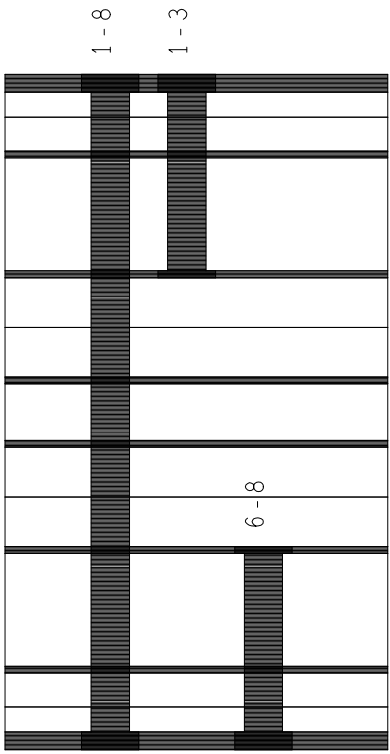


GERBER FILE DESCRIPTIONS:
TOP SILK SCREEN: 10020881rB_SST.art
TOP PASTE MASK: 10020881rB_PMT.art
TOP SOLDER MASK: 10020881rB_SMT.art
TOP CONDUCTOR: 10020881rB_cuTOP.art
GND_1 CONDUCTOR: 10020881rB_cuGND1.art
INROUTE_1 CONDUCTOR: 10020881rB_cuIN1.art
GND_2 CONDUCTOR: 10020881rB_cuGND2.art
POWER CONDUCTOR: 10020881rB_cuPWR.art
INROUTE_2 CONDUCTOR: 10020881rB_cuIN2.art
GND_3 CONDUCTOR: 10020881rB_cuGND3.art
BOTTOM CONDUCTOR: 10020881rB_cuBOT.art
BOTTOM SOLDER MASK: 10020881rB_SMB.art
BOTTOM PASTE MASK: 10020881rB_PMB.art
BOTTOM SILK SCREEN: 10020881rB_SSB.art
DRILL FILE FOR LAYERS 1-3: 10020881rB_LRAUV_MotherBoard-1-3.drl
DRILL FILE FOR LAYERS 1-8: 10020881rB_LRAUV_MotherBoard-1-8.drl
DRILL FILE FOR LAYERS 6-8: 10020881rB_LRAUV_MotherBoard-6-8.drl
IPC-356 E-TEST FILE: 10020881rB_LRAUV_MotherBoard.ipc
FABRICATION DRAWING: 10020881rB_FABRICATION-DWG.pdf



- * SOLDERMASK PSR-4000BN (SEMI-GLOSS)
- L1: TOP CONDUCTOR - COPPER 1.6 MIL
- * 370HR 106 PRE-PREG - FR-4 2.2 MIL
- * 370HR 1080 PRE-PREG - FR-4 3 MIL
- L2: GND_1 CONDUCTOR - COPPER 0.6 MIL
- * 370HR 0.1010 H/H CORE - FR-4 10 MIL
- L3: INROUTE_1 CONDUCTOR - COPPER 0.6 MIL
- * 370HR 2116 PRE-PREG - FR-4 4.4 MIL
- * 370HR 2116 PRE-PREG - FR-4 4.4 MIL
- L4: GND_2 CONDUCTOR - COPPER 0.6 MIL
- * 370HR 0.005 H/H CORE - FR-4 5 MIL
- L5: PWR CONDUCTOR - COPPER 0.6 MIL
- * 370HR 2116 PRE-PREG - FR-4 4.4 MIL
- * 370HR 2116 PRE-PREG - FR-4 4.4 MIL
- L6: INROUTE_2 CONDUCTOR - COPPER 0.6 MIL
- * 370HR 0.1010 H/H CORE - FR-4 10 MIL
- L7: GND_3 CONDUCTOR - COPPER 0.6 MIL
- * 370HR 1080 PRE-PREG - FR-4 3 MIL
- * 370HR 106 PRE-PREG - FR-4 2.2 MIL
- L8: BOTTOM CONDUCTOR - COPPER 1.6 MIL
- * SOLDERMASK PSR-4000BN (SEMI-GLOSS)

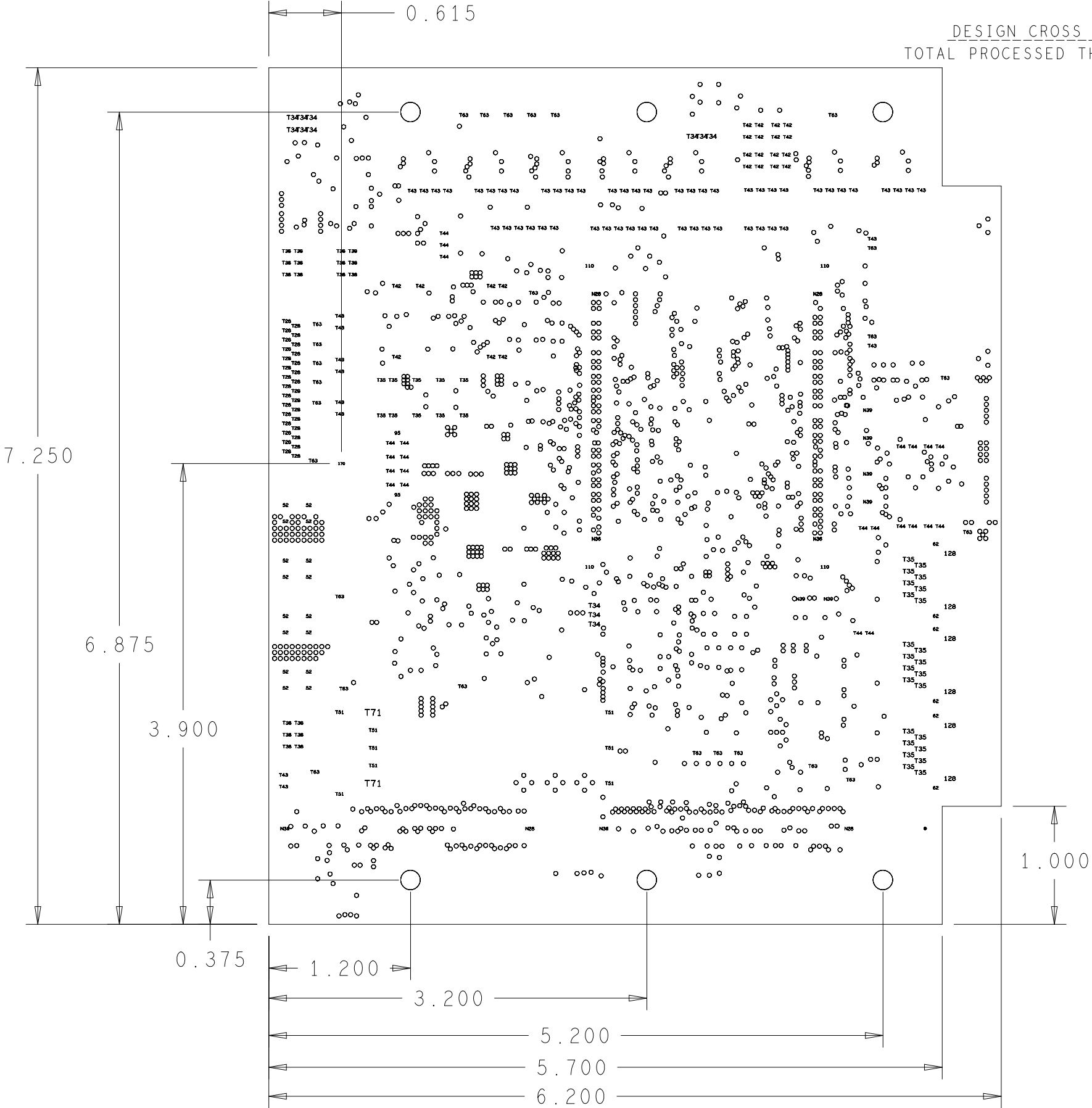
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

- CLASS II FABRICATION NOTES: (UNLESS OTHERWISE SPECIFIED)
- BOARDS SHALL BE 100% NET LIST TESTED FOR OPENS AND SHORTS PER PROVIDED IPC-D-356 NETLIST.
 - THIS BOARD SHALL BE MANUFACTURED IN ACCORDANCE WITH IPC-6012A CLASS II SPECIFICATIONS AND MEET IPC-600 CLASS II ACCEPTABILITY STANDARDS.
 - MATERIAL:
 - a. FR4 PER IPC 4101B/24/26 OR /28
 - b. OUTER LAYERS TO BE 1.0 OZ. FINISHED COPPER.
 - c. INNER LAYERS TO BE 0.5 OZ. BASE COPPER
 - d. OVERALL THICKNESS TO BE 0.062" +/- 10%
 - LEGEND:
 - a. WHITE NON-CONDUCTIVE EPOXY INK BOTH SIDES.
 - SOLDERMASK:
 - a. APPLY LIQUID PHOTO-IMAGABLE (LPI) SOLDER MASK OVER BARE COPPER PER IPC-SM-840 CLASS H, COLOR MATTE BLUE, BOTH SIDES.
 - PLATING FINISH:
 - a. HOT AIR SOLDER LEVELING (HASL) SN63A SnPb SOLDER.
 - b. IMMERSION SILVERING.
 - PROCESS ALLOWANCES:
 - a. MAXIMUM BOW AND TWIST ACROSS DIAGONAL CORNERS OF THE BOARD SHALL NOT EXCEED 0.75%.
 - b. HOLE DIMENSIONS APPLY AFTER PLATING.
 - c. ALL HOLES SHALL BE LOCATED WITHIN 0.003" DIAMETER OF TRUE POSITION
 - d. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.003".
 - e. CONDUCTOR WIDTHS AND SPACING SHALL BE WITHIN +/- 0.002".
 - f. REMOVE ALL BURRS AND BREAK SHARP EDGES 0/015" MAX.
 - g. CUT OUTSIDE OF 0.001" BOARD OUTLINE.

DRILL CHART: INROUTE_2 to BOTTOM			
ALL UNITS ARE IN MILS			
FIGURE	SIZE	PLATED	QTY
o	10.0	PLATED	114

DRILL CHART: TOP to INROUTE_1			
ALL UNITS ARE IN MILS			
FIGURE	SIZE	PLATED	QTY
o	10.0	PLATED	318

DRILL CHART: TOP to BOTTOM			
ALL UNITS ARE IN MILS			
FIGURE	SIZE	PLATED	QTY
o	10.0	PLATED	1162
T28	28.0	PLATED	30
T34	34.0	PLATED	12
T35	35.0	PLATED	10
T35	35.0	PLATED	24
T38	38.0	PLATED	18
T42	42.0	PLATED	23
T43	43.0	PLATED	62
T44	44.0	PLATED	23
T51	51.0	PLATED	8
52	52.0	PLATED	16
62	62.0	PLATED	6
T63	63.0	PLATED	26
T71	71.0	PLATED	2
95	95.0	PLATED	2
110	110.0	PLATED	8
128	128.0	PLATED	6
169.3	169.3	PLATED	6
170.0	170.0	PLATED	1
N28	28.0	NON-PLATED	6
N36	36.0	NON-PLATED	6
N39	39.0	NON-PLATED	6
*	102.0	NON-PLATED	1



UNLESS OTHERWISE SPECIFIED	SIGNATURES	DATE	LONG RANGE AUV MOTHERBOARD		
			MONTEREY BAY AQUARIUM RESEARCH INSTITUTE		
			7700 SANDHOLDT ROAD		
			MOSS LANDING, CA		
	DESIGNED BY: MARK CHAFFEY		SIZE C	RELEASE B	DWG NO 10020881
	LAYOUT BY: JOSE ROSAL		SCALE 1-1		SHEET 1-1