


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	18SEP20	A. POP
B	AS PER ECR-102888	31MAY21	A. POP
B1	AS PER ECR-103835	21JUL21	A. POP

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	143	DIA MAX
□	40.0	PLATED	30	
◦	45.0	PLATED	37	
◦	45.0	PLATED	5	
◦	60.0	PLATED	20	
A	125.0	NON-PLATED	4	

PRIMARY SIDE			APPROVAL		DATE	<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			TEMPLATE ENGINEER			TITLE  FABRICATION  AD-M2KBNC-EBZ  CUSTOMER EVALUATION Z				
TOLERANCES										
DECIMALS	FRACTIONS	ANGLES	HARDWARE SERVICES		18SEP20					
.XX --.010	--1/32	-- 2	M. VALE							
.XXX --.005			HARDWARE SYSTEMS							
.XXXX --.0050										
MATERIAL			TEST ENGINEER							
			COMPONENT ENGINEER		18SEP20					
			M. YAN							
			TEST PROCESS							
			HARDWARE RELEASE		18SEP20	SIZE    FSCM NO    DRAWING NUMBER    REV  C    24355    09-064107    B				
FINISH			DESIGNER		18SEP20					
			M. VICEDO							
			PTD ENGINEER		18SEP20					
			A. POP							
			CHECKER		18SEP20	SCALE    1 / 1    SHEET    1 OF 2				
			A. POP							
DO NOT SCALE DWG										

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, 370HR 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 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

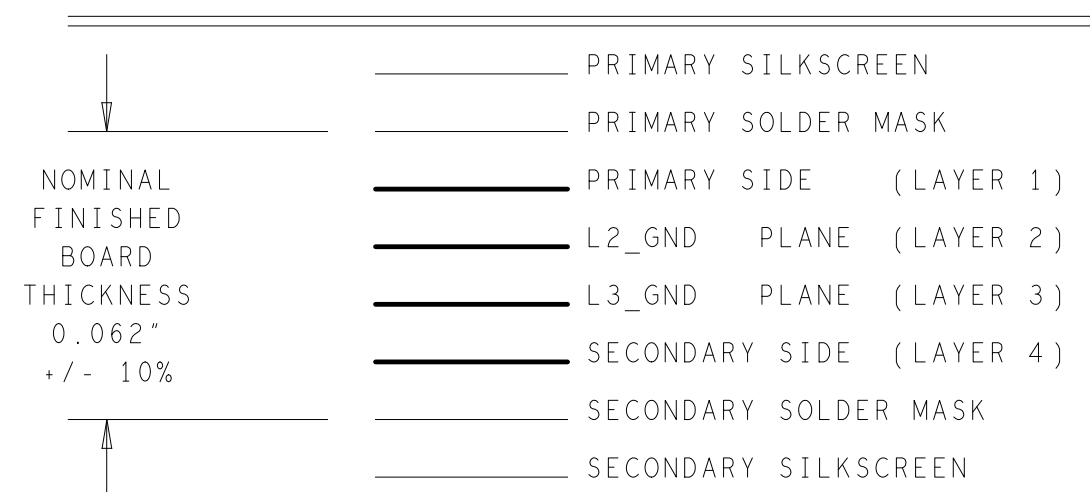
INTENTIONAL SHORTS; IF SUPPLIED DATA INCLUDES A FILE "READ\_ME.2", THEN  
INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL  
IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT  
DOES NOT MATCH "READ\_ME.2" FILE PROVIDED.

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 0.007 INCH.
9. MINIMUM DESIGN SPACING IS 0.008 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, MFR. 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. MFR. 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. MFR 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.

## 4 LAYER STACKUP



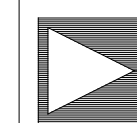
## IMPEDANCE TABLE

NOTE: ALL IMPEDANCE TOLERANCE  $\pm 10\%$

SE = SINGLE ENDED

LAYER	IMPEDANCE	REFERENCE	LINE WIDTH	SPACE
L1	50 OHMS SE	L2	7MILS	N/A

## PRIMARY SIDE

ANALOG  
DEVICES

WWM  
DIVISION  
804 WOBURN STREET  
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-064107	B
SCALE	1/1		SHEET 2 OF 2