

## ML12 PSU BILL OF MATERIAL

Reference	Description	Retailer	Retailer. Part #	Qty.
C1 to C4, C11 to C13, C17, C24, C25	1000uF, 50V Alum Electrolytic Cap	Digikey	<a href="#">P10333-ND</a>	10
C5, C6, C9, C10, C14, C16, C20, C22	100nF, 100V Ceramic Cap	Digikey	<a href="#">478-3185-ND</a>	8
C7, C8, C15, C21	10uF, 100V Alum Electrolytic Cap	Digikey	<a href="#">P10769-ND</a>	4
C18, C19, C23	150uF, 100V Alum Electrolytic Cap	Digikey	<a href="#">P10777-ND</a>	3
D1 to D8	1A 1000V General Purpose Diode	Digikey	<a href="#">1N4007FSCT-ND</a>	8
BR1, BR2	2A 200V Bridge Rectifier	Digikey	<a href="#">2KBP02M-E4/51GI-ND</a>	2
AC_IN CONN	4 Position Terminal Block	Digikey	<a href="#">WM7855-ND</a>	1
POWER_OUT CONN	5 Position Terminal Block	Digikey	<a href="#">WM7856-ND</a>	1
LED1, LED2	Green LED 2mm 2.2V Flat Top	Digikey	<a href="#">P613-ND</a>	2
LED3	Amber LED 2mm 2.2V Flat Top	Digikey	<a href="#">P614-ND</a>	1
LED4	Red LED 2mm 2.2V Flat Top	Digikey	<a href="#">P612-ND</a>	1
RV1 to RV4	1K Trim Pot	Digikey	<a href="#">3296W-102LF-ND</a>	4
U1, U3, U4	LM317 Adjustable Pos. Reg.	Digikey	<a href="#">497-1575-5-ND</a>	2
U2	LM337 Adjustable Neg. Reg.	Digikey	<a href="#">296-9550-5-ND</a>	1
R1, R3, R7, R10	240 Ohms - 1% Metal Film Res	Mouser	<a href="#">271-240-RC</a>	4
<b>R2, R4</b> , R12	2.4K - 1% Metal Film Res	Mouser	<a href="#">271-2.4K-RC</a>	2
<b>R5, R6</b>	680 Ohms - 1% Metal Film Res	Mouser	<a href="#">271-680-RC</a>	2
<b>R8</b>	1.5K - 1% Metal Film Res	Mouser	<a href="#">271-1.5K-RC</a>	1
<b>R9</b>	487 Ohms - 1% Metal Film Res	Mouser	<a href="#">271-487-RC</a>	1
R11	8.6K - 1% Metal Film Res	Mouser	<a href="#">271-8.66K-RC</a>	1

The above values for R2, R4, R5, R6, R8 and R9 are assuming the following output voltages: -16V, +16V, +12V and +48V.

# Alternate Resistor Values

		<b>First Rail Output Voltage</b>									
		<b>-5V</b>	<b>-12V</b>	<b>-15V</b>	<b>-16V</b>	<b>-18V</b>	<b>-20V</b>	<b>-22V</b>	<b>-24V</b>	<b>-28V</b>	<b>-30V</b>
<b>R4</b>		240	1.5K	2K	2.4K	2.7K	3.3K	3.3K	3.9K	4.7K	4.99K
<b>R6</b>		140	487	649	680	787	887	1K	1.1K	1.3K	1.4K

		<b>Second Rail Output Voltage</b>									
		<b>5V</b>	<b>12V</b>	<b>15V</b>	<b>16V</b>	<b>18V</b>	<b>20V</b>	<b>22V</b>	<b>24V</b>	<b>28V</b>	<b>30V</b>
<b>R2</b>		240	1.5K	2K	2.4K	2.7K	3.3K	3.3K	3.9K	4.7K	4.99K
<b>R5</b>		140	487	649	680	787	887	1K	1.1K	1.3K	1.4K

		<b>Third Rail Output Voltage</b>									
		<b>5V</b>	<b>12V</b>	<b>15V</b>	<b>16V</b>	<b>18V</b>	<b>20V</b>	<b>22V</b>	<b>24V</b>	<b>28V</b>	<b>30V</b>
<b>R8</b>		240	1.5K	2K	2.4K	2.7K	3.3K	3.3K	3.9K	4.7K	4.99K
<b>R9</b>		140	487	649	680	787	887	1K	1.1K	1.3K	1.4K

		<b>Fourth Rail Output Voltage</b>								
<p>The fourth rail is designed to provide a +48V phantom power voltage. There are no alternate resistor values available for that rail.</p>										