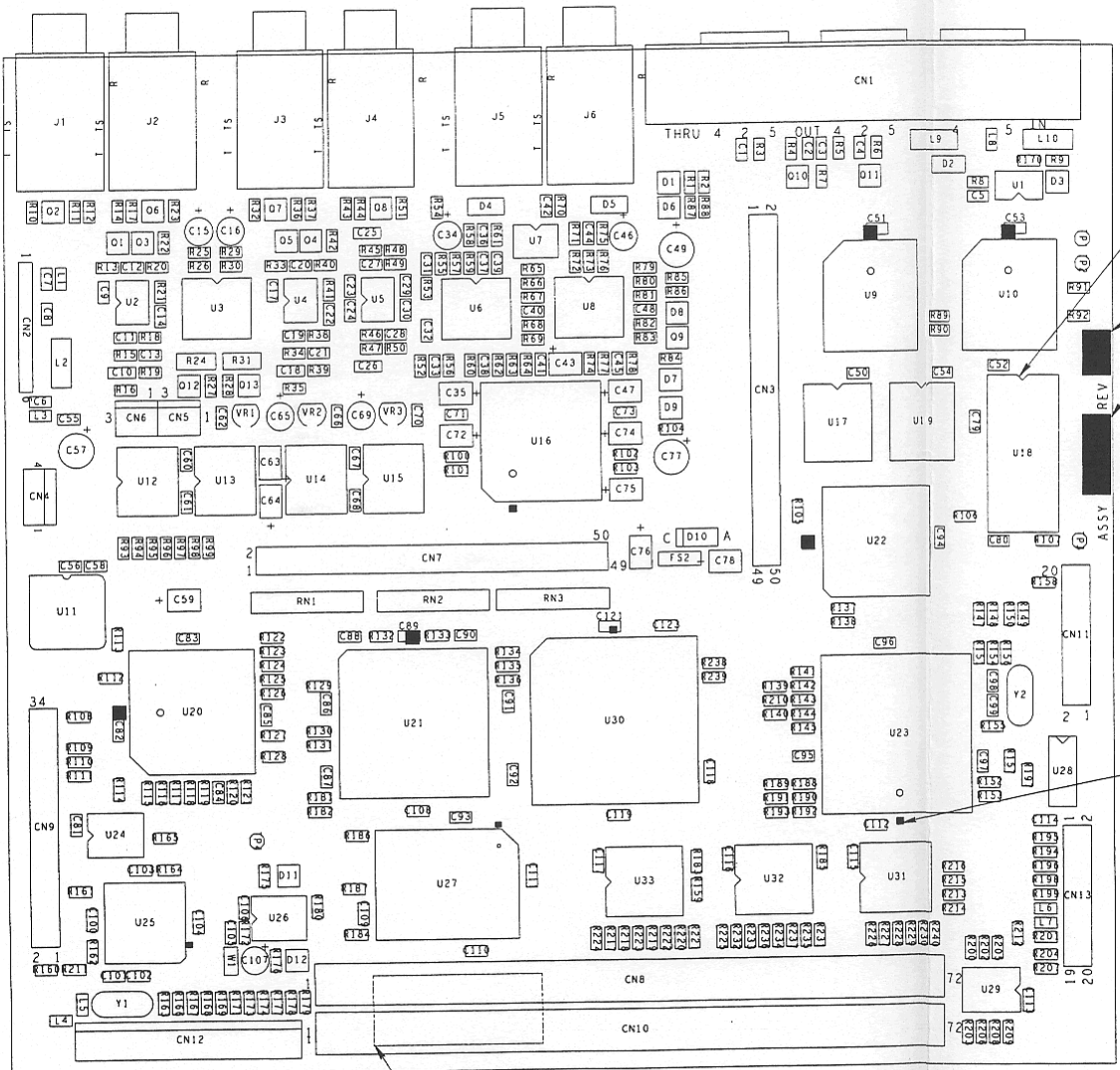


D

C

B

A



5 FAR SIDE
6 FAR SIDE

REVISIONS					APVD	DATE
KEY	REV	ECO	DESCRIPTION			
	A	3195	PRODUCTION RELEASE			

- NOTES: UNLESS OTHERWISE SPECIFIED:
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
 2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
 3. DENOTES PIN 1 END OF IC'S, SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
 4. MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBLE INK HERE.
 5. PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA.
 6. ALL SUPPLIER PROCESS/TEST/O.C. STAMPS IN THIS AREA.
 7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
 8. SEE AP542-01 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
 9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
 10. USE SOLDER PASTE MASTER AW542-01 REV A FOR SOLDER PASTE SCREEN. (AW542-01 REV 1 : AW542-01 REV A)
11. TOP JUSTIFY U18 (PIN 1 TO PIN 1).

THE DWG. AND SPECIFICATION CONTAINED HEREON ARE PROPRIETARY AND MUST NOT BE USED, COPIED, REPRODUCED OR OTHERWISE DEALT WITH NOR ITS CONTENTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM E-MU SYSTEMS, INC.	DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	APPROVALS	DATE	E-MU SYSTEMS, INC. Scotts Valley, California
		DRAWN D GROSS	6/9/97	REFERENCE DOC PCBA MAIN ESI4000
		CHECKED		SIZE C
		ENGINEER		DWG. NO. AP542
DO NOT SCALE DRAWING	FINISH:			SCALE: 1/1
				SHEET 1 OF 1

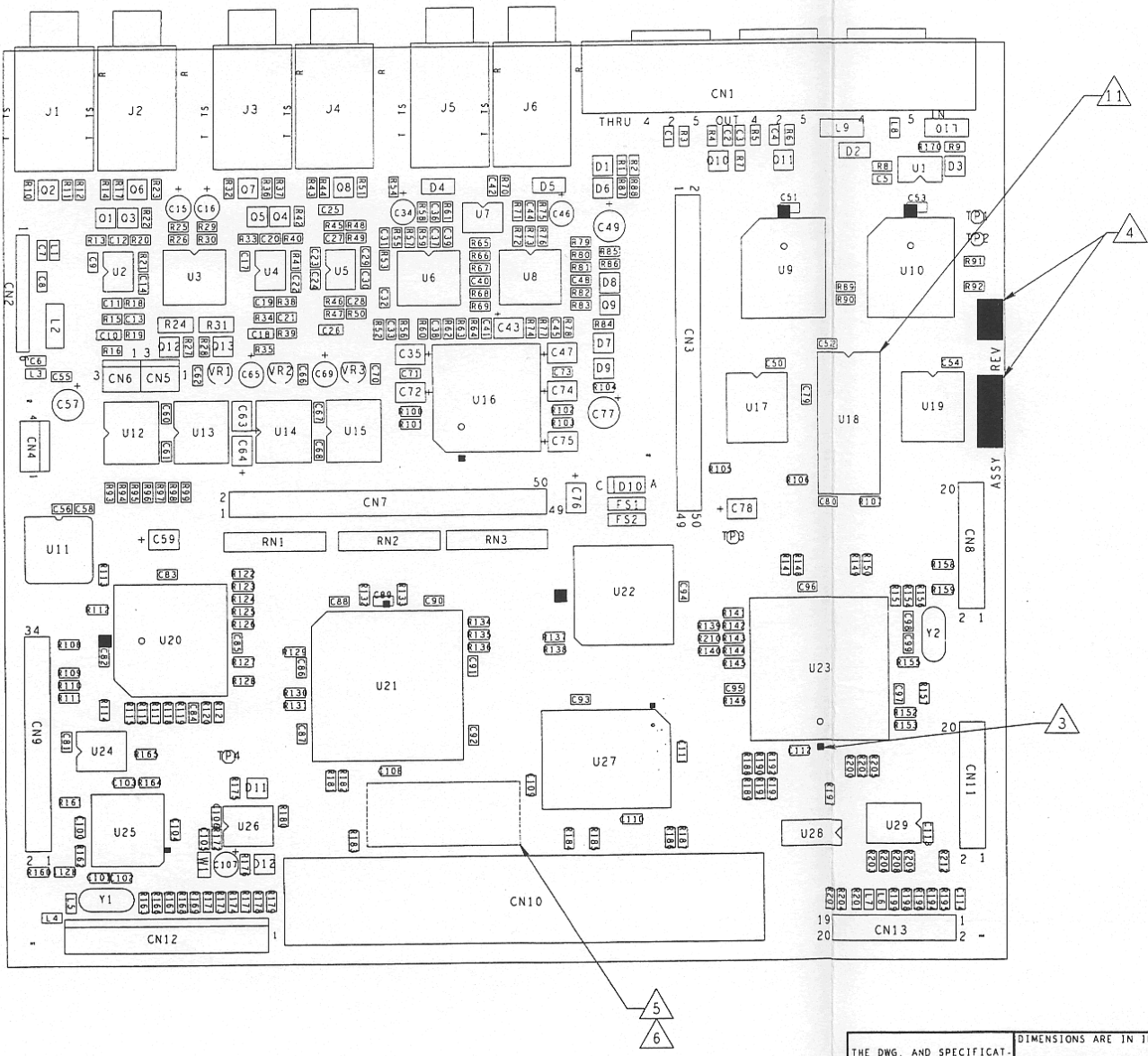
4

3

2

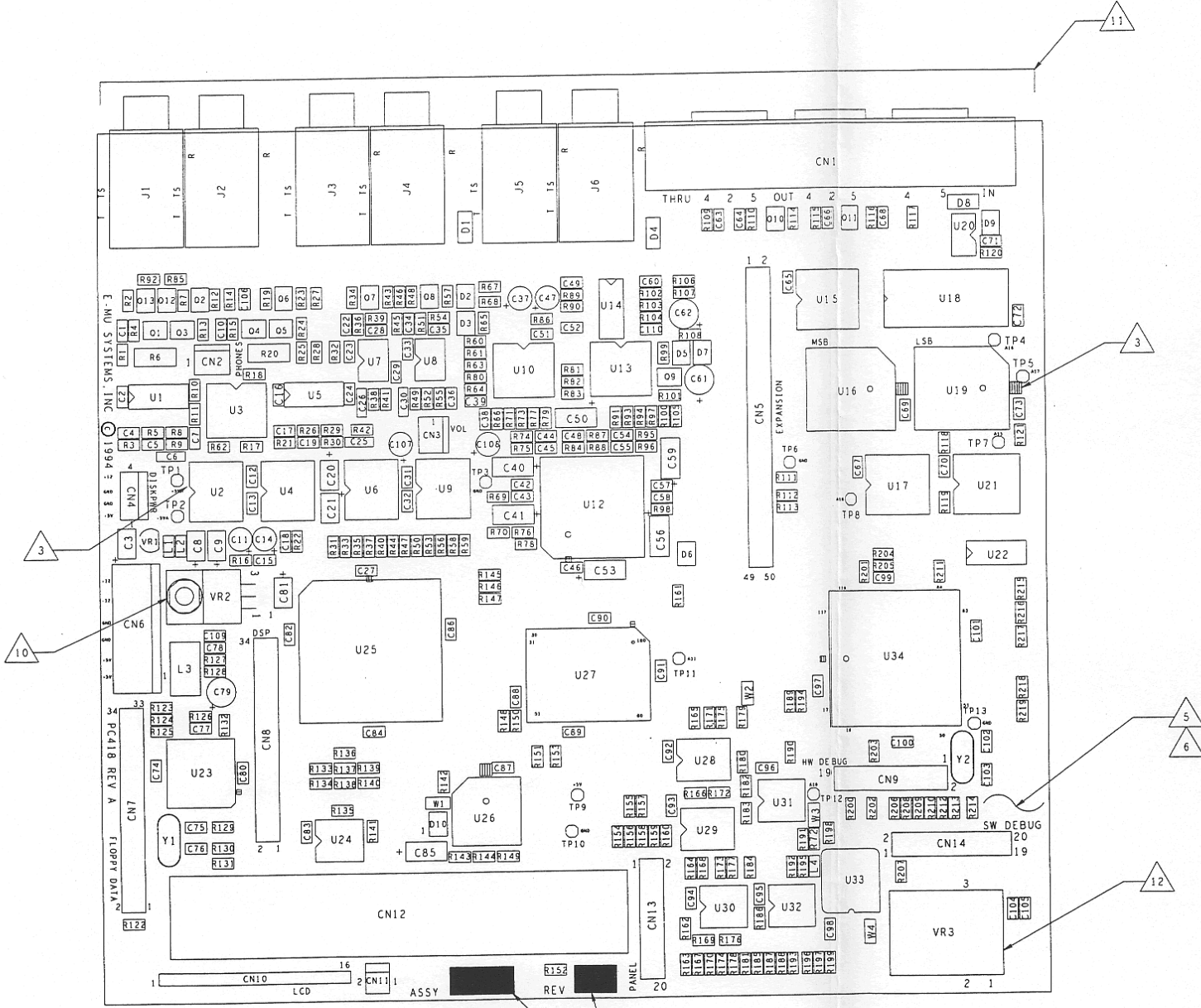
1

D
C
B
A



- NOTES: UNLESS OTHERWISE SPECIFIED
- 1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
 - 2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
 - 3. DENOTES PIN 1 END OF IC'S, SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
 - 4. MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBLE INK HERE.
 - 5. PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA.
 - 6. ALL SUPPLIER PROCESS/TEST/Q.C. STAMPS IN THIS AREA.
 - 7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
 - 8. SEE AP517-00 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
 - 9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
 - 10. USE SOLDER PASTE MASTER AW517-01 REV A FOR SOLDER PASTE SCREEN. (REV 2 + REV A).
 - 11. TOP JUSTIFY U16 (PIN 1 TO PIN 1).

THE DWG. AND SPECIFICATION CONTAINED HEREON ARE PROPRIETARY AND MUST NOT BE USED, COPIED, REPRODUCED OR OTHERWISE DEALT WITH NOR ITS CONTENTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM E-MU SYSTEMS, INC.	DIMENSIONS ARE IN INCHES		APPROVALS		DATE	E-MU SYSTEMS, INC. Scotts Valley, California	
	UNLESS OTHERWISE SPECIFIED		DRAWN D GROSS		9/4/96	REFERENCE DOC PCBA MAIN ESI33.3	
	XX -/- .01 XXX -/- .005		CHECKED			SIZE C DWG. NO. AP517 REV A	
	ANGLES -/- FRACTIONS -/-		ENGINEER			SCALE: 1/1 SHEET 1 OF 1	
DO NOT SCALE DRAWING		FINISH:					



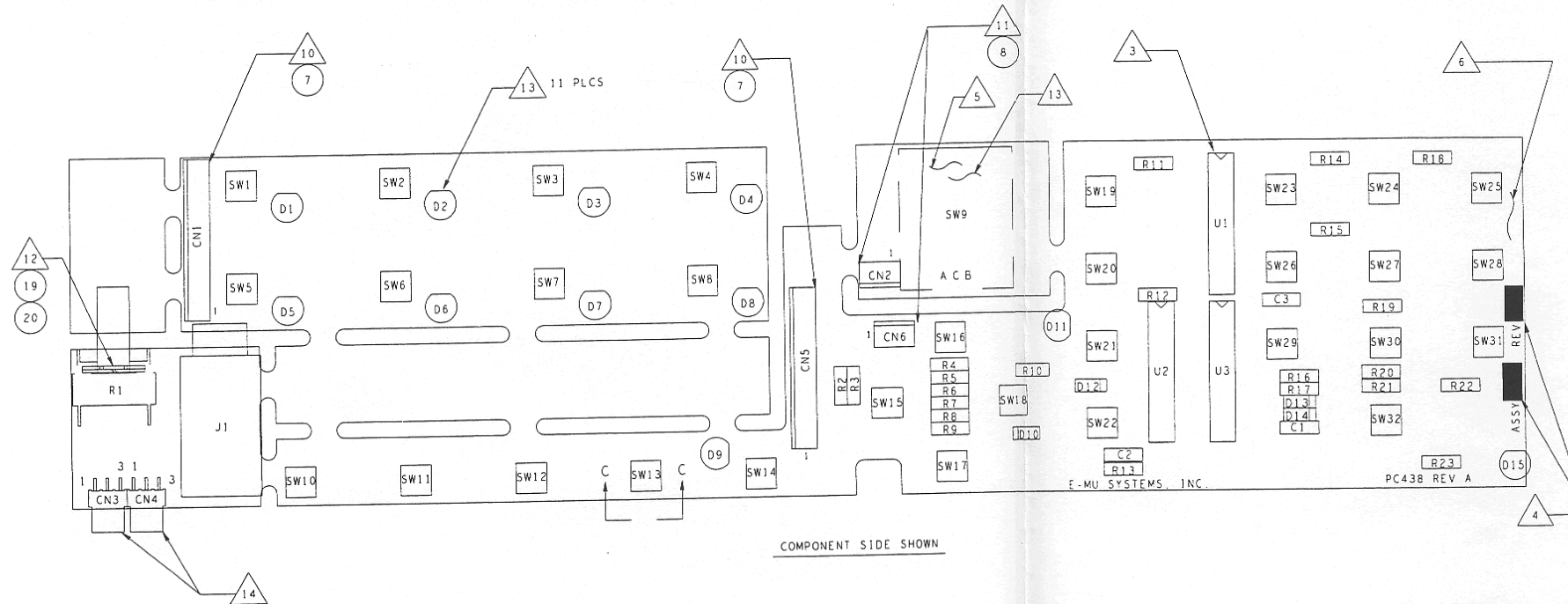
COMPONENT SIDE SHOWN

REVISIONS				
REV	ECO	DESCRIPTION	APVD	DATE
A	2554	INITIAL RELEASE		11/94
A4	B	BOM CHG & ADD NOTE		

- NOTES: UNLESS OTHERWISE SPECIFIED:
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
 2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
 3. DENOTES PIN 1 END OF IC'S, SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
 4. MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBLE INK HERE.
 5. PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA.
 6. ALL SUPPLIER PROCESS/TEST/O.C. STAMPS IN THIS AREA.
 7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
 8. SEE AP418 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
 9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
 10. ASSEMBLE WITH SCREW HEAD ON SOLDER SIDE AND NUT
 11. ALL JACKS MUST BE MOUNTED FLUSH TO BOARD.
 12. HAND SOLDER LOCATION VR3. DO NOT ALLOW SOLVENTS (SUCH AS D-1 WASH, FREON, ALCOHOL, ETC.) TO GET ON OR INTO COMPONENT.

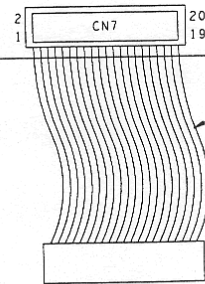
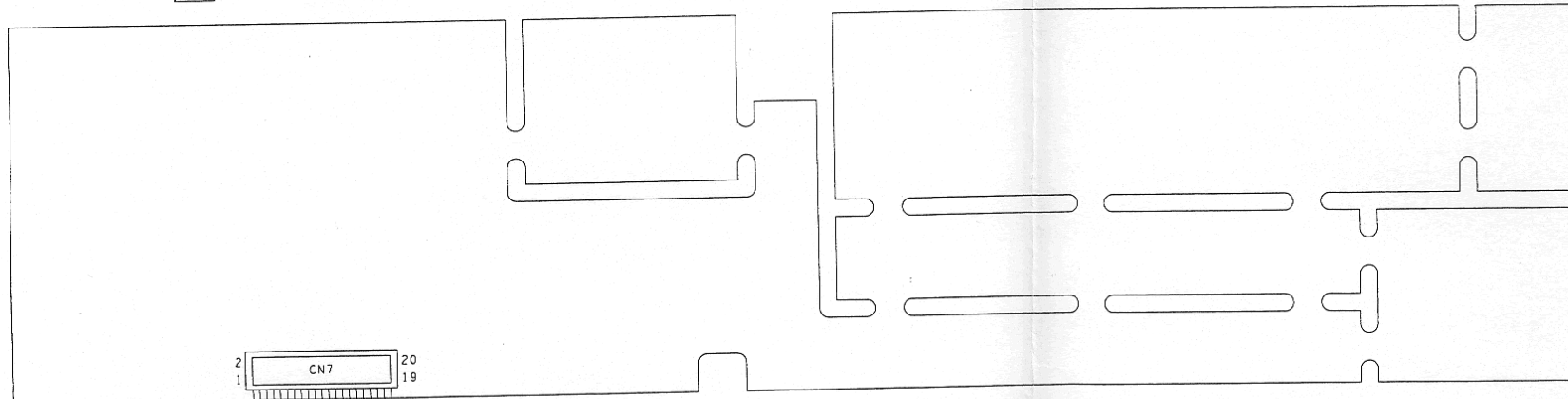
CONFIDENTIAL THE DRAWING AND SPECIFICATION CONTAINED HEREON ARE PROPRIETARY AND MUST NOT BE USED, COPIED, REPRODUCED OR OTHERWISE DEALT WITH NOR ITS CONTENTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM E-MU SYSTEMS, INC. DO NOT SCALE DRAWING	DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		APPROVALS	DATE	E-MU SYSTEMS, Inc. Scotts Valley, CA
	MM	INCH	DRAWN	D GROSS	11/3/94
	XX	XX	CHECKED		
	XXX	XXX	APPROVED		
	ANGLES	FRACTIONS			
MATERIAL		FINISH		PCBA MAIN 6200	
SCALE: 1/1		SHEET 1 OF 1		REV B	

REVISIONS				
KEY	REV	ECO	DESCRIPTION	APVD DATE
	A	2690	INITIAL RELEASE	TD 3/95
	B	3095	REVISED NOTE 5	MC 12/96

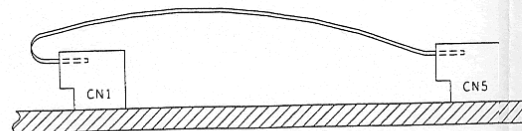


NOTES: UNLESS OTHERWISE SPECIFIED:

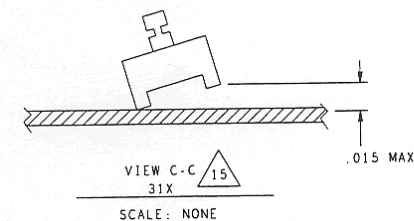
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
 2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
 3. DENOTES PIN 1 END OF IC'S, SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
 4. MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBLE INK HERE.
 5. PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA. (SOLDER SIDE OF PCB)
 6. ALL SUPPLIER PROCESS/TEST/O.C. STAMPS IN THIS AREA.
 7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
 8. SEE AP438 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
 9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
10. SEE DETAIL "A". CONNECTOR PIN 15 GOES TO BOARD PIN 1.
11. SEE DETAIL "B". CONNECTOR PIN 3 GOES TO BOARD PIN 1.
12. INSTALL MOUNTING BRACKET, WASHER AND NUT ON R9 PRIOR TO MOUNTING ON BOARD.
13. ALL LED'S AND SW9 MUST BE MOUNTED FLUSH TO BOARD.
14. TRIM COMPONENT LEADS OF CN3 AND CN4 TO .060 MAX.
15. SW1-SW8 AND SW10-SW32 MAXIMUM TILT SHALL BE .015". SEE VIEW "C-C". AT LEAST ONE SIDE OF SWITCH MUST TOUCH SURFACE OF BOARD.



DETAIL "A" 10
SIDE VIEW
SCALE: NONE



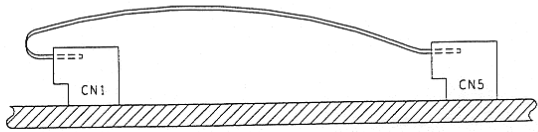
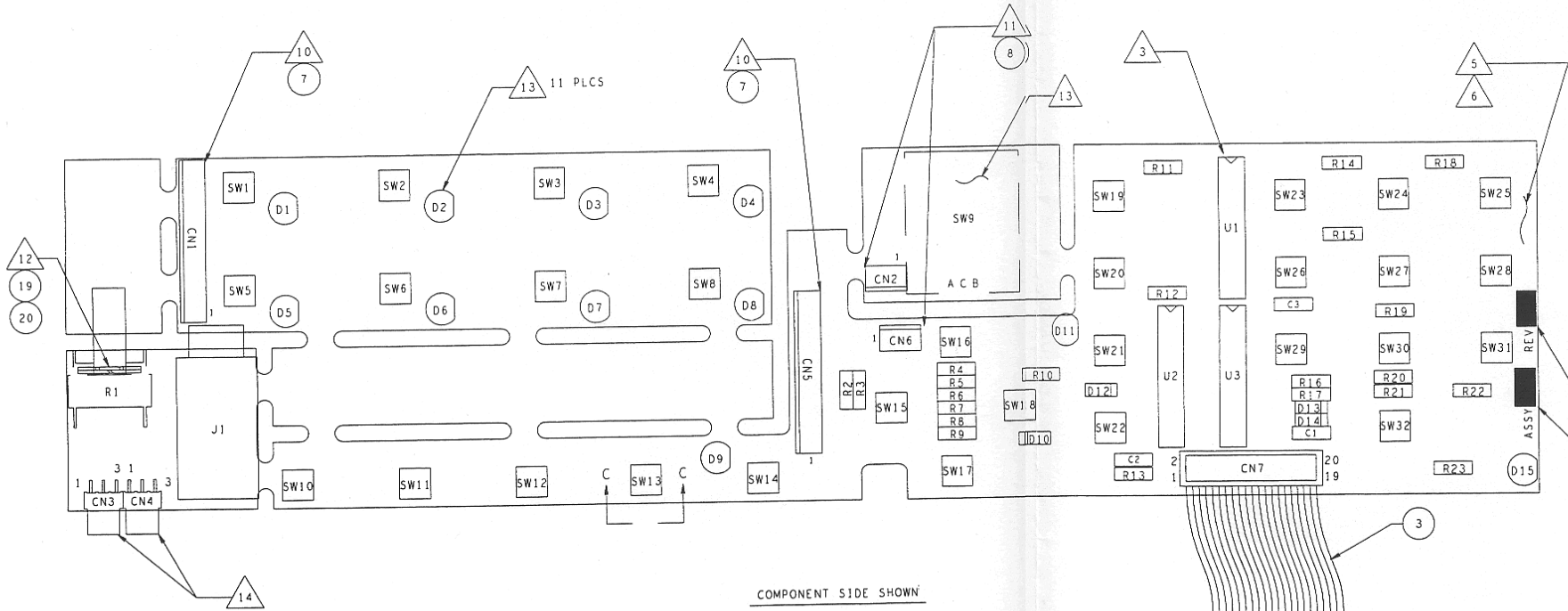
DETAIL "B" 11
TOP VIEW
SCALE: NONE



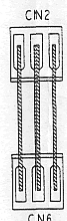
CONFIDENTIAL THE DRAWING AND SPECIFICATION CONTAINED HEREON ARE PROPRIETARY AND MUST NOT BE USED, COPIED, REPRODUCED OR OTHERWISE DEALT WITH NOR ITS CONTENTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM E-MU SYSTEMS, INC.		DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED MM INCH XX +/- .01 XXX +/- .005 ANGLES < FRACTIONS > FINISH:		APPROVALS DRAWN D GROSS CHECKED T DEAN APPROVED VK DATE 3/16/95 3/16/95		E-MU SYSTEMS, Inc. Scotts Valley, CA REF DOC, PCBA FRONT PANEL ESI-32 SIZE SCALE: 1/1		DWG. NO. AP438 REV B SHEET 1 OF 1	
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REVISIONS					APVD	DATE
KEY	REV	ECO	DESCRIPTION		TD	
	A	2555	INITIAL RELEASE			11/23/94
	B	2637	ADDED NOTE 15, VIEW C-C			

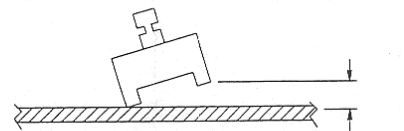
- NOTES: UNLESS OTHERWISE SPECIFIED:
- 1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
 - 2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
 - 3. DENOTES PIN 1 END OF IC'S, SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
 - 4. MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBILE INK HERE.
 - 5. PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA.
 - 6. ALL SUPPLIER PROCESS/TEST/O.C. STAMPS IN THIS AREA.
 - 7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
 - 8. SEE AP419 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
 - 9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
 - 10. SEE DETAIL "A". CONNECTOR PIN 15 GOES TO BOARD PIN 1.
 - 11. SEE DETAIL "B". CONNECTOR PIN 3 GOES TO BOARD PIN 1.
 - 12. INSTALL MOUNTING BRACKET, WASHER AND NUT ON R9 PRIOR TO MOUNTING ON BOARD.
 - 13. ALL LED'S AND SW9 MUST BE MOUNTED FLUSH TO BOARD.
 - 14. TRIM COMPONENT LEADS OF CN3 AND CN4 TO .060 MAX.
 - 15. SW1-SW8 AND SW10-SW32 TO BE MOUNTED FLUSH TO .015" FROM BOARD. AT LEAST ONE SIDE OF SWITCH MUST TOUCH SURFACE OF BOARD.



DETAIL "A" 10
SIDE VIEW
SCALE: NONE

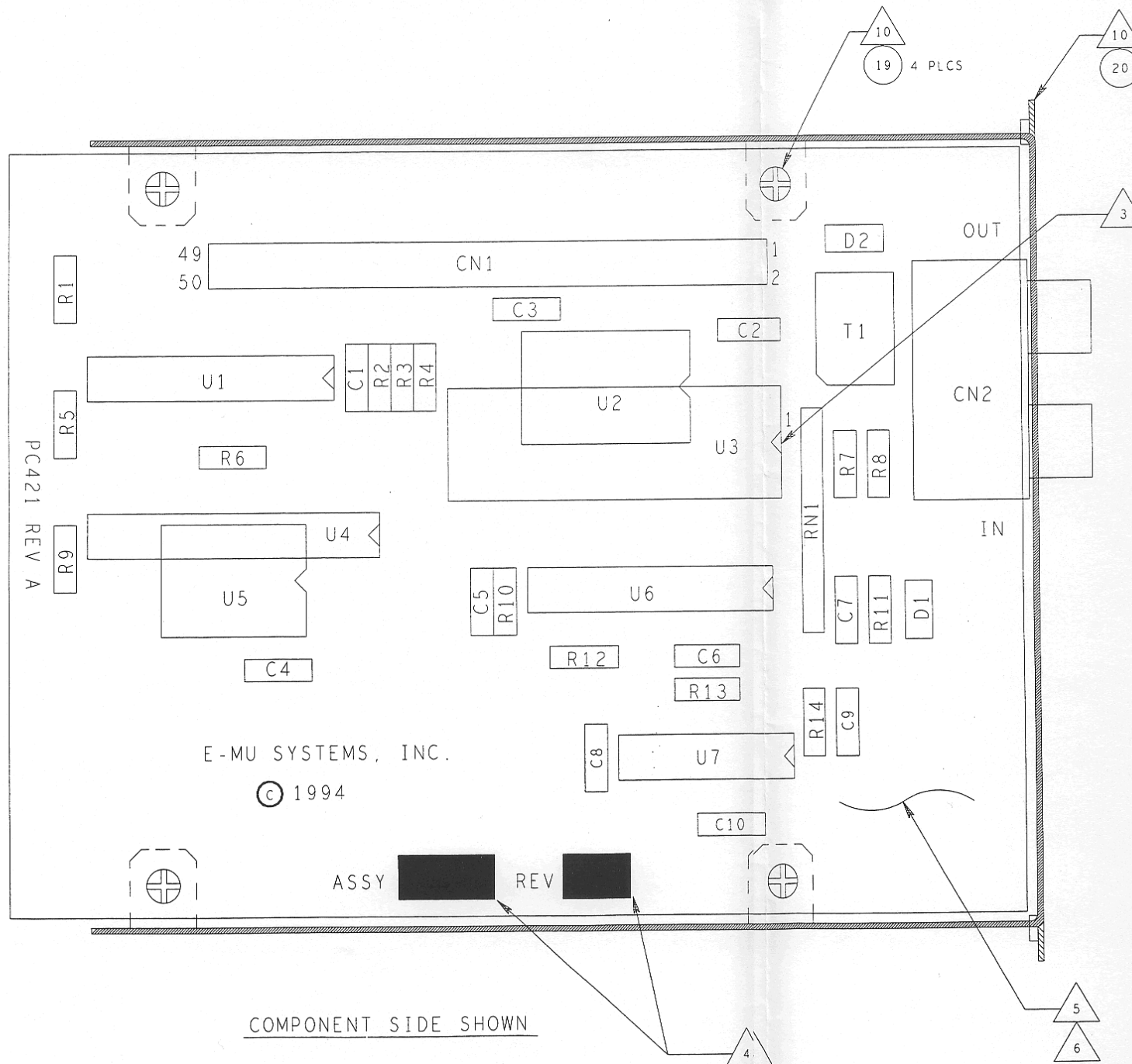


DETAIL "B" 11
TOP VIEW
SCALE: NONE



VIEW C-C 15
31X
SCALE: NONE

CONFIDENTIAL THE DRAWING AND SPECIFICATION CONTAINED HEREIN ARE PROPRIETARY AND MUST NOT BE USED, COPIED, REPRODUCED OR OTHERWISE DEALT WITH NOR ITS CONTENTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM E-MU SYSTEMS, INC.		DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		APPROVALS		DATE	E-MU SYSTEMS, Inc. Scotts Valley, CA	
		DRAWN D GROSS		CHECKED VK		11/23/94	PCBA FRONT PANEL 6200	
		APPROVED TD				11/23/94		
		MATERIAL		FINISH				
DO NOT SCALE DRAWING		SIZE 1/1		DWS. NO. AP419		REV. B	SHEET 1 OF 1	



REVISIONS					
REV	REV	ECO	DESCRIPTION	APPRO	DATE
	A	2629	INITIAL RELEASE		

- NOTES: UNLESS OTHERWISE SPECIFIED:
1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
 2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
 3. DENOTES PIN 1 END OF IC'S, SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
 4. MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBLE INK HERE.
 5. PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA.
 6. ALL SUPPLIER PROCESS/TEST/Q.C. STAMPS IN THIS AREA.
 7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
 8. SEE AP421 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
 9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
 10. INSTALL BRACKET (ITEM 20) WITH SCREWS (ITEM 19) AFTER WAVE SOLDER.
 11. USE SOLDER PASTE MASTER AW421-01 REV A FOR SOLDER PASTE SCREEN IF SURFACE MOUNT COMPONENTS ARE USED AT LOCATIONS U2 AND U5.
 12. USE DE-IONIZED WATER WASH OR NO CLEAN PROCESS.

E-MU SYSTEMS, INC.

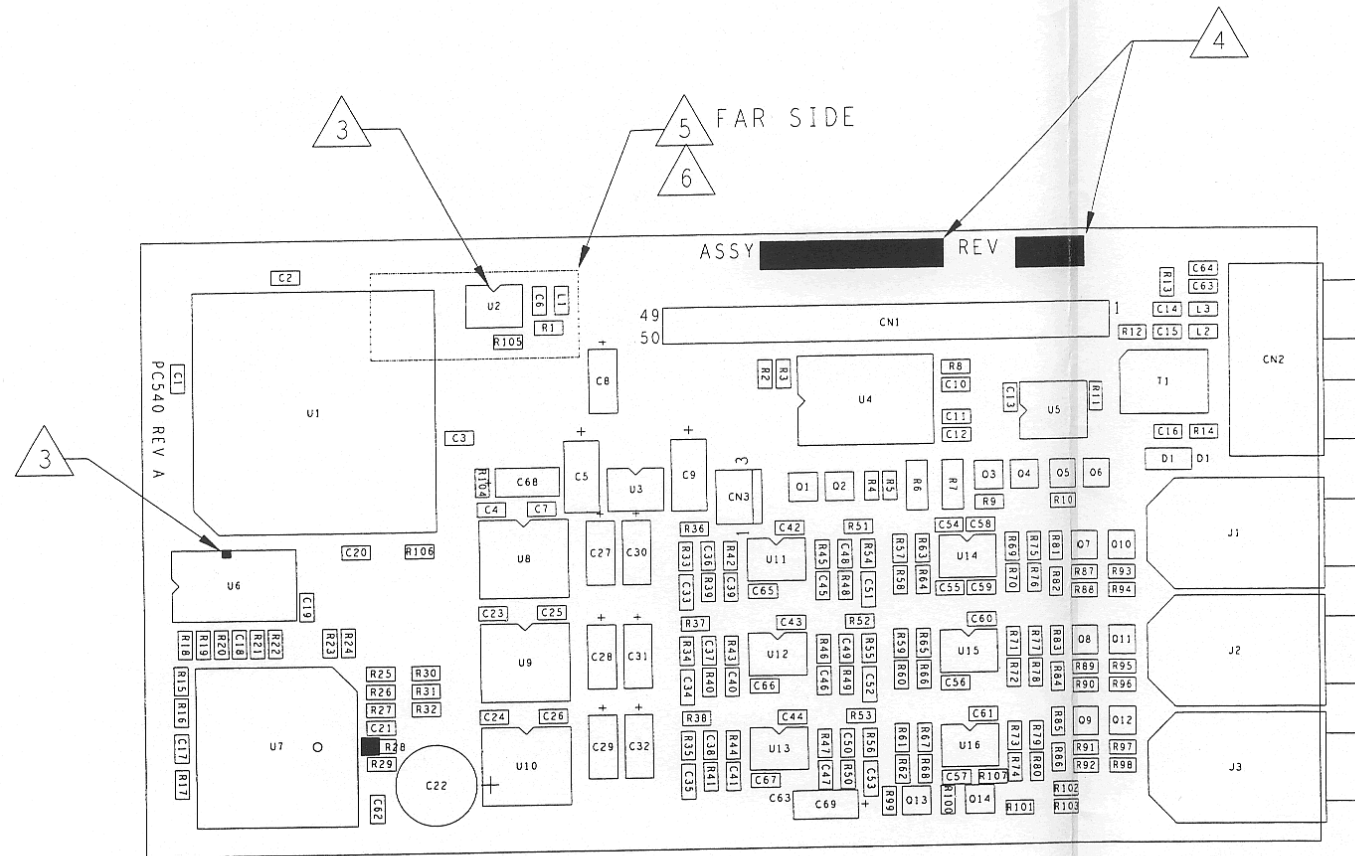
© 1994

ASSY REV

COMPONENT SIDE SHOWN

CONFIDENTIAL		DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		APPROVALS		DATE		E-mu Systems, Inc.	
THE DRAWING AND SPECIFICATION CONTAINED HEREON ARE PROPRIETARY AND MUST NOT BE USED, COPIED, REPRODUCED OR OTHERWISE DEALT WITH NOR 15% COPY RIGHTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS RECEIVED FROM E-HU SYSTEMS, INC.		UN		TWH		CHECKED		E-HU SYSTEMS, INC.	
		XX		XX		XX		DATE	
		XXX		XXX		XXX		DATE	
		ANGLES		FRACTIONS		FRACTIONS		FRACTIONS	
DO NOT SCALE DRAWING		FINISH		MATERIAL		SIZE		ENG. NO.	
						SCALE: 2/1		AP421	
						SHEET		OF	

REVISED					
REVISIONS					
REV	REV	ECO	DESCRIPTION	APPROV	DATE
	A	3189	PRODUCTION RELEASE		



COMPONENT SIDE SHOWN

- NOTES: UNLESS OTHERWISE SPECIFIED:

1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610A CLASS 2 REQUIREMENTS.
2. NOTE POLARITY OF COMPONENTS WHEN INDICATED.
3.  DENOTES PIN 1 END OF IC'S. SOCKETS AND CONNECTORS. SQUARE PAD INDICATES PIN 1.
4.  MARK ASSY NO. AND CURRENT REV LEVEL WITH INDELIBLE INK HERE
5.  PLACE WORK ORDER AND PART NUMBER LABEL WITH SUPPLIER ID OR LOGO IN THIS AREA.
6.  ALL SUPPLIER PROCESS/TEST/O.C. STAMPS IN THIS AREA.
7. INSERT ASSEMBLED BOARD INTO CONDUCTIVE BAG.
8. SEE AP540-00 BOM FOR REFERENCE DESIGNATORS OF STUFFED AND UNSTUFFED COMPONENTS.
9. REWORK MUST CONFORM TO IPC GUIDELINES IPC-R-700C.
10. USE SOLDER PASTE MASTER AW540-01 REV A FOR SOLDER PASTE SCREEN. (REV 2 = REV A)

<u>CONFIDENTIAL</u> THE DRAWING AND SPECIFICATION COVERED HEREON ARE PROPRIETARY AND MUST NOT BE LOANED, REPRODUCED OR OTHERWISE RELEASED WITHIN 10 YEARS OF DATE COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM E-MU SYSTEMS, INC. DO NOT SCALE DRAWING		DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED <table border="1"> <tr> <td>MM</td> <td>INCH</td> </tr> <tr> <td>1/8"</td> <td>1/4"</td> </tr> <tr> <td>1/4"</td> <td>3/8"</td> </tr> <tr> <td>3/8"</td> <td>1/2"</td> </tr> <tr> <td>1/2"</td> <td>3/4"</td> </tr> <tr> <td>3/4"</td> <td>1"</td> </tr> <tr> <td>1"</td> <td>1 1/4"</td> </tr> <tr> <td>1 1/4"</td> <td>1 1/2"</td> </tr> <tr> <td>1 1/2"</td> <td>1 3/4"</td> </tr> <tr> <td>1 3/4"</td> <td>2"</td> </tr> <tr> <td>2"</td> <td>2 1/4"</td> </tr> <tr> <td>2 1/4"</td> <td>2 1/2"</td> </tr> <tr> <td>2 1/2"</td> <td>2 3/4"</td> </tr> <tr> <td>2 3/4"</td> <td>3"</td> </tr> <tr> <td>3"</td> <td>3 1/4"</td> </tr> <tr> <td>3 1/4"</td> <td>3 1/2"</td> </tr> <tr> <td>3 1/2"</td> <td>3 3/4"</td> </tr> <tr> <td>3 3/4"</td> <td>4"</td> </tr> <tr> <td>4"</td> <td>4 1/4"</td> </tr> <tr> <td>4 1/4"</td> <td>4 1/2"</td> </tr> <tr> <td>4 1/2"</td> <td>4 3/4"</td> </tr> <tr> <td>4 3/4"</td> <td>5"</td> </tr> <tr> <td>5"</td> <td>5 1/4"</td> </tr> <tr> <td>5 1/4"</td> <td>5 1/2"</td> </tr> <tr> <td>5 1/2"</td> <td>5 3/4"</td> </tr> <tr> <td>5 3/4"</td> <td>6"</td> </tr> <tr> <td>6"</td> <td>6 1/4"</td> </tr> <tr> <td>6 1/4"</td> <td>6 1/2"</td> </tr> <tr> <td>6 1/2"</td> <td>6 3/4"</td> </tr> <tr> <td>6 3/4"</td> <td>7"</td> </tr> <tr> <td>7"</td> <td>7 1/4"</td> </tr> <tr> <td>7 1/4"</td> <td>7 1/2"</td> </tr> <tr> <td>7 1/2"</td> <td>7 3/4"</td> </tr> <tr> <td>7 3/4"</td> <td>8"</td> </tr> <tr> <td>8"</td> <td>8 1/4"</td> </tr> <tr> <td>8 1/4"</td> <td>8 1/2"</td> </tr> <tr> <td>8 1/2"</td> <td>8 3/4"</td> </tr> <tr> <td>8 3/4"</td> <td>9"</td> </tr> <tr> <td>9"</td> <td>9 1/4"</td> </tr> <tr> <td>9 1/4"</td> <td>9 1/2"</td> </tr> <tr> <td>9 1/2"</td> <td>9 3/4"</td> </tr> <tr> <td>9 3/4"</td> <td>10"</td> </tr> <tr> <td>10"</td> <td>10 1/4"</td> </tr> <tr> <td>10 1/4"</td> <td>10 1/2"</td> </tr> <tr> <td>10 1/2"</td> <td>10 3/4"</td> </tr> <tr> <td>10 3/4"</td> <td>11"</td> </tr> <tr> <td>11"</td> <td>11 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