

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	23MAY20	S. CABATAN
B	ECR-099831	15DEC20	S. CABATAN

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

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	10.0	PLATED	270	DIA MAX
◇	40.0	PLATED	4	
△	45.0	PLATED	46	
○	60.0	PLATED	25	
○	63.0	PLATED	2	
□	75.0	PLATED	3	
A	125.0	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. JOSE		23MAY20													
			HARDWARE SYSTEMS N/A		N/A													
MATERIAL			TEST ENGINEER N/A		N/A		TITLE  FABRICATION AD9106-K1-EBZ CUSTOMER EVAL BOARD Z											
			COMPONENT ENGINEER M. YAN		23MAY20													
			TEST PROCESS N/A		N/A													
			HARDWARE RELEASE K. JABATAN		23MAY20													
FINISH			DESIGNER M. VALE		23MAY20		SIZE C			FSCM NO 24355			DRAWING NUMBER 09-064200			REV B		
			PTD ENGINEER S. CABATAN		23MAY20													
			CHECKER N/A		N/A													
DO NOT SCALE DWG							SCALE   1/1						SHEET   1 OF 2					

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 370HR

CLADDING: EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ.  
~~INTERNAL SIGNAL LAYERS .5 OZ. COPPER.~~  
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

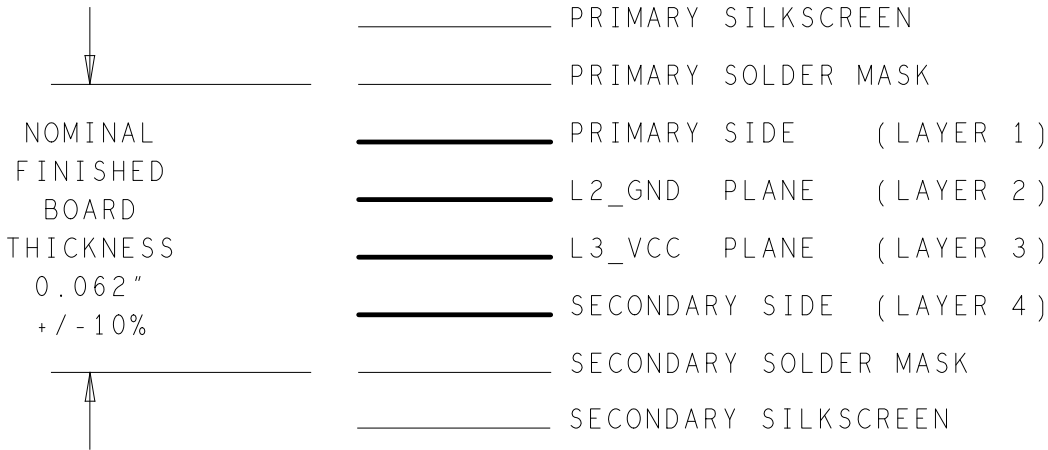
INTENTIONAL SHORTS: IF SUPPLIED DATA INCLUDES A FILE "READ\_ME.2", THEN INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT DOES NOT MATCH "READ\_ME.2" FILE PROVIDED.

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:

- REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
- ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
- MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION.
- HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE A DIAMETER OF 0.005 INCHES FROM THEIR TRUE POSITION.
- PLATED HOLE WALL THICKNESS SHALL NOT BE LESS THAN 0.001 INCH MINIMUM AVERAGE, WITH NO READING LESS THAN .0008 BY CROSS SECTION.
- HOLE DIAMETERS APPLY AFTER PLATING.
- FINISHED CONDUCTOR WIDTHS SHALL NOT BE REDUCED FROM THE NOMINAL INDICATED ON THE MASTER PATTERN, BY MORE THAN THE CONDUCTOR THICKNESS.
- MINIMUM DESIGN LINE WIDTH IS .008 INCH.
- MINIMUM DESIGN LINE SPACING IS .006 INCH.
- ~~NON FUNCTIONAL PAD REMOVAL FROM INNER SIGNAL LAYERS MAY BE PERFORMED AFTER CUSTOMER APPROVAL.~~
- IF PAD SIZES PROVIDED ARE NOT LARGE ENOUGH TO MAINTAIN ANNULAR RING REQUIREMENT, MFR. MAY REQUEST APPROVAL TO TEAR DROP PADS TO MAINTAIN ANNULAR RING. (AT PAD TO TRACE INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
- THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM THE CUSTOMER:
  - THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES, ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
  - THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER MASK OR INTERNAL COPPER PLANES.
- MFR. TO LEGIBLY ETCH OR STAMP/SCREEN WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE IN A CLEAR AREA UNLESS OTHERWISE INDICATED;
  - U.L. CODE-FLAMMABILITY RATING
  - DATE CODE (STAMP).
  - LOT NUMBER
  - MFR LOGO
  - SUCCESSFUL ELECTRICAL TEST.
- REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.  
~~REPAIRS ARE NOT ALLOWED IN ANY AREA DEFINED ON GOLD\_PRM AND/OR GOLD\_SEC ARTWORK LAYERS WHEN PROVIDED IN GERBER OR ODB++ DATA.~~

4 LAYER STACKUP



IMPEDANCE TABLE

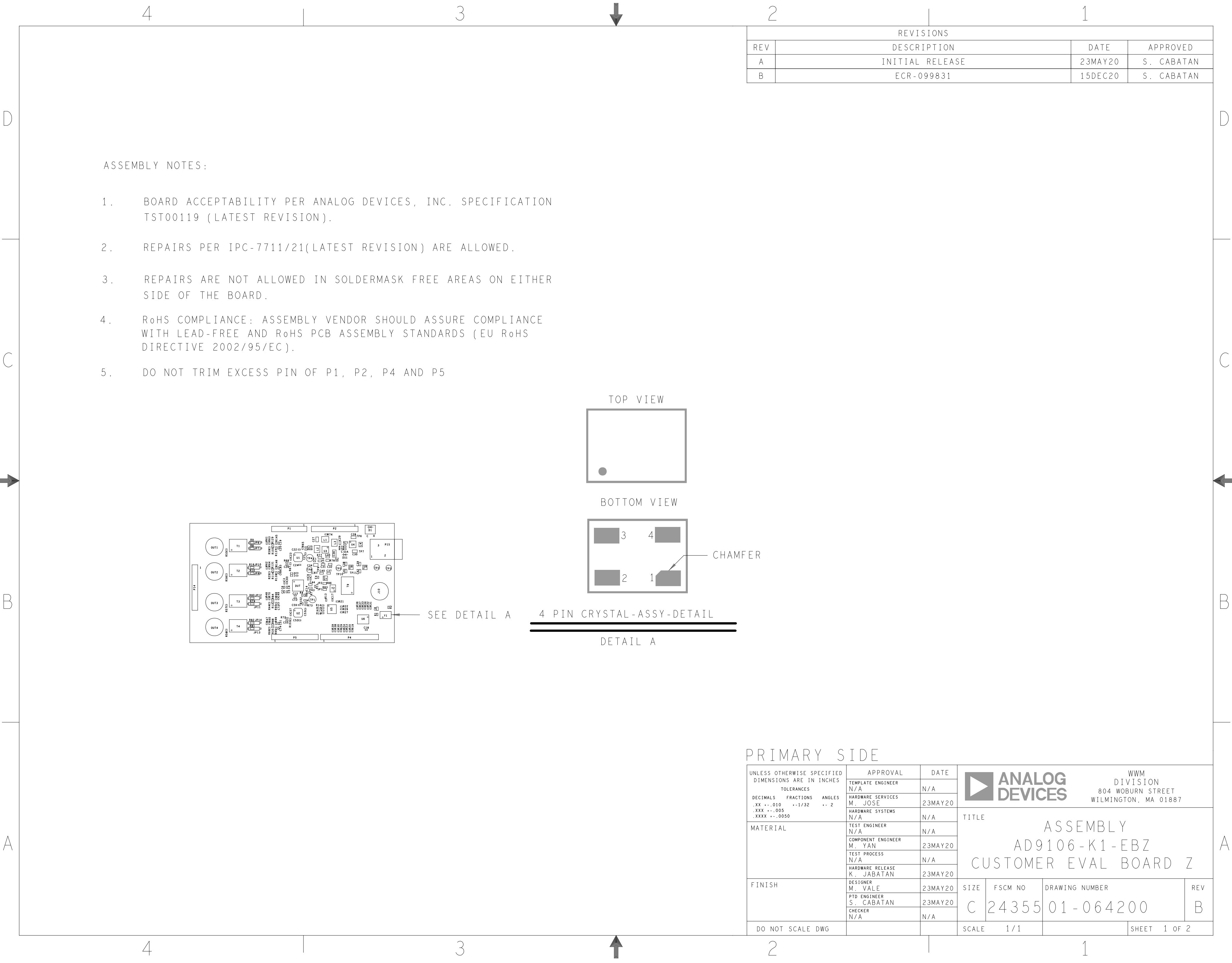
NOTE: ALL IMPEDANCE TOLERANCE +/-10%  
SE = SINGLE ENDED, DP = DIFFERENTIAL PAIR

LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACE
L1	50 OHMS SE	L2	12MILS	N/A
L1	100 OHMS DP	L2	8MILS	10MILS
L4	50 OHMS SE	L3	12MILS	N/A
L4	100 OHMS DP	L3	8MILS	10MILS

PRIMARY SIDE

WWM  
DIVISION  
804 WOBURN STREET  
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-064200	B
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. RoHS COMPLIANCE: ASSEMBLY VENDOR SHOULD ASSURE COMPLIANCE WITH LEAD-FREE AND RoHS PCB ASSEMBLY STANDARDS (EU RoHS DIRECTIVE 2002/95/EC).
5. DO NOT TRIM EXCESS PIN OF P1, P2, P4 AND P5

TOP VIEW

BOTTOM VIEW


CHAMFER

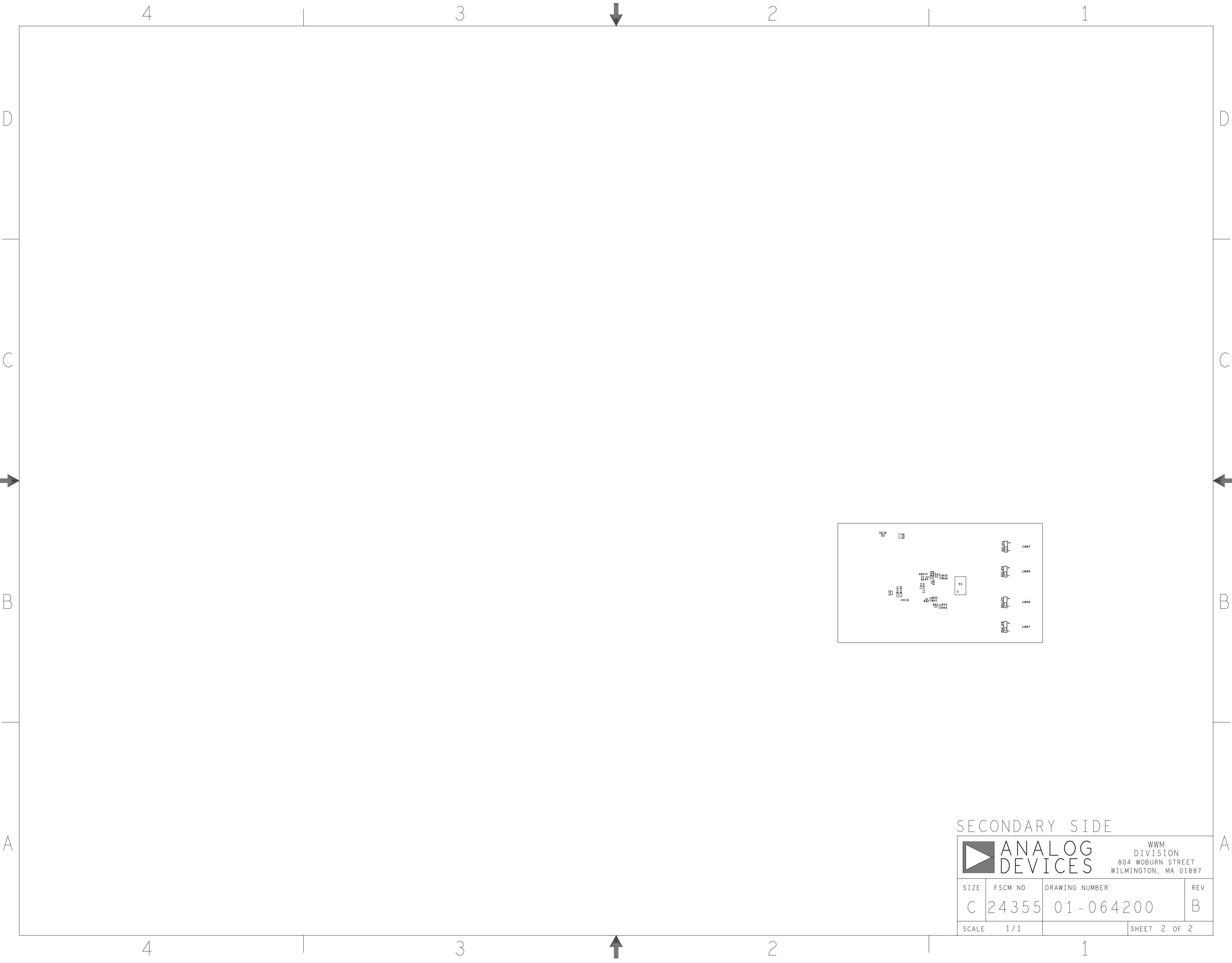
SEE DETAIL A

4 PIN CRYSTAL-ASSY-DETAIL

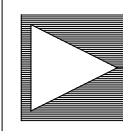
DETAIL A

PRIMARY SIDE

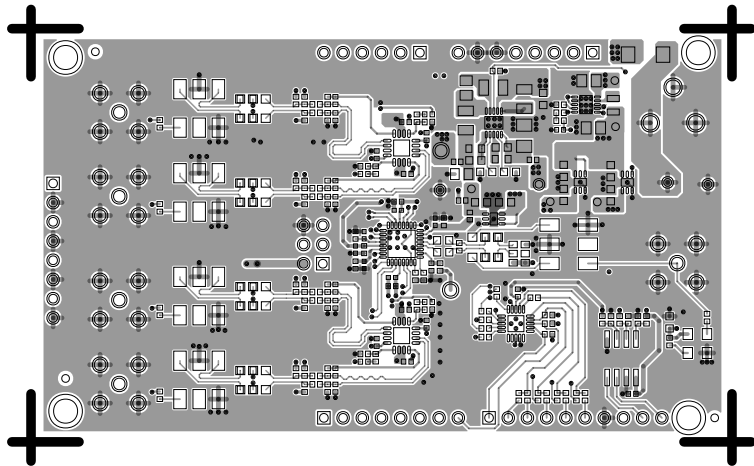
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			APPROVAL		DATE		<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div> <div>TITLE  ASSEMBLY  AD9106-K1-EBZ  CUSTOMER EVAL BOARD Z</div>											
TOLERANCES			TEMPLATE ENGINEER N/A		N/A													
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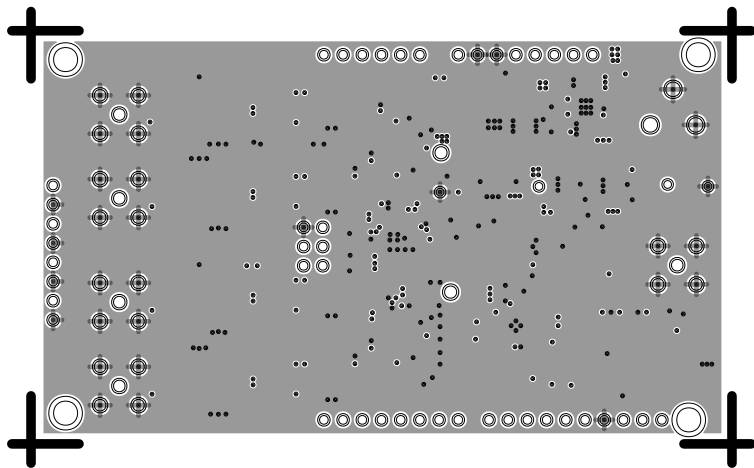
SECONDARY SIDE

		ANALOG DEVICES		WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887	
		SIZE	FSCM NO	DRAWING NUMBER	REV
C		24355	01-064200		B
SCALE		1 / 1		SHEET 2 OF 2	

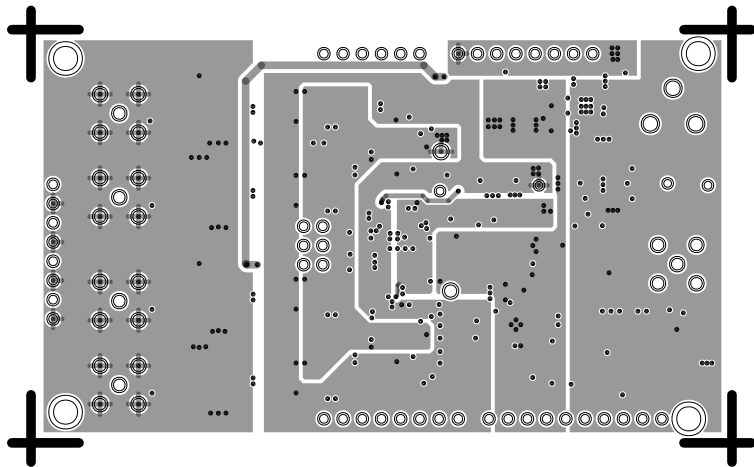
L1 PRIMARY  
08-064200-01  
REV B



L2 GND  
08-064200-07  
REV B



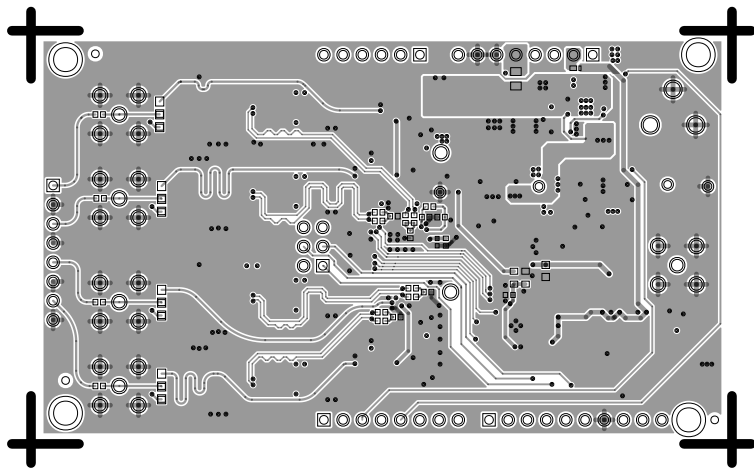
L3 VCC  
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REV B



L4 SECONDARY

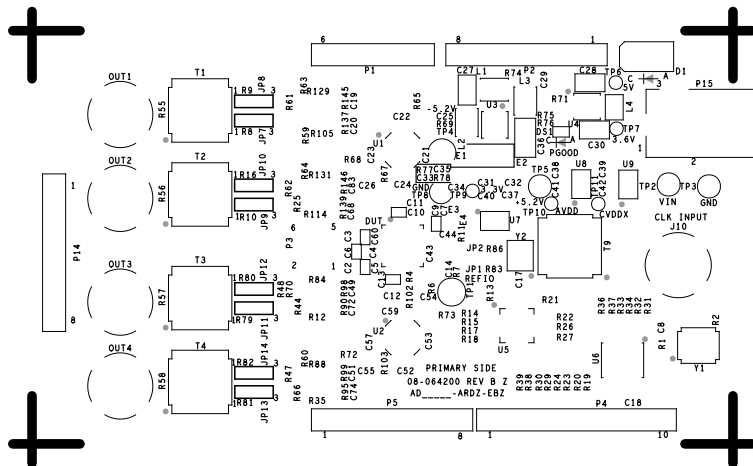
08-064200-02

REV B





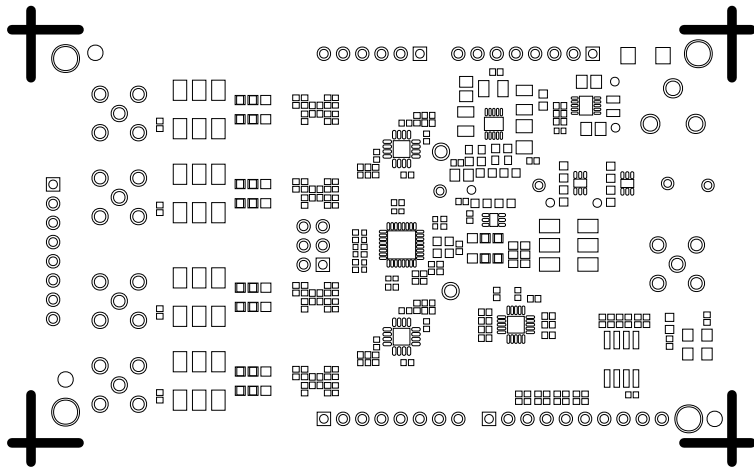
REV B



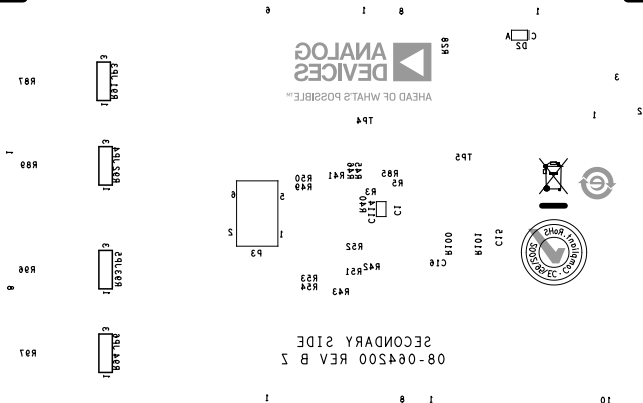
SOLDERMASK PRIMARY

08-064200-04

REV B



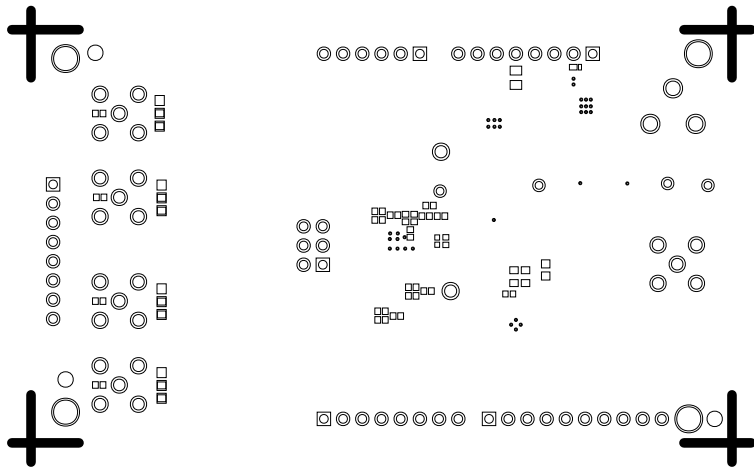
## REV B



SOLDERMASK SECONDARY

08-064200-06

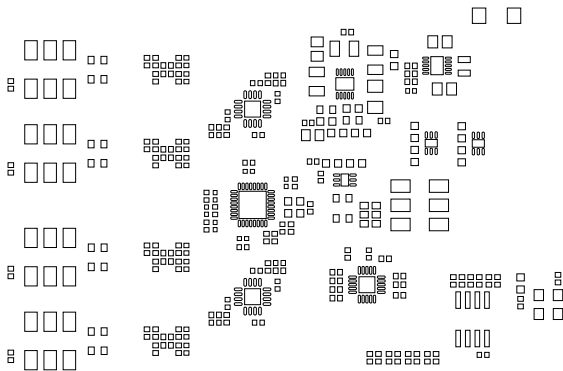
REV B



PASTEMASK PRIMARY

08-064200-09

REV B



PASTEMASK SECONDARY

08-064200-10

REV B

