

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	18SEP20	A. POP
B	AS PER ECR-102888	31MAY21	A. POP
B1	AS PER ECR-103835	21JUL21	A. POP

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

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	143	DIA MAX
□	40.0	PLATED	30	
◦	45.0	PLATED	37	
◦	45.0	PLATED	5	
◦	60.0	PLATED	20	
A	125.0	NON-PLATED	4	

PRIMARY SIDE			UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
			TOLERANCES			
			DECIMALS	FRACTIONS	ANGLES	
			.XX	--.010	--1/32	-- 2
			.XXX	--.005		
			.XXXX	--.0050		
			APPROVAL			
			TEMPLATE ENGINEER		DATE	
			HARDWARE SERVICES		18SEP20	
			HARDWARE SYSTEMS			
			TEST ENGINEER			
			COMPONENT ENGINEER		18SEP20	
			TEST PROCESS			
			HARDWARE RELEASE		18SEP20	
			DESIGNER		18SEP20	
			PTD ENGINEER		18SEP20	
			CHECKER		18SEP20	
			DO NOT SCALE DWG			
			SCALE	1/1		
			SHEET	1 OF 2		
			REV	B		
			SIZE	C		
			FSCM NO	24355		
			DRAWING NUMBER	09-064107		
			TITLE			
			FABRICATION			
			AD-M2KBNC-EBZ			
			CUSTOMER EVALUATION Z			
			ANALOG DEVICES			
			WWM DIVISION			
			804 WOBURN STREET			
			WILMINGTON, MA 01887			

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, 370HR OR EQUIVALENT

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 BLUE.

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

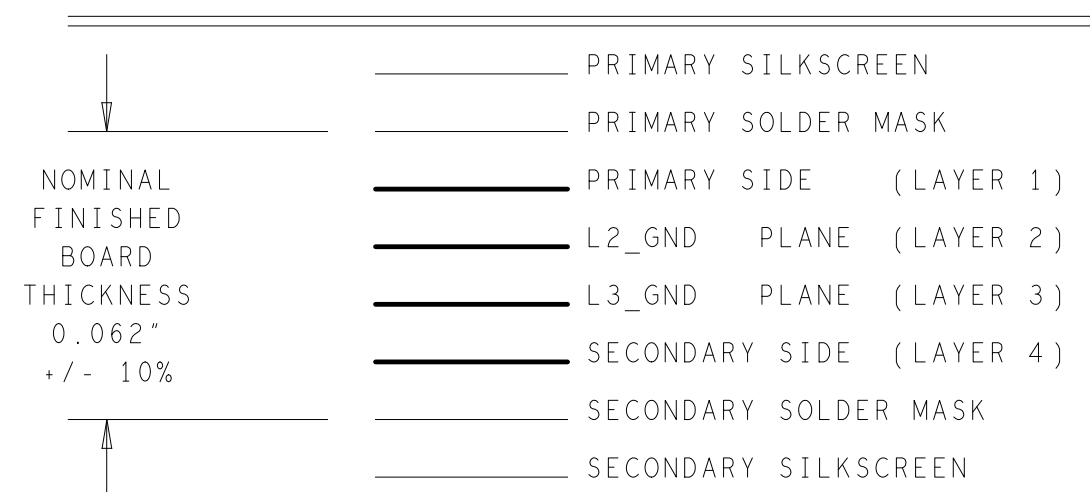
INTENTIONAL SHORTS; IF SUPPLIED DATA INCLUDES A FILE "READ_ME.2", THEN
INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL
IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT
DOES NOT MATCH "READ_ME.2" FILE PROVIDED.

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.

REQUIREMENTS:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
2. ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
3. MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
4. HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
5. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
6. HOLE DIAMETERS APPLY AFTER PLATING.
7. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
8. MINIMUM DESIGN LINE WIDTH IS 0.007 INCH.
9. MINIMUM DESIGN SPACING IS 0.008 INCH.
- ~~10. NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
12. THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
 - A. THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
 - B. THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
13. MFR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
 - A. U.L. CODE-FLAMMABILITY RATING
 - B. DATE CODE (STAMP).
 - C. LOT NUMBER
 - D. MFR LOGO
 - E. SUCCESSFUL ELECTRICAL TEST.
14. REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.
15. BOARDS TO BE SHIPPED IN ARRAY AND KEEP INTACT.

4 LAYER STACKUP



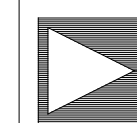
IMPEDANCE TABLE

NOTE: ALL IMPEDANCE TOLERANCE $\pm 10\%$

SE = SINGLE ENDED

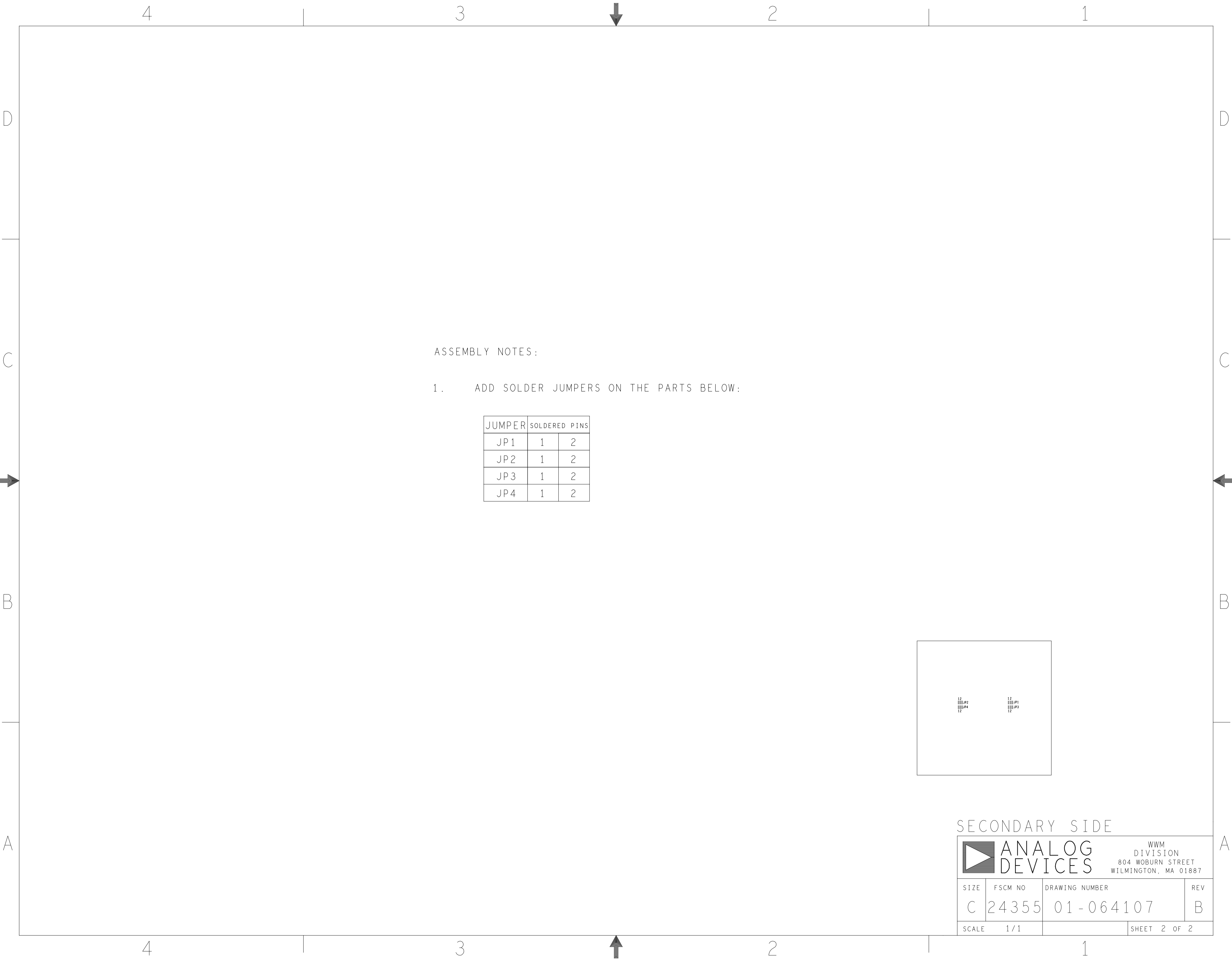
LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACE
L1	50 OHMS SE	L2	7MILS	N/A

PRIMARY SIDE

ANALOG
DEVICES

WWM
DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-064107	B
SCALE	1/1	SHEET 2 OF 2	



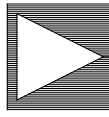
ASSEMBLY NOTES:

1. ADD SOLDER JUMPERS ON THE PARTS BELOW:

JUMPER	SOLDERED PINS	
JP1	1	2
JP2	1	2
JP3	1	2
JP4	1	2



SECONDARY SIDE

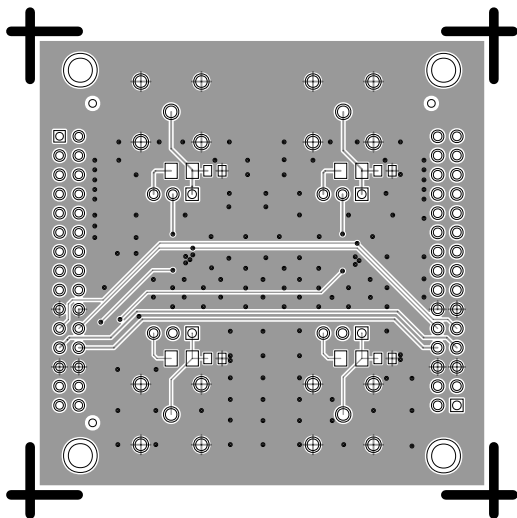


ANALOG
DEVICES

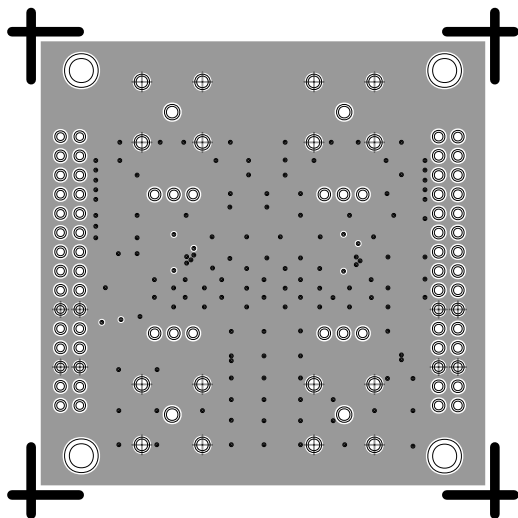
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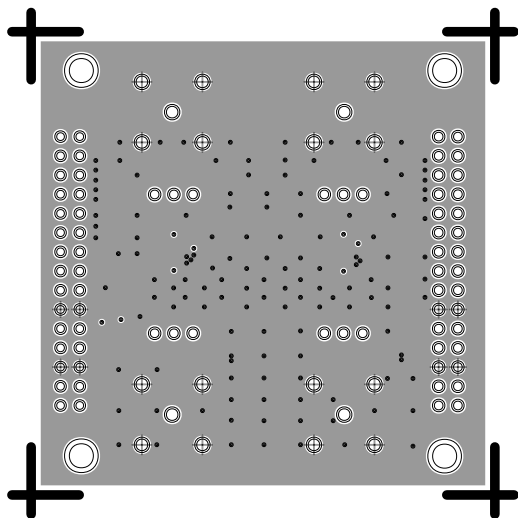
L1 PRIMARY
08-064107-01
REV B



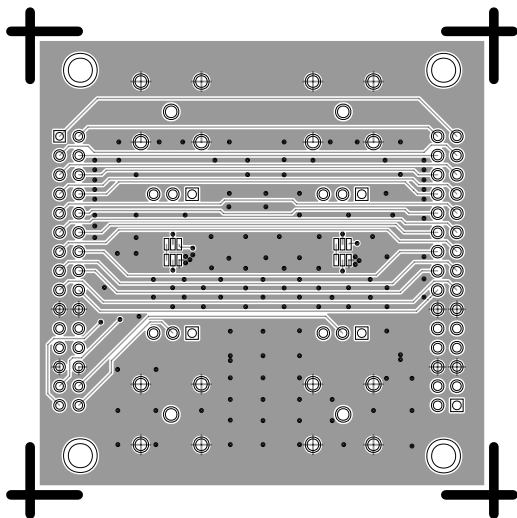
L2 GND
08-064107-07
REV B



L3 GND
08-064107-08
REV B



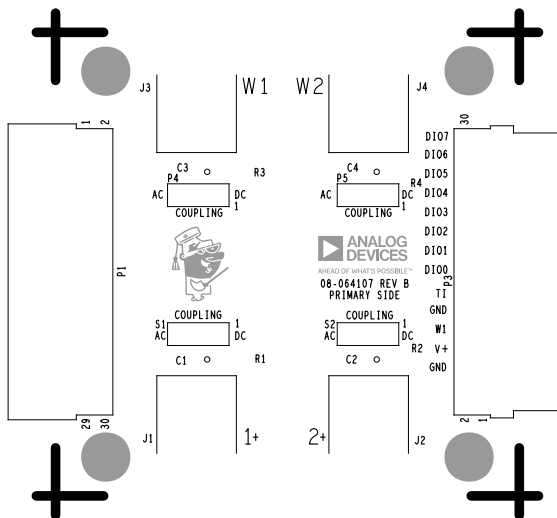
L4 SECONDARY
08-064107-02
REV B



SILKSCREEN PRIMARY

08-064107-03

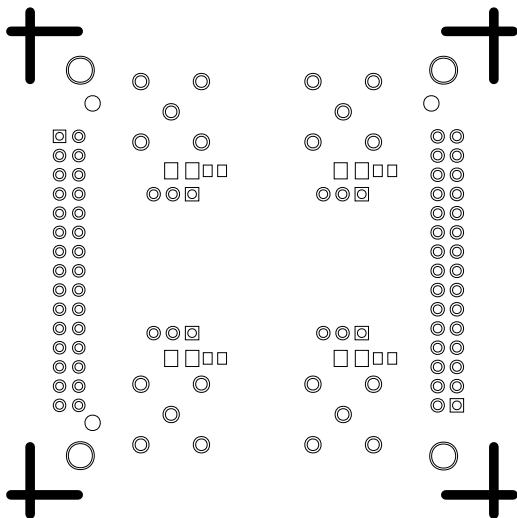
REV B



SOLDERMASK PRIMARY

08-064107-04

REV B



SILKSCREEN SECONDARY

08-064107-05

REV B



13

14



196 1
W 1
193 1

195 1
S 1
194 1



11

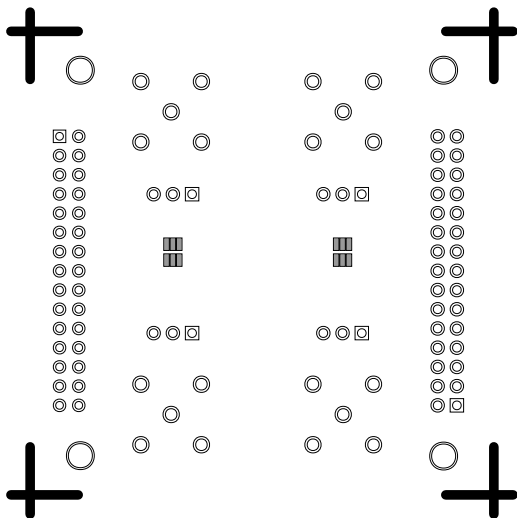
SECONDARY SIDE
08-064107 REV B

15

SOLDERMASK SECONDARY

08-064107-06

REV B



PASTEMASK PRIMARY

08-064107-09

REV B

