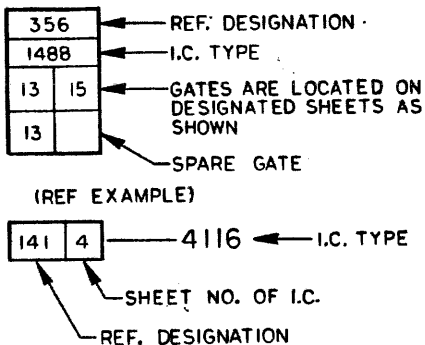
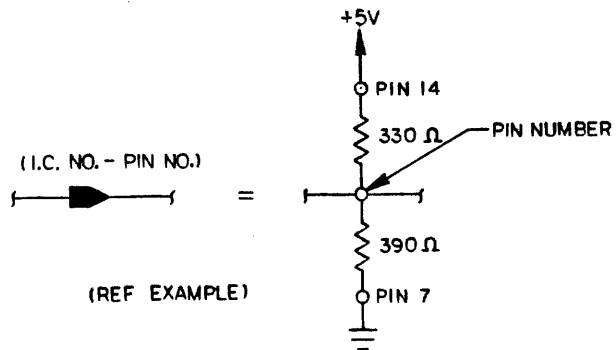


NOTES - UNLESS OTHERWISE SPECIFIED:

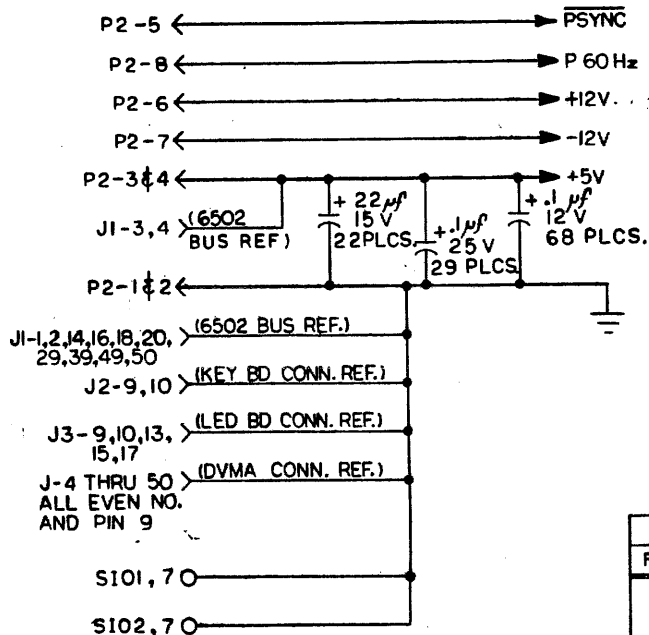
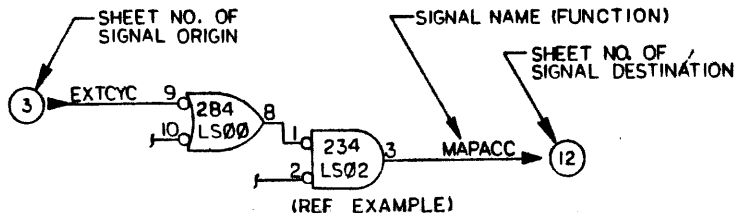
- CONNECTOR PIN DESIGNATIONS ARE PER SILK-SCREENED LED BOARD, NOT J1 CONNECTOR PIN DESIGNATOR.
- ALL RESISTORS ARE IN OHMS AND ARE 1/4 W UNLESS OTHERWISE SPECIFIED.
- FOR MODULE MAP, SEE SHEETS 29, 30 AND 31. GATES ARE IN ORDER OF OUTPUT PIN NUMBERS AND ARE DEPICTED FROM LEFT TO RIGHT, TOP TO BOTTOM 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:



USE 890027-01 60HZ
USE 890027-02 50HZ

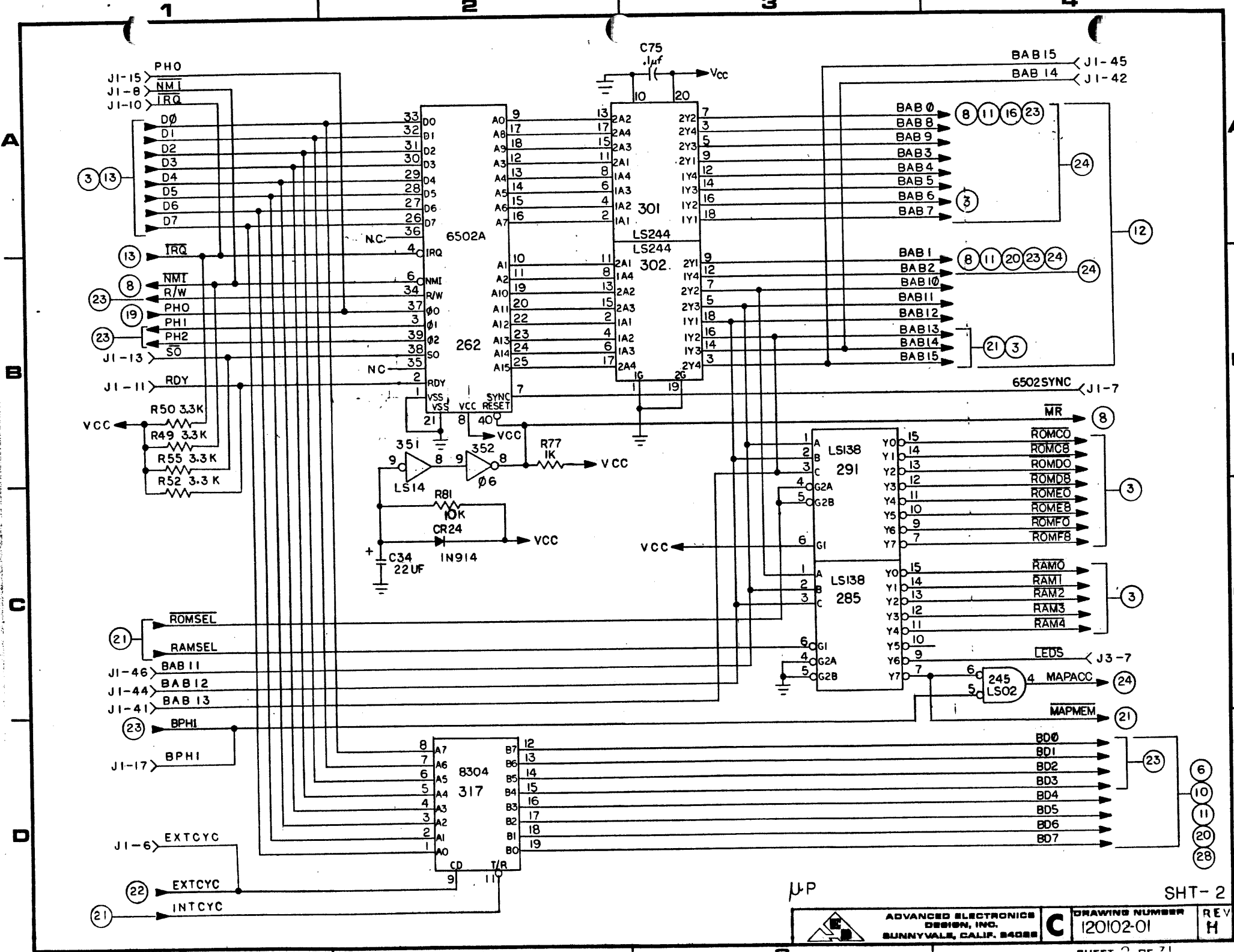
ISSUE	DESCRIPTION	DATE	APPROVED
A	REL. PER ECO-20	4/1/82	NG
B	ECO NO. 2068A	4/1/82	NG
C	ECO 2166	6/1/83	NG
D	ECO 2263	8/	Blunt
E	ECO 2386	4/25	NG
F	ECO 2392	5/84	NG
G	ECO 2410	5/84	Blunt
H	ECO 2423	10/84	Blunt

MASTER

IF THIS STATEMENT APPEARS
IN RED, RETURN TO:
DOCUMENT CONTROL

COMPONENT REF. DESIG.		
FIRST	LAST	UNUSED
RI	RI74	8, 15, 22, 23, 27, 31, 45, 51, 57, 63, 72, 78, 80, 99, 100, 102, 103 - 130
CI	CI02	2, 4, 5, 13, 14, 23, 25, 42 - 50, 66 - 69, 82
A00	A368	198
CRI	CR30	CR15 - 20, 23, 26 - 29
Q1	Q10	Q8, Q9
REG 4	10	REG 1, 2, 3, 5
PI	P3	---
J1	J4	---

-03	-02	-01	PART NUMBER	CODE IDENT	DESCRIPTION	ITEM NO.
01	120101-01	512				
DASH NO.	NEXT ASSY	USED ON	MATERIAL			
APPLICATION			FINISH			
			DRAWING TITLE			
			SCALE			
			SCHEMATIC			
			AED - 512			
			ADVANCED ELECTRONICS DESIGN, INC.		DRAWING NUMBER	
			SUNNYVALE, CALIF. 94086		REV	
			C		H	



UP

SHT-2

1

2

3

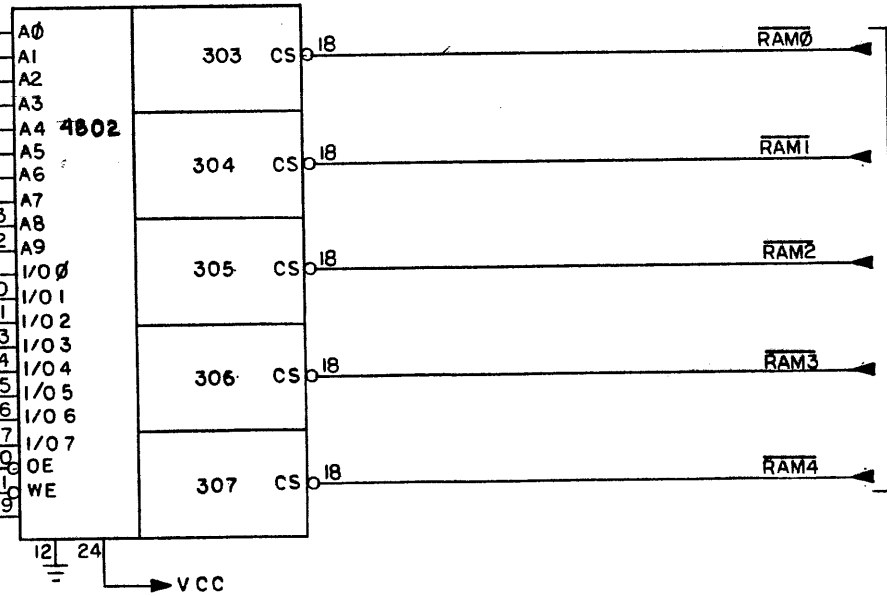
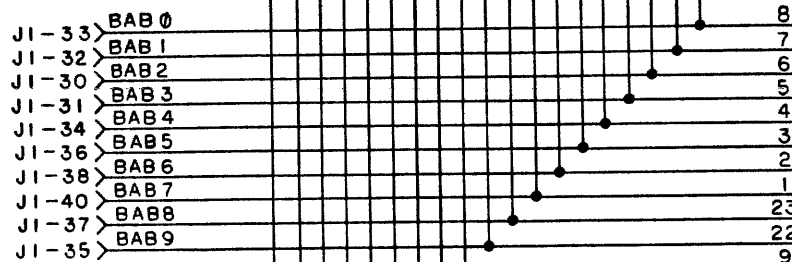
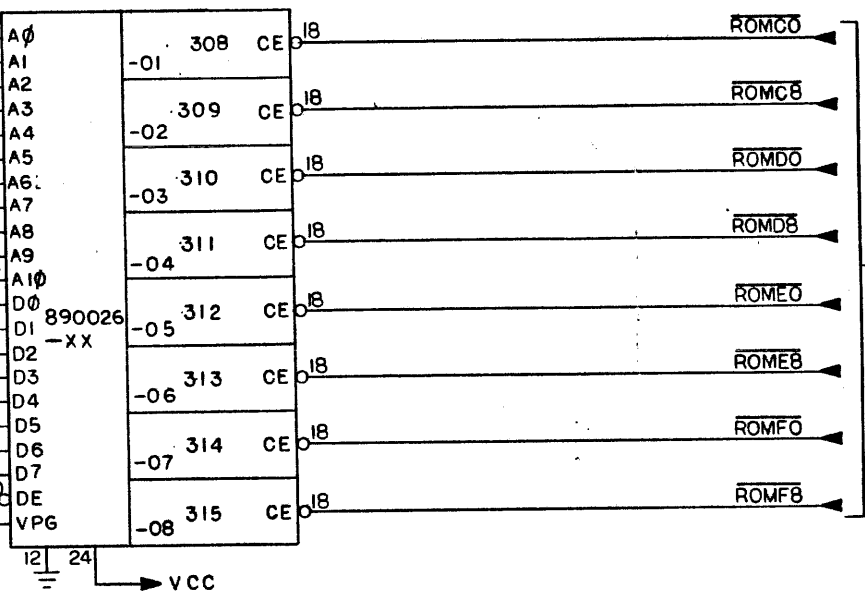
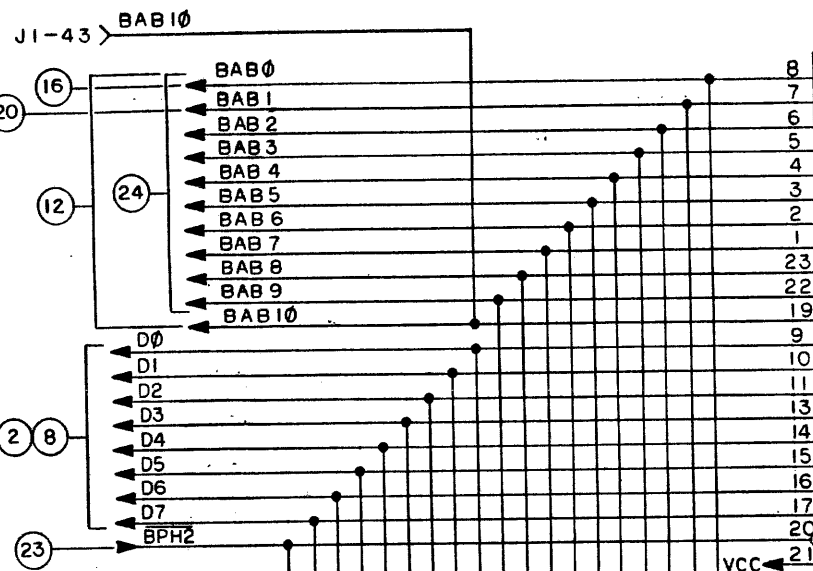
4

A

B

C

D



RAM/ROM

SHT-3

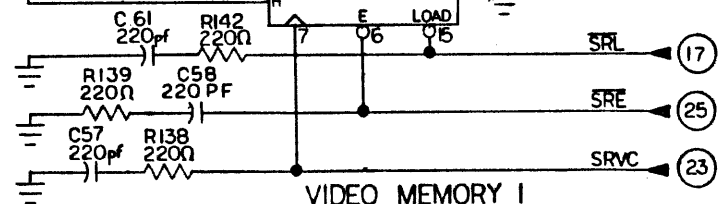
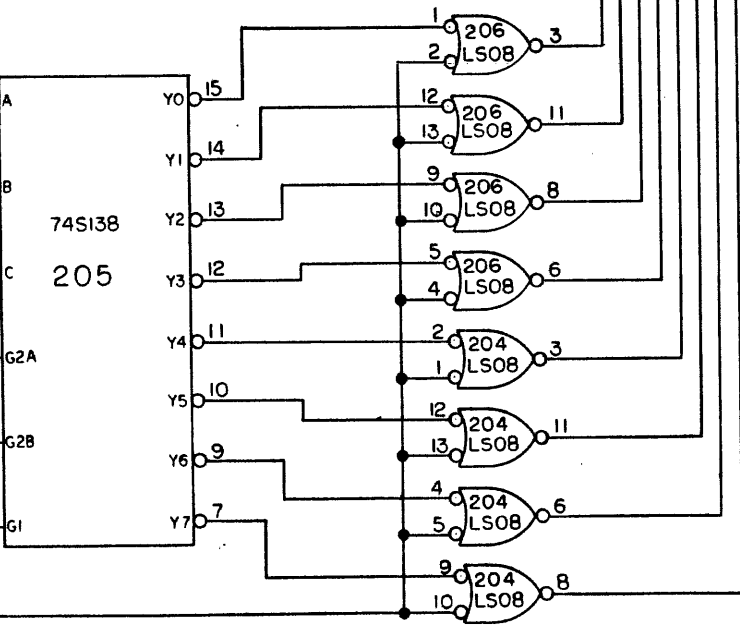
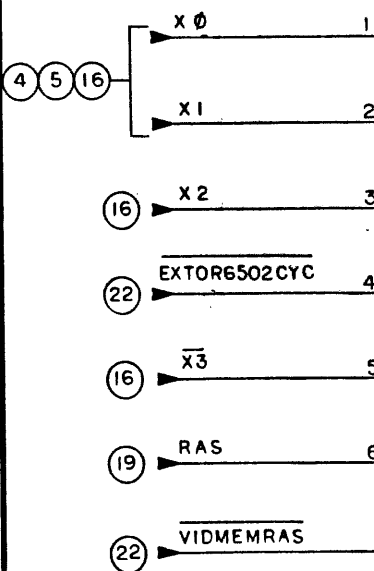
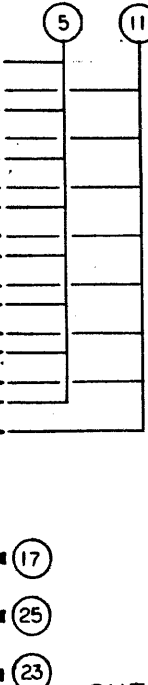
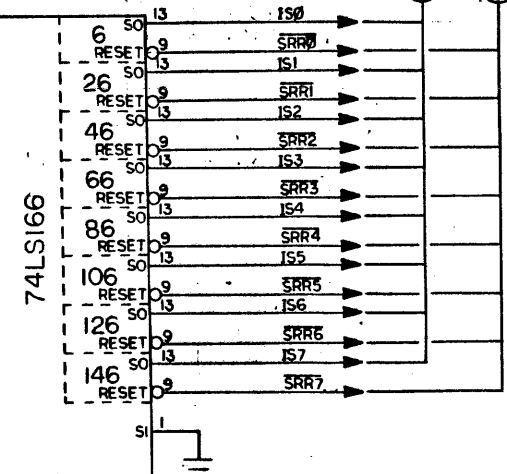
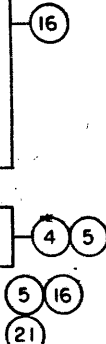
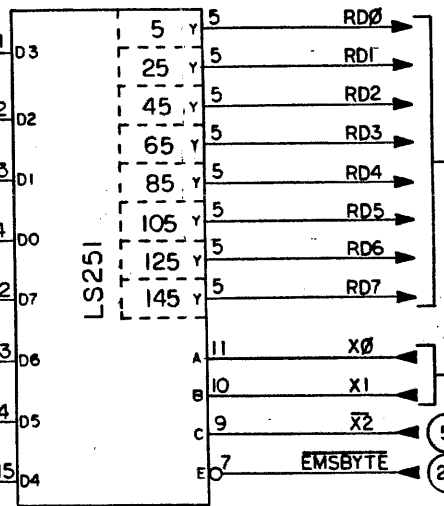
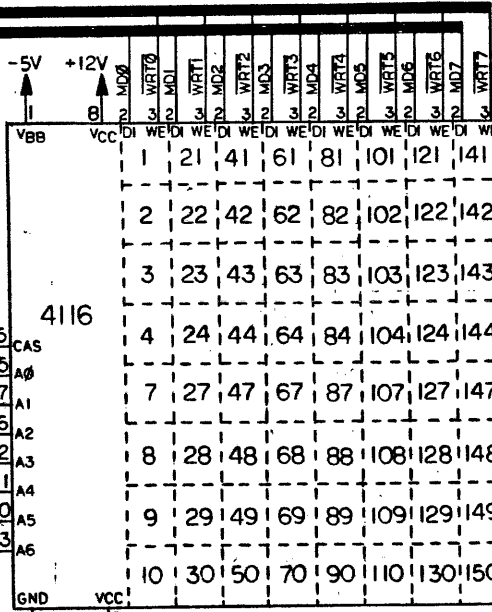
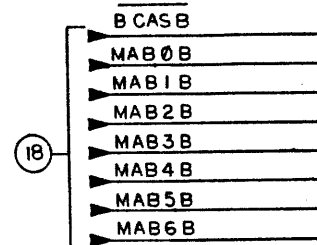
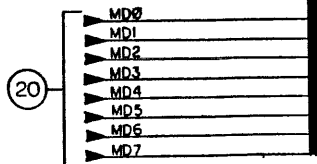
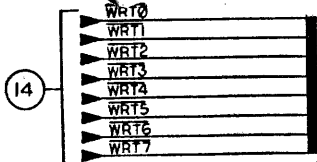
	ADVANCED ELECTRONICS DESIGN, INC.	C	DRAWING NUMBER	REV
	SUNNYVALE, CALIF. 94088		120102-01	H

1

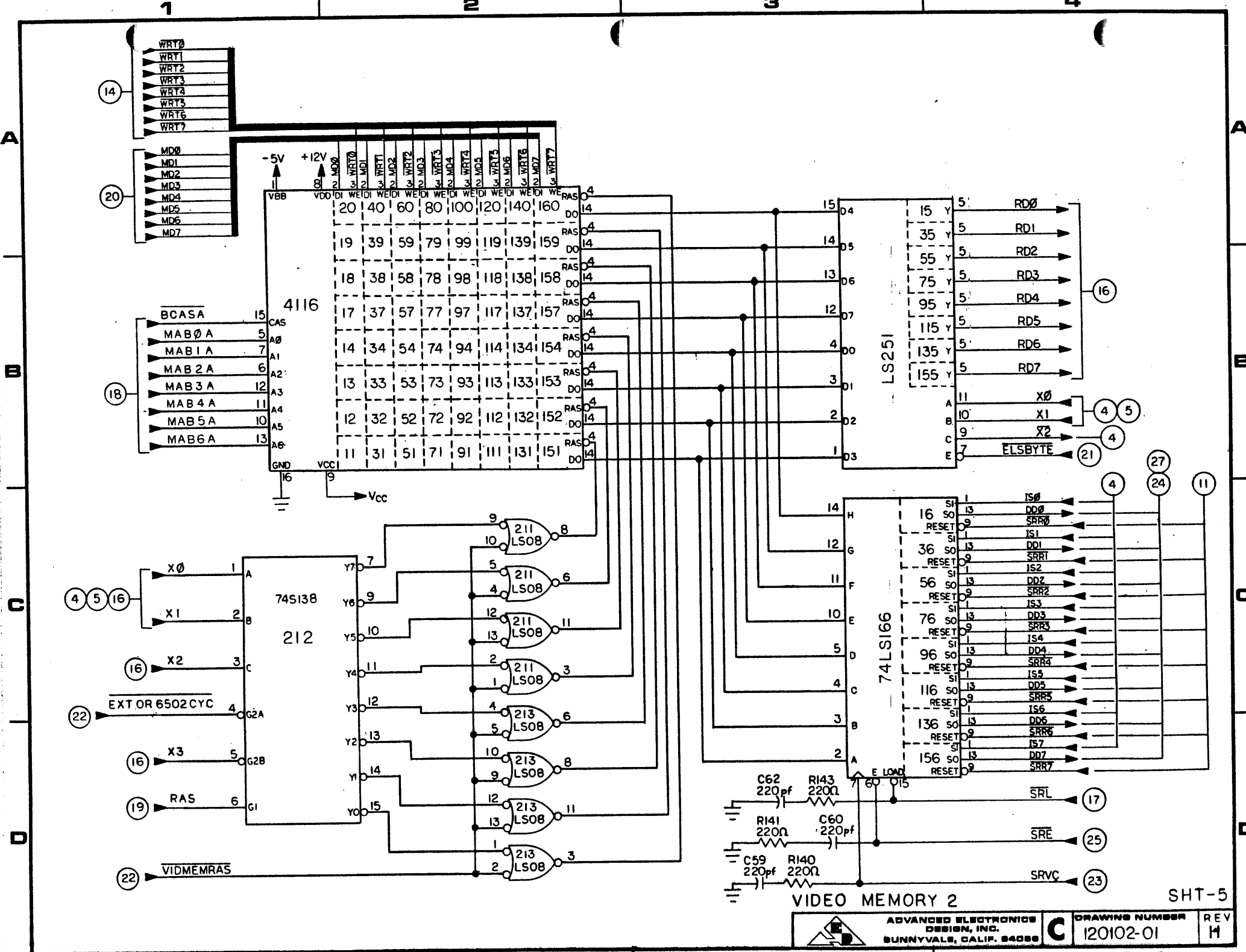
2

3

4



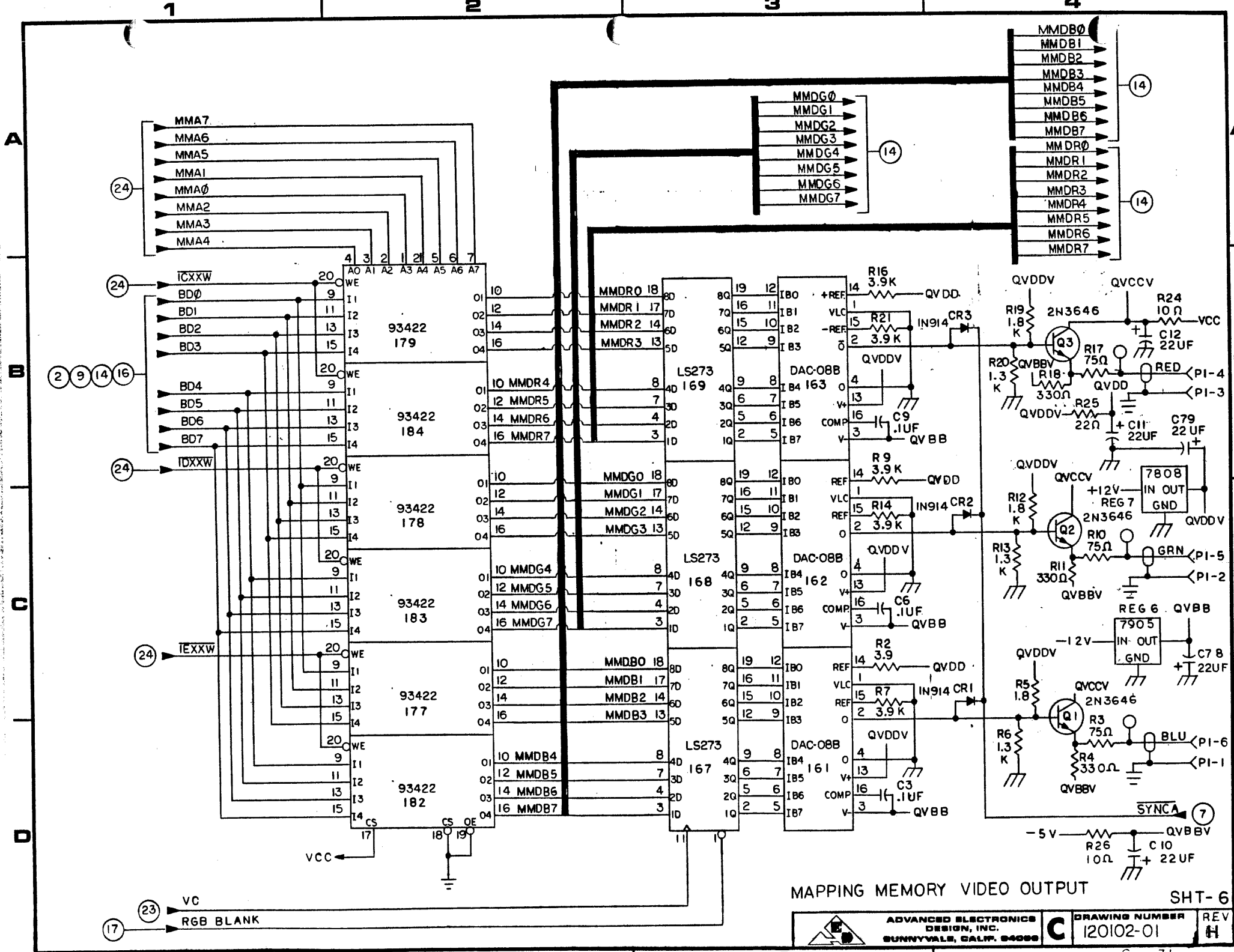
VIDEO MEMORY I SHT-4



VIDEO MEMORY 2

SHT-5

	ADVANCED ELECTRONICS DESIGN, INC. BUNNYVALE, CALIF. 94086	C	DRAWING NUMBER 120102-01	REV H
	SHEET 5 OF 71			



1

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4

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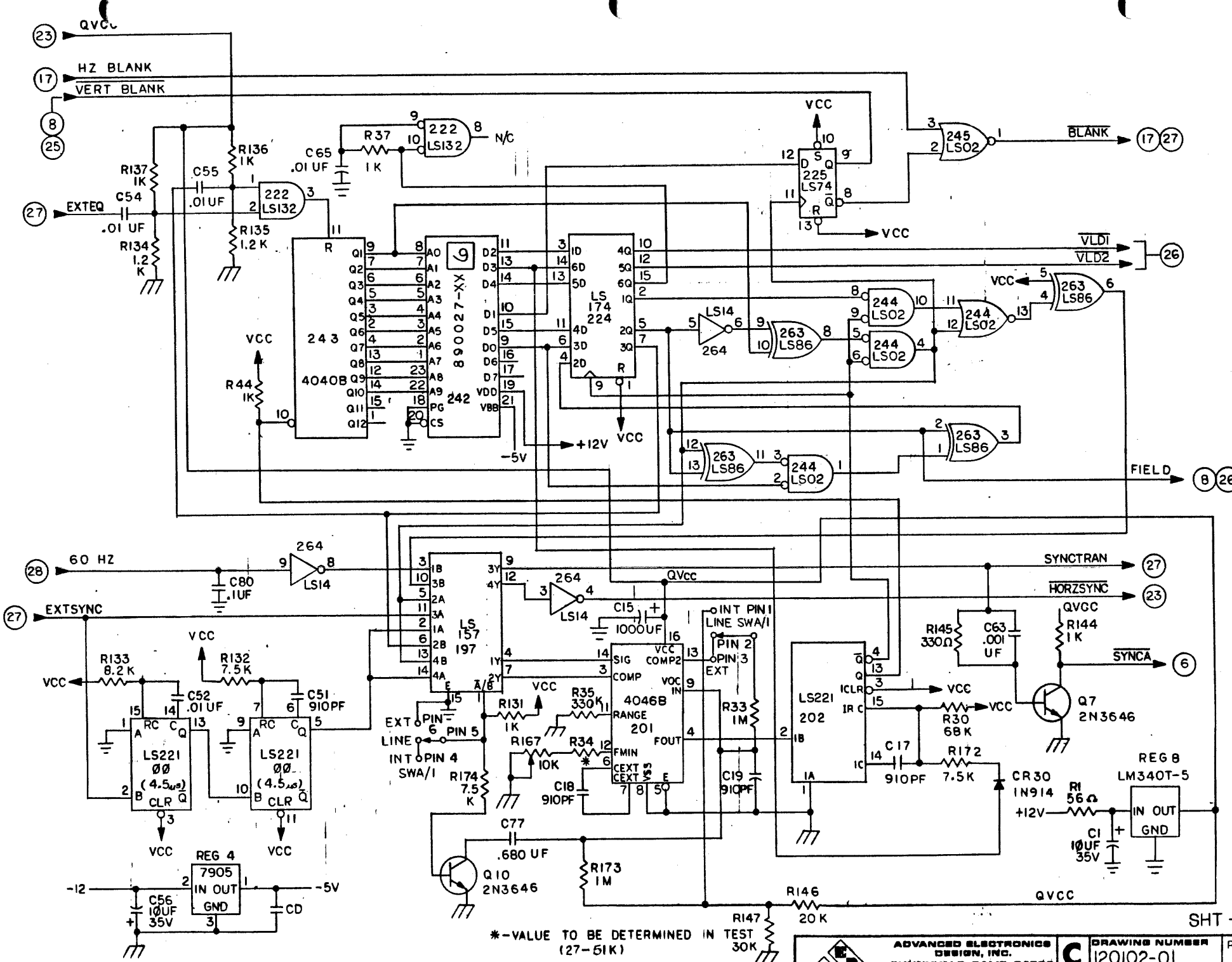
D

A

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D



*-VALUE TO BE DETERMINED IN TEST
(27-51K)

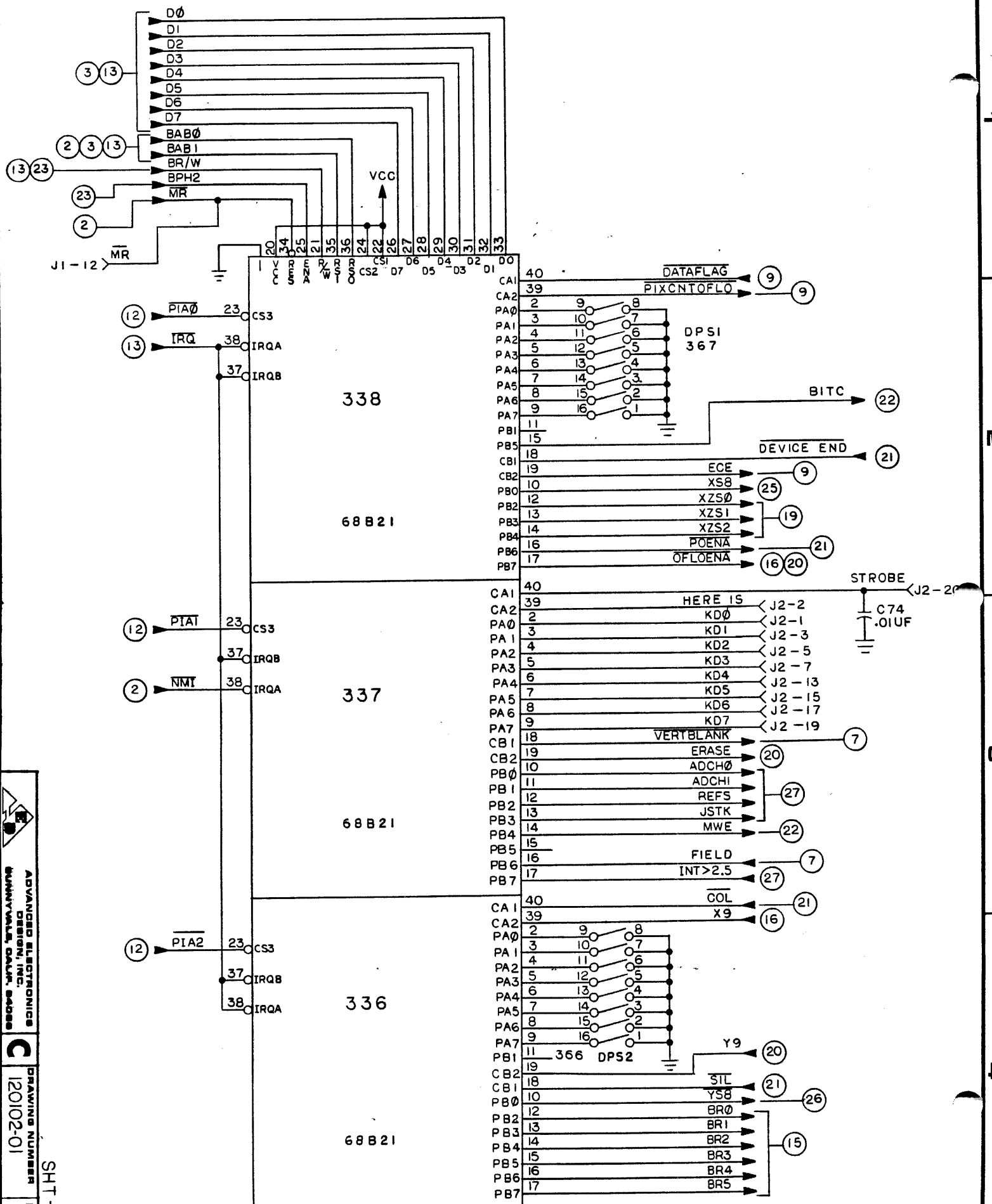


ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94086

DRAWING NUMBER
120102-01

REV
-H

SHT - 7

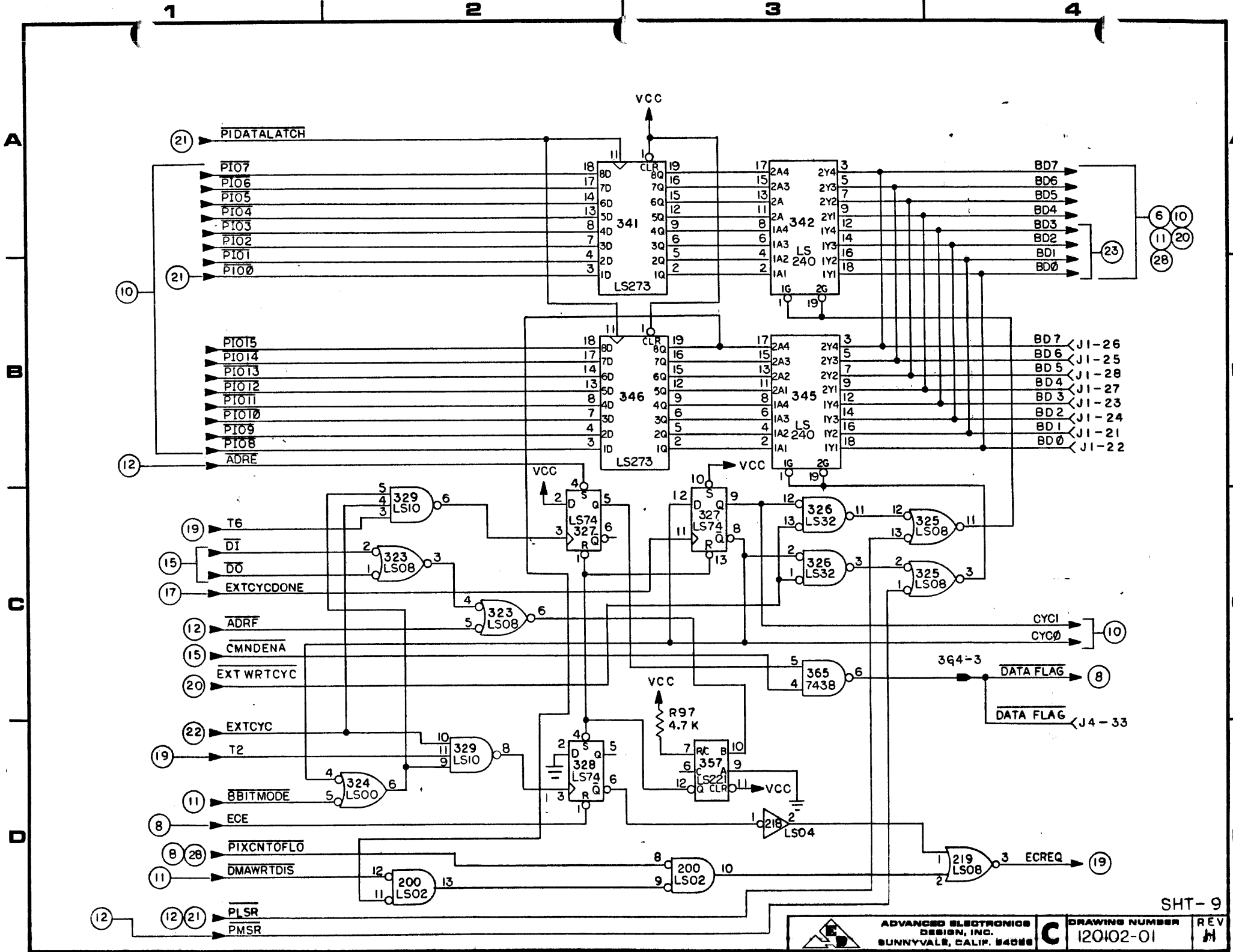


ADVANCED ELECTRONICS
 DESIGN, INC.
 SUNNYVALE, CALIF. 94088

DRAWING NUMBER
 20102-01

REV
 H

SHT-8



SHT-9

1

2

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4

A

B

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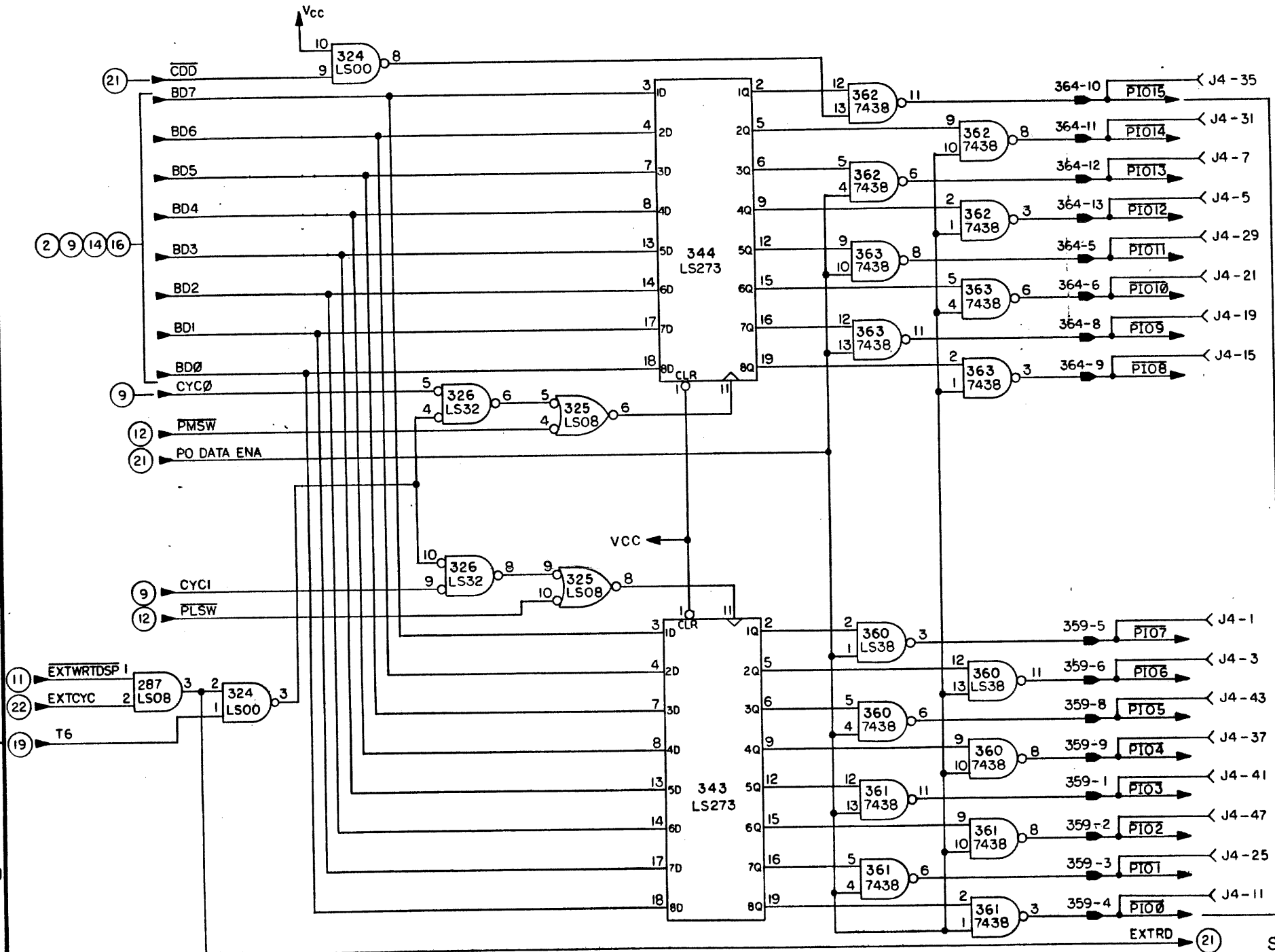
D

A

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D



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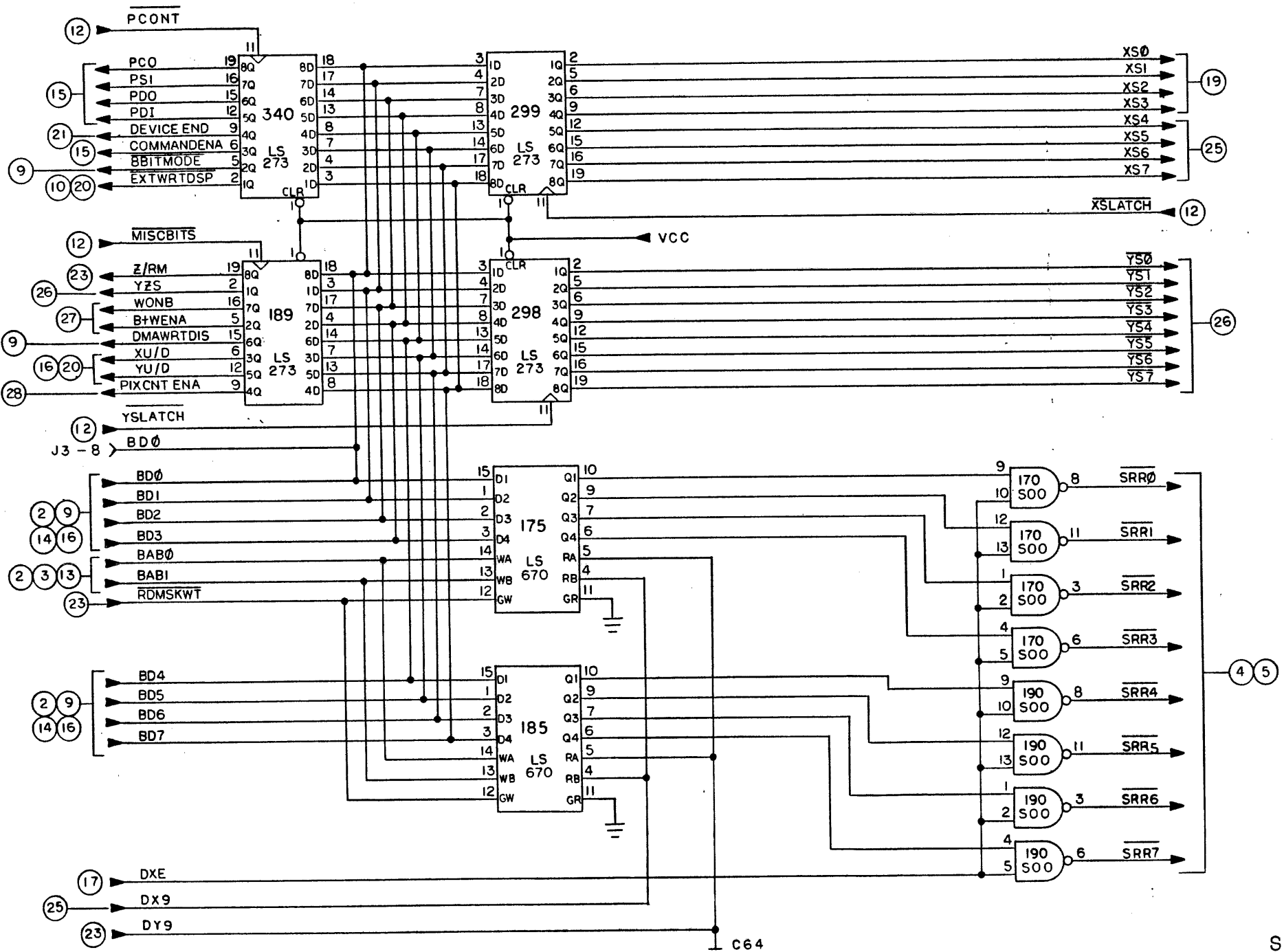
4

A

B

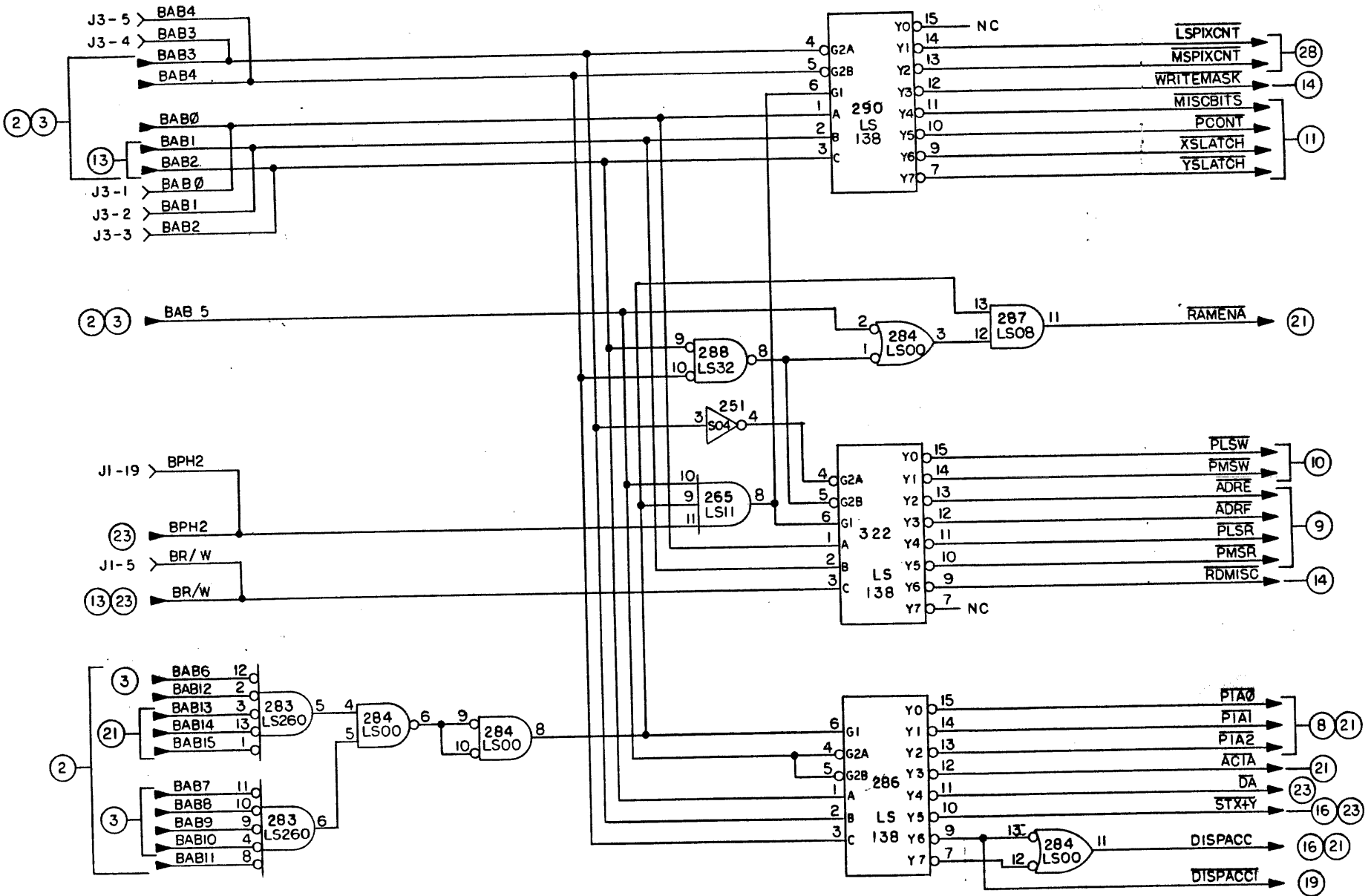
C

D



SHT-11

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120102-01	REV H
	SHEET 11 OF 21		



1

2

3

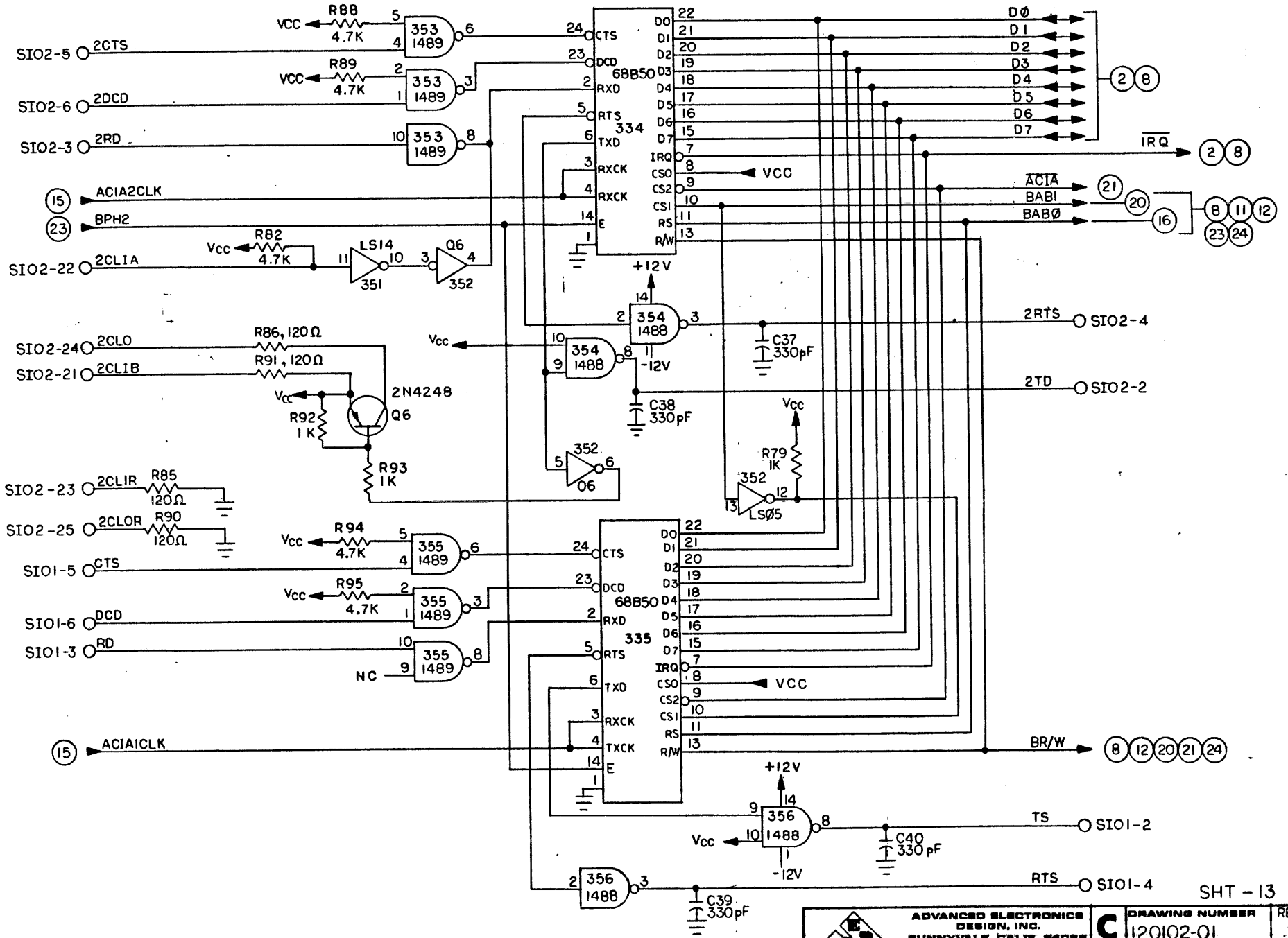
4

A

B

C

D



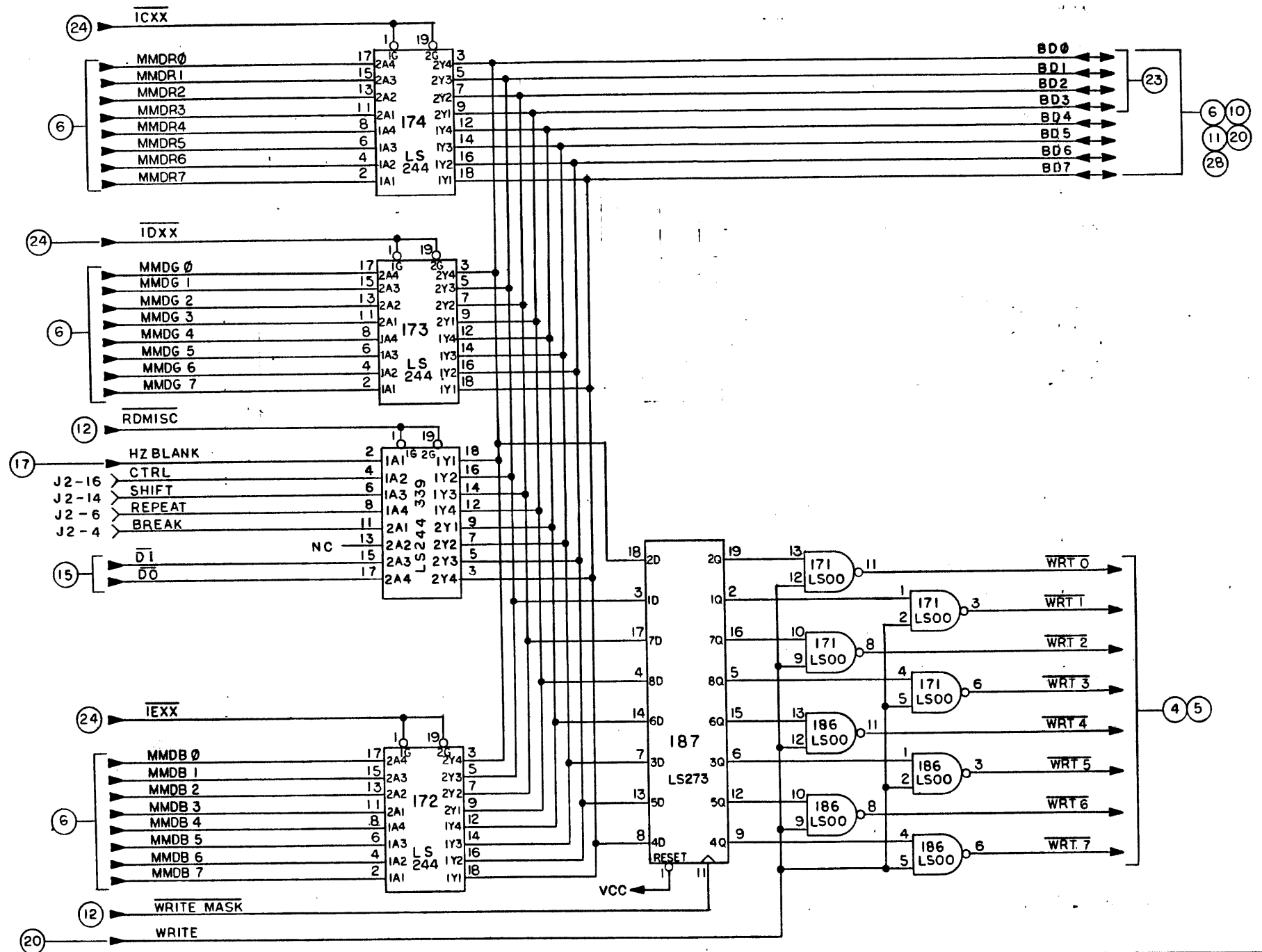
SHT - 13

1

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4



SHT-14

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120102-01	REV H
	SHEET 14 OF 31			

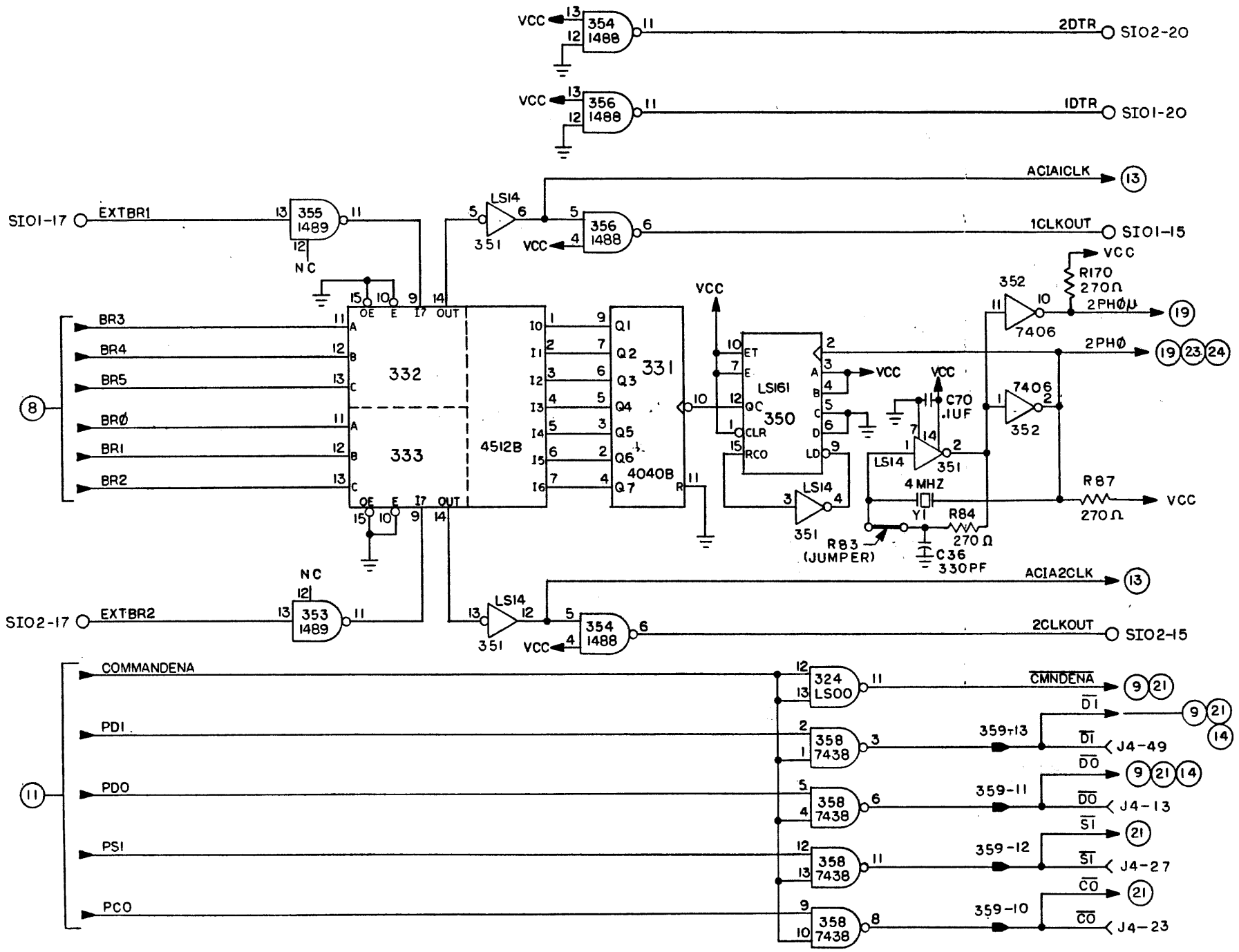
1 2 3 4

A

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C

D



SHT-15

1

2

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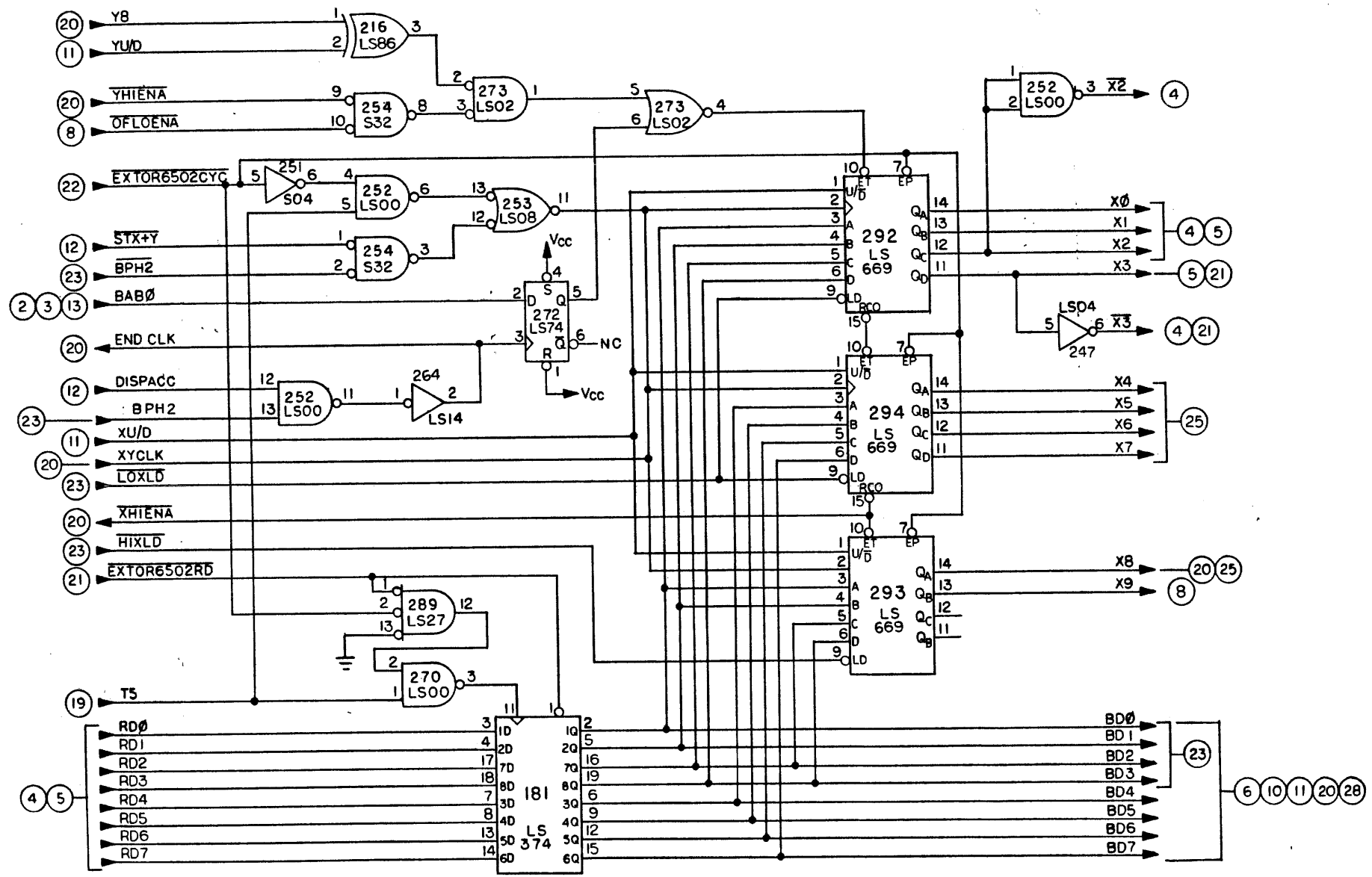
4

A

B

C

D

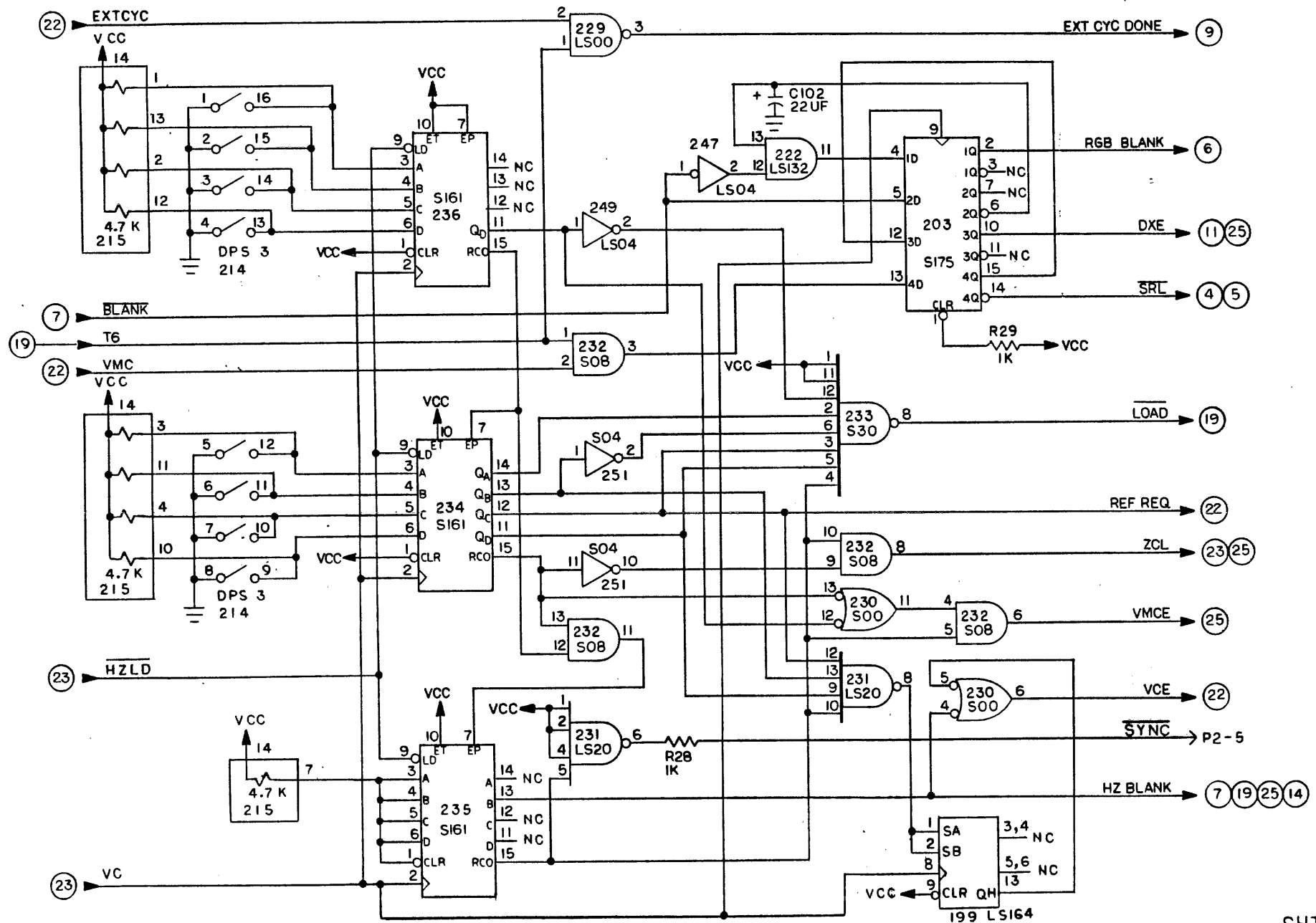


SHT -16

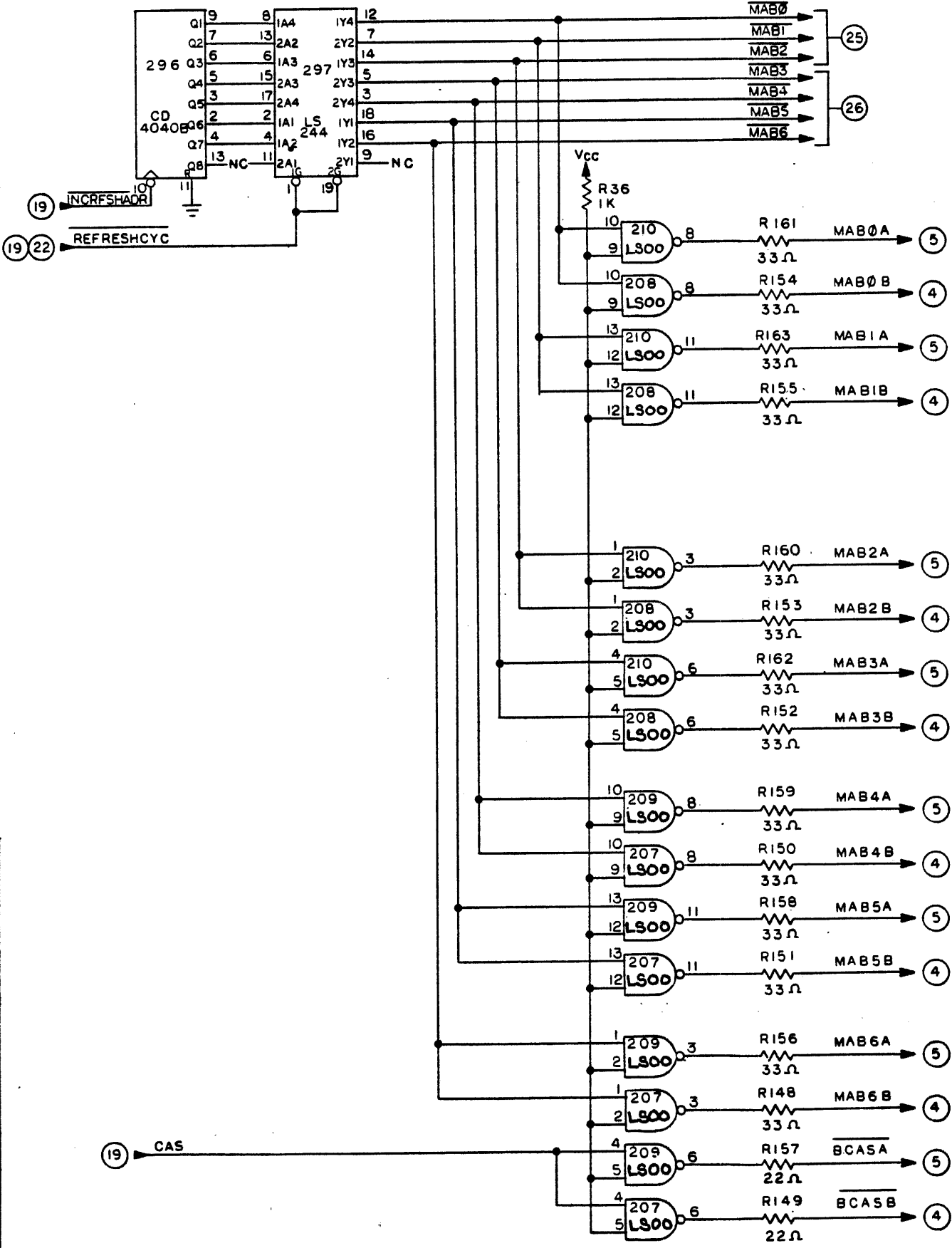
	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120102-01	REV H
	SHEET 10 OF 21			

1 2 3 4

A
B
C
D



SHT-17




 ADVANCED ELECTRONICS
 DESIGN, INC.
 SUNNYVALE, CALIF. 94088
 DRAWING NUMBER
 120102-01
 REV

SHT - 18

1

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4

A

B

C

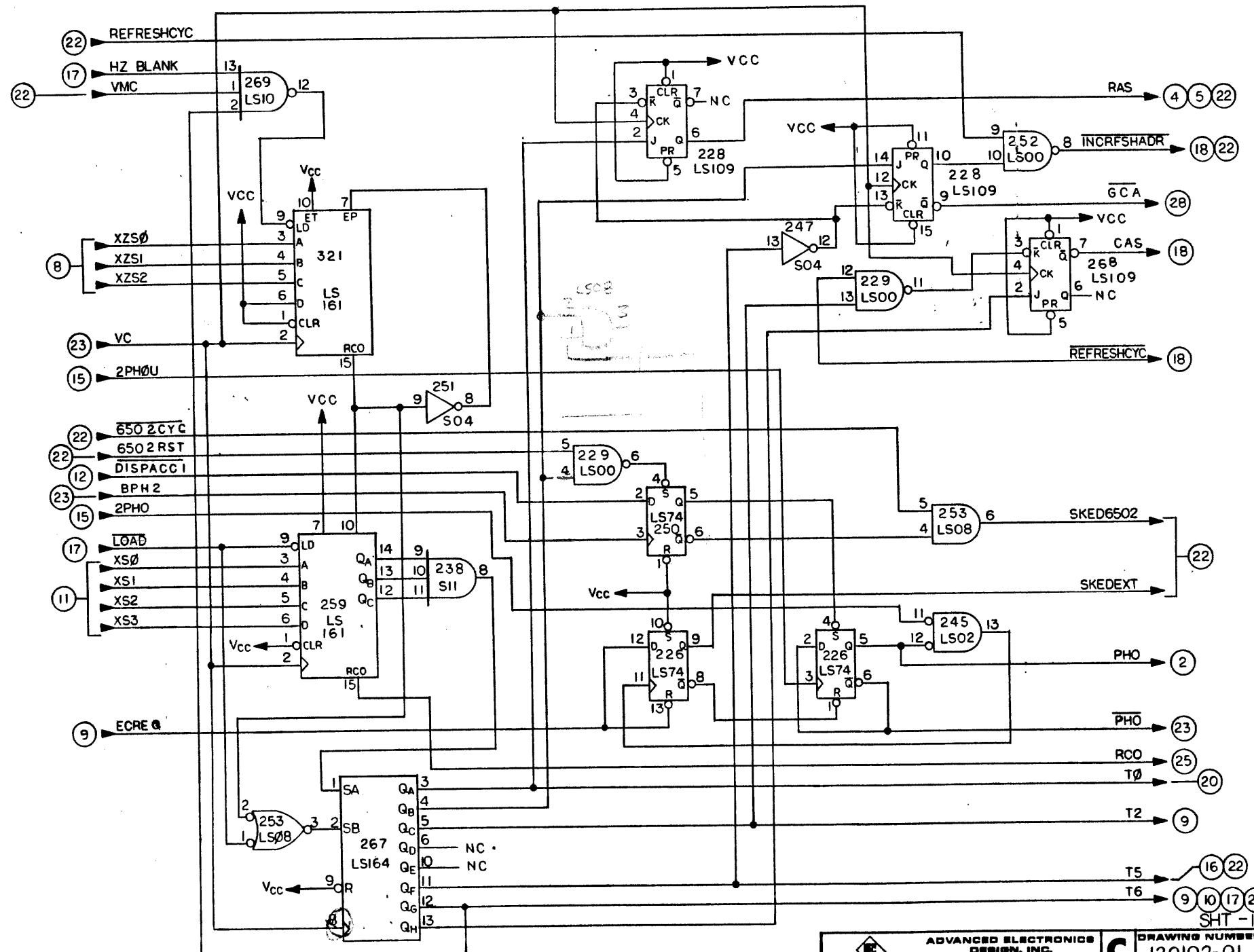
D

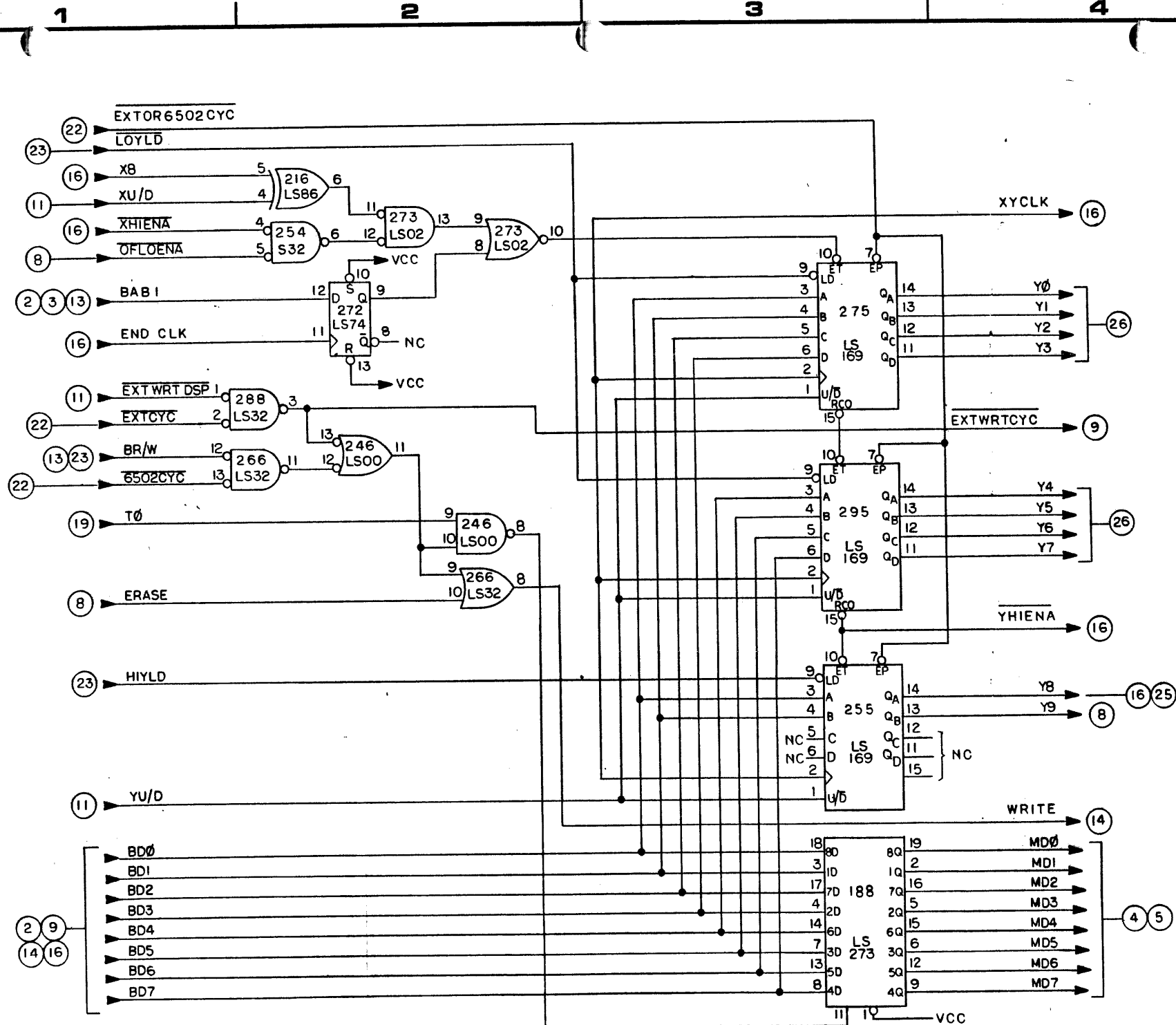
A

B

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D





SHT-20

1

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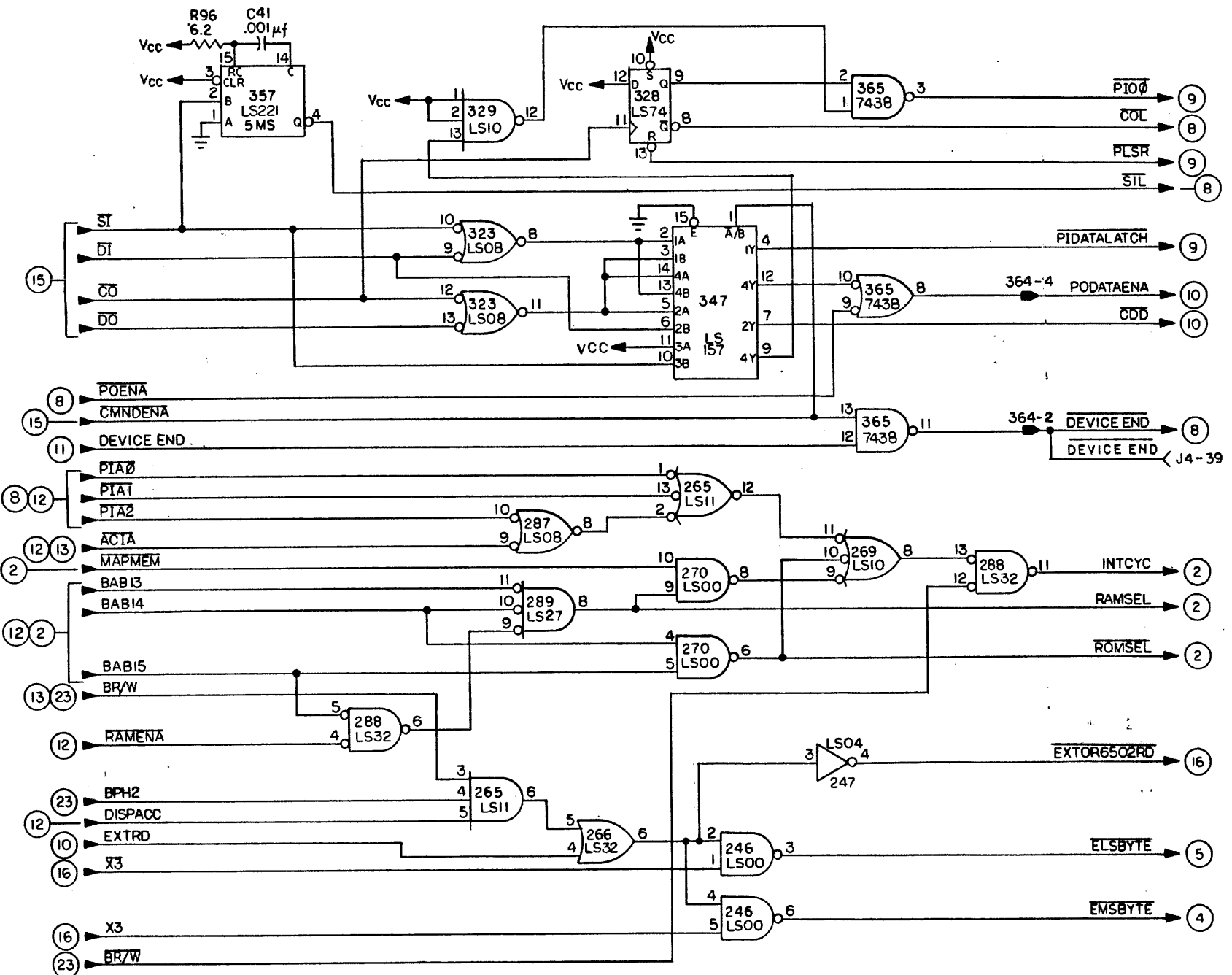
4

A

B

C

D



SHT - 21

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120102-01	REV H
	SHT-21			

1

2

3

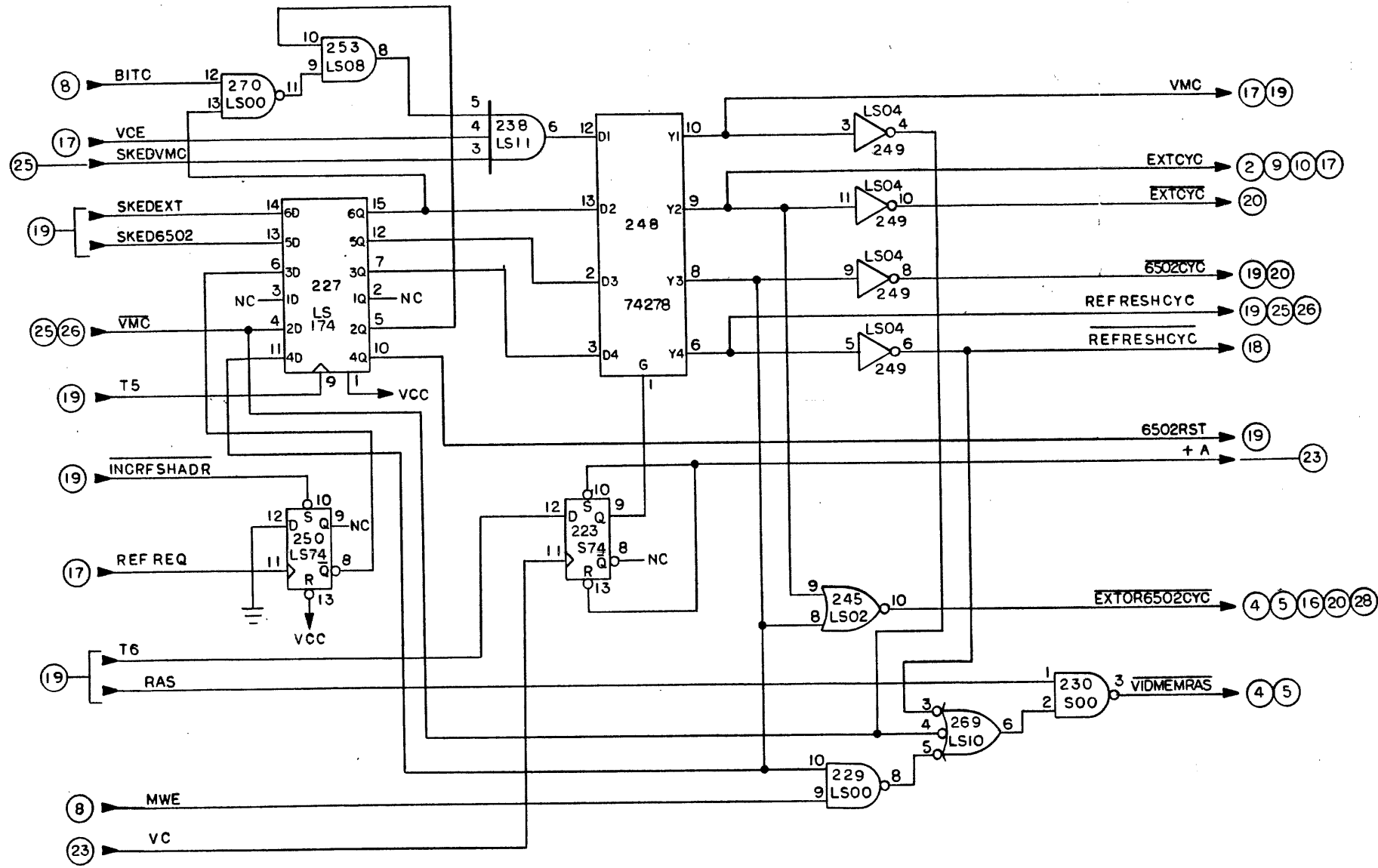
4

A

B

C

D



SHT-22

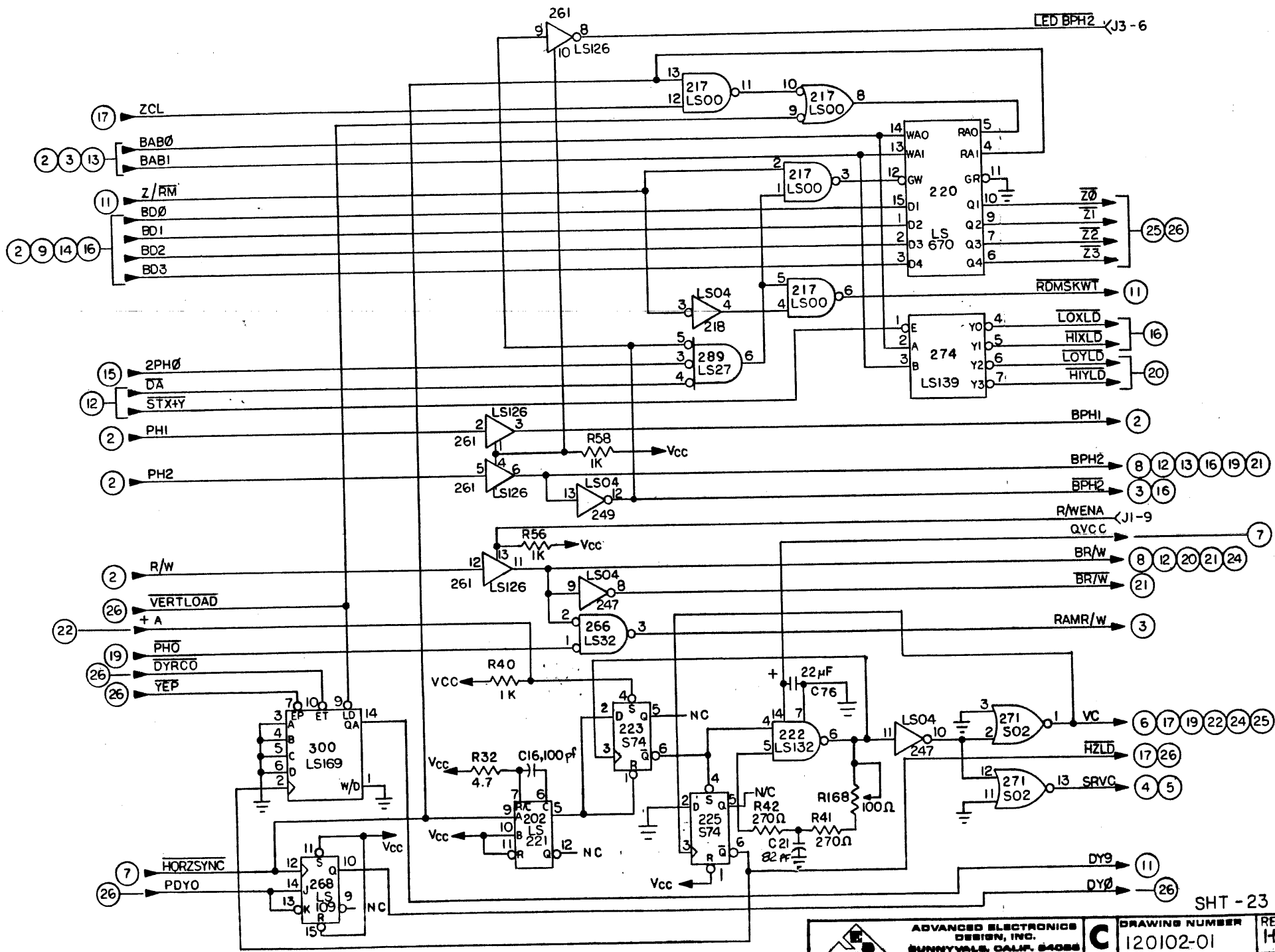
	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120102-01	REV H
	SHEET 22 OF 31			

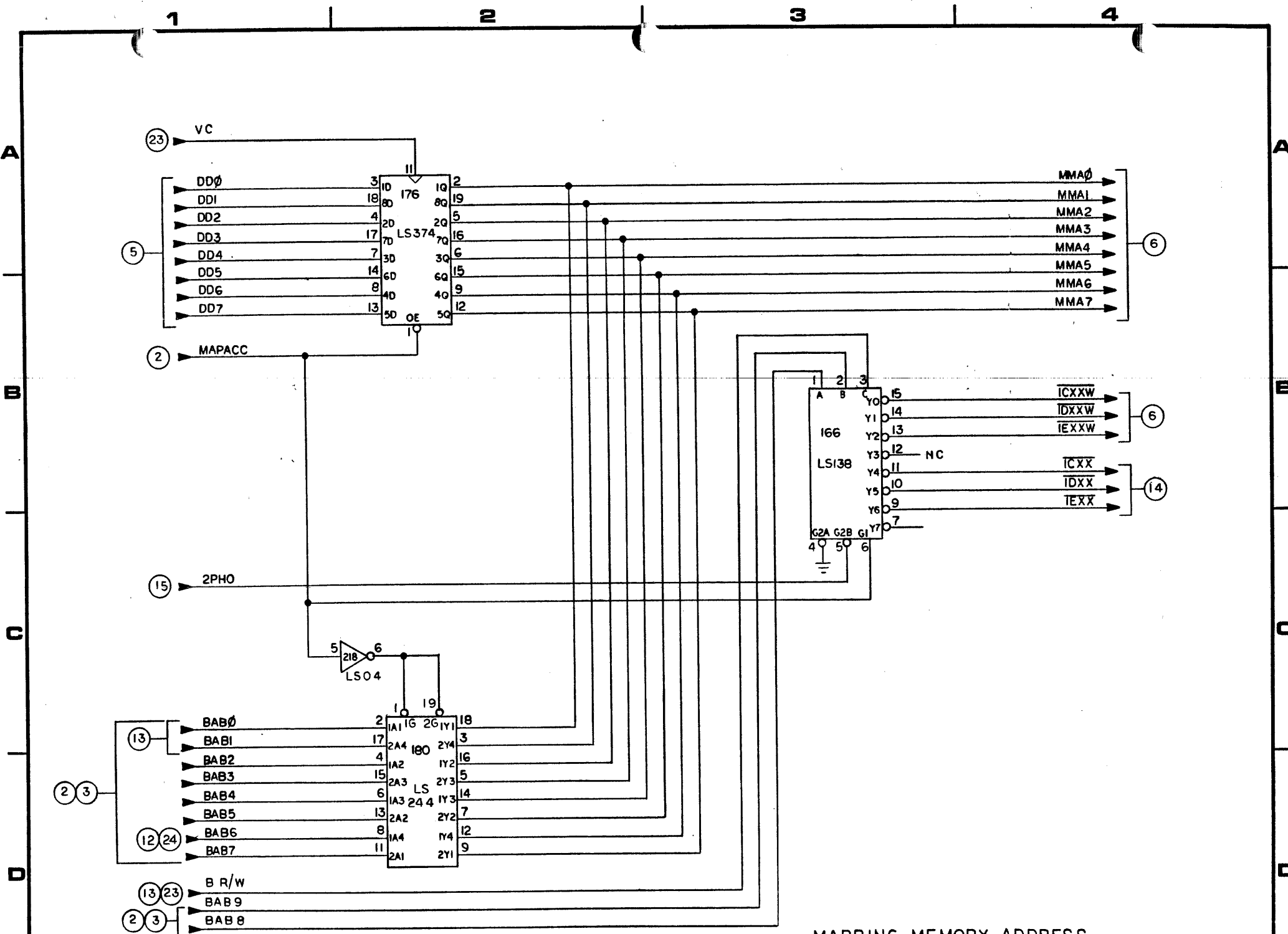
A

B

C

D





MAPPING MEMORY ADDRESS

SHT 24

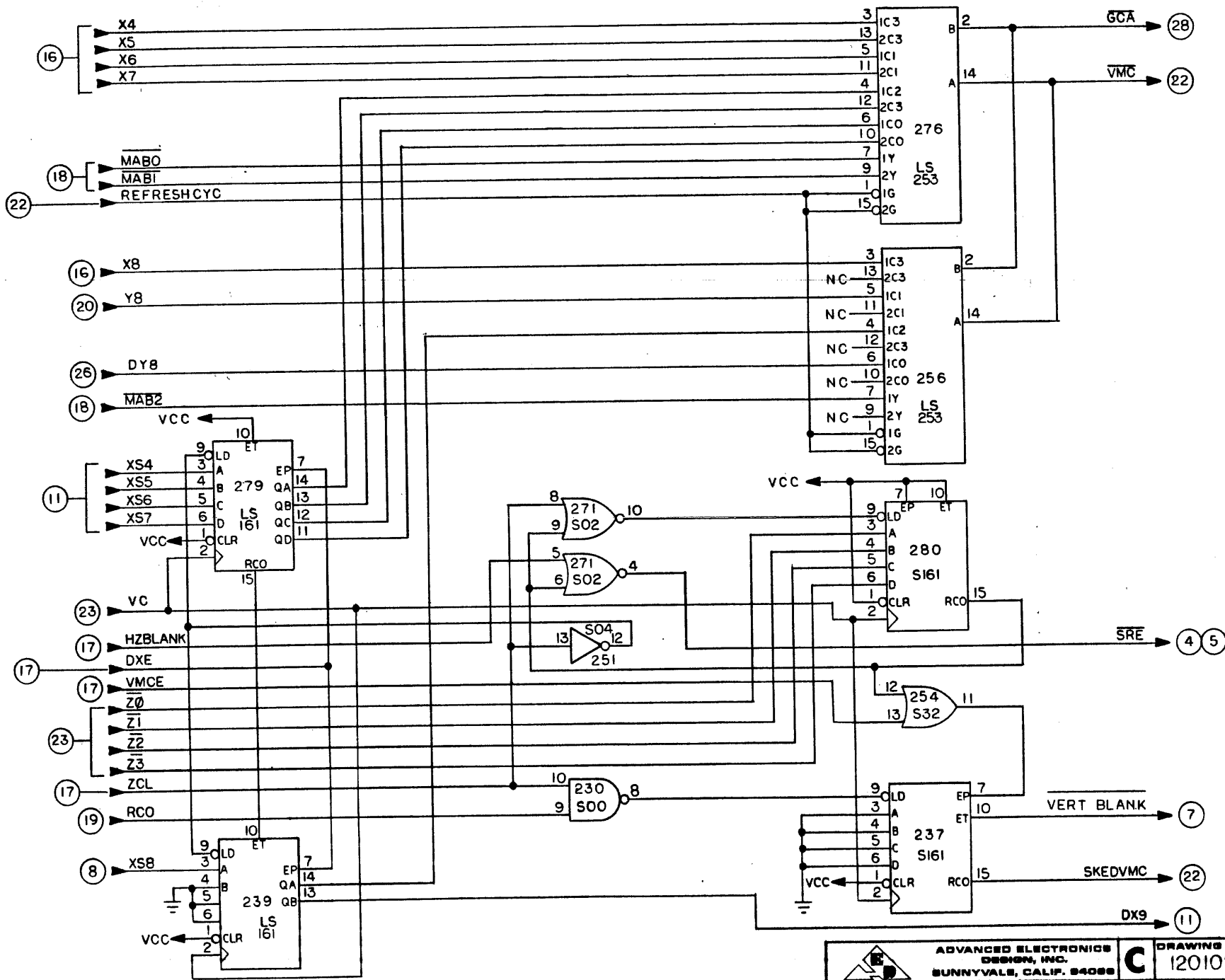
1

2

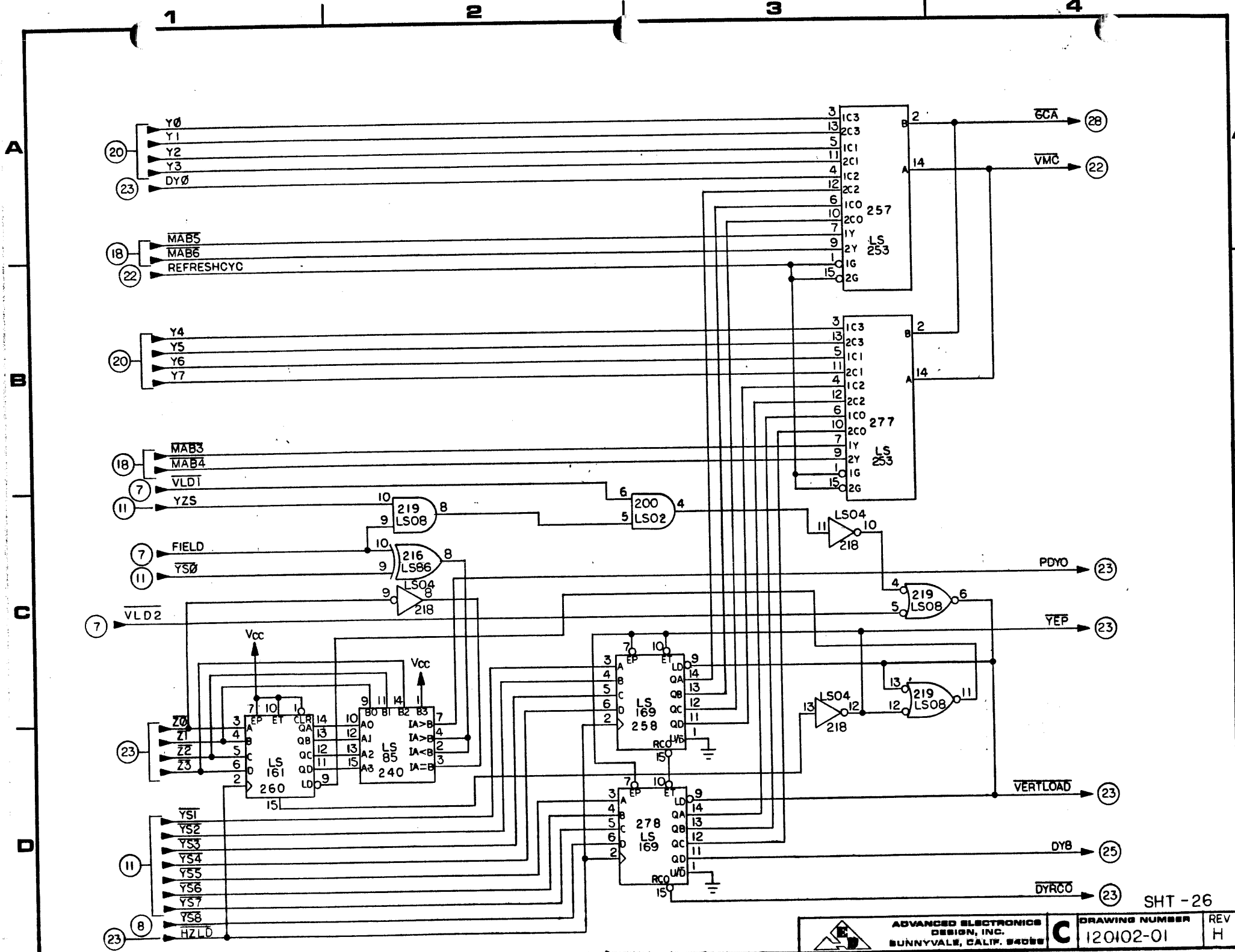
1

3

4



SHT-25



1

2

3

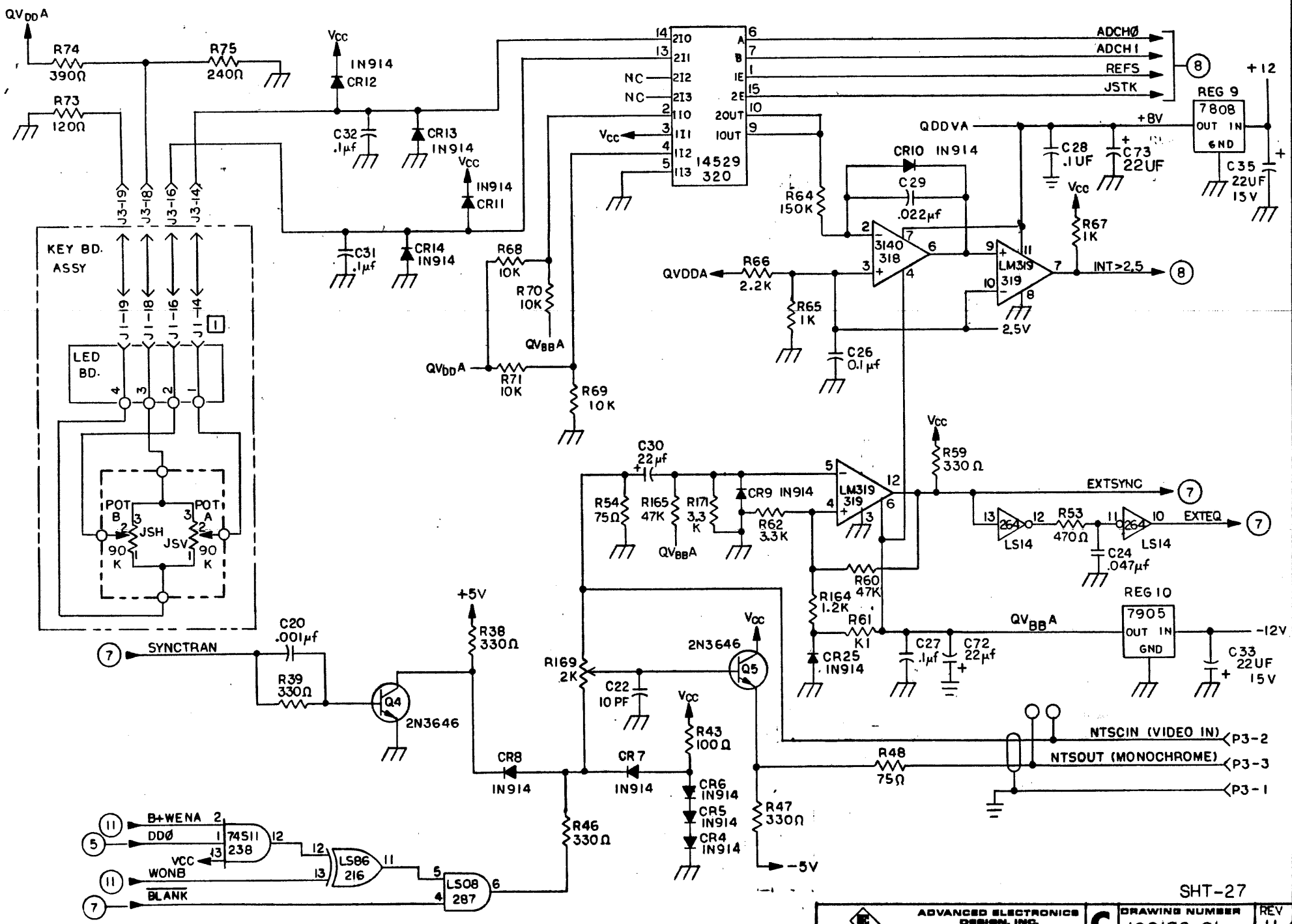
4

A

B

C

D



SHT-27

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C	DRAWING NUMBER 120102-01	REV H
	SHEET 27 OF 31			

1

2

3

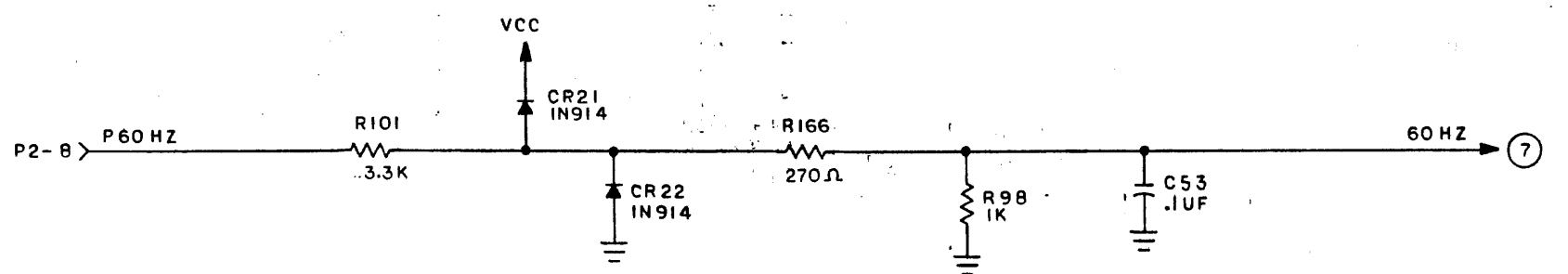
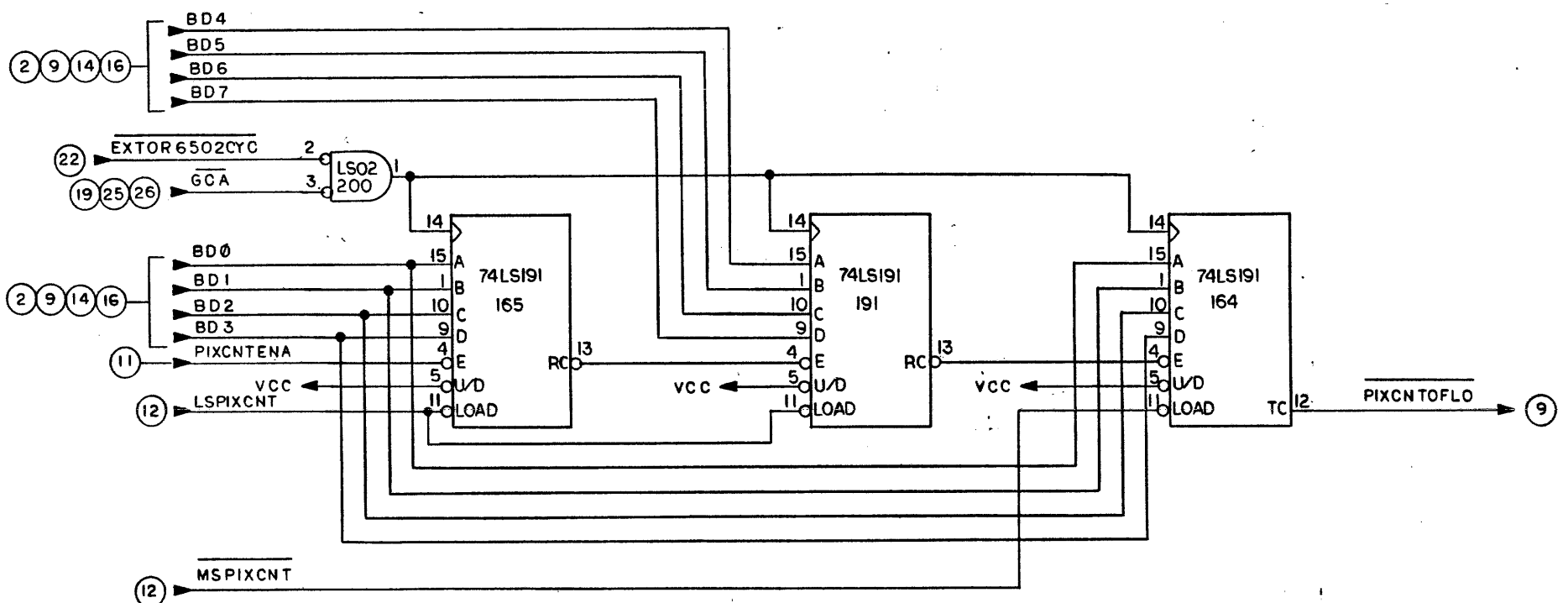
4

A

B

C

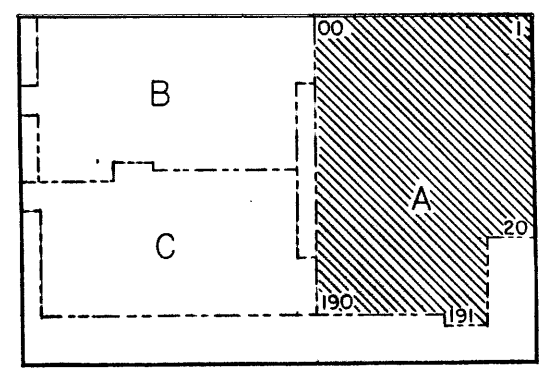
D



SHT-28

00	141	4	121	4	101	4	81	4	61	4	41	4	21	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	LS191	LS191	LS191								
	11	11	11	24	11	11	11	11	28	28	28					
	11	11														

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



SHT - 29

1

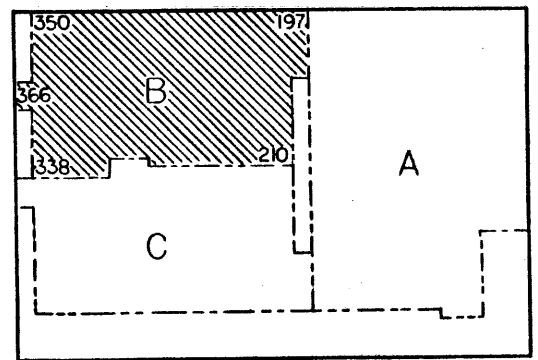
2

3

4

350 LS161				261 LS126				201 4046B	197 LS157							
15				23 23	23 23			7	7							
351 LS14		331 4040B		262 6502A		242 890027-XX	6 LSI32	222 LSI32	202 LS221							
15 15	15 2	15		2		7		7 23	7							
13 15								7 17	23							
352 7406		332 4512B		301 LS44		283 LS26	263 LS86	243 4040B	223 74574	203 S175						
15 13	13 2	15		2		12	7 7	7	23	17						
15 13						12	7 7		22							
353 1489		333 4512B		317 8304		302 LS244		284 LS00	264 LS14	244 LS02	224 LS174	204 LS08				
13 13	13 15	15		2		2		12 12	16 7	7 7	7	4 4				
								12 12	7 7	7 7		4 4				
354 1488		334 68B50		318 3140		303 4802		285 LS138	265 LS11	245 LS02	225 LS74	205 S138				
13 15	13	27		3		2		21	7 2	23	4					
13								12			4					
								21	22 19	7	4					
366 DPS2		355 1489		335 LM319		304 4802		286 LS138	266 LS32	246 LS00	226 LS74	206 LS08				
8		13 13	13 15	68B50		27		12		23 21	21 21	19	4 4			
				13		27		3		20 20	20 20	19	4 4			
										287	267	247	227	207		
										LS08	LS164	LS04	LS174	LS00		
										10 27	17 21	18 18	18 18			
										21 12	16 23	22	18 18			
										23 19						
										288	268	248	228	208		
										LS32	LS109	74278	LS109	LS00		
										20 21	19	22	19	18 18		
										12 21	23	22	19	18 18		
										289	269	249	229	209		
										LS27	LS10	LS04	LS00	LS00		
										23	22	17 22	17 19	18 18		
										21	21	22 22	22 19	18 18		
										16	19	22 23	22 19	18 18		
										306	4802	290	270	250	230	210
										LS138	LS00	LS74	S00	LS00		
										12	16 21	19	22 17	18 18		
											21 22	22	25 17	18 18		

366 DPS2	355 1489	335 LM319	304 4802
8	13 13	13 15	13



SHT - 30

A
B
C
D

					291	271	251	231	211			
					LSI38	74S02	74S04	LS20	LS08			
				308	2	23	25	17	12	17	5	5
			890026-01			25	23	17	25	17	5	5
367		357	339	321	292	272	252	232	212			
DPS1		LS221	LS244	LS161	LS669	LS74	LS00	S08	S138			
8		21	14	19	16	16	16	16	17	17	5	
		9				20	19	16	17	17		
				309								
				890026-02								
		358	340	322	293	273	253	233	213			
		7438	LS273	LS138	LS669	LS02	LS08	74S30	LS08			
		15	15	11	16	16	16	19	19	17	5	5
		15	15				20	20	22	16		5
				310								
		359	341	323	294	274	254	234	214			
		330/390	LS273	LS08	LS669	LSI39	74S32	S161	DPS3			
		10	10	10	16	23	16	20	17	17		
		10	10	10			21	21			16	25
		15	15	15								
		360	342	324	311	295	275	255	235	215		
		LS38	LS240	LS00	890026-04	LSI69	LSI69	LSI69	S161	4.7K RN		
		10	10	9	20	20	20	17	17	17	17	17
		10	10						10	15	17	17
		361	343	325	312	296	276	256	236	216		
		7438	LS273	LS08	890026-05	4040B	LS253	LS253	S161	LS86		
		10	10	9	18	25	25	17	16	20		
		10	10						10	9	26	27
		362	344	326	3	297	277	257	237	217		
		7438	LS273	LS32		LS244	LS253	LS253	74S161	LS00		
		10	10	9	18	26	26	25	23	23		
		10	10						10	9	23	23
		363	345	327	3	298	278	258	238	218	198	
		7438	LS240	LS74		LS273	LSI69	LSI69	74S11	LS04	SPARE	
		10	10	9	11	26	26	26	22	9	23	
		10	10						9	19	24	26
		364	346	328	3	299	279	259	239	219	199	
		330/390	LS273	LS74		LS273	LSI61	LSI61	LSI61	LS08	LSI64	
		21	9	9	11	25	19	25	9	26	17	
		10	10						10	21		26
		365	347	329	890026-08	300	280	260	240	220	200	
		7438	LSI57	LSI0	LSI69	74S161	LSI61	LS85	LS670	LS02		
		21	9	9	23	25	26	26	26	23	28	26
		21	21								9	9

