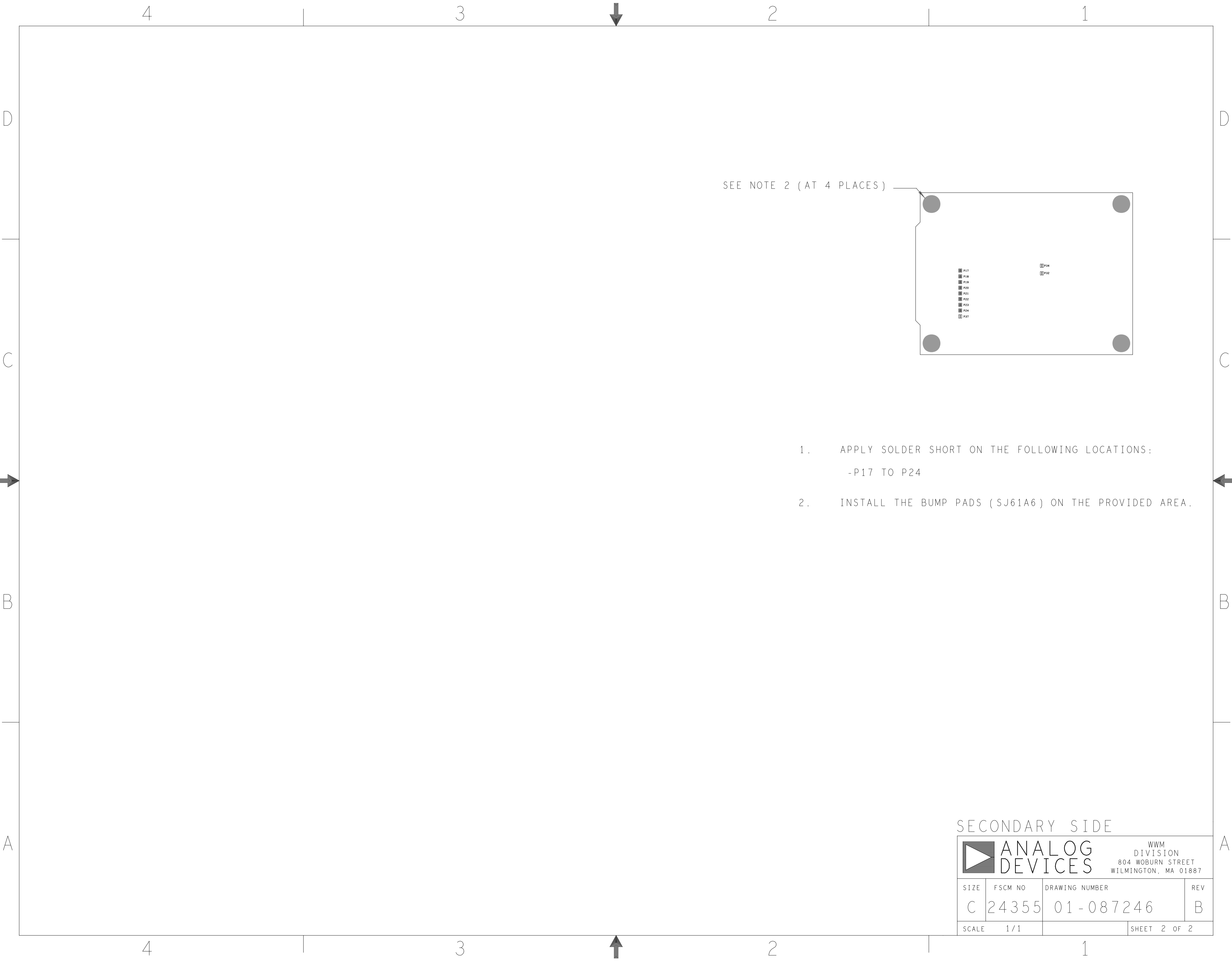




A

7. THE SHUNT CONNECTORS (609002115121) WILL BE SHIP TOGETHER WITH THE BOARD.

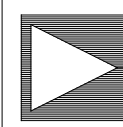
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>			
TOLERANCES			TEMPLATE ENGINEER							
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES M. VALE		31 JUL 25		<div>TITLE</div> <div>ASSEMBLY ADALM-L SMSPG CUSTOMER EVALUATION Z</div>			
.XX --.010	--1/32	-- 2	HARDWARE SYSTEMS							
.XXX --.005										
.XXXX --.0050										
MATERIAL			TEST ENGINEER							
			COMPONENT ENGINEER A. EMPENSANDO		31 JUL 25					
			TEST PROCESS							
			HARDWARE RELEASE E. CONDA		31 JUL 25					
FINISH			DESIGNER L. LEGASPI		31 JUL 25					
			PTD ENGINEER J. GEALON		31 JUL 25					
			CHECKER							
DO NOT SCALE DWG							SCALE	1/1		SHEET 1 OF 2

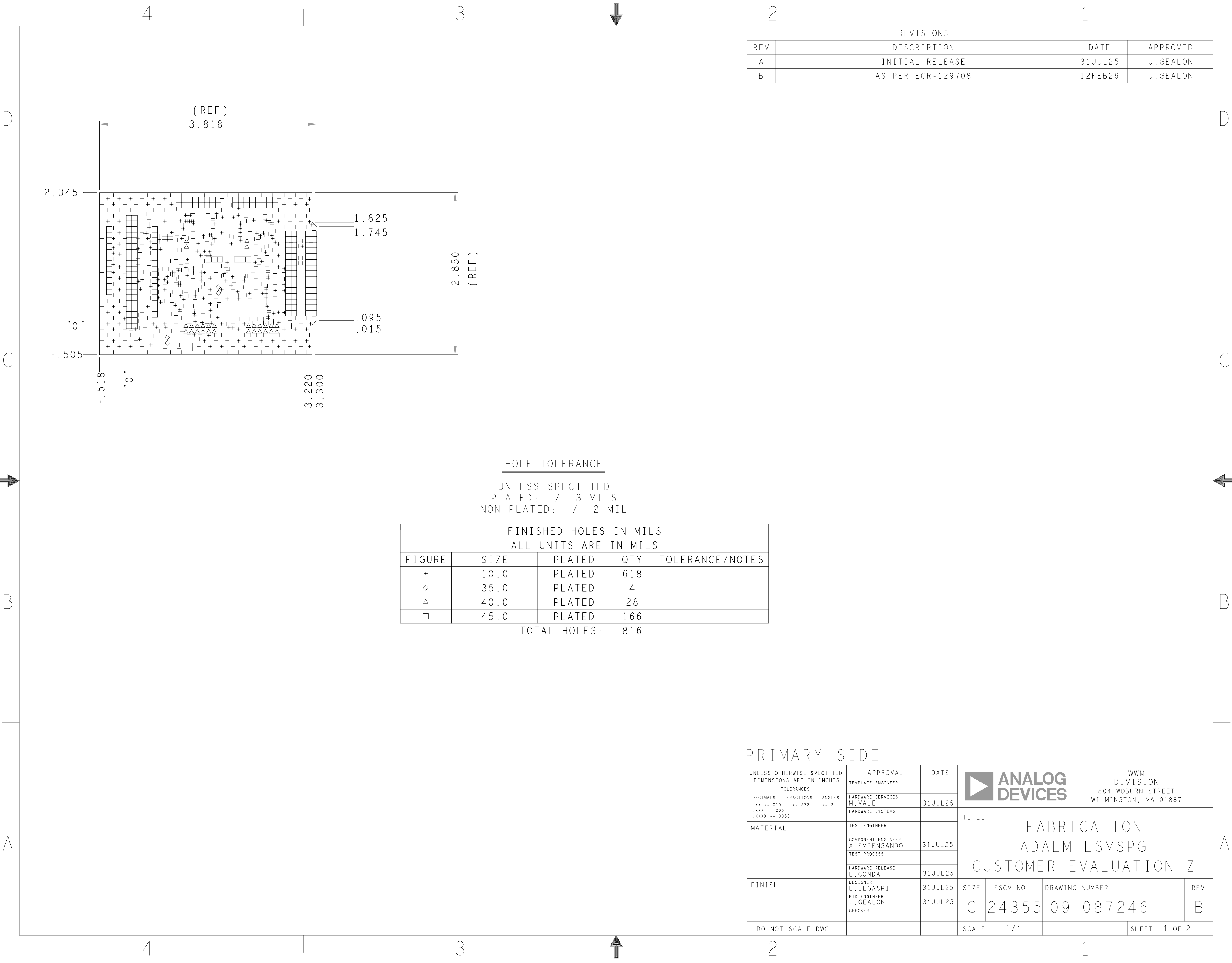


SEE NOTE 2 (AT 4 PLACES)

1. APPLY SOLDER SHORT ON THE FOLLOWING LOCATIONS:
-P17 TO P24
2. INSTALL THE BUMP PADS (SJ61A6) ON THE PROVIDED AREA.

SECONDARY SIDE

 ANALOG DEVICES <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>			
SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	01-087246	B
SCALE	1 / 1	SHEET 2 OF 2	



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	31JUL25	J.GEALON
B	AS PER ECR-129708	12FEB26	J.GEALON

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	618	
◇	35.0	PLATED	4	
△	40.0	PLATED	28	
□	45.0	PLATED	166	
TOTAL HOLES:			816	

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><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>			
	TEMPLATE ENGINEER					
	HARDWARE SERVICES M.VALE	31JUL25	TITLE FABRICATION ADALM-LSMSPG CUSTOMER EVALUATION Z			
	HARDWARE SYSTEMS					
MATERIAL	TEST ENGINEER		SIZE C			
	COMPONENT ENGINEER A.EMPENSANDO	31JUL25				
	TEST PROCESS					
	HARDWARE RELEASE E.CONDA	31JUL25				
FINISH	DESIGNER L.LEGASPI	31JUL25	FSCM NO 24355		DRAWING NUMBER 09-087246	REV B
	PTD ENGINEER J.GEALON	31JUL25				
	CHECKER					
DO NOT SCALE DWG			SCALE 1/1		SHEET 1 OF 2	

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 TO>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 (.00003") 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) BLUE
() 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 :

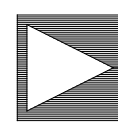
19. IF PRESENT, ALL BLIND/BURIED VIAS WITH AN ASPECT RATIO <1:1 TO BE PLATED SHUT WITH COPPER WHEN USED AS VIA-IN-PAD OR AS A STACKED VIA. BLIND/BURIED VIAS WITH AN ASPECT RATIO >1:1 TO BE FILLED WITH NON-CONDUCTIVE EPOXY.
20. FOR VIA FILL INFORMATION REFER TO DRILL CHART:
() NON-CONDUCTIVE EPOXY FILL 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
24. 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
25. MINIMUM DESIGN LINE WIDTH IS 0.008 INCHES.
26. MINIMUM DESIGN LINE SPACING IS 0.008 INCHES.
27. VENDOR SHALL ADD BOARD NUMBER SILKSCREEN ON THE BOX (e.g. BOARD ID: 01).
INCREMENT NUMBERING BASED ON THE ORDER QUANTITY (e.g. QTY=10PCS, BOARD ID:01-10).

FAB NOTES REVISION: NOVEMBER 21 2022

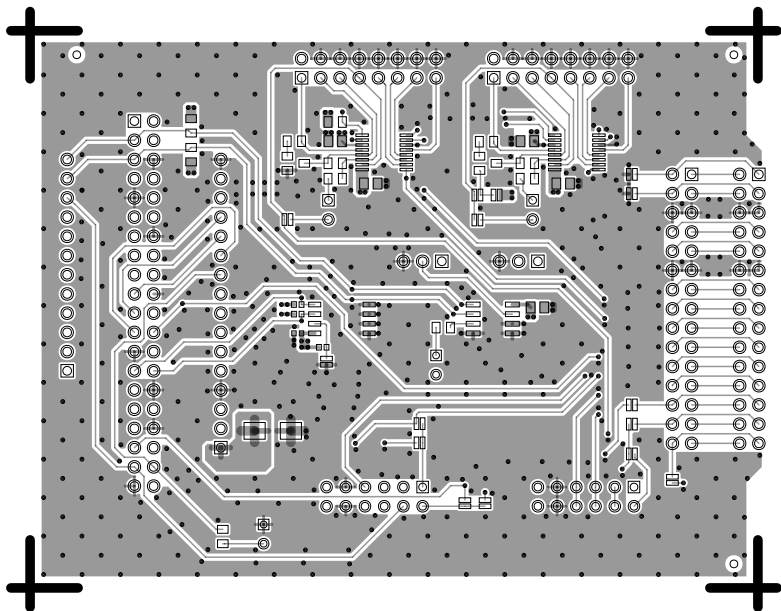
4-LAYER STACKUP

LAMINATION DIAGRAM				
LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ,INCH)	DIELECTRIC THICKNESS (INCH)	MATERIALS
1	TOP	1 OZ, 0.0014" MIN		FINAL CU (THICKNESS AFTER PLATING)
			0.01	ISOLA 370HR/EQUIVALENT
2	L2_GND	0.5 OZ, 0.0007"		CU CLAD
			0.035	ISOLA 370HR/EQUIVALENT
3	L3_PWR	0.5 OZ, 0.0007"		CU CLAD
			0.01	ISOLA 370HR/EQUIVALENT
4	BOTTOM	1 OZ, 0.0014" MIN		FINAL CU (THICKNESS AFTER PLATING)
THE FINISHED PCB THICKNESS TO BE: 0.062" +/-10%				

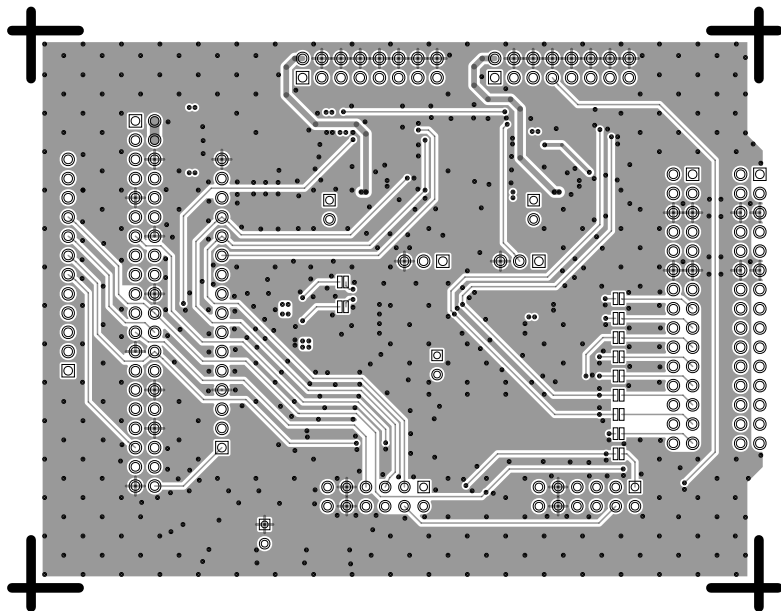
PRIMARY SIDE

	ANALOG DEVICES	WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
		SIZE	REV
C	FSCM NO 24355	DRAWING NUMBER 09-087246	B
SCALE	1 / 1	SHEET 2 OF 2	

L1 PRIMARY
08-087246-01
REV B

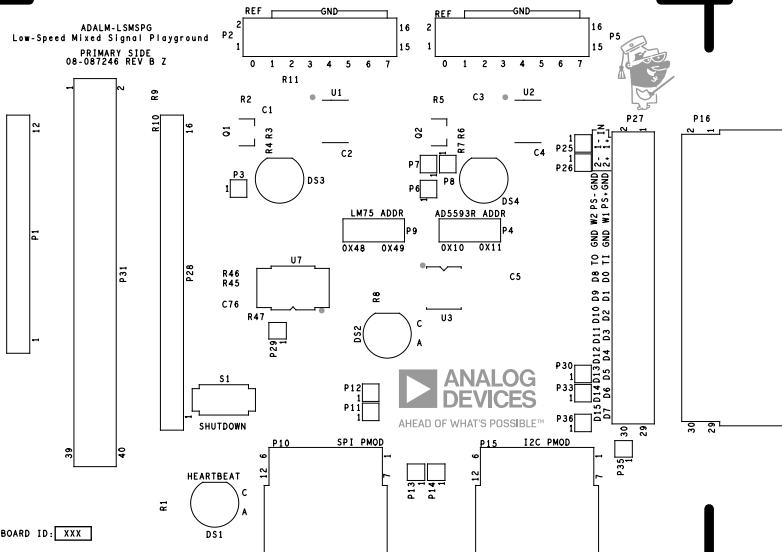


L4 SECONDARY
08-087246-02
REV B

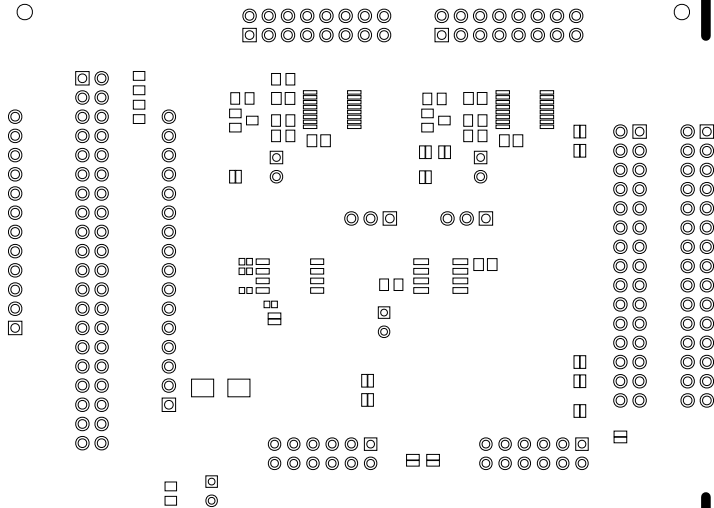


SILKSCREEN PRIMARY
08-087246-03
REV B

ADALM-LSMSPG
Low-Speed Mixed Signal Playground
PRIMARY SIDE
08-087246-REV B 2



SOLDERMASK PRIMARY
08-087246-04
REV B



SILKSCREEN SECONDARY
08-087246-05
REV B



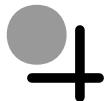
08-087246 REV B
SECONDARY SIDE



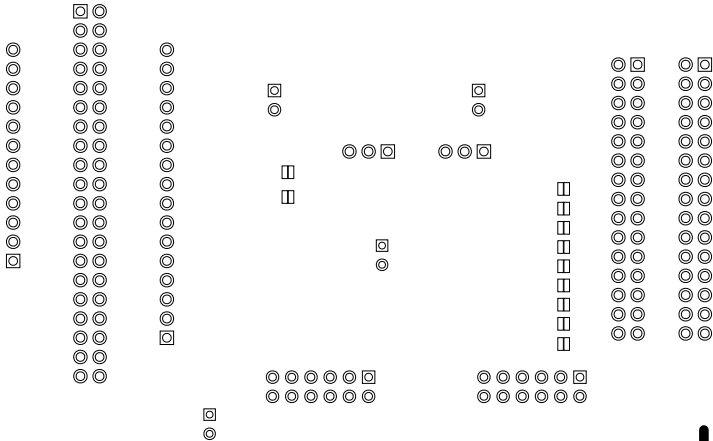
☐ 1
☐ 2
☐ 3
☐ 4



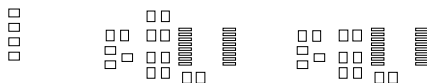
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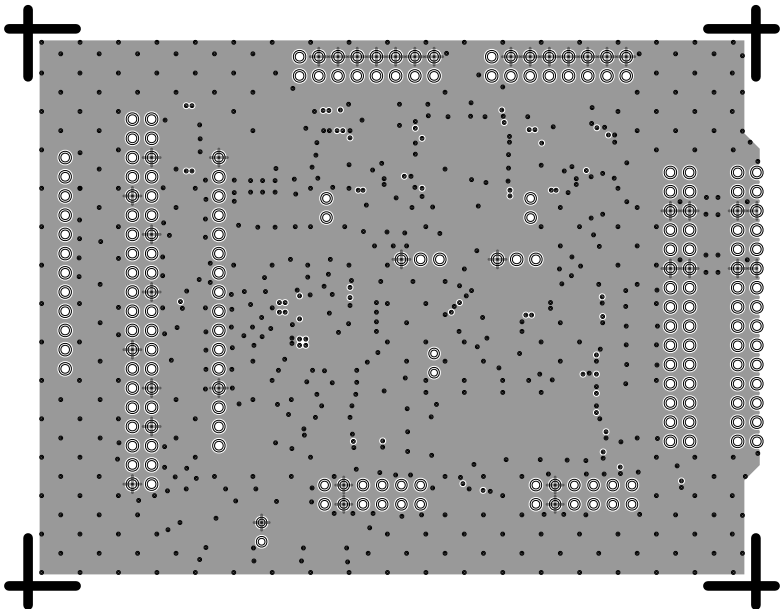
SOLDERMASK SECONDARY
08-087246-06
REV B



PASTEMASK PRIMARY
08-087246-09
REV B



L2 GND
08-087246-07
REV B



L3 PWR
08-087246-08
REV B

