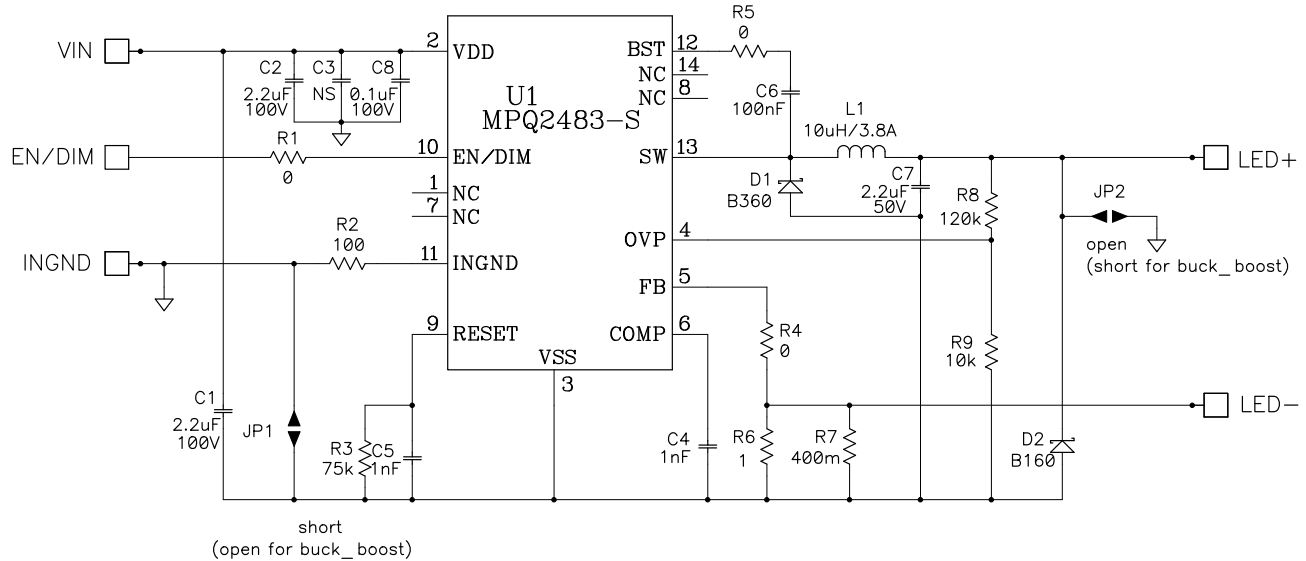


EVALUATION BOARD SCHEMATIC

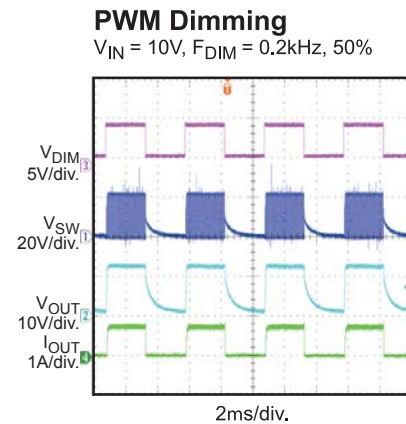
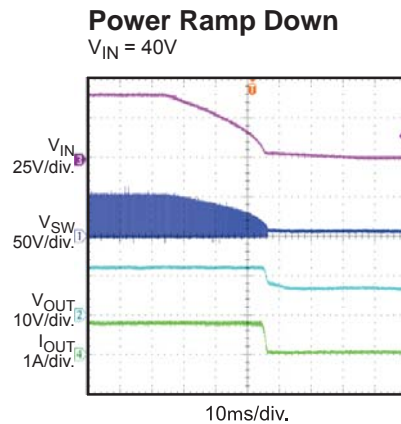
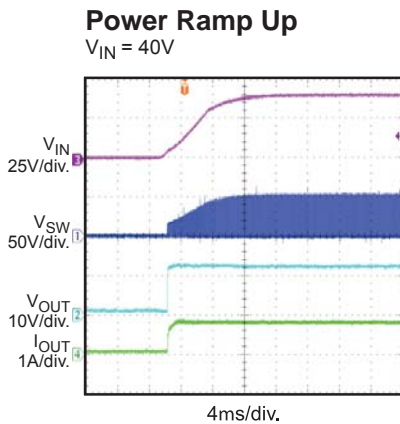
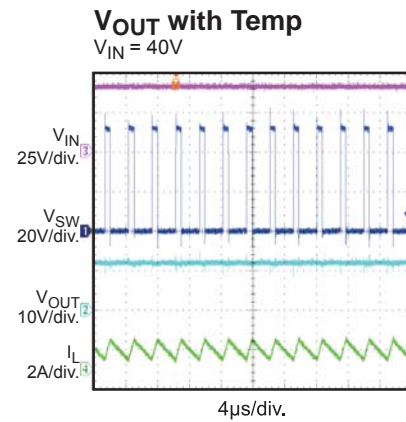
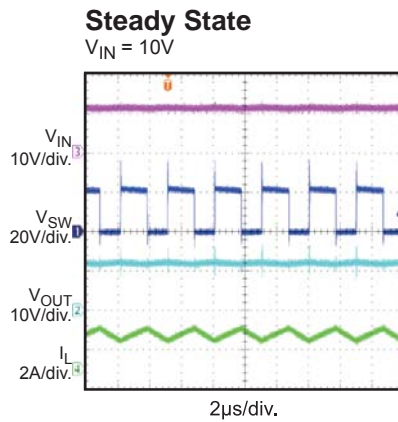
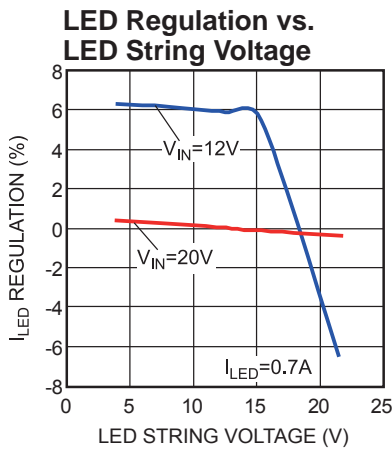
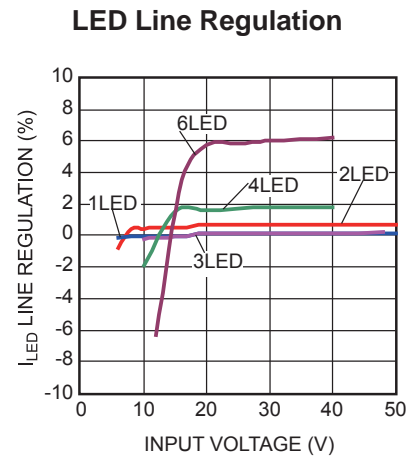
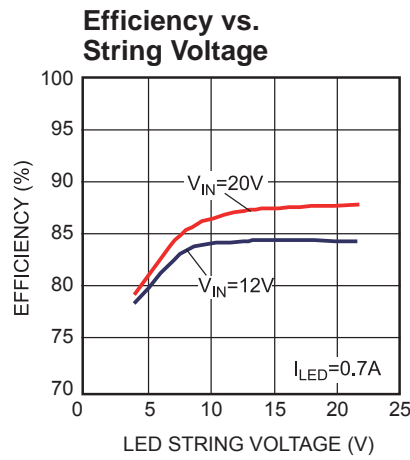
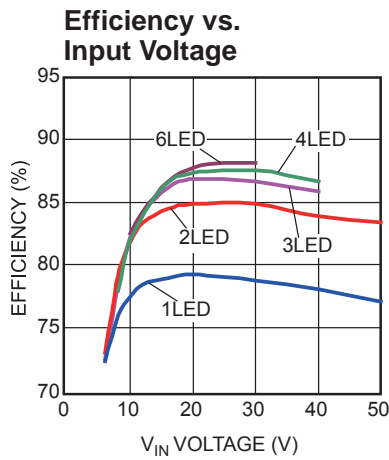


EVQ2483-S-00A BILL OF MATERIALS

Qty	Ref	Value	Description	Package	Manufacturer	Part Number
3	C1, C2, C7	2.2µF	Ceramic Cap., 100V, 10%, X7R	1210	muRata	GRM32ER72A225KA35L
1	C3	NS				
2	C4, C5	1nF	Ceramic Cap., 50V, 10%, X7R	0603	muRata	GRM188R71H102KA01D
1	C6	0.1µF	Ceramic Cap., 25V, 10%, X7R	0603	muRata	GRM188R71E104KA01D
1	C8	0.1µF	Ceramic Cap., 100V, 10%, X7R	0805	muRata	GRM188R72A104KA35D
1	D1	B360	Schottky Rect., 60V,3A	SMA	Diodes Inc	GCM21BR72A104KA37L
1	D2	B160	Schottky Rect., 60V,1A	SMA	Diodes Inc	B160-13-F
1	L1	10µH	Inductor, Rdc 28mΩ, Isat 4A	SMD	Wurth Elektronik	744066100
3	R1, R4, R5	0	Film Res., 5%	0603	Yageo	RC0603JR-070RL
1	R2	100	Film Res., 5%	0603	Yageo	RC0603JR-07100RL
1	R3	75kΩ	Film Res., 1%	0603	Yageo	RC0603FR-0775KL
1	R6	1Ω	Film Res.1%	0805	ROYALOHM	RC0805FR-071RL
1	R7	400mΩ	Film Res. 1%	0805	ROYALOHM	0808F400LT5E
1	R8	120kΩ	Film Res., 1%	0603	Yageo	RC0603FR-07120KL
1	R9	10k	Film Res., 1%	0603	Yageo	RC0603FR-0710KL
1	U1	MPQ2483	Power Led Driver	SO-14	MPS	MPQ2483DS
1	EN/DIM, LED+, LED-, VIN,GND		11 Pin Header, 2.54mm	2.54mm	Sullins	PCC11SAAN
	JP1, JP2		NS			

EVB TEST RESULTS

Buck Boost Mode, $L = 10\mu\text{H}$, $F_{\text{SW}} = 330\text{kHz}$, 3LED, $I_{\text{OUT}} = 0.7\text{A}$, $T_A = 25^\circ\text{C}$, unless otherwise noted.



PRINTED CIRCUIT BOARD LAYOUT

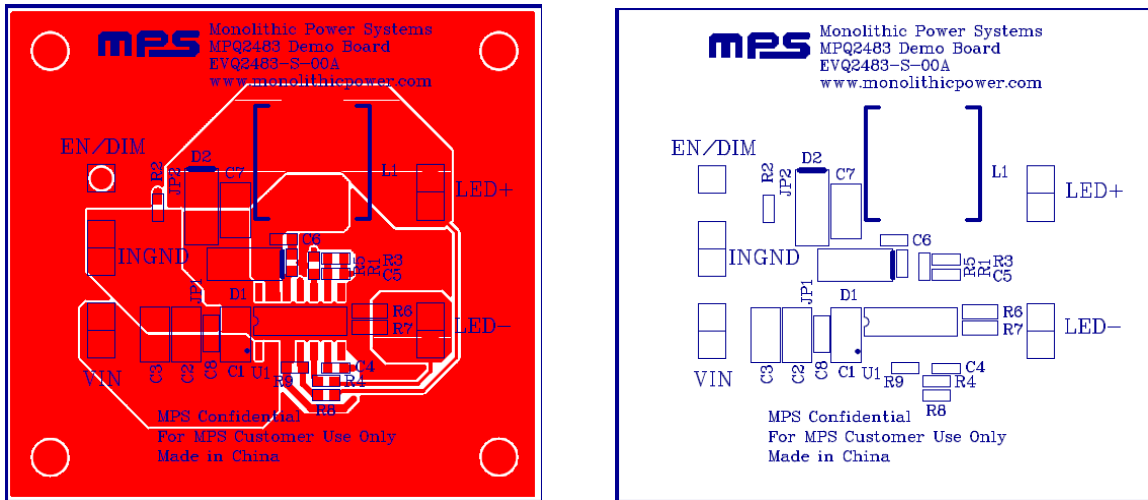


Figure 1—Top Layer

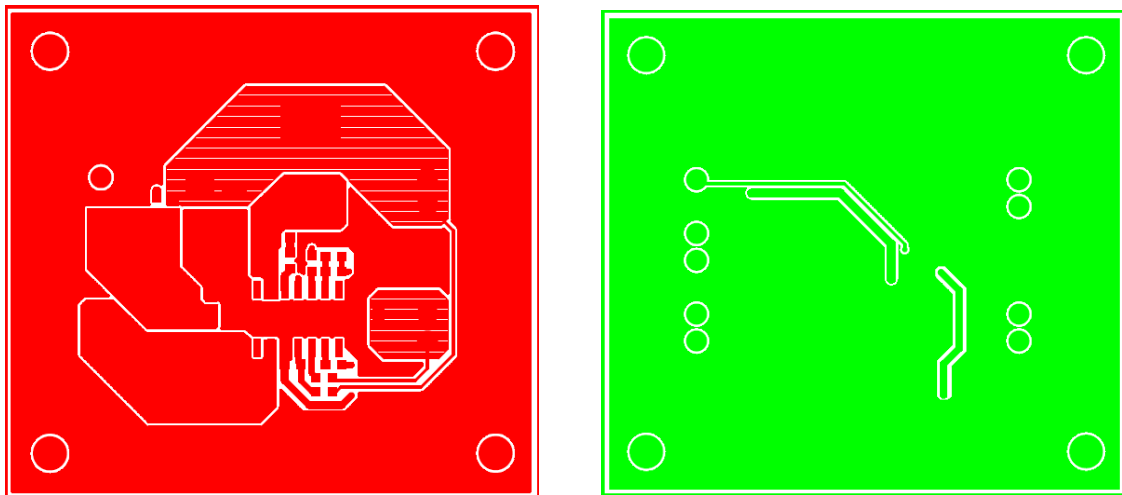


Figure 2—Bottom Layer

QUICK START GUIDE

1. Connect the load (3LEDs or less) to the output. The Anode of the load to “LED+” and the Cathode of the load to “LED -”.
2. Connect the input voltage source to the input VIN and INGND. The input voltage source should be initialed 10V - 45V.
3. Connect the EN or dimming signal to EN/Dim pin.

For PWM dimming, connect the PWM signal to EN/Dim pin, the high level should be higher than 1.4V, the low level should be lower than 0.7V.

For analog dimming, connect a DC dimming signal in range of 0.7V~1.4V to EN/Dim pin.

4. Power up the input voltage source, and then power up the EN/Dim signal, the LEDs should be ignited.

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