75	9.0	.75	2	16	8	16-Bit Hi-L Digital Input	PCS	5ZZ014
29		ZZZZ	22DIO	16 high level data inputs,1 H-L flag out/input,5 to 50V input range															
30	PM5005	ZZZZ	22DIO			1	16			7.0	1.0	9.0	1.0	2		16	16-Bit Hi-L Digital output	PCS	5ZZ008
31		ZZZZ	22DIO	16 buffered conditioned data outputs,One buffered conditioned flag input															
32		ZZZZ	22DIO	and one output,Jumper selectable output polarity,maskable interrupt															
33	PM5007	ZZZZ	22DIO			1	16			8.0	1.5					16	16-Bit Isolated Digital Op	PCS	5ZZ006
34		ZZZZ	22DIO	16 buffered isolated data outputs,One isolated interrupt or flag input															
35		ZZZZ	22DIO	and one output,selectable input and output flag polarities															
36▼#	H68PR03-1	ZZZZ	22IOM				32			5.0	1.7	12	30m		16	8	Peripheral I/O Board	HITJ	
37	PCS1804	ZZZZ	22IOM			2	8			5.0	30m			2	16	8	AC/DC I/O module	PCS	5ZZ005
38		ZZZZ	22IOM	8 AC inputs,8 AC outputs,8 high-level Digital inputs and 8 outputs,zero															
39		ZZZZ	22IOM	Cross-over switching on AC outputs,Optically isolated AC inputs outputs															
40	9019-6215	ZZZZ	22MUX														5 CH RELAY MUX MOD INP FLT	DSI	
41		ZZZZ	22MUX	Similar to 9010-6210,except has 5 relay channel each have an input filter															
42	1415-0101	ZZZZ	22OIS			2	16			5.0		24		1			Optically isolated digital	GEN	
43		ZZZZ	22OIS	TTL/DTL inputs accepted,device select code is switch set on controller															
44		ZZZZ	22OIS	board,interfacing and address for 32 buffered input lines.															
45	1415-0102	ZZZZ	22OIS			2	16					24		1			Optically isolated digital	GEN	
46		ZZZZ	22OIS	Similar to 1415-0101 but 24-Volt input															
47	PCS1821	ZZZZ	22OIS			4	8			5.0	75m			2	16	8	Optically Isolated D/Input	PCS	5ZZ013
48		ZZZZ	22OIS	Input bounce filters,Flexibus II compatible,1500V isolation															
49	PM5006	ZZZZ	22OIS			1	16			7.0	0.8	9.0	0.8			16	16-Bit Optically Isolated	PCS	5ZZ007
50		ZZZZ	22OIS	16 Optically isolated data inputs,One optically isolated flag input and															
51		ZZZZ	22OIS	one output,1500V electrical isolation,2 operating mode,Mask Interrupt															
52	145-2025	ZZZZ	22PIO			4	8			5.0				4			Parallel input/output card	DIV	5ZZ001
53		ZZZZ	22PIO	All combinations of input,output,bidirectional,latched or unlatched															
54▼#	PCA8506	ZZZZ	22PIO			6	8.0	6.0k	6.0k	5.0				1	16	8	Parallel I/O Expansion Bd	MITJ	5ZZ021
55▼#		ZZZZ	22PIO	I/O expansion plus MEM on 145mm by 125mm board;includes timer and design															
56▼#		ZZZZ	22PIO	for PCA8540 computer 12k bytes in 2k units any mix of 2716 EPROMS or															
57▼#		ZZZZ	22PIO	58725P static RAMs															
58▼#	BM4003	ZZZZ	30DPY							5.0	700m	12	50m				TV-Keyboard Interface	TOSJ	
59▼#		ZZZZ	30DPY	Low cost CRT input/output;ASCII full Keyboard touch-key system															
60▼#	H68MD01-1	ZZZZ	30DPY							5.0	3.0				16	8	TV Monitor I/F Board	HITJ	
61▼#	H68OMN01	ZZZZ	30IOM		RS2C		16			5.0	4.0	12	34m		23	16	68000 Monitor Board	HITJ	
62	PCS1805	ZZZZ	30IOM	1	20CL	4	8	1k	7k	5.0	1.3	12	.35	3	16	8	General purpose I/O Module	PCS	5ZZ012
63		ZZZZ	30IOM	Selectable baud rate,Serial port optically isolated,party line capable															

6. MISCELLANEOUS BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOM CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	MISC SIG. LVLS	TYPES OF EQUIPMENT INTERFACED	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1	MCT02																COUNTER/TIMER MODULE	WTK	
2				Same as MCT00 w/ prescaler (signal conditioner/hard limiter)															
3	MCT10																COUNTER/TIMER MODULE	WTK	
4				Same as MCT00 w/4 AA nicad battery backup															
5▼#				in 1kbyteROM for verification,display of contents, Box sockets															
6▼#	AMS-D526	AMS8	SIO	1	RS2X					5.0		12			16	8	Serial Interface	SIEG	
7▼#		AMS8	SIO	AMS-residentbus-interface w/custom design area and serial interface															
8▼#	SYNTEL-950	EURO	MIS						telephone						16	8	Line Interface Module	EURF	6EU006
9▼#	PTM-400-200	EURO	TIM							5.0	.30			1	16	8	Counter/timer ModuleE	EURF	6EU005
10▼#	PTM-400-201	EURO	TIM																
11▼#	SYNTE-2	EURO	VIO						cpu						16	8	Speech Synthesizer	EURF	6EU007
12	DB/65	EXOR	FWP	2	RS2X	1	8			5.0					16	8	Firmware support package	CAC	
13		EXOR	FWP	2k static NMOS RAM wxpandable to 8k in 2k increament,standard in-circuit															
14		EXOR	FWP	emulation,hardware breakpoint,single step mode,eight software breakpoints															
15	M68MM14	EXOR	MIS							5.0	.52	12	.09	2	16	8	Arithmatic processing UN	MOTA	
16		EXOR	MIS	2-MHz Arithmetic processing unit,F-P 16 and 32-bit,FI-P 32-bit operations															
17	M68MM14A	EXOR	MIS							5.0	.52	12	.09	2	16	8	Arithmetic processing UN	MOTA	
18		EXOR	MIS	3-MHz Arithmetic processing unit,F-P 16 and 32-bit,FI-P 32-bit operations															
19	MEX68SA2	EXOR	MIS			2	8			5.0	2.7			2	16	8	SYSTEM ANALYSER	MOTA	
20		EXOR	MIS	Flexible means of analyzing and trouble-shooting MPU Systems															
21	MEX3870M	EXOR	MIS						3870						16	8	Development System	MOTA	
22		EXOR	MIS	3870 Emulator,including Cross Assembler and Emulator package															
23	MEX6805	EXOR	MIS							5.0	2.5	12	.01	1	16	8	SUPPORT SYSTEM MODULE	MOTA	6EX002
24		EXOR	MIS	Emulation of single or multi-6805 systems,Real-Time emulation for 28-pin															
25		EXOR	MIS	MC6805 Standalone operation,On-board evaluation capability,self-test sock															
26	MEX141000M	EXOR	MIS												16	8	DEVELOPMENT SYSTEM	MOTA	
27		EXOR	MIS	Software capabilities,including Cross Assembler,Loader,and Debug package															
28	MGD6800DSM	EXOR	MIS							5.0	0.9	12		2	16	8	DATA SECURITY MODULE	MOTA	6EX001
29		EXOR	MIS	NMOS LSI implementation of DES,400kbps operation,Optional EROM capability															
30▼	MIKUL6004	EXOR	MIS			1	8.0			5.0	500m			2	16	8	Tachometer Interface	TLI	6EX004
31▼		EXOR	MIS	Dual 5 input Tach interface contains 4 Programmable Timer Modular w/address															
32▼		EXOR	MIS	decoders,buffers,and debounced input buffers;Tach Input Voltage 0-5v,Freq															
33▼		EXOR	MIS	Input 250khz;requires only 32 memory locations;time base input is uC clock															
34	MIKUL6001	EXOR	SYS	2	RS2Y				6809	5.0	500m	12	40m		16	8	Debug/monitor module	TLI	6EX003
35		EXOR	SYS	Card address select 1 of 16 4k blocks of memory, 10 standard band rates															
36		EXOR	SYS	ranging 110-19.2k band,single-shot non-maskable interrupt generator															
37▼	MIKUL6045	EXOR	TIM			1	8.0			5.0	400m			2	16	8	Clock-Calendar-Timer	TLI	6EX005
38▼		EXOR	TIM	Conatins 8k static RAM,on board power fail detect,timer lines buffered															
39▼		EXOR	TIM	Schmitt Trigger inputs,power open collector timer output lines:Real time															
40▼	1616CCI	LSI	MIS						LSI-11 uCT	5.0	1.0			1	16	16	Contact Closure Input	ADA	6LS003
41▼		LSI	MIS	Interface up to 16 discrete contact closures to the computerbus;Normally															
42▼		LSI	MIS	Open contactclosure from each input to the common digital ground															
43▼	1616HCO	LSI	MIS						LSI-11 uCT	5.0	1.0			1	16	16	High Current Output Card	ADA	6LS004
44▼		LSI	MIS	Output driver card for incand lamps and relays;16 open collector, latched															
45▼		LSI	MIS	Outputs;includes bus tranceivers,16-bit status reg and flexible address															
46▼		LSI	MIS	Scheme allowing card to oper as addr memory															
47▼	1632HCO	LSI	MIS						LSI-11 uCT	5.0	1.0			1	16	16	High Current Output Card	ADA	6LS004
48▼		LSI	MIS	Output driver card for incand lampsandrelays;32 open collector,latched															
49▼		LSI	MIS	Outputs;includes bus tranceivers,16-bit status reg and flexible address															
50▼		LSI	MIS	Scheme allowing card to operate as addr memory															
51	1900	LSI	MIS						LSI/UNIBUS	5.0	2.0			1	16	16	Bus interface cards	ANA	
52		LSI	MIS	Plugged directly into unibus,provides translation of all unibus signals															
53		LSI	MIS	to LSI-11 bus signals and vice versa,program control/interrupt and DMA															
54	1950	LSI	MIS						LSI-11 Bus	5.0	1.5			1	16	16	Bus interface(repeater)	ANA	
55		LSI	MIS	Used to employggreaeer number ff bu devcces,ssefull in data acquisition															
56	MLSI-1710	LSI	MIS							5.0	0.4				16	16	Genl purpose interface	MDB	6LS001
57		LSI	MIS	Address decode circuitry,multiple interrupt vector priority selection															
58	MLSI-DRV11P	LSI	MIS							5.0	0.4				16	16	Bus foundation module	MDB	
59		LSI	MIS	Address decode circuitry,multiple interrupt vector priority selection															
60	MLSI-TEV	LSI	MIS												16	16	BUS TERMINATOR MODULE	MDB	
61		LSI	MIS	Provides 180-390 or 330-680 ohm impedence terminator for LSI,Dual Module															
62▼	1616/MIC	LSI	OIS						LSI-11 uCT	5.0	750m			1	16	16	Multiple Interrupt Card	ADA	6LS002
63▼		LSI	OIS	16 Lines of interrupt;Optically isolated input; Priority encoding;16-bit															
64▼		LSI	OIS	mask register;Flexible register addr;Flexible Vector addr															
65	PRTC11	LSI	TIM							5.0	0.7	12	0.7				PROGRAM REAL TIME CLOCK	ADS	
66		LSI	TIM	5 optional modes,2 Schmitt Trigger input,13 internally generated timing rt															
67	DT2769	LSI	T1M					TTLK	DEC KWV11A						16	16	PROGRAMMABLE CLOCK	DTI	
68		LSI	T1M	10MHz programmable real-time clock controls any DEC compatible A/D															
69	95/6011	MULT	CSP						CPU	5.0	.60	12	.10	1	16	8	ARITHMETIC PROCESSOR	AUC	6MU002
70		MULT	CSP	9511 AP chip,add,sub,mult,div,fixed/float point,transcendental															
71		MULT	CSP	functions															
72	iSBC310	MULT	CSP						CPU	5.0	6.7				16	8	HIGH SPEED MATH UNIT	ITL	
73		MULT	CSP	Functions-fixed: multiply at 20usec;divide, 30usec; extended divide															
74		MULT	CSP	100usec Functions-Float:ADD, SUBTRACT, DIVIDE, SQUARE, SQ-ROOT															
75	iSBC544	MULT	IDP						Channel						16	8	INTELLIGENT CONTROLLER	ITL	
76		MULT	IDP	Onboard dedicated 8085A CPU for commo control/buffer management;4 synch-															
77		MULT	IDP	asynch channels; also see sec 5															
78	iSBC569	MULT	IDP	1						5.0	2.6				16	8	INTELLIGENT DIGITAL CTRL	ITL	
79		MULT	IDP	8085A master processor manages 3 UPI-41A processors which offload															
80		MULT	IDP	8085 of common digital tasks; 54 programmable parallel I/O lines															
81▼	80-EX-2	MULT	MIS											1	24	16	EXTENDER BOARD	ESI	
82▼		MULT	MIS	gold plated edge connector extenxive ground plane															
83	MGD8080DSM	MULT	MIS							5.0	1.0	12		2	16	8	DATA SECURITY MODULE	MOTA	6MU001
84		MULT	MIS	Enciphering/deciphering data,loading of Key and processing previous data															
85▼		MULT	MIS	interface board with prototyping area															
86▼	PR-80H	MULT	MIS											1	24	16	PROTOTYPING BOARD	ESI	
87▼		MULT	MIS	50x112 grid of holes on .lin centers w/power bussing															
88	iCS920	MULT	OIS						I/O ports	5.0					16	8	DIGITAL CONDITIONING	ITL	
89		MULT	OIS	Connects I/O ports to signal/control wire AC/DC capability max 280V/3A															
90	iCS930	MULT	OIS						I/O ports	5.0					16	8	DIGITAL CONDITIONING	ITL	
91		MULT	OIS	Connects I/O ports to signal/control wire AC/DC capability max 280V/3A															
92	CA-14	OS48	VIO							5.0		-9					VOICE I/O BOARD	OHS	
93		OS48	VIO	Voice output, experimental voice input optional															
94	CDP18S020	PROP	MIS			2											EVALUATION KIT	RCA	
95		PROP	MIS	Contains 1802 8-bit uP w/MEM,I/O ports															
96	CDP18S024	PROP	MIS			2											ASSEMBLER/EDITOR DESIGN	RCA	
97		PROP	MIS	Contains 1802 8-bit uP w/MEM, I/O Ports															
98	CDP18S025	PROP	MIS														uP-EVALUATION SYSTEM	RCA	
99		PROP	MIS	Contains 18S020,18S021 uTerminal, and pwr supply															
100	CDP18S030	PROP	MIS	1	RS2X				uP-Systems	110							MICROMONITOR SUPPORT SYS	RCA	
101		PROP	MIS	Contains keyboard, display lights, debug routines															
102▼	CDP18S691▼	PROP	MIS	1	RS2X												PROTOTYPING SYSTEM	RCA	6PR001
103▼		PROP	MIS	Contains 4k R/W MEM, 18S601 uC, 18S640 display mod, 18S675 chassis															
104▼		PROP	MIS	18S023 pwr converter, 18S659 breadboard, utility software															
105	MCT00	PROP	TIM														COUNTER/TIMER MODULE	WTK	
106		PROP	TIM	X-tal ctl ckl (1.048567 MHz) times(30us/194days);16-bit event ctr															
107▼	RM65-5222	RM65	IOM			4	8.0		CPU	5.0	.94			2	16	8	General Purpose I/O Mod	RKW	6RM001
108▼		RM65	IOM	Parallel I/O interface and timer; compatible with RM65 bus															
109▼	RM65-5222E	RM65	IOM			4	8.0		CPU	5.0	.94			2	16	8	General Purpose I/O Mod	RKW	6RM001
110▼		RM65	IOM	Parallel I/O interface and timer; compatible with RM65 bus															

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

6. MISCELLANEOUS BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOM CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	MISC SIG. LVLS	TYPES OF EQUIPMENT INTERFACED	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT	SUPPLY B CURR MAX. (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1▼#	SMP-E303	SMP	TIM							5.0	800m				16	8	Cascade Inter contr/time		
2▼#		SMP	TIM	Cascade interrupt control and counter/timer,10 prog 16Bit binary/BCD															
3▼#		SMP	TIM	counter,16 interrupt request inputs(software priority scheme) on/bd 6M Clk															
4▼#	SMP-E305	SMP	TIM							5.0					16	8	Calendar Clock w/Alarm	SIEG	
5▼#		SMP	TIM	Time in terms of month,day,hour,minute,seconds;Alarm sends out interpt sig															
6#	CC1600	STAD	MIS						Cntrl cons	5.0	1.0			1	16	16	Control console w/module	GICB	6SA001
7#		STAD	MIS	Module comes with console, 16b bit data/addr display,16 bit switch reg															
8	ZT7488/08	STD	MIS						IEEE-488	5.0	1.0			1	16	8	IEEE-488 interface	ZIA	6SD002
9		STD	MIS	Talker/listener,data rates to 250k-Bytes/sec,user selectable port address															
10	ZT7502/10	STD	MIS							5.0	.56			1	16	86	Relay output card	ZIA	6SD003
11		STD	MIS	Has SPST dry reed,8 independent relays,LED display of relay status,CPU															
12		STD	MIS	readable relay status,user selectable single I/O port address															
13	ZT7502/40	STD	MIS							5.0	.86			1	16	8	Relay output card	ZIA	6SD003
14		STD	MIS	Similar to ZT7502/10,has SPST mercury-wetted,high voltage reed relays															
15	ZT7502/60	STD	MIS							5.0	.86			1	16	8	Relay output card	ZIA	6SD003
16		STD	MIS	Similar to ZT7502/40,suitable for applications requiring for ^ contacts															
17	7308	STD	TIM							5.0	.70				16	8	COUNTER-TIMER CARD	PRO	6SD001
18		STD	TIM	Programmable,3-independent 16 bit CTR channels;universal uP compatible															
19		STD	TIM	count source multiplexer; stand-alone peripheral															
20	MK77852-0	STDZ	CSP			5	8			12	.12			1	16	8	ARITHMETIC PROCESS UNIT	MOS	
21		STDZ	CSP	Fixed or float operation, transcendental functions															
22	MK77950-0	STDZ	FWP	1	RS2C					12	.50	5.0	1.2	1	16	8	DEBUG MODULE	MOS	
23		STDZ	FWP	Z80 firmware pkg, 10K bytes of masked ROM, Std Z-80 BUS interface, 2.5MHz															
24		STDZ	FWP	firmware pkg include DEBUGGER, TEXT EDITOR, ASSEMBLER, LINKING-LOADER															
25	MK78106	STDZ	FWP							12	.01	5.0	1.0	1	16	8	DEBUG MODULE	MOS	
26		STDZ	FWP	Z80 system debug assistance via in circuit emulation 8Kx8 ROM firmware															
27	MK77958	STDZ	SST	1						5.0	.08			1	16	8	SINGLE-STEP DIAG MODULE	MOS	
28		STDZ	SST	HDWRE single-step cap, use with MDX-DEBUG, displays all CPU registers															
29	FPB-A	S100	CSP							8.0	1.7				16	8	Floating point board	NOR	
30		S100	CSP	Floating point add,subtract,multiply and divide up to 14 digits precision															
31	EXC	S100	MIS						S100 board					1	16	8	EXTENDER CARD	CRO	
32		S100	MIS	Gold plated edge contacts															
33	PROM-100	S100	MIS							8.0	300m	16	100m		16	8	Programming PROM Board	SDS	
34		S100	MIS	Programming,2708,2758,2716,2732,2516.DIP switch selection of EPROM type.25VDC															
35		S100	MIS	programming pulse generated on board.Program verification															
36	SB1	S100	MIS						uC s	8.0	1.1	16	20m		16	8	MUSIC SYNTHESIZER BOARD	SSM	
37		S100	MIS	Encode/playback music;user ctl of duration, pitch, tempo, volume,															
38		S100	MIS	wavefore, envelope etc; software on paper tape; 45 IC s; buffered lines															
39	WWB	S100	MIS						S100 board	5.0				1	16	8	WIRE WRAP EXTENDER CARD	$CRO	
40		S100	MIS	Holds over 70 integrated circuits uses tantalum decopling capacitors and															
41		S100	MIS	disk ceramic bypass capacitors;Edge contacts are gold-plated															
42	990-190	TM90	IOM							5.0	1.0			1	20	16	RTP INTERFACE BOARD	DIF	
43		TM90	IOM	I/F to RTP--a series of std subsystems providing analog and digital I/O															
44		TM90	IOM	compatible w/TM990 bus.															
45▼	990-180▼	TM90	TIM											1	20	16	REAL-TIME CLK/CALENDAR	DIF	
46▼		TM90	TIM	Compatible w/ RM990 bus; hardware timekeeping: (sec, min, hrs, day-of-															
47▼		TM90	TIM	week, date, month and year;X-tal ctl d clk; time-set software-select															
48▼		TM90	TIM	on board NICAD BATT PS; dead man timeout															
49▼	TM990-306	TM90	VIO						amplifier	5.0	4.2m	12	.19	2	20	16	Speech Module	TII	6TM001
50▼		TM90	VIO	Compatible w 990 bus; onboard amp drives 8 ohm spkr; self-contained word															
51▼		TM90	VIO	vocabulary (179 words base speech set)															
52▼	681-1-00047	UNIF	CSP						CPU	5.0				2	16	16	Hardware Multiply	PLM	6UB002
53▼		UNIF	CSP	Hardware multiply with 16 bit signed product 2 s complement fractions															
54▼	681-1-00169-000	UNIF	MIS						CPU	5.0				2	16	16	Index Interrupt	PLM	6UB001
55▼		UNIF	MIS	Hardware Interrupt handler w/ 8 levels of maskable, vectored interrupts															
56	M68KWW	VERA	MIS												16	16	VERSABUS WIREWRAP MODULE	MOTA	
57		VERA	MIS	Pin spacing for 14,16,18,24,40,64-pin wirewrap sockets,silk screen marking															
58	1615-0220	ZZZZ	CSP							5.0	13			1			Arithmetic processing Un	GEN	
59		ZZZZ	CSP	Fix,flot,negate,absolute value opr,double presision integer arithmetic															
60		ZZZZ	CSP	Opr,standard precision flot-p arithmetic(32-bits).Double precision flot-p															
61		ZZZZ	CSP	Arithmetic op(64 bits).Concurrent op w/processor,truncate/round-up mode															
62▼	5003	ZZZZ	DPY							5.0	250m	15	120	2			Digisweep	DMC	
63▼		ZZZZ	DPY	Complete deglitched high speed-DAC System,13 Bit resolution(8,10,12-Bit															
64▼		ZZZZ	DPY	resolution also aviable);150 and 350ns settling times aviable; 0 to 10v,															
65▼		ZZZZ	DPY	±5v,and±10v output voltage version aviable															
66	9000-0061	ZZZZ	MIS							5.0							TRANSLATOR MODULE	DSI	3ZZ004
67		ZZZZ	MIS	Allows attachment of M80 CPU,INTEL 80/10 SBC80/10 or SBC80/20 to SYST8															
68	9010-1140	ZZZZ	MIS														PROGRAM TRAP MODULE	DSI	
69		ZZZZ	MIS	Provide trap on write or read or I/O address direct program control															
70	9010-5301	ZZZZ	MIS														Bi-Direct counter module	DSI	
71		ZZZZ	MIS	2 channels,each contains a 16 bit up/down counter,interface with TTL QUAD															
72	9010-5302	ZZZZ	MIS														Bi-Direct counter module	DSI	
73		ZZZZ	MIS	Similar to 9010-5301,counter changes by two counts for each cycle of quad															
74	9010-6030	ZZZZ	MIS														INPUT FILTER MODULE	DSI	
75		ZZZZ	MIS	Includes 8 balanced,RC type,low pass,filter networks w/tutcff at 2Hz															
76	9010-6040	ZZZZ	MIS														4 CHANNEL THERMOCOUPLE	DSI	
77		ZZZZ	MIS	Accepts inputs from 4 type J thermocouples,produce ±10V output signals															
78	9010-6050	ZZZZ	MIS														EXCITATION SOURCE MODULE	DSI	
79		ZZZZ	MIS	Provide constant amplitude AC source for LVDT modules,3KHz,AC outpt 10KHz															
80	9010-6070	ZZZZ	MIS														LVDT INPUT MODULE	DSI	
81		ZZZZ	MIS	Amplifies transducer output signals to produce full scale ±10VDC at 10mA															
82	9010-6080	ZZZZ	MIS														DC STRAIN GAUGE MODULE	DSI	
83		ZZZZ	MIS	Amplifies outputs from DC strain gauge bridges and tranducers,look 6070															
84	9010-6085	ZZZZ	MIS														AC STRAIN GAUGE MODULE	DSI	
85		ZZZZ	MIS	Amplifies and demodulates the output of strain gauge bridge and tranducer															
86	9010-6090	ZZZZ	MIS														FREQ TO VOLTAGE CON MOD	DSI	
87		ZZZZ	MIS	Allows switch selectable range of .25,.5,1,2.5,5,10 KHz look at 9010-6070															
88▼	A65-901	ZZZZ	MIS						AIM65CPU	5.0	1.1			2	16	8	PROM Programmer/CO-ED	RKW	6RM002
89▼		ZZZZ	MIS	PROM Programmer w/Object code editor included which allows object code															
90▼		ZZZZ	MIS	editing without reassembly; direct plug into AIM65 expansionconnector															
91▼#	BM4303	ZZZZ	MIS							5.0	500m	12					Emulation Board	TOSJ	
92▼#		ZZZZ	MIS	Capable of executing the application program while monitoring and/or															
93▼#		ZZZZ	MIS	modifying the internal status of the microcomputer															
94▼#	BM4304	ZZZZ	MIS							5.0	2.5						Debugging Board	TOSJ	
95▼#		ZZZZ	MIS	Control board for debugging of the application system															
96▼#	BM4603B	ZZZZ	MIS							5.0	500m	12					Emulation Board	TOSJ	
97▼#		ZZZZ	MIS	Capable of executing the application program while monitoring and/or															
98▼#		ZZZZ	MIS	modifying the internal status of the microcomputer															
99▼#	BM4604	ZZZZ	MIS							5.0	2.5						Debugging Board	TOSJ	
100▼#		ZZZZ	MIS	Control board for debugging of the application system															
101▼#	BM8403	ZZZZ	MIS							5.0	500m						Emulation Board	TOSJ	
102▼#		ZZZZ	MIS	Capable of executing the application program while monitoring and/or															
103▼#		ZZZZ	MIS	modifying the internal status of the microcomputer															
104▼#	BM8404	ZZZZ	MIS							5.0	2.5						Debugging Board	TOSJ	
105▼#		ZZZZ	MIS	Control board for debugging of the application system															
106▼	EM1▼	ZZZZ	MIS							5.0	.30			1			8021 EMULATION BOARD	ITL	6ZZ005
107		ZZZZ	MIS	Emulates 8021uC uses 8748 8-bit uC; 3.0 MHz/ ext clk															
108▼	EM2▼	ZZZZ	MIS							5.0	.30			1			8022 EMULATION BOARD	ITL	
109▼		ZZZZ	MIS	Emulates 8022uC uses 8022 emulator chip															
110▼#	H68DB03-1	ZZZZ	MIS							5.0	3.2				16	8	6800 DBUG board	HITJ	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

6. MISCELLANEOUS BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOM CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	MISC SIG. LVLS	TYPES OF EQUIPMENT INTERFACED	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	TEMP	BUS SIZE ADR	BUS SIZE DAT	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
1▼#	H68PW02-1	ZZZZ	MIS							5.0	2.7	12			16	8	EPROM Writer board	HITJ	
2▼#	H68PW03-1	ZZZZ	MIS							5.0	3.0	12			16	8	EE/UV PROM Writer board	HITJ	
3▼	ICE-49▼	ZZZZ	MIS							5.0	10	12	.79	1			MCS IN-CIRCUIT EMULATOR	ITL	6ZZ002
4▼		ZZZZ	MIS	Emulates MCS-48 in real time; utilizes 8049 or 8048/8748 uC nucleus															
5		ZZZZ	MIS	6.0/3.0 MHz internal clk software selectable															
6▼	ICE-80▼	ZZZZ	MIS							5.0	9.8	12	.79	1			8080 IN-CIRCUIT EMULATOR	ITL	6ZZ003
7▼		ZZZZ	MIS	Emulates 8080 in real time; utilizes 8080 uP as nucleus; 2 MHz clk															
8▼		ZZZZ	MIS	Emulates 8085 in real time; utilizes 6MHz clk															
9▼	ICE-86▼	ZZZZ	MIS							5.0	15	12	120m	1			8086 IN-CIRCUIT EMULATOR	ITL	
10		ZZZZ	MIS	Emulates 8086uP/iSBC86uC; 4MHz/2MHz ICE-86 internal clk															
11	PCS1830	ZZZZ	MIS			2	8			5.0	350m			2	16	8	Relay Output Module	PCS	6ZZ010
12		ZZZZ	MIS	Switches AC or DC Signals,5V relay coils,user select normally open/closed															
13	PM5008	ZZZZ	MIS							8.0	1.0			2	8	16	8-Channel Interrupt Expa	PCS	6ZZ007
14		ZZZZ	MIS	Maskable interrupt capability,Interrupt priority structure,8 interrupt															
15		ZZZZ	MIS	input channels,Optically isolated inputs,On-card voltage regulation															
16	PM5009	ZZZZ	MIS							8.0	0.8			2		8	8-Channel Relay Output	PCS	6ZZ009
17		ZZZZ	MIS	8 form-C normally open and closed relay contacts,100 VA contact ratings															
18		ZZZZ	MIS	contact resistance of less than .027 ohms,Relay response times of 1.25 nS															
19	PM5020	ZZZZ	MIS							8.0	.95	20	35m	2	8	16	Stepper Motor Controller	PCS	6ZZ006
20		ZZZZ	MIS	Start and stop ramps,Bidirectional operation,TTL and most translator com-															
21		ZZZZ	MIS	patible,20 to 5k pulse/second range,12-bit output hold register															
22	PM5081	ZZZZ	MIS							8.0	1.0	20		2		8	R-232C Compatible Contro	PCS	6ZZ008
23		ZZZZ	MIS	Asynchronous,Half or Full duplex operation,parity,Framing,and overrun															
24		ZZZZ	MIS	error detection,programmable master reset control,5-8bit character length															
25▼#	PPZ80-B	ZZZZ	MIS							5.0	800m			1	16	8	EPROM Programmer Board	SGAI	
26▼#		ZZZZ	MIS	Various supply EPROM can be programmed;programs,2704,2708,2716,2732,2758,															
27▼#		ZZZZ	MIS	2532;optional EPROM software for verification,display of content Box socket															
28▼#	PPZ80-EB	ZZZZ	MIS							5.0	900m			1	16	8	EPROM Programmer Board	SGAI	
29▼#		ZZZZ	MIS	ROM expansion;EPROM can be programmed;programs,2704,2708,2716,2732,2758,															
30▼#		ZZZZ	MIS	2532;plus 2708,6381,2716,2316 from expansion ROM Bd;EPROM software available															
31▼#	PPZ80-ES	ZZZZ	MIS							5.0	700m			1	16	8	EPROM Prgrammer Board	SGAI	
32▼#		ZZZZ	MIS	ROM expansion;EPROM can be programmed;programs,2704,2708,2716,2732,2758,															
33▼#		ZZZZ	MIS	2532;plus 2708,6381,2716,2316 from expansion ROM Bd;EPROM software available															
34▼#		ZZZZ	MIS	in 1kbyteROM for verification,display of contents, PC sockets															
35▼#	PPZ80-S	ZZZZ	MIS							5.0	800m			1	16	8	EPROM Programmer Board	SGAI	
36▼#		ZZZZ	MIS	Various supply EPROM can be programmed;programs,2704,2708,2716,2732,2758,															
37▼#		ZZZZ	MIS	2532;optional EPROM software for verification,display of contents PC socket															
38#	RELAY922	ZZZZ	MIS											1			Relay module	EURF	
39#		ZZZZ	MIS	8-relays where 2 openings/closing contaccs.Caa be qqippeddw/SPDT relays															
40	9000-0870	ZZZZ	TIM														Clk-Timer bootstrap mod	DSI	6Z001
41		ZZZZ	TIM	Includes bootstrap memory,32 bit binary time-of-day counter,watchdog timr															
42	9000-0871	ZZZZ	TIM														Clk-Timer bootstrap mod	DSI	6ZZ001
43		ZZZZ	TIM	3 16-bit binary interval timers,watchdog timer,synchronizable clock freqy															
44	9010-1111	ZZZZ	TIM														REAL TIME CONTROL MODULE	DSI	
45		ZZZZ	TIM	Generates interrupts every 8.33 sec,AC power voltage,operate at 60Hz															

7. SUPPORT ENCLOSURES

IN ORDER OF: (1)BUS CODE (2)NO.OF SLOTS (3)PWR. MAX. (4)TYPE NUMBER

LINE No.	[4] TYPE NUMBER	[1] BUS CODE	[2] #SLOTS	POWER SUPPLY [3] PWR. MAX (W)	VOLT MAX (V)	CURR MAX (A)	PHYSICAL DIMENSIONS INTERNAL HEIGHT (M)	INTERNAL WIDTH (M)	INTERNAL LENGTH (M)	EXTERNAL HEIGHT (M)	EXTERNAL WIDTH (M)	EXTERNAL LENGTH (M)	MFG. CODE	COMMENTS	DRAWING NUMBER
1▼#	AMS-S423-A21	AMS8	21										SIEG	4 layer AMS Busboard	
2▼#	AMS-S424-A21	AMS8	21										SIEG	4 layer AMS Busboard EXTEN	
3▼#	AMS-SYS2	AMS8	21							275m	245m	484m	SIEG	Cardcage	
4▼#	MB-604-002	EURO	2								68m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	7EU001
5▼#	MB-604-004	EURO	4								68m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	
6▼#	MB-613-005	EURO	5								210m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	7EU002
7▼#	MB-613-007	EURO	7								210m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	7EU001
8▼#	MB-613-009	EURO	9								210m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	
9▼#	MB-613-011	EURO	11								210m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	
10▼#	MB-613-013	EURO	13								210m	129m	EURF	MOTHER BOARD EURO-6 SYSTEM	
11▼	H9275-A	LSI	9							5.94	11.2	11.5	DEC	Backplane w/LSI-11 modules	7LS001
12▼	SBC-753	MULT	3							216m	361m	85m	ESI	MULTIBUS CARD CAGES	7MU004
13▼		MULT	3	.75in center;accepts one wirewrap card											
14▼	SBC-753H	MULT	3							88m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
15▼		MULT	3	Horizontal card slots											
16	iCS80	MULT	4								483m		ITL	INDUSTRIAL CHASSIS	
17		MULT	4	Expandable to 12 slots;vertical board orientation;front service access											
18	iSBC655	MULT	4	5.0	14					89m	483m			SYSTEM CHASSIS	
19		MULT	4	Front panel w/ctl SW s and indicator lights,dual fans,hvy-duty PS											
20	SBC604	MULT	4			216m	361m						ESI	CARD CAGES FOR MULTIBUS	7MU001
21		MULT	4	4 slots and 1 wire wrap cards,Includes backplane power supply connectors											
22		MULT	4	Has mounting provisions for -5V regulator and reset switch,2 level w-w											
23	SBC614	MULT	4			216m	361m						ESI	CARD CAGES FOR MULTIBUS	7MU001
24		MULT	4	Similar to SBC604											
25▼	SBC-604	MULT	4							216m	361m	85m	ESI	MULTIBUS CARD CAGES	7MU004
26▼		MULT	4	accepts one w/w card (3-level),includes backplane-pwr connectors and											
27▼		MULT	4	terminal resistors,slots on .6in centers,mounts 320T-S and reset switch											
28▼	SBC-604A	MULT	4							216m	361m	85m	ESI	MULTIBUS CARD CAGES	7MU004
29▼		MULT	4	accepts one ISBX card instead of wire-wrap card											
30▼	SBC-604H	MULT	4							88m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
31▼		MULT	4	Horizontal card slots:											
32▼	SBC-614G	MULT	4							216m	361m	85m	ESI	MULTIBUS CARD CAGE	7MU004
33▼		MULT	4	w/out resistors and includes female expansion connectors											
34▼	SBC-754	MULT	4							216m	361m	100m	ESI	MULTIBUS CARD CAGES	7MU004
35▼		MULT	4	.75in center;accepts one wirewrap card											
36▼	SBC-754H	MULT	4							133m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
37▼		MULT	4	Horizontal card slots											
38▼	SBC-605	MULT	5							216m	361m	100m	ESI	MULTIBUS CARD CAGES	7MU004
39▼		MULT	5	accepts one ISBX card instead of wire-wrap card											
40▼	SBC-605H	MULT	5							133m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
41▼		MULT	5	Horizontal card slots											
42▼	SBC-755	MULT	5							216m	361m	115m	ESI	MULTIBUS CARD CAGES	7MU004
43▼		MULT	5	.75in center;accepts one wirewrap card											
44▼	SBC-755H	MULT	5							133m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
45▼		MULT	5	Horizontal card slots											
46	95/6440	MULT	6	5.0	25					203m	133m	333m	AUC	CARD CAGE w/backplane	7MU002
47		MULT	6	6 Slot multibus backplane,jumper select for serial priority assignment											
48	Am95-6440	MULT	6										AMD	CARD CAGES,ALL METAL	
49		MULT	6	Expandable to 18 slots,available with or without integrated SW power sup											
50	Am95-6448	MULT	6										AMD	CARD CAGES,ALL METAL	
51		MULT	6	Like Am95-6440 except it contains a high-efficiency SW-type power supply											
52▼	SBC-606	MULT	6							216m	361m	115m	ESI	MULTIBUS CARD CAGES	7MU004
53▼		MULT	6	accepts one ISBX card instead of wire-wrap card											
54▼	SBC-606H	MULT	6							133m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
55▼		MULT	6	Horizontal card slots											
56▼	SBC-757	MULT	7							216m	361m	170m	ESI	MULTIBUS CARD CAGES	7MU004
57▼		MULT	7	.75in center;accepts one wirewrap card will also accept 1 iSBX card											
58▼	SBC-757H	MULT	7							177m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
59▼		MULT	7	Horizontal card slots											
60	iSBC660	MULT	8	5.0	30					178m	483m		ITL	SYSTEM CHASSIS	
61		MULT	8	Complete uC system chassis for intel single board computer;hvy-duty PS											
62	SBC608	MULT	8			216m	361m						ESI	CARD CAGES FOR MULTIBUS	7MU001
63		MULT	8	Similar to SBC604 but with 8 slots and 2 wire wrap cards											
64▼	SBC-608	MULT	8							216m	361m	170m	ESI	MULTIBUS CARD CAGES	7MU004
65▼		MULT	8	accepts two wire-wrap cards											
66▼	SBC-608H	MULT	8							177m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
67▼		MULT	8	Horizontal card slots											
68	CC80-C2	MULT	9				14.8c	17.6c	22.9c				CMC		
69		MULT	9	Same as CCF80-PU with aux connector											
70	CC80-PP	MULT	9				14.8c	17.6c	22.9c				CMC		
71		MULT	9	Same as CC80-PU with dual fans (push-pull)											
72	CC80-PU	MULT	9				14.8c	17.6c	22.9c				CMC	Bus sig term installed	
73		MULT	9	±5,±12V,-10V,ground connec,70CFM fan,spade lug pwr conn,.6in spacing											
74	CC280	MULT	9				29.6c	35.2c	45.8c				CMC		
75		MULT	9	Dual CC80-PU											
76	PC80A	MULT	9	5.0	25	14.8c	17.6c	22.9c					CMC		
77		MULT	9	Same as CC80-PU with pwr supplies,also 12V 4A,-5V 1A,-12V 1.7A											
78	PC280	MULT	9	5.0	45	14.8c	17.6c	22.9c					CMC		
79		MULT	9	Dual CC80-PU with pwr supplies,also 12V 8A,-5V 2A,-12V 4A											
80	SBC609	MULT	9			216m	361m						ESI	CARD CAGES FOR MULTIBUS	7MU001
81		MULT	9	Similar to SBC604 but with 9 slots											
82▼	SBC-609	MULT	9							216m	361m	170m	ESI	MULTIBUS CARD CAGES	7MU004
83▼		MULT	9	accepts one wire-wrap cards											
84▼	SBC-609H	MULT	9							177m	483m	251m	ESI	RACK MOUNT CARD CAGE	7MU005
85▼		MULT	9	Horizontal card slots											
86	SBC6012	MULT	12			216m	361m						ESI	CARD CAGES FOR MULTIBUS	7MU001
87		MULT	12	Similar to SBC604 but with 12 slots and 4 wire wrap cards											
88▼	SBC-6012	MULT	12							216m	361m	255m	ESI	MULTIBUS CARD CAGE	7MU004
89▼		MULT	12	accepts four wire-wrap cards											
90▼	SBC-6012V	MULT	12							399m	483m	195m	ESI	RACK MOUNT CARD CAGE	7MU003
91▼	SBC-6012V-514	MULT	12		14					399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
92▼		MULT	12	5/5V,12/-12V,5V at 14A											
93▼		MULT	12	5/-5,12/-12V, 5V at 30A											
94▼	SBC-6012V-544	MULT	12		44					399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
95▼		MULT	12	5/-5V,12/-12V,5V at 44A											
96▼	SBC-6012V-560	MULT	12		60					399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
97▼		MULT	12	5/-5V,12/-12V,5V at 60A											
98▼		MULT	12	vertical card slots											
99▼	SBC-7512	MULT	12							216m	361m	255m	ESI	MULTIBUS CARD CAGES	7MU004
100▼		MULT	12	.75in center;accepts one wirewrap card											
101▼	SBC-7512V-514	MULT	12		14					399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
102▼		MULT	12	5/-5V 12/-12V,5V at 14A											
103▼	SBC-7512V-544	MULT	12		44					399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
104▼		MULT	12	5/-5V,12/-12V,5V at 44A											
105▼	SBC-7512V-560	MULT	12		60					399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
106▼		MULT	12	5/-5V,12/-12V,5V at 60A											
107	SBC6014	MULT	14			216m	361m						ESO	CARD CAGES FOR MULTIBUS	7MU001
108		MULT	14	Similar to SBC604 but with 14 slots and 2 wire wrap cards											
109▼	SBC-6014	MULT	14							216m	361m	255m	ESI	MULTIBUS CARD CAGES	7MU004
110▼		MULT	14	accepts two wire-wrap cards											

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

7. SUPPORT ENCLOSURES

IN ORDER OF: (1)BUS CODE (2)NO.OF SLOTS (3)PWR. MAX. (4)TYPE NUMBER

LINE No.	[4] TYPE NUMBER	[1] BUS CODE	[2] S #L O OT FS	[3] POWER SUPPLY PWR. MAX (W)	VOLT MAX (V)	CURR MAX (A)	PHYSICAL DIMENSIONS INTERNAL HEIGHT (M)	INTERNAL WIDTH (M)	INTERNAL LENGTH (M)	EXTERNAL HEIGHT (M)	EXTERNAL WIDTH (M)	EXTERNAL LENGTH (M)	MFG. CODE	COMMENTS	DRAWING NUMBER
1▼	SBC-6014V-514	MULT	14			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
2▼		MULT	14		5/5V,12/12V,5V at 14A										
3▼	SBC-6014V-544	MULT	14			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
4▼		MULT	14		5/-5V,12/-12V,5V at 44A										
5▼	SBC-6014V-560	MULT	14			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
6▼		MULT	14		5/5V,12/-12V,5V at 60A										
7	SBC6015	MULT	15				216m	361m					ESI	CARD CAGES FOR MULTIBUS	7MU001
8		MULT	15		Similar to SBC604 but with 15 slots										
9▼	SBC-6015	MULT	15							216m	361m	255m	ESI	MULTIBUS CARD CAGES	7MU004
10▼		MULT	15		accepts one wire-wrap cards										
11▼	SBC-6015V-514	MULT	15			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
12▼		MULT	15		5/5V 12/-12V,5V at 14A										
13▼	SBC-6015V-530	MULT	15			30				399m	483m	457m	ESI	POWERED RACK MOUNT CARD/CGE	7MU004
14▼		MULT	15		5/-5V										
15▼	SBC-6015V-544	MULT	15			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
16▼		MULT	15		5/-5V,12/-12V,5V at 44A										
17▼	SBC-6015V-560	MULT	15			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
18▼		MULT	15		5/-5V,12/-12V,5V at 60A										
19	SBC6016	MULT	16				216m	361m					ESI	CARD CAGES FOR MULTIBUS	7MU001
20		MULT	16		Similar to SBC604 but with 16 slots and 5 wire wrap cards										
21▼	SBC-6016	MULT	16							216m	361m	339m	ESI	MULTIBUS CARD CAGES	7MU004
22▼		MULT	16		accepts five wire-wrap cards										
23▼	SBC-6016V-514	MULT	16			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
24▼		MULT	16		165/-5V,12/-12V,5V at 14A										
25▼	SBC-6016V-530	MULT	16			30				399m	483m	457m	ESI	POWERED RACK MOUNT CARD/CGE	7MU004
26▼	SBC-6016V-544	MULT	16			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
27▼		MULT	16		5/-5V,12/-12V,5V at 44A										
28▼	SBC-6016V-560	MULT	16			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
29▼		MULT	16		5/-5V,12/-12V,5V at 60A										
30▼	SBC-7516	MULT	16							216m	361m	339m	ESI	MULTIBUS CARD CAGES	7MU004
31▼		MULT	16		.75in center;accepts one wirewrap card will also accept 1 iSBX card										
32▼	SBC-7516V-514	MULT	16			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
33▼		MULT	16		5/5V 12/-12V,5V at 14A										
34▼	SBC-7516V-544	MULT	16			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
35▼		MULT	16		5/-5V,12/-12V,5V at 44A										
36▼	SBC-7516V-560	MULT	16			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
37	SBC6020	MULT	20				216m	361m					ESI	CARD CAGES FOR MULTIBUS	7MU001
38		MULT	20		Similar to SBC604 but with 20 slots										
39▼	SBC-6020	MULT	20							216m	361m	339m	ESI	MULTIBUS CARD CAGES	7MU004
40▼		MULT	20		Vertical rack mount designed for multibus cards w/20 slots										
41▼	SBC-6020V-514	MULT	20			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
42▼		MULT	20		5/-5V 12/-12V,5V at 14A										
43▼	SBC-6020V-530	MULT	20			30				399m	483m	457m	ESI	POWERED RACK MOUNT CARD/CGE	7MU004
44▼	SBC-6020V-544	MULT	20			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
45▼		MULT	20		5/-5V,12/-12V,5V at 44A										
46▼	SBC-6020V-560	MULT	20			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
47▼		MULT	20		5/-5V,12/-12V,5V at 60A										
48▼	SBC-7521	MULT	21							216m	361m	424m	ESI	MULTIBUS CARD CAGES	7MU004
49▼		MULT	21		.75in center;accepts one wirewrap card										
50▼	SBC-7521V-514	MULT	21			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
51▼		MULT	21		5/5V 12/-12V,5V at 14A										
52▼	SBC-7521V-544	MULT	21			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
53▼		MULT	21		5/-5V,12/-12V,5V at 44A										
54▼	SBC-7521V-560	MULT	21			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
55▼		MULT	21		5/5V,12/-12V,5V at 60A										
56	SBC6024	MULT	24				216m	361m					ESI	CARD CAGES FOR MULTIBUS	7MU001
57		MULT	24		Similar to SBC604 but with 24 slots and 3 wire wrap cards										
58▼	SBC-6024	MULT	24							216m	361m	424m	ESI	MULTIBUS CARD CAGES	7MU004
59▼		MULT	24		Vertical rack mount designed for multibus cards w/24 slots										
60▼	SBC-6024V-514	MULT	24			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
61▼		MULT	24		5/-5V 12/-12V,5V at 14A										
62▼	SBC-6024V-530	MULT	24			30				399m	483m	457m	ESI	POWERED RACK MOUNT CARD/CGE	7MU004
63▼	SBC-6024V-544	MULT	24			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
64▼		MULT	24		5/-5V,12/-12V,5V at 44A										
65▼	SBC-6024V-560	MULT	24			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
66▼		MULT	24		5/-5V,12/-12V,5V at 60A										
67	SBC6026	MULT	26				216m	361m					ESI	CARD CAGES FOR MULTIBUS	7MU001
68		MULT	26		Similar to SBC604 but with 26 slots										
69▼	SBC-6026	MULT	26							216m	361m	424m	ESI	MULTIBUS CARD CAGES	7MU004
70▼		MULT	26		Vertical rack mount designed for multibus cards w/26 slots										
71▼	SBC-6026V-514	MULT	26			14				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
72▼		MULT	26		165/5V 12/-12V,5V at 14A										
73▼		MULT	26		5/-5										
74▼	SBC-6026V-544	MULT	26			44				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
75▼		MULT	26		5/-5V,12/-12V,5V at 44A										
76▼	SBC-6026V-560	MULT	26			60				399m	483m	457m	ESI	POWERED RACK/MNT CARD CAGE	7MU004
77▼		MULT	26		5/-5V 12/-12V, 5V at 60A										
78▼	CGB-540	PROP	1		5.0					118m	427m		CLI	BASIC CARD CAGE	
79▼		PROP	1		No-connectors option: power bus w/ground or w/memory and computer wiring										
80	RM65-7004	PROP	4							99m	126m	203m	RKW	4-SLOT PIGGYBACK MOD STACK	7PR001
81		PROP	4		Includes 4 slot motherboard in a cardcage designed for AIM65,accepts										
82		PROP	4		fan;screw terminals for ext PS										
83	RM65-7004E	PROP	4							99m	126m	203m	RKW	4-SLOT PIGGYBACK MOD STACK	7PR001
84		PROP	4		Eurocard version of RM65-7004										
85	CDP18S675	PROP	5		5.0					76m	102m	127m	RCA	FIVE-CARD CHASSIS	
86		PROP	5		Incl universal backplane; card guides; open										
87	CDP18S676	PROP	5		5.0					89m	133m	240m	RCA	FIVE-CARD ENCLOSURE	
88		PROP	5		Incl chassis, metal base, and cover; universal backplane/for 0.062in CB										
89	CDP18S670	PROP	22		5.0	3							RCA	CHASSIS w/CASE, PWR SUPPLY	
90		PROP	22		Universal backplane;mmtal caae w/ctc panelefused e10/200V,50/60HZ										
91▼	CFL-5	PROP	40		5.0								CLI	CARD FRAMES	
92▼		PROP	40		Available in 8,16,24,32,40 connector position,no connectors,bussed for										
93▼		PROP	40		pwr/grnd,w/memory bussing,w/computer wiring for 8080/Z80,LTI513,MPI810,										
94▼		PROP	40		LDD503,MCC814,memory (-yy) ,M-series microcomputer (-M)										
95▼	CGI-540	PROP	40		5.0					118m	427m	249m	CLI	INSTRUMENT CAGE	
96▼		PROP	40		Space available for additional chassi,relays,large caps, terminal boards										
97▼	CGS-540	PROP	40		5.0					118m	427m	430m	CLI	SYSTEM CAGE	
98▼		PROP	40		Same features as CGB-540 w/front instrument/control panel, accepts C-conn										
99	MK78182-1	SDE	6	345	115	3	178m	445m	536m	185m	483m	508m	MOS	Rack-mount ENCL/w card cage	
100		SDE	6	345	Rack-mounted CPU subsystem with SD/E series 6-slot card cage 110/230V										
101	MK78182-2	SDE	6	345	115	3	178m	445m	536m	185m	483m	508m	MOS	Rack-mount ENCL/w card cage	
102		SDE	6	345	Europeam version of MK78182 with EuRopean line cord and 5x20mm fuse										
103▼#	SMP-SYS51	SMP	12										SIEG	Cardcage w/multilayer BkPnl	
104▼#	SMP-SYS1	SMP	13							140m	245m	484m	SIEG	Cardcage	
105▼#	SMP-SYS2	SMP	21							140m	245m	484m	SIEG	Cardcage	
106▼#	SMP-SYS52	SMP	21										SIEG	Cardcage w/multilayer BkPnl	
107	MK77973	STDZ	6							145m	171m	192m	MOS	8 plated-thru holes;	
108		STDZ	6		MD series 6-slot card cage with STD bus motherboard uses 16 gauge wire										
109	MK77969	STDZ	12							145m	197m	304m	MOS	cards inserted horizontally	
110		STDZ	12		MD Series 12-slot card cage with STD BUS motherboard uses 16 gauge wire										

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

7. SUPPORT ENCLOSURES

IN ORDER OF: (1)BUS CODE (2)NO.OF SLOTS (3)PWR. MAX. (4)TYPE NUMBER

LINE No.	[4] TYPE NUMBER	[1] BUS CODE	[2] S #L O OTFS	[3] POWER SUPPLY PWR. MAX (W)	VOLT MAX (V)	CURR MAX (A)	PHYSICAL DIMENSIONS INTERNAL HEIGHT (M)	INTERNAL WIDTH (M)	INTERNAL LENGTH (M)	EXTERNAL HEIGHT (M)	EXTERNAL WIDTH (M)	EXTERNAL LENGTH (M)	MFG. CODE	COMMENTS	DRAWING NUMBER
1	QUAY80C	S100											QUY	Aluminium chassis cabinet	
2		S100			For mounting QUAY80MPS,QUAY80AI,QUAY80SMB,etc w/highed top										
3	CC-8	S100	8							.168	.276	.178	CRO	Card cage with 8 slots	
4		S100	8		Study steel construction,back planes incl full set of edge connectors										
5	CC-12	S100	12							.168	.276	.178	CRO	Card cage with 12 slots	
6		S100	12		Same construction as CC-8 but 12 slots							N			
7	QUAY80MBP-1	S100	12			18							QUY	12-Slot mother board	
8		S100	12		Provision for mounting power supply component,mother board,12 connectors										
9	QUAY80MBP-2	S100	12										QUY	12-Slot mother board	
10		S100	12		Similar to QUAY80MBP-1 but with 4 connectors										
11	QUAY80MBP-3	S100	12										QUY	12-Slot mother board	
12		S100	12		Similar to QUAY80MBP-2 but only mother board										
13▼	TM990-510A	TM90	4							12.6 I	5.0 I	12.0 I	TII	1.00in card slot spacing	7TM001
14▼		TM90	4		Cardcage with backplane contains address/data bus; interrupt/control lines										
15▼	TM990-520A	TM90	8							12.6 I	8.25 I	17.2 I	TII	0.75 in card slot spacing	7TM001
16▼	TM990-530A	TM90	16							12.0 I	17.2 I	12.0 I	TII	1.00in card slot spacing	7TM001
17▼		TM90	16		Cardcage with backplane contains address/data bus; interrupt/control line										
18	Am95-6450	ZZZZ											AMD	SYSTEM CHASIS	
19		ZZZZ			19In rack mounted,7-board capacity,power reset and interrupt switches										
20	Am95-6452	ZZZZ											AMD	SYSTEM CHASIS	
21		ZZZZ			Like Am95-6450,14-board capacity,power reset and interrupt switches										
22	NEMA	ZZZZ												Desk top enclosure	
23		ZZZZ			16 Wide tep range,circuit boards are keyed for polarity and module type										
24	1981/1904	ZZZZ	4							140m	101m	203m	ADP	Card cage/back plane	
25		ZZZZ	4		Card cage fabricated of anodyzed aluminum part,completley assembled										
26	1982/1904	ZZZZ	4		1					133m	482m	254m	ADP	Rack mount card cage	
27		ZZZZ	4		Made from aluminum support bars connected to flange end plates										
28▼#	H68CC01-1	ZZZZ	4				200m	230m	12m	240m	262m	94.8m	HITJ	Card Cage	
29▼#	H68CC02-1	ZZZZ	4				200m	230m	12m	240m	262m	94.8m	HITJ	Card Cage	
30	1981/1908	ZZZZ	8							140m	152m	203m	ADP	Card cage/back plane	
31		ZZZZ	8		Similar to 1981/1904 with 8 slots and 152 mm width.										
32	1983/1908	ZZZZ	8							133m	482m	254m	ADP	Powered Rack Mount CardCage	
33		ZZZZ	8		Similar to 1983/1904 with 1908 back plane instead of 1904 so has 8 slots										
34	1981/1912	ZZZZ	12							140m	203m	203m	ADP	Card cage/back plane	
35		ZZZZ	12		Similar to 1981/1904 with 12 slots and 203 mm width.										
36	1983/1912	ZZZZ	12							133m	482m	254m	ADP	Powered Rack Mount CardCage	
37		ZZZZ	12		Similar to 1983/1904 with 1912 back plane instead of 1904 so has 12 slot										
38	M68MMFLC1	ZZZZ	14				349m	425m	495m				MOTA	Micromodule front load chas	
39		ZZZZ	14		Two muffin fans,2MHz rated 14-Slot mother board with card cage,110 volts										
40	M68MMFLC2	ZZZZ	14				349m	425m	495m				MOTA		
41		ZZZZ	14		Two muffin fans,2MHz rated 14-Slot motherboard with card cage,220 volts										
42	1981/1916	ZZZZ	16							140m	254m	203m	ADP	Card cage/back plane	
43		ZZZZ	16		Similar to 1981/1904 with 16 slots and 254 mm width.										
44	1983/1916	ZZZZ	16							133m	482m	254m	ADP	Powered Rack Mount CardCage	
45		ZZZZ	16		Similar to 1983/1904 with 1916 back plane instead of 1904 so has 16 slot										
46	1981/1920	ZZZZ	20							140m	304m	203m	ADP	Card cage/back plane	
47		ZZZZ	20		Similar to 1981/1904 with 20 slots and 304 mm width										
48	1985/1	ZZZZ	20							222m	482m	418m	ADP	Stand Alone Indus Enclosure	
49		ZZZZ	20		Accept 20 modules,power ON/OFF and system reset,dual exhaust fans,Power										
50		ZZZZ	20		input and ports to connect to peripheral,5V at 20A;12V at 4A;-5V at 3A										
51	1985/2	ZZZZ	20							222m	482m	418m	ADP	Rack Mount Indust Enclosure	
52		ZZZZ	20		Rack Mount Industrial Enclosure Similar to 1985/1										

BUS STRUCTURES

8. BUS STRUCTURES

Summary of Bus Structures

	IEEE P796 or MULTIBUS™	IEEE 696 or S100	STD-Z80	LSI-11 BUS, sub-UNIBUS or Q BUS	TM 990	VERSABUS	Expanded VERSABUS
Physical Dimensions							
Width	12.0″ (30.5cm)	10.02″ (25.45cm)	4.5″ (11.43cm)	8.9″ (22.8cm)	11.0″ (27.9cm)	8.0″ (20.3cm)	14.5″ (36.86cm)
Length	6.75″ (17.5cm)	5.125″ (13.0cm)	6.5″ (16.5cm)	5.2″ (13.2cm)	7.5″ (19.0cm)	9.25″ (23.5cm)	9.25″ (23.5cm)
Slot Size	6.836″ & 3.08″	6.375″ (16.19cm)	3.61″ (9.17cm)			7.09″ (18.0cm)	6.9″ (17.5cm)
Spacing between Boards	.6″ (1.52cm)		.5″ (1.27cm)			.9″ (PCB) (2.29cm) 1.4″ (WWB) (3.56cm)	.9″ (PCB) (2.29cm) 1.4″ (WWB) (3.56cm)
No. of Connectors	146	100	56	72	100	140	120
Lines							
Data Address	24, 20 or 16	16	18	16	20	16	
Data Transfer	16 or 8	16 or 8	8	6	16	24, 20, or 16	
DMA Control	16 or 8	4		3	18		
Interrupt				6	15		
Power							
Volts (DC)	5,12,-12	8,18,-18	5,12,-12	5,12,-5,-12		5,12, 15,-12,-15	5,12, 15,-12,-15
Logic Level (VDC)							
Input: High (Min)	2.0	2.0	2.0	2.0	2.2	2.0	2.0
Low (Max)	.8	.8	.8	.8	.6	.8	.8
Output: High (Min)	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Low (Max)	.5	.5	.5	.4	.5	.5	.5
Timing Drawing	BUS-1	BUS-2		BUS-3		BUS-4	

8. BUS STRUCTURES

PIN OUTS - COMPONENT SIDE
(Odd Pins)

IEEE 796 (MULTIBUS™)				IEEE 796 Second Connector		LSI 11			TM 990	
Pin	Mnemonic	Description		Mnemonic	Description	Bus Pin	Mnemonics	Description	Pin Signal	Group
1	GND	Signal GND	Power		Reserved, Not Bussed	AA1	BIRQ5L	Interrupt Request	GND	Power/Ground
3	+5V	+5Vdc	Supplies		Reserved, Not Bussed	AB1	BIRQ6L	Interrupt Request	+5V	
5	+5V	+5Vdc			Reserved, Not Bussed	AC1	BDAL16L	Extended address bit	INT8-	
7	+12V	+12Vdc			Reserved, Not Bussed	AD1	BDAL17L	Extended address bit	INT10-	
9		Reserved, Bussed			Reserved, Not Bussed	AE1*	SSI	Single Step Input	INT12-	
11	GND	Signal GND			Reserved, Not Bussed	AF1*	SRUNL	Run light Signal	INT14-	Interrupt
13	BCLK*	Bus Clock	Bus		Reserved, Not Bussed	AH1*	SRUNL	Run light Signal	INT2-	
15	BPRN*	Bus Pri. In	Controls		Reserved, Not Bussed	AJ1	GND	Ground	INT3-	
17	BUSY*	Bus Busy			Reserved, Not Bussed	AK1	MSPAREA	Maintenance Spare	INT5-	
19	MRDC*	Mem Read Cmd			Reserved, Not Bussed	AL1	MSPAREA	Maintenance Spare	IAQ	Control Bus
21	IORC*	I/O Read Cmd			Reserved, Not Bussed	AM1	GND	Ground	GND	
23	XACK*	XFER Acknowledge			Reserved, Not Bussed	AN1	BDMRL	DMA	GND	Power/Ground
25	LOCK*	Lock	Bus		Reserved, Not Bussed	AP1	BHALTL	Processor Halt	GND	
27	BHEN*	Byte High Enable	Controls		Reserved, Not Bussed	AR1	BREFL	Memory Refresh	GND	
29	CBRQ*	Common Bus Request	and		Reserved, Not Bussed	AS1	+12B or +5B	Battery Backup	CRUIN	CRU Serial Bus
31	CCLK*	Constant Clk	Address		Reserved, Not Bussed	AT1	GND	Ground	GND	Power/Ground
33	INTA*	Intr Acknowledge			Reserved, Not Bussed	AU1	PSPARE1	Spare	D0	
35	INT6*	Parallel	Interrupts		Reserved, Not Bussed	AV1	+5B	+5V Battery Power	D2	
37	INT4*	Interrupt			Reserved, Not Bussed	BA1	BDCOKH	DC Power OK	D4	
39	INT2*	Requests			Reserved, Not Bussed	BB1	BPOKH	Power OK	D6	Data Bus
41	INT0*				Reserved, Bussed	BC1	SSPARE4	Special Spare	D8	
43	ADRE*		Address		Reserved, Bussed	BD1	SSPARE5	Special Spare	D10	
45	ADRC*				Reserved, Bussed	BE1	SSPARE6	Special Spare	D12	
47	ADRA*	Address			Reserved, Bussed	BF1	SSPARE7	Special Spare	D14	
49	ADR8*	Bus			Reserved, Bussed	BH1	SSPARE8	Special Spare	VAUX	Power/Ground
51	ADR6*				Reserved, Bussed	BJ1	GND	Ground	VBATT	
53	ADR4*				Reserved, Bussed	BK1	MSPAREB	Maintenance Spare	XA0	
55	ADR2*			ADR16*	Address Bus	BL1	MSPAREB	Maintenance Spare	XA2	
57	ADR0*			ADR14*		BM1	GND	Ground	A0	
59	DATE*		Data		Reserved, Bussed	BN1	BSACKL	DMA response	A2	
61	DATC*					BP1	BIRQ7L	Interrupt request	A4	Address Bus
63	DATA*	Data				BR1	BEVNTL	Interrupt Request	A6	
65	DAT8*	Bus				BS1	PSPARE 4	Spare	A8	
67	DAT6*					BT1	GND	Ground	A10	
69	DAT4*					BU1	PSPARE2	Power Spare 2	A12	
71	DAT2*					BV1	+5	Power	A14	
73	DAT0*								-12V	
75	GND	Signal GND	Power						+12V	
77		Reserved, Bussed	Supplies						GND	
79	-12V	-12Vdc							GND	Power/Ground
81	+5V	+5Vdc							GND	
83	+5V	+5Vdc							GND	
85	GND	Signal GND							GND	
87									CRUCLK-	CRU Serial Bus
89									GND	Power/Ground
91									GND	
93									RESTART	Control Bus
95									Grantout-	
97									+5V	Power/Ground
99									GND	
101										
103										
105										
107										
109										
111										
113										
115										
117										
119										
121										
123										
125										
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133										
135										
137										
139										
141										
143										

8. BUS STRUCTURES

PIN OUTS - CIRCUIT SIDE
(Even Pins)

IEEE 796 (MULTIBUS™)				IEEE 796 Second Connector		LSI-11			TM-990	
Pin	Mnemonic	Description		Mnemonic	Description	Bus Pin	Mnemonics	Description	Signal	Group
2	GND	Signal GND	Power		Reserved, Not Bussed	AA2	+5	Power	GND	Power/Ground
4	+5V	+5Vdc	Supplies		Reserved, Not Bussed	AB2	-12	Power	+5V	
6	+5V	+5Vdc			Reserved, Not Bussed	AC2	GND	Ground	INT7-	
8	+12V	+12Vdc			Reserved, Not Bussed	AD2	+12	Power	INT9-	
10		Reserved, Bussed			Reserved, Not Bussed	AE2	BDOUTL	Data Output	INT11-	
12	GND	Signal GND			Reserved, Not Bussed	AF2	BRPLYL	Reply	INT13-	Interrupt
14	INIT*	Initialize	Bus		Reserved, Not Bussed	AH2	BDINL	Data Input	INT15-	
16	BPRO*	Bus Pri. Out	Controls		Reserved, Not Bussed	AJ2	BSYNCL	Synchronize	INT1-	
18	BREQ*	Bus Request			Reserved, Not Bussed	AK2	BWTBTL	Write/Byte	INT4-	
20	MWTC*	Mem Write Cmd			Reserved, Not Bussed	AL2	BIRQ4L	Interrupt Request	INT6-	
22	IOWC*	I/O Write Cmd			Reserved, Not Bussed	AM2	BIAKIL	Interrupt Acknowledge	BUSCLK-	
24	INH1*	Inhibit 1			Reserved, Not Bussed	AN2	BIAKOL	Interrupt Acknowledge	REFCLK-	
26	INH2*	Inhibit 2			Reserved, Not Bussed	AP2	BBS7L	Bank 7 Select	RESERVED	
28	AD10*		Bus		Reserved, Not Bussed	AR2	BDMGIL	DMA	RESERVED	
30	AD11*	Address	Controls and		Reserved, Not Bussed	AS2	BDMGOL	DMA Grant	CRUOUT	CRU Serial Bus
32	AD12*	Buss	Address		Reserved, Not Bussed	AT2	BINITL	Initialize	BUSY	Control Bus
34	AD13*				Reserved, Not Bussed	AU2	BDAL0L	Data/Address Lines	D1	
36	INT7*	Parallel	Interrupts		Reserved, Not Bussed	AV2	BDAL1L	Data/Address Lines	D3	
38	INT5*	Interrupt			Reserved, Not Bussed	BA2	+5	Power	D5	
40	INT3*	Requests			Reserved, Not Bussed	BB2	-12	Power	D7	Data Bus
42	INT1*				Reserved, Bussed	BC2	GND	Ground	D9	
44	ADRF*		Address		Reserved, Bussed	BD2	+12	+12V Power	D11	
46	ADRD*				Reserved, Bussed	BE2	BDAL2L	Data/Address Lines	D13	
48	ADRB*	Address			Reserved, Bussed	BF2	BDAL3L		D15	
50	ADR9*	Bus			Reserved, Bussed	BH2	BDAL4L		VAUX	Power/Ground
52	ADR7*				Reserved, Bussed	BJ2	BDAL5L		VBATT	
54	ADR5*				Reserved, Bussed	BK2	BDAL6L		XA1	
56	ADR3*			ADR17*	Address Bus	BL2	BDAL7L		XA3	
58	ADR1*			ADR15*		BM2	BDAL8L		A1	
60	DATF*				Reserved, Bussed	BN2	BDAL9L		A3	
62	DATD*					BP2	BDAL10L		A5	Address Bus
64	DATB*	Data				BR2	BDAL11L		A7	
66	DAT9*	Bus				BS2	BDAL12L		A9	
68	DAT7*					BT2	BDAL13L		A11	
70	DAT5*					BU2	BDAL14L		A13	
72	DAT3*					BV2	BDAL15L		A15	
74	DAT1*								-12V	Power/Ground
76	GND	Signal GND	Power						+12V	
78		Reserved, bussed	Supplies						WE-	
80	-12V	-12Vdc							MEMEN-	
82	+5V	+5Vdc							DBIN	
84	+5V	+5Vdc							MEMCY C-	
86	GND	Signal GND							HOLDA	Control Bus
88									IORST-	
90									READY	
92									HOLD-	
94									PRES-	
96									GRANTIN-	
98									+5V	Power/Ground
100									GND	
102										
104										
106										
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8. BUS STRUCTURES

PIN OUTS - COMPONENT SIDE
(Odd Pins)

	STD-Z80			VERSABUS Basic	VERSABUS Extension Options			S100
Pin	Mnemonic	Description		Signal Mnemonic	Signal Mnemonic	Signal Mnemonic	Bus Pin	Signal Mnemonic
1	+5VDC	Logic Power (bussed)	LOGIC	+5V	GND	GND	1	+8V
3	GND	Logic Ground (bussed)	POWER	GND	GND	GND	2	+18V
5	VBB #1	Logic Bias #1 (-5V)	BUS	D00*	GND	GND	3	XRDY
7	D3	Low-Order Data Bus		D02*	+5V	+5V	4	
9	D2	Low-Order Data Bus	DATA	D04*	+5V	+5V	5	
11	D1	Low-Order Data Bus	BUS	D06*	+12V	+12V	6	
13	D0	Low-Order Data Bus		D08*	GND (± 15V)	GND (± 15V)	7	
15	A7	Low-Order Address Bus		D10*	-12V	-12V	8	
17	A6	Low-Order Address Bus		D12*	(I/O Pin)	(I/O Pin)	9	
19	A5	Low-Order Address Bus	ADDRESS	D14*	(I/O Pin)	(I/O Pin)	10	
21	A4	Low-Order Address Bus	BUS	DPARITYO*	(I/O Pin)	(I/O Pin)	11	
23	A3	Low-Order Address Bus		GND	(I/O Pin)	(I/O Pin)	12	$\overline{NMI}$
25	A2	Low-Order Address Bus		DSO*	(I/O Pin)	(I/O Pin)	13	
27	A1	Low-Order Address Bus		GND	(I/O Pin)	(I/O Pin)	14	
29	A0	Low-Order Address Bus		DTACK*	(I/O Pin)	(I/O Pin)	15	
31	WR*	Write to Memory or I/O		GND	(I/O Pin)	(I/O Pin)	16	
33	IORQ*	I/O Address Select		APARITYO*	(I/O Pin)	(I/O Pin)	17	
35	IOEXP	I/O Expansion		LWORD*	(I/O Pin)	(I/O Pin)	18	$\overline{SDSB}$
37	REFRESH*	Refresh Timing	CONTROL	A02*	(I/O Pin)	(I/O Pin)	19	$\overline{CDSB}$
39	STATUS 1*	CPU Status	BUS	A04*	(I/O Pin)	(I/O Pin)	20	
41	BUSAK*	Bus Acknowledge		A06*	(I/O Pin)	(I/O Pin)	21	
43	INTAK*	Interrupt Acknowledge		A08*	(I/O Pin)	(I/O Pin)	22	$\overline{ADSB}$
45	WAITRQ*	Wait Request		A10*	(I/O Pin)	(I/O Pin)	23	$\overline{DODSB}$
47	SYSRESET*	System Reset		A12*	(I/O Pin)	(I/O Pin)	24	
49	CLOCK*	Clock from Processor		A14*	(I/O Pin)	(I/O Pin)	25	
51	PCO	Priority Chain Out		A16*	(I/O Pin)	(I/O Pin)	26	pHLDA
53	AUX GND	AUX Ground (bussed)	AUXILIARY	A18*	(I/O Pin)	(I/O Pin)	27	
55	AUX +V	AUX Positive (+12V DC)	POWER	A20*	(I/O Pin)	(I/O Pin)	28	
57			BUS	A22*	(I/O Pin)	(I/O Pin)	29	A5
59	*Low-level active indicator			AM4*	(I/O Pin)	(I/O Pin)	30	A4
61				GND	(I/O Pin)	(I/O Pin)	31	A3
63				AM3*	(I/O Pin)	(I/O Pin)	32	A15
65				TESTO*	(I/O Pin)	(I/O Pin)	33	A12
67				GND	-15V	-15V	34	A9
69				ACCLK	+15V	+15V	35	DO1
71				GND	(Reserved)	(I/O Pin)	36	DO0
73				(Reserved)	(Reserved)	(I/O Pin)	37	A10
75				(Reserved)	(Reserved)	(I/O Pin)	38	DO4
77				(Reserved)	(Reserved)	(I/O Pin)	39	DO5
79				TEST1*	(Reserved)	(I/O Pin)	40	DO6
81				BERR*	(Reserved)	(I/O Pin)	41	D12
83				AMO*	(Reserved)	(I/O Pin)	42	D13
85				AM2*	(Reserved)	(I/O Pin)	43	D17
87				IRQ1*	(Reserved)	(I/O Pin)	44	sMI
89				IRQ3*	A24*	(I/O Pin)	45	sOUT
91				IRQ5*	A26*	(I/O Pin)	46	sINP
93				IRQ7*	A28*	(I/O Pin)	47	sMEMR
95				ACKIN*	A30*	(I/O Pin)	48	sHLTA
97				BGOIN*	GND	(I/O Pin)	49	CLOCK (2 MHz)
99				BG1IN*	(Reserved)	(I/O Pin)	50	GND
101				BG2IN*	GND	(I/O Pin)		
103				BG3IN*	DPARITY2*	(I/O Pin)		
105				BG4IN*	D16*	(I/O Pin)		
107				BRO*	D18*	(I/O Pin)		
109				BR2*	D20*	(I/O Pin)		
111				BR4*	D22*	(I/O Pin)		
113				BCLR*	D24*	(I/O Pin)		
115				(Reserved)	D26*	(I/O Pin)		
117				(Reserved)	D28*	(I/O Pin)		
119				GND	D30*	(I/O Pin)		
121				-12V				
123				GND				
125				+12V				
127				+12V				
129				+5V				
131				+5V				
133				+5V STDBY				
135				GND				
137				GND				
139				GND				
141								
143								

8. BUS STRUCTURES

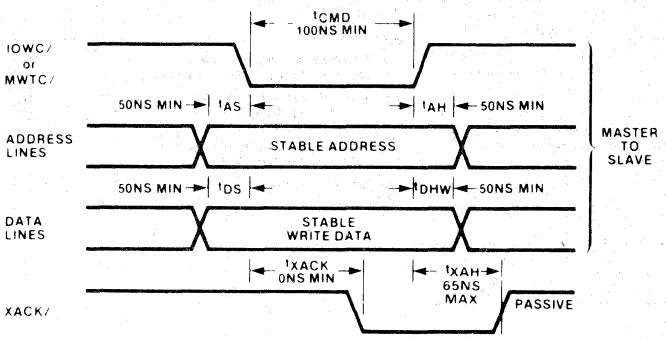
PIN OUTS - CIRCUIT SIDE
(Even Pins)

	STD-Z80			VERSABUS Basic	VERSABUS Extension Options			S100
Pin	Mnemonic	Description		Signal Mnemonic	Signal Mnemonic	Signal Mnemonic	Bus Pin	Mnemonic
2	+5Vdc	Logic Power (bussed)	LOGIC	+5V	GND	GND	51	+8V
4	GND	Logic Ground (bussed)	POWER	GND	GND	GND	52	-18V
6	VBB #2	Logic Bias #2 (-5V)	BUS	D01*	GND	GND	53	
8	D7	High-Order Data Bus		D03*	+5V	+5V	54	
10	D6	High-Order Data Bus	DATA	D05*	+5V	+5V	55	
12	D5	High-Order Data Bus	BUS	D07*	+12V	+12V	56	
14	D4	High-Order Data Bus		D09*	GND (±15V)	GND (±15V)	57	
16	A15	High-Order Address Bus		D11*	-12V	-12V	58	
18	A14	High-Order Address Bus		D13*	(I/O PIN)	(I/O PIN)	59	
20	A13	High-Order Address Bus		D15*	(I/O PIN)	(I/O PIN)	60	
22	A12	High-Order Address Bus	ADDRESS	DPARITY1*	(I/O PIN)	(I/O PIN)	61	
24	A11	High-Order Address Bus	BUS	GND	(I/O PIN)	(I/O PIN)	62	
26	A10	High-Order Address Bus		DS1*	(I/O PIN)	(I/O PIN)	63	
28	A9	High-Order Address Bus		GND	(I/O PIN)	(I/O PIN)	64	
30	A8	High-Order Address Bus		AS*	(I/O PIN)	(I/O PIN)	65	$\overline{\text{MREQ}}$
32	RD*	Read Memory or I/O		GND	(I/O PIN)	(I/O PIN)	66	$\overline{\text{RFSH}}$
34	MEMRQ*	Memory Address Select		WRITE*	(I/O PIN)	(I/O PIN)	67	
36	MEMEX*	Memory Expansion		A01*	(I/O PIN)	(I/O PIN)	68	MWRT
38	MCSYNC*	CPU Machine Cycle Sync.		A03*	(I/O PIN)	(I/O PIN)	69	
40	STATUS 0*	CPU Status	CONTROL	A05*	(I/O PIN)	(I/O PIN)	70	
42	BUSRQ*	Bus Request	BUS	A07*	(I/O PIN)	(I/O PIN)	71	
44	INTRQ*	Interrupt Request		A09*	(I/O PIN)	(I/O PIN)	72	RDY
46	NMIRQ*	Nonmaskable Interrupt		A11*	(I/O PIN)	(I/O PIN)	73	$\overline{\text{INT}}$
48	PBRESET*	Push-Button Reset		A13*	(I/O PIN)	(I/O PIN)	74	$\overline{\text{HOLD}}$
50	CNTRL*	AUX Timing		A15*	(I/O PIN)	(I/O PIN)	75	$\overline{\text{RESET}}$
52	PCI	Priority Chain In		A17*	(I/O PIN)	(I/O PIN)	76	pSYNC
54	AUXGND	AUX Ground (bussed)	AUXILIARY	A19*	(I/O PIN)	(I/O PIN)	77	$\overline{\text{pWR}}$
56	AUX-V	AUX Negative (-12V DC)	POWER	A21*	(I/O PIN)	(I/O PIN)	78	pDBIN
58			BUS	A23*	(I/O PIN)	(I/O PIN)	79	A0
60				AM7*	(I/O PIN)	(I/O PIN)	80	A1
62		*Low-level active		GND	(I/O PIN)	(I/O PIN)	81	A2
64		indicator.		(Reserved)	(I/O PIN)	(I/O PIN)	82	A6
66				(Reserved)	(I/O PIN)	(I/O PIN)	83	A7
68				GND	-15V	-15V	84	A8
70				SYSCLK	+15V	+15V	85	A13
72				GND	(RESERVED)	(I/O PIN)	86	A14
74				SYSRESET*	(RESERVED)	(I/O PIN)	87	A11
76				(RESERVED)	(RESERVED)	(I/O PIN)	88	DO2
78				ACFAIL*	(RESERVED)	(I/O PIN)	89	DO3
80				SYSFAIL*	(RESERVED)	(I/O PIN)	90	DO7
82				(RESERVED)	(RESERVED)	(I/O PIN)	91	D14
84				AM1*	(RESERVED)	(I/O PIN)	92	D15
86				AM6*	(RESERVED)	(I/O PIN)	93	D16
88				IRQ2*	APARITY1*	(I/O PIN)	94	D11
90				IRQ4*	A25*	(I/O PIN)	95	D10
92				IRQ6*	A27*	(I/O PIN)	96	sINTA
94				AM5*	A29*	(I/O PIN)	97	$\overline{\text{sWO}}$
96				ACKOUT*	A31*	(I/O PIN)	98	4 MHz
98				BGOOUT*	GND	(I/O PIN)	99	$\overline{\text{POC}}$
100				BG1OUT*	(RESERVED)	(I/O PIN)	100	GND
102				BG2OUT*	GND	(I/O PIN)		
104				BG3OUT*	DPARITY3*	(I/O PIN)		
106				BG4OUT*	D17*	(I/O PIN)		
108				BR1*	D19*	(I/O PIN)		
110				BR3*	D21*	(I/O PIN)		
112				BBSY*	D23*	(I/O PIN)		
114				BREL*	D25*	(I/O PIN)		
116				(RESERVED)	D27*	(I/O PIN)		
118				(RESERVED)	D29*	(I/O PIN)		
120				GND	D31*	(I/O PIN)		
122				-12V				
124				GND				
126				+12V				
128				+12V				
130				+5V				
132				+5V				
134				+5V STDBY				
136				GND				
138				GND				
140				GND				

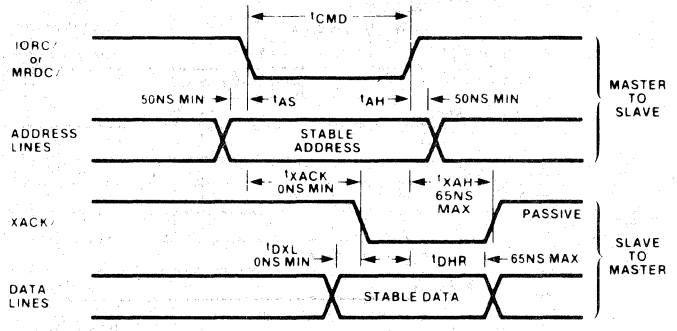
8. BUS STRUCTURES

BUS 1

Write AC Timing

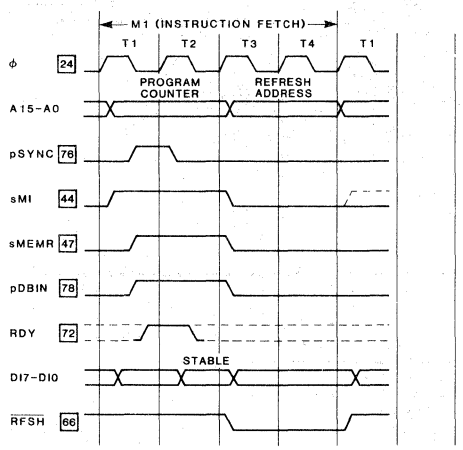


Read AC Timing

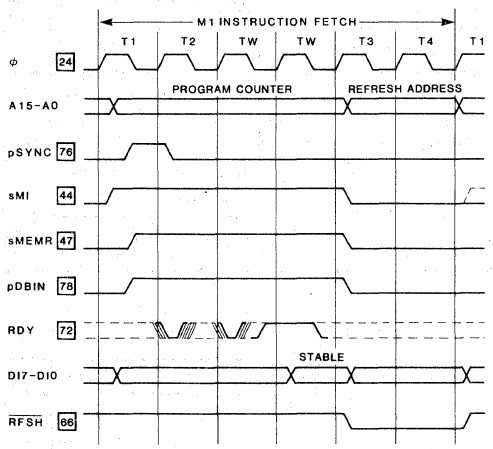


BUS 2

S-100 SIGNALS DURING AN M1 MACHINE CYCLE, NO WAIT

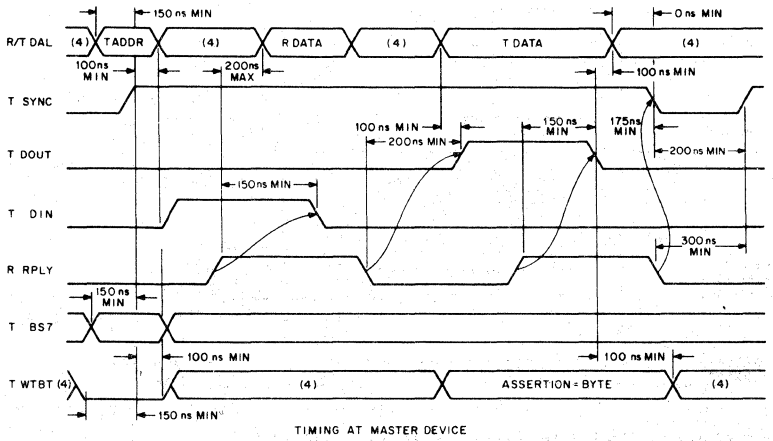


S-100 SIGNALS DURING AN M1 MACHINE CYCLE, 2 WAIT STATES



S100

BUS 3

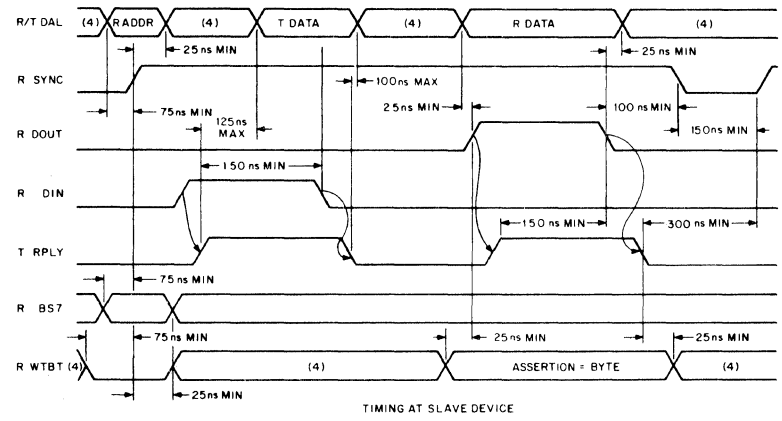


TIMING AT MASTER DEVICE

DATIO or DATIOB Bus Cycle Timing

Continued Next Page

BUS 3 Cont'd

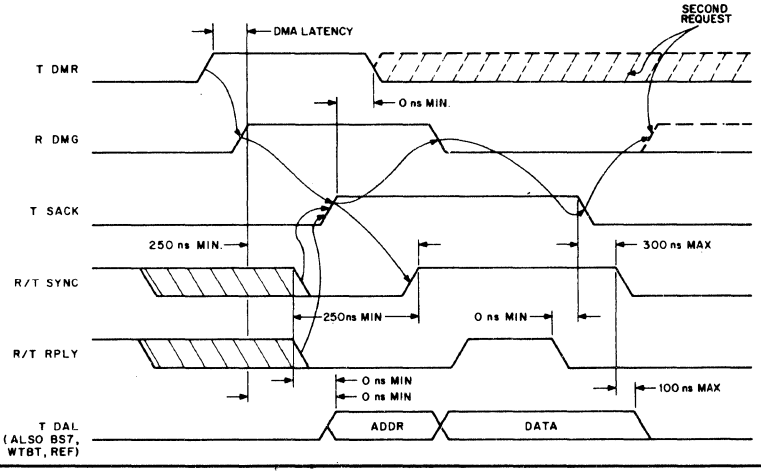


TIMING AT SLAVE DEVICE

DATIO or DATIOB Bus Cycle Timing

NOTES

1. Timing shown at Requesting Device Bus Driver Inputs and Bus Receiver Outputs
2. Signal name prefixes are defined below
   T = Bus Driver Input
   R = Bus Receiver Output
3. Bus Driver Output and Bus Receiver Input signal names include a "B" prefix
4. Don't care condition

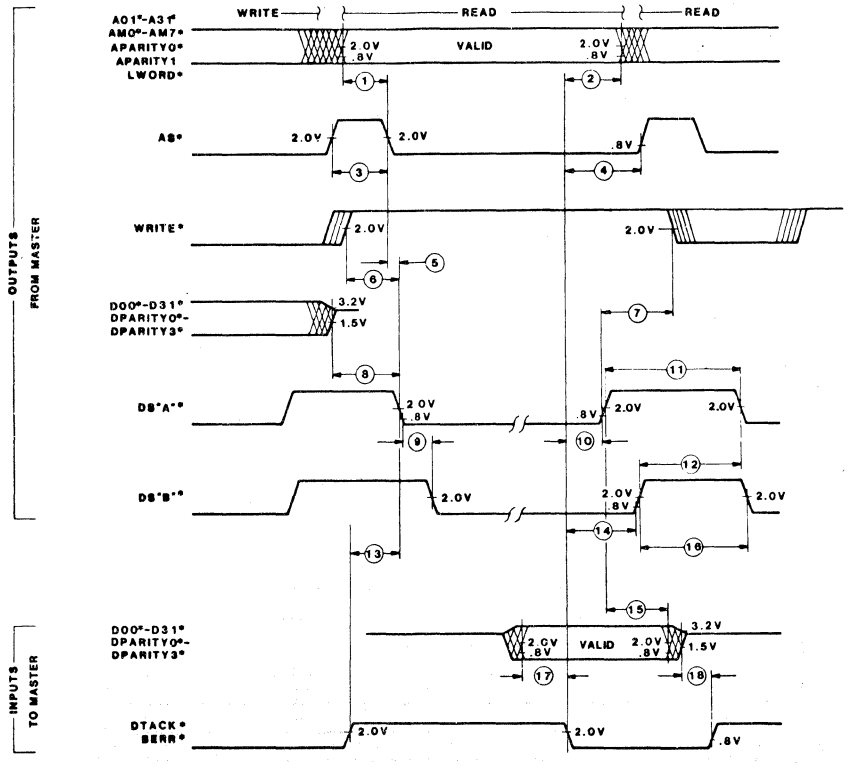


DMA Request/Grant Timing

NOTES:

1. Timing shown at requesting device bus driver inputs and bus receiver outputs.
2. Signal name prefixes are defined below:
   T = Bus Driver Input
   R = Bus Receiver Output
3. Bus Driver Output and Bus Receiver Input signal names include a "B" prefix.

BUS 4



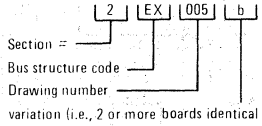
DTB Master Timing: Write Cycle Followed by Read Cycle

9. CIRCUIT/OUTLINE DRAWINGS

DRAWING NUMBER EXPLANATION

The drawing numbers are based on which section the board appears in and the bus structure code.

EXAMPLE:



The bus structure code is derived by taking the first 2 letter or number combinations of the bus code; i.e., the exorcizer bus code is – EXOR, 'EX' would therefore be used in the drawing number.

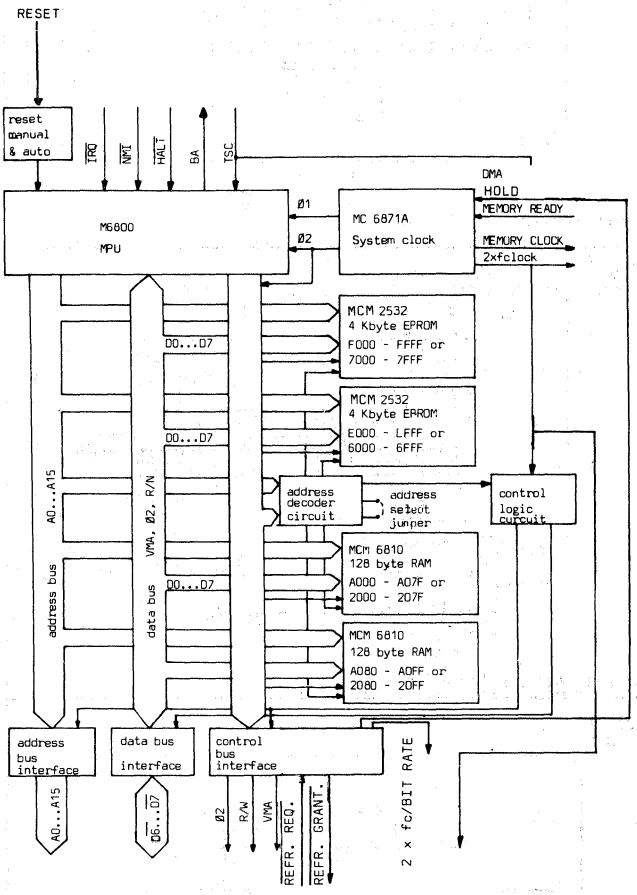
LINE NO.

▼ – New Type
◆ – Revised specification
:: – Non-JEDEC type Manufactured outside U.S.A.

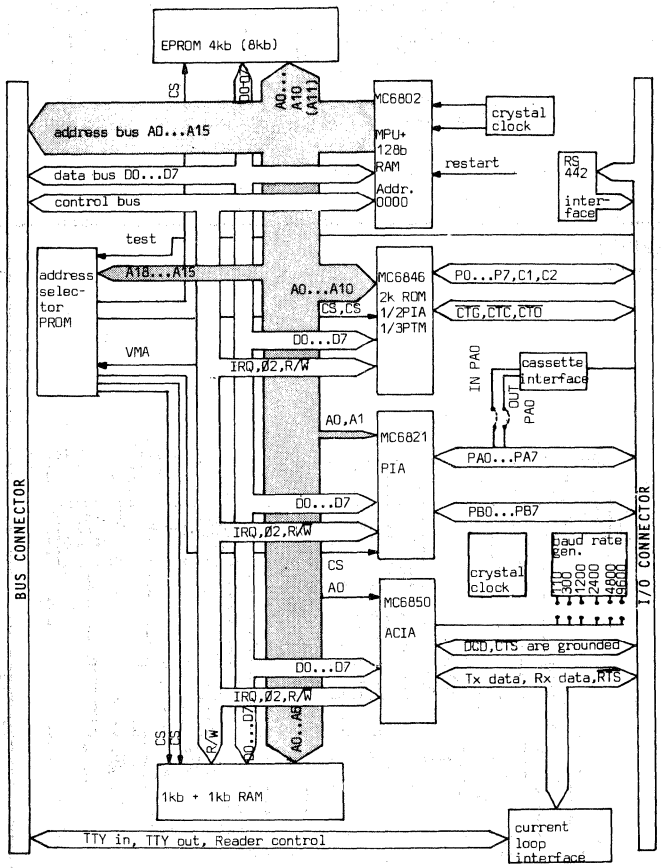
BUS CODES

AMS8	– AMS 85	PROP	– PROPRIETARY
BUS 4	– BUS 44	QBUS	– Q-BUS
E583	– IEEE – 583	R232	– R232
EXOR	– EXORCIZER	S100	– S100
FLEX	– FLEXIBUS II	SCUT	– SCOUT
KIM	– KIM	SDE	– SDE
LSI	– LSI – II	SMP	– SMP
MAXI	– MAXI-BUS	SS50	– SS50
MCS	– MCS	STAD	– STAND ALONE
MCZ	– MCZ	STD	– STD
MIBO	– MICRO BOARD	STD Z	– STD-Z80
MIMO	– MICRO MODULE	TM90	– TM 990
MINO	– MICRO NOVA	TRI	– TRI-STATE
MULT	– MULTI BUS	UNIB	– UNIBUS
MUMA	– MULTI MASTER	UNIF	– UNIFIED BUS
NONS	– NON STANDARD	VERA	– VERSA BUS
NOTY	– NOVA-TYPE	ZBUS	– Z-BUS
OS48	– OSI 48 BUS	ZZZZ	– NOT SPECIFIED

2EU001

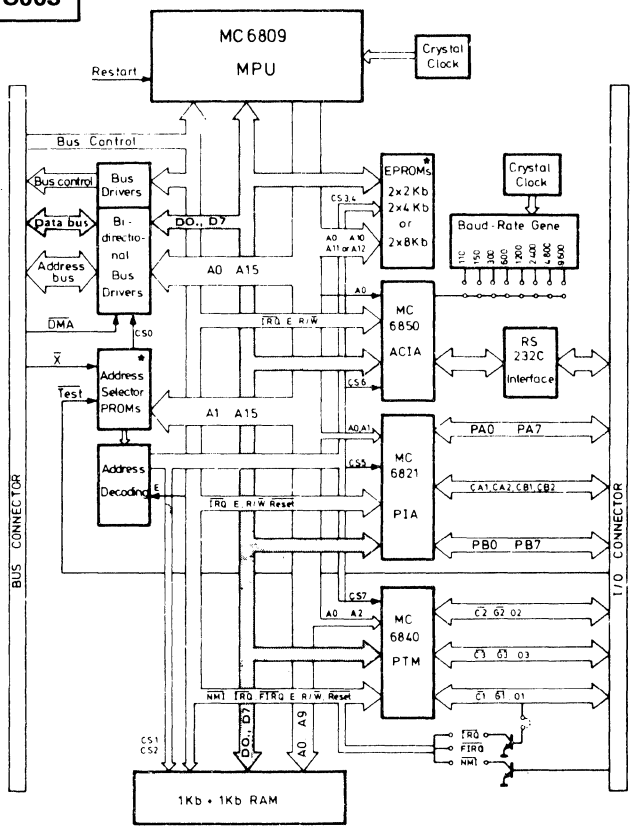


2EU002

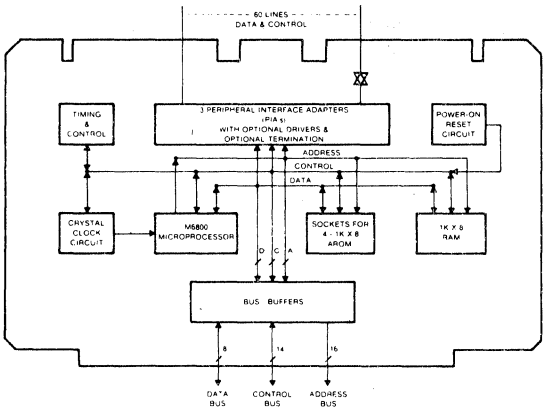


9. CIRCUIT/OUTLINE DRAWINGS

2EU003



2EX001



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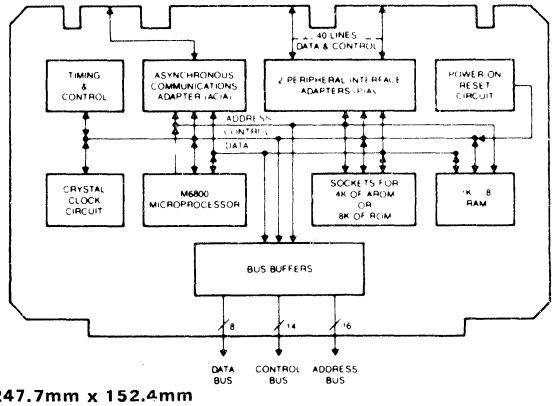
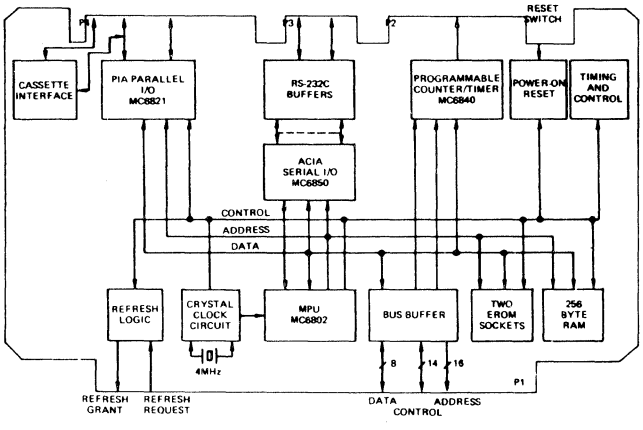


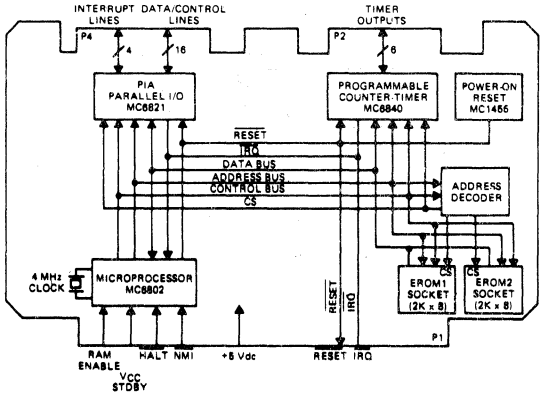
Size; W x H, 247.7mm x 152.4mm

2EX004



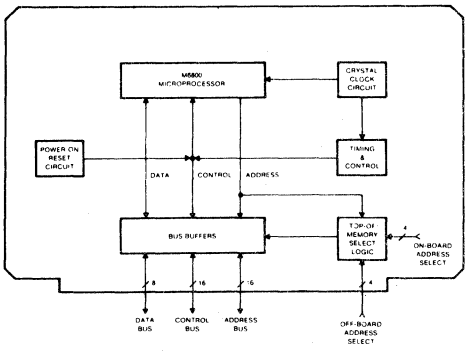
Size: W x H, 247.7 x 152.4mm

2EX003



Size: W x H, 247.7 x 152.4mm

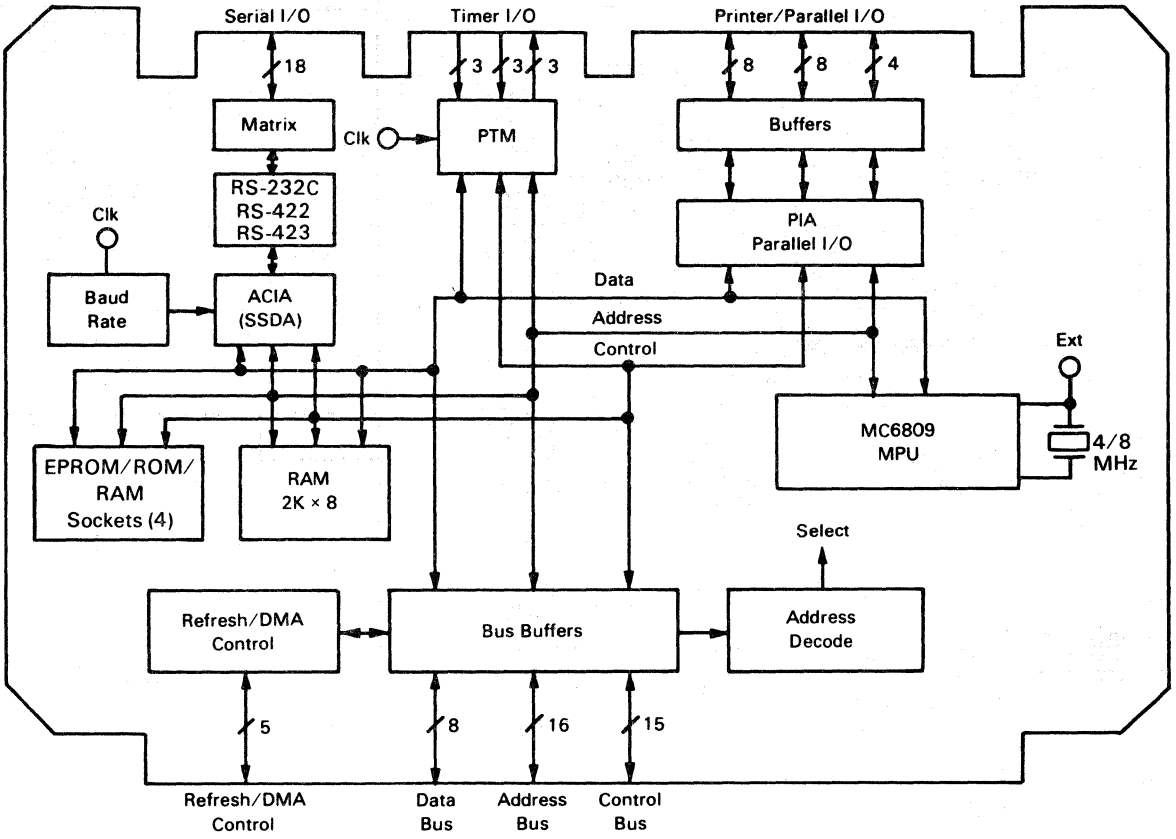
2EX005



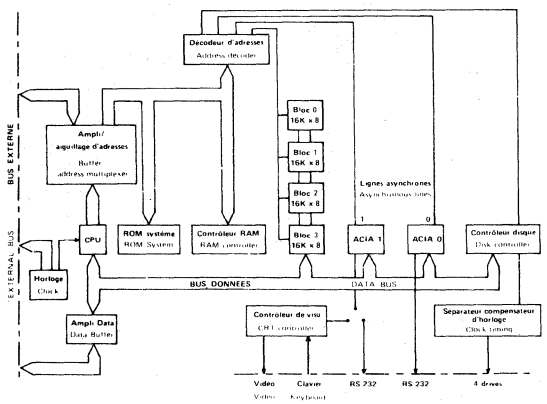
Size: W x H, 247.7mm x 152.4mm

9. CIRCUIT/OUTLINE DRAWINGS

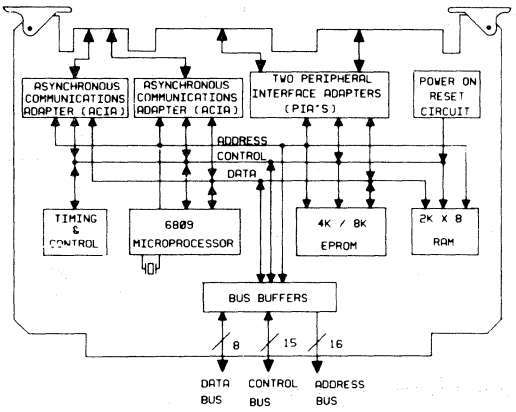
2EX006



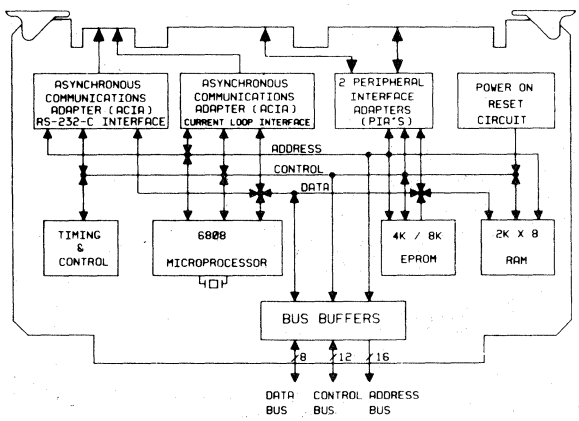
2EX007



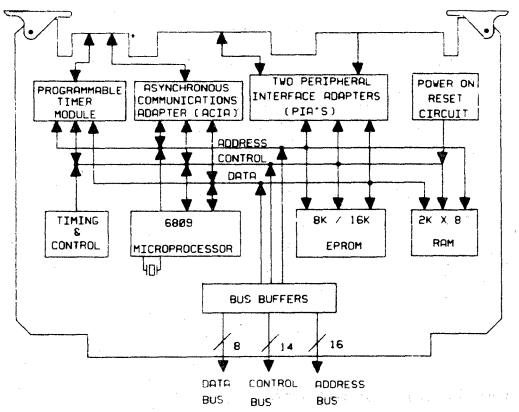
2EX008



2EX009

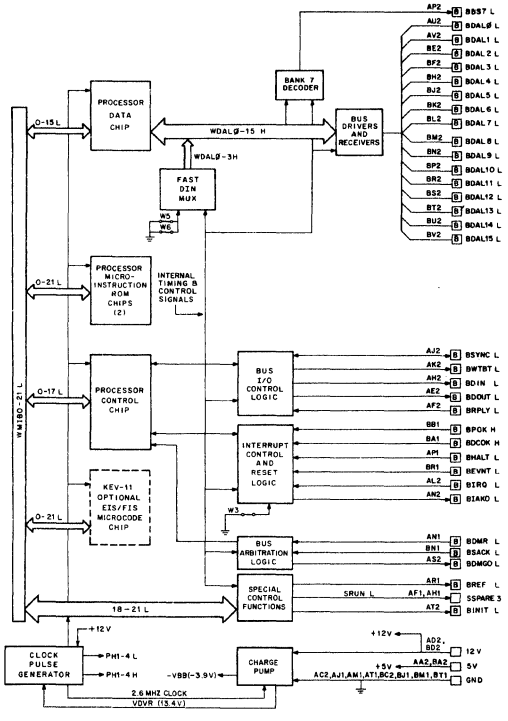


2EX010



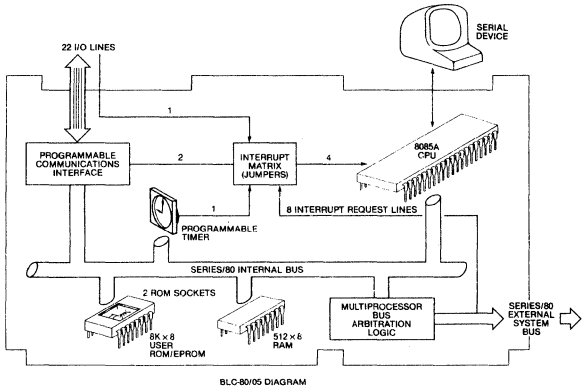
9. CIRCUIT/OUTLINE DRAWINGS

2LS001



HEIGHT	13.2 cm	5.2 in
LENGTH	22.8 cm	8.9 in
WIDTH	1.27 cm	0.5 in

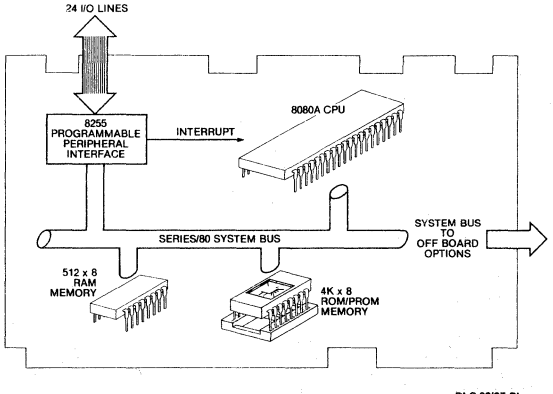
2MU001



BLC-80/05 DIAGRAM

Size: H x W, 171.5mm x 304.8mm

2MU002

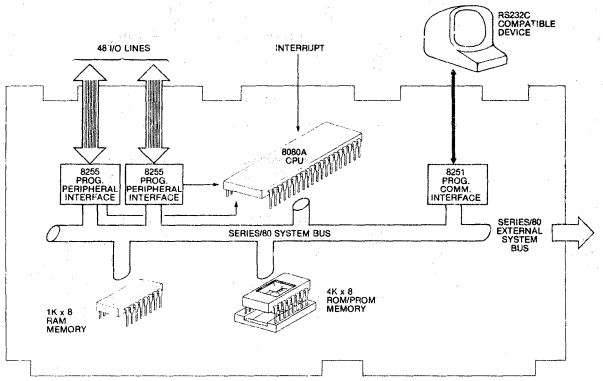


BLC-80/07 Diagram

Size: H x W, 171.5mm x 304.8mm

9. CIRCUIT/OUTLINE DRAWINGS

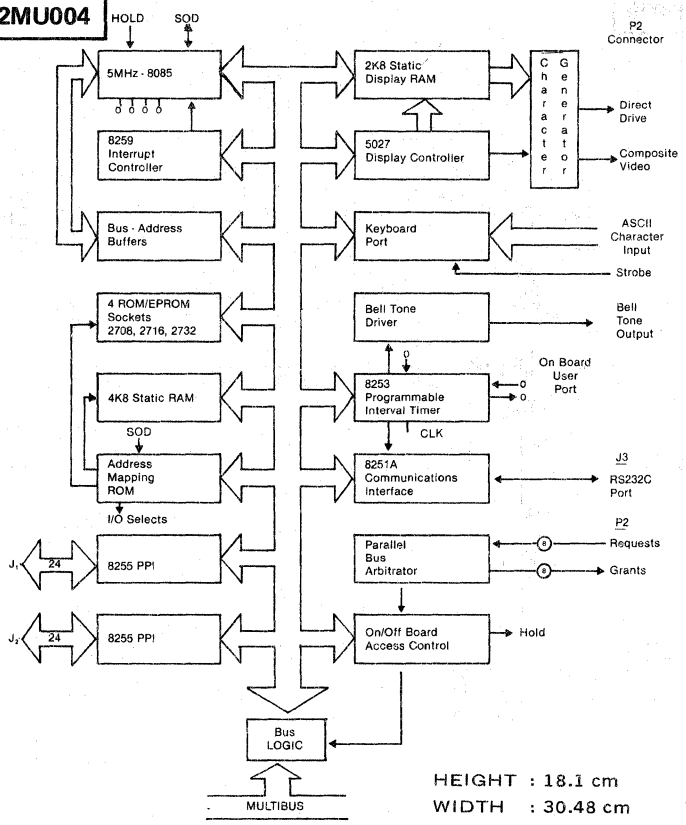
2MU003



BLC-80/10 Diagram

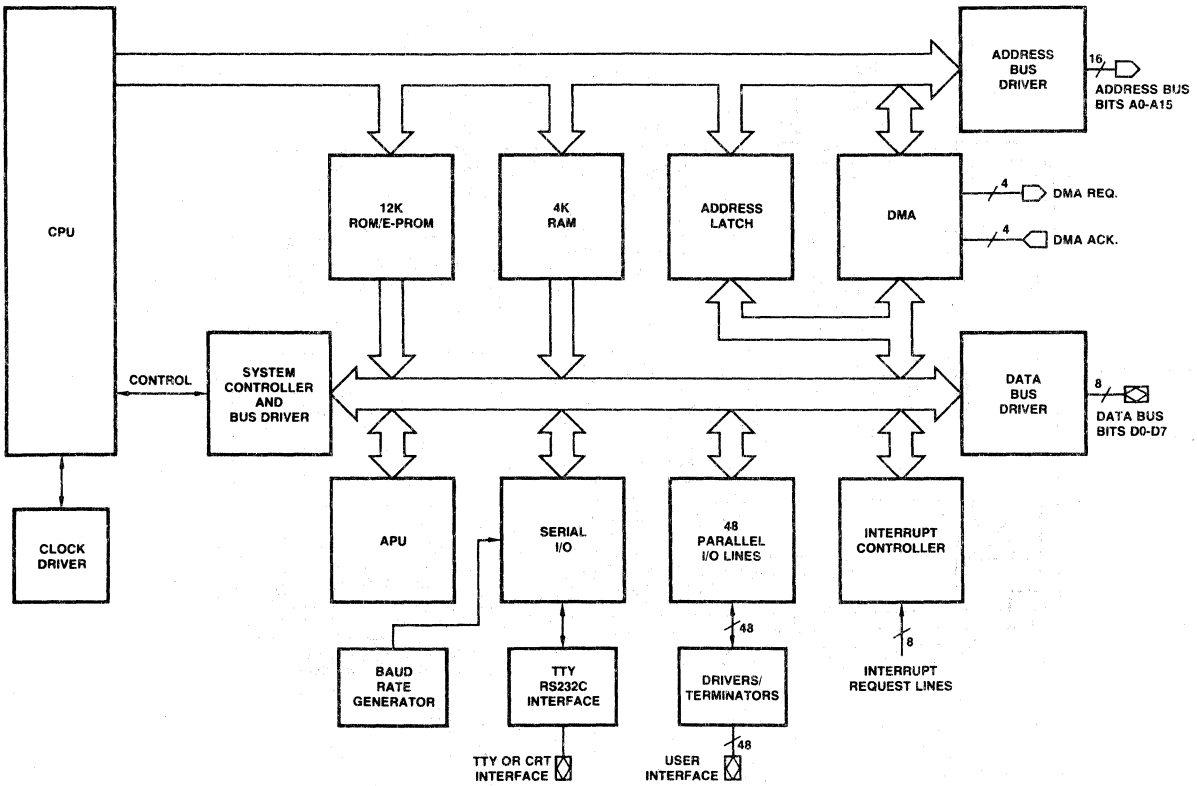
Size: H x W, 171.5mm x 304.8mm

2MU004



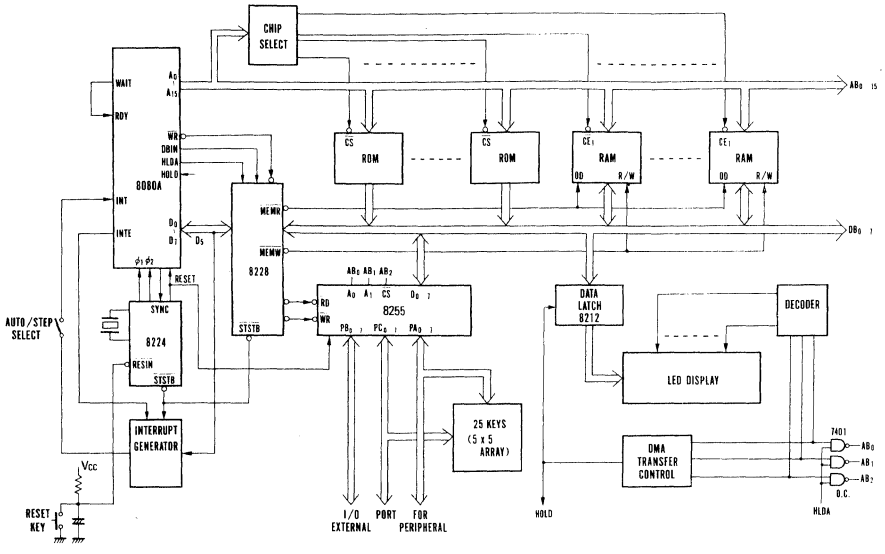
HEIGHT : 18.1 cm
WIDTH : 30.48 cm
DEPTH : 1.27 cm

2MU005

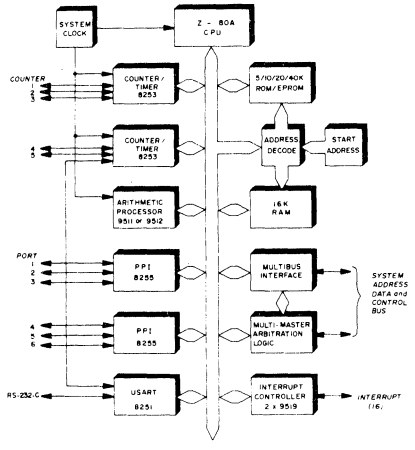


9. CIRCUIT/OUTLINE DRAWINGS

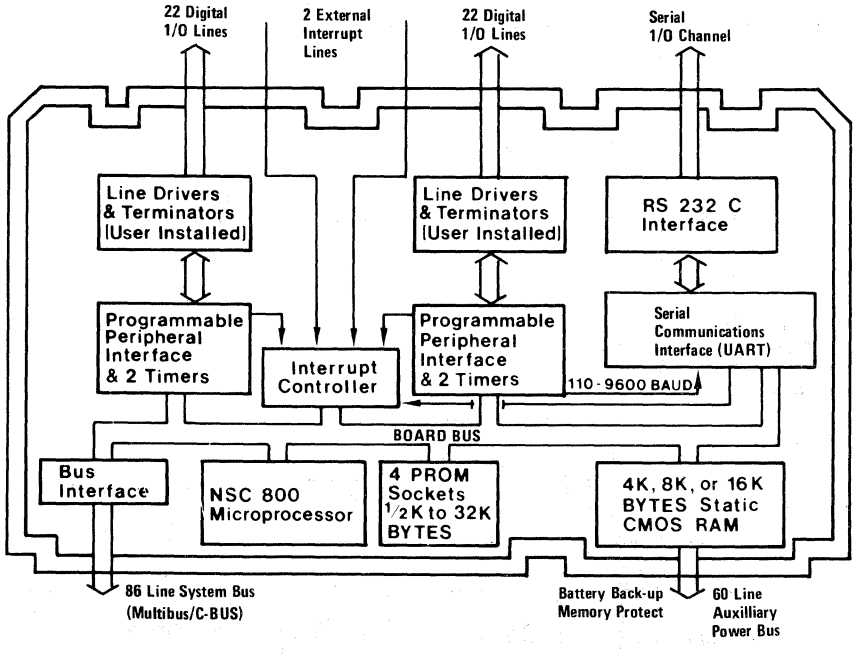
2MU006



2MU007

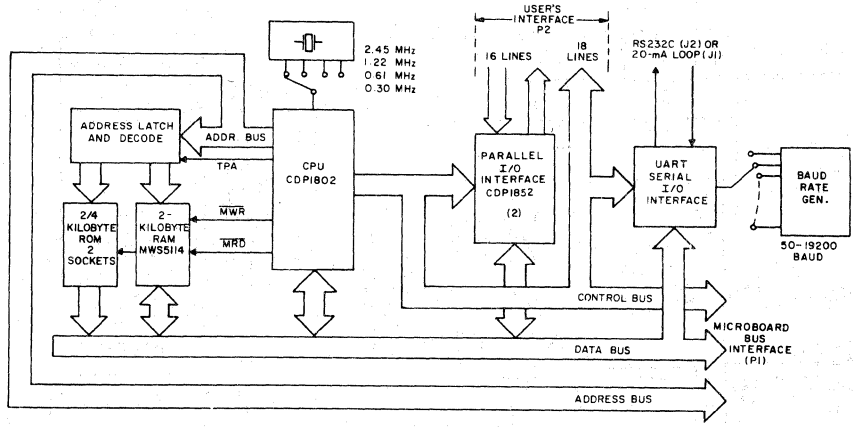


2MU008



9. CIRCUIT/OUTLINE DRAWINGS

2PR001



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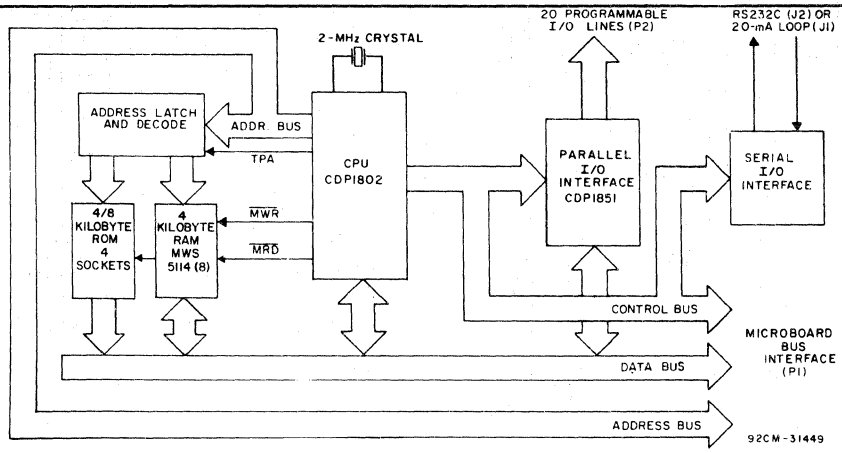
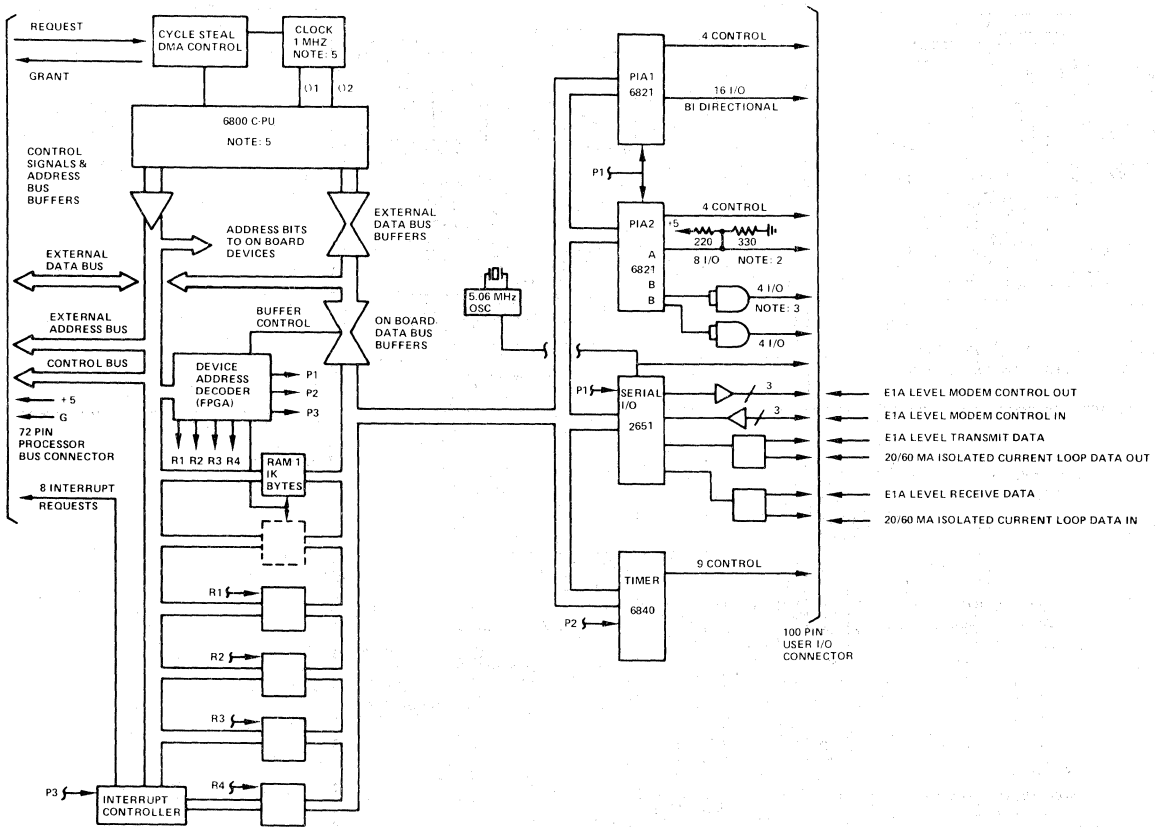
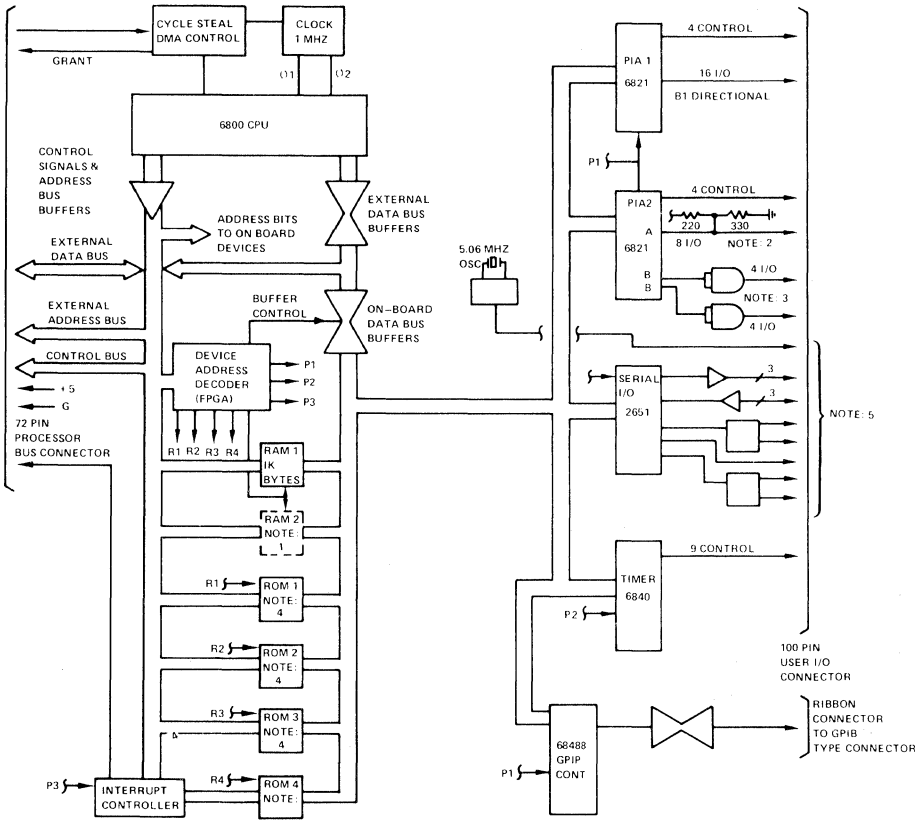


2PR003

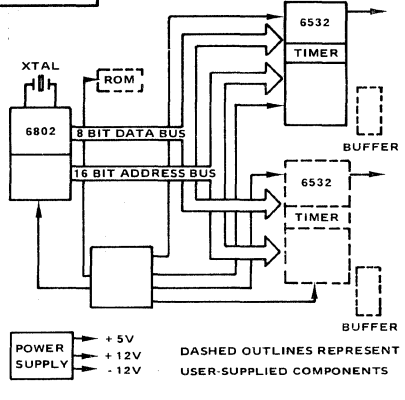


9. CIRCUIT/OUTLINE DRAWINGS

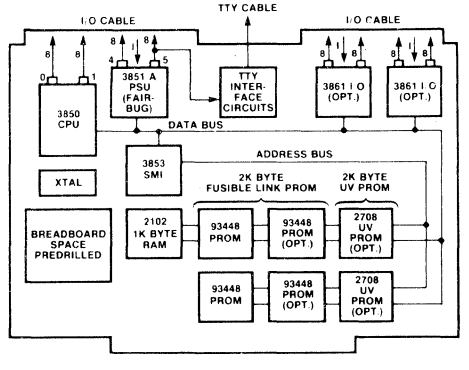
2PR005



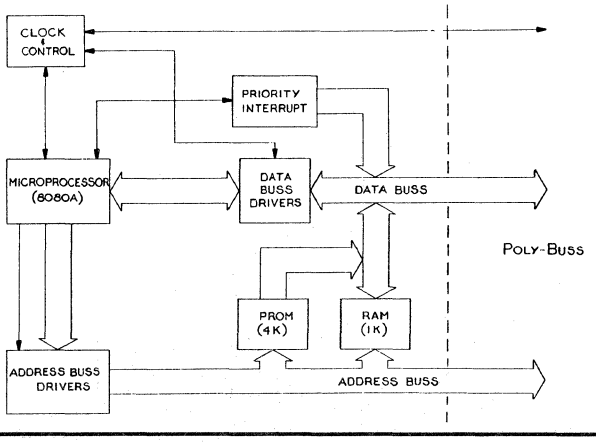
2PR006



2PR007

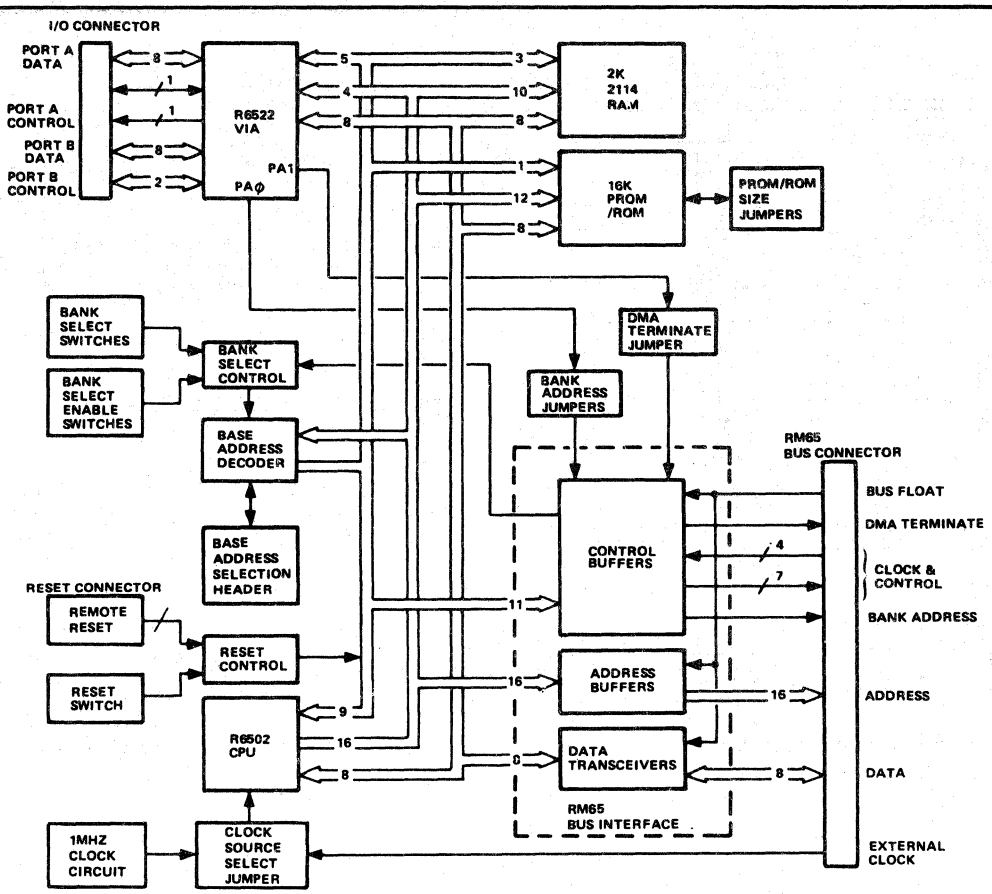


2PR008

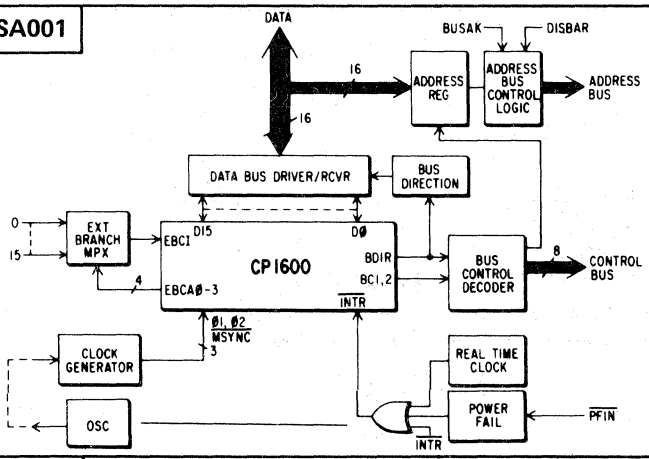


9. CIRCUIT/OUTLINE DRAWINGS

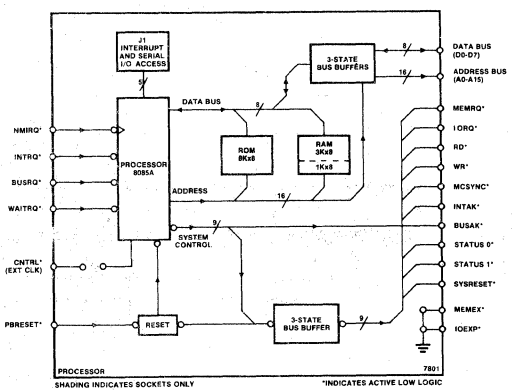
2RM001



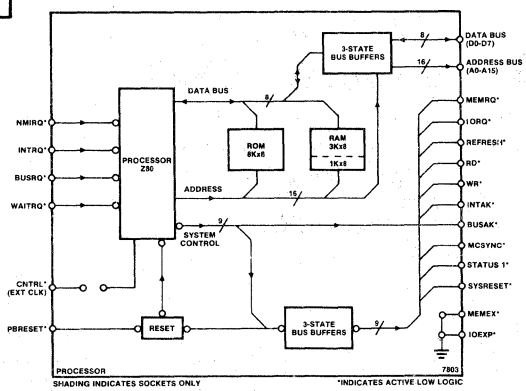
2SA001



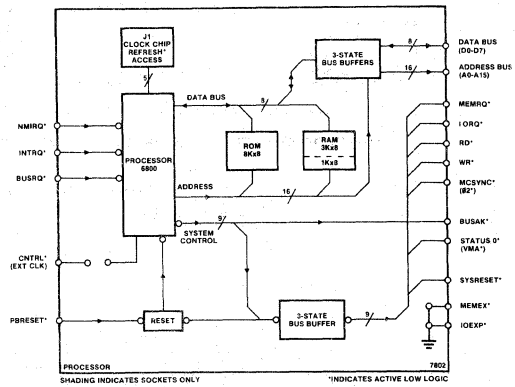
2SD001



2SD002

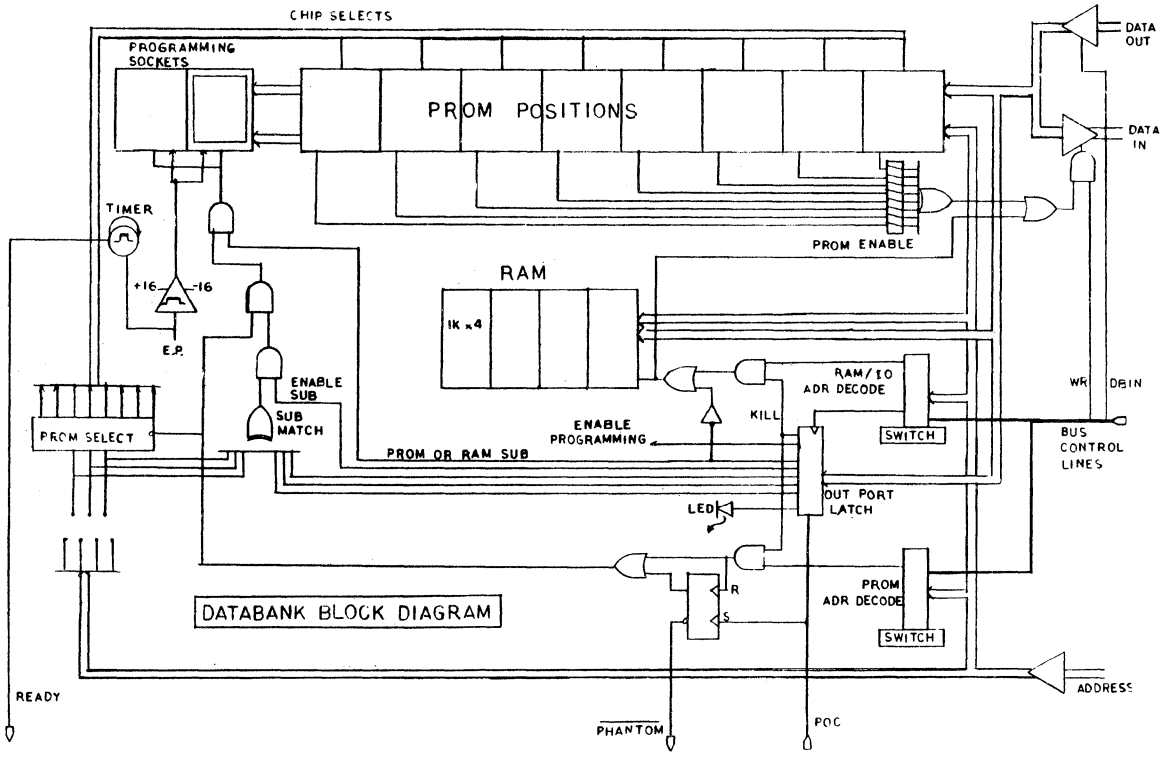


2SD003

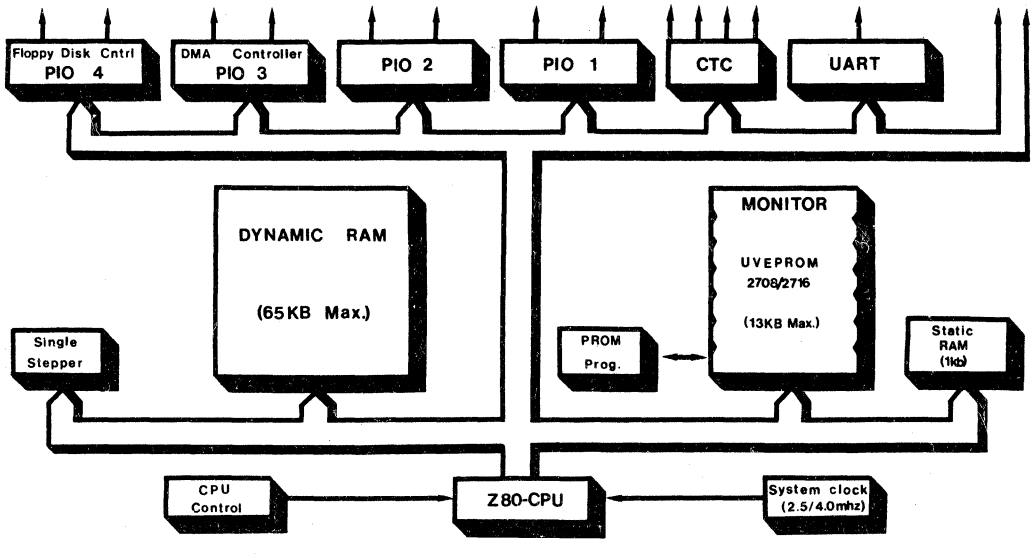


9. CIRCUIT/OUTLINE DRAWINGS

2SI001

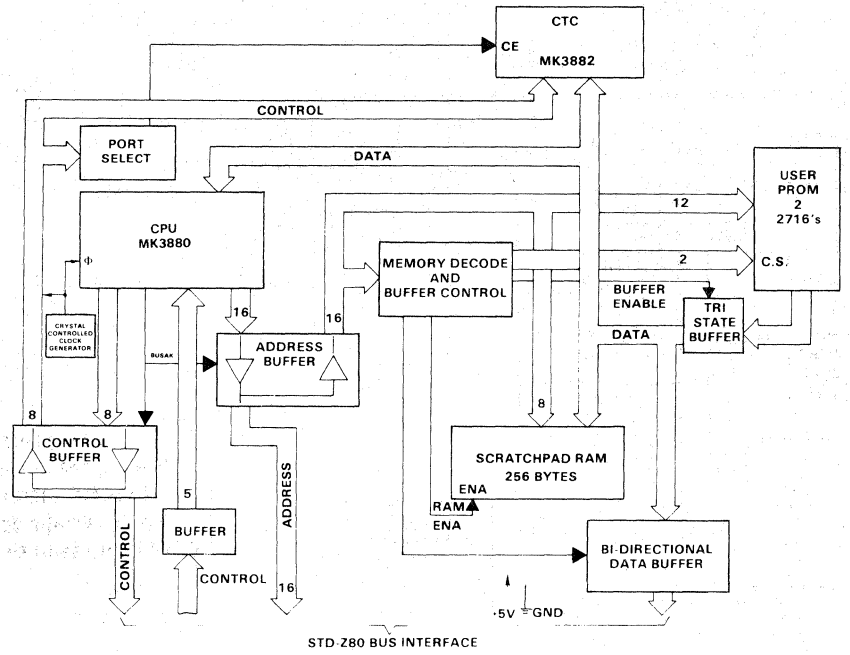


2SI002



9. CIRCUIT/OUTLINE DRAWINGS

2ST001

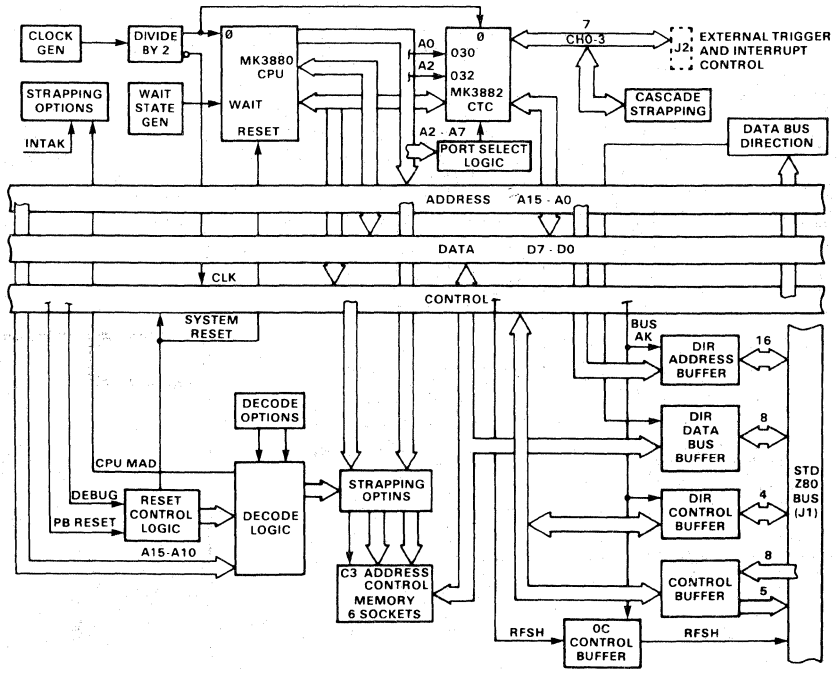


CARD DIMENSIONS

4.50 in (11.43cm) wide by 6.50 in (16.51cm) long

0.48 in (1.22cm) max ht. 0.062 in (0.16cm) circuit board thickness

2ST002



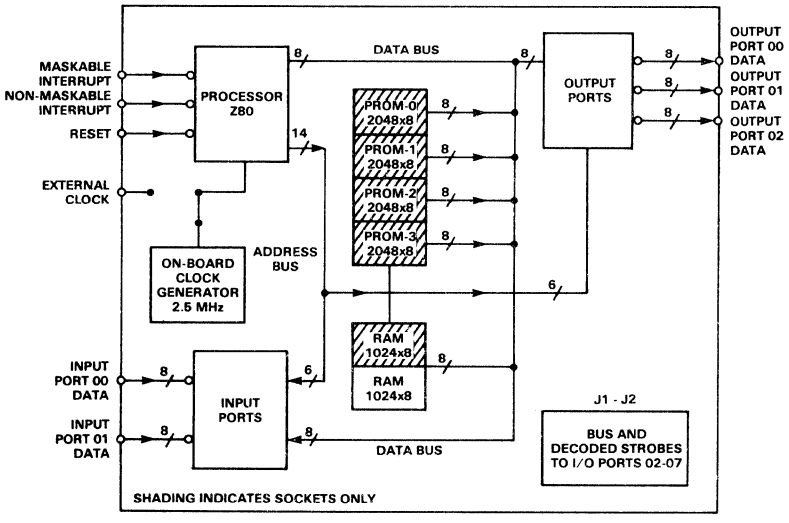
CARD DIMENSIONS

4.50 in (11.43cm) wide by 6.50 in (16.51cm) long

0.48 in (1.22cm) max ht. 0.062 in (0.16cm) circuit board thickness

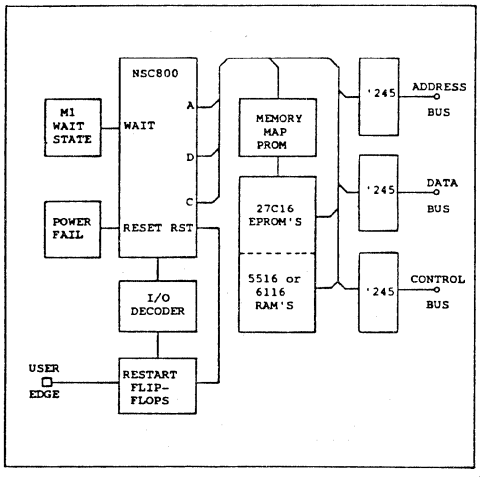
9. CIRCUIT/OUTLINE DRAWINGS

2ST003



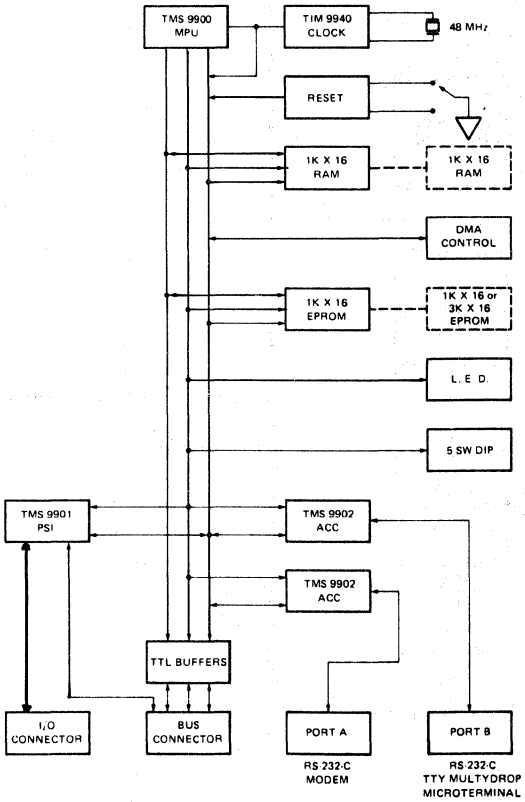
CARD DIMENSIONS
4.50 in (11.43cm) Wide
by 6.50 in (16.51cm) Long
0.48 in (1.22cm) max ht.
0.062 in (0.16cm) circuit board thickness

2ST004

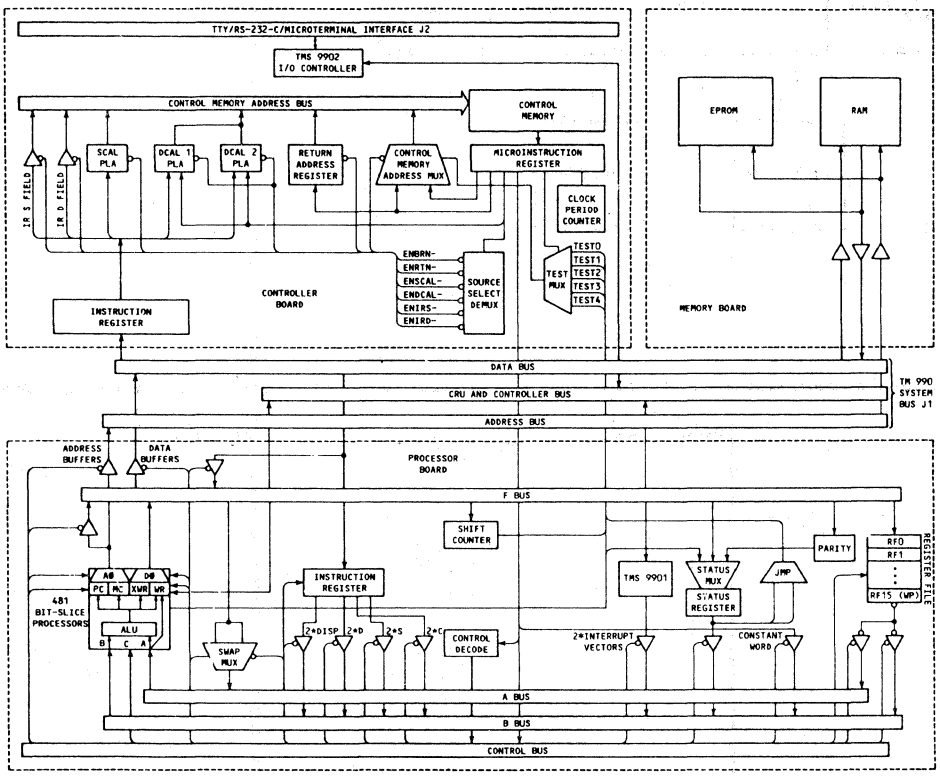


9. CIRCUIT/OUTLINE DRAWINGS

2TM001

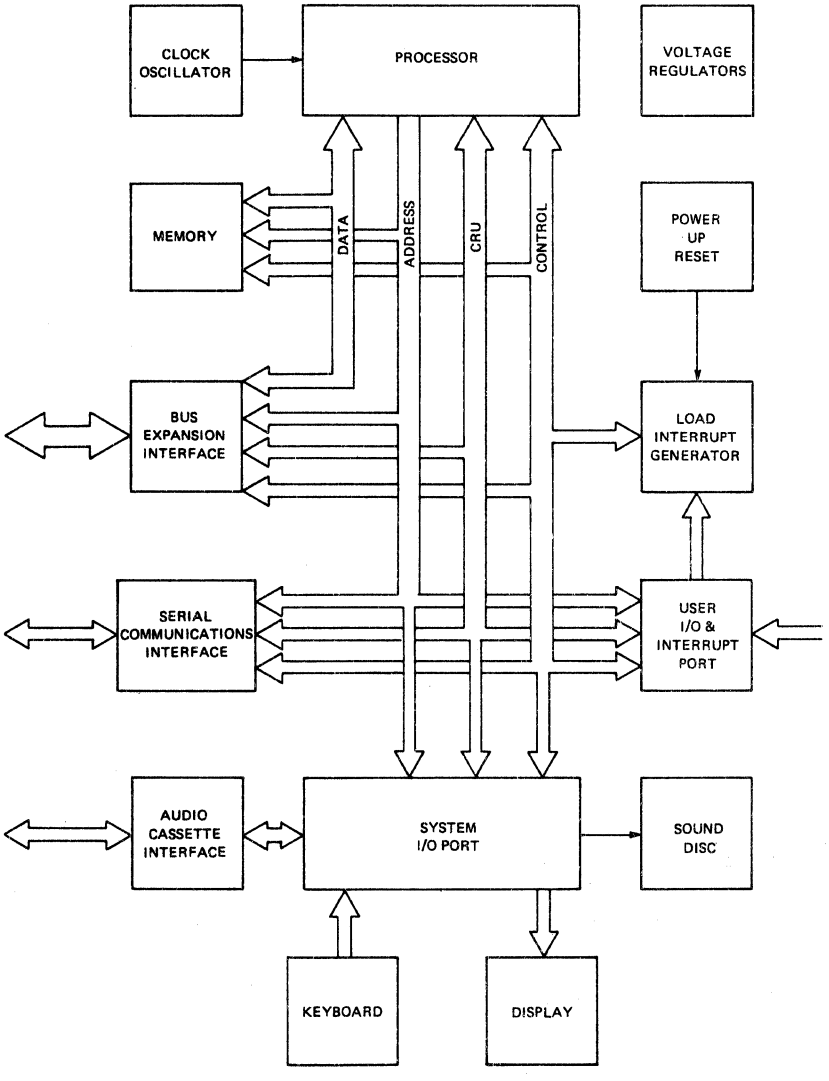


2TM002



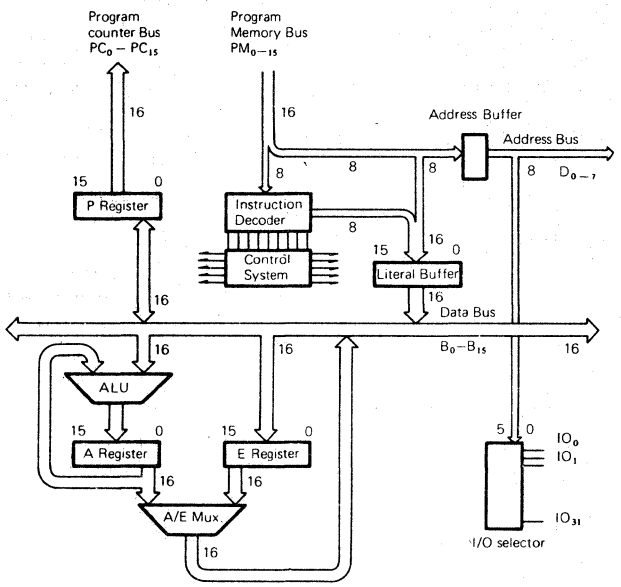
9. CIRCUIT/OUTLINE DRAWINGS

2TM003

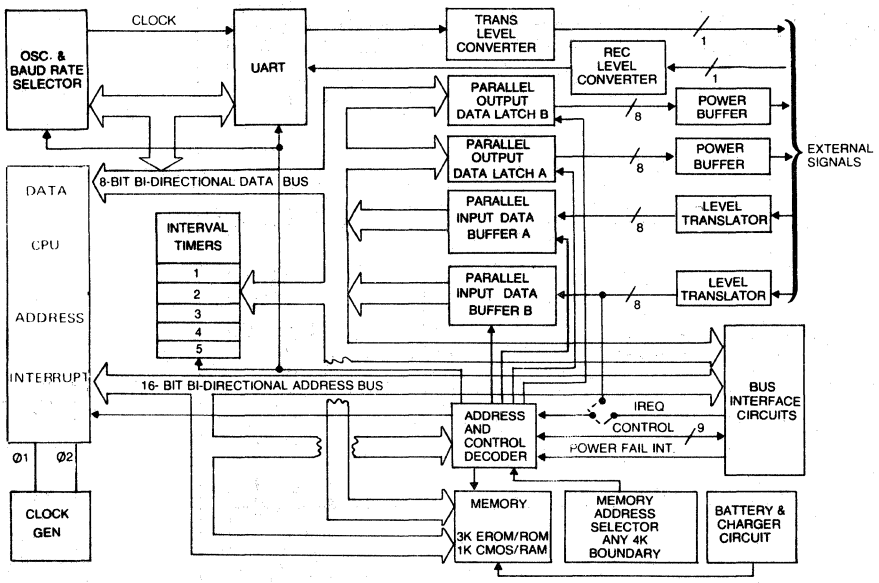


9. CIRCUIT/OUTLINE DRAWINGS

2UB001



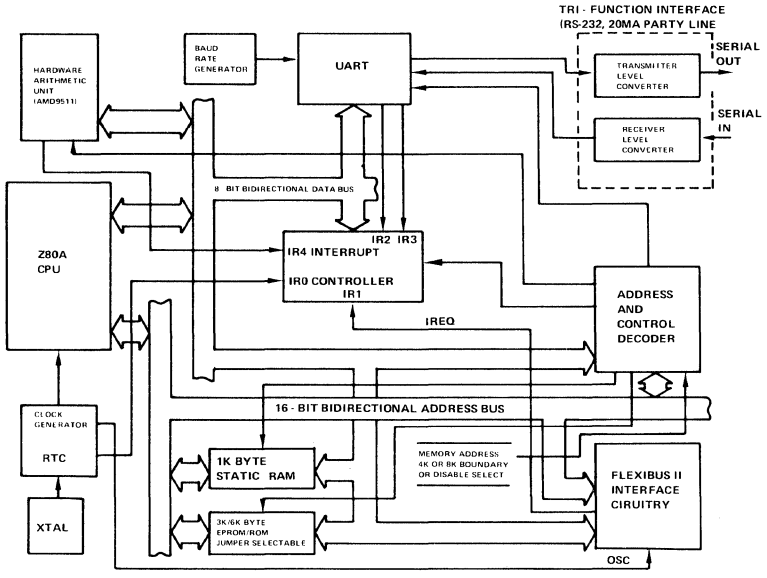
2ZZ001



Size: Width X length 215.9mm X 266.7mm

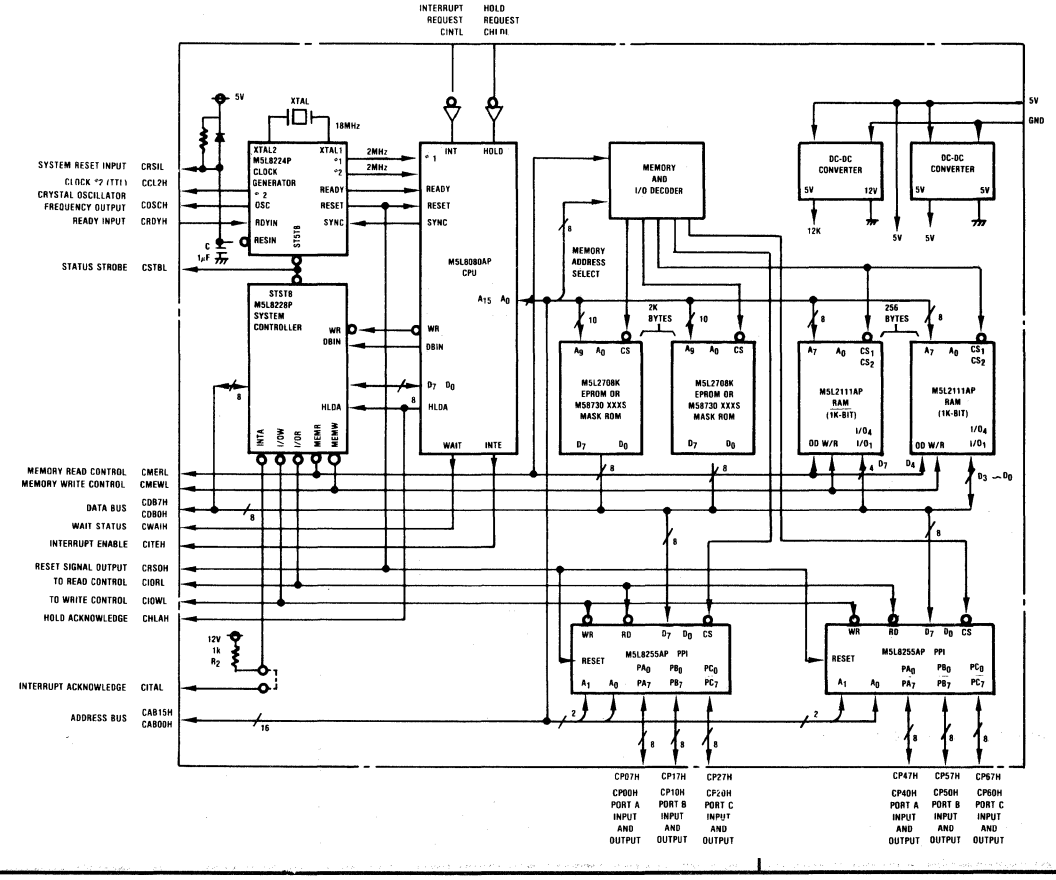
9. CIRCUIT/OUTLINE DRAWINGS

2ZZ002



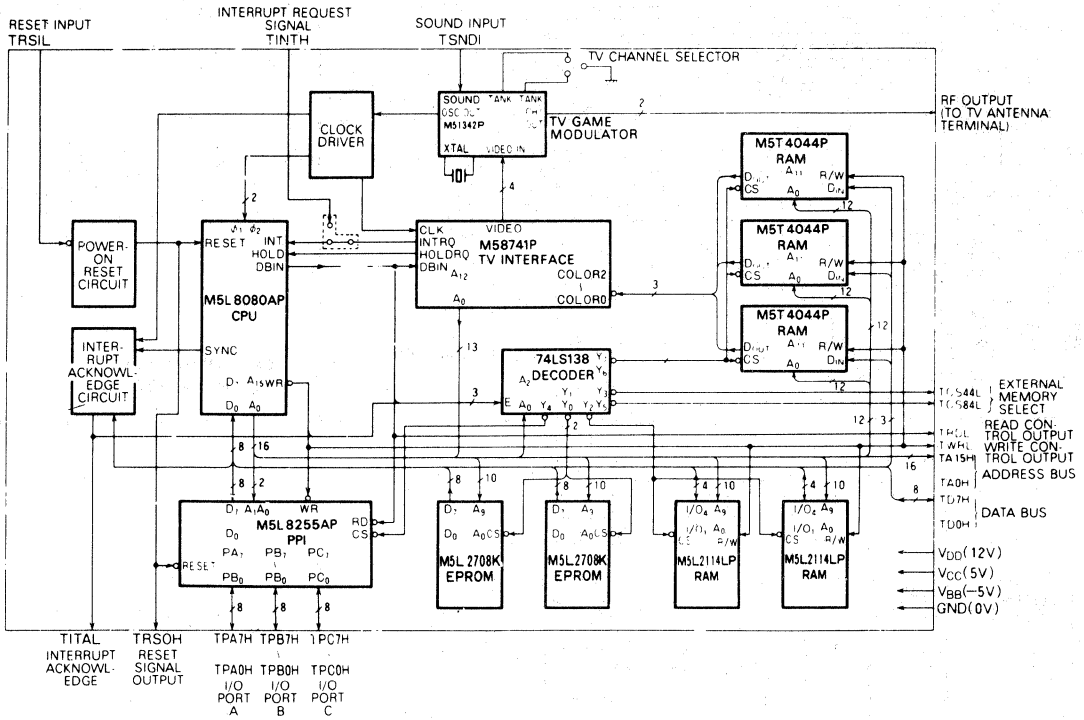
Size: W x L, 214.9mm x 266.7mm

2ZZ003



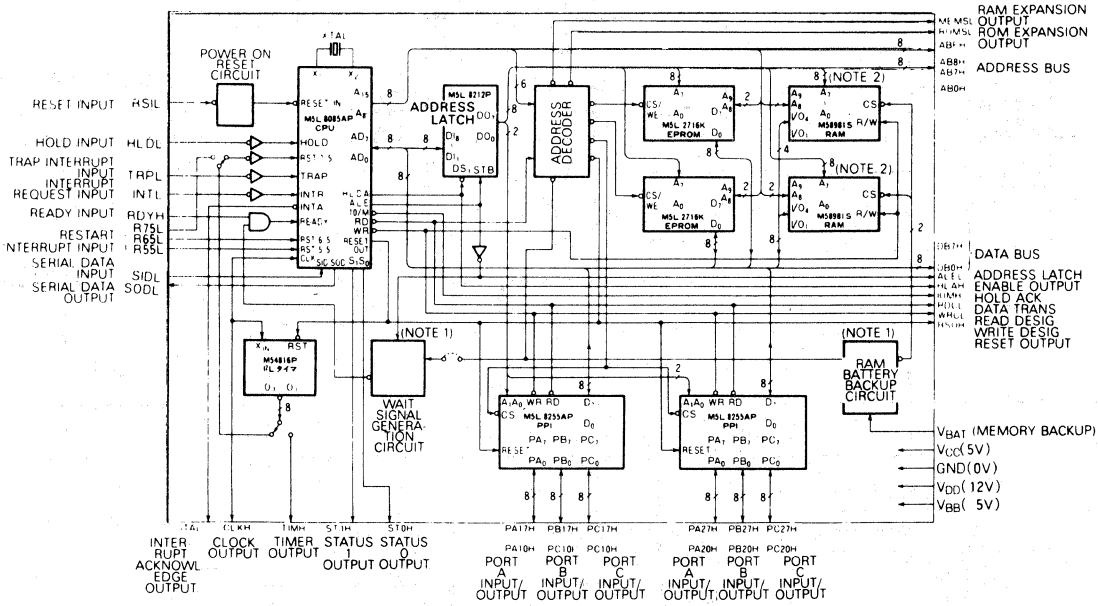
9. CIRCUIT/OUTLINE DRAWINGS

2ZZ004



Card Dimensions: 125mm X 145mm

2ZZ005

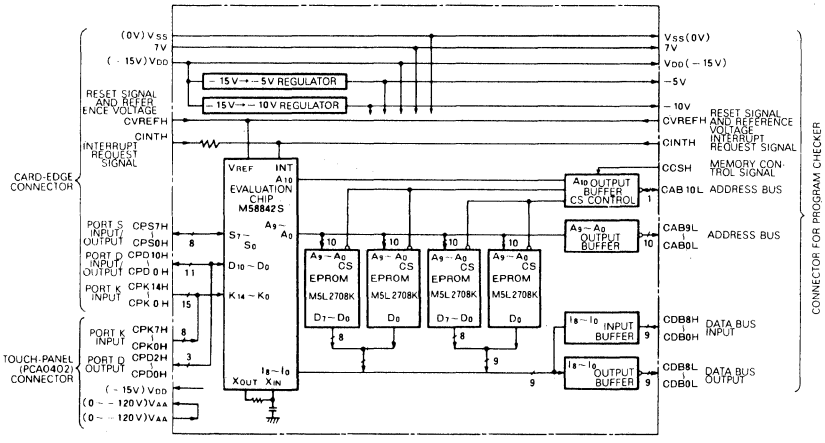


Note 1 The wait signal generation circuit and the RAM battery backup circuit are not mounted on the PCA8501G01.
2 The M5L21114LPs are mounted on the PCA8501G01, instead of M58981Ss.

Card Dimensions: 125mm X 145mm

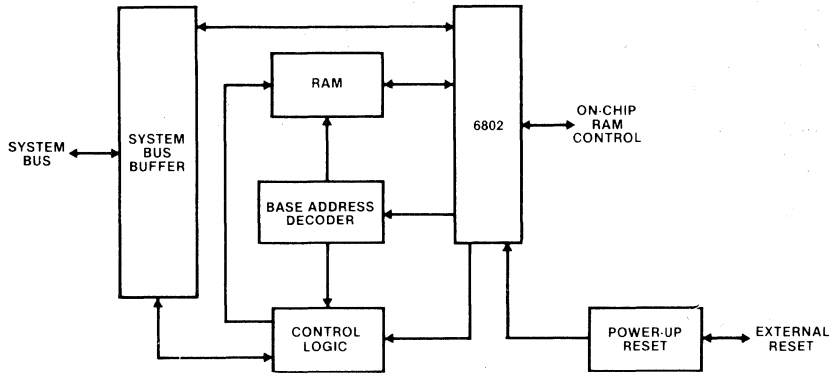
9. CIRCUIT/OUTLINE DRAWINGS

2ZZ006



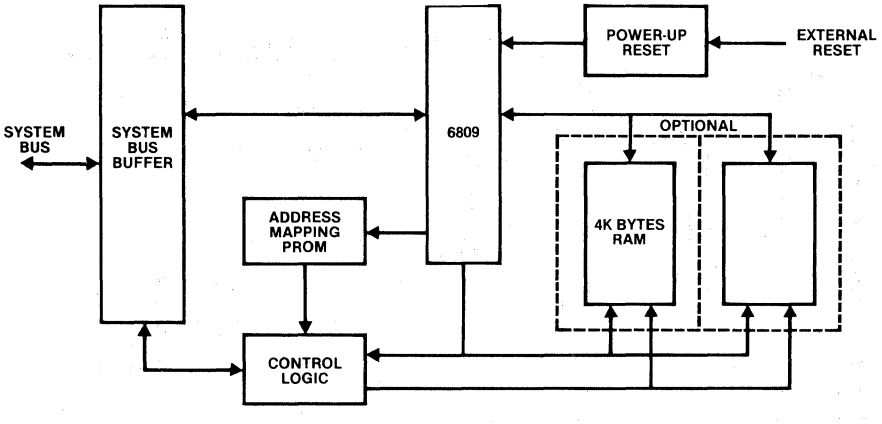
Card Dimensions
190mm X 180mm

2ZZ007



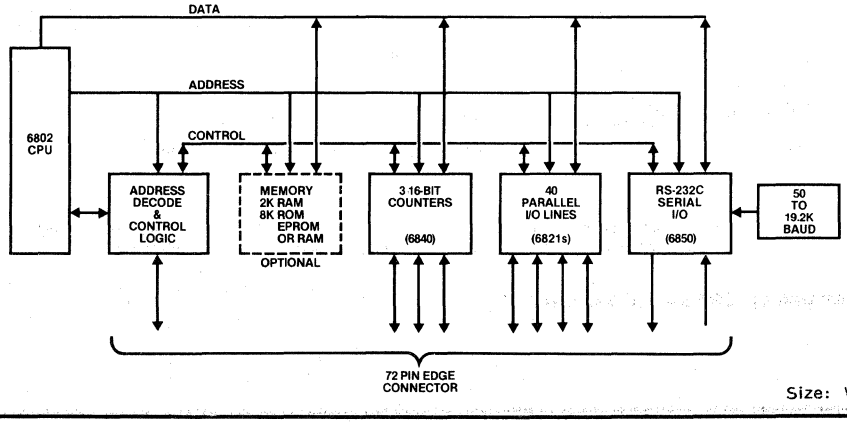
Size: W X L 114mm X 164.5mm

2ZZ008



ADP1010	ADP1020
2708	2708
2758	2758
2716	2716
2732	2732
or	or
4118 RAM	4118 RAM
	6116 RAM

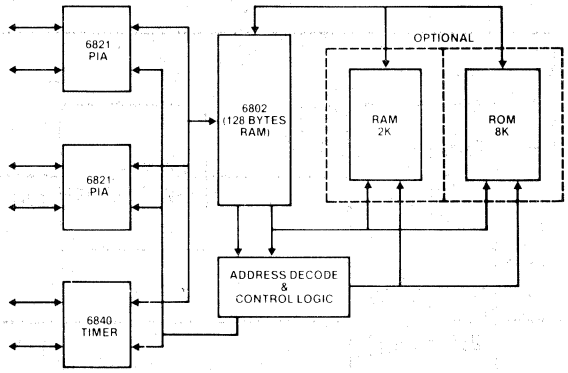
2ZZ009



Size: W x L, 114mm x 164.5mm

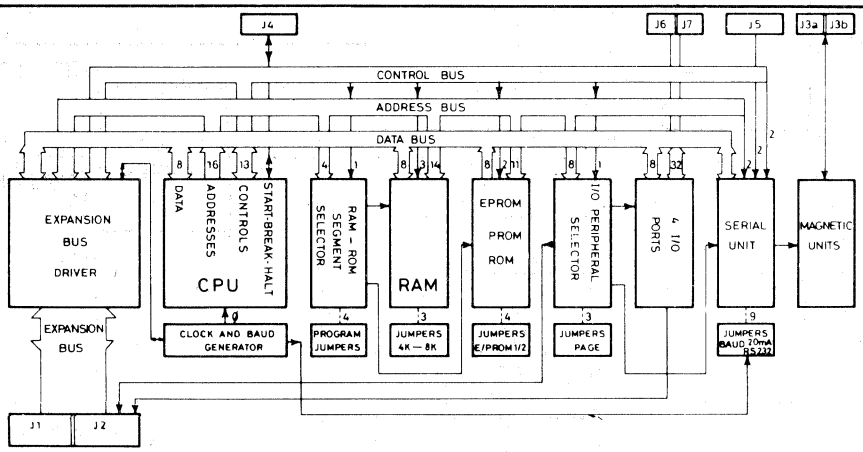
9. CIRCUIT/OUTLINE DRAWINGS

2ZZ010

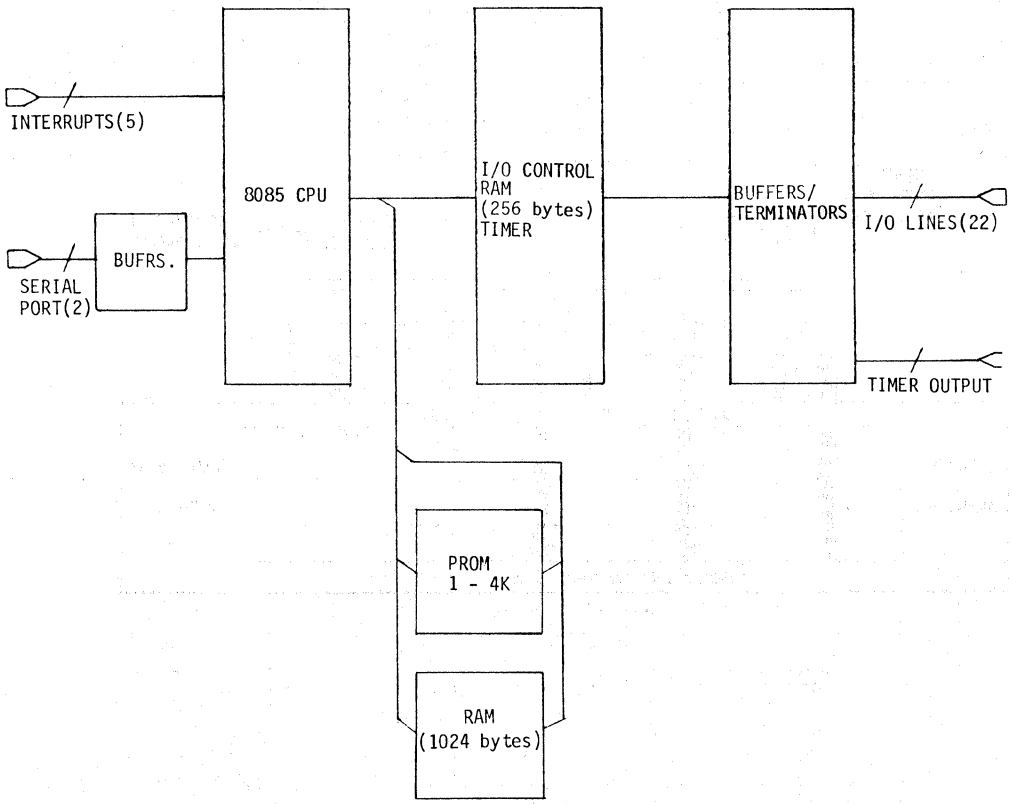


Size: W x L, 114mm x 164.5mm

2ZZ011

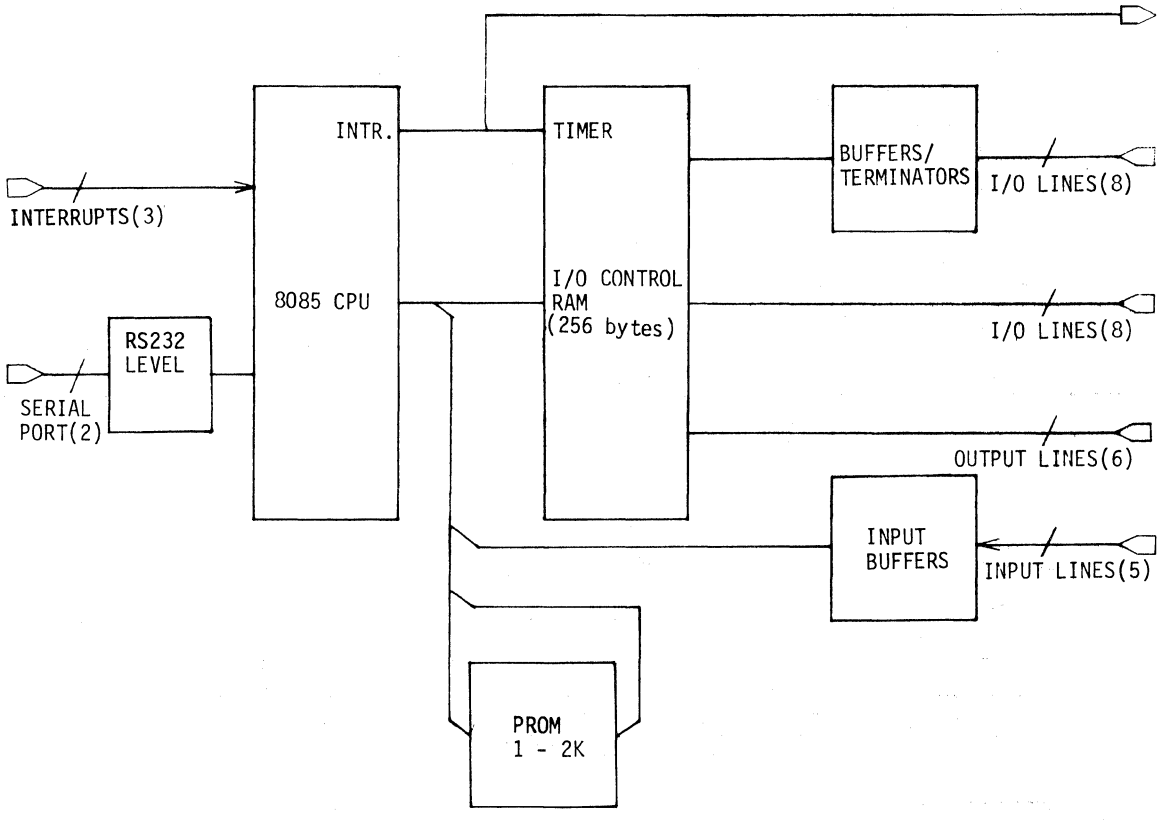


2ZZ012

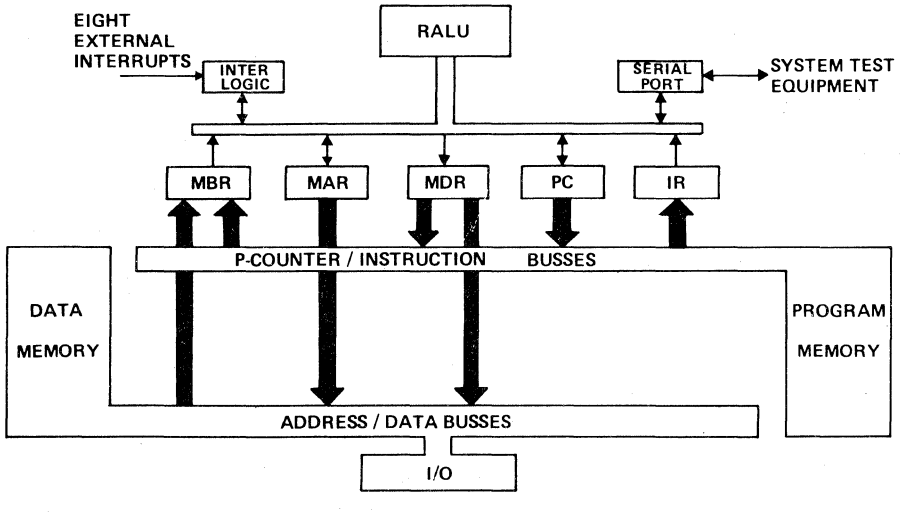


9. CIRCUIT/OUTLINE DRAWINGS

2ZZ013

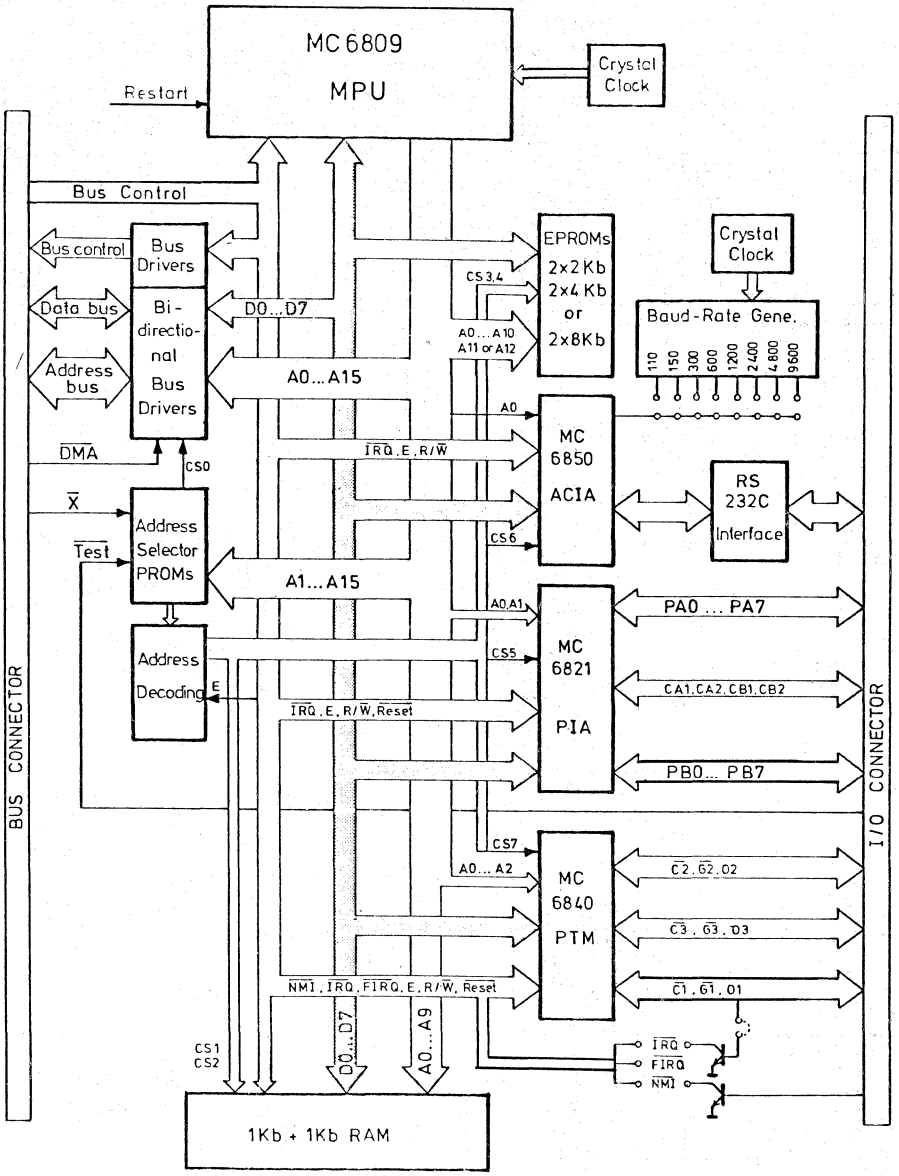


2ZZ014



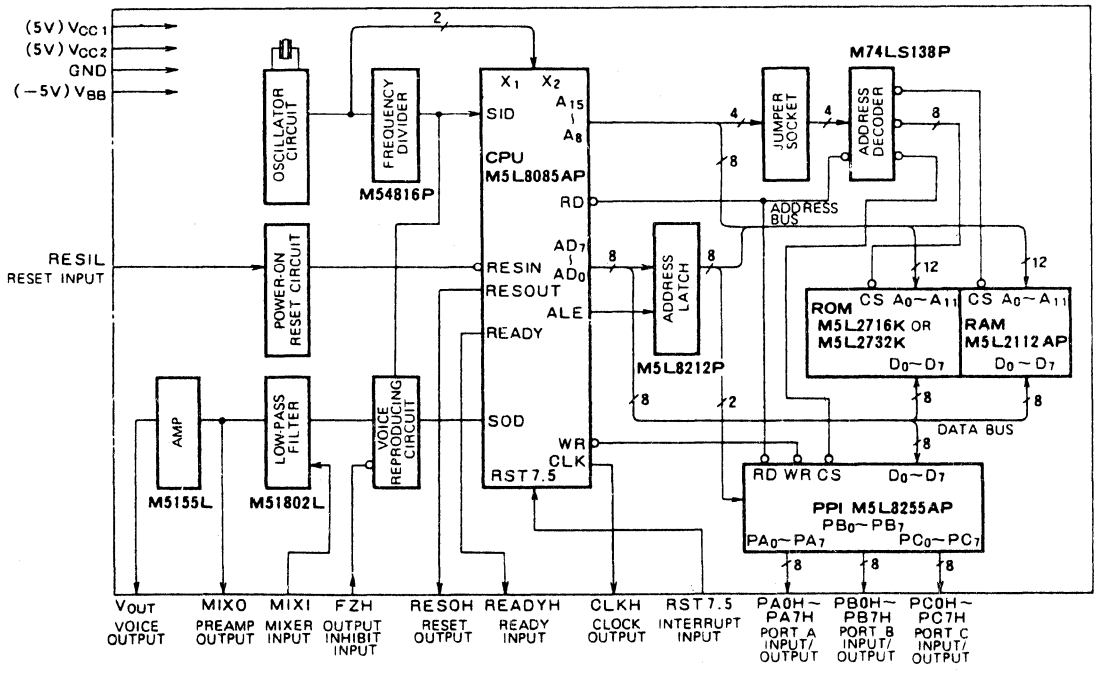
9. CIRCUIT/OUTLINE DRAWINGS

2ZZ015

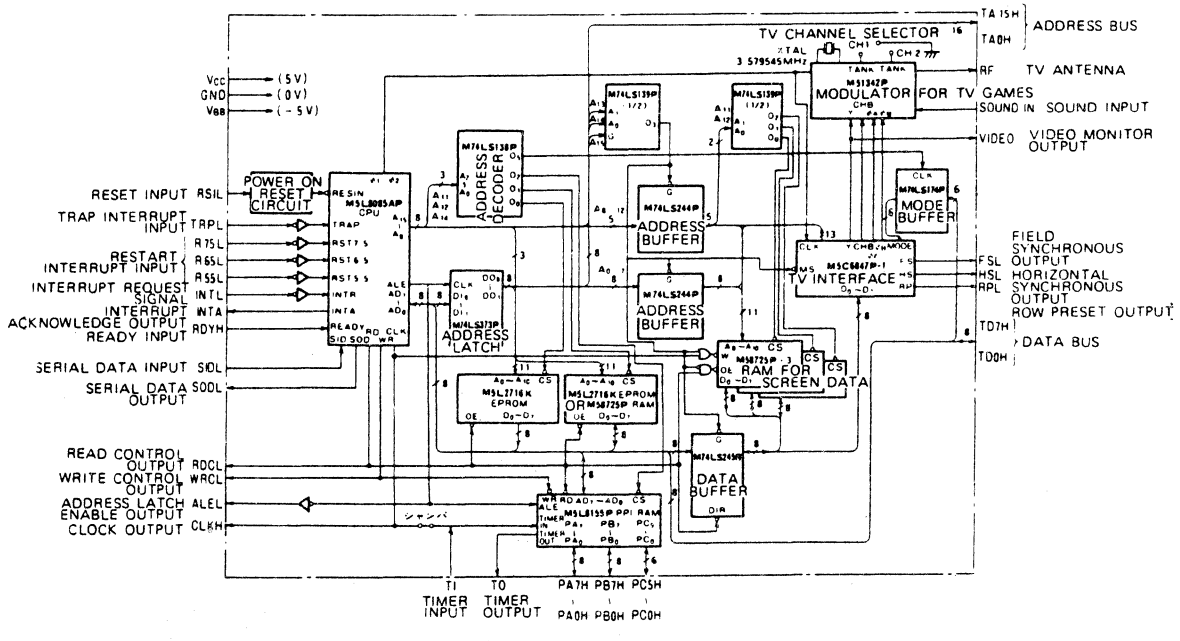


9. CIRCUIT/OUTLINE DRAWINGS

2ZZ016

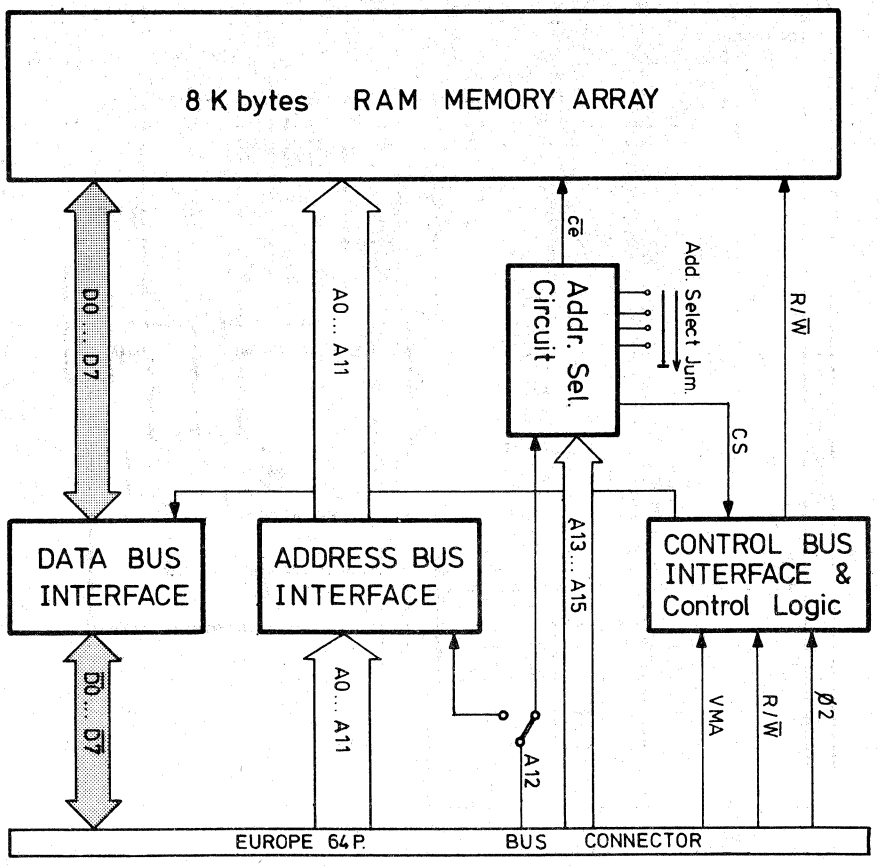


2ZZ017

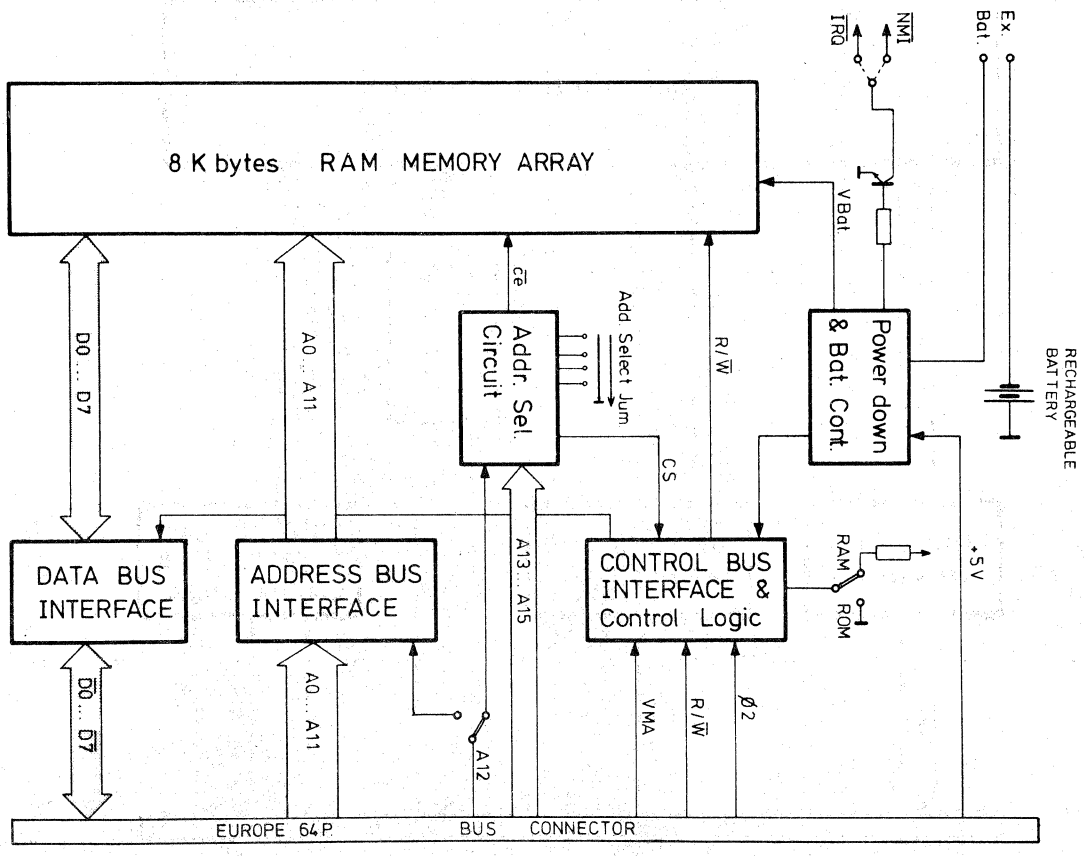


9. CIRCUIT/OUTLINE DRAWINGS

3EU001

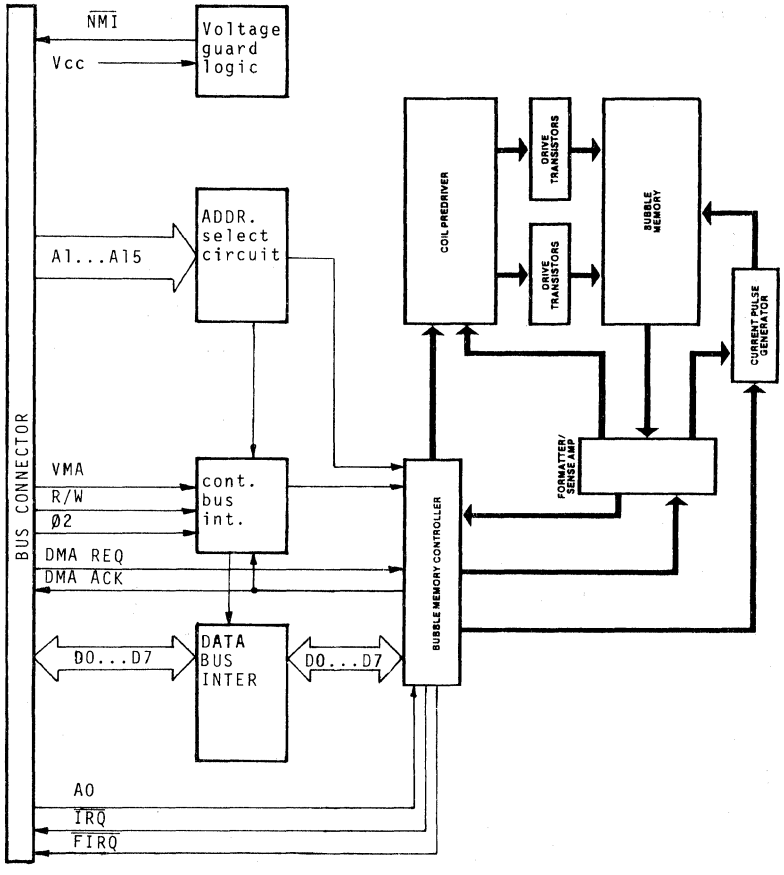


3EU002

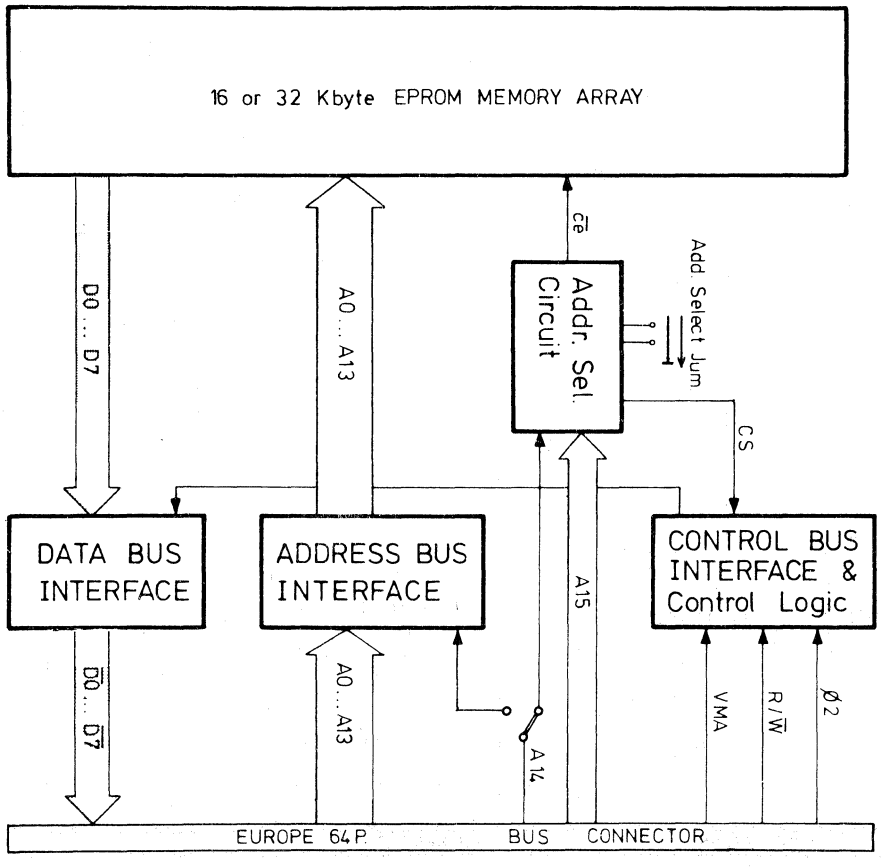


9. CIRCUIT/OUTLINE DRAWINGS

3EU003

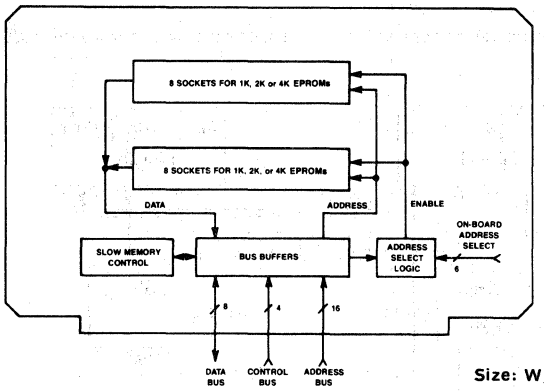


3EU004



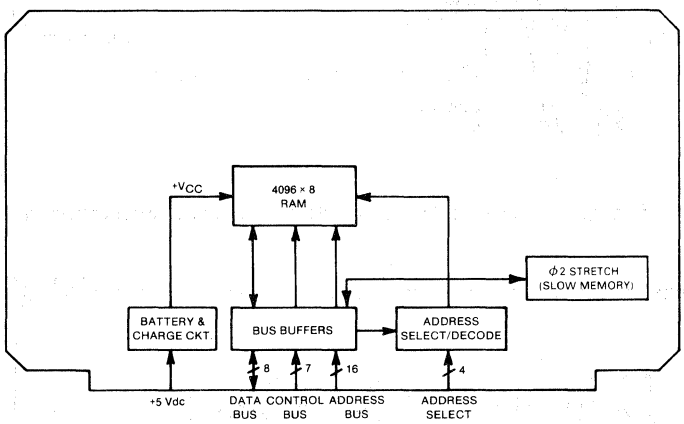
9. CIRCUIT/OUTLINE DRAWINGS

3EX001

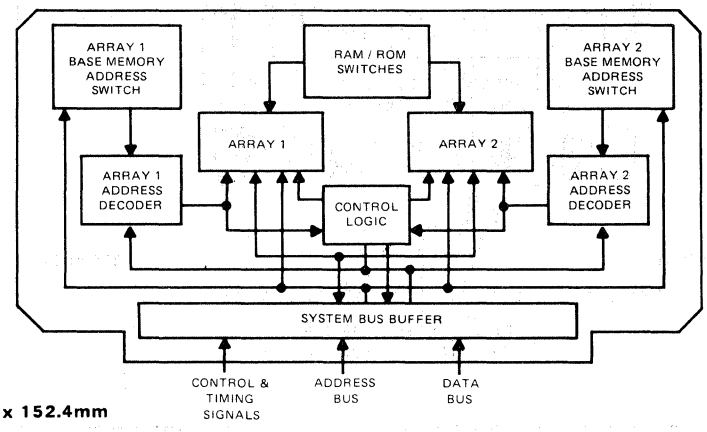


Size: W x H, 247.7 x 152.4mm

3EX002

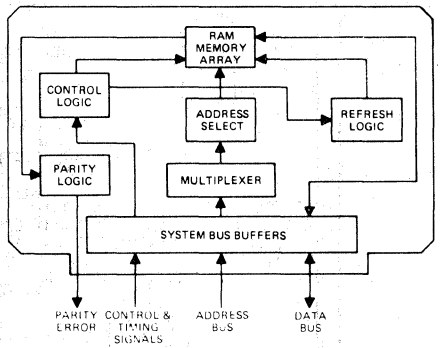


3EX004



Size: W x H, 247.7 x 152.4mm

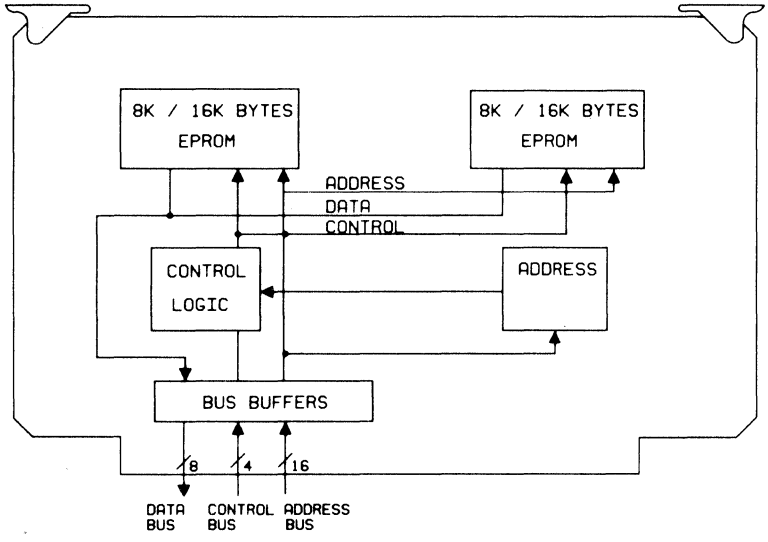
3EX005



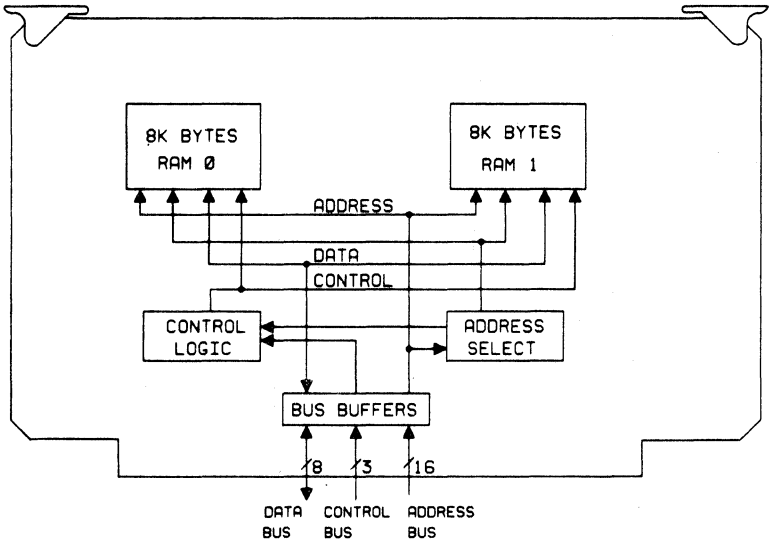
Size: W x H, 247.7mm x 152.4mm

9. CIRCUIT/OUTLINE DRAWINGS

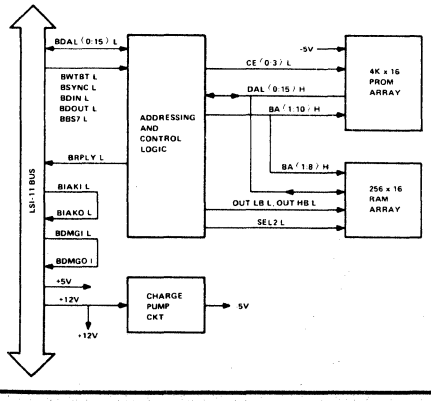
3EX006



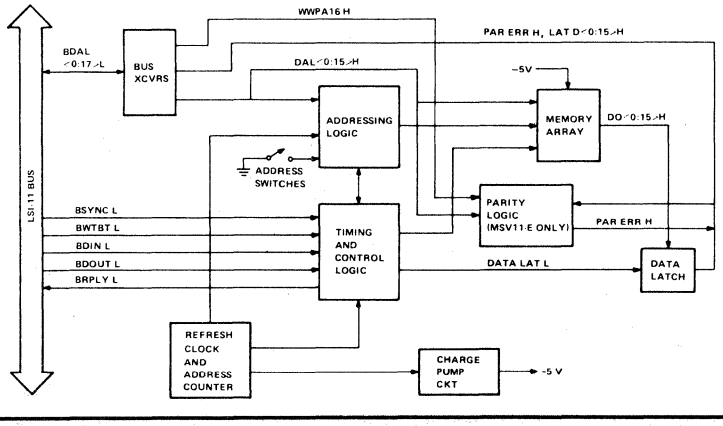
3EX007



3LS001

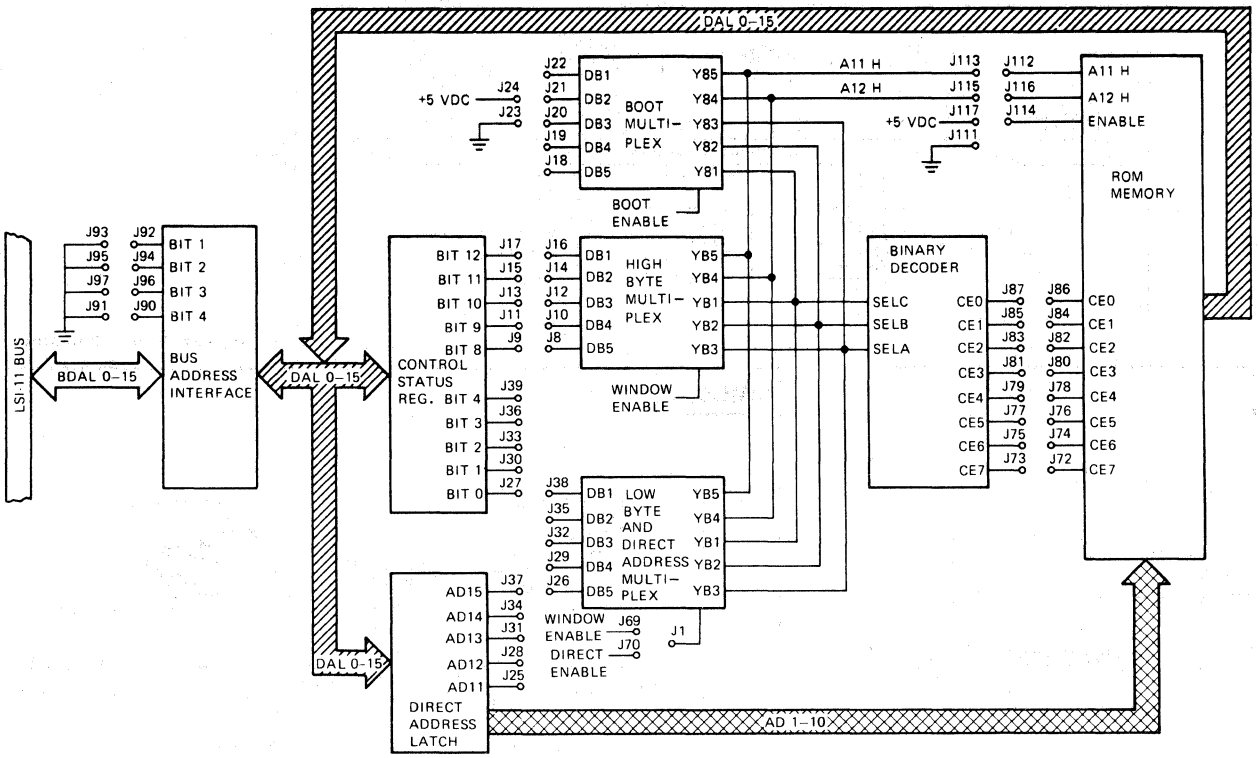


3LS002

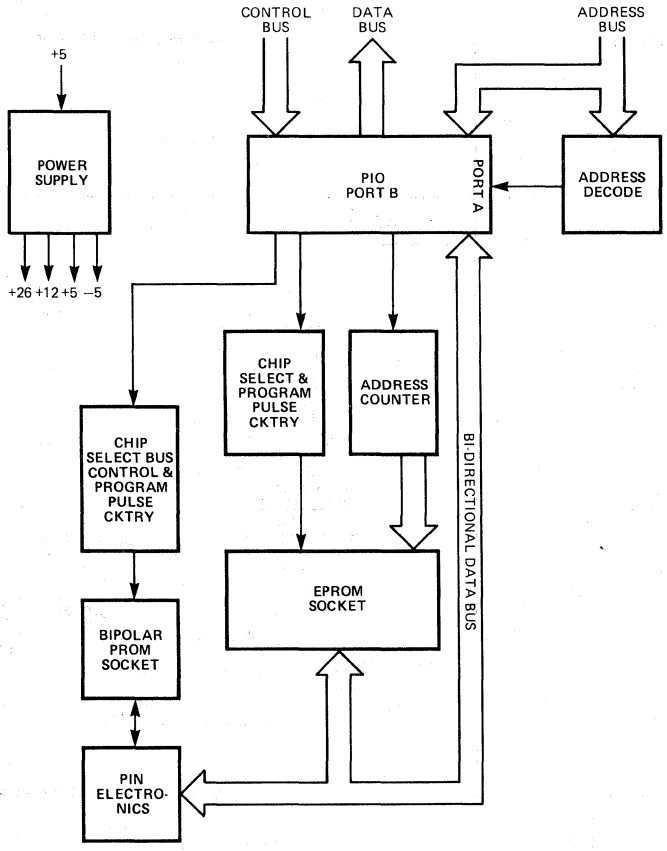


9. CIRCUIT/OUTLINE DRAWINGS

3LS003



3MC001



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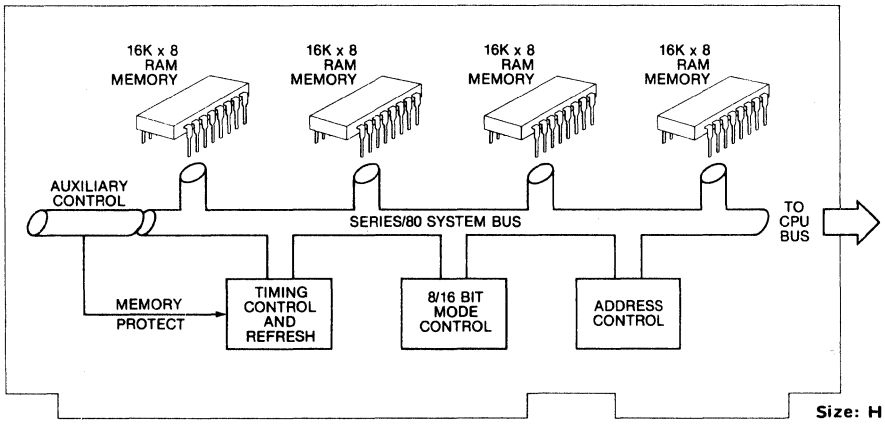
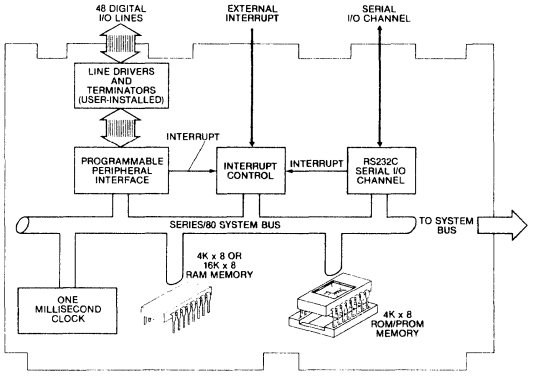
9. CIRCUIT/OUTLINE DRAWINGS

3MU001



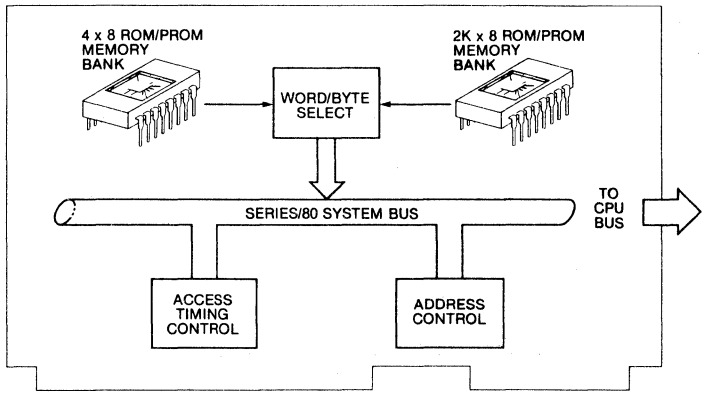
Size: H x W, 171.5mm x 304.8mm

3MU002



Size: H x W, 171.5mm x 304.8mm

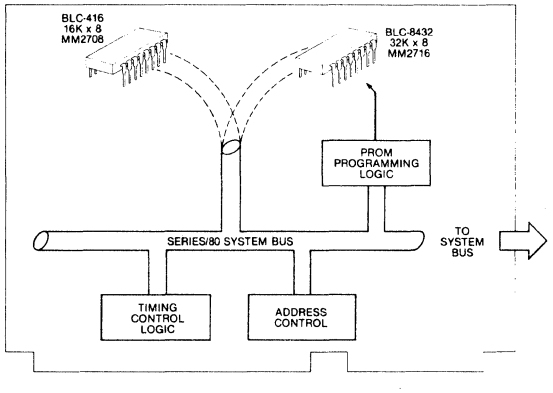
3MU003



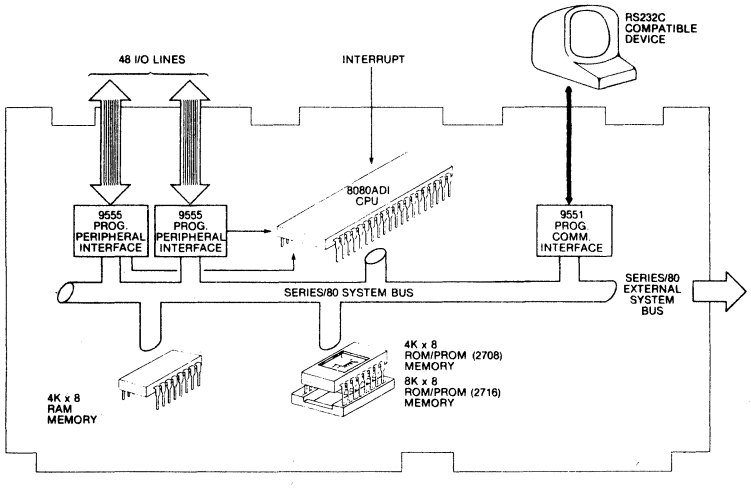
Size: H x W, 171.5mm x 304.8mm

3MU004

Size: H x W, 171.5mm x 304.8mm



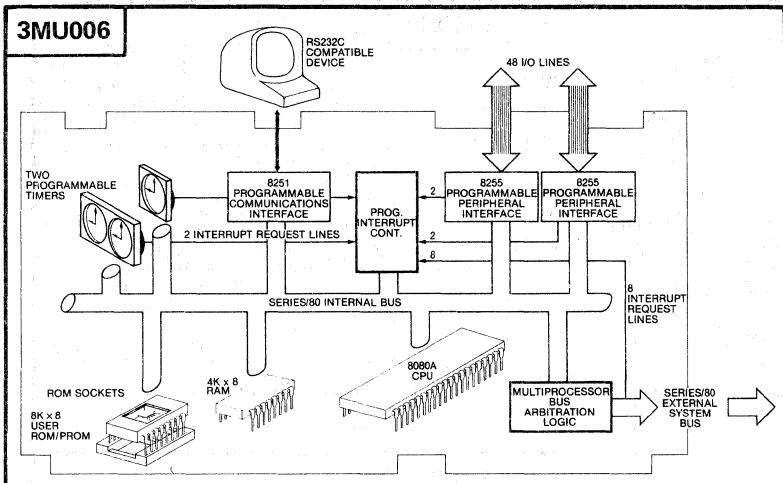
3MU005



Size: H x W, 171.5mm x 304.8mm

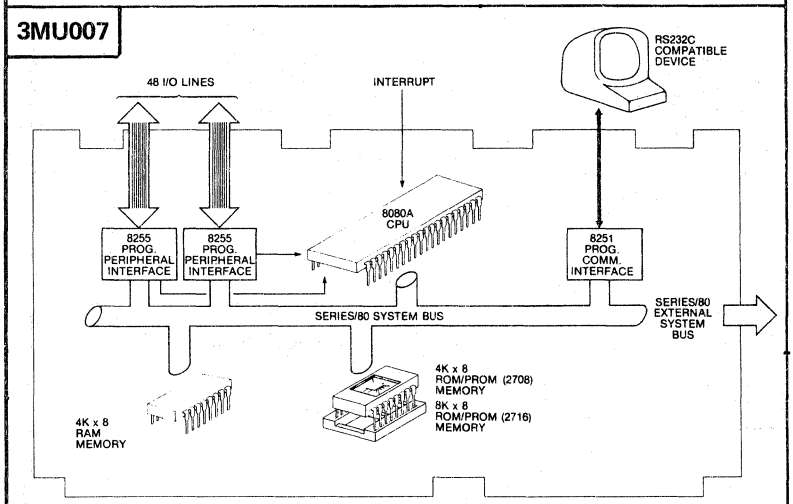
9. CIRCUIT/OUTLINE DRAWINGS

3MU006



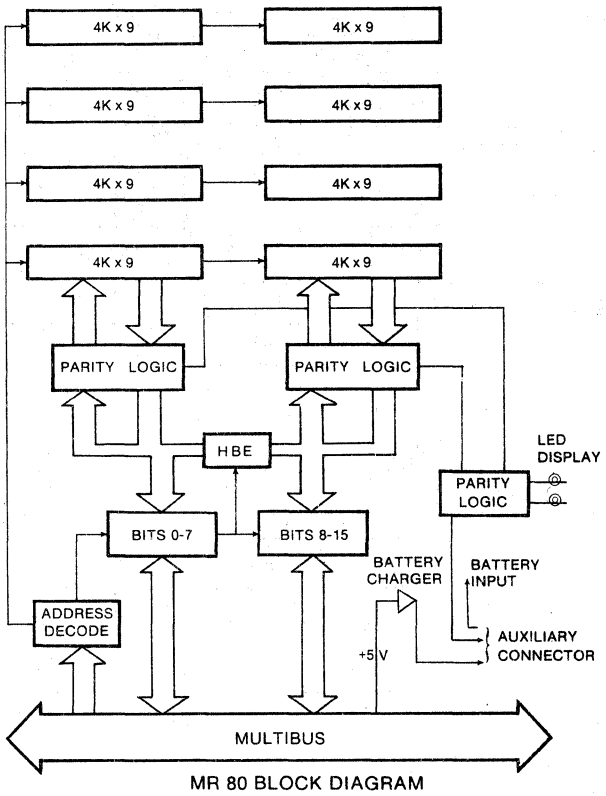
Size: H x W, 171.5mm x 304.8mm

3MU007



Size: H x W, 171.5mm x 304.8mm

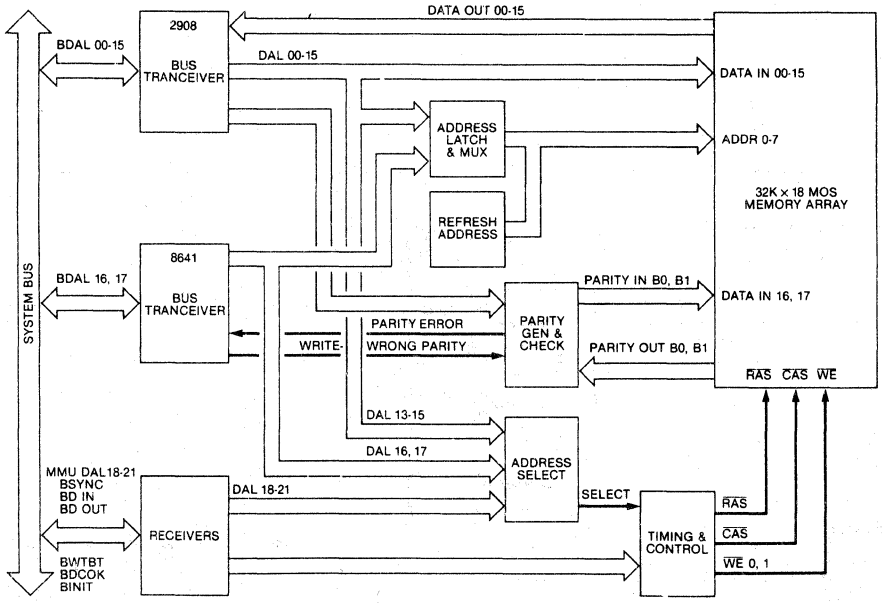
3MU009



MR 80 BLOCK DIAGRAM

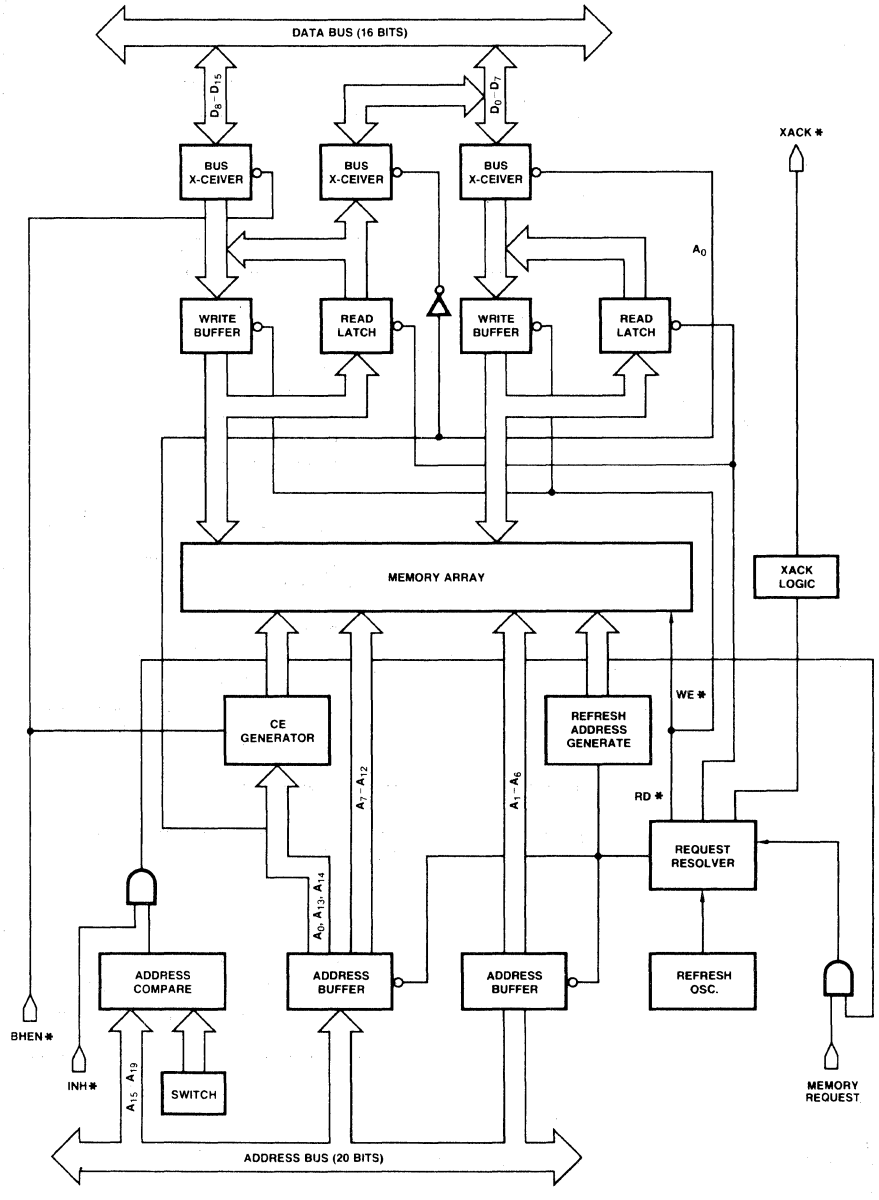
WIDTH : 30.48 cm
DEPTH : 17.15 cm
THICKNESS: 1.27 cm

3MU008

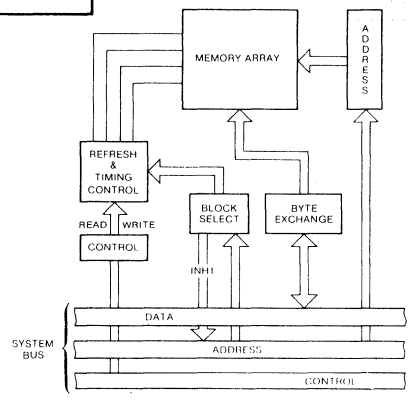


9. CIRCUIT/OUTLINE DRAWINGS

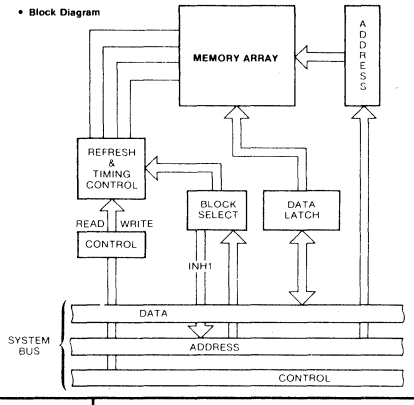
3MU010



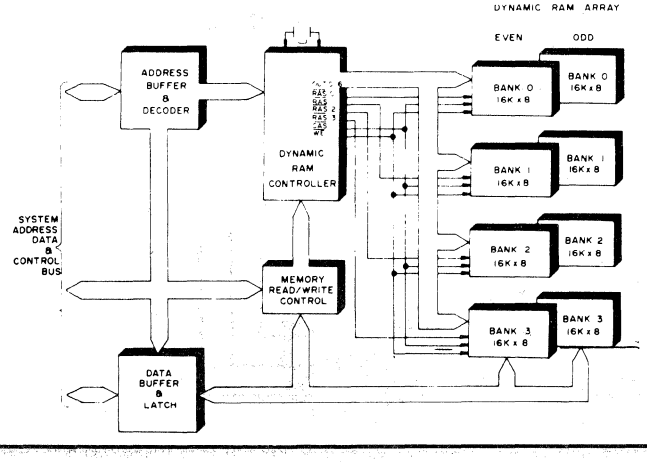
3MU011



3MU012

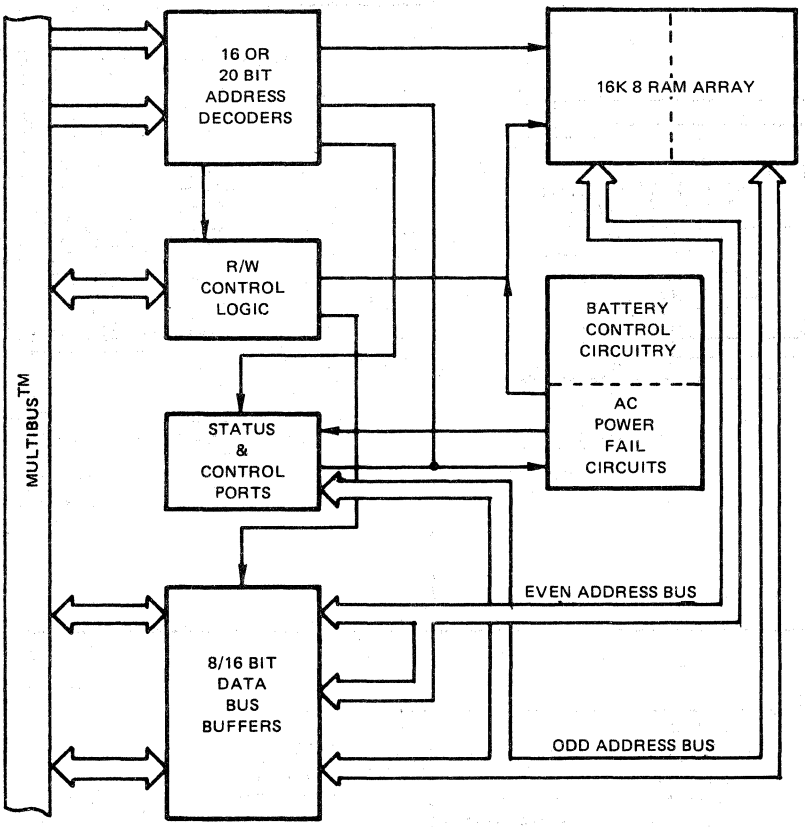


3MU013

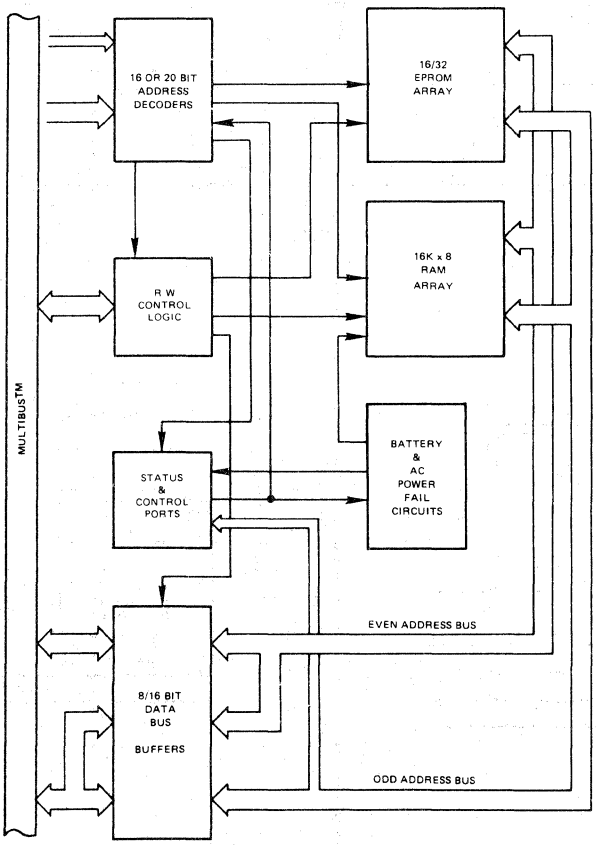


9. CIRCUIT/OUTLINE DRAWINGS

3MU014

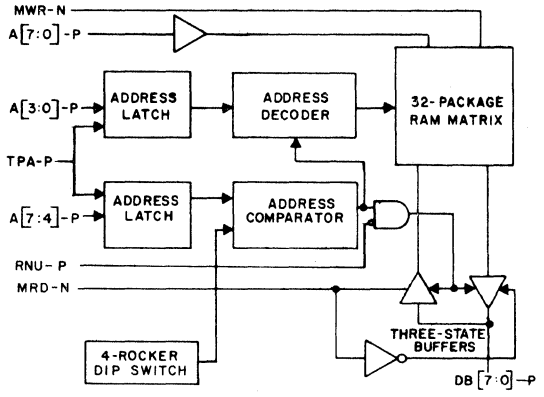


3MU015

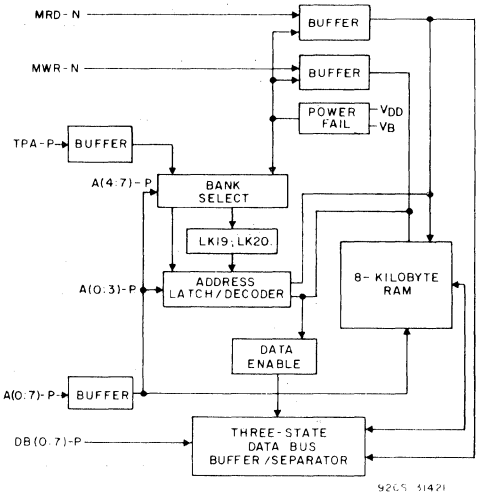


9. CIRCUIT/OUTLINE DRAWINGS

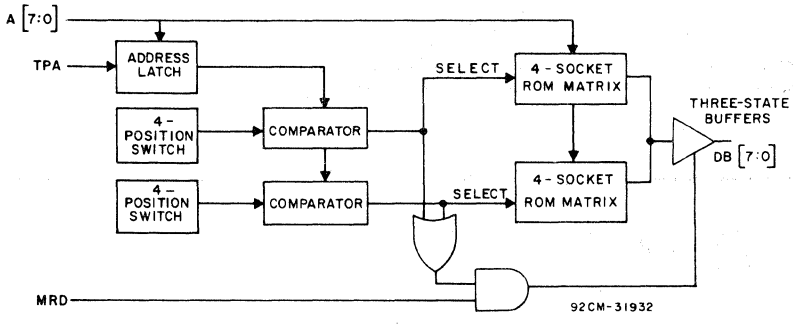
3PR001



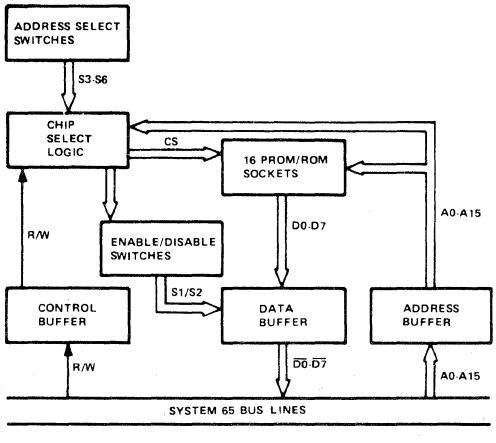
3PR002



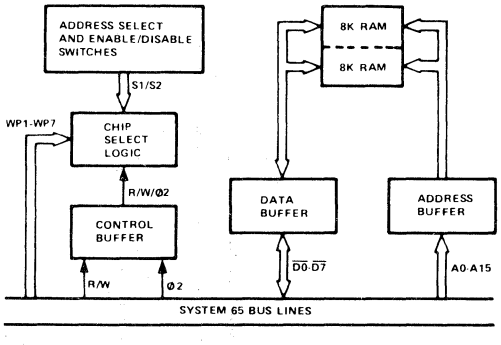
3PR003



3PR004

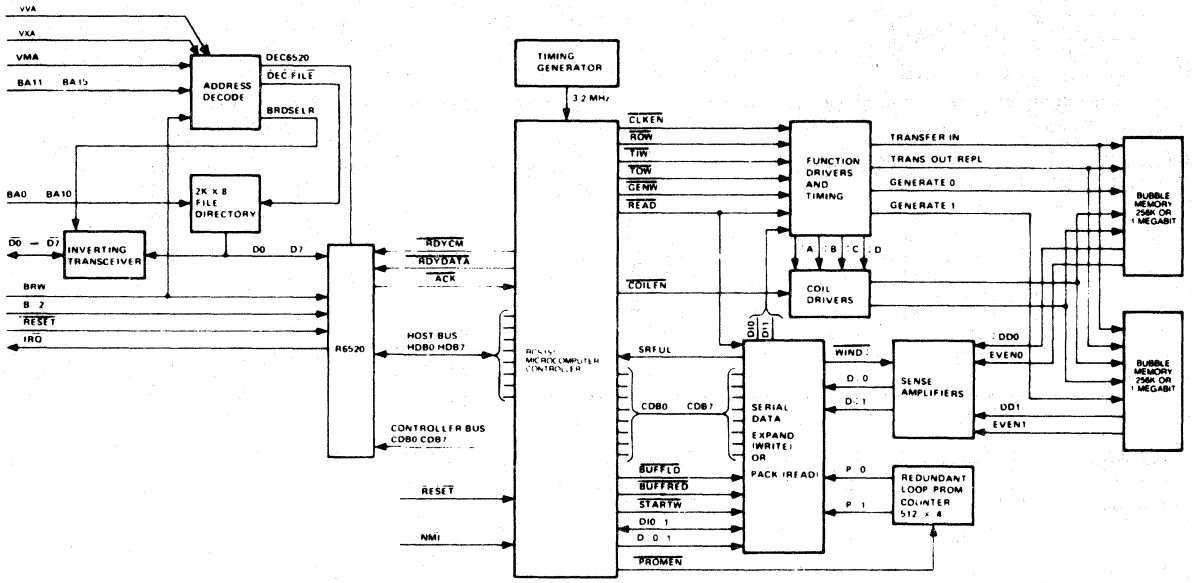


3PR005

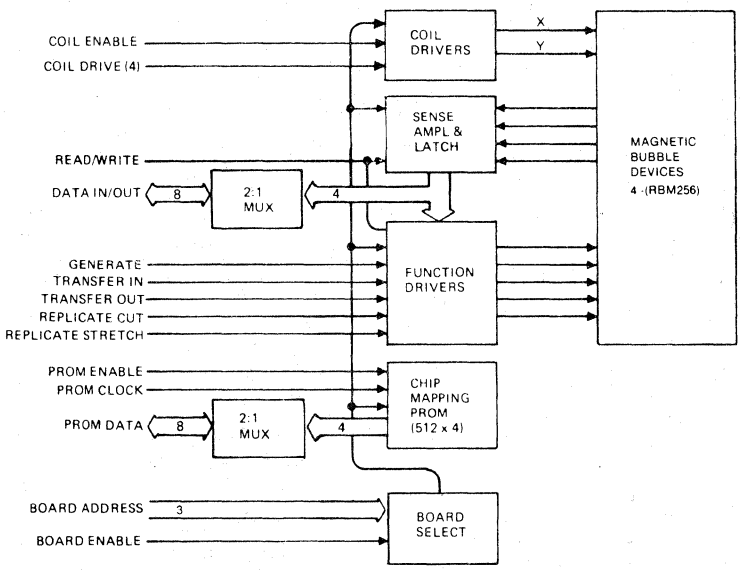


9. CIRCUIT/OUTLINE DRAWINGS

3PR006

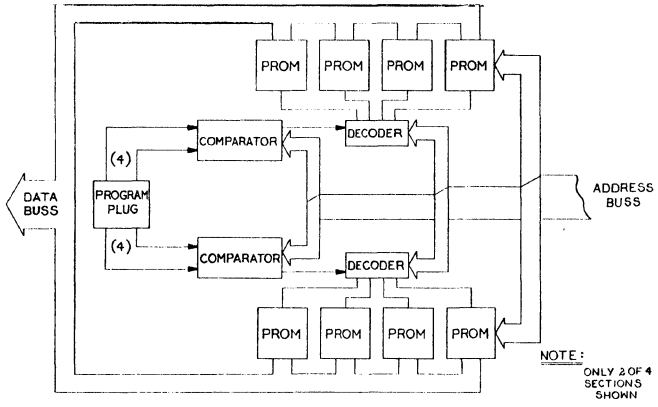


3PR007

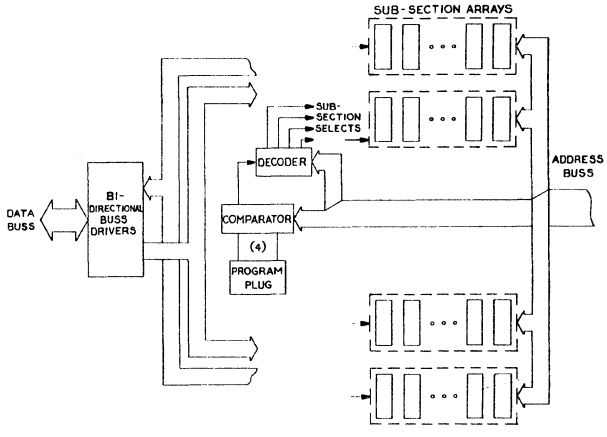


9. CIRCUIT/OUTLINE DRAWINGS

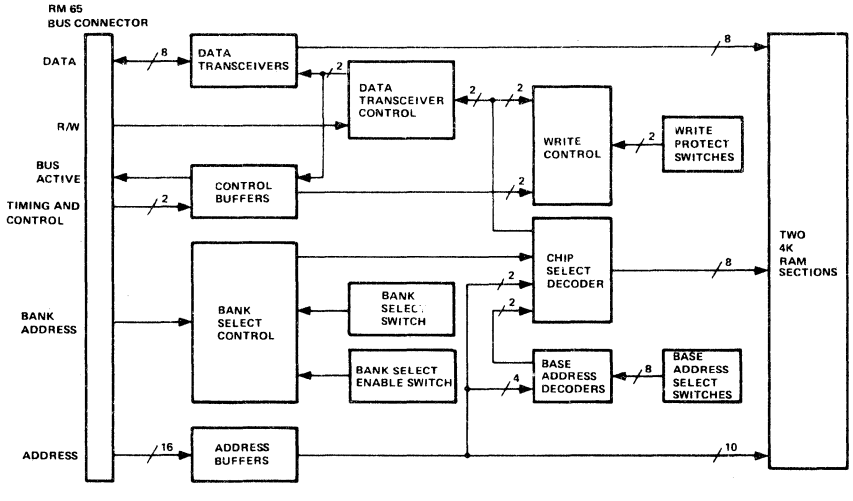
3PR008



3PR009

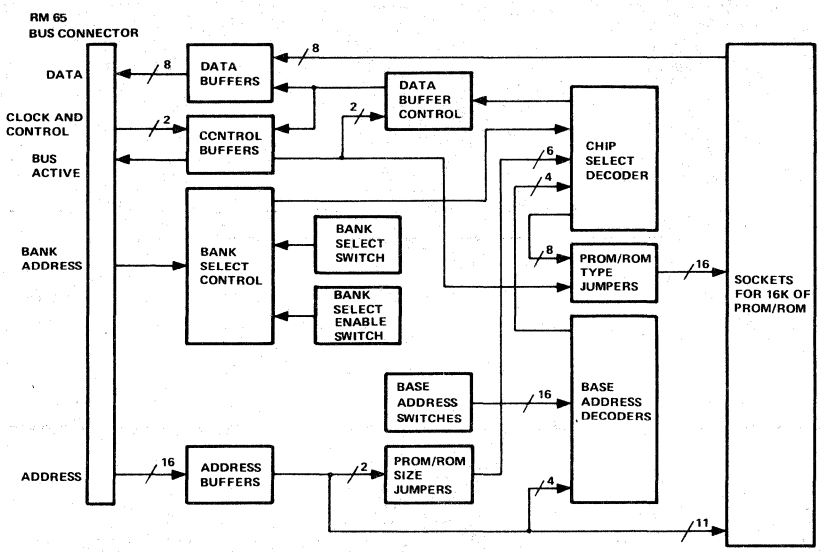


3RM001

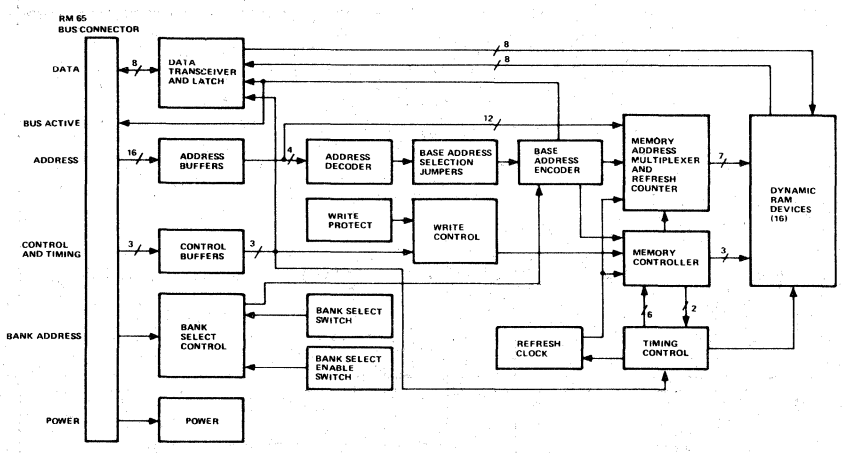


9. CIRCUIT/OUTLINE DRAWINGS

3RM002

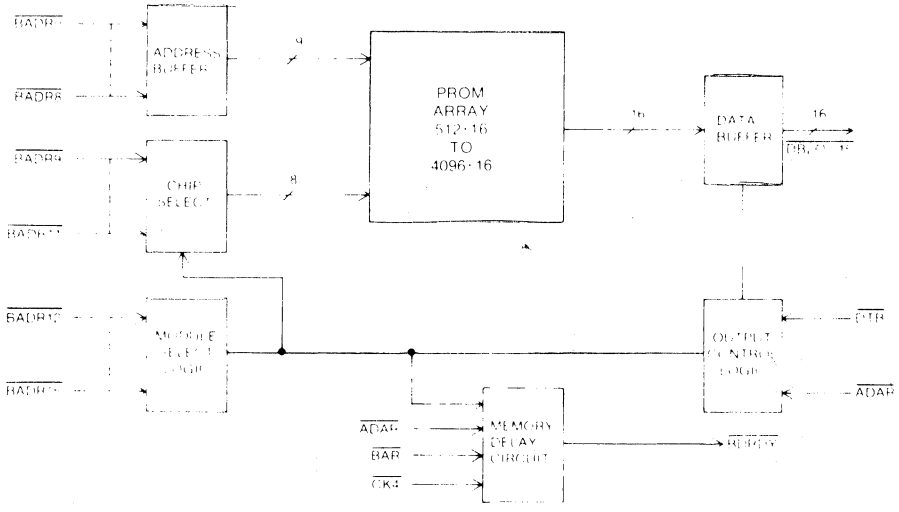


3RM003

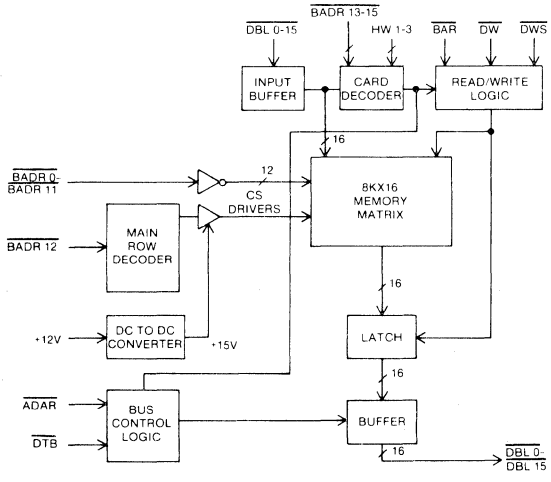


9. CIRCUIT/OUTLINE DRAWINGS

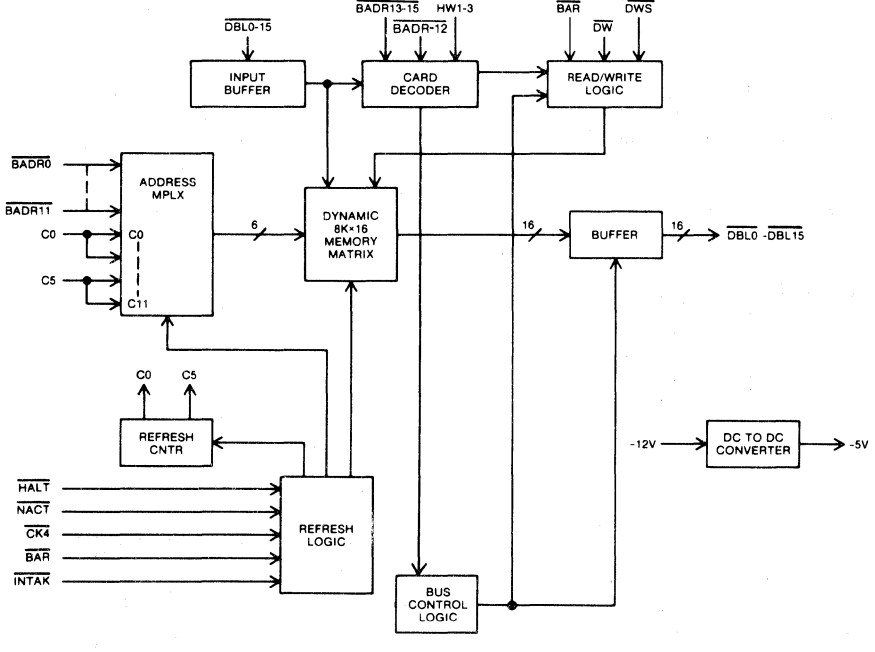
3SA001



3SA002

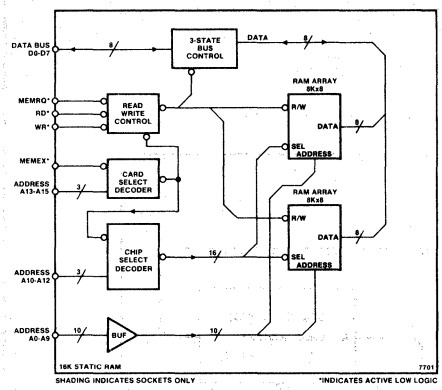


3SA003

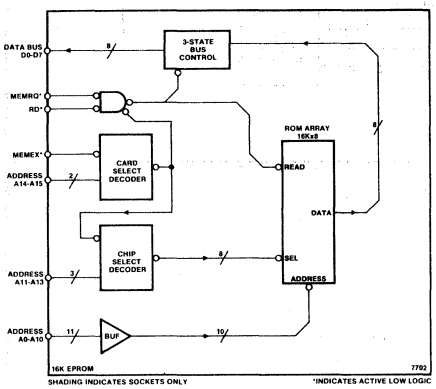


9. CIRCUIT/OUTLINE DRAWINGS

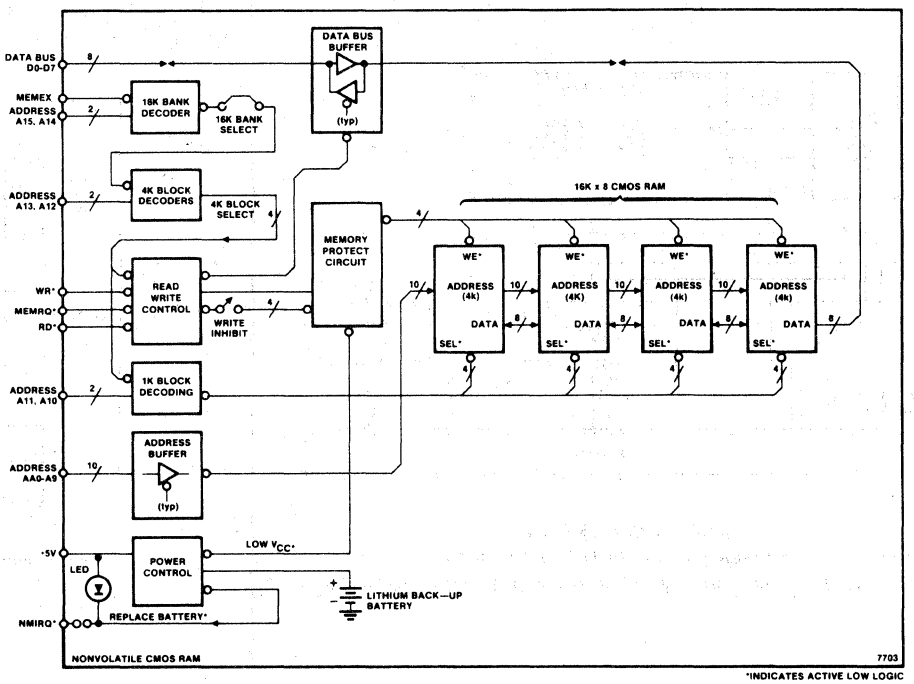
3SD001



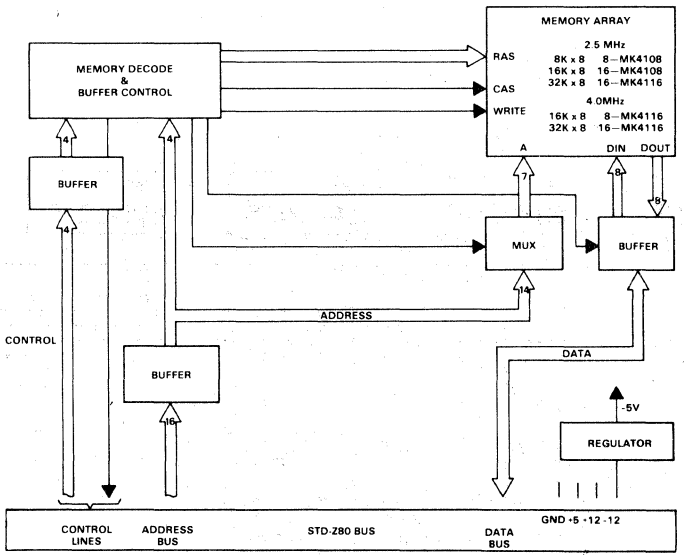
3SD002



3SD003



3ST001



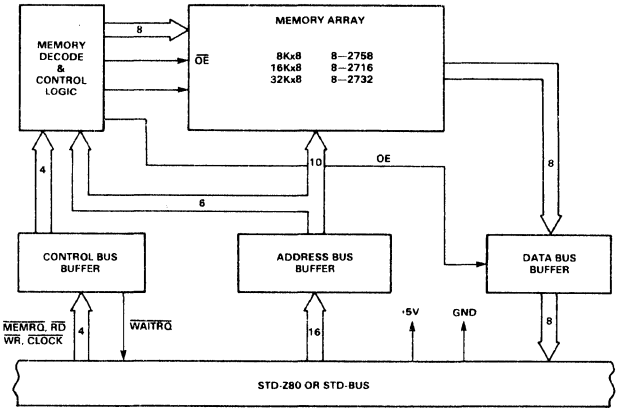
CARD DIMENSIONS

4.50 in (11.43 cm) wide by 6.50 in (16.51 cm) long

0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm) circuit board thickness

9. CIRCUIT/OUTLINE DRAWINGS

3ST002

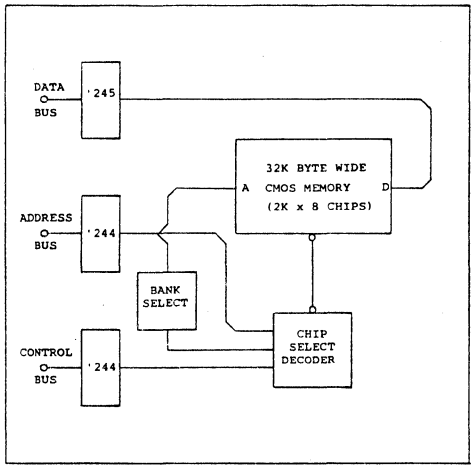


CARD DIMENSIONS

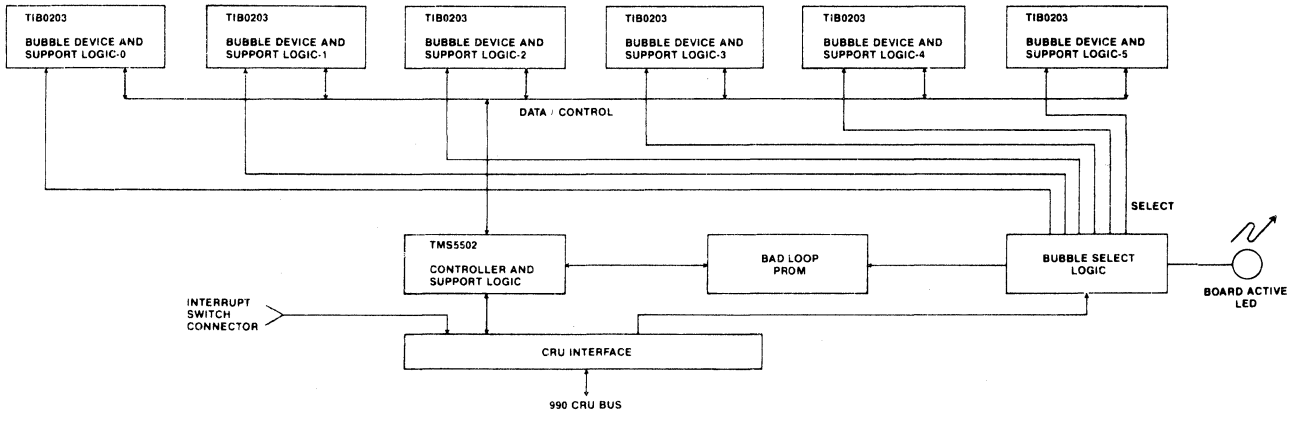
4.50 in (11.43 cm) wide by 6.50 in (16.51 cm) long

0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm) circuit board thickness

3ST003

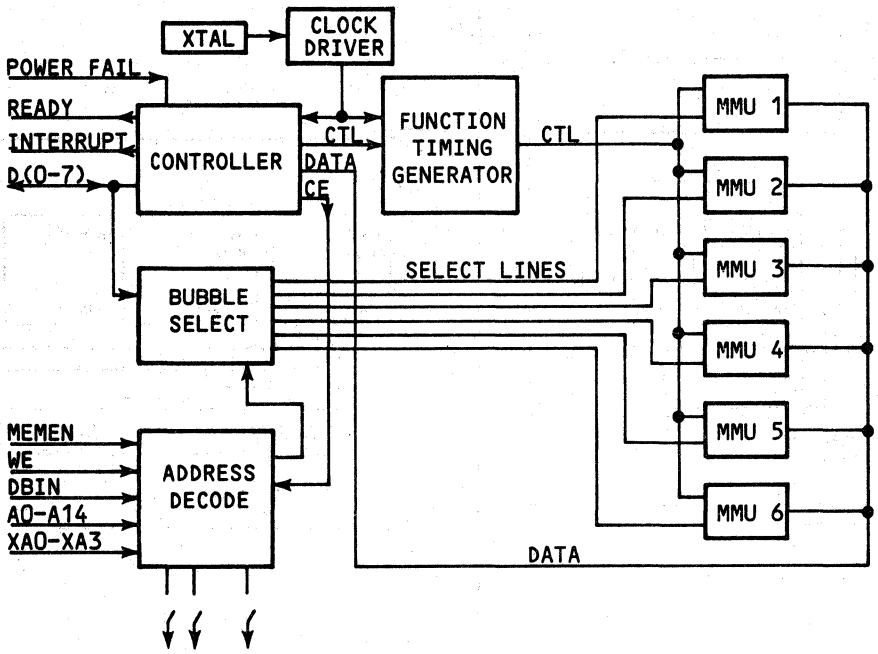


3TM001

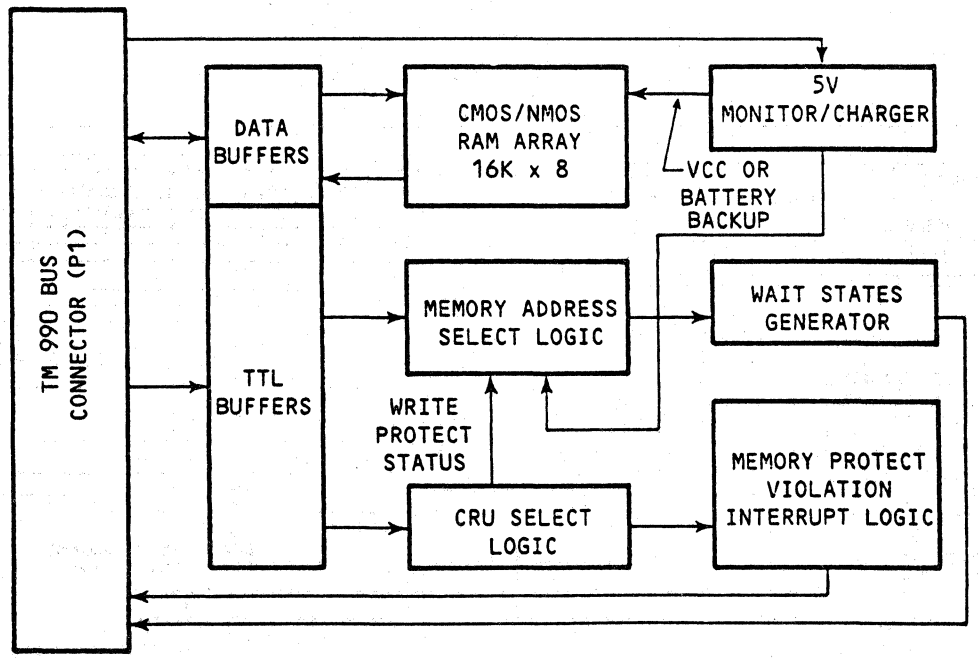


9. CIRCUIT/OUTLINE DRAWINGS

3TM002

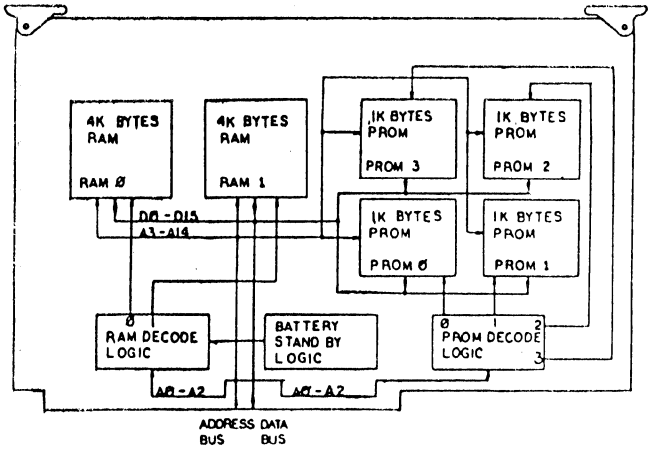


3TM003

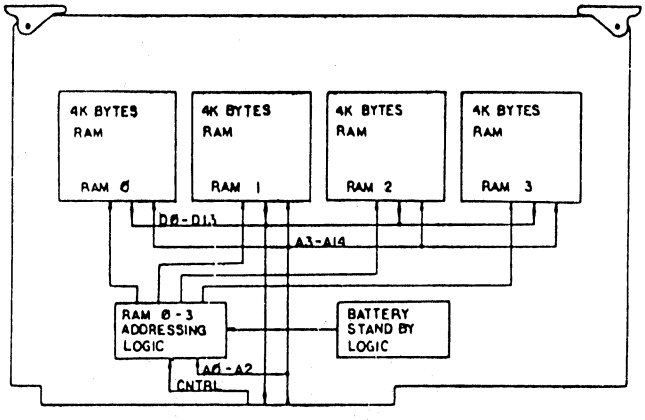


9. CIRCUIT/OUTLINE DRAWINGS

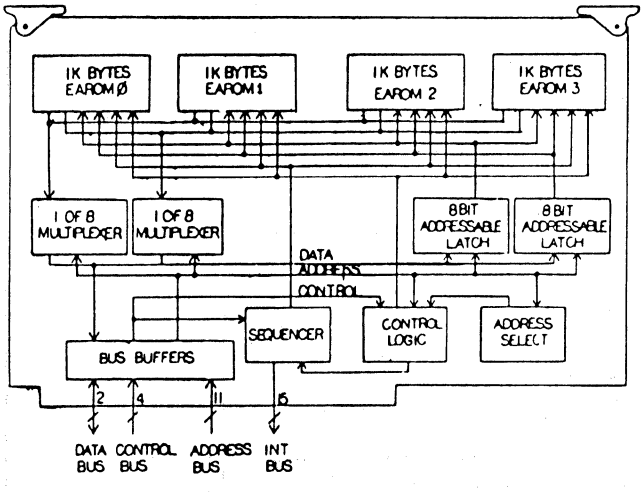
3TM004



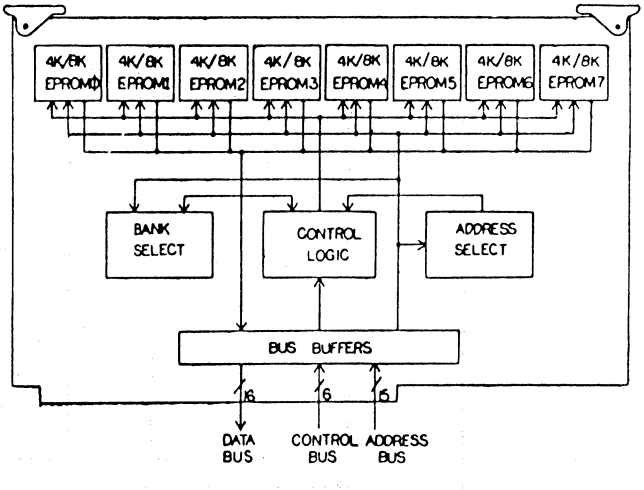
3TM005



3TM006

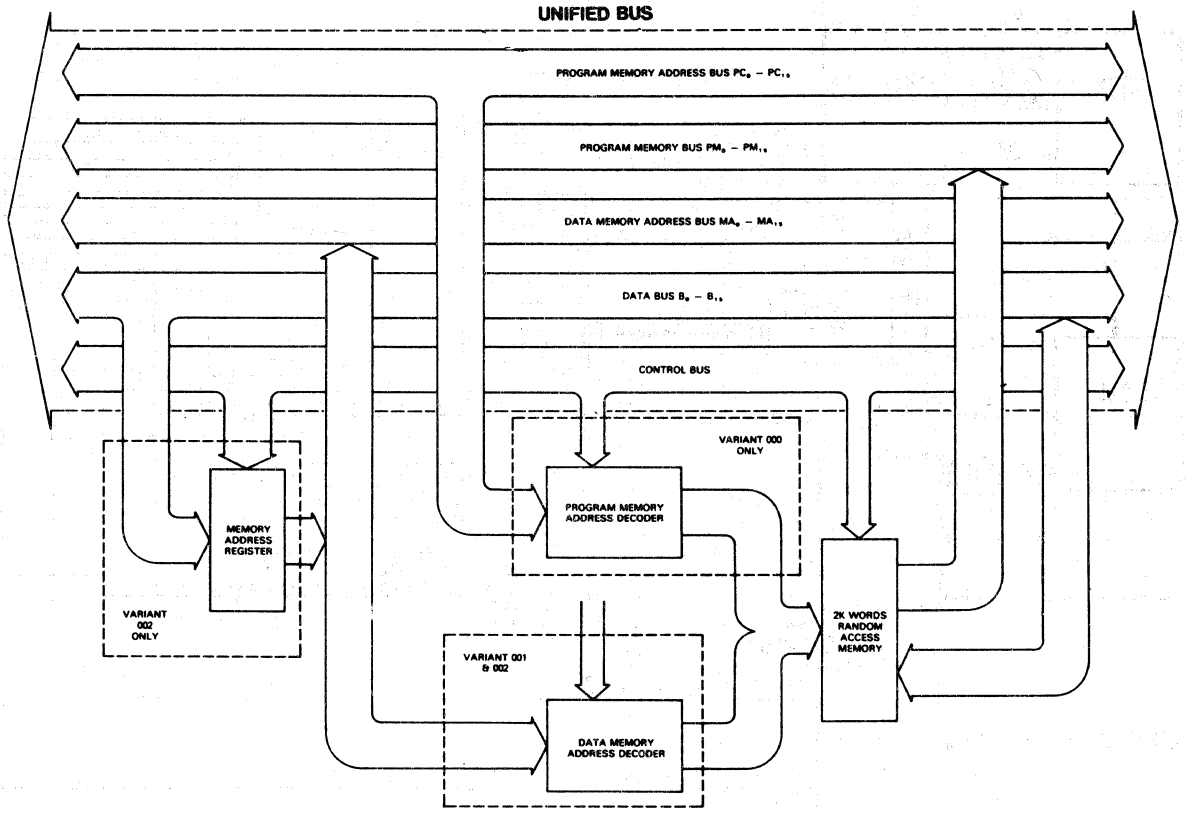


3TM007

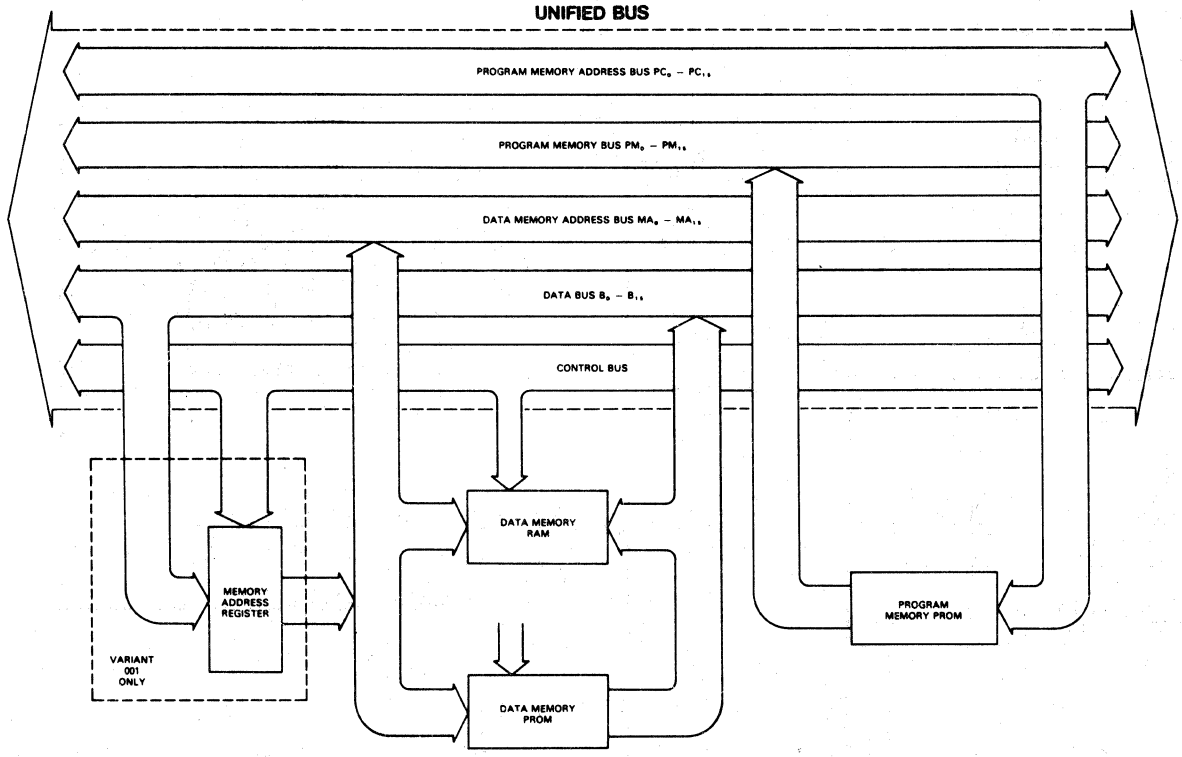


9. CIRCUIT/OUTLINE DRAWINGS

3UB001

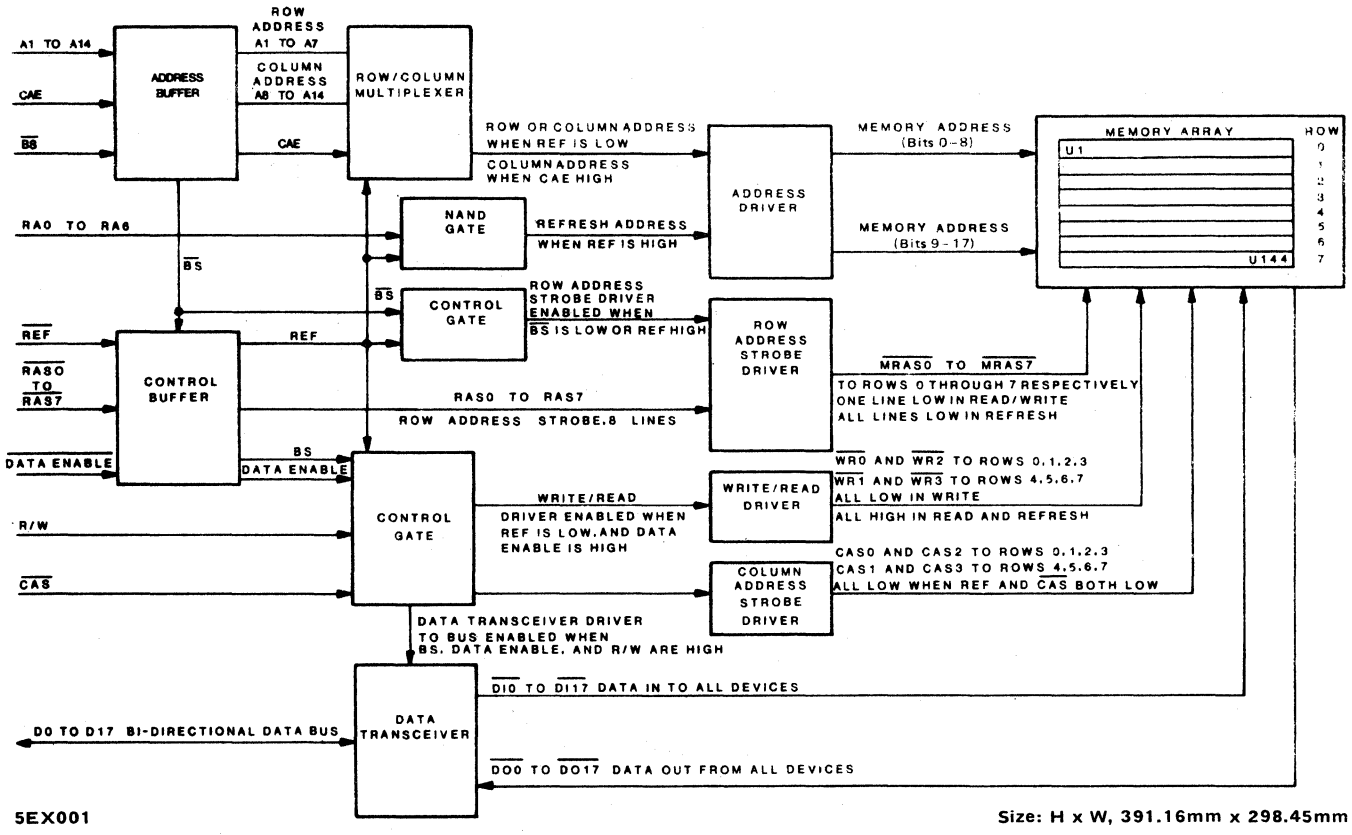


3UB002



9. CIRCUIT/OUTLINE DRAWINGS

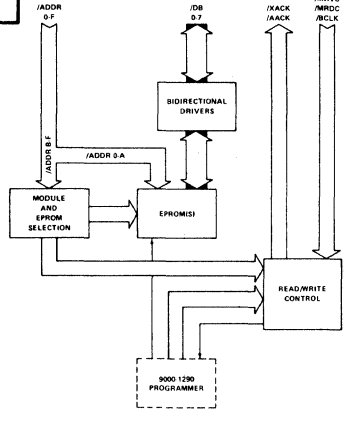
3UN001



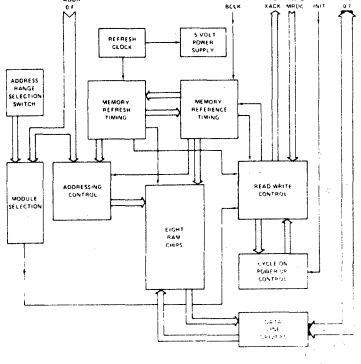
5EX001

Size: H x W, 391.16mm x 298.45mm

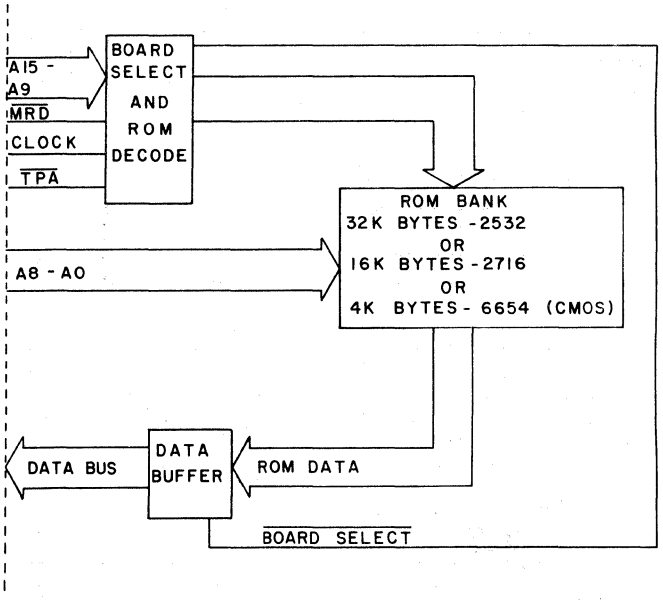
3ZZ001



3ZZ002

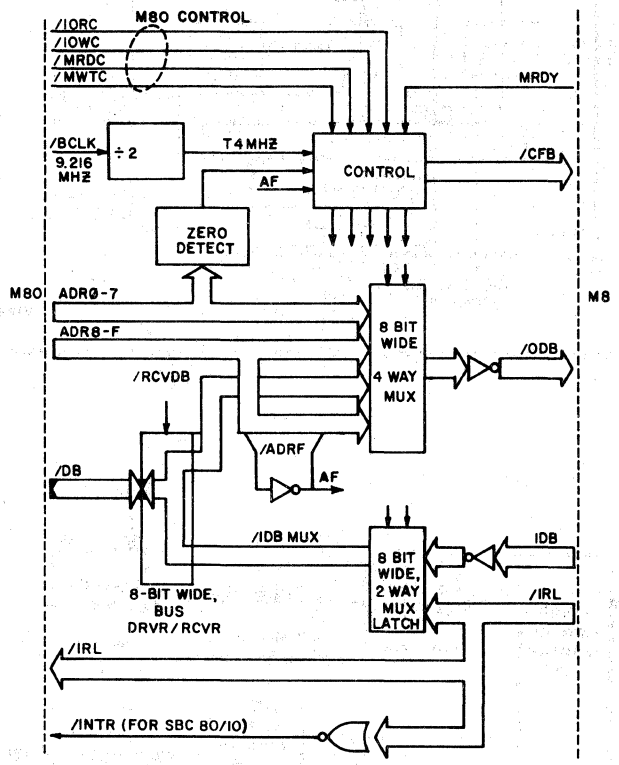


3ZZ003

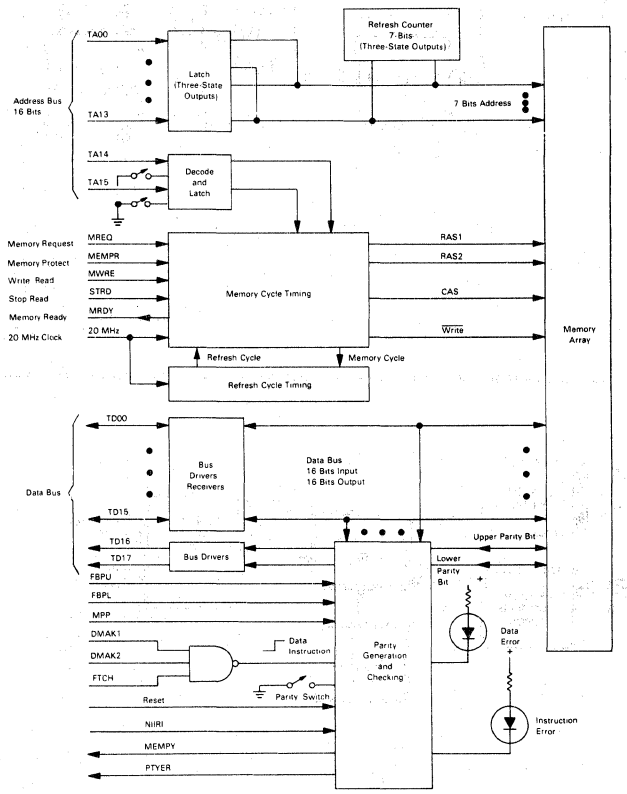


9. CIRCUIT/OUTLINE DRAWINGS

3ZZ004

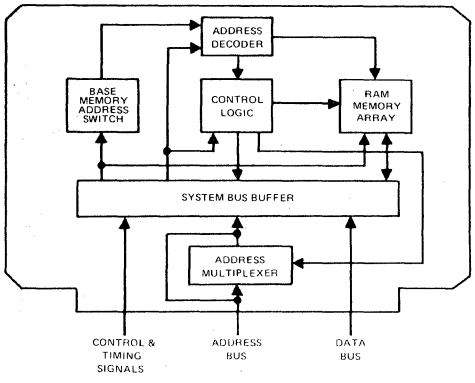


3ZZ005



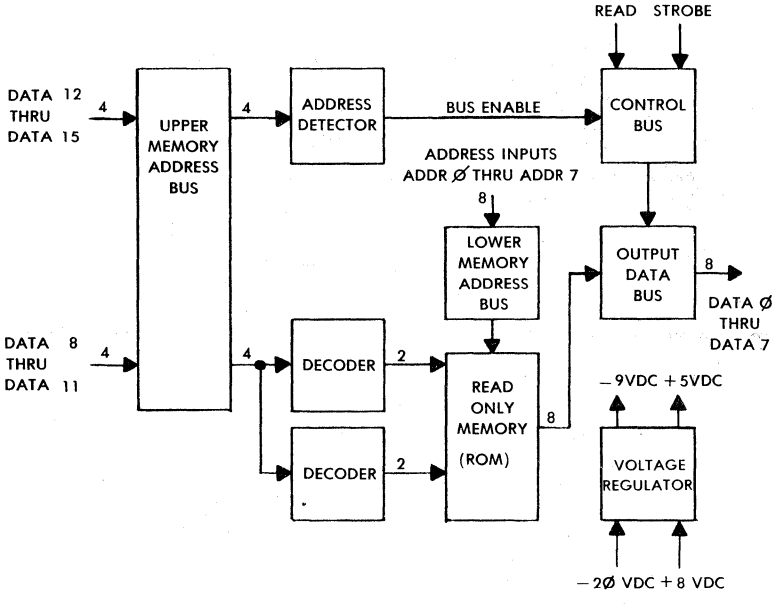
9. CIRCUIT/OUTLINE DRAWINGS

3ZZ006



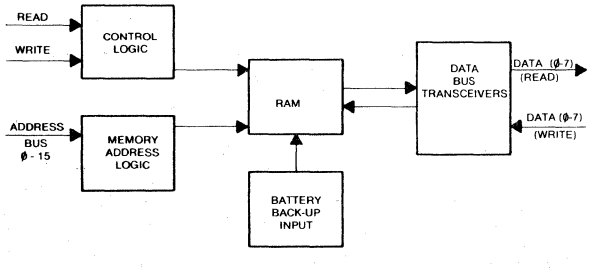
Size: W x H, 247.7mm x 152.4 mm

3ZZ007



Size: W x L, 126mm x 255mm

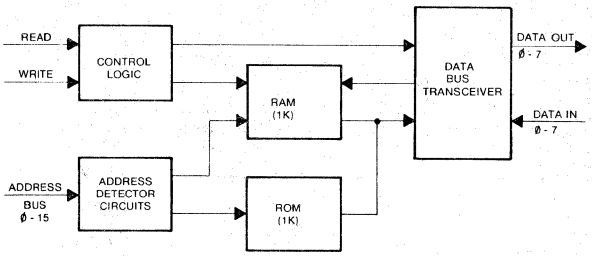
3ZZ008



Size : W x L, 126mm x 255mm

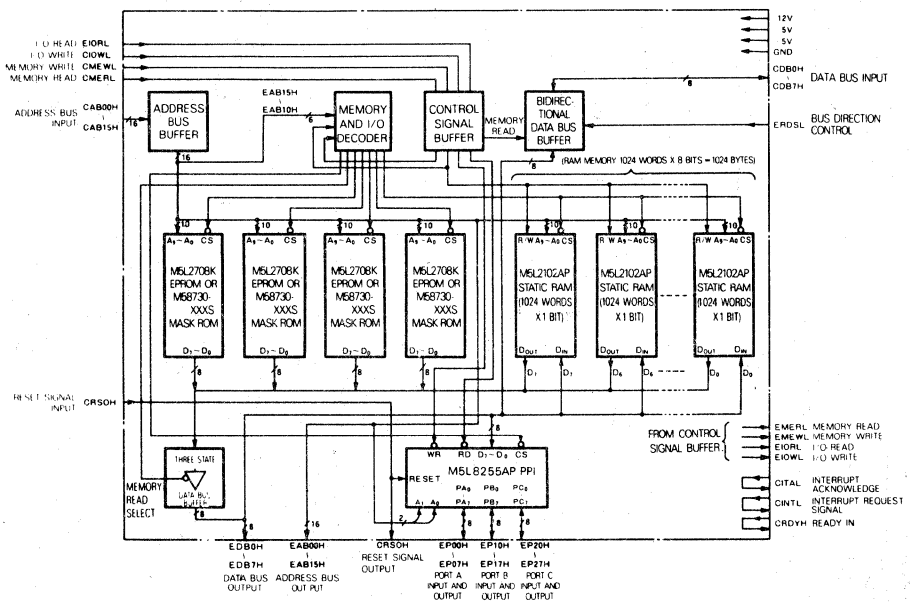
9. CIRCUIT/OUTLINE DRAWINGS

3ZZ009



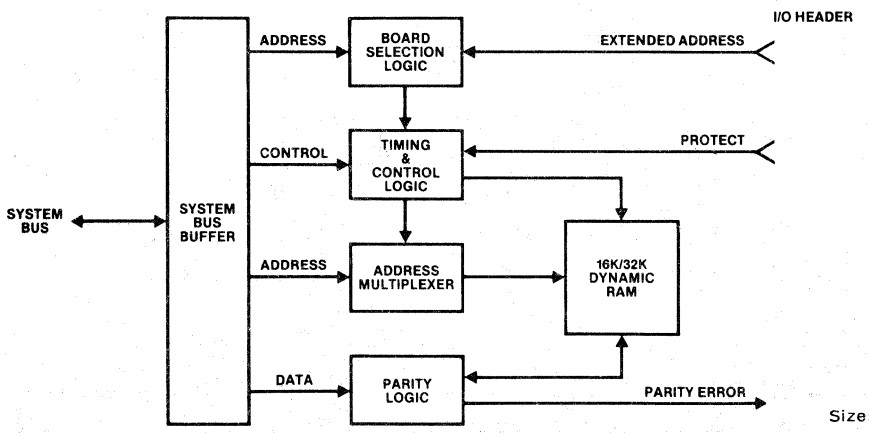
Size: W x L, 126mm x 255mm

3ZZ010



CARD DIMENSIONS:
125mm x 145mm

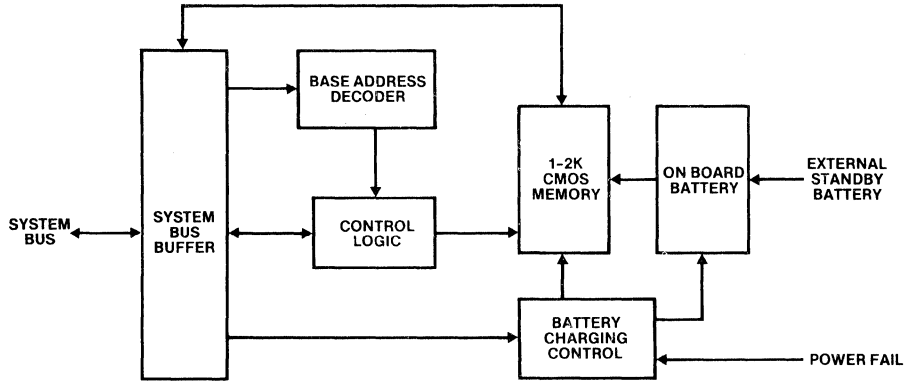
3ZZ011



Size: W x L, 114mm x 164.5mm

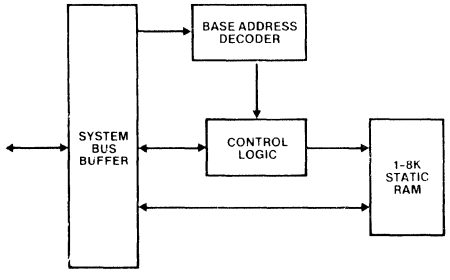
9. CIRCUIT/OUTLINE DRAWINGS

3ZZ012



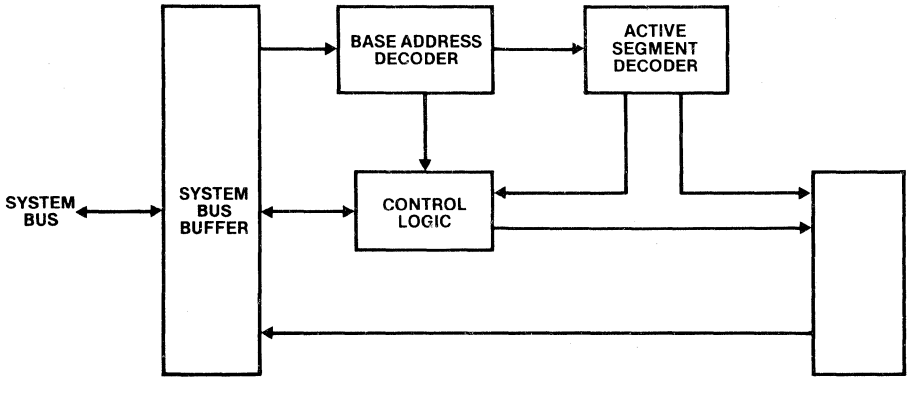
Size: W x L, 114mm x 164.5mm

3ZZ013



Size: W x L, 114mm x 164.5mm

3ZZ014

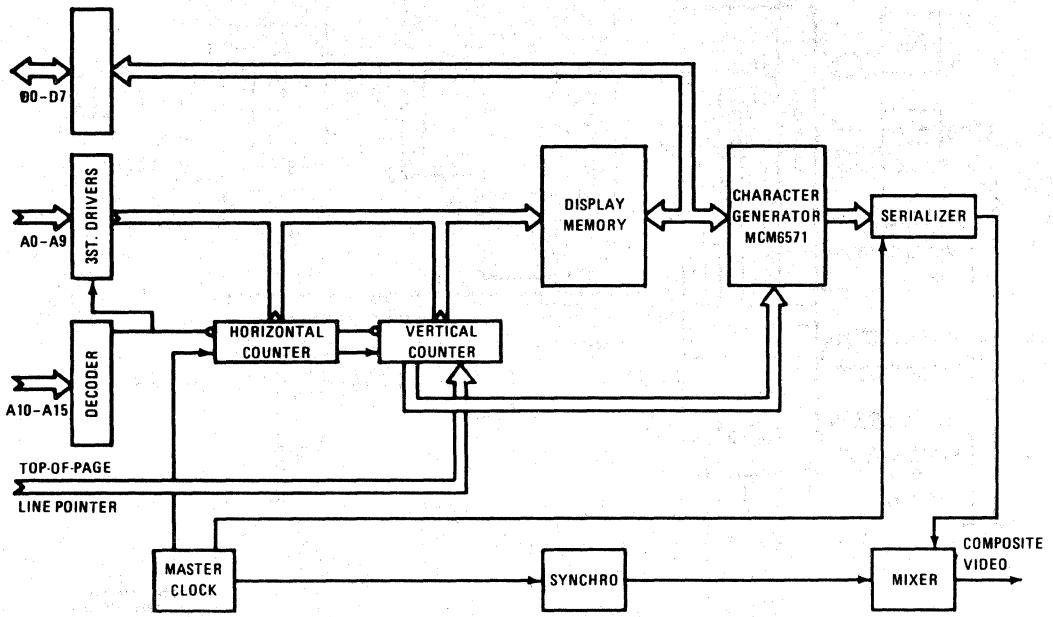


ADP 1400	1—8K EPROm
ADP 1416	2—16K EPROM

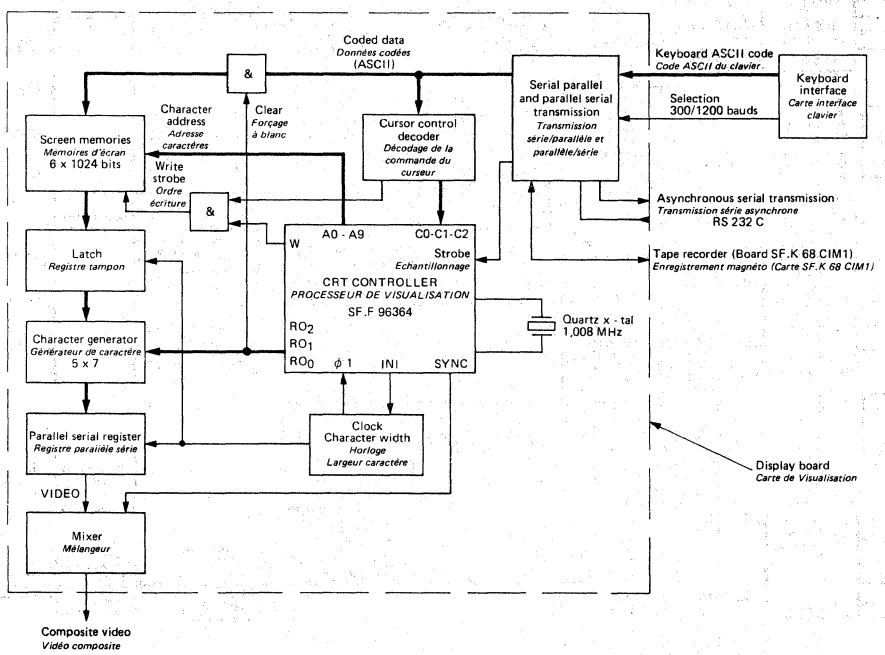
Size: W x L, 114mm x 164.5mm

9. CIRCUIT/OUTLINE DRAWINGS

4EX001

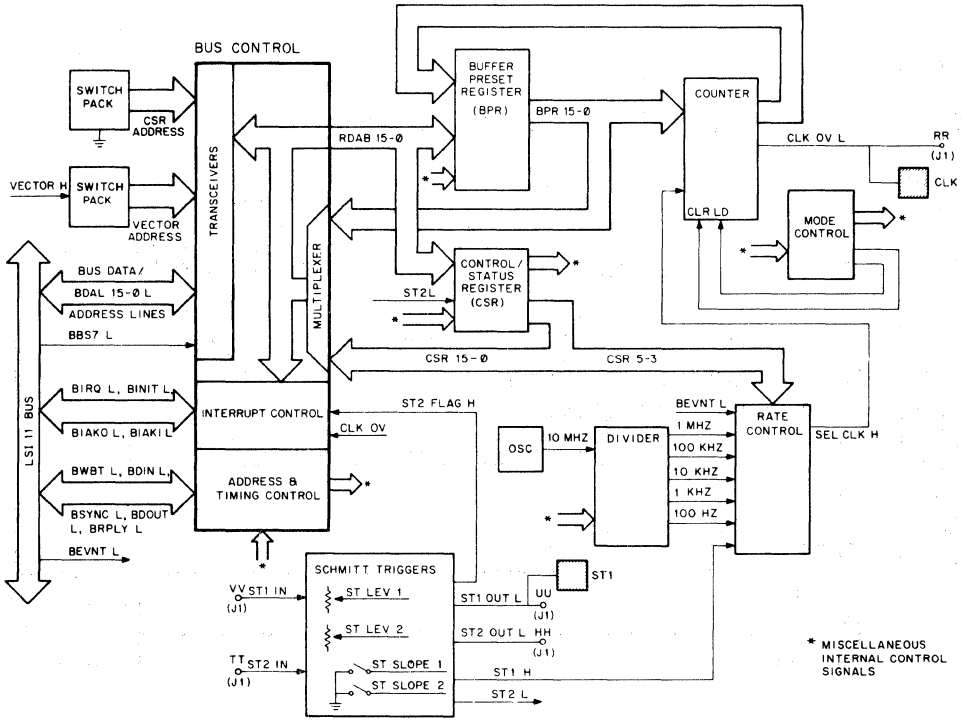


4EX002



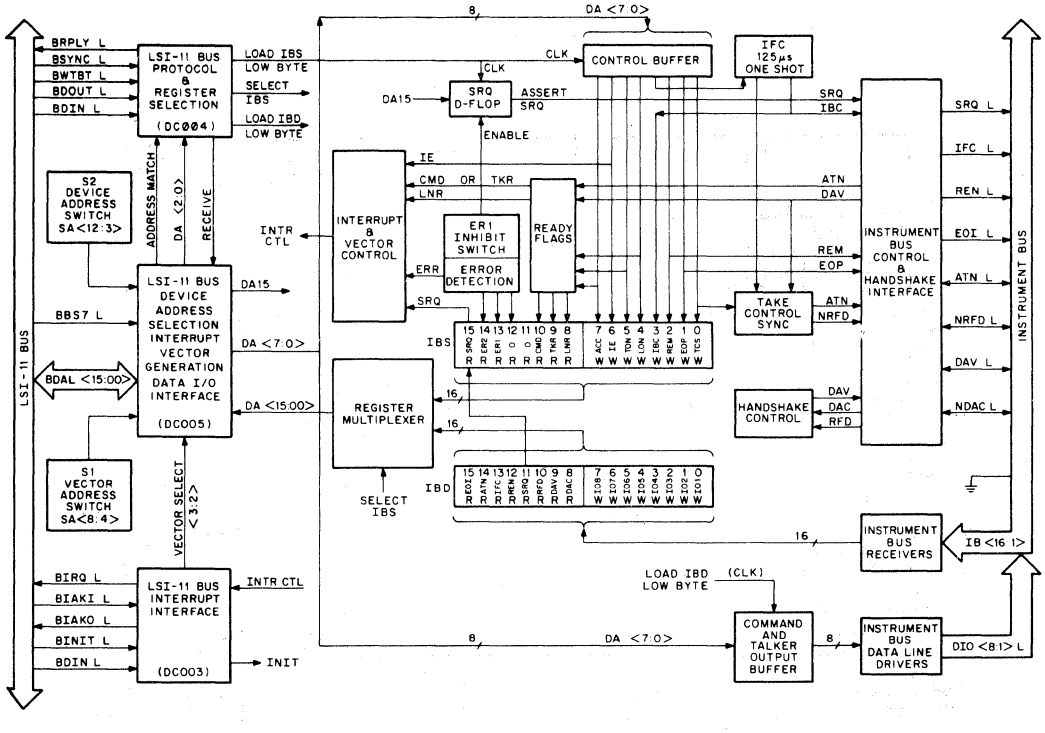
9. CIRCUIT/OUTLINE DRAWINGS

4LS001



SIZE: QUAD

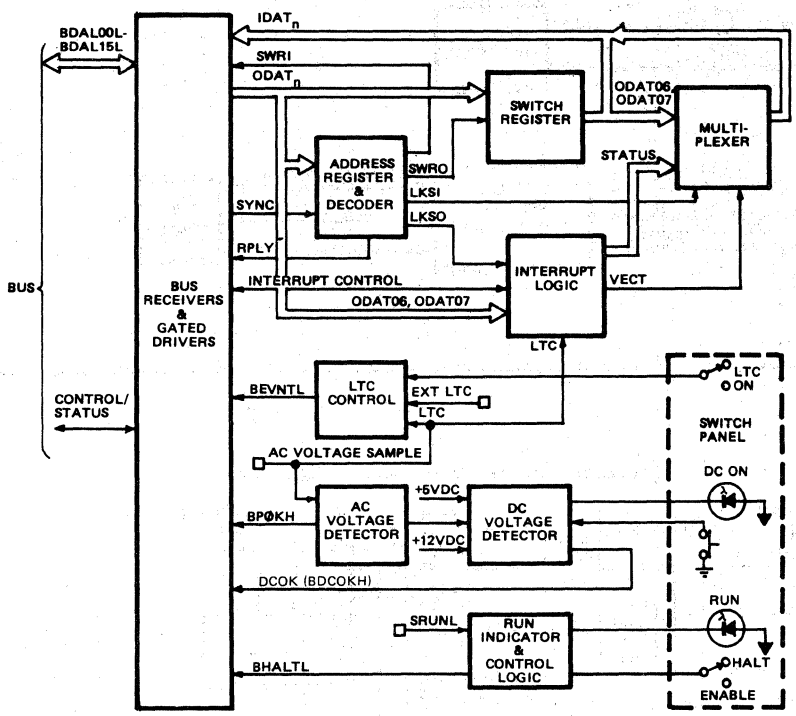
4LS002



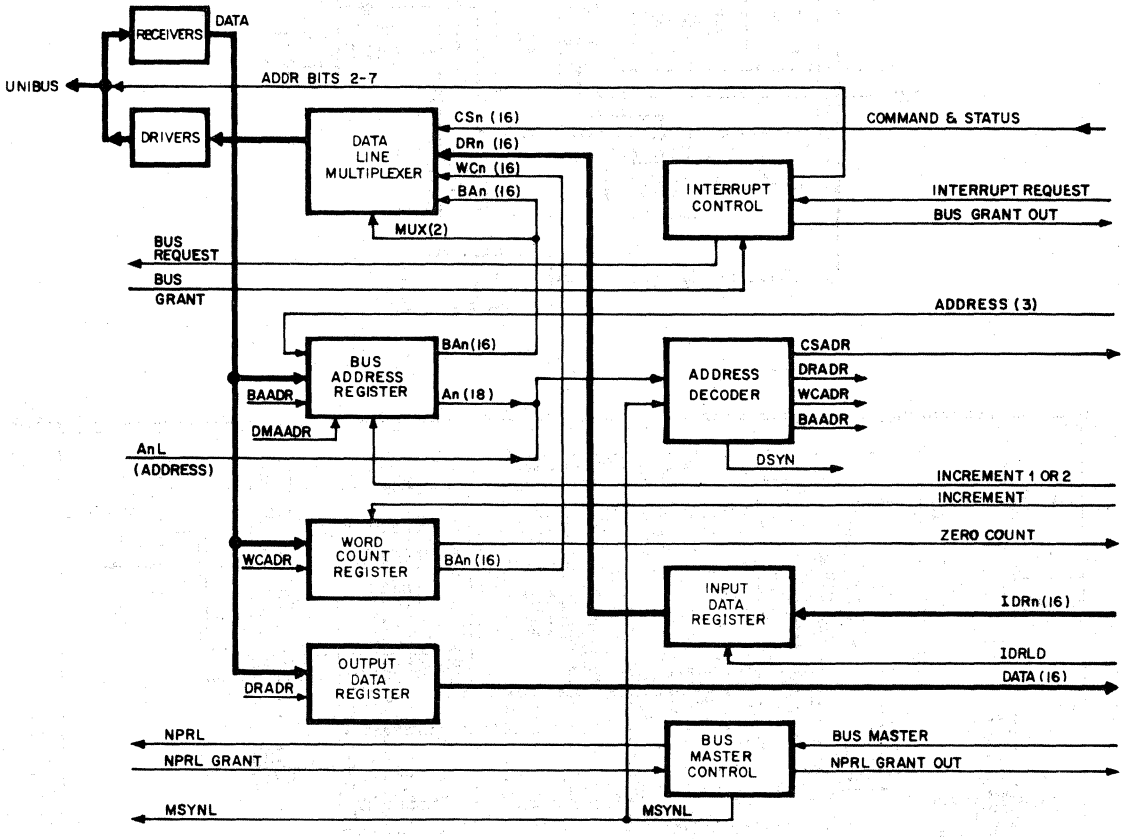
SIZE: DOUBLE

9. CIRCUIT/OUTLINE DRAWINGS

4LS003

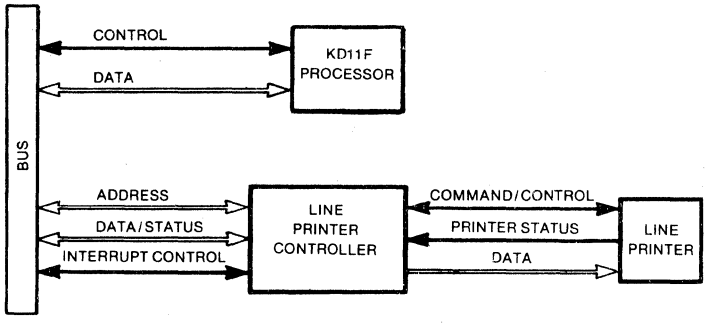


4LS004

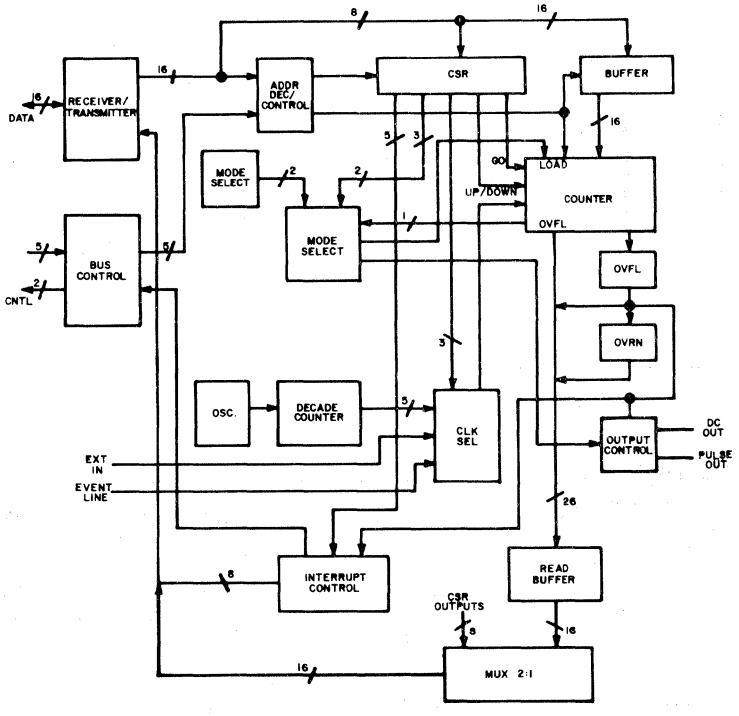


9. CIRCUIT/OUTLINE DRAWINGS

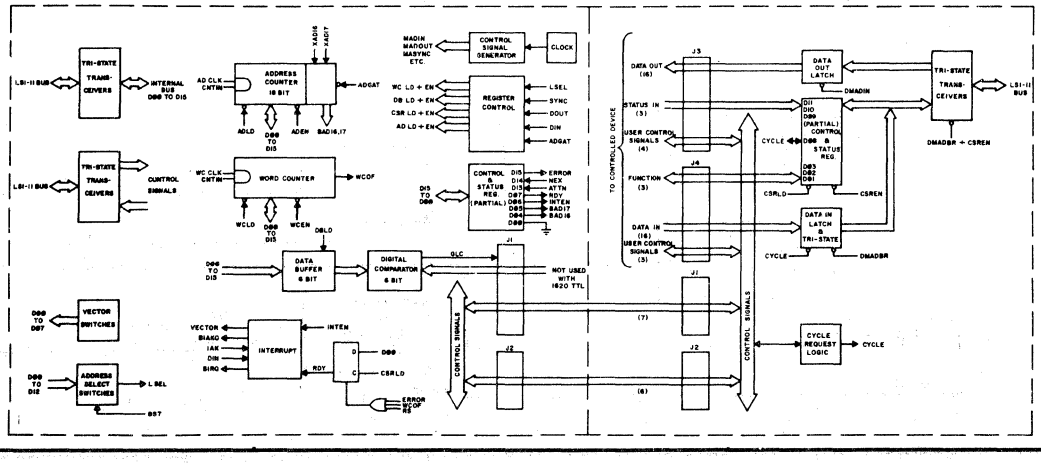
4LS005



4LS006

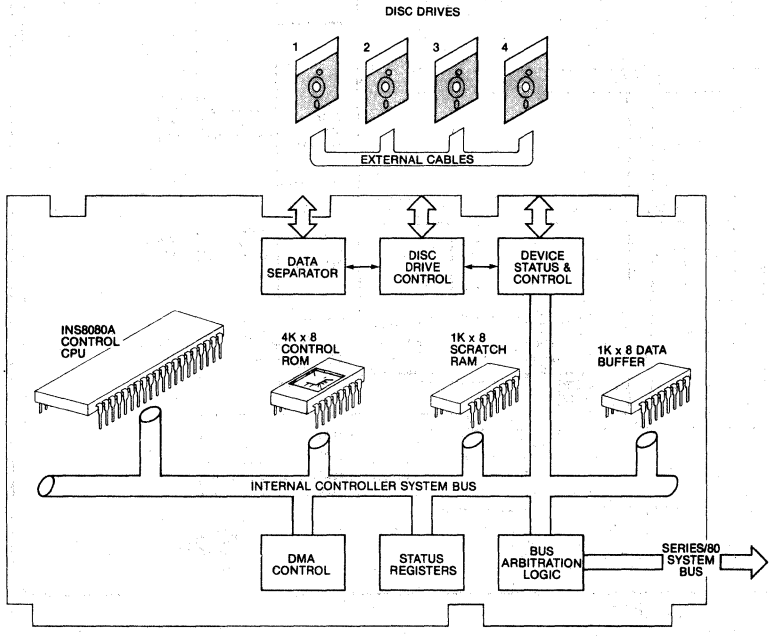


4LS007



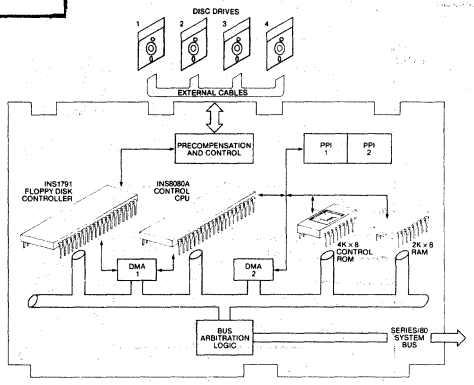
9. CIRCUIT/OUTLINE DRAWINGS

4MU001



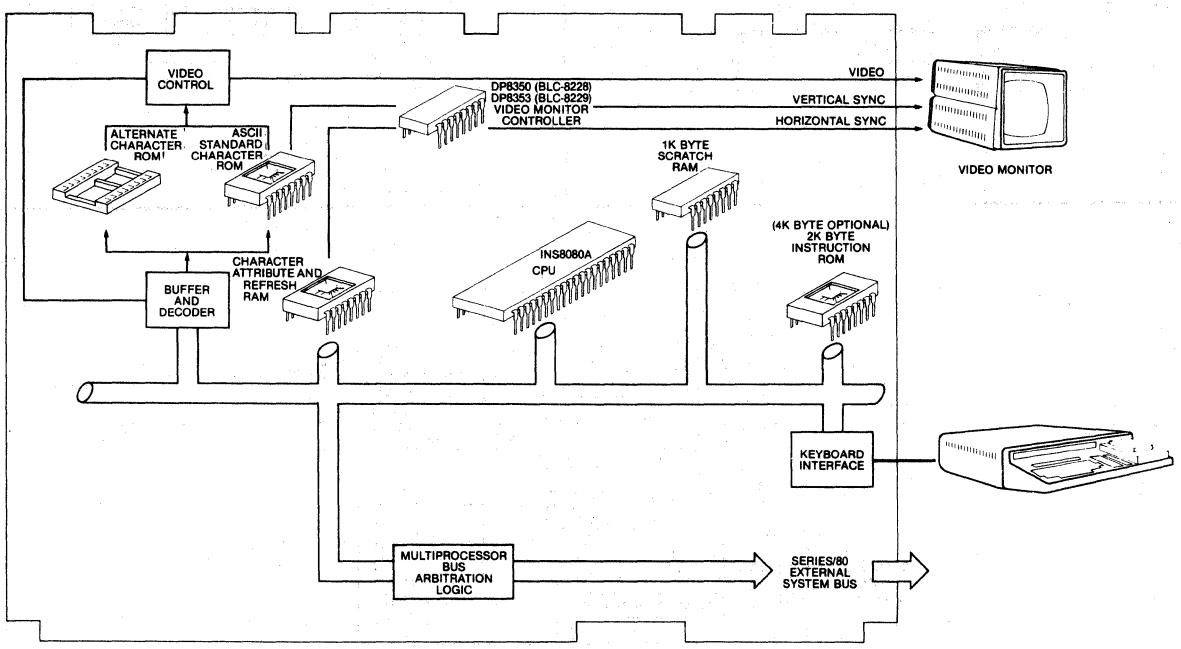
Size: H x W, 171.5mm x 304.8mm

4MU002



Size: H x W, 171.5mm x 304.8mm

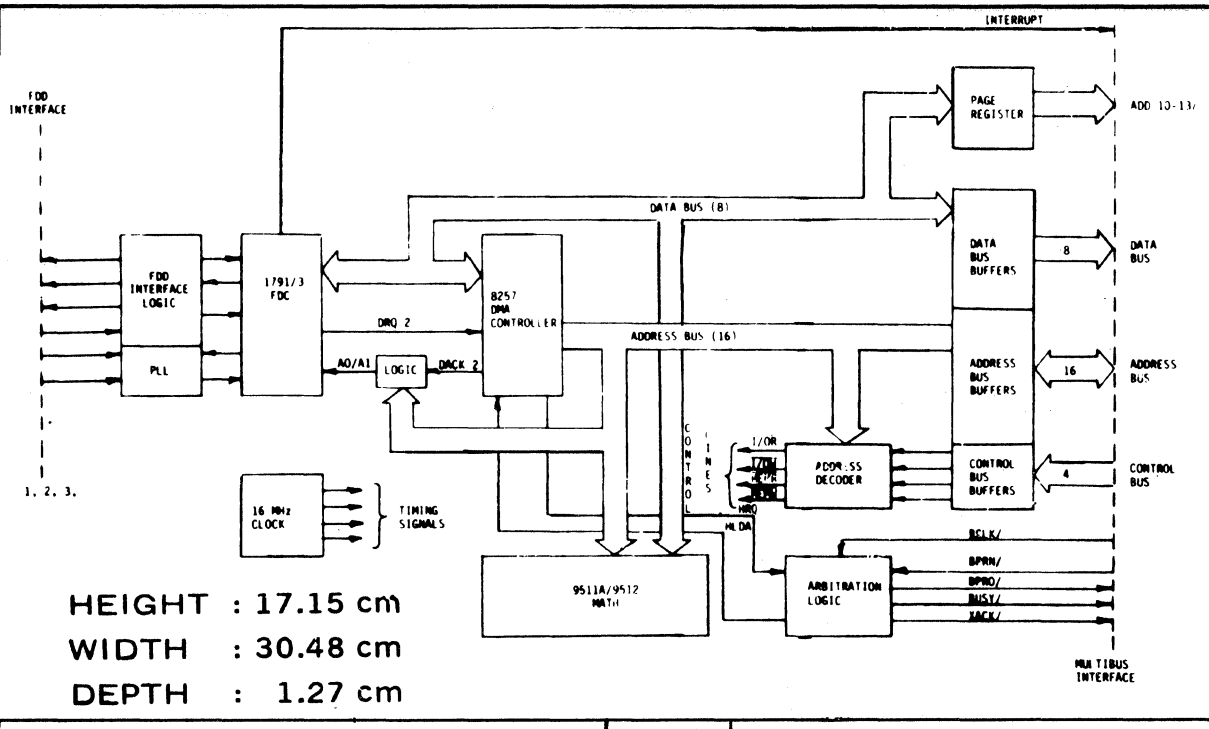
4MU003



Size: H x W, 171.5mm x 304.8mm

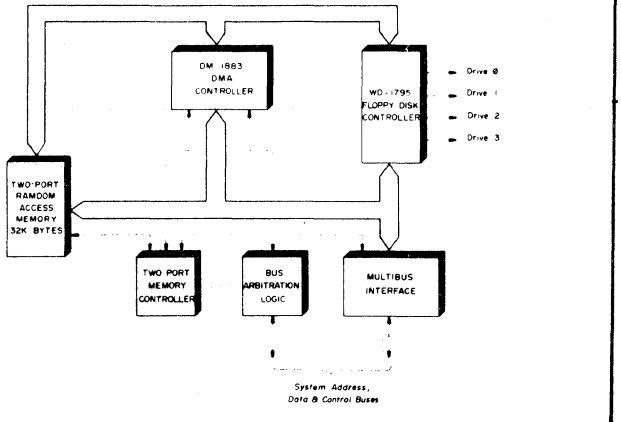
9. CIRCUIT/OUTLINE DRAWINGS

4MU004

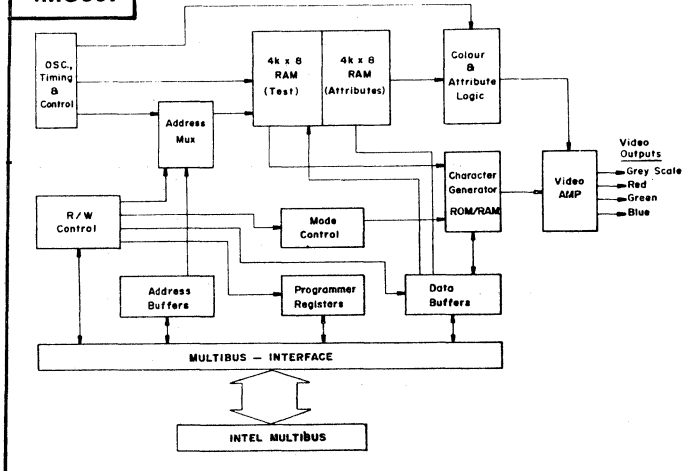


HEIGHT : 17.15 cm
WIDTH : 30.48 cm
DEPTH : 1.27 cm

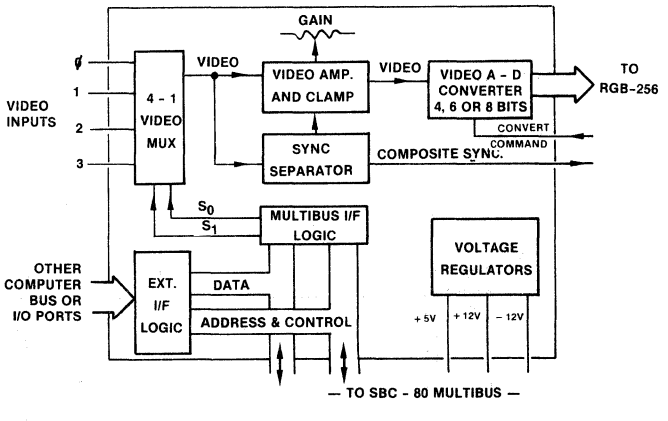
4MU005



4MU007

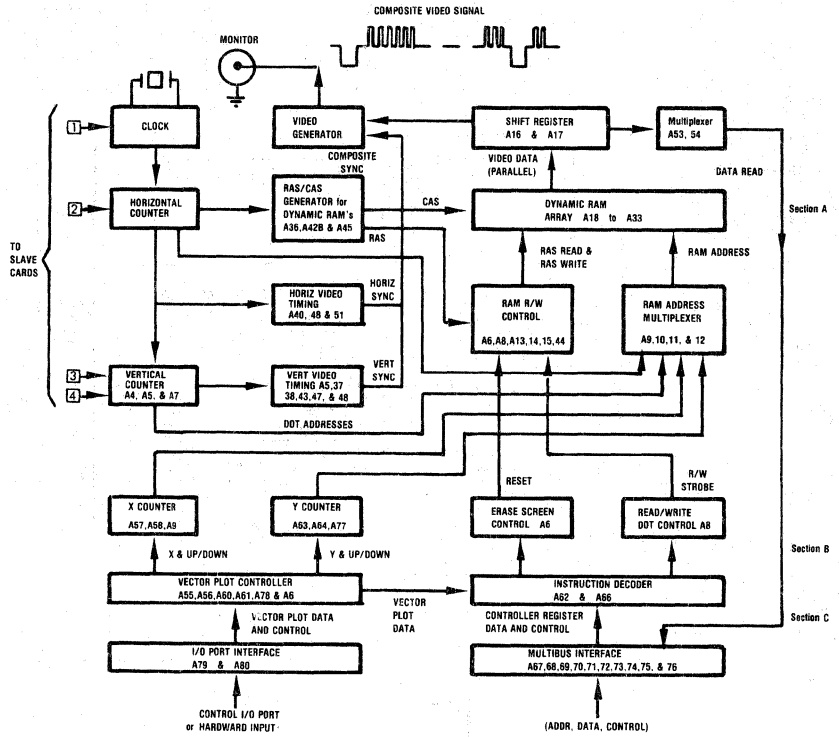


4MU008

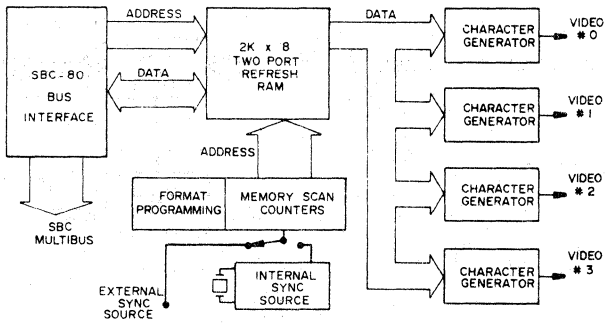


9. CIRCUIT/OUTLINE DRAWINGS

4MU009

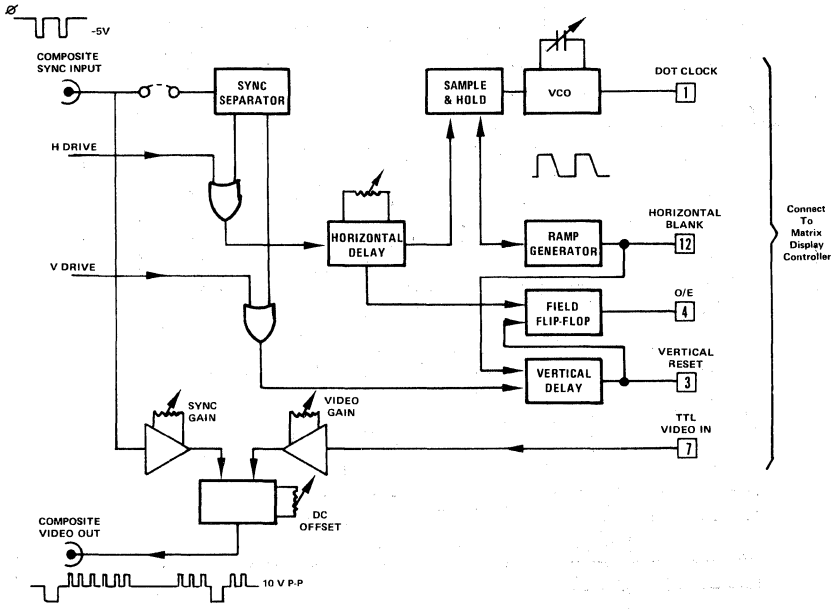


4MU010

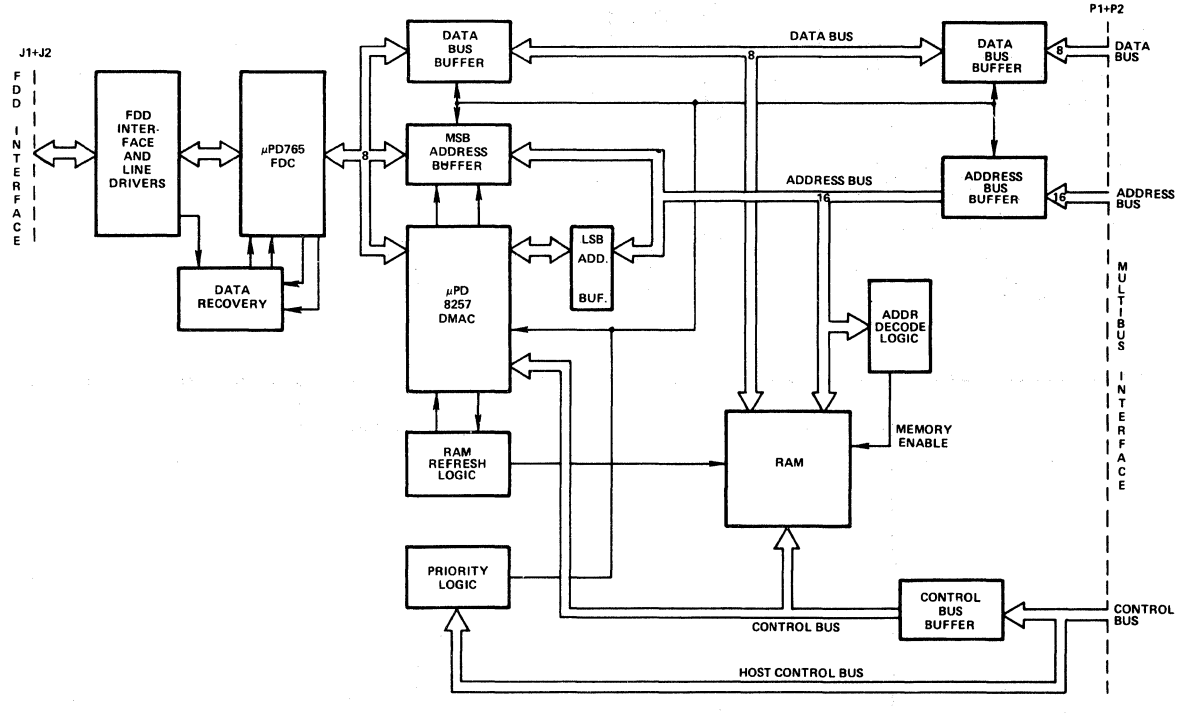


9. CIRCUIT/OUTLINE DRAWINGS

4MU011

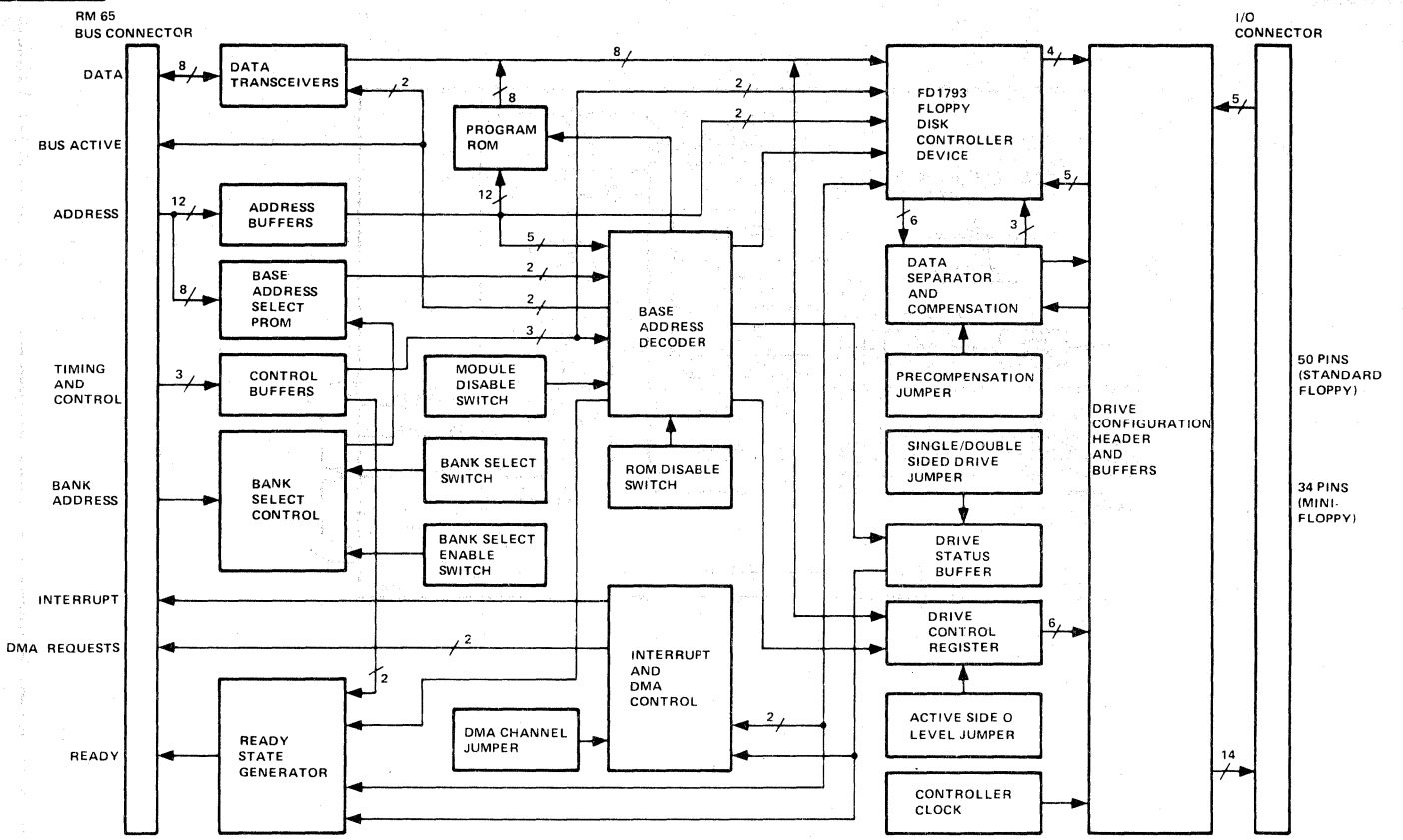


4MU012

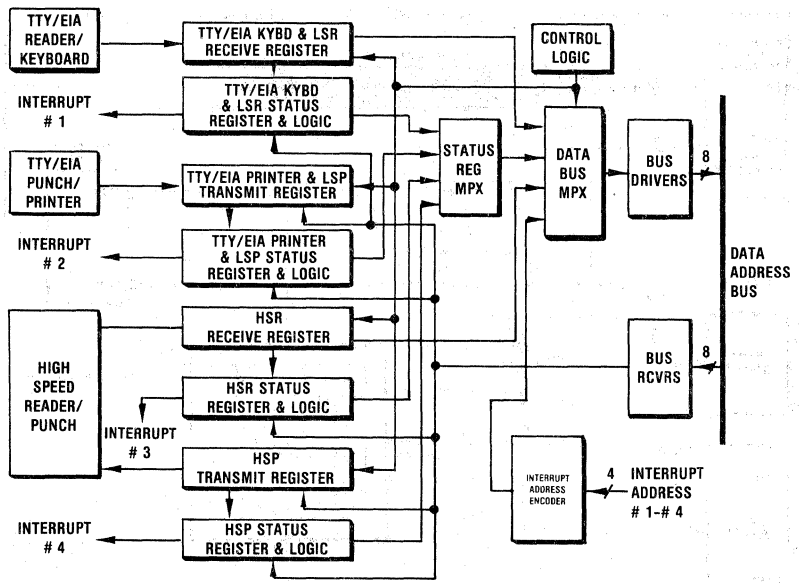


9. CIRCUIT/OUTLINE DRAWINGS

4RM001

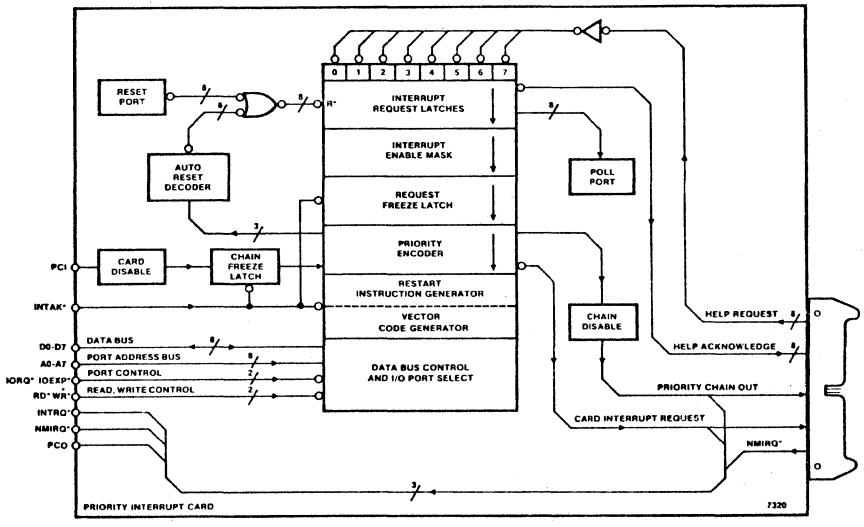


4SA001

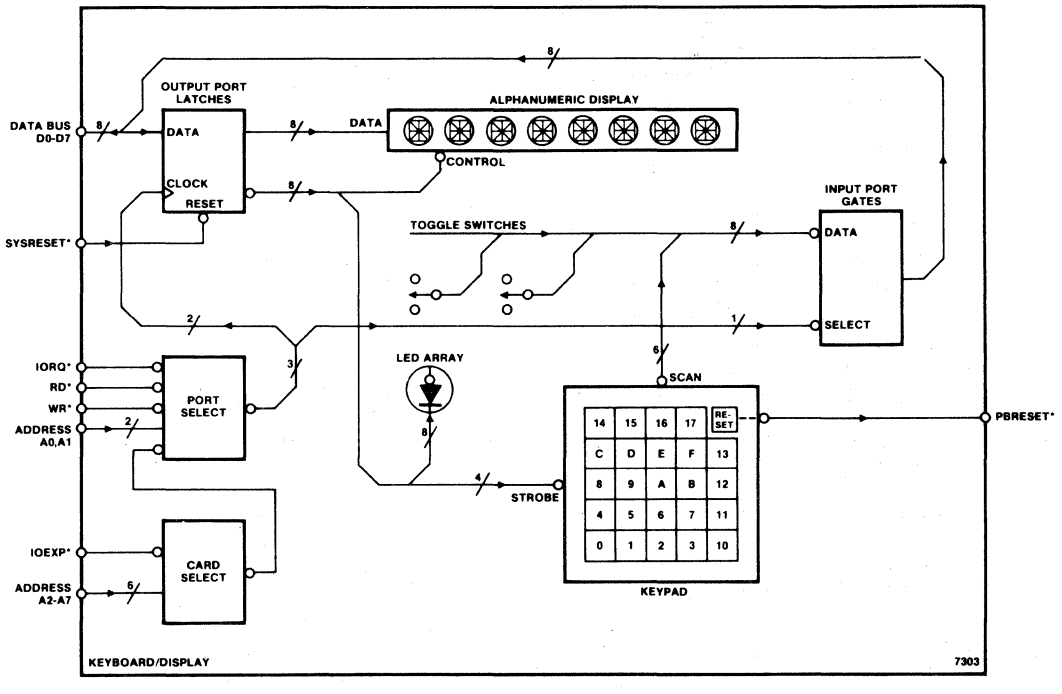


9. CIRCUIT/OUTLINE DRAWINGS

4SD001

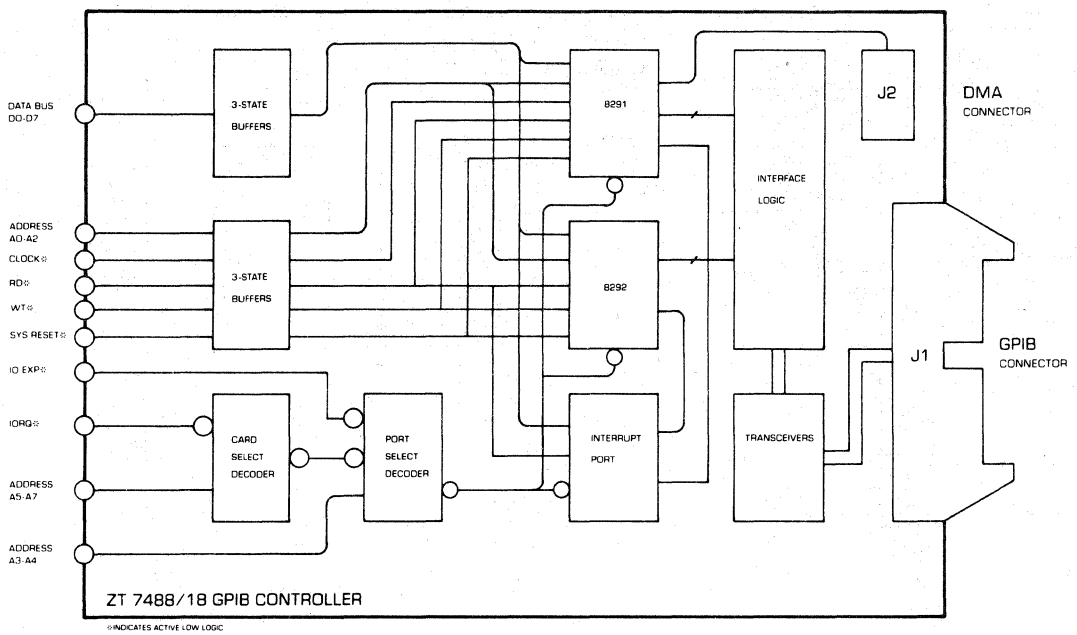


4SD002

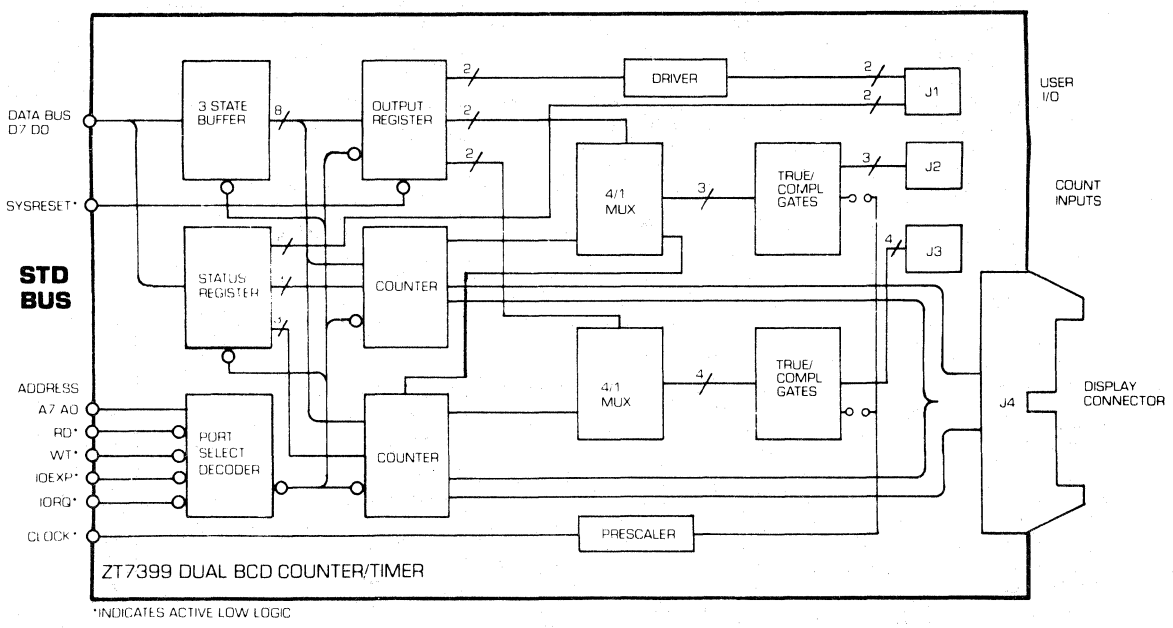


9. CIRCUIT/OUTLINE DRAWINGS

4SD003

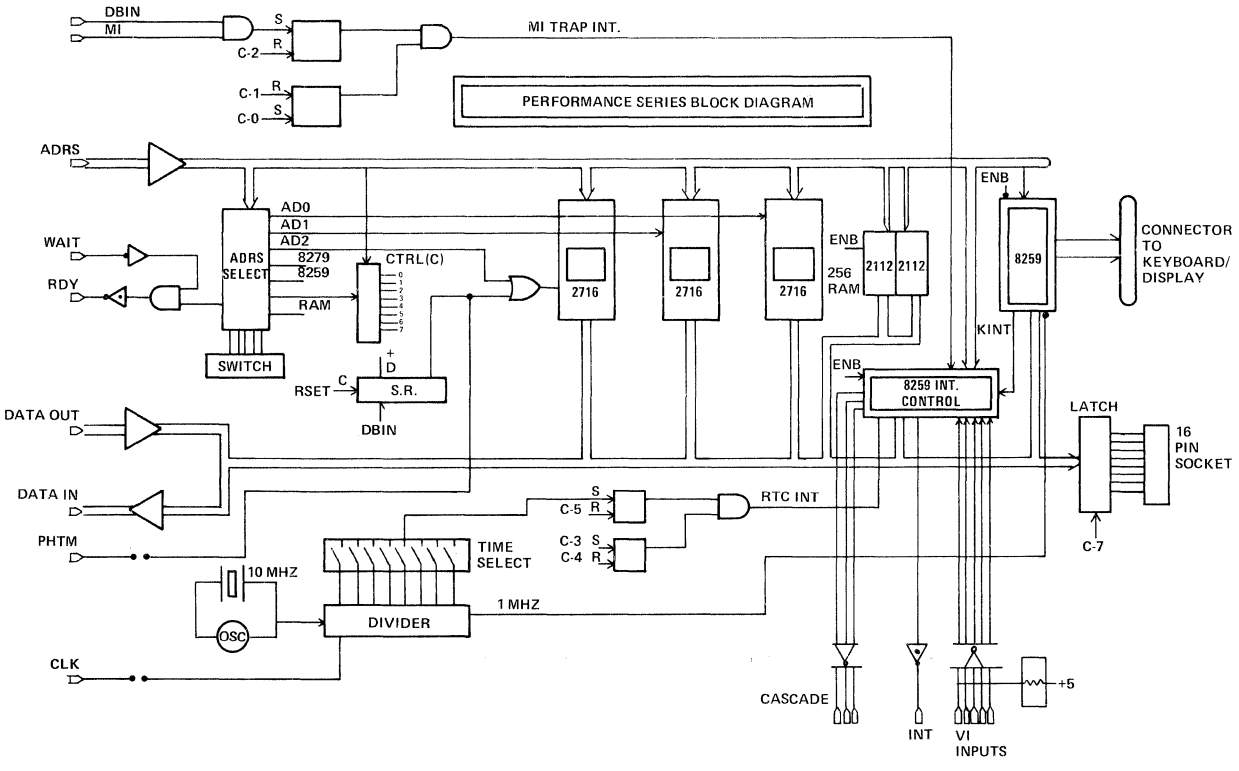


4SD004

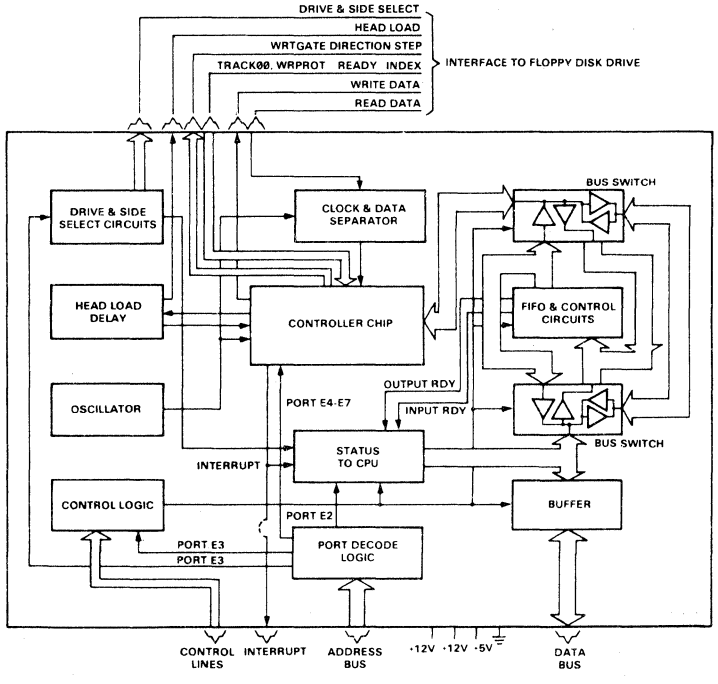


9. CIRCUIT/OUTLINE DRAWINGS

4SI



4ST001

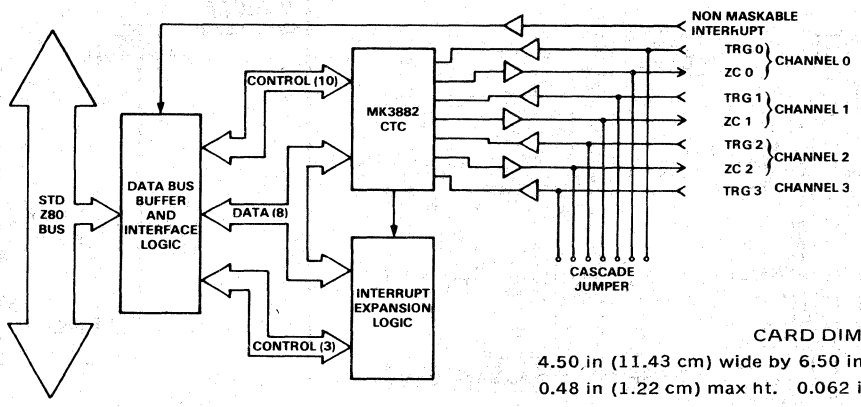


CARD DIMENSIONS

4.50 in. (11.43 cm.) wide by 6.50 in. (16.51 cm.) long
0.48 in. (1.22 cm.) max. ht. 0.062 in. (0.16 cm.) circuit board thickness

9. CIRCUIT/OUTLINE DRAWINGS

4ST002



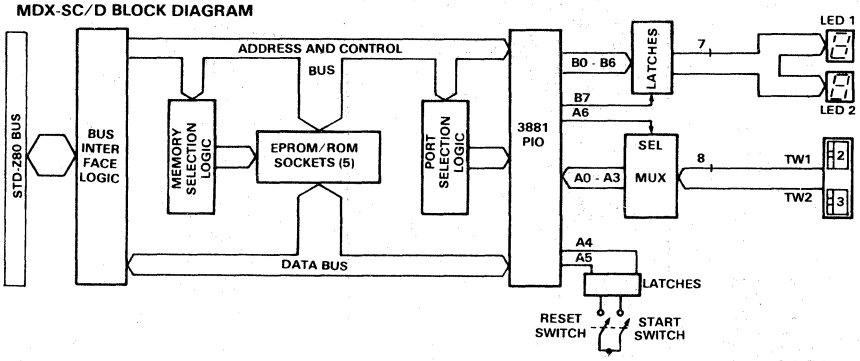
CARD DIMENSIONS

4.50 in (11.43 cm) wide by 6.50 in (16.51 cm) long

0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm) circuit board thickness

4ST003

MDX-SC/D BLOCK DIAGRAM

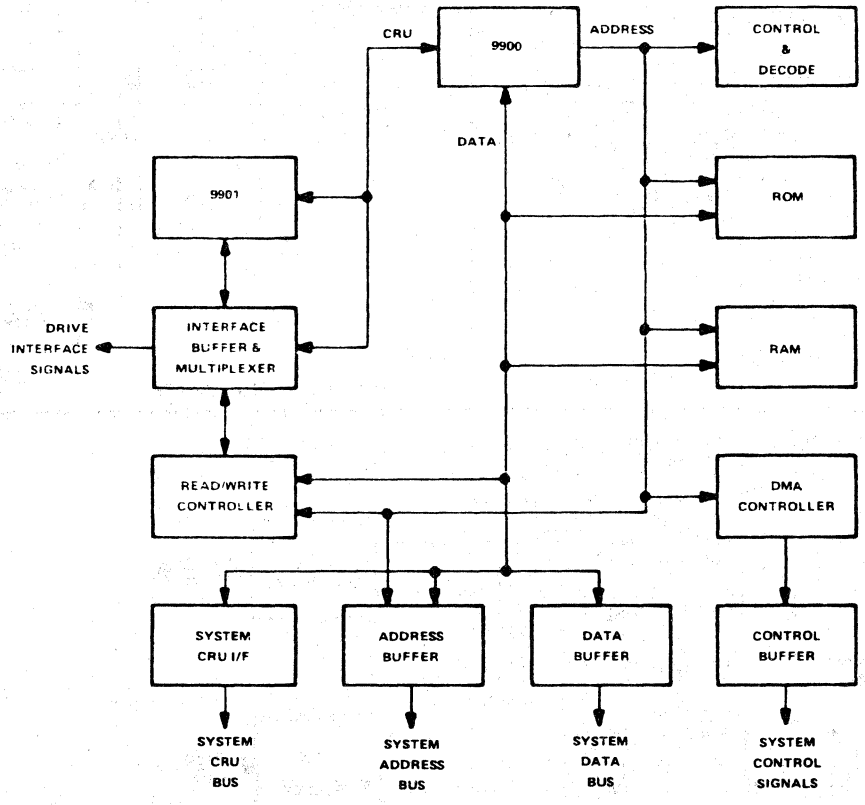


CARD DIMENSIONS

4.50 in (11.43 cm) wide by 6.50 in (16.51 cm) long

0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm) circuit board thickness

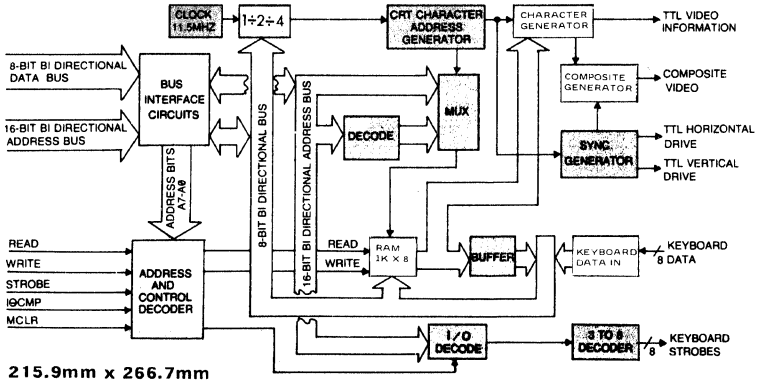
4TM001



9. CIRCUIT/OUTLINE DRAWINGS

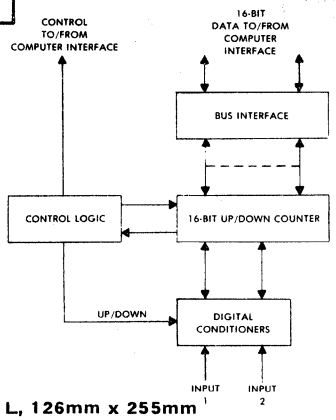
4ZZ001

PCS 1812 BLOCK DIAGRAM



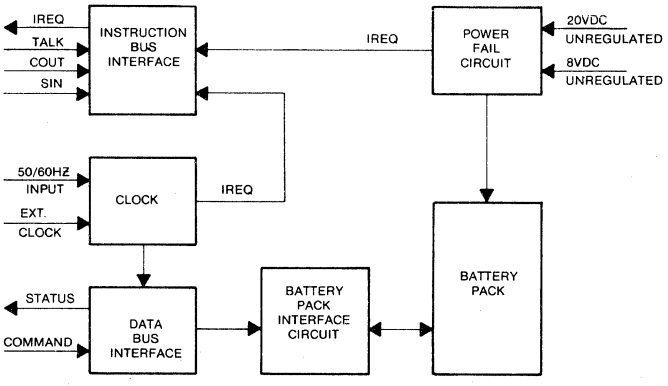
Size: W x L, 215.9mm x 266.7mm

4ZZ002



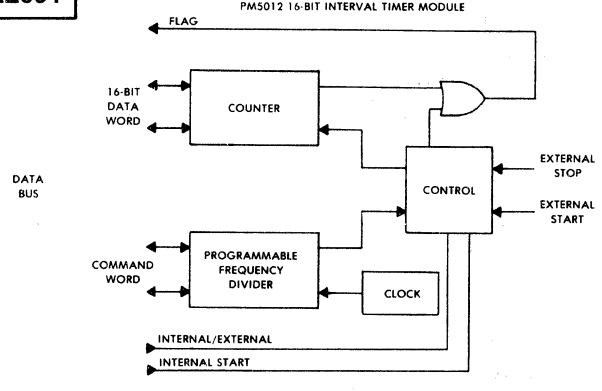
Size: W x L, 126mm x 255mm

4ZZ003



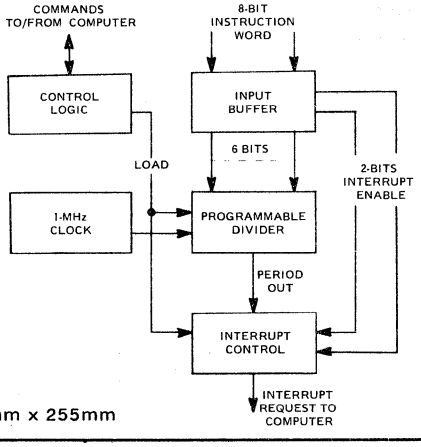
Size: W x L, 126mm x 255mm

4ZZ004



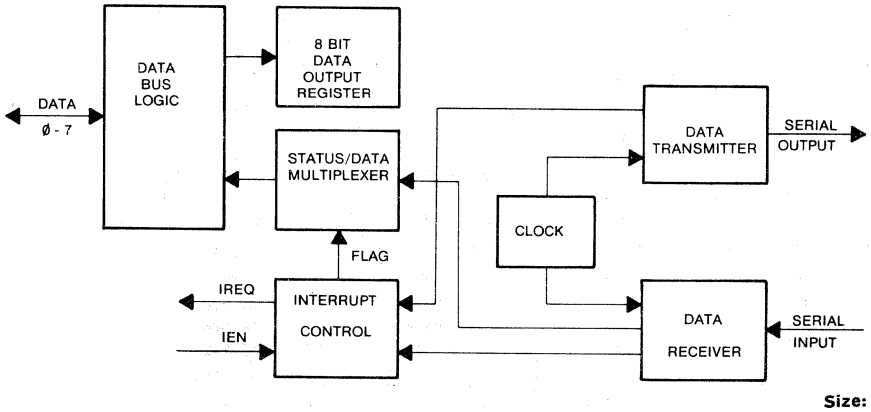
Size: W x L, 126mm x 255mm

4ZZ005



Size: W x L, 126mm x 255mm

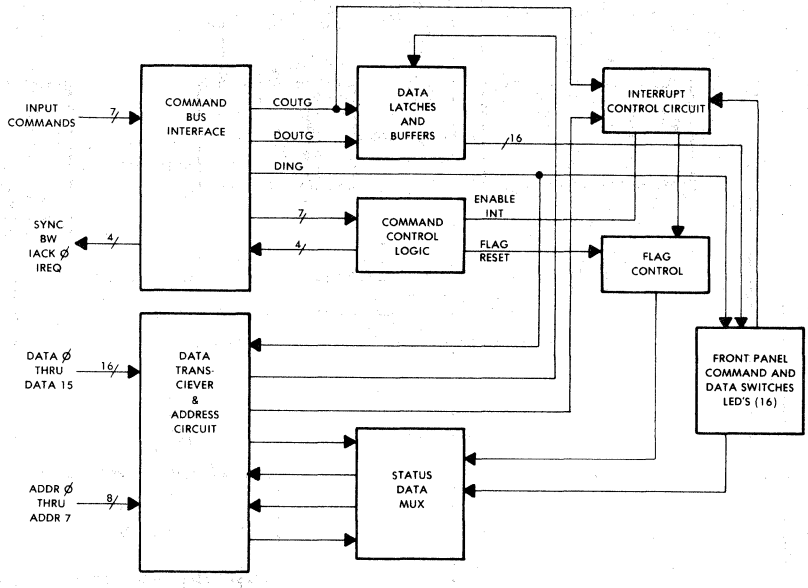
4ZZ006



Size: W x L, 126mm x 255mm

9. CIRCUIT/OUTLINE DRAWINGS

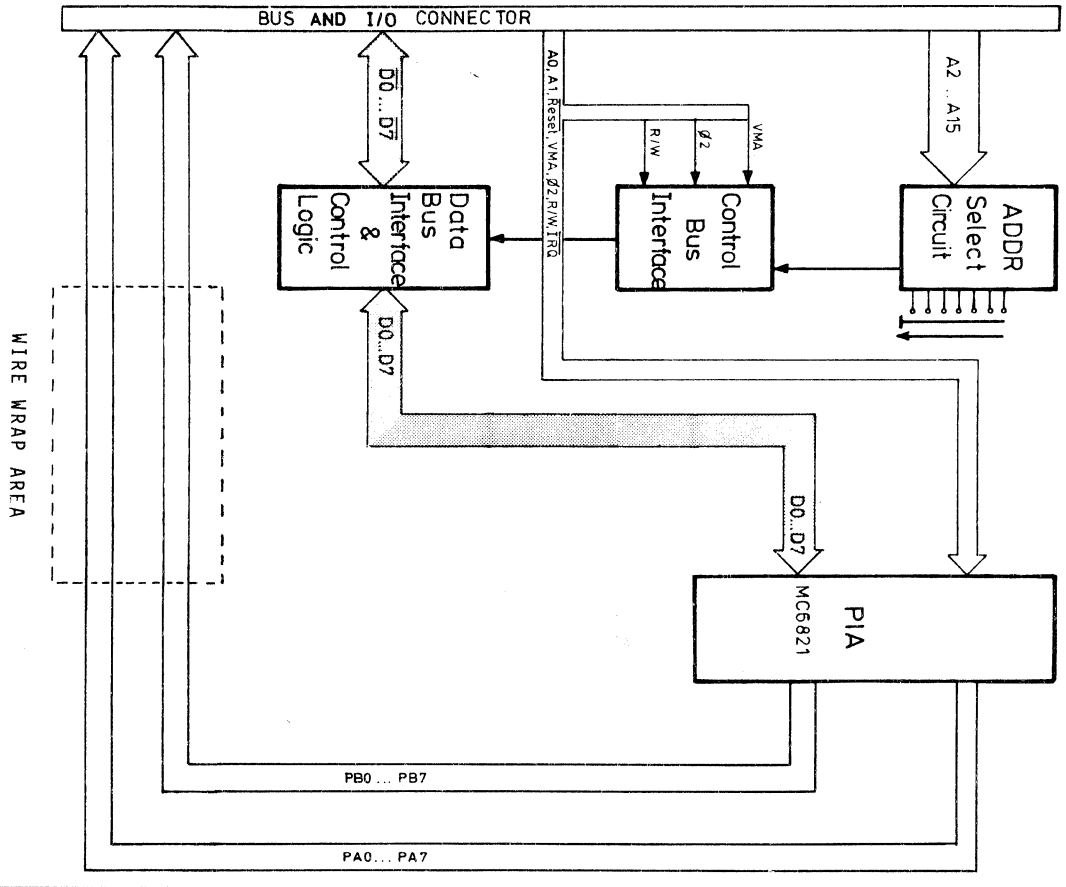
4ZZ007



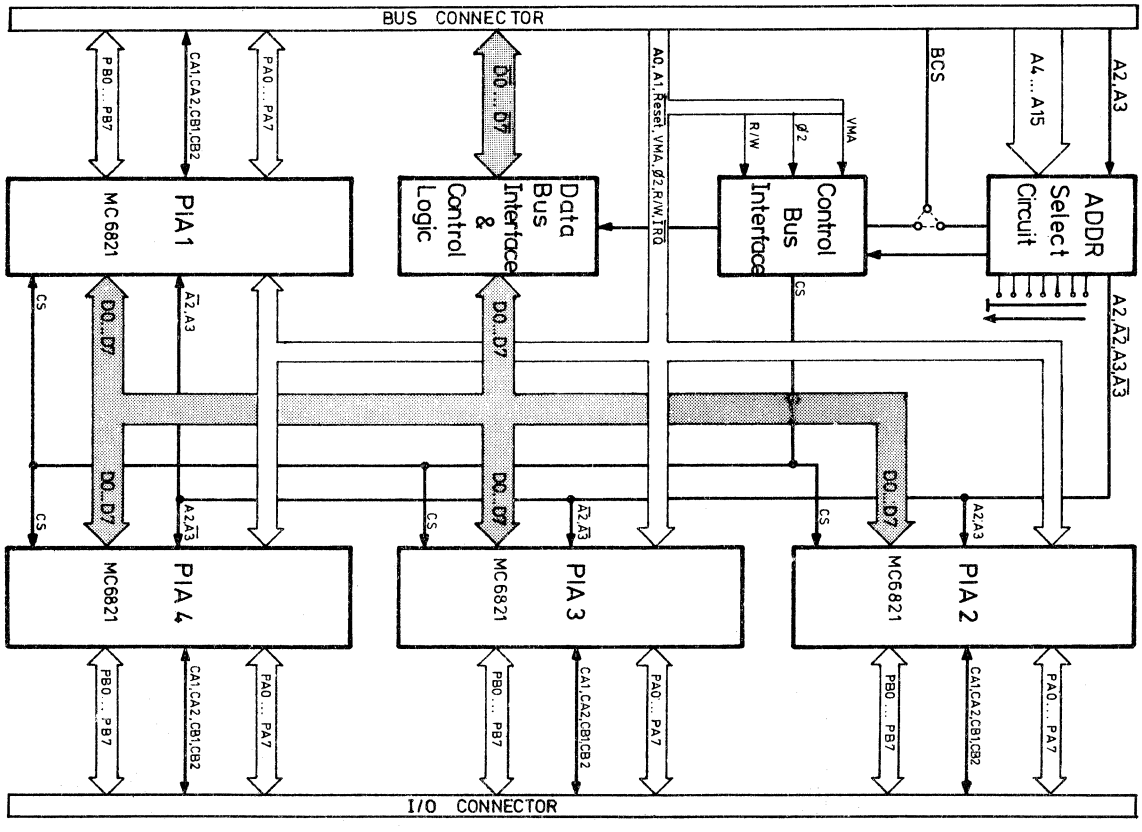
Size: W x L, 126mm x 255mm

9. CIRCUIT/OUTLINE DRAWINGS

5EU003

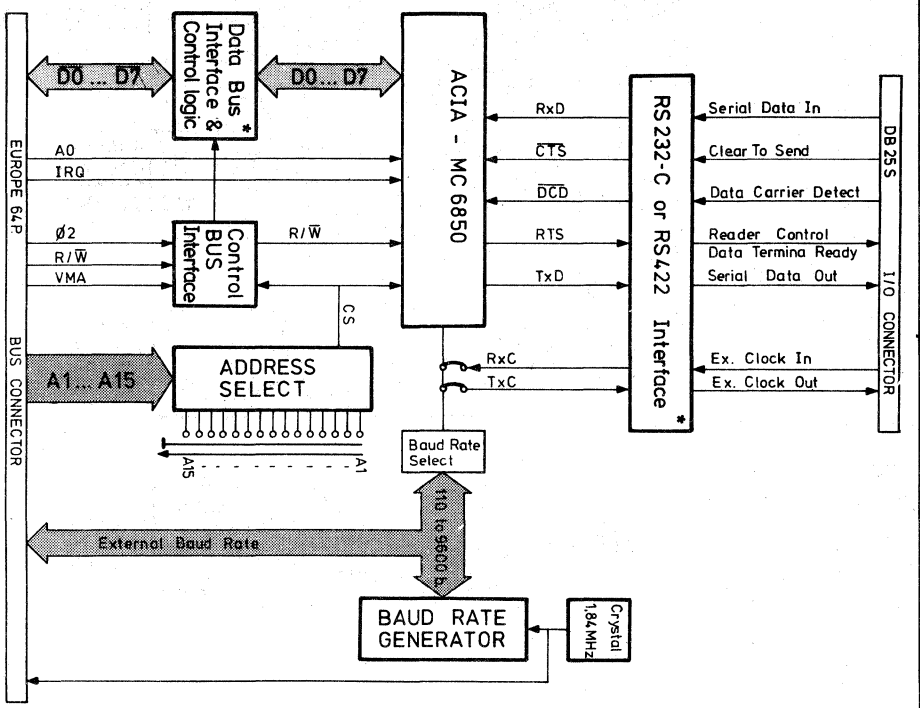


5EU004

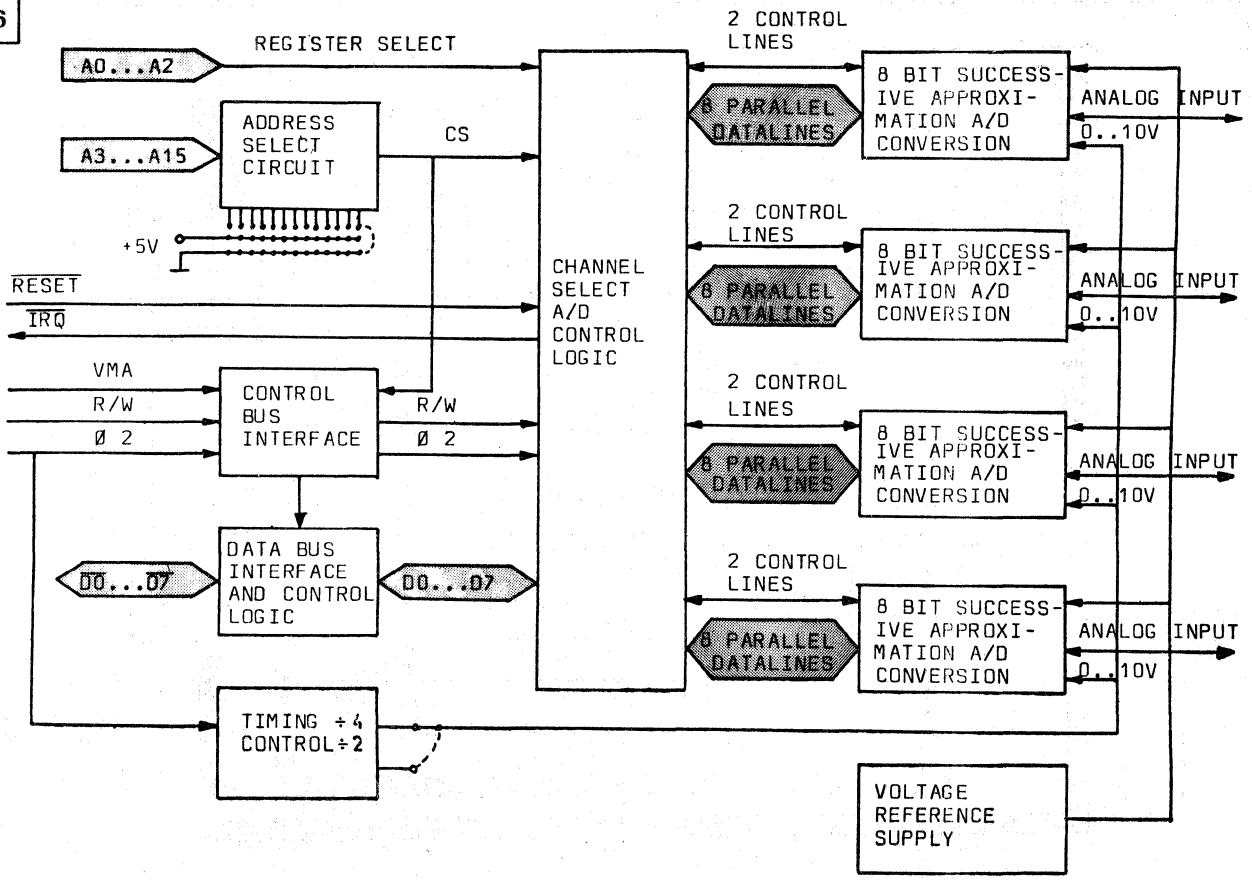


9. CIRCUIT/OUTLINE DRAWINGS

5EU005

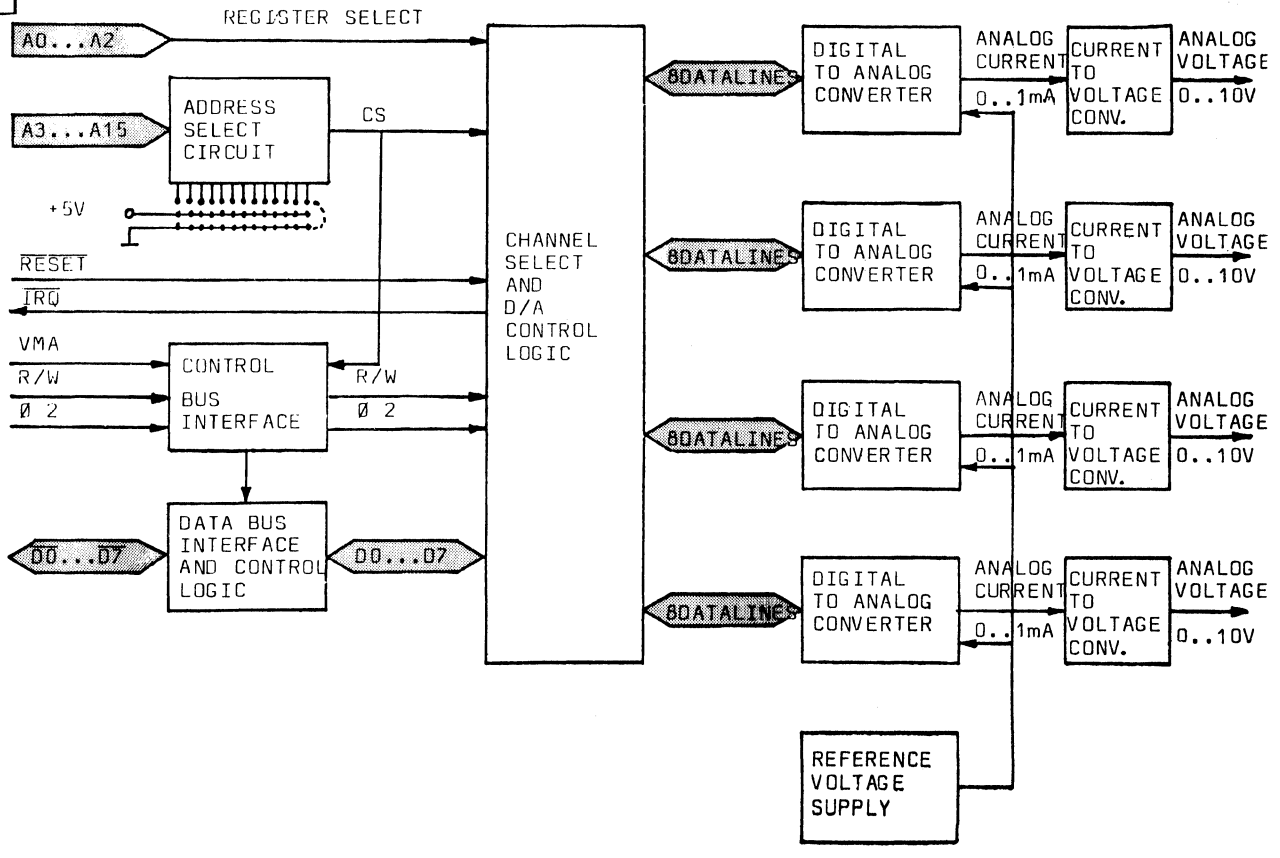


5EU006

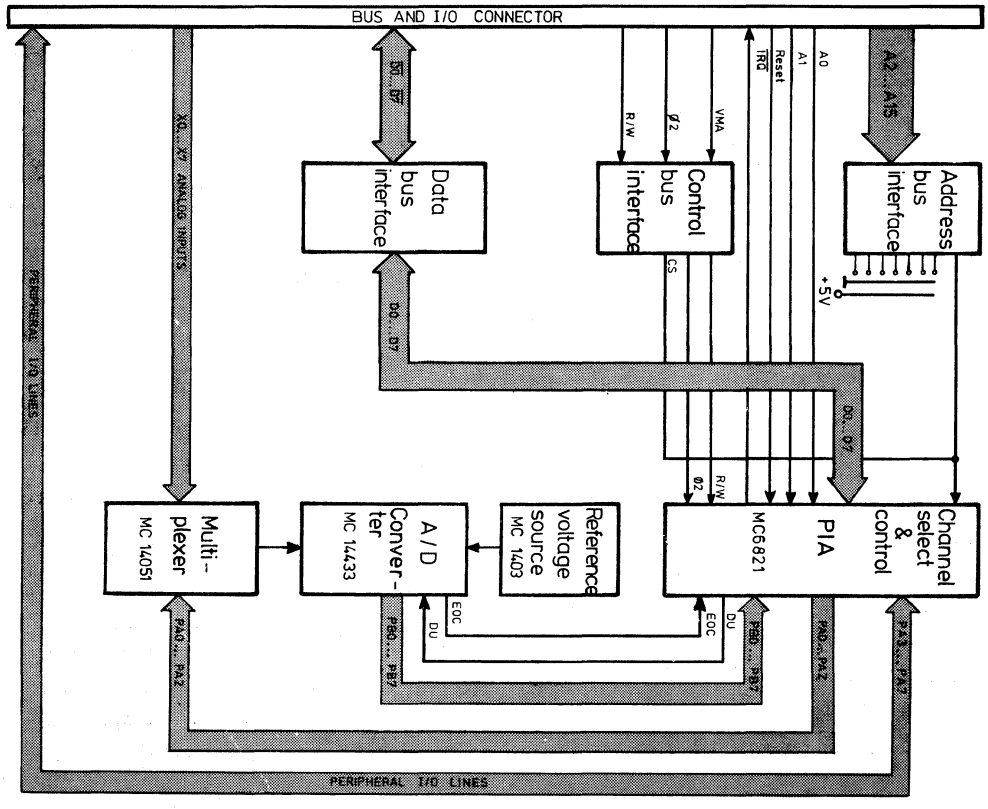


9. CIRCUIT/OUTLINE DRAWINGS

5EU007

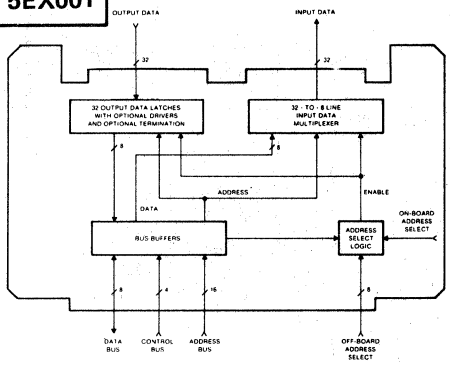


5EU008



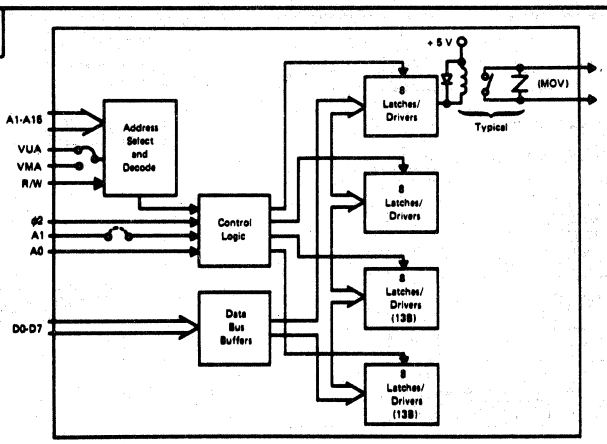
9. CIRCUIT/OUTLINE DRAWINGS

5EX001



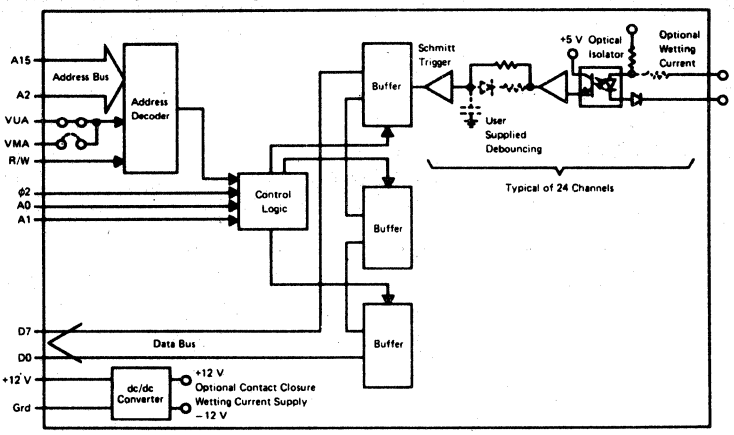
Size: W x H, 247.7x 152.4mm

5EX002

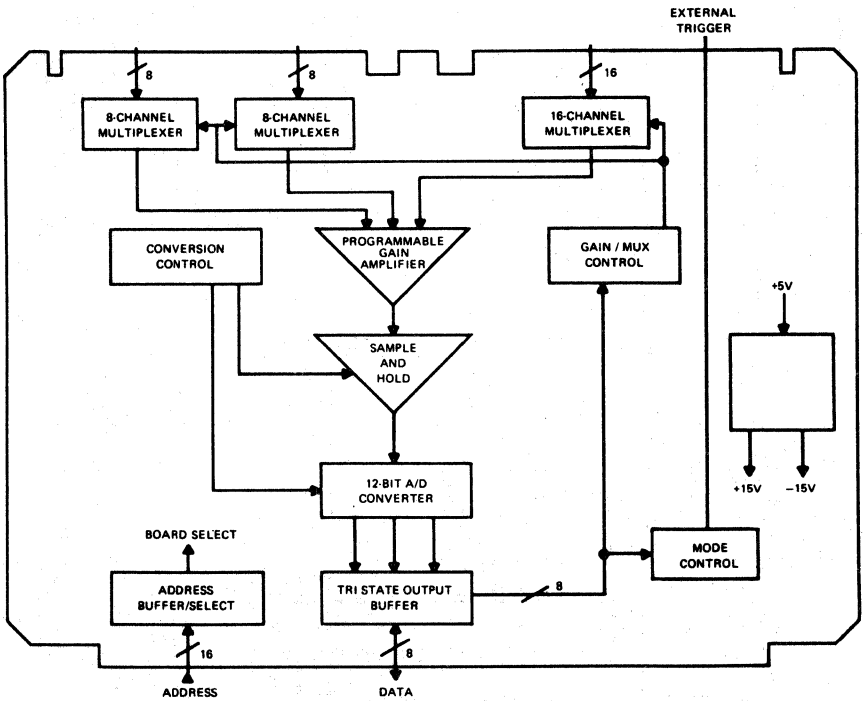


Size: W x H, 247.7 x 152.4mm

5EX003

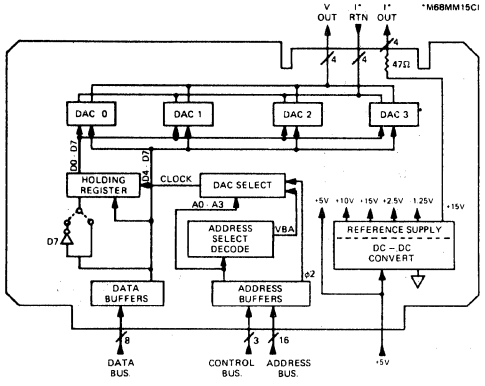


5EX004

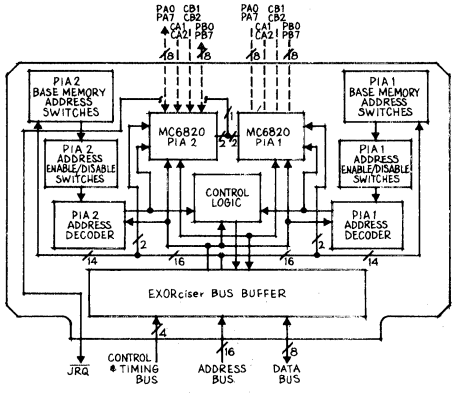


9. CIRCUIT/OUTLINE DRAWINGS

5EX005

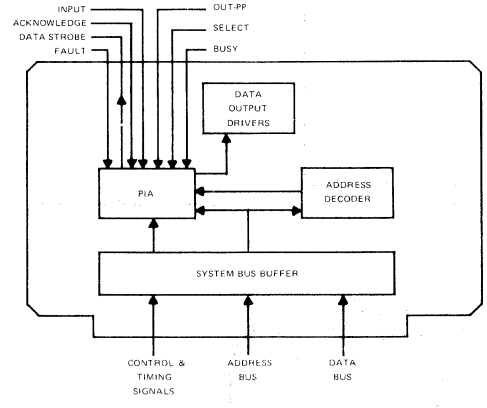


5EX006



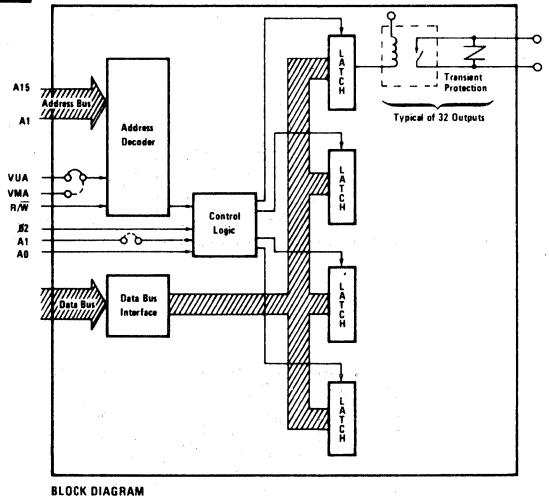
Size: W x H, 247.7 x 14.4mm

5EX007



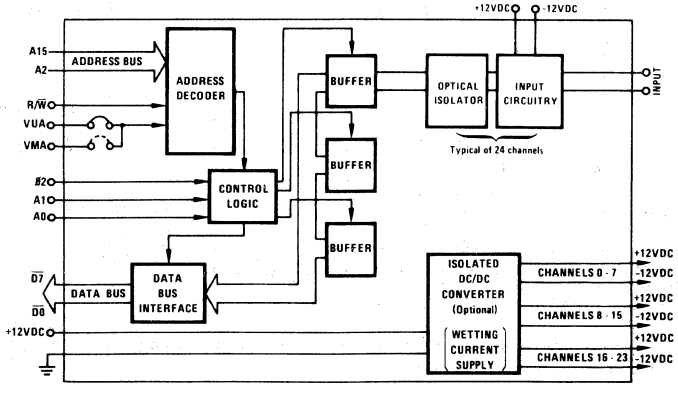
Size: W x H, 247.7mm x 152.4mm

5EX008



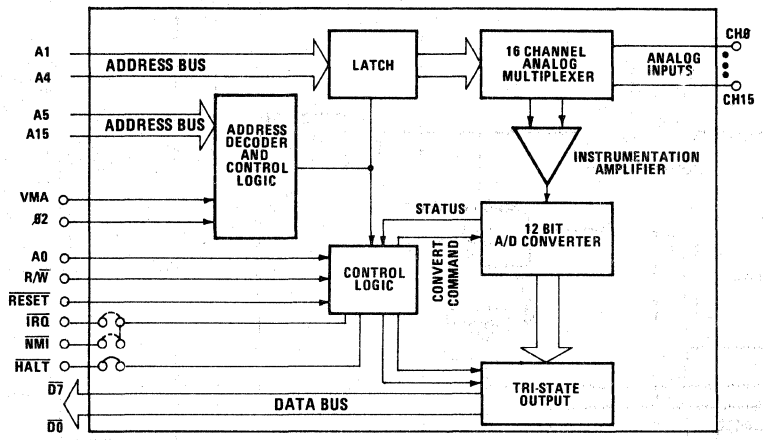
BLOCK DIAGRAM

5EX009

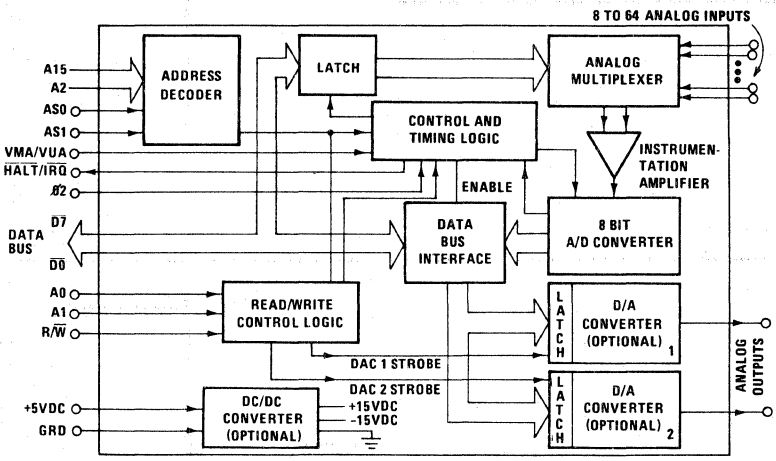


9. CIRCUIT/OUTLINE DRAWINGS

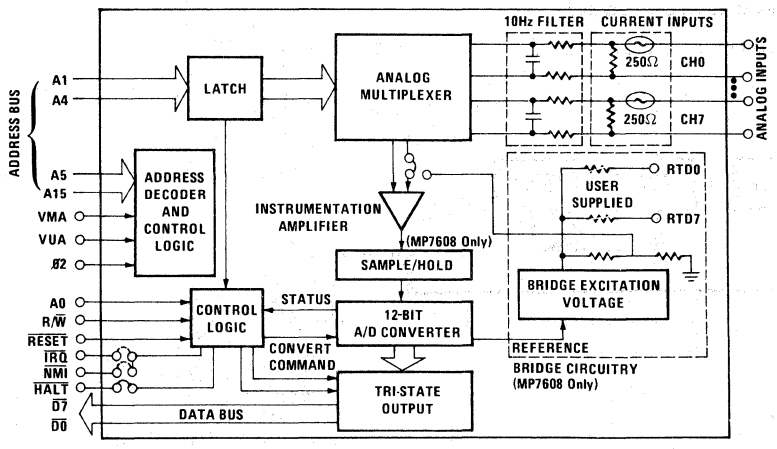
5EX010



5EX011

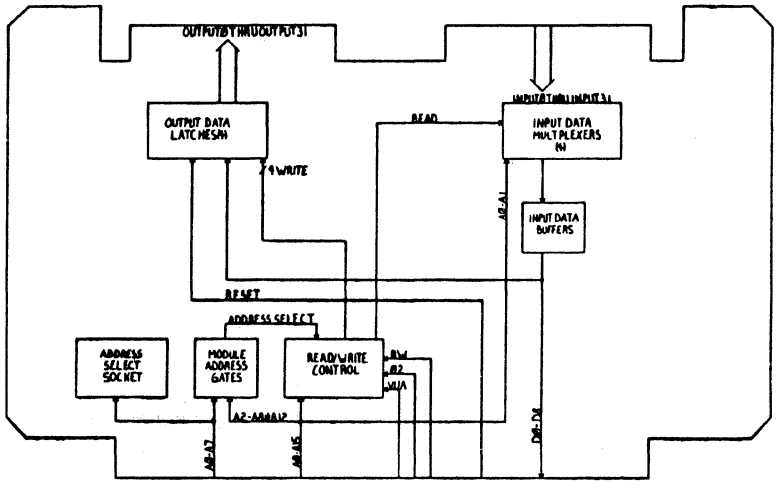


5EX012

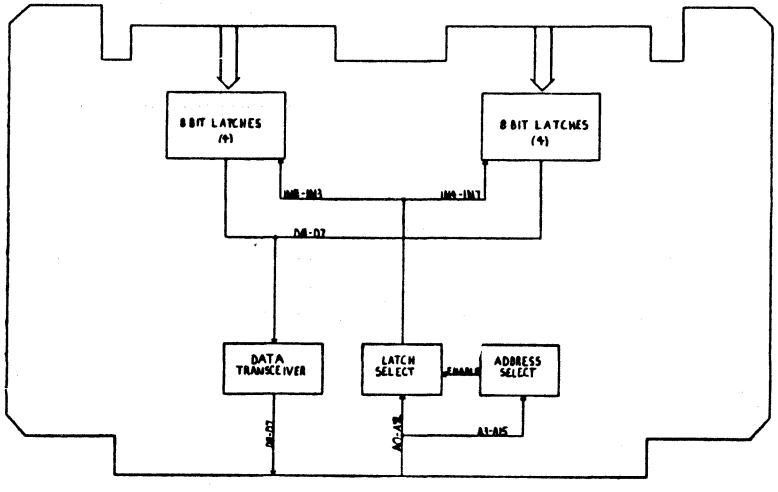


9. CIRCUIT/OUTLINE DRAWINGS

5EX013

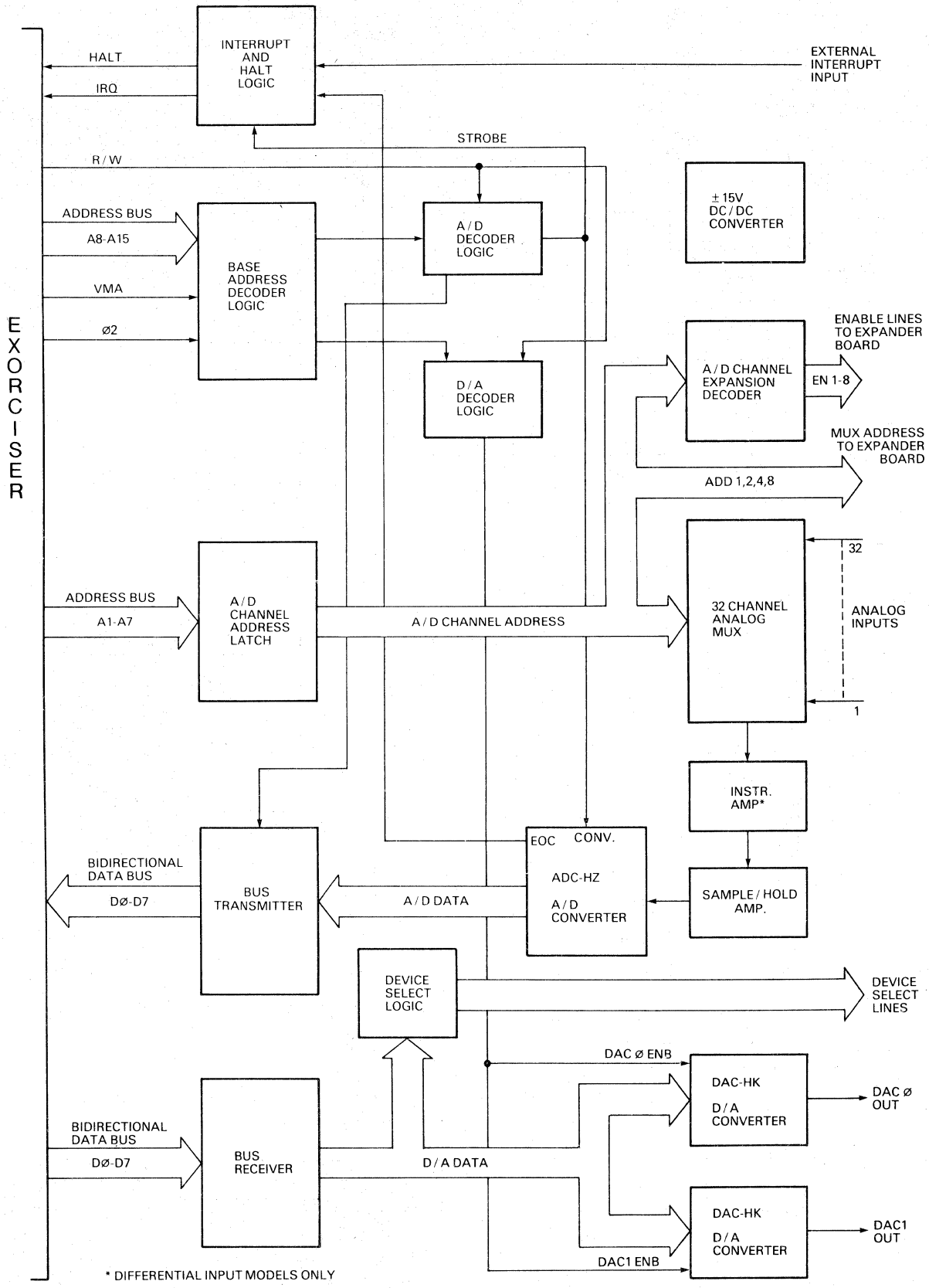


5EX014



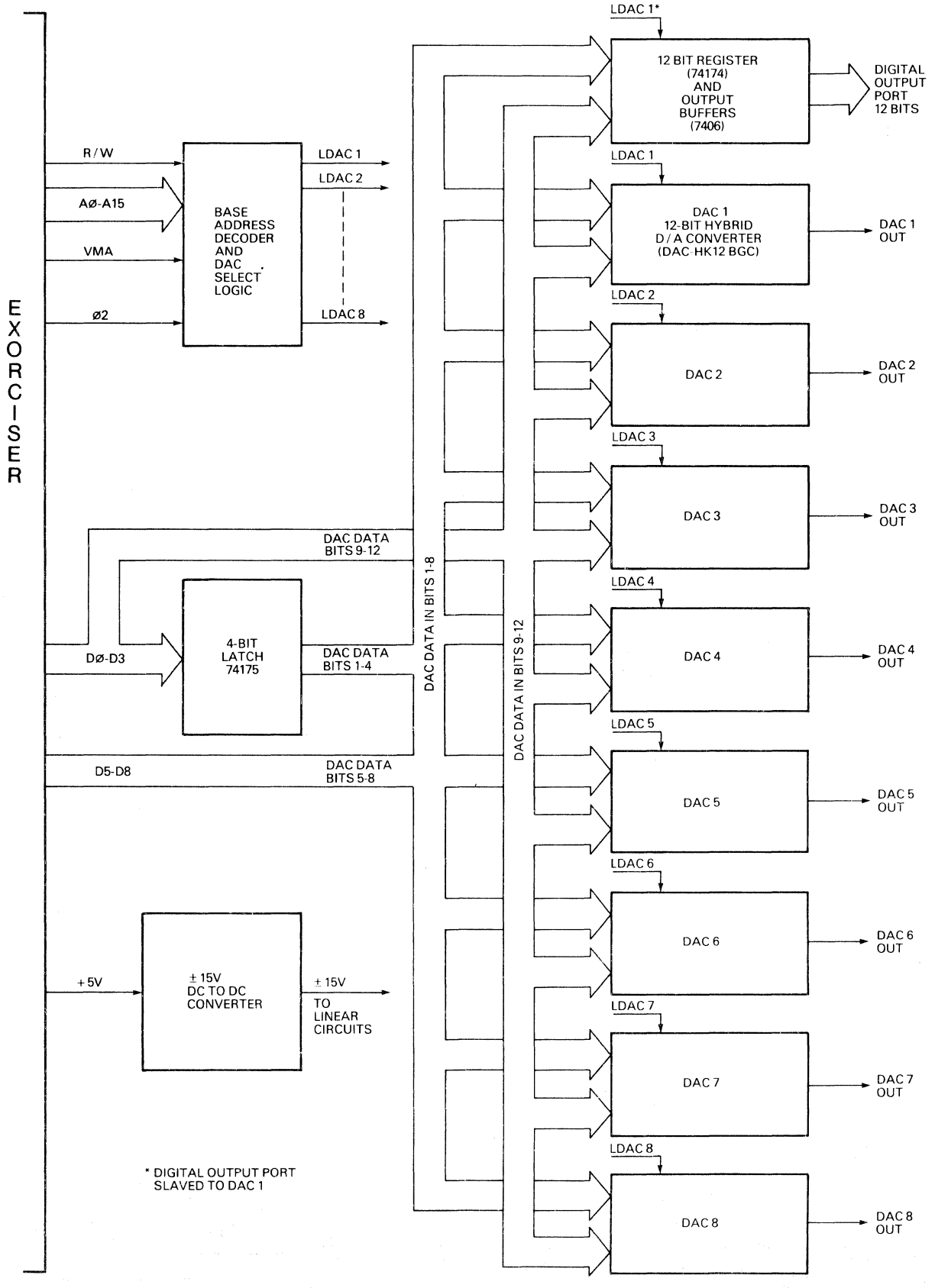
9. CIRCUIT/OUTLINE DRAWINGS

5EX015



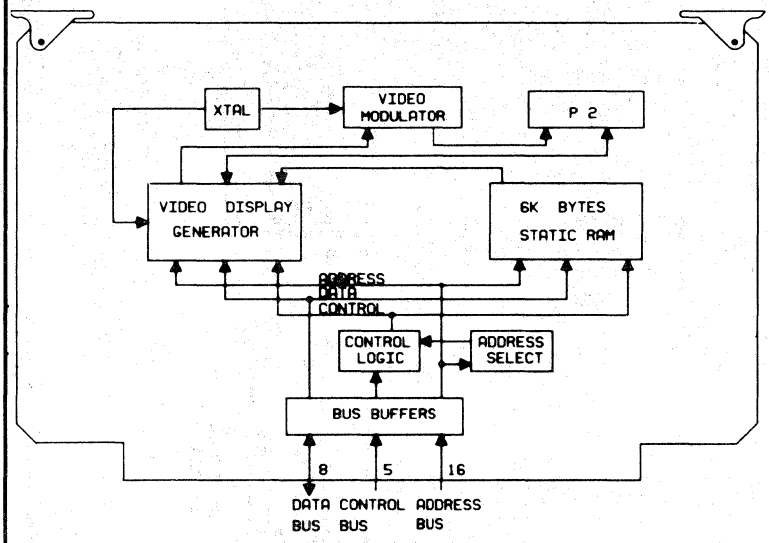
9. CIRCUIT/OUTLINE DRAWINGS

5EX016

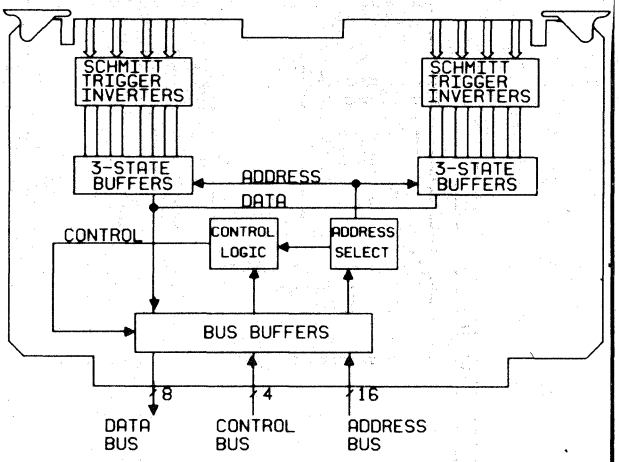


9. CIRCUIT/OUTLINE DRAWINGS

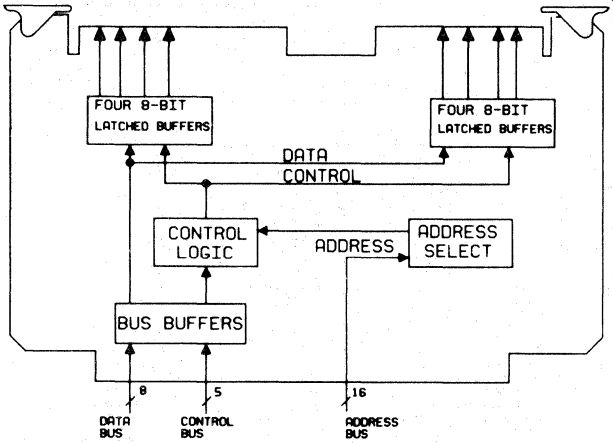
5EX017



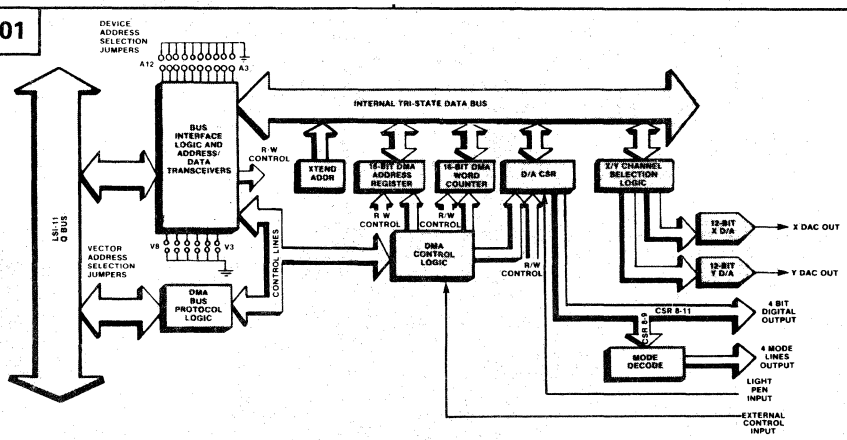
5EX018



5EX019

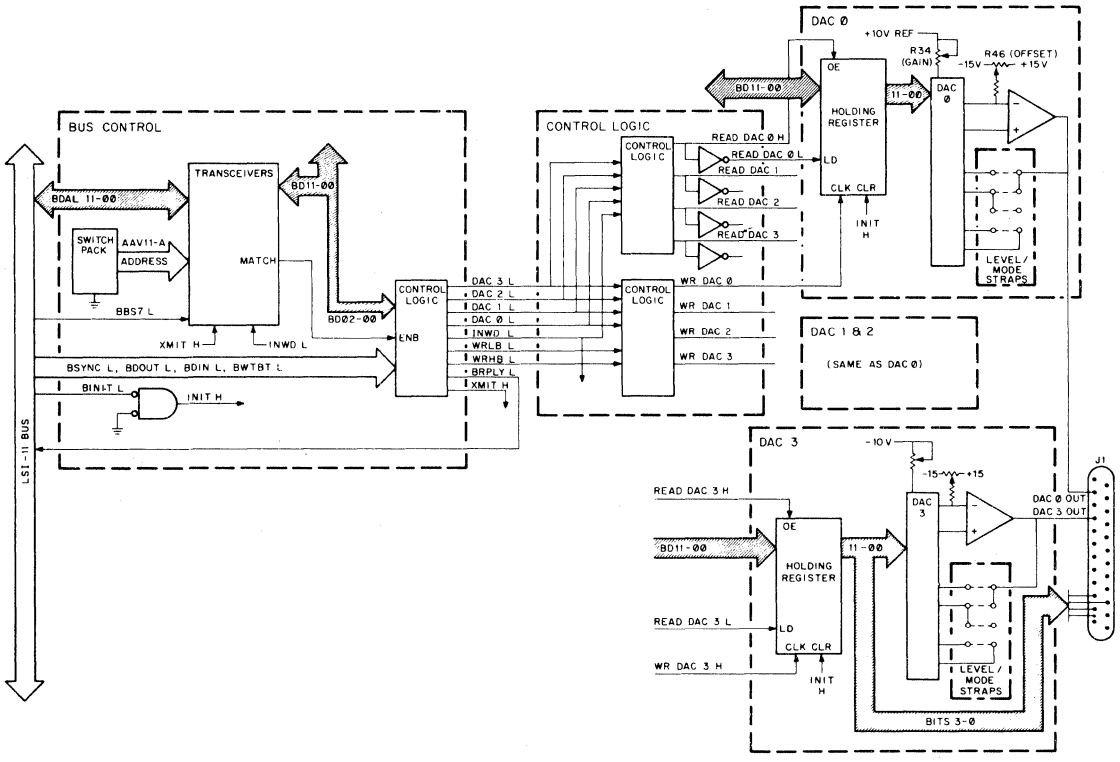


5LS001

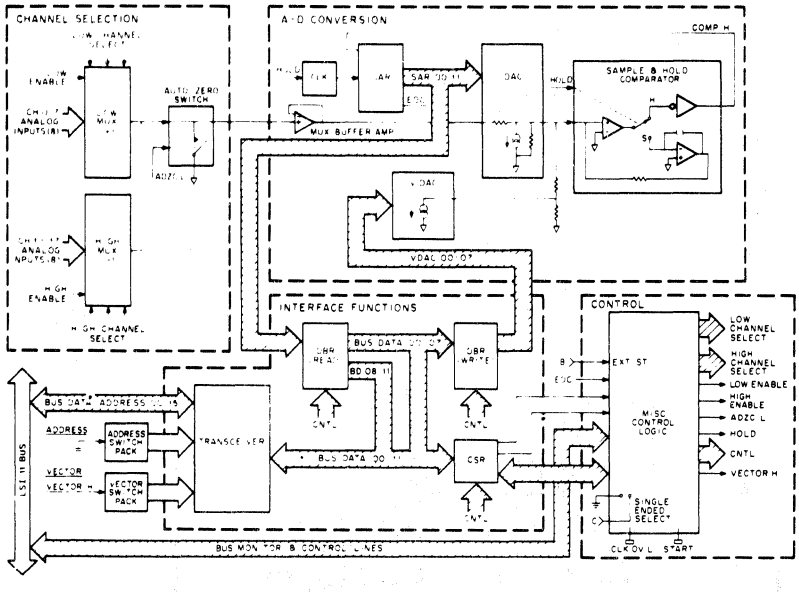


9. CIRCUIT/OUTLINE DRAWINGS

5LS002

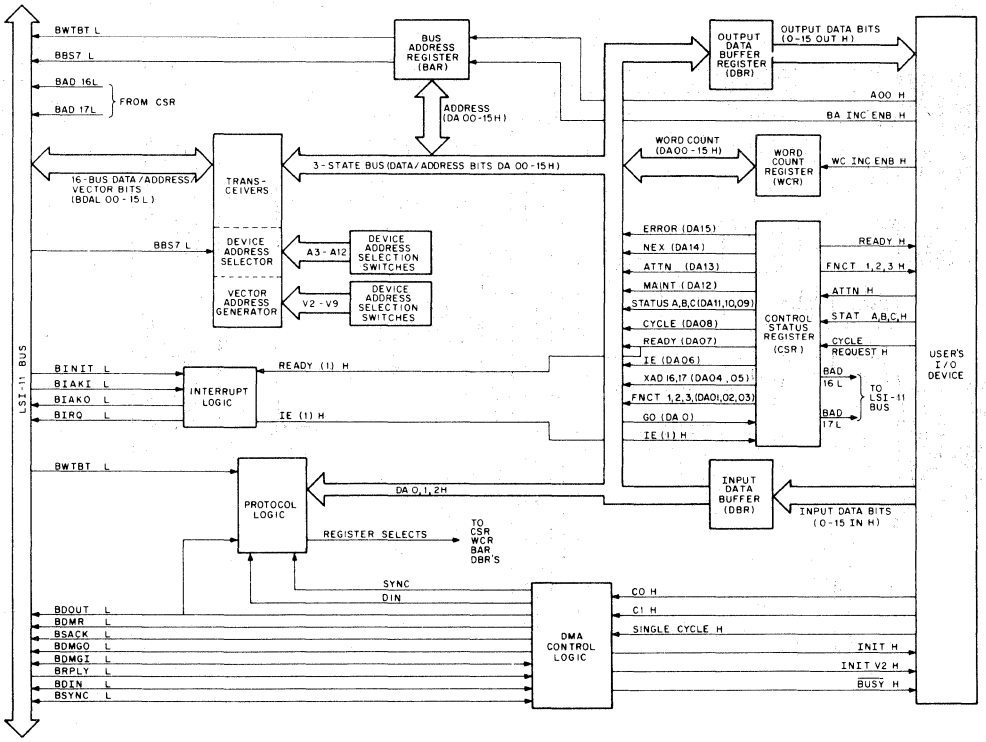


5LS003

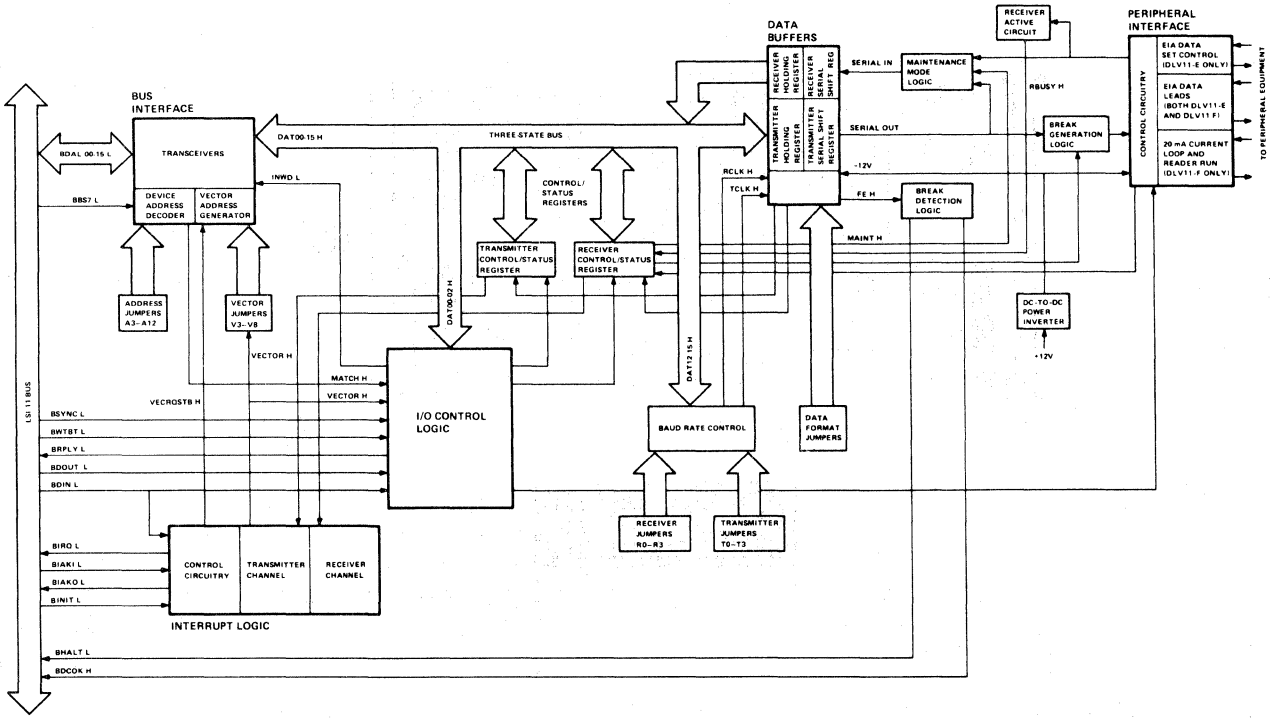


9. CIRCUIT/OUTLINE DRAWINGS

5LS004

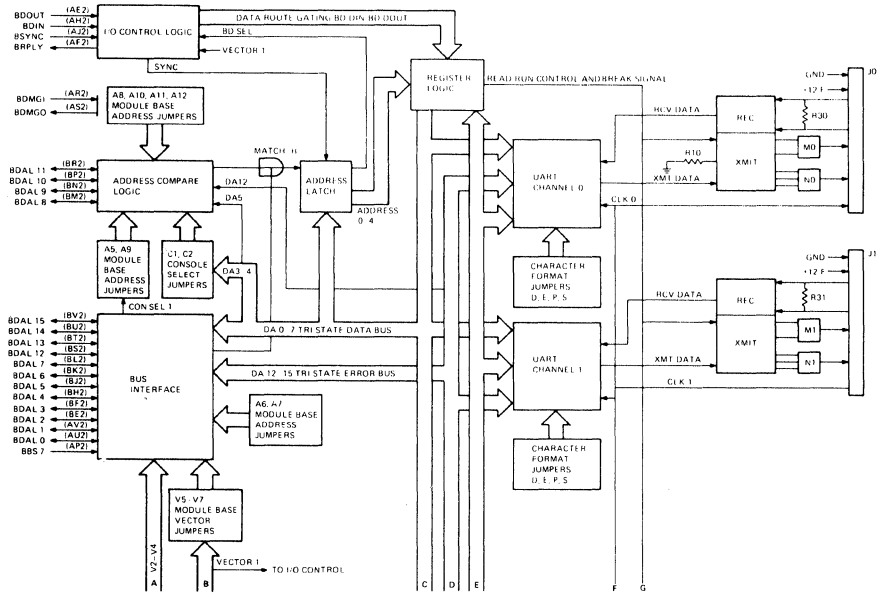


5LS005

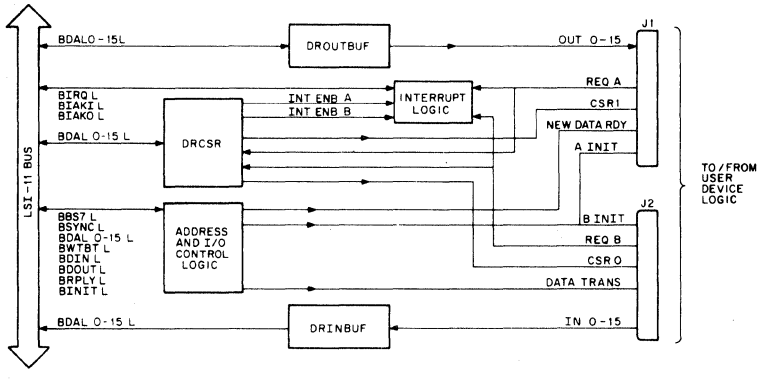


9. CIRCUIT/OUTLINE DRAWINGS

5LS006



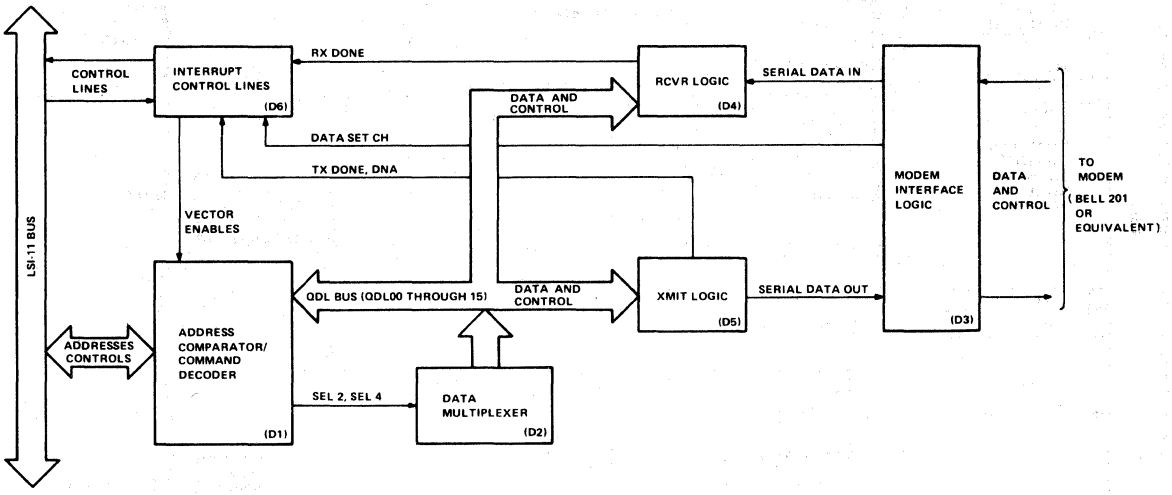
5LS007



LENGTH	13.3 cm	5.25 in
WIDTH	11.4 cm	4.5 in
HEIGHT	2.64 cm	1.04 in

9. CIRCUIT/OUTLINE DRAWINGS

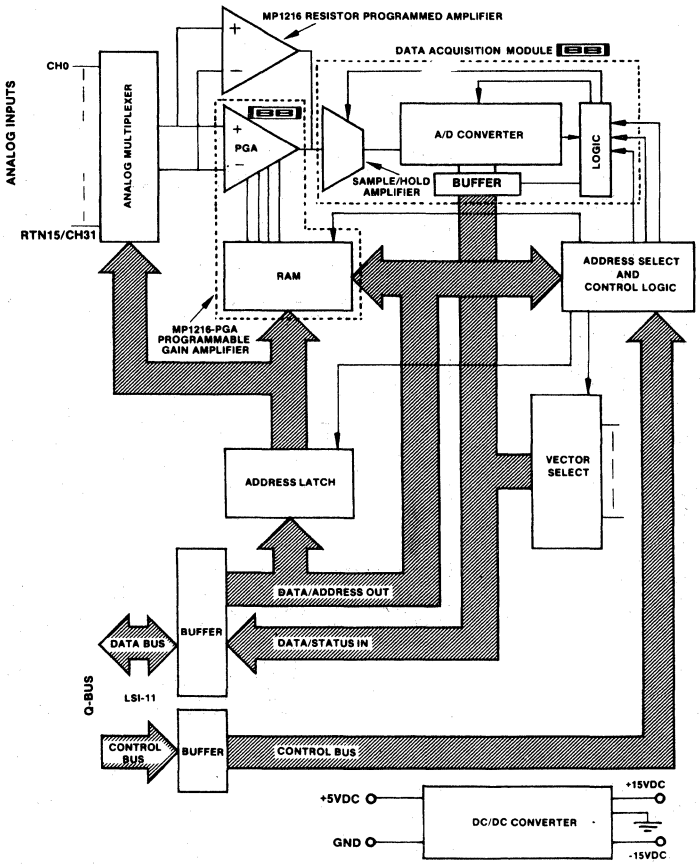
5LS008



NOTE:
( ) indicates engineering drawing sheet of logical block.

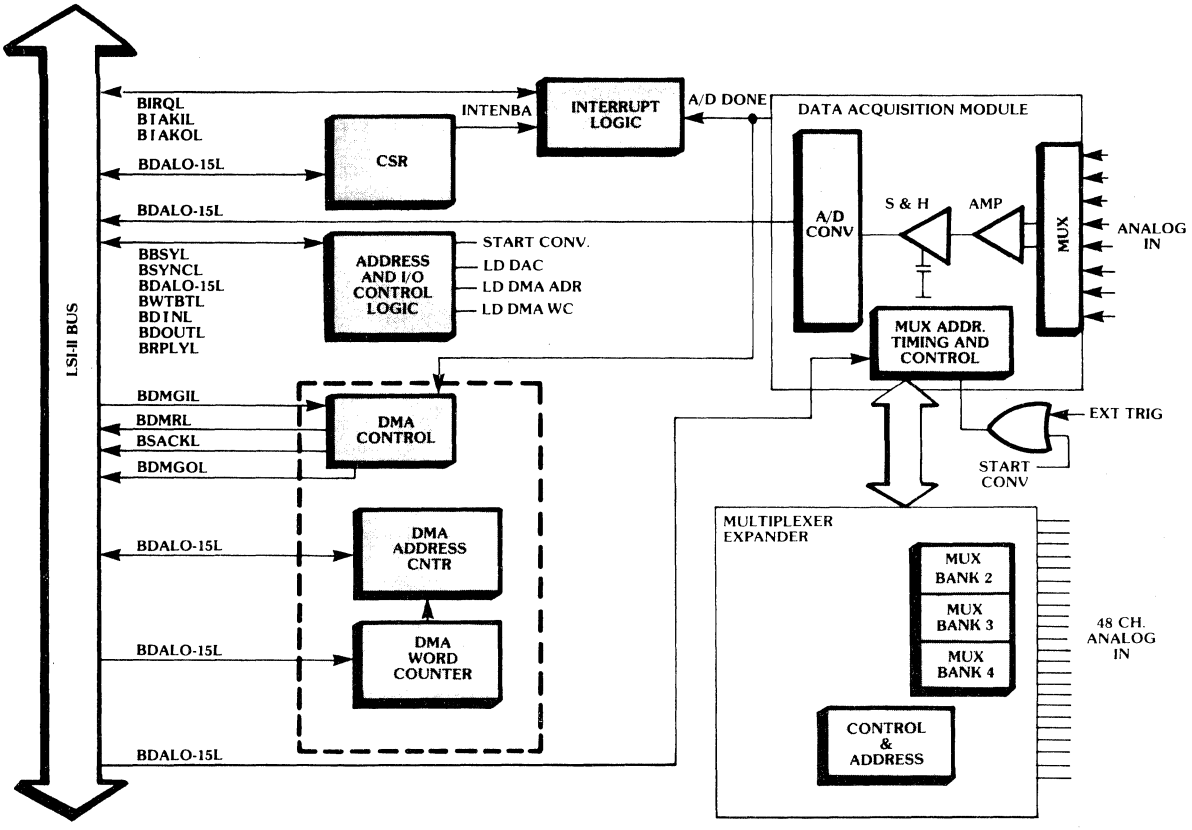
SIZE : QUAD

5LS009

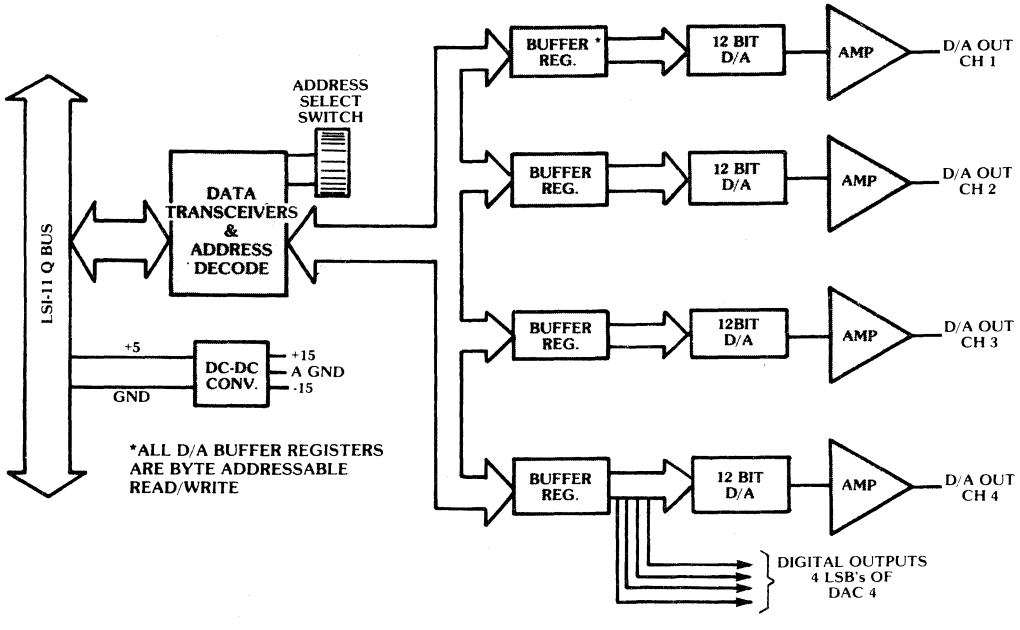


9. CIRCUIT/OUTLINE DRAWINGS

5LS010

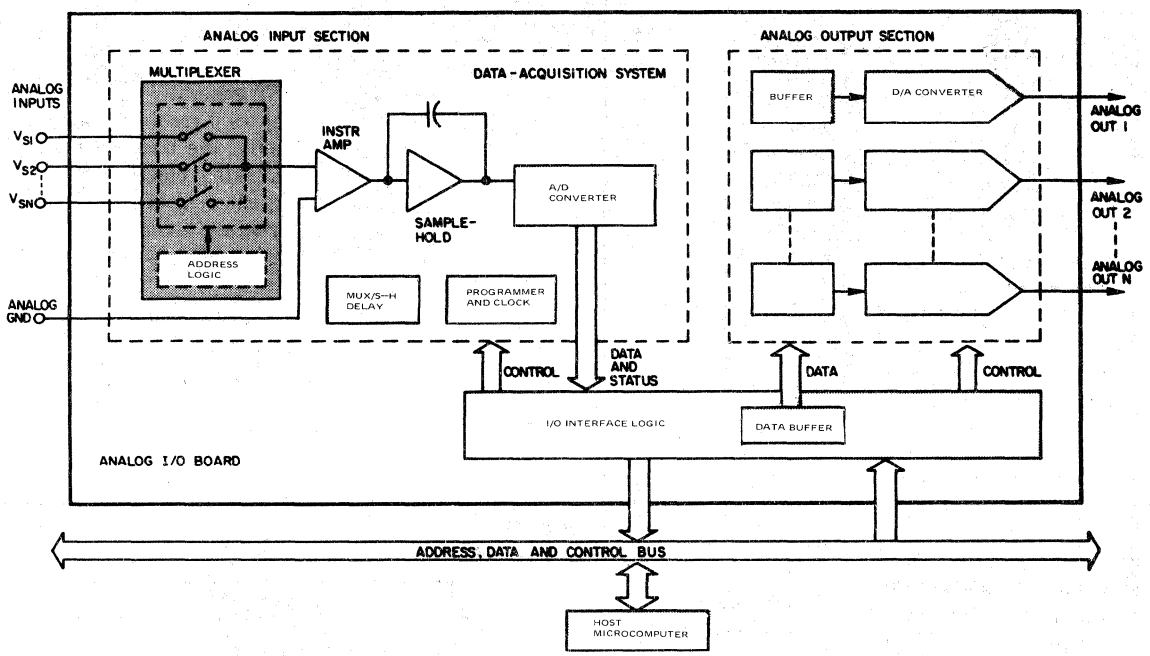


5LS011

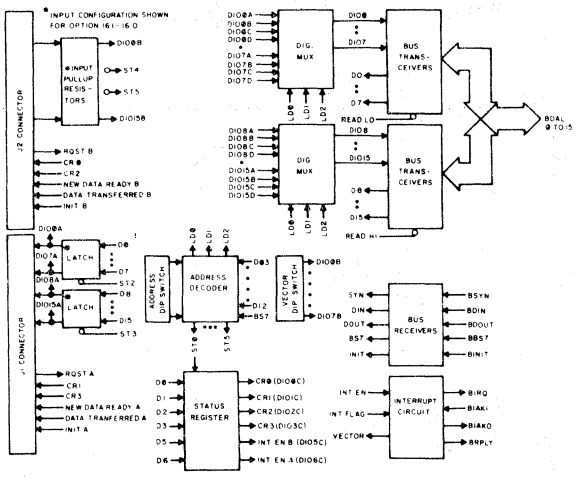


9. CIRCUIT/OUTLINE DRAWINGS

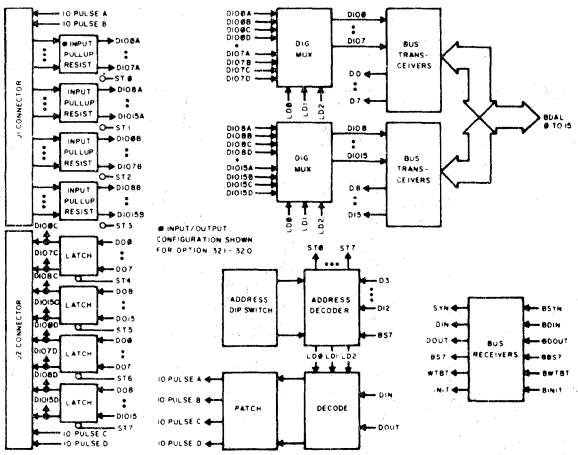
5LS012



5LS013

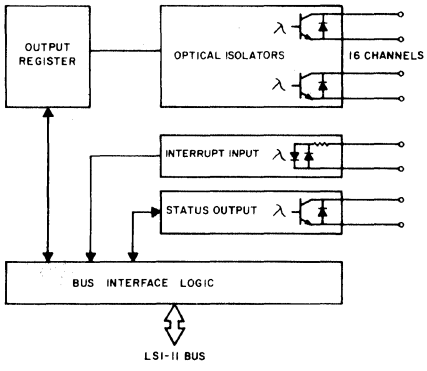


5LS014

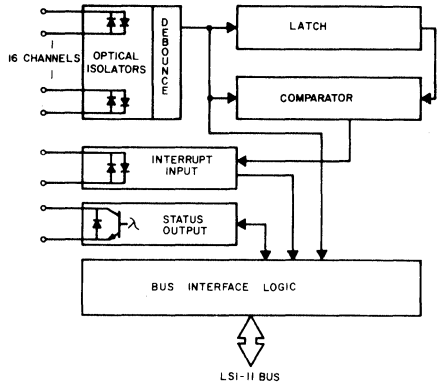


9. CIRCUIT/OUTLINE DRAWINGS

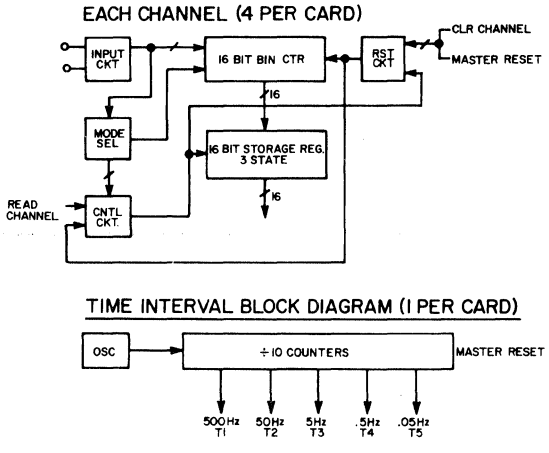
5LS015



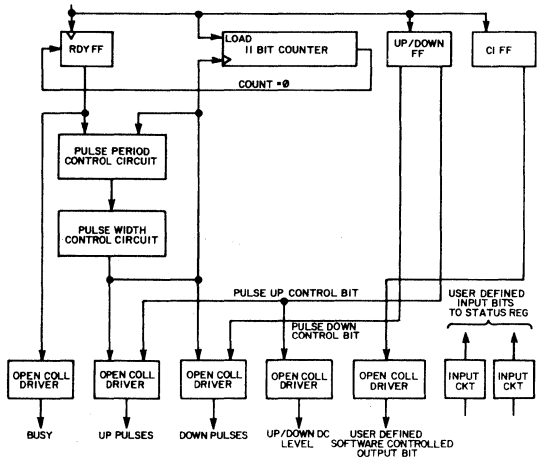
5LS016



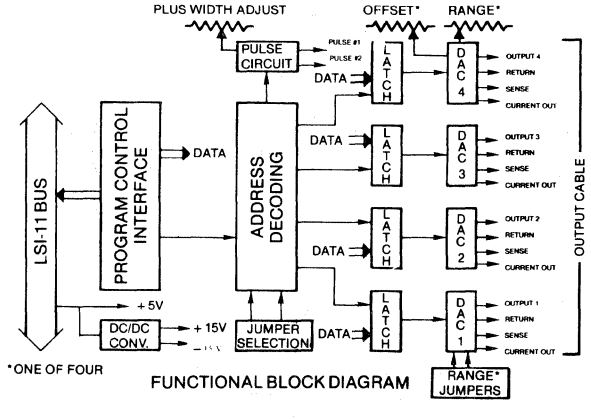
5LS017



5LS018

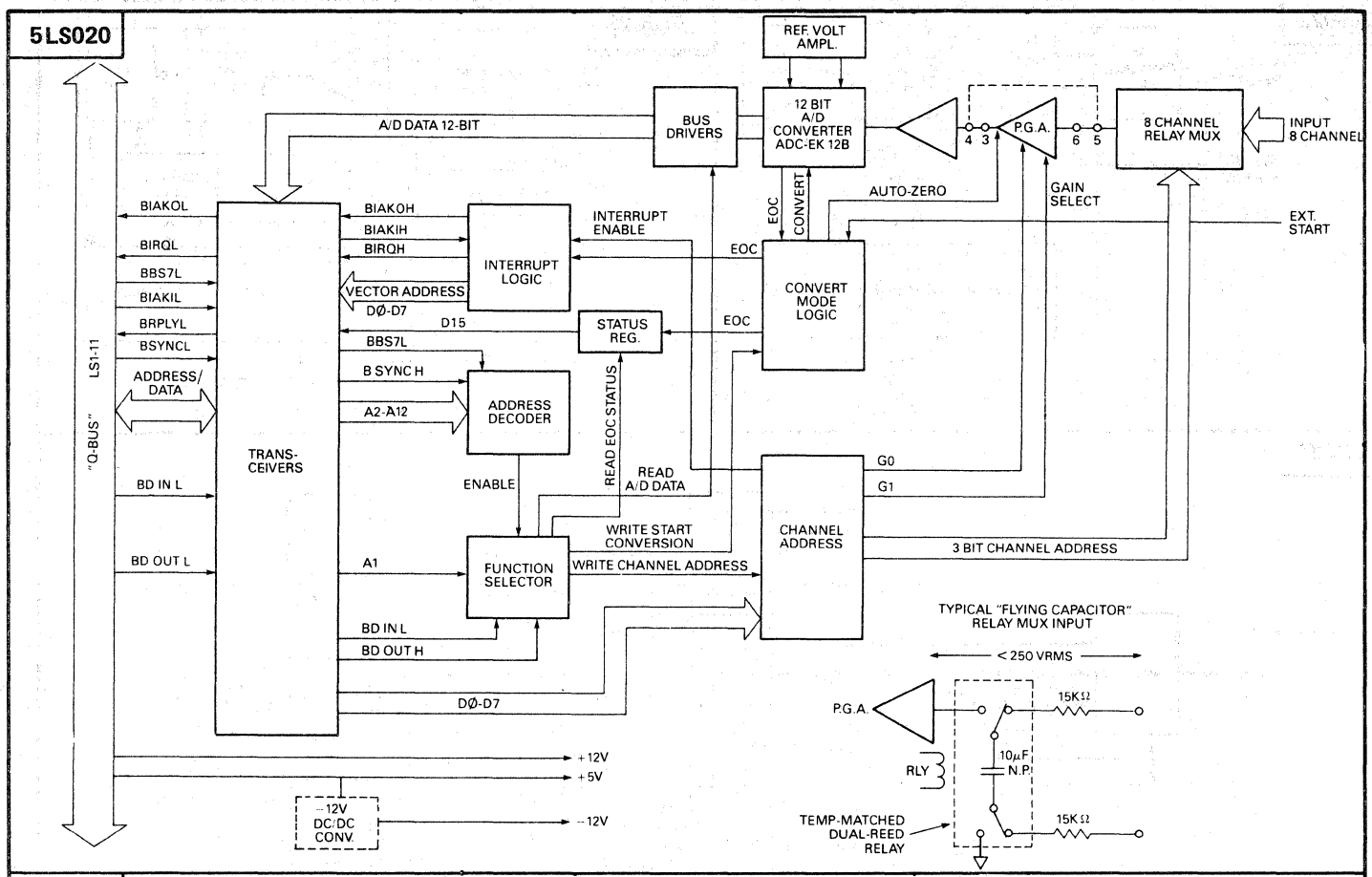


5LS019

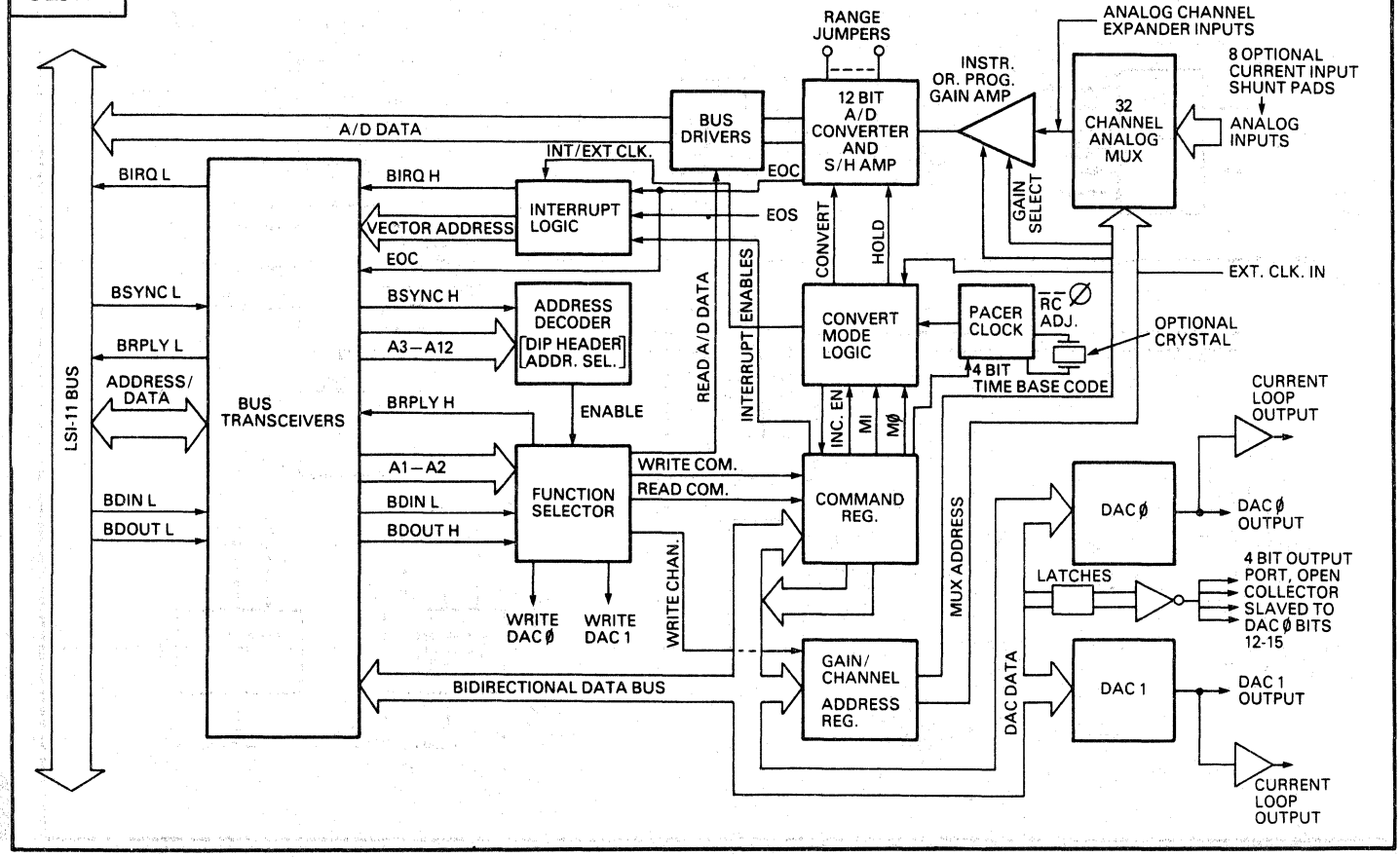


9. CIRCUIT/OUTLINE DRAWINGS

5LS020

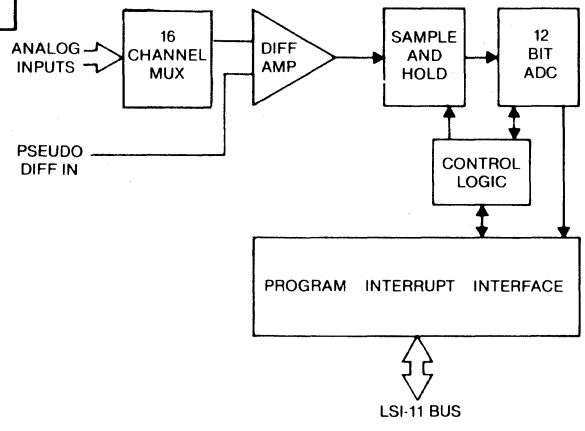


5LS021

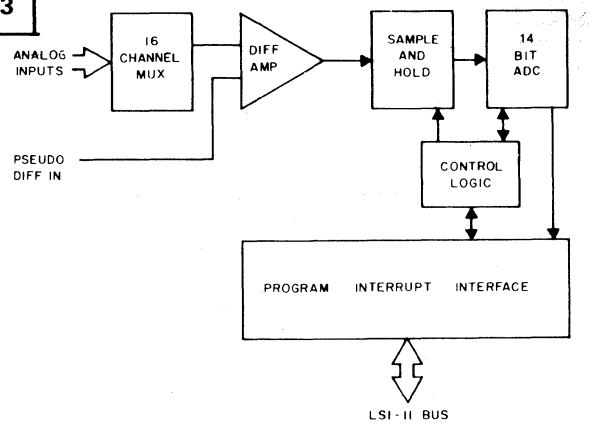


9. CIRCUIT/OUTLINE DRAWINGS

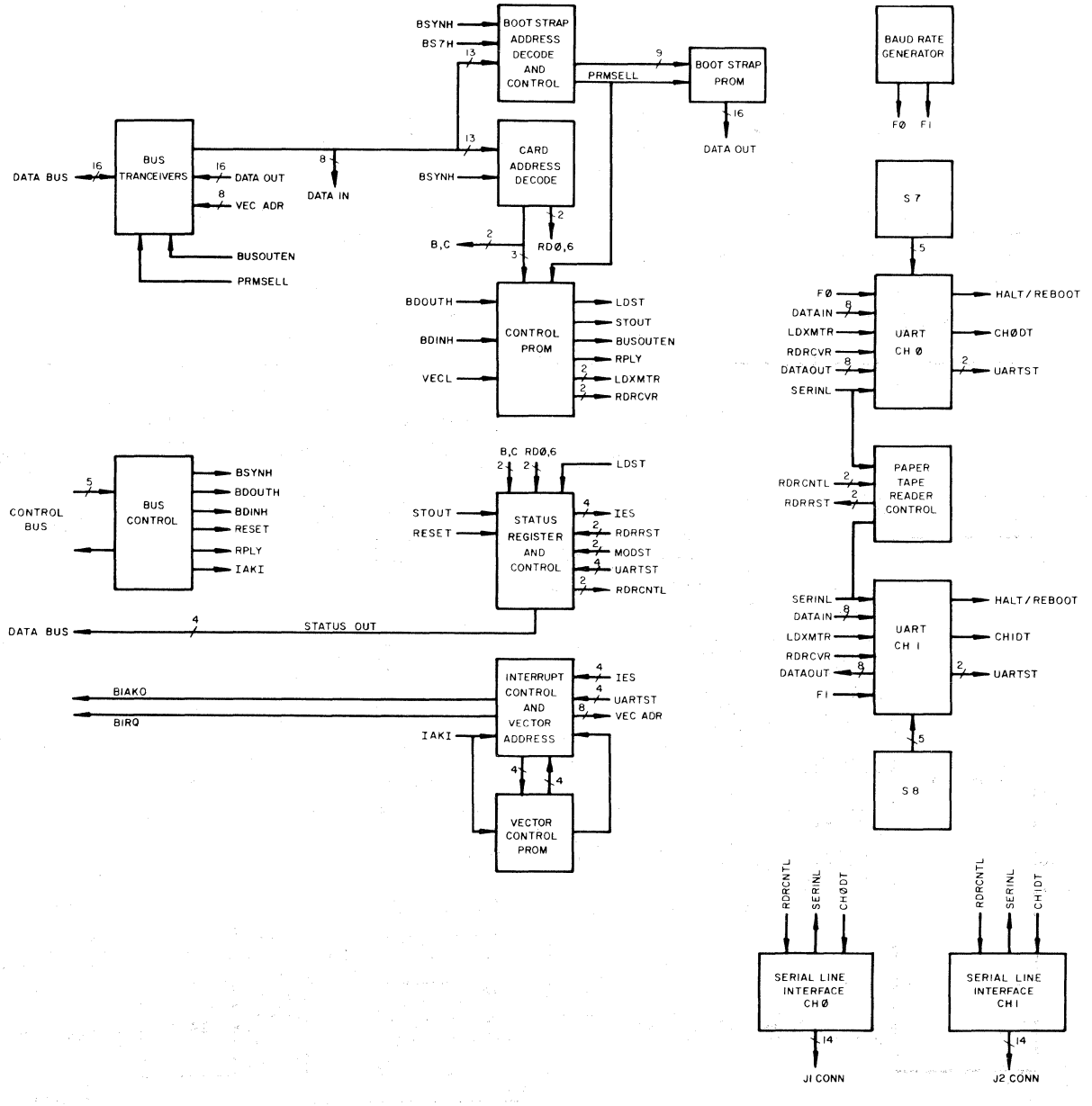
5LS022



5LS023

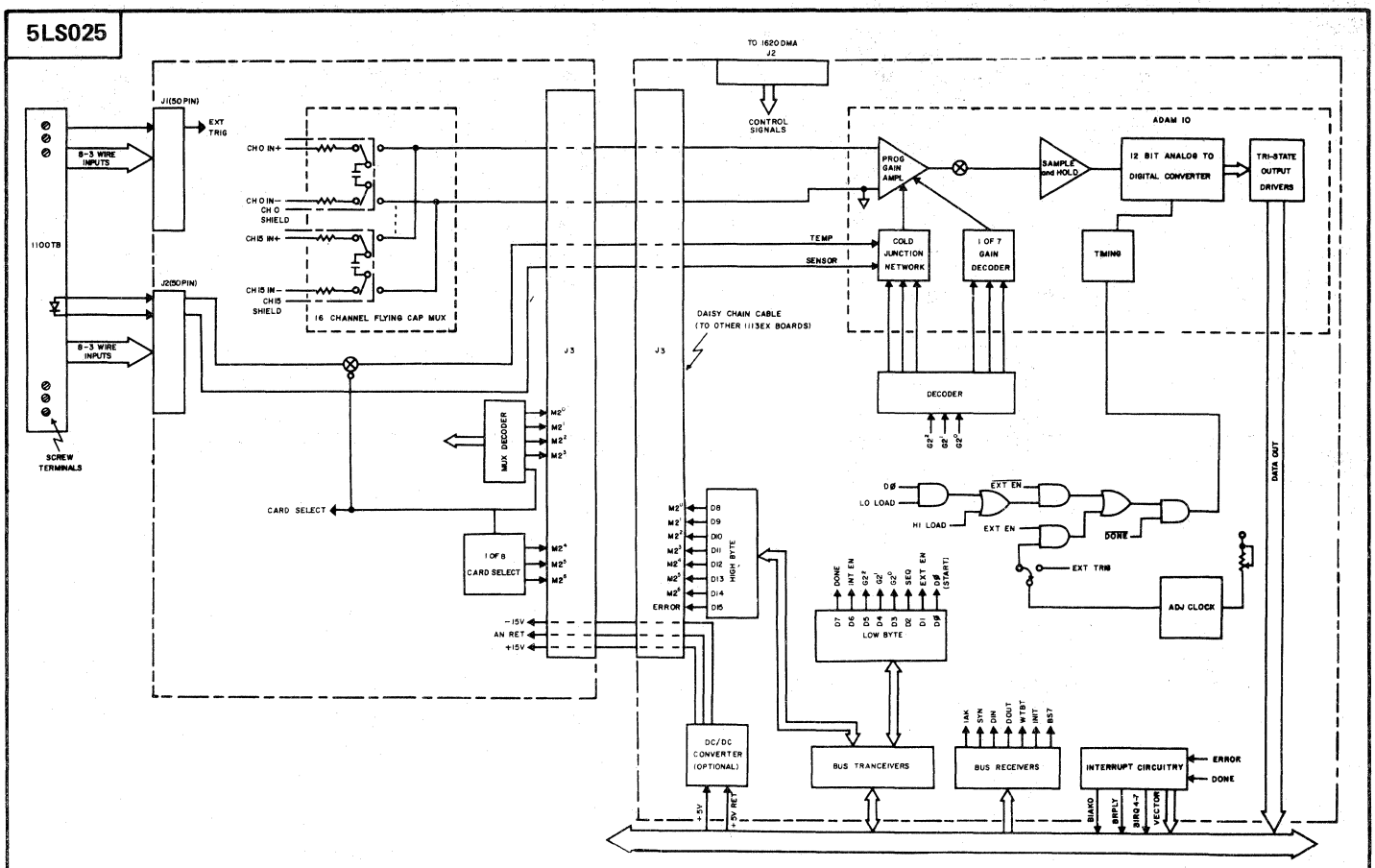


5LS024



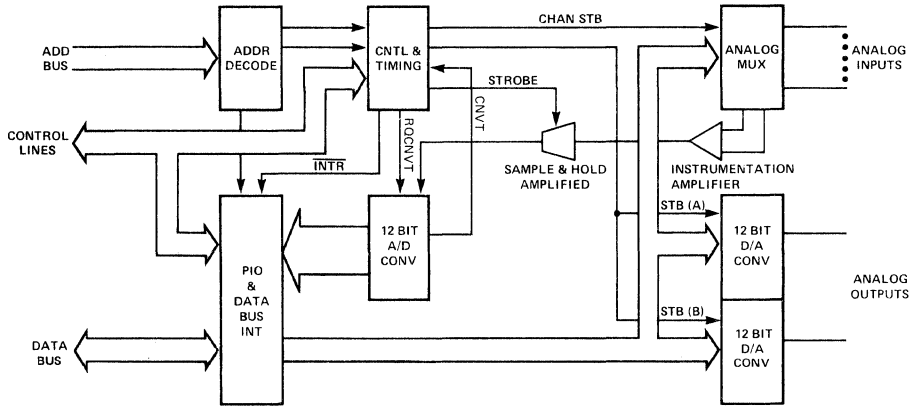
9. CIRCUIT/OUTLINE DRAWINGS

5LS025

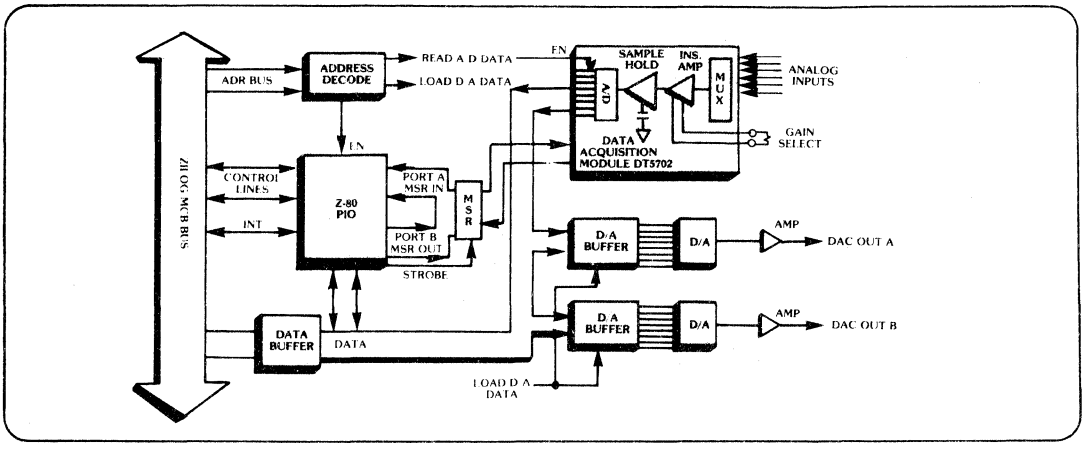


9. CIRCUIT/OUTLINE DRAWINGS

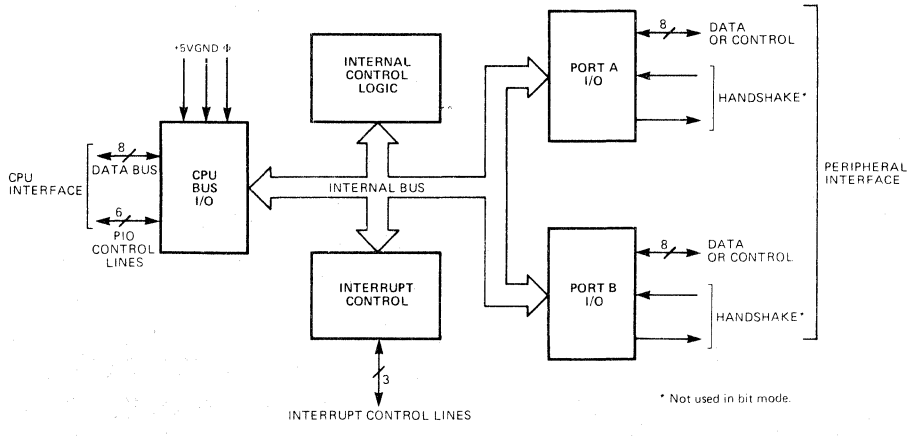
5MC001



5MC002

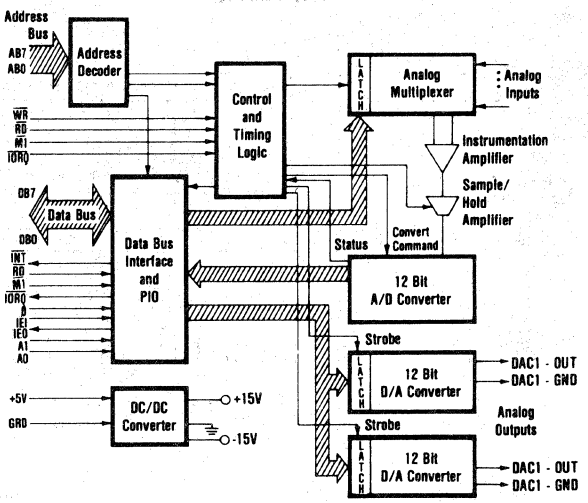


5MC003

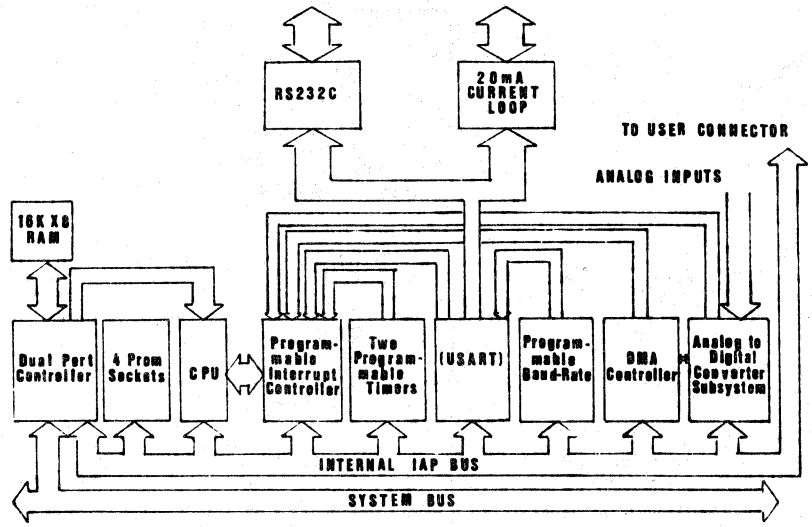


9. CIRCUIT/OUTLINE DRAWINGS

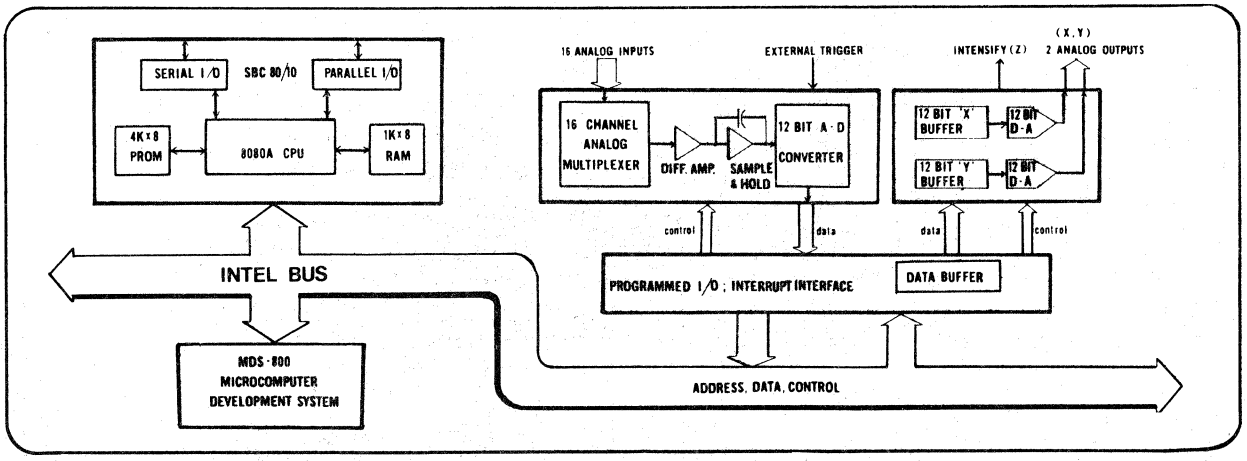
5MC004



5MU001

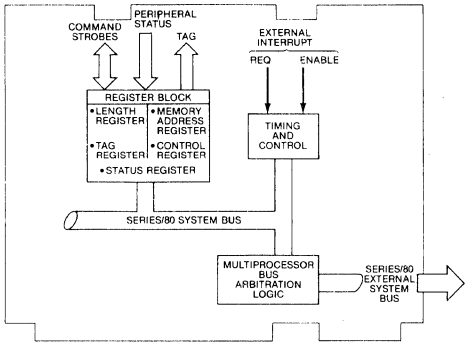


5MU002



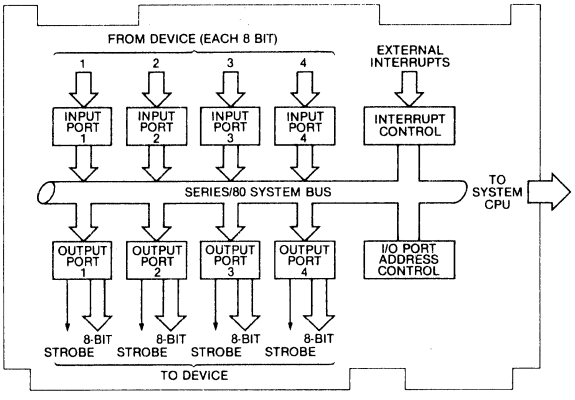
9. CIRCUIT/OUTLINE DRAWINGS

5MU003



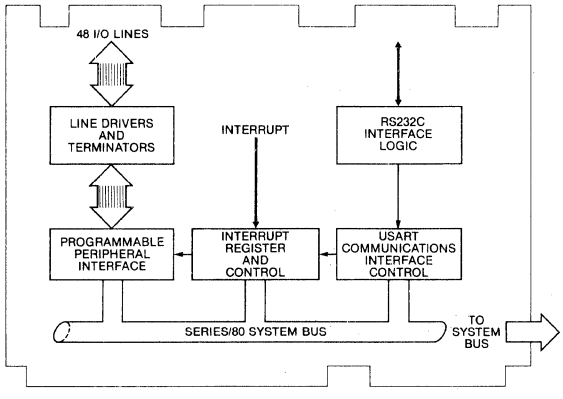
Size: H x W, 171.5mm x 304.8mm

5MU004



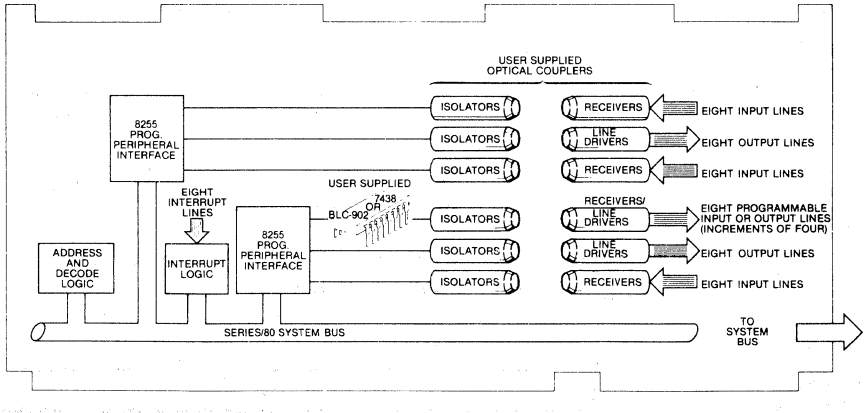
Size: H x W, 171.5mm x 304.8mm

5MU00!



Size: H x W, 171.5mm x 304.8mm

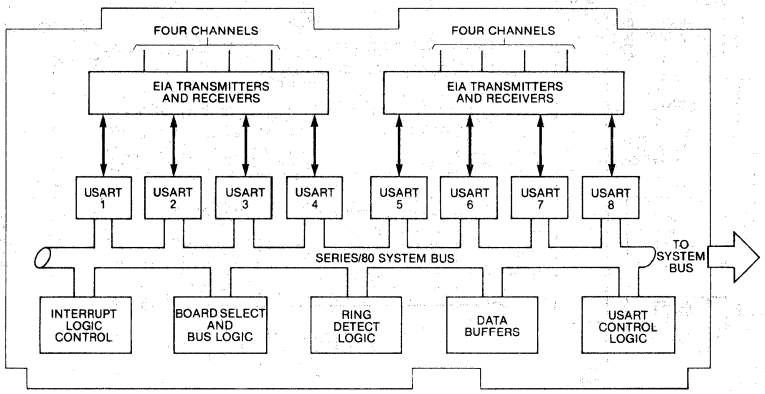
5MU006



Size: H x W, 171.5mm x 304.8mm

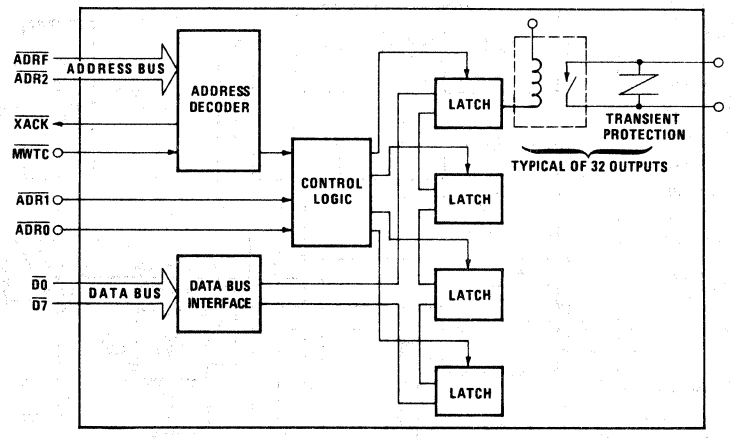
9. CIRCUIT/OUTLINE DRAWINGS

5MU007

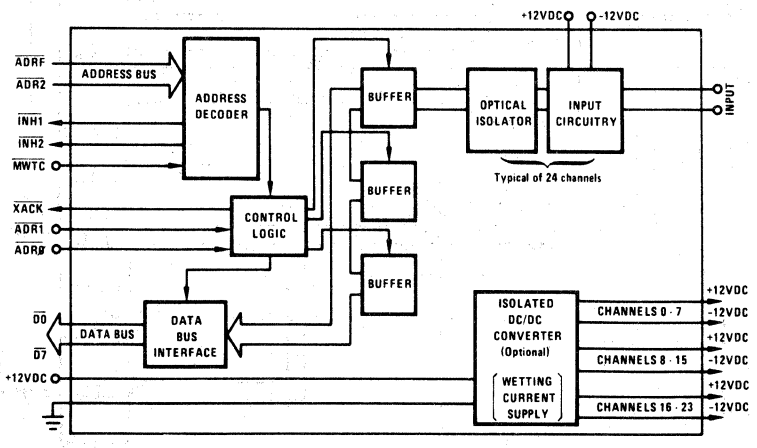


Size: H x W, 171.5mm x 304.8mm

5MU008

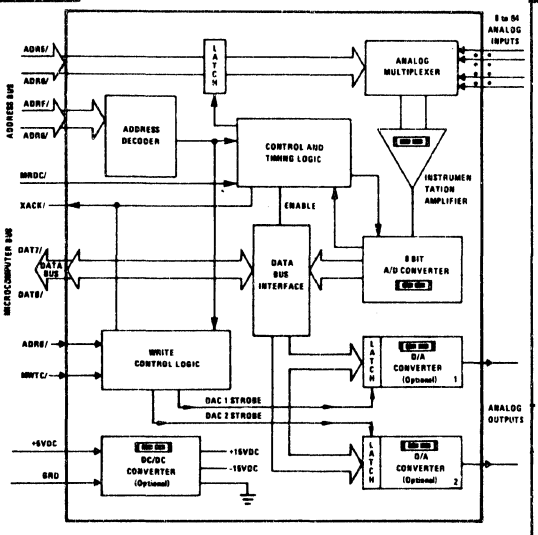


5MU009

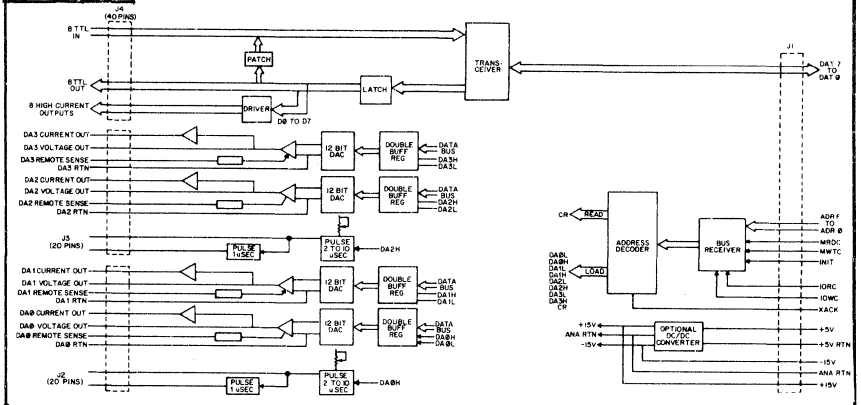


9. CIRCUIT/OUTLINE DRAWINGS

5MU010



5MU011



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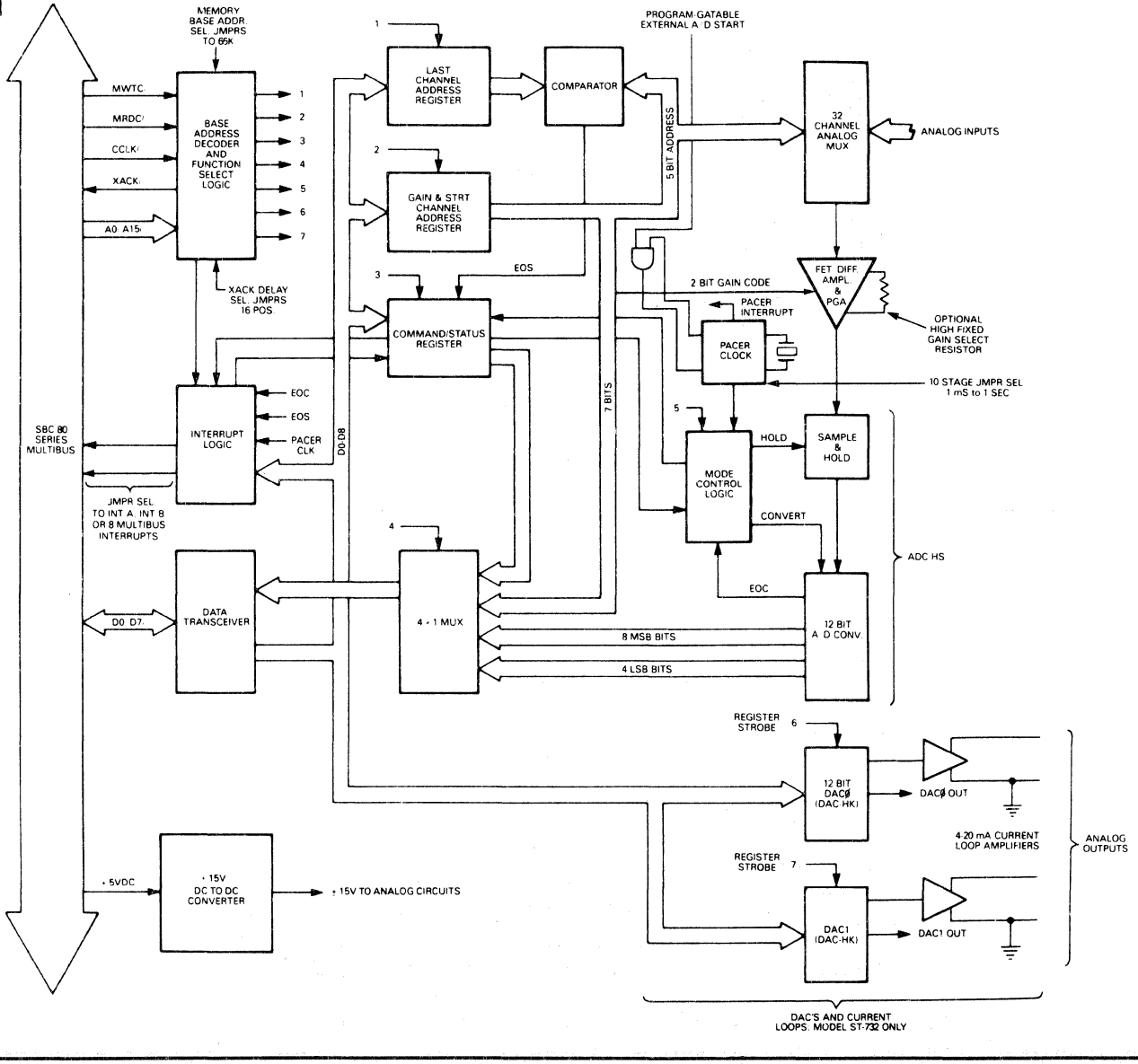
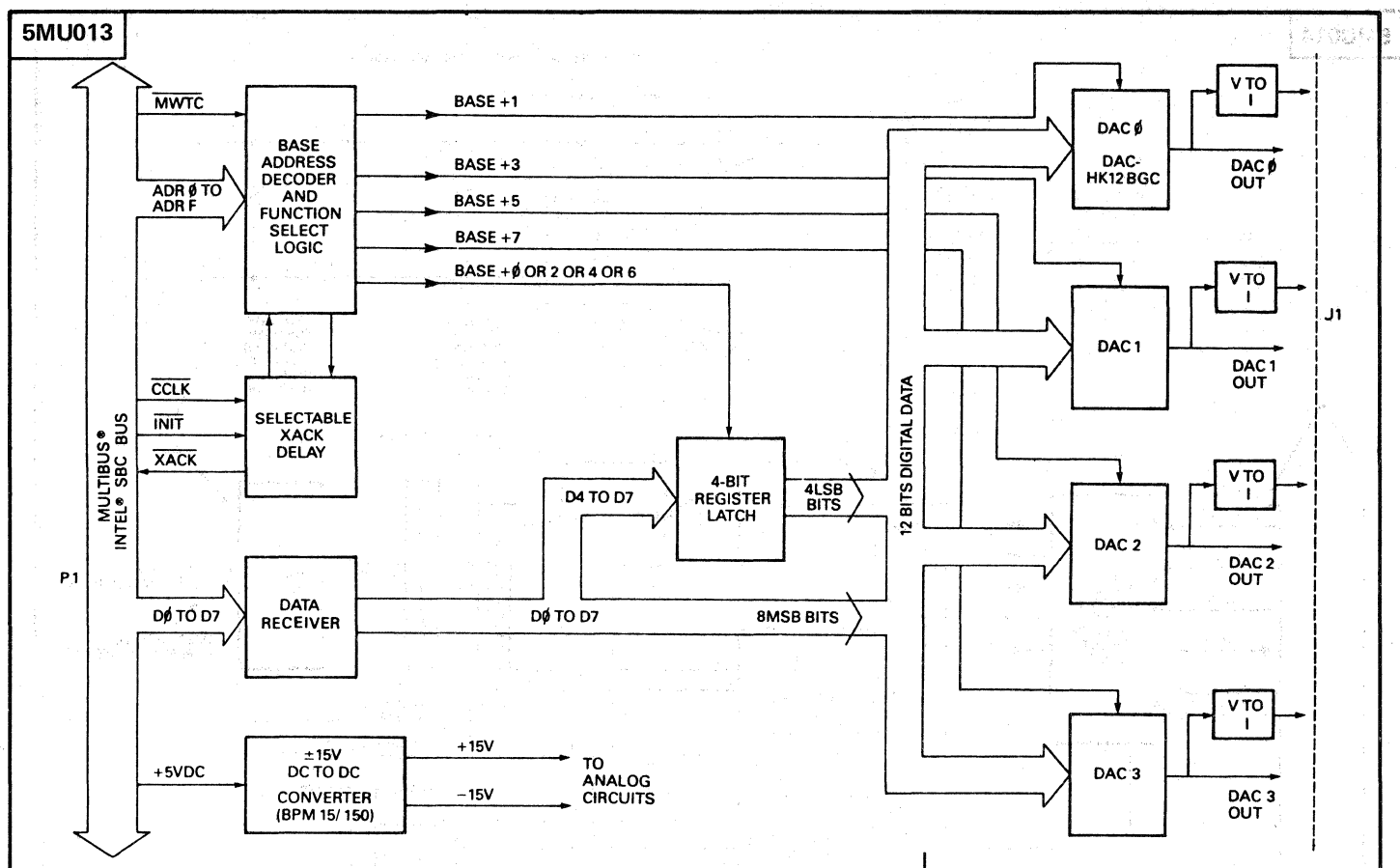
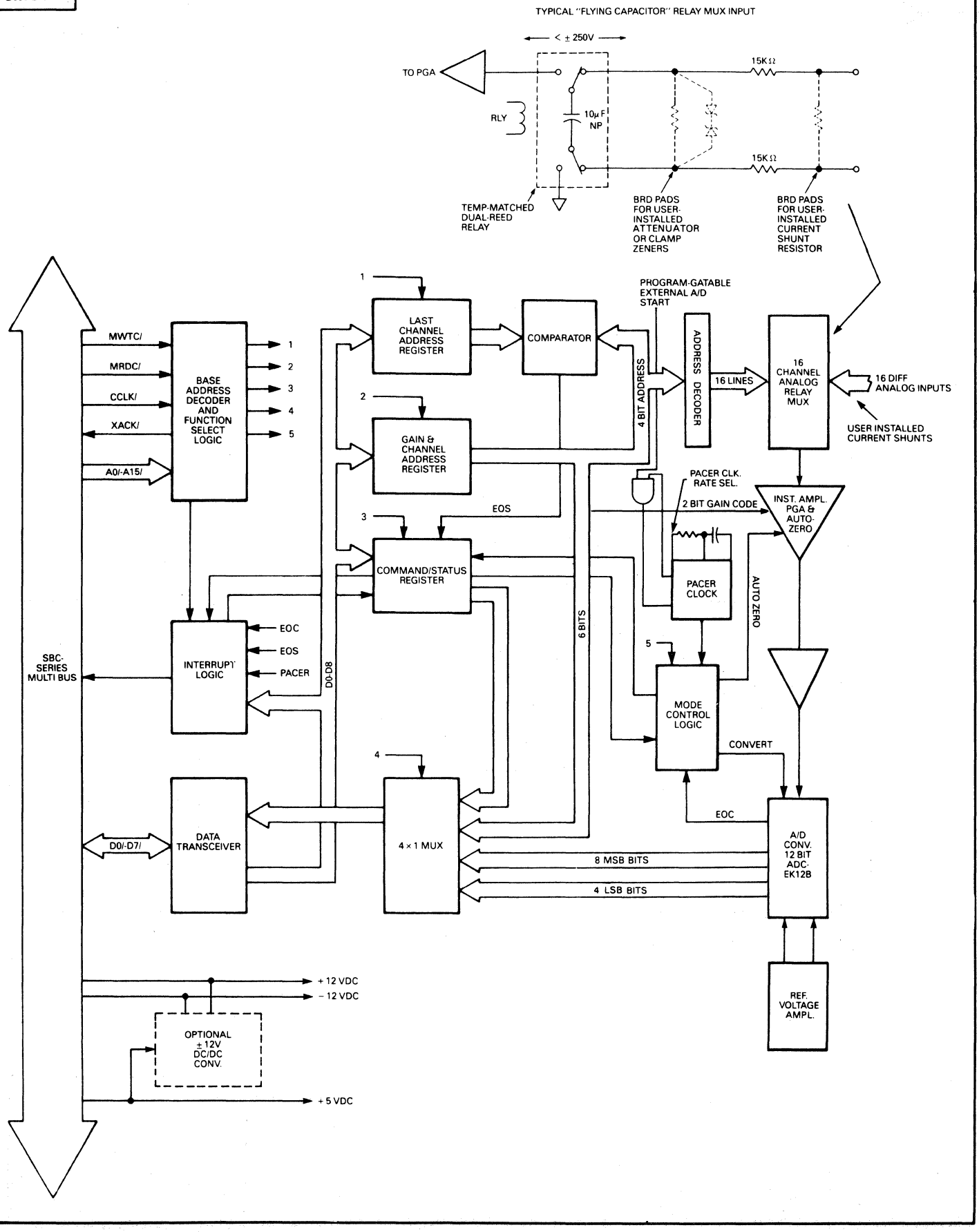


9. CIRCUIT/OUTLINE DRAWINGS



9. CIRCUIT/OUTLINE DRAWINGS

5MU014



9. CIRCUIT/OUTLINE DRAWINGS

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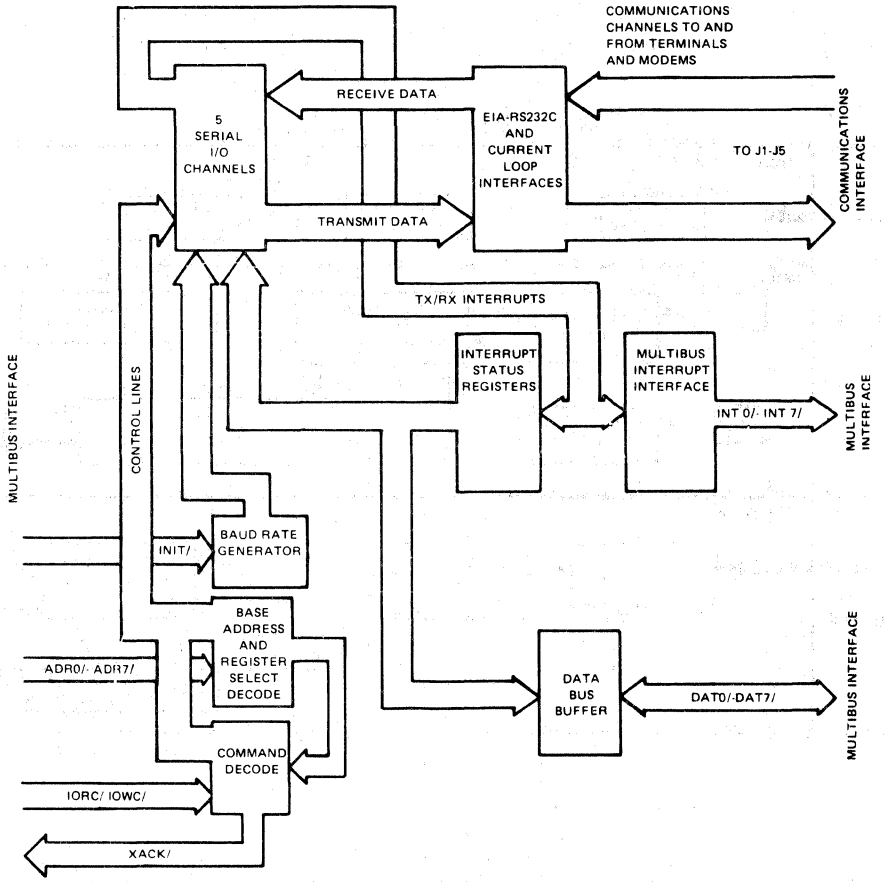
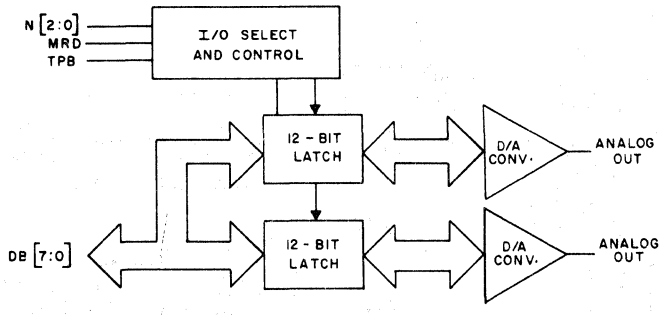
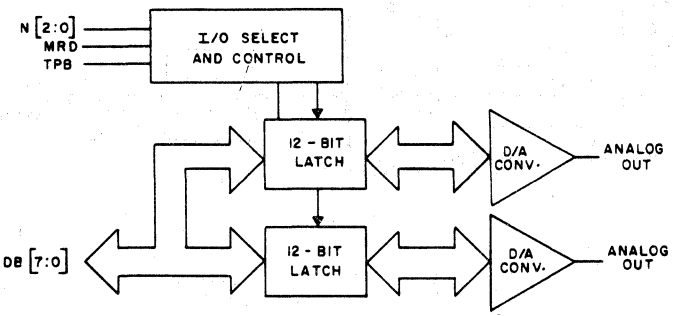


5PR001

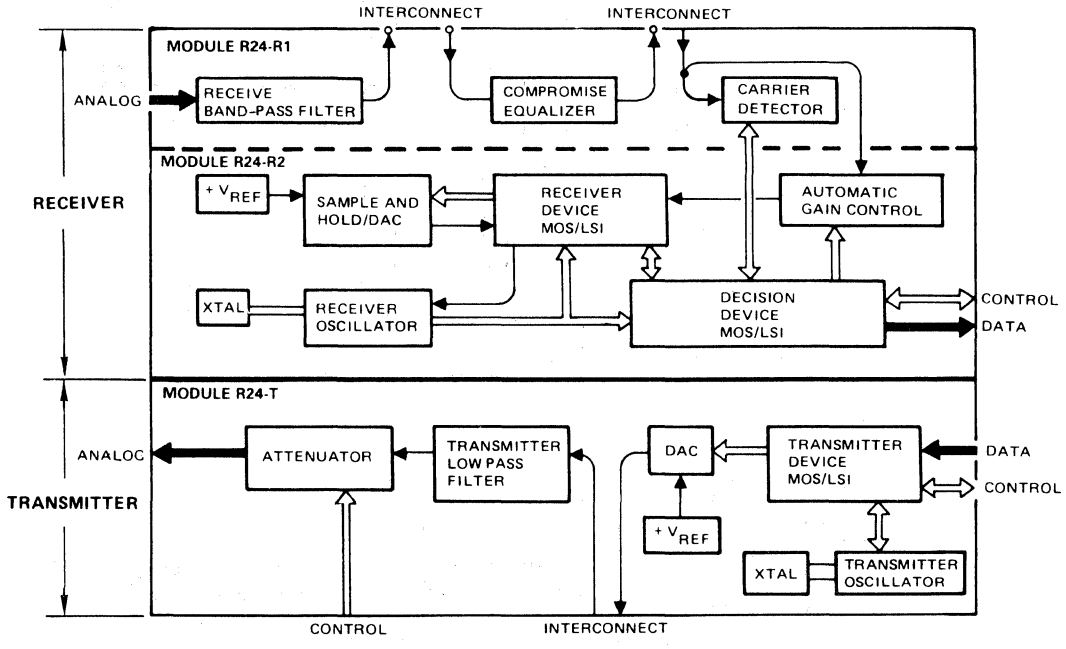


5PR002

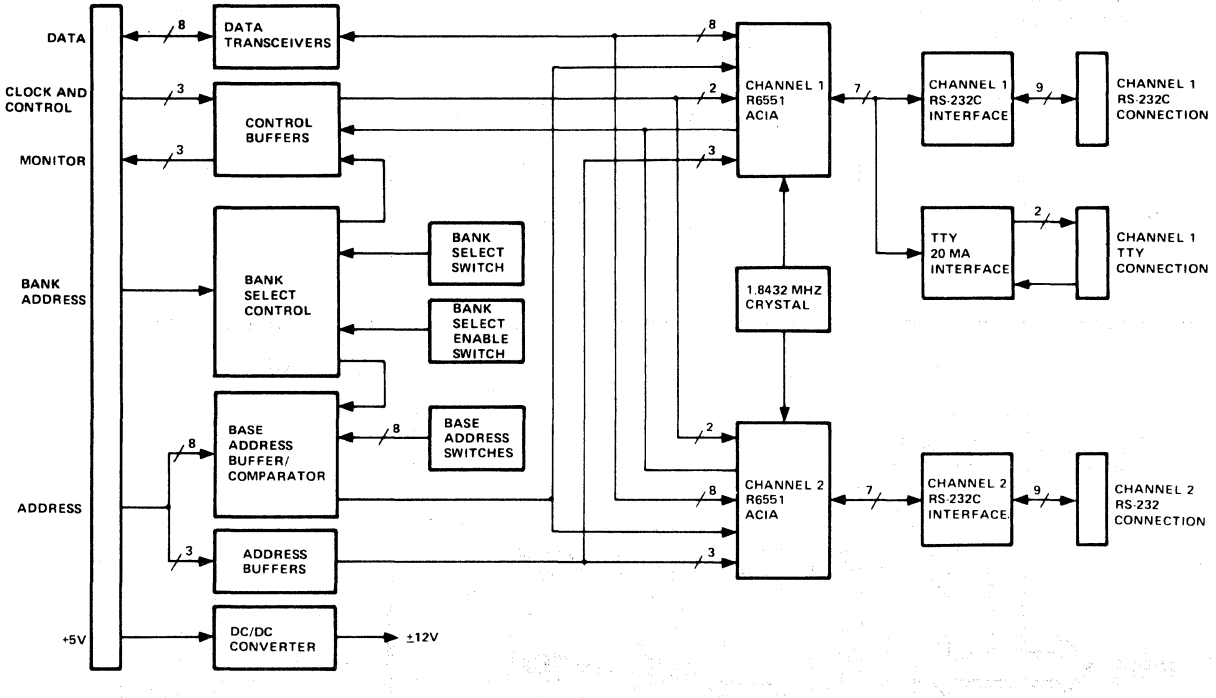


9. CIRCUIT/OUTLINE DRAWINGS

5PR003

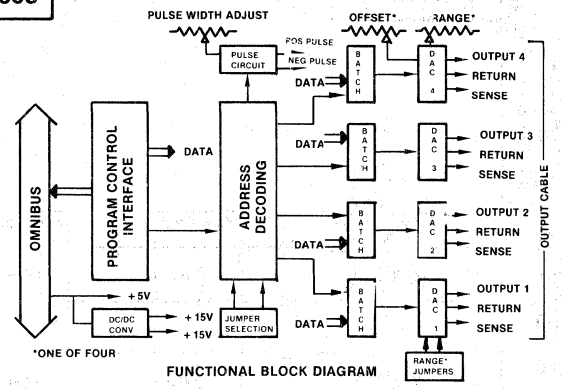


5PR004



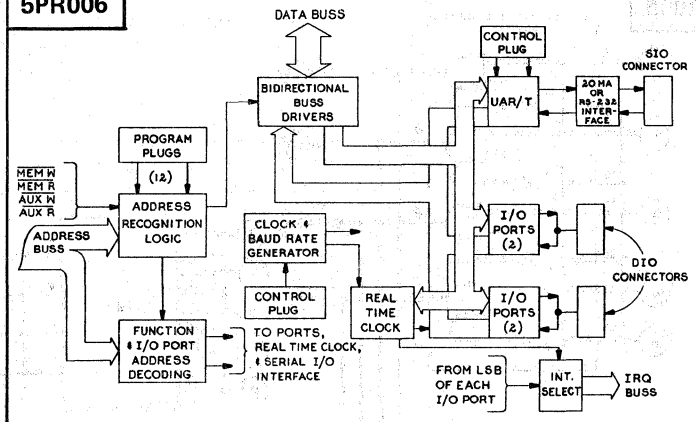
9. CIRCUIT/OUTLINE DRAWINGS

5PR005

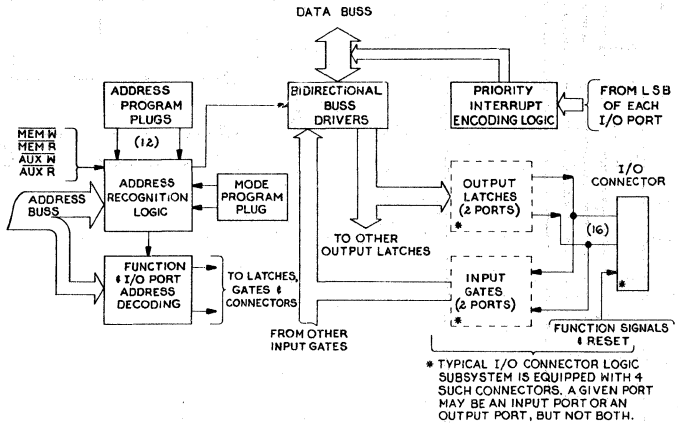


FUNCTIONAL BLOCK DIAGRAM

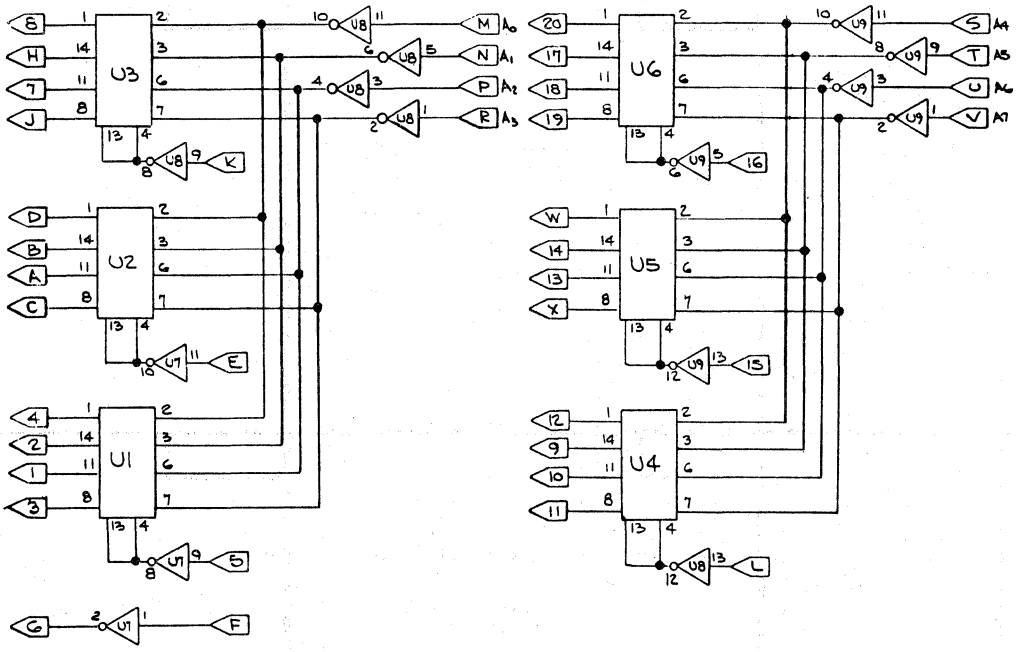
5PR006



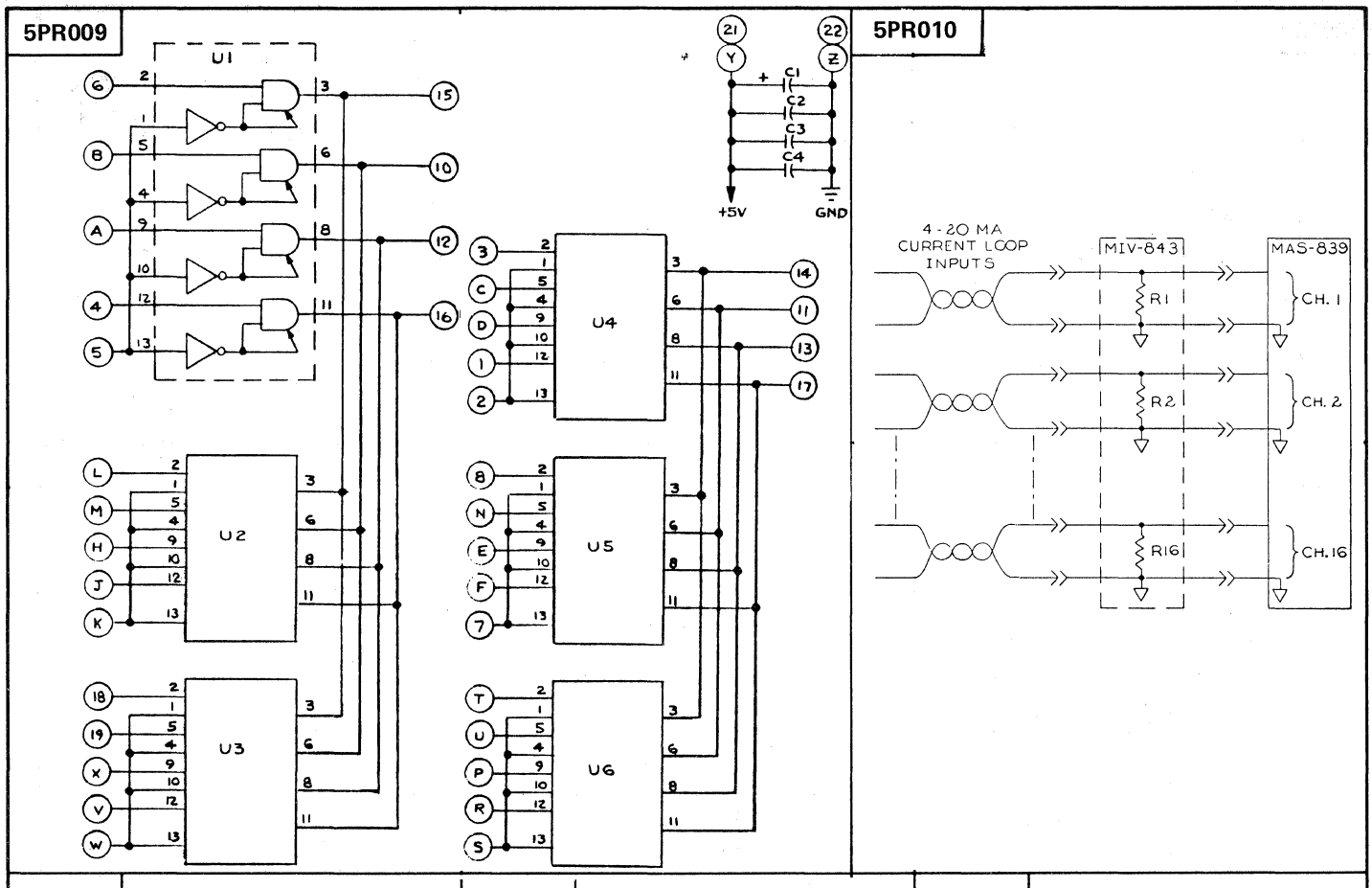
5PR007



5PR008

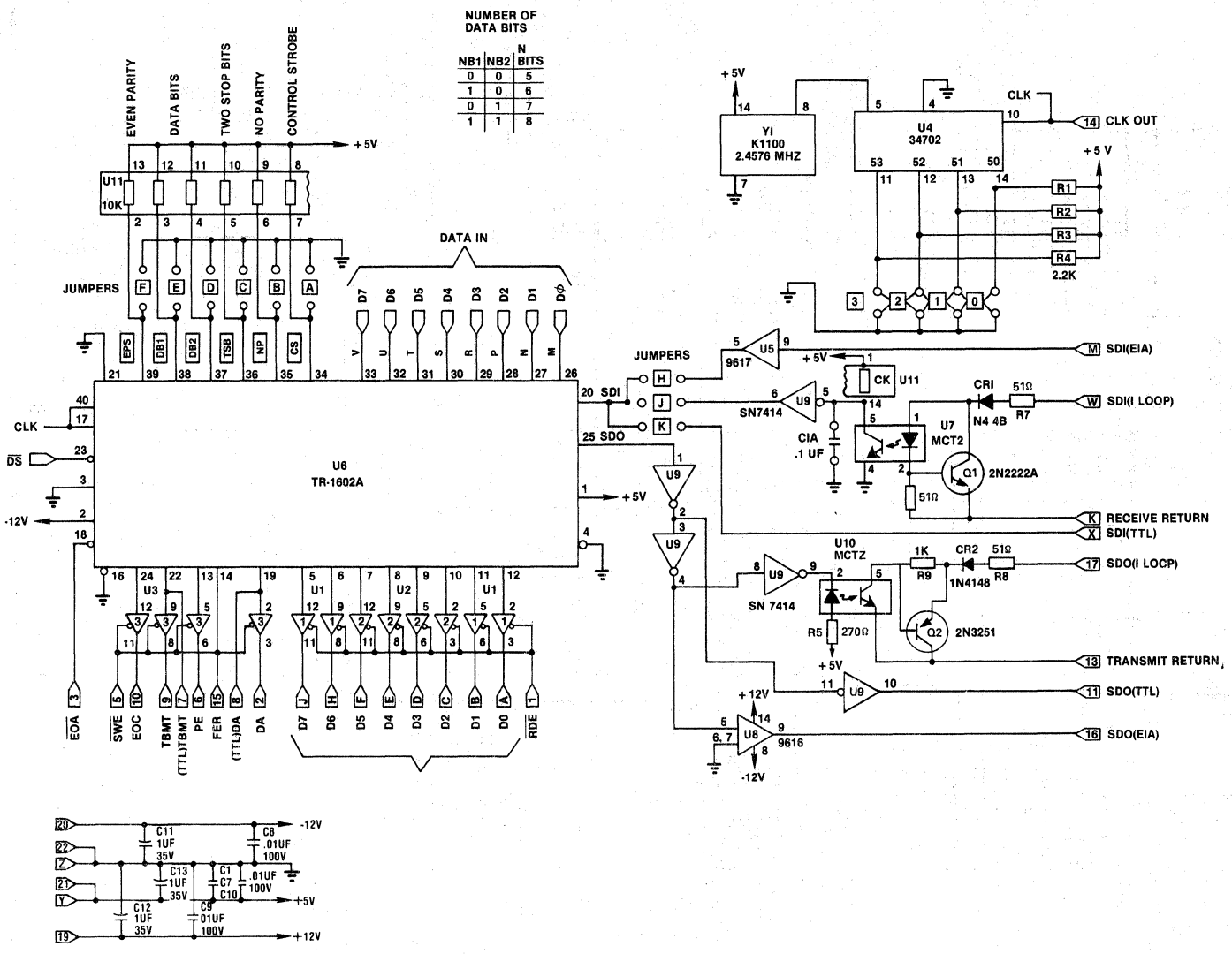


9. CIRCUIT/OUTLINE DRAWINGS

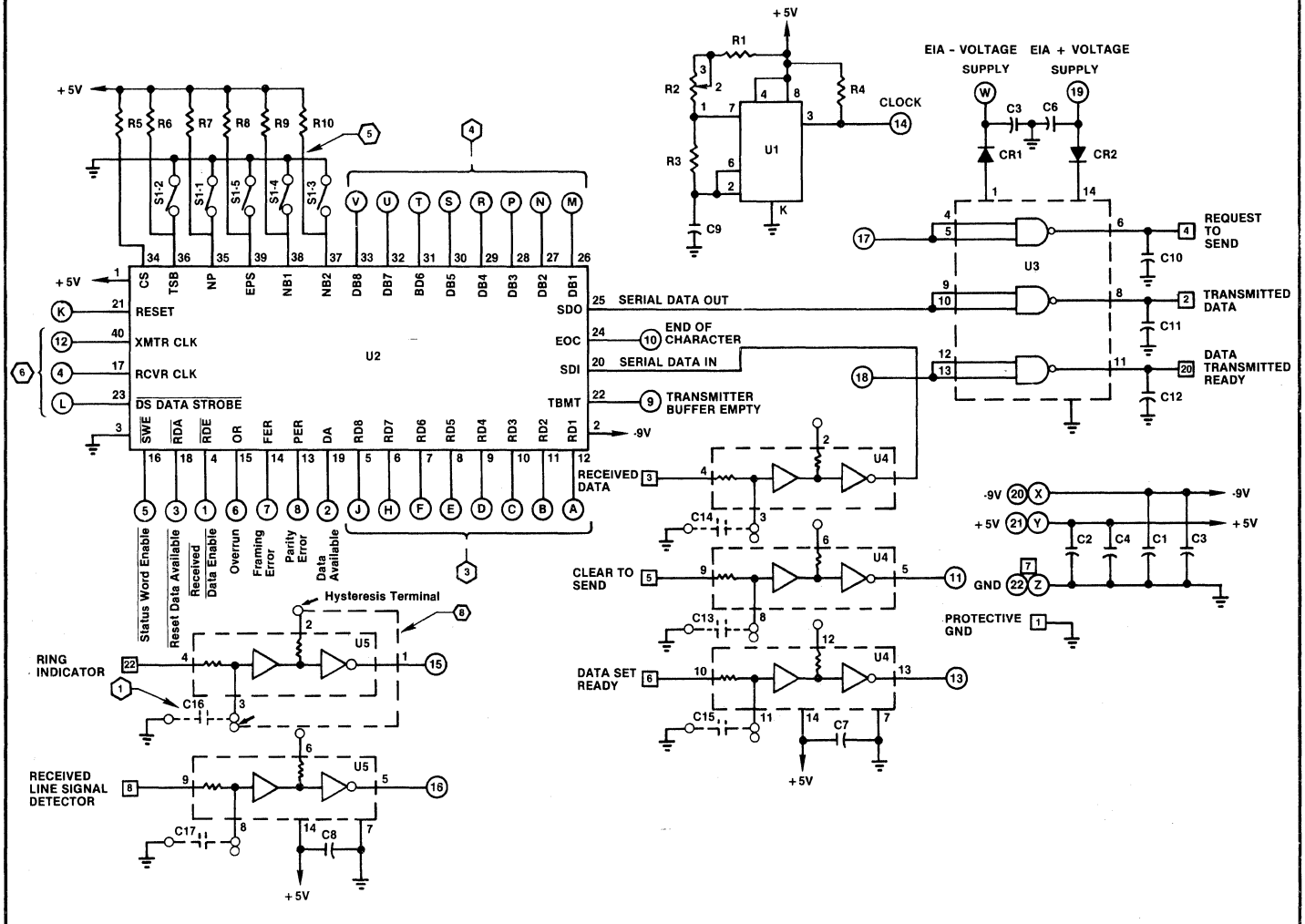


9. CIRCUIT/OUTLINE DRAWINGS

5PR011

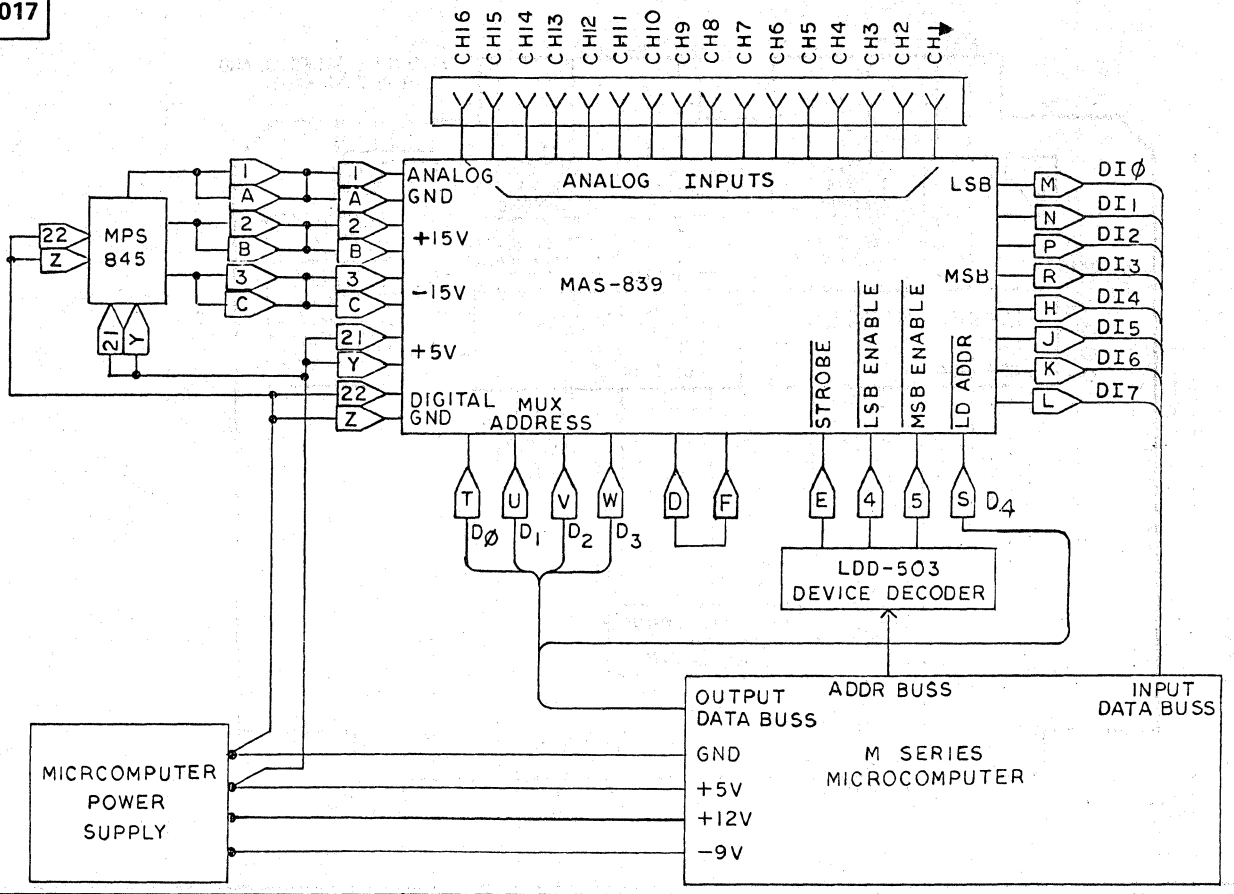


5PR016


+5V
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
U1
U2
U3
U4
U5
CLOCK
EIA - VOLTAGE SUPPLY
EIA + VOLTAGE SUPPLY
CR1
CR2
C3
C6
C9
C10
C11
C12
C13
C14
C15
C16
C17
C8
C7
C2
C4
C1
REQUEST TO SEND
TRANSMITTED DATA
DATA TRANSMITTED READY
SERIAL DATA OUT
SERIAL DATA IN
END OF CHARACTER
TRANSMITTER BUFFER EMPTY
RECEIVED DATA
CLEAR TO SEND
DATA SET READY
RING INDICATOR
RECEIVED LINE SIGNAL DETECTOR
PROTECTIVE GND
GND
-9V
Hysteresis Terminal
CS
TSB
NP
EPS
NB1
NB2
RESET
XMTR CLK
RCVR CLK
DS DATA STROBE
SDO
EOC
SDI
TBMT
SWE
RDA
RDE
OR
FER
PER
DA
Status Word Enable
Reset Data Available
Received Data Enable
Overrun
Framing Error
Parity Error
Data Available

9. CIRCUIT/OUTLINE DRAWINGS

5PR017



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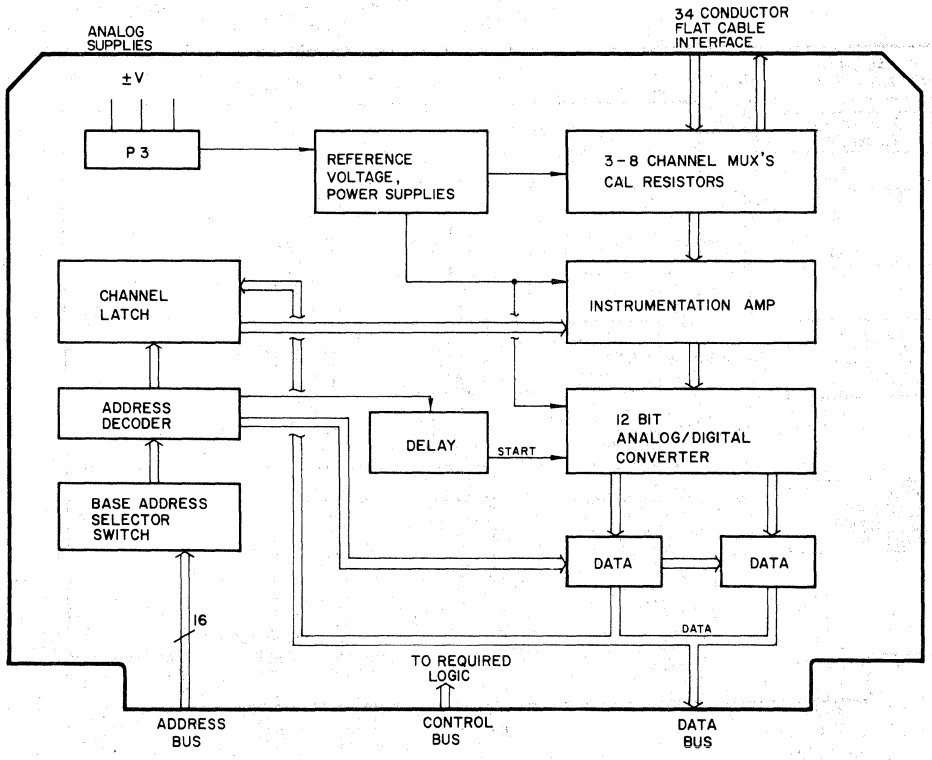
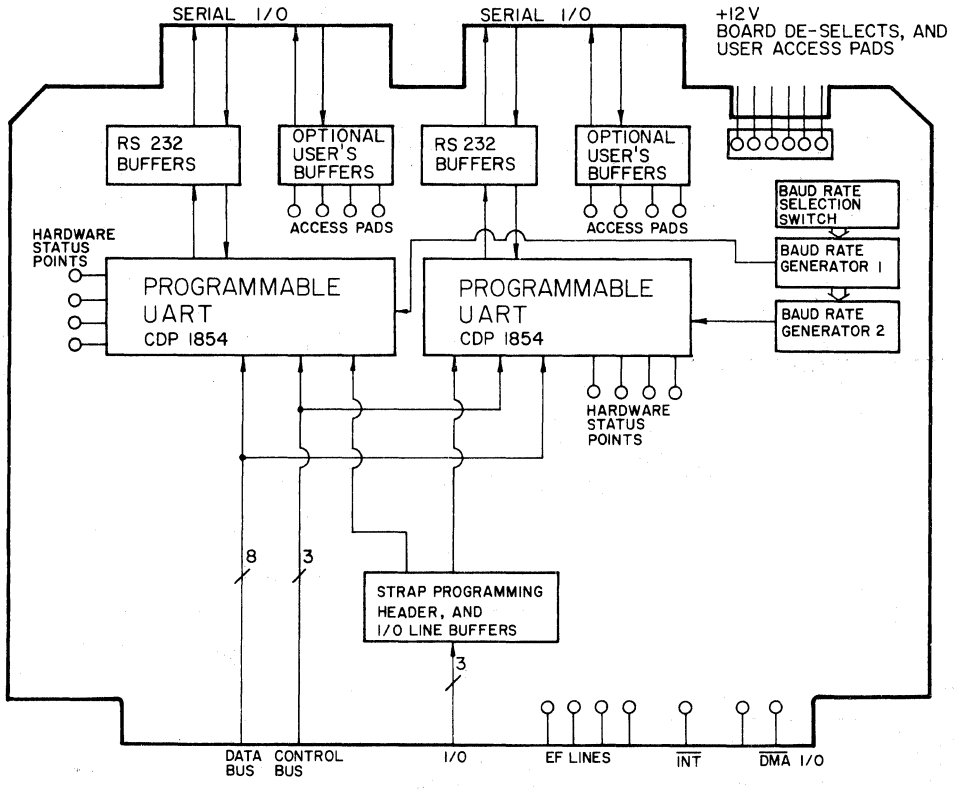


9. CIRCUIT/OUTLINE DRAWINGS

5PR019



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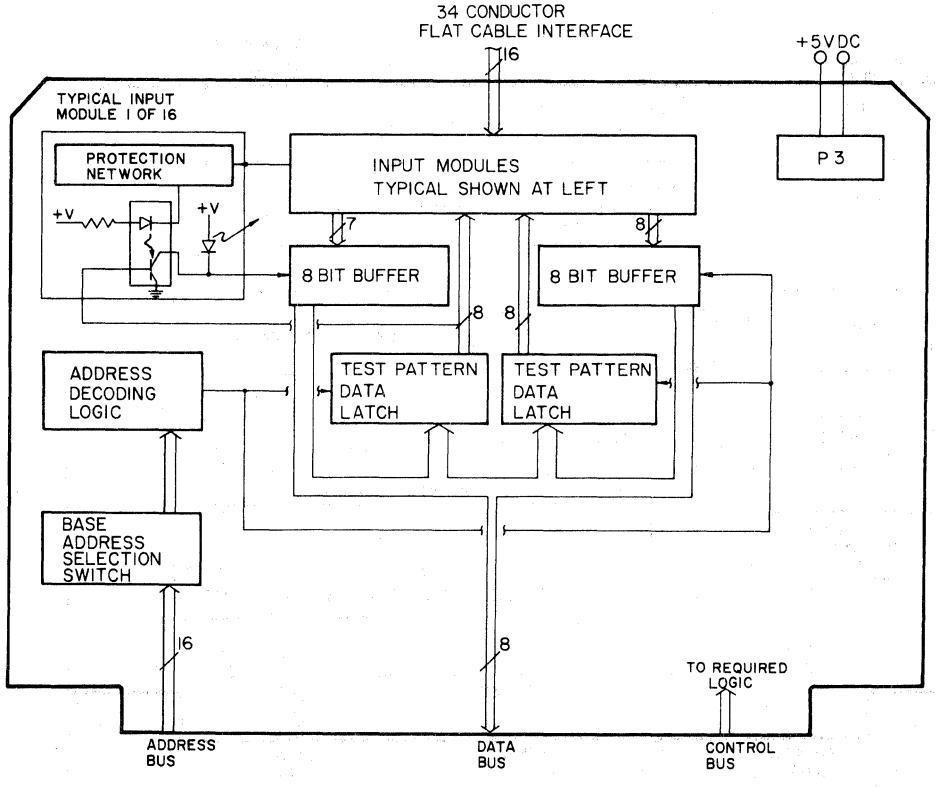
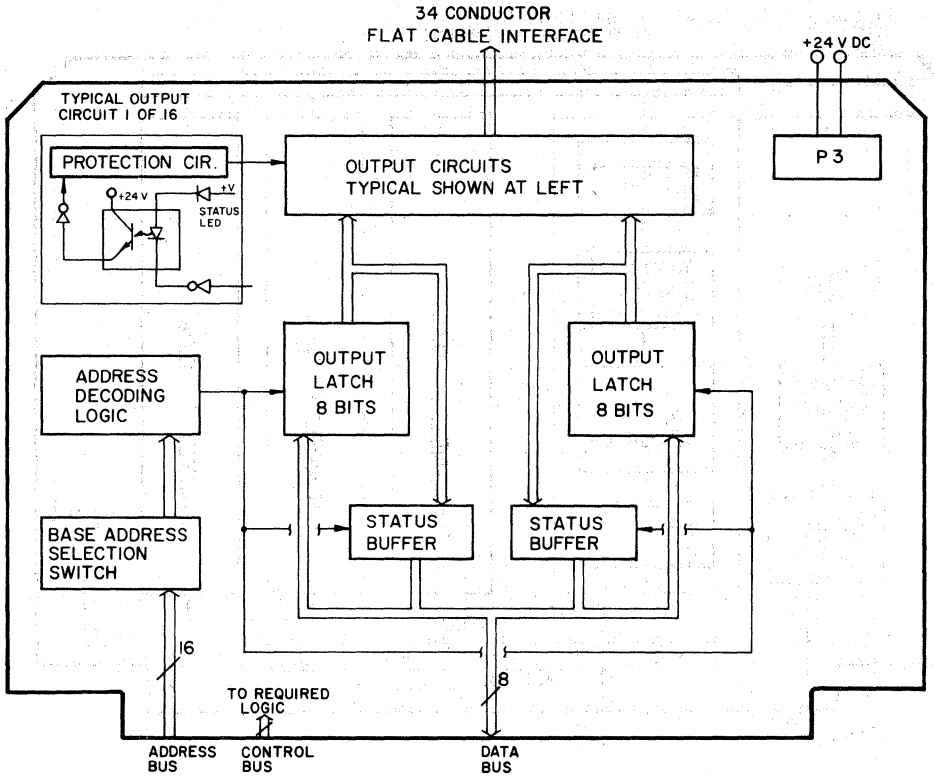


9. CIRCUIT/OUTLINE DRAWINGS

5PR021



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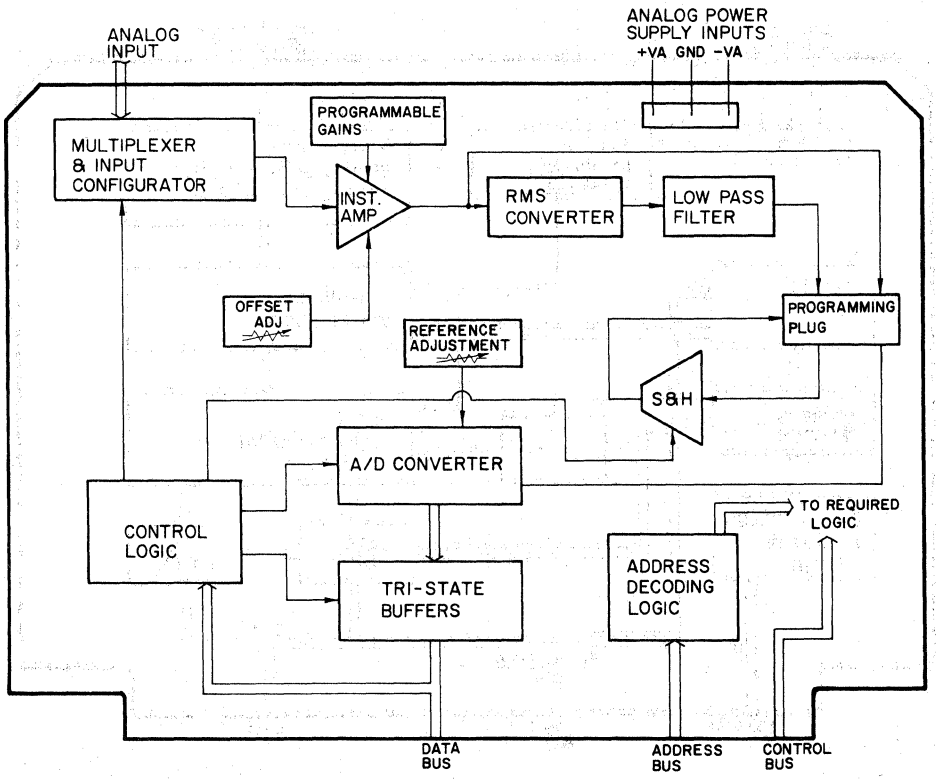
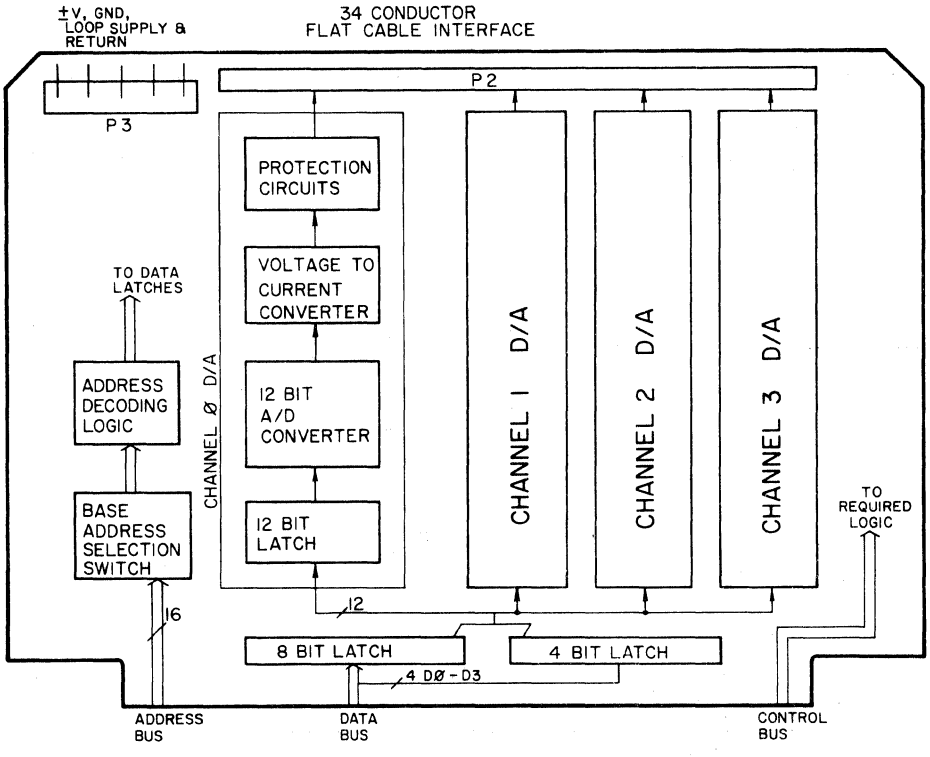
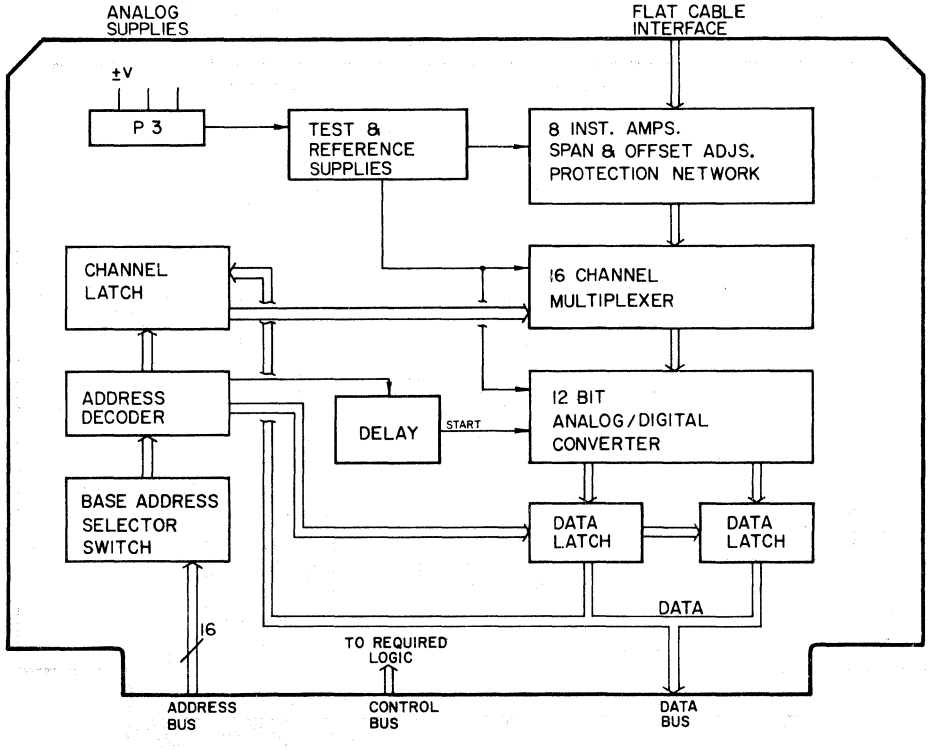


9. CIRCUIT/OUTLINE DRAWINGS

5PR023

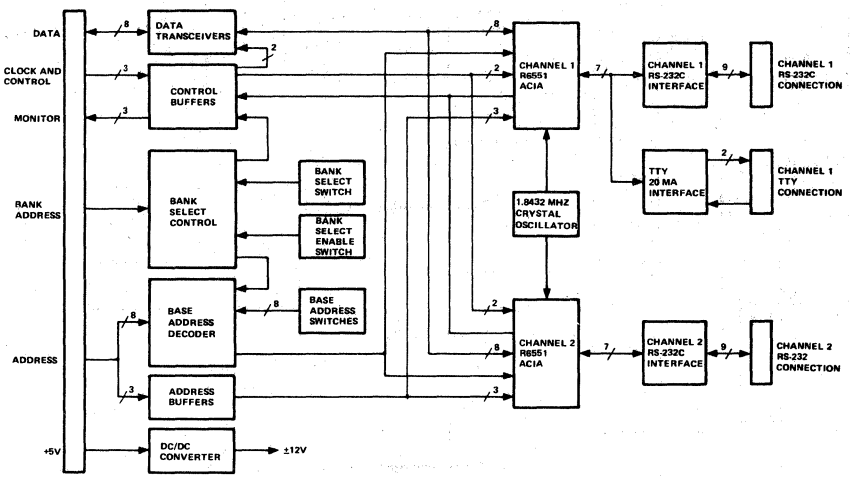


5PR024



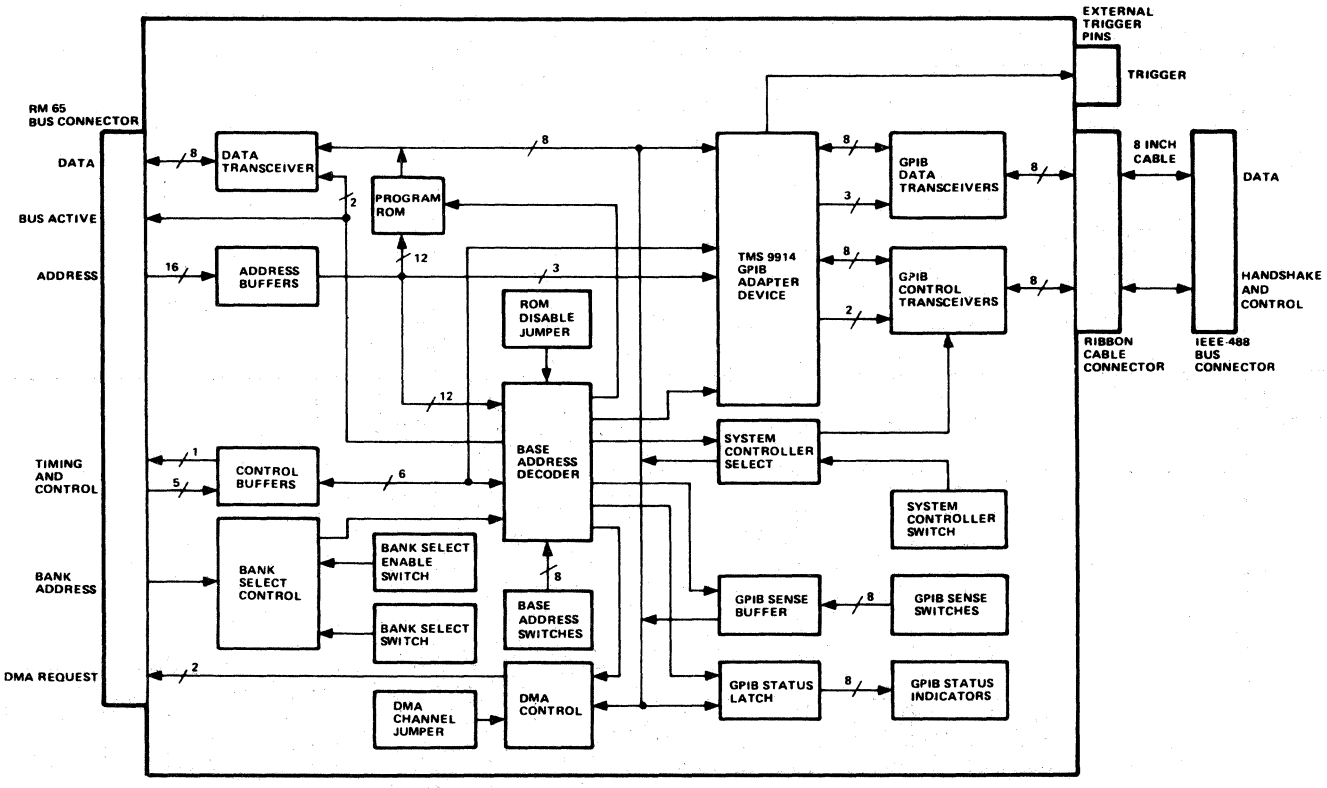
9. CIRCUIT/OUTLINE DRAWINGS

5RM001



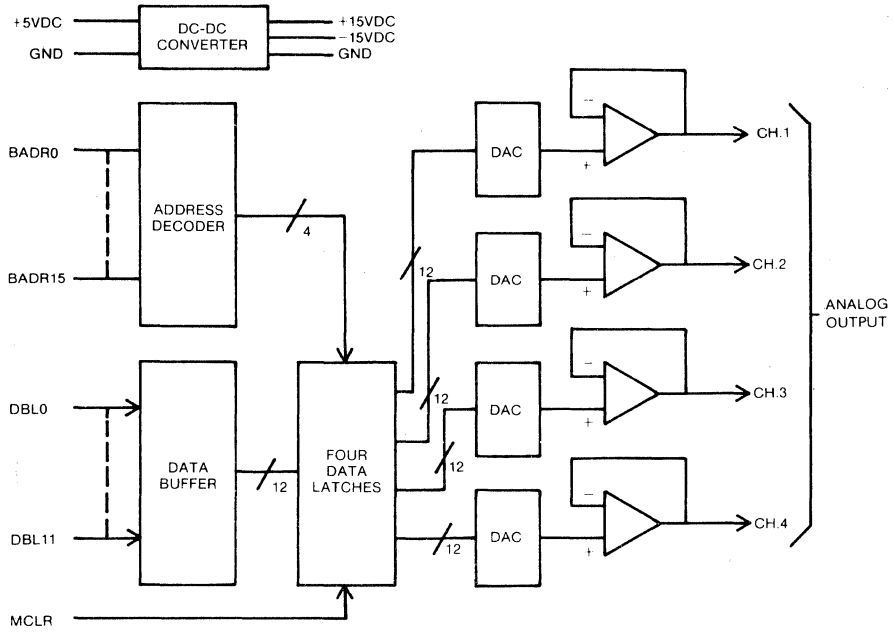
ACIA Module Block Diagram

5RM002

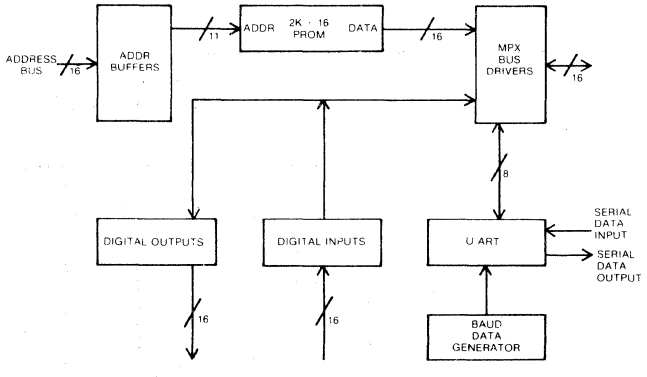


9. CIRCUIT/OUTLINE DRAWINGS

5SA001

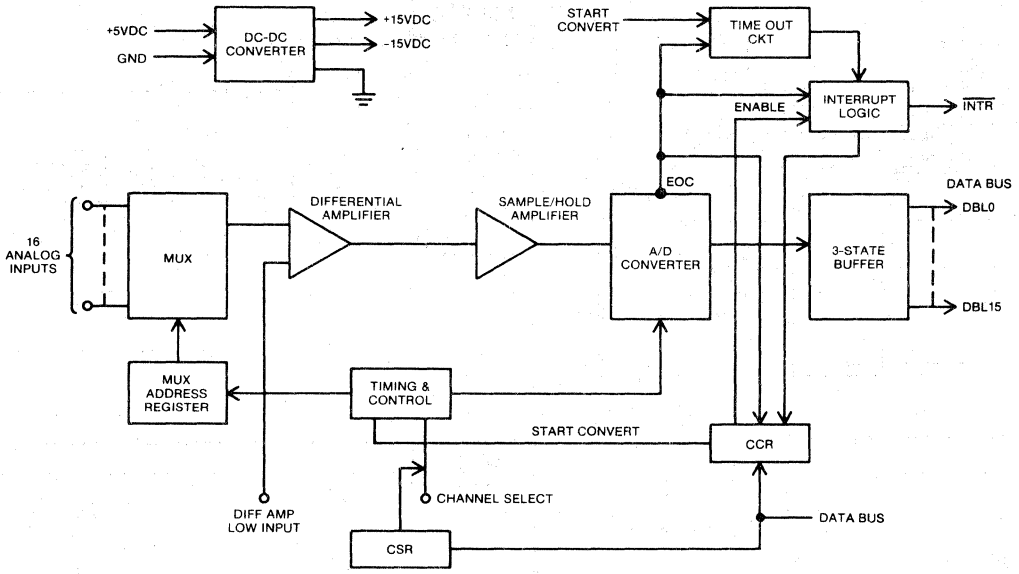


5SA002



9. CIRCUIT/OUTLINE DRAWINGS

5SA003



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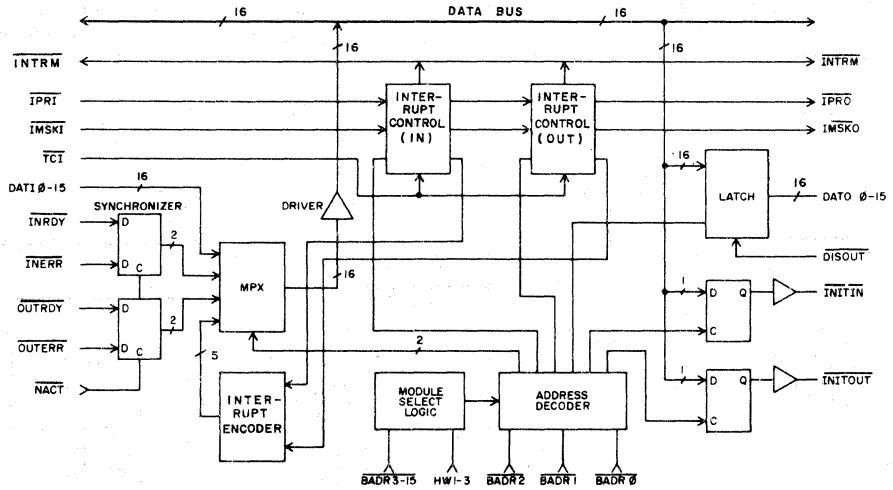

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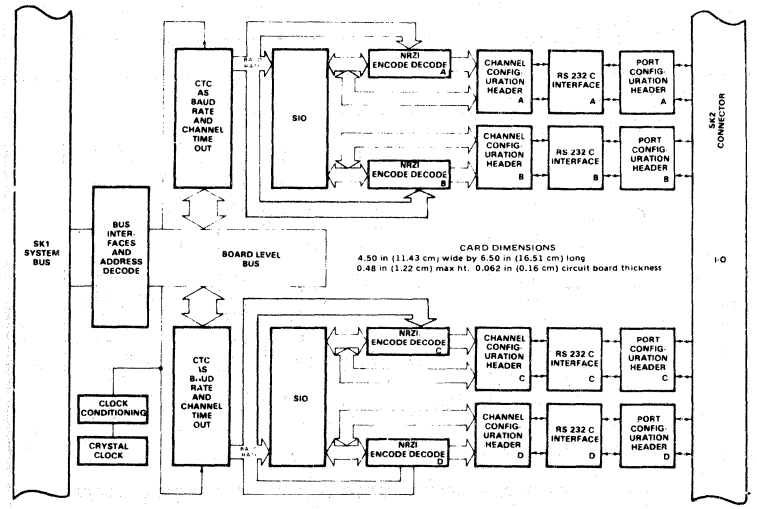

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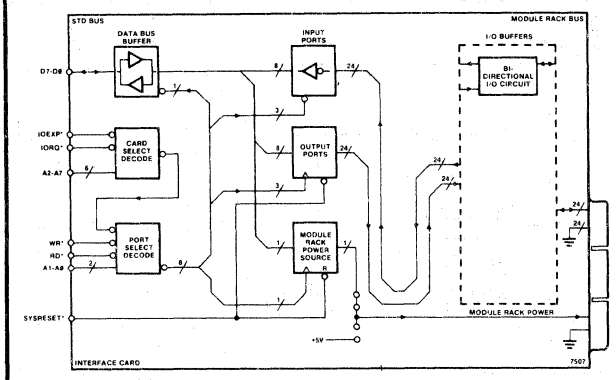
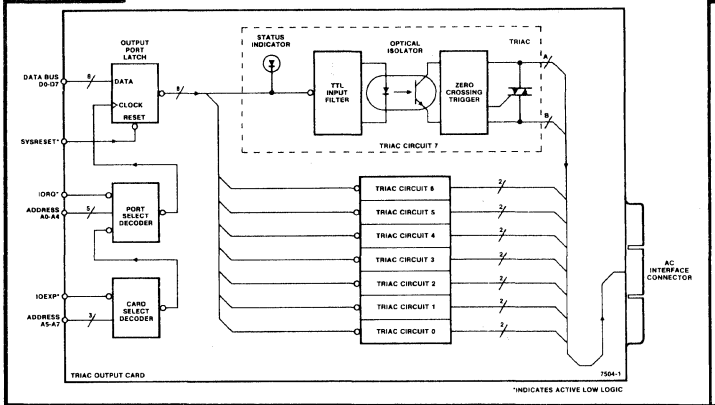


9. CIRCUIT/OUTLINE DRAWINGS

5SD003



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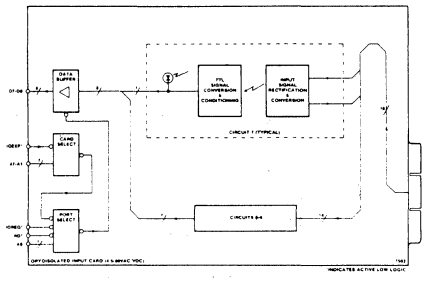

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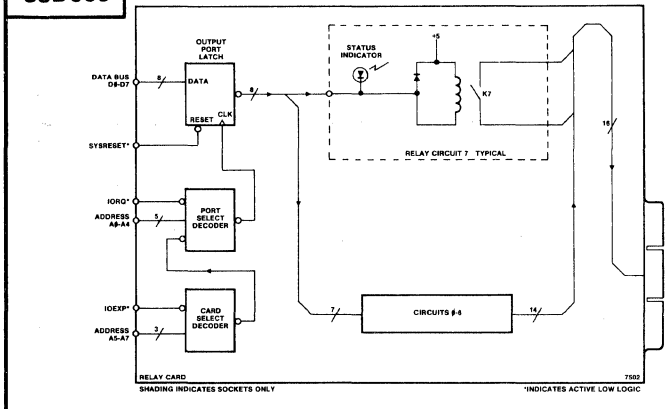

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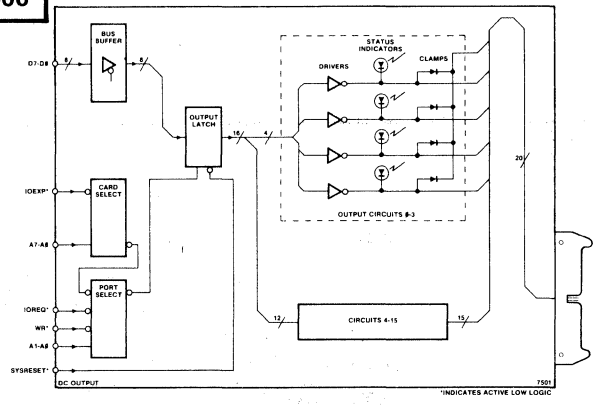

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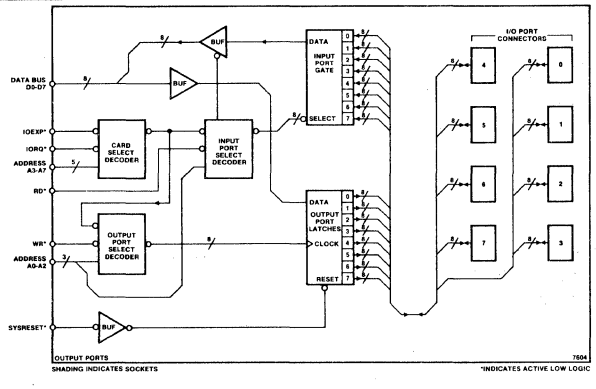

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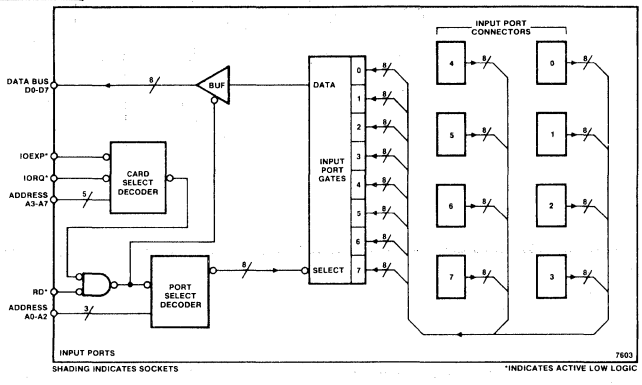

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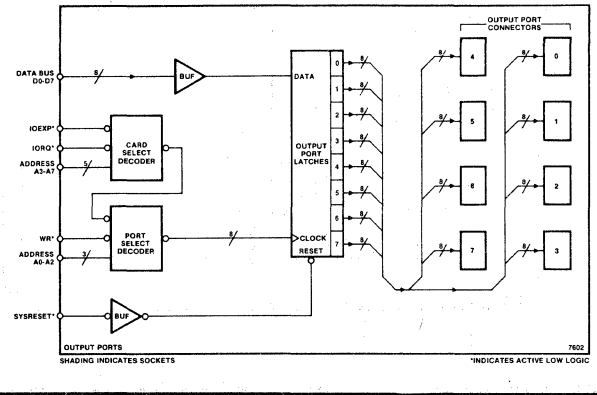
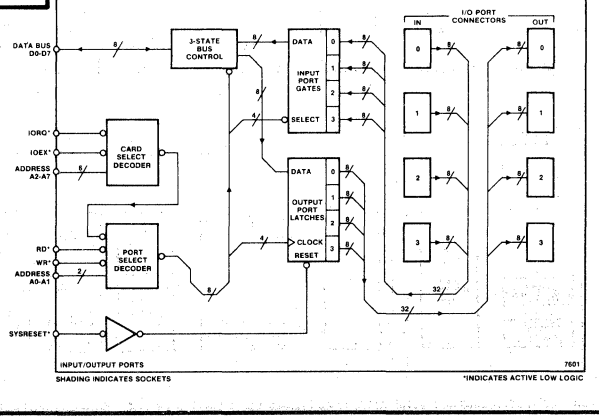
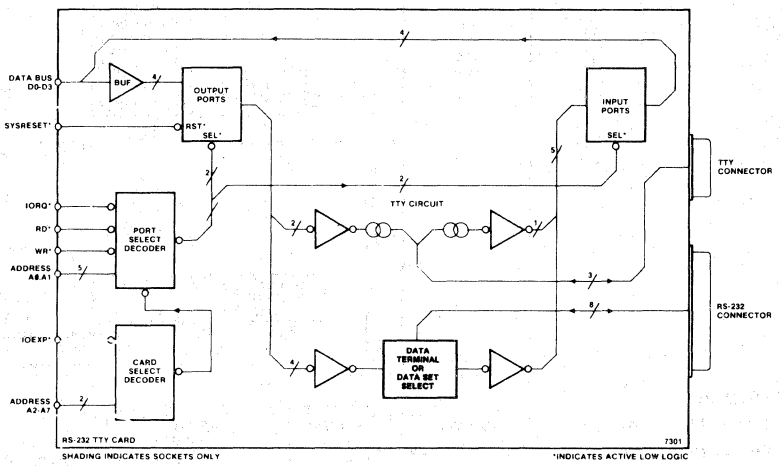


5SD010



9. CIRCUIT/OUTLINE DRAWINGS

5SD011



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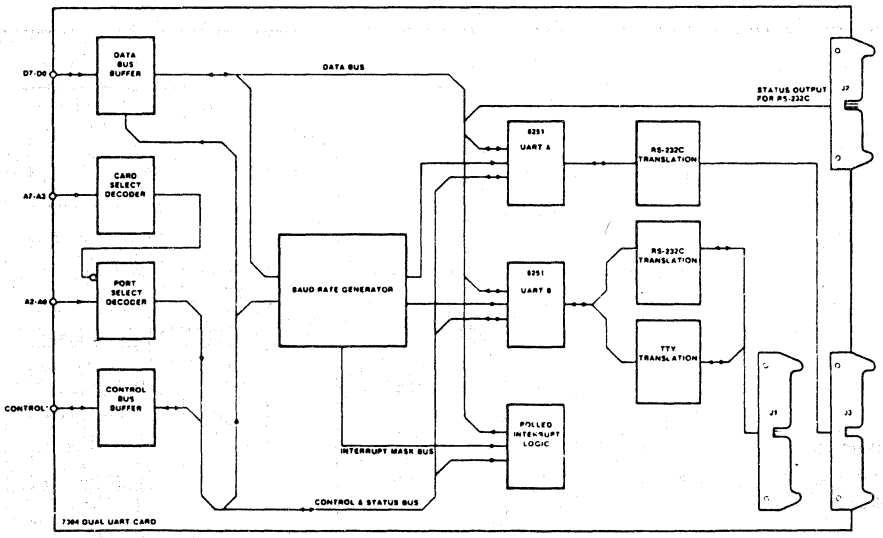

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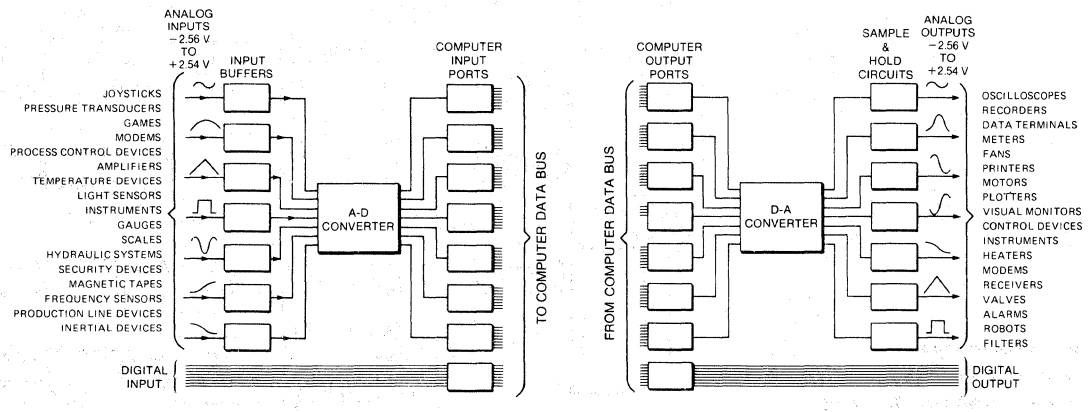
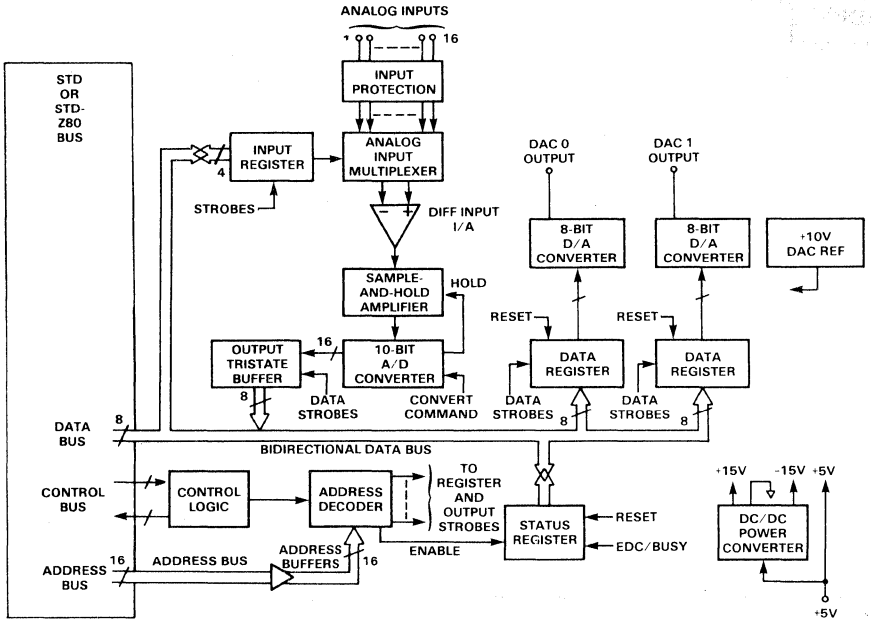


9. CIRCUIT/OUTLINE DRAWINGS

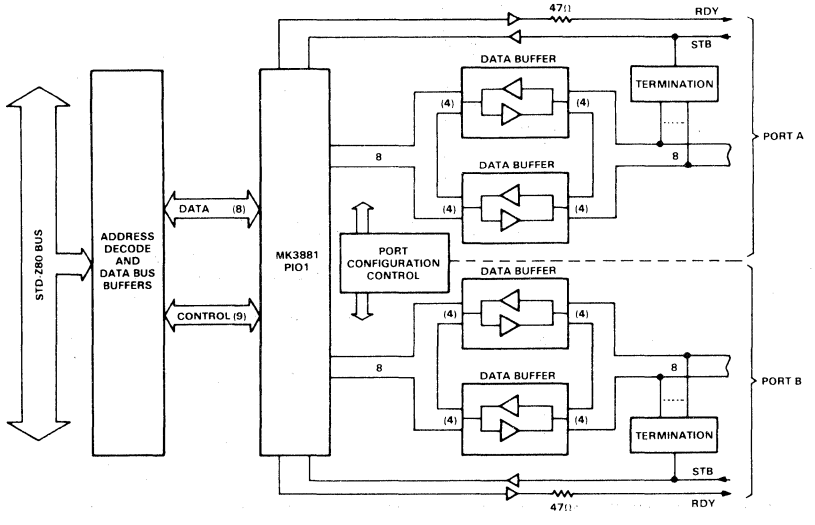
5ST001

CARD DIMENSIONS
4.50 in (11.43cm) wide by 6.50 in (16.51 cm) long
0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm)
circuit board thickness



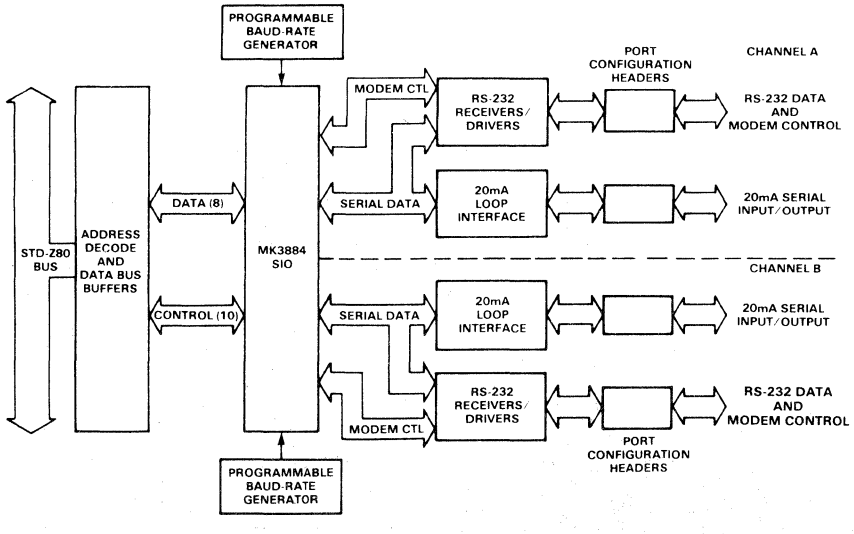
5ST002

CARD DIMENSIONS
4.50 in (11.43 cm) wide by 6.50 in (16.51 cm) long
0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm)
circuit board thickness



5ST003

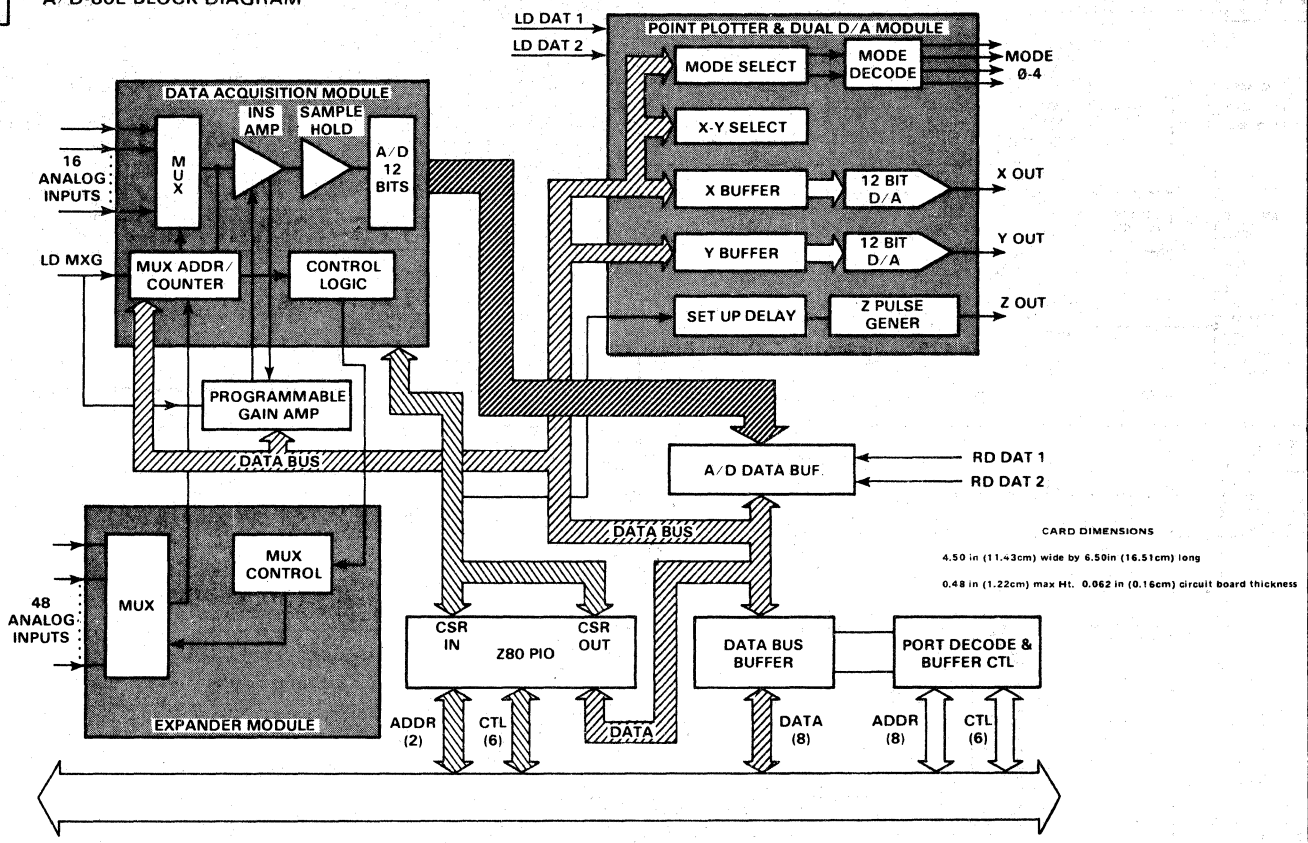
CARD DIMENSIONS
4.50 in (11.43 cm) wide by 6.50 in (16.51 cm) long
0.48 in (1.22 cm) max ht. 0.062 in (0.16 cm)
circuit board thickness



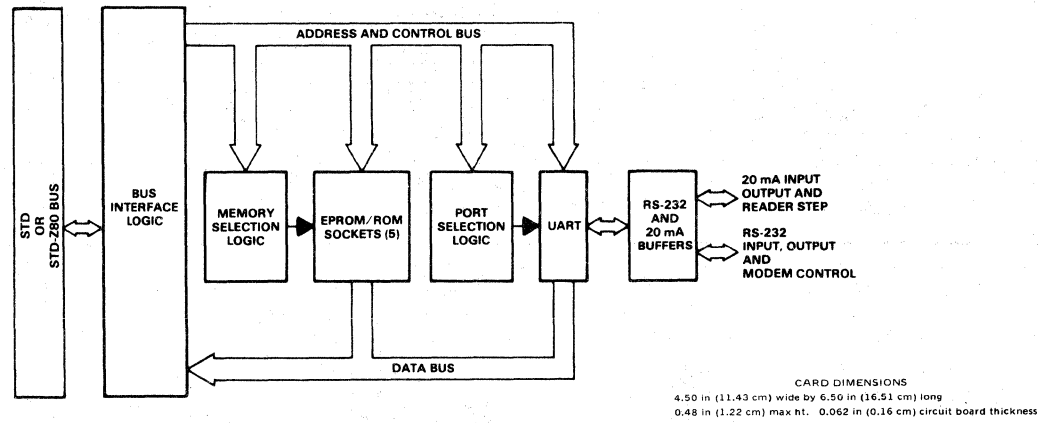
9. CIRCUIT/OUTLINE DRAWINGS

5ST004

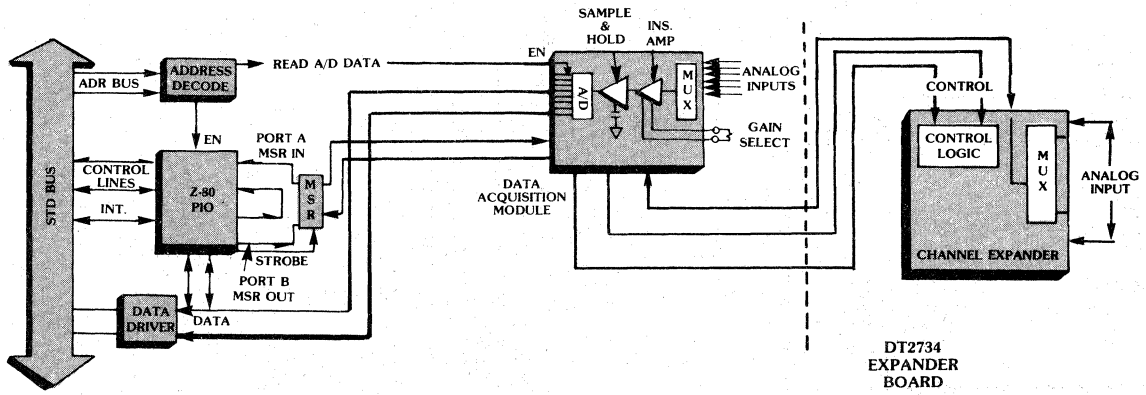
A/D-80E BLOCK DIAGRAM



5ST005

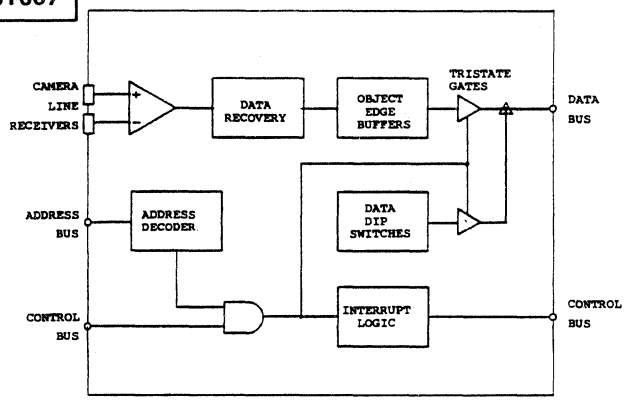


5ST006

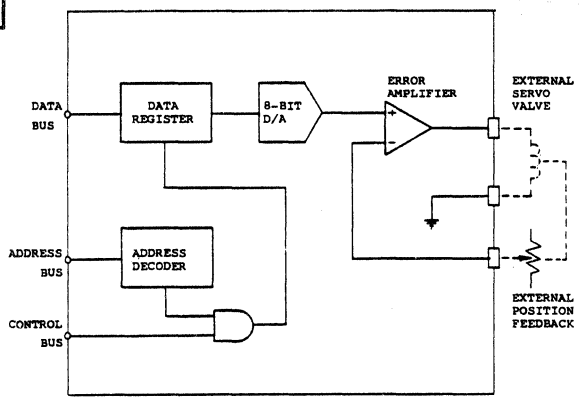


9. CIRCUIT/OUTLINE DRAWINGS

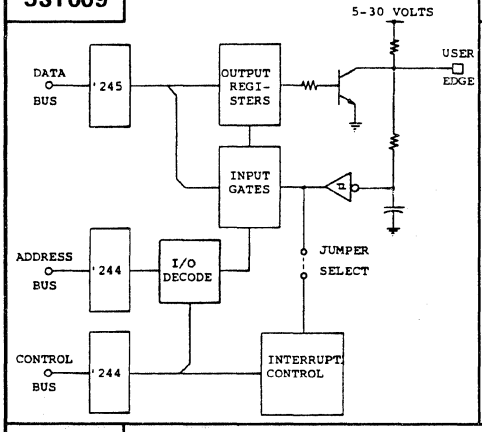
5ST007



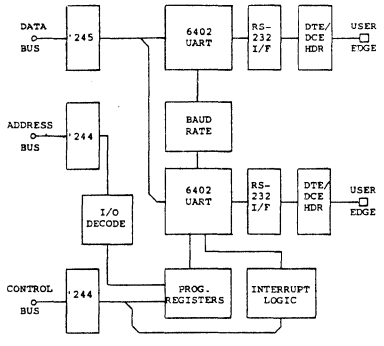
5ST008



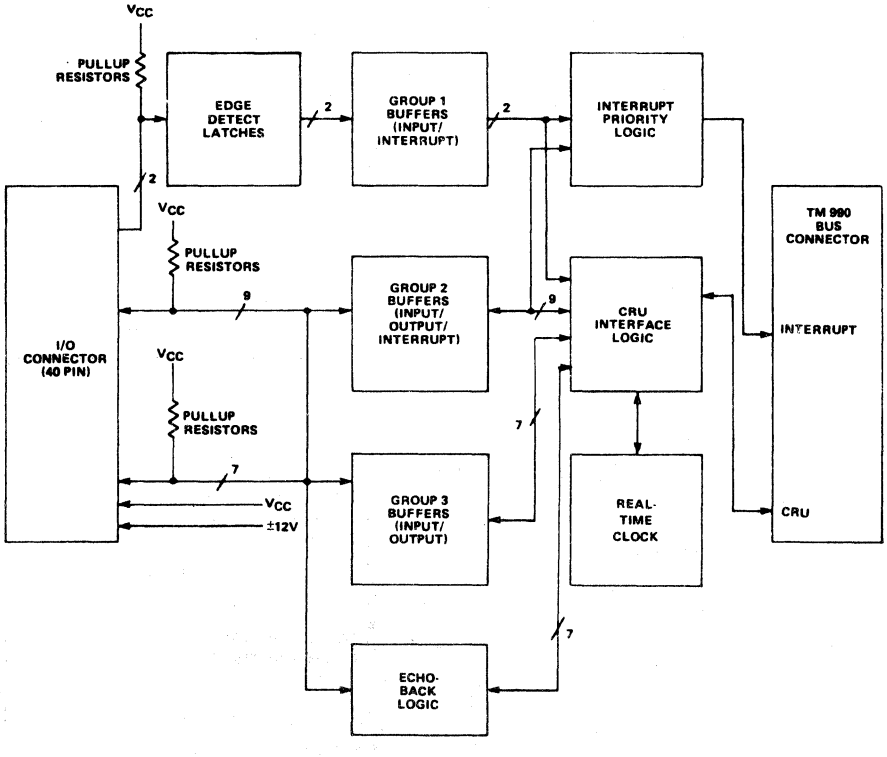
5ST009



5ST010

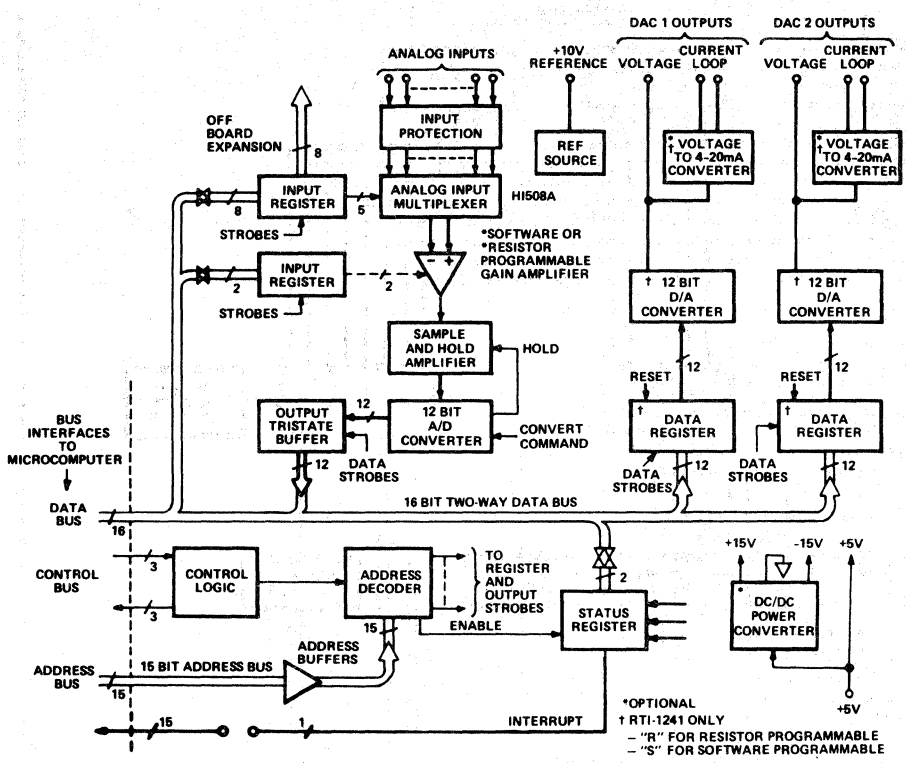


5TM001

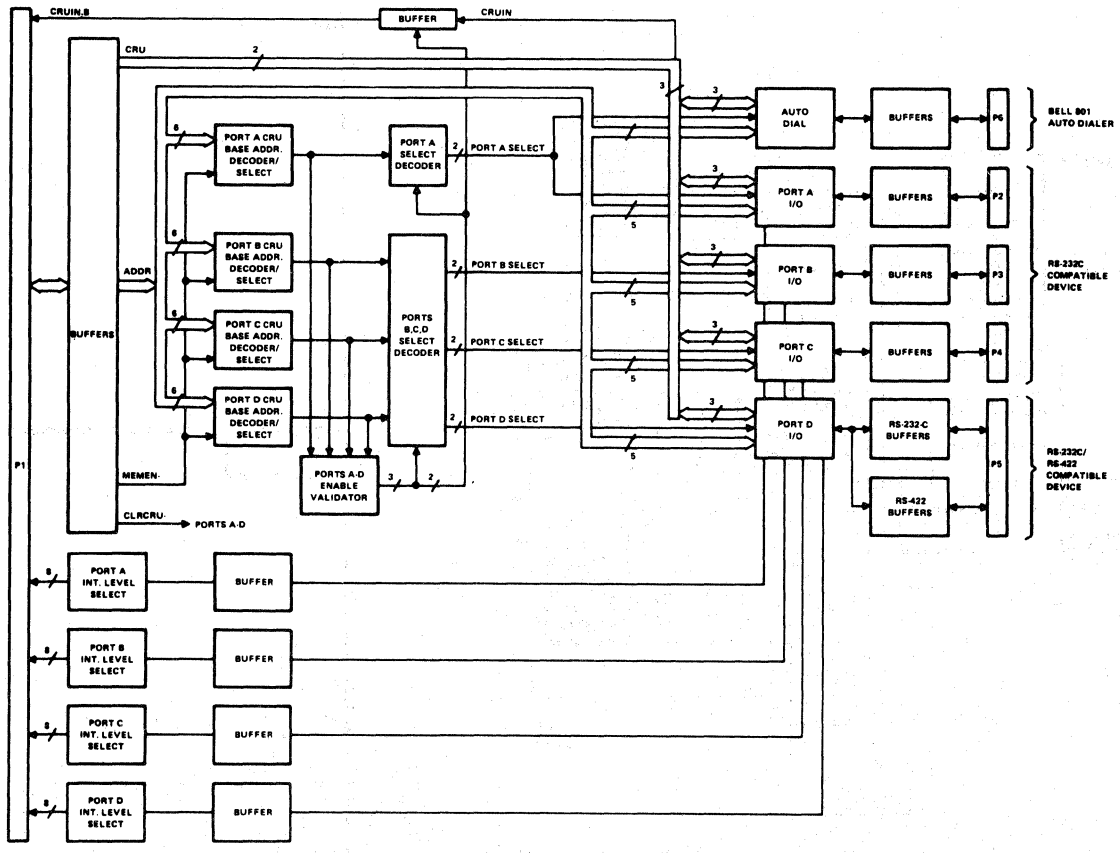


9. CIRCUIT/OUTLINE DRAWINGS

5TM002

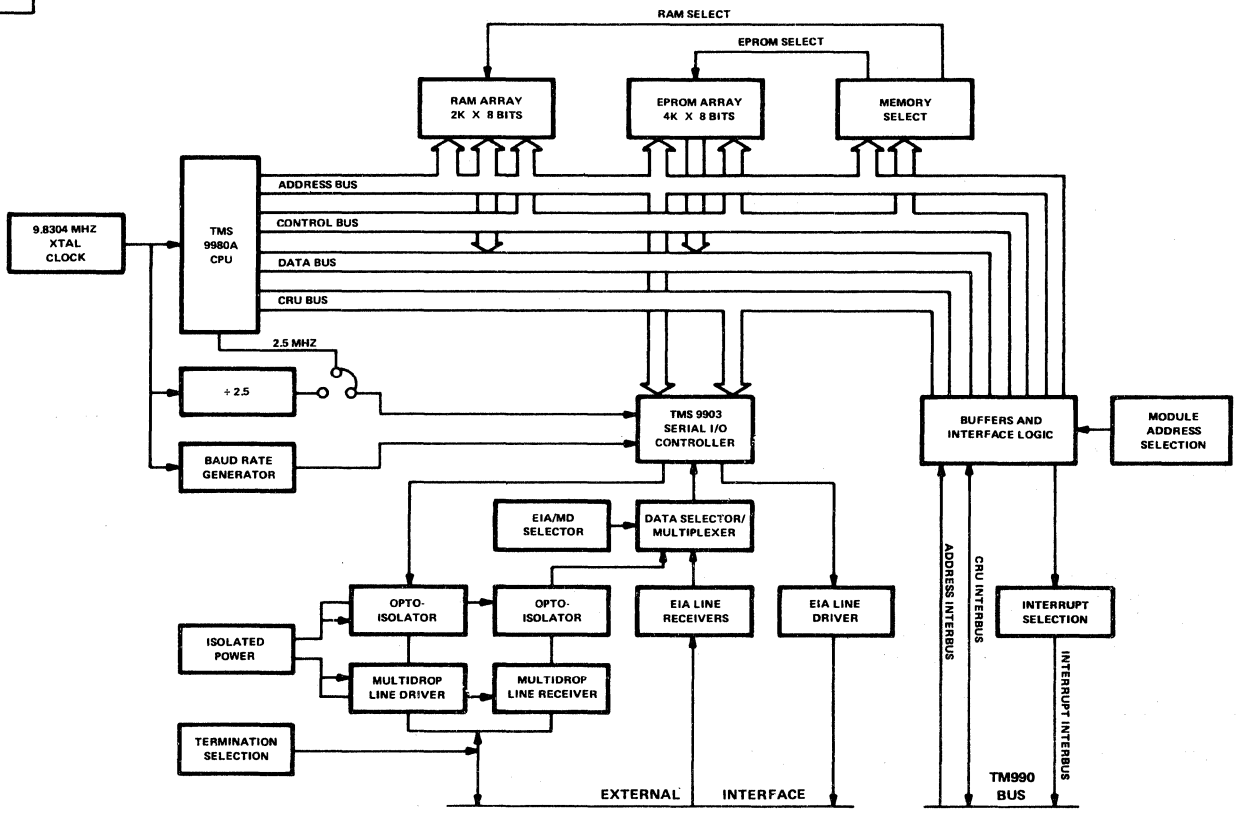


5TM003

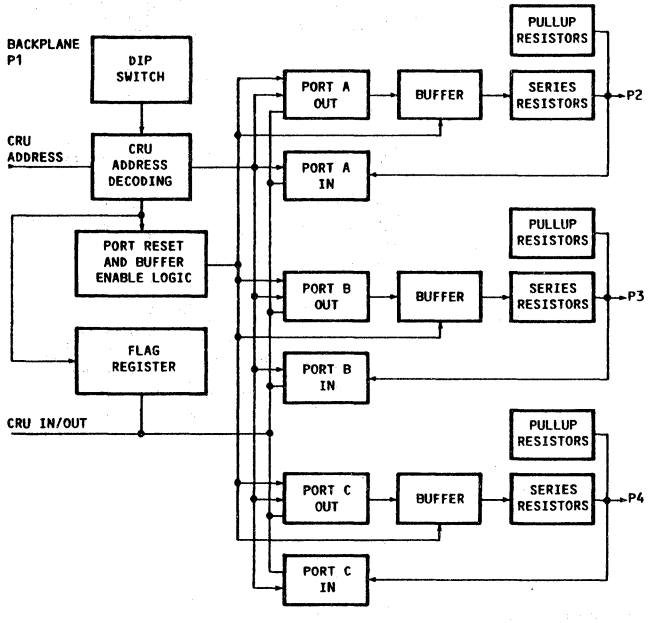


9. CIRCUIT/OUTLINE DRAWINGS

5TM004

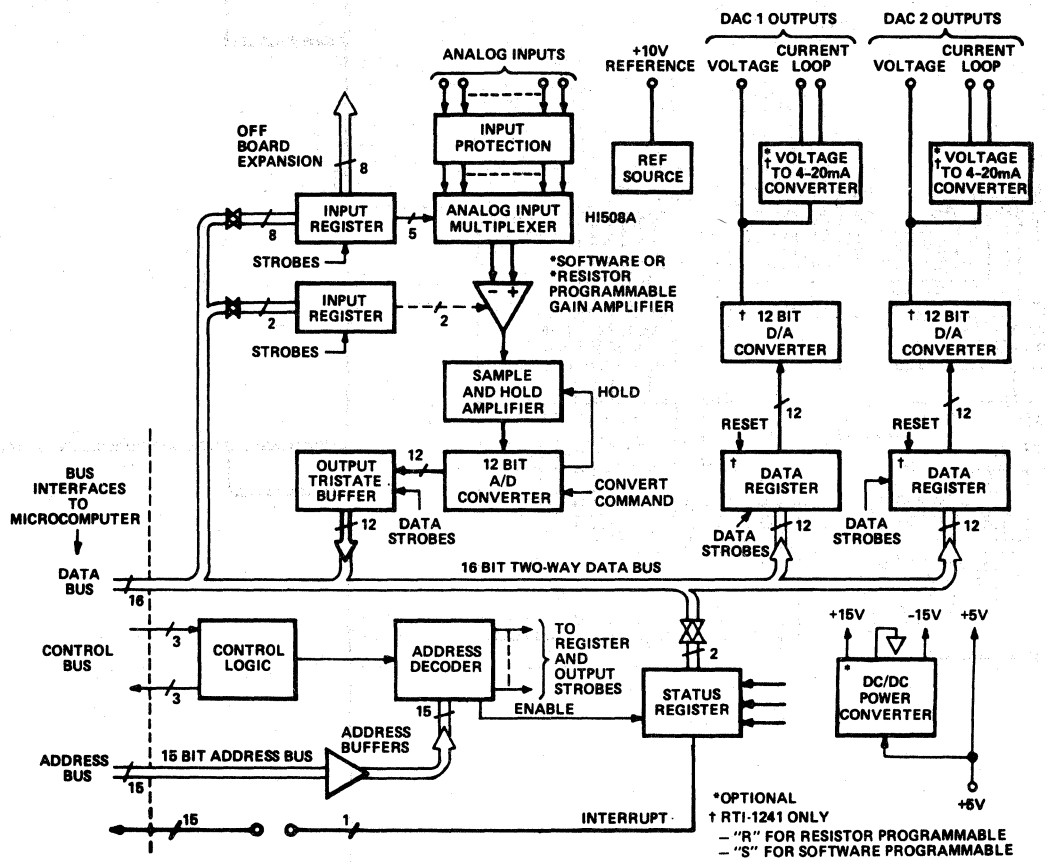


5TM005

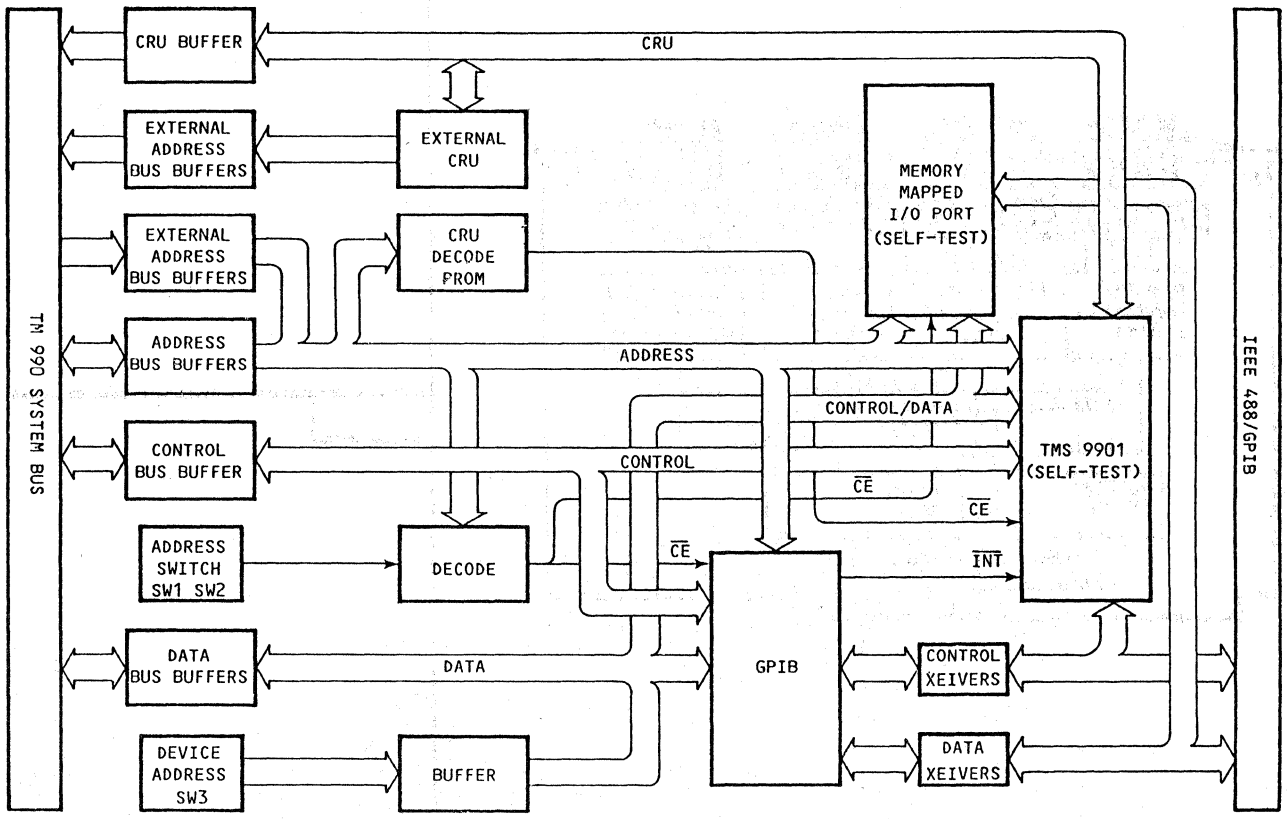


9. CIRCUIT/OUTLINE DRAWINGS

5TM006

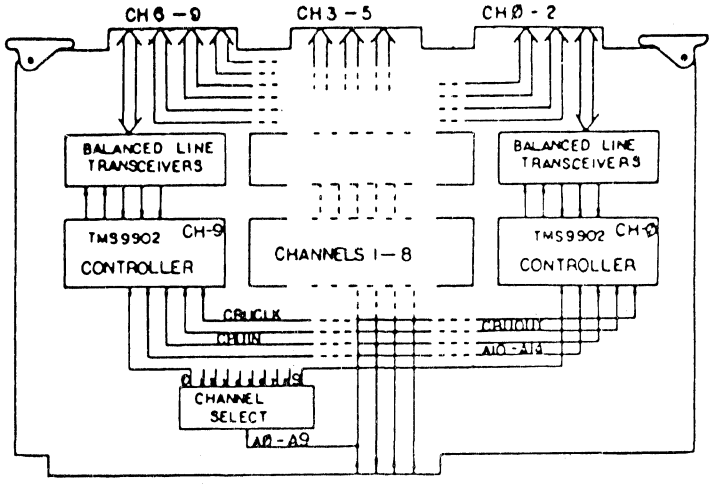


5TM007



9. CIRCUIT/OUTLINE DRAWINGS

5TM008



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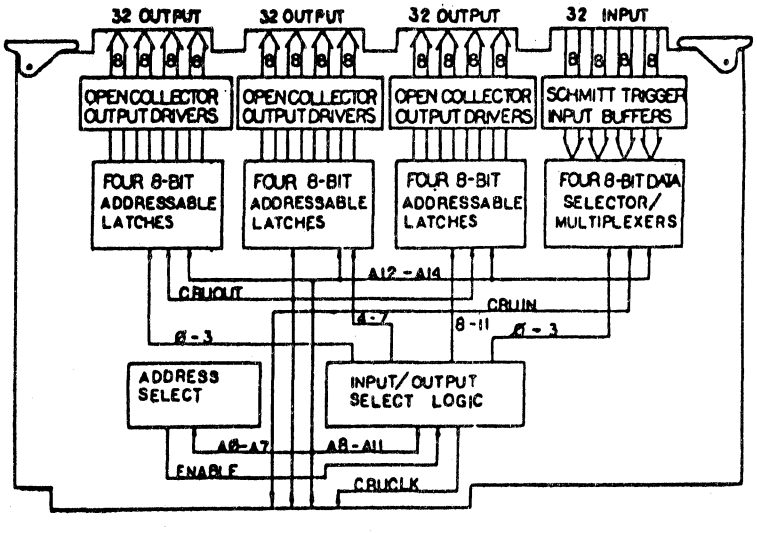
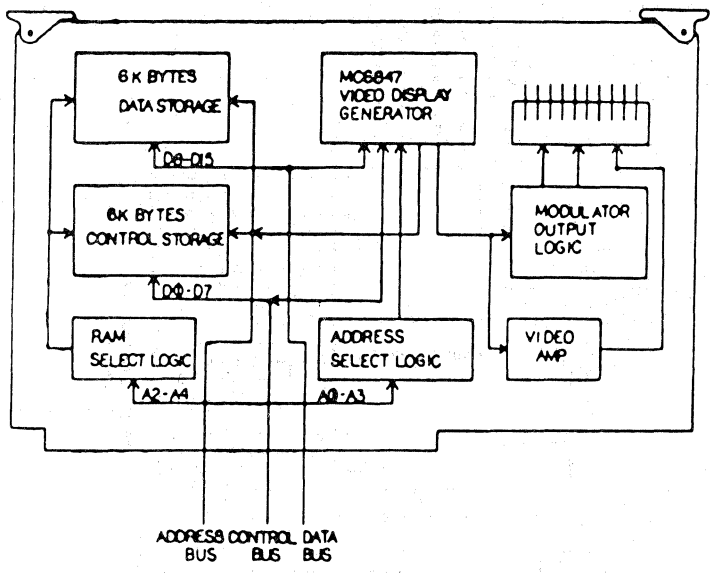
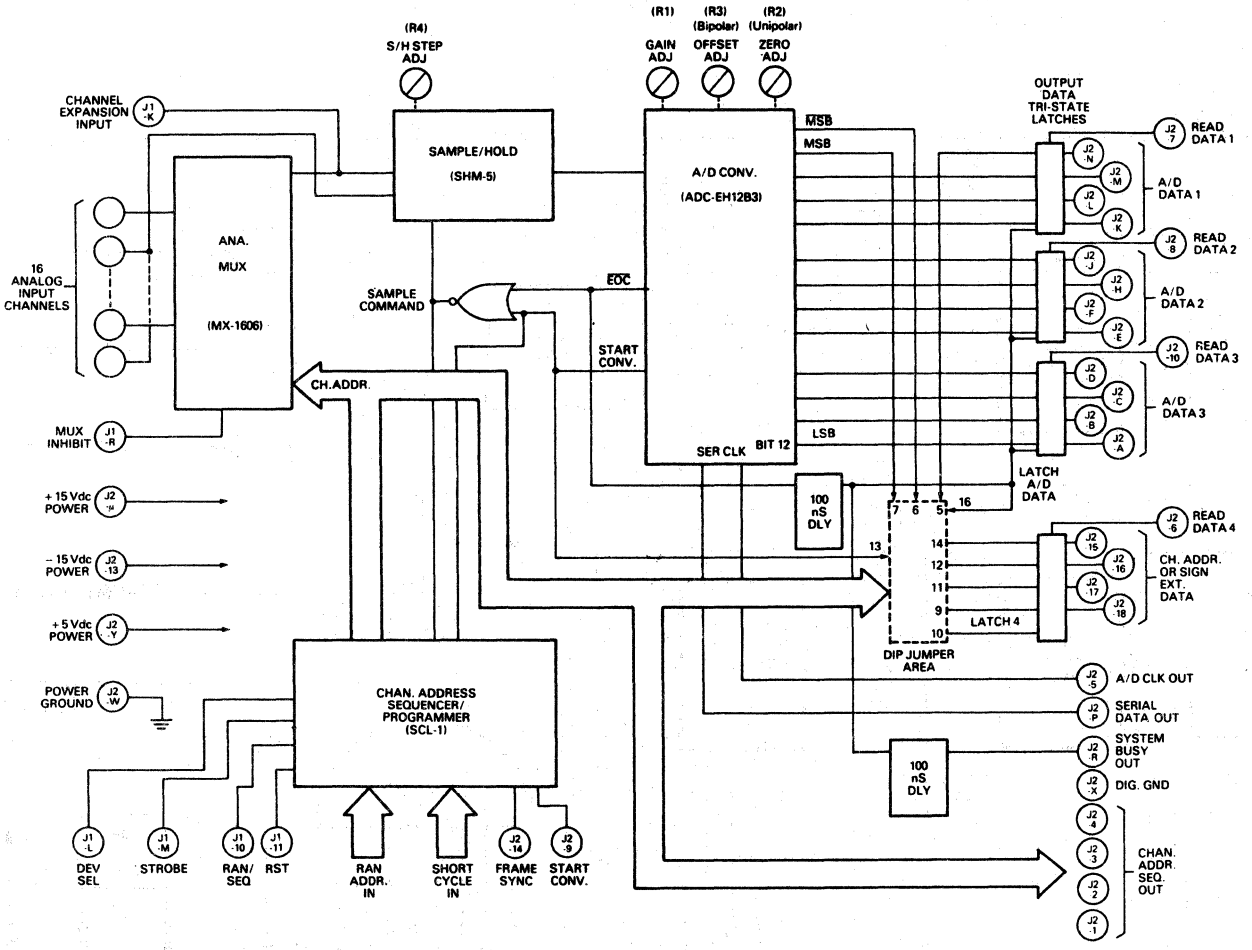


9. CIRCUIT/OUTLINE DRAWINGS

5TM010

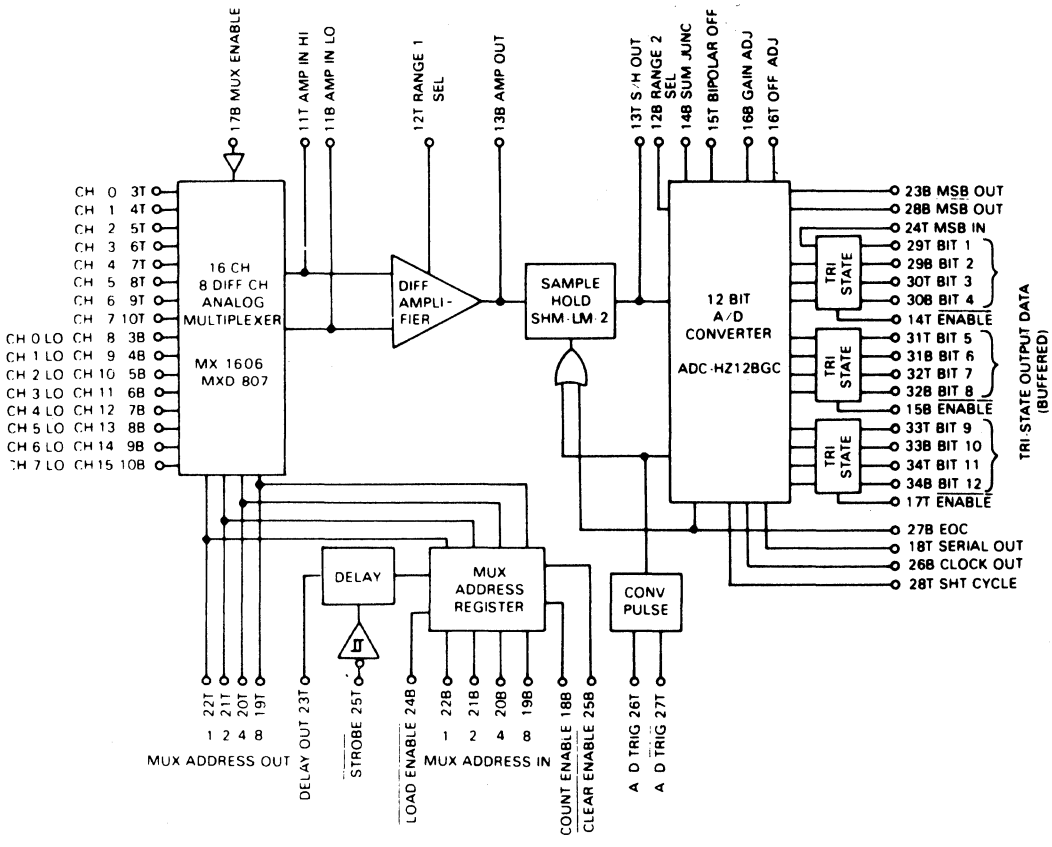


5TR001

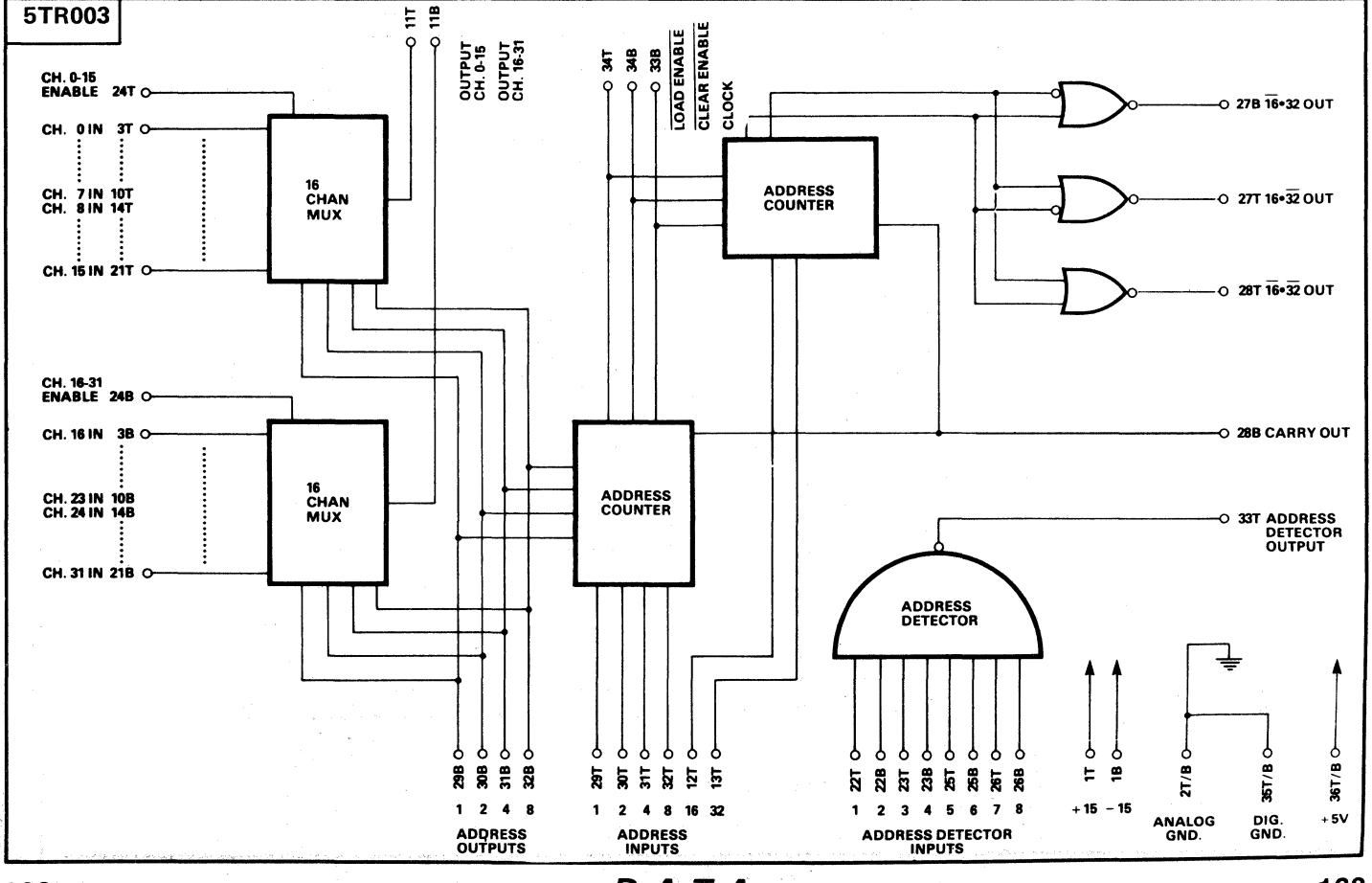


9. CIRCUIT/OUTLINE DRAWINGS

5TR002

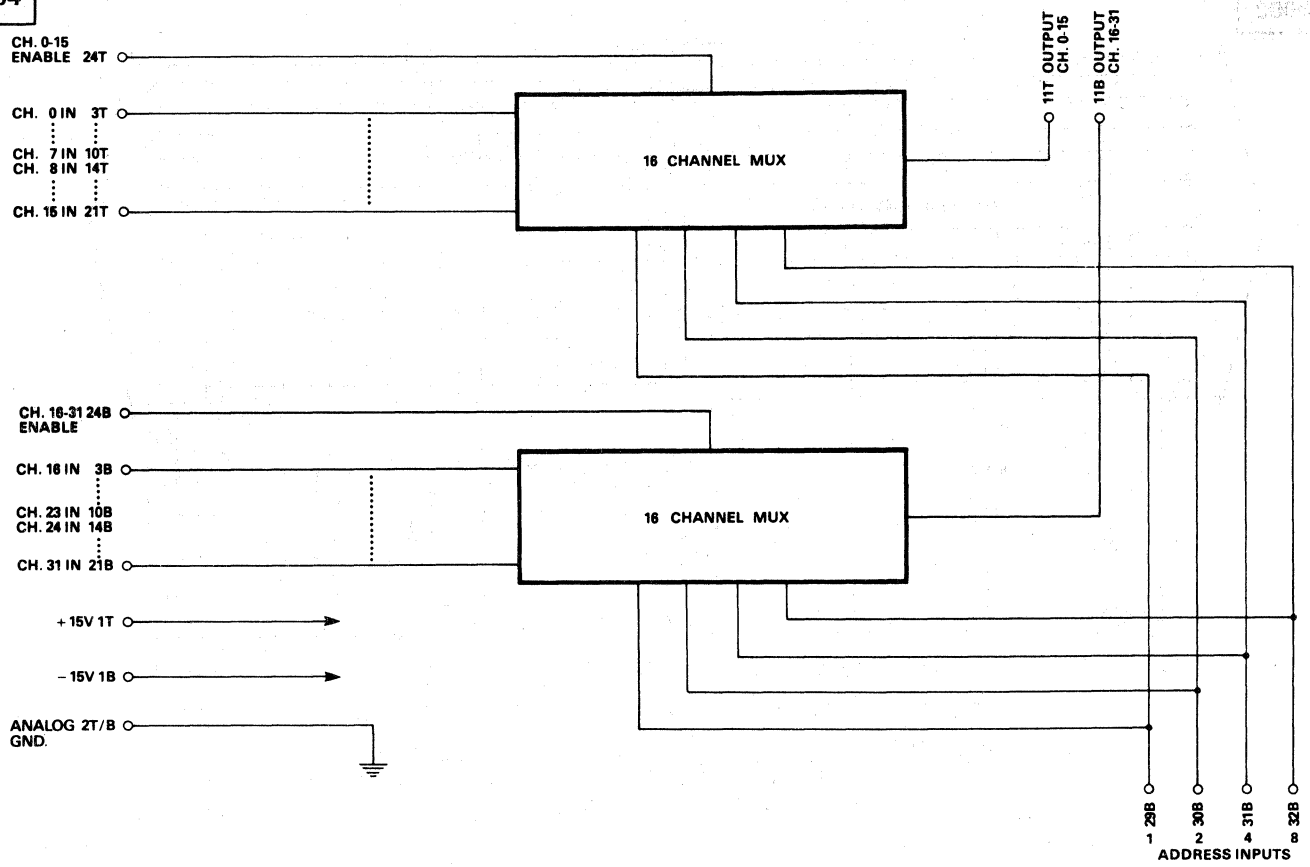


5TR003

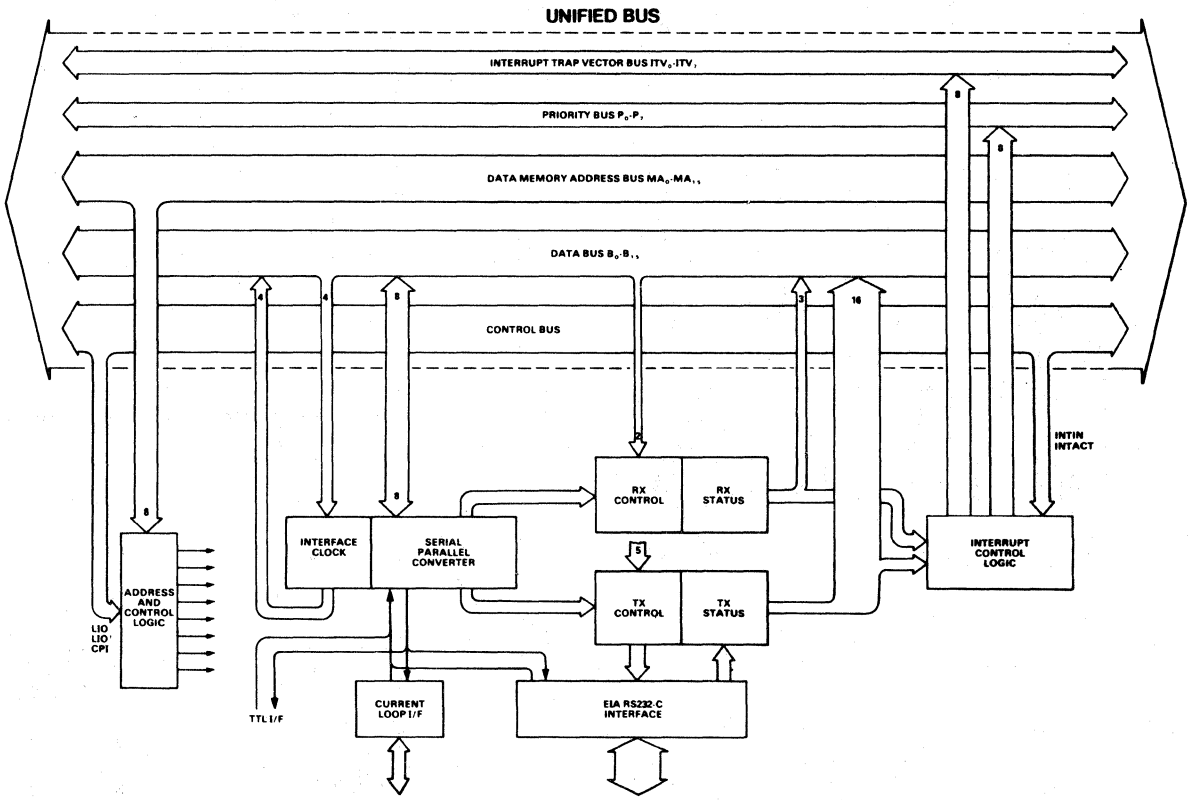


9. CIRCUIT/OUTLINE DRAWINGS

5TR004

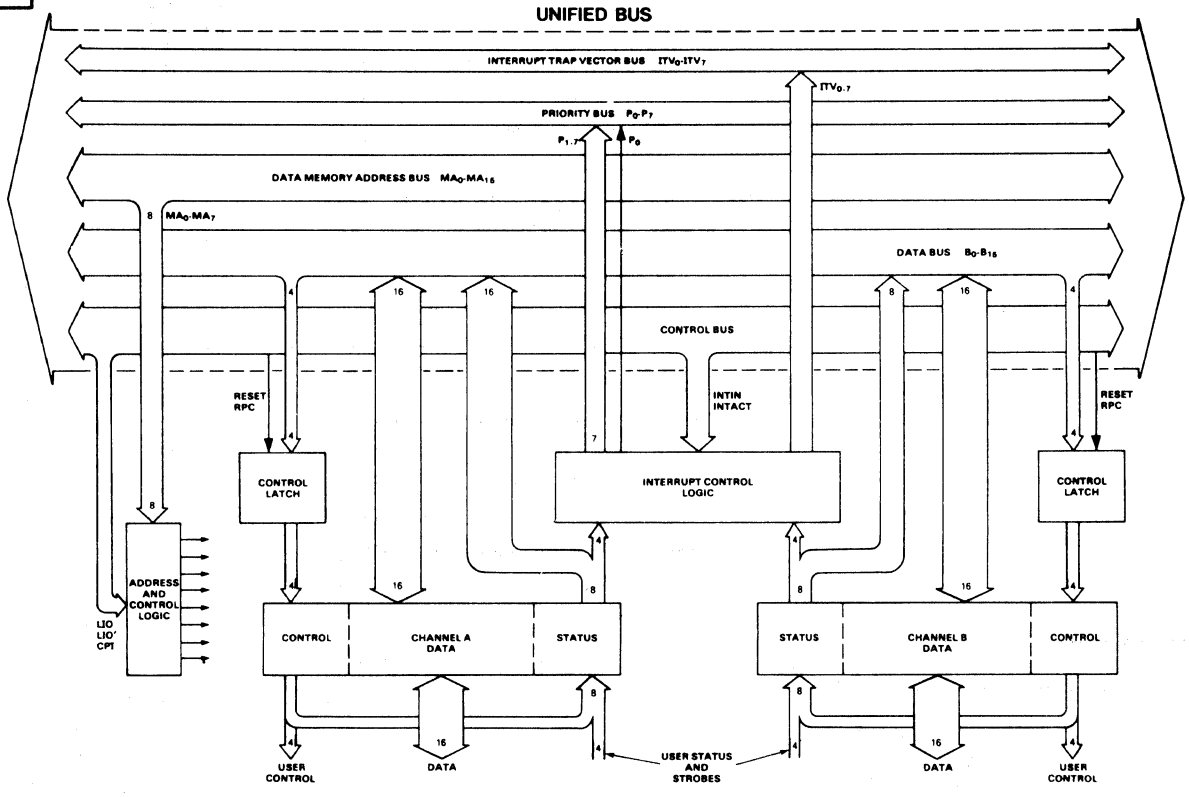


5UB001



9. CIRCUIT/OUTLINE DRAWINGS

5UB002



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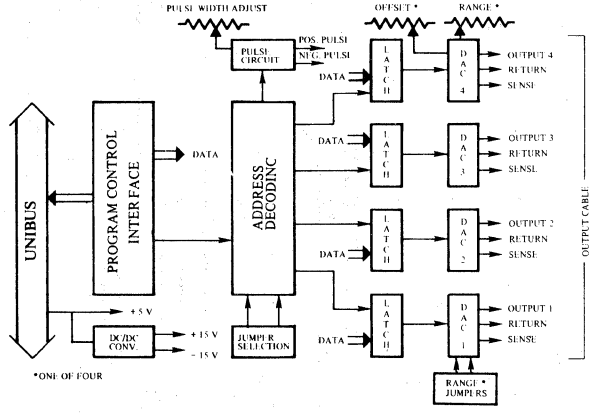
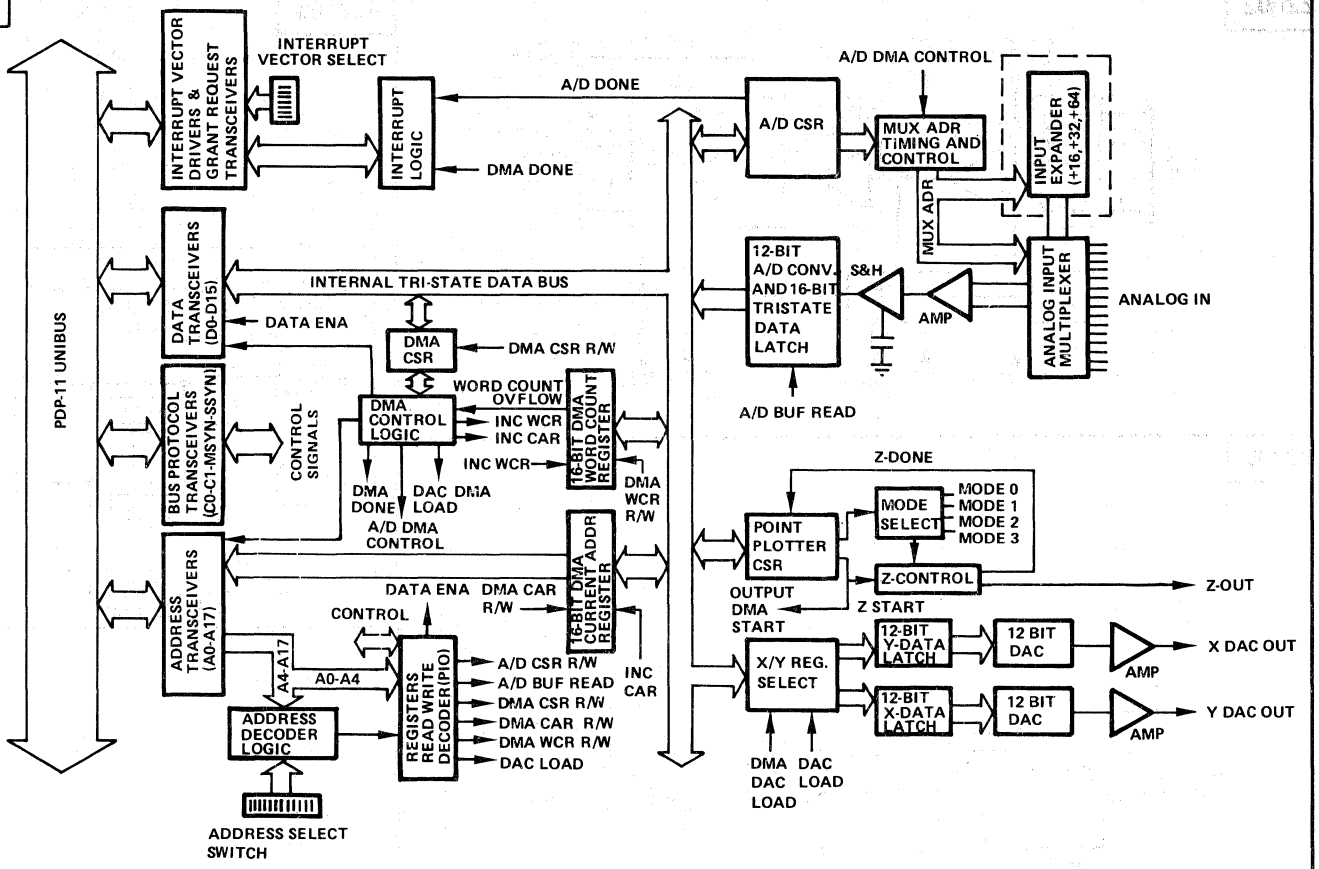
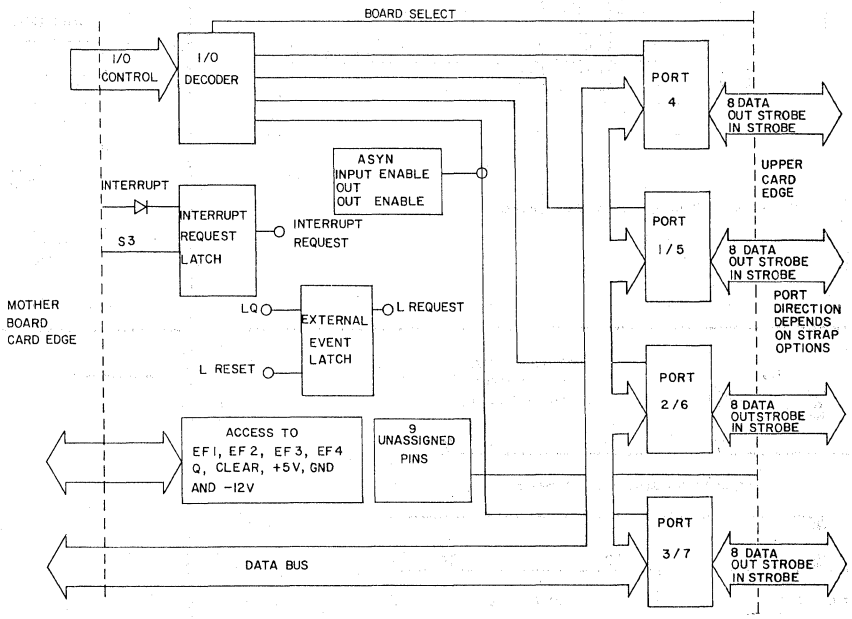


9. CIRCUIT/OUTLINE DRAWINGS

5UN002

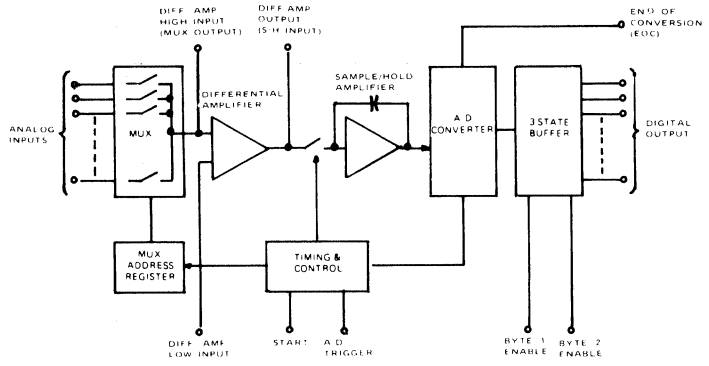


5ZZ001

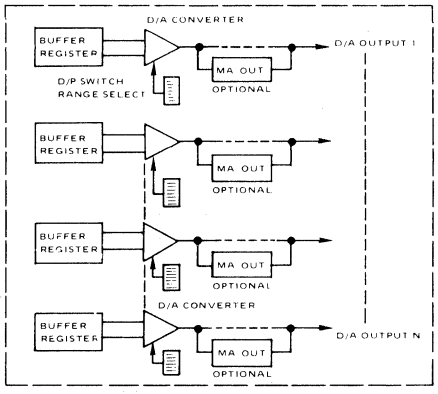


9. CIRCUIT/OUTLINE DRAWINGS

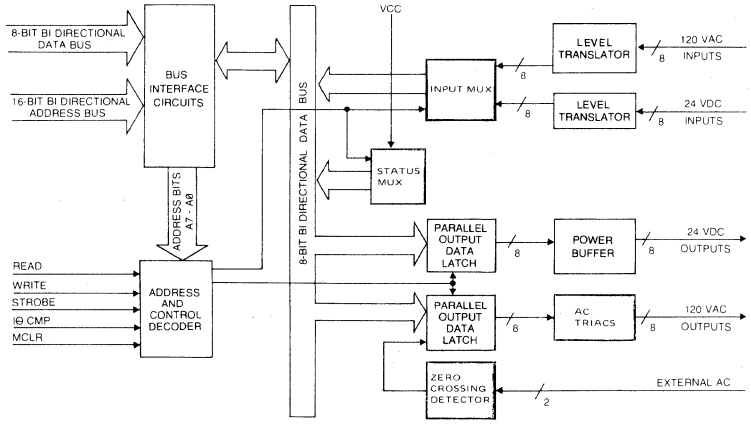
5ZZ002



5ZZ003

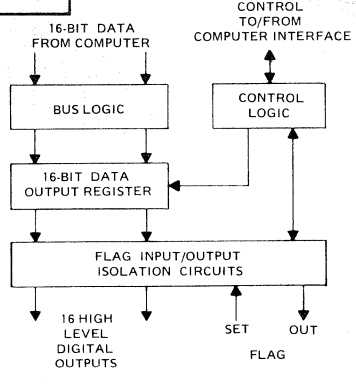


5ZZ005



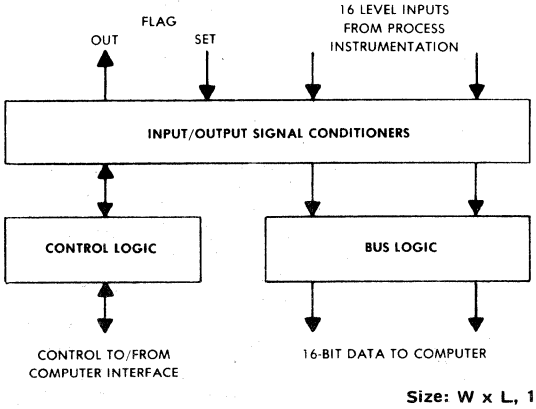
Size: W x L, 214.9mm x 266.7mm

5ZZ006



Size: W x L, 126mm x 245mm

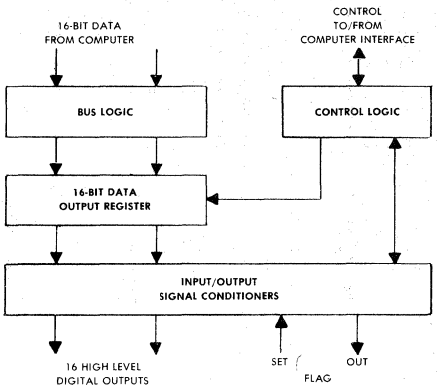
5ZZ007



Size: W x L, 126mm x 16.5mm

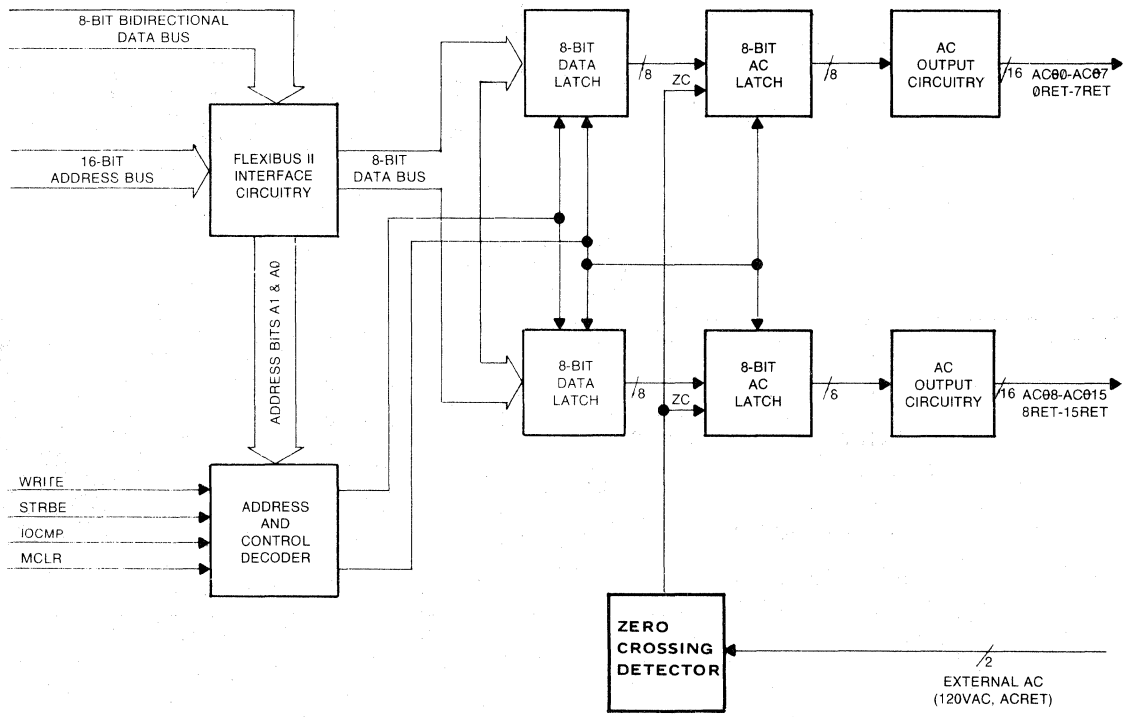
9. CIRCUIT/OUTLINE DRAWINGS

5ZZ008



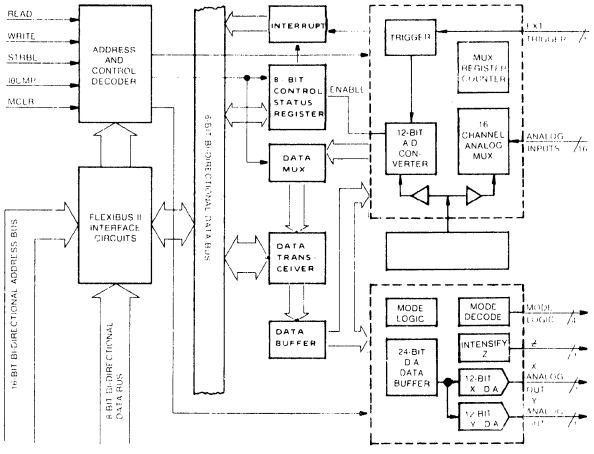
Size: W x L, 126mm x 245mm

5ZZ009



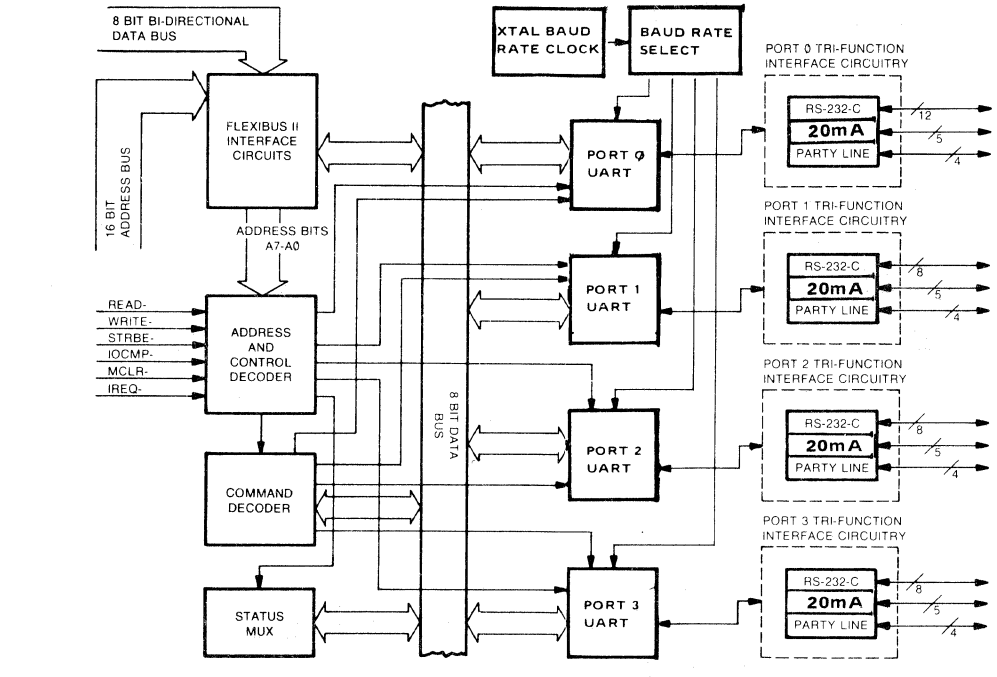
9. CIRCUIT/OUTLINE DRAWINGS

5ZZ010



W x L, 215.9mm x 266.7mm

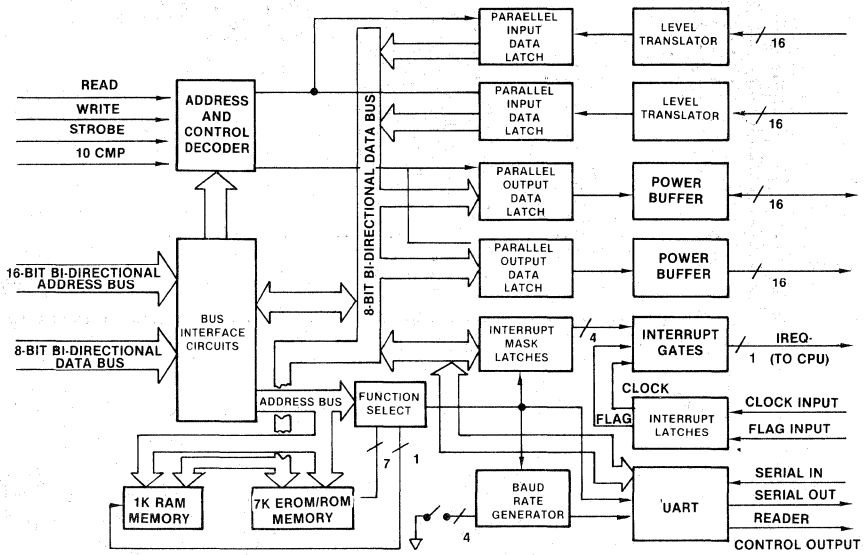
5ZZ011



Size: W x L, 215.9mm x 266.7mm

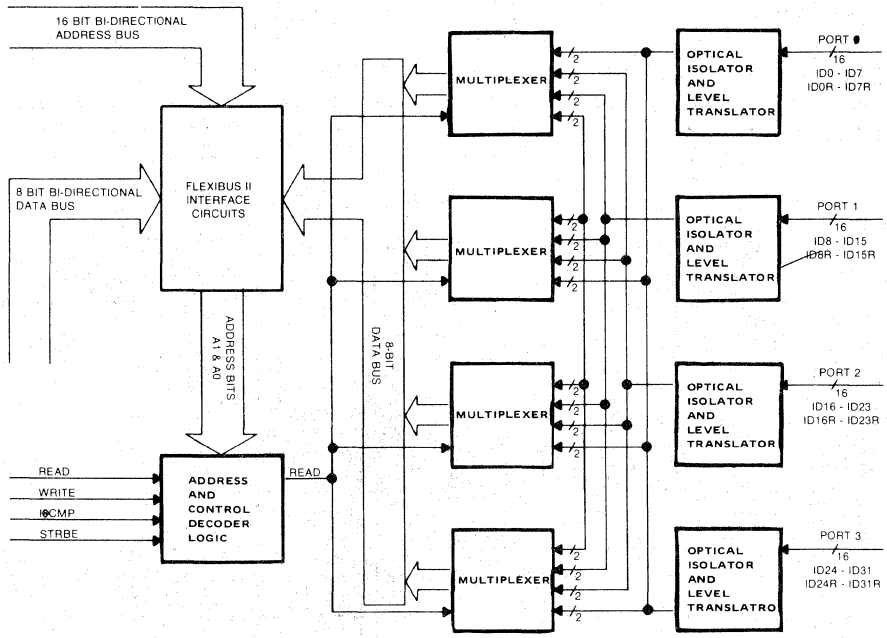
9. CIRCUIT/OUTLINE DRAWINGS

5ZZ012



Size: W x L, 215.9mm x 266.7mm

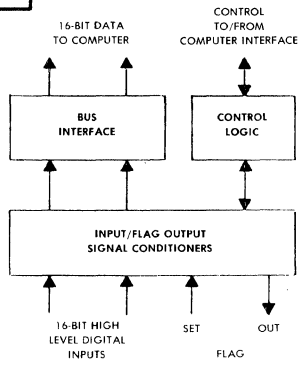
5ZZ013



Size: W x L, 215.9mm x 266.7mm

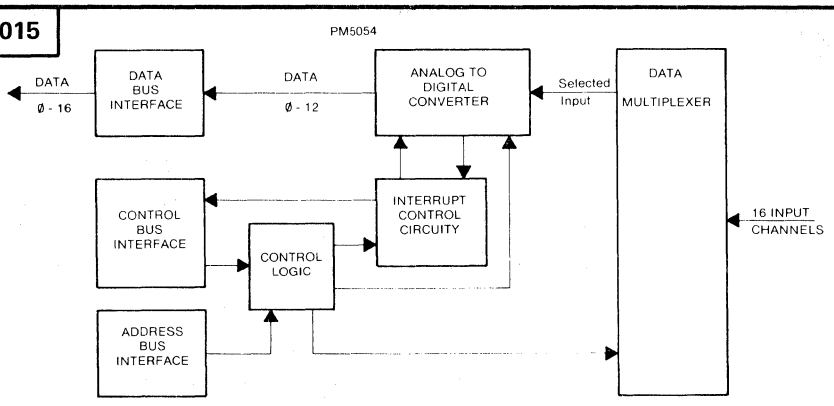
9. CIRCUIT/OUTLINE DRAWINGS

5ZZ014



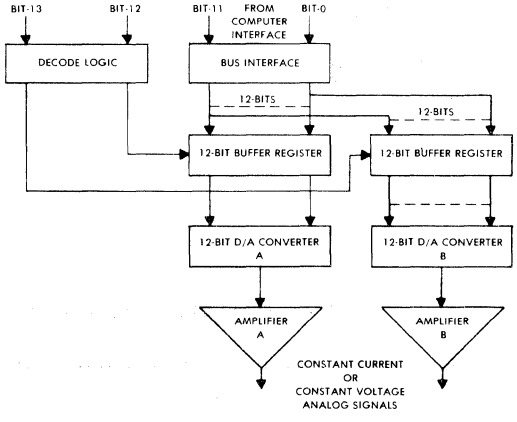
Size: W x L, 126mm x 245mm

5ZZ015



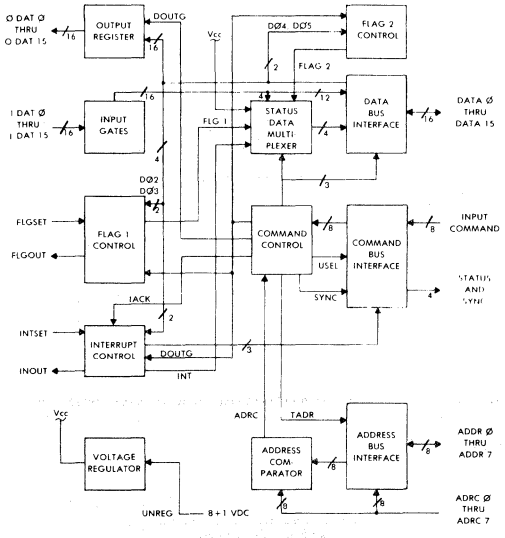
Size: W x L, 126mm x 245mm

5ZZ016



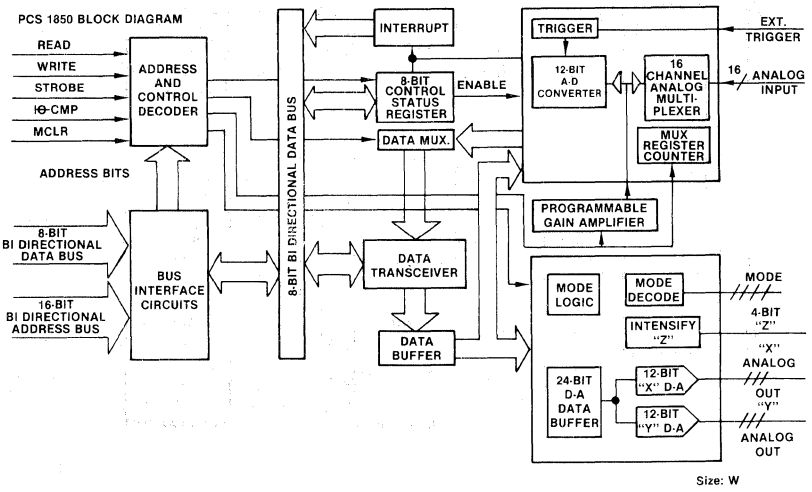
Size: W x L, 126mm x 245mm

5ZZ017



Size: W x L, 126mm x 245mm

5ZZ018

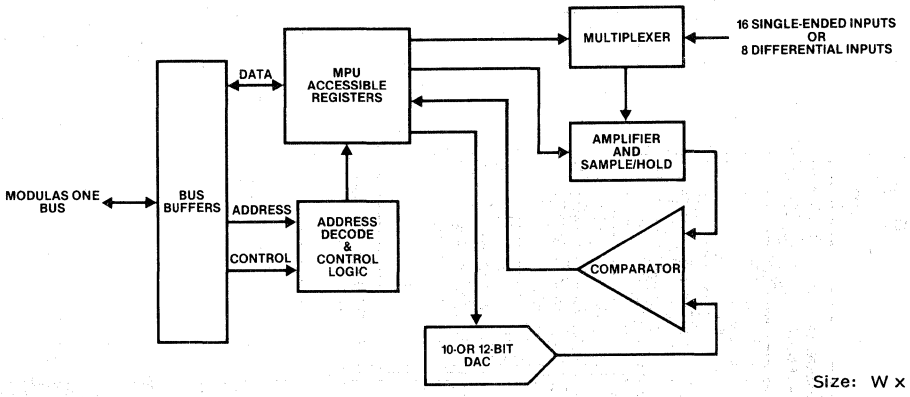


Size: W

Size: W x L, 215.9mm x 266.7mm

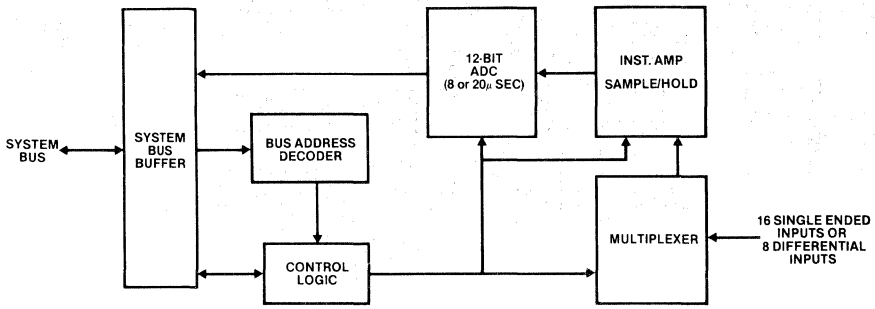
9. CIRCUIT/OUTLINE DRAWINGS

5ZZ019



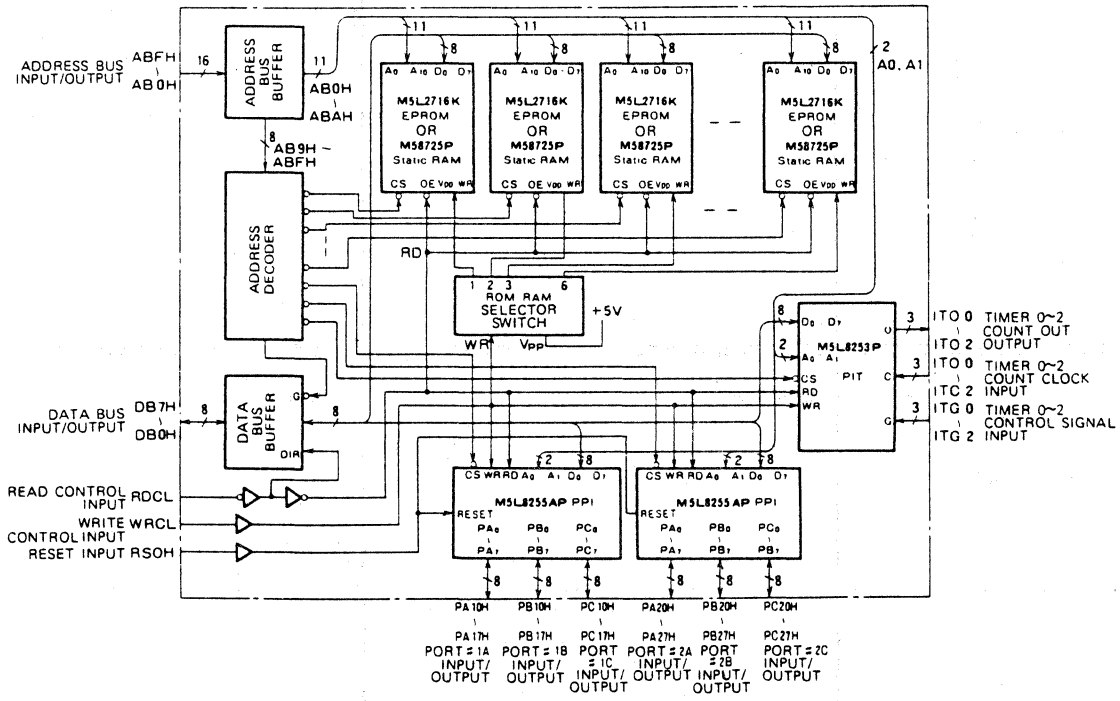
Size: W x L, 114mm x 164.5mm

5ZZ020



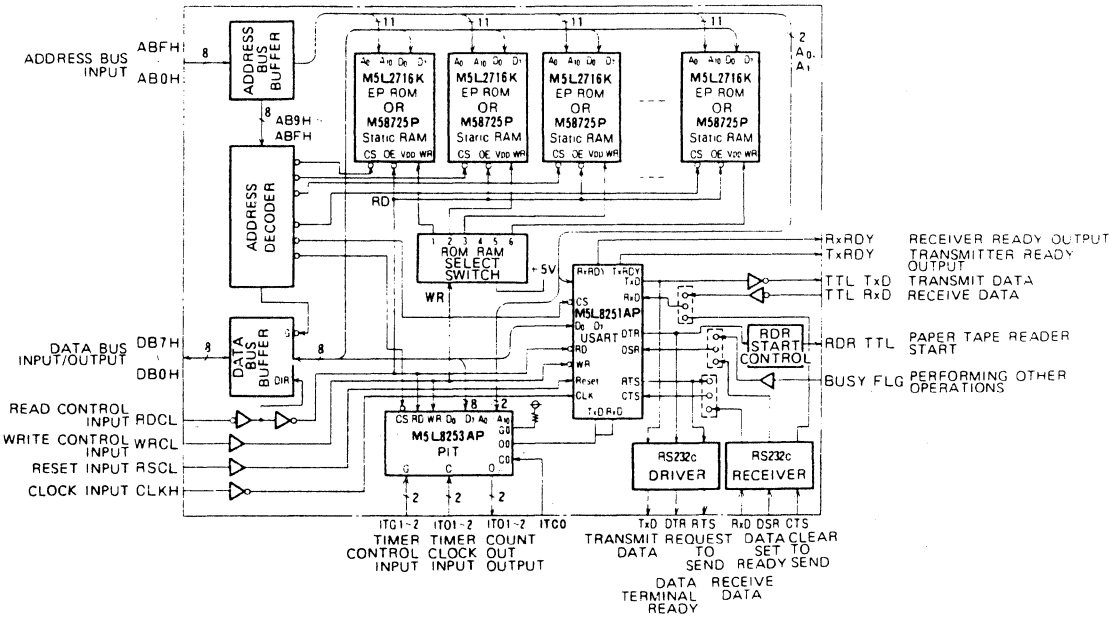
Size: W x L, 114mm x 164.5mm

5ZZ021



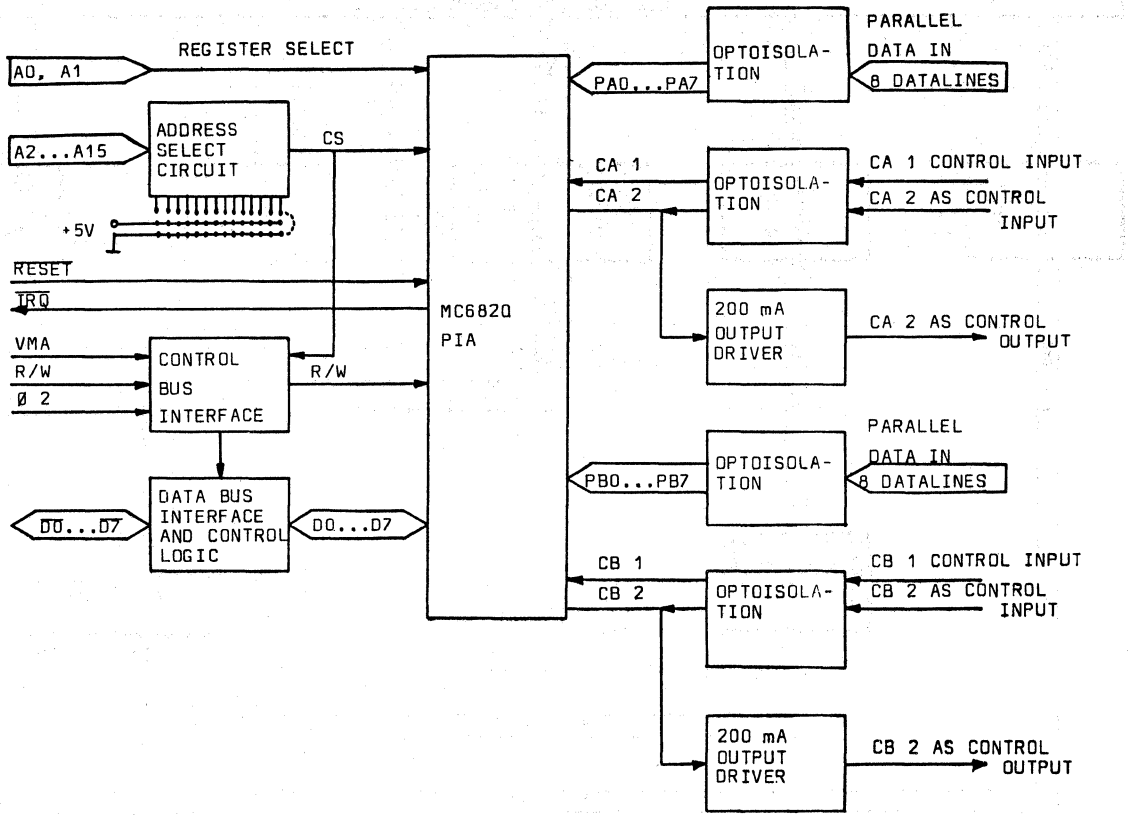
9. CIRCUIT/OUTLINE DRAWINGS

5ZZ022

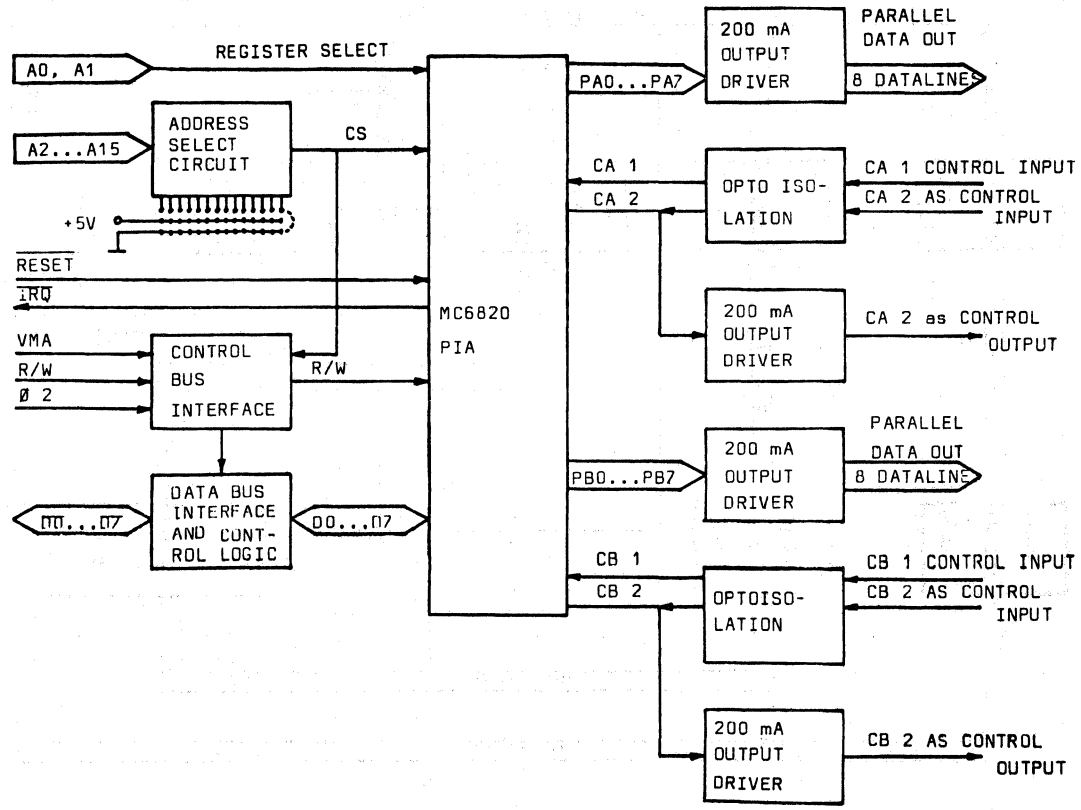


9. CIRCUIT/OUTLINE DRAWINGS

6EU001

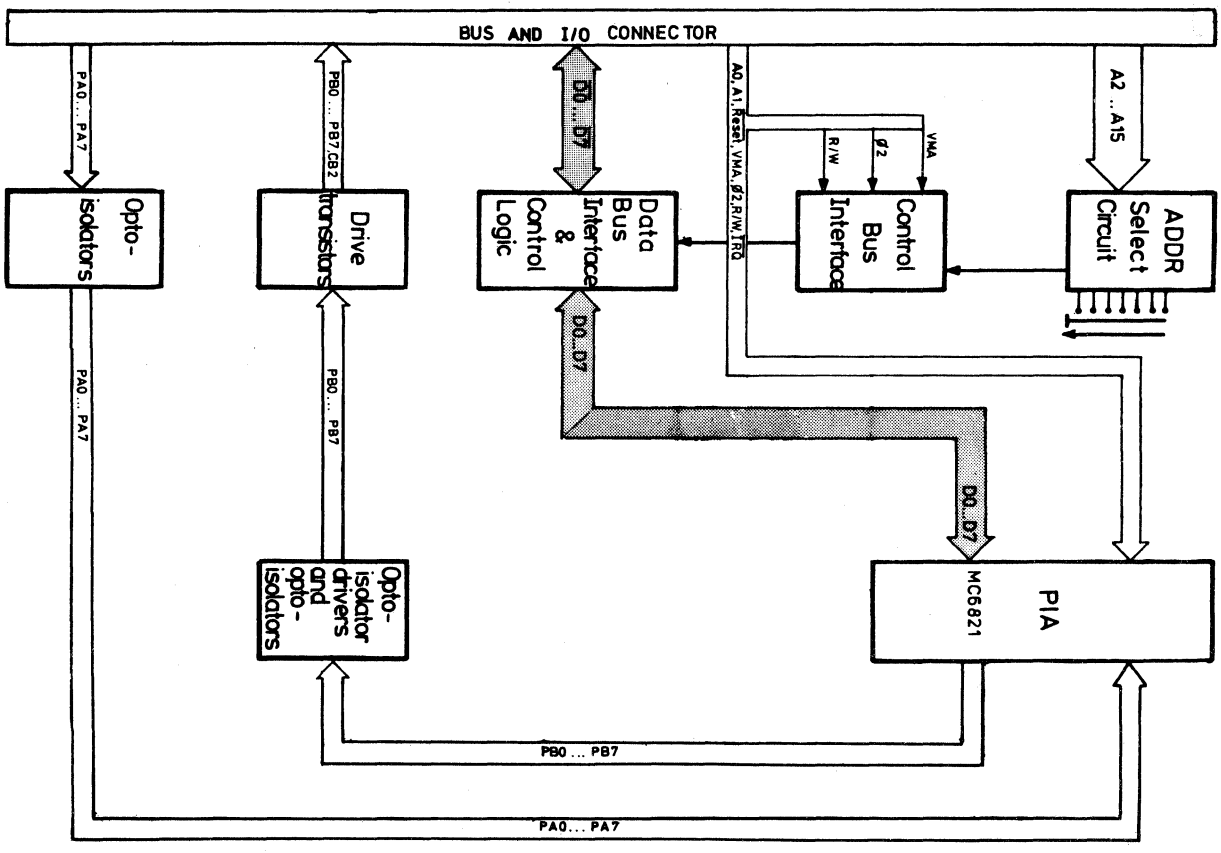


6EU002

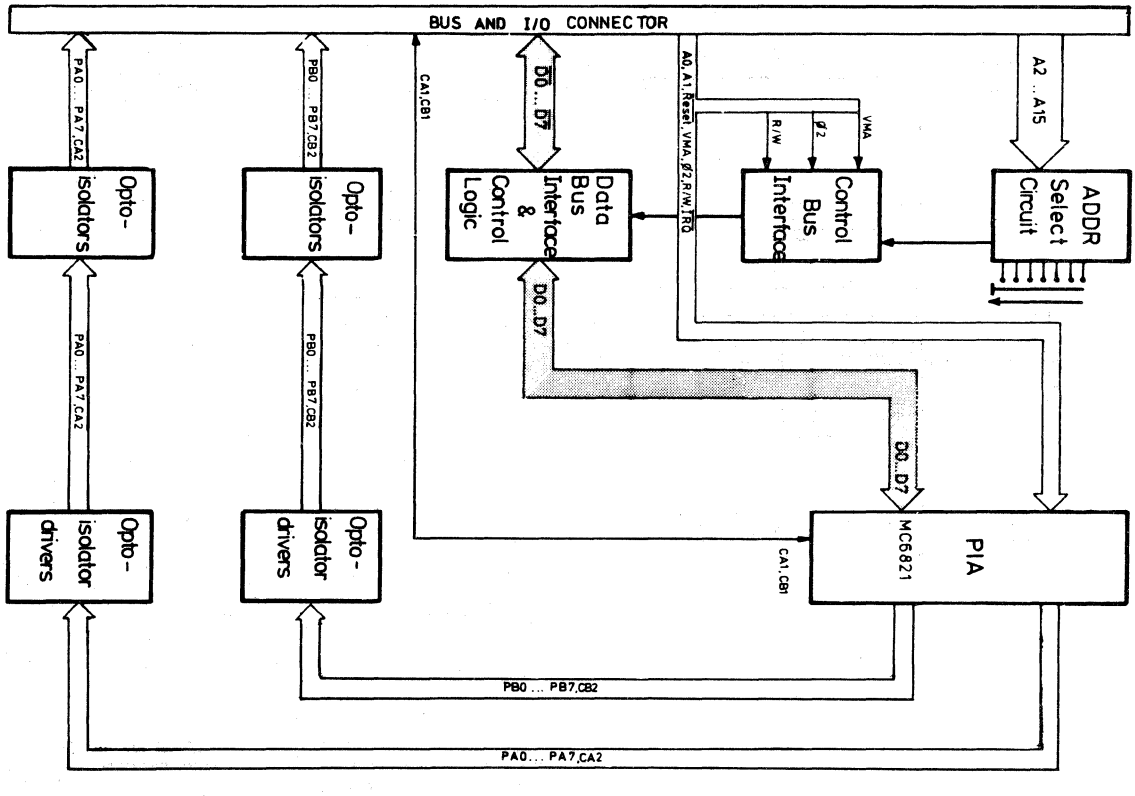


9. CIRCUIT/OUTLINE DRAWINGS

6EU003

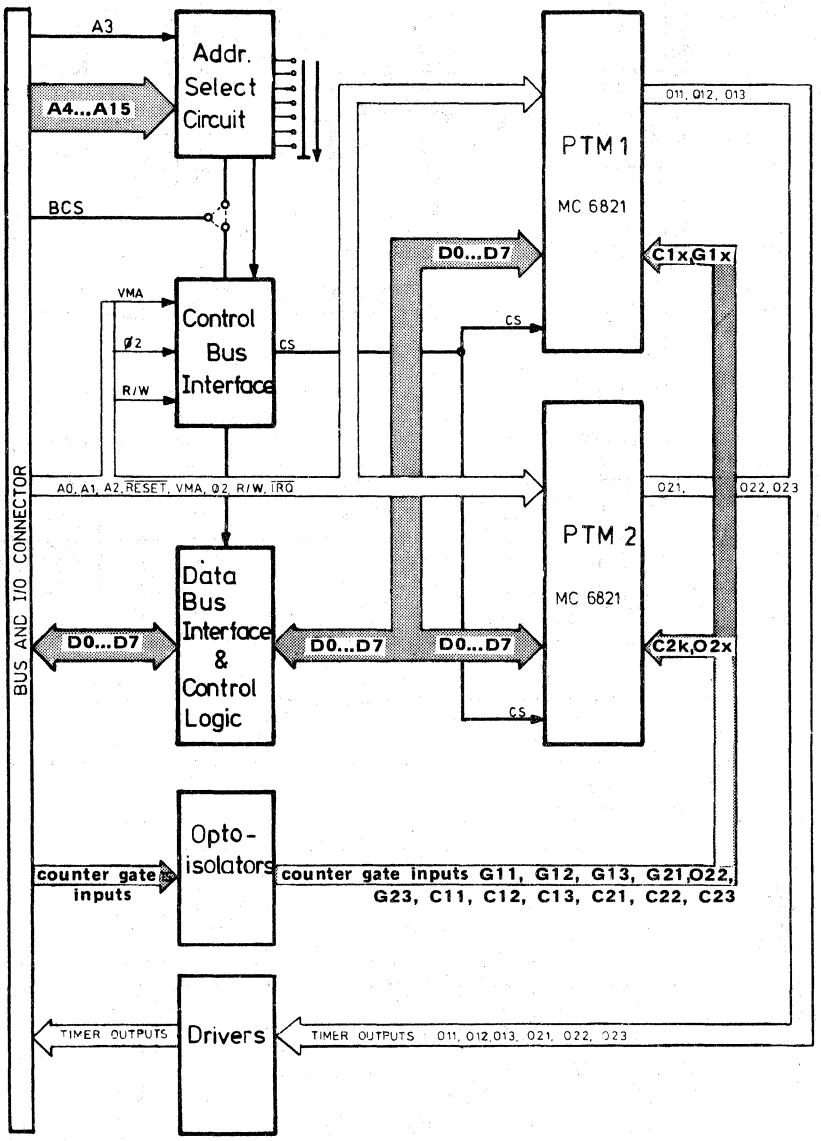


6EU004



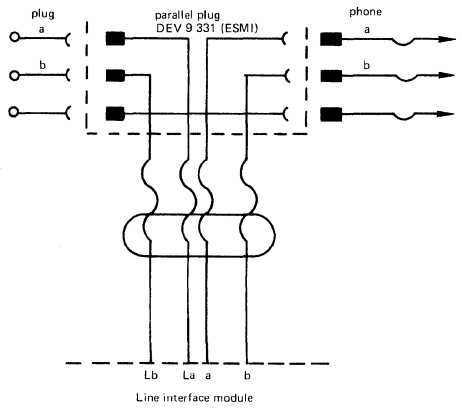
9. CIRCUIT/OUTLINE DRAWINGS

6EU005



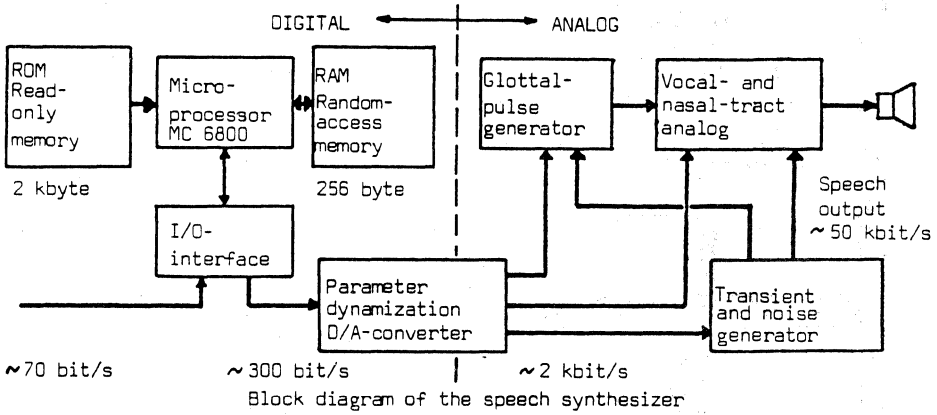
9. CIRCUIT/OUTLINE DRAWINGS

6EU006



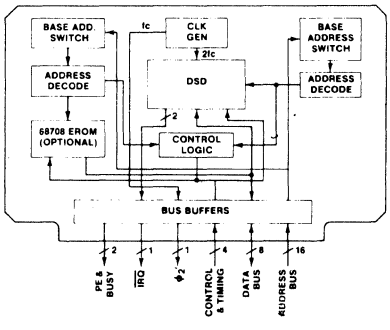
Line interface module

6EU007

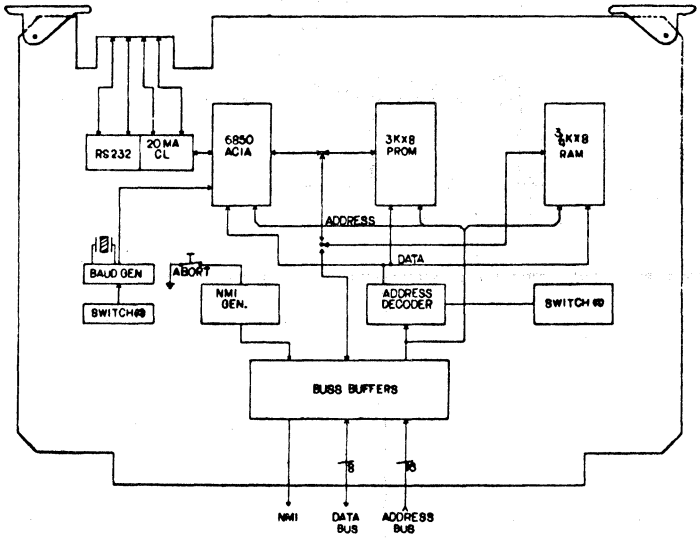


Block diagram of the speech synthesizer

6EX001

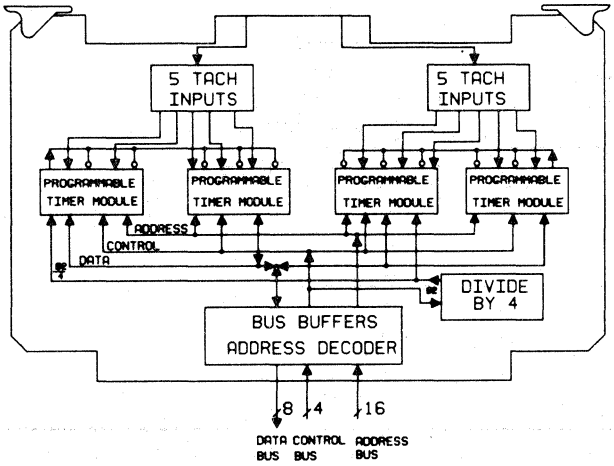


6EX003

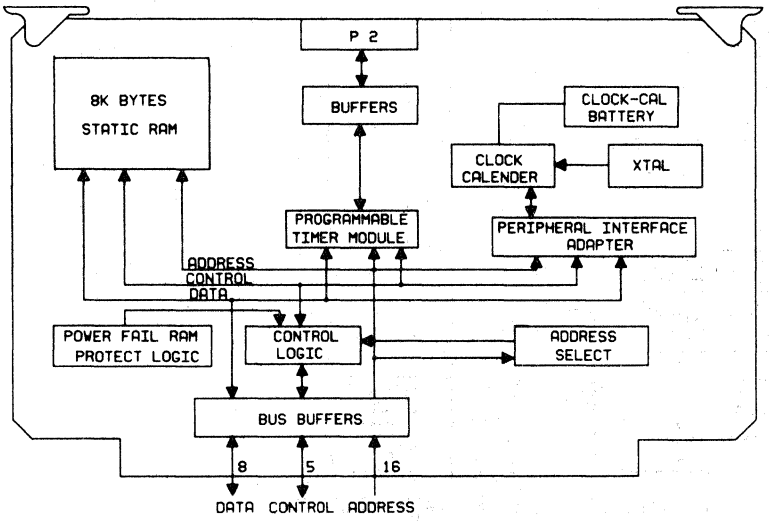


9. CIRCUIT/OUTLINE DRAWINGS

6EX004

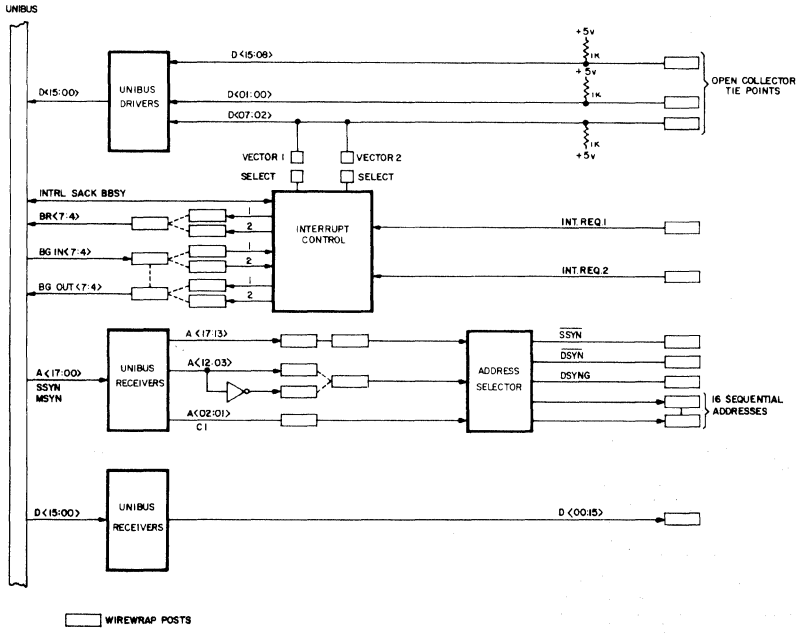


6EX005

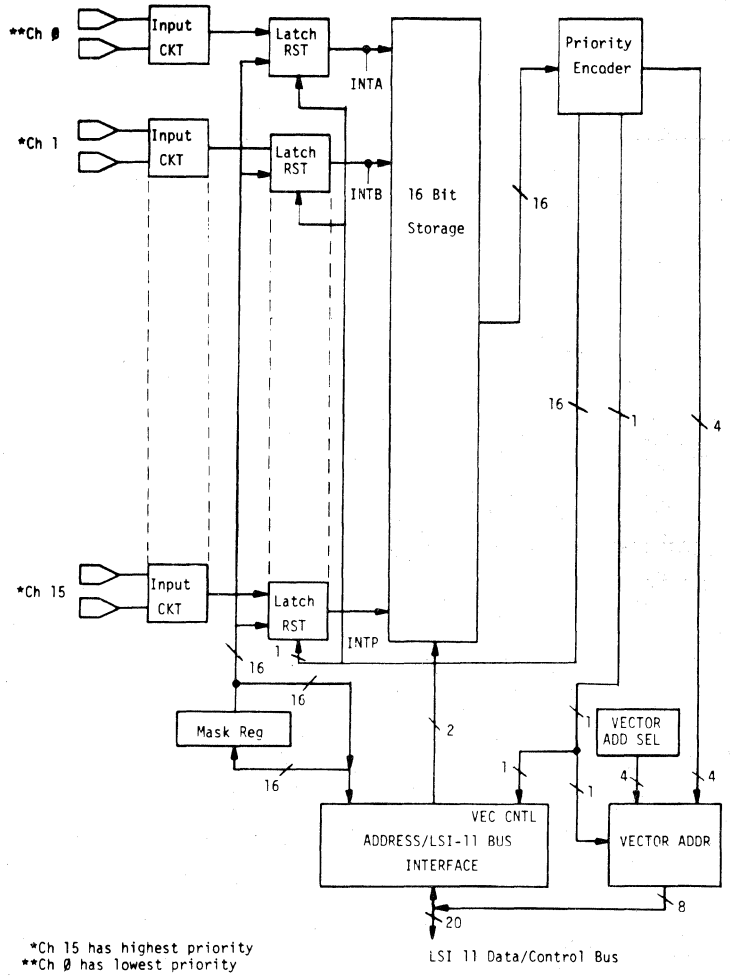


9. CIRCUIT/OUTLINE DRAWINGS

6LS001

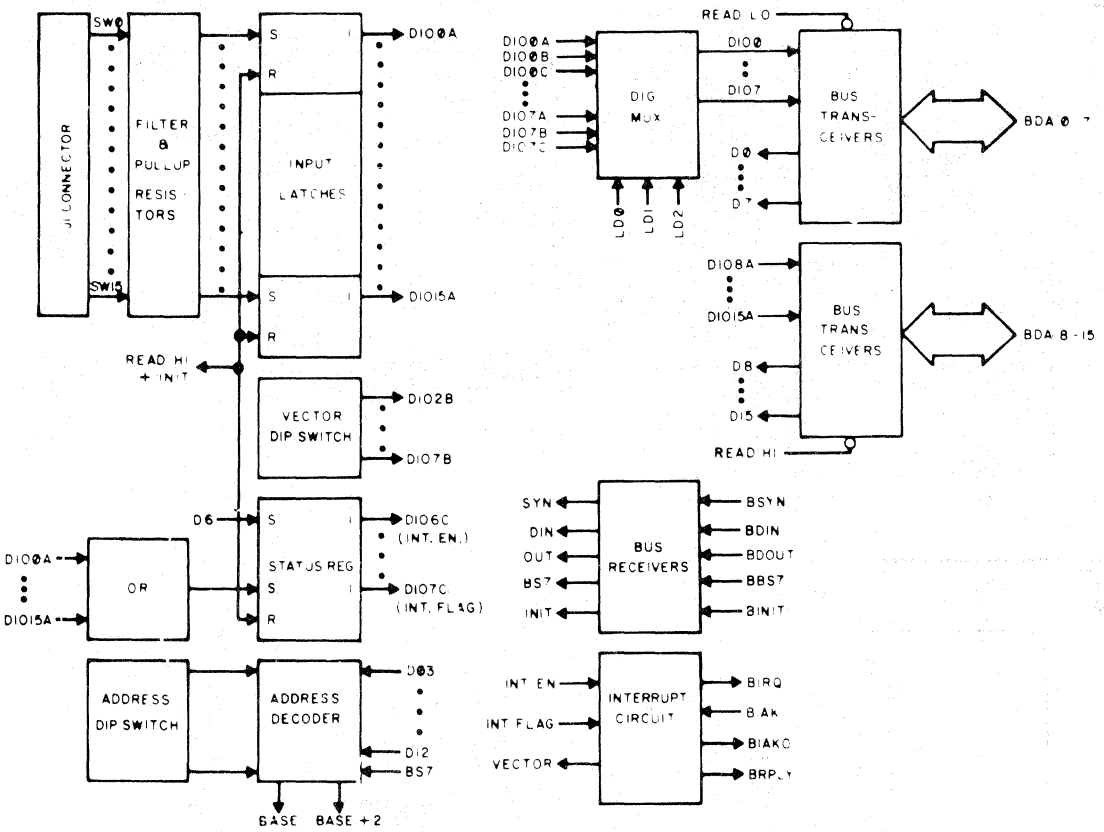


6LS002

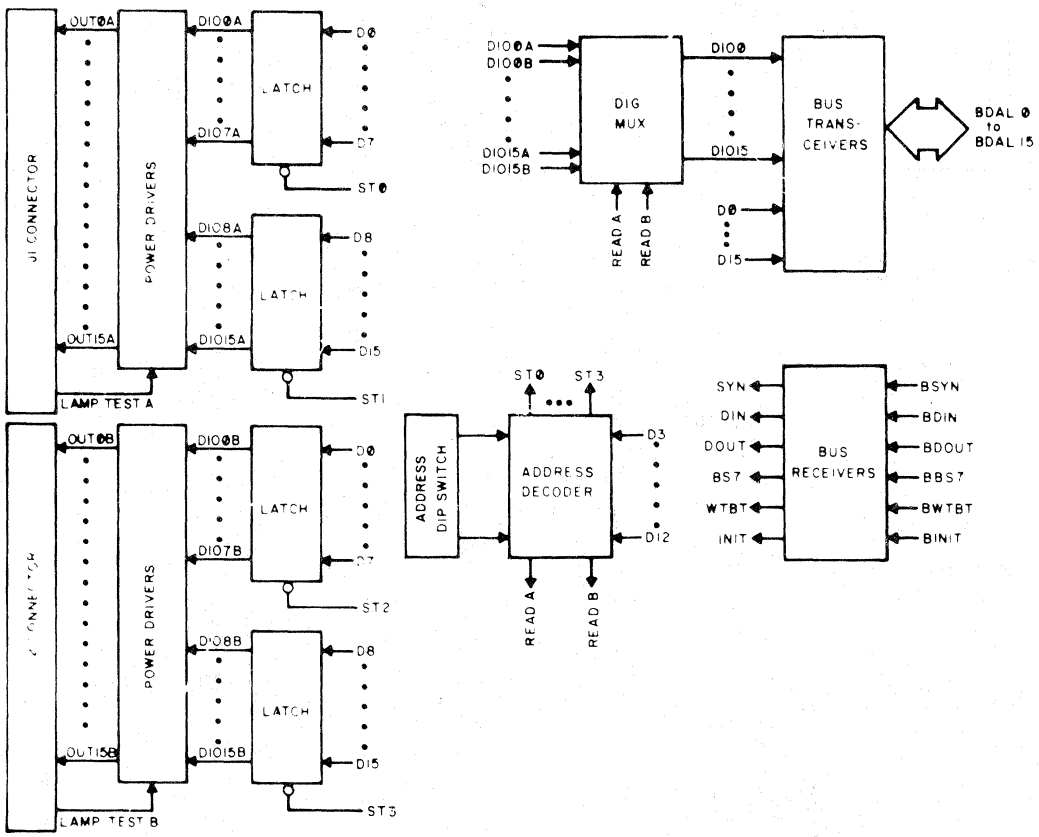


9. CIRCUIT/OUTLINE DRAWINGS

6LS003

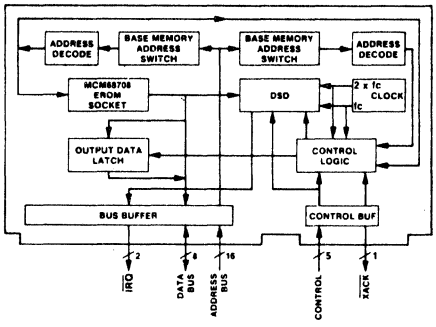


6LS004



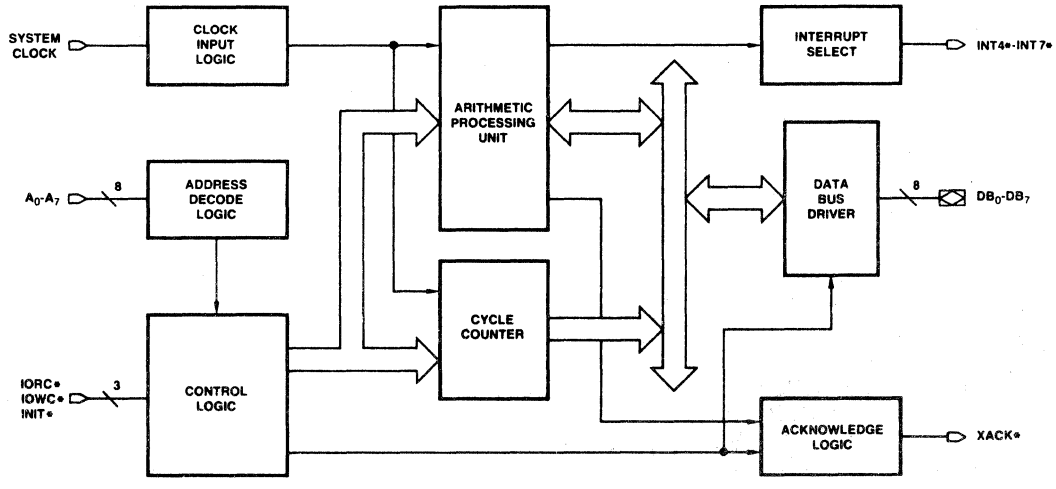
9. CIRCUIT/OUTLINE DRAWINGS

6MU001

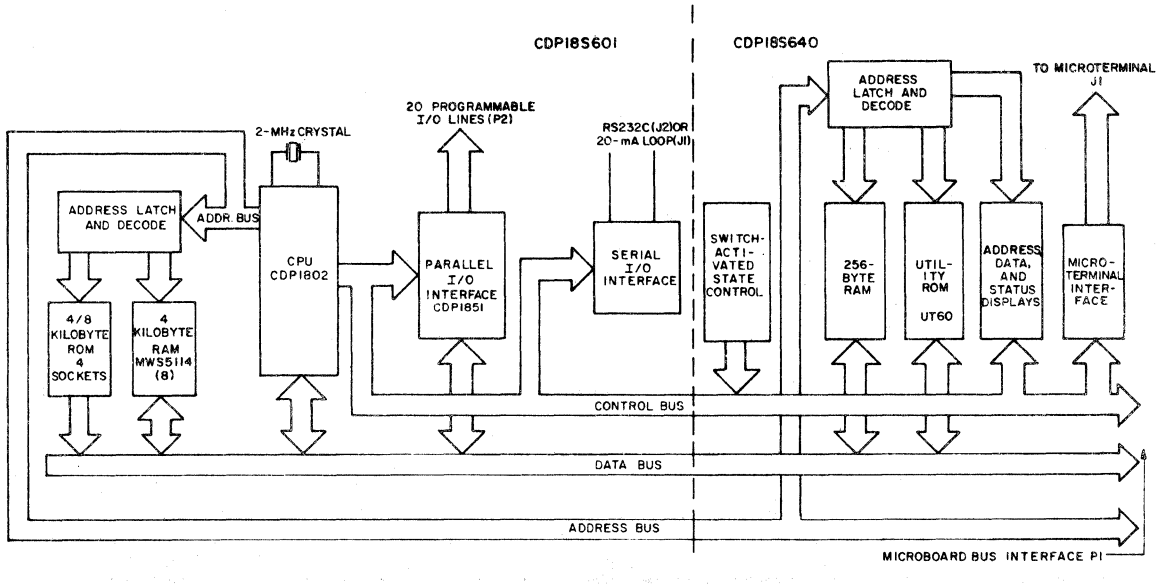


Size: W x H, 247.7mm x 144mm

6MU002

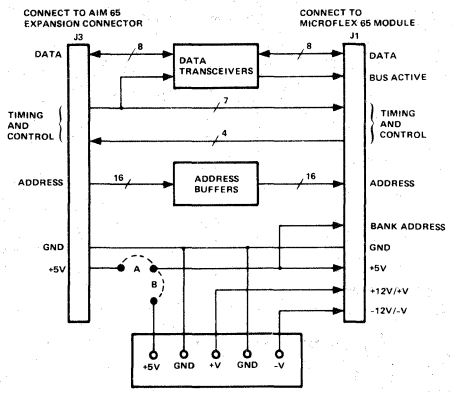


6PR001

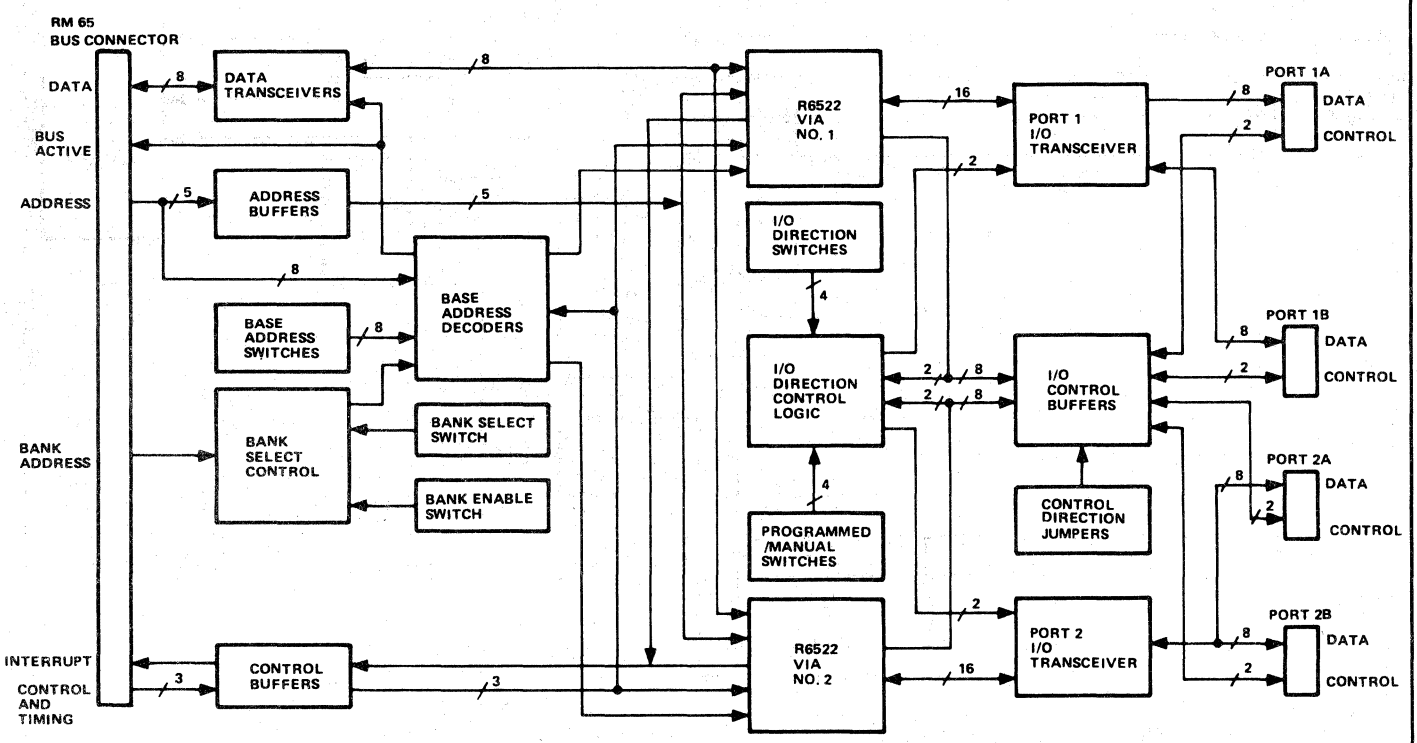


9. CIRCUIT/OUTLINE DRAWINGS

6PR002

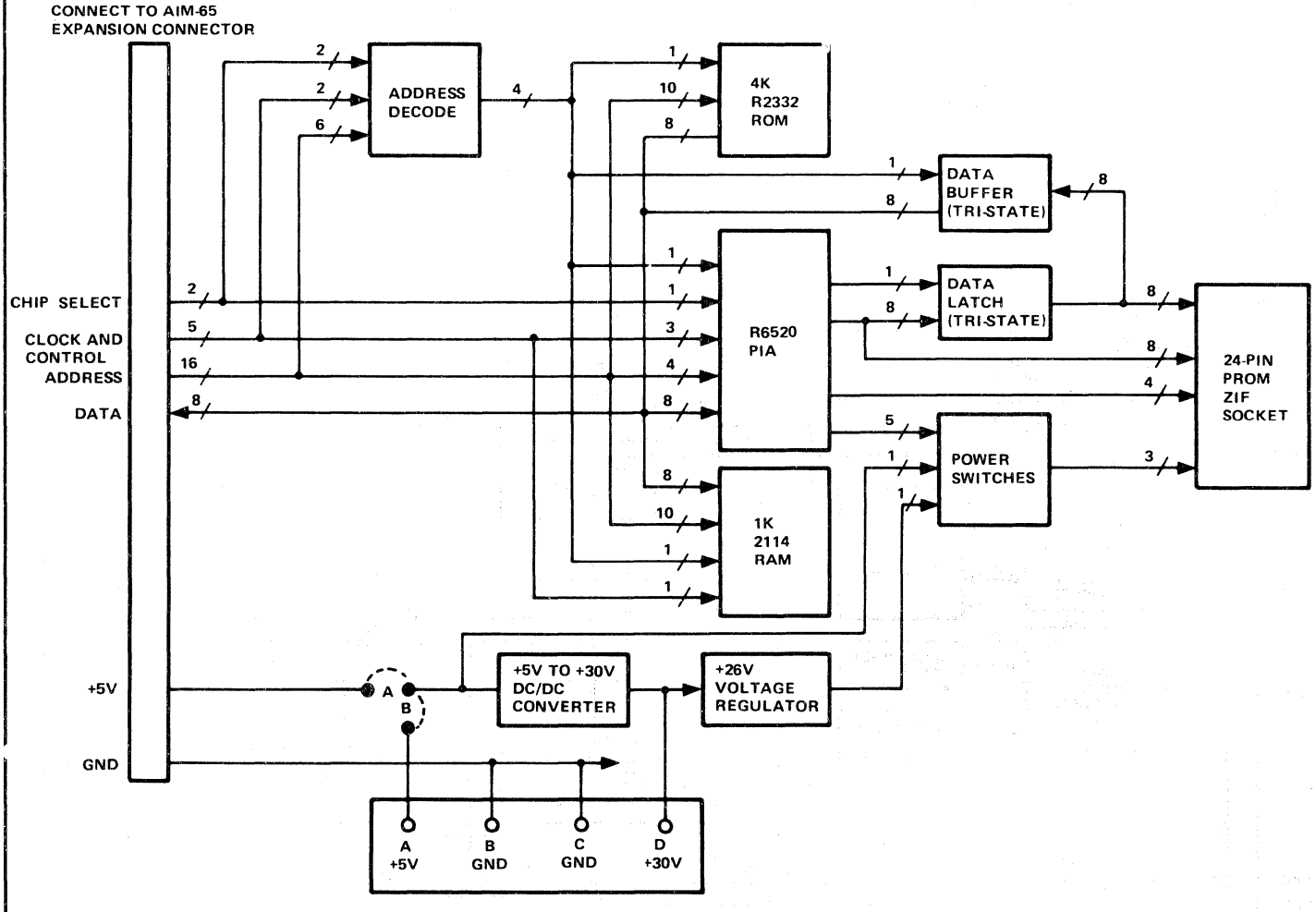


6RM001

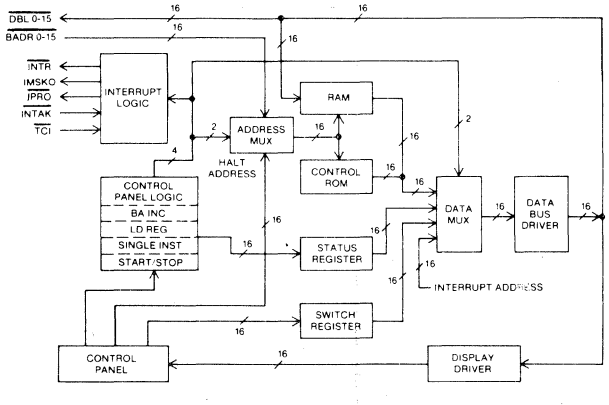


9. CIRCUIT/OUTLINE DRAWINGS

6RM002

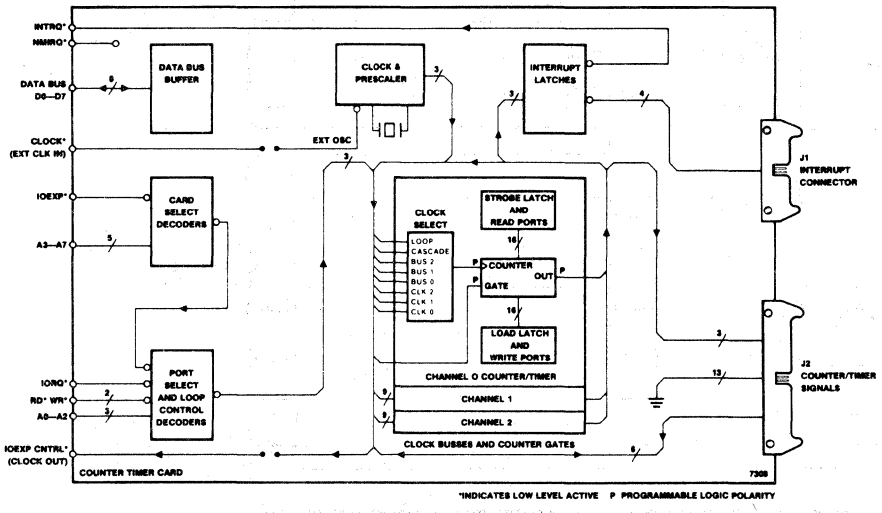


6SA001

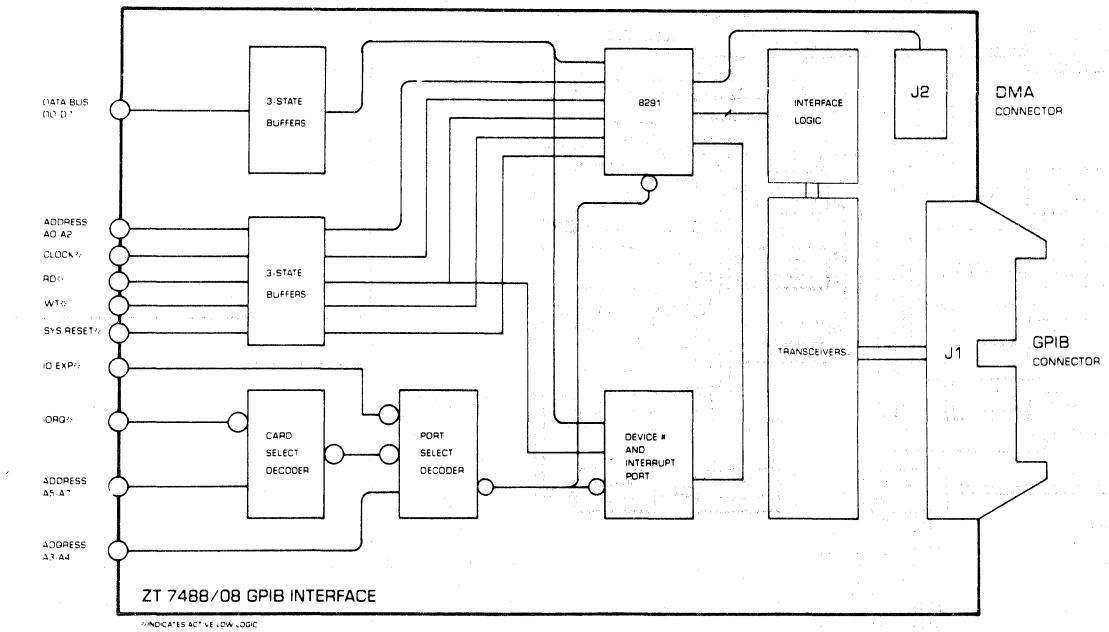


9. CIRCUIT/OUTLINE DRAWINGS

6SD001

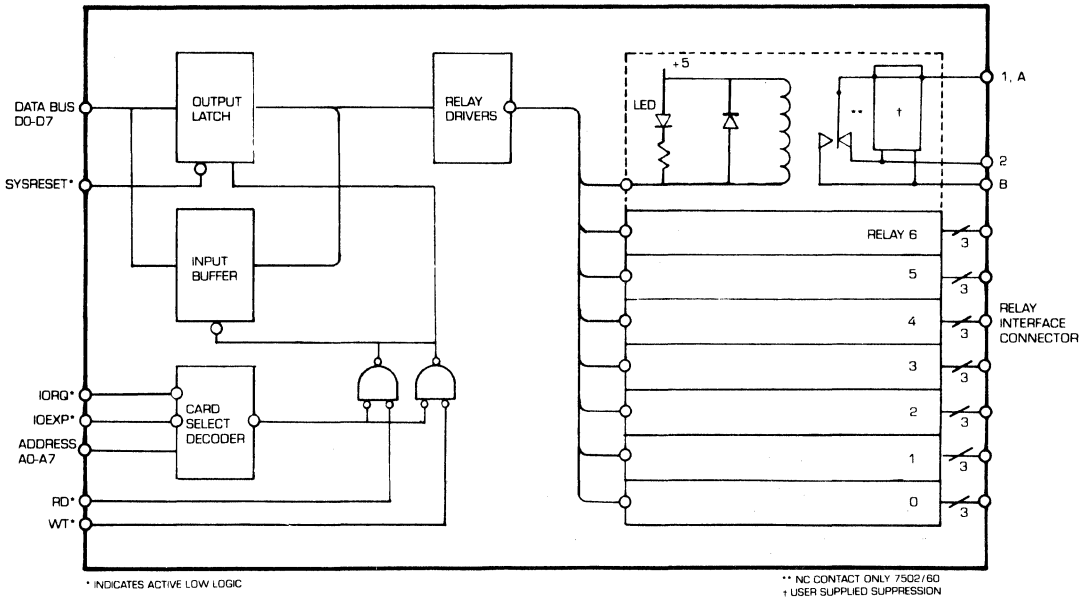


6SD002

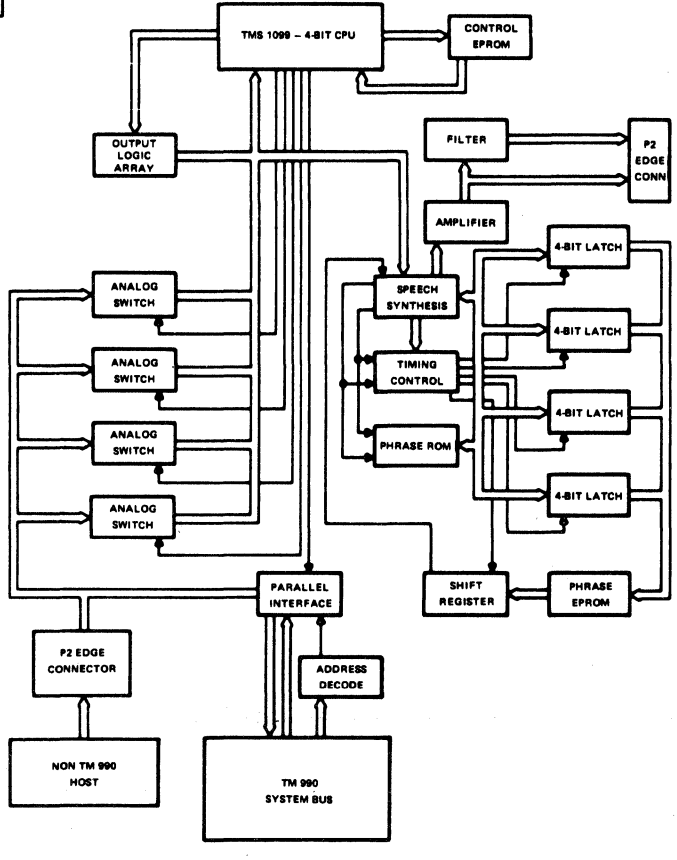


9. CIRCUIT/OUTLINE DRAWINGS

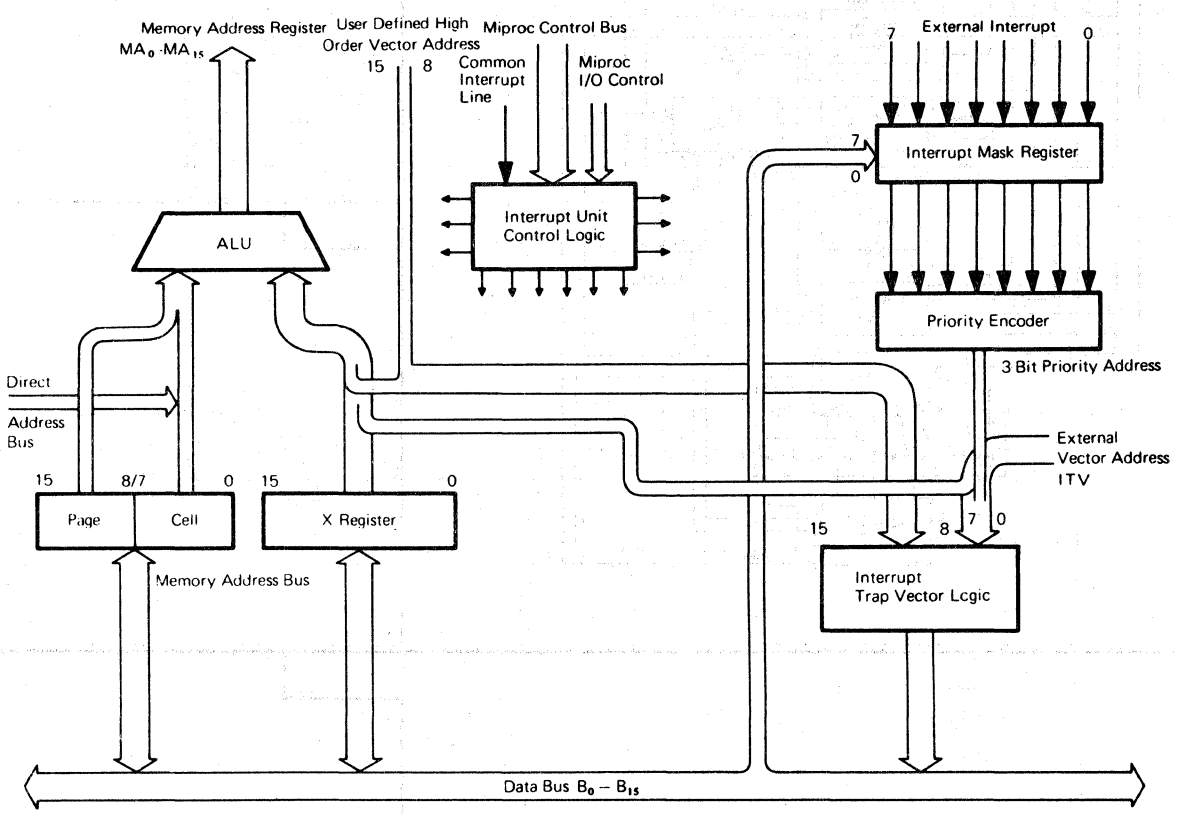
6SD003



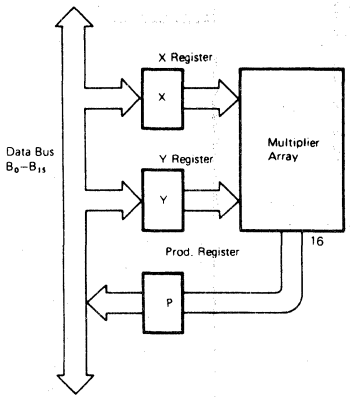
6TM001



6UB001

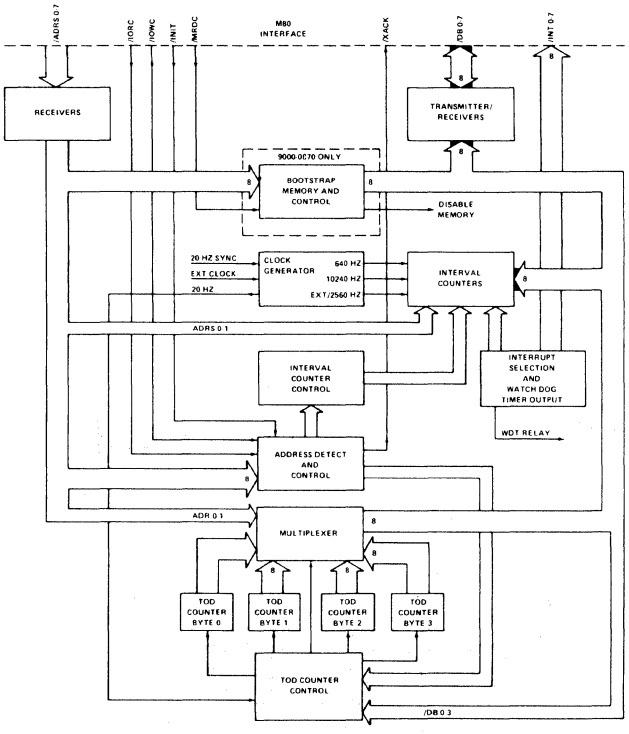


6UB002

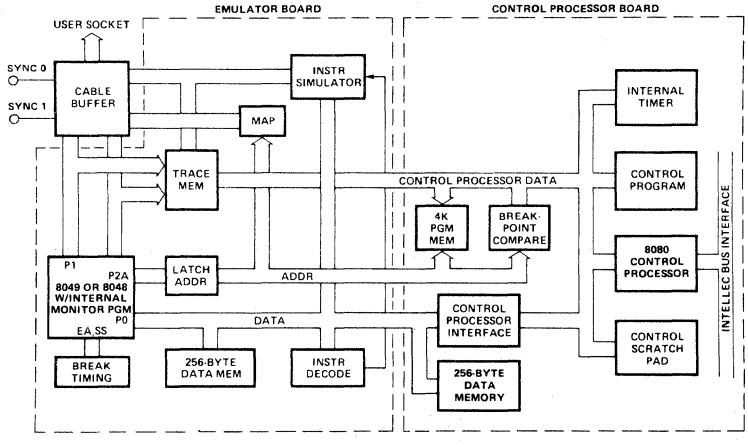


9. CIRCUIT/OUTLINE DRAWINGS

6ZZ001

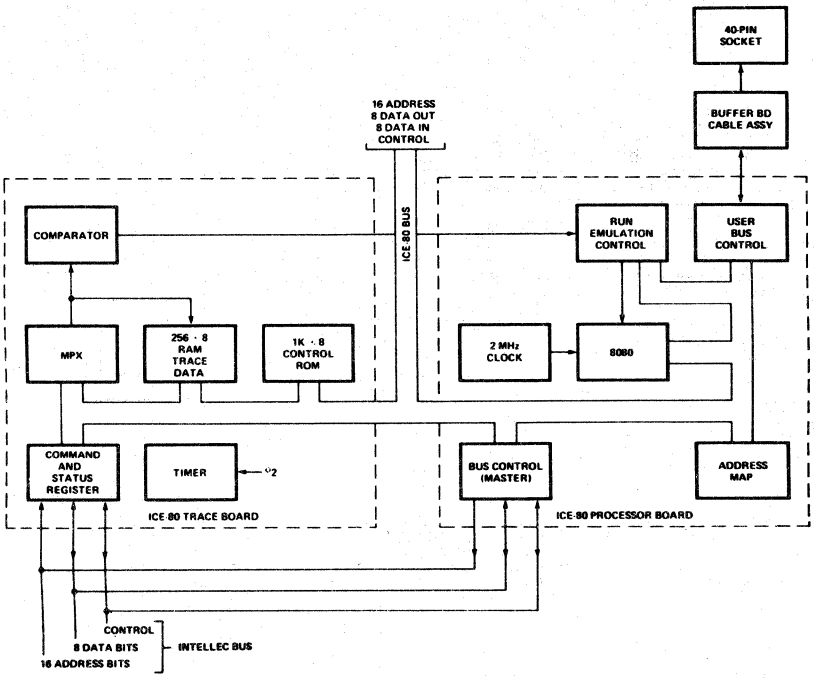


6ZZ002

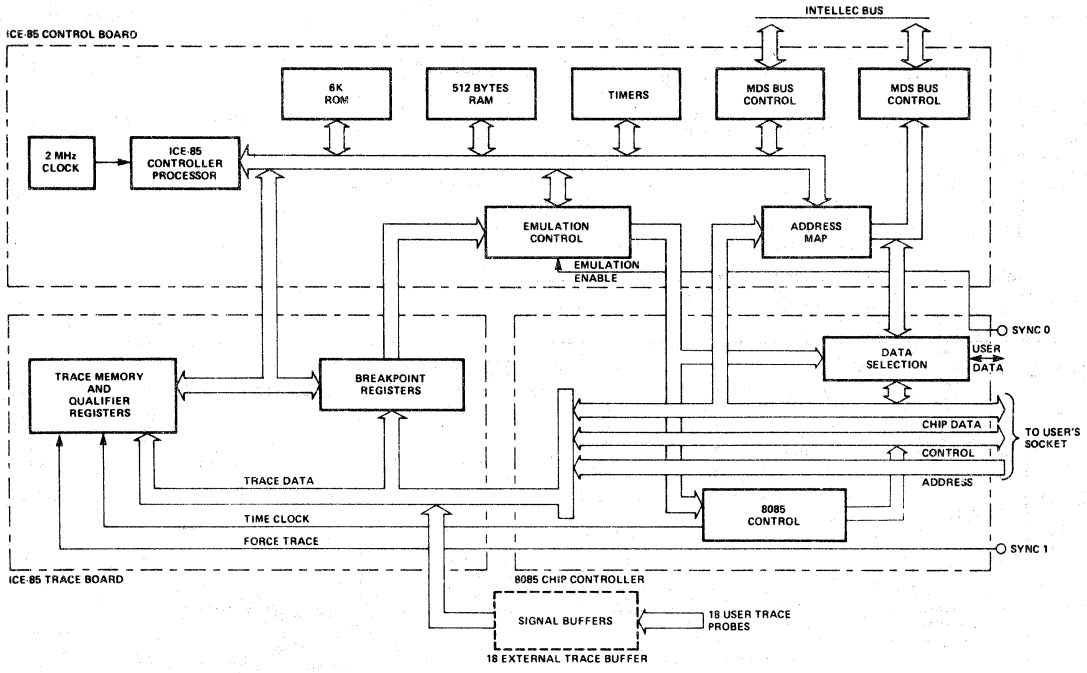


9. CIRCUIT/OUTLINE DRAWINGS

6ZZ003

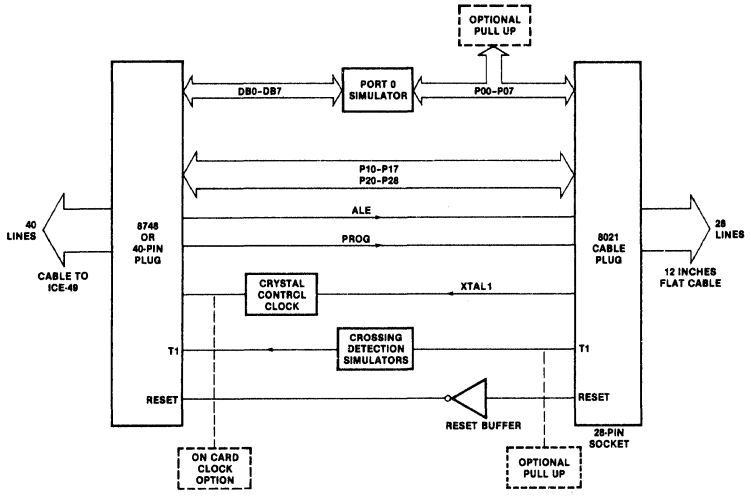


6ZZ004

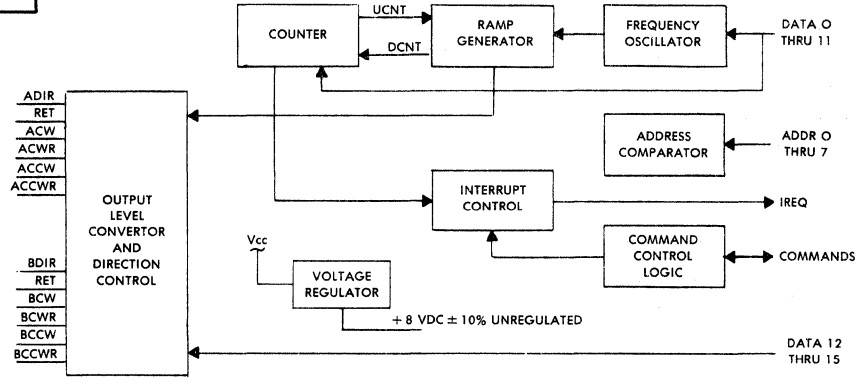


9. CIRCUIT/OUTLINE DRAWINGS

6ZZ005



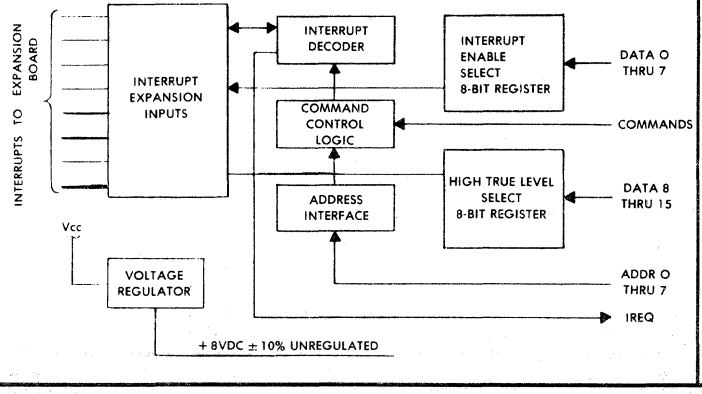
6ZZ006



Size: W X I, 126mm x 245mm

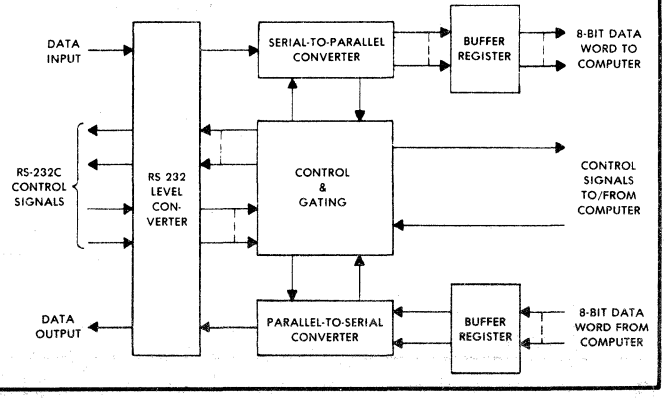
6ZZ007

Size: W x L, 126mm x 245mm



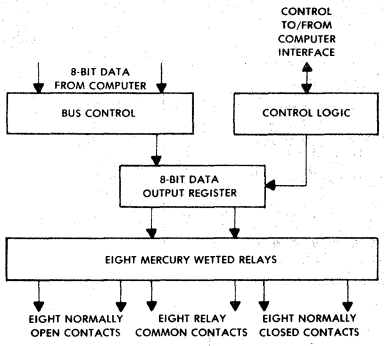
6ZZ008

Size: W x L, 126mm x 245mm



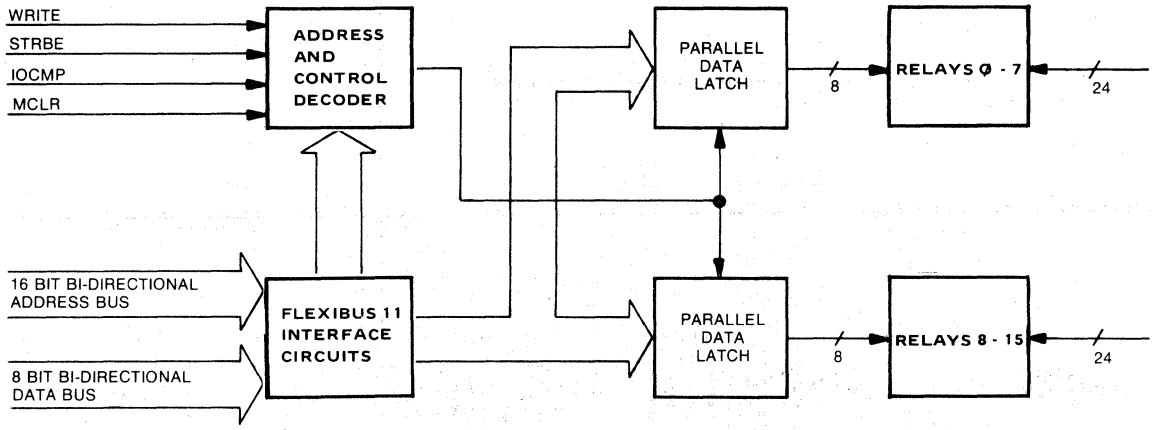
9. CIRCUIT/OUTLINE DRAWINGS

6ZZ009



Size: W x L, 126mm x 245mm

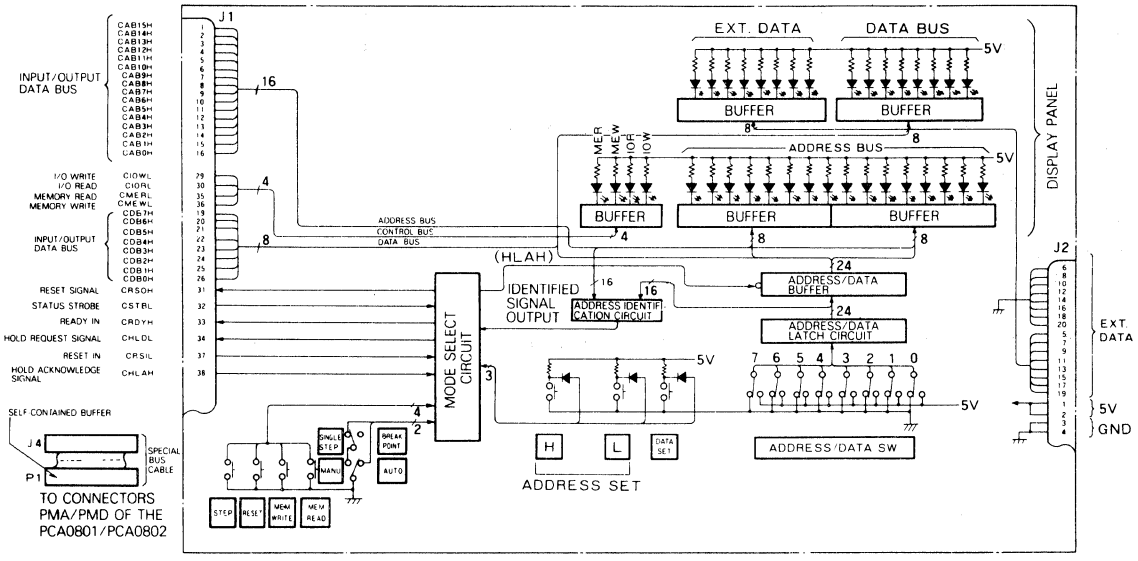
6ZZ010



Size: W x L, 215.9mm x 266.7mm

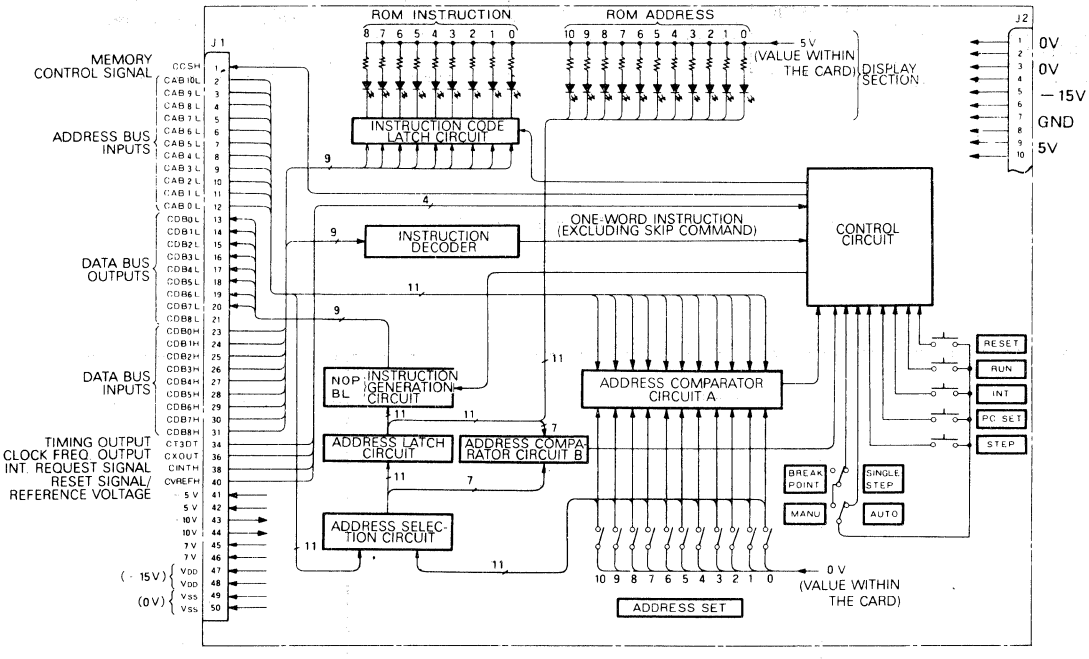
9. CIRCUIT/OUTLINE DRAWINGS

6ZZ011



DIMENSIONS: 170mm x 200mm

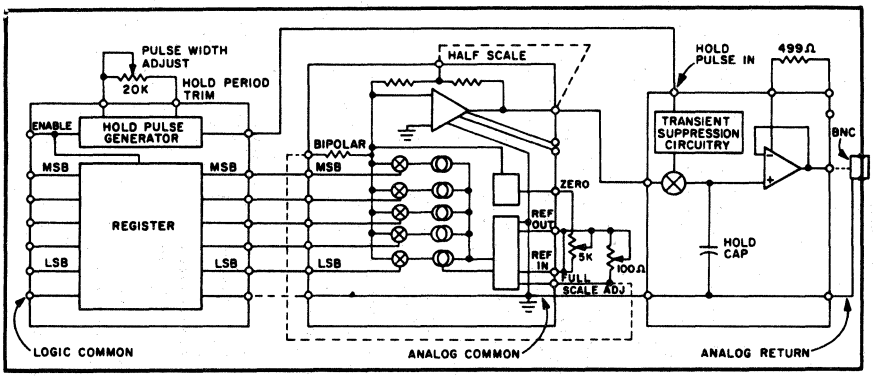
6ZZ012



DIMENSIONS: 270mm x 200mm

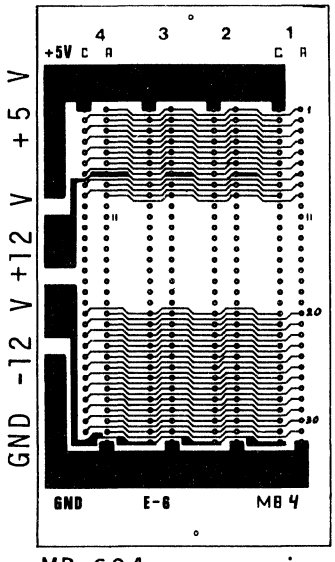
9. CIRCUIT/OUTLINE DRAWINGS

6ZZ013



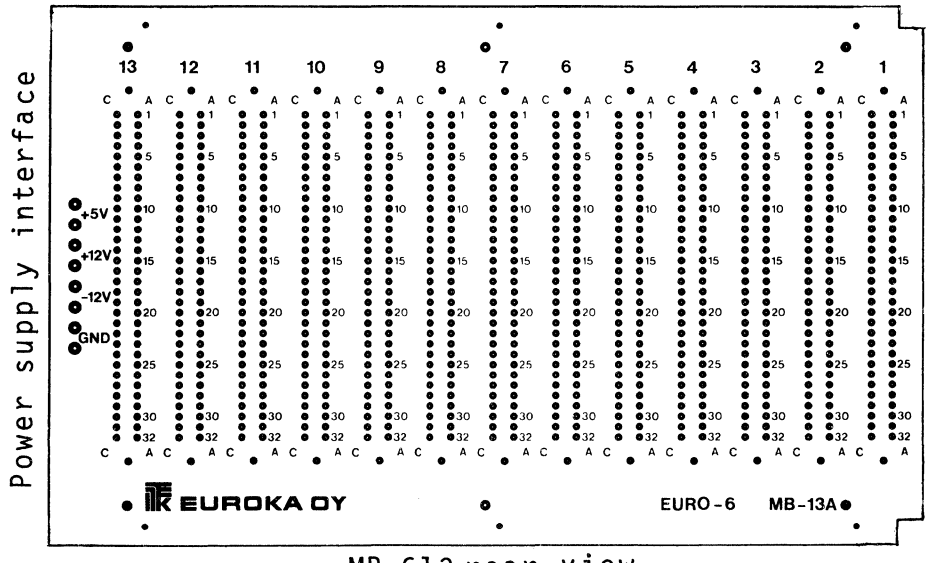
9. CIRCUIT/OUTLINE DRAWINGS

7EU001



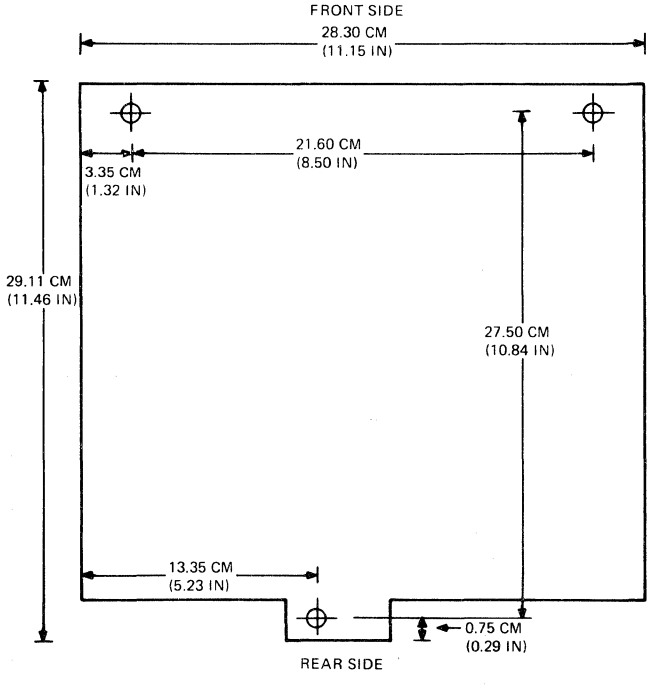
MB 604 rear view

7EU002

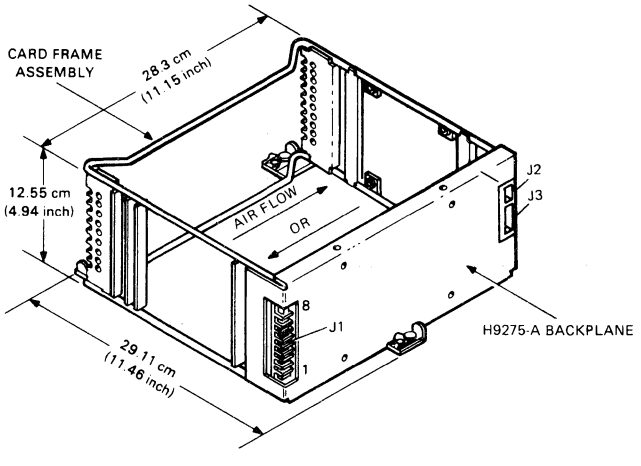


MB 613 rear view

7LS001

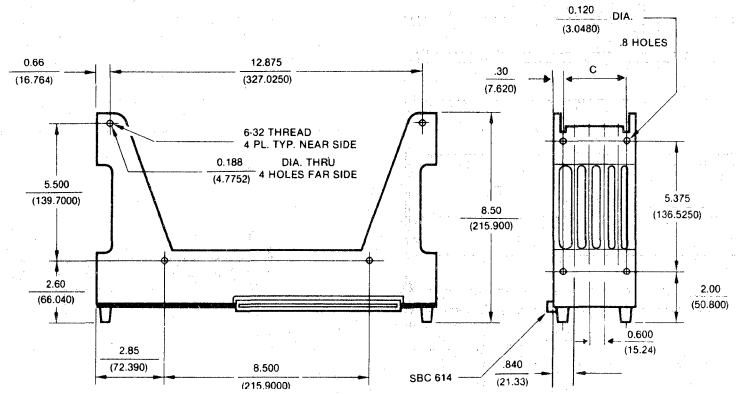


TOP VIEW



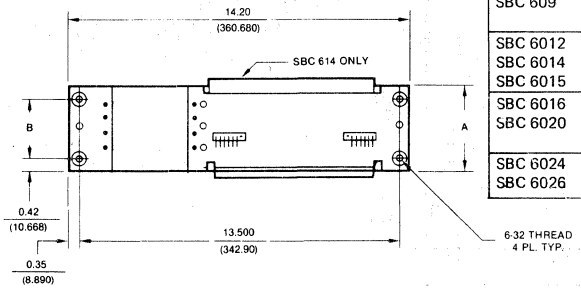
9. CIRCUIT/OUTLINE DRAWINGS

7MU001

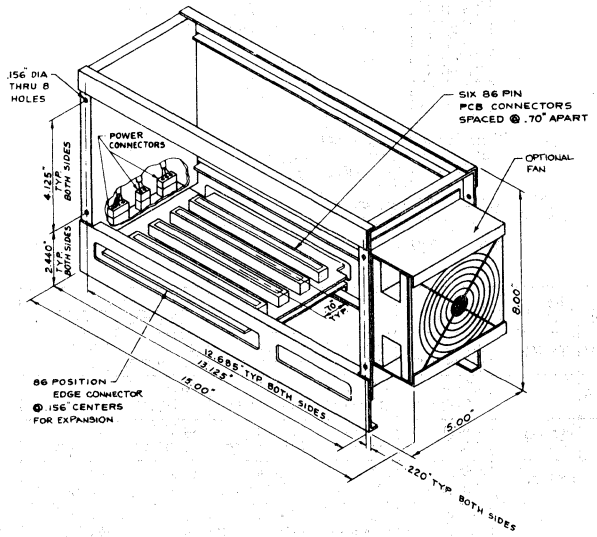


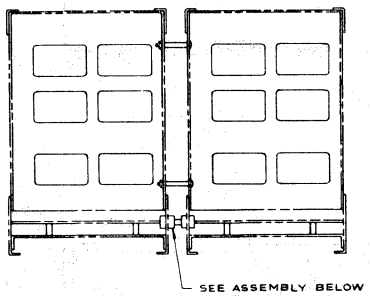
DIMENSION TABLE

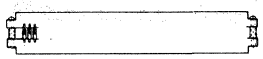
PART #	A	B	C
SBC 604 SBC 614	3.34 (8.484)	2.50 (6.35)	2.750 (6.985)
SBC 608 SBC 609	6.68 (16.967)	5.84 (14.834)	6.09 (15.469)
SBC 6012 SBC 6014 SBC 6015	10.02 (25.451)	9.18 (23.317)	9.43 (23.952)
SBC 6016 SBC 6020	13.36 (33.934	12.52 (31.800)	12.77 (32.436)
SBC 6024 SBC 6026	16.7 (42.418)	15.86 (40.284)	16.11 (40.919)



7MU002



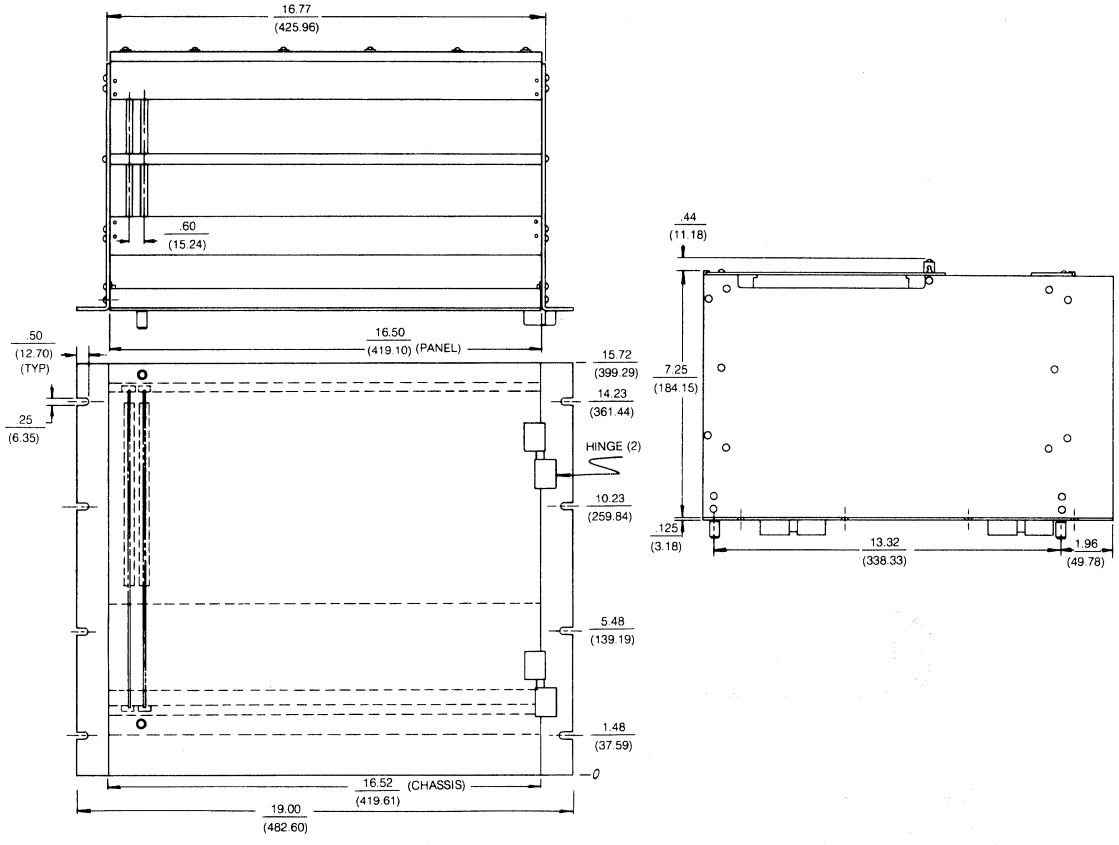




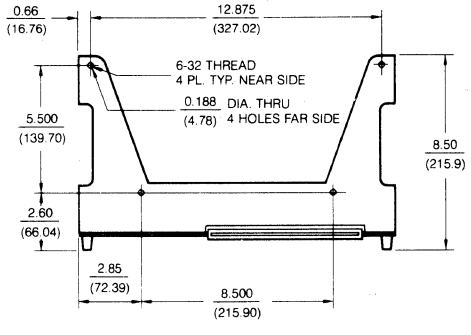
CONNECTOR ASS'Y

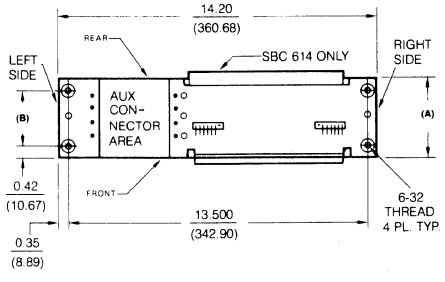
9. CIRCUIT/OUTLINE DRAWINGS

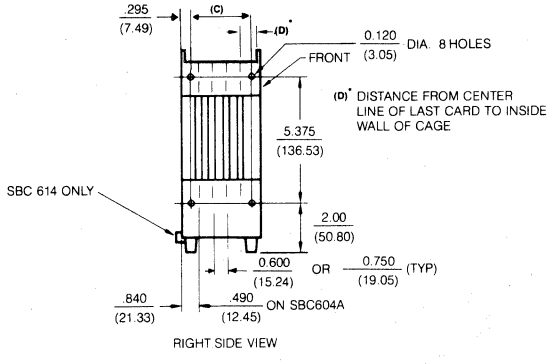
7MU003



7MU004







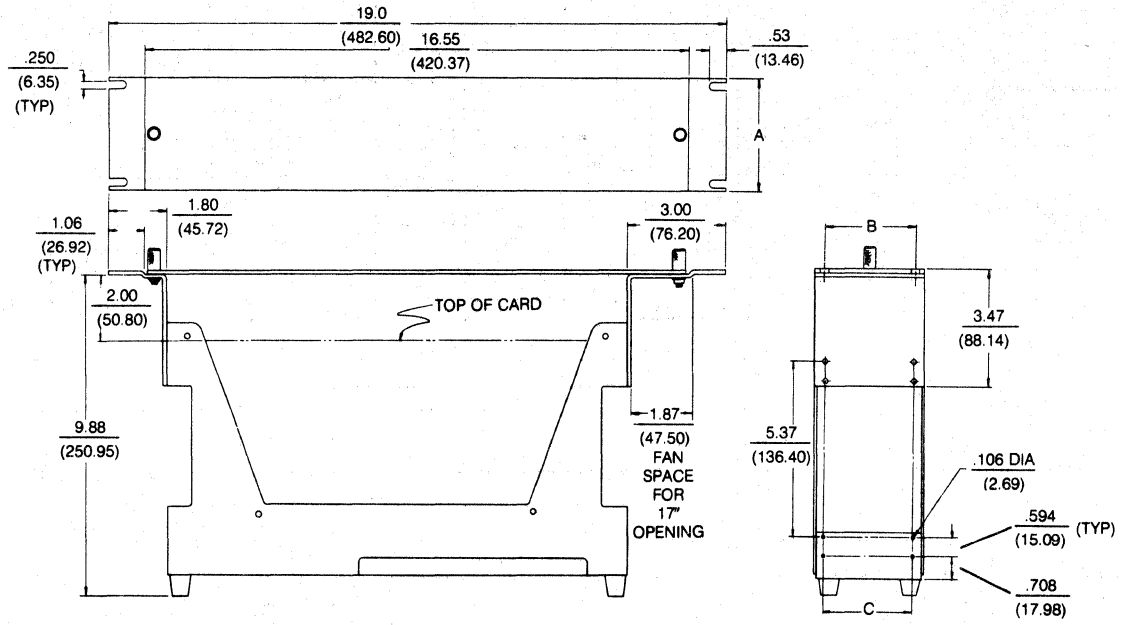
RIGHT SIDE VIEW

Part No. .6" Center	Part No. .75" Center	A	B	C	D* .6" Center	D* .75" Center
ESBC 604 ESBC 614	SBC 753	3.34 in. (84.84) mm.	2.50 in. (63.5) mm.	2.750 in. (69.85) mm.	.61 in. (15.49) mm.	.91 in. (23.11) mm.
*SBC 604A	——	3.34 in. (84.84) mm.	2.50 in. (63.5) mm.	2.750 in. (69.85) mm.	.96 in. (24.38) mm.	——
SBC 605	SBC 754	3.94 in. (100.08) mm.	3.1 in. (78.74) mm.	3.35 in. (85.09) mm.	.61 in. (15.49) mm.	.76 in. (19.3) mm.
SBC 606	SBC 755	4.54 in. (115.32) mm.	3.7 in. (93.98) mm.	3.95 in. (100.33) mm.	.61 in. (15.49) mm.	.61 in. (15.49) mm.
SBC 608 SBC 609	SBC 757	6.68 in. (169.67) mm.	5.84 in. (148.34) mm.	6.09 in. (154.69) mm.	.95 in. (24.13) mm.	1.25 in. (31.75) mm.
SBC 6012 SBC 6014 SBC 6015	SBC 7512	10.02 in. (254.51) mm.	9.18 in. (233.17) mm.	9.43 in. (239.52) mm.	.69 in. (17.53) mm.	.84 in. (21.34) mm.
SBC 6016 SBC 6020	SBC 7516	13.36 in. (339.34) mm.	12.52 in. (318.00) mm.	12.77 in. (324.36) mm.	1.03 in. (26.16) mm.	1.18 in. (29.97) mm.
SBC 6024 SBC 6026	SBC 7521	16.7 in. (424.18) mm.	15.86 in. (402.84) mm.	16.11 in. (409.19) mm.	.77 in. (19.56) mm.	.77 in. (19.56) mm.

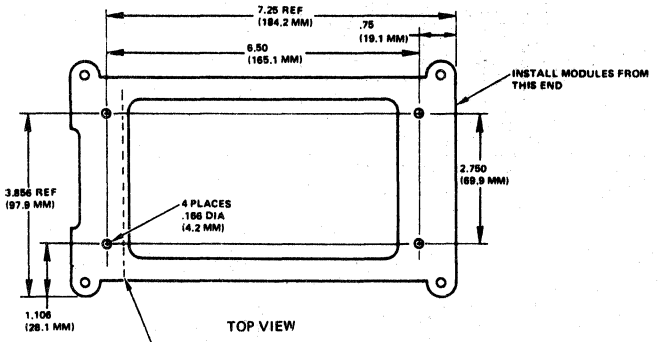
*This Dimension indicates clearance from the inside wall of the cage to the first card center.

9. CIRCUIT/OUTLINE DRAWINGS

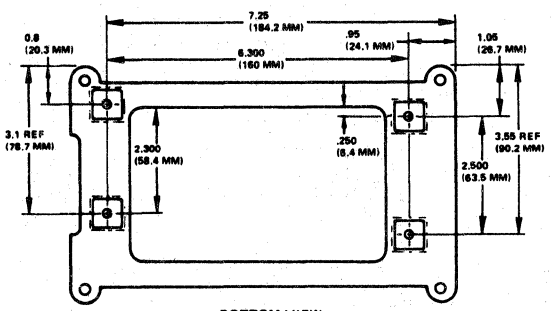
7MU005



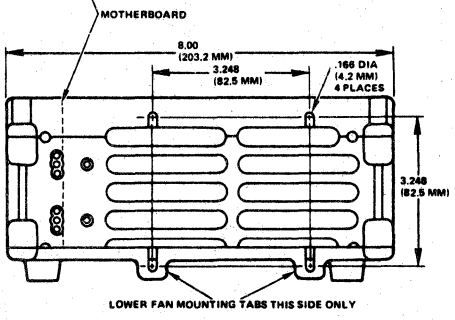
7PR001



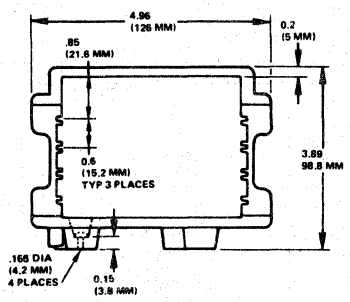
TOP VIEW



BOTTOM VIEW



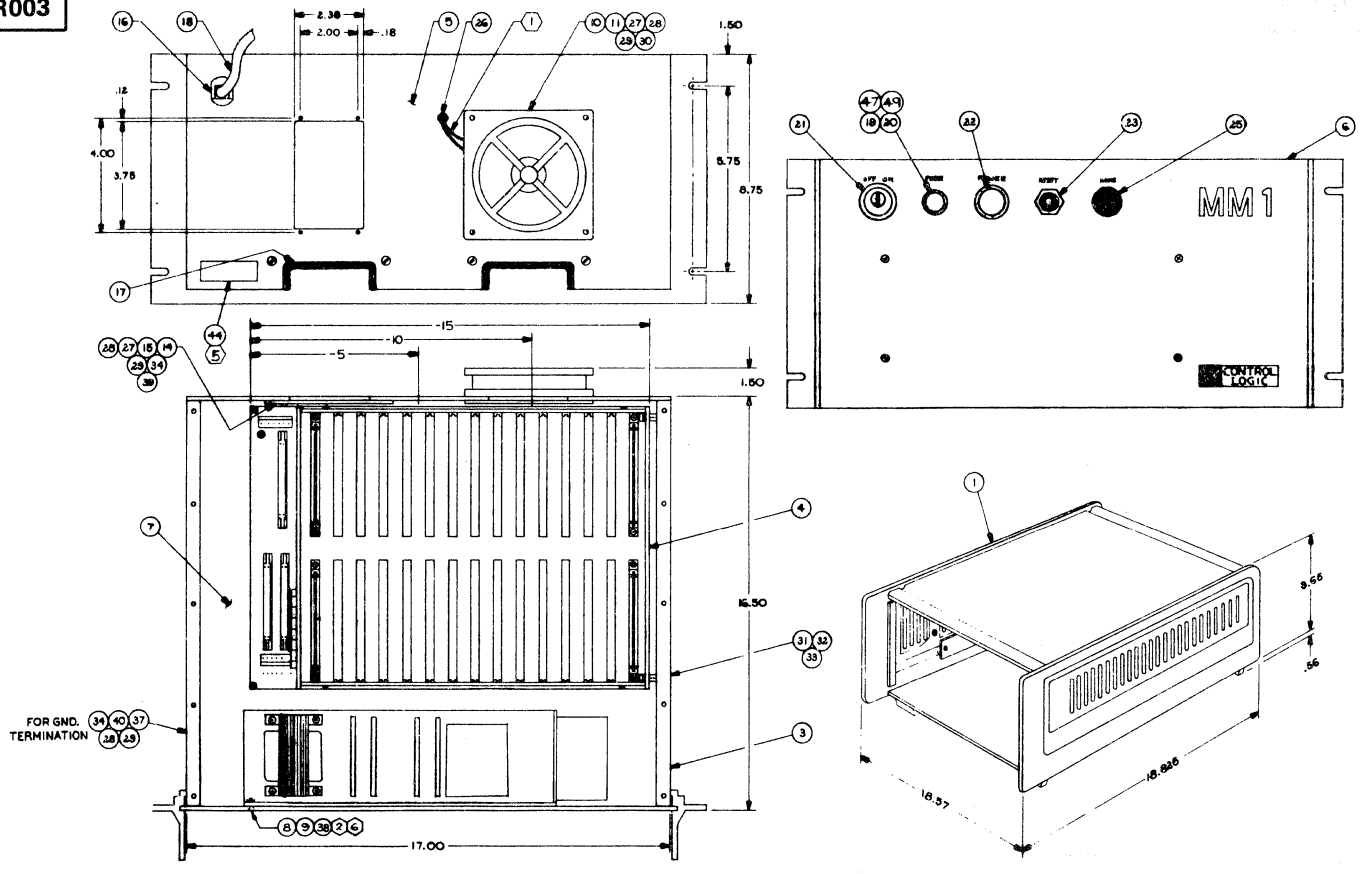
LEFT SIDE VIEW



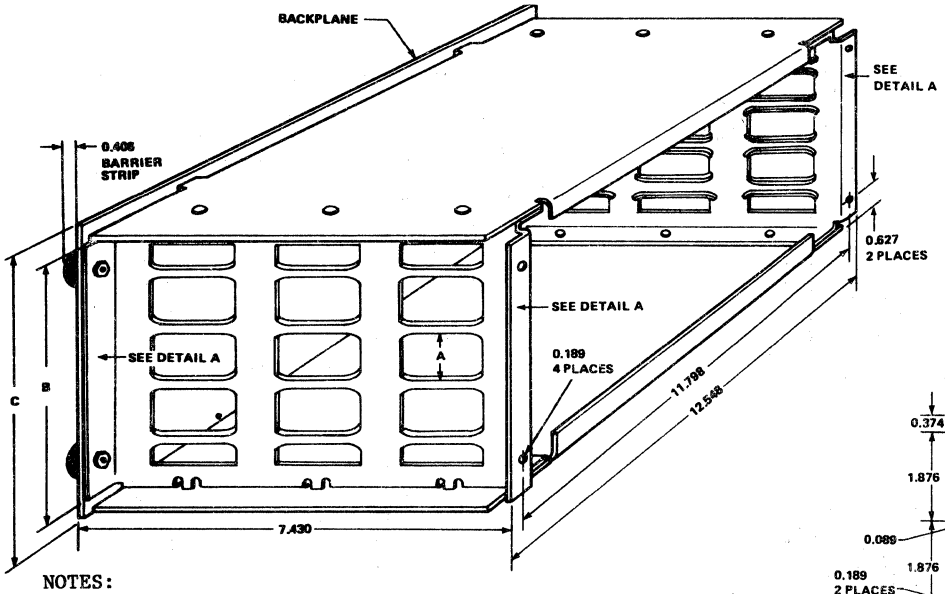
END VIEW

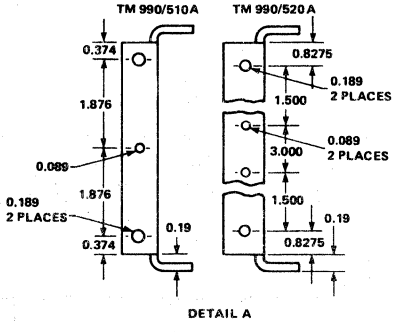
9. CIRCUIT/OUTLINE DRAWINGS

7PR003



7TM001





NOTES:
1. DIMENSIONS IN INCHES
2. ALL DIMENSIONS±0.010.
3. TM 990/510A CHASSIS SHOWN, SEE DETAIL A AND TABLE FOR DIFFERING DIMENSIONS BETWEEN /510A AND /520A

	/510A	/520A	/530
A	1	0.75	0.75
B	4.5	7.745	16.625
C	5.006	8.250	17.000

FIGURE 5-1. CARD CAGE DIMENSIONS FOR MODULES TM 990/510A, TM 990/520A, AND TM 990/530 (MODEL TM 990/510A ILLUSTRATED)

SECTION 10
MANUFACTURERS' SALES OFFICES

MICROCOMPUTER SYSTEMS 2

MANUFACTURERS' SALES OFFICES

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

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

ESI — ELECTRONIC SOLUTIONS, INC.

Electronic Solutions, Inc.
5780 Chesapeake Ct., San Diego, CA 92123

	Zip Code	Telephone No.
5780 Chesapeake Ct., San Diego, CA	**92123**	**714-292-0242** **800-854-1584**

FSC — FAIRCHILD CAMERA & INSTRUMENT CORPORATION

FAIRCHILD
A Schlumberger Company

	Zip Code	Telephone No.	TWX/Telex
SEMICONDUCTOR PRODUCTS GROUP 464 Ellis Street, Mountain View, California	**94042**	**415-962-5011**	**910-379-6435** **Cable** **FAIRSEMCO**

ITTG — ITT SEMICONDUCTORS

ITT Semiconductors

			Zip Code	Telephone No.	TWX/Telex
INTERMETALL, Post Office Box 840, Freiburg, West Germany			**D-7800**	**761-5171**	**(07)72716**
JAPAN	**Tokyo**	ITT Semiconductors Post Office Box 21 Shinjuku-ku	**160-91**	**3478881-5**	**22858**
UNITED KINGDOM	**Sidcup (Kent)**	ITT Semiconductors H Maidstone Rd.	**DA14 5HT**	**1-300 3333**	**21836**
UNITED STATES	**Lawrence (Massachusetts)**	ITT Semiconductors 500 Broadway	**01841**	**617-688-1881**	**710-342-1357**
	Dallas (Texas)	ITT Semiconductors 2995 LBJ Freeway Suite 130	**75234**	**214-243-7851**	

NECM — NEC MICROCOMPUTERS, INC.

NEC microcomputers, inc.

	Zip Code	Telephone No.	TWX/Telex
173 Worcester St., Wellesley, Massachusetts	**02181**	**617-237-1920**	**710-383-1745** **923434**

SECTION 10
MANUFACTURERS' SALES OFFICES

SMC — STANDARD MICROSYSTEMS CORPORATION

	Zip Code	Telephone No.
35 Marcus Boulevard, Hauppage, New York	**11787**	**516-273-3100**

SYK — SYNERTEK, INC.

	Zip Code	Telephone No.
3001 Stender Way, Santa Clara, California	**95051**	**408-988-5600**

11. MANUFACTURERS' LOGOS

AMD — Advanced Micro Devices, Inc.

ANA — Analog Devices Inc.

BUB — Burr-Brown Research Corp.

CAC — Compas Microsystems

CES — Computer Extension Systems, Inc.

CLI — Control Logic Inc.

CRO — Cromemco Inc.

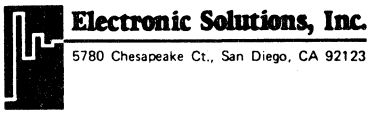
DEC — Digital Equipment Corp.

DIV — Diversified Technology

DSI — Detection Sciences Inc.

DTI — Data Translation Inc.

DTL — Datel-Intersil Inc.



ESI — Electronic Solutions Inc.

EURF — Euroka Oy

FSC — Fairchild Camera & Instrument Corp.

GEN — General Automation

GICB — General Instrument Corp.

HACC — Hughes Aircraft Co.

11. MANUFACTURERS' LOGOS

HBC – Hybrid Systems Corp.

HITJ – Hitachi, Ltd.

HPA – Hewlett Packard

INL – Intersil Inc.

ITI – Intech Inc.

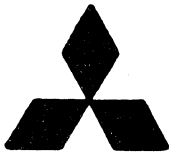
ITL – Intel Corporation

MATC – Matrox Electronic Systems

MDB – MDB Systems, Inc.

MEG – Megalogic Corp.

MIM – Micro Memory Inc.



MITJ – Mitsubishi Elect. Corp.

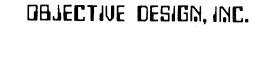
MOS – Mostek Corp.

MOTA – Motorola Semiconductor Products Inc.

MSCC – Monolithic Systems Corp.

NECM – NEC Microcomputers, Inc.

NSC – National Semiconductor Corp.



OBJ – Objective Design, Inc.

OHS – Ohio Scientific, Inc.

11. MANUFACTURERS' LOGOS

PCS — Process Computer Systems, Inc.

PLM — Plessey Microsystems

PRO — Pro-Log Corporation

QUY — Quay Corporation

RCA — RCA Corporation

RCI — RCI/DATA

RKW — Rockwell Int'l Corp.

SGAI — SGS-ATES Componenti Elet.

SIEG — Siemens Aktiengesellschaft

SSM — SSM Microcomputer Prods.

SYK — Synertek Systems Corp.

TII — Texas Instruments Inc.

TLI — TL Industries, Inc.

VGI — Vector Graphic Inc.

WDC — Western Digital Corp.

WTK — Wintek Corp.

ZIA — ZIA Tech. Corporation.

ZIL — Zilog Microcomputers

12. MANUFACTURERS' CODES, NAMES & ADDRESSES

MANUFACTURERS' CODES, NAMES, AND ADDRESSES

QPL MFR. DESIG.	FSCM/ NATO No.	D.A.T.A. MFRS.' CODE	
		ADA	ADAC Corporation, 70 Tower Office Park, Woburn, MA 01801
		ADP	Adaptive Science Corp., 4700 San Pablo Ave., Emeryville, CA 94608
		ADS	Andromeda Systems, 9000 Eton Ave., Canoga Park, CA 91304
CDWN	34335	**AMD**	Advanced Micro Devices, Inc., 901 Thompson Pl., Sunnyvale, CA 94086
	24355	**ANA**	★ Analog Devices, Inc., P.O. Box 280, Norwood, MA 02062
		AUC	Advanced Micro Computers, 901 Thompson Pl., Sunnyvale, CA 94086
		BAPC	★ Baradine Products Ltd., P.O. Box 86757, North Vancouver, BC, V7L 4L3
	12913	**BUB**	Burr-Brown Research Corp., P.O. Box 11400, Tucson, AZ 85734
		CAC	Compas Microsystems (Div. of C.A.C.), P.O. Box 687, Ames, IA 50010
		CDC	★ Central Data Corp., P.O. Box 2530, Sta. A., Champaign, IL 61820
		CES	Computer Extension Systems, Inc., 17511 El Camino Real, Houston, TX 77058
		CII	Chrislin Industries Inc., Comp. Prod. Div., 31352 Via Colinas No. 102 Westlake Village, CA 91361
	14931	**CLI**	★ Control Logic Inc., Nine Tech. Circle, Natick, MA 01760
		CMC	Comark Corporation, 257 Crescent St., Waltham, MA 02154
		CRO	Cromemco Inc., 280 Bernardo Ave., Mountain View, CA 94043
	15476	**DEC**	Digital Equipment Corp., One Iron Way, Marlborough, MA 01752
		DGC	Data General Corp., Rt. #9, Southboro, MA 01772
		DIF	Digital Interface Systems, Inc., P.O. Box 1446, 307 Colfax Ave., Benton Harbor, MI 49022
		DIV	Diversified Technology, P.O. Box 465, 112 E. State St., Ridgeland, MA 39157
		DMC	★ Dynamic Measurements Corp., 8 Lowell Ave., Winchester, MA 01890
		DPW	Digital Pathways, Inc., 1260 L'Avenida, Mountain View, CA 94043
		DRC	Dataram Corporation, Princeton Rd., Cranbury, NJ 08512
		DSI	Detection Sciences Inc., Digital Sys. Div., 14050 21st Ave. North, Minneapolis, MN 55441
		DTI	Data Translation Inc., 100 Locke Dr., Marlborough, MA 01752
	50721	**DTL**	★ Data-Intersil Inc., 11 Cabot Blvd., Mansfield Industrial Park, Mansfield, MA 02048
		DTR	★ Datricon Corp., 7911 N.E. 33rd Dr., Ste 200, Portland, OR 97211
		EFCF	E.F.C.I.S., B.P. 217, 38019 Grenoble Cedex France
		ESI	* Electronic Solutions Inc., 5780 Chesapeake Ct., San Diego, CA
		EURF	Euroka Oy, Veneentekijantie 18, 00210 Helsinki 21, Finland
CFJ	25667	**FSC**	* Fairchild Camera & Instrument Corp., 464 Ellis St., M/S 14-1034, Mountain View, CA 94042
	32453	**GEN**	General Automation, 1055 South East St., Anaheim, CA 92805
		GICB	General Instrument Corp., Microelect Ltd., Regency House, 1-4 Warwick St., London W1, England
		HACC	Hughes Aircraft Co., Strategic Syst. Div., Mail Station 150/A213, Culver City, CA 90230
		HBC	Hybrid Systems Corp., 22 Linell Circle, Suburban Ind. Park, Billerica, MA 01821
	S4361	**HITJ**	★ Hitachi, Ltd., Semicon & IC Div., Nippon Bldg. 6-2, 2-Chome, Ohtemachi, Chiyoda-Ku, Tokyo 100, Japan
	28280	**HPA**	★ Hewlett-Packard, 640 Page Mill Rd., Palo Alto, CA 94304
	32293	**INL**	Intersil Inc., 10710 North Tantau Ave., M/S 38, Cupertino, CA 95014
		ITI	★ Intech Inc., 2270 Martin Ave., Santa Clara, CA 95050

★ **New Manufacturer**

12. MANUFACTURERS' CODES, NAMES & ADDRESSES

MANUFACTURERS' CODES, NAMES, AND ADDRESSES

QPL MFR. DESIG.	FSCM/ NATO No.	D.A.T.A. MFRS.' CODE		
	34649	**ITL**		Intel Corporation, 3065 Bowers Ave., MS-4-903, Santa Clara, CA 95051
		MATC		Matrox Electronic Systems, 5800 Andover Ave., T.M.R., Montreal P.Q. H4T 1H4, Quebec, Canada
		MDB		MDB Systems, Inc., 1995 No. Batavia St., Orange, CA 92665
		MEG		Megalogic Corp., 9659 National Rd., Brookville, OH 45309
		MIM		Micro Memory Inc., 9434 Irondale Ave., Chatsworth, CA 91311
		MITJ		Mitsubishi Elect. Corp., Kita-Itami Works, 4-1 Mizuhara, 1t. Ami-Shi, Hyogo-Ken Post Code 664, Japan
	50088	**MOS**		Mostek Corp., 1215 W. Crosby Rd., Carrolton, TX 75006
	04713	**MOTA**		Motorola Semiconductor Products, Inc., 725 So. Madison St., Tempe, AZ 85281
	51513	**MSCC**		Monolithic Systems Corp., 14 Inverness Dr. East, Englewood, CO 80110
		NECM	*	NEC Microcomputers, Inc., 173 Worcester Rd., Wellesley, MA 02181
		NOR		North Star Computers, Inc., 14440 Catalina St., San Leandro, CA 94577
	27014	**NSC**		National Semiconductor Corp., 2900 Semiconductor Dr. M/S 16-250, Santa Clara, CA 95051
		OBJ		Objective Design, Inc., P.O. Box 20325, Tallahassee, FL 32304
		OHS		Ohio Scientific Inc., 1333 So. Chillicothe Rd., Aurora, OH 44202
		PCS		Process Computer Systems, Inc., 750 No. Maple Rd., Saline, MI 48176
	55154	**PLM**	★	Plessey Microsystems, 19546 Club House Rd., Gaithersburg, MD 20760
	55051	**PRO**		Pro-Log Corporation, 2411 Garden Rd., Monterey, CA 93940
		QUY		Quay Corp., 527 Industrial Way West, Eatontown, NJ 07724
	18714	**RCA**		RCA Corporation, 200 Clements Bridge Rd., Deptford, NJ 08096
		RCI		RCI/DATA, 520 Victor St., Saddle Brook, NJ 07662
	94756	**RKW**		Rockwell Int'l Corp. Microelec., P.O. Box 3669, RC55, Anaheim, CA 92803
		RMS		Relational Memory Systems, Inc., 1180 Miraloma Way, Suite H, Sunnyvale, CA 94086
		SDS		SD Systems, Inc., P.O. Box 28810, Dallas, TX 75041
	A3500	**SGAI**	*	SGS-ATES Componenti Elet. S.p.A., Via C. Olivetti 2 20041 Agrate Brianza, Milan, Italy
		SIA		System Integration Associates, 1510 Russel Rd., Paoli, PA 19301
CCZL	D1362	**SIEG**		Siemens Aktiengesellchaft, Balanstrasse 73, D-8000 Munchen 80, West Germany
		SSC		(see ANT)
		SSM		SSM Microcomputer Prods., 2190 Paragon Dr., San Jose, CA 95131
	55576	**SYK**	*	Synertek Systems Corp., 150 South Wolfe Rd., Sunnyvale, CA 94086
		TAI		Toko America Inc., 5520 W. Touhey Ave., Skokie, IL 60077
	01295	**TII**		Texas Instruments Inc., Inquiry Answering Service, M/S 208, P.O. Box 225012, Dallas, TX 75265
		TLI		TL Industries, Inc., 2573 Tracy Rd., Northwood, OH 43619
	S0557	**TOSJ**	★	Toshiba Corp., c/o Toshiba Trans. Works, 1 Komukai Toshibacho Saiwai-Ku Kawasaki-City, Kanagawa, Japan
		VGI		Vector Graphic Inc., 31364 Via Colinas, Westlake Village, CA 91361
	52840	**WDC**		Western Digital Corp., 2445 McCabe Way, Irvine, CA 92714
		WTK		Wintek Corp., 1801 South St., Lafayette, IN 47904
		ZEN	★	Zendex Corporation, 6680 Sierra Lane, Dublin, CA 94566
		ZIA		ZIA Tech. Corporation, 2410 Broad St., San Luis Obispo, CA 95014
		ZIL		Zilog, 10460 Bubb Rd., Cupertino, CA 95014

★ **New Manufacturer**

MICROCOMPUTER SYSTEMS — INTERPRETER
SYMBOLS & CODES EXPLAINED

★ SYMBOLS & CODES COMMON TO MORE THAN ONE SECTION

TYPE NUMBER

▼ — Advance information — This information is on a new product that is in sampling, pre-production or first production stage. Specifications and information are subject to change without notice. D.A.T.A. will update as information becomes available.

$ — Do not use in new design — This part will be discontinued in the near future and should not be used in new designs.

#1, #2, — Device has two or more modes of operation — listed on separate lines in the same technical section.

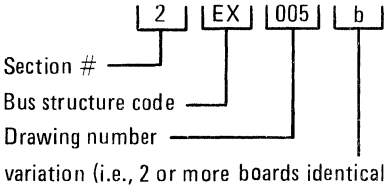
RT — Suffix indicates device is a replacement type; consult manufacturer.

☑ } — 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 devices of one manufacturer with the devices of others.

DRAWING NUMBER EXPLANATION

The drawing numbers are based on which section the board appears in and the bus structure code.

EXAMPLE:



The bus structure code is derived by taking the first 2 letter or number combinations of the bus code; i.e., the exorcizer bus code is — EXOR, 'EX' would therefore be used in the drawing number.

LINE NO.

▼ — New Type
◆ — Revised specification
— Non-JEDEC type Manufactured outside U.S.A.

SPECIAL SYMBOLS

A — Machine cycle time
B — Bits
C — Cycle time
D — Bi-directional
E — Vectored
F — Feet
I — Inches
P — Programmable
S — Static
V — Variable
W — Write
a — Analog
b — Analog input
j — Digital input
o — Digital output
w — Word
☑ — Maximum
* — Minimum
† — Typical
Δ — Absolute max
— Without memory devices

BUS CODES

AMS8 — AMS 85
BUS 4 — BUS 44
COM — COMBUS
CBUS — C — BUS
EURO — EURO 6
E583 — IEEE — 583
EXOR — EXORCIZER
FLEX — FLEXIBUS II
KIM — KIM
LSI — LSI — II
MAXI — MAXI-BUS
MCS — MCS
MCZ — MCZ
MIBO — MICRO BOARD
MIMO — MICRO MODULE
MINO — MICRO NOVA
MULT — MULTI BUS
MUMA — MULTI MASTER
NONS — NON STANDARD
NOTY — NOVA-TYPE
OS48 — OSI 48 BUS
PROP — PROPRIETARY
QBUS — Q-BUS
R232 — R232
S100 — S100
SCUT — SCOUT
RM65 — RM65
SDE — SDE
SMP — SMP
SS50 — SS50
STAD — STAND ALONE
STD — STD
STD Z — STD-Z80
TM90 — TM 990
TRI — TRI-STATE
UNIB — UNIBUS
UNIF — UNIFIED BUS
VERA — VERSA BUS
ZBUS — Z-BUS
ZZZZ — NOT SPECIFIED

PARALLEL I/O PORT TYPE CODES

ANA — Analog
BID — Bi-directional
BIT — Bi-directional tri-state
CMS — CMOS
OPI — Optically isolated
STTL — Schottky TTL
TOC — Open collector
TTL — Standard TTL level
TTT — Tri-state

SERIAL I/O PORT TYPE CODES

RS 49 — RS449
RS 2C — RS232C
RS 42 — RS 422
RS 43 — RS 423
E488 — IEEE 488
XXCL — Current loop where XX = current in milliamps; e.g., 20 CL = 20 ma current loop
RS2X — RS232 or current loop
RS2Y — RS232 and current loop

TEMPERATURE CODES

1 — 0 to +50°C
2 — 0 to +70°C
3 — 20 to +85°C
4 — -55 to +125°C

Continued on following page

SYMBOLS & CODES COMMON TO MORE THAN ONE SECTION (CONT'D)

NOMENCLATURE CODES

- ADA – Adapter
- ADC – Analog to digital converter
- ADM – DMA analog I/O
- AIO – Analog I/O
- AMP – Gain (amplification)
- CSP – Support processor
- DAC – Digital to analog converter
- DIC – Disk controller
- DIO – Digital I/O
- DPY – Display controller/interface
- FWP – Firmware support package
- IDP – Intelligent digital I/O peripheral
- IOM – Input/output miscellaneous functions
- KBD – Keyboard controller/interface
- MCS – Memory controller
- MDS – Intelligent analog peripheral
- MIS – Miscellaneous
- MOD – Modem
- MUL – Multifunction
- MUX – Multiplexer
- OIS – Optical isolater
- PIO – Parallel I/O
- PRT – Printer controller/interface
- SMS – System monitor/operating system
- SRI – Serial interface
- SST – Hardware single step diagnostic
- TAP – Tape controller
- TIM – Timer
- VIO – Voice synthesizer

NOTES

BOARD TYPE	The manufacturers designated type.
CPU	The generic type number of the Microprocessor chip being used.
BUS CODE	A 4-character alpha-numeric code identifying the system bus structure. See systems Bus Code abbreviations on page MS-1.
INTERRUPTS	The number of interrupts the system will accept. N – the number of non-maskable interrupts. M – the number of software maskable interrupts.
OSCILLATOR FREQUENCY	System clock frequency.
INSTRUCTION CYCLE TIME	The time required to execute a basic on board instruction.
ON BOARD MEMORY	RAM: BYTES: Maximum available space on the board for random access type memory. TYPE: The configuration of the ram chips being used, for example: 1KX8. If a 'g' is placed at the end it indicates that the generic number of the device is being given, for example 4132g. ROM: BYTES: Maximum available space on the board for Read only type memory. TYPE: Rom type designation is identical to that of Ram type designation.
I/O PORTS	S: the number of serial I/O ports available. P: the total number of parallel I/O lines leaving the board, for example if there are 3 ports with 8 bits each, the total number of lines is 24.
POWER SUPPLY	Provision is made for listing 2 power supplies – Supply A & B. The voltage is given as a typical value while current is specified as maximum unless otherwise indicated.
TEMPERATURE	A numeric figure is given to indicate the operational temperature range of the unit. 1 = 0°C to +50°C 2 = 0°C to +70°C 3 = -20°C to +85°C 4 = -55°C to +125°C
BUS SIZE	ADDR: The number of bits comprising the system address bus. DATA: The number of bits comprising the system data bus.
MFG CODE	A 4-character alpha code designating the manufacturer of the unit.
DRAWING NUMBER	The drawing number is used to indicate where a physical/electrical drawing is located. The drawing number is structured as follows: W XX YYY Z W = Section number EG 2 = CPU etc. X = 1st 2 letters or numbers of bus code. Y = Drawing numbers 000-999 Z = Version of particular drawing a-z

2. CPU BOARDS

IN ORDER OF: (1)CPU TYPE GEN. (2)BUS CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 CPU TYPE GENERIC	2 BUS CODE	INT. ERR-UPTS N	INT. ERR-UPTS M	OSC. FREQ. (Hz)	INSTR CYCLE TIME (S)	ON BOARD MEMORY RAM BYTES	ON BOARD MEMORY RAM TYPE	ON BOARD MEMORY ROM BYTES	ON BOARD MEMORY ROM TYPE	I/O PORT SER	I/O PORT PAR	POWER REQUIREMENTS SUPPLY A VOLT (V)	POWER REQUIREMENTS SUPPLY A CURR MAX (A)	POWER REQUIREMENTS SUPPLY B VOLT (V)	POWER REQUIREMENTS SUPPLY B CURR MAX (A)	TEMP	BUS SIZE ADDR	BUS SIZE DATA	MFG. CODE	DRAWING NUMBER
	✪	✪	✪			7	8	9	10	11	12			15	16	17	18	✪				✪

(7) ☑ – Maximum
* – Minimum

(8) ☑ – Maximum
* – Minimum
A – Machine cycle time

(9) S – Static
B – Bits
w – Word

(10) (12) NOTE: 'g' suffix indicates generic type number

(11) S – Static
B – Bits
w – Word

(15) ☑ – Maximum
* – Minimum
# – Without memory devices

(16) † – Typical
* – Minimum

(17) ☑ – Maximum
* – Minimum
# – Without memory devices

(18) † – Typical
* – Minimum
# – Without memory devices

INTERPRETER — MICROCOMPUTER SYSTEMS
SYMBOLS & CODES EXPLAINED

BOARD TYPE — The manufacturers designated type.

BUS CODE — A 4-character alpha-numeric code identifying the system bus structure. See systems Bus Code abbreviations on MS-1.

TOTAL MEMORY CAPACITY — Total amount of memory (RAM, ROM, etc.) in BYTES that the board will accommodate.

MEMORY CONFIGURATION — Description for 2 types of memory is available — A and B. The individual sections for type B are identical to that of Type A.

MAX BYTES — Max number of bytes of type A memory the board will accommodate.

TECHNOLOGY — Consists of 3 characters to describe the device type, the characters are structured as follows:

XX Y

X = Abbreviation for the type of ram/rom used; e.g., EPROM, PROM, etc. See list of abbreviations. below tabs 5 & 9.
Y = Refresh indicator, i.e., cycle steal.

LARGEST CHIP CONFIGURATION — The configuration or type of device that may be accommodated. If the board can accommodate several size chips the one with the largest configuration will be given. For example a board configuration used 8KX1, 32KX1 or 64KX1 ram chips, then, the 64KX1 figure will be given. If a 'g' is inserted at the end, the generic number of the device is given rather than size, e.g., 1702g would indicate that the largest device that may be used is the 1702 prom.

ACCESS TIME — The time it takes to do a complete read cycle and have valid data on the bus. Write or cycle time may also be given in place of read time.

BASE ADDRESS INCREMENTS — For boards having address relocation options (via jumpers or switches), this figure indicates starting address boundaries at which blocks of memory may be located.

BUS SIZE — ADDR: The number of bits comprising the system address bus.
DATA: The number of bits comprising the system data bus.

TEMPERATURE — A numeric figure is given to indicate the operational temperature range of the unit.
1 = 0°C to +50°C 3 = -20°C to +85°C
2 = 0°C to +70°C 4 = -55°C to +125°C

MFG CODE — A 4-character alpha code designating the manufacturer of the unit.

DRAWING NUMBER — The drawing number is used to indicate where a physical/electrical drawing is located. The drawing number is structured as follows:

W XX YYY Z

W = Section number; e.g., 2 = CPU, etc. Y = Drawing numbers 000-999
X = 1st 2 letters of numbers of bus code. Z = Version of particular drawing a-z.

3. MEMORY BOARDS

IN ORDER OF: (1)BUS CODE (2)TOTAL CAPACITY (3)TEC (4)BOARD TYPE NUMBER

LINE No.	4 BOARD TYPE NUMBER	1 BUS CODE	2 TOTAL CAPACITY	MEMORY CONFIGURATION TYPE A: 3 TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	TYPE B: TEC	MAX. BYTES	LARGEST CHIP CONFIG.	ACCESS TIME (S)	BASE ADDR. INCREMENT BYTES	POWER REQUIREMENTS SUPPLY A: VOLT (V)	CURR MAX (A)	SUPPLY B: VOLT (V)	CURR MAX (A)	BUS SIZE: T	E A D M P R	D A T	MFG. CODE	DRAWING NUMBER
✪	✪	✪	4	5	6	7	8	9	10	11	12	13	14	15	16	17 ✪					✪

(4) B — Bits
w — Words

(6) B — Bits
w — Words

(7) (11) Note: 'g' suffix indicates generic type number

(8) W — Write time
C — Cycle time
☑ — Maximum
* — Minimum

(10) B — Bits
w — Words

(12) W — Write time
C — Cycle time
☑ — Maximum
* — Minimum

(13) B — Bits
w — Words

(14) ☑ — Maximum
* — Minimum

(15) † — Typical
* — Minimum

(16) ☑ — Maximum
* — Minimum

(17) † — Typical
* — Minimum

(5) (9)
EA — Electrically alterable
EP — E-PROM (UV eraseable)
PR — PROM
RO — ROM
RS — Static RAM
RR — RAM w/on BD refresh
RN — RAM no on BD refresh
RD — RAM, refresh capability not specified.
BB — Bubble
CC — Charge coupled
CO — Core
NS — None Specified

NOTE: If refresh is provided, transparent type is assumed, for cycle steal an 'S' suffix will be added.

✪ SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER PAGE , MS-1

BOARD TYPE — The manufacturers designated type.

BUS CODE — A 4-character alpha-numeric code identifying the system bus structure. See systems Bus Code abbreviations. on page MS-1.

NOMENCLATURE CODE — A 3-character code to identify the board nomenclature (ie., function). See page MS-2 for code explanation.

I/O PORTS — SERIAL:
Type-4-character code used to identify the type of serial I/O Port. See abbreviations for list on page MS-1.
Max baud rate — maximum baud rate of the serial I/O port.
PARALLEL:
Bits — total number of bits of the parallel I/O port.
Sig Lvl — 3-character abbreviation of the parallel I/O line characteristics. See Page MS 1 for abbreviation explanations.
Max xfer rate — max bits/sec. transfer rate of the parallel I/O port.

OPERATING DISTANCE — Maximum cable length that may be used to connect the board with the controlled device.

POWER SUPPLY — Provision is made for listing 2 power supplies — Supply A & B. The voltage is given as a typical value while current it specified as maximum unless otherwise indicated.

TEMPERATURE — A numeric figure is given to indicate the operational temperature range of the unit.
1 = 0°C to +50°C
2 = 0°C to +70°C
3 = -20°C to +85°C
4 = -55°C to +125°C

BUS SIZE — ADDR: The number of bits comprising the system address bus.
DATA: The number of bits comprising the system data bus.

NOMENCLATURE — Manufacturers designated nomenclature (function) of the board.

MFG CODE — A 4-character alpha code designating the manufacturer of the unit.

DRAWING NUMBER — The drawing number is used to indicate where a physical/electrical drawing is located. The drawing number is structured as follows:

W XX YYY Z

W = Section number; e.g., 2 = CPU, etc.
X = 1st 2 letters or numbers of bus code.
Y = Drawing numbers 000-999
Z = Version of particular drawing a-z.

4. CONTROLLER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE	1 BUS CODE	2 NC OO MD E	I/O PORTS SERIAL TYPE	MAX BAUD RATE	PARALLEL BIT	S L I V G L	XFER RATE (BPS)	MAX. OPER. DIST. (M)	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T E M P	BUS SIZE A D R	BUS SIZE D A T	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
✪	✪	✪	✪	⑥		⑨			⑩	⑪	⑫	⑬	⑭	✪					✪

⑥ † — Typical
* — Minimum

⑨ † — Typical
* — Minimum

⑩ F — Feet

⑪ ☑ — Maximum
* — Minimum

⑫ † — Typical
* — Minimum

⑬ ☑ — Maximum
* — Minimum

⑭ † — Typical
* — Minimum

✪ SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER PAGE, MS-1

BOARD TYPE — The manufacturers designated type.

BUS CODE — A 4-character alpha-numeric code identifying the system bus structure. See systems Bus Code abbreviations. on page MS-1.

NOMENCLATURE CODE — The last 3 characters are identical to the code used in Section 4. The first two characters are numerics and have the following meaning.

1st Character: 1 = analog
2 = digital

2nd Character: 1 = serial
2 = parallel

A PIO would be listed as 22PIO

22 → digital, parallel
PIO → standard nomenclature code

In the case where a unit has both parallel and serial data capabilities the code will be 30AAA.

I/O PORTS

SERIAL:
No – Number of available serial I/O ports.
Type – See list for abbreviations of serial I/O port types on page MS-1.

PARALLEL:
No – Number of available parallel I/O ports.
Bits/port – Number of bits per port.

ON BOARD MEMORY

RAM – Total number of bytes or random access memory the board will accommodate.
ROM – Total number of bytes of Read only memory the board will accommodate.

POWER SUPPLY — Provision is made for listing 2 power supplies – Supply A & B. The voltage is given as a typical value while current is specified as maximum unless otherwise indicated.

TEMPERATURE — A numeric figure is given to indicate the operational temperature range of the unit.

1 = 0°C to +50°C
2 = 0°C to +70°C
3 = -20°C to +85°C
4 = -55°C to +125°C

BUS SIZE

ADDR: The number of bits comprising the system address bus.
DATA: The number of bits comprising the system data bus.

NOMENCLATURE — Manufacturers designated nomenclature (or function) of the board.

MFG CODE — A 4-character alpha code designating the manufacturer of the unit.

DRAWING NUMBER — The drawing number is used to indicate where a physical/electrical drawing is located. The drawing number is structured as follows:

W XX YYY Z

W = Section number; e.g., 2 = CPU, etc.
X = 1st 2 letters or numbers of bus code.
Y = Drawing numbers 000-999.
Z = Version of particular drawing a-z.

5. DATA TRANSFER BOARDS

IN ORDER OF: (1)BUS CODE (2)NOMEN. CODE (3)BOARD TYPE NUMBER

LINE No.	3 BOARD TYPE NUMBER	1 BUS CODE	2 NOMEN CODE	I/O PORTS SERIAL NO	SERIAL TYPE	PARALLEL NO	PARALLEL BITS	ON BOARD MEMORY RAM	ON BOARD MEMORY ROM	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	T EMP	BUS SIZE ADDR	BUS SIZE DATA	NOMENCLAUTRE	MFG. CODE	DRAWING NUMBER
	✪	✪	✪					(8)	(9) (10)	(11)	(12)	(13)	(14)	✪					✪

(8)
a – Analog output
b – Analog input
j – Digital input
o – Digital output

(9)
S – Static
B – Bits
w – Words

(10)
B – Bits
w – Words

(11)
☐ – Maximum
* – Minimum

(12)
† – Typical
* – Minimum

(13)
☐ – Maximum
* – Minimum

(14)
† – Typical
* – Minimum

✪ SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER PAGE , MS-1

BOARD TYPE	The manufacturers designated type.
BUS CODE	A 4-character alpha-numeric code identifying the system bus structure. See systems Bus Code abbreviations on page MS-1.
NOMENCLATURE CODE	A 3-character code to identify the board nomenclature (i.e., function) on page MS-2.
I/O PORTS	SERIAL: No – number of available parallel I/O ports. Type – see list for abbreviations of serial I/O port types. on page MS-1. PARALLEL: No – number of available parallel I/O ports. Bits/port – number of bits per port.
MISCELLANEOUS SIGNAL LEVELS	Signal levels for boards not having standard bus type structures and levels, such as power fail modules that do not plug into the backplane. These signal levels will be defined as TTL, CMOS, etc.
TYPES OF EQUIPMENT INTERFACED	Types of equipment the unit interfaces with or the types of equipment that unit will interface to a system.
POWER SUPPLY	Provision is made for listing 2 power supplies – Supply A & B. The voltage is given as a typical value while current is specified as maximum unless otherwise indicated.
TEMPERATURE	A numeric figure is given to indicate the operational temperature range of the unit. 1 = 0°C to +50°C 2 = 0°C to +70°C 3 = -20°C to +85°C 4 = -55°C to +125°C
BUS SIZE	ADDR: The number of bits comprising the system address bus. DATA: The number of bits comprising the system data bus.
NOMENCLATURE	Manufacturer's designated nomenclature (or function) of the board.
MFG CODE	A 4-character alpha code designating the manufacturers of the unit.
DRAWING NUMBER	The drawing number is used to indicate where a physical and electrical drawing is located. The drawing number is structured as follows: W XX YYY Z W = Section number; e.g., 2 = CPU, etc. X = 1st 2 letters or numbers of bus code. Y = Drawing numbers 000-999 Z = Version of particular drawing a-z.

6. MISCELLANEOUS BOARDS

IN ORDER OF: (1)BUS CODE (2)NOM. CODE (3)BOARD TYPE NUMBER

LINE No.	[3] BOARD TYPE NUMBER	[1] BUS CODE	[2] NOM CODE	I/O PORTS SERIAL NO	I/O PORTS SERIAL TYPE	I/O PORTS PARALLEL NO	I/O PORTS PARALLEL BITS	MISC SIG. LVLS	TYPES OF EQUIPMENT INTERFACED	POWER REQUIREMENTS SUPPLY A VOLT (V)	SUPPLY A CURR MAX. (A)	SUPPLY B VOLT (V)	SUPPLY B CURR MAX. (A)	TEMP	BUS SIZE ADDR	BUS SIZE DATA	NOMENCLATURE	MFG. CODE	DRAWING NUMBER
✪	✪	✪	✪							(11)	(12)	(13)	(14) ✪						✪

(11) ☑ – Maximum
* – Minimum

(12) † – Typical
* – Minimum

(13) ☑ – Maximum
* – Minimum

(14) † – Typical
* – Minimum

✪ SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER PAGE, MS-1

SECTION 7 — SUPPORT ENCLOSURES — SECTION 7

TYPE NUMBER	The manufacturers designated type No.
BUS CODE	This 4 letter/digit code identifying the system bus structure. See system bus code abbreviations on page MS-1.
NO. OF SLOTS	Number of backplane connectors into which circuit boards may be plugged, i.e., the number of boards the enclosure will hold.
POWER SUPPLY P	Power capability of the built in power supply.
POWER SUPPLY V	Voltage output of the built in power supply.
POWER SUPPLY I	Current output capability of the built in power supply.
PHYSICAL EXT. H	Physical external height of the enclosure in meters.
PHYSICAL EXT. W	Physical external width of the enclosure in meters.
PHYSICAL EXT. L	Physical external length of enclosure in meters.
DIMENSIONS INTERNAL H	Physical internal height of enclosure in meters.
DIMENSIONS INTERNAL W	Physical internal width of enclosure in meters.
DIMENSIONS INTERNAL L	Physical internal length of enclosure in meters.
MFR. CODE	4-character code representing the unit manufacturers' name.

7. SUPPORT ENCLOSURES

IN ORDER OF: (1)BUS CODE (2)NO.OF SLOTS (3)PWR. MAX. (4)VOLT MAX. (5)TYPE NUMBER

LINE No.	5 TYPE NUMBER	1 BUS CODE	2 #SLOTS	POWER SUPPLY 3 PWR. MAX (W)	POWER SUPPLY 4 VOLT MAX (V)	POWER SUPPLY CURR MAX (A)	PHYSICAL DIMENSIONS INTERNAL HEIGHT (M)	INTERNAL WIDTH (M)	INTERNAL LENGTH (M)	EXTERNAL HEIGHT (M)	EXTERNAL WIDTH (M)	EXTERNAL LENGTH (M)	MFG. CODE	COMMENTS	DRAWING NUMBER
✪	✪			(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)			✪

(5) † – Typical
* – Minimum

(6) † – Typical
* – Minimum

(7) † – Typical
* – Minimum

(8) ☑ – Maximum
* – Minimum

(9) ☑ – Maximum
* – Minimum

(10) ☑ – Maximum
* – Minimum

(11) ☑ – Maximum
* – Minimum

(12) ☑ – Maximum
* – Minimum

(13) ☑ – Maximum
* – Minimum

✪ SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER PAGE, MS-1

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	SM	MEMORY ICs	2	65.00	68.00
	MP	MICROPROCESSOR ICs	2	60.00	64.00
	MS	MICROCOMPUTER SYSTEMS	2	60.00	64.00
	XC	DISCONTINUED ICs	1	35.00	38.00
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	AN	APPLICATION NOTES REFERENCE	2	35.00	37.00
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	XL	DISCONTINUED TYPE LOCATOR	1	45.00	49.00
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Title _____ **Dept.**_____ **City** _____

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SECTION USAGE RATING — **NO. OF TIMES USED PER MONTH**

TYPE NO. CROSS INDEX
1. All Types ..... ____

TECHNICAL SECTIONS

System
2. Microcomputer Systems ..... ____

Support System
3. Memory Boards ..... ____
4. Controller Boards ..... ____
5. Data Transfer Boards ..... ____
6. Miscellaneous Boards ..... ____
7. Standard Enclosures ..... ____

Supplementary Sections
8. Bus Standards Summary ..... ____
9. Drawings ..... ____

Manufacturers Information
10. Manufacturers' Sales Offices ..... ____
11. Manufacturers' Logos ..... ____
12. Manufacturers' Codes, Names and Addresses ..... ____

INTERPRETER – Symbols & Codes Explained ..... ____

How do you use your current D.A.T.A.BOOKS?
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☐ Repair & Replacement
☐ Other _____

COMMENTS

Your comments, suggestions, criticisms help in keeping the D.A.T.A. BOOKS in tune with your information requirements. Your participation is very much appreciated.

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And coverage is the most complete available today. 123,105 discrete types appear, including 26,100 Transistors, 42,100 Diodes, 23,100 Thyristors and 20,940 Microwaves; and 10,865 Optoelectronic devices. 60,671 IC types are listed, including 15,310 Digital, 12,800 Interface, 7,225 Memory, 5,410 Microprocessor, 2,328 Microcomputer Systems, 1,773 Consumer, and 15,825 Linear devices. Incorporated in these totals are over 11,530 JEDEC and 7,760 military-qualified devices. In all, Master Type Locator identifies 110 separate product classes.

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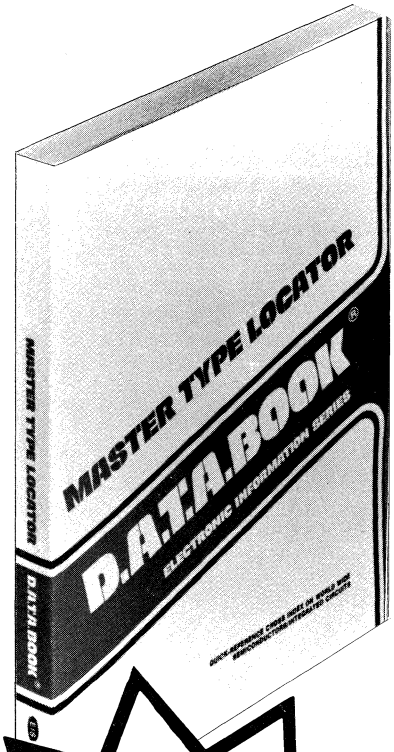

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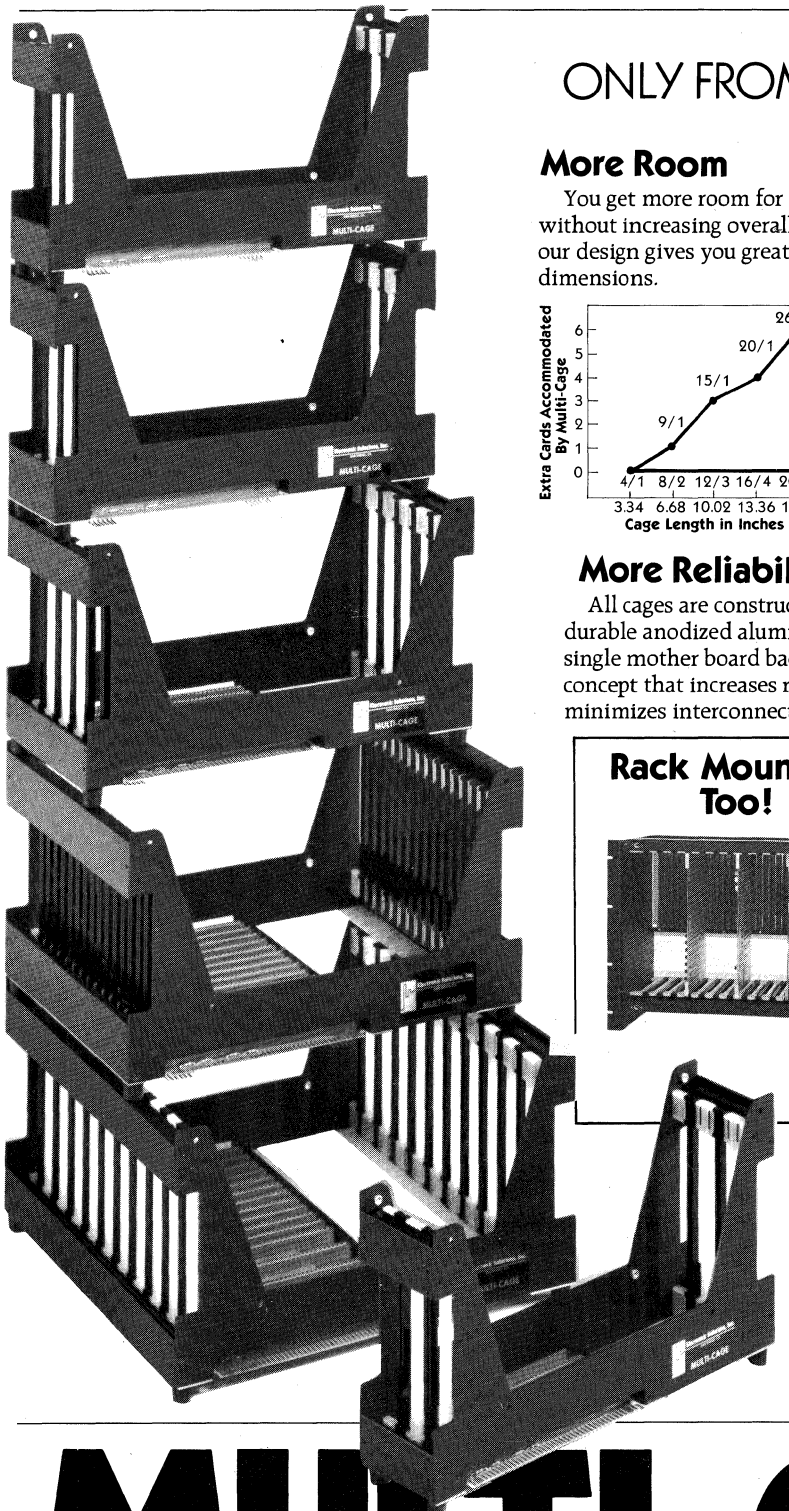

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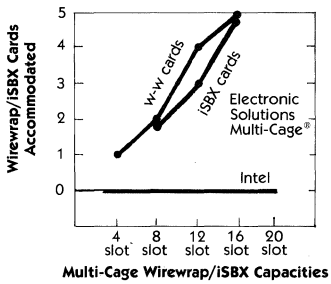

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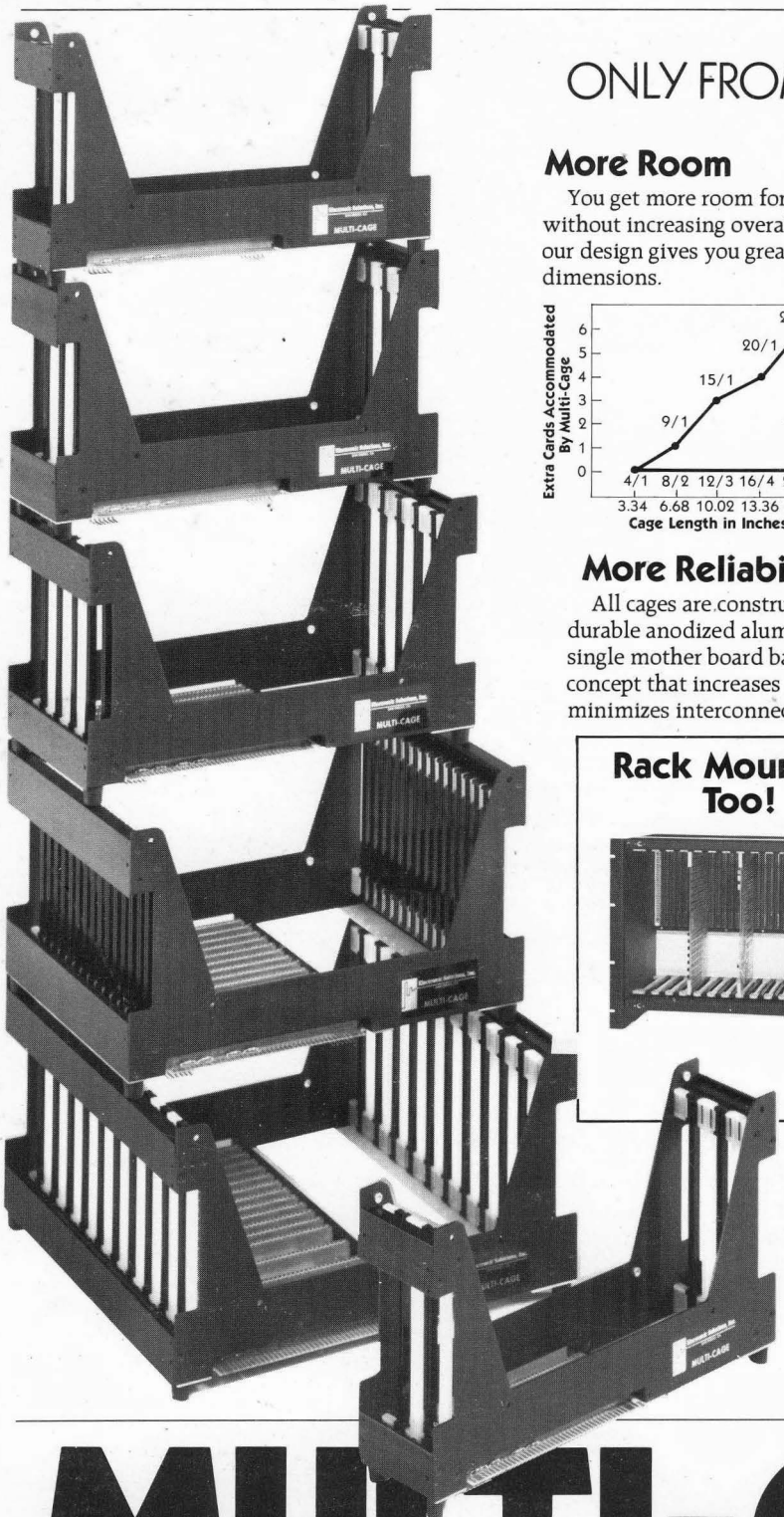

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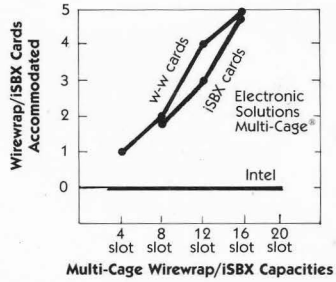

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