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REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	17JUN21	P.COCHANGCO

SPECIFICATIONS:

ROHS COMPLIANCE NOTE: HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT THE EU RoHS DIRECTIVE 2002/95/EC

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;

ROGERS 8 MILS 4003C AND ISOLA 370HR

CLADDING;

EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ.  
~~INTERNAL SIGNAL LAYERS .5 OZ. COPPER.~~  
INTERNAL PLANE LAYERS 1 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:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.

2. ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)

3. MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.

4. HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.

5. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.

6. HOLE DIAMETERS APPLY AFTER PLATING.

7. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.

8. MINIMUM DESIGN LINE WIDTH IS 8 MILS.

9. MINIMUM DESIGN SPACING IS 7 MILS.

~~10. NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~

11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFGR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)

12. 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.

13. 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 FLAMMABILITY RATING~~

D. MFGR LOGO

B. DATE CODE (STAMP).

E. SUCCESSFUL ELECTRICAL TEST.

C. LOT NUMBER

14. REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.

15. INDICATED VIAS FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER. FLUSH TO .003" BELOW SUFACE BOTH SIDES PRIOR TO FINAL PLATING.

16. CRITICAL LINE WIDTH = 16 MILS +/- 1 MILS ADJUST PROCESS TO ACHIEVE WIDTH

17. BOARD TO HAVE EDGE PLATING AT CONNECTOR EDGE. ALL 4 METAL LAYERS MUST CONNECT.

18. THRU VIAS FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER

HOLE TOLERANCE

UNLESS SPECIFIED  
PLATED: +/- 3 MILS  
NON PLATED: +/- 2 MILS

4 LAYER STACKUP

NOMINAL  
FINISHED  
BOARD  
THICKNESS  
0.062"  
+/- 10%

ROGERS 4003C 8MILS  
ISOLA 370HR  
ISOLA 370HR

PRIMARY SILKSCREEN

PRIMARY SOLDER MASK

PRIMARY SIDE (LAYER 1)

L2\_GND PLANE (LAYER 2)

L3\_GND PLANE (LAYER 3)

SECONDARY SIDE (LAYER 4)

SECONDARY SOLDER MASK

CLIP BACK THE CENTER CONDUCTOR WITHIN 5 MILS FROM THE EDGE OF THE BOARD.

0.750 (REF)

1.291

SEE DETAIL A  
REMOVE EDGE PLATING  
(4 PLACES)

"0"

0.750

1.291 (REF)

EDGE PLATING NOT ALLOWED IN CENTER CONDUCTOR AND GAP AREA. EDGE PLATING SHOULD BE IN LINE WITH TOP ETCH.

EDGE PLATING AND PCB ETCH ON RF CONDUCTOR TRACE SHOULD BE FLUSHED +/- .002". NO BUMPS.

PLATED AREA  
2 PLACES

DETAIL A

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVAL	DATE	WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887			
TOLERANCES	TEMPLATE ENGINEER N/A	N/A	TITLE FABRICATION ADL8107 CUSTOMER EVALUATION Z			
DECIMALS	HARDWARE SERVICES M.VALE	17JUN21				
.XX --.010 .XXX --.005 .XXXX --.0050	HARDWARE SYSTEMS N/A	N/A				
MATERIAL	TEST ENGINEER N/A	N/A	SIZE C			
FINISH	COMPONENT ENGINEER M.YAN	17JUN21			FSCM NO 24355	DRAWING NUMBER 09-068109
	TEST PROCESS N/A	N/A				
	HARDWARE RELEASE K.JABATAN	17JUN21				
	DESIGNER S.NODADO	17JUN21				
DO NOT SCALE DWG	PTD ENGINEER P.COCHANGCO	17JUN21	SHEET 1 OF 1			
	CHECKER N/A	N/A				