

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	16SEP20	A. POP
B	CHANGES AS PER ECR-101417	30JUN21	A. POP
B1	CHANGES AS PER ECR-103834	21JUL21	M. ABALA

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

FINISHED HOLES IN MILS				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	259	DIAMAX
□	30.0	PLATED	11	
○	40.0	PLATED	30	
◊	50.0	PLATED	5	
B	125.0	NON-PLATED	4	
◦	47.0x24.0	PLATED	4	

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		16SEP20		TITLE FABRICATION AD-M2KBNC-EBZ CUSTOMER EVALUATION Z				
	HARDWARE SYSTEMS								
MATERIAL		TEST ENGINEER							
		COMPONENT ENGINEER M. YAN		16SEP20		SIZE FSCM NO DRAWING NUMBER REV C 24355 09-065173 B1			
		TEST PROCESS							
		HARDWARE RELEASE K. JABATAN		16SEP20					
FINISH		DESIGNER M. VICEDO		16SEP20					
		PTD ENGINEER A. POP		16SEP20					
		CHECKER A. POP		16SEP20					
DO NOT SCALE DWG						SCALE 1 / 1		SHEET 1 OF 2	

4

3

2

1

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; ISOLA 370 HR

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 BLUE.

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.

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 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 0.005 INCH.

9. MINIMUM DESIGN SPACING IS 0.006 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.

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

IMPEDANCE TABLE

NOTE: ALL IMPEDANCE TOLERANCE +/-10%

SE = SINGLE ENDED, DP = DIFFERENTIAL PAIR

LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACE
L1	50 OHMS SE	L2	9MILS	N/A
L1	100 OHMS DP	L2	5MILS	6MILS
L4	50 OHMS SE	L3	9MILS	N/A
L4	100 OHMS DP	L3	5MILS	6MILS

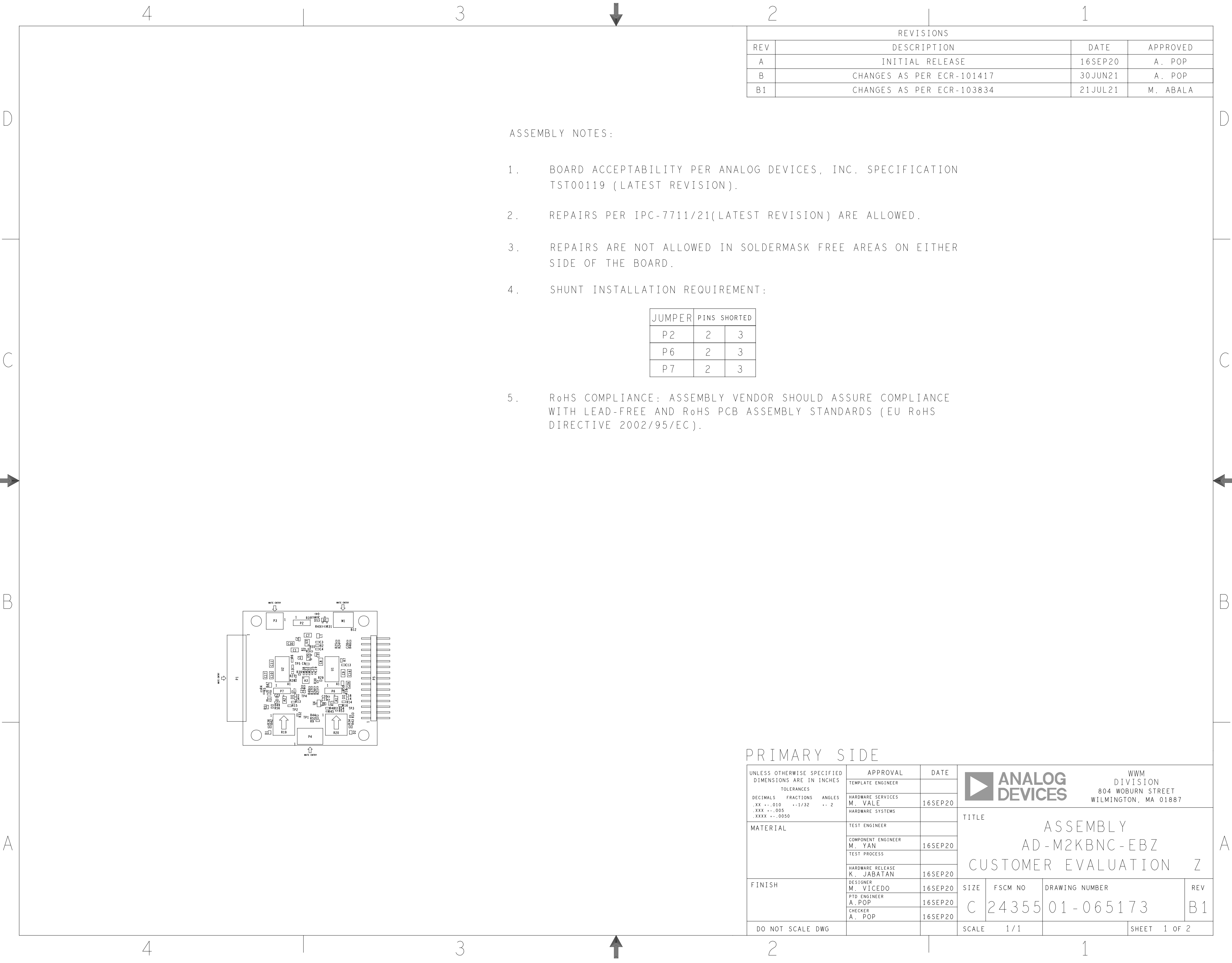
PRIMARY SIDE

ANALOG DEVICES

WWM DIVISION804 WOBURN STREETWILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-065173	B1

SCALE	1 / 1	SHEET 2 OF 2



ASSEMBLY NOTES:

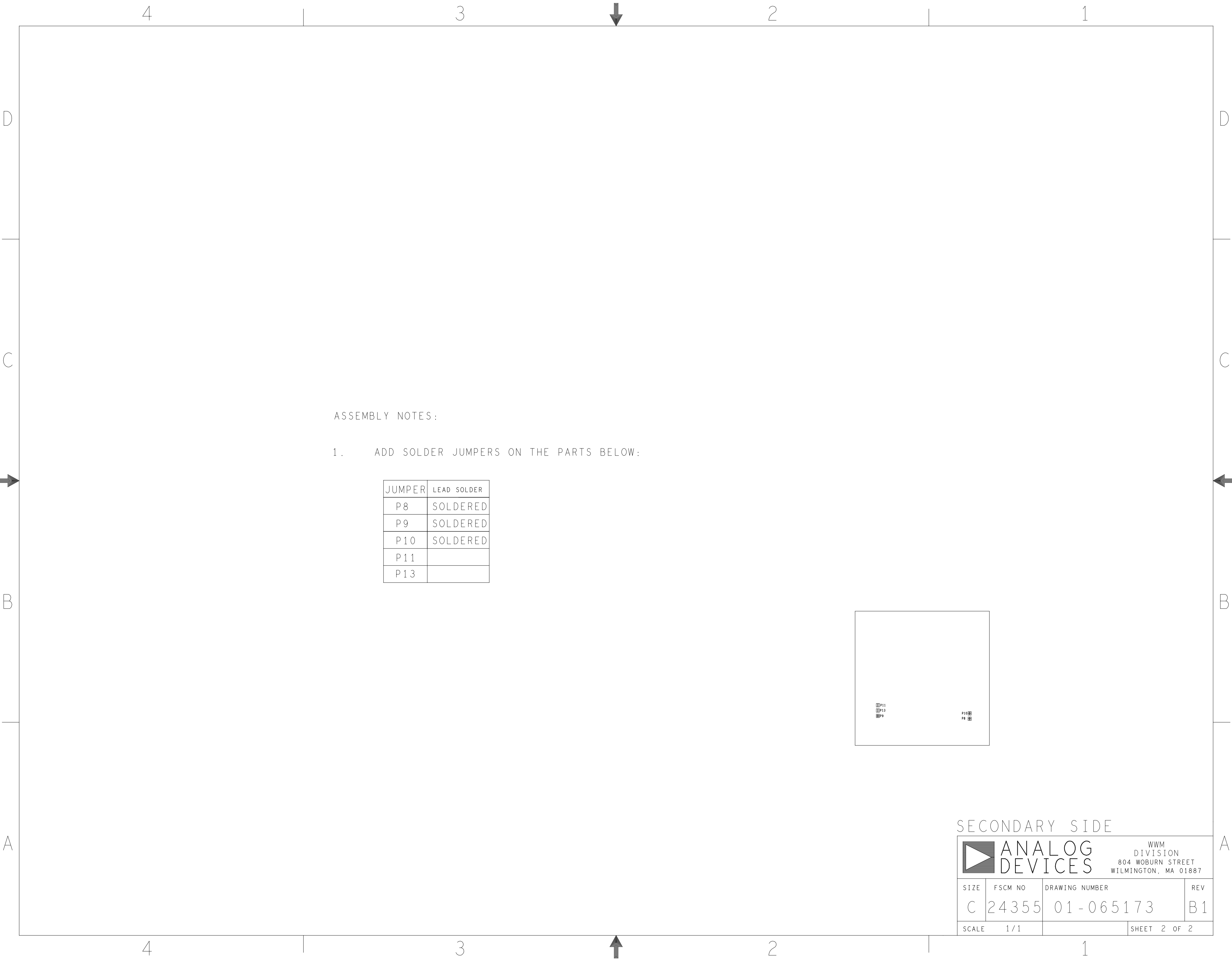
- 1. BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
- 2. REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
- 3. REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.
- 4. SHUNT INSTALLATION REQUIREMENT:

JUMPER	PINS SHORTED	
P2	2	3
P6	2	3
P7	2	3

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

PRIMARY SIDE

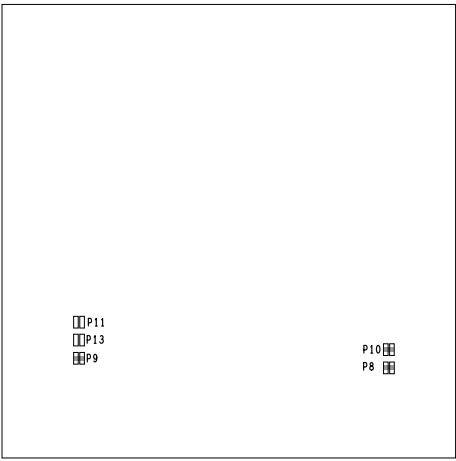
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX -.010 --1/32 -- 2 .XXX -.005 .XXXX -.0050	APPROVAL		DATE		<div><div><div></div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>			
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	PTD ENGINEER A. POP		16SEP20					
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DO NOT SCALE DWG				SCALE 1/1		SHEET 1 OF 2		



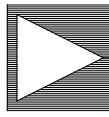
ASSEMBLY NOTES:

1. ADD SOLDER JUMPERS ON THE PARTS BELOW:

JUMPER	LEAD SOLDER
P8	SOLDERED
P9	SOLDERED
P10	SOLDERED
P11	
P13	



SECONDARY SIDE

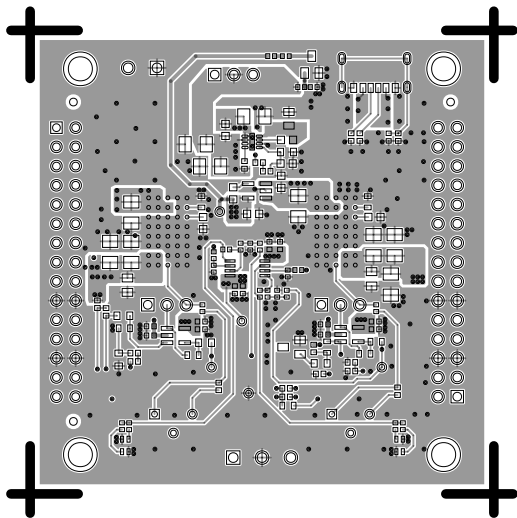


ANALOG
DEVICES

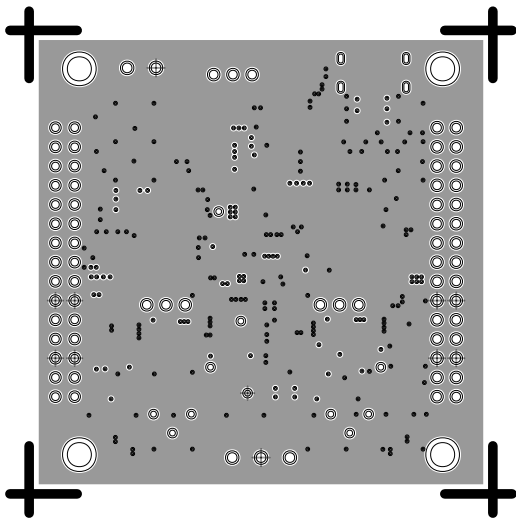
WWM
DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
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SCALE	1 / 1		SHEET 2 OF 2

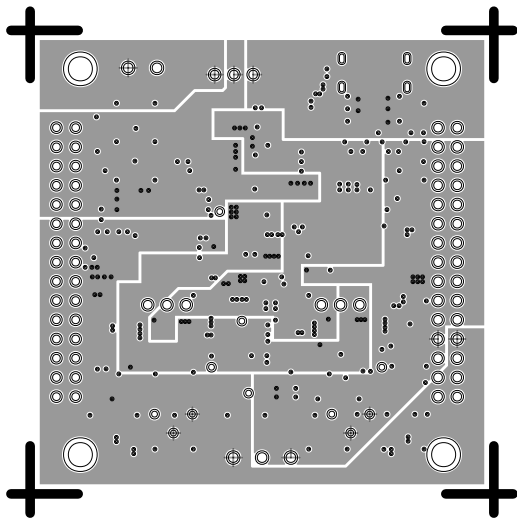
L1 PRIMARY
08-065173-01
REV B



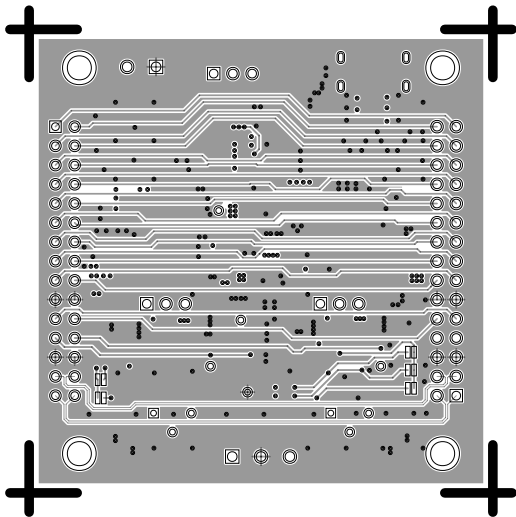
L2 GND
08-065173-07
REV B



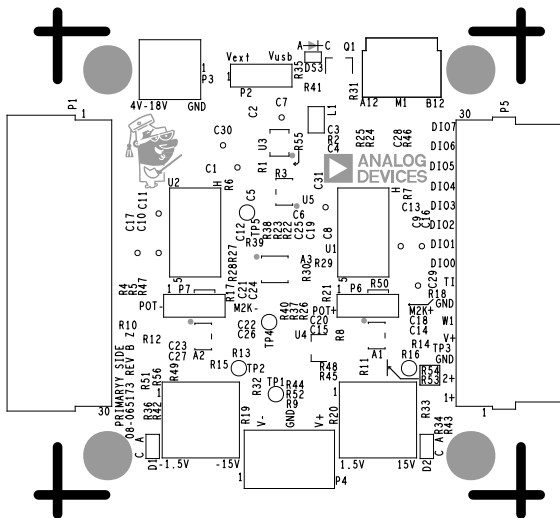
L3 PWR
08-065173-08
REV B



L4 SECONDARY
08-065173-02
REV B



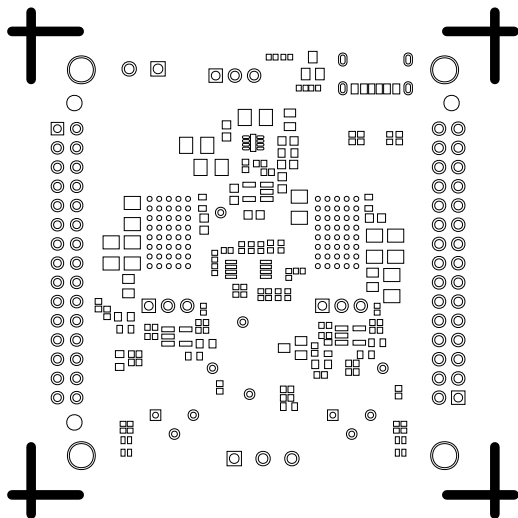
REV B



SOLDERMASK PRIMARY

08-065173-04

REV B



SILKSCREEN SECONDARY

08-065173-05

REV B



GAIN		SOLDER JUMPER	
1	2	POSITIVE	NEGATIVE
		p1	p2
		p3	p4
		p5	p6
		p7	p8
		p9	p10
		p11	p12
		p13	p14
		p15	p16
		p17	p18
		p19	p20
		p21	p22
		p23	p24
		p25	p26
		p27	p28
		p29	p30
		p31	p32
		p33	p34
		p35	p36
		p37	p38
		p39	p40
		p41	p42
		p43	p44
		p45	p46
		p47	p48
		p49	p50
		p51	p52
		p53	p54
		p55	p56
		p57	p58
		p59	p60
		p61	p62
		p63	p64
		p65	p66
		p67	p68
		p69	p70
		p71	p72
		p73	p74
		p75	p76
		p77	p78
		p79	p80
		p81	p82
		p83	p84
		p85	p86
		p87	p88
		p89	p90
		p91	p92
		p93	p94
		p95	p96
		p97	p98
		p99	p100

X-SOLDERED CONNECTION

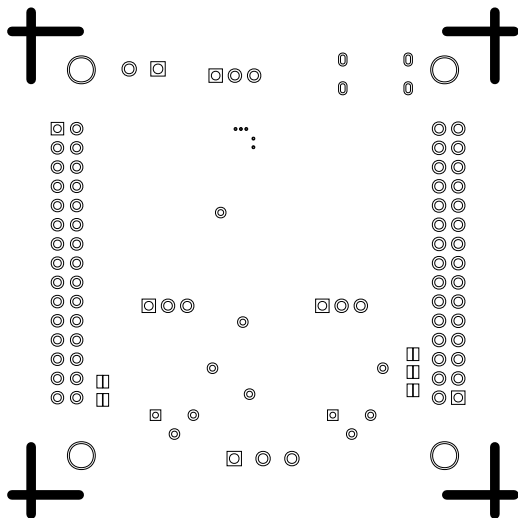
SECONDARY SIDE
08-065173 REV B 2



SOLDERMASK SECONDARY

08-065173-06

REV B



PASTEMASK PRIMARY

08-065173-09

REV B

