

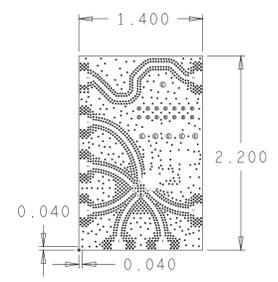
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04MAY16	Y. AYDIN

**SPECIFICATIONS:**

- MATERIALS;** ALL LAMINATES AND BONDING MATERIALS SHOULD BE SELECTED FROM IPC-4101 OR IPC-4103, MINIMUM Tg>170degC, Td>300degC, U.L. RATING OF 94 V-0
- MATERIAL FAMILY;** EACH CORE ROGERS 4350B 10.0 MIL THICK, PREPREG MATERIAL ROGERS 4450F 8.0 MIL THICK.
- CLADDING;** EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ. INTERNAL SIGNAL LAYERS .5 OZ. COPPER.  
NOTE: IF THE LAYER STACKUP CONFLICTS WITH THE ABOVE CLADDING SPECIFICATIONS THEN THE LAYER STACKUP SHALL TAKE PRECEDENCE.
- SOLDER MASK;** SHALL BE LIQUID PHOTOIMAGEABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER OR GOLD AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3. COLOR GREEN.
- SILK SCREEN;** SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR: WHITE SYNTHETIC INKJET PRINTING ALLOWED FOR DENSE BOARDS, COLOR: WHITE
- SURFACE FINISH;** ENIG (Electroless Nickel/Immersion Gold) PER IPC-4552 LATEST REVISION
- INTENTIONAL SHORTS;** IF SUPPLIED DATA INCLUDES A FILE 'READ\_ME.2', THEN INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT DOES NOT MATCH 'READ\_ME.2' FILE PROVIDED.
- TEST REQUIREMENTS;** 100% NETLIST ELECTRICAL VERIFICATION USING CUSTOMER SUPPLIED IPC-D-356 NETLIST FOR OPENS AND SHORTS WHEN 'GERBER DATA' IS PROVIDED. THIS VERIFICATION ALSO REQUIRED FOR 'ODB+' DATA PER EMBEDDED NETLIST.

**REQUIREMENTS:**

- REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
- ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
- MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
- HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
- PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
- HOLE DIAMETERS APPLY AFTER PLATING.
- FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
- MINIMUM DESIGN LINE WIDTH IS .005 INCH.
- MINIMUM DESIGN SPACING IS .007 INCH.
- ~~NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
- IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
- THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
  - A. THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
  - B. THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
- MFR. 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-FLAMMABILITY RATING
  - B. DATE CODE (STAMP)
  - C. LOT NUMBER
  - D. MFR LOGO
  - E. SUCCESSFUL ELECTRICAL TEST.
- REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED. REPAIRS ARE NOT ALLOWED IN ANY AREA DEFINED ON GOLD\_PRM AND/OR GOLD\_SEC ARTWORK LAYERS WHEN PROVIDED IN GERBER OR ODB+ DATA.
- ALL THRU VIAS TO BE FILLED WITH NON-CONDUCTIVE VIA FILL AND OVERPLATED WITH Cu BOTH SIDES.
- ALL BLIND VIAS TO BE PLATED SHUT WITH COPPER. COPLANAR ON PRIMARY SIDE.
- CRITICAL LINE WIDTH = 8.0 MILS +/- 1 MIL. ADJUST PROCESS TO ACHIEVE WIDTH. CRITICAL GAP TO GROUND IS 10.0 MILS.



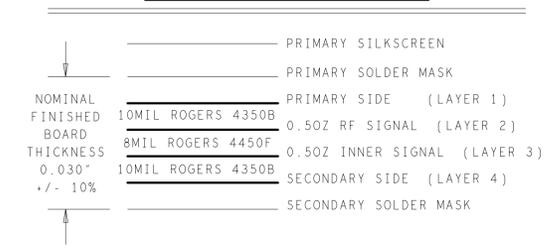
PRIMARY SIDE

HOLE TOLERANCE  
UNLESS SPECIFIED  
PLATED: +/- .003  
NON PLATED: +/- .003

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	14.0	PLATED	144	THRU1-4 FILLED
.	16.0	PLATED	1151	THRU1-4 FILLED
•	45.0	PLATED	14	
•	63.0	PLATED	6	

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	6.0	PLATED	41	BLIND1-2 FILLED

4 LAYER STACKUP



PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVAL	DATE			WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887
TOLERANCES	TEMPLATE ENGINEER R. MARION	ddMMyy	TITLE		
DECIMALS FRACTIONS ANGLES	HARDWARE SERVICES	ddMMyy	FABRICATION		
.XX . . .010 . . .1/32 . . .2	HARDWARE SYSTEMS	ddMMyy	ADRF5250 EVAL BOARD		
.XXX . . .005	TEST ENGINEER	ddMMyy	SIZE	FSCM NO	DRAWING NUMBER
.XXXX . . .0050	COMPONENT ENGINEER	ddMMyy	D	24355	09-042329
MATERIAL	TEST PROCESS	ddMMyy	SCALE	1/1	SHEET 1 OF 1
	HARDWARE RELEASE	ddMMyy			
FINISH	DESIGNER Y. AYDIN	04MAY16	REV	A	
	PRO-ENGINEER O. SERTTEK	04MAY16			
	CHECKER J. MORIN	04MAY16			
DO NOT SCALE DWG					