

Capacitance Multiplier Power Supply
PSU4 Rev A
Bill of Materials
23 July, 2013

<u>Reference Name</u>	<u>Qty</u>	<u>Component/ Value</u>	<u>Package</u>	<u>Description</u>
Q1	1	IRF5305	TO-220	MOSFET, P-Chnl, 55V
Q2	1	IRLZ34N	TO-220	MOSFET, N-Chnl, 55V
Q3, Q5	2	BC556B	TO-92	BJT, PNP, 65V
Q4, Q6	2	BC546B	TO-92	BJT, NPN, 65V
Q7, Q9	2	ZVN2106A	TO-92	MOSFET, N-Channel, 60V
Q8, Q10	2	ZVP2106A	TO-92	MOSFET, P-Channel, 60V
Q11, Q12	2	J112	TO-92	J-FET, N-Channel
D1, D2, D3, D4	4	MBR10T100	TO-220AC	Rectifier Diode, Schottky, 10A
LED1, LED2	2	LED, 20mA	T-1	LED 3 mm short lens, Red or Green
C1, C2	2	10,000uF	Radial, Lg Can	35 mm D, 10 mm snap-in, or 12.5 mm
C3, C4	1	1uF	Box, 5 mm	Film Capacitor, 63V
C5, C6, C7, C8	4	0.1uF	Box, 5 mm	Film Capacitor, 63V
C9, C10	2	4700uF	Radial, Lg Can	25 mm D, 10 mm snap-in, or 12.5 mm
C11, C12	2	100nF	Radial, 10 mm	Film Capacitor, 250V (Optional)
VR1, VR2	2	100K	3/8", vertical	Multi-turn Trimmer Pot
R1, R2, R3, R4	4	470K	Axial	Resistor, 1/4W, 1%
R5, R6	2	8R2	Axial	Resistor, 1/4W, 1%
R7, R8	2	100K	Axial	Resistor, 1/4W, 1%
R9, R10	2	180K	Axial	Resistor, 1/4W, 1%
R11, R12	2	100	Axial	Resistor, 1/4W, 1%
R13, R14	2	3K3	Axial	Resistor, 1/4W, 1%
AC1-4	4	FASTON	FASTON	TAB Connector, 1/4"
DCpos, Dcneg	2	FASTON	FASTON	TAB Connector, 1/4" (Optional)
G1, G2	2	FASTON	FASTON	TAB Connector, 1/4" (Optional)
Vpos1, Vpos2	2	FASTON	FASTON	TAB Connector, 1/4"
Vneg1, Vneg2	2	FASTON	FASTON	TAB Connector, 1/4"
G3-6	4	FASTON	FASTON	TAB Connector, 1/4"
FS1, FS2	2	3~5A	5 x 20 mm	Fuse, Fast Blow
*	2	Fuse Holder	5 x 20 mm	Fuse Holder, w. cover, ex: Littelfuse 64600001003, 64800001009
*	2	11C/W	34.9 x 12.7 mm	Heatsink, extruded w. fins, ex: Aavid Thermalloy 513102B02500G
*	4	22C/W	10 x 15 mm	Heatsink, extruded or U-channel, ex: Aavid Thermalloy 577202B00000G
*	6	Insulator	13 x 19 mm	For TO-220, Silicone or Mica
*	6	Mounting Kit	3 mm	M3 screw and shoulder washer

* Not shown as separate component on the schematic