

## Low Voltage Power Supply BOM

Item	Reference	Qty	Pop	Manufacturer	Part Number	Description	Distributor	Stock Number	Value	Modifier	Cost@1	Cost per Board
1	C51-66	16	1	AVX Corporation	08055C104KAT2A	Capacitor, Ceramic, 0.1uF, 50V, 10%, X7R, 0805	Digi-Key	478-1395-1-ND	0.1uF	50V	\$0.12	\$1.92
2	C43-44	2	1	AVX Corporation	0805YC334KAT2A	Capacitor, Ceramic, 0.33uF, 16V, 10%, X7R, 0805	Digi-Key	478-1402-1-ND	0.33uF	16V	\$0.29	\$0.58
3	C19-26	8	1	AVX Corporation	08055C102KAT2A	Capacitor, Ceramic, 1000pF, 50V, 10%, X7R, 0805	Digi-Key	478-1371-1-ND	1000pF	50V	\$0.12	\$0.96
4	C47-50	4	1	AVX Corporation	08055A101KAT2A	Capacitor, Ceramic, 100pF, 50V, 10%, COG/NPO, 0805	Digi-Key	478-7952-1-ND	100pF	50V	\$0.27	\$1.08
5	C31-36	6	1	AVX Corporation	12063C105KAT2A	Capacitor, Ceramic, 1uF, 25V, 10%, X7R, 1206	Digi-Key	478-1567-1-ND	1uF	25V	\$0.29	\$1.74
6	C37-42	6	1	AVX Corporation	12065C475KAT2A	Capacitor, Ceramic, 4.7uF, 50V, 10%, X7R, 1206	Digi-Key	478-6653-6-ND	4.7uF	50V	\$0.84	\$5.04
7	C45-46	2	1	AVX Corporation	08055A470KAT2A	Capacitor, Ceramic, 47pF, 50V, 10%, COG/NPO, 0805	Digi-Key	478-7955-1-ND	47pF	50V	\$0.27	\$0.54
8	C27	1	1	AVX Corporation	08055C682KAT2A	Capacitor, Ceramic, 6800pF, 50V, 10%, X7R, 0805	Digi-Key	478-1381-1-ND	6800pF	50V	\$0.18	\$0.18
9	C10-15	6	1	Kemet	T520X157M016ATE040	Capacitor, Tantalum, 150uF, 16V, 20%, 2917	Digi-Key	399-10358-1-ND	150uF	16V	\$9.84	\$59.04
10	C17-18	2	1	Kemet	T520A226M006ATE100	Capacitor, Tantalum, 22uF, 6.3V, 20%, 1206	Digi-Key	399-5271-1-ND	22uF	6.3V	\$1.26	\$2.52
11	C16	1	1	Kemet	T520A226M006ATE100	Capacitor, Tantalum, 22uF, 6.3V, 20%, 1206	Digi-Key	399-5271-1-ND	22uF	6.3V	\$1.26	\$1.26
12	C1-9	9	1	Kemet	T520Y477M006ATE025	Capacitor, Tantalum, 470uF, 6.3V, 20%, 2917	Digi-Key	399-10412-1-ND	470uF	6.3V	\$4.16	\$37.44
13	P1	1	1	TE Connectivity	640456-2	Connector, Header, Tab, 2Position, Vertical, 0.100", Through-Hole	Digi-Key	A1921-ND	2-Pin	0.100"	\$0.17	\$0.17
14	P2	1	1	TE Connectivity	640456-8	Connector, Header, Tab, 8-Position, Vertical, 0.100", Through-Hole	Digi-Key	A1924-ND	8-Pin Vert	0.100"	\$0.47	\$0.47
15	J7-10	4	1	Molex Inc	760010010	Connector, High-Current, 10-Pin, Vertical, Thru-Hole	Digi-Key	WM4667-ND	50A	Gold	\$4.15	\$16.60
16	J1-6	6	1	Keystone Electronics	8191	Connector, Screw, Vertical, PC Mount	Digi-Key	8191K-ND	15A	Jun-32	\$0.54	\$3.24
17	U11	1	1	Murata Power Solutions Inc	NMG1205SC	Converter, DC/DC, 2W, 12V in, 5V out, SIP	Digi-Key	811-1706-5-ND	2W	5V	\$9.40	\$9.40
18	D4-9	6	1	Diodes Incorporated	B320A-13-F	Diode, Schottky, 20V, 3A, SMA	Digi-Key	B320A-FDICT-ND	20V	3A	\$0.76	\$4.56
19	D1-3	3	1	ON Semiconductor	BAT54ALT1G	Diode, Schottky, 30V, 200mA, SOT23	Digi-Key	BAT54ALT1GOSCT-ND	30V	200mA	\$0.24	\$0.72
20	D11-12	2	1	Littelfuse Inc	SMAJ5.0CA	Diode, TVS, 5VMW, 9.2VC, SMA	Digi-Key	SMAJ5.0CALFCT-ND	5V	400W	\$0.60	\$1.20
21	Z1-3	3	1	Diodes Incorporated	15MB5920B-13	Diode, Zener, 6.2V, 3W, SMB	Digi-Key	15MB5920B-13DICT-ND	6.2V	3W	\$0.58	\$1.74
22	U4	1	1	Linear Technology	LT1620CMS8	IC, Current Sense Amplifier, Rail-to-Rail, MSOP8	Digi-Key	LT1620CMS8-ND	LT1620	2.3mA	\$2.32	\$2.32
23	U6-10	5	1	Fairchild Semiconductor	FOD0710	IC, Optocoupler, Logic-in, Logic-out, SOP8	Digi-Key	FOD0710-ND	4.5V~5.5V	10mA	\$4.47	\$22.35
24	U5	1	1	Microchip	MCP41010-I/SN	IC, Potentiometer, 10K, SOIC8	Digi-Key	MCP41010-I/SN-ND	10K	256-tap	\$1.92	\$1.92
25	U1-3	3	1	Linear Technology	LTC1629CG-PG#PBF	IC, Regulator, Buck, PolyPhase, SSOP28	Digi-Key	LTC1629CG-PG#PBF-ND	4V~36V	360kHz	\$14.98	\$44.94
26	L1-6	6	1	EPCOS Inc	B82559A142A13	Inductor, Power, 1.4uH, ±10%, 22A, Shielded, Surface-Mount	Digi-Key	495-1861-1-ND	1.4uH	22A	\$4.54	\$27.24
27	Q1-18	18	1	Vishay Siliconix	SI7636DP-T1-E3	MOSFET, N-Channel, 30V, 17A, PPAK SOIC8	Digi-Key	SI7636DP-T1-E3CT-ND	4 mOhm @ 25A	30V, 17A	\$1.91	\$34.38
28	R1-6	6	1	Vishay Dale	WSL27263L000FEB	Resistor, Current Sense, 0.003 Ohms, 3W, 1%, 2726	Digi-Key	WSLQ-.003CT-ND	0R003	3W	\$2.85	\$17.10
29	R7-9	3	1	Panasonic Electronic Components	ERJ-6GEYJ103V	Resistor, Thick Film, 10K, 0.125W, 5%, 0805	Digi-Key	P10KACT-ND	10K	0.125W	\$0.13	\$0.39
30	R10	1	1	Panasonic Electronic Components	ERJ-6ENF2402V	Resistor, Thick Film, 24.0K, 0.125W, 1%, 0805	Digi-Key	P24.0KCCT-ND	24K0	0.125W	\$0.13	\$0.13
31	R15	1	1	Panasonic Electronic Components	ERJ-6ENF2742V	Resistor, Thick Film, 27.4K, 0.125W, 1%, 0805	Digi-Key	P27.4KCCT-ND	27K4	0.125W	\$0.13	\$0.13
32	R21	1	1	Panasonic Electronic Components	ERJ-6ENF4702V	Resistor, Thick Film, 47.0K, 0.125W, 1%, 0805	Digi-Key	P47.0KCCT-ND	47K0	0.125W	\$0.13	\$0.13
33	R14	1	1	Panasonic Electronic Components	ERJ-6ENF6041V	Resistor, Thick Film, 6.04K, 0.125W, 1%, 0805	Digi-Key	P6.04KCCT-ND	6K04	0.125W	\$0.13	\$0.13
34	R16	1	1	Panasonic Electronic Components	ERJ-6ENF7502V	Resistor, Thick Film, 75.0K, 0.125W, 1%, 0805	Digi-Key	P75.0KCCT-ND	75K0	0.125W	\$0.13	\$0.13
35	R17	1	1	Panasonic Electronic Components	ERJ-6ENF9762V	Resistor, Thick Film, 97.6K, 0.125W, 1%, 0805	Digi-Key	P97.6KCCT-ND	97K6	0.125W	\$0.13	\$0.13
36	R19	1	1	Panasonic Electronic Components	ERJ-6ENF1001V	Resistor, Thick Film,1.00K, 0.125W, 1%, 0805	Digi-Key	P1.00KCCT-ND	1K00	0.125W	\$0.13	\$0.13
37	R11-13	3	1	Panasonic Electronic Components	ERJ-6ENF10R0V	Resistor, Thick Film,10.0 Ohms, 0.125W, 1%, 0805	Digi-Key	P10.0CCT-ND	10R0	0.125W	\$0.13	\$0.39
											TOTAL:	\$302.34