

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- .003
NON PLATED: +/- .001

DRILL CHART: TOP to BOTTOM					
ALL UNITS ARE IN MILS					
FIGURE	SIZE	TOLERANCE	PLATED	QTY	NOTES
	6.0	+0.0/-0.0	PLATED	52	
	10.0	+0.0/-0.0	PLATED	901	
	31.5	+3.0/-3.0	PLATED	15	
	35.43	+3.0/-3.0	PLATED	6	
	45.0	+3.0/-3.0	PLATED	16	
	50.0	+3.0/-3.0	PLATED	2	
	60.0	+3.0/-3.0	PLATED	8	
	100.0	+3.0/-3.0	PLATED	20	
	191.0	+3.0/-0.0	PLATED	4	
	189.0	+0.0/-0.0	NON-PLATED	4	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
X	INITIAL RELEASE	ddMMyy	X

PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX +/- .010 +/- 1/32 +/- 2 .XXX +/- .005 .XXXX +/- .0050	APPROVAL	DATE				
	TEMPLATE ENGINEER BILLY PHILLIPS	01SEP20				
	HARDWARE SERVICES BOB MACDONALD	01SEP20				
	HARDWARE SYSTEMS DAVE WILLIAMS	01SEP20				
MATERIAL	COMPONENT ENGINEER ADGT LIBRARY	01SEP20	TITLE FABRICATION LTM4739 CUSTOMER EVAL			
	HARDWARE RELEASE X	ddMMyy				
FINISH	PCB DESIGNER CCORREA	22APR25	SIZE	FSCM NO	DRAWING NUMBER	REV
	P/D ENGINEER X	ddMMyy	D	24355	09-100056	A
	CHECKER X	ddMMyy				
	DO NOT SCALE DWG		SCALE	1/1	SHEET	1 1 OF 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
X	INITIAL RELEASE	ddMMMy	X

NOTES: UNLESS OTHERWISE SPECIFIED

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED).
ALL DOCUMENTS & SPECIFICATIONS REFERRED TO BELOW SHOULD BE THE LATEST REVISIONS.

MATERIAL : (USE CHECKED ITEMS)

- BOARD MATERIAL:
- (X) ISOLA 370HR OR EQUIVALENT
 - () ISOLA-FR408HR OR EQUIVALENT
 - () ISOLA IS410
 - () MEGTRON 6
 - () NELCO-4000-13
 - () ROGERS 4350B
 - () ROGERS 3003
 - () 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

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 () OTHER _____


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
(X) COPPER FILL ALL 0.006 AND 0.010 INCH 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 BOTTOM LEGEND LAYER. CREATE BOTTOM LEGEND IF LAYER NOT PRESENT.
A. UL CODE-FLAMMABILITY RATING FOR THOSE APPROVED MATERIALS(IF APPLICABLE)
B. DATE CODE
C. LOT NUMBER
D. MANUFACTURER LOGO
24. ROHS COMPLIANCE NOTE:
(REQUIRED FOR CUSTOMER BOARDS) ADD TO TOP OF MATERIALS
HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT WITH
THE EU ROHS DIRECTIVE 2002/95/EC

FAB NOTES REVISION: FEBRUARY 21 2025

LAMINATION DIAGRAM			
LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ, INCH)	DIELECTRIC THICKNESS (INCH) MATERIALS
1	TOP	2 OZ, 0.0028" MIN	FINAL CU (THICKNESS AFTER PLATING)
2	LAYER_2	2 OZ, 0.0028" MIN	0.0047 ISOLA 370HR/EQUIVALENT CU CLAD
3	LAYER_3	2 OZ, 0.0028" MIN	0.005 ISOLA 370HR/EQUIVALENT CU CLAD
4	LAYER_4	2 OZ, 0.0028" MIN	0.024 ISOLA 370HR/EQUIVALENT CU CLAD
5	LAYER_5	2 OZ, 0.0028" MIN	0.005 ISOLA 370HR/EQUIVALENT CU CLAD
6	BOTTOM	2 OZ, 0.0028" MIN	0.0047 ISOLA 370HR/EQUIVALENT FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 0.0602" +/- 0.010

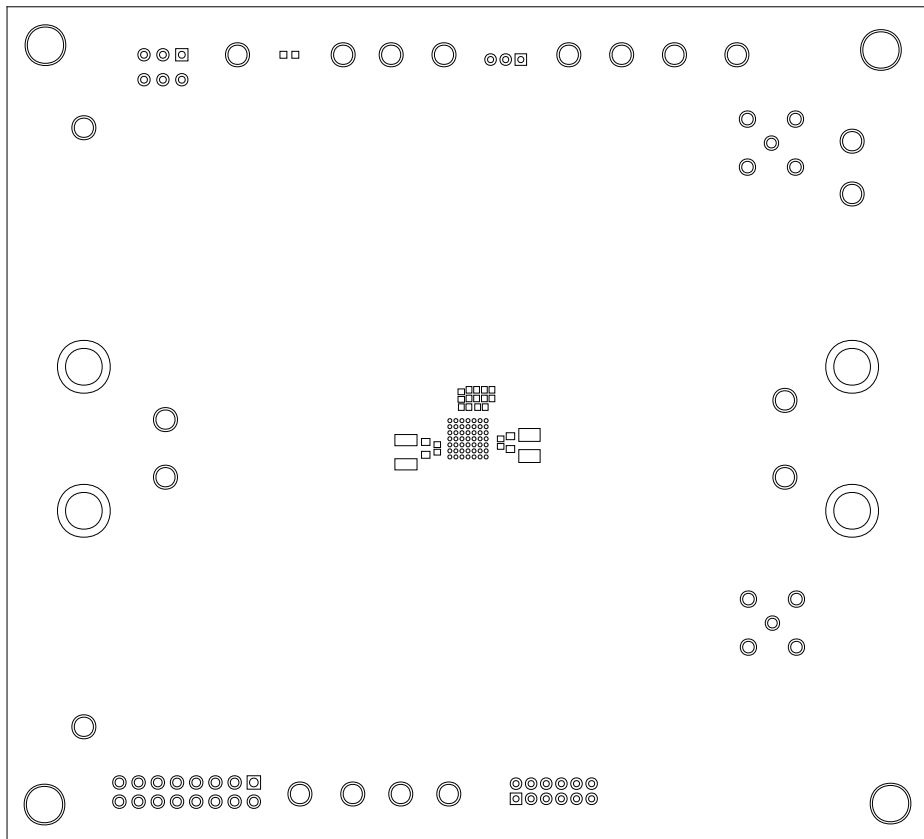
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVAL		DATE			
TOLERANCES		TEMPLATE ENGINEER BILLY PHILLIPS		01SEP20			
DECIMALS FRACTIONS ANGLES		HARDWARE SERVICES BOB MACDONALD		01SEP20			
XX -.010 .1/32 .1 2		HARDWARE SYSTEMS DAVE WILLIAMS		01SEP20			
XXX -.005 XXXX -.0050							
MATERIAL		COMPONENT ENGINEER ADGNT LIBRARY		01SEP20		TITLE	
						LTM4739 CUSTOMER EVAL	
		HARDWARE RELEASE X		d dMMM y y			
FINISH		PCB DESIGNER CORREA		22APR25		SIZE	
		PTD ENGINEER X		d dMMM y y		FSCM NO	
		CHECKER X		d dMMM y y		DRAWING NUMBER	
						REV	
DO NOT SCALE DWG				SCALE 1/1		SHEET 1 OF 1	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVAL		DATE			
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XXX -.005 XXXX -.0050							
MATERIAL		COMPONENT ENGINEER ADGNT LIBRARY		01SEP20		TITLE LTM4739 CUSTOMER EVAL	
		HARDWARE RELEASE X		ddMMMyy			
FINISH		PCB DESIGNER CORREA		22APR25		SIZE FSCM NO DRAWING NUMBER REV D 24355 -100056	
		PTD ENGINEER X		ddMMMyy			
		CHECKER X		ddMMMyy			
DO NOT SCALE DWG		SCALE		1/1		SHEET 1 OF 1	

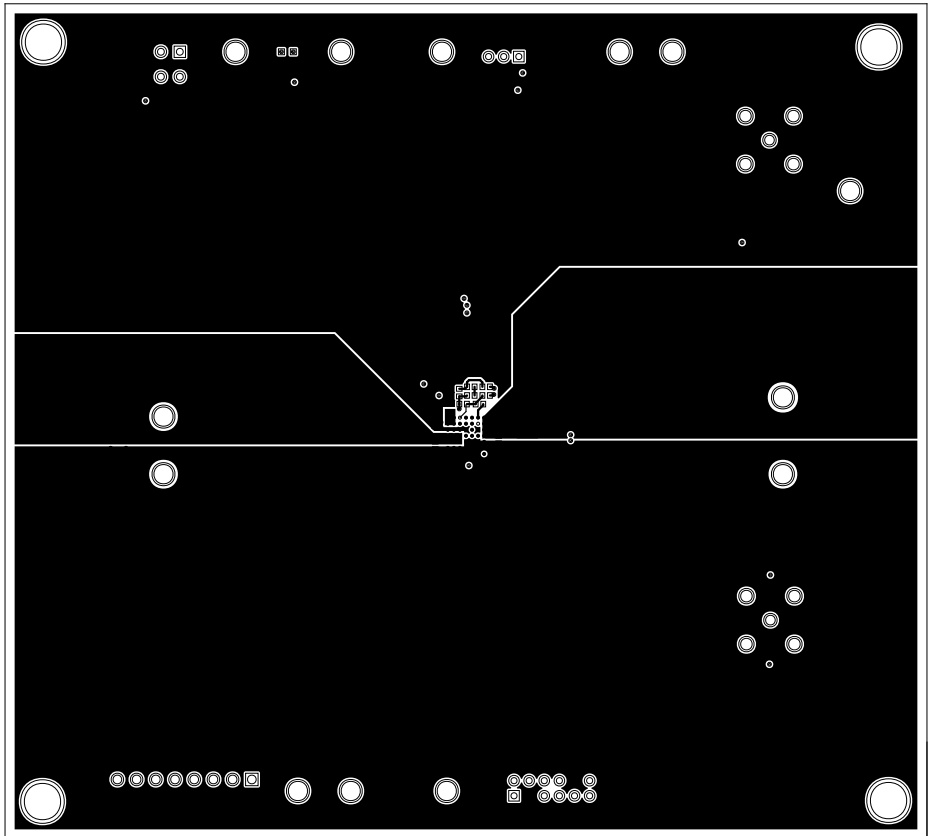
SOLDERMASK PRIMARY

08-100056-04

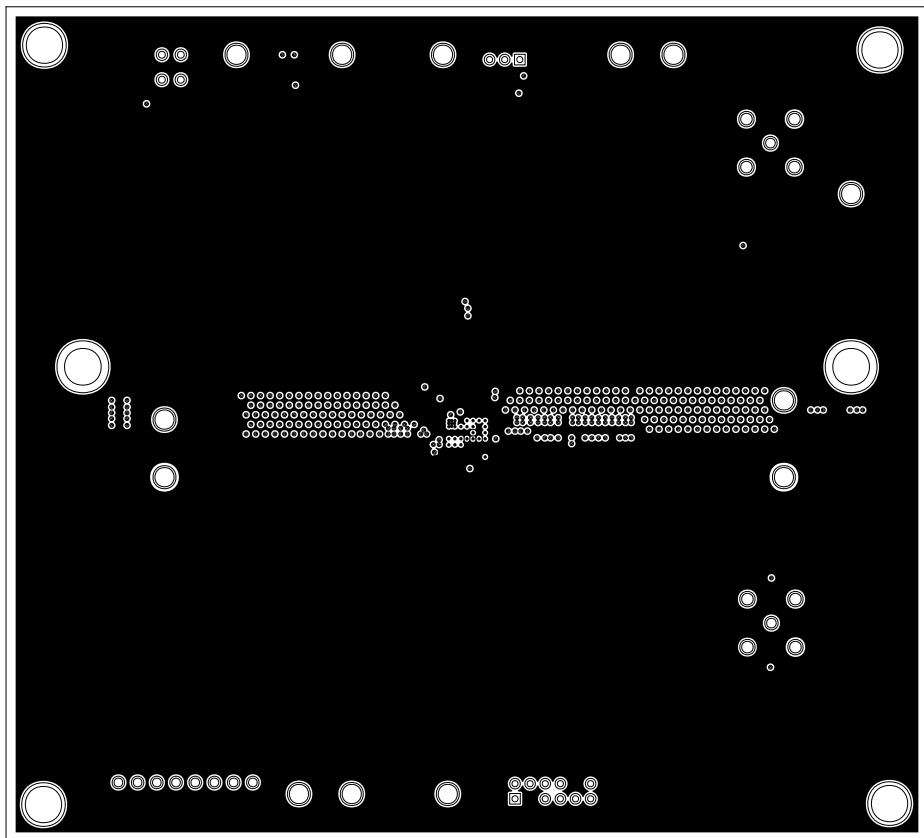
REV A



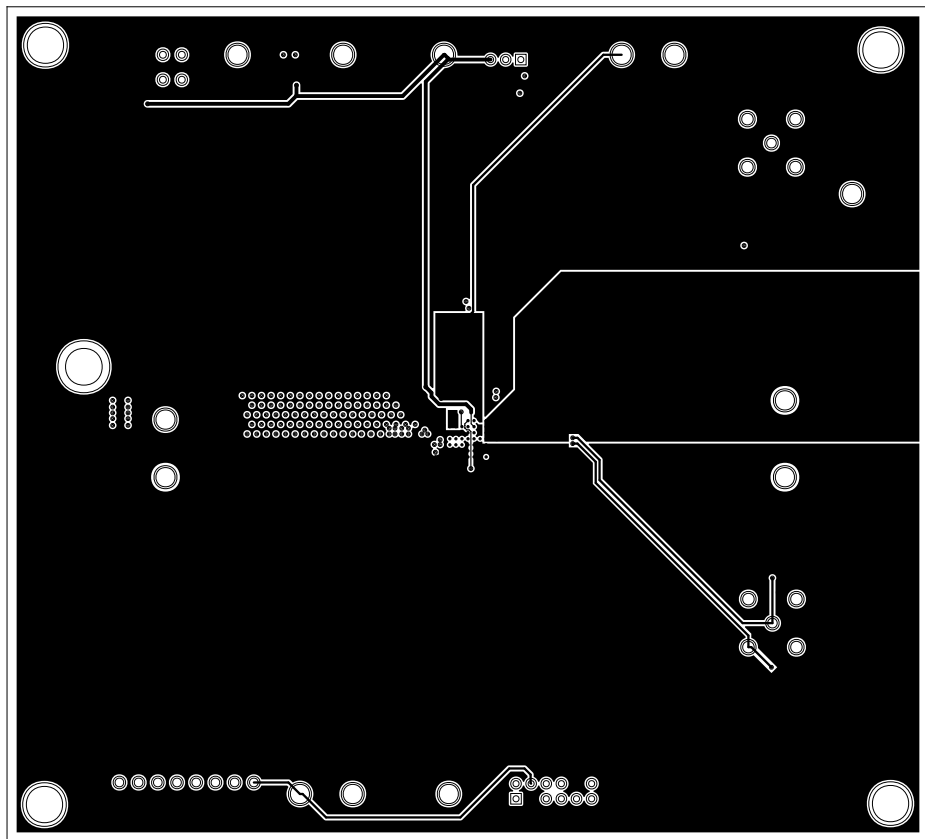
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08-100056-01
REV A



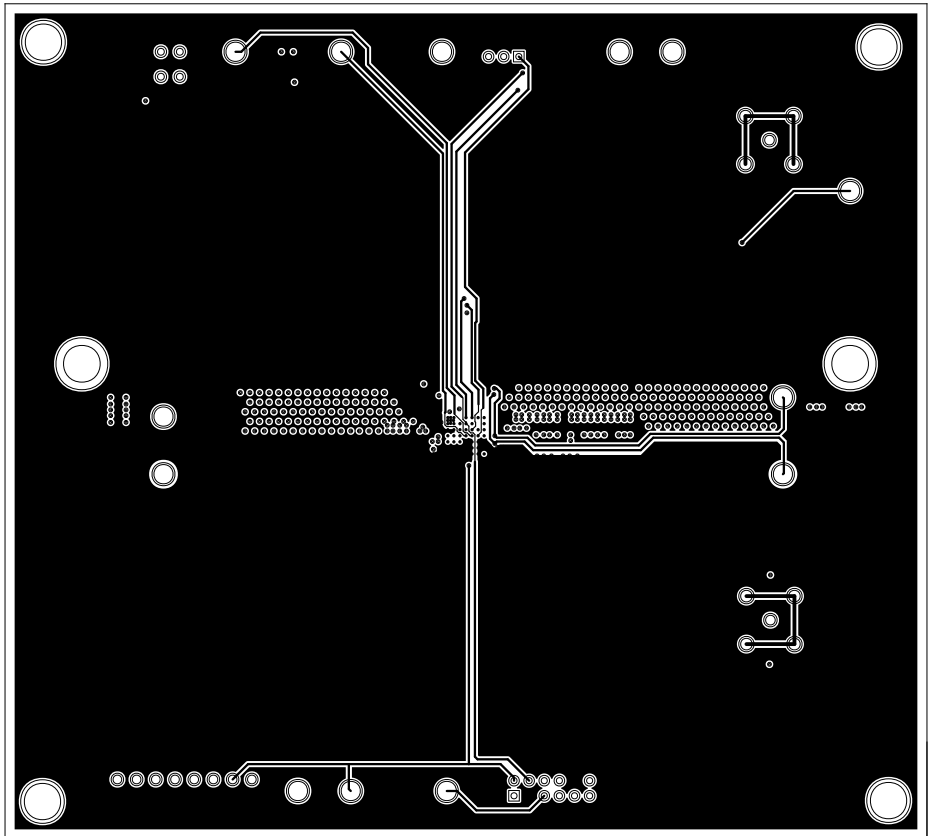
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08-100056-07
REV A



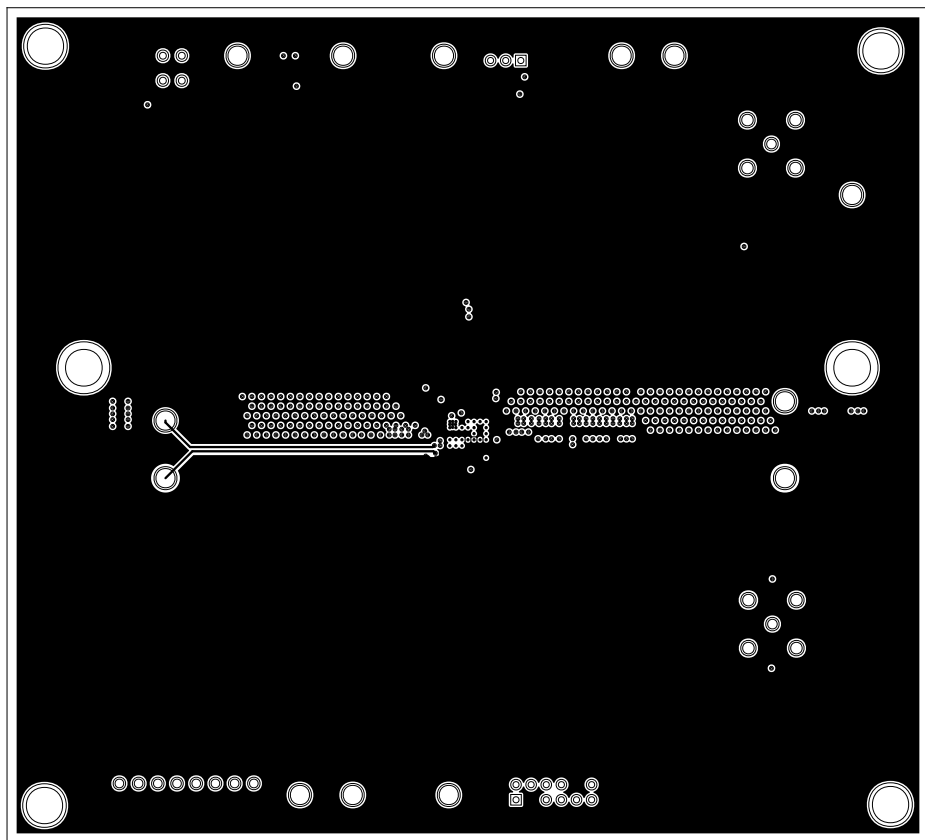
L3 GND+POWER
08-100056-08
REV A



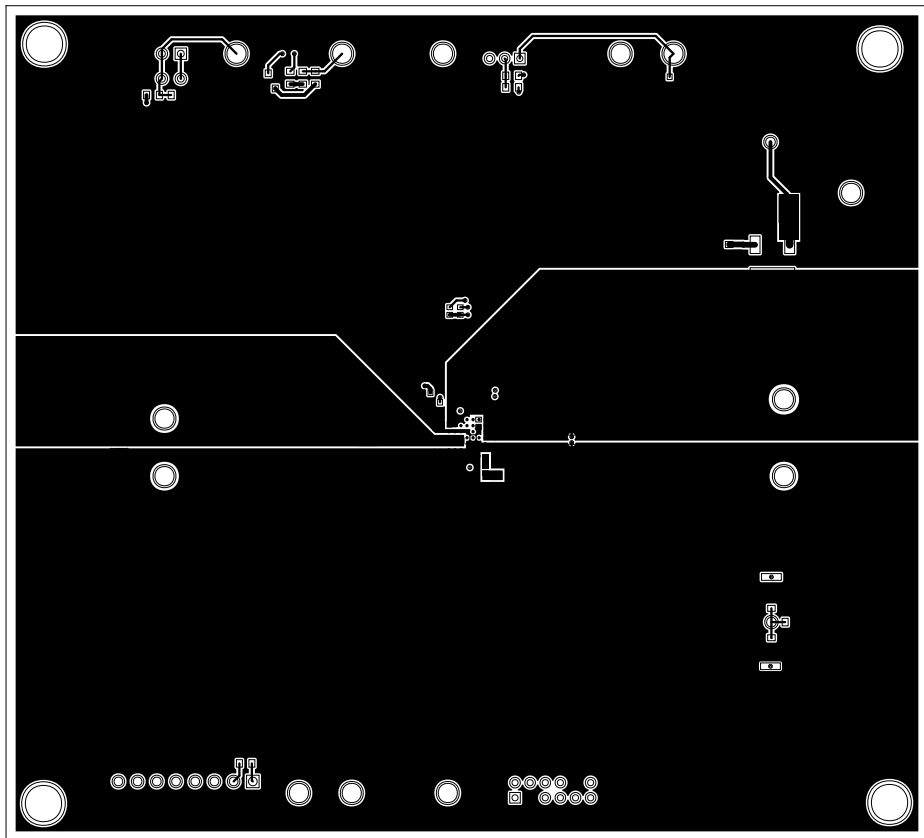
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08-100056-09
REV A



L5 GND
08-100056-10
REV A



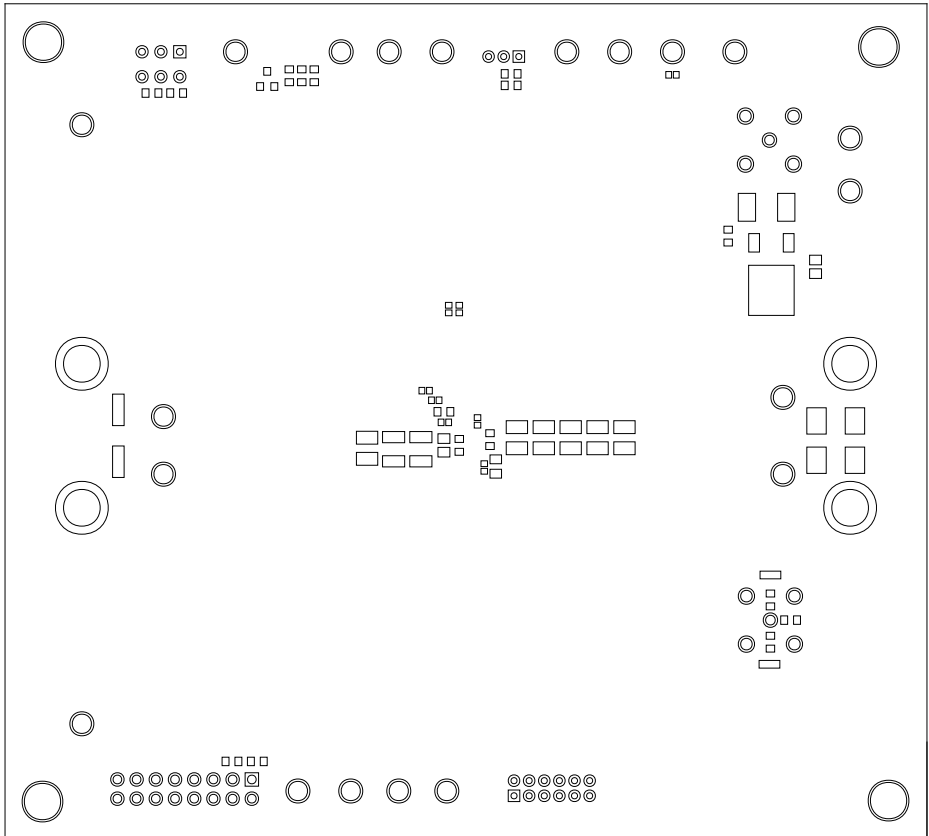
L6 SECONDARY
08-100056-02
REV A



SOLDERMASK SECONDARY

08-100056-06

REV A





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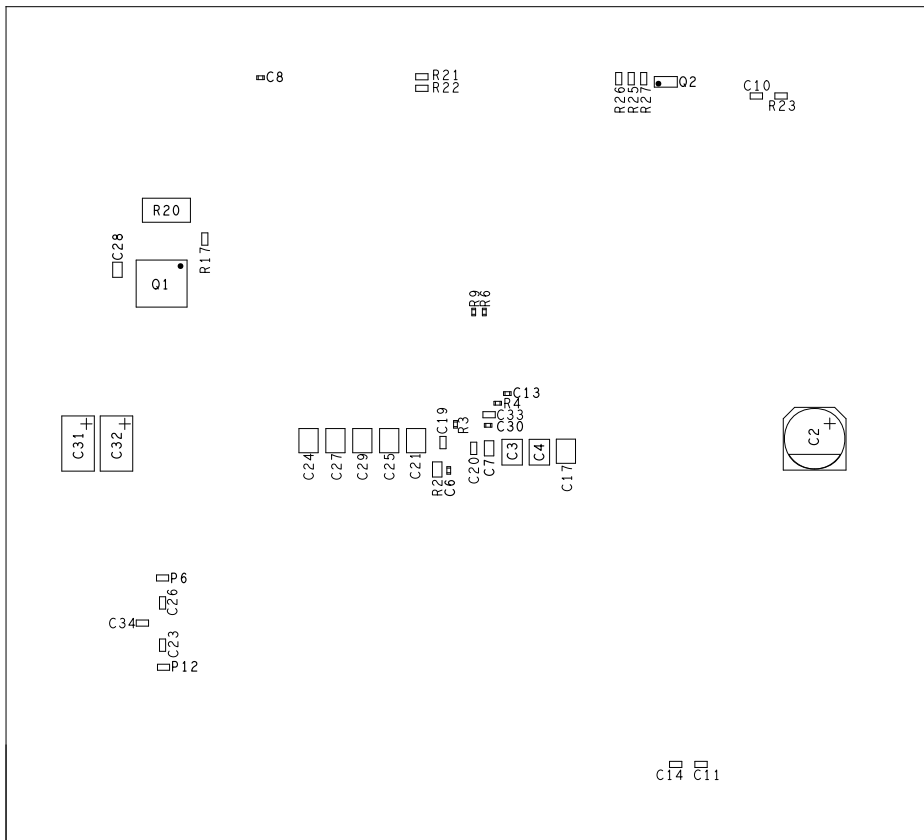
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ENGINEER: ZNI

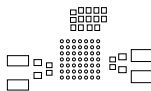
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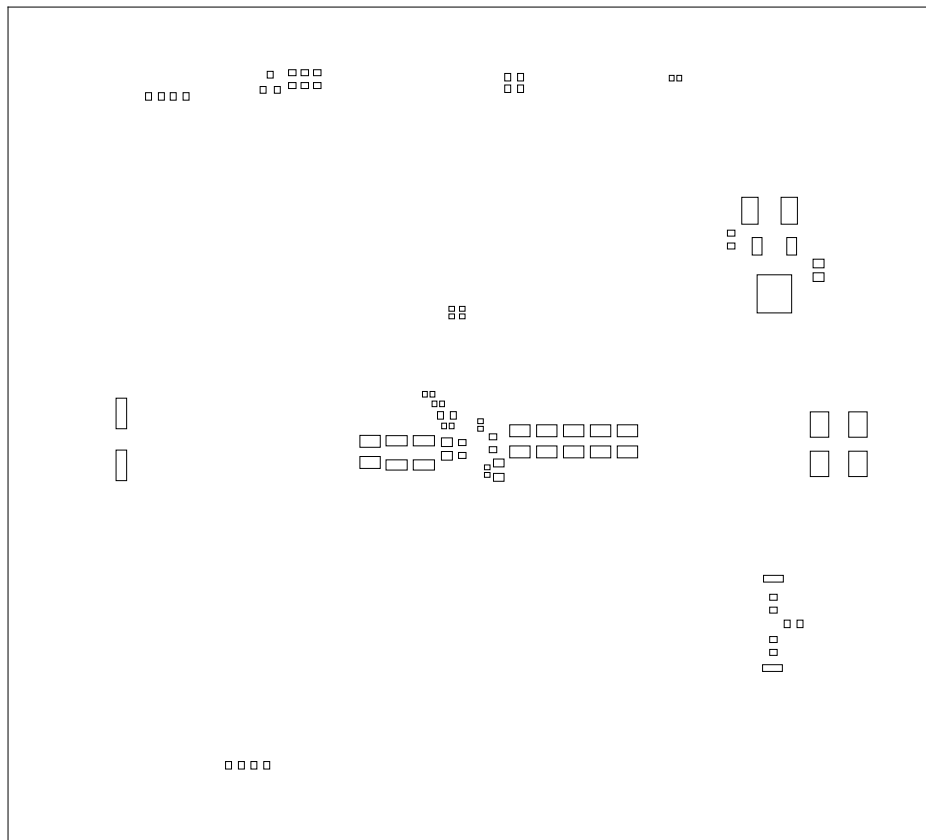
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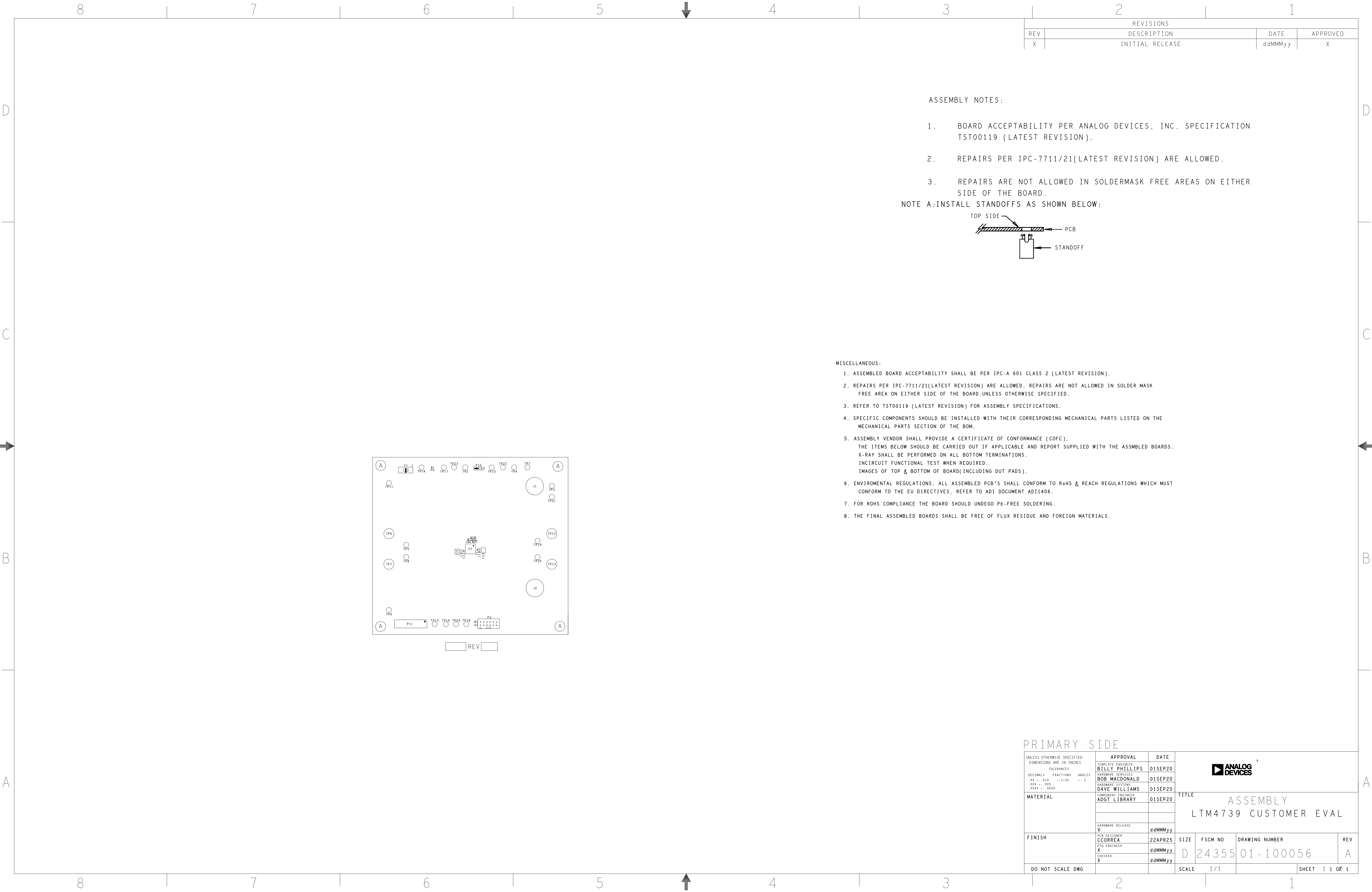
ODB++/GERBER:



□ □







SILKSCREEN PRIMARY
08-100056-03
REV A

