

4 3 2 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	23APR18	A.TOLENTINO

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.

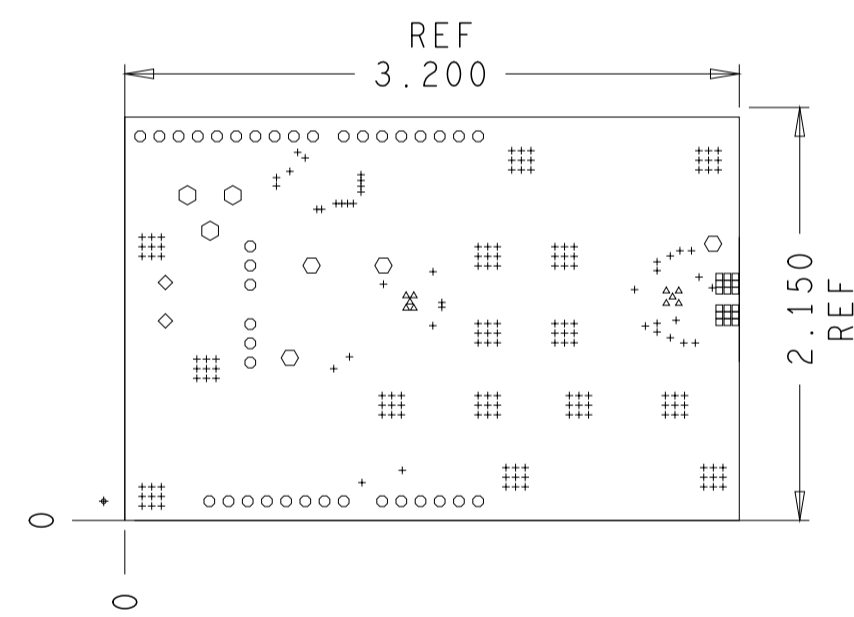
SOLDER MASK: SHALL BE LIQUID PHOTOIMAGEABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER OR GOLD AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3. COLOR GREEN.

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.

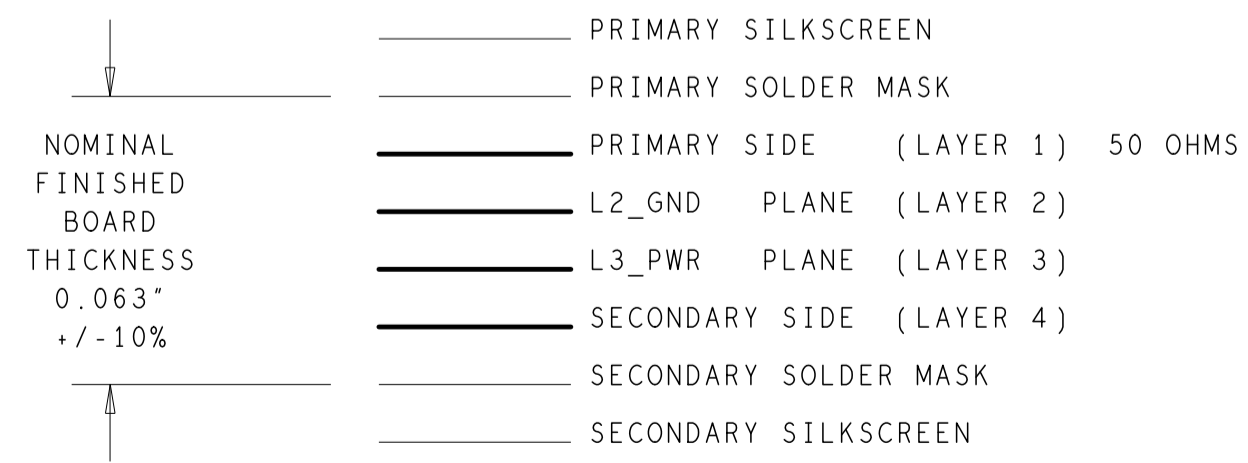


HOLE TOLERANCE

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

4 LAYER STACKUP

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	174	DIA MAX
^	10.01	PLATED	10	SEE FAB NOTE 15
□	14.0	PLATED	18	SEE FAB NOTE 15
○	45.0	PLATED	38	
◇	55.0	PLATED	2	
○	70.0	PLATED	4	
○	75.0	PLATED	3	




CHARACTERISTIC IMPEDANCE = 50 OHMS +/- 10%
ARTWORK LINE WIDTH FOR
IMPEDANCE CONTROLLED LINES = 0.020"

REQUIREMENTS:

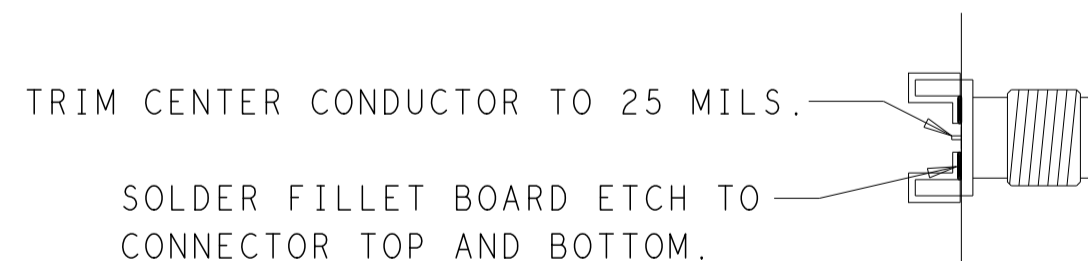
- REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
- ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
- MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
- HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
- PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
- HOLE DIAMETERS APPLY AFTER PLATING.
- FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
- MINIMUM DESIGN LINE WIDTH IS .008 INCH.
- MINIMUM DESIGN SPACING IS .00759 INCH.
- ~~NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
- 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.)
- THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
 - THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
 - THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
- MFGR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED:
 - U.L. CODE-FLAMMABILITY RATING
 - DATE CODE (STAMP).
 - LOT NUMBER
 - MFGR LOGO
 - SUCCESSFUL ELECTRICAL TEST.
- 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.
- THRU VIAS FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER. COPLANAR ON PRIMARY SIDE PRIOR TO FINAL PLATING.

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL	DATE	<div> ANALOG DEVICES</div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>					
TOLERANCES			TEMPLATE ENGINEER G.CELEDONIO	23APR18						
DECIMALS FRACTIONS ANGLES .XX -- .010 -- 1/32 -- 2 .XXX -- .005 .XXXX -- .0050			HARDWARE SERVICES G.MANTALA	23APR18						
MATERIAL			HARDWARE SYSTEMS N/A	N/A	TITLE FABRICATION ADL5902-SHIELD CUSTOMER EVALUATION					
			TEST ENGINEER A.TOLENTINO	23APR18						
			COMPONENT ENGINEER A.CAUILAN-AGENA	23APR18						
			TEST PROCESS N/A	N/A						
FINISH			HARDWARE RELEASE K.JABATAN	23APR18						
			DESIGNER R.TRINIDAD	23APR18						
			PTD ENGINEER A.TOLENTINO	23APR18	SIZE C	FSCM NO 24355	DRAWING NUMBER 09-049350	REV A		
			CHECKER V.ONDAP	09MAY18						
DO NOT SCALE DWG					SCALE	1/1		SHEET	1 OF 1	

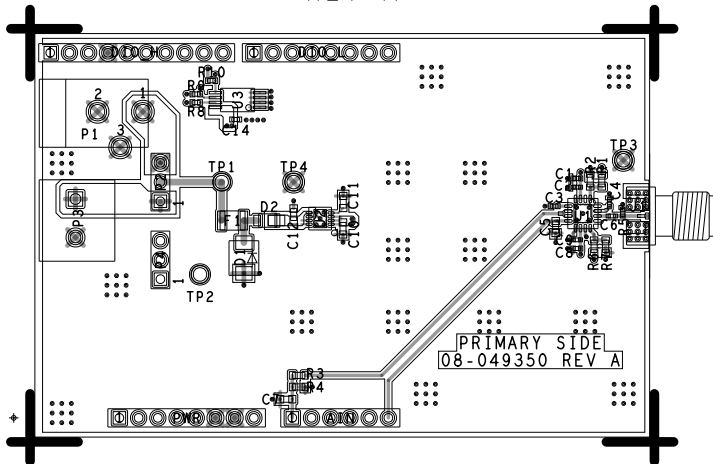
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div><div><div></div></div><div>ANALOG DEVICES</div></div>		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887					
TOLERANCES			TEMPLATE ENGINEER G.CELEDONIO		23APR18		TITLE ASSEMBLY ADL5902-SHIELD CUSTOMER EVALUATION							
DECIMALS FRACTIONS ANGLES			HARDWARE SERVICES G.MANTALA		23APR18									
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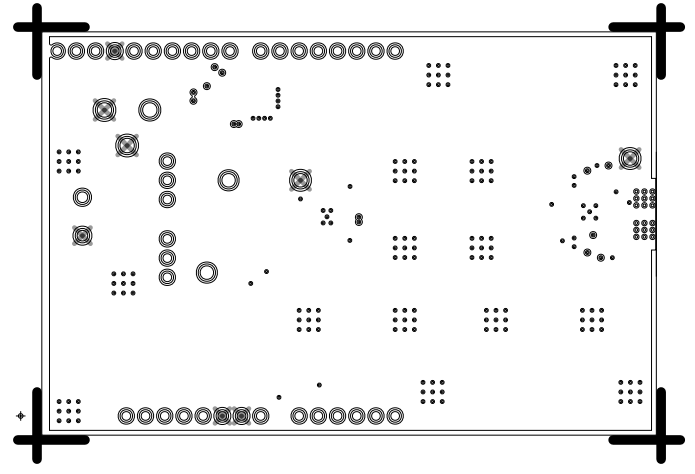


1. BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
2. REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
3. INSTALL 0.100" SHUNTS (M025317) ON P2 AND P4
4. RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
5. CLEANLINESS SHALL BE TESTED IN ACCORDANCE WITH IPC-TM-650.
6. INSTALL TESTPOINTS TP1-TP4 FROM PRIMARY SIDE AS INDICATED IN ASSY DETAIL B.
7. DO NOT TRIM HEADER CONNECTORS PWR, AIN,DIO_H AND DIO_L, SOLDER WITH THE TAIL LENGTHS EXTENDED.

L1 PRIMARY
08-049350-01
REV A

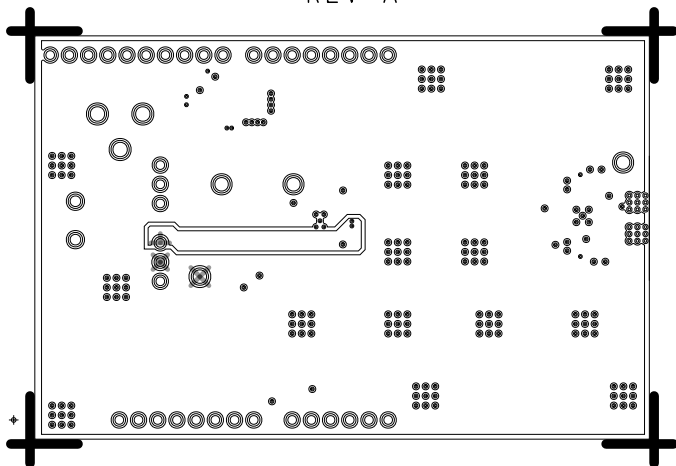


L2 GND
08-049350-07
REV A

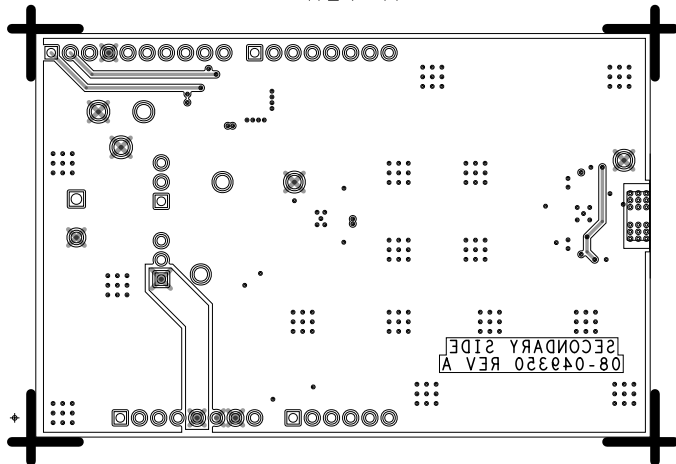


L3 PWR
08 - -08

L3 PWR
08-049350-08
REV A



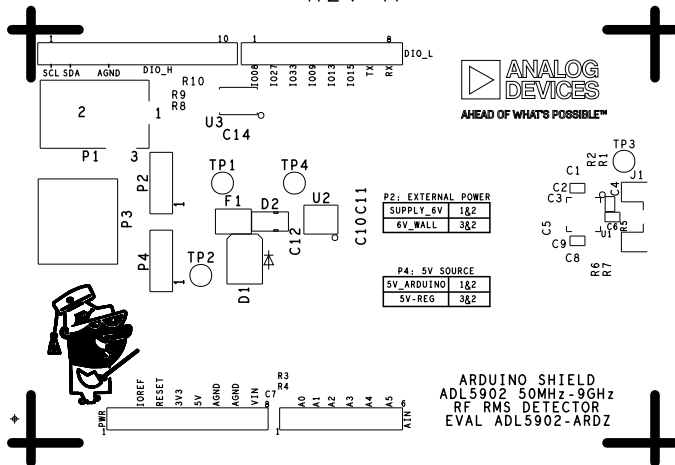
L2 SECONDARY
08-049350-02
REV A



SILKSCREEN PRIMARY

08-049350-03

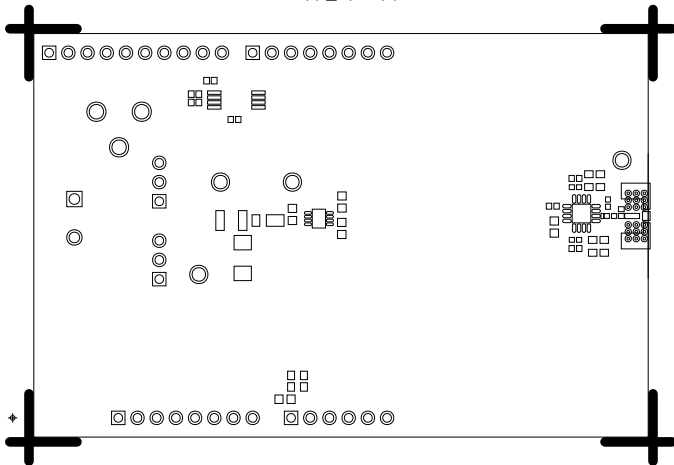
REV A



SOLDERMASK PRIMARY

08-049350-04

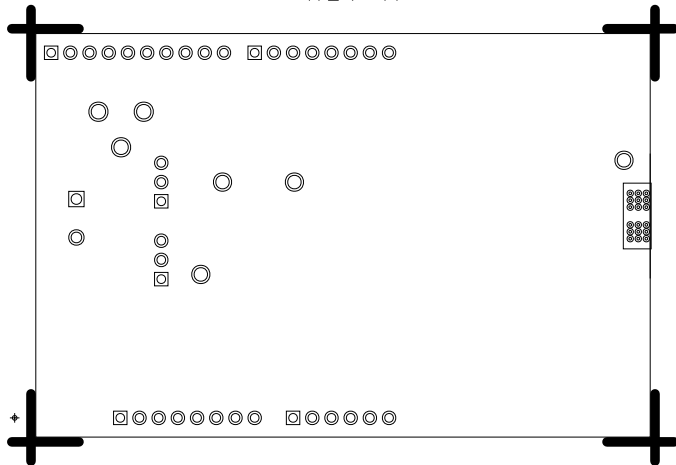
REV A



SOLDERMASK SECONDARY

08-049350-06

REV A



PASTEMASK PRIMARY

08-049350-09

REV A

