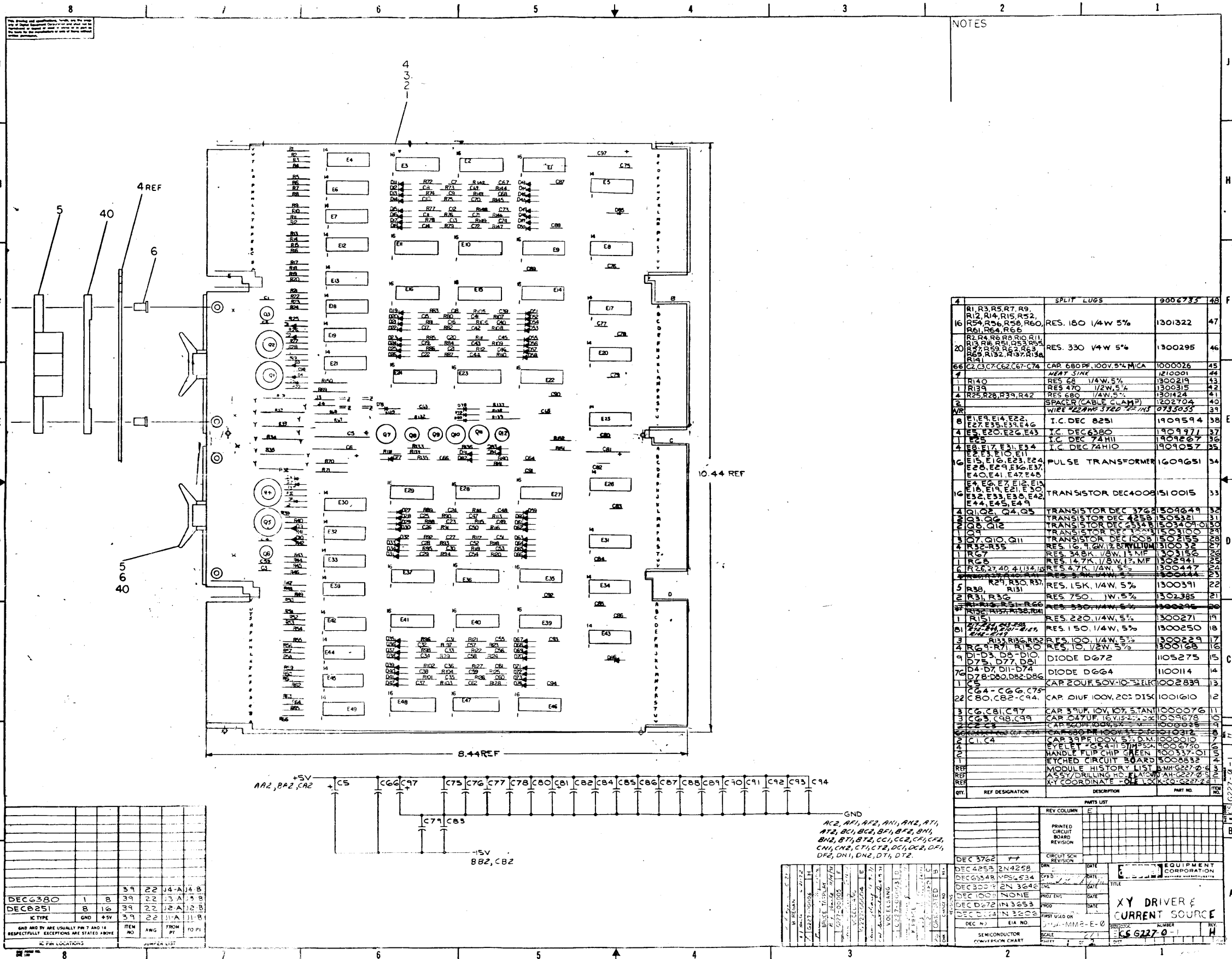


**MP8-E
memory parity
engineering drawings**



NOTES

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	REV
4	R1, R3, R5, R7, R9, R12, R14, R15, R52, R54, R56, R58, R60, R61, R64, R66	SPLIT LUGS	9002735	48
16	R2, R4, R6, R8, R10, R11, R13, R16, R18, R25, R26, R28, R32, R37, R38, R41	RES. 180 1/4W 5%	1301322	47
20	R24, R6, R8, R10, R11, R13, R16, R18, R25, R26, R28, R32, R37, R38, R41	RES. 330 1/4W 5%	1300295	46
66	C2, C3, C7, C62, C67, C74	CAP. 680PF, 100V, 5% MICA	1000026	45
1		HEAT SINK	1210001	44
1	R140	RES. 68 1/4W, 5%	1300219	43
11	R139	RES. 470 1/2W, 5%	1300315	42
4	R25, R26, R39, R42	RES. 680 1/4W, 5%	1301424	41
2		SPACER (CABLE CLAMP)	1202704	40
NR		WIPE #22 AWG 37ED #22 MS	0735055	39
8	E1, E9, E14, E22, E25, E16, E23, E46	I.C. DEC 8251	1909594	38
4	E5, E20, E26, E43	I.C. DEC 6380	1909771	37
1	E25	I.C. DEC 74111	1909227	36
4	E8, E17, E31, E34	I.C. DEC 74110	1909057	35
16	E2, E10, E11, E12, E28, E29, E30, E37, E40, E41, E47, E48	PULSE TRANSFORMER	1609651	34
16	E4, E6, E7, E12, E13, E14, E19, E21, E30, E32, E33, E34, E42, E44, E45, E49	TRANSISTOR DEC4008	1510015	33
4	Q1, Q2, Q4, Q5	TRANSISTOR DEC 3762	1509649	32
NR	Q3, Q6	TRANSISTOR DEC 4258	1505321	31
1	Q10, Q12	TRANSISTOR DEC 4314	1501401	30
3	Q7, Q10, Q11	TRANSISTOR DEC 1008	1502155	28
4	R32, R35	RES. 1G 1/2W 5% BERNILLUM	1310032	27
1	R57	RES. 348K 1/4W, 5% MF	1302156	26
1	R58	RES. 14.7K 1/4W, 5% MF	1302941	25
1	R26, R27, R40, R113, R114	RES. 4.7K 1/4W, 5%	1300447	24
1	R30, R31, R33, R34	RES. 5.1K 1/4W, 5%	1300444	23
5	R38, R29, R30, R37	RES. 15K 1/4W, 5%	1300391	22
2	R31, R36	RES. 750 1/4W, 5%	1302385	21
NR	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100	RES. 330 1/4W, 5%	1300295	20
1	R17	RES. 220 1/4W, 5%	1300271	19
81	R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99, R100	RES. 150 1/4W, 5%	1300250	18
3	R13, R16, R15	RES. 100 1/4W, 5%	1300229	17
4	R6, R7, R10, R150	RES. 10 1/2W 5%	1300168	16
9	D1, D3, D5, D10, D7, D8, D9	DIODE DG72	1105275	15
76	D4, D7, D11, D74, D78, D80, D82, D86	DIODE DGG4	1101114	14
11	C5	CAP. 20UF SOV. 10% 50V	1002839	13
22	C80, C82, C94	CAP. DIUF 100V, 20% DISK	1001610	12
3	C6, C81, C97	CAP. 50UF 10V, 10% STAN	1000076	11
3	C5, C98, C99	CAP. 247UF 16V, 20% DISK	1000776	10
1	C24	CAP. 50UF 10V, 10% STAN	1000688	9
1	C1, C4	CAP. 33PF 100V, 5% D.M.	1000010	8
1		EYELET #54-11 SYMPSON	1000890	7
1		HANDLE FLIP CHIP GREEN	100337-01	6
1		ETCHED CIRCUIT BOARD	1000882	4
REF		MODULE HISTORY LIST	B.M.H. 6227-0-1	3
REF		ASSY/DRILLING HOLES	AH-6227-0	2
REF		XY COORDINATE - DEC 10, 1962	6227-0-1	1

IC TYPE	QTY	REV	DATE	BY	CHKD
DEC6380	1	8	39	22	J4-A, J4-B
DEC8251	8	16	39	22	J2-A, J2-B
			39	22	J1-A, J1-B
			39	22	J1-A, J1-B

GND AND +5V ARE USUALLY PINS 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.

IC PIN LOCATIONS

GND
AC2, AF1, AF2, AN1, AN2, AT1, AT2, BC1, BC2, BF1, BF2, BN1, BN2, BT1, BT2, CC1, CC2, CF1, CF2, CN1, CN2, CT1, CT2, DC1, DC2, DF1, DF2, DN1, DN2, DT1, DT2

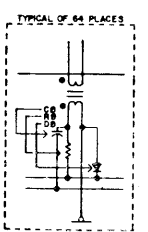
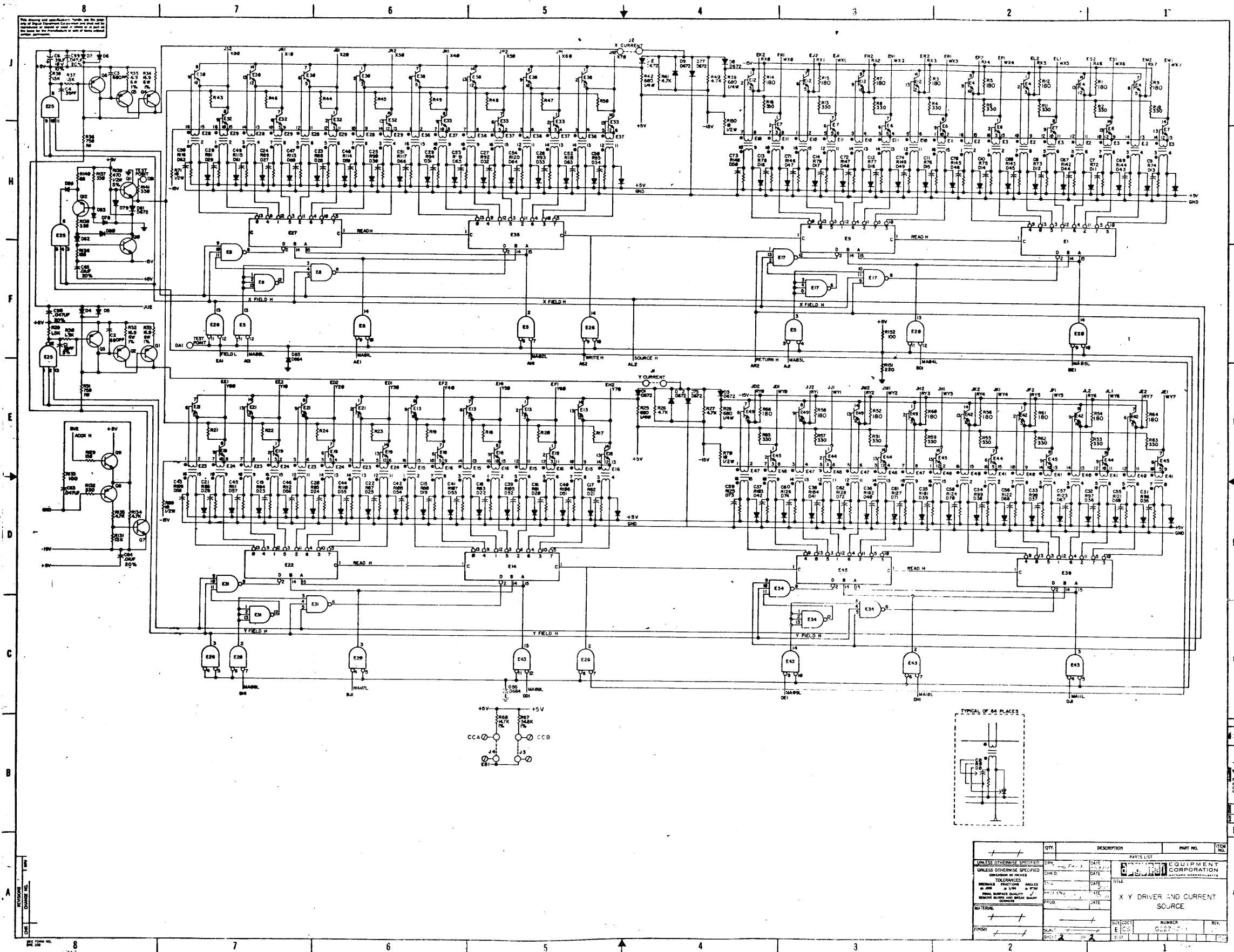
REV	COLUMN	REVISION	DATE	BY	CHKD
DEC 3762					
DEC 4258		2N4258			
DEC 6380		VPS-634			
DEC 3058		2N 3646			
DEC 1008		NONE			
DEC D672		IN 3653			
DEC D14		N 3208			

EQUIPMENT CORPORATION

XY DRIVER & CURRENT SOURCE

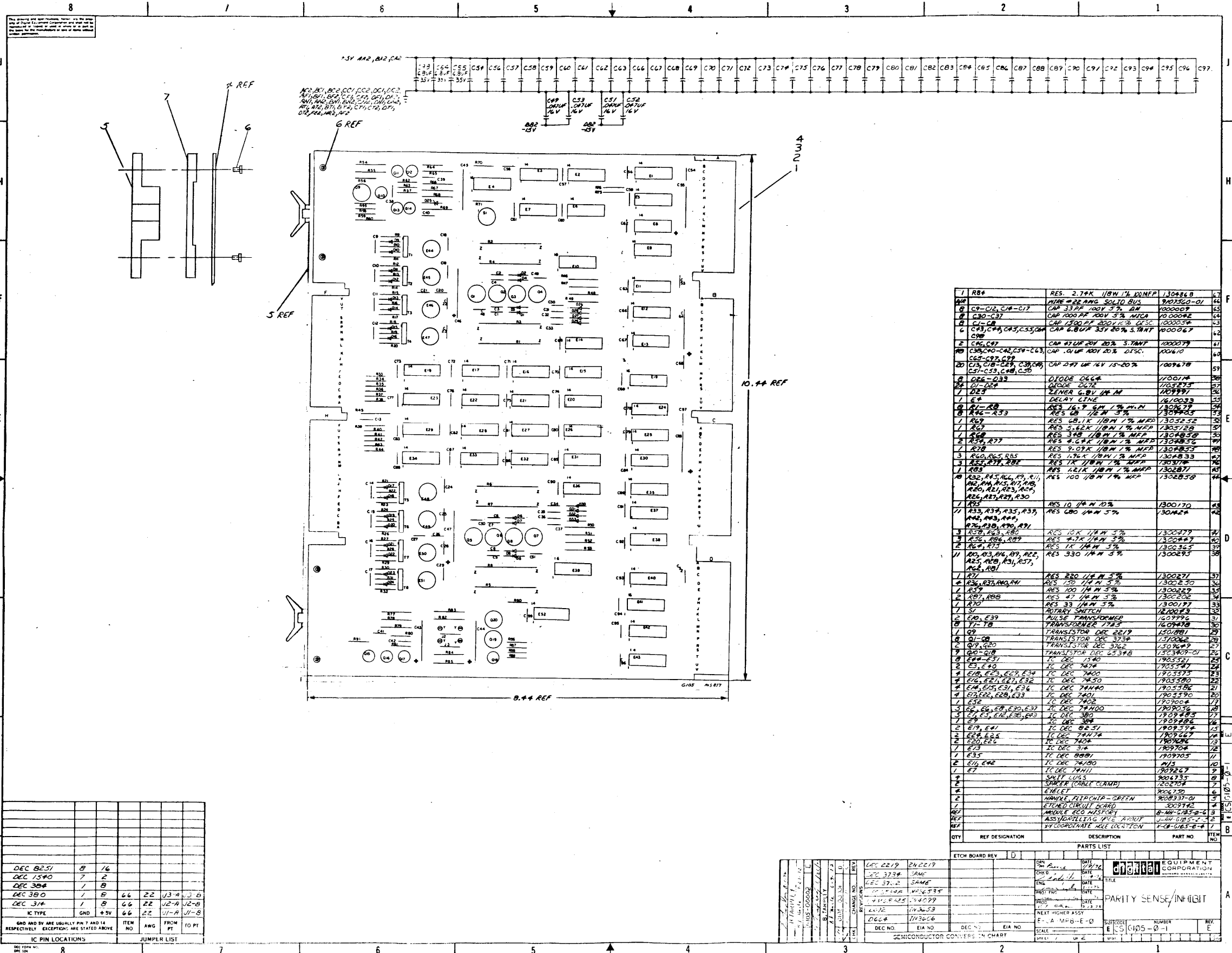
SCALE: 2/1

6227-0-1



QTY	DESCRIPTION	PART NO.	ITEM NO.
1	6X4	6X4	1
1	6X5	6X5	2
1	6X6	6X6	3
1	6X8	6X8	4
1	6X9	6X9	5
1	6X45	6X45	6
1	6X47	6X47	7
1	6X48	6X48	8
1	6X49	6X49	9
1	6X50	6X50	10
1	6X51	6X51	11
1	6X52	6X52	12
1	6X53	6X53	13
1	6X54	6X54	14
1	6X55	6X55	15
1	6X56	6X56	16
1	6X57	6X57	17
1	6X58	6X58	18
1	6X59	6X59	19
1	6X60	6X60	20
1	6X61	6X61	21
1	6X62	6X62	22
1	6X63	6X63	23
1	6X64	6X64	24
1	6X65	6X65	25
1	6X66	6X66	26
1	6X67	6X67	27
1	6X68	6X68	28
1	6X69	6X69	29
1	6X70	6X70	30
1	6X71	6X71	31
1	6X72	6X72	32
1	6X73	6X73	33
1	6X74	6X74	34
1	6X75	6X75	35
1	6X76	6X76	36
1	6X77	6X77	37
1	6X78	6X78	38
1	6X79	6X79	39
1	6X80	6X80	40
1	6X81	6X81	41
1	6X82	6X82	42
1	6X83	6X83	43
1	6X84	6X84	44
1	6X85	6X85	45
1	6X86	6X86	46
1	6X87	6X87	47
1	6X88	6X88	48
1	6X89	6X89	49
1	6X90	6X90	50
1	6X91	6X91	51
1	6X92	6X92	52
1	6X93	6X93	53
1	6X94	6X94	54
1	6X95	6X95	55
1	6X96	6X96	56
1	6X97	6X97	57
1	6X98	6X98	58
1	6X99	6X99	59
1	6X100	6X100	60

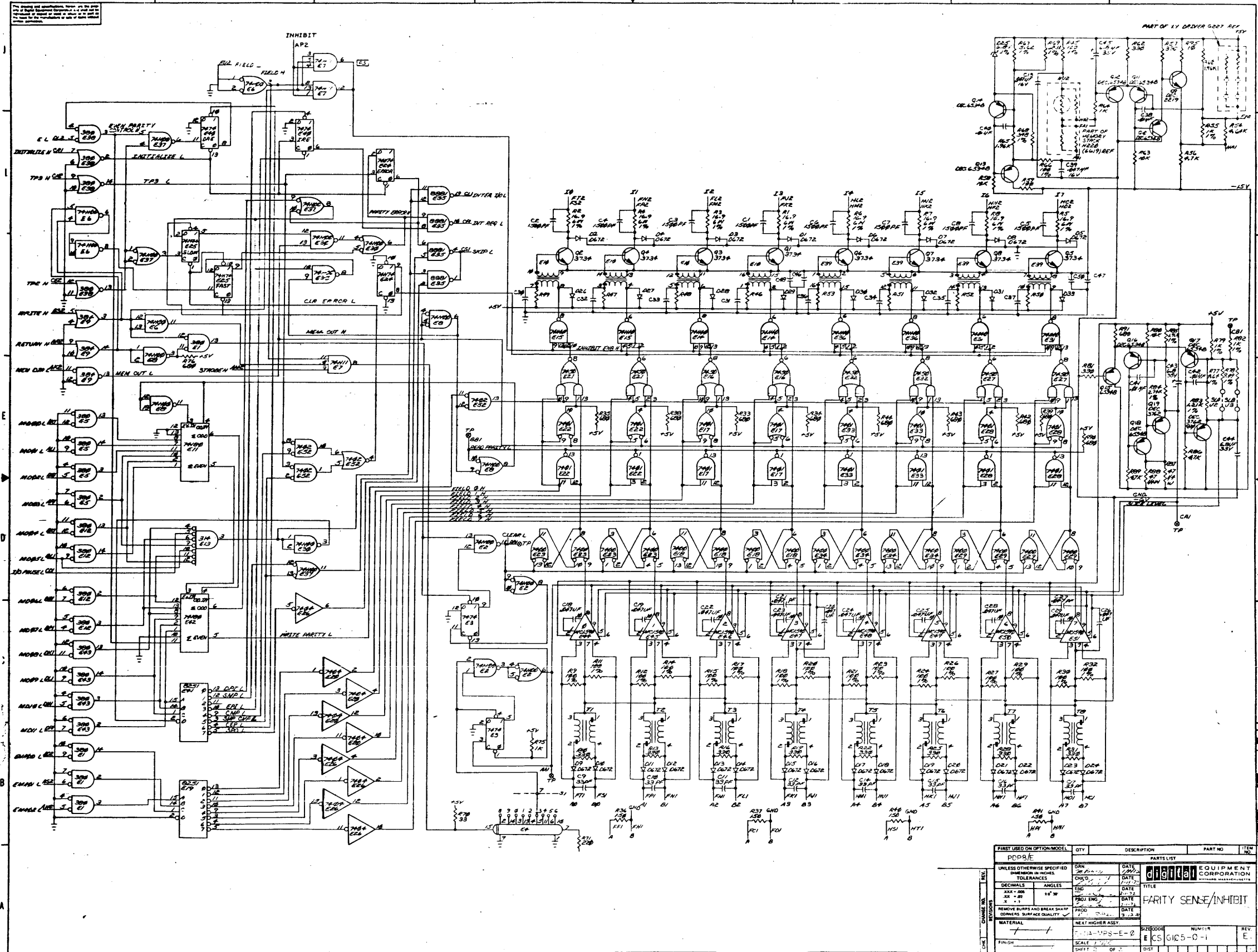
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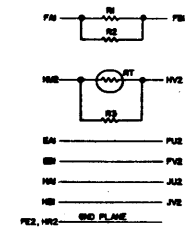
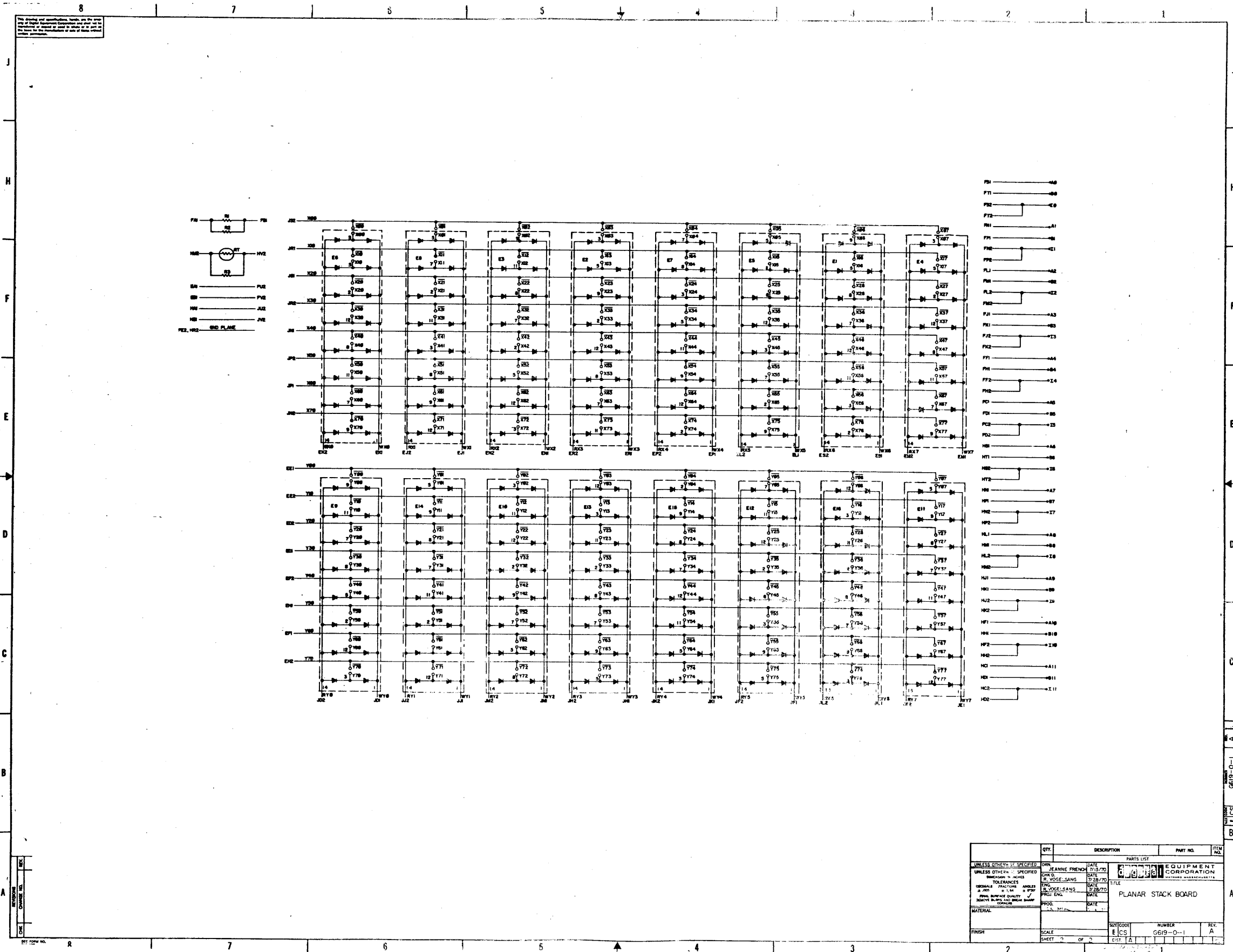
REF	RES.	VALUE	TOLERANCE	TEMP. COEFF.	QTY
1	R1-R10	RES. 2.7K	1/8W 1% MFP	130486B	10
2	R11-R20	RES. 10K	1/8W 5%	1300279	20
3	R21-R30	RES. 100K	1/8W 5%	1300229	20
4	R31-R40	RES. 1K	1/8W 5%	1300177	20
5	R41-R50	RES. 10K	1/8W 5%	1300279	20
6	R51-R60	RES. 100K	1/8W 5%	1300229	20
7	R61-R70	RES. 1K	1/8W 5%	1300177	20
8	R71-R80	RES. 10K	1/8W 5%	1300279	20
9	R81-R90	RES. 100K	1/8W 5%	1300229	20
10	R91-R100	RES. 1K	1/8W 5%	1300177	20
11	R101-R110	RES. 10K	1/8W 5%	1300279	20
12	R111-R120	RES. 100K	1/8W 5%	1300229	20
13	R121-R130	RES. 1K	1/8W 5%	1300177	20
14	R131-R140	RES. 10K	1/8W 5%	1300279	20
15	R141-R150	RES. 100K	1/8W 5%	1300229	20
16	R151-R160	RES. 1K	1/8W 5%	1300177	20
17	R161-R170	RES. 10K	1/8W 5%	1300279	20
18	R171-R180	RES. 100K	1/8W 5%	1300229	20
19	R181-R190	RES. 1K	1/8W 5%	1300177	20
20	R191-R200	RES. 10K	1/8W 5%	1300279	20
21	R201-R210	RES. 100K	1/8W 5%	1300229	20
22	R211-R220	RES. 1K	1/8W 5%	1300177	20
23	R221-R230	RES. 10K	1/8W 5%	1300279	20
24	R231-R240	RES. 100K	1/8W 5%	1300229	20
25	R241-R250	RES. 1K	1/8W 5%	1300177	20
26	R251-R260	RES. 10K	1/8W 5%	1300279	20
27	R261-R270	RES. 100K	1/8W 5%	1300229	20
28	R271-R280	RES. 1K	1/8W 5%	1300177	20
29	R281-R290	RES. 10K	1/8W 5%	1300279	20
30	R291-R300	RES. 100K	1/8W 5%	1300229	20
31	R301-R310	RES. 1K	1/8W 5%	1300177	20
32	R311-R320	RES. 10K	1/8W 5%	1300279	20
33	R321-R330	RES. 100K	1/8W 5%	1300229	20
34	R331-R340	RES. 1K	1/8W 5%	1300177	20
35	R341-R350	RES. 10K	1/8W 5%	1300279	20
36	R351-R360	RES. 100K	1/8W 5%	1300229	20
37	R361-R370	RES. 1K	1/8W 5%	1300177	20
38	R371-R380	RES. 10K	1/8W 5%	1300279	20
39	R381-R390	RES. 100K	1/8W 5%	1300229	20
40	R391-R400	RES. 1K	1/8W 5%	1300177	20
41	R401-R410	RES. 10K	1/8W 5%	1300279	20
42	R411-R420	RES. 100K	1/8W 5%	1300229	20
43	R421-R430	RES. 1K	1/8W 5%	1300177	20
44	R431-R440	RES. 10K	1/8W 5%	1300279	20
45	R441-R450	RES. 100K	1/8W 5%	1300229	20
46	R451-R460	RES. 1K	1/8W 5%	1300177	20
47	R461-R470	RES. 10K	1/8W 5%	1300279	20
48	R471-R480	RES. 100K	1/8W 5%	1300229	20
49	R481-R490	RES. 1K	1/8W 5%	1300177	20
50	R491-R500	RES. 10K	1/8W 5%	1300279	20
51	R501-R510	RES. 100K	1/8W 5%	1300229	20
52	R511-R520	RES. 1K	1/8W 5%	1300177	20
53	R521-R530	RES. 10K	1/8W 5%	1300279	20
54	R531-R540	RES. 100K	1/8W 5%	1300229	20
55	R541-R550	RES. 1K	1/8W 5%	1300177	20
56	R551-R560	RES. 10K	1/8W 5%	1300279	20
57	R561-R570	RES. 100K	1/8W 5%	1300229	20
58	R571-R580	RES. 1K	1/8W 5%	1300177	20
59	R581-R590	RES. 10K	1/8W 5%	1300279	20
60	R591-R600	RES. 100K	1/8W 5%	1300229	20
61	R601-R610	RES. 1K	1/8W 5%	1300177	20
62	R611-R620	RES. 10K	1/8W 5%	1300279	20
63	R621-R630	RES. 100K	1/8W 5%	1300229	20
64	R631-R640	RES. 1K	1/8W 5%	1300177	20
65	R641-R650	RES. 10K	1/8W 5%	1300279	20
66	R651-R660	RES. 100K	1/8W 5%	1300229	20
67	R661-R670	RES. 1K	1/8W 5%	1300177	20
68	R671-R680	RES. 10K	1/8W 5%	1300279	20
69	R681-R690	RES. 100K	1/8W 5%	1300229	20
70	R691-R700	RES. 1K	1/8W 5%	1300177	20
71	R701-R710	RES. 10K	1/8W 5%	1300279	20
72	R711-R720	RES. 100K	1/8W 5%	1300229	20
73	R721-R730	RES. 1K	1/8W 5%	1300177	20
74	R731-R740	RES. 10K	1/8W 5%	1300279	20
75	R741-R750	RES. 100K	1/8W 5%	1300229	20
76	R751-R760	RES. 1K	1/8W 5%	1300177	20
77	R761-R770	RES. 10K	1/8W 5%	1300279	20
78	R771-R780	RES. 100K	1/8W 5%	1300229	20
79	R781-R790	RES. 1K	1/8W 5%	1300177	20
80	R791-R800	RES. 10K	1/8W 5%	1300279	20
81	R801-R810	RES. 100K	1/8W 5%	1300229	20
82	R811-R820	RES. 1K	1/8W 5%	1300177	20
83	R821-R830	RES. 10K	1/8W 5%	1300279	20
84	R831-R840	RES. 100K	1/8W 5%	1300229	20
85	R841-R850	RES. 1K	1/8W 5%	1300177	20
86	R851-R860	RES. 10K	1/8W 5%	1300279	20
87	R861-R870	RES. 100K	1/8W 5%	1300229	20
88	R871-R880	RES. 1K	1/8W 5%	1300177	20
89	R881-R890	RES. 10K	1/8W 5%	1300279	20
90	R891-R900	RES. 100K	1/8W 5%	1300229	20
91	R901-R910	RES. 1K	1/8W 5%	1300177	20
92	R911-R920	RES. 10K	1/8W 5%	1300279	20
93	R921-R930	RES. 100K	1/8W 5%	1300229	20
94	R931-R940	RES. 1K	1/8W 5%	1300177	20
95	R941-R950	RES. 10K	1/8W 5%	1300279	20
96	R951-R960	RES. 100K	1/8W 5%	1300229	20
97	R961-R970	RES. 1K	1/8W 5%	1300177	20
98	R971-R980	RES. 10K	1/8W 5%	1300279	20
99	R981-R990	RES. 100K	1/8W 5%	1300229	20
100	R991-R1000	RES. 1K	1/8W 5%	1300177	20

IC TYPE	QTY	AWG	FROM	10 PT
DEC 8251	8	16		
DEC 1540	7	2		
DEC 304	1	8		
DEC 380	1	8	66	22 13-A 13-B
DEC 374	1	8	66	22 12-A 12-B
IC TYPE	GND	+5V	66	22 11-A 11-B

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO
1	R1	RES 2.7K	130486B	1
1	R2	RES 10K	1300279	2
1	R3	RES 100K	1300229	3
1	R4	RES 1K	1300177	4
1	R5	RES 10K	1300279	5
1	R6	RES 100K	1300229	6
1	R7	RES 1K	1300177	7
1	R8	RES 10K	1300279	8
1	R9	RES 100K	1300229	9
1	R10	RES 1K	1300177	10
1	R11	RES 10K	1300279	11
1	R12	RES 100K	1300229	12
1	R13	RES 1K	1300177	13
1	R14	RES 10K	1300279	14
1	R15	RES 100K	1300229	15
1	R16	RES 1K	1300177	16
1	R17	RES 10K	1300279	17
1	R18	RES 100K	1300229	18
1	R19	RES 1K	1300177	19
1	R20	RES 10K	1300279	20
1	R21	RES 100K	1300229	21
1	R22	RES 1K	1300177	22
1	R23	RES 10K	1300279	23
1	R24	RES 100K	1300229	24
1	R25	RES 1K	1300177	25
1	R26	RES 10K	1300279	26
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1	R29	RES 10K	1300279	29
1	R30	RES 100K	1300229	30
1	R31	RES 1K	1300177	31
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1	R33	RES 100K	1300229	33
1	R34	RES 1K	1300177	34
1	R35	RES 10K	1300279	35
1	R36	RES 100K	1300229	36
1	R37	RES 1K	1300177	37
1	R38	RES 10K	1300279	38
1	R39	RES 100K	1300229	39
1	R40	RES 1K	1300177	40
1	R41	RES 10K	1300279	41
1	R42	RES 100K	1300229	42
1	R43	RES 1K	1300177	43
1	R44	RES 10K	1300279	44
1	R45	RES 100K	1300229	45
1	R46	RES 1K	1300177	46
1	R47	RES 10K	1300279	47
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1	R78	RES 100K	1300229	78
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1	R82	RES 1K	1300177	82
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1	R92	RES 10K	1300279	92
1	R93	RES 100K	1300229	93
1	R94	RES 1K	1300177	94
1	R95	RES 10K	1300279	95
1	R96	RES 100K	1300229	96
1	R97	RES 1K	1300177	97
1	R98	RES 10K	1300279	98
1	R99	RES 100K	1300229	99
1	R100	RES 1K	1300177	100



FIRST USED ON OPTION/MODEL		QTY	DESCRIPTION	PART NO	ITEM NO
100P/E					
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES					
DECIMALS	ANGLES				
XXX - .001	16° M				
XX - .005					
X - .010					
REMOVE BURRS AND BREAK SHARP CORNERS. SURFACE QUALITY					
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV	
		ECS 1005-E-2	ECS 1005-0-1	E	
FINISH	SCALE 1/8" = 1"	SHEET 1 OF 2	DIST		



- P21 --- 10K
- P22 --- 10K
- P23 --- 10K
- P24 --- 10K
- P25 --- 10K
- P26 --- 10K
- P27 --- 10K
- P28 --- 10K
- P29 --- 10K
- P30 --- 10K
- P31 --- 10K
- P32 --- 10K
- P33 --- 10K
- P34 --- 10K
- P35 --- 10K
- P36 --- 10K
- P37 --- 10K
- P38 --- 10K
- P39 --- 10K
- P40 --- 10K
- P41 --- 10K
- P42 --- 10K
- P43 --- 10K
- P44 --- 10K
- P45 --- 10K
- P46 --- 10K
- P47 --- 10K
- P48 --- 10K
- P49 --- 10K
- P50 --- 10K
- P51 --- 10K
- P52 --- 10K
- P53 --- 10K
- P54 --- 10K
- P55 --- 10K
- P56 --- 10K
- P57 --- 10K
- P58 --- 10K
- P59 --- 10K
- P60 --- 10K
- P61 --- 10K
- P62 --- 10K
- P63 --- 10K
- P64 --- 10K
- P65 --- 10K
- P66 --- 10K
- P67 --- 10K
- P68 --- 10K
- P69 --- 10K
- P70 --- 10K
- P71 --- 10K
- P72 --- 10K
- P73 --- 10K
- P74 --- 10K
- P75 --- 10K
- P76 --- 10K
- P77 --- 10K
- P78 --- 10K
- P79 --- 10K
- P80 --- 10K
- P81 --- 10K
- P82 --- 10K
- P83 --- 10K
- P84 --- 10K
- P85 --- 10K
- P86 --- 10K
- P87 --- 10K
- P88 --- 10K
- P89 --- 10K
- P90 --- 10K
- P91 --- 10K
- P92 --- 10K
- P93 --- 10K
- P94 --- 10K
- P95 --- 10K
- P96 --- 10K
- P97 --- 10K
- P98 --- 10K
- P99 --- 10K
- P100 --- 10K

QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED			
DRN	JEANNE FRENCH	DATE	7/15/70
CHK'D	EL MOGELSONG	DATE	7/29/70
ENG	EL MOGELSONG	DATE	7/29/70
PROJ. ENGR.		DATE	
PROD. ENGR.		DATE	
MATERIAL			
FINISH			
SCALE		NUMBER	REV.
SHEET 2 OF 2		6619-0-1	A

DRAWING NO. 6619-0-1
 SHEET 2 OF 2

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 6/21/72

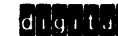
TITLE PDP8/E MEMORY PARITY - MP8-E

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG Bruce Tarpley	APPD <i>[Signature]</i>	SIZE A	CODE SP	NUMBER MP8-E-1	REV
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ENGINEERING SPECIFICATION



CONTINUATION SHEET

TITLE PDP8/E MEMORY PARITY - MP8-E

1.0 General Description

The MP8-E provides memory parity for up to 32K of PDP8/E memory. Parity is automatically checked and parity errors may be reported using interrupt or under program control using the skip function.

2.0 Physical

The MP8-E consists of three quad boards, which plug directly into the OMNIBUS. The G105, H220, and the G227 are interconnected using four H851 edge connectors and may be placed with either the G105 or G227 towards the front of the machine.

3.0 Environmental Specifications

Temperature: 0 degrees to 50 degrees C (Operating)
Humidity: 10% to 90% non-condensing (Operating)
Storage: -15 degrees to 85 degrees C

4.0 Principles of Operation

4.1 System:

The MP8-E uses the same X/Y Driver and Current Source module, the G227, as the MM8-E, the standard 4K PDP8/E memory, and the same twelve 4096 bit memory stack, the H220. The G105 uses the same type of circuitry as the G104, the MM8-E's Sense Inhibit Board, except that it is only 8 bits wide and also contains the parity sensing circuitry. The MP8-E provides the thirteenth bit for each 12 bit word in the 32K of memory. Parity is computed using the parity bit and the 12 MD lines which contain the word being written into memory.

4.2 Parity Sense Inhibit Board - G105

The G105 contains the circuitry necessary for a sense and inhibit functions of the core memory. More detailed discussion of the Sense function may be found in the PDP8/E Maintenance Manual, Volume 1, Section 3.27.9. A further discussion of the Inhibit function may be found in the PDP8/E Maintenance Manual, Volume 1, Section 3.27.12.

SIZE A	CODE SP	NUMBER G1-MP8-E-1	REV
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TITLE PDP8/E MEMORY PARITY - MP8-E

Each of the eight bits on the G105 contain 4096 individual locations, which correspond to the same address in a specific data field of the PDP8/E's memory. The eight bits therefore are the parity bits for eight fields of memory or 32K. The EMA bits are decoded and the bit corresponding to the selected field is enabled to the parity checker. The other seven bits are also read, but are always rewritten without modification. The selected bit is fed, along with the 12 MD bits into the parity checking network and the parity of the 13 bits is computed. If this parity is odd, no error is signaled, and the same parity bit is rewritten into the parity stack. The selected bit is rewritten in a state determined by either the parity checking network or by the bit which was just read, depending on the state of MD DIR. If MD DIR is high, the contents of the MB are on the MD lines and the parity bit is determined by the parity checking network. If MD DIR is low, the output of the sense amplifiers is on the MD lines and the parity bit which was just read will be rewritten. There are two flip-flops which sense a parity error, one for fast cycles and one for slow cycles. For slow cycles, parity may be checked at the leading edge of TP2, but for fast cycles it must be checked at RETURN time of the write cycle. The outputs of these flip-flops are Ored and set the error flop and may cause an interrupt. The error flip-flop enables a skip and latches the error condition which must be cleared by an IOT. A more complete discussion of the parity checking and error detection circuits may be found in the MP8-E section of the PDP8/E Maintenance Manual, Volume 2.

4.3 Planar Stack Board - H220

The Stack board is the same 12 x 4096 bit stack used in the MM8-E 4K memory. Eight of the twelve bits are used by the MP8-E. A complete discussion of the H220 and of memory theory may be found in the PDP8/E Maintenance Manual Volume 1, Section 3.25.

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A	SP	(MP8-E-1)	

TITLE PDP8/E MEMORY PARITY - MP8-E

4.4 X/Y Driver and Current Source - G227

The X/Y board is the same as the one used on the MM8-E. It addresses the proper cores and generates the currents necessary to create the signal sensed by the G105. A complete discussion of the addressing and current sources may be found in the PDP8/E Maintenance Manual, Volume 1, Section 3.26.

5.0 Programming

The MP8-E may be run under interrupt or skip control; the method of operation determined by IOT. Below is a list of the MP8-E's instruction set. More detailed information on the programming of the MP8-E is available in the 1972 PDP8/E and PDP8/M Small Computer Handbook, page 7-21.

6100	DRI	Disable Memory Parity Error Interrupt
6101	SMP	Skip on No Memory Parity Error
6103	EPI	Enable Memory Parity Error Interrupt
6104	CMP	Clear Memory Parity Error Flag
6105	SMP, CMP	Skip on No Memory Parity Error and Clear Memory Parity Error Flag
6106	CEP	Check for Even Parity
6107	SPO	Skip on Memory Parity Option

SIZE	CODE	NUMBER	REV
A	SP	(MP8-E-1)	

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ENGINEERING SPECIFICATION

DATE 6/21/72

TITLE MP8-E ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG	Bruce Tarpley	APPD		CODE	SIZE	NUMBER	REV
				SP	A	MP8-E-3	

ENGINEERING SPECIFICATION

digital

CONTINUATION SHEET

TITLE MP8-E ACCEPTANCE PROCEDURE

1.0 Scope

1.1 This procedure defines the minimum criteria necessary for shipment of an MP8-E, Memory Parity Option.

2.0 Set Up

- 2.1 Remove the four (4) H851 edge connectors from the tops of the G105, H220, and G227 modules.
- 2.2 Inspect the G105, H220, and G227 modules for conformance to "Final Inspection Procedure for Flip Chip Modules" (A-SP-7665039-0-0) and "Module Rework Standard" (A-SP-7605845-0-0).
- 2.3 Check the G105 and G227 modules to insure the circuit and etch revisions are up to current ECO levels.
- 2.4 Make sure power in the PDP8/E is turned off.
- 2.5 Insert the G105, H220, G227 modules into the OMNIBUS. Adhere to the "Recommended OMNIBUS Assignment List" (A-SP-PDP8-E-0-4). Connect the modules together using the four (4) H851 edge connectors. The G105 should be in front, the H220 in the middle, and the G227 in the rear.

3.0 Electrical Test

- 3.1 Turn power on to the PDP8/E.
- 3.2 Follow the loading procedure for MP8-E Extended Memory Parity Checkerboard (MAINDEC-8E-DHMPA).
- 3.3 Run the MP8-E Parity diagnostic following the instructions in the write-up for ten minutes without error.
- 3.4 At the completion of 3.3, halt the PDP8/E and turn off power to the PDP8/E.

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A	SP	MP8_E_3	

TITLE MP8-E ACCEPTANCE PROCEDURE

- 3.5 Remove the two edge connectors between the G105 and the H220. Remove the G105 and turn the strobe switch one position clockwise from the position set during MP8-E test.
- 3.6 Reconnect the G105 and H220 and power up the PDP8/E.
- 3.7 Repeat 3.3.
- 3.8 At the completion of 3.7, halt the PDP8/E and turn off power to the PDP8/E.
- 3.9 Remove the two edge connectors between the G105 and the H220. Remove the G105 and turn the strobe switch one position counterclockwise from the position set during MP8-E test.
- 3.10 Reconnect the G105 and H220 and power up the PDP8/E.
- 3.11 Repeat 3.3.
- 3.12 At the completion of 3.12, halt the PDP8/E and turn off power to the PDP8/E.
- 3.13 Remove the two edge connectors from the G105 and the H220. Remove the G105 and reset the strobe switch to the original position set during MP8-E test.
- 3.14 Reconnect the G105 and H220 and power up the PDP8/E.
- 3.15 Run the MP8-E parity diagnostic for ten minutes for each 4K of memory in the system without error.

4.0 Failure Classification

4.1 Mechanical Failure

- 4.1.1 Any module which does not meet the criterion outlined in 2.2 and 2.3 will be classified as a failure.
- 4.1.2 The acceptance supervisor has the option of waiving the failure or returning the defective MP8-E to the Memory Test Area for repair.

SIZE	CODE	NUMBER	REV
A	SP	MP8-E-3	

TITLE MP8-E ACCEPTANCE PROCEDURE

4.2 Electrical Failure

- 4.2.1 Any MP8-E which while performing 3.3, 3.7, 3.11, or 3.15 halts, generates error printouts, or runs other than continuous and as specified in the diagnostic write-up will be classified defective and the entire MP8-E returned to the Memory Test Area for repair.

SIZE	CODE	NUMBER	REV
A	SP	MP8-E-3	