

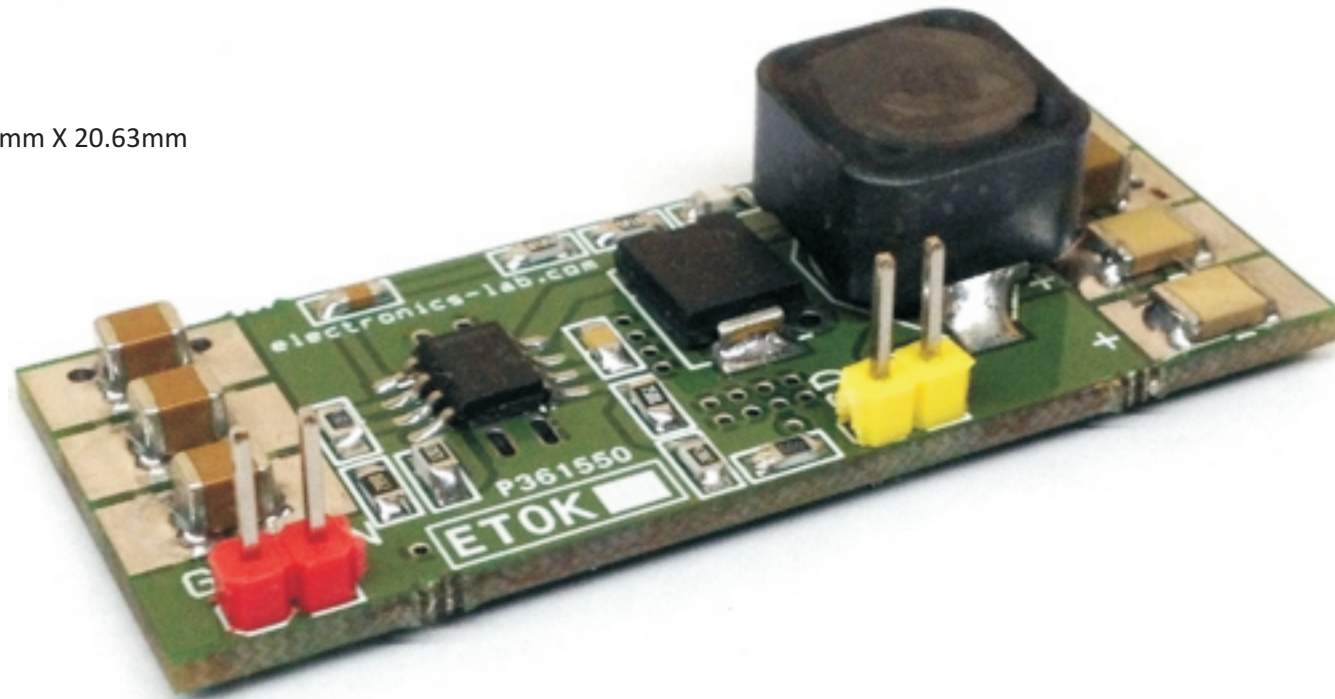
60V DC-DC Buck Converter

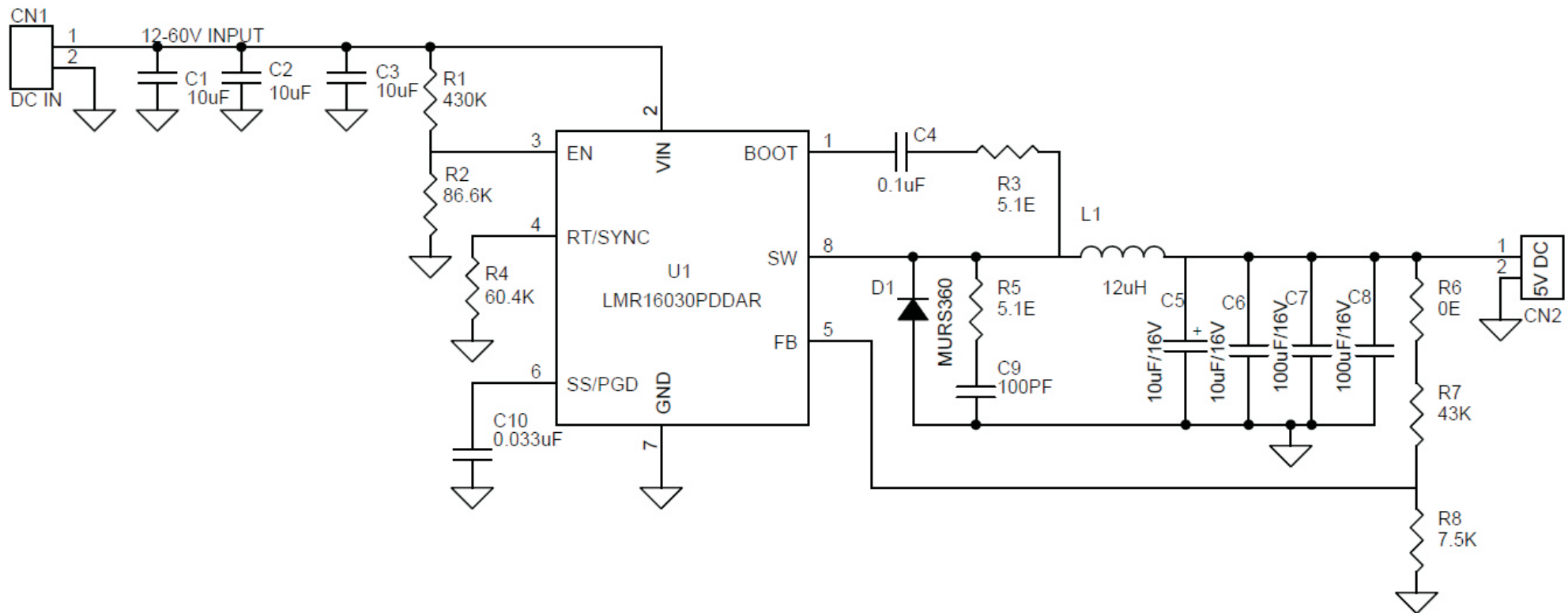
The circuit published here is a compact 60V DC-DC Converter provides 5V DC output and load current up to 3Amps in compact size. The project is based on LMR16030.

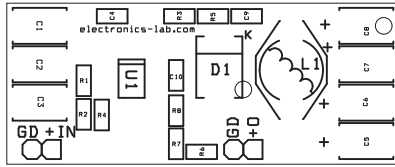
The LMR16030 is a 60 V, 3 A SIMPLE SWITCHER[®] step down regulator with an integrated high-side MOSFET. With a wide input range from 4.3 V to 60 V, it's suitable for various applications from industrial to automotive for power conditioning from unregulated sources. The regulator's quiescent current is 40 μ A in Sleep-mode, which is suitable for battery powered systems. An ultra-low 1 μ A current in shutdown mode can further prolong battery life. A wide adjustable switching frequency range allows either efficiency or external component size to be optimized. Internal loop compensation means that the user is free from the tedious task of loop compensation design. This also minimizes the external components of the device. A precision enable input allows simplification of regulator control and system power sequencing. The device also has built-in protection features such as cycle-by-cycle current limit, thermal sensing and shutdown due to excessive power dissipation, and output overvoltage protection.

Features

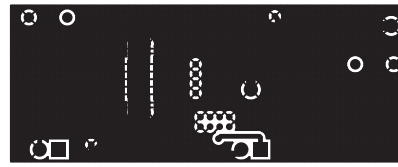
- Supply 12 TO 60V DC
- Output 5V DC 3Amps
- PCB Dimensions 52.86mm X 20.63mm





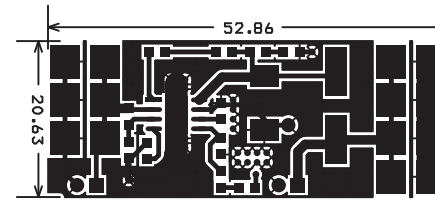


SILK SCREEN TOP



BOTTOM LAYER

PCB Dimensions 52.86MM x 20.63mm



TOP LAYER

BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	2 PIN HEADER CONNECTOR
2	1	CN2	2 PIN HEADER CONNECTOR
3	3	C1,C2,C3	10uF/100V SMD 1210
4	1	C4	0.1uF SMD 0805
5	2	C5,C6	10uF/16V
6	2	C7,C8	100uF/16V
7	1	C9	100PF
8	1	C10	0.033uF SMD 0805
9	1	D1	MURS360
10	1	L1	12uH -3A 12MM
11	1	R1	430K SMD 0805
12	1	R2	86.6K SMD 0805
13	2	R3,R5	5.1E SMD 0805
14	1	R4	60.4K SMD 0805
15	1	R6	0E SMD 0805
16	1	R7	43K SMD 0805
17	1	R8	7.5K SMD 0805
18	1	U1	LMR16030PDDAR

