

MBARI
7700 Sandholdt Road
Moss Landing CA 95039
831-775-1700

Item	Quantity	Reference	Value	Tolerance	Rating	Type	PCB Footprint	Manufacturer Number	Distributor Number	Description	
1	1	C11	MMNLC	Contact		20-16AWG	DUMMY	AMP 171637-3		Contact, Mini Univeral Mate-N-Lok, 20-16AWG, Duplex Plated	
2	3	C3	0.47uF		100V	X7R	SM/C 1210	Panasonic ECJ-4YB2A474K	DigiKey PCC2240CT-ND		
		C4	0.47uF		100V	X7R	SM/C 1210	Panasonic ECJ-4YB2A474K	DigiKey PCC2240CT-ND		
		C30	0.47uF		100V	X7R	SM/C 1210	Panasonic ECJ-4YB2A474K	DigiKey PCC2240CT-ND		
3	2	C5		0.33	50V	X7R	SM/C 1206	Vishay VJ1206Y334KXAMT	Garrett		
		C6		0.33	50V	X7R	SM/C 1206	Vishay VJ1206Y334KXAMT	Garrett		
4	2	C7	820uF		63V	Al Elect High Rip	16mm dia x 31.5mm h	EEU-FC1J821	DigiKey P11278-ND	CAP 820UF 63V ELECT FC RADIAL	
		C8	820uF		63V	Al Elect High Rip	16mm dia x 31.5mm h	EEU-FC1J821	DigiKey P11278-ND	CAP 820UF 63V ELECT FC RADIAL	
5	2	C9	3.3uF		20V	293D	SM/CT 3216 12	Vishay/Sprague 293D335X9020A2T	Garrett 293D Lab Kit		
		C11	3.3uF		20V	293D	SM/CT 3216 12	Vishay/Sprague 293D335X9020A2T	Garrett 293D Lab Kit		
6	1	C10	180pF			COG	SM/C 0805	Vishay/Vitramon VJ0805A181JXBMT	Garrett 0805 Lab Kit		
7	1	C12	180pF			COG	SM/C 0805	Vishay/Vitramon VJ0805A181JXBMT	Garrett 0805 Lab Kit		
8	2	C13	4700 uF		16V	Al Elect High Rip	CYL/D.650/LS.300/.040	Panasonic EEU-FC1C472	DigiKey P10263ND	CAP 4700UF 16V ELECT FC RADIAL, 16 x 31.5mm	
		C14	4700 uF		16V	Al Elect High Rip	CYL/D.650/LS.300/.040	Panasonic EEU-FC1C472	DigiKey P10263ND	CAP 4700UF 16V ELECT FC RADIAL, 16 x 31.5mm	
9	4	C15		0.047		X7R	SM/C 0805	Vishay VJ0805Y473KXAMT	Garrett 0805 Lab Kit		
		C16		0.047		X7R	SM/C 0805	Vishay VJ0805Y473KXAMT	Garrett 0805 Lab Kit		
		C35		0.047		X7R	SM/C 0805	Vishay VJ0805Y473KXAMT	Garrett 0805 Lab Kit		
		C37		0.047		X7R	SM/C 0805	Vishay VJ0805Y473KXAMT	Garrett 0805 Lab Kit		
10	2	C17		0.33		X7R	SM/C 0805	Vishay VJ1206Y334KXAMT	Garrett		
		C25		0.33		X7R	SM/C 0805	Vishay VJ1206Y334KXAMT	Garrett		
11	3	C18		0.1		X7R	SM/C 0805	Vishay VJ0805Y104KXAMT	Garrett 0805 Lab Kit		
		C19		0.1		X7R	SM/C 0805	Vishay VJ0805Y104KXAMT	Garrett 0805 Lab Kit		
		C21		0.1		X7R	SM/C 0805	Vishay VJ0805Y104KXAMT	Garrett 0805 Lab Kit		
12	2	C20	470pF			COG	SM/C 0805	Vishay/Vitramon VJ0805A471JXBMT	Garrett 0805 Lab Kit		
		C36	470pF			COG	SM/C 0805	Vishay/Vitramon VJ0805A471JXBMT	Garrett 0805 Lab Kit		
13	1	C22	33pF			COG	SM/C 0805	Vishay/Vitramon VJ0805A330JXBMT	Garrett 0805 Lab Kit		
14	2	C23		0.001	100V	X7R	SM/C 0805	Panasonic ECJ-2VB2A102K	DigiKey PCC1985CT-ND	CAP 1000PF 100V CERAMIC X7R 0805	
		C24		0.001	100V	X7R	SM/C 0805	Panasonic ECJ-2VB2A102K	DigiKey PCC1985CT-ND	CAP 1000PF 100V CERAMIC X7R 0805	
15	4	C26		0.01	630V	X7R	SM/C 1206	Panasonic ECJ-3FB2J103K	DigiKey PCC2292CT-ND		
		C27		0.01	630V	X7R	SM/C 1206	Panasonic ECJ-3FB2J103K	DigiKey PCC2292CT-ND		
		C28		0.01	630V	X7R	SM/C 1206	Panasonic ECJ-3FB2J103K	DigiKey PCC2292CT-ND		
		C29		0.01	630V	X7R	SM/C 1206	Panasonic ECJ-3FB2J103K	DigiKey PCC2292CT-ND		
16	4	C31	2200uF		35V	Al Elect High Rip	16mm dia x 31.5mm h	EEU-FC1V222	DigiKey P10309-ND	CAP 2200UF 35V ELECT FC RADIAL	
		C32	2200uF		35V	Al Elect High Rip	16mm dia x 31.5mm h	EEU-FC1V222	DigiKey P10309-ND	CAP 2200UF 35V ELECT FC RADIAL	
		C33	2200uF		35V	Al Elect High Rip	16mm dia x 31.5mm h	EEU-FC1V222	DigiKey P10309-ND	CAP 2200UF 35V ELECT FC RADIAL	
		C34	2200uF		35V	Al Elect High Rip	16mm dia x 31.5mm h	EEU-FC1V222	DigiKey P10309-ND	CAP 2200UF 35V ELECT FC RADIAL	
17	2	D1	33V		5% 5KW	TVS	5KP180C	Littelfuse 5KP33A	DigiKey 5KP33ALFCT-ND		
		D2	33V		5% 5KW	TVS	5KP180C	Littelfuse 5KP33A	DigiKey 5KP33ALFCT-ND		
18	2	D3	50WQ10FN				TO-252AA DPAK	International Rectifier 50WQ10FN	DigiKey 50WQ10FN-ND		
		D4	50WQ10FN				TO-252AA DPAK	International Rectifier 50WQ10FN	DigiKey 50WQ10FN-ND		
19	1	D5	BAS19				TO236AA/SOT23	Diodes Inc BAS19-7	DigiKey BAS19DICT-ND		
20	1	D6	15V		5kW		5KP180C	Littelfuse 5KP15A	DigiKey 5KP15ACCCT-ND		
21	1	D10		805		Green	LED C2012N	Lite-On LTST-C170KGKT	DigiKey 160-1414-1-ND	LED GREEN CLEAR 0805 SMD	
22	2	FC1	1A3399			5x20mm	FUSE CLIPS	Bussmann BK/1A3399-10	Mouser 504-1A3399-10	Fuse Clip PC Mount Bronze/Tin	
		FC2	1A3399			5x20mm	FUSE CLIPS	Bussmann BK/1A3399-10	Mouser 504-1A3399-10	Fuse Clip PC Mount Bronze/Tin	
23	1	F1	5A			5x20 Quick Actin	DUMMY	Wickmann 19415000001	DigiKey WK2063-ND	FUSE FAST 5.00A CER IEC 5X20MM	
24	1	F2	5A			5x20 Quick Actin	DUMMY	Wickmann 19415000001	DigiKey WK2063-ND	FUSE FAST 5.00A CER IEC 5X20MM	
25	1	JMP1	PWB Jumper				JMPR_2				
26	1	JMP2	PWB Jumper				JUMP_100				
27	1	J1	MUMNL6J				AMP_6_PIN_HEADER	AMP 770178-2	DigiKey A25603-ND	Header, Mini Universal Mate-N-Lok, Dual Row, Straight, 6 Circuit, Duplex Plated	
28	2	J2	MUMNL8J				AMP_8_PIN_HEADER	AMP 794065-2	DigiKey A25605-ND	Header, Mini Universal Mate-N-Lok, Dual Row, Straight, 8 Circuit, Duplex Plated	
		J3	MUMNL8J				AMP_8_PIN_HEADER	AMP 794065-2	DigiKey A25605-ND	Header, Mini Universal Mate-N-Lok, Dual Row, Straight, 8 Circuit, Duplex Plated	
29	1	L1	250/40uH			ED78HL14	ED78	Magnetic Circuit Elements ED78HL14			
30	1	L2	BNX-005		50V/15A		BNX005	Murata BNX005-01			
31	1	L3	BNX-003		150V/10A		BNX003	Murate BNX003-01			
32	1	L5	416 uH			WCM 501-12	WCMAG-501_THROUGH	West Coast Magnetics 501-12		Common Mode Inductor, 416 uH	
33	1	L6	275uH		13A	P3218-AL		Coilcraft P3218-AL	factory direct	Common Mode Inductor, Toroidal	
34	1	P_12V_1	MMNL8P				DUMMY	AMP 770579-1		Housing, Mini Universal Mate-N-Lok, Free Hanging, 8 Circuit	
35	4	Q1	FDD3682				TO252AA/DPAK				
		Q2	FDD3682				TO252AA/DPAK				
		Q3	FDD3682				TO252AA/DPAK				
		Q4	FDD3682				TO252AA/DPAK				
36	2	Q5	IRFL1006				TO261AA/SOT223				
		Q6	IRFL1006				TO261AA/SOT223				
37	1	Q7	SUB75P03-07		30V		TO263 (SMT TO-220)	Vishay SUB75P03-07	Mouser 781-SUB75P03-07	P-Channel MOSFET TO-263 30V 75A 187W	
38	4	R1		10	5%		SM/R_0805	KOA RK73B	Garrett 0805 5% Lab Kit		
		R2		10	5%		SM/R_0805	KOA RK73B	Garrett 0805 5% Lab Kit		
		R31		10	5%		SM/R_0805	KOA RK73B	Garrett 0805 5% Lab Kit		
		R32		10	5%		SM/R_0805	KOA RK73B	Garrett 0805 5% Lab Kit		

39	1	R3	20.0K				SM/R 0805			
40	1	R4	698k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
41	2	R5	102k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
		R7	102k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
42	1	R6	619k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
43	2	R8	20.0k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
		R11	20.0k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
44	1	R9	0				SM/R 0805			
45	1	R10	27.4k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
46	1	R12	576k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
47	1	R13	5.76k	1%			SM/R 0805	KOA RK73H	Garrett 0805 1% Lab Kit	
48	1	R14	86.6k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
49	1	R15	14.3k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
50	1	R16	10.0k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
51	4	R17	1.00k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
		R18	1.00k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
		R26	1.00k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
		R27	1.00k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
52	2	R19	41.2k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
		R20	41.2k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
53	1	R21	SEE NOTE	5%			SM/R 0805	KOA RK73B		
54	1	R22	18.7k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
55	1	R23	10.7k	1%			SM/R 0805	KOA Speer RK73H	Garrett 0805 1% Lab Kit	
56	1	R24	0.01	1%	1W		SM/R 2512	Vishay Dale WSL2512.01FR79	Garrett 2512 Low-Ohm Lab Kit	
57	2	R25	10	5%			SM/R 0805	KOA Speer RK73B	Garrett 0805 5% Lab Kit	
		R28	10	5%			SM/R 0805	KOA Speer RK73B	Garrett 0805 5% Lab Kit	
58	2	R29	10k	5%			SM/R 0805	KOA Speer RK73B	Garrett 0805 5% Lab Kit	
		R30	10k	5%			SM/R 0805	KOA Speer RK73B	Garrett 0805 5% Lab Kit	
59	1	R41	4.7k	5%	1/8 W		RESC 0805	KOA RK73B2A	Garrett Lab Kit 0805 5% RK73B2A	
60	2	ST1	SCREW TERMINAL				MT HOLE NO 4			
		ST2	SCREW TERMINAL				MT HOLE NO 4			
61	1	TP1	Thermal Pad				DUMMY	Bergquist .125 GP1500 4x4	DigiKey BER165-ND	Gap Pad 1500 0.125"
62	2	TP6	T POINT S				TP 5015	Keystone 5015	DigiKey 5015KCT-ND	SMT Test Point .040"ii
		TP10	T POINT S				TP 5015	Keystone 5015	DigiKey 5015KCT-ND	SMT Test Point .040"ii
63	1	T1	TRANSFORMER E625		20:14(8):12	MCE Dwg O-211	TRANSFORMER	Magnetic Circuit Elements O-2116T1		
64	1	U1	HIP2101				SOG.050/8/WG.244/L.200	Intersil HIP2101IB		
65	1	U2	ISL6740				SOG.050/16/WG.244/L.375	Intersil ISL6740IB		
66	2	U3	LT3010				LT3010 MSOP-8	Linear Tech LT3010EMS8E		
		U4	LT3010				LT3010 MSOP-8	Linear Tech LT3010EMS8E		
67	1	U5	OP296				SOG.050/8/WG.244/L.200	Analog Devices OP296GS		
68	1	U8	AD8631RT				AD8631 SM/SOT23 RT-5	Analog Devices AD8631RT		
69	1	U10	PhotoMOS Relay 6				SOG.050/6/WG.275/L.250	NEC PS7160L-1A		
70	1	U11	LTC4414				MSOP-8			