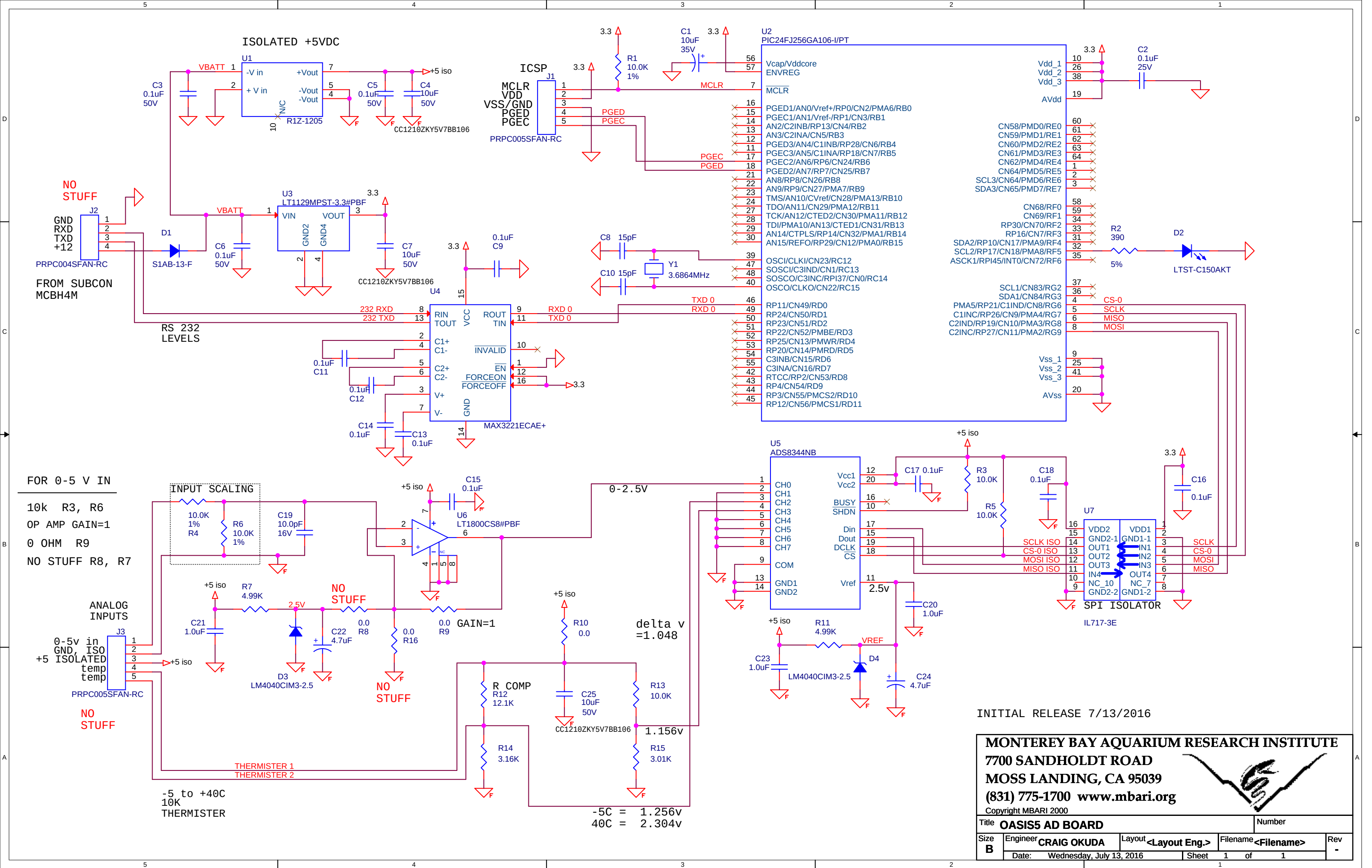
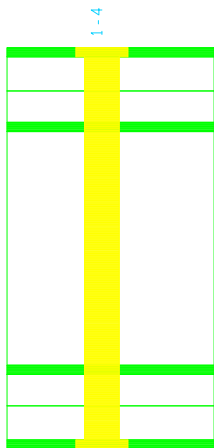




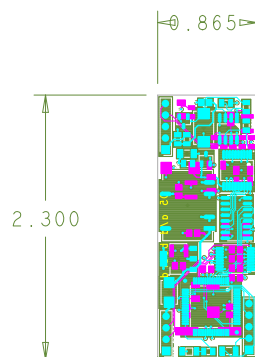


* SURFACE - AIR 0 MIL
L1: TOP CONDUCTOR - COPPER 1.4 MIL
* DIELECTRIC - FR-4 5.1 MIL
* DIELECTRIC - FR-4 4.7 MIL
L2: IN1 CONDUCTOR - COPPER 1.4 MIL

* DIELECTRIC - FR-4 35 MIL

L3: IN2 CONDUCTOR - COPPER 1.4 MIL
* DIELECTRIC - FR-4 4.7 MIL
* DIELECTRIC - FR-4 5.1 MIL
L4: BOTTOM CONDUCTOR - COPPER 1.4 MIL
* SURFACE - AIR 0 MIL

DESIGN CROSS SECTION CHART
TOTAL THICKNESS 60.2 MIL



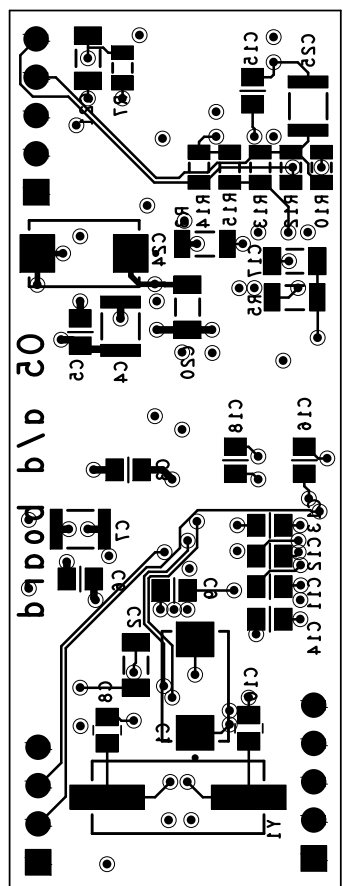
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

DRILL CHART: TOP to BOTTOM			
ALL UNITS ARE IN MILS			
FIGURE	SIZE	PLATED	QTY
Ø	10.0	PLATED	88
⌀	44.0	PLATED	14

CLASS II FABRICATION NOTES: (UNLESS OTHERWISE SPECIFIED)

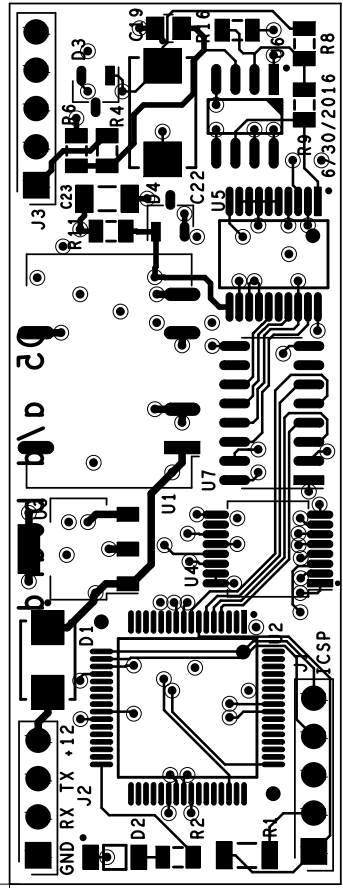
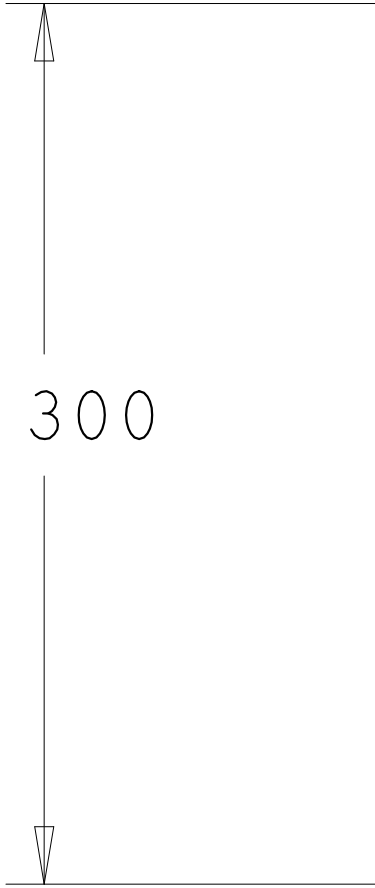
- BOARDS SHALL BE 100% NET LIST TESTED FOR OPENS AND SHORTS PER PROVIDED IPC-D-356 NETLIST.
- THIS BOARD SHALL BE MANUFACTURED IN ACCORDANCE WITH IPC-6012A CLASS II SPECIFICATIONS AND MEET IPC-600 CLASS II ACCEPTABILITY STANDARDS.
- MATERIAL:
 - a. FR4 PER IPC 4101B/24 /26 /28
 - b. SIGNAL LAYERS TO BE 1 OZ. COPPER;
 - c. PLANE LAYERS TO BE 1 OZ. COPPER;
 - d. OVERALL THICKNESS TO BE 0.062" +/- 10%
- LEGEND:
 - a. WHITE NON-CONDUCTIVE EPOXY INK BOTH SIDES.
- SOLDERMASK:
 - a. APPLY TQUD PHOTO-IMAGABLE (LPI) SOLDER MASK OVER BARE COPPER PER IPC-SM-840 CLASS H, COLOR GREEN, BOTH SIDES.
- PLATING FINISH:
 - a. HOT AIR SOLDER LEVELING (HASL) SN63A SnPb SOLDER.
 - ~~b. IMMERSION SILVER PLATING.~~
- PROCESS ALLOWANCES:
 - a. MAXIMUM BOW AND TWIST SHALL NOT EXCEED .007" PER INCH
 - 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.

UNLESS OTHERWISE SPECIFIED	SIGNATURES	DATE	05 A/D BOARD		
			MONTEREY BAY AQUARIUM RESEARCH INSTITUTE		
			7700 SANDHOLDT ROAD		
			MOSS LANDING, CA		
	DESIGNED BY: CRAIG OKUDA		SIZE B	REVISION -	DWG NO 0000
LAYOUT BY: JOSE ROSAL			SCALE 1-1	SHEET 1-1	



2 . 3 0 0

2 . 3 0 0



	OASIS5 AD Board BOM								
	7/18/2016								
Item Number	Quantity	Value	Description	Part Reference	Manufacturer	Manufacturer PN	Dist	Distributor PN	Notes
1	1	10uF	CAP TANT LOESR 10UF 35V 10% SMD	C1	AVX Corporation	TPSD106K035R0125	Digi-Key	478-3337-1-ND	low ESR
2	2	0.1uF	CAP CER .1UF 25V X7R 1206 FO	C2 C17	Kemet	C1206F104K3RACTU	Digi-Key	399-5615-1-ND	
3	11	0.1uF	CAP CER 0.1UF 50V 5% X7R 0805	C3 C5 C6 C9 C11 C12 C13 C14 C15 C16 C18	AVX Corporation	08055C104JAT2A	Digi-Key	478-3352-1-ND	
4	3	10uF	CAP CER 10UF 50V Y5V 1210	C4 C7 C25	Yaego	CC1210ZY5V7BB106	Digi-Key	311-2061-1-ND	
5	2	15pF	CAP CERAMIC 15PF 50V NP0 0805	C8 C10	Kemet	C0805C150J5GACTU	Digi-Key	399-1111-1-ND	
6	1	10.0pF	10pF 50V Ceramic Capacitor C0G, NP0 C	C19	Kemet	C0805C100K5GACTU	Digi-Key	399-7975-1-ND	
7	3	1.0uF	CAP CER 1.0UF 100V X7R 1206	C20 C21 C23	TDK Corporation	C3216X7R2A105K	Digi-Key	445-4467-1-ND	
8	2	4.7uF	CAP TANT 4.7UF 50V 10% 2917	C22 C24	Vishay Sprague	593D475X9050D2TE3	Digi-Key	718-1107-1-ND	
9	1	S1AB-13-F	DIODE GPP 1A 50V SMB	D1	Diodes Inc	S1AB-13-F	Digi-Key	S1AB-FDICT-ND	
10	1	LTST-C150AKT	LED AMBER CLEAR 1206 SMD	D2	Lite-On Inc	LTST-C150AKT	Digi-Key	160-1166-1-ND	
11	2	LM4040CIM3-2.5	IC VREF SHUNT PREC 2.5V SOT23-3	D3 D4	Texas Instruments	LM4040CIM3-2.5	Digi-Key	LM4040CIM3-2.5CT-ND	
12	1	PRPC005SFAN-RC	CONN HEADER .100" SNGL STR 5POS	J1 J3	Sullins Connector Solutions	PRPC005SFAN-RC	Digi-Key	S1211EC-05-ND	J3 no stuff
13	0		J2 no stuff	J2				S1211EC-04-ND	J2 no stuff
14	3	10.0K		R1 R3 R5	Vishay	CRCW120610K0FKEA	Digi-Key	541-10.0KFCT-ND	1206
15	1	390		R2	Vishay	CRCW0805390RJNEA	Newark	59M6897	
16	3	10.0K	RES 10.0K OHM 1/8W 1% 0805 SMD	R4 R6 R13	Vishay	CRCW080510K0FKEA	Digi-Key	541-10.0KCCT-ND	
17	2	4.99K		R7 R11	Vishay	CRCW08054K99FKEA	Digi-Key	541-4.99KCTR-ND	
18	2	0.0	RES 0.0 OHM 1/8W JUMP 0805 SMD	R8 R9 R10 R16	Vishay Dale	CRCW08050000Z0EA	Digi-Key	541-0.0ACT-ND	R8, R16 no stuff
19	1	12.1K	RES 12.1K OHM 1/8W 1% 0805 SMD	R12	Vishay Dale	CRCW080512K1FKEA	Digi-Key	541-12.1KCCT-ND	
20	1	3.16K		R14	Vishay	CRCW08053K16FKEA	Newark	53K0095	
21	1	3.01K		R15	Vishay	CRCW08053K01FKEA	Newark	53K0092	
22	1	R1Z-1205	CONV DC/DC 1W 12V IN 5V OUT	U1	Recom Power	R1Z-1205	Digi-Key	945-2454-ND	
23	1	PIC24FJ256GA106-I/PT	IC PIC MCU FLASH 256K 64TQFP	U2	Microchip Technology	PIC24FJ256GA106-I/PT	Digi-Key	PIC24FJ256GA106-I/PT-ND	
24	1	LT1129MPST-3.3#PBF	IC REG LDO 3.3V 0.7A SOT223	U3	Linear Technology	LT1129MPST-3.3#PBF	Digi-Key	LT1129MPST-3.3#PBF-ND	
25	1	MAX3221ECAE+	IC TXRX RS232 250KBPS SD 16-SSOP	U4	Maxim Integrated	MAX3221ECAE+	Digi-Key	MAX3221ECAE+-ND	
26	1	ADS8344NB	IC 16-BIT 8-CH A/D CONV 20-SSOP	U5	Texas Instruments	ADS8344NB	Digi-Key	ADS8344NB-ND	
27	1	LT1800CS8#PBF	IC OP-AMP R-R IN/OUT LOPWR 8SOIC	U6	Linear Technology	LT1800CS8#PBF	Digi-Key	LT1800CS8#PBF-ND	
28	1	IL717-3E	DGTL ISO 2.5KV GEN PURP 16SOIC	U7	NVE Corp/Isolation Products	IL717-3E	Digi-Key	390-1067-5-ND	
29	1	3.6864MHz	CRYSTAL 3.6864 MHZ 20PF SMD	Y1	ECS Inc	ECS-36-20-5PXDU-TR	Digi-Key	XC1523CT-ND	