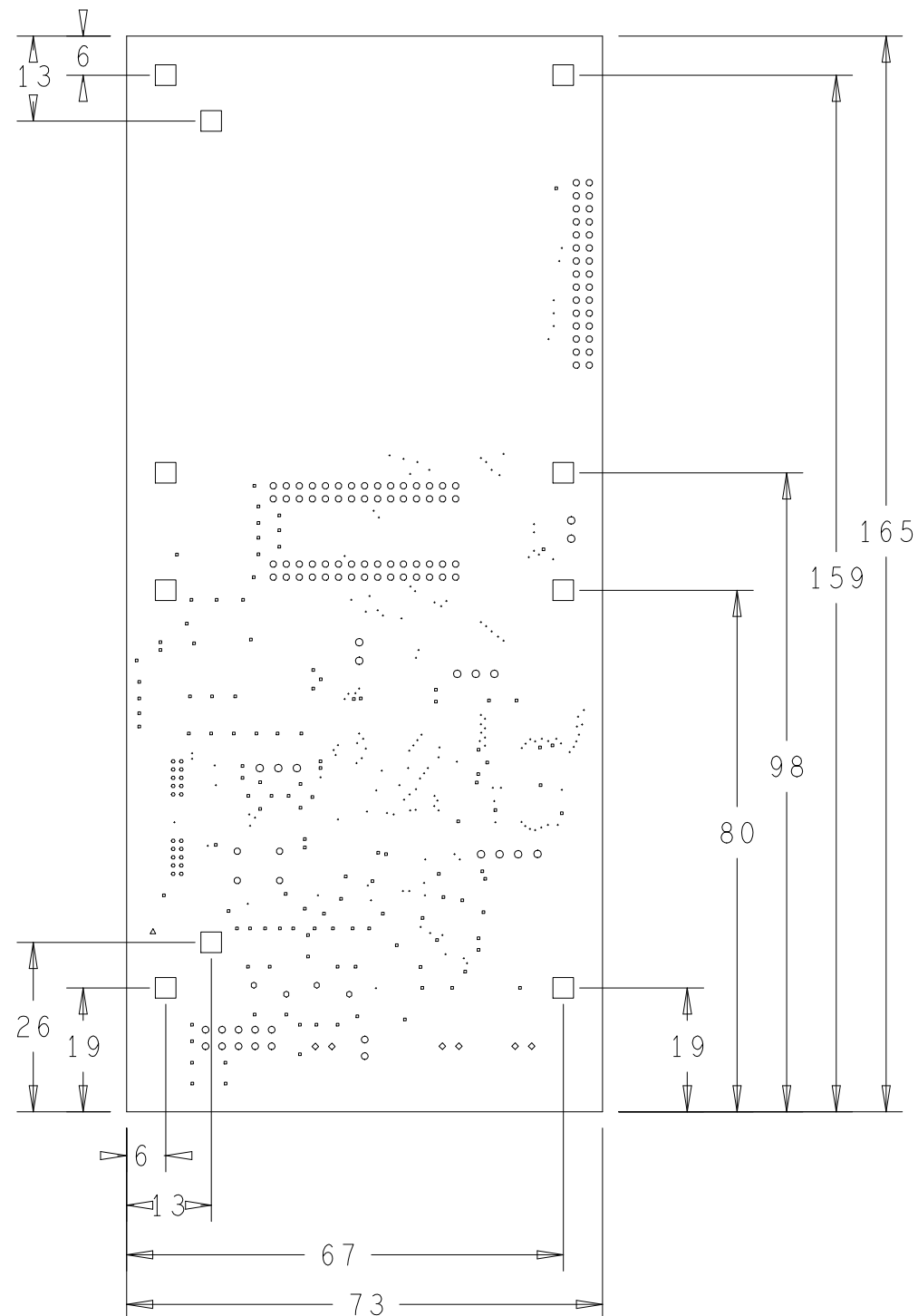




DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	7.9	+2.0 / -6.0	PLATED	147
◦	16.0	+4.0 / -4.0	PLATED	124
◦	23.6	+4.0 / -4.0	PLATED	20
◦	35.4	+4.0 / -4.0	PLATED	4
◦	35.8	+4.0 / -4.0	PLATED	94
◦	39.4	+4.0 / -4.0	PLATED	6
◦	40.2	+4.0 / -4.0	PLATED	1
◦	41.3	+4.0 / -4.0	PLATED	12
◦	43.3	+4.0 / -4.0	PLATED	14
□	126.0	+4.0 / -4.0	OPTIONAL	10

DETAIL A:

NOTES: UNLESS OTHERWISE SPECIFIED:

1. FABRICATE IN ACCORDANCE WITH LATEST IPC-6012 SPECIFICATIONS CLASS 2
2. ACCEPTABILITY SHALL BE BASED ON LATEST IPC-A-600 SPECIFICATIONS CLASS 2
3. ALL BASE MATERIAL SHALL BE IN ACCORDANCE WITH LATEST IPC-4101/24 SPECIFICATIONS.
CORE MATERIALS ARE REGISTERED LAMINATES PER LATEST IPC-4121 SPECIFICATIONS.
MATERIAL TO BE 0.062+/- 10% THICK EPOXY GLASS NEMA GRADE IS-410 OR
EQUIVALENT WITH A MINIMUM TG OF 180C INNER LAYERS SHALL BE 1oz. HTE COPPER
CLAD. COPPER THICKNESS FOR OUTSIDE LAYERS SHALL BE NO LESS THAN .5oz
4. FLAMMABILITY RATINGS SHALL BE IN ACCORDANCE WITH UL 94V-0 (OR 94V-1 IF 94V-0 MATERIAL
IS UNAVAILABLE) AS MANDATED BY STANDARDS UL61010A -1, IEC61010-1 AND EN61010-1
5. FINISH: ELECTROLESS NICKEL IMMERSION GOLD (ENIG) WITH A NOMINAL 3-7 MICRO-INCH IMMERSION
GOLD OVER 150-200 MICRO-INCH IMMERSION NICKEL ON ALL EXPOSED TRACES AND FEATURES.
6. FRONT TO BACK PATTERN SHALL REGISTER WITHIN .003" RTP
7. HOLE CENTERS LOCATED ON PADS AND CENTERED WITHIN .003" RTP
8. CONDUCTOR EDGES TO BE FREE OF LOOSE SLIVERS AND ROUGH EDGES
9. END PRODUCT CONDUCTOR WIDTHS AND CIRCUIT FEATURES SHALL NOT VARY MORE
THAN 0.002" FROM THE 1:1 DIMENSIONS OF THE MASTER PATTERN
10. THE CONSTRUCTION AND INTRA-LAYER SPACING SHALL BE AS DEFINED IN DETAIL "A"
11. ALL TOOLING HOLES MUST BE DRILLED DURING PRIMARY DRILL STAGE, SECONDARY DRILL
STAGE SHALL NOT BE PERMITTED
12. BOW AND TWIST SHALL NOT EXCEED 0.005" PER INCH OF LENGTH
13. ALL PLATED THRU HOLES AND CONDUCTIVE SURFACES SHALL BE PLATED WITH A MINIMUM
THICKNESS OF .001" COPPER
14. HOLE SIZES ARE AFTER PLATING
15. PRIOR TO SOLDERMASK, THE BOARD SHALL BE CLEANED AND FREE OF CONTAMINANTS OR RESIDUES.
16. SOLDERMASK: SHALL BE MATTE GREEN/BLACK LIQUID PHOTO-IMAGEABLE (LPI) PER LATEST
IPC-SM-840 SPECIFICATIONS TYPE-B, CLASS 2. REGISTRATION ALLOWANCE IS 0.003" RTP
17. THE LEGEND SHALL BE PRINTED USING NON-CONDUCTIVE PERMANENT EPOXY INK, COLOR: WHITE.
18. PRINTING REGISTRATION ALLOWANCE IS 0.005". THERE SHALL BE NO INK ON
ANY SOLDER PAD OR LAND
19. ALL BOARDS SHALL BE ELECTRICALLY TESTED TO THE NET LIST USING IPC-D-356 FOR
CONTINUITY OPENS AND SHORTS
20. THE PHOTO-TOOL MAY BE COMPENSATED FOR ETCHING ALLOWANCES ONLY. A 1:1 RELATIONSHIP MUST
BE APPARENT BETWEEN GERBERS SUBMITTED AND FINAL PRODUCT. IT IS PROHIBITED TO IMPLEMENT
THE USE OF FILLETING OR TEAR DROP TECHNOLOGY ON VIAS IN PREVENTING HOLE BREAK OUT
EDITS TO THE GERBER DATA FOR COPPER THEIEVING SHALL NOT BE PERMITTED. NO CHANGES CAN BE
MADE WITHOUT A VITRON MFG/LIQUID ROBOTICS, INC. ECO OR DEVIATION NOTICE.
21. THE .040" DIA PCB FUDICIALS SHOULD HAVE .120" DIA SOLDERMASK OPENING
22. ALL PROCESSES ARE TO MAINTAIN READY TO COMPLIANCE WITH ROHS DIRECTIVE 2002/95/EC.
23. ADD LIQUID ROBOTICS, INC. LOGO AND SILKSCREEN REV BOX NEAR PART NUMBER/NAME.

UNLESS OTHERWISE SPECIFIED	SIGNATURES	DATE	LIQUID ROBOTICS, INC			
DIMENSIONS ARE IN MM TOLERANCES ON: 2 PL DECIMALS + 3 PL DECIMALS + ANGLES + FRACTIONS +			1329 MOFFETT PARK DR SUNNYVALE, CA 94089			
			SIZE	FSCM NO	DWG NO	
			SCALE			SHEET