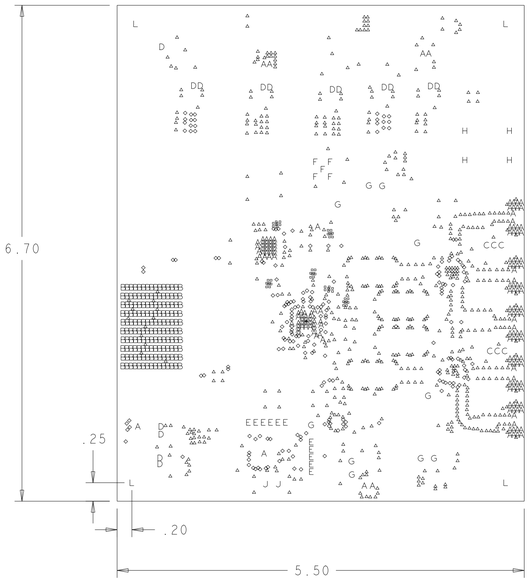
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	29MAR13	J M.
B	REMOVE FERRITE BEADS	14MAY13	T.G.
C	UPDATE TO REGULATORS	11MAR14	T.G.



PRIMARY SIDE

NOTES:

MATERIALS: FR-408HR, IN ACCORDANCE WITH IS410 (LATEST REV.), GLASS FABRIC BASE, EPOXY RESIN, FIRE RESISTANT.
BONDING AGENT: PREIMPREGNATED B STAGE EPOXY GLASS CLOTH IN ACCORDANCE WITH IPC-L-109 (LATEST REV.).
CLADDING: EXTERNAL LAYERS 1/2 OZ. COPPER, OVERPLATE TO 1 1/2 OZ. INTERNAL PLANE LAYERS 1 OZ. COPPER.
SOLDER MASK: SHALL BE BLUE LIQUID PHOTOIMAGABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3.
SILK SCREEN: SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR WHITE.
U.L. RATING: 94VO MINIMUM.

FABRICATION:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
2. UNDIMENSIONED HOLES TO BE LOCATED WITHIN +/-.005 OF THEIR TRUE POSITION WITH RESPECT TO ARTWORK.
3. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN .001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
4. HOLE DIAMETERS APPLY AFTER PLATING.
5. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL, INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
6. MINIMUM DESIGN LINE WIDTH IS .005 INCH.
7. MINIMUM DESIGN SPACING IS .005 INCH.
8. BOARD/PANEL MUST MEET IPC-A-600 (LATEST REV.) CLASS 2 FOR FLATNESS.
9. MFGR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
   A. U.L. CODE D. MFGR. LOGO
   B. DATE CODE (STAMP) E. SUCCESSFUL ELECTRICAL BOARD TEST.
   C. FLAMMABILITY RATING
10. NON-FUNCTIONAL PADS MAY BE REMOVED FROM INNER SIGNAL LAYERS AT MFGR. DISCRETION.
11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFGR. MAY TEAR DROP PADS TO MAINTAIN ANNULAR RING AT PAD TO CIRCUIT INTERFACE ONLY AND MUST INSURE ELECTRICAL INTEGRITY.
12. REPAIRS PER IPC-R-700 ARE ALLOWED.
13. MODIFICATIONS TO THE ARTWORK, OTHER THAN THOSE DESCRIBED ON THE FABRICATION DRAWING, ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
14. FINISH: SURFACES SHALL HAVE ENIG FINISH PLATED WITH 2-6 MICROINCHES OF IMMERSION GOLD OVER 100-200 MICROINCHES OF ELECTROLESS NICKEL.
15. VIAS TO BE NON-CONDUCTIVE EPOXY FILLED AND GROUND FLUSH PRIOR TO OVER PLATING.

10 LAYER STACKUP

NOMINAL FINISHED BOARD THICKNESS 0.063" +/- .007

	PRIMARY SILKSCREEN	
	PRIMARY SOLDER MASK	
	PRIMARY SIDE	(LAYER 1)
0.0078"	GROUND PLANE	(LAYER 2)
0.0035"	POWER PLANE	(LAYER 3)
0.0057"	GROUND PLANE	(LAYER 4)
0.0043"	POWER LAYER	(LAYER 5)
0.0052"	POWER PLANE	(LAYER 6)
0.0043"	GROUND PLANE	(LAYER 7)
0.0057"	POWER PLANE	(LAYER 8)
0.0035"	GROUND PLANE	(LAYER 9)
0.0078"	SECONDARY SIDE	(LAYER 10)
	SECONDARY SOLDER MASK	
	SECONDARY SILKSCREEN	

CHARACTERISTIC IMPEDANCE = 50 OHMS +/- 10%
ARTWORK LINE WIDTH FOR
IMPEDANCE CONTROLLED LINES = 0.0155" FOR LAYER 1 AND 10.

DIFFERENTIAL IMPEDANCE = 100 OHMS +/- 10%
ARTWORK LINE WIDTH FOR
IMPEDANCE CONTROLLED LINES = 0.0100" FOR LAYER 1 AND 10.

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- .003
NON PLATED: +/- .001

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
◦	6.0	PLATED	48	
◇	10.0	PLATED	197	
△	15.0	PLATED	695	SEE NOTE 15
A	16.0	PLATED	159	SEE NOTE 15
B	25.0	PLATED	150	
C	35.0	PLATED	6	
D	42.0	PLATED	15	
E	45.0	PLATED	11	
F	60.0	PLATED	5	
G	63.0	PLATED	10	
H	75.0	PLATED	4	
J	40.0	NON-PLATED	2	
L	155.0	NON-PLATED	4	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMALS FRACTIONS ANGLES
.XX +-.010 +-1/32 +- 2
.XXX +-.005

NCDRILL

MATERIAL

FINISH

DO NOT SCALE DWG

	APPROVAL	DATE
DRAWN BY	W.D.B.	20MAR13
DESIGNED		
CHECKED		
APPROVED		
MFG ENGINEER		

ANALOG DEVICES
HSC DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

TITLE: AD9144 ADRF6790 EVALUATION BOARD

SIZE	FSCM NO	DRAWING NUMBER	REV
D		HSC 13016	C

SCALE 1/1 SHEET 1 OF 1

ART FILE - fab1