

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	14NOV19	I HSIAO
B	REVISIONS PER ECR-096110	25AUG20	I HSIAO

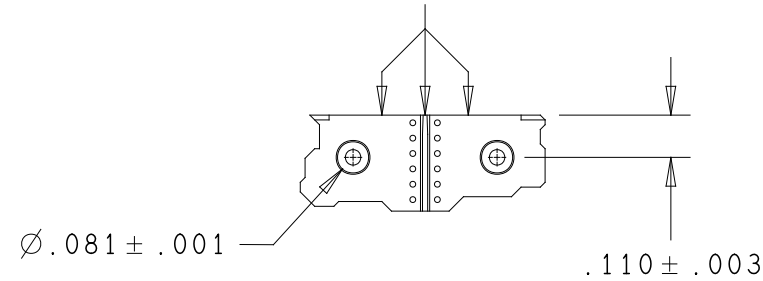
SPECIFICATIONS:

- 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;** R03003 / FR4
- 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.

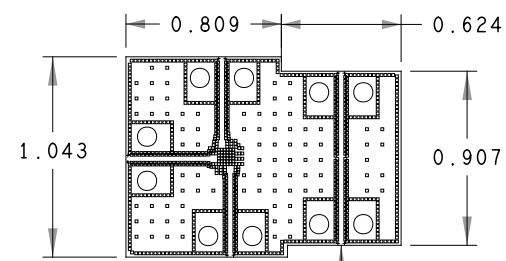
REQUIREMENTS:

- 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 0.010 INCH.
- MINIMUM DESIGN SPACING IS 0.005 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:
 - 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.
- 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
 - D. MFR LOGO
 - B. DATE CODE (STAMP).
 - E. SUCCESSFUL ELECTRICAL TEST.
 - C. LOT NUMBER
- REPAIRS PER IPC-7711/21 (LATEST REV.) ARE ALLOWED.
- THRU VIAS FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER COPLANAR ON BOTH SIDES PRIOR TO FINAL PLATING

COPPER MUST EXTEND TO MILLED EDGE AND REMOVE BURRS.



DETAIL A
APPLIES TO PATTERN REGARDLESS OF ORIENTATION



SEE "DETAIL A" AND "DETAIL B" (5 PLACES)

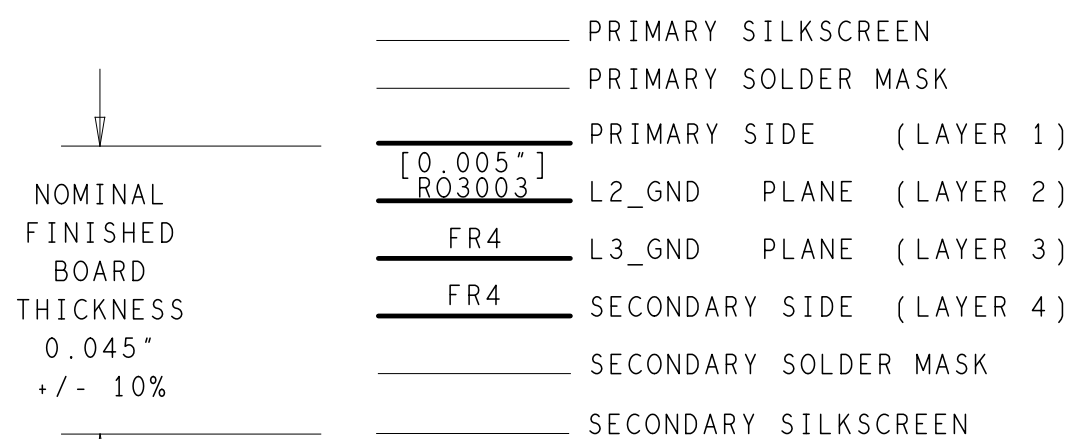
HOLE TOLERANCE

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

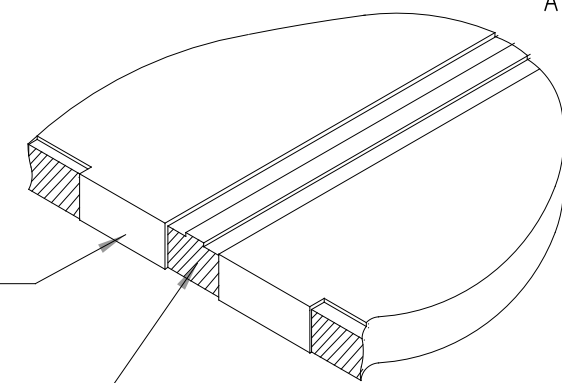
DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
.	6.0	PLATED	10	MAX DIA/SEE NOTE 15
.	8.0	PLATED	1003	MAX DIA/SEE NOTE 15
○	81.0	PLATED	10	

TOTAL HOLES: 1023

4 LAYER STACKUP




CHARACTERISTIC IMPEDANCE = 50 OHMS +/- 10%
ARTWORK LINE WIDTH FOR (GROUNDED CPW)
IMPEDANCE CONTROLLED LINES = 0.010"
AIRGAP = 0.005"



EDGE PLATING NOT ALLOWED IN CENTER CONDUCTOR AND GAP AREA. IT MUST BE CLEARED TOP TO BOTTOM. EDGE PLATING SHOULD BE IN LINE WITH TOP ETCH, BOARD EDGE IN THE PLATED AND NON PLATED AREA MUST BE FLAT/FLUSH. NO BUMPS.

CUSTOMER EVALUATION BOARD

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 style="text-align: right;"> WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887 </div>			
	TEMPLATE ENGINEER					
MATERIAL	HARDWARE SERVICES		TITLE FABRICATION ADMV1550			
	HARDWARE SYSTEMS					
	TEST ENGINEER					
	COMPONENT ENGINEER					
FINISH	TEST PROCESS		SIZE C 24355	DRAWING NUMBER 09-059771	REV B	
	HARDWARE RELEASE					
	DESIGNER R PAMPOLINO PTD ENGINEER I HSIAO CHECKER	14NOV19 14NOV19				
DO NOT SCALE DWG		SCALE	1/1	SHEET 1 OF 1		