

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10JAN22	I. ANDAL
B	ECR-107027	06FEB22	I. ANDAL
C	ECR-114906	14JUL23	D. DALISAY

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

DRILL CHART: TOP to BOTTOM				
FINISHED HOLES IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	97	DIA MAX
□	40.0	PLATED	11	
○	45.0	PLATED	52	
◇	46.0	PLATED	2	
△	50.0	PLATED	2	
◊	67.0	PLATED	8	
A	120.0	NON-PLATED	4	

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 N/A		N/A					
DECIMALS FRACTIONS ANGLES .XX -.010 --1/32 -- 2 .XXX -.005 .XXXX -.0050			HARDWARE SERVICES M. VALE		10JAN22					
			HARDWARE SYSTEMS N/A		N/A					
MATERIAL			TEST ENGINEER N/A		N/A		TITLE FABRICATION EVAL - AD683RARDZ CUSTOMER EVAL BOARD Z			
			COMPONENT ENGINEER M. YAN		10JAN22					
			TEST PROCESS N/A		N/A					
			HARDWARE RELEASE K. JABATAN		10JAN22					
FINISH			DESIGNER R. PLANADA		10JAN22		SIZE FSCM NO DRAWING NUMBER REV C 24355 09-070088 C			
			PTD ENGINEER I. ANDAL		10JAN22					
			CHECKER N/A		N/A					
DO NOT SCALE DWG							SCALE 1/1		SHEET 1 OF 2	

4

3

2

1

D

C

B

A

SPECIFICATIONS:

ROHS COMPLIANCE NOTE: HOMOGENOUS MATERIALS IN THIS BOARD SHALL BE COMPLIANT THE EU RoHS DIRECTIVE 2002/95/EC

MATERIALS; ALL LAMINATES AND BONDING MATERIALS SHOULD BE SELECTED FROM IPC-4101 OR IPC-4103, MINIMUM Tg>170degC, Td>300degC, U.L. RATING OF 94 V-0

MATERIAL FAMILY; ISOLA370HR OR S1000-2 OR IT180 OR EQUIVALENT.

CLADDING; EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ. INTERNAL PLANE LAYERS 1 OZ. COPPER.
NOTE: IF THE LAYER STACKUP CONFLICTS WITH THE ABOVE CLADDING SPECIFICATIONS THEN THE LAYER STACKUP SHALL TAKE PRECEDENCE.

SOLDER MASK; SHALL BE LIQUID PHOTOIMAGEABLE (LPI) APPLIED ON BOTH SIDES OVER BARE COPPER OR GOLD AND SHALL MEET IPC-SM-840 (LATEST REV.) CLASS 3. COLOR GREEN.

SILK SCREEN; SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR: WHITE SYNTHETIC INKJET PRINTING ALLOWED FOR DENSE BOARDS, COLOR: WHITE

SURFACE FINISH; ENIG (ELECTROLESS NICKEL/IMMERSION GOLD) PER IPC-4552 LATEST REVISION

INTENTIONAL SHORTS; IF SUPPLIED DATA INCLUDES A FILE "READ_ME.2", THEN INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT DOES NOT MATCH "READ_ME.2" FILE PROVIDED.

TEST REQUIREMENTS; 100% NETLIST ELECTRICAL VERIFICATION USING CUSTOMER SUPPLIED IPC-D-356 NETLIST FOR OPENS AND SHORTS WHEN "GERBER DATA" IS PROVIDED. THIS VERIFICATION ALSO REQUIRED FOR "ODB+." DATA PER EMBEDDED NETLIST.

4 LAYER STACKUP

NOMINAL FINISHED BOARD THICKNESS 0.062" +/- 10%

PRIMARY SILKSCREEN

PRIMARY SOLDER MASK

PRIMARY SIDE (LAYER 1)

L2_GND PLANE (LAYER 2)

L3_PWR PLANE (LAYER 3)

SECONDARY SIDE (LAYER 4)

SECONDARY SOLDER MASK

SECONDARY SILKSCREEN

REQUIREMENTS:

1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.

2. ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)

3. MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.

4. HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.

5. PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 INCH BY CROSS SECTION.

6. HOLE DIAMETERS APPLY AFTER PLATING.

7. FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.

8. MINIMUM DESIGN LINE WIDTH IS .010 INCH.

9. MINIMUM DESIGN SPACING IS .006 INCH.

10. ~~NON-FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~

11. IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFGR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)

12. THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:

A. THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.

B. THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.

13. MFGR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;

A. U.L. CODE-FLAMMABILITY RATING

B. DATE CODE (STAMP).

C. LOT NUMBER

D. MFGR LOGO

E. SUCCESSFUL ELECTRICAL TEST.

14. REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.

15. BOARDS TO BE SHIPPED IN ARRAY AND KEEP INTACT.

16. PANEL TO BE SUBJECTED TO CUSTOMER'S APPROVAL.

17. PANELED SOLDER PASTE STENCIL SHOULD BE SENT TO THE CUSTOMER.

PRIMARY SIDE

ANALOG DEVICES

WWM DIVISION

804 WOBURN STREET

WILMINGTON, MA 01887

SIZE

C

FSCM NO

24355

DRAWING NUMBER

09-070088

REV

C

SCALE

1 / 1

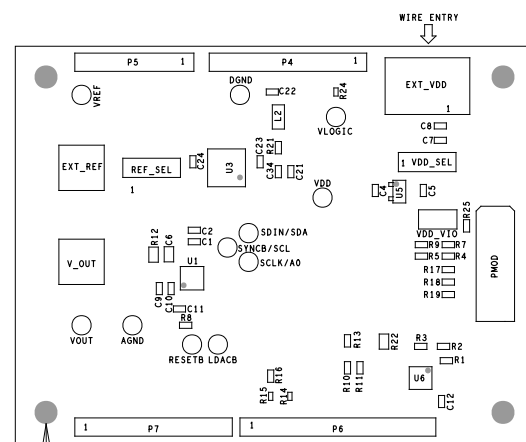
SHEET

2 OF 2

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10JAN22	I. ANDAL
B	ECR-107027	06FEB22	I. ANDAL
C	ECR-114906	14JUL23	D. DALISAY


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 THE FOLLOWING:
STANDOFFS(M025474) MPN: 1902C TO BE INSTALLED ON SECONDARY SIDE (4PLACES)
SCREWS(M025339)MPN: NY PMS 440 0025 PH TO BE INSTALLED ON THE PRIMARY SIDE (4PLACES)
8. INSTALL JUMPER SHUNTS (M029337) ON THE FOLLOWING LOCATIONS:
A. VDD_SEL (MID-A) B. REF_SEL (MID-B) C. VDD_VIO (PIN1)
9. DO NOT TRIM EXCESS PINS OF THE FOLLOWING LOCATIONS:
A. P4
B. P5
C. P6
D. P7
10. APPLY STICKER LABEL TO BOX ACCORDING TO BOM VARIANT DECLARATION
* EVAL-AD5683RARDZ FOR 05-070088-01
* EVAL-AD5693RARDZ FOR 05-070088-02

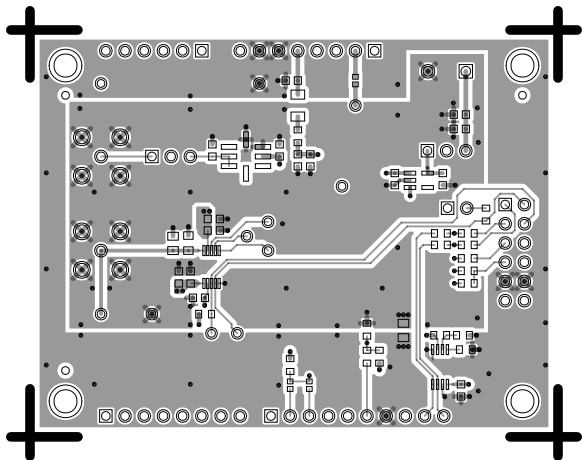


SEE ASSY NOTE 7 (4PLACES)

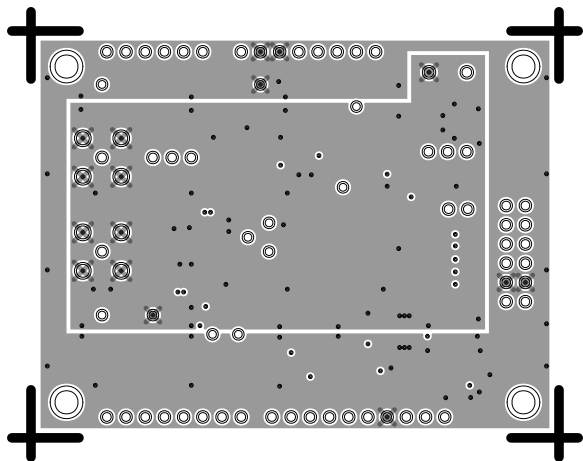
PRIMARY SIDE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		 <div>ANALOG DEVICES</div>		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887		
TOLERANCES			TEMPLATE ENGINEER N/A		N/A						
DECIMALS FRACTIONS ANGLES XX .0010 --1/32 -- 2 .XXX .0005 XXXX .0050			HARDWARE SERVICES M. VALE		10JAN22		TITLE ASSEMBLY EVAL - AD683RARDZ CUSTOMER EVAL BOARD Z				
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DO NOT SCALE DWG			PTD ENGINEER I. ANDAL		10JAN22		SCALE 1/1 SHEET 1 OF 1				
			CHECKER N/A		N/A						

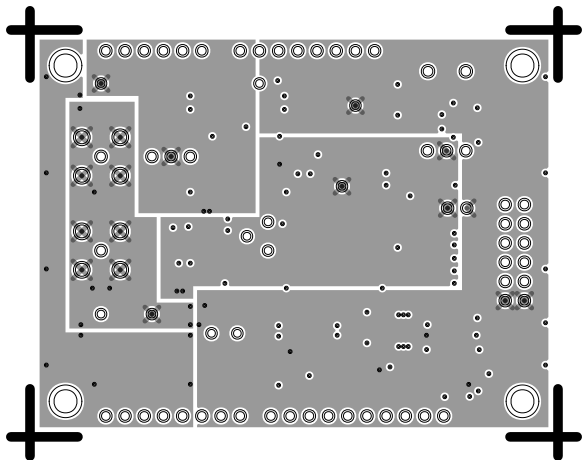
L1 PRIMARY
08-070088-01
REV C



L2 GND
08-070088-06
REV C



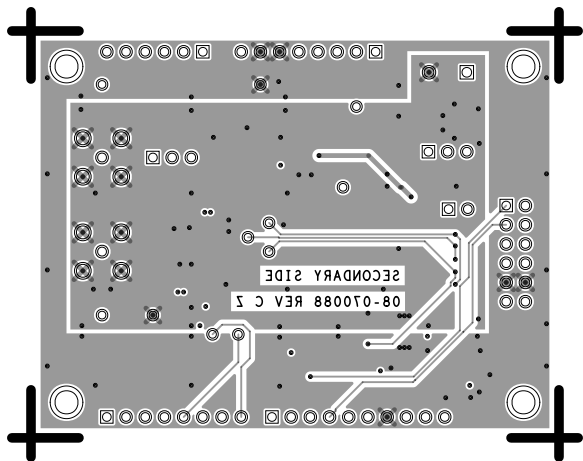
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REV C



L4 SECONDARY

08-070088-02

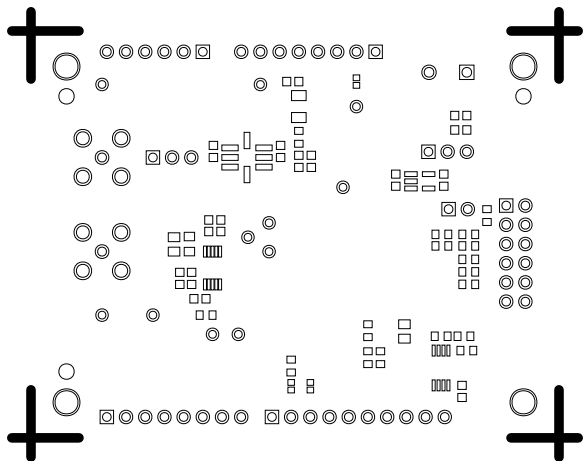
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SOLDERMASK PRIMARY

08-070088-04

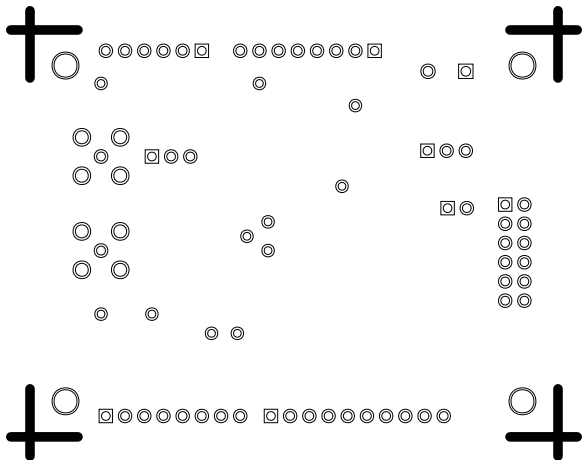
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SOLDERMASK SECONDARY

08-070088-05

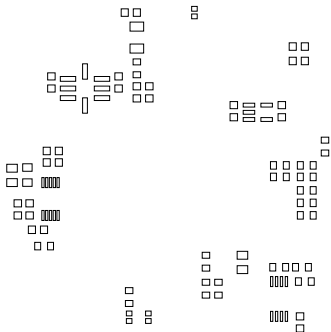
REV C



PASTEMASK PRIMARY

08-070088-08

REV C



REV C

