



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	30JAN21	K. NUEVA
B	AS PER ECR-103780	21JUL21	K. NUEVA

HOLE TOLERANCE

UNLESS SPECIFIED  
PLATED: +/-0.076MM  
NON PLATED: +/-0.050MM

DRILL CHART: TOP to BOTTOM				
FINISHED HOLES IN MILLIMETERS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	0.254	PLATED	105	DIA MAX
•	0.406	PLATED	89	
◊	1.143	PLATED	59	
○	1.27	PLATED	2	
A	0.711	NON-PLATED	1	
B	1.092	NON-PLATED	1	
C	3.175	NON-PLATED	2	

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM			APPROVAL		DATE		<div><div><div></div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>															
TOLERANCES			TEMPLATE ENGINEER		N/A																	
DECIMALS FRACTIONS ANGLES			HARDWARE SERVICES		30JAN21																	
.XX +/- .254 --1/32 -- 2			M VALE																			
.XXX +/- .127			HARDWARE SYSTEMS		N/A		TITLE FABRICATION EVAL - AD590 - ARDZ CUSTOMER EVAL BOARD Z															
.XXXX +/- .127			N/A																			
MATERIAL			TEST ENGINEER		N/A																	
			COMPONENT ENGINEER		30JAN21																	
			M. YAN																			
			TEST PROCESS		N/A																	
			HARDWARE RELEASE		30JAN21		SIZE C															
			K. JABATAN								FSCM NO 24355											
FINISH			DESIGNER		30JAN21										DRAWING NUMBER 09 - 066059							
			M. VALE																REV B			
			PTD ENGINEER		30JAN21																	
			K. NUEVA																			
			CHECKER		N/A		SCALE 1 / 1															
			N/A								SHEET 1 OF 2											
DO NOT SCALE DWG																						

4

3

2

1

D

C

B

A

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; ISOLA 370HR

CLADDING; EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ. 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 0.127 MM FROM THEIR TRUE POSITION.

5. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.0254MM MINIMUM AVERAGE, WITH NO READING LESS THAN .02032MM 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 .2 MM.

9. MINIMUM DESIGN SPACING IS .15 MM.

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 5.080 MM 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

B. DATE CODE (STAMP).

C. LOT NUMBER

D. MFGR LOGO

E. SUCCESSFUL ELECTRICAL TEST.

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.~~

15. BOARDS TO BE SHIPPED IN ARRAYS.

PANEL TO BE SUBJECTED TO CUSTOMER'S APPROVAL

PANELED SOLDER PASTE STENCIL SHOULD BE SENT TO THE CUSTOMER.

4 LAYER STACKUP

NOMINAL FINISHED BOARD THICKNESS 1.6 MM +/- 10%

PRIMARY SILKSCREEN

PRIMARY SOLDER MASK

PRIMARY SIDE (LAYER 1)

L2\_GND PLANE (LAYER 2)

L3\_VCC PLANE (LAYER 3)

SECONDARY SIDE (LAYER 4)

SECONDARY SOLDER MASK

SECONDARY SILKSCREEN

PRIMARY SIDE

ANALOG DEVICES

WWM DIVISION

804 WOBURN STREET

WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-066059	B
SCALE	1 / 1		SHEET 2 OF 2