

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ECR-112710	10JAN25	X


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
□	6.0	PLATED	30	
+	11.81	PLATED	632	
⊠	18.0	PLATED	36	
○	35.0	PLATED	6	
◊	45.0	PLATED	24	
◇	70.0	PLATED	4	
△	100.0	PLATED	12	
⊙	191.0	PLATED	2	
	213.0	PLATED	2	
⊕	125.0	NON-PLATED	4	
⊞	187.0	NON-PLATED	4	

TOTAL HOLES : 756

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div>ANALOG DEVICES</div> <div>TITLE</div> <div>FABRICATION</div> <div>EVAL-LT7153SP-AZ</div>				
TOLERANCES			TEMPLATE ENGINEER BILLY PHILLIPS		19AUG20						
DECIMALS FRACTIONS ANGLES .XX -.010 +-1/32 +- 2 .XXX -.005 .XXXX -.0050			HARDWARE SERVICES BOB MACDONALD		19AUG20						
			HARDWARE SYSTEMS DAVE WILLIAMS		19AUG20						
MATERIAL			COMPONENT ENGINEER ADGT LIBRARY		19AUG20						
			HARDWARE RELEASE X		ddMMyy						
FINISH			PCB DESIGNER X		ddMMyy		SIZE		FSCM NO	DRAWING NUMBER	REV
			PTD ENGINEER X		ddMMyy		D		24355	09-068276	B
			CHECKER X		ddMMyy						
DO NOT SCALE DWG					SCALE		1/1		EVAL-LT7153SP-AZ	SHEET	1 OF 2

87654321

REV BDESCRIPTIONECR-112710DATE10JAN25APPROVEDX

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:

() NON-CONDUCTIVE EPOXY FILL ALL 0.XXXX 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 .010 INCH.

28. MINIMUM DESIGN LINE SPACING IS .008 INCH.

FAB NOTES REVISION: 2ND NOVEMBER 2022

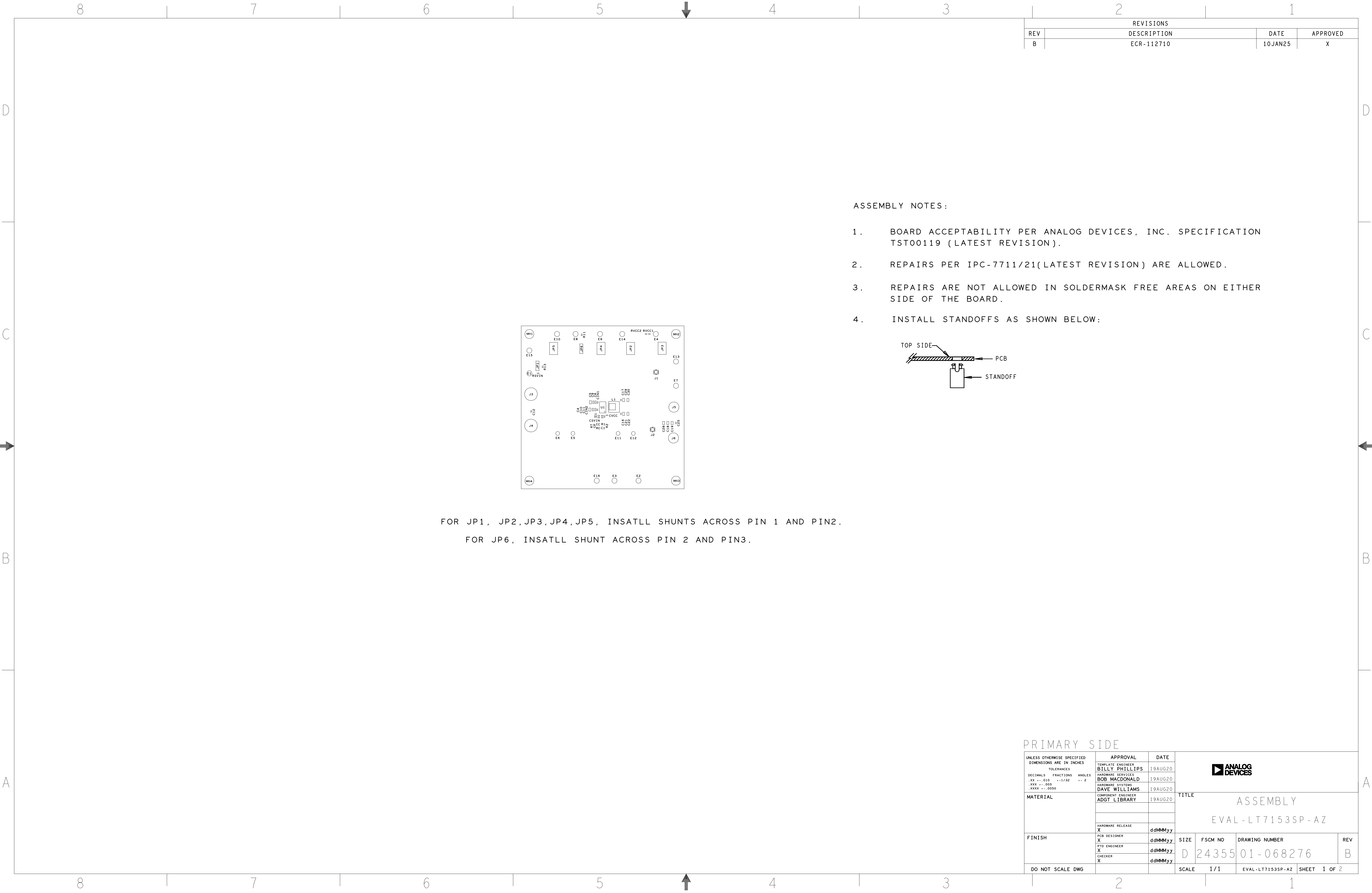
LAMINATION DIAGRAM

LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ, INCH)	DIELECTRIC THICKNESS (INCH)	MATERIALS
1	TOP	2 OZ, 0.0028"		FINAL CU (THICKNESS AFTER PLATING)
			0.006"	ISOLA 370HR/EQUIVALENT
2	LAYER_2	2 OZ, 0.0028"		CU CLAD
			TbD	ISOLA 370HR/EQUIVALENT
3	LAYER_3	2 OZ, 0.0028"		CU CLAD
			0.006"	ISOLA 370HR/EQUIVALENT
4	BOTTOM	2 OZ, 0.0028"		FINAL CU (THICKNESS AFTER PLATING)

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

PRIMARY SIDE

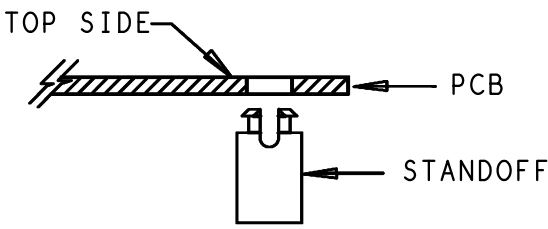
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX .-.010 .-.1/32 .-. 2 .XXX .-.005 .XXXX .-.0050	APPROVAL	DATE	<div><div>ANALOG DEVICES</div><div>TITLE</div><div>FABRICATION</div><div>EVAL-LT7153SP-AZ</div></div>			
	TEMPLATE ENGINEER	19AUG20				
	BILLY PHILLIPS					
	HARDWARE SERVICES	19AUG20				
	BOB MACDONALD					
MATERIAL	HARDWARE SYSTEMS	19AUG20	SIZE	FSCM NO	DRAWING NUMBER	REV
	DAVE WILLIAMS					
	COMPONENT ENGINEER	19AUG20				
	ADGT LIBRARY					
FINISH	HARDWARE RELEASE	ddMMyy	D	24355	09-068276	B
	PCB DESIGNER	ddMMyy				
	PTD ENGINEER	ddMMyy				
	CHECKER	ddMMyy				
DO NOT SCALE DWG		SCALE	1/1	EVAL-LT7153SP-AZ	SHEET 2 OF 2	



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ASSEMBLY NOTES :

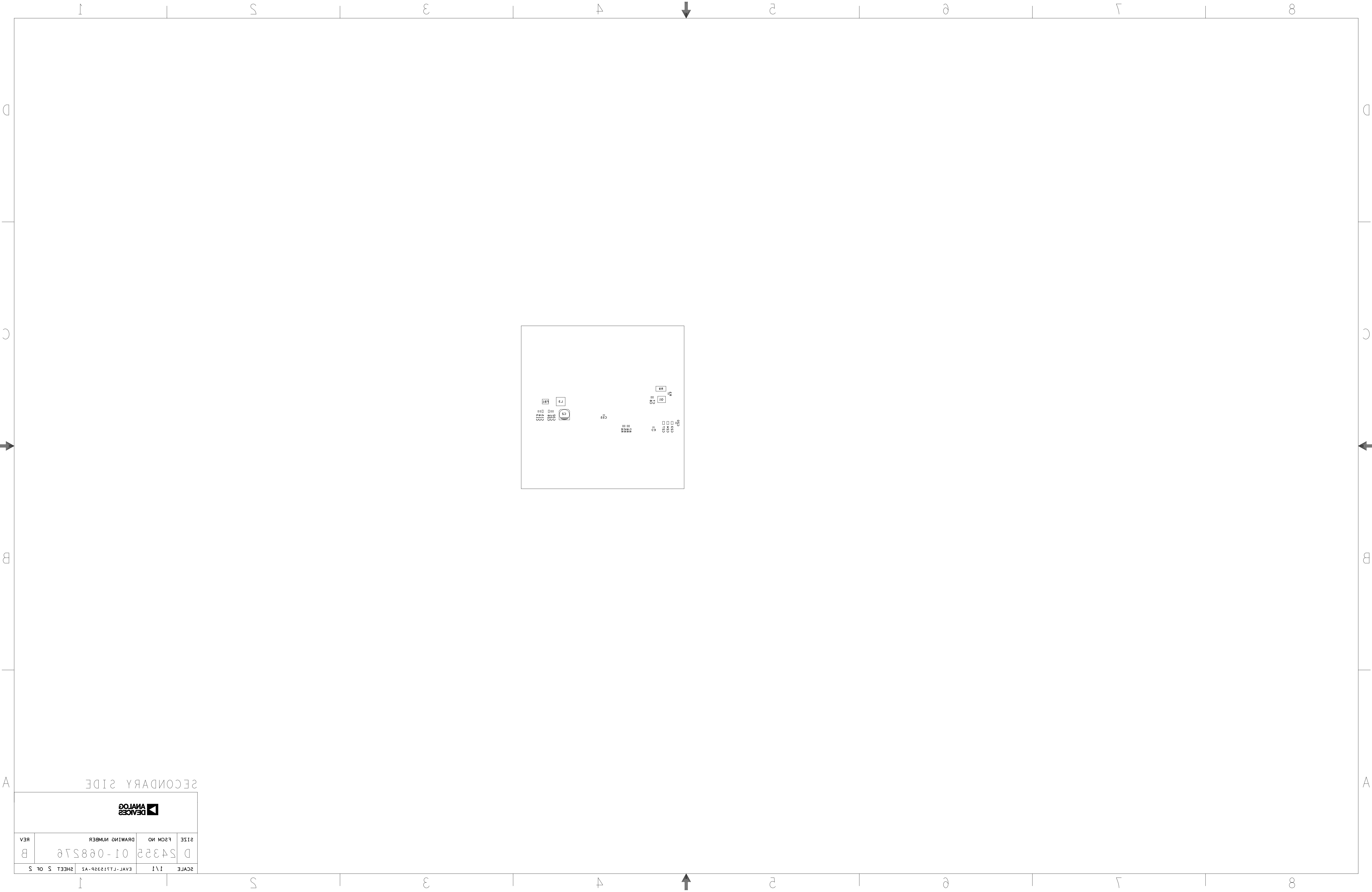
- BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
- REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
- REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.
- INSTALL STANDOFFS AS SHOWN BELOW:




FOR JP1, JP2,JP3,JP4,JP5, INSATLL SHUNTS ACROSS PIN 1 AND PIN2.
FOR JP6, INSATLL SHUNT ACROSS PIN 2 AND PIN3.

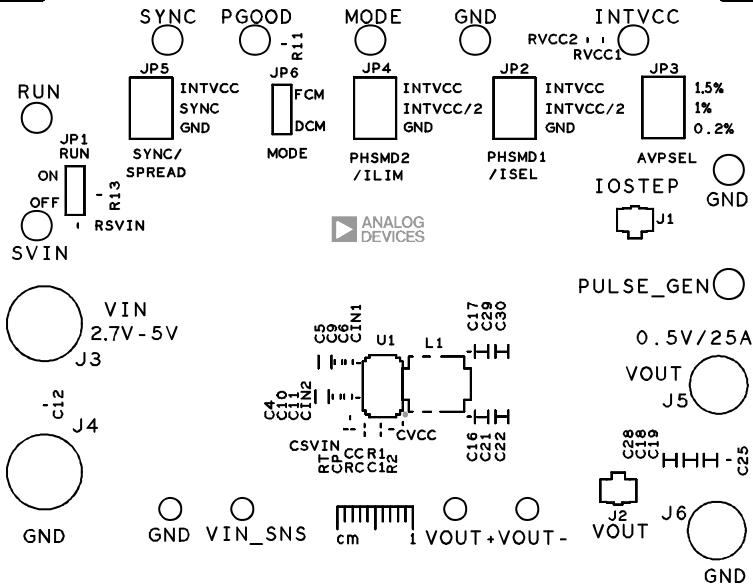
PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX .-. .010 .-1/32 .- 2 .XXX .-. .005 .XXXX .-. .0050	APPROVAL	DATE	<div></div> <div>TITLE</div> <div>ASSEMBLY</div> <div>EVAL-LT7153SP-AZ</div>			
	TEMPLATE ENGINEER BILLY PHILLIPS	19AUG20				
	HARDWARE SERVICES BOB MACDONALD	19AUG20				
	HARDWARE SYSTEMS DAVE WILLIAMS	19AUG20				
MATERIAL	COMPONENT ENGINEER ADGT LIBRARY	19AUG20				
	HARDWARE RELEASE X	ddMMyy				
FINISH	PCB DESIGNER X	ddMMyy	SIZE	FSCM NO	DRAWING NUMBER	REV
	PTD ENGINEER X	ddMMyy	D	24355	01-068276	B
	CHECKER X	ddMMyy				
DO NOT SCALE DWG			SCALE	1/1	EVAL-LT7153SP-AZ	SHEET 1 OF 2



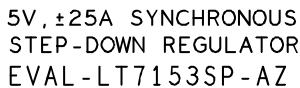
 ANALOG DEVICES			
SIZE	FSCM NO	DRAWING NUMBER	REV
D	54355	01-068576	B
SCALE	1:1	EVAL-FL11332P-A5	SHEET 5 OF 5





5V, ±25A SYNCHRONOUS
STEP-DOWN REGULATOR
EVAL-LT7153SP-AZ

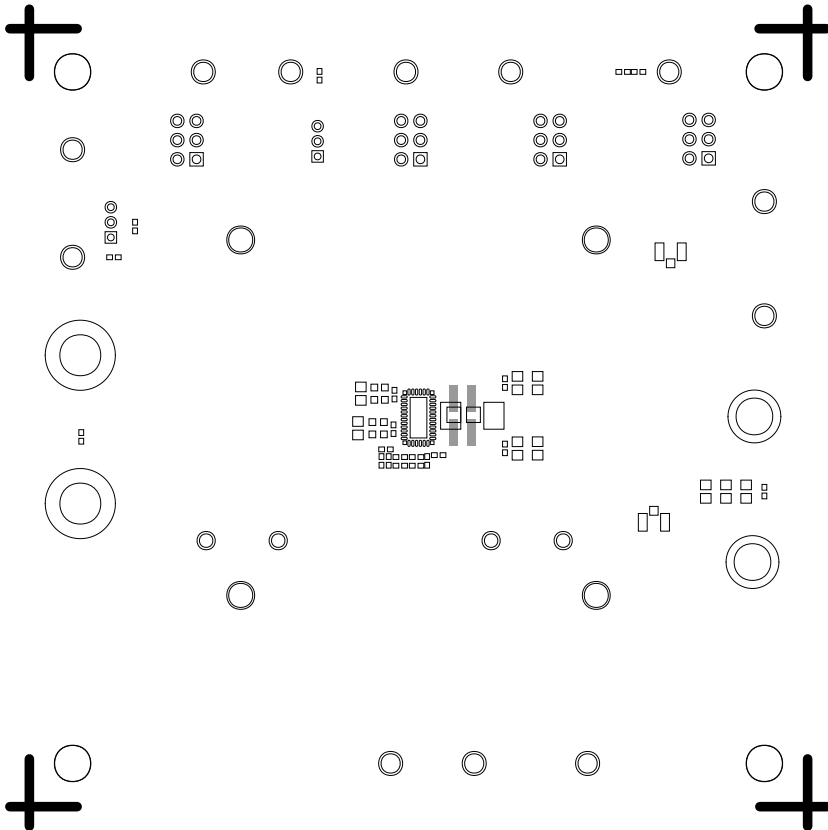
CLKOUT TRACK/SS



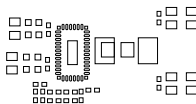
SOLDERMASK PRIMARY

08-068276-04

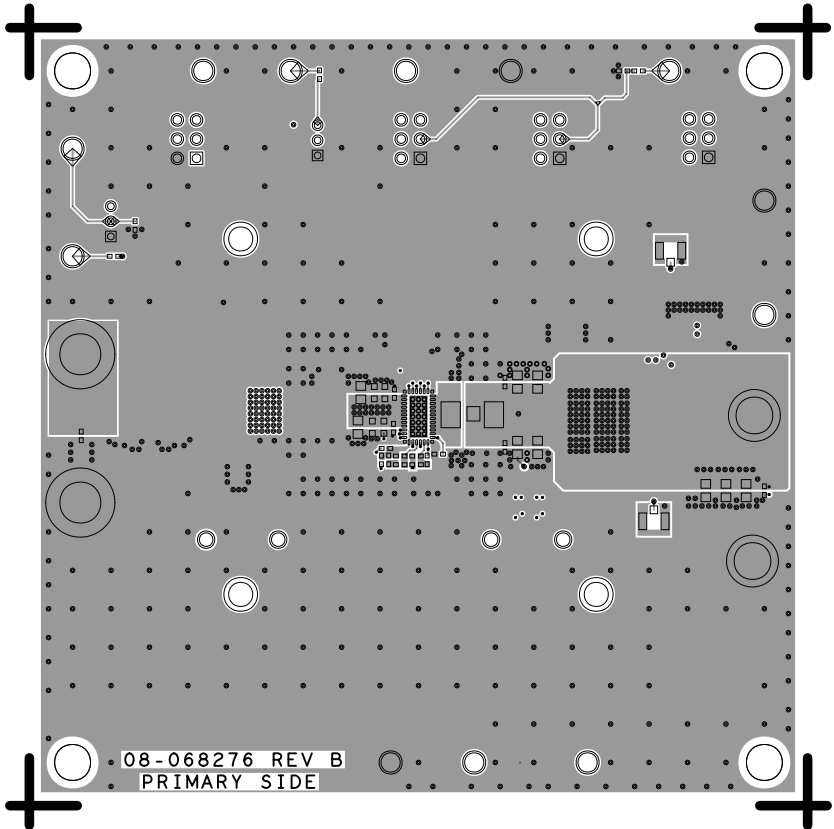
REV B



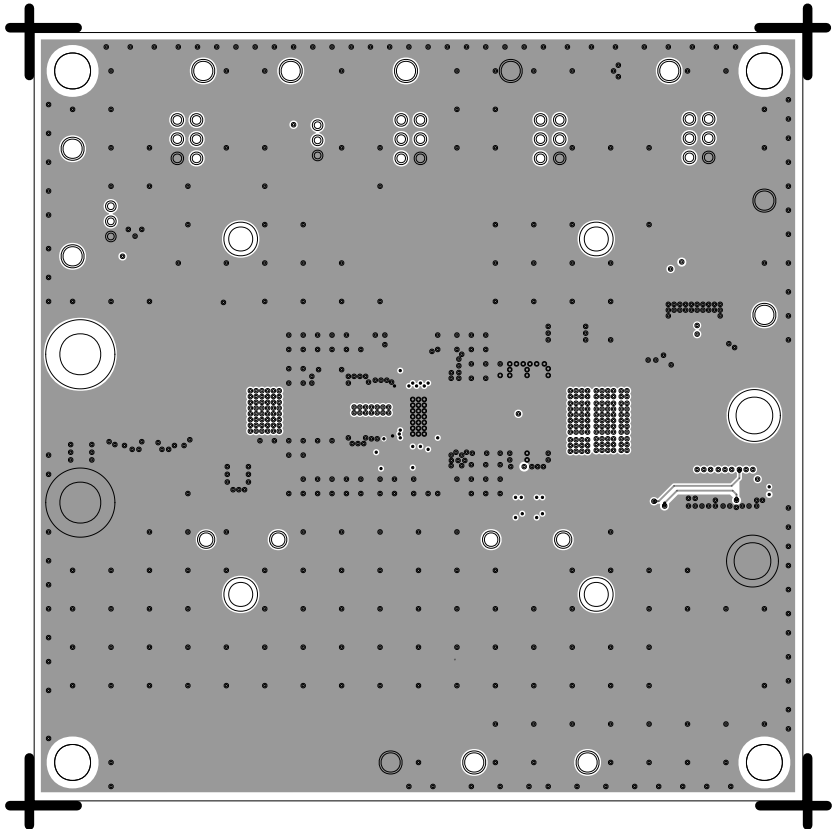
PASTEMASK PRIMARY
08-068276-13
REV B



L1 PRIMARY
08-068276-01
REV B



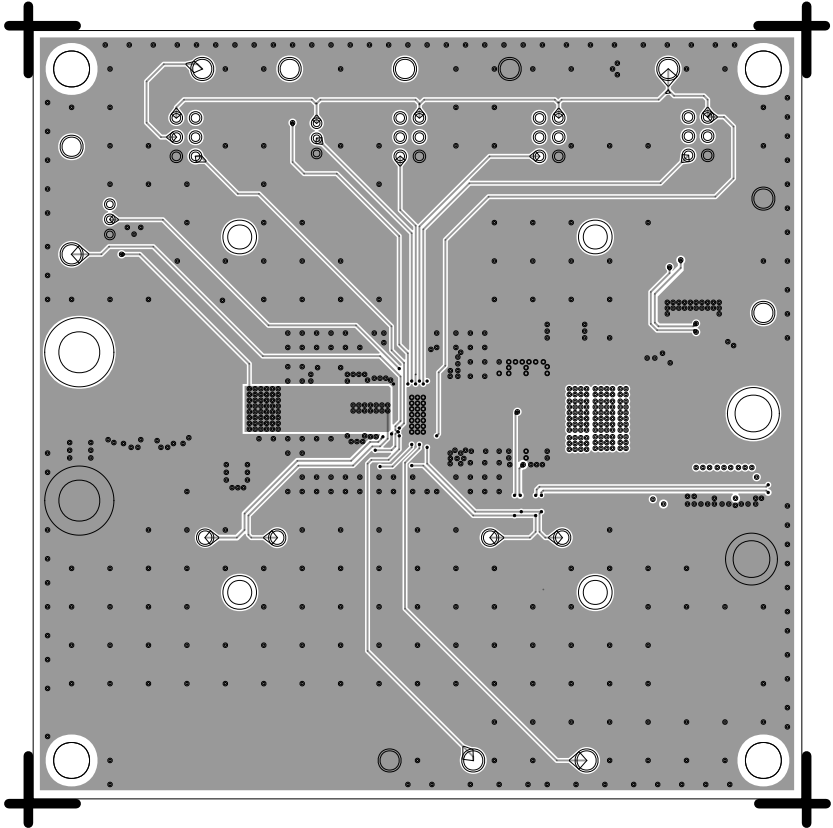
L2-GND PLANE
08-068276-07
REV B



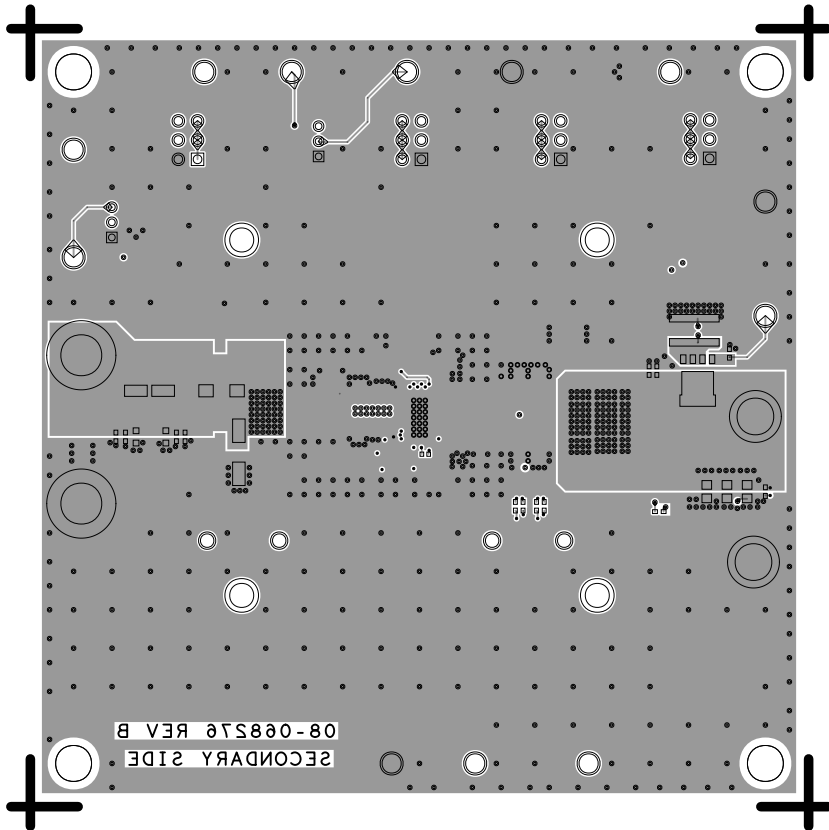
L3-SIGNAL/GND

08-068276-08

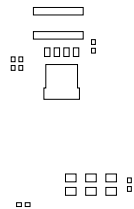
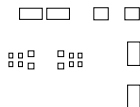
REV B



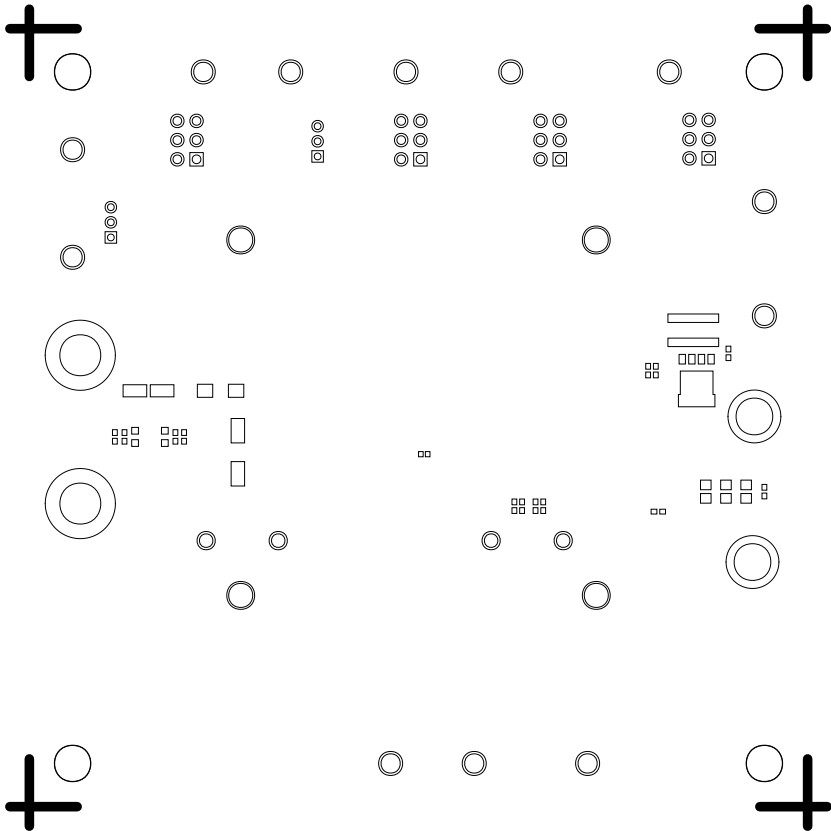
L4 SECONDARY
08-068276-02
REV B



REV B



SOLDERMASK SECONDARY
08-068276-06
REV B



SILKSCREEN SECONDARY
08-068276-05
REV B



POPULATE R4/R5 ONLY	FOR THE BEST EFFICIENCY ACCURACY
POPULATE R6/R7 ONLY	FOR THE BEST OUTPUT ACCURACY

