


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	02OCT23	R. PRIVITERA
B	CHANGES AS PER ECR-119664	05JUL24	R. PRIVITERA

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

DRILL CHART: TOP to BOTTOM				
FINISHED HOLES IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	355	DIA MAX
□	20.0	PLATED	23	DIA MAX
◇	45.0	PLATED	14	
△	31.0	NON-PLATED	6	
B	60.0	NON-PLATED	3	
○	63.0x24.0	PLATED	12	

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>GLOBAL OPERATIONS & TECHNOLOGY 804 WOBURN STREET WILMINGTON, MA 01887</div>					
			TEMPLATE ENGINEER NA		NA							
MATERIAL			HARDWARE SERVICES M. VALE		02OCT23		TITLE FABRICATION EVAL - CN0590 - EBZ CUSTOMER EVAL BOARD					
			HARDWARE SYSTEMS NA		NA							
			TEST ENGINEER N/A		NA							
			COMPONENT ENGINEER N. CATALAN		02OCT23							
			HARDWARE RELEASE K. JABATAN		02OCT23							
FINISH			PCB DESIGNER M. VALE		02OCT23		SIZE	FSCM NO	DRAWING NUMBER	REV		
			ENGINEER R. PRIVITERA		02OCT23							
			CHECKER NA		NA							
DO NOT SCALE DWG							SCALE	1 / 1		SHEET	1 OF 2	

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

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 DEG C TD>300 DEG C).
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 T5T00115.

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.

2. DRILL SIZES ARE SPECIFIED 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.

3. 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.

4. 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 _____

5. 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 _____

6. APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, EPOXY BASED INK PER ARTWORK.
(X) WHITE
() OTHER _____

17. FINAL ELECTRICAL TESTS 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.

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 .004 INCH.

28. MINIMUM DESIGN LINE SPACING IS .004 INCH.

FAB NOTES REVISION: 2ND NOVEMBER 2022

LAMINATION DIAGRAM

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

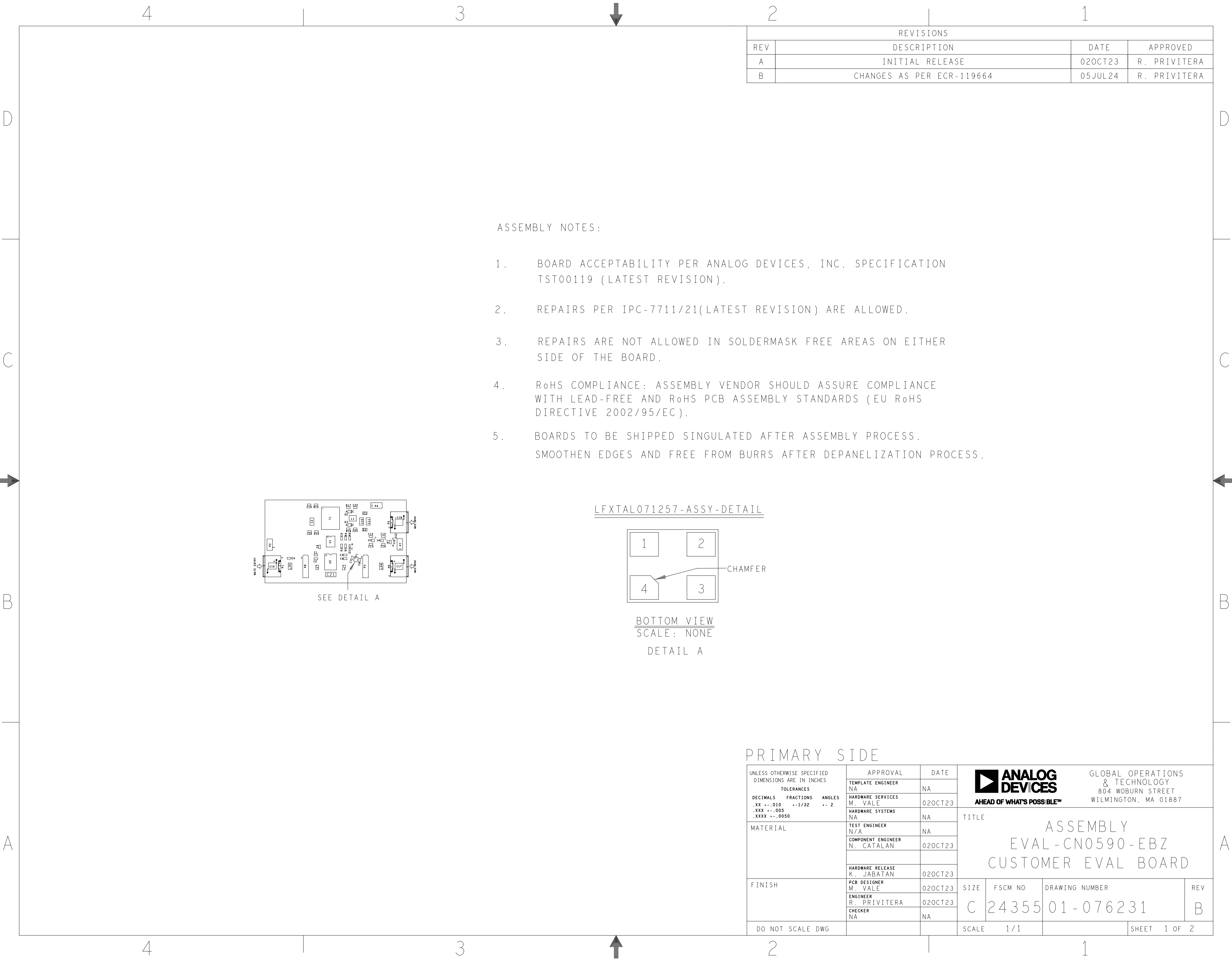
NOTE: DO NOT EDIT THIS TABLE MANUALLY:USE IMPEDANCE TABLE GENERATOR FROM ADI Tools.



**ANALOG
DEVICES**
AHEAD OF WHAT'S POSSIBLE™

GLOBAL OPERATIONS
& TECHNOLOGY
804 WOBURN STREET
WILMINGTON, MA 01887

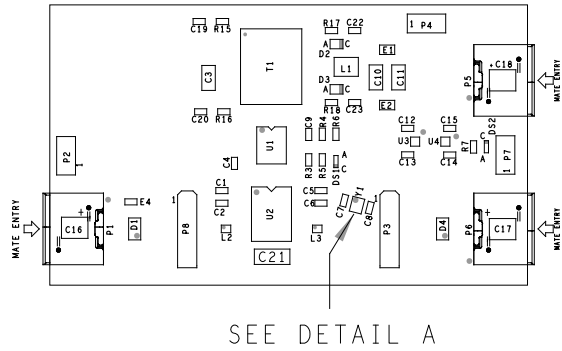
SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-076231	B
SCALE	1/1		SHEET 2 OF 2



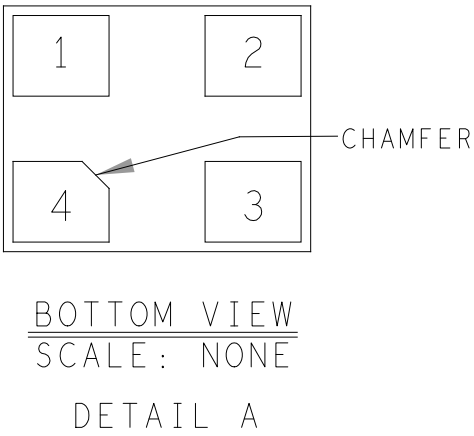
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ASSEMBLY NOTES:

- 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.
- RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
- BOARDS TO BE SHIPPED SINGULATED AFTER ASSEMBLY PROCESS. SMOOTHEN EDGES AND FREE FROM BURRS AFTER DEPANELIZATION PROCESS.




LFXTAL071257-ASSY-DETAIL

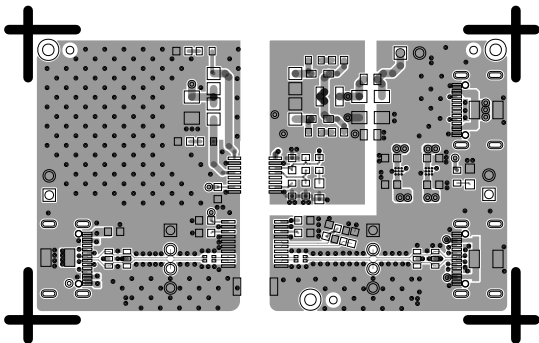


BOTTOM VIEW
SCALE: NONE
DETAIL A

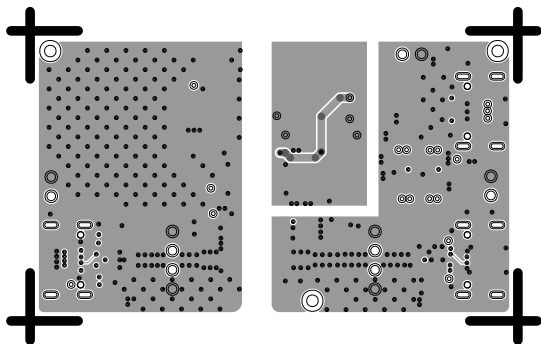
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FINISH			HARDWARE RELEASE K. JABATAN		02OCT23		SIZE FSCM NO DRAWING NUMBER REV C 24355 01-076231 B		
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			CHECKER NA		NA				
DO NOT SCALE DWG							SCALE 1 / 1 SHEET 1 OF 2		

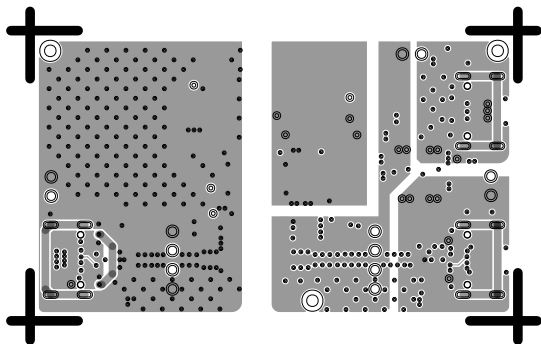
L1 PRIMARY
08-076231-01
REV B



L2 GND
08-076231-07
REV B



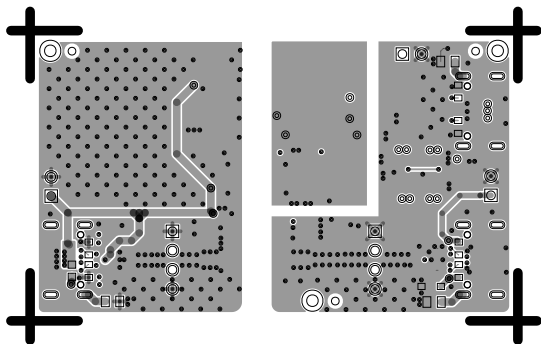
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08-076231-08
REV B



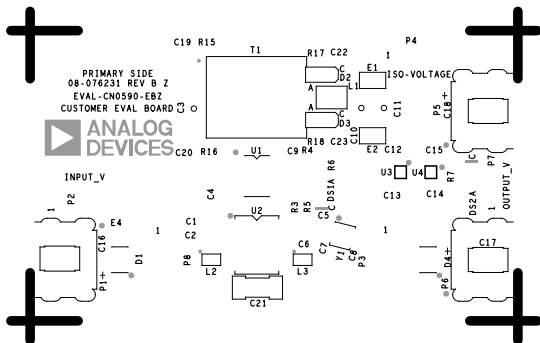
L4 SECONDARY

08-076231-02

REV B



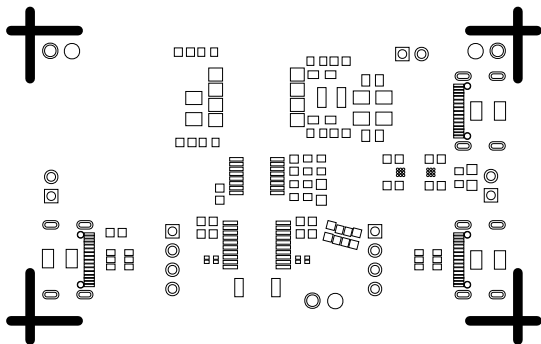
REV B



SOLDERMASK PRIMARY

08-076231-04

REV B



SILKSCREEN SECONDARY

08-076231-05

REV B



08-076231 REV B 5
SECONDARY SIDE



R13
L19
018



SR
L18
R15
63



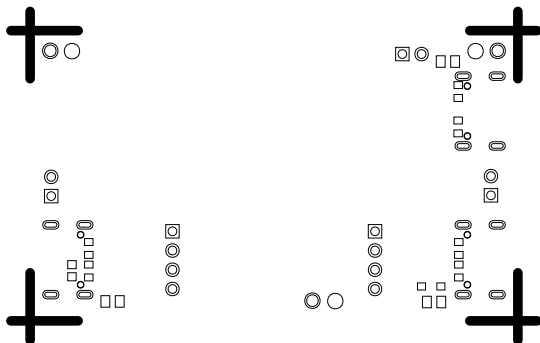
6R
R14
C
D2
A



SOLDERMASK SECONDARY

08-076231-06

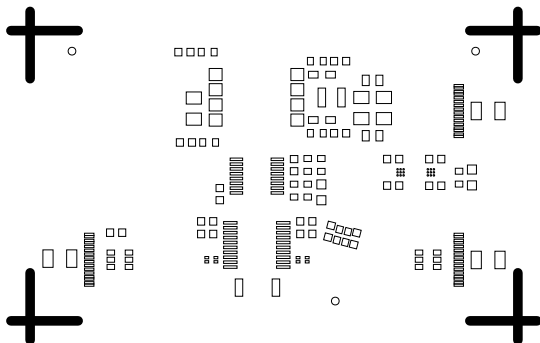
REV B



PASTEMASK PRIMARY

08-076231-09

REV B



PASTEMASK SECONDARY

08-076231-10

REV B

