ART FILM - fabl

HOLE TOLERANCE

UNLESS SPECIFIED

PLATED: +/- 3 MILS

REVISIONS REVDESCRIPTION APPROVED DATE INITIAL RELEASE C.DENG 30JAN18 21MAY18 В AS PER ECR-078094 C.DENG PER ECR-084889 01MAR19 P SHEAHAN D PER ECR-089796 16AUG19 P SHEAHAN

- ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00115, (LATEST REVISION.)
- WRITTEN AUTHORIZATION.
- 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.
- 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
- THIEVING MAY BE ADDED TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN ONLY AFTER REVIEW AND APPROVAL FROM
 - ALL OTHER FEATURES TO BE 0.200 INCH MINIMUM.
 - MASK OR INTERNAL COPPER PLANES.
- 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 D. MFGR LOGO
 - E. 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.
- COPLANAR ON BOTH SIDES WITHIN .001 INCH PRIOR TO FINAL PLATING.

REQUIREMENTS:

- 1. REFER TO IPC-6010 SERIES (LATEST REV.), CLASS 2 FOR FABRICATION UNLESS OTHERWISE SPECIFIED.
- MODIFICATIONS TO THE ARTWORK ARE NOT ALLOWED WITHOUT
- HOLE PATTERN TOLERANCES FOR UNDIMENSIONED HOLES SHALL BE

- MINIMUM DESIGN LINE WIDTH IS .008 INCH.
- MINIMUM DESIGN SPACING IS .007 INCH.
- INTERSECTION ONLY AND ELECTRICAL INTEGRITY MUST BE MAINTAINED.)
- THE CUSTOMER:
 - A. THIEVING TO CARD EDGE, FIDUCIALS, NON-PLATED THROUGH HOLES,
 - B. THERE SHALL BE NO THIEVING IN ANY AREAS FREE OF SOLDER
- - B. DATE CODE (STAMP). C. LOT NUMBER
- THRU VIAS FILLED WITH NON-CONDUCTIVE EPOXY AND PLATED OVER.

			FINISHED HOLES IN MILS					
				ALL UNITS ARE IN MILS				
			FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES	
			•	19.69	PLATED	275	DIA MAX; SEE NOTE 14	
	4.000	-	0	32.0	PLATED	4		
2.050 ——	(REF)		0	35.0	PLATED	3		
			0	40.0	PLATED	22		
		*	45.0	PLATED	35			
		Δ	50.0	PLATED	6			
		: •	0	55.0	PLATED	3		
				80.0	PLATED	1 6		
" 0 " —————————————————————————————————		3.460 —	돘 디 ㄷ			PRIMARY PRIMARY PRIMARY SECONDAR	SILKSCREEN SOLDER MASK	

ALL LAMINATES AND BONDING MATERIALS SHOULD BE SELECTED FROM

IPC-4101 OR IPC-4103, MINIMUM Tg>170degC, Td>300degC,

EXTERNAL LAYERS .5 OZ. COPPER, OVERPLATE TO 1.5 OZ.

NOTE: IF THE LAYER STACKUP CONFLICTS WITH THE ABOVE

CLADDING SPECIFICATIONS THEN THE LAYER STACKUP SHALL

OVER BARE COPPER OR GOLD AND SHALL MEET IPC-SM-840

SYNTHETIC INKJET PRINTING ALLOWED FOR DENSE BOARDS,

IF SUPPLIED DATA INCLUDES A FILE "READ ME.2", THEN

100% NETLIST ELECTRICAL VERIFICATION USING CUSTOMER

REQUIRED FOR "ODB++" DATA PER EMBEDDED NETLIST.

SUPPLIED IPC-D-356 NETLIST FOR OPENS AND SHORTS WHEN "GERBER DATA" IS PROVIDED. THIS VERIFICATION ALSO

ENIG (ELECTROLESS NICKEL / IMMERSION GOLD)

DOES NOT MATCH "READ_ME.2" FILE PROVIDED.

(LATEST REV.) CLASS 3. COLOR GREEN.

PER IPC-4552 LATEST REVISION

SHALL BE LIQUID PHOTOIMAGEABLE (LPI) APPLIED ON BOTH SIDES

SHALL BE PERMANENT NON-CONDUCTIVE EPOXY INK, COLOR: WHITE

INTENTIONAL NET SHORTS EXIST. CUSTOMER REVIEW AND APPROVAL IS REQUIRED IF SUPPLIED DATA REPORTS ANY CONDITION THAT

U.L. RATING OF 94 V-0

ISOLA 370HR

TAKE PRECEDENCE.

COLOR: WHITE

SPECIFICATIONS:

MATERIAL FAMILY:

MATERIALS;

CLADDING;

SOLDER MASK;

SILK SCREEN;

SURFACE FINISH;

INTENTIONAL SHORTS;

TEST REQUIREMENTS;

UNLESS OTHERWISE SPECIFIED APPROVAL DATE **ANALOG** DIMENSIONS ARE IN INCHES DIVISION TEMPLATE ENGINEER TOLERANCES 804 WOBURN STREET DECIMALS FRACTIONS ANGLES WILMINGTON, MA 01887 16AUG19 P SHEAHAN .XX +-.010 +-1/32 +- 2 HARDWARE SYSTEMS FABRICATION TEST ENGINEER MATERIAL COMPONENT ENGINEER TEST PROCESS EVAL-AD5941BATZ 16AUG19 P SHEAHAN FINISH SIZE | FSCM NO DRAWING NUMBER REV 16AUG19 IM LAMBE PTD ENGINEER 16AUG19 M LAMBE 09-047456 SHEET 1 OF 1 DO NOT SCALE DWG 1 / 1 SCALE

ART FILM - fab1