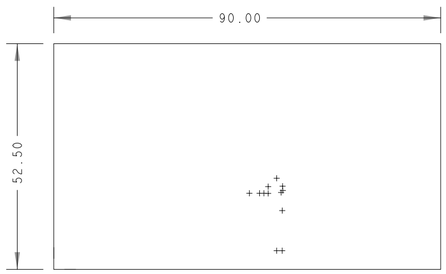
REVISION			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE		

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- 0.0762 MM
NON PLATED: +/- 0.0254 MM

DRILL CHART: TOP to LAYER2				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	FINISHED_SIZE	ROTATION	PLATED	QTY
+	0.2032	-	PLATED	12



PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM
TOLERANCES
DECIMALS FRACTIONS ANGLES
.XX +-0.25 +- 1/32 +/- 2
.XXX +-0.127

FABRICATION	APPROVAL	DATE
DRAWN BY	RAY SHEAHAN	20DEC2024
DESIGNED		
CHECKED		
APPROVED		
MFG ENGINEER		

ANALOG DEVICES

ANALOG DEVICES INTERNATIONAL
EMDC Building
Raheen Business Park
Raheen, LIMERICK, IRELAND

MATERIAL

FINISH

DO NOT SCALE DWG

TITLE
EVAL-ADIN1140D1Z

SIZE	FSCM NO	DRAWING NUMBER	REV
A2		09-083876	B

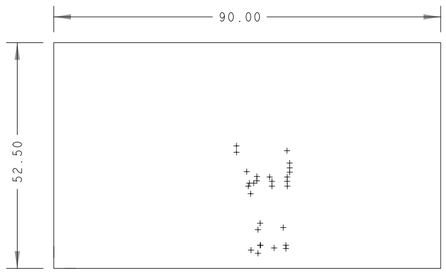
SCALE 1/1 SHEET 2 OF 4

REVISION			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE		

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- 0.0762 MM
NON PLATED: +/- 0.0254 MM

DRILL CHART: LAYER5 to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	FINISHED_SIZE	ROTATION	PLATED	QTY
+	0.2032	-	PLATED	29



PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM TOLERANCES DECIMALS FRACTIONS ANGLES .XX +-0.25 +- 1/32 +/- 2 .XXX +-0.127	FABRICATION	ANALOG DEVICES	ANALOG DEVICES INTERNATIONAL EMDC Building Raheen Business Park Raheen, LIMERICK, IRELAND
	APPROVAL / DATE	TITLE	EVAL-ADIN1140D1Z
MATERIAL	DRAWN BY RAY SHEAHAN 20DEC2024		
	DESIGNED		
	CHECKED		
FINISH	APPROVED	SIZE A2	FSCM NO
	MFG ENGINEER	DRAWING NUMBER 09-083876	REV B
DO NOT SCALE DWG		SCALE 1/1	SHEET 3 OF 4

REVISION			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE		

NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN MILLIMETERS (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,
    (*) 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, 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 (.00003') 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:
    ( ) NON-CONDUCTIVE EPOXY FILL ALL 0.XXXX INCHES DRILLED VIAS
    (*) COPPER FILL ALL 0,2032mm, 0.254mm & 0.4064mm 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
    (*) 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 0.127 MM.
28. MINIMUM DESIGN LINE SPACING IS 0.130 MM.

FAB NOTES REVISION: NOVEMBER 21 2022

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM TOLERANCES DECIMALS FRACTIONS ANGLES .XX +-0.25 +- 1/32 +/- 2 .XXX +-0.127	FABRICATION	ANALOG DEVICES	ANALOG DEVICES INTERNATIONAL ERDC Building Raheen Business Park Raheen, LIMERICK, IRELAND
	APPROVAL / DATE	TITLE	EVAL-ADIN1140D1Z
MATERIAL	DRAWN BY RAY SHEAHAN 20DEC2024		
	DESIGNED		
	CHECKED		
FINISH	APPROVED	SIZE A2	FSCM NO
	MFG ENGINEER	DRAWING NUMBER 09-083876	REV B
DO NOT SCALE DWG		SCALE 1/1	SHEET 4 OF 4

REVISION			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE		

6 LAYER STACKUP - Refer to file "08-083876_stackup.png" for full details

NOMINAL FINISHED BOARD THICKNESS 0.062" +/- 10%

- TOP SILKSCREEN
- TOP SOLDER PASTE
- TOP SOLDER MASK
- TOP SIDE (LAYER 1) SIGNALS, 0.5 Oz, (IMPEDANCE CONTROLLED. (100 OHM DIFF & 50 OHM SINGLE-ENDED)
- 1OZ L2 PLANE (LAYER 2) GROUND PLANE, 1 Oz.
- 1OZ L3 SIGNAL (LAYER 3) POWER PLANES, 1 Oz.
- 1OZ L4 SIGNAL (LAYER 4) POWER PLANES, 1 Oz.
- 1OZ L5 PLANE (LAYER 5) GROUND PLANE, 1 Oz.
- BOTTOM SIDE (LAYER 6) SIGNALS, 0.5 Oz. (IMPEDANCE CONTROLLED (100 OHM DIFF & 50 OHM SINGLE-ENDED)
- BOTTOM SOLDER MASK
- BOTTOM SOLDER PASTE
- BOTTOM SILKSCREEN

CHARACTERISTIC IMPEDANCE NOTES:

PRIMARY SIDE - 100 Ohm +/- 10% differential impedance using Layer-2 as ground reference layer.
Artwork Line width & spacings for differential pairs
0.005" / 0.010" / 0.005" (Trace/Gap/Trace) in inches.

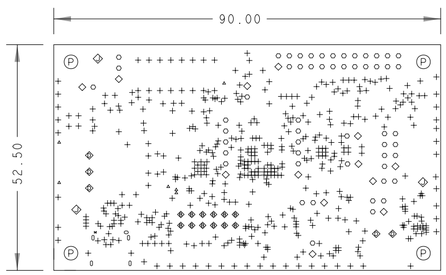
~~PRIMARY SIDE - 50 Ohm +/- 10% single ended impedance using Layer-2 as ground reference layer.~~
~~Artwork Line Width for single ended impedance traces: 0.006".~~

SECONDARY SIDE - 100 Ohm +/- 10% differential impedance using Layer-5 as ground reference layer.
Artwork Line width & spacings for differential pairs
0.005" / 0.010" / 0.005" (Trace/Gap/Trace) in inches.

~~SECONDARY SIDE - 50 Ohm +/- 10% single ended impedance using Layer-5 as ground reference layer.~~
~~Artwork Line Width for single ended impedance traces: 0.006".~~

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- 0.0762 MM
NON PLATED: +/- 0.0254 MM



DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	FINISHED_SIZE	ROTATION	PLATED	QTY
+	0.2032	-	PLATED	342
+	0.254	-	PLATED	175
▵	0.4064	-	PLATED	6
◈	1.016	-	PLATED	12
◇	1.143	-	PLATED	13
○	1.143	-	PLATED	54
◈	1.27	-	PLATED	5
◈	1.6002	-	PLATED	3
Ⓟ	3.2004	-	PLATED	4
▪	0.6604	-	NON-PLATED	1
▯	1.1176x0.508	90.000	PLATED	4
▫	0.9398x0.6604	0.000	NON-PLATED	1

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM
TOLERANCES
DECIMALS FRACTIONS ANGLES
.XX +-0.25 +- 1/32 +/- 2
.XXX +-0.127

FABRICATION

APPROVAL	DATE
DRAWN BY AAT SHEAHAN	20DEC2024
DESIGNED	
CHECKED	
APPROVED	
MFG ENGINEER	

MATERIAL

FINISH

DO NOT SCALE DWG

ANALOG DEVICES

ANALOG DEVICES INTERNATIONAL
ERDC Building
Raheen Business Park
Raheen, LIMERICK, IRELAND

TITLE
EVAL-ADIN1140D1Z

SIZE	FSCM NO	DRAWING NUMBER	REV
A2		09-083876	B

SCALE 1/1 SHEET 1 OF 4