



Circuits West

Prototype and Production Specialists

FOR: Jim Montgomery
COMPANY: MBARI
TEL: 831-775-1742
QUOTE# 10020801_rev1

We are pleased to quote as follows:

ITEM	PART NUMBER	REV	DESCRIPTION	QTY	DUE	PRICE	TOOLING	TEST
1	10020801	1	4 Layers FR4/HASL Red Mask White Silkscreen 1 oz copper .062 Thick 0.97 x 3.65 12-up array w/rout&retain 8.0 x 10.0	60	1 Day	\$1590.00 Lot	N/C	N/C
			Shipping and Handling approx. \$100.00 UPS Red					
Price is based on information available at time of quote, and is subject to review. Quote valid for 30 days. Please note: Circuits West's liability is limited to the cost of the printed circuit boards only. All orders will be billed a \$7.00 handling charge.								
TERMS 2% 10 Net 30		SIGNATURE <i>Shawn Griffin</i>				DATE 2/1/2012		

Circuits West, Inc.
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CIRCUITS WEST CONFIDENTIAL

10020801 POWER BOUY LINEAR LOAD REVISION 1											
BILL OF MATERIAL											
10-Sep-12											
NOTE: CALCULATED COST IS ONLY AN ESTIMATE. ACTUAL COST WILL BE DETERMINED BY COST BREAKS.											
Item Number	Quantity	Value	Part Reference	Description	PCB Footprint	Manufacturer	Manufacturer PN	Digikey PN	Digikey Cost	EXTENDED COST	TOTAL COST
1	1	56nF	C1	CAP CER 4700PF 100V 5% X7R 0603	CAPC1608X87N	Kemet	C0603C472J1RAC	399-9089-1-ND	\$0.36	\$0.36	\$10.80
2	4	DNI (0.10uF)	C2 C3 C4 C6	CAP .10UF 50V CERAMIC X7R 0805	CAPC2012X100N	Kemet	C0805C104K5RACTU	399-1170-1-ND	\$0.07	\$0.28	\$8.40
3	2	1.0uF	C5 C7	CAP CER 1.0UF 50V X7R 1206	CAPC3216X110N	Kemet	C1206C105K5RACTU	399-8147-1-ND	\$0.28	\$0.56	\$16.80
4	1	1N4148WX-TP	D1	DIODE SWITCH 75V 300MA SOD323	SOD2513X115N	Micro Commercial Co	1N4148WX-TP	1N4148WXTPMSCT-ND	\$ 0.31	\$0.31	\$9.30
5	2	70543-0005	J1 J2	CONN HEADER 6POS .100 VERT GOLD	MOLEX_70543-6PIN	Molex Inc	70543-0005	WM4804-ND	\$ 1.58	\$3.16	\$94.80
6	1	IXTN22N100	Q1	MOSFET N-CH 53A 500V SOT-227	MODULE_IXTN60N50L2	IXYS	IXTN60N50L2	IXTN60N50L2-ND	\$37.40	\$37.40	\$1,122.00
7	1	ZXMN3F30FHTA	Q3	MOSFET N-CHAN 30V SOT23-3	SOT95P237X112R-3N_123	Diodes/Zetex	ZXMN3F30FHTA	ZXMN3F30FHCT-ND	\$ 0.56	\$0.56	\$16.80
8	2	3.99k	R1 R3	TO BE DETERMINED, HEIGHT 0.5mm	RESC1608X50N				\$0.00	\$0.00	\$0.00
9	1	PTFM04BF471Q2N34B0	R2	THERMISTOR	XDCR_PTFM04xxxxxxxxxxB0	Murata Electronics North America	PTFM04BF471Q2N34B0	PTFM04BF471Q2N34B0-ND	\$ 0.59004	\$0.59	\$17.70
10	6	10.0K	R4 R5 R7 R8 R10 R12	RES 10.0K OHM 1/8W 1% 0805 SMD	RESC2012X50N	Vishay	CRCW080510K0FKEA	541-10.0KCCT-ND	\$0.089	\$0.53	\$16.02
11	2	10.0K	R6 R18	RES 100K OHM 1/8W 1% 0805 SMD	RESC2012X50N	Vishay	CRCW08051K00FKEA	541-1.00KCCT-ND	\$0.089	\$0.18	\$5.34
12	2	TBD	R9 R15	RES HV 1M OHM 1W 5% 2512	RESC6436X75N	Ohmite	HVC2512T1004JET	HVC2512T1004JETCT-ND	\$ 2.34	\$4.68	\$140.40
13	1	15.0K	R14		RESC2012X50N	Vishay	CRCW080515K0FKEA	541-15.0KCCT-ND	\$0.089	\$0.09	\$2.67
14	1	9.09K	R16	RES 9.09K OHM 1/8W 1% 0805 SMD	RESC2012X50N	Vishay	CRCW08059K09FKEA	541-9.09KCTR-ND	\$ 0.008	\$0.01	\$0.24
15	1	0.5	R17	RES .50 OHM 1/2W 1% 2010 SMD	RESC5125X89N	Vishay/Dale	WSL2010R5000FEA	WSLE-.50CT-ND	\$ 1.07	\$1.07	\$32.10
16	1	0.25	R19	RES .25 OHM 1/2W 1% 2010 SMD	RESC5125X89N	Vishay/Dale	WSL2010R2500FEA	WSLE-.25CT-ND	\$ 1.07	\$1.07	\$32.10
17	1	100K	R20	TRIMMER 100K OHM 0.5W TH	TRIM_3296Y	Bourns Inc.	3296Y-1-104LF	3296Y-104LF-ND	\$ 2.56	\$2.56	\$76.80
18	1	30.1K	R21		RESC1608X50N	Vishay	CRCW060330K1FKEA	541-30.1KHTR-ND	\$ 0.006	\$0.01	\$0.18
19	2	8191	ST1 ST2	TERMINAL SCREW VERTICAL PC MNT W/ #6 SCREW	SCREW-TERMINAL_8191	Keystone Electronics	8191	8191K-ND	\$ 0.43	\$0.86	\$25.80
20	1	OPA4134UA	U1	IC OPAMP AUDIO QUAD AB 14SOIC	SOIC127P600X175-14N	Texas Instruments	OPA4134UA	OPA4134UA-ND	\$ 5.66	\$5.66	\$169.80
									PARTS TOTAL	\$59.94	\$1,798.05