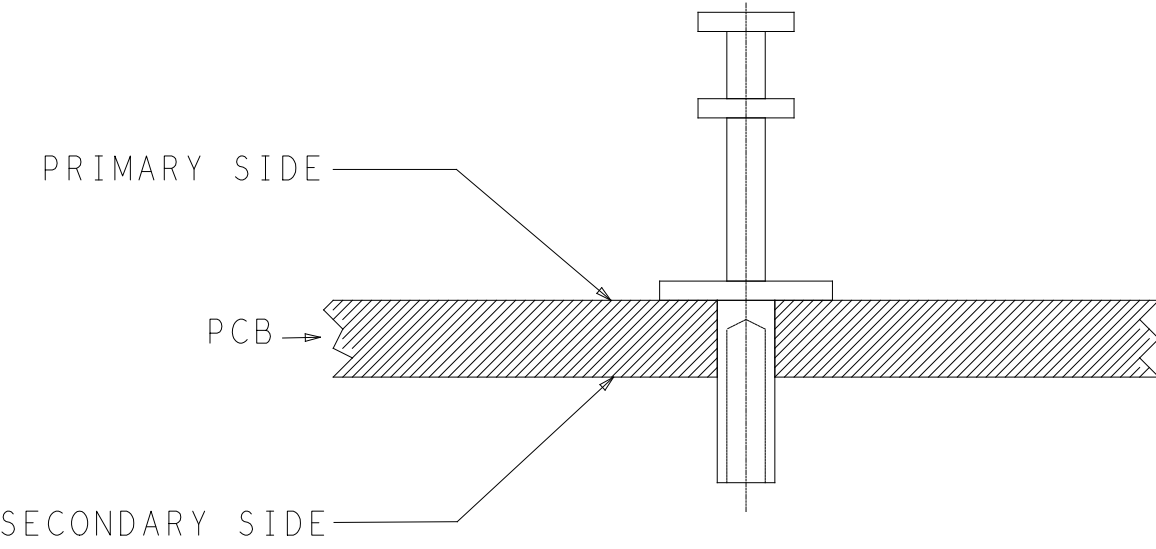


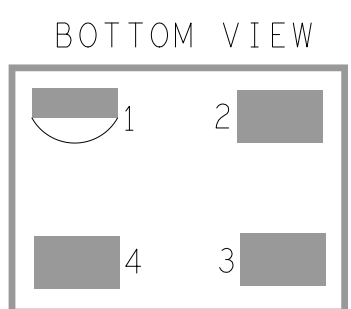
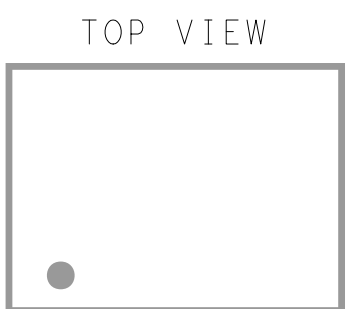
ASSEMBLY NOTES:

1. BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
2. REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
3. REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.
4. RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
5. THIS BOARD CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES.
6. SMOOTHEN EDGES AND FREE FROM BURRS AFTER DEPANELIZATION PROCESS.
7. SOLDER FILLET BOARD ETCH TO CONNECTOR TOP AND BOTTOM
8. INSTALL STANDOFF (M025474) ON SECONDARY SIDE AND SCREW (M025339) ON PRIMARY SIDE.
9. INSTALL JUMPER SHUNTS (M026786) ON LOCATIONS BELOW:
  - A. P1 ( PINS 2 & 3 )
  - B. P2 ( PINS 2 & 3 )
  - C. P3 ( PINS 1 & 2 )
10. INSTALL JUMPER (E003438) ON PINS 2 & 3 OF JP1.

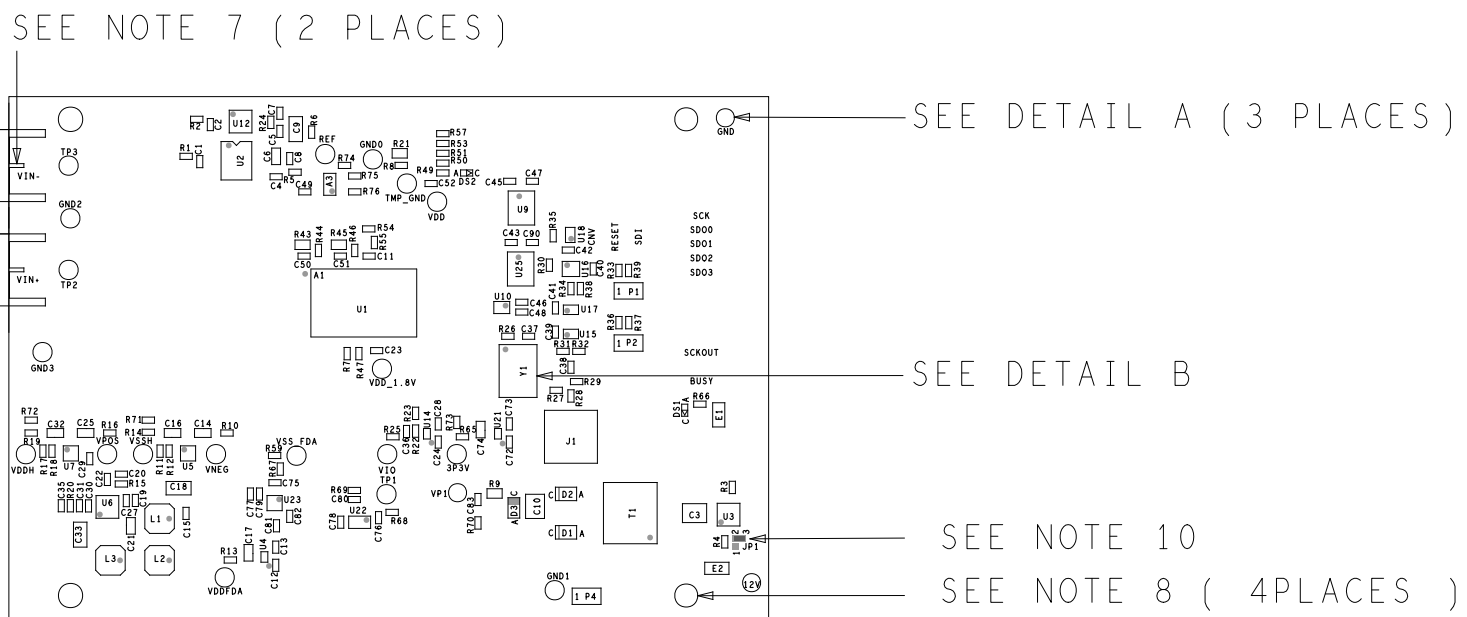
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	19MAY23	R.ROSARIO



DETAIL A  
NO TO SCALE

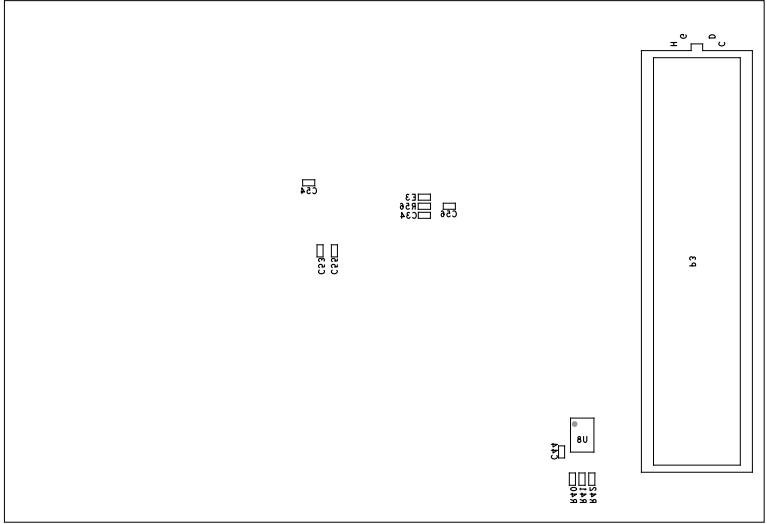
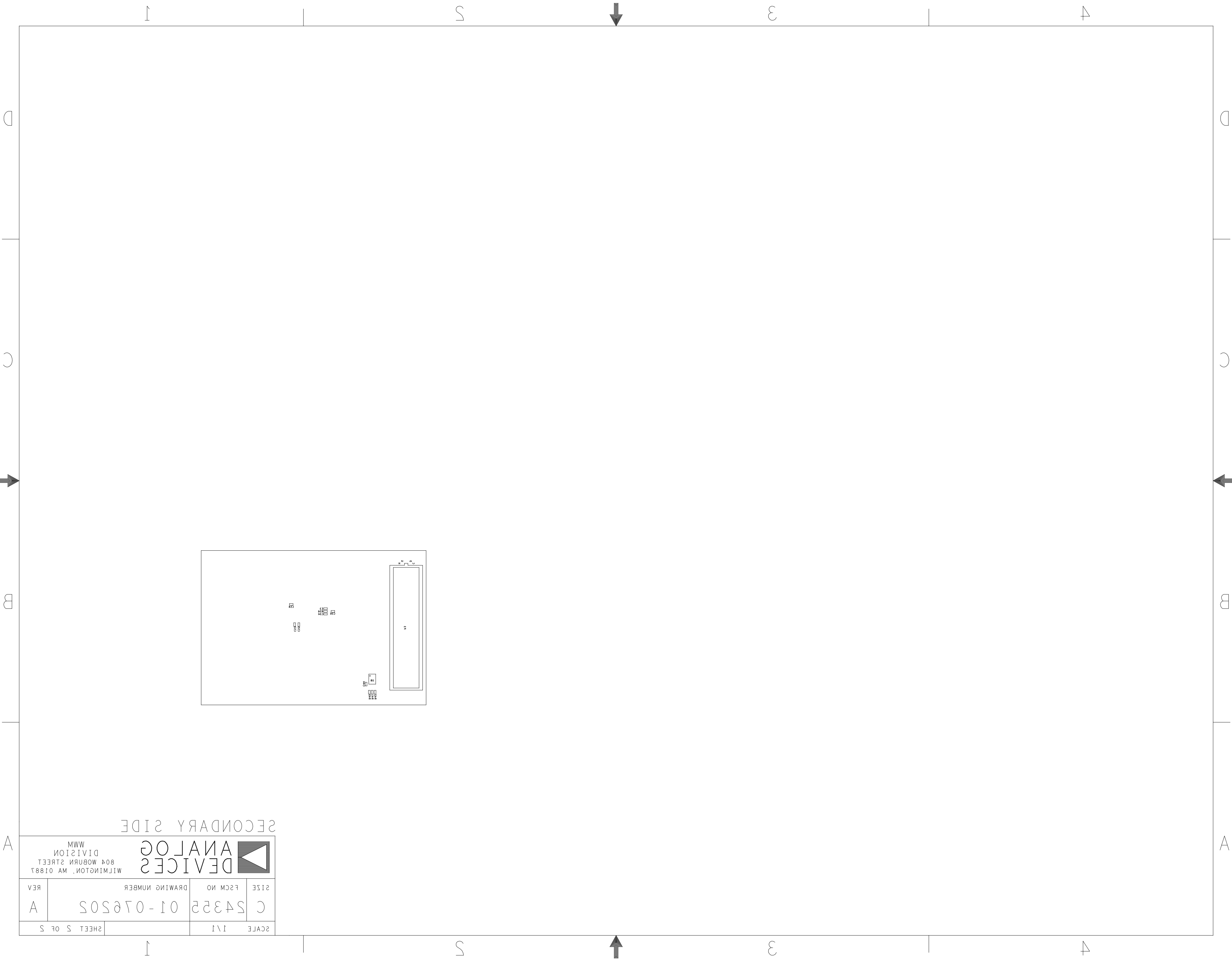


Y1 (CWx813-100.0M)-ASSY-DETAIL  
DETAIL B



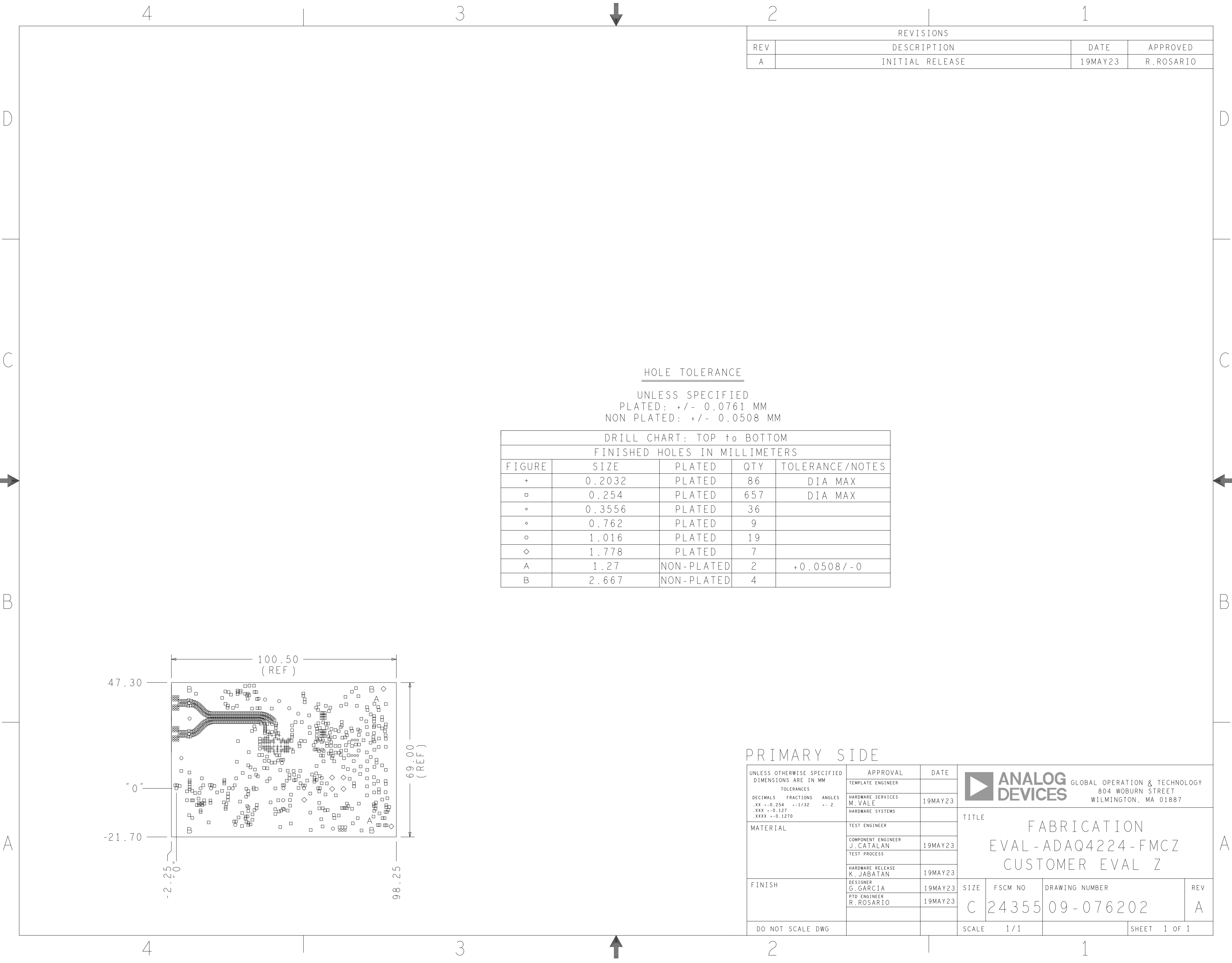
PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM  TOLERANCES DECIMALS   FRACTIONS   ANGLES .XX   ±0.254   ±1/32   ±.2 .XXX   ±0.127   ±.1 .XXXX   ±0.1270   ±.05	APPROVAL		DATE		<div><div></div><div>ANALOG DEVICES</div></div> <div>GLOBAL OPERATION &amp; TECHNOLOGY 804 WOBURN STREET WILMINGTON, MA 01887</div>							
	TEMPLATE ENGINEER											
	HARDWARE SERVICES M. VALE		19MAY23		TITLE  ASSEMBLY  EVAL - ADAQ4224 - FMCZ  CUSTOMER EVAL Z							
	HARDWARE SYSTEMS											
TEST ENGINEER												
MATERIAL	COMPONENT ENGINEER J. CATALAN		19MAY23									
	TEST PROCESS											
	HARDWARE RELEASE K. JABATAN		19MAY23									
FINISH	DESIGNER G. GARCIA		19MAY23						SIZE C	FSCM NO 24355	DRAWING NUMBER 01 - 076202	REV A
	PTD ENGINEER R. ROSARIO		19MAY23									
DO NOT SCALE DWG				SCALE   1 / 1		SHEET   1 OF 2						



SECONDARY SIDE

WILMINGTON, MA 01887 804 WOBURN STREET DIVISION MWM		ANALOG DEVICES			
REV	DRAWING NUMBER	SIZE	FSCM NO	SCALE	1 \ 1
A	01-076505	C	54355	SCALE	1 \ 1
SHEET 5 OF 5					



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	19MAY23	R.ROSARIO

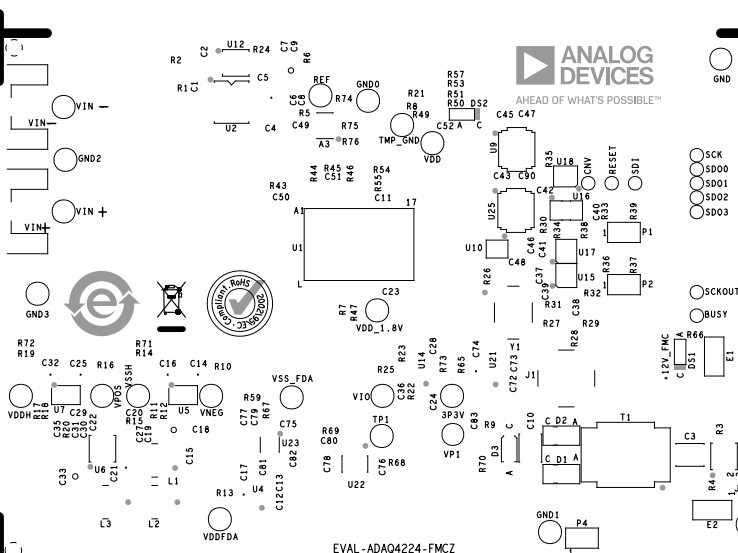
HOLE TOLERANCE				
UNLESS SPECIFIED				
PLATED: +/- 0.0761 MM				
NON PLATED: +/- 0.0508 MM				
DRILL CHART: TOP +o BOTTOM				
FINISHED HOLES IN MILLIMETERS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	0.2032	PLATED	86	DIA MAX
□	0.254	PLATED	657	DIA MAX
◦	0.3556	PLATED	36	
◦	0.762	PLATED	9	
◦	1.016	PLATED	19	
◇	1.778	PLATED	7	
A	1.27	NON-PLATED	2	+0.0508/-0
B	2.667	NON-PLATED	4	

PRIMARY SIDE			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM TOLERANCES DECIMALS FRACTIONS ANGLES .XX +/-0.254 +/-1/32 -- 2 .XXX +/-0.127 .XXXX +/-0.1270	APPROVAL	DATE	<div><div></div><div>ANALOG DEVICES</div><div>GLOBAL OPERATION &amp; TECHNOLOGY 804 WOBURN STREET WILMINGTON, MA 01887</div></div> <div>TITLE FABRICATION EVAL - ADAQ4224 - FMCZ CUSTOMER EVAL Z</div>
	TEMPLATE ENGINEER		
	HARDWARE SERVICES M. VALE	19MAY23	
	HARDWARE SYSTEMS		
MATERIAL	TEST ENGINEER		SIZE FSCM NO DRAWING NUMBER REV C 24355 09-076202 A
	COMPONENT ENGINEER J. CATALAN	19MAY23	
	TEST PROCESS		
FINISH	HARDWARE RELEASE K. JABATAN	19MAY23	
	DESIGNER G. GARCIA	19MAY23	
	PTD ENGINEER R. ROSARIO	19MAY23	
DO NOT SCALE DWG			SCALE 1/1 SHEET 1 OF 1

# SILKSCREEN PRIMARY

## 08-076202-03

### REV A

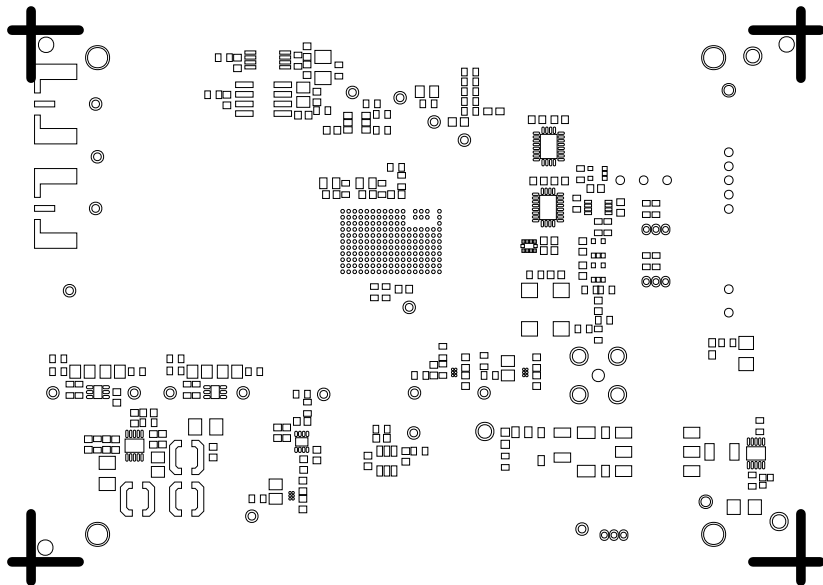


EVAL-ADAQ4224-FMCZ

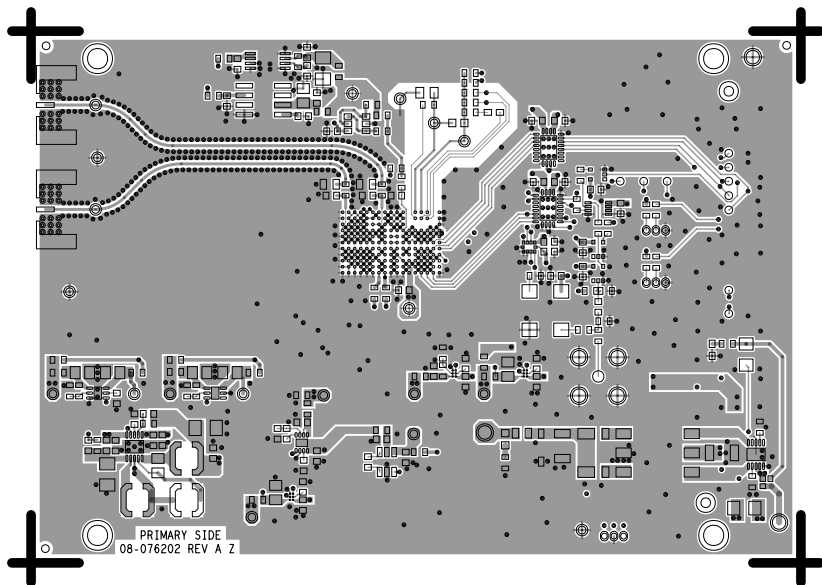
SOLDERMASK PRIMARY

08-076202-04

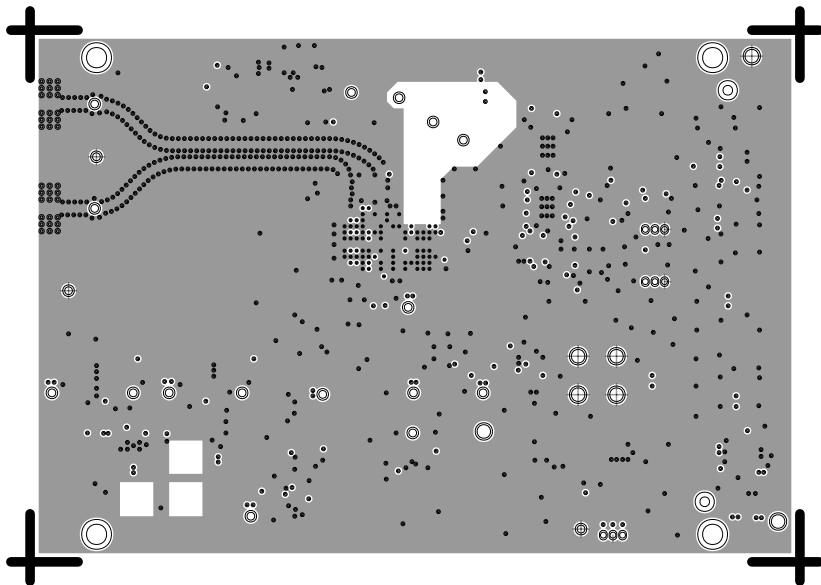
REV A



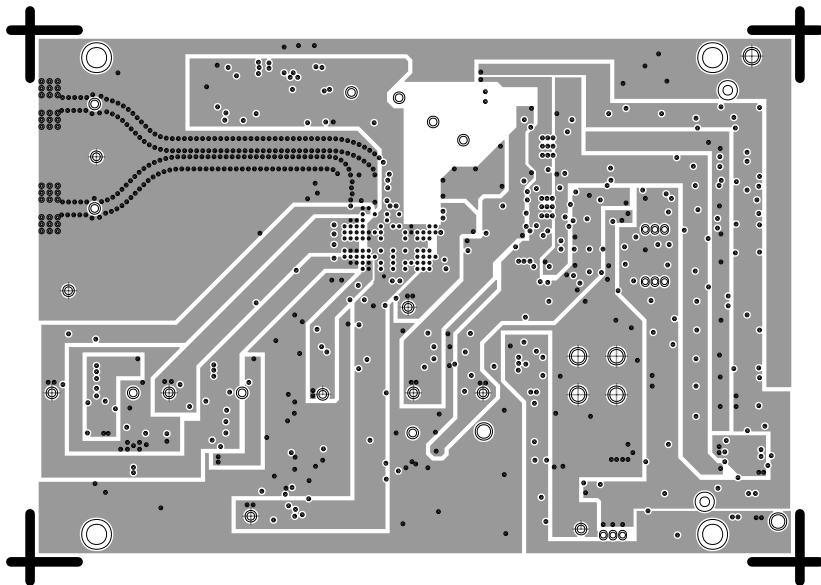
L1 PRIMARY  
08-076202-01  
REV A



L2 GND  
08-076202-07  
REV A

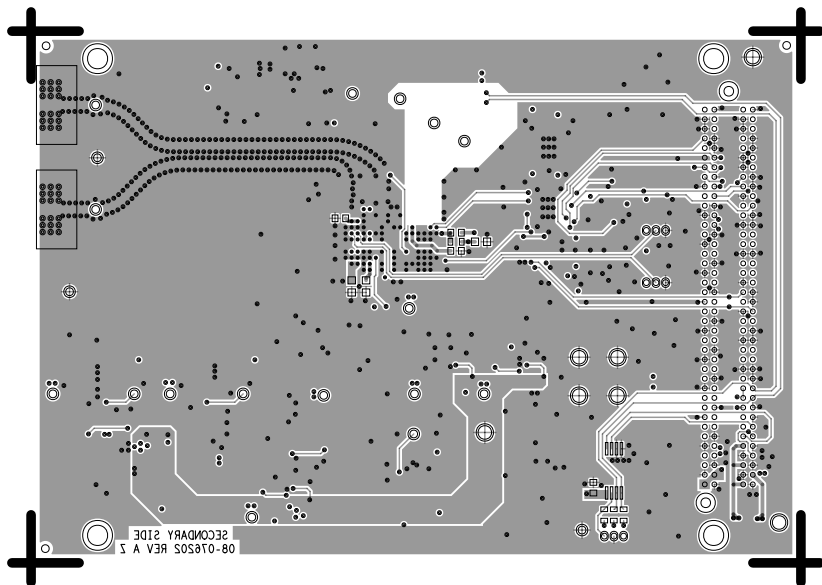


L3 PWR  
08-076202-08  
REV A





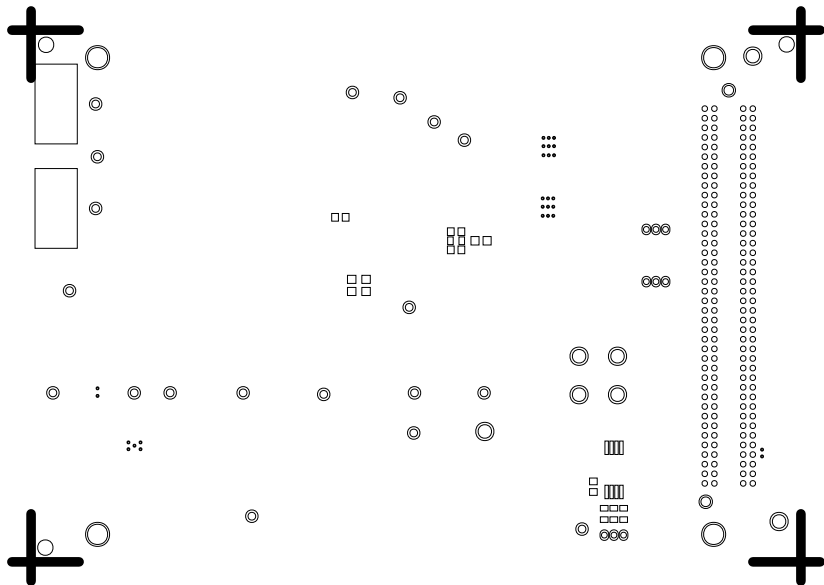
L4 SECONDARY  
08-076202-02  
REV A



SOLDERMASK SECONDARY

08-076202-06

REV A



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

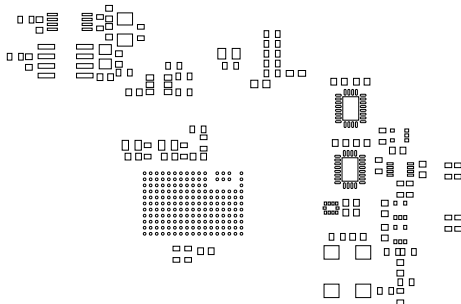
O

140  
140  
80

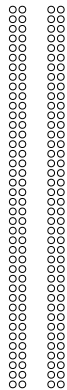
PASTEMASK PRIMARY

08-076202-09

REV A



PASTEMASK SECONDARY  
08-076202-10  
REV A



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 REQUIREMENTS  
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:  
( ) NON-CONDUCTIVE EPOXY FILL ALL 0.XXX 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
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 .127 MM.
28. MINIMUM DESIGN LINE SPACING IS .120 MM.

\*FAB NOTES REVISION: 2ND NOVEMBER 2022\*

#### 4 LAYER STACKUP

LAMINATION DIAGRAM					
LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ,MM)	DIELECTRIC THICKNESS (MM)	MATERIALS	
1	TOP	1 OZ, 0.355		FINAL CU (THICKNESS AFTER PLATING)	
				TBD	ISOLA 370HR/EQUIVALENT
2	L2_GND	1 OZ, 0.355			CU CLAD
				TBD	ISOLA 370HR/EQUIVALENT
3	L3_GND	1 OZ, 0.355			CU CLAD
				TBD	ISOLA 370HR/EQUIVALENT
4	BOTTOM	1 OZ, 0.355			FINAL CU (THICKNESS AFTER PLATING)
THE FINISHED PCB THICKNESS TO BE: 1.6 MM +/-10%					

## PRIMARY SIDE

	<b>ANALOG DEVICES</b>		WWM DIVISION	
			804 WOBURN STREET WILMINGTON, MA 01887	
SIZE	FSCM NO	DRAWING NUMBER	REV	
C	24355	09-076202	A	
SCALE	1/1		SHEET 2 OF 2	