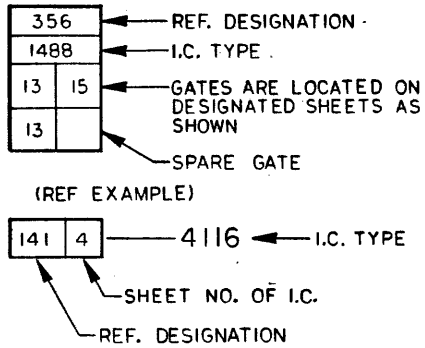


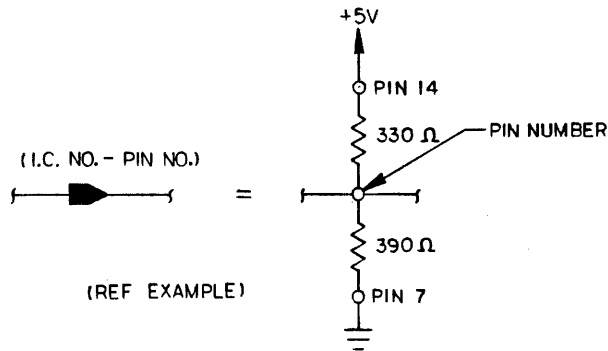
ISSUE	DESCRIPTION	DATE	APPROVED
X F	REDRAWN & REV PER PCN	25 81 AUG	JH. Rf 730/81

NOTE - UNLESS OTHERWISE SPECIFIED:

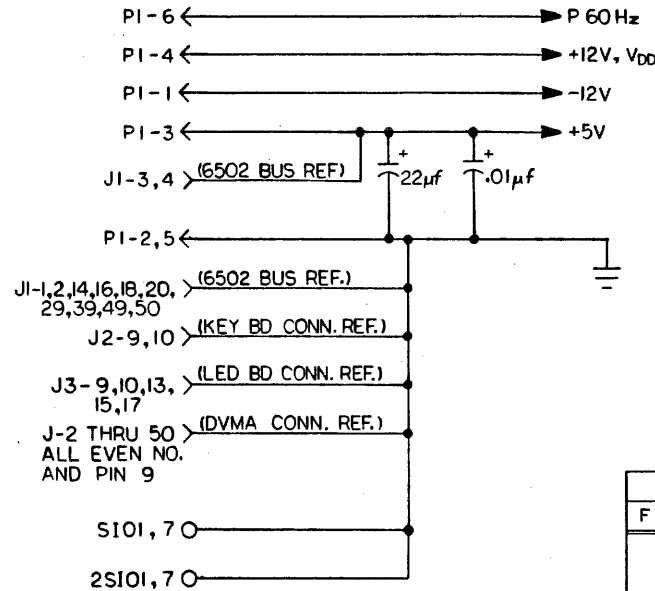
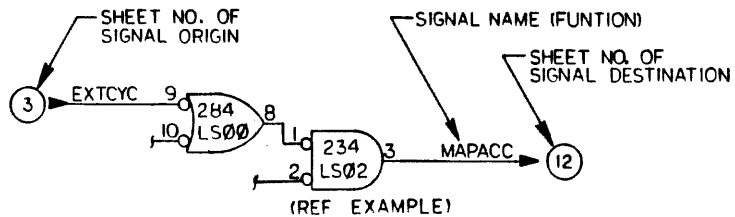
- CONNECTOR PIN DESIGNATIONS ARE PER SILK-SCREENED LED BOARD, NOT JI CONNECTOR PIN DESIGNATOR.
- ALL RESISTORS ARE IN OHMS AND ARE 1/4 W UNLESS OTHERWISE SPECIFIED.
- FOR MODULE MAP, SEE SHEETS 29, 30 AND 31. GATES ARE IN ORDER OF OUTPUT PIN NUMBERS AND ARE DEPICTED FROM LEFT TO RIGHT, TOP TO BOTTOM ORDER.



- THIS SYMBOL DENOTES A PULL-UP AND PULL-DOWN RESISTOR, FOR I.C.'S 359 AND 364, THAT ARE LOCATED ON SHEETS 9, 10, 15 AND 21:



- INPUT AND OUTPUT SIGNALS ARE DEPICTED AS FOLLOWS:



COMPONENT REF. DESIG.		
FIRST	LAST	UNUSED
R2	R174	1, 8, 15, 22, 23, 27, 28, 31, 45, 51, 57, 63, 72, 78, 80, 99, 100, 102, 103 - 130, 167 - 169
C3	C80	1, 2, 4, 5, 13, 14, 23, 25, 42 - 50, 56, 66 - 69
A00	A367	198
CR1	CR30	CR15 - 20, 23, 26 - 29
Q1	Q10	Q8, Q9
REG 4	10	REG 1, 2, 3, 5
PI	P3	

QTY REQD	PART NUMBER	CODE IDENT	DESCRIPTION	ITEM NO.
TOLERANCE UNLESS OTHERWISE SPECIFIED		MATERIAL		OWN. 7-15-81 Jim Common
FINISH		DRAWING TITLE		CHK F. Anderson 7/26/81 APPD.
DRAWING TITLE		SCALE		
01 120016 512		ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088		DRAWING NUMBER 120017-01
DASH NO. NEXT ASSY USED ON		APPLICATION		REV XF

1

2

3

4

A

B

C

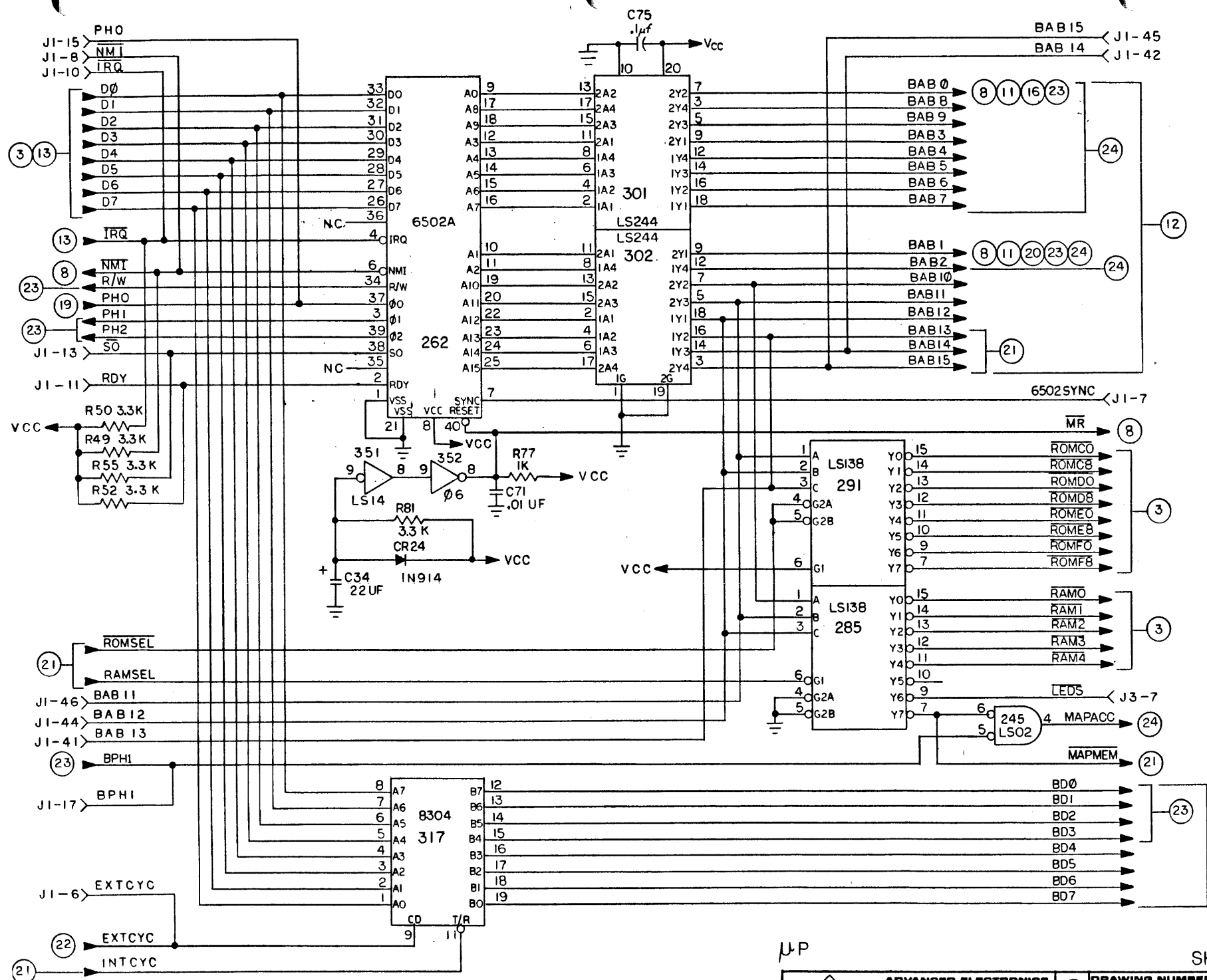
D

A

B

C

D



μP

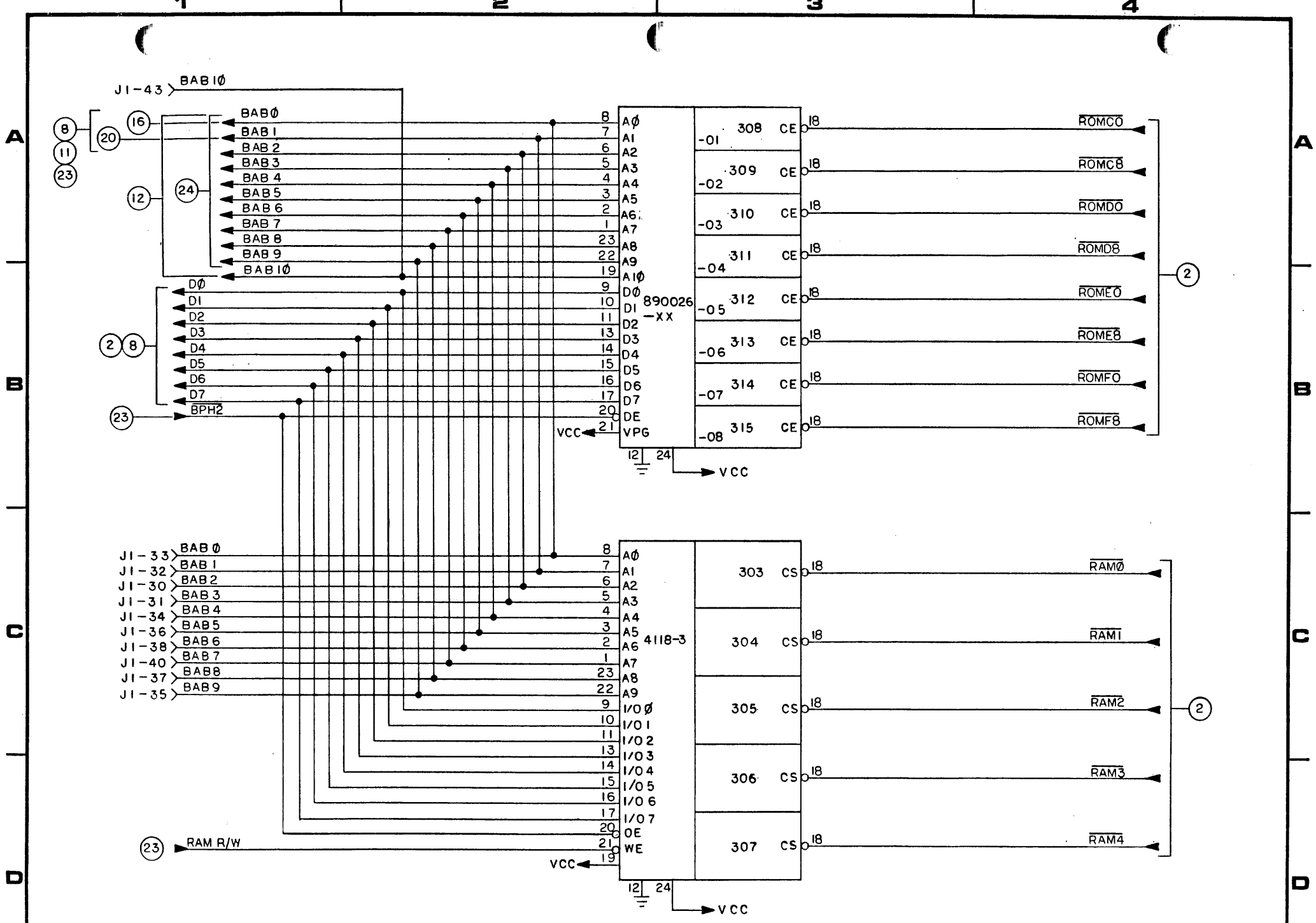
SHT-2



ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94085

C DRAWING NUMBER
120017-01

REV
XF



RAM/ROM

SHT-3

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120017-01	REV XF
	SHEET 2 OF 31			

A

A

B

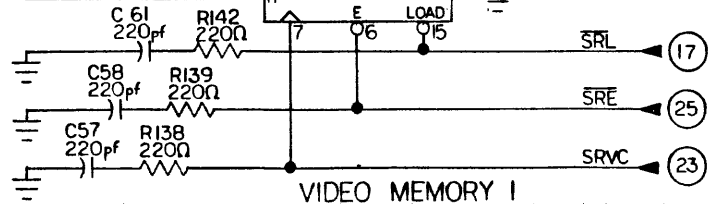
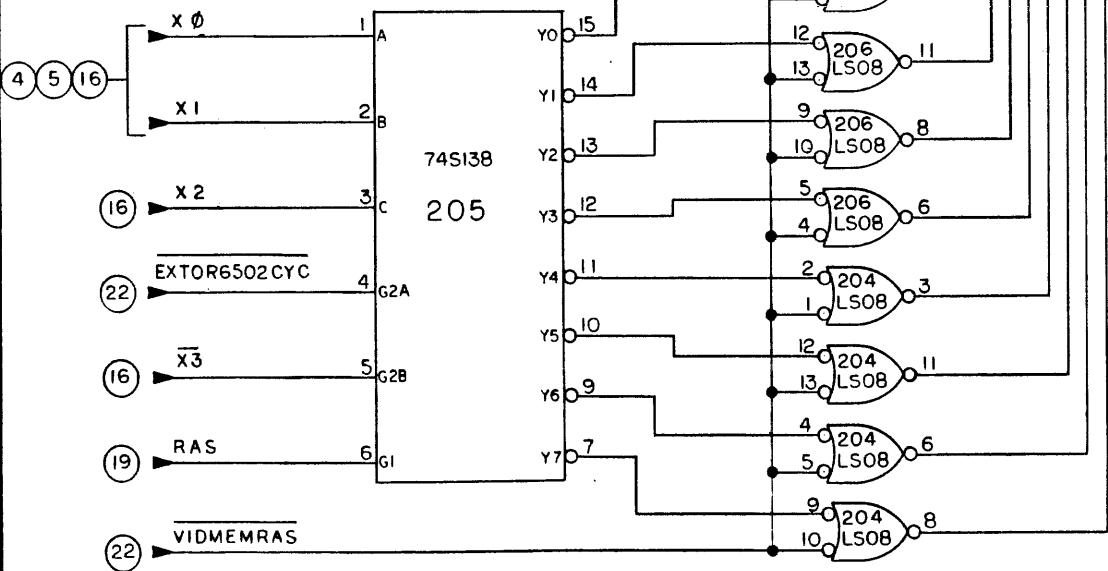
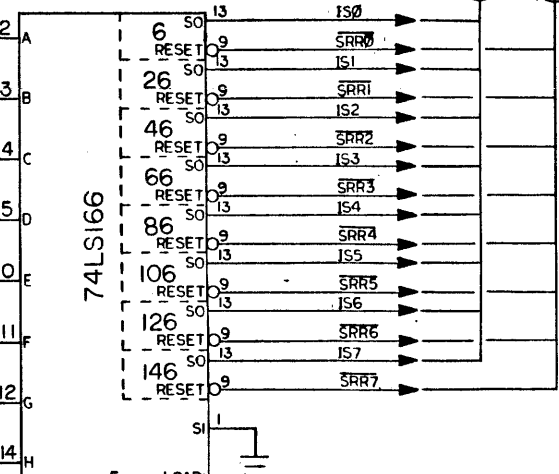
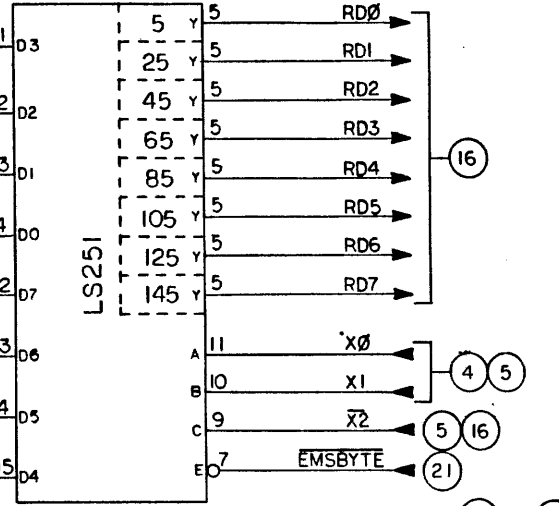
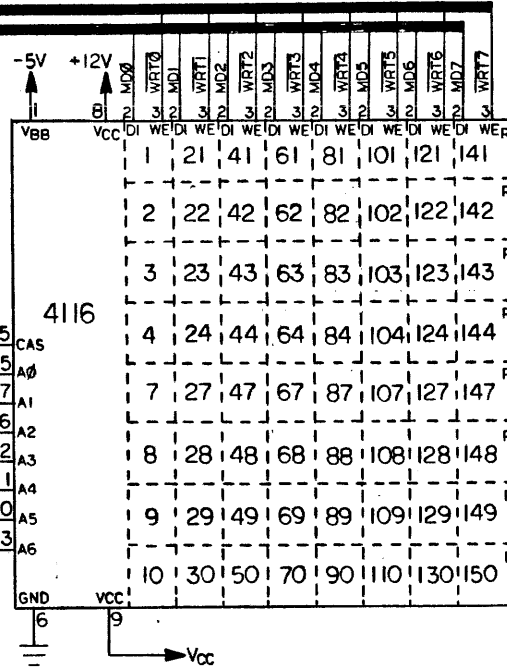
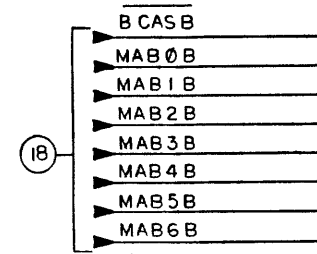
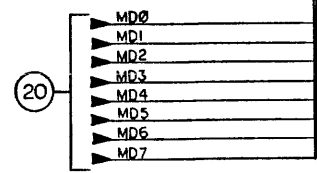
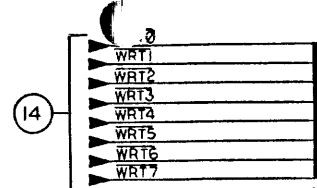
B

C

C

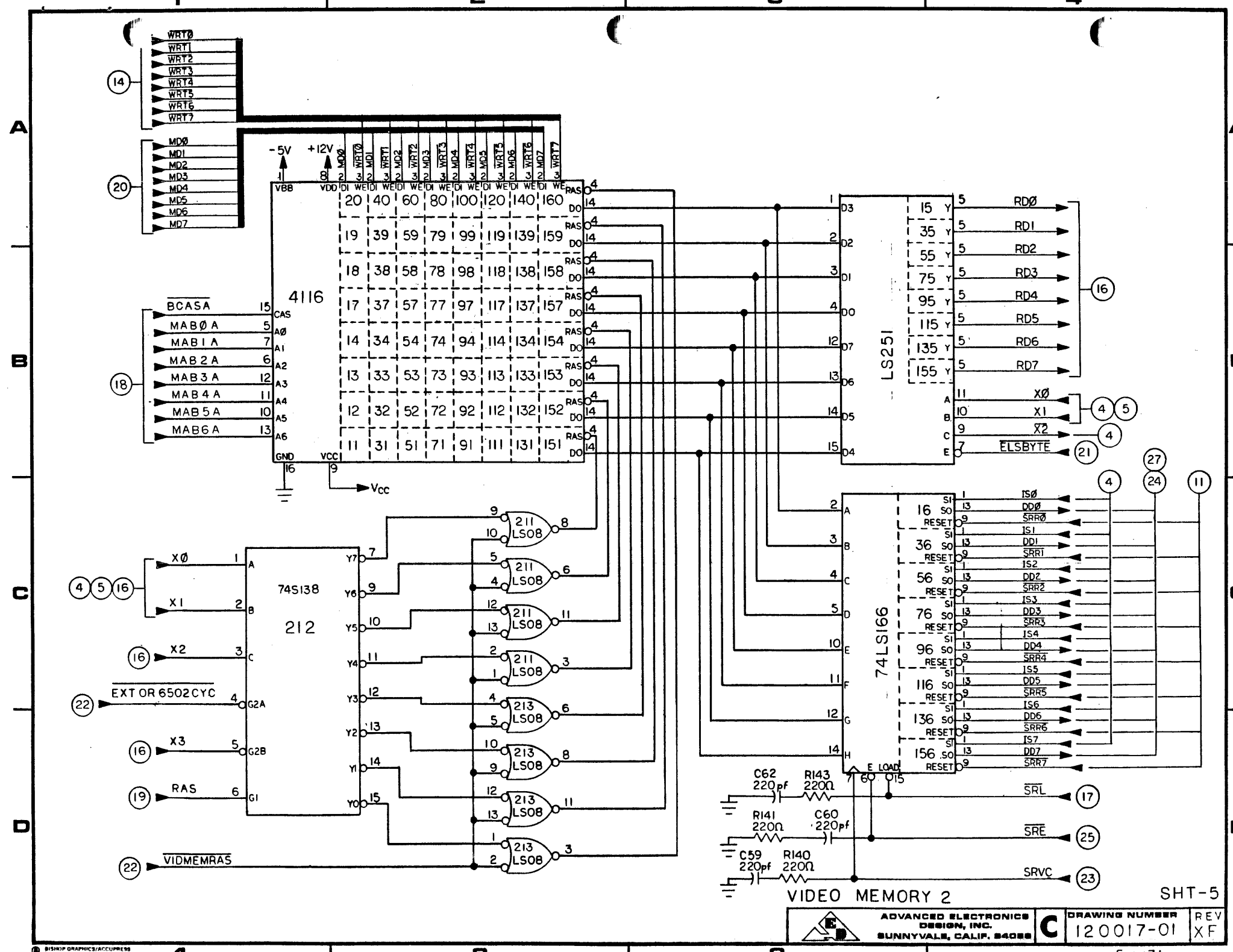
D

D



VIDEO MEMORY I

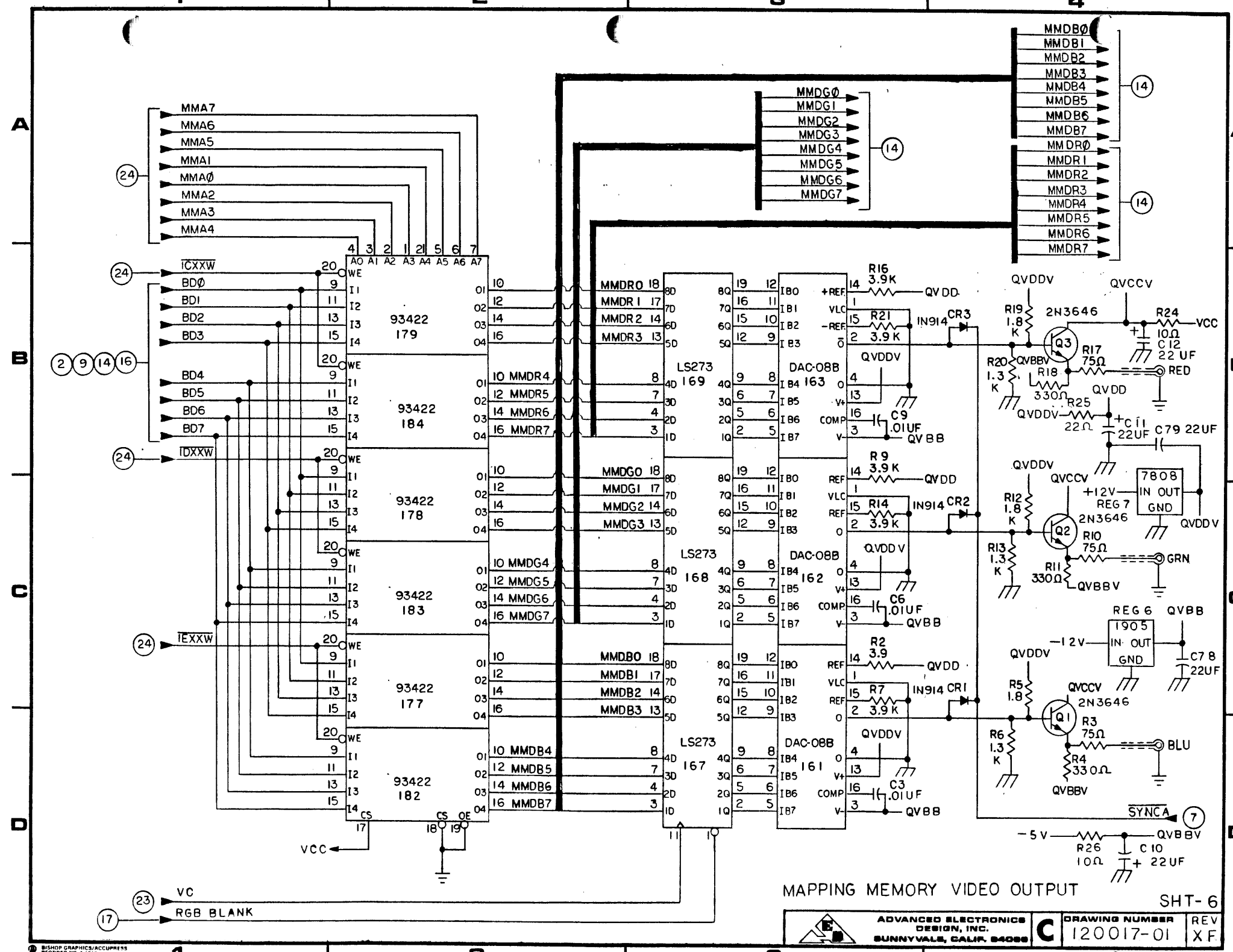
SHT-4



VIDEO MEMORY 2

SHT-5

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120017-01	REV XF
	SHEET 5 OF 31		



MAPPING MEMORY VIDEO OUTPUT

SHT-6

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120017-01	REV XF
	SHEET 6 OF 31		

A

B

C

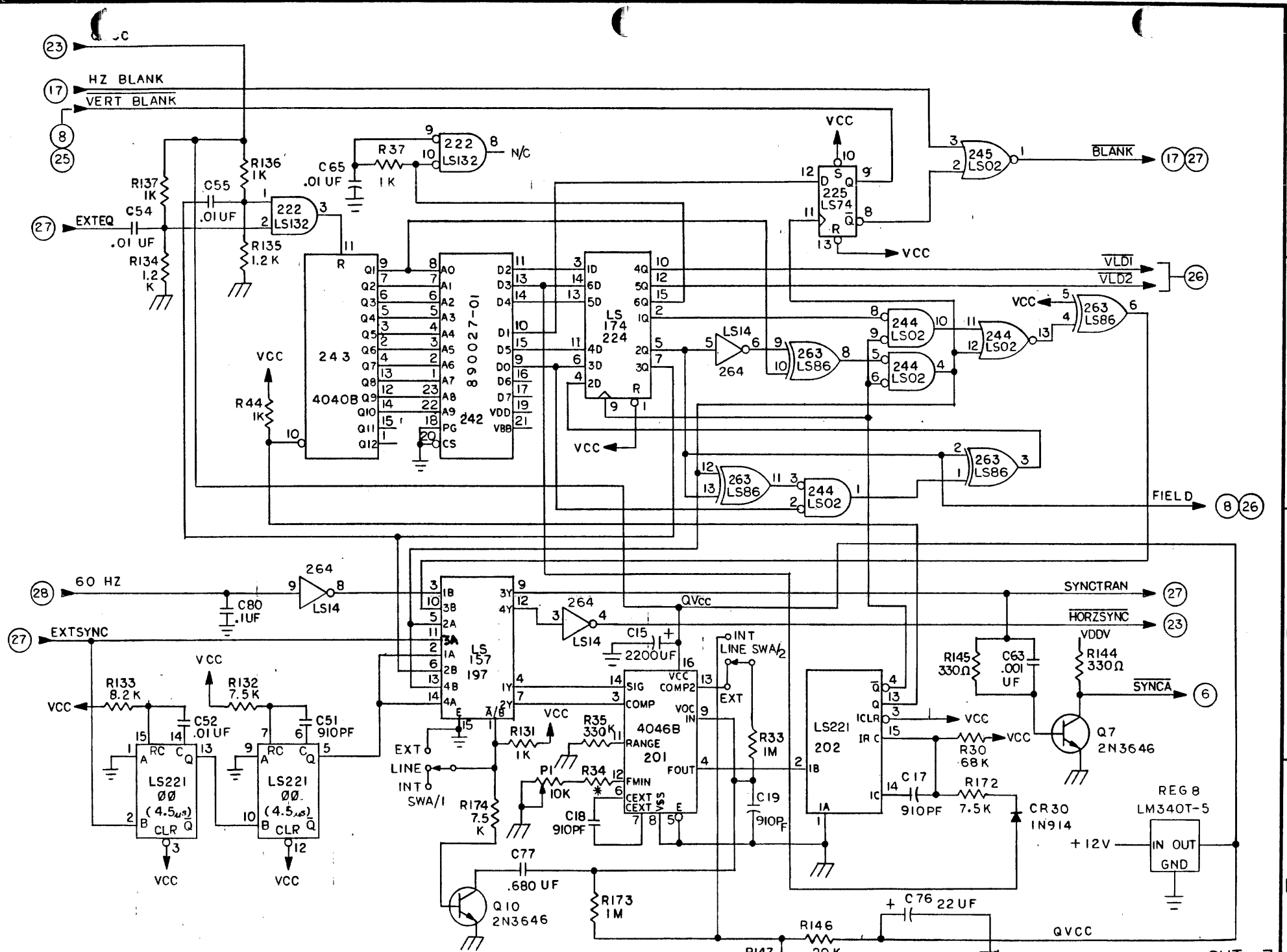
D

1

2

3

4



*-VALUE TO BE DETERMINED IN TEST
(27-39K)

SHT - 7

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER	REV
			120017-01	XF

0
1
2
3
4

1

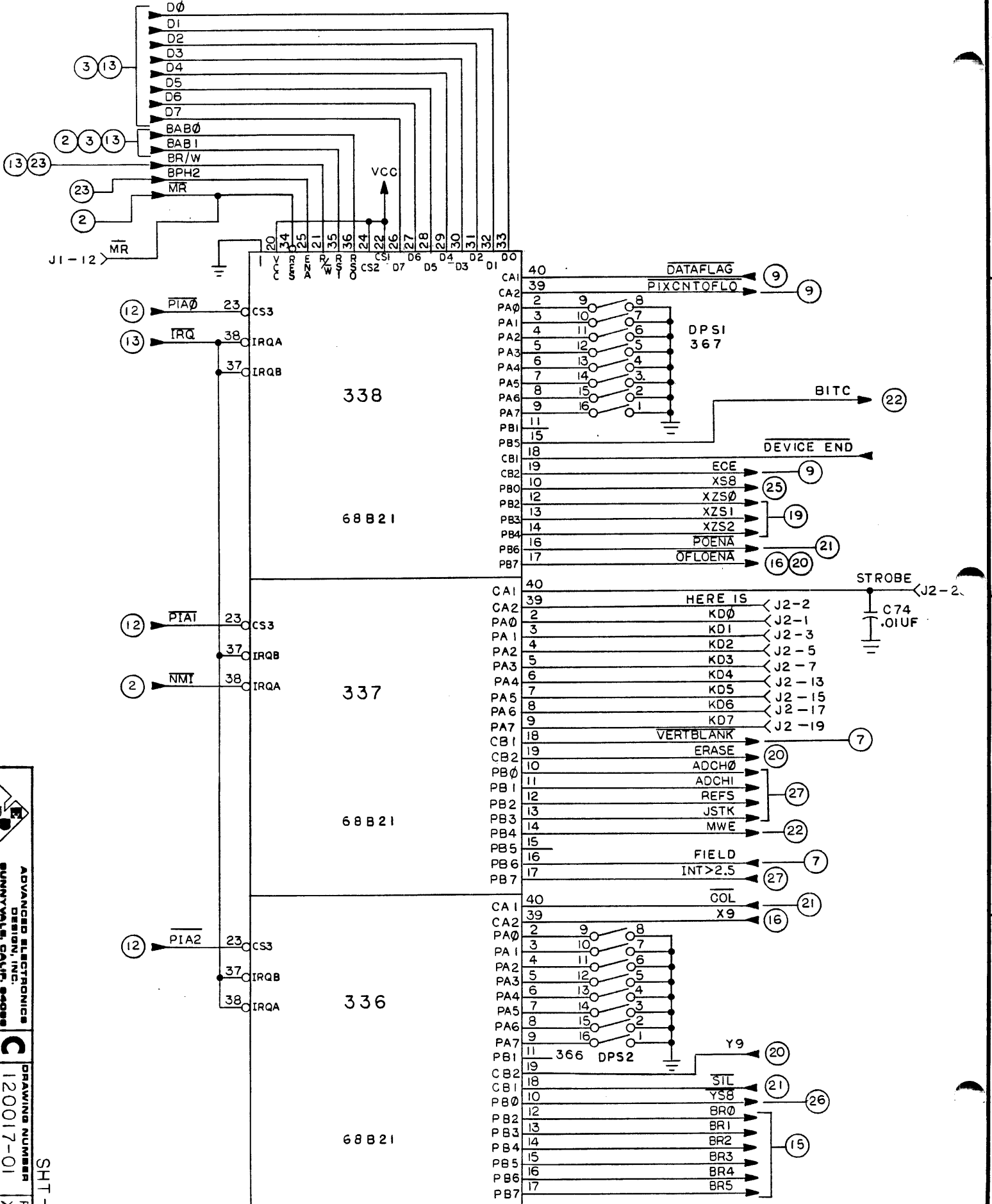
0

3

4

1

0 B A




 ADVANCED ELECTRONICS
 DESIGN, INC.
 SUNNYVALE, CALIF. 94088
 DRAWING NUMBER
 120017-01
 REV
 XF
 SHEET 2 OF 21

SHT-8

A

B

C

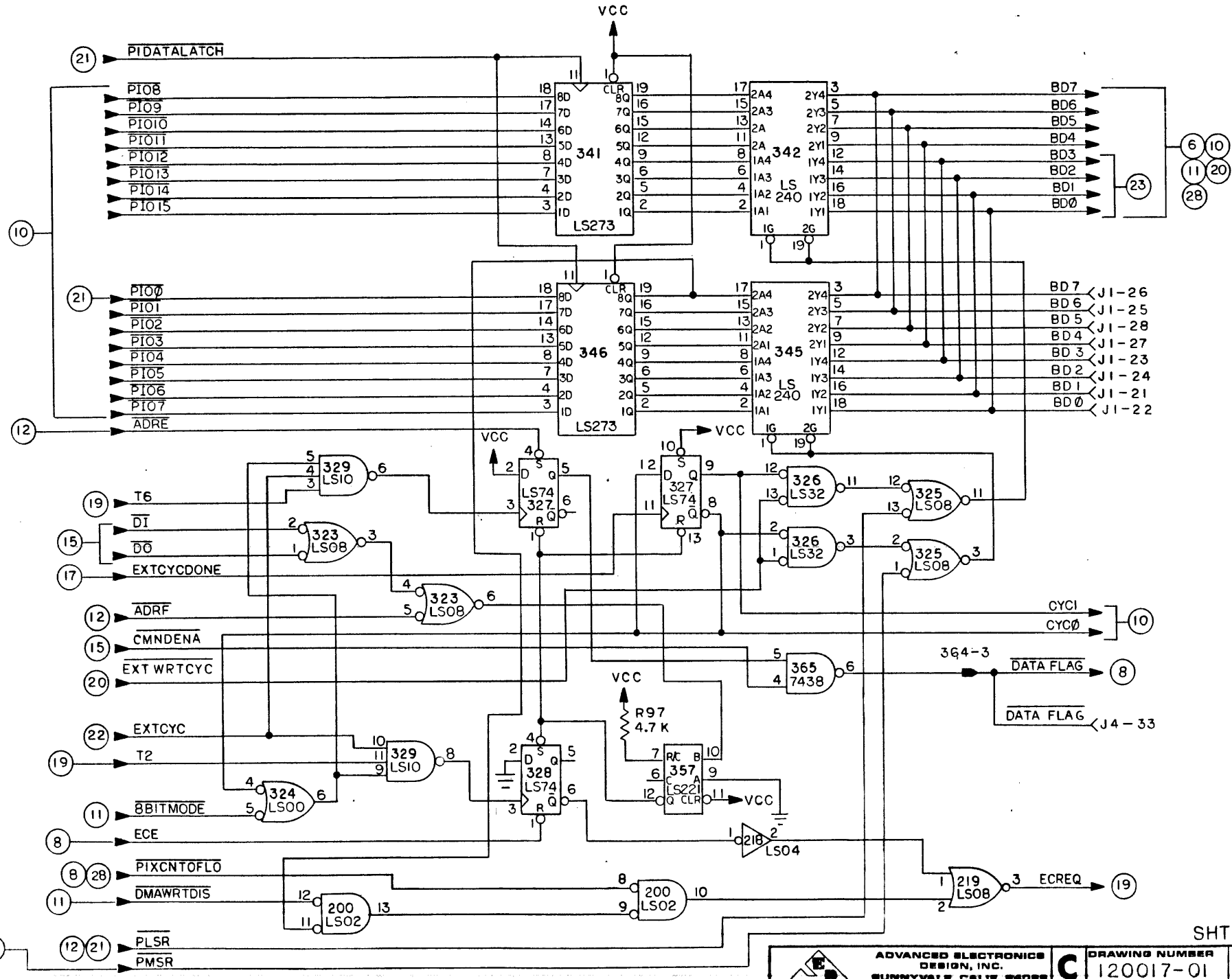
D

A

E

C

E



SHT-9



ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088

C	DRAWING NUMBER	REV
	120017-01	X F

1

2

3

4

A

B

C

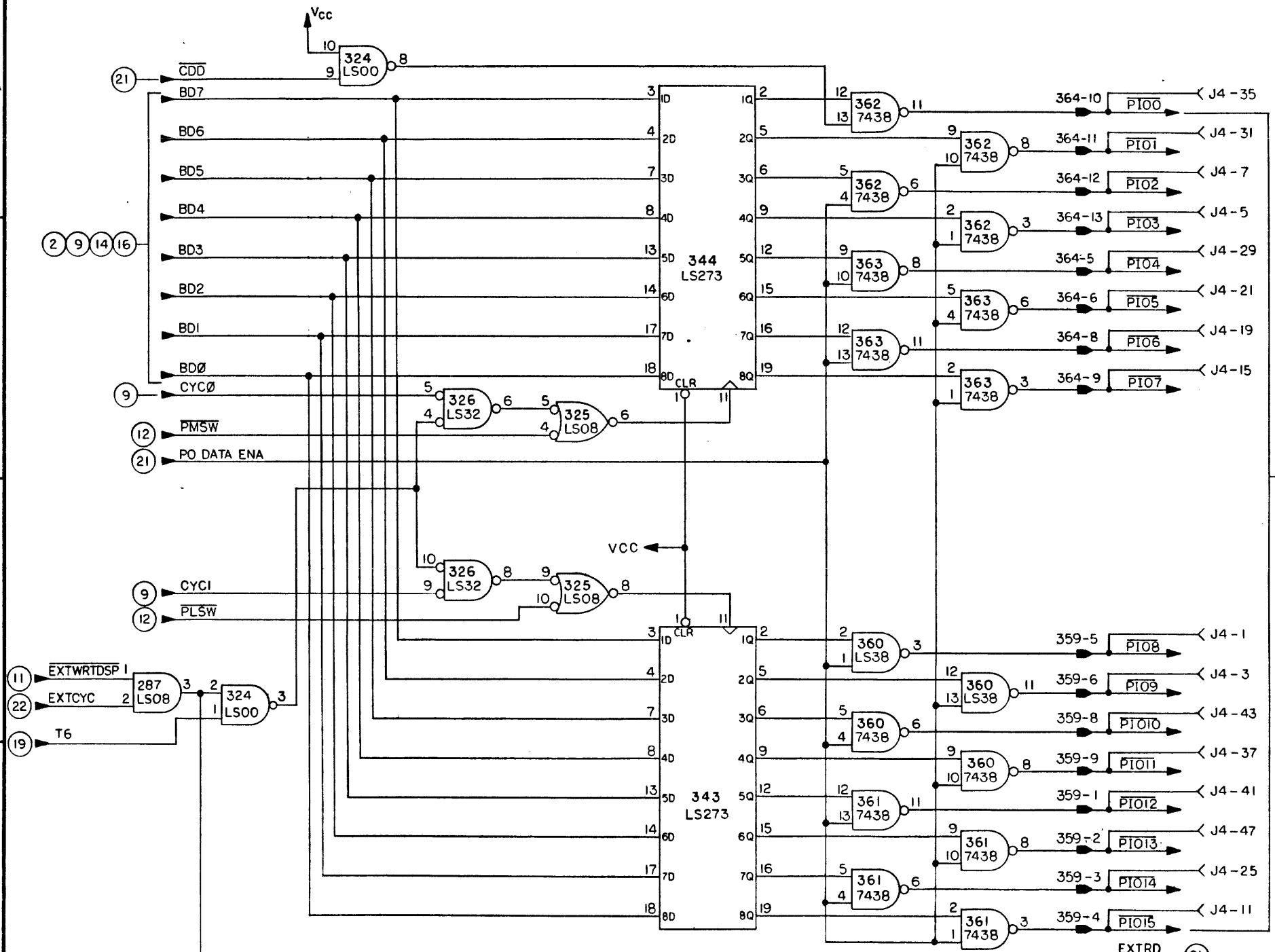
D

A

B

C

D



9

21

SHT - 10


**ADVANCED ELECTRONICS
DESIGN, INC.**
 SUNNYVALE, CALIF. 94088

C DRAWING NUMBER
 120017 - 01

REV
 XF

1

2

3

4

A

B

C

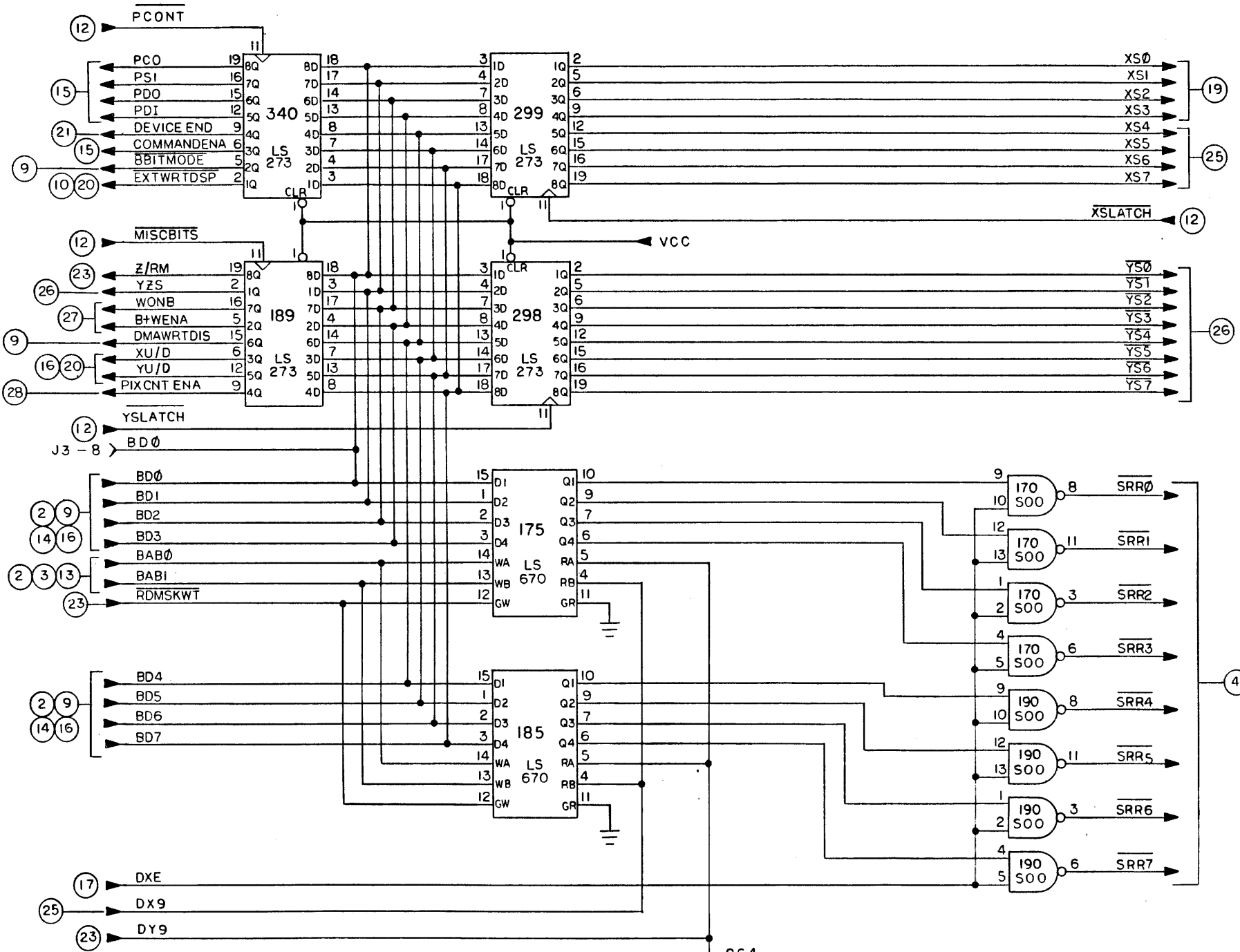
D

A

B

C

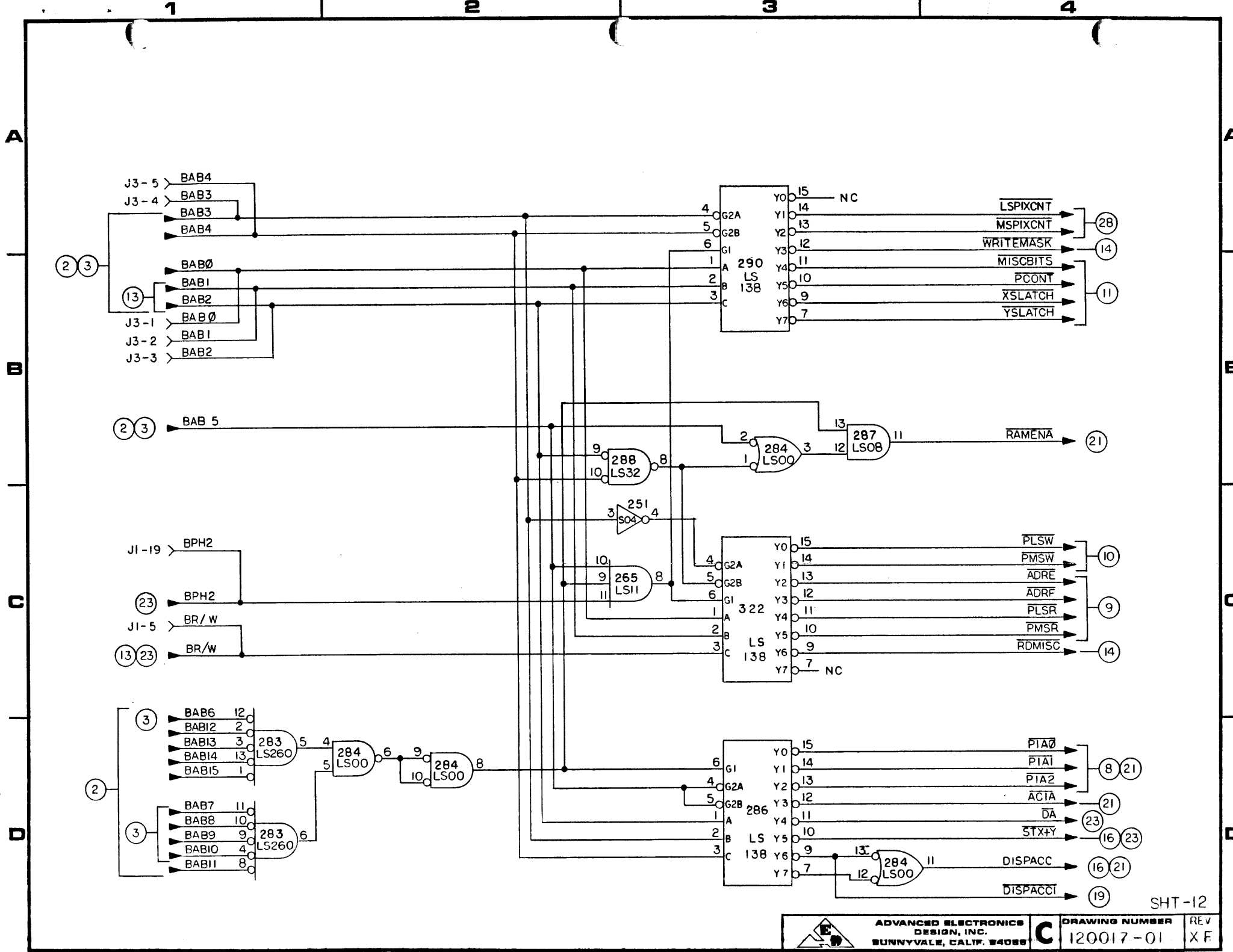
D



C64
30PF

SHT-11

	ADVANCED ELECTRONIC DESIGN, INC. SUNNYVALE, CALIF. 94088		C	DRAWING NUMBER 120017-01	REV XF
	SHEET 11 OF 21				



SHT-12

1

2

3

4

A

B

C

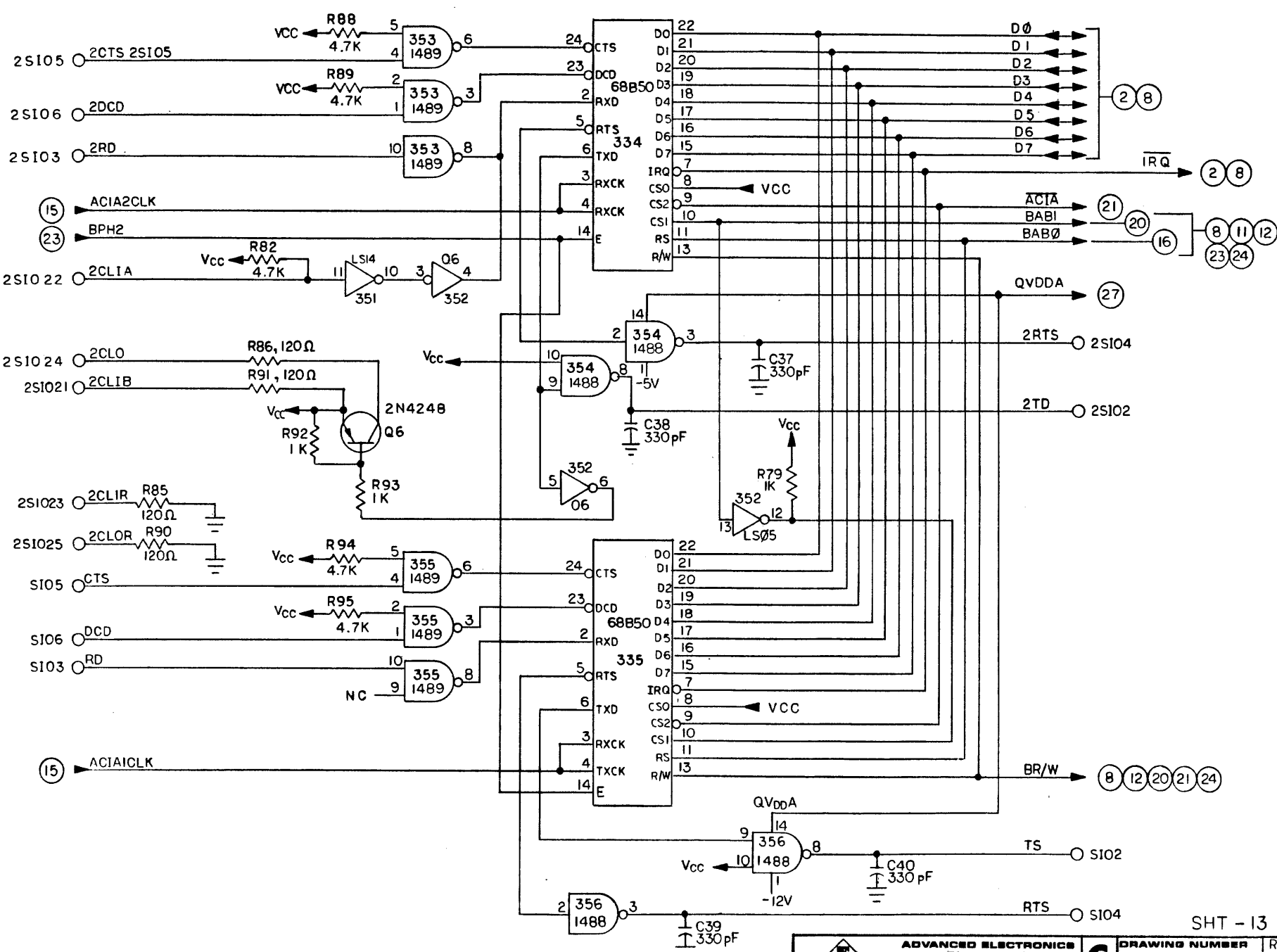
D

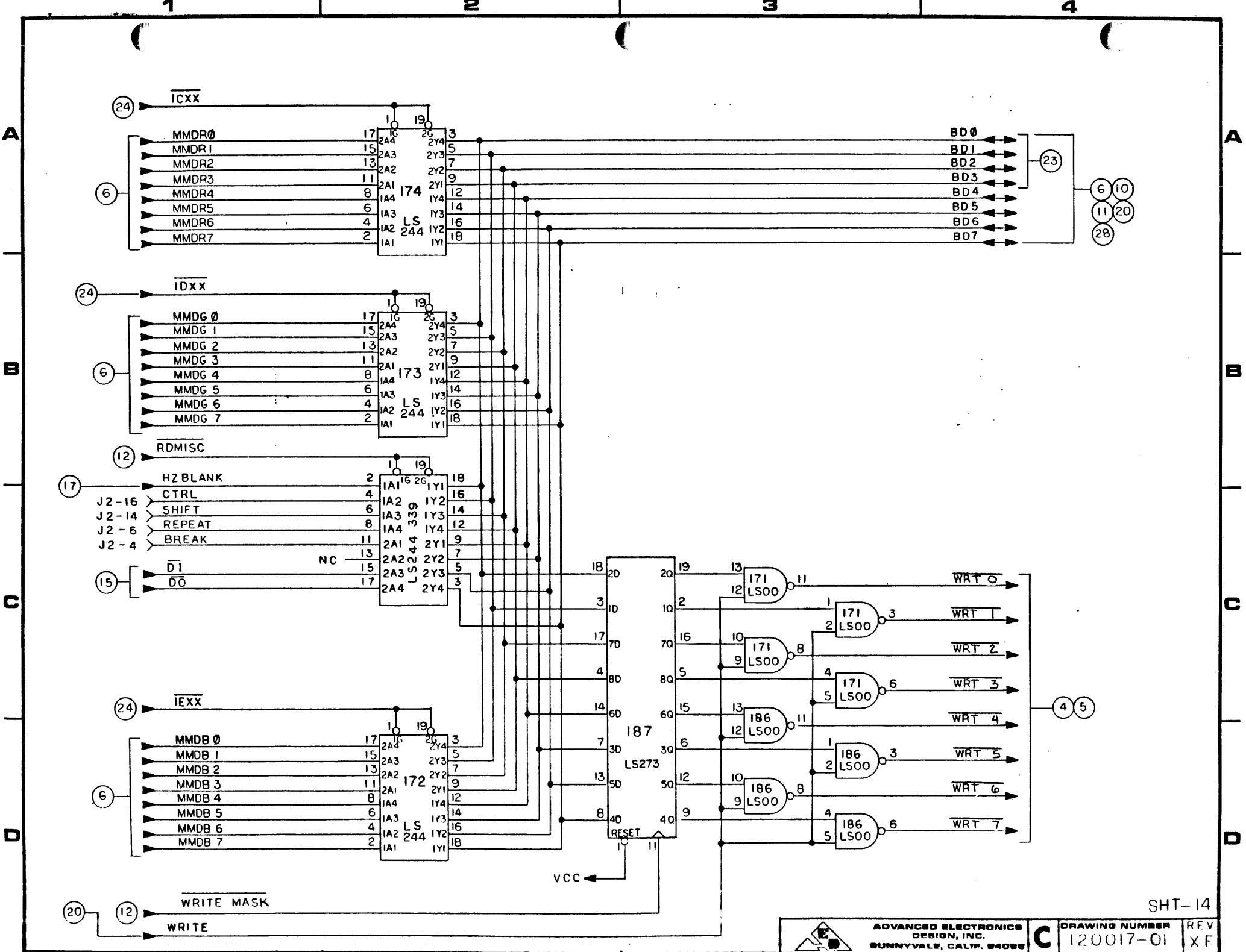
A

E

C

D





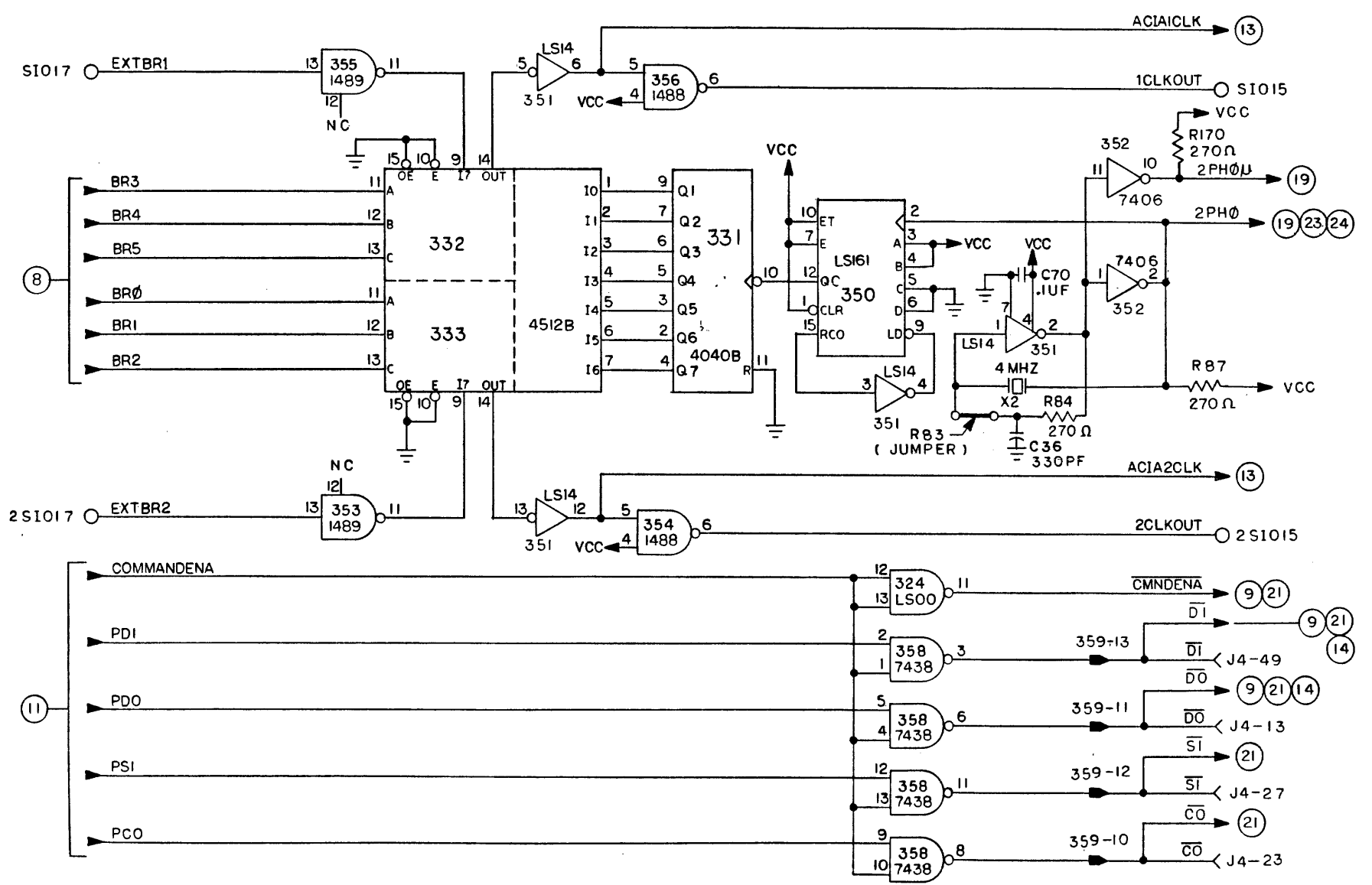
SHT-14



ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088

DRAWING NUMBER
120017-01

REV
XF



SHT-15

1 2 3 4

A

A

B

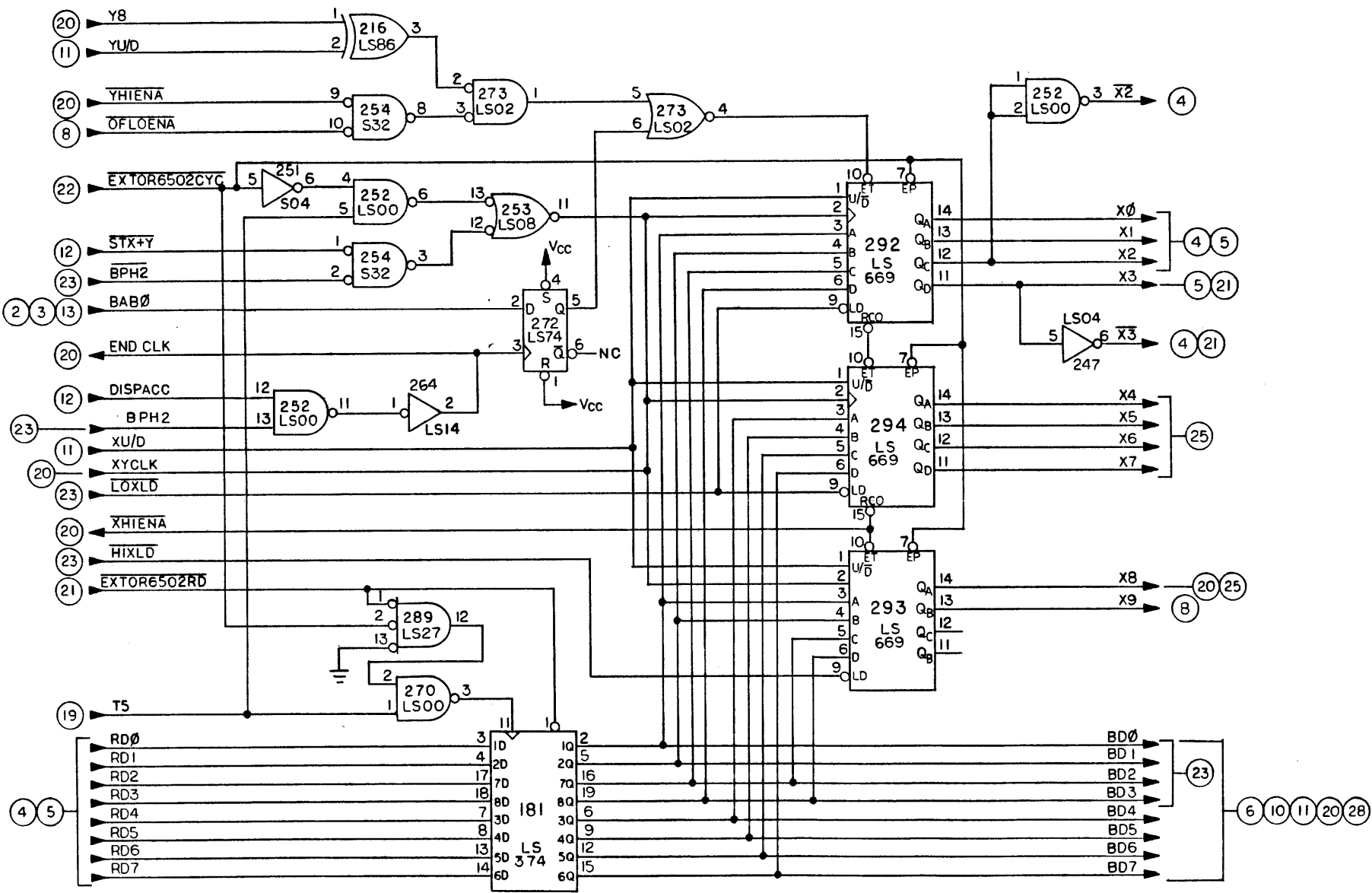
B

C

C

D

D



SHT-16


**ADVANCED ELECTRONICS
DESIGN, INC.**
 SUNNYVALE, CALIF. 94088

C DRAWING NUMBER
 120017-01

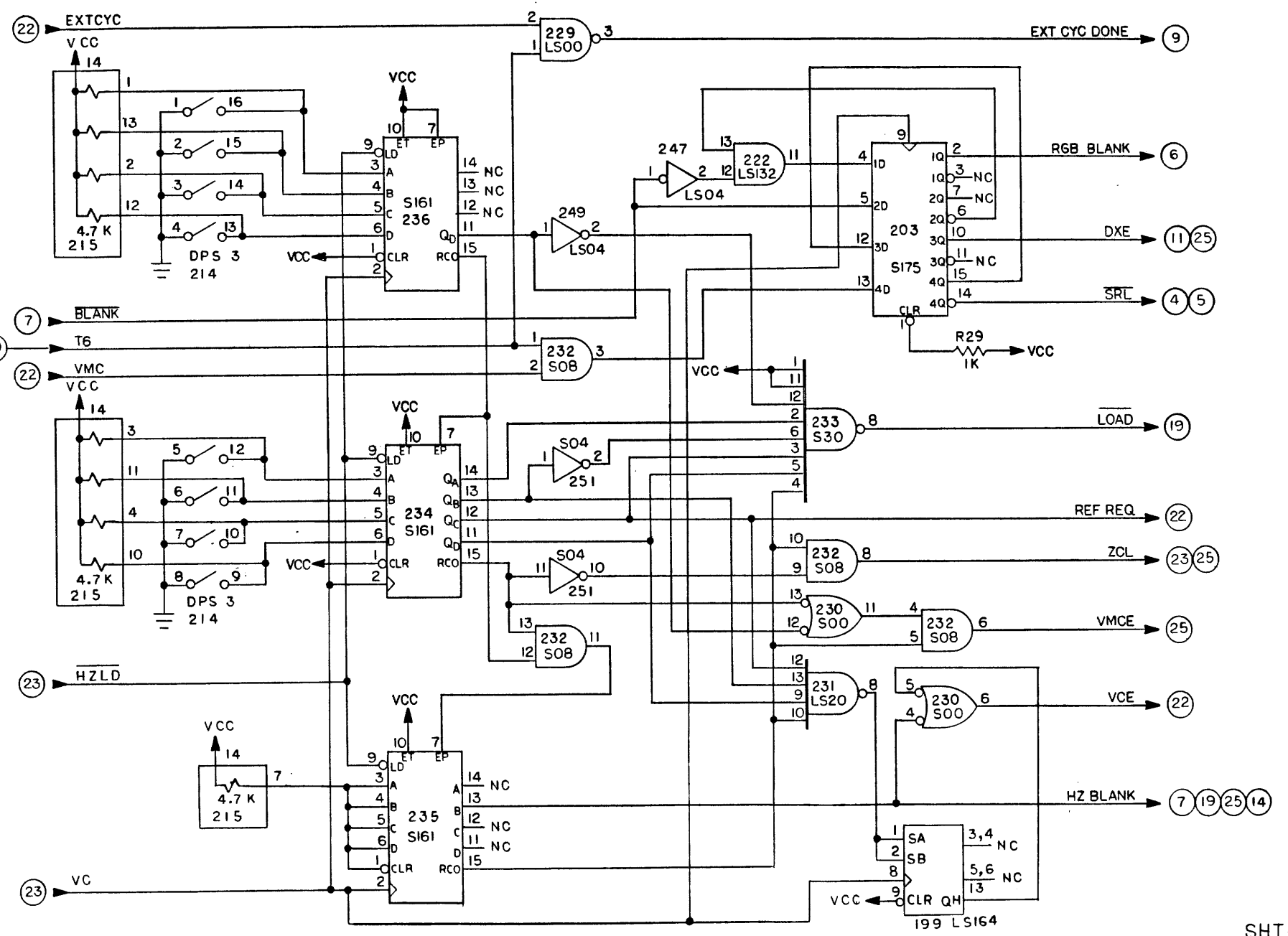
REV
 XF

1

2

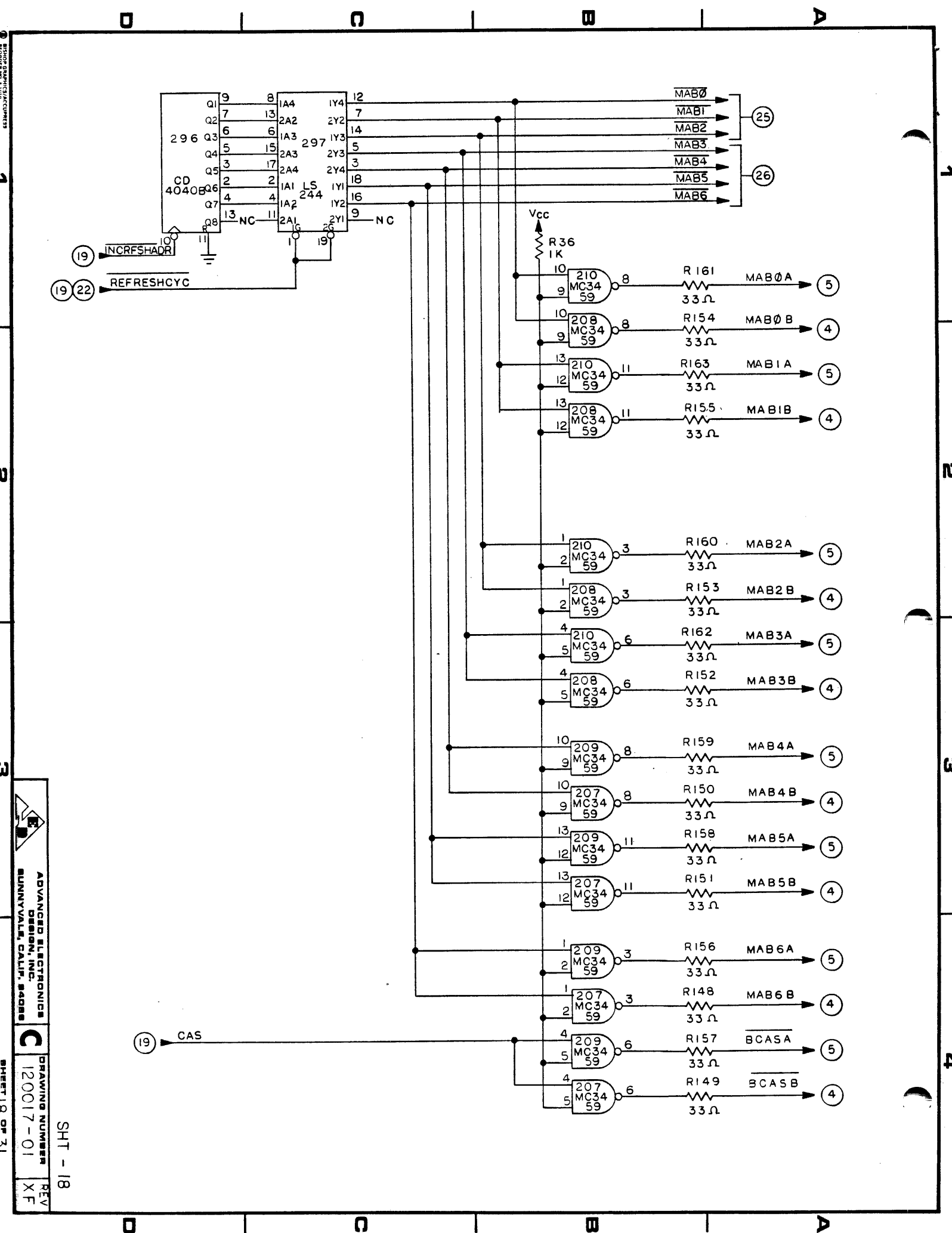
3

4



SHT-17

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120017-01	REV XF
	SHEET 17 OF 31		

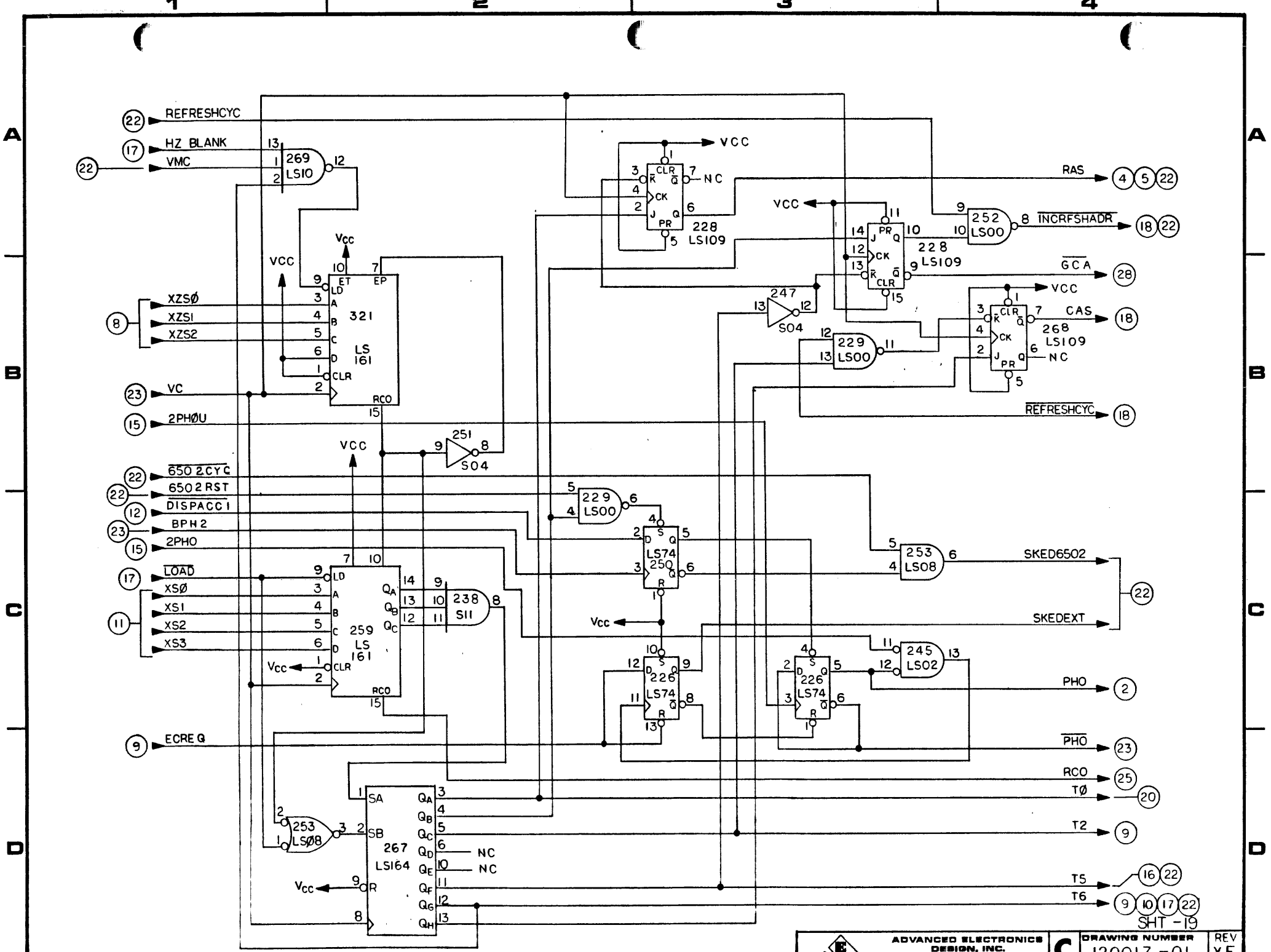


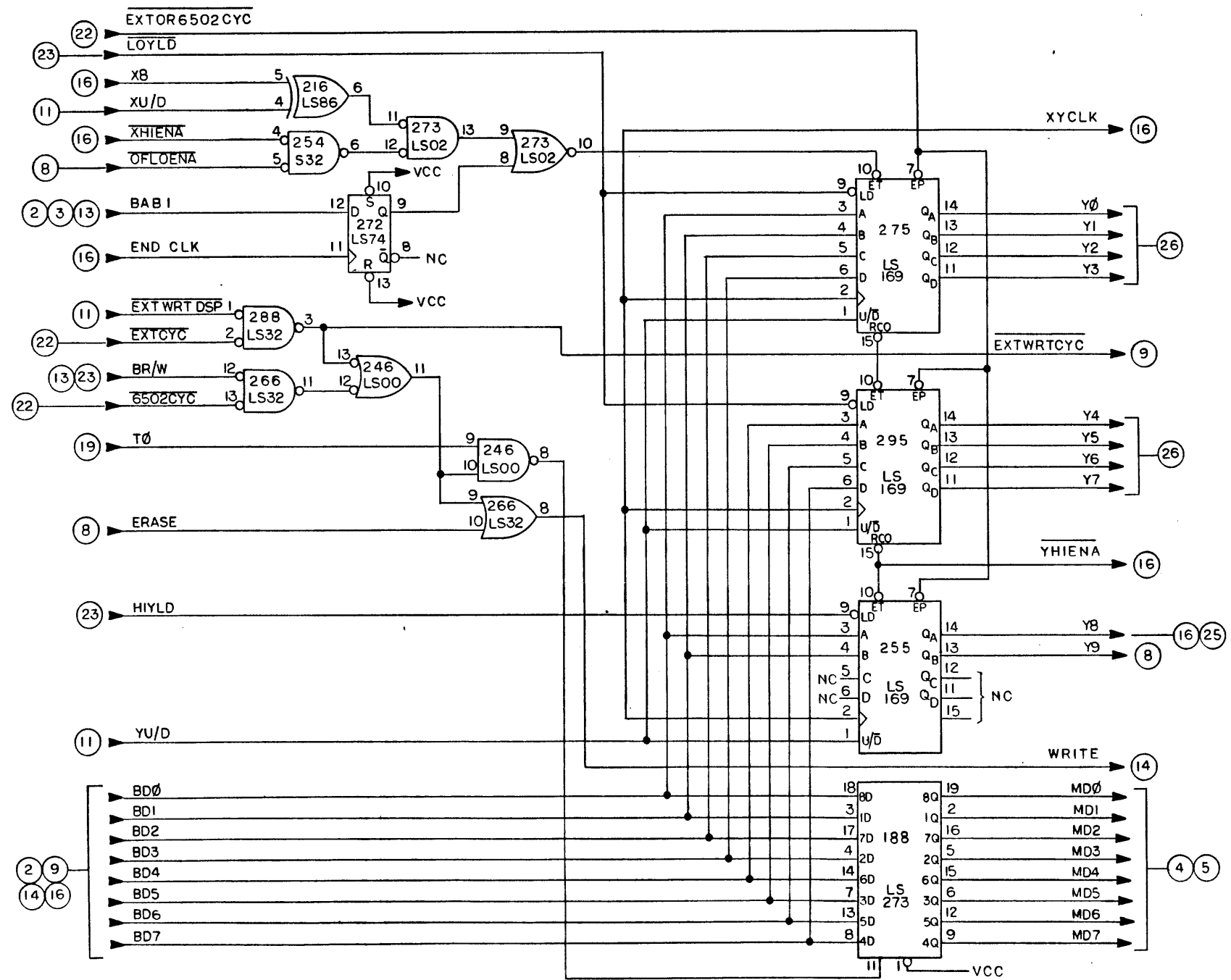
REVISIONS: 1. 11/11/11
 1
 2
 3
 4

ADVANCED ELECTRONICS
 DESIGN, INC.
 SUNNYVALE, CALIF. 94088
 DRAWING NUMBER
 120017-01
 REV
 XF

SHT - 18

0 0 0 A
 1
 2
 3
 4





SHT-20

ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088

DRAWING NUMBER
120017-01
REV
XF

1

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3

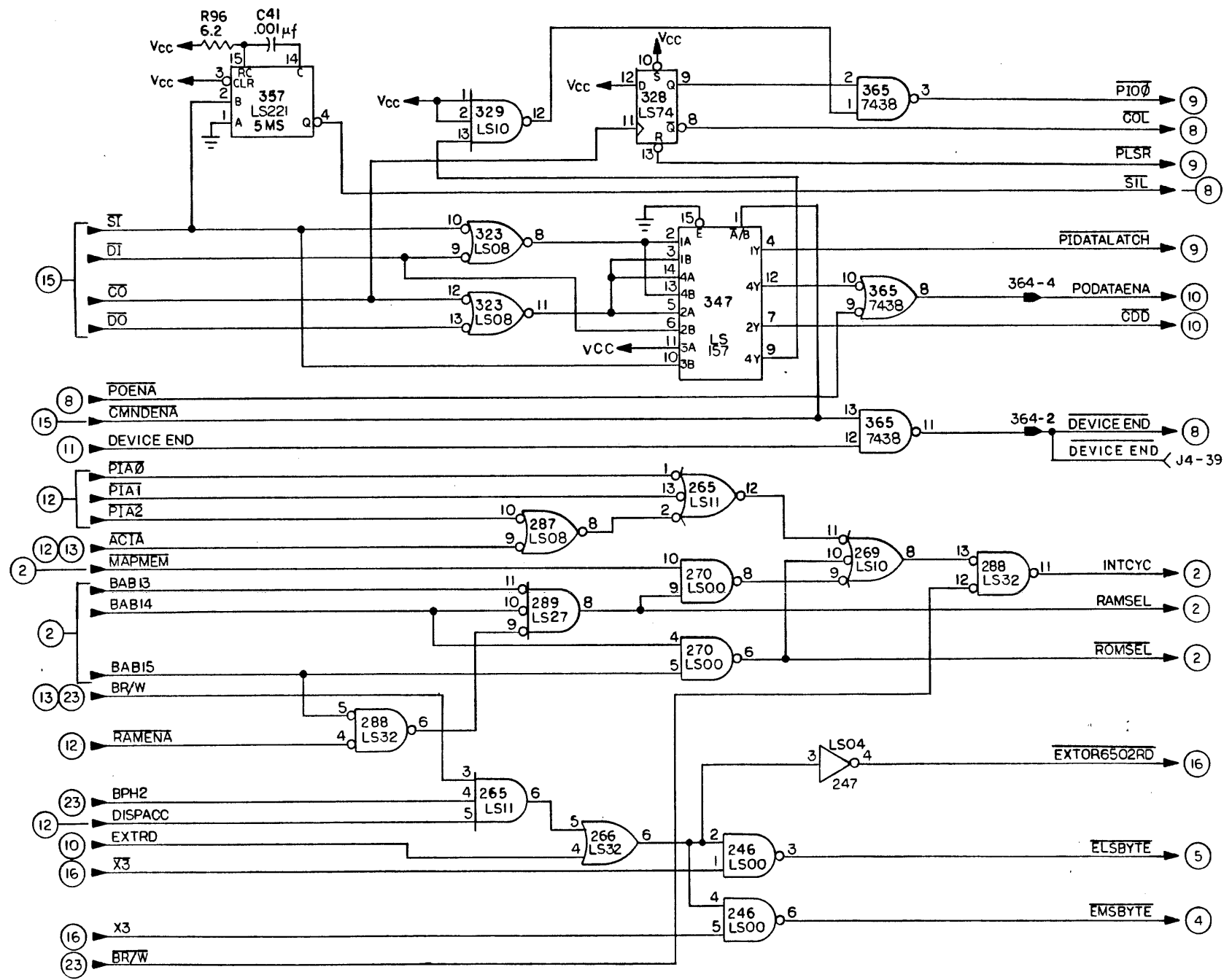
4

A

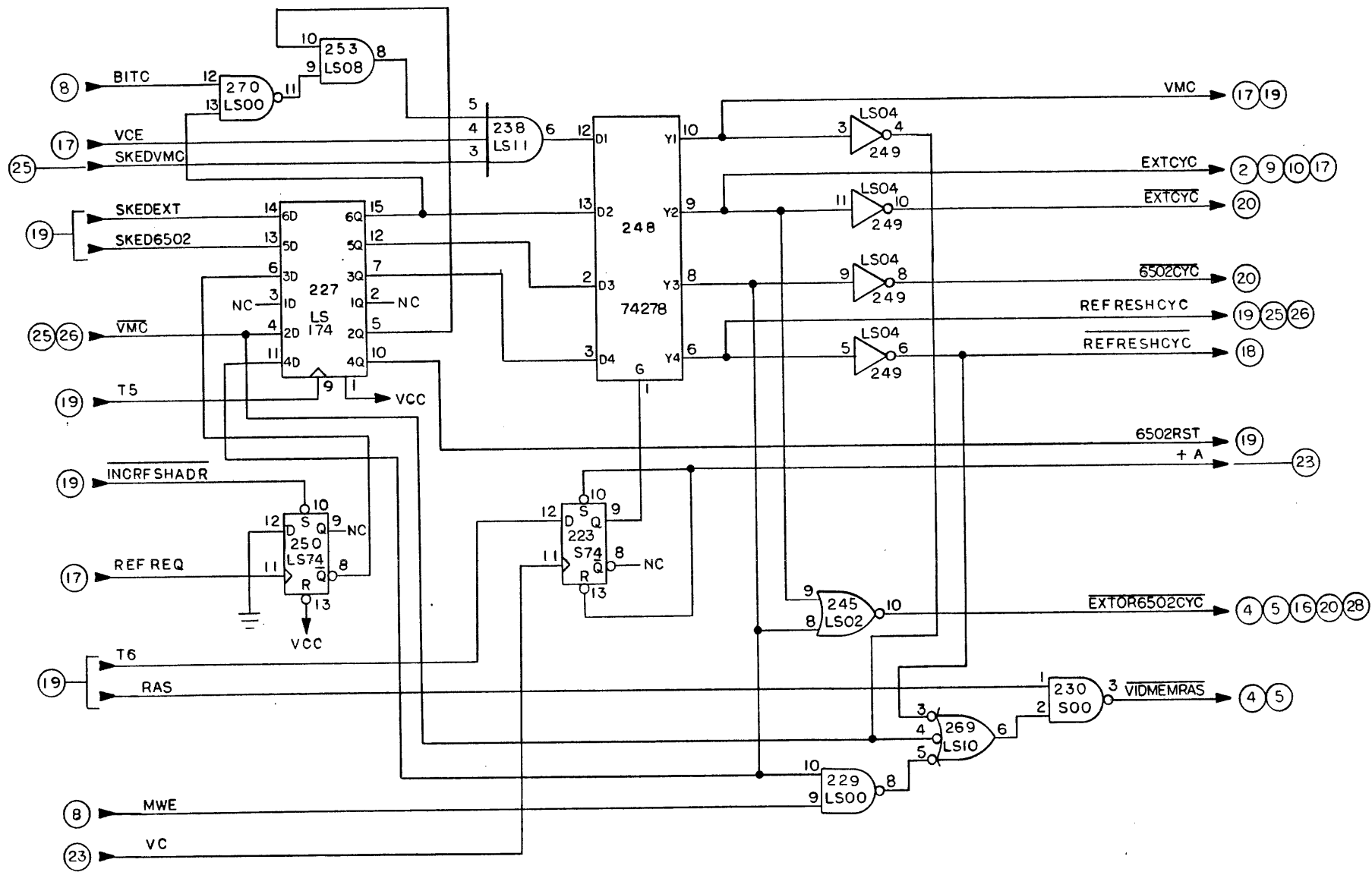
B

C

D



SHT - 21



SHT-22

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94086	C DRAWING NUMBER 120017-01	REV XF
	SHEET 22 OF 31		

A

A

B

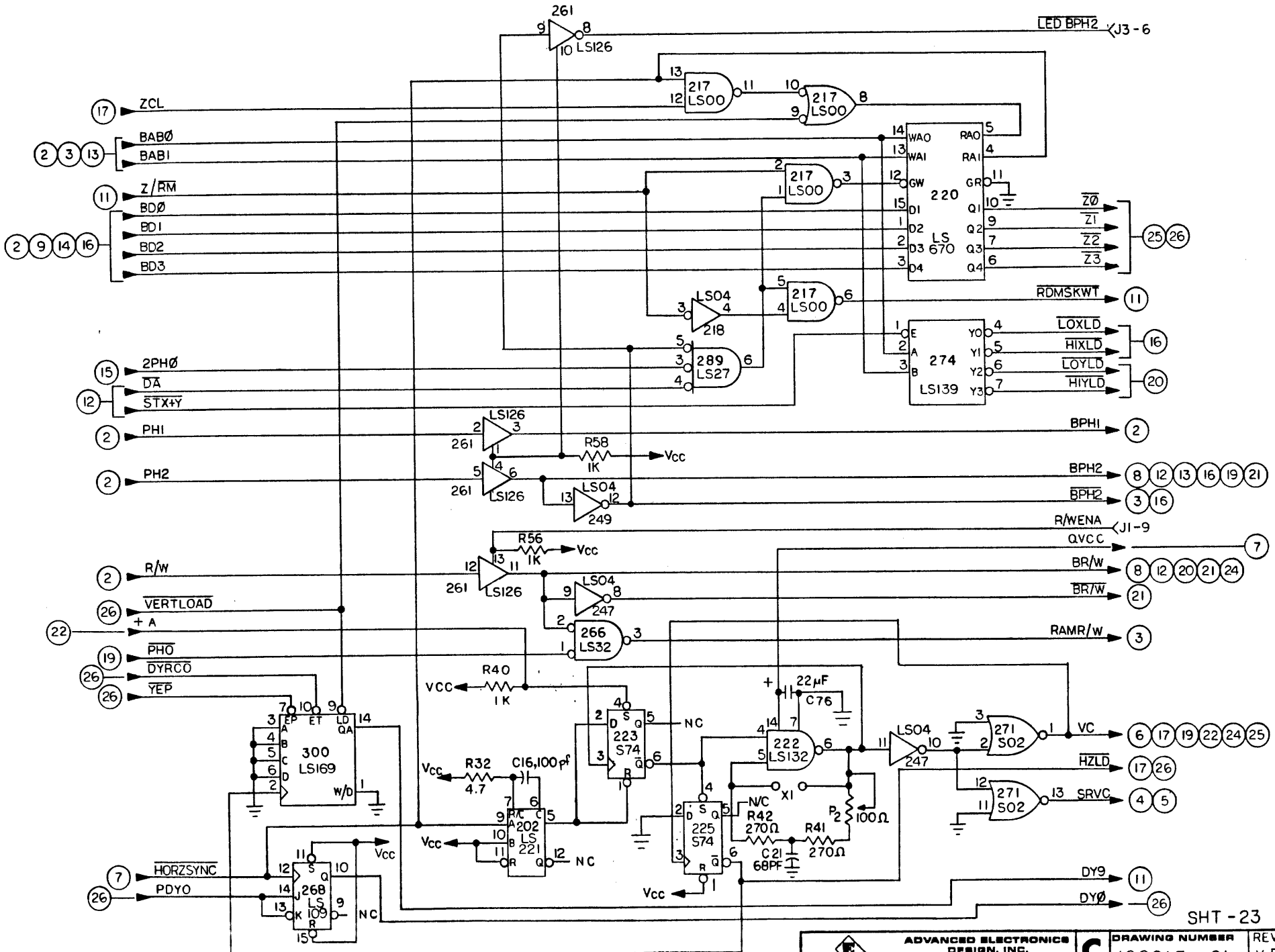
B

C


C

D

D

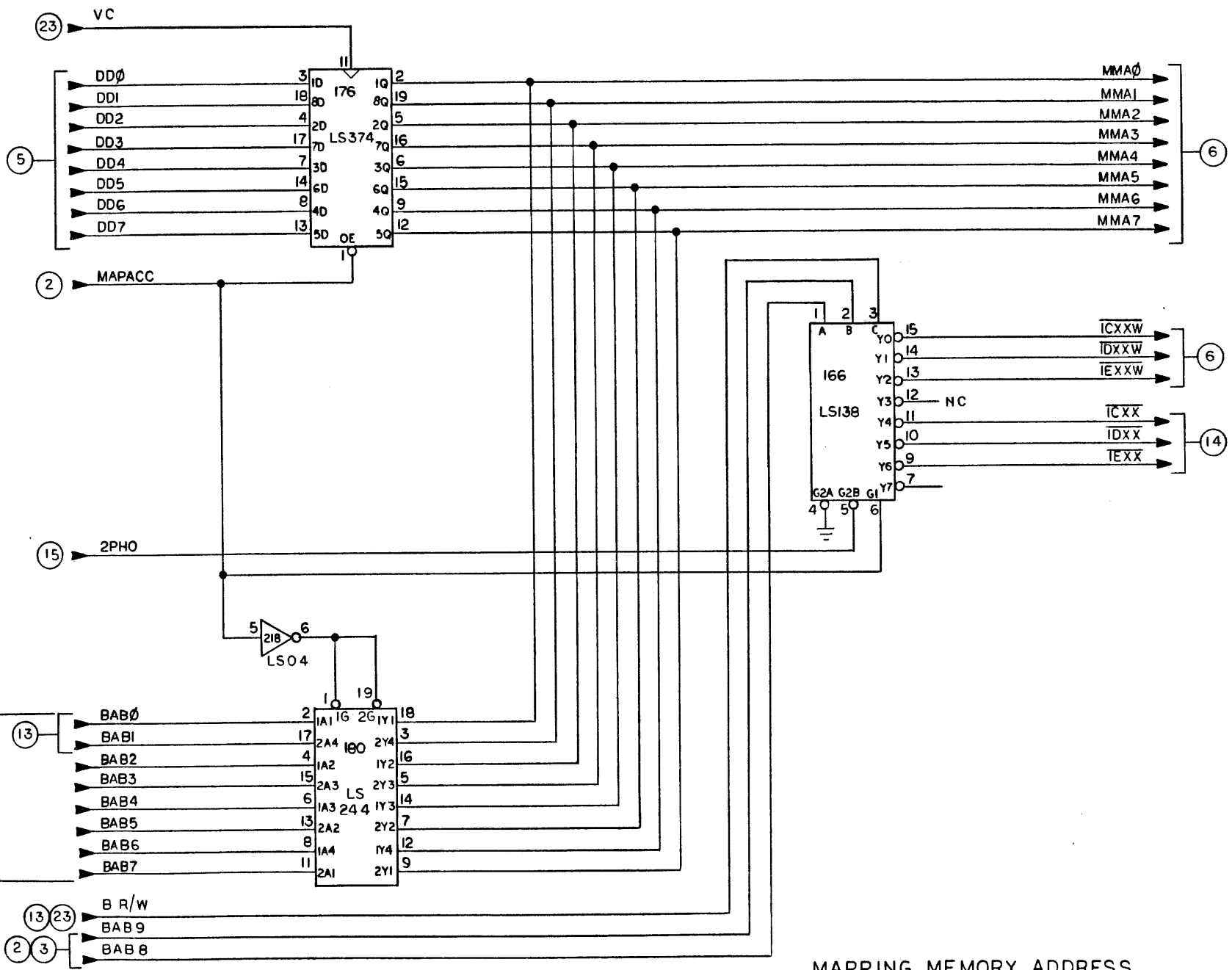


SHT - 23

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94086	C	DRAWING NUMBER 120017 - 01	REV XF
	SHEET 2 OF 21			

1 2 3 4

A
B
C
D



MAPPING MEMORY ADDRESS

SHT 24

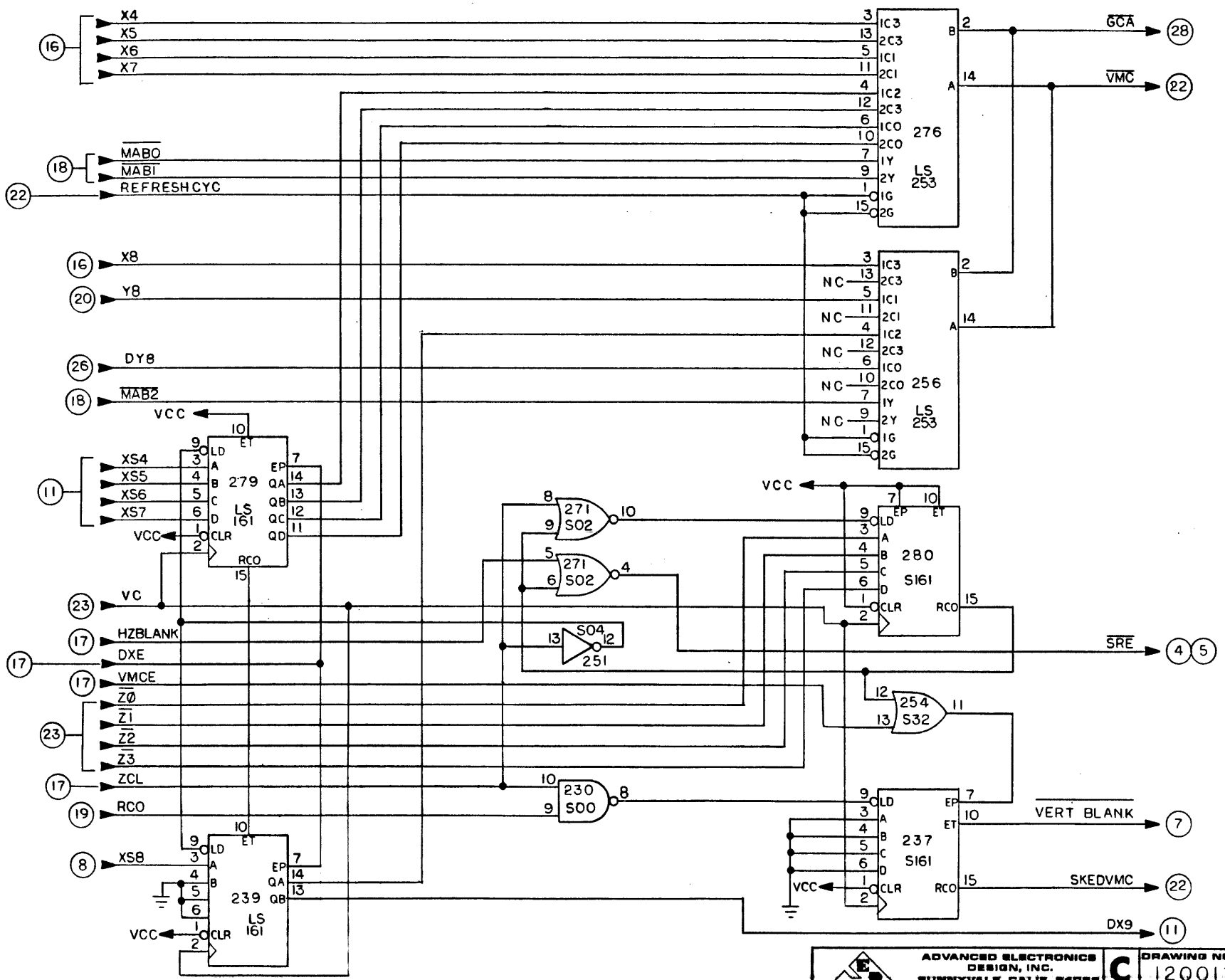


ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088



DRAWING NUMBER
120017-01

REV
XC



SHT-25

1

2

3

4

A

B

C

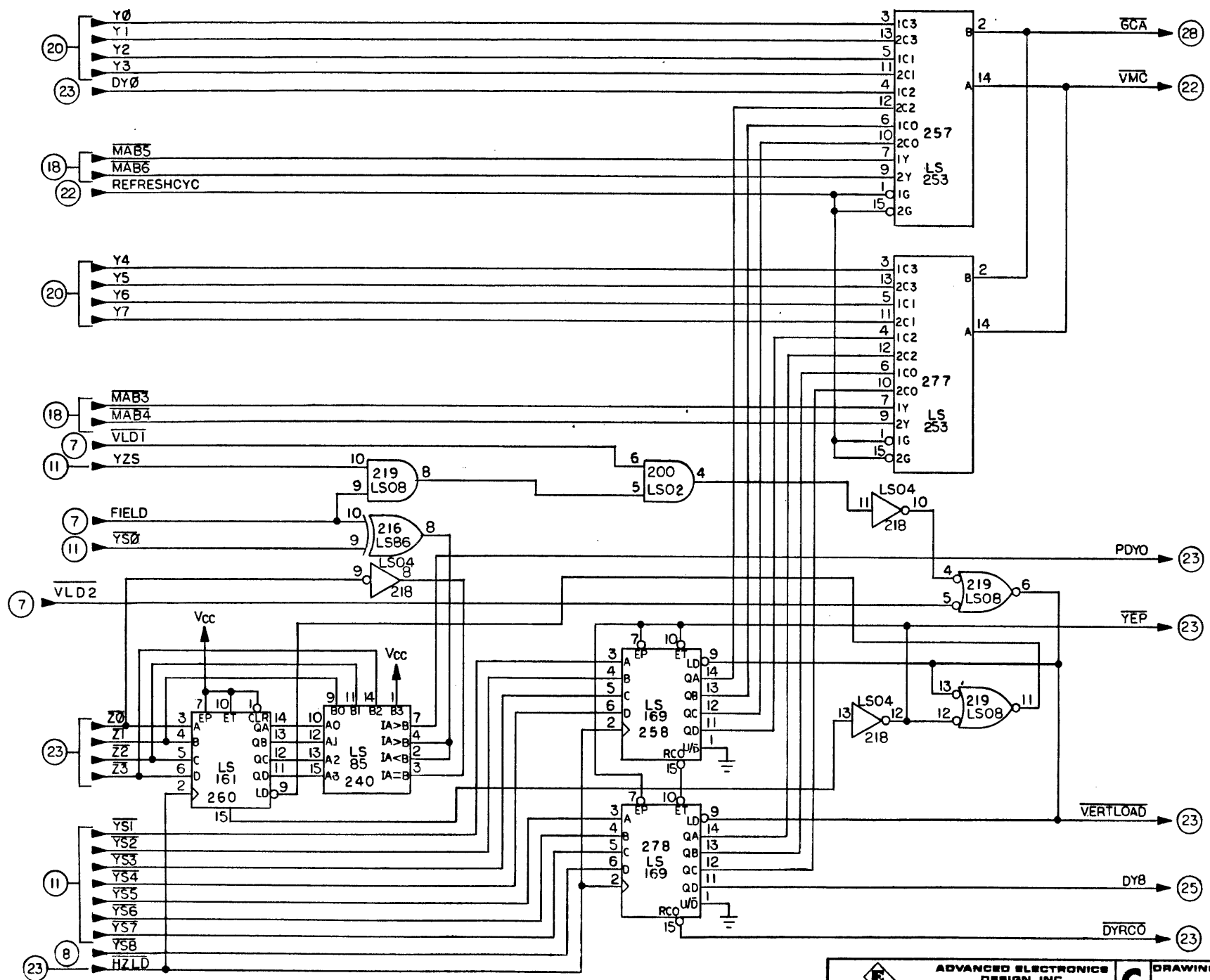
D

A

B

C

D



ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088



DRAWING NUMBER
120017-01

REV
XF

SHT - 26

1

2

3

4

A

B

C

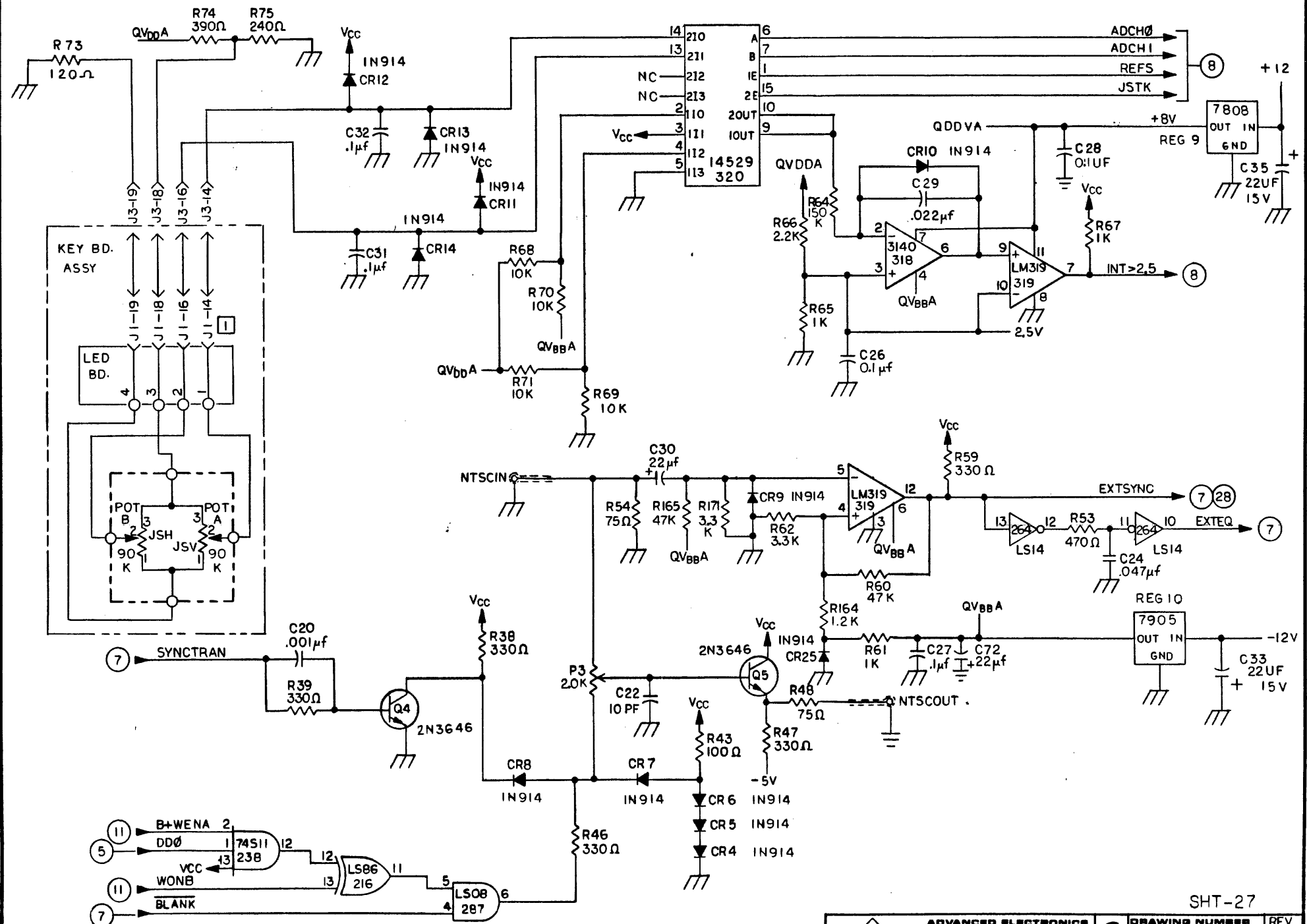
D

A

B

C

D



SHT-27

1

2

3

4

A

B

C

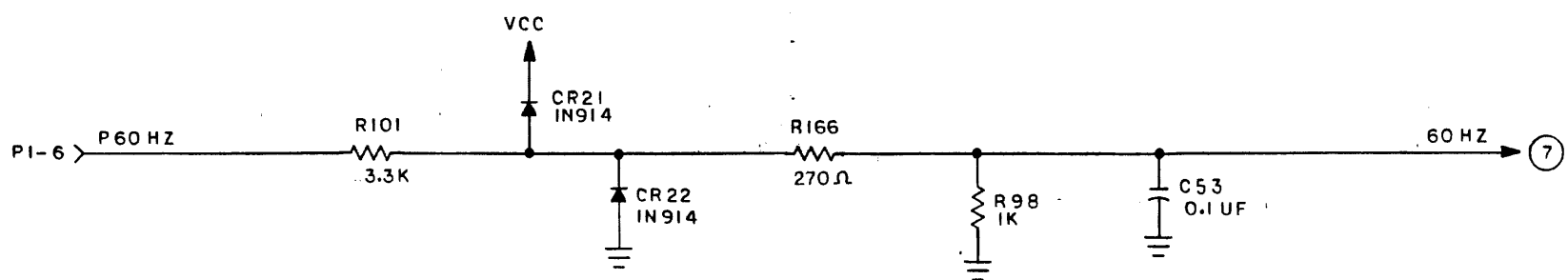
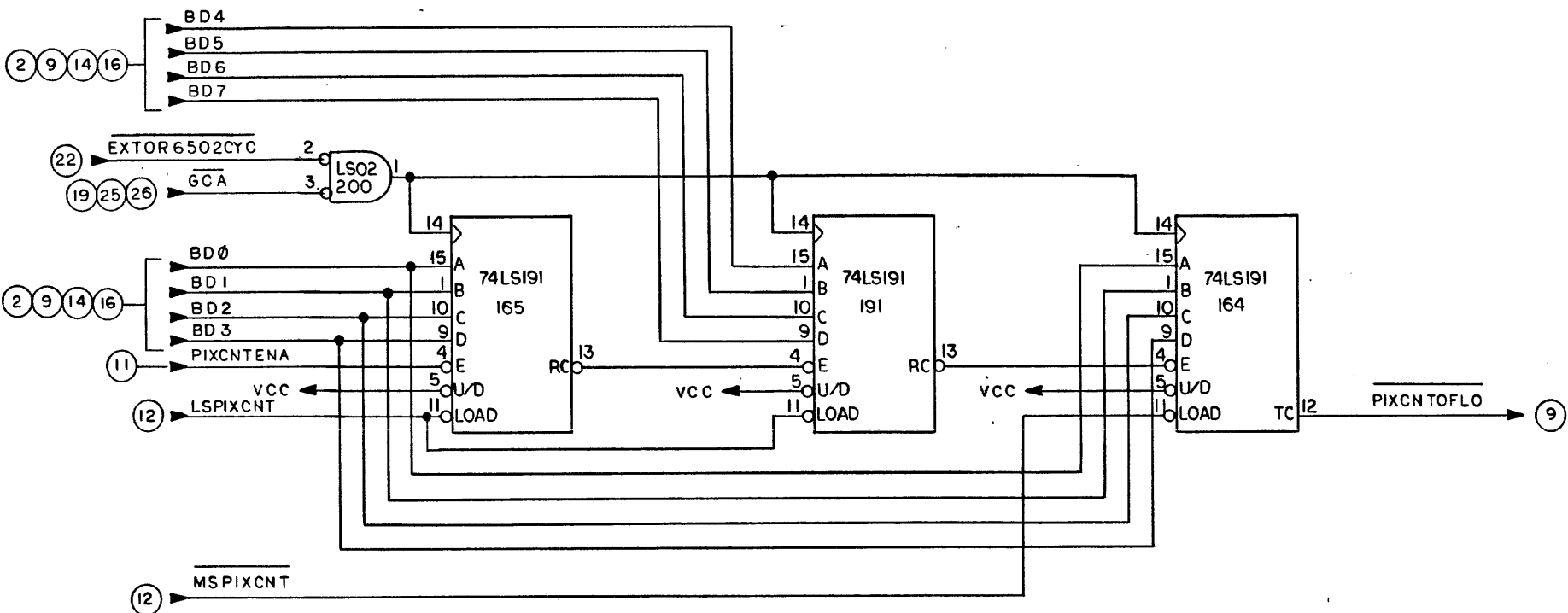
D

A

B

C

D

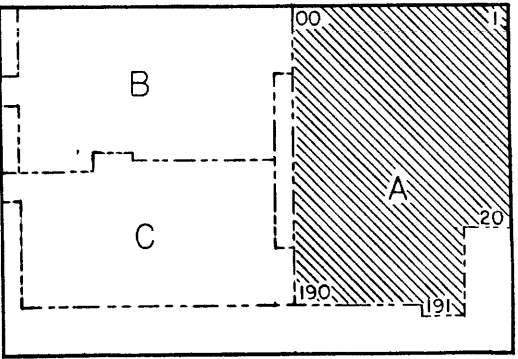


SHT-28

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120017-01	REV X F
	SHEET 09 OF 21			

00	141	4	121	4	101	4	81	4	61	4	41	4	4	1	4	
LS221	142	4	122	4	102	4	82	4	62	4	42	4	22	4	2	4
7	143	4	123	4	103	4	83	4	63	4	43	4	23	4	3	4
	144	4	124	4	104	4	84	4	64	4	44	4	24	4	4	4
	145	4	125	4	105	4	85	4	65	4	45	4	25	4	5	4
	146	4	126	4	106	4	86	4	66	4	46	4	26	4	6	4
	147	4	127	4	107	4	87	4	67	4	47	4	27	4	7	4
	148	4	128	4	108	4	88	4	68	4	48	4	28	4	8	4
	149	4	129	4	109	4	89	4	69	4	49	4	29	4	9	4
	150	4	130	4	110	4	90	4	70	4	50	4	30	4	10	4
	151	5	131	5	111	5	91	5	71	5	51	5	31	5	11	5
	152	5	132	5	112	5	92	5	72	5	52	5	32	5	12	5
	153	5	133	5	113	5	93	5	73	5	53	5	33	5	13	5
	154	5	134	5	114	5	94	5	74	5	54	5	34	5	14	5
	155	5	135	5	115	5	95	5	75	5	55	5	35	5	15	5
	156	5	136	5	116	5	96	5	76	5	56	5	36	5	16	5
	157	5	137	5	117	5	97	5	77	5	57	5	37	5	17	5
	158	5	138	5	118	5	98	5	78	5	58	5	38	5	18	5
	159	5	139	5	119	5	99	5	79	5	59	5	39	5	19	5
	160	5	140	5	120	5	100	5	80	5	60	5	40	5	20	5
	186		181		176		171		166							
	LS00		LS374		LS374		LS00		LS138							
	14	14			16		24		14	14			24			
	14	14							14	14						
	187		182		177		172		167		161					
	LS273		93422		93422		LS244		LS273		DAC-08B					
	14		6		6		14		6		6					
	188		183		178		173		168		162					
	LS273		93422		93422		LS244		LS273		DAC-08B					
	20		6		6		14		6		6					
	189		184		179		174		169		163					
	LS273		93422		93422		LS244		LS273		DAC-08B					
	11		6		6		14		6		6					
	190		185		180		175		170		164		165		191	
	74S00		LS670		LS244		LS670		74S00		LSI91		LSI91		LSI91	
	11	11			11		24		11	11			28		28	
	11	11			11		24		11	11			28		28	

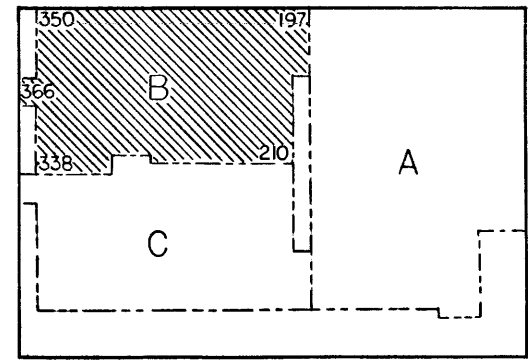
4116-3
74LS251
74LS166
4116-3
74LS251
74LS166
4116-3



SHT - 29

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088		DRAWING NUMBER	REV
			120017 - 01	XF

350						261		197	
LSI61						LSI26		4046B	
15						23 23		7 7	
23 23									
351		331		262		242		222	
LSI4		4040B		6502A		890027-01		LSI32	
15 15		15		2		7		7 23	
15 12								7 17	
13 15								7	
352		332		301		283		263	
7406		4512B		LS44		LS26		LS86	
15 13		15		2		12		7 7	
13 2								7	
15 13								23	
353		333		317		302		284	
1489		4512B		8304		LS244		LS00	
13 13		15		2		2		12 12	
13 15								16 7	
								7 7	
								7 7	
								27 27	
								7 7	
								7	
								4 4	
								4 4	
354		334		318		303		285	
1488		68B50		3140		4118-3		LS138	
13 15		13		27		3		2	
13								21	
								12	
								7 2	
								23	
								4	
366		355		319		286		266	
DPS2		1489		LM319		304		LS138	
8		13 13		68B50		27		4118-3	
		13 15		13		27		3	
								12	
								23 21	
								21 21	
								19	
								4 4	
								4 4	
356		336		305		287		267	
1488		68B21		4118-3		LS08		LS164	
13 15		8		27		3		19	
13								10 27	
								17 21	
								16 23	
								22	
								18 18	
								18 18	
								21 12	
								23 19	
								288	
								268	
								248	
								228	
								208	
								LS32	
								LS109	
								74278	
								LS109	
								3459	
								20 21	
								19	
								22	
								19	
								18 18	
								18 18	
								12 21	
								23	
								19	
								18 18	
								18 18	
								289	
								269	
								249	
								229	
								209	
								LS27	
								LS10	
								LS04	
								LS00	
								3459	
								23	
								17 22	
								17 19	
								18 18	
								21 21	
								22 22	
								22 19	
								18 18	
								22 19	
								18 18	
								307	
								16 19	
								22 23	
								22 19	
								18 18	
								290	
								270	
								250	
								230	
								210	
								LS138	
								LS00	
								LS74	
								S00	
								3459	
								16 21	
								19	
								22 17	
								18 18	
								21 22	
								22	
								25 17	
								18 18	
								18 18	



SHT - 30

	ADVANCED ELECTRONICS DESIGN, INC.	C DRAWING NUMBER 120017-01	REV XF
	SUNNYVALE, CALIF. 94088		

				291	271	251	231	211			
				LS138	74S02	74S04	LS20	LS08			
				308	2		23 25	17 12	5 5		
				890026-01	2		16 19	5 5			
				3		25 23	17 25	17	5 5		
367	357	339	321	3		292	272	252	232	212	
DPSI	LS221	LS244	LSI61	3		LS669	LS74	LS00	S08	SI38	
8	21	14	19	309		16	16	16 16	17 17	5	
	9			890026-02	20						19 16
				3		293	273	253	233	213	
				3		LS669	LS02	LS08	74S30	LS08	
				310		16	16 16	19 19	17	5 5	
				310			20 20	22 16		5 5	
				890026-03		294	274	254	234	214	
				3		LS669	LSI39	74S32	SI61	DPS3	
				3		16	23	16 20	17	17	
				3				16 25			
				890026-04		295	275	255	235	215	
				3		LS169	LS169	LS169	SI61	4.7K RN	
				3		20	20	20	17	17 17 17 17	
				3						10 10	10 9
				890026-05		296	276	256	236	216	
				3		4040B	LS253	LS253	SI61	LS86	
				3		18	25	25	17	16 20	
				3						10 10	9 10
				890026-06		297	277	257	237	217	
				3		LS244	LS253	LS253	74SI61	LS00	
				313		18	26	26	25	23 23	
				313						10 10	9 10
				890026-07		298	278	258	238	218	198
				3		LS273	LSI69	LSI69	74S11	LS04	SPARE
				314		11	26	26	22 9 23		
				314					10 10	9	19 24 26
				890026-08		299	279	259	239	219	199
				3		LS273	LSI61	LSI61	LSI61	LS08	LSI64
				315		11	25	19	25	9 26	17
				315						10 10 10 10	
				890026-09		300	280	260	240	220	200
				3		LSI69	74SI61	LSI61	LS85	LS670	LS02
				3		23	25	26	26	23	28 26
				3							21 9
				3		23	25	26	26	23	21 21
				3							21 21

