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REV

DESCRIPTION

DATE

APPROVED

A

INITIAL RELEASE

06JUN18

M.SUCIU

B

AS PER ECR-081311

28OCT18

M.SUCIU

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;

S1000-2

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 .006 INCH.

9.

MINIMUM DESIGN SPACING IS .00759 INCH.

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, MFR. 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.

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

D.

MFR LOGO

B.

DATE CODE (STAMP).

E.

SUCCESSFUL ELECTRICAL TEST.

C.

LOT NUMBER

14.

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.

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2.000

3.100 (REF)

2.100 (REF)

2.995

2.100 (REF)

2.000

3.100 (REF)

0.105

0.100

0.105

PRIMARY SILKSCREEN

PRIMARY SOLDER MASK

PRIMARY SIDE (LAYER 1)

L2_GND PLANE (LAYER 2)

L3_PWR PLANE (LAYER 3)

SECONDARY SIDE (LAYER 4)

SECONDARY SOLDER MASK

SECONDARY SILKSCREEN

NOMINAL FINISHED BOARD THICKNESS 0.062" +/- 10%

HOLE TOLERANCE

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

FINISHED HOLES IN MILS

ALL UNITS ARE IN MILS

FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	345	DIA MAX
□	35.0	PLATED	8	
○	40.0	PLATED	38	
◦	45.0	PLATED	35	
△	50.0	PLATED	16	
A	126.0	NON-PLATED	4	

CUSTOMER EVALUATION

REVISIONS

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PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVAL	DATE	TITLE			
TOLERANCES DECIMALS .XX --.010 FRACTIONS --1/32 ANGLES -- 2	TEMPLATE ENGINEER N/A		FABRICATION AD7173-8 CN0414 CUSTOMER EVAL BOARD Z			
HARDWARE SERVICES M. JOSE	06JUN18					
HARDWARE SYSTEMS N/A						
MATERIAL	TEST ENGINEER N/A		SIZE C FSCM NO 24355 DRAWING NUMBER 09-049005 REV B			
COMPONENT ENGINEER A. CAUILAN-AGENA	06JUN18					
TEST PROCESS N/A						
HARDWARE RELEASE K. JABATAN	06JUN18	SCALE 1/1 SHEET 1 OF 1				
DESIGNER J. PACAMARRA	06JUN18					
PTD ENGINEER M. SUCIU	06JUN18					
CHECKER N/A						
DO NOT SCALE DWG						

ART FILM - fab1