

D

C

B

A

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

TESTING :

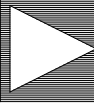
17. FINAL ELECTRICAL TEST TO BE PERFORMED USING PROVIDED IPC-D-356A NETLIST OR ODB++ FORMAT FILE.
THE PCB SHALL HAVE A VERIFICATION STAMP.
18. A TIME DOMAIN REFLECTOMETER REPORT (TDR) FOR EACH IMPEDANCE CONTROLLED LAYER & A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED BY VENDOR AT TIME OF SHIPMENT. INSTANCES 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
() 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 SINGULATED AFTER FABRICATION PROCESS
SMOOTHEN EDGES AND FREE FROM BURRS AFTER PANELIZATION
25. MINIMUM DESIGN LINE WIDTH IS 0.250 MM.
26. MINIMUM DESIGN LINE SPACING IS 0.120 MM.
27. SOLDERMASK PLUG ALL 0.264MM DRILLED VIAS.

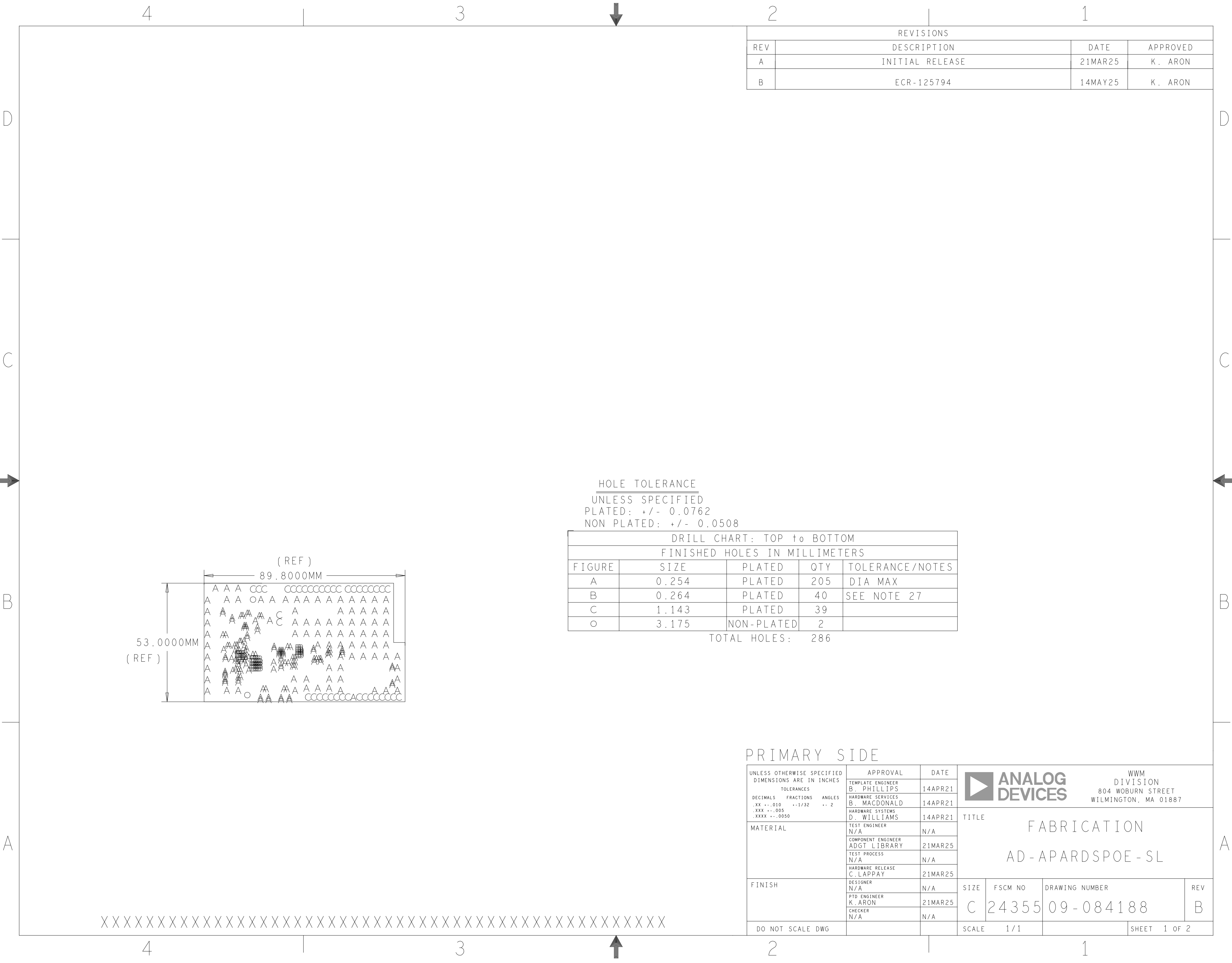
FAB NOTES REVISION: NOVEMBER 21 2022

LAMINATION DIAGRAM				
LAYER NUMBER	LAYER NAME	FINISHED CU WEIGHT (OZ)	DIELECTRIC THICKNESS (MM)	MATERIALS
1	TOP	1		FINAL CU(THICKNESS AFTER PLATING)
			TBD	ISOLA 370HR/EQUIVALENT
2	LAYER2	1		CU CLAD
			TBD	ISOLA 370HR/EQUIVALENT
3	LAYER3	1		CU CLAD
			TBD	ISOLA 370HR/EQUIVALENT
4	BOTTOM	1		FINAL CU(THICKNESS AFTER PLATING)
THE FINISHED PCB THICKNESS TO BE: 1.6MM +/-10%				

XX

PRIMARY SIDE

		ANALOG DEVICES		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
SIZE	FSCM NO	DRAWING NUMBER			REV
D	24355	09-084188			B
SCALE 1/1		SHEET 2 OF 2			




REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	21MAR25	K. ARON
B	ECR-125794	14MAY25	K. ARON

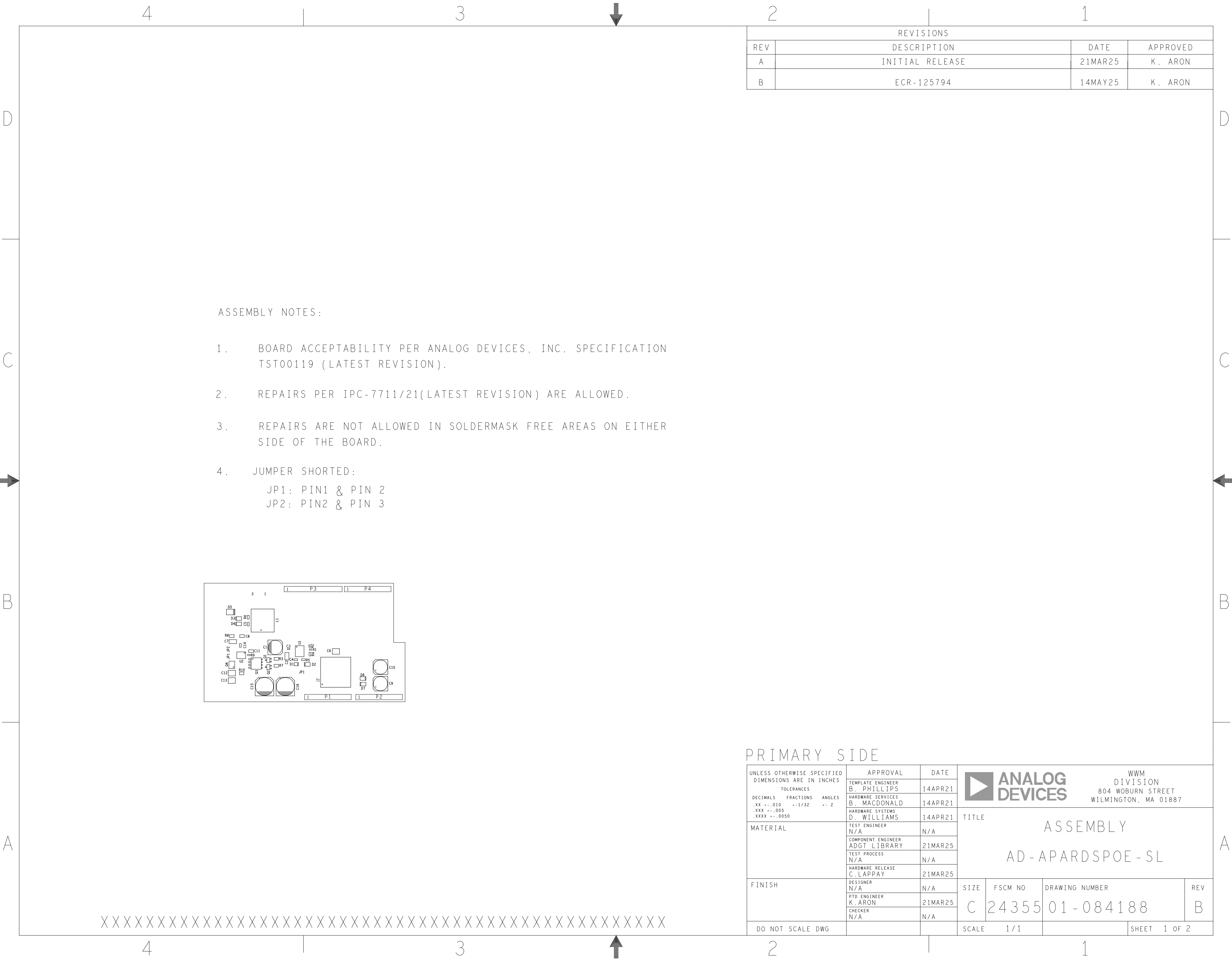
HOLE TOLERANCE
UNLESS SPECIFIED
PLATED: +/- 0.0762
NON PLATED: +/- 0.0508

DRILL CHART: TOP to BOTTOM				
FINISHED HOLES IN MILLIMETERS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
A	0.254	PLATED	205	DIA MAX
B	0.264	PLATED	40	SEE NOTE 27
C	1.143	PLATED	39	
O	3.175	NON-PLATED	2	

TOTAL HOLES: 286

PRIMARY SIDE

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 B. PHILLIPS		14APR21								
DECIMALS FRACTIONS ANGLES			HARDWARE SERVICES B. MACDONALD		14APR21								
.XX .-.010 --1/32 -- 2 .XXX .-.005 .XXXX .-.0050			HARDWARE SYSTEMS D. WILLIAMS		14APR21								
MATERIAL			TEST ENGINEER N/A		N/A		TITLE FABRICATION AD - APARDSPOE - SL						
			COMPONENT ENGINEER ADGT LIBRARY		21MAR25								
			TEST PROCESS N/A		N/A								
			HARDWARE RELEASE C. LAPPAY		21MAR25								
FINISH			DESIGNER N/A		N/A		SIZE	FSCM NO	DRAWING NUMBER	REV			
			PTD ENGINEER K. ARON		21MAR25								
			CHECKER N/A		N/A								
DO NOT SCALE DWG							SCALE	1 / 1			SHEET	1 OF 2	



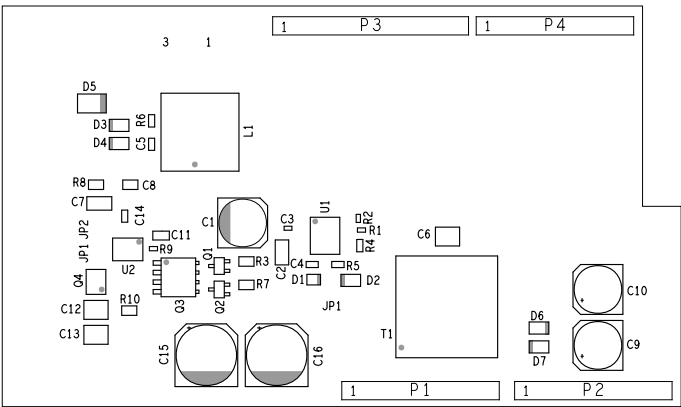
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	21MAR25	K. ARON
B	ECR-125794	14MAY25	K. ARON

ASSEMBLY NOTES:

1. BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
2. REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
3. REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.
4. JUMPER SHORTED:

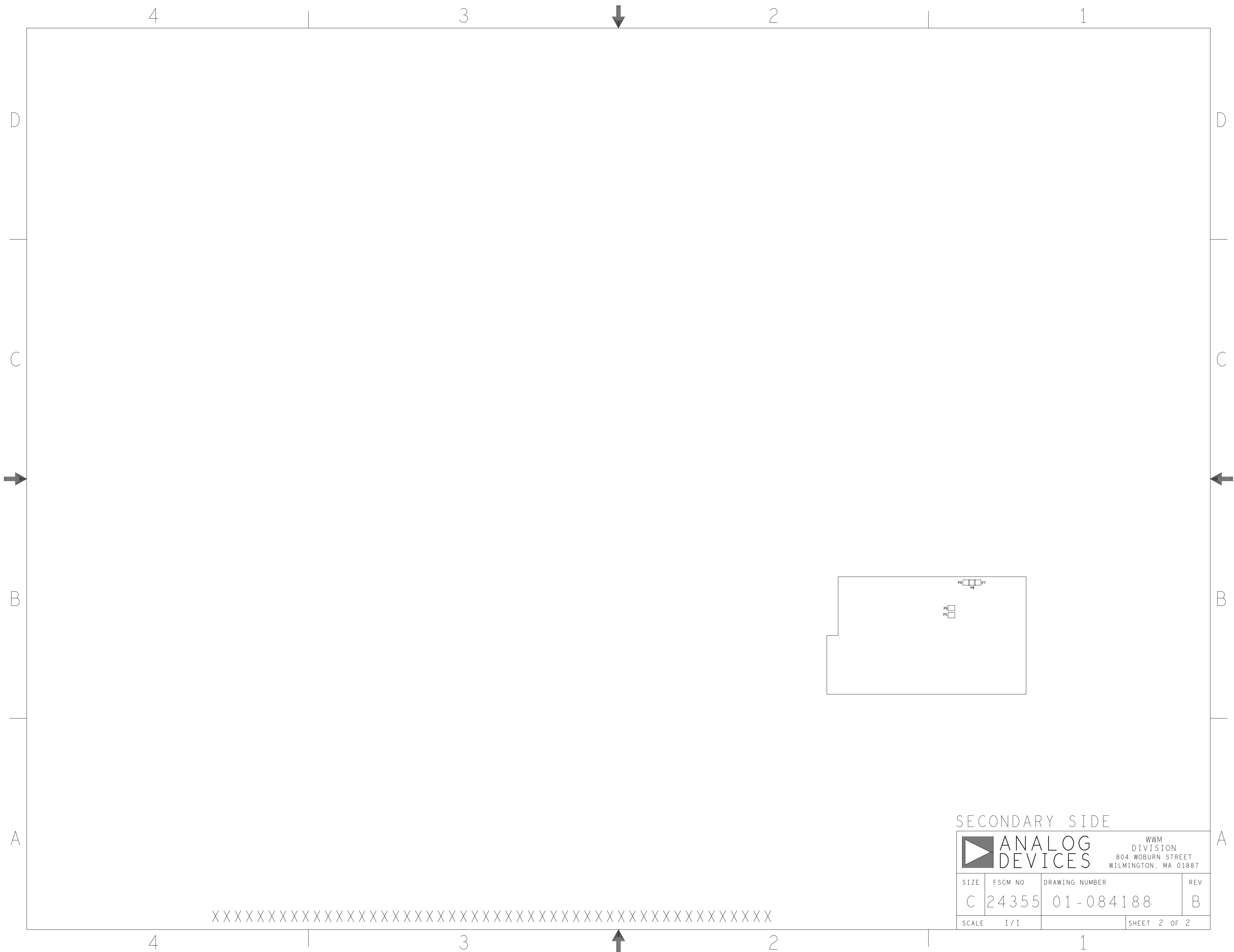
JP1: PIN1 & PIN 2

JP2: PIN2 & PIN 3

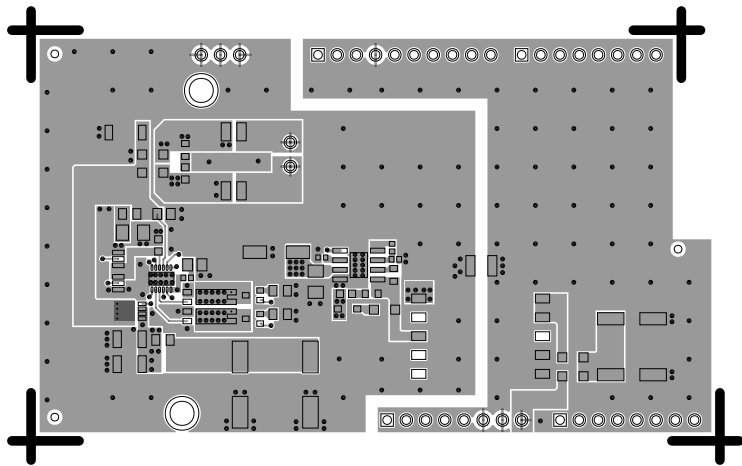


PRIMARY SIDE

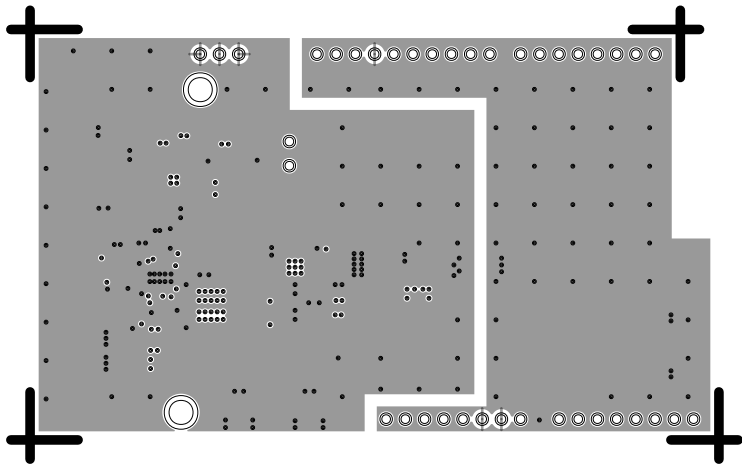
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div><div><div></div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>							
TOLERANCES			TEMPLATE ENGINEER B. PHILLIPS		14APR21									
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES B. MACDONALD		14APR21									
.XX -.010 --1/32 -- 2	.XXX -.005	.XXX -.0050	HARDWARE SYSTEMS D. WILLIAMS		14APR21									
MATERIAL			TEST ENGINEER N/A		N/A		TITLE ASSEMBLY AD-APARDSPOE-SL							
			COMPONENT ENGINEER ADGT LIBRARY		21MAR25									
			TEST PROCESS N/A		N/A									
			HARDWARE RELEASE C. LAPPAY		21MAR25									
FINISH			DESIGNER N/A		N/A		SIZE	FSCM NO	DRAWING NUMBER	REV				
			PTD ENGINEER K. ARON		21MAR25									
			CHECKER N/A		N/A									
DO NOT SCALE DWG							SCALE		1 / 1		SHEET		1 OF 2	



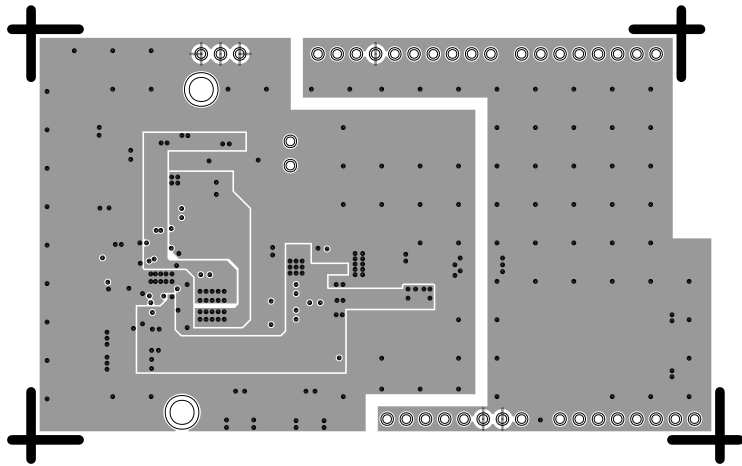
L1 PRIMARY
08-084188-01
REV B



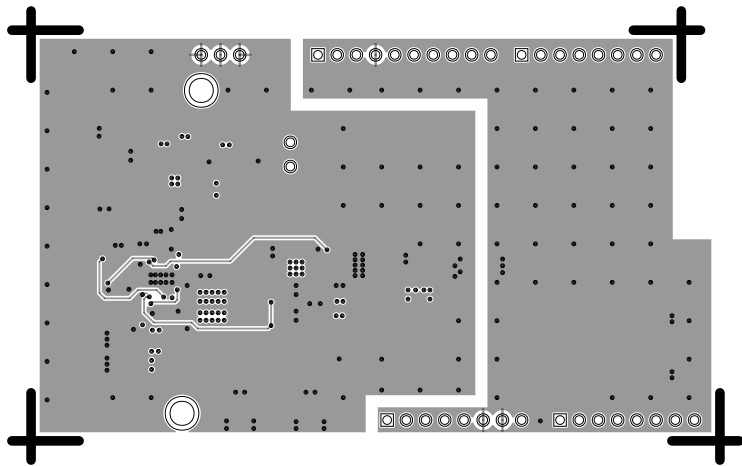
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08-084188-07
REV B



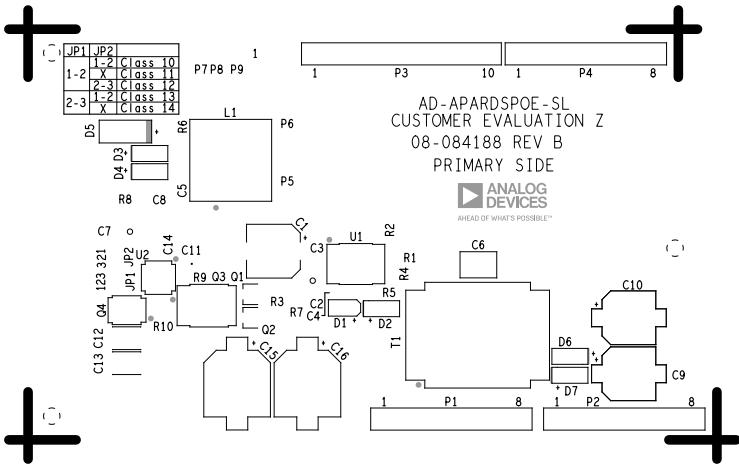
L3_PWR
08-084188-08
REV B



L4 SECONDARY
08-084188-02
REV B



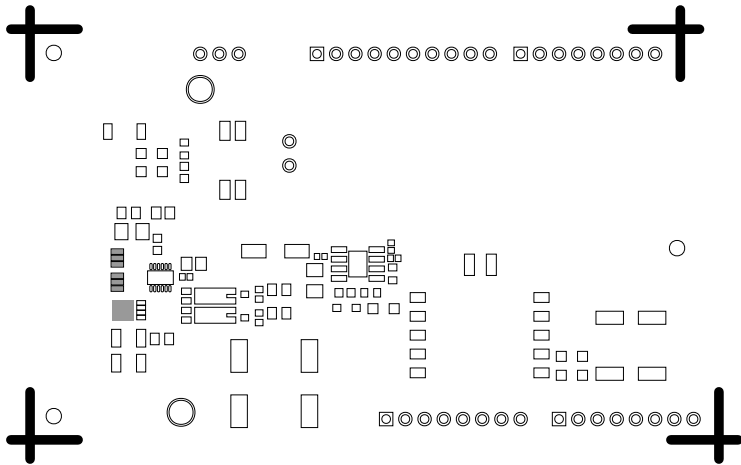
REV B



SOLDERMASK PRIMARY

08-084188-04

REV B



SILKSCREEN SECONDARY

08-084188-05

REV B



1

89

10 1

84

8



SECONDARY SIDE
08-084188 REV B



1

89

8

1

84

8



SOLDERMASK SECONDARY

08-084188-06

REV B



PASTEMASK PRIMARY

08-084188-09

REV B

