

## TA Current Supply Bill of Materials

Label	Manufacturer	Part Number	Description	Vendor	Vendor P/N	Unit Price	Quantity
R1-25, R27-34, Rlimit, and line filters	Xicon	271-xxx	1/4 W, 1% metal-film resistor, various sizes	Mouser	271-xxx	\$0.13	52
R26	Bourns	3296W-1-203LF	25 turn cermet trim pot, 20 k $\Omega$	Digi-Key	3296W-1-203LF-ND	\$2.31	1
K1	Bourns	3296W-1-501LF	25 turn cermet trim pot, 500 $\Omega$	Digi-Key	3296W-1-501LF-ND	\$2.31	1
K2	Bourns	3296W-1-104LF	25 turn cermet trim pot, 100 k $\Omega$	Digi-Key	3296W-1-104LF-ND	\$2.31	1
K3	Bourns	3296W-1-104LF	25 turn cermet trim pot, 100 k $\Omega$	Digi-Key	3296W-1-104LF-ND	\$2.31	1
K4	Bourns	3296W-1-502LF	25 turn cermet trim pot, 5 k $\Omega$	Digi-Key	3296W-1-502LF-ND	\$2.31	1
K5	Bourns	3296X-1-103LF	25 turn cermet front-adjust trim pot, 10 k $\Omega$	Digi-Key	3296X-1-103LF-ND	\$2.31	1
K6	Bourns	3296W-1-503LF	25 turn cermet trim pot, 50 k $\Omega$	Digi-Key	3296W-1-503LF-ND	\$2.31	1
Load_Set	Bourns	3296X-1-104LF	25 turn cermet front-adjust trim pot, 100 k $\Omega$	Digi-Key	3296X-1-104LF-ND	\$2.31	1
SR-20	Caddock	SR20-0.10-1%	0.1 $\Omega$ , 1% 4-point sense resistor	Mouser	684-SR20-0.1	\$6.08	1
PID-R0, 1, 2	Bourns	3296W-1-xxxLF	25 turn cermet trim pot, various sizes	Digi-Key	3296W-xxxLF	\$2.31	3
Rcoarse	Bourns	3590S-2-203L	20 k $\Omega$ 10-turn, precision pot, solder lugs, 3/8" panel hole, 1/4" shaft	Mouser	652-3590S-2-203L	\$9.89	1
Rfine	Bourns	3590S-2-202L	2 k $\Omega$ 10-turn, precision pot, solder lugs, 3/8" panel hole, 1/4" shaft	Mouser	652-3590S-2-202L	\$8.51	1
C1, C3	Vishay/Sprague	199D106X9025C1V1E3	10 $\mu$ F Tantalum capacitor, 25 V	Mouser	74-199D25V10-E	\$1.18	2
C2, C4, C10, C11, C12	Vishay/Sprague	1C10Z5U104M050B	0.1 $\mu$ F 50V monolithic ceramic radial capacitor, 20% tolerance	Mouser	75-1C10Z5U104M050B	\$0.10	5
C5, C6, C7, C13 and line filters	Vishay/Sprague	199D106X9016C1V1E3	10 $\mu$ F Tantalum capacitor, 16 V	Mouser	74-199D16V10-E	\$0.95	22
C9	Vishay/Sprague	1C10X7R102K050B	0.1nF 50V monolithic ceramic radial capacitor, 20% tolerance	Mouser	75-1C10X7R102K050B	\$0.17	1
C8, C15	Vishay/Sprague	1C10Z5U103M050B	0.01 $\mu$ F 50V monolithic ceramic radial capacitor, 20% tolerance	Mouser	75-1C10Z5U103M050B	\$0.15	2
C14	Vishay/Sprague	515D477M025CD6AE3	470 $\mu$ F Electrolytic capacitor, 25V	Mouser	75-515D477M025CD6AE3	\$0.50	1
PID-C0, 1, 2	Vishay/Sprague		50V monolithic ceramic radial capacitor, various sizes	Mouser		\$0.20	3
Q1-3, Q9-10, Q12, Q14-15	Fairchild	2N7000TA	N-Channel MOSFET, 60V, TO-92 package	Mouser	512-2N7000TA	\$0.28	8
Q4, Q11	Littelfuse	S401E	1A SCR, TO-92 package	Mouser	576-S401E	\$0.92	2

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Q13	Littelfuse	S4012R	12A SCR, TO-220 package	Mouser	576-S4012R	\$1.48	1
Q5, Q7	Fairchild	2N4403BU	PNP Bipolar transistor, 40V, TO-92 package	Newark	83C3235	\$0.15	2
Q6, Q8	Fairchild	2N4401BU	NPN Bipolar transistor, 40V, TO-92 package	Newark	83C3210	\$0.16	2
D1	Fairchild	P6KE68A	6.8V, 600W transient voltage suppressor	Mouser	512-P6KE68A	\$0.26	1
D2-3	Fairchild	P6KE30A	30V, 600W transient voltage suppressor	Mouser	512-P6KE30A	\$0.28	2
D4-5	Fairchild	1N4148	100V rectifying diode	Mouser	512-1N4148	\$0.10	2
D6	Vishay	1N4150TR	50V general purpose switching diode	Mouser	78-1N4150	\$0.06	1
D7-8	Vishay	GI752-E3/73	6A, 200V rectifying diode	Mouser	625-GI752-E3/73	\$0.57	2
IC1-2, IC9	Texas Instruments	INA128PA	low power instrumentation amplifier, dip-8	Newark	04M4540	\$6.00	3
IC3, IC5	Texas Instruments	TL072ACP	dual, low noise, JFET input op amp, dip-8	Newark	60K6987	\$0.77	2
IC4, IC6	Analog Devices	AD820ANZ	low noise, JFET input, 1.8 MHz, dip-8	Newark	59K6465	\$3.80	2
IC7	Texas Instruments	OPA549S	high current instrumentation amp, TO-220-11	Newark	75C5065	\$18.60	1
IC10	STMicroelectronics	LM311N	voltage comparator, dip-8	Digi-Key	497-1570-5-ND	\$0.49	1
SW1	NKK Switches	M2T18S4A5G40	SPDT momentary switch, rt. angle, vertical PCB mount	Digi-Key	360-1883-ND	\$5.67	1
SW2	NKK Switches	M2022S2A2G40	DPDT switch, rt. angle, vertical PCB mount	Digi-Key	360-1837-ND	\$6.88	1
SW3, SW4	Magnecraft	W171DIP-27	DPST relay, normally open	Mouser	528-171-27	\$4.41	2
SW5	TE Connectivity	PCH-112D2H,000	SPDT relay, 12V, 10A	Newark	36K2007	\$2.01	1
F1-3	Littelfuse	0473.500MRT1L	0.5 A slo-blo fuse	Mouser	576-0473.500MRT1L	\$1.26	3
No Label	Bussmann	BK/PCS	PCB fuse socket	Mouser	504-PCS	\$0.89	3
REG1	ON Semicond.	MC7815ACTG	+15 V regulator, T0-220 pkg	Mouser	863-MC7815ACTG	\$0.47	1
REG2	ON Semicond.	MC7915ACTG	-15 V regulator, T0-220 pkg	Mouser	863-MC7915ACTG	\$0.47	1
LM399	Linear Tech.	LM399H	temperature stabilized, precision voltage reference (6.95V)	Digi-Key	LM399HLT-ND	\$7.94	1
LED1, LED4	Everlight	MV5754A	red diffused 5mm LED	Mouser	638-MV5754A	\$0.24	2
LED2	Everlight	MV5454A	green diffused 5mm LED	Mouser	638-MV5454A	\$0.22	1
LED3	Everlight	MV8B01	blue clear 5mm LED	Mouser	638-MV8B01	\$1.24	2

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No Label	LEMO	PKG.M0.5SL.VG	LEMO 5-pin redel with nut, rt. angle PCB	Mouser	736-PKGM05SLVG	\$23.14	1
BNC1-3	Amphenol RF	31-5538-10RFX	rt. angle PCB BNC connector	Mouser	523-31-5538-10-RFX	\$2.38	3
No Label	Aavid Thermalloy	504102B00000G	TO-220 package heat sink	Mouser	532-504102B00	\$0.73	2
No Label	Wakefield Solutions	641K	TO-3 heat sink, no holes	Newark	58F540	\$10.13	1
No Label	Molex	39520-0004	4-pin eurostyle connection block, 5mm, cable mount	Mouser	538-39520-0004	\$1.97	1
No Label	Molex	39520-0002	2-pin eurostyle connection block, 5mm, cable mount	Mouser	538-39520-0002	\$1.36	1
No Label	Molex	39521-1004	4-pin eurostyle connection block, 5mm, PCB mount	Mouser	538-39521-1004	\$0.97	1
No Label	Molex	39521-1002	2-pin eurostyle connection block, 5mm, PCB mount	Mouser	538-39521-1002	\$0.77	1
No Label	Lascar	SP-400	green LED backlit LCD panel meter	Lascar	SP-400	\$31.20	1
No Label	3M	1M-1010-016-3365-006.0-00-AB-00-0	16 connector, ribbon cable assembly, 6 in.	Mouser	517-1M-1010-016-6	\$5.13	1
No Label	VCC	CLB300CTP	clear fresnel lens for 5mm LED	Newark	57P6494	\$0.23	4
No Label	TE Connectivity	PKG50B1/4	ribbed knob with indicator line, for 1/4 in.	Digi-Key	450-1742-ND	\$1.73	2
No Label	3M	929647-09-36-ND	single row header pin, 0.1" pitch,	Digi-Key	929647-09-36-I	\$3.82	1
No Label	Advanced Circuits	N/A	2-layer custom PCB	33 each	N/A	\$33.00	1
					<b>Total Cost:</b>	<b>\$302.96</b>	
					Prices in USD, current as of 02/2013		