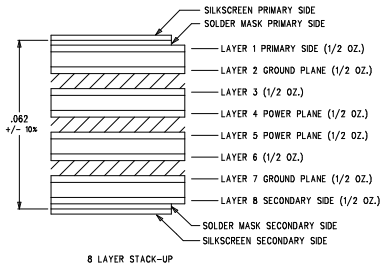
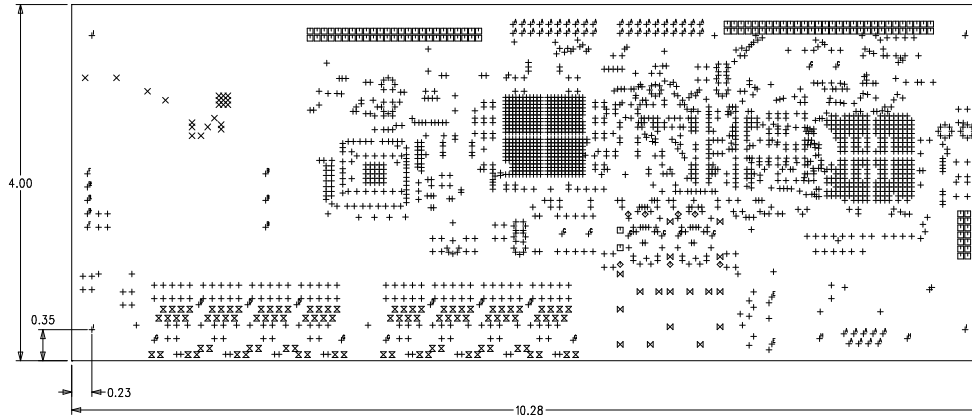


FABRICATION NOTES:

- 1) LATEST VERSION OF ALL REFERENCED SPECIFICATIONS TO BE USED UNLESS OTHERWISE SPECIFIED.
- 2) UNLESS OTHERWISE SPECIFIED ALL IPC SPECIFICATIONS TO BE:
  - CLASS 2     CLASS 3
- 3) FABRICATE IN ACCORDANCE WITH IPC-A-600H UNLESS OTHERWISE SPECIFIED.
- 4) INSPECT IN ACCORDANCE WITH IPC-6012C UNLESS OTHERWISE SPECIFIED.
- 5) MATERIAL:
  - BASE LAMINATE TO MEET THE REQUIREMENTS OF IPC-4101A /24 /26/29/98
  - COPPER CLAD HIGH TEMPERATURE FR4 CLASS EPOXY GLASS (UL94V-0)
  - MUST SURVIVE A LEAD FREE ASSEMBLY MAX REFLOW OF 260°C (6 PASSES)
  - Tg >= 150°C (MIN) FOR 8 LAYERS OR LESS (REF)
  - Tg >= 170°C (MIN) FOR > 8 LAYERS (REF)
  - Td >= 340°C
  - CTE Z-AXIS EXPANSION (50 DEG. C TO 260 DEG. C) <= 3.5%
- 6) OVERALL BOARD THICKNESS (+/-10%):
  - 0.062"     0.093"     0.125"     OTHER
- 7) COPPER WEIGHT:
  - STARTING     FINISHED
  - OUTER LAYERS :     SEE STACK-UP     1/2 oz.     1 oz.     2 oz.
  - INNER LAYERS :     SEE STACK-UP     1/2 oz.     1 oz.     2 oz.     NONE
- 8) FINISH:
  - SOLDER MASK OVER BARE COPPER (SMOBC)
  - ELECTROLESS NICKEL IMMERSION GOLD (ENIG) 2-8 μINCHES GOLD OVER 150-250 μINCHES NICKEL PER IPC-4552.
  - IMMERSION SILVER 8-14 μINCHES
  - IMMERSION TIN 25-50 μINCHES
  - OSP ENTEK OR EQUIVALENT
- 9) SOLDER MASK:
  - LIQUID PHOTODEVELOPABLE     DRY FLM     NONE
  - GREEN     RED     BLUE
- 10) SILKSCREEN INK NOT TO COVER ANY PORTION OF EXPOSED COPPER. FABRICATOR TO CLIP ANY NON-CONFORMING SILKSCREEN NOMENCLATURE. SILKSCREEN USING EPOXY BASED INK:
  - BOTH SIDES     PRIMARY SIDE     SECONDARY SIDE     NONE
  - WHITE     YELLOW     BLACK
- 11) BOARD EDGE FINGERS:
  - 30-50 μINCHES HARD GOLD OVER 150-200 μINCHES NICKEL PLATED
  - BEVELED AND CHAMFERED PER DETAIL     TIN LEAD PLATED
  - OTHER     NONE
- 12) CONTROLLED IMPEDANCE:
  - NONE     SEE STACK-UP DRAWING
- 13) BARE BOARD ELECTRICAL TEST:
  - PER SUPPLIED IPC-D-356 NETLIST (REPORT ALL DISCREPANCIES)     NO TEST REQUIRED
  - BOARD CONTAINS FAN-OUTS ON UNSOLDED PINS. THE RESULT IS A NET CALLED "NOT\_CONNECTED" WHICH LACKS CONTINUITY. THIS IS INTENTIONAL.
- 14) UL LOGO AND DATE CODE & VENDOR CODE MUST APPEAR IN ETCH ON PRIMARY SIDE, SECONDARY SIDE IS ACCEPTABLE IF THERE IS NO ROOM ON PRIMARY SIDE.
- 15) TOOLING HOLES MUST BE PRIMARY DRILLED AT THE SAME TIME AS PLATED-THRU HOLES. ALL HOLES MUST BE WITHIN .003" OF RADIAL TRUE POSITION.
- 16) PADS MUST BE FINISHED TO WITHIN +/- .0015" OF THE MINOR DIMENSION (PAD WIDTH) & +/- .002" OF THE MAJOR DIMENSION (PAD LENGTH).
- 17) GLOBAL AND LOCAL FIDUCIALS MUST BE FREE OF ANY MARKINGS.
- 18) REMOVAL OF NON-FUNCTIONAL PADS ON INNER LAYERS ALLOWED.
- 19) THEIVING OF OUTER LAYERS IS ACCEPTABLE AS LONG AS THE COPPER IS KEPT A MINIMUM OF 0.200" FROM ANY DESIGN FEATURE, UNLESS OTHERWISE SPECIFIED.
- 20) BOARD TO BE MANUFACTURED IN COMPLIANCE WITH RESTRICTION OF HAZARDOUS SUBSTANCES IN ELECTRONIC AND ELECTRONIC EQUIPMENT (RoHS) DIRECTIVE 2002/95/EC AND WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE 2002/96/EC.



SIZE	QTY	SYM	PLATED	TOL
0.012	2006	+	YES	+/-0.003
0.02	21	X	YES	+/-0.003
0.036	126	□	YES	+/-0.003
0.037	7	◇	NO	+/-0.003
0.038	96	X	YES	+/-0.003
0.041	17	⊗	YES	+/-0.003
0.043	49	±	YES	+/-0.003
0.052	6	#	YES	+/-0.003
0.062	8	-E	NO	+/-0.003
0.063	6	#	YES	+/-0.003
0.067	2	#	NO	+/-0.003
0.072	2	#	YES	+/-0.003
0.125	4	#	YES	+/-0.005
0.128	2	#	YES	+/-0.005
0.154	4	#	YES	+/-0.005

CONTROLLED IMPEDANCES:  
ALL .0049" TRACES TO BE 90-110 OHMS DIFFERENTIAL.

UNLESS OTHERWISE SPECIFIED		COMPANY NAME	
TOLERANCES		TITLE	
.00	± .010	FABRICATION DRAWING BOARD NAME	
.000	± .005		
ANGLES	±		
APPROVALS		SHEET: 1 OF 1	
ORIGINATOR	DATE	SIZE	NUMBER
ENG APPD	DATE	C	BOARD NUMBER
MFG ENG APPD	DATE	SCALE: 1:1    REVISION: REV	
CAD APPD	DATE	REVISION: REV	

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