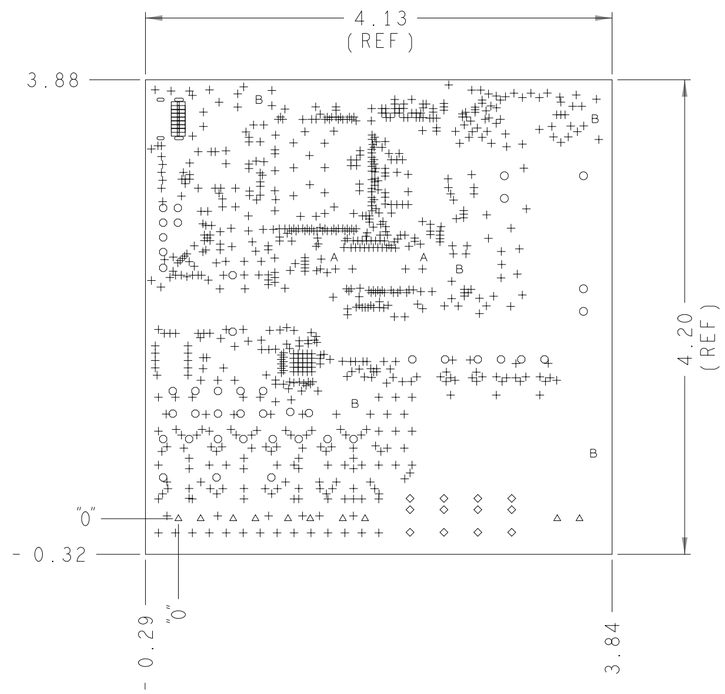
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	07FEB24	C.CARBUNARU



HOLE TOLERANCE

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

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	799	DIA MAX
□	16.0	PLATED	16	
○	35.0	PLATED	5	
○	40.0	PLATED	38	
◇	60.0	PLATED	12	
△	65.0	PLATED	10	
A	40.0	NON-PLATED	2	
B	135.0	NON-PLATED	5	
▭	63.0x28.0	PLATED	2	
▭	79.0x28.0	PLATED	2	

SEE NOTE 20

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS .XX +-.010 .XXX +-.005 .XXXX +-.0050 FRACTIONS +-1/32 ANGLES +- 2	APPROVAL	DATE	ANALOG DEVICES WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887
	TEMPLATE ENGINEER		
	HARDWARE SERVICES M.VALE	07FEB24	
	HARDWARE SYSTEMS		TITLE FABRICATION ADE9430/MAX32650 CUSTOMER EVAL BOARD Z
MATERIAL	TEST ENGINEER		
	COMPONENT ENGINEER N.CATALAN	07FEB24	
	TEST PROCESS		
	HARDWARE RELEASE K.JABATAN	07FEB24	
FINISH	DESIGNER J.MALAYBA	07FEB24	SIZE C / FSCM NO 24355 / DRAWING NUMBER 09-080779 / REV A
	PTD ENGINEER C.CARBUNARU	07FEB24	
	CHECKER		
DO NOT SCALE DWG			SCALE 1/1 / SHEET 1 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED).
   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 0.0075 INCHES (0.75%) PER LINEAR INCH 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 0.100 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 0.003 INCHES.

FINISH:

12. DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN 0.005 INCHES DTP,UNLESS SPECIFIED. MINIMUM BARREL PLATING OF 0.001 INCHES. 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) 1.58-3.94 MICRO INCHES OVER 118-236 MICRO INCHES MIN. OF ELECTROLESS NICKEL PER IPC-4552
    - ( ) OSP (ORGANIC SOLDERABILITY PRESERVATIVE)
    - ( ) IMMERSION SILVER
    - ( ) SOFT WIRE BONDABLE GOLD 30-50 MICRO INCHES OF SOFT WIRE BONDABLE GOLD OVER 100-150 MICRO INCHES OF NICKEL
    - ( ) EDGE CONNECTOR FINGERS ARE TO BE PLATED WITH 100 MICRO-INCHES(.0001") OF LOW STRESS NICKEL UNDER 30 MICRO-INCHES (.0003') 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 0.010 INCHES DRILLED VIAS
    - ( ) COPPER FILL ALL 0.XXXX INCHES 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
24. 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
25. MINIMUM DESIGN LINE WIDTH IS .006 INCH.
26. MINIMUM DESIGN LINE SPACING IS .006 INCH.

FAB NOTES REVISION: 2ND NOVEMBER 2022

IMPEDANCE TABLE

IMPEDANCE TOLERANCE: +/-10%

LAYER	50 OHM TRACE WIDTH	0 OHM TRACE WIDTH	90 OHM TRACE WIDTH/SPACE	0 OHM TRACE WIDTH/SPACE
TOP	0.00600	-	0.00650/0.01000	-
BOTTOM	0.00600	-	-	-

NOTE: DO NOT EDIT THIS TABLE MANUALLY:USE IMPEDANCE TABLE GENERATOR FROM ADI Tools.

4-LAYER STACKUP

LAMINATION DIAGRAM

LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ,INCH)	DIELECTRIC THICKNESS (INCH)	MATERIALS
1	TOP	1.5 OZ, 0.0021"		FINAL CU (THICKNESS AFTER PLATING)
			0.004	ISOLA 370HR/EQUIVALENT
2	L2_GND	1 OZ, 0.0014"		CU CLAD
			0.0454	ISOLA 370HR/EQUIVALENT
3	L3_PWR	1 OZ, 0.0014"		CU CLAD
			0.004	ISOLA 370HR/EQUIVALENT
4	BOTTOM	1.5 OZ, 0.0021"		FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 0.062" +/-10%

PRIMARY SIDE

ANALOG DEVICES
WWM DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-080779	A

SCALE 1/1 SHEET 2 OF 2