

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.

RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
5.

BOARDS TO BE SHIPPED SINGULATED AFTER ASSEMBLY PROCESS.
6.

SMOOTHEN EDGES AND FREE FROM BURRS AFTER DEPANELIZATION PROCESS.
7.

INSTALL NUT (1140030) ON SECONDARY SIDE AND SCREW (119030010) ON PRIMARY SIDE
8.

INSTALL THE FOLLOWING SHUNTS: (MFG_PN: SNT-100-BK-T)

LK1 (POS B: PIN 3-4)

LK2 (POS B: PIN 3-4)

LK3 (OPEN)

LK4 (SHORT)

LK3 (OPEN)

LK5 (OPEN)

K1 (SHORT)

K2 (SHORT)

K4 (SHORT)

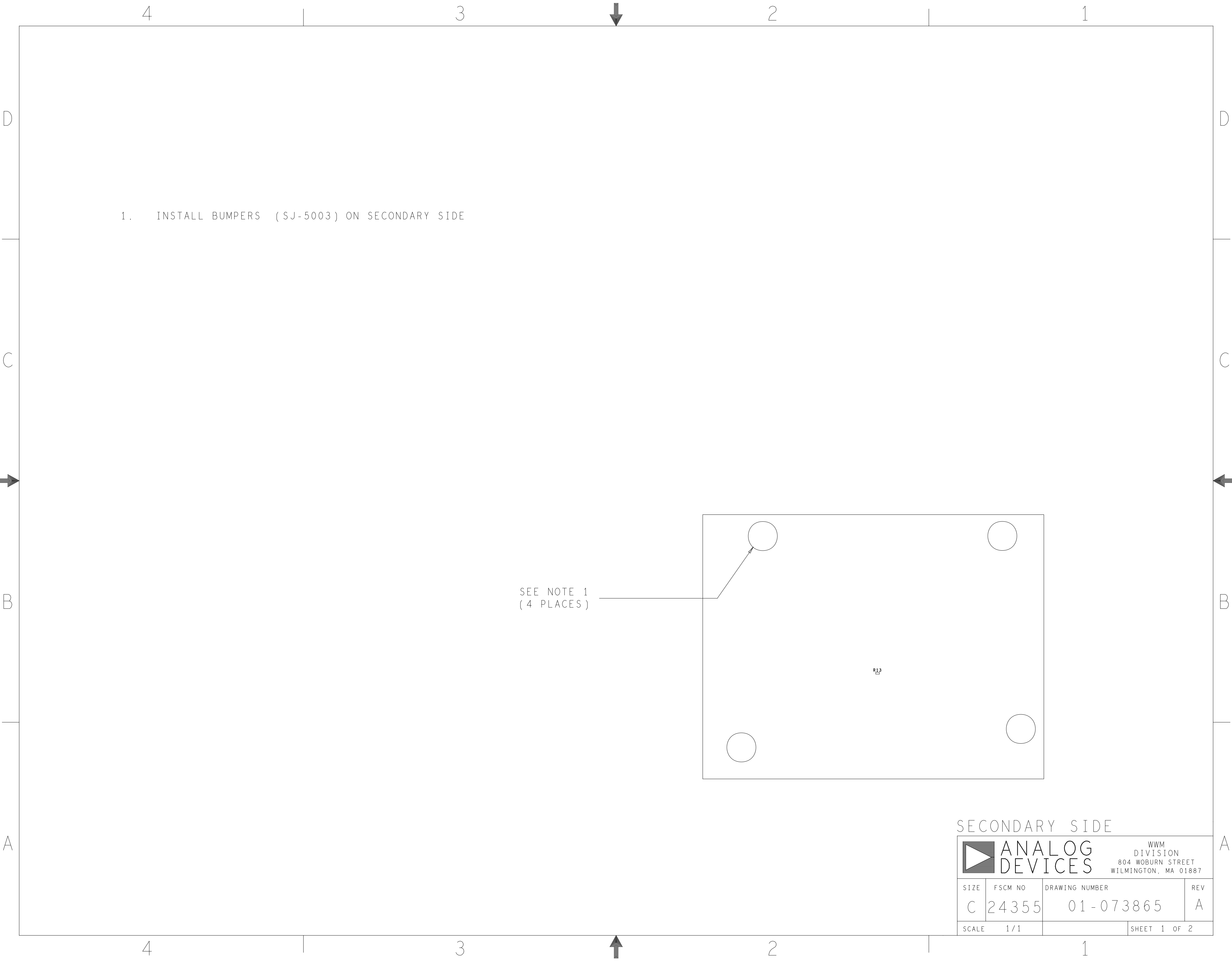
K12 (SHORT)

K14 (OPEN)
9.

INSTALL WIRE WRAP (H3153-01) ON PRIMARY SIDE BEFORE INSTALLING U3

PRIMARY SIDE

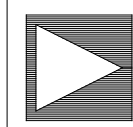
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVAL		DATE		<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>		
	TEMPLATE ENGINEER N/A		N/A				
TOLERANCES					TITLE ASSEMBLY EVAL - AD45335SDZ EVALUATION BOARD Z		
DECIMALS FRACTIONS ANGLES							
.XX -.010 --1/32 -- 2	HARDWARE SERVICES M. VALE		26APR23				
.XXX -.005	HARDWARE SYSTEMS N/A		N/A				
MATERIAL	TEST ENGINEER N/A		N/A		SIZE FSCM NO DRAWING NUMBER REV		
	COMPONENT ENGINEER V. ARMADO		26APR23				
	TEST PROCESS N/A		N/A				
	HARDWARE RELEASE K. JABATAN		26APR23				
FINISH	DESIGNER E. CHAN		26APR23		C 24355 01-073865 A		
	PTD ENGINEER I. ANDAL		26APR23				
	CHECKER N/A		N/A				
DO NOT SCALE DWG					SCALE 1 / 1 SHEET 1 OF 2		

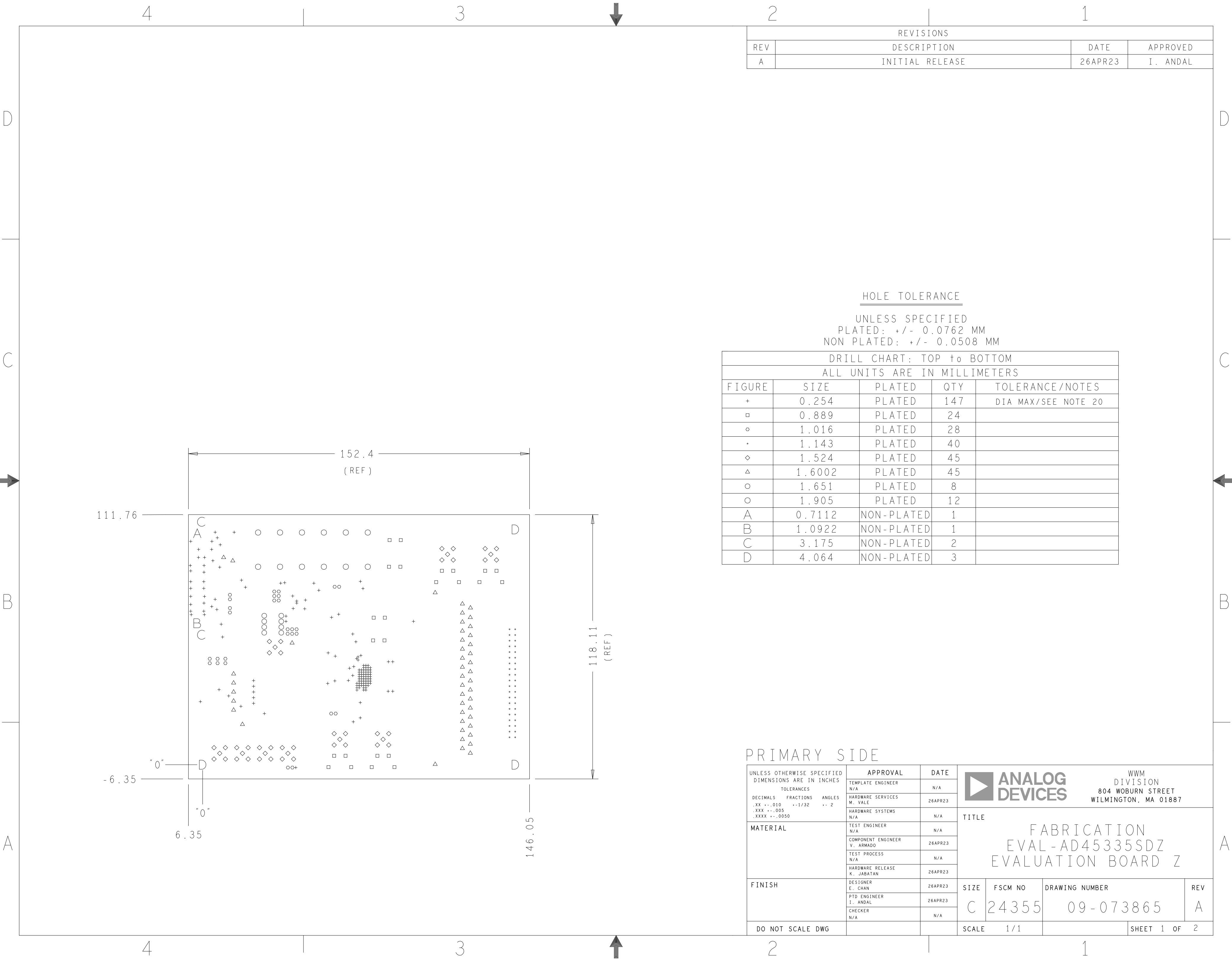


1. INSTALL BUMPERS (SJ-5003) ON SECONDARY SIDE

SEE NOTE 1
(4 PLACES)

SECONDARY SIDE

		ANALOG DEVICES		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
		SIZE	FSCM NO	DRAWING NUMBER	REV
C		24355	01-073865		A
SCALE		1 / 1		SHEET 1 OF 2	




REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	26APR23	I. ANDAL

HOLE TOLERANCE

UNLESS SPECIFIED
PLATED: +/- 0.0762 MM
NON PLATED: +/- 0.0508 MM

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	0.254	PLATED	147	DIA MAX/SEE NOTE 20
□	0.889	PLATED	24	
○	1.016	PLATED	28	
•	1.143	PLATED	40	
◇	1.524	PLATED	45	
△	1.6002	PLATED	45	
○	1.651	PLATED	8	
○	1.905	PLATED	12	
A	0.7112	NON-PLATED	1	
B	1.0922	NON-PLATED	1	
C	3.175	NON-PLATED	2	
D	4.064	NON-PLATED	3	

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> <div>TITLE FABRICATION EVAL-AD45335SDZ EVALUATION BOARD Z</div>		
TOLERANCES			TEMPLATE ENGINEER		N/A				
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES M. VALE		26APR23				
.XX -.010 .XXX -.005 .XXXX -.0050	+/1/32 +/ 2		HARDWARE SYSTEMS N/A		N/A				
MATERIAL			TEST ENGINEER N/A		N/A		SIZE		
			COMPONENT ENGINEER V. ARMADO		26APR23				
			TEST PROCESS N/A		N/A				
			HARDWARE RELEASE K. JABATAN		26APR23				
FINISH			DESIGNER E. CHAN		26APR23		FSCM NO		
			PTD ENGINEER I. ANDAL		26APR23				
			CHECKER N/A		N/A				
DO NOT SCALE DWG							SCALE		
							1 / 1		
							DRAWING NUMBER		
							09-073865		
							REV		
							A		
							SHEET 1 OF 2		

4

3

2

1

NOTES:

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED). UNLESS OTHERWISE SPECIFIED
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 0.1905 (0.19%) PER LINEAR mil 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 2.54 MM 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 0.0762 MM.

FINISH:

12. DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN 0.127 MM DTP,UNLESS SPECIFIED.
MINIMUM BARREL PLATING OF 0.0254 MM. 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) 40.132-100.076 MICRO MM OVER 118-236 MICRO INCHES MIN. OF ELECTROLESS NICKEL PER IPC-4552
() OSP (ORGANIC SOLDERABILITY PRESERVATIVE)
() IMMERSION SILVER
() SOFT WIRE BONDABLE GOLD 762-1270 MICRO MM OF SOFT WIRE
BONDABLE GOLD OVER 2540-3810 MICRO MM OF NICKEL
() EDGE CONNECTOR FINGERS ARE TO BE PLATED WITH 2540 MICRO MM OF LOW STRESS NICKEL UNDER 762 MICRO MM 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:
(X) NON-CONDUCTIVE EPOXY FILL ALL
() COPPER FILL ALL 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 0.1016 MM

28. MINIMUM DESIGN LINE SPACING IS 0.12 MM

FAB NOTES REVISION: 2ND NOVEMBER 2022

2 LAYER STACKUP

LAMINATION DIAGRAM

LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ,MM)	DIELECTRIC THICKNESS (MM)	MATERIALS
1	TOP	1 OZ, 03556 MIN		FINAL CU (THICKNESS AFTER PLATING)
			1.43	ISOLA 370HR/EQUIVALENT
2	BOTTOM	1 OZ, 03556 MIN		FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 1.6002 MM +/-10%

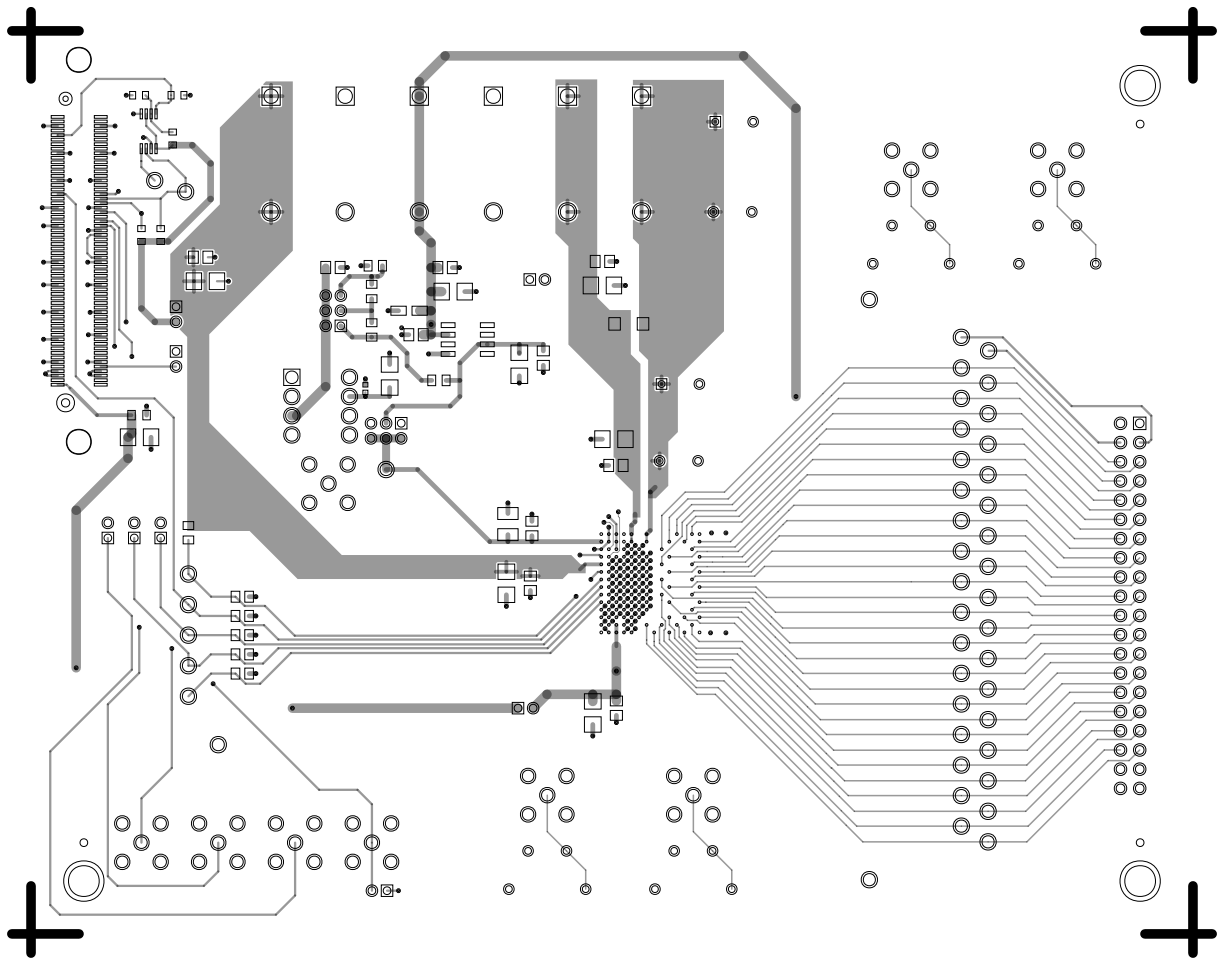
PRIMARY SIDE

ANALOG DEVICES

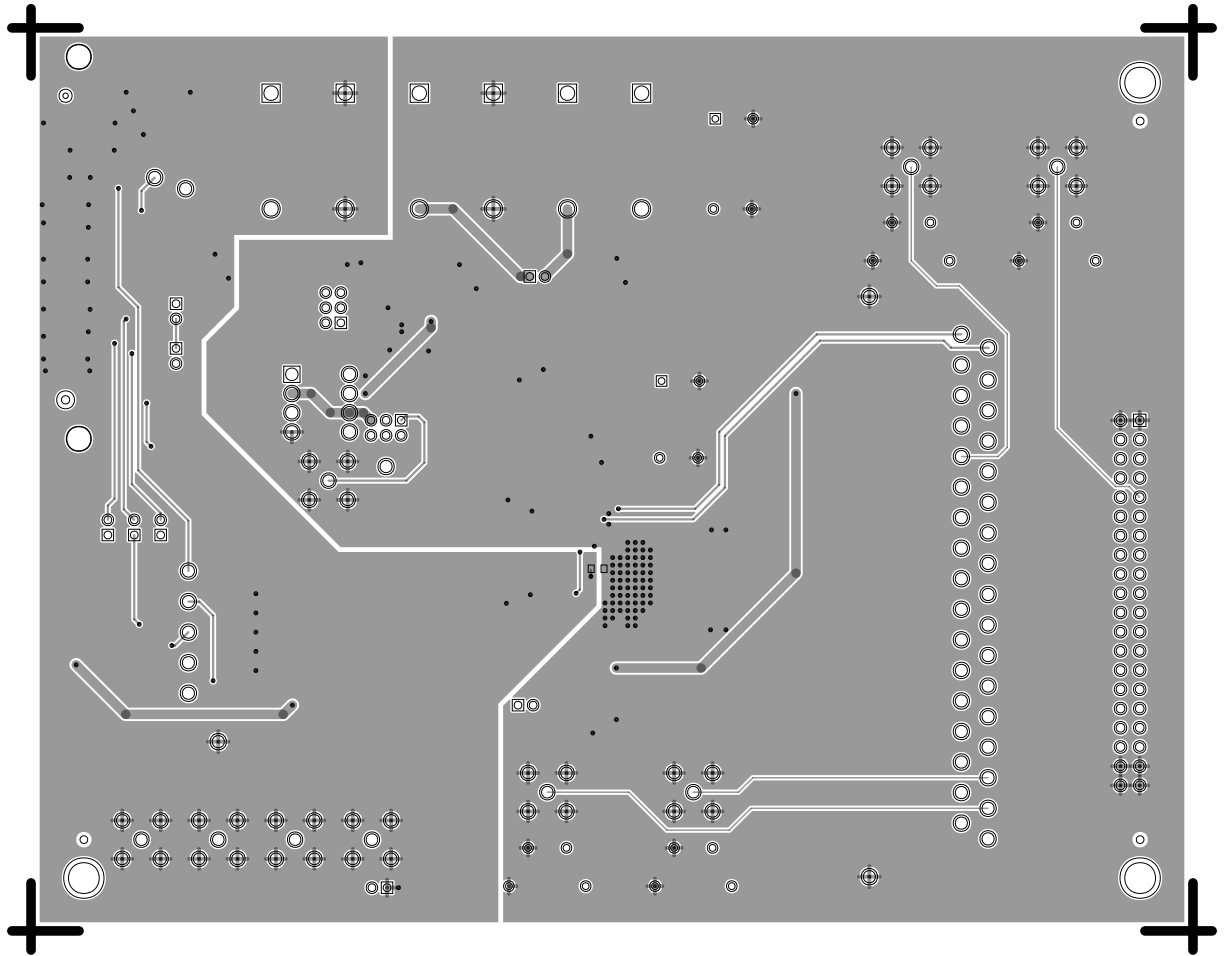
WWM DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-073865	A
SCALE	1 / 1		SHEET 2 OF 2

L1 PRIMARY
08-073865-01
REV A



L4 SECONDARY
08-073865-02
REV A



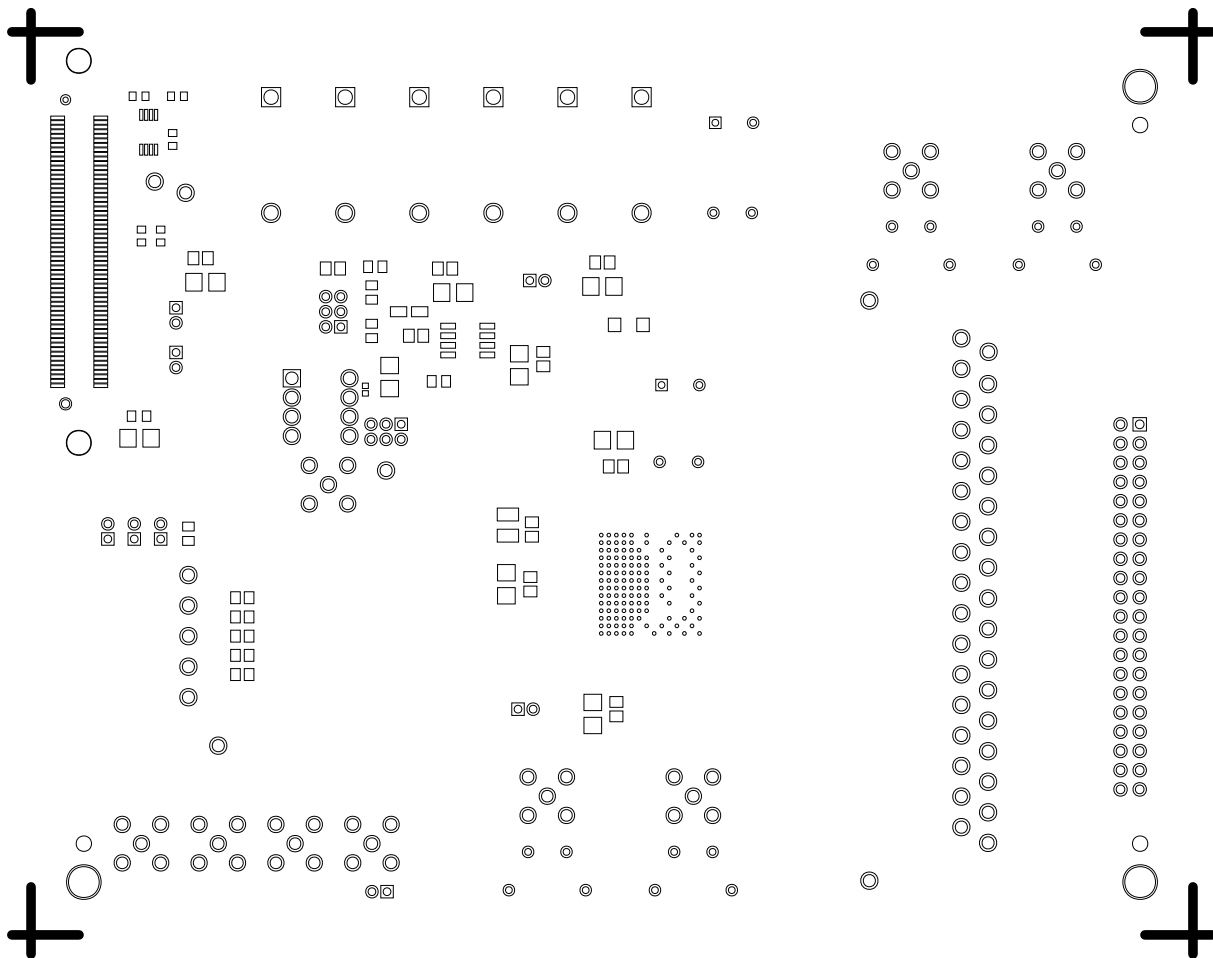
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SOLDERMASK PRIMARY

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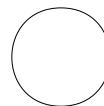
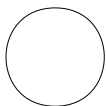
REV A



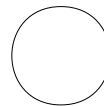
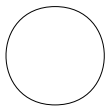
SILKSCREEN SECONDARY

08-073865-05

REV A



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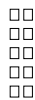
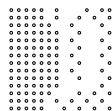
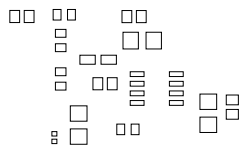
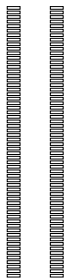
REV A



PASTEMASK PRIMARY

08-073865-07

REV A



PASTEMASK SECONDARY
08-073865-08
REV A



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