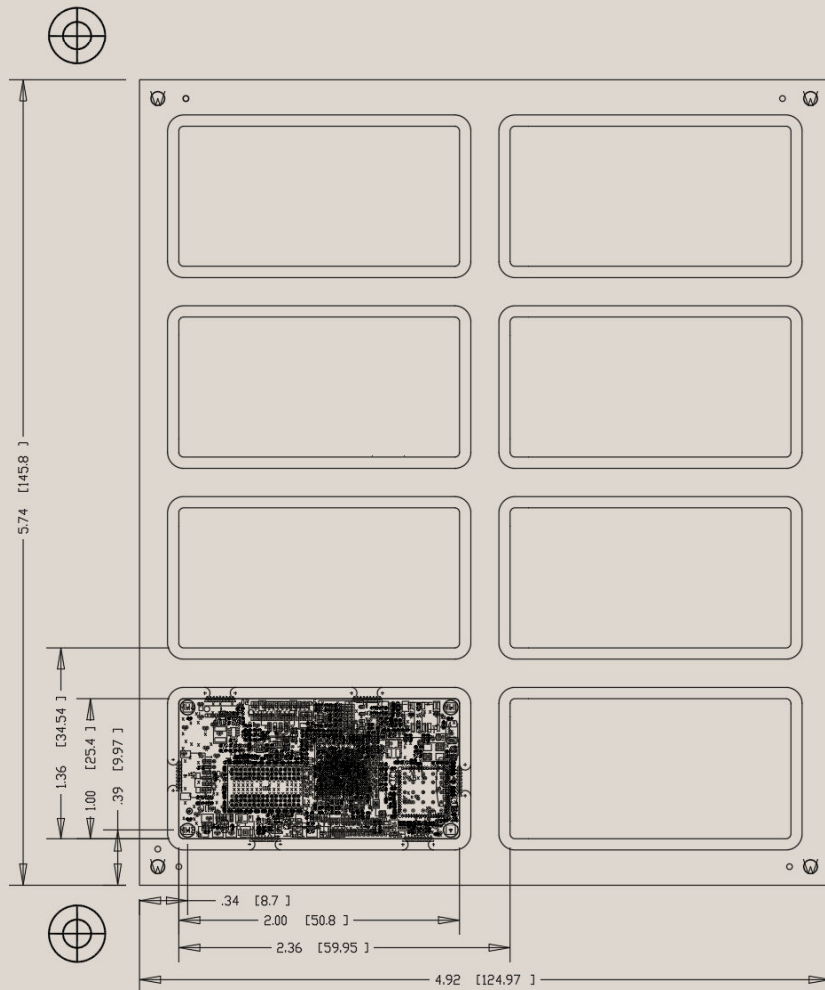


TABLE 1 MANUFACTURING INFORMATION FOR PCB									
EICAD File No. MERCURY_NAND_R1.BRD				PCB P/N: M-P-00125-0001 REV-1.0					
CUSTOMER: MARIS									
LAYER STRUCTURE (from TOP to BOTTOM)									
LYR	DESC.	COPPER [Oz]	DIEL. [mil]	GERBER FILE	IMPEDANCE				
					SE 50 Ohm	SE 75 Ohm	Diff. 90 Ohm	Diff. 100 Ohm	
1.	TOP	1.0		MERCURY_NAND_R1_TOP.LGX	4.5 mil	4.6 mil[*]		4.5/12.0/4.5 mil	
2.	L2-GND	1.0	3.4	MERCURY_NAND_R1_L2-GND.LGX					
3.	L3-SIG	1.0	3.4	MERCURY_NAND_R1_L3-SIG.LGX	3.3 mil				
4.	L4-SIG	0.5	4.0	MERCURY_NAND_R1_L4-SIG.LGX	3.0 mil				
5.	L5-GND	0.5	4.0	MERCURY_NAND_R1_L5-GND.LGX					
6.	L6-SIG	0.5	3.0	MERCURY_NAND_R1_L6-SIG.LGX	3.0 mil		4.0/5.0/4.0 mil	3.4/6.0/3.4 mil	
7.	L7-GND	0.5	4.0	MERCURY_NAND_R1_L7-GND.LGX					
8.	L8-SIG	0.5	3.0	MERCURY_NAND_R1_L8-SIG.LGX	3.0 mil				
9.	L9-SIG	0.5	4.0	MERCURY_NAND_R1_L9-SIG.LGX	3.0 mil				
10.	L10-GND	0.5	3.0	MERCURY_NAND_R1_L10-GND.LGX					
11.	L11-SIG	0.5	4.0	MERCURY_NAND_R1_L11-SIG.LGX	3.0 mil			3.4/6.0/3.4 mil	
12.	L12-GND	0.5	3.0	MERCURY_NAND_R1_L12-GND.LGX					
13.	L13-SIG	0.5	4.0	MERCURY_NAND_R1_L13-SIG.LGX	3.0 mil				
14.	L14-SIG	1.0	4.0	MERCURY_NAND_R1_L14-SIG.LGX	3.3 mil				
15.	L15-GND	1.0	3.4	MERCURY_NAND_R1_L15-GND.LGX					
16.	BOTTOM	1.0	3.4	MERCURY_NAND_R1_BOTTOM.LGX	4.5 mil	4.6 mil[**]	4.1/7.0/4.1 mil	4.5/12.0/4.5 mil	

[*] 4.6 mil - REFERENCE TO LAYER 3
[**] 4.6 mil - REFERENCE TO LAYER 14



DRILL CHART: TOP TO L2-GND				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
*	4.0	+1.0/-3.0	PLATED	628
TOTAL HOLES: 628				
DRILL CHART: L2-GND TO L3-SIG				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
*	4.0	+1.0/-3.0	PLATED	494
TOTAL HOLES: 494				
DRILL CHART: L3-SIG TO L4-SIG				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
*	8.0	+2.0/-2.0	PLATED	788
TOTAL HOLES: 788				
DRILL CHART: L4-SIG TO L15-GND				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
*	4.0	+1.0/-3.0	PLATED	416
TOTAL HOLES: 416				
DRILL CHART: L15-GND TO BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
*	4.0	+1.0/-3.0	PLATED	692
TOTAL HOLES: 692				
DRILL CHART: TOP TO BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
□	650	+4.0/-0.0	PLATED	4
△	16.0	+4.0/-0.0	NON-PLATED	54
△	18.0	+4.0/-0.0	NON-PLATED	1
W	98.0	+3.0/-3.0	NON-PLATED	4
TOTAL HOLES: 63				



MicroVia structure

- VIA BETWEEN LAYERS 1-2
- VIA BETWEEN LAYERS 2-3
- STACK VIA MADE OF 1-2 and 2-3
- VIA BETWEEN LAYERS 3-14
- STACK VIA MADE OF 14-15 and 15-16
- VIA BETWEEN LAYERS 14-15
- VIA BETWEEN LAYERS 15-16

- TABLE 2 NOTES: UNLESS OTHERWISE SPECIFIED
- APPLICABLE STANDARDS/SPECIFICATIONS: ASME Y14.5M-1994, DIMENSIONS AND TOLERANCES.
PRINTED CIRCUIT BOARD (PCB) DESCRIPTION:
RIGID HDI 16 LAYERS BOARD.
PCB NAME: MERCURY_NAND_R1 P/N M-P-00125-0001 REV-1.0
FINAL BOARD THICKNESS 1.8mm +/-10%.
- INCH DIMENSIONS ARE THE CONTROLLING DIMENSIONS FOR THE DRAWINGS AND SUPPLIED DATA. MILLIMETERS DIMENSIONS ARE FOR REFERENCE ONLY.
 - FABRICATE PCB IN ACCORDANCE WITH IPC-6012, CLASS 2; PER IPC-6011 USING CUSTOMER SUPPLIED DATA FILES.
WHENEVER IS APPROPRIATE, WILL BE INSPECTED WITH REFERENCE TO PUBLICATION IPC-A-600-E CLASS 2.
 - MATERIALS<UNLESS OTHERWISE SPECIFIED>
 - LAMINATE SHALL BE PER IPC-2221 PAR 4.3; IN ACCORDANCE WITH IPC-4101/126 LAMINATED SHEET, FLAME RESISTANT (MEETING UL 94V-0).
Tg RATING: 170 DEG MIN.
 - PREPREG SHALL BE PER IPC-2221 PAR 4.2; IN ACCORDANCE WITH IPC-4101/24, PREPREG (B-STAGE), FLAME RESISTANT (MEETING UL 94V-0). Tg RATING: 170 DEG MIN.
 - LASER VIAS 1-2, 15-16 AND PTH VIAS SHALL BE 100% FILLED AND CAPPED FROM BOTH SIDES.
FILLING MATERIAL SHALL BE WITH SPECIALLY FORMULATED HOLE PLUGGING MATERIAL.
PREFERRED MATERIAL TAIYO THP-100DX1 OR PETERS.
FILLING WITH SOLDERMASK OR RESIN IS NOT ALLOWED.
 - ALL HOLES SHALL BE LOCATED WITHIN +/-0.075 (+/-3 mil) (RADIAL ERROR) OF TRUE POSITION.
LAYER-TO-LAYER REGISTRATION SHALL BE WITHIN +/- 0.05 (.002").
ADD TEARDROPS AS REQUIRED SO THAT ALL HOLES SURROUNDED BY LAND HAVE A MINIMUM ANNULAR RING AS PER IPC-6012 CLASS 2.
 - FINISH:
 - ALL EXPOSED CONDUCTIVE PATTERN AREAS NOT COVERED WITH SOLDERMASK OR OTHER PLATING SHALL BE PLATED WITH IMMERSION GOLD 0.05 - 0.23 Micron OVER ELECTROLESS NICKEL 2.5 - 6 Micron (NiAu) OVER COPPER.
 - APPLY LIQUID PHOTO IMAGEABLE SOLDER MASK PER IPC-SM-840, CLASS H, TO BOTH SIDES OF THE BOARD OVER BARE COPPER.
 - VIA PLUG: N/A.
 - SILKSCREEN SHALL BE WHITE, PERMANENT, ORGANIC, NON-CONDUCTIVE INK.
THERE SHALL BE NO SILKSCREEN ON ANY SOLDERABLE COMPONENT PAD.
 - MARKING:
 - UL LOGO, MANUFACTURER'S IDENTIFICATION AND DATE CODE LETTER SHALL BE ADDED ON TOP OR BOTTOM SILK.
 - TEST REQUIREMENTS:
 - 100 % NETLIST ELECTRICAL VERIFICATION USING CUSTOMER SUPPLIED IPC-D-356A NETLIST FOR OPENS AND SHORTS. ALL NETS SHALL BE ACCESSED SIMULTANEOUSLY OR AS OTHERWISE MUTUALLY AGREED UPON.
 - TOLERANCES<UNLESS OTHERWISE SPECIFIED>
 - WARP OR TWIST OF BOARD SHALL NOT EXCEED 0.75 % PER IPC-TM-650, METHOD 2.4.22.
 - CONDUCTOR WIDTHS AND SPACING TO FOLLOW THE IPC-6012 CLASS 2.
 - REMOVE ALL BURRS AND BREAK SHARP EDGES 0.4 (.015") MAXIMUM.
 - SURFACE MOUNT PAD PLATING MUST BE FLAT TO A MAXIMUM OF 10um ABOVE BOARD SURFACE.
 - 0.8 (.032") MAXIMUM RADIUS ON ANY INSIDE CORNERS.
 - HOLE SIZE TOLERANCE SHALL BE: +/-0.075 (+/-3 mil) UNLESS OTHERWISE SPECIFIED.
 - GENERAL TOLERANCE: +/- 0.1.
 - ANGLE TOLERANCE SHALL BE +/- 2 DEGREES.
 - MINIMUM WALL THICKNESS OF 0.001 INCH TO ALL COPPER PLATED HOLES.
 - CONTROLLED IMPEDANCE:
 - PLEASE SEE TABLE 1
 - THIEVING:
 - SUPPLIER SHALL NOT ADD THIEVING TO COMPENSATE FOR HIGH COPPER DENSITY AREAS ON THIS DESIGN PRIOR TO CUSTOMER APPROVAL.
 - PLATE EDGE CONNECTOR: N/A
 - GENERAL NOTES:
 - PACKAGING: EACH 10 BOARDS/PANELS SHOULD BE PACKED SEPARATELY.
 - DRAWING IS VIEWED FROM COMPONENT SIDE.
 - GERBER FILES IN 274-X FORMAT.
 - DRILL BOARD USING NC DRILL FILE(S) SUPPLIED (USING EXCELLON FORMAT).
 - ALL PRODUCT LOT SHOULD BE DELIVERED WITH C.O.C.
 - IN CASE OF PANEL DESIGN - PLEASE DUPLICATE PASTE FILES AND SEND TO CUSTOMER.
 - IN CASE OF PANEL DESIGN - DO NOT SEPARATE BOARDS FROM PANEL.

Elcad PCB Ltd. TEL: 08-941-7274 Email: elcad@zahavnet.il		LAYOUT DESIGNER ELCAD	
CUSTOMER:		Maris	
PROJECT		MERCURY M-P-00125-0001 Rev 1.0	
LAYER	FILE NAME :	MERCURY_NAND_R1_FAB.LGX	
	DESCRIPTION	FAB-DWG	
DATE: 16-JAN-20	ORDER NO:	ELCAD NO: MERCURY_NAND_R1.BRD	

PROPERTY OF Maris
AFTER USE RETURN TO Maris