



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	26APR23	I. ANDAL

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- 0.0762 MM
NON PLATED: +/- 0.0508 MM

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	0.254	PLATED	147	DIA MAX/SEE NOTE 20
□	0.889	PLATED	24	
○	1.016	PLATED	28	
•	1.143	PLATED	40	
◇	1.524	PLATED	45	
△	1.6002	PLATED	45	
○	1.651	PLATED	8	
○	1.905	PLATED	12	
A	0.7112	NON-PLATED	1	
B	1.0922	NON-PLATED	1	
C	3.175	NON-PLATED	2	
D	4.064	NON-PLATED	3	

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX -.010 +-1/32 +- 2 .XXX -.005 .XXXX -.0050	APPROVAL	DATE	<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>				
	TEMPLATE ENGINEER N/A	N/A					
	HARDWARE SERVICES M. VALE	26APR23	TITLE FABRICATION EVAL-AD45335SDZ EVALUATION BOARD Z				
	HARDWARE SYSTEMS N/A	N/A					
MATERIAL	TEST ENGINEER N/A	N/A		SIZE	FSCM NO	DRAWING NUMBER	REV
	COMPONENT ENGINEER V. ARMADO	26APR23					
	TEST PROCESS N/A	N/A					
	HARDWARE RELEASE K. JABATAN	26APR23					
FINISH	DESIGNER E. CHAN	26APR23	C	24355	09-073865	A	
	PTD ENGINEER I. ANDAL	26APR23					
	CHECKER N/A	N/A					
DO NOT SCALE DWG			SCALE	1 / 1		SHEET 1 OF 2	

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NOTES:

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED). UNLESS OTHERWISE SPECIFIED
ALL DOCUMENTS & SPECIFICATIONS REFERRED TO BELOW SHOULD BE THE LATEST REVISIONS.

MATERIAL: HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLAINT WITH THE EU DIRECTIVE 2002/95/EC

2. BOARD MATERIAL:(USE CHECKED ITEMS)

(X) ISOLA 370HR OR S1000-2 OR IT180 OR EQUIVALENT

() ISOLA-FR408HR OR EQUIVALENT

() ISOLA IS410

() MEGTRON 6

() NELCO-4000-13

() ROGERS 4350B

() ROGERS 3003

() ARLON 85N

() EM370D

() OTHER _____

3. ALL LAMINATES & BONDING MATERIALS SHOULD BE SELECTED FROM IPC-4101 OR IPC-4103,(TG>170 DEGC TD>300 DEGC)
UL FLAMMABILITY RATING 94V-0. BOARD MATERIAL & CONSTRUCTION SHALL MEET THE REQUIREMENTS OF UL796/UL796F.

4. REFER TO IPC-6010 SERIES, CLASS 2 FOR FABRICATION.WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2.

5. REFER TO LAMINATION DIAGRAM FOR OVERALL BOARD THICKNESS, TOLERANCE APPLIES AFTER ALL LAMINATION AND PLATING PROCESSES. FINISHED THICKNESS MEASURED FROM TOP COPPER TO BOTTOM COPPER.

6. BOW & TWIST NOT TO EXCEED 0.1905 (0.19%) PER LINEAR mil AND SHOULD BE MEASURED PER IPC-TM-650, METHOD 2.4.22.

7. ACCEPTABILITY PER ADI SPECIFICATION TST00115.

TOOLING:

8. IMPEDANCE REQUIREMENTS: IF NO STACKUP IS DEFINED, THE VENDOR IS ALLOWED TO ADJUST THE DIELECTRIC THICKNESS & TRACE WIDTHS TO MEET THE IMPEDANCE REQUIREMENT. IF SPECIFIED, THE VENDOR MUST MEET THE REQUIREMENTS LISTED IN THE IMPEDANCE TABLE. ANY ADJUSTMENT MADE TO THE DEFINED STACKUP, TRACE WIDTH & SPACING THAT IMPACT THE REQUIREMENTS MUST HAVE WRITTEN APPROVAL FROM ADI.

9. FILLET OPTIONS TO ENHANCE RELIABILITY AT PAD JUNCTIONS WHERE SPACING PERMITS.

() FILLETS ALLOWED

(X) FILLETS NOT ALLOWED

10. THIEVING:

() VENDOR MAY ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS MAINTAINING A MINIMUM 2.54 MM INCH CLEARANCE FROM ALL COPPER FEATURES,

(X) VENDOR MAY NOT ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS.

11. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.0762 MM.

FINISH:

12. DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN 0.127 MM DTP,UNLESS SPECIFIED.
MINIMUM BARREL PLATING OF 0.0254 MM. PLATED HOLES SHALL NOT BE ROUGH OR IRREGULAR SO AS TO HINDER PROPER SOLDER WICKING. BARREL RELIEF ON SOLDERMASK ALLOWED IN UNFILLED VIA IN PAD HOLES.

13. PLATING SPECIFICATION:

(X) REFER TO LAMINATION DIAGRAM FOR FINISHED COPPER WEIGHT/THICKNESS REQUIRMENTS

THE STARTING COPPER WEIGHT/THICKNESS CAN VARY AS LONG AS THE FINISHED COPPER WEIGHT/THICKNESS IS NOT LESS THAN THE SPECIFIED VALUE.

14. SURFACE FINISH:

(X) IMMERSION GOLD (ENIG) 40.132-100.076 MICRO MM OVER 118-236 MICRO INCHES MIN. OF ELECTROLESS NICKEL PER IPC-4552

() OSP (ORGANIC SOLDERABILITY PRESERVATIVE)

() IMMERSION SILVER

() SOFT WIRE BONDABLE GOLD 762-1270 MICRO MM OF SOFT WIRE
BONDABLE GOLD OVER 2540-3810 MICRO MM OF NICKEL

() EDGE CONNECTOR FINGERS ARE TO BE PLATED WITH 2540 MICRO MM OF LOW STRESS NICKEL UNDER 762 MICRO MM OF GOLD

() OTHER_____

15. SOLDERMASK:

SOLDERMASK OVER BARE COPPER OR BARE GOLD (BOTH SIDES) TO MEET IPC-SM-840.

IF PRESENT,DO NOT MODIFY SOLDERMASK DEFINED PADS (MASK OPENINGS LESS THAN COPPER PAD) WITHOUT APPROVAL.

(X) LPI

() OTHER_____

COLOR

(X) GREEN

() OTHER_____

16. APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, EPOXY BASED INK PER ARTWORK.

(X) WHITE

() OTHER

TESTING:

17. FINAL ELECTRICAL TEST TO BE PERFORMED USING PROVIDED IPC-D-356A NETLIST OR ODB++ FORMAT FILE.
THE PCB SHALL HAVE A VERIFICATION STAMP.

18. A TIME DOMAIN REFLECTOMETER REPORT (TDR) FOR EACH IMPEDANCE CONTROLLED LAYER & A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED BY VENDOR AT TIME OF SHIPMENT. INSTANCES WHERE TDR TESTING CAN'T BE PERFORMED BECAUSE THE TRACE LENGTH IS TOO SHORT ON THE OUTER LAYERS AT THE PIN ESCAPES IS ACCEPTABLE, ALL OTHER INSTANCES MUST BE REPORTED.

MISCELLANEOUS:

19. IF PRESENT, ALL BLIND/BURIED VIAS WITH AN ASPECT RATIO <1:1 TO BE PLATED SHUT WITH COPPER WHEN USED AS VIA-IN-PAD OR AS A STACKED VIA. BLIND/BURIED VIAS WITH AN ASPECT RATIO >1:1 TO BE FILLED WITH NON-CONDUCTIVE EPOXY.

20. FOR VIA FILL INFORMATION REFER TO DRILL CHART:

(X) NON-CONDUCTIVE EPOXY FILL ALL

() COPPER FILL ALL DRILLED VIAS

21. INTENTIONAL SHORTS:

IF AN INTENTIONAL SHORT REPORT IS SUPPLIED AND DOES NOT MATCH THE FAB DATA THEN ADI APPROVAL IS REQUIRED.

22. PEMNUTS:

() PEMNUTS TO BE INSTALLED BY FABRICATOR

() PEMNUTS NOT TO BE INSTALLED BY FABRICATOR

(X) NOT APPLICABLE

23. MANUFACTURER TO ETCH/STAMP WITH PERMANENT NON-CONDUCTIVE INK
ON SECONDARY SIDE UNLESS OTHERWISE SPECIFIED:

A. UL CODE-FLAMMABILITY RATING FOR THOSE APPROVED MATERIALS(IF APPLICABLE)

B. DATE CODE

C. LOT NUMBER

D. MANUFACTURER LOGO

25. PANELIZATION:

BOARDS TO BE SHIPPED IN ARRAY AND KEPT INTACT

PANEL TO BE SUBJECTED TO CUSTOMERS APPROVAL

PANEL SOLDER PASTE STENCIL GERBER TO BE PROVIDED TO ANALOG

27. MINIMUM DESIGN LINE WIDTH IS 0.1016 MM

28. MINIMUM DESIGN LINE SPACING IS 0.12 MM

FAB NOTES REVISION: 2ND NOVEMBER 2022

2 LAYER STACKUP

LAMINATION DIAGRAM

LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ,MM)	DIELECTRIC THICKNESS (MM)	MATERIALS
1	TOP	1 OZ, 03556 MIN		FINAL CU (THICKNESS AFTER PLATING)
			1.43	ISOLA 370HR/EQUIVALENT
2	BOTTOM	1 OZ, 03556 MIN		FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 1.6002 MM +/-10%

PRIMARY SIDE

ANALOG DEVICES

WWM DIVISION

804 WOBURN STREET

WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-073865	A
SCALE	1 / 1		SHEET 2 OF 2