


MODULE VARIATION M8C59-FA

- NOTES:
1.  = WIRE WRAP PIN.
  2. BT THRU BG SHOULD BE INSTALLED WITH ASSEMBLY SPACERS SO THAT THEY LOOK LIKE THE FOLLOWING



3.	TYPE MEMORY NON-PARITY WITH PARITY	JUMPER CONFIGURATION 9 TO 10 11 TO 10
4.	TYPE MEMORY PARITY HIGH-CS# PARITY WITH CS#	JUMPER CONFIGURATION 18 TO 19 20 TO 15
5.	PERIPHERAL PAGE SELECTION 2K PERIPHERAL PAGE 4K PERIPHERAL PAGE	JUMPER CONFIGURATION 29 TO 20 21 TO 28
6.	PARITY ERROR REPORT REPORTED ON BID 16L NON-CS# REPORTED ON BID 16L & BID 17L WITH CS#	JUMPER CONFIGURATION 3 TO 2 1 TO 2
7.	WRITE BRING-PARTY (BIT 2) DIAG BIT FOR TESTER USE WITH PARITY NON-PARITY	JUMPER CONFIGURATION 6 TO 7 8-10
8.	REMOVAL OF THE LOWER OPPER BIAS IF IT WAS A FAULT NORMAL OPERATION ON UPPER BIAS HAS FAILED LOWER BIAS HAS FAILED	JUMPER CONFIGURATION 15 TO 16 17 TO 16
9.	FULL OR HALF MEMORY SELECTION FULL MEMORY SELECT "ON" ONE HALF MEMORY SELECTION	JUMPER CONFIGURATION 34 TO 33 32 TO 33
10.	CS# SELECTION WITH CS# WITHOUT CS#	JUMPER CONFIGURATION F TO H J TO H
11.	VOLTAGE CORRECTION +5V NON BATTERY BACKUP +5V BATTERY BACKUP	JUMPER CONFIGURATION 25 TO 25 (41) 24 TO 25 (12) 14 TO 13 (8)* OR 12 TO 13 (84)**

82. AVAILABILITY FOR THE 45V BATTERY BACKUP

12. 88050-FA IS A PRIMARY VARIATION OF 64 K X 16 BIT SYSTEM (NOT A MODULE TYPE)  
88050-FC, FF, FH ARE MODULE TYPES USING DIFFERENT VENDORS 64 K MOS DEVICES
13. WARNING: ALL IC'S ARE MOUNTED ON BOARD 180° FROM  
THE NORMAL.

NOTES: THE FOLLOWING IC'S ARE NOT  
INSTALLED IN THE FA VARIATION: E12 THRU  
E14, E26 THRU E28, E39 THRU E41, E52 THRU  
E54, E66 THRU E68, E80 THRU E82.  
2. ITEM 59 USED ONLY IN PRODUCTION  
TESTING

STEP 2	1 Y AXIS	STEP	TIMES
REPEAT	→ X AXIS 525	STEP	TIMES

CHK	CHANGE	NO	REV
-----	--------	----	-----

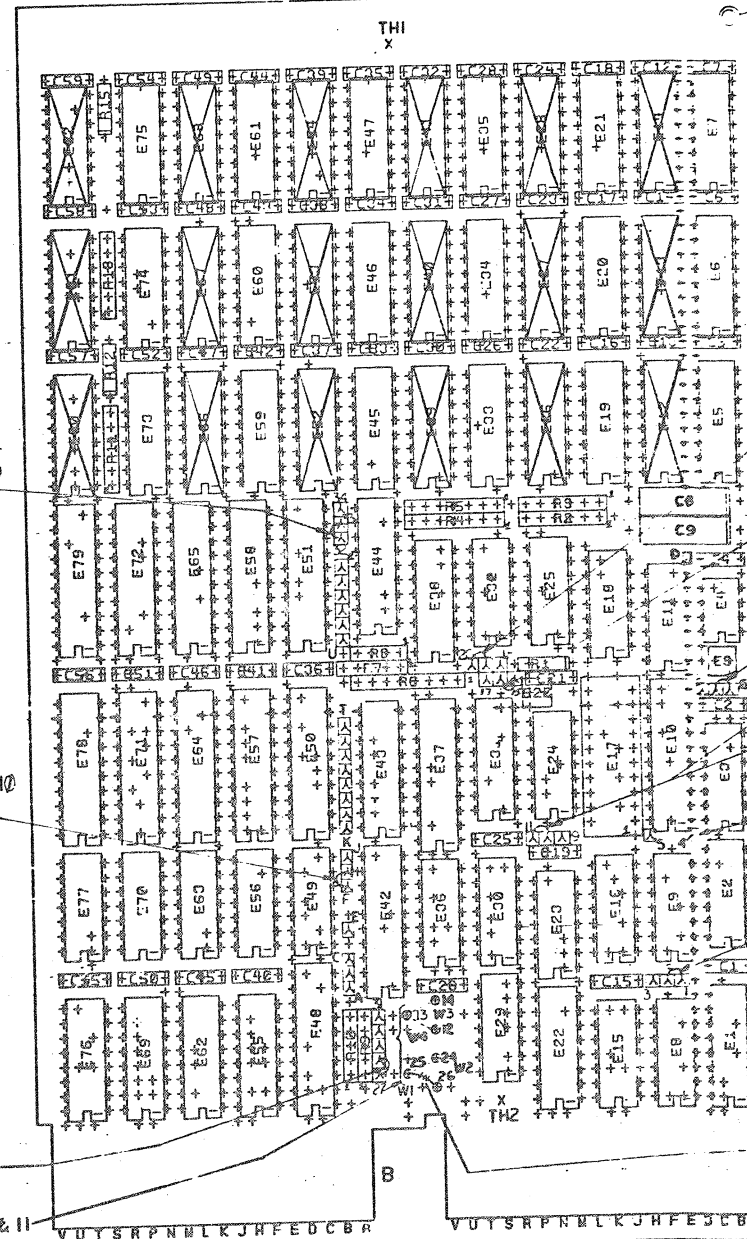
SEE NOTE 9

SEE NOTE 10

SEE NOTE 5-

SEE NOTES 2& 11-

ETDM REV. C



COMPONENT SIDE VIEW

SEE

SEE

7

SEE

55

11/11/2016

6

1



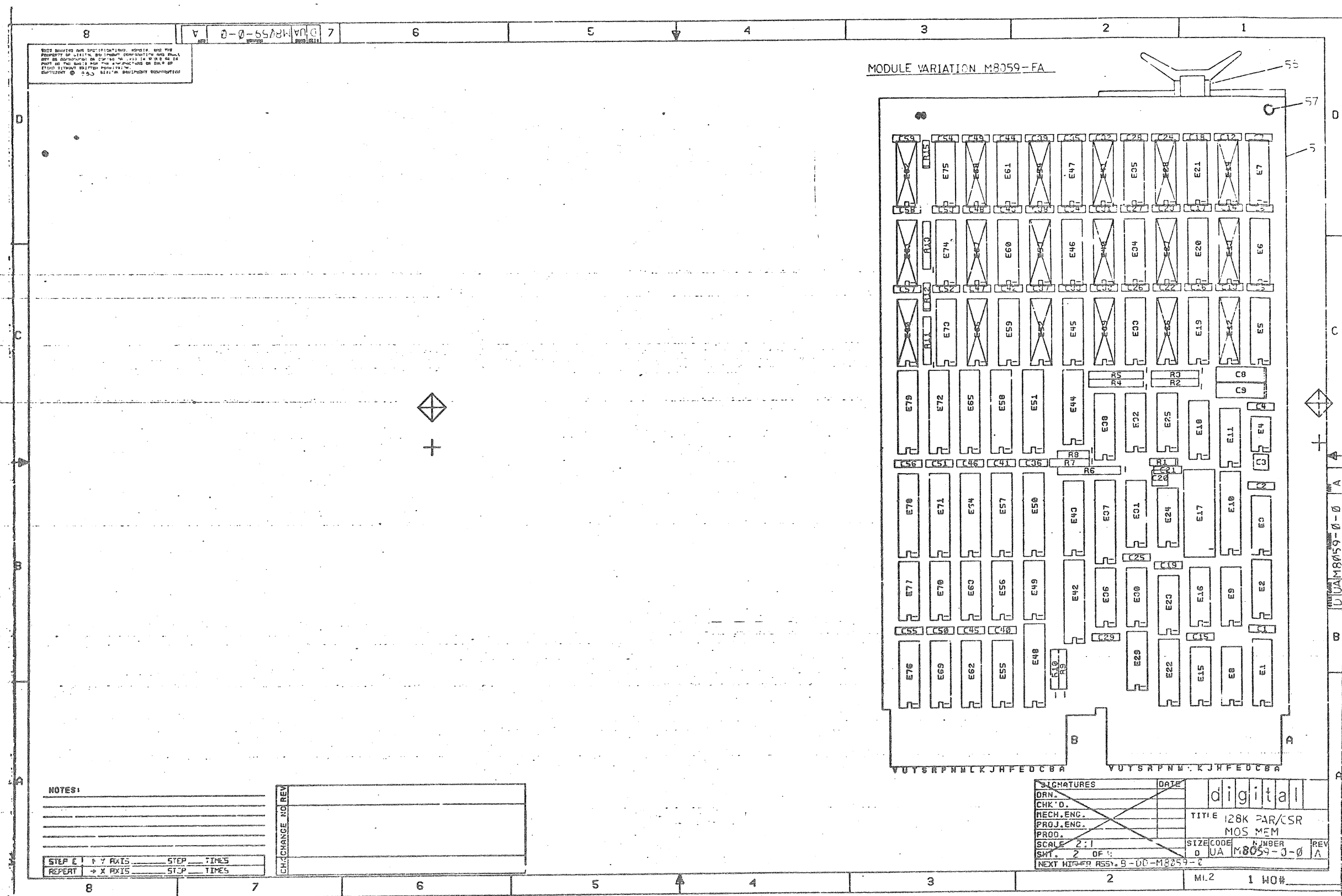
SEE  
NOTE

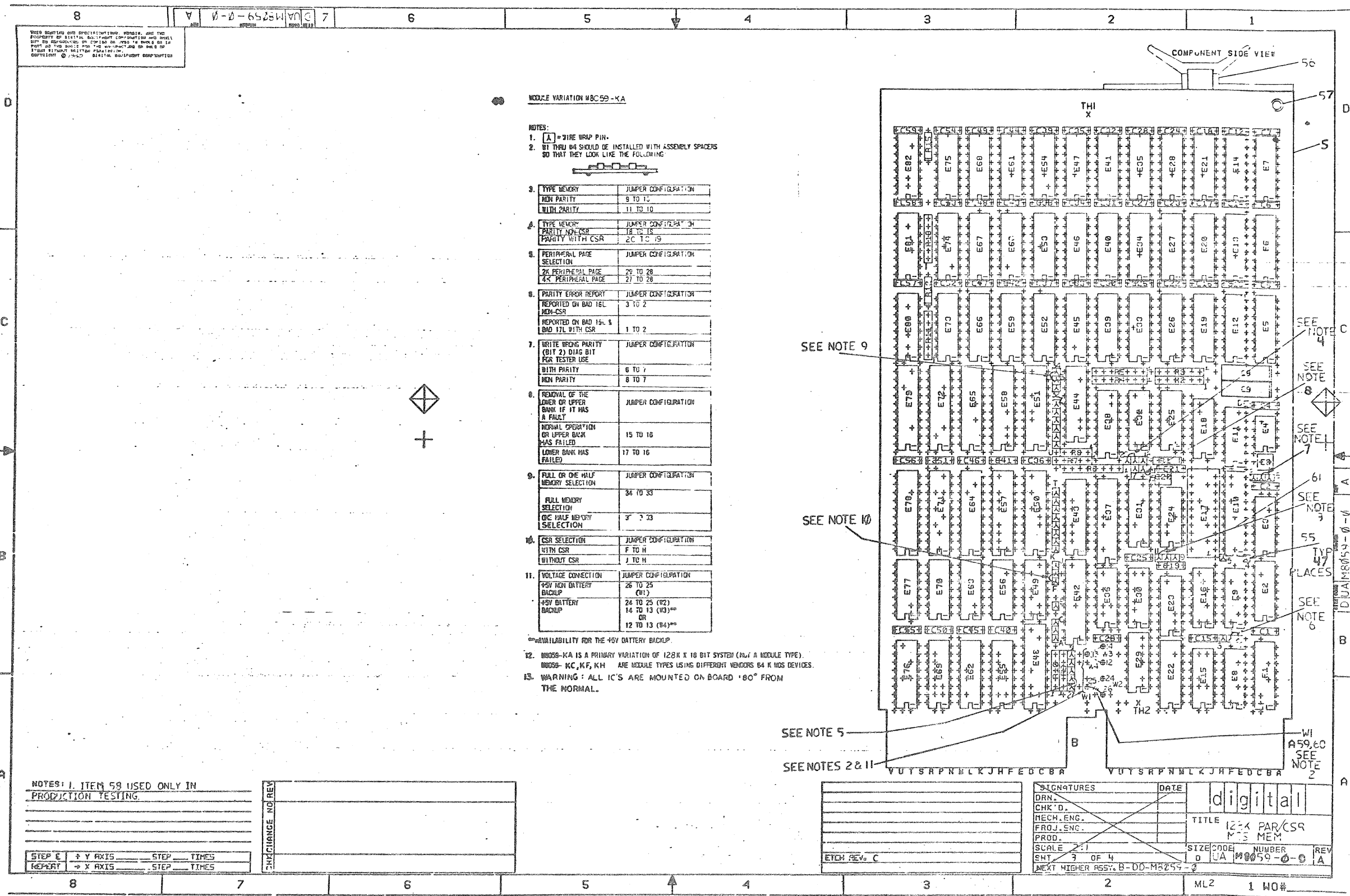
2

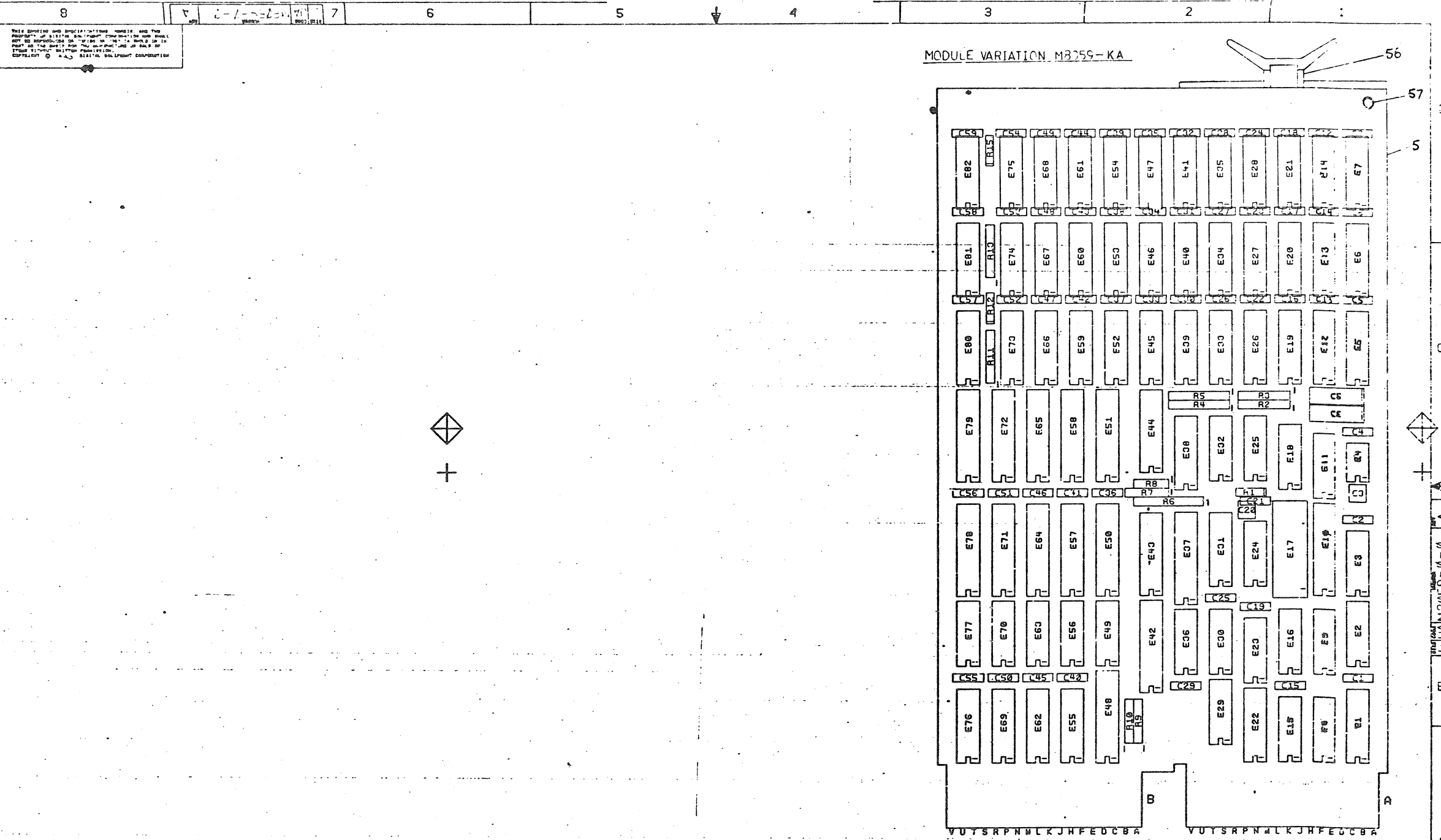
EP IRE



1998: 14–20; 2000: 22–28; 2002: 30–36; 2004: 38–44; 2006: 46–52; 2008: 48–54; 2010: 50–56; 2012: 52–58; 2014: 54–60; 2016: 56–62; 2018: 58–64; 2020: 60–66; 2022: 62–68; 2024: 64–70; 2026: 66–72; 2028: 68–74; 2030: 70–76; 2032: 72–78; 2034: 74–80; 2036: 76–82; 2038: 78–84; 2040: 80–86; 2042: 82–88; 2044: 84–90; 2046: 86–92; 2048: 88–94; 2050: 90–96; 2052: 92–98; 2054: 94–100; 2056: 96–102; 2058: 98–104; 2060: 100–106; 2062: 102–108; 2064: 104–110; 2066: 106–112; 2068: 108–114; 2070: 110–116; 2072: 112–118; 2074: 114–120; 2076: 116–122; 2078: 118–124; 2080: 120–126; 2082: 122–128; 2084: 124–130; 2086: 126–132; 2088: 128–134; 2090: 130–136; 2092: 132–138; 2094: 134–140; 2096: 136–142; 2098: 138–144; 2100: 140–146; 2102: 142–148; 2104: 144–150; 2106: 146–152; 2108: 148–154; 2110: 150–156; 2112: 152–158; 2114: 154–160; 2116: 156–162; 2118: 158–164; 2120: 160–166; 2122: 162–168; 2124: 164–170; 2126: 166–172; 2128: 168–174; 2130: 170–176; 2132: 172–178; 2134: 174–180; 2136: 176–182; 2138: 178–184; 2140: 180–186; 2142: 182–188; 2144: 184–190; 2146: 186–192; 2148: 188–194; 2150: 190–196; 2152: 192–198; 2154: 194–200; 2156: 196–202; 2158: 198–204; 2160: 200–206; 2162: 202–208; 2164: 204–210; 2166: 206–212; 2168: 208–214; 2170: 210–216; 2172: 212–218; 2174: 214–220; 2176: 216–222; 2178: 218–224; 2180: 220–226; 2182: 222–228; 2184: 224–230; 2186: 226–232; 2188: 228–234; 2190: 230–236; 2192: 232–238; 2194: 234–240; 2196: 236–242; 2198: 238–244; 2200: 240–246; 2202: 242–248; 2204: 244–250; 2206: 246–252; 2208: 248–254; 2210: 250–256; 2212: 252–258; 2214: 254–260; 2216: 256–262; 2218: 258–264; 2220: 260–266; 2222: 262–268; 2224: 264–270; 2226: 266–272; 2228: 268–274; 2230: 270–276; 2232: 272–278; 2234: 274–280; 2236: 276–282; 2238: 278–284; 2240: 280–286; 2242: 282–288; 2244: 284–290; 2246: 286–292; 2248: 288–294; 2250: 290–296; 2252: 292–298; 2254: 294–300; 2256: 296–302; 2258: 298–304; 2260: 300–306; 2262: 302–308; 2264: 304–310; 2266: 306–312; 2268: 308–314; 2270: 310–316; 2272: 312–318; 2274: 314–320; 2276: 316–322; 2278: 318–324; 2280: 320–326; 2282: 322–328; 2284: 324–330; 2286: 326–332; 2288: 328–334; 2290: 330–336; 2292: 332–338; 2294: 334–340; 2296: 336–342; 2298: 338–344; 2300: 340–346; 2302: 342–348; 2304: 344–350; 2306: 346–352; 2308: 348–354; 2310: 350–356; 2312: 352–358; 2314: 354–360; 2316: 356–362; 2318: 358–364; 2320: 360–366; 2322: 362–368; 2324: 364–370; 2326: 366–372; 2328: 368–374; 2330: 370–376; 2332: 372–378; 2334: 374–380; 2336: 376–382; 2338: 378–384; 2340: 380–386; 2342: 382–388; 2344: 384–390; 2346: 386–392; 2348: 388–394; 2350: 390–396; 2352: 392–398; 2354: 394–400; 2356: 396–402; 2358: 398–404; 2360: 400–406; 2362: 402–408; 2364: 404–410; 2366: 406–412; 2368: 408–414; 2370: 410–416; 2372: 412–418; 2374: 414–420; 2376: 416–422; 2378: 418–424; 2380: 420–426; 2382: 422–428; 2384: 424–430; 2386: 426–432; 2388: 428–434; 2390: 430–436; 2392: 432–438; 2394: 434–440; 2396: 436–442; 2398: 438–444; 2400: 440–446; 2402: 442–448; 2404: 444–450; 2406: 446–452; 2408: 448–454; 2410: 450–456; 2412: 452–458; 2414: 454–460; 2416: 456–462; 2418: 458–464; 2420: 460–466; 2422: 462–468; 2424: 464–470; 2426: 466–472; 2428: 468–474; 2430: 470–476; 2432: 472–478; 2434: 474–480; 2436: 476–482; 2438: 478–484; 2440: 480–486; 2442: 482–488; 2444: 484–490; 2446: 486–492; 2448: 488–494; 2450: 490–496; 2452: 492–498; 2454: 494–500; 2456: 496–502; 2458: 498–504; 2460: 500–506; 2462: 502–508; 2464: 504–510; 2466: 506–512; 2468: 508–514; 2470: 510–516; 2472: 512–518; 2474: 514–520; 2476: 516–522; 2478: 518–524; 2480: 520–526; 2482: 522–528; 2484: 524–530; 2486: 526–532; 2488: 528–534; 2490: 530–536; 2492: 532–538; 2494: 534–540; 2496: 536–542; 2498: 538–544; 2500: 540–546; 2502: 542–548; 2504: 544–550; 2506: 546–552; 2508: 548–554; 2510: 550–556; 2512: 552–558; 2514: 554–560; 2516: 556–562; 2518: 558–564; 2520: 560–566; 2522: 562–568; 2524: 564–570; 2526: 566–572; 2528: 568–574; 2530: 570–576; 2532: 572–578; 2534: 574–580; 2536: 576–582; 2538: 578–584; 2540: 580–586; 2542: 582–588; 2544: 584–590; 2546: 586–592; 2548: 588–594; 2550: 590–596







NOTES:

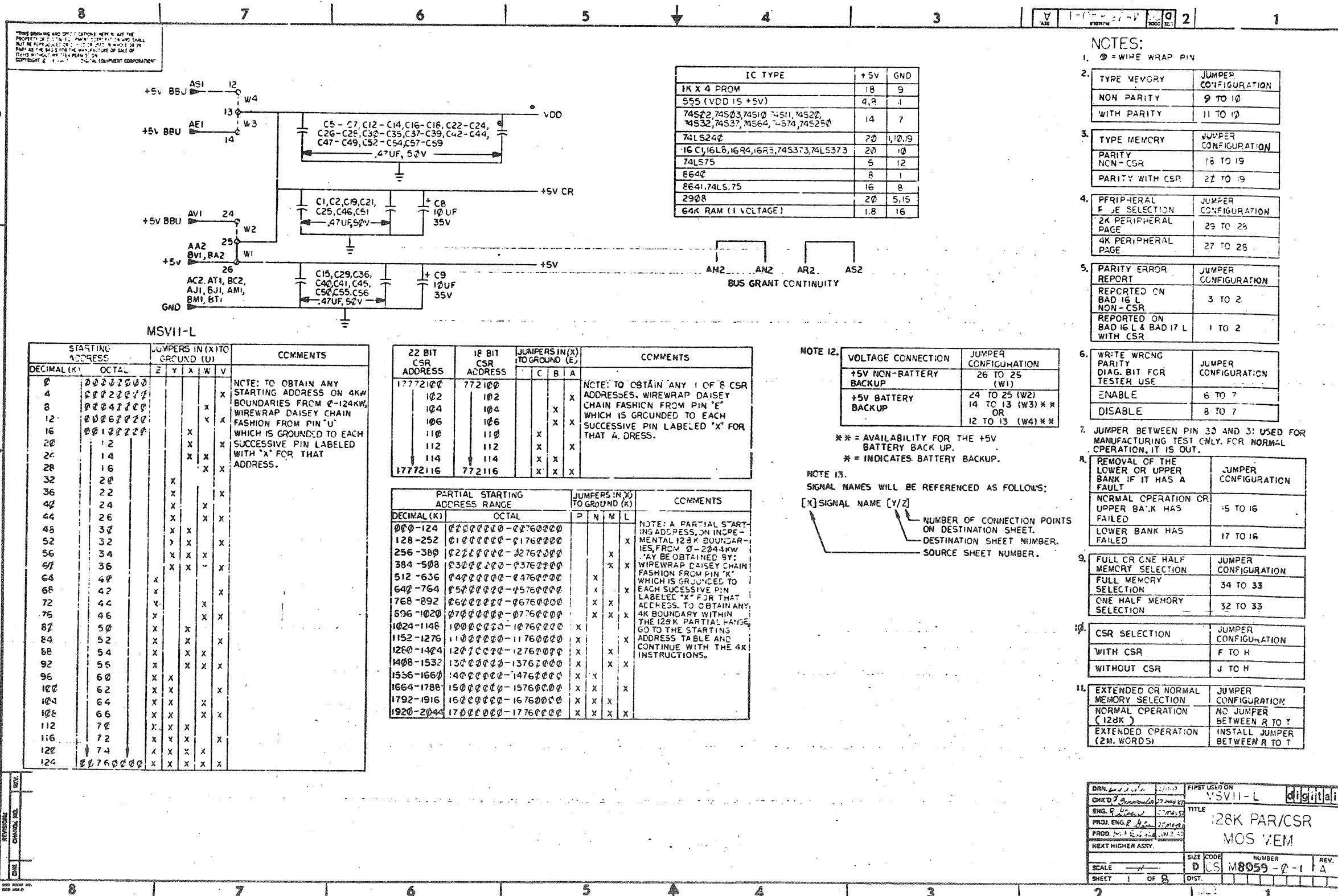
STEP 1	Y AXIS	STEP	TIMES
REPEAT	X AXIS	STEP	TIMES

CHECK CHANGE NO. REV

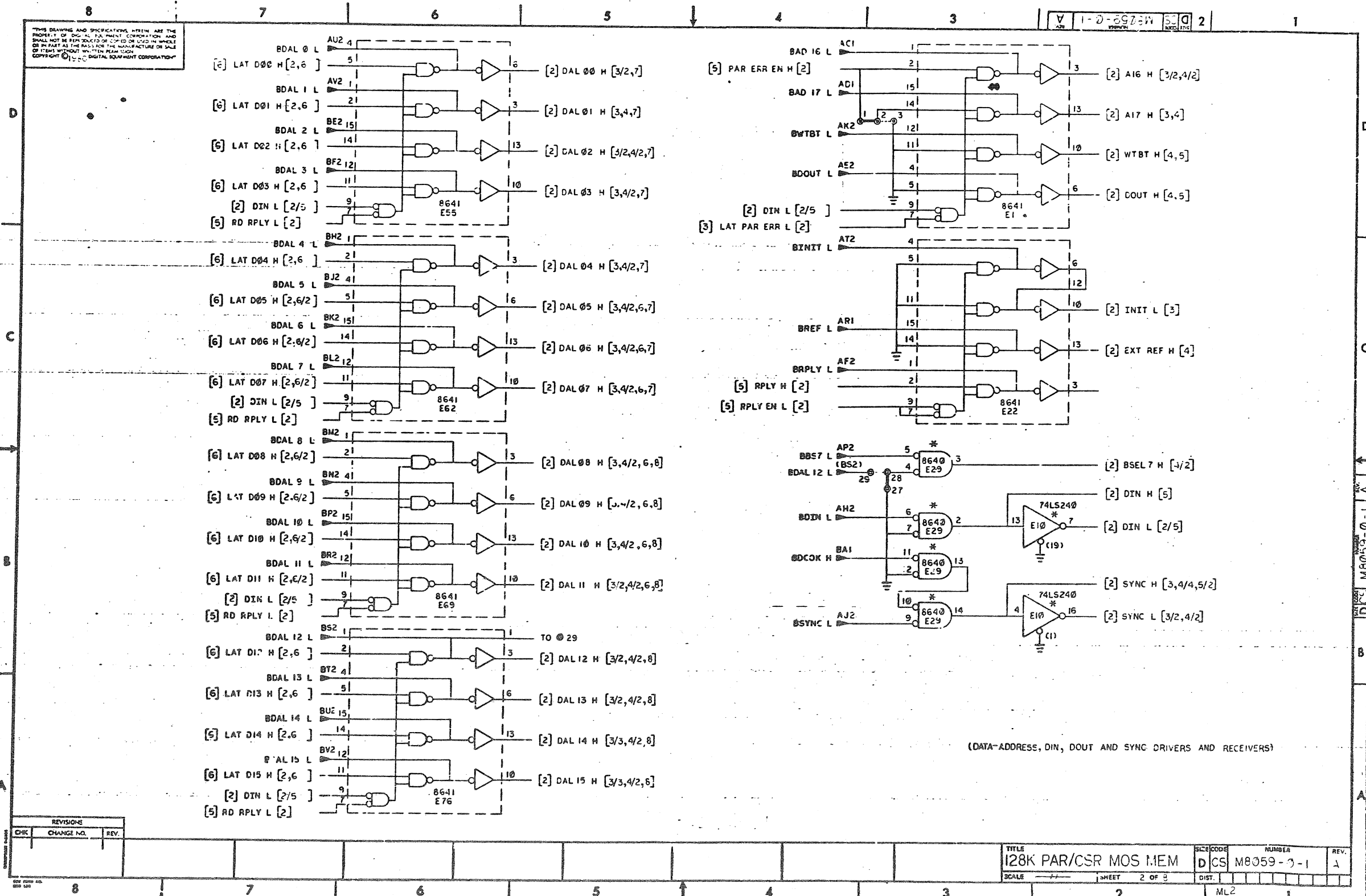

SIGNATURES		DATE
DRN		
CHK'D		
MECH. ENG.		
PROJ. ENG.		
PROD.		
SCALE		
SHT	4 OF 4	
NEXT HIGHER ASSY: B-00-M8059-0		

digital	
TITLE 23K PAR/CSR	
M'S MEM	
SIZE CODE	NUMBER
0 JA	M8059-0-0
REV	A

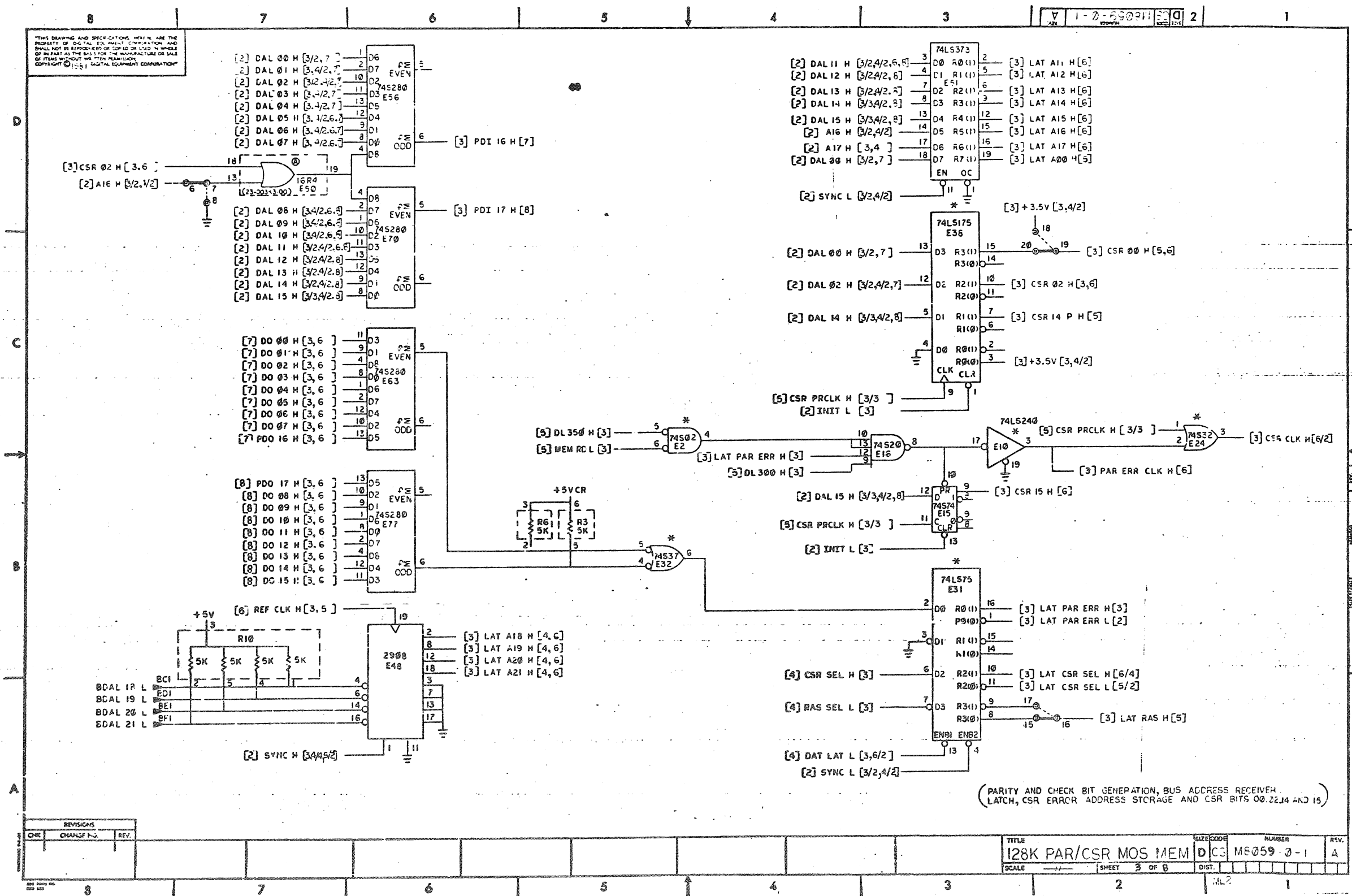


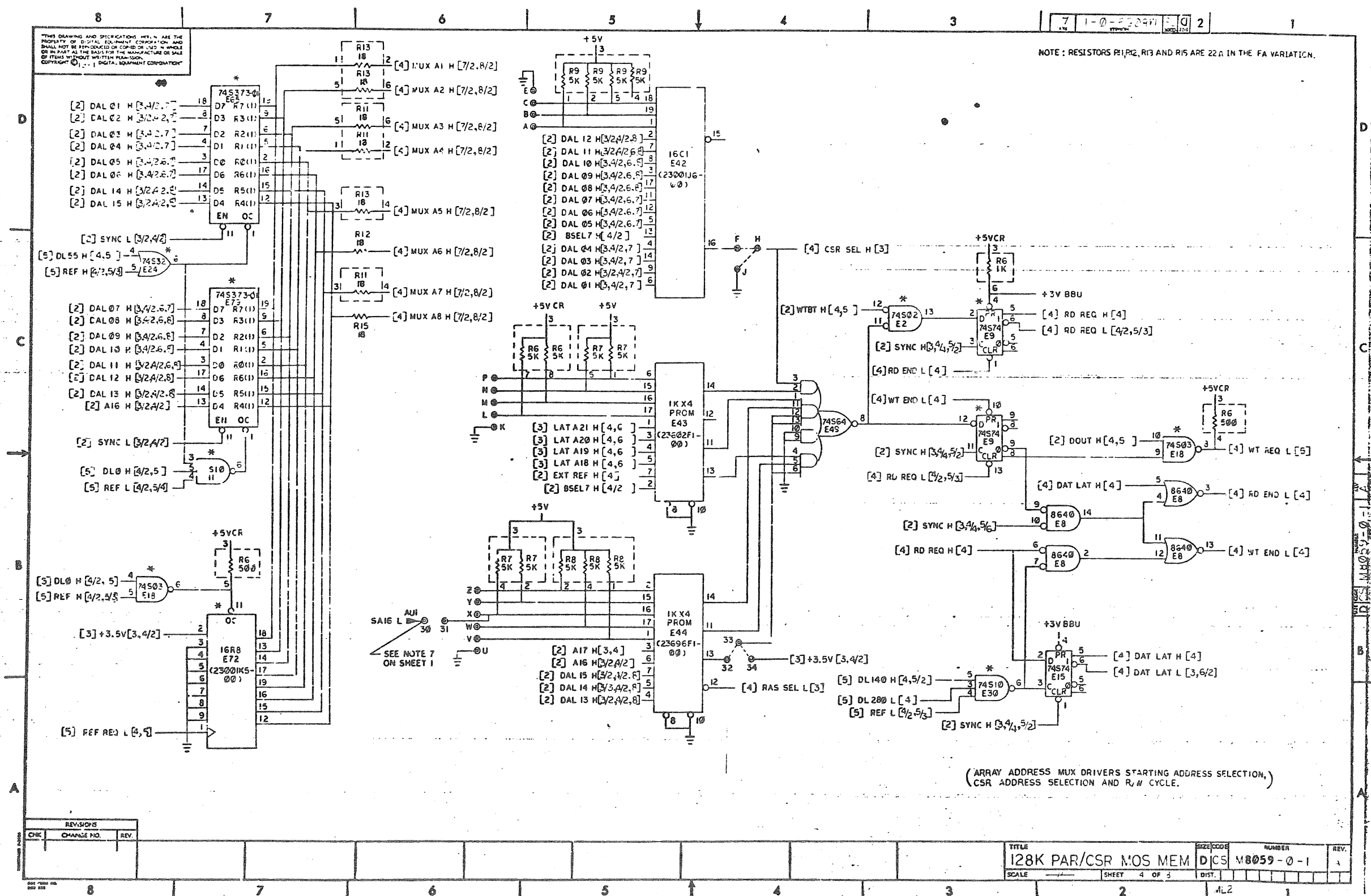


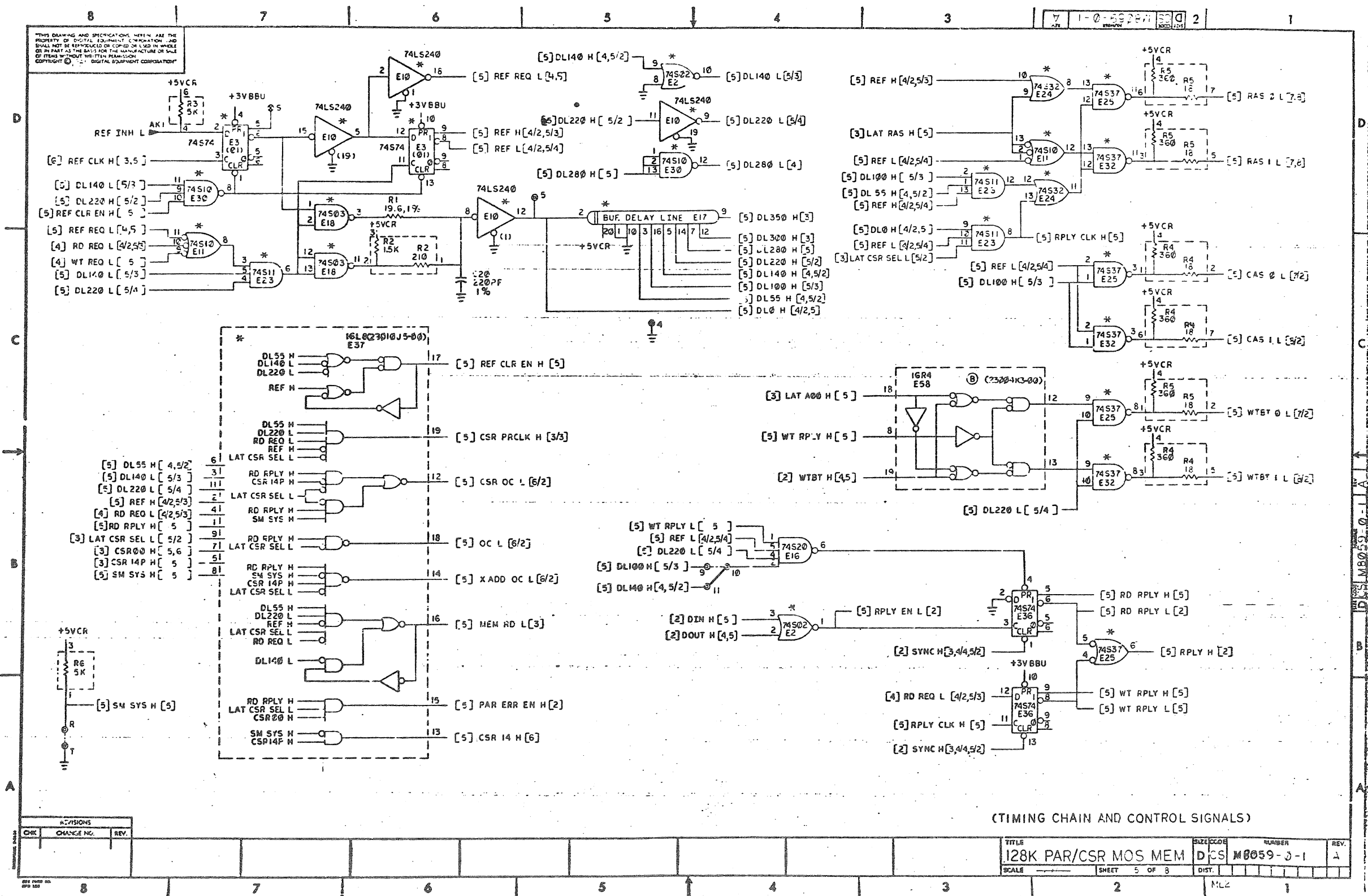
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.



(DATA-ADDRESS, DIN, DOUT AND SYNC DRIVERS AND RECEIVERS)

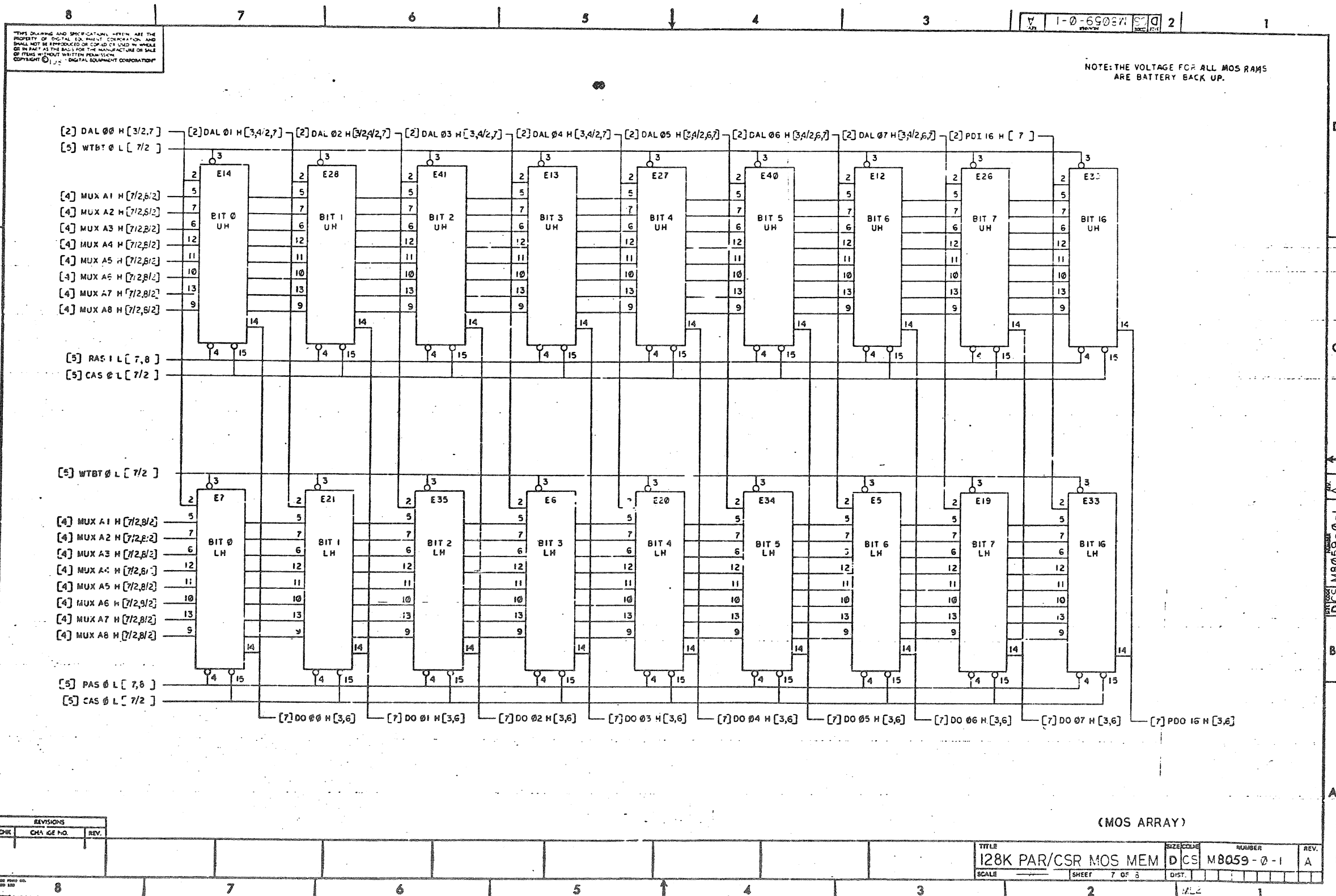


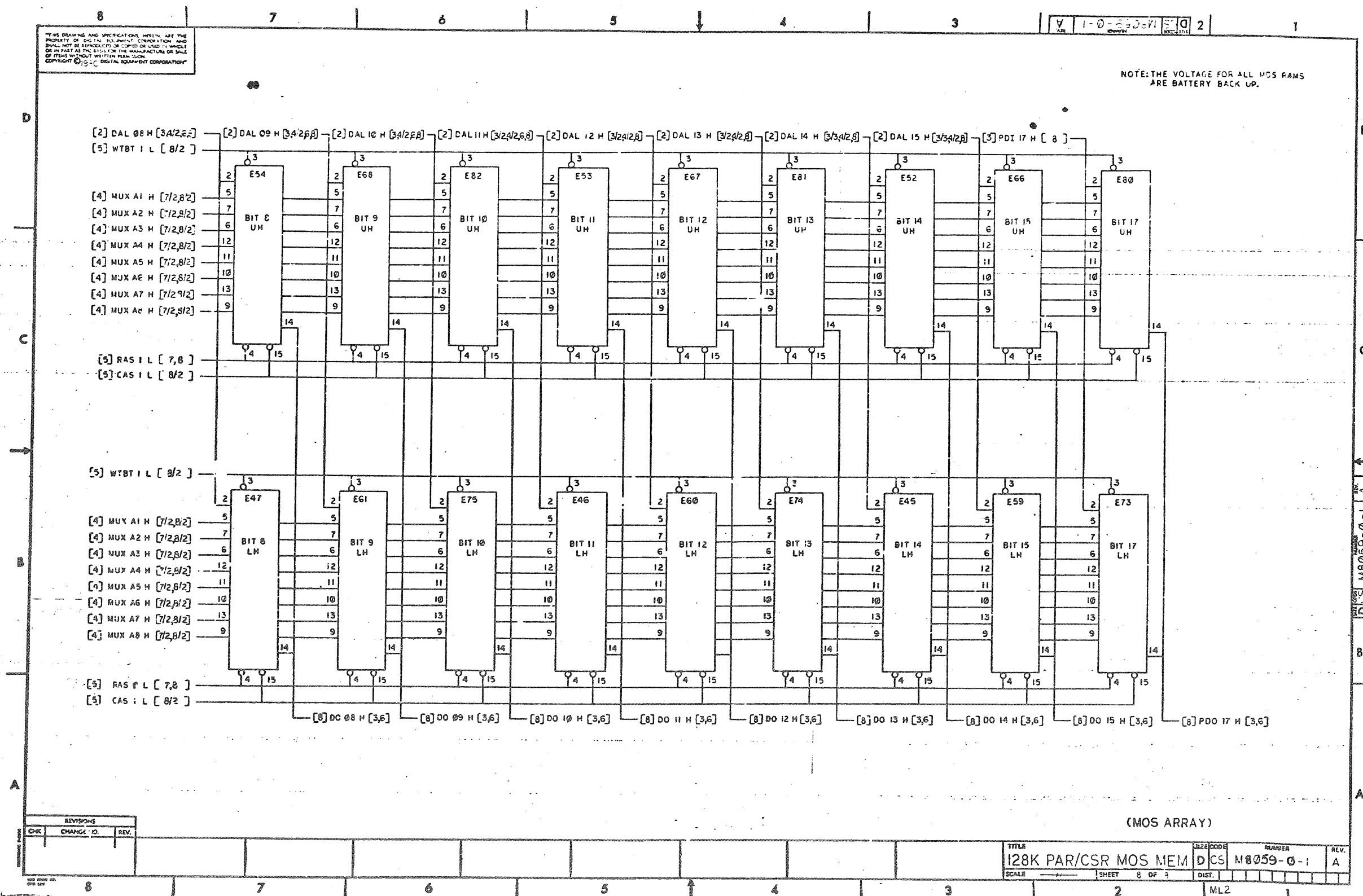












AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A2

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QTY PER VARIATION  
FC FF FH

REFERENCE DESIGNATOR

1 1 J-CS-M8059-0-1  
2 2 D-UA-M8059-0-0  
3 3 D-EC-5014144-0-0  
4 4 D-MD-5014144-0-0

5014144-00

CIRCUIT SCHEMATIC

REF REF REF

REF REF REF

REF REF REF

UNIT ASSY

ETCH CUT DWG

DRILL &amp; ETCH DWG

DRILL&amp;ETCH BRD

.01 MFD 50V +80-20% 250 CER

10 MFD 35V +50-10% 4L EL

220.0 MMF 50V 1% CER

.47 MFD 50V +80-20% CER

22.0 25 W 5.0 % CC

R NETWORK 3-19 3-360 7PIN

R NETWORK 3-22 1.0 % 6PIN

R NETWORK MULTI-VALUE 6PIN

R NETWORK MULTI-VALUE 3PIN

R NETWORK MULTI-VALUE 6PIN

19.50 25 W 1.0 % RN550-F10

R NETWORK 4-5K 5.0 % 5PIN

R NETWORK 3-5K 5.0 % 4PIN

8641 TRANSCEIVER, BUS, 80A

DEC 8640 RECEIVER, BUS, 80A, U

555CN TIMER, FUNCT. BLOCK

DEC 74537 NAND GATE-QUAD 2IN

74574 FF-D DUAL, EDGE TRIGG

74574-600G-D DUAL, EDGE TRIG

74528C PARITY GEN/CHKR 9BIT

745373 LATCH 8BIT TRASP TR

LS373 FF-D OCTAL-TRANSPARE

74510 NAND GATE-TRIPLE 3IN

74502 NOR GATE-QUAD 2IN, PO

74511 AND GATE-TRIPLE 3INP

C4

C8, C9

C3, C20

C1, C2, C5-C7, C12-C19, C21-C59

R12, R15

R4, R5

R11, R13

R2

R6

R3

R1

R7, R9, R10

R8

E1, E22, E55, E62, E69, E76

E8, E29

E4

E25, E32

E9, E15, E35

E55, E63, E70, E77

E64, E78

E51, E57

E11, E30

E2

E23

REVISION HISTORY

BASIC PART NO: M8059

DRN: J.DINOPoulos

DATE: 7-24-80

D I G I T A L

ENG: ECO NUMBER

REV: SECTION A OF A

CHK'D: P.BOSSMAN

DATE: 21-NOV-80

TITLE PARTS LIST

INITIAL

SECTION VARIATION INDEX

DES. ENG: R.GIVEN

DATE: 21-NOV-80

128K PAR/CSR MOS MEM

(A) FC, FF, FH

RESP. ENG.: R.GIVEN

DATE: 21-NOV-80

DOCUMENT NUMBER

(B)

(C)

(D)

(E)

(F)

(H)

(J)

(K)

(L)

(M)

(N)

DATE: 04-DEC-80

SIZE: CODE

NUMBER

REV

MFG. ENG.: AMRIT BADNAIK

TOP DOCUMENT NUMBER:

FILE NAME:

EDIT

ASSEMBLY NUMBER:

#9-00-M8059-0

20352A.PLS

20

D-UA-M8059-0-0

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED  
OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.  
COPYRIGHT (C) 1991. DIGITAL EQUIPMENT CORPORATION

AUTOMATED BOM PARTLIST.3P(44)		PARTS LIST		QTY PER VARIATION			REFERENCE DESIGNATOR
LINE	ITEM	DOCUMENT NUMSER	PART NUMBER	DESCRIPTION	FC	FF	FH
31	31		1913777-00	LS240 DRIVER, LINE, OCTAL, T	1	1	1
32	32		1913940-00	74532 OR GATE-QUAD 2IN	1	1	1
33	33		1910533-00	74503 NAND GATE-QUAD 2IN, O	1	1	1
34	34		1913670-01	DM 745373N LATCH, 8BIT TRANS	2	1	2
35	35		1910539-00	74520 NAND GATE-DUAL 4INPU	1	1	1
36	36		1912853-00	LS175 FF-D QUAD	1	1	1
37	37		1912649-00	LS75 LATCH, 4BIT, BISTABLE	1	1	1
38	38		1910542-00	74564 A-0-1 GATE 4-2-2-2	1	1	1
39	39		1915305-00	AM 2908 TRANSCEIVER, BUS, LATCH	1	1	1
40	40		1616893-00	DELAY= 340NS, 7TAPS, 20PIN DIP	1	1	1
41	41		23602F1-00	F1-01	1	1	1
42	42		23676F1-00	F1-01	1	1	1
43	43		23003K3-00	K3-01	1	1	1
44	44		23004K3-00	K3-01	1	1	1
45	45		23005K3-00	K3-01	1	1	1
46	46		23001K5-00	K5-01	1	1	1
47	47		23001J6-00	J6-01	1	1	1
48	48		23010J5-00	J5-01	1	1	1
49	49		2118457-02	8264-15 RAM 64K X1, 150NS 1	18	-	-
50	50		2118470-02	4864-2 MOS RAM 64K X1, 150	-	18	-
51	51		2118472-02	4164-3 MOS RAM 64K X1, 150	-	-	18
52	52	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-
53	53	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-
54	54	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-
55	55		9009149-01	PIN, STAKING, P.C. BOARD .025 SQU	47	47	47
56	56		9008337-05	HANDLE, FLIP CHIP MAGENTA	2	2	2
57	57		9006732-00	EYELET, ROLL FLANGE 12'30X .219	4	4	4
58	58		1215899-02	*** THIS ITEM IS NOT USED ***	3	3	3
59	59	USED WITH W1	9107771-00	TUBING, STD WALL, .040ID UL	-	-	-
60	60		9107550-01	WIRE, BUSS, 22AWG	A/R	A/R	A/R
61	61		9107540-55	WIRE, WRAP, 30AWG UL1423	A/R	A/R	A/R

62 NOTE: 1. M8059-FA IS A PRIMARY VARIATION OF 54K X 18 BIT SYSTEM (NOT A MODULE TYPE).  
63 NOTE: M8059-FC IS A MODULE TYPE USING FUJITSU 54K MOS DEVICES.  
64 NOTE: M8059-FF IS A MODULE TYPE USING HITACHI 54K MOS DEVICES.  
65 NOTE: M8059-FH IS A MODULE TYPE USING NEC 54K MOS DEVICES.

D I G I T A L		TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
		128K PAR/CSR MOS MEM		K	PL	N8059-FA-DBP	A