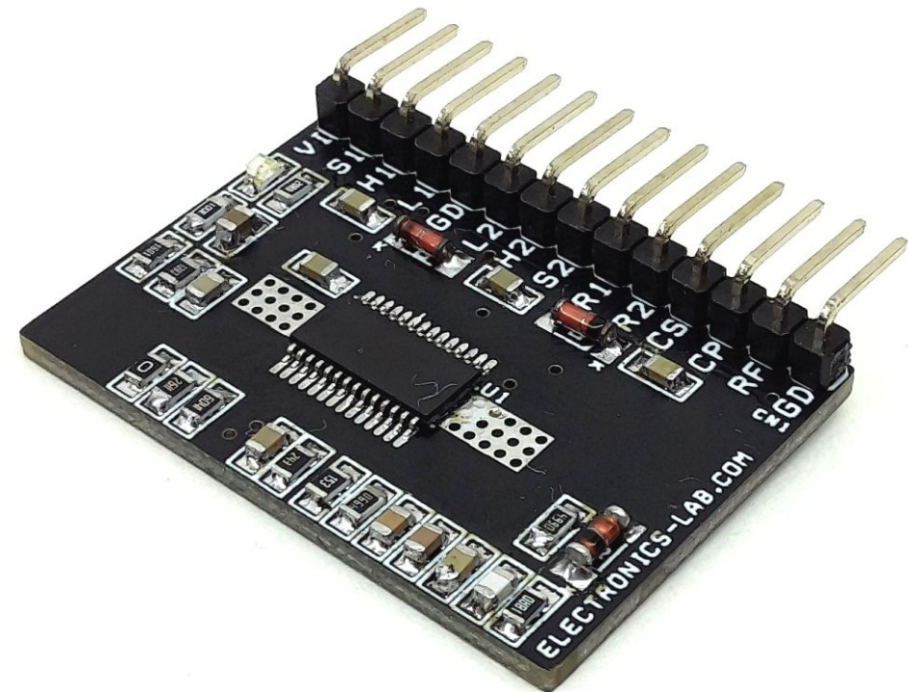


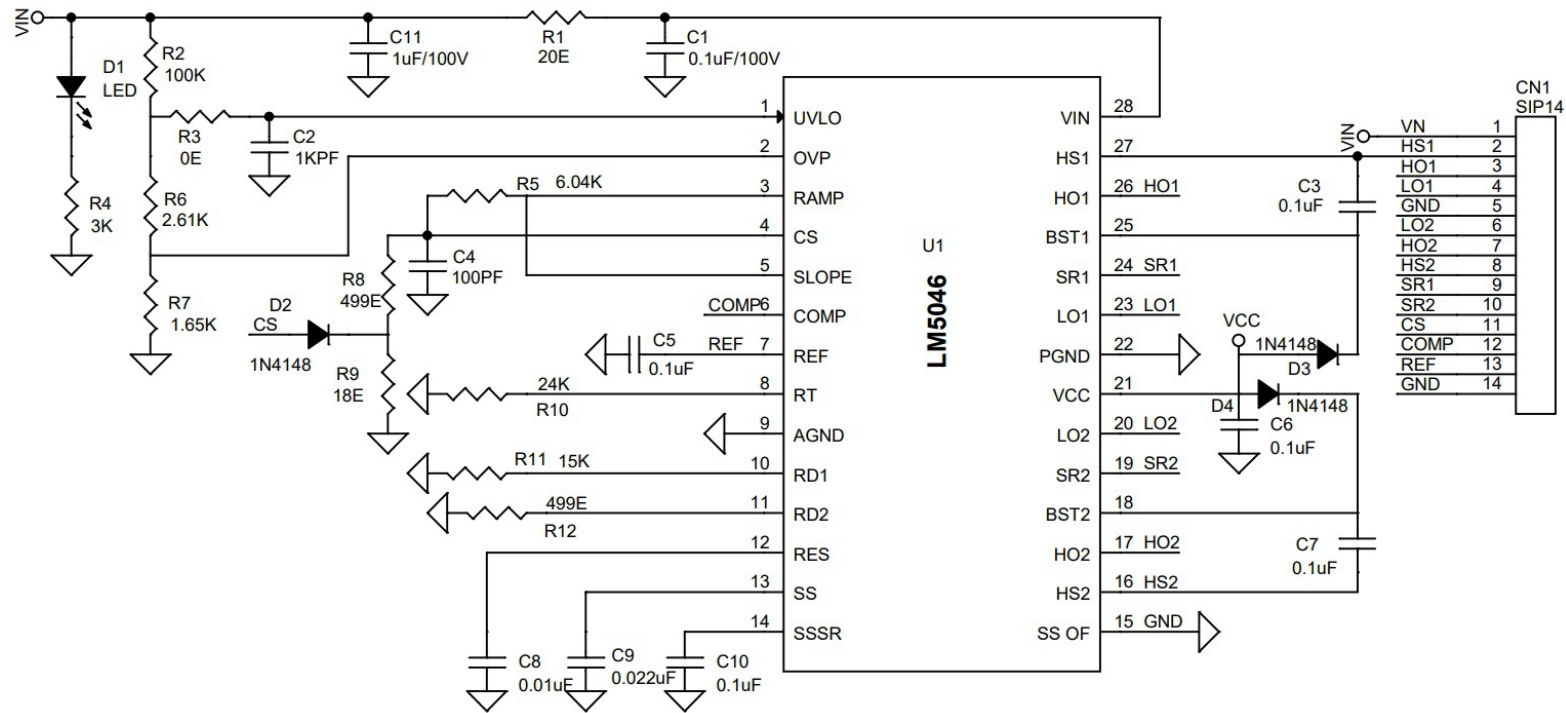
Phase-Shifted Full-Bridge PWM Controller Module, LM5046 Breakout Board

This is a Phase-Shifted Full-Bridge PWM LM5046 carrier board that contains all of the features necessary to implement a phase-shifted full-bridge topology power converter. All inputs and outputs pins are accessible using the header connector. High efficiency DC-DC converter can be created using LM5046 carrier board + External H-Bridge and Transformer. Refer to the datasheet of LM5046 and schematic to configure the frequency, current feedback, delays, etc.

Features

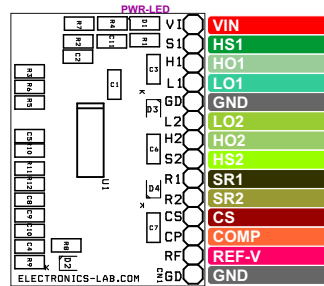
- Operating Power Supply 36V (Range 36V to 75V DC)
- Under Voltage Lockout UVLO (34V/32V ON/OFF)
- Frequency Of Operations 420Khz (Programmable up to 2Mhz- Set Resistor R10)
- Highest Integration Controller for Small
- Form Factor, High-Density Power Converters
- High-Voltage Start-Up Regulator
- Intelligent Sync Rectifier Start-Up Allows
- Linear Turn-on into Pre-biased Loads
- Synchronous Rectifiers Disabled in UVLO Mode and Hiccup Mode
- Two Independent, Programmable Dead-Time
- Adjustments to Enable Zero-Volt Switching
- Four High-Current 2-A Bridge Gate Drivers
- Wide-Bandwidth Opto-Coupler Interface
- Configurable for Either Current Mode or Voltage Mode Control
- Dual-Mode Overcurrent Protection
- Resistor Programmed 2-MHz Oscillator
- Programmable Line UVLO and OVP
- PCB Dimensions 36.20MM X 25.40MM

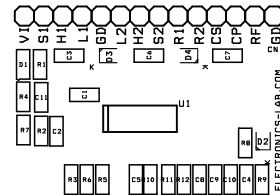




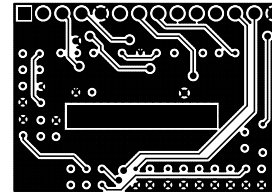
Connector CN1: Connections

- PIN 1 VIN 36V (36V-75V RANGE)
- PIN 2 Hs2
- PIN 3 Ho1
- PIN 4 Lo1
- PIN 5 GND
- PIN 6 Lo2
- PIN 7 Ho2
- PIN 8 Hs2
- PIN 9 Sr1
- PIN 10 Sr2
- PIN 11 CS-CURRENT SENSE
- PIN 12 COMP
- PIN 13 REF VOLT OUT
- PIN 14 GND

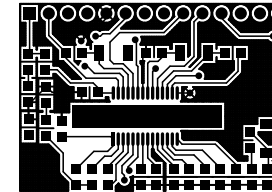




SILK SCREEN TOP



BOTTOM LAYER



TOP LAYER

PCB DIMENSIONS 36.20MM X 25.40MM

BOM						
NO	QNTY.	REF.	DESC	MANUFACTURER	SUPPLIER	SUPPLIER PART NO
1	1	CN1	14 PIN MALE HEADER PITCH 2.54MM	SULIN	DIGIKEY	S1011EC-40-ND
2	1	C1	0.1uF/100V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
3	1	C2	1KPF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
4	5	C3,C5,C6,C7,C10	0.1uF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
5	1	C4	100PF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
6	1	C8	0.01uF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
7	1	C9	0.022uF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
8	1	C11	1uF/100V	MURATA	DIGIKEY	490-14436-1-ND
9	1	D1	LED RED SMD SIZE 0805	LITE ON	DIGIKEY	160-1427-1-ND
10	3	D2,D3,D4	1N4148	MICROCHIP	DIGIKEY	1086-15170-ND
11	1	R1	20E 5% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
12	1	R2	100K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
13	1	R3	0E SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
14	1	R4	3K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
15	1	R5	6.04K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
16	1	R6	2.61K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
17	1	R7	1.65K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
18	2	R8,R12	499E 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
19	1	R9	18E 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
20	1	R10	24K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
21	1	R11	15K 1% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
22	1	U1	LM5046	TI	DIGIKEY	LM5046MH/NOPB-ND