

**Test Data
For PMP7858
8/9/2012**



Power specification

Vin min = 8V

Vin max = 40V

Vout1 = 5V

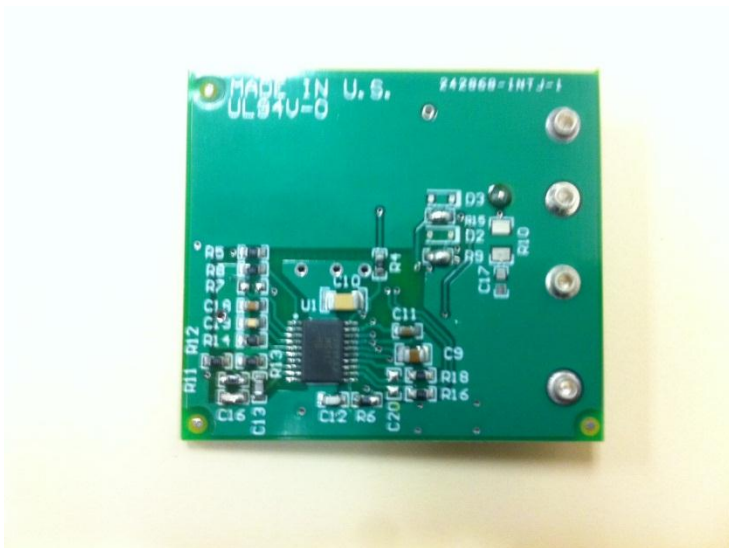
Iout1 = 1.5A

Fsw = 400kHz

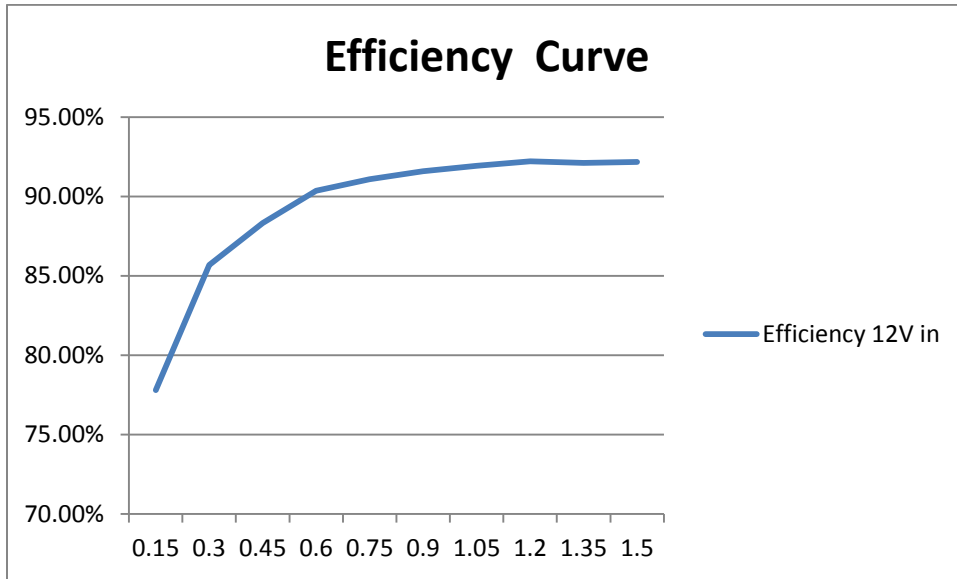
Top Side



Bottom Side



System Efficiency



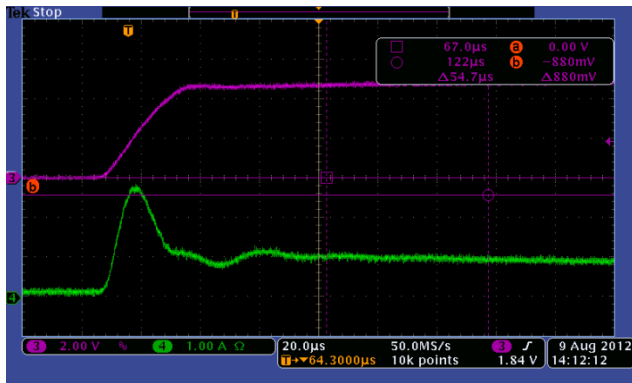
Efficiency Data

Vin	Iin	Vout	Iout	Pin	Pout	Ploss	Eff
12	0.08	4.98	0.15	0.96	0.747	0.213	0.778125
12	0.145	4.97	0.3	1.74	1.491	0.249	0.856896552
12	0.211	4.97	0.45	2.532	2.2365	0.296	0.883293839
12	0.275	4.97	0.6	3.3	2.982	0.318	0.903636364
12	0.341	4.97	0.75	4.092	3.7275	0.365	0.910923754
12	0.407	4.97	0.9	4.884	4.473	0.411	0.915847666
12	0.473	4.97	1.05	5.676	5.2185	0.458	0.919397463
12	0.539	4.97	1.2	6.468	5.964	0.504	0.922077922
12	0.607	4.97	1.35	7.284	6.7095	0.575	0.921128501
12	0.674	4.97	1.5	8.088	7.455	0.633	0.921735905

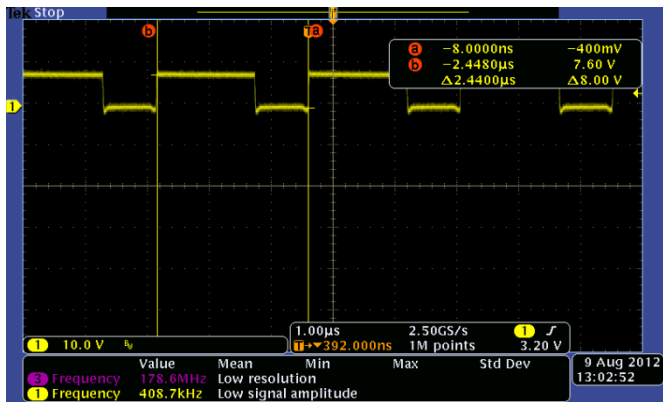
Thermal information

No Temp Data taken – Expected to be very low due to minimal losses on board...

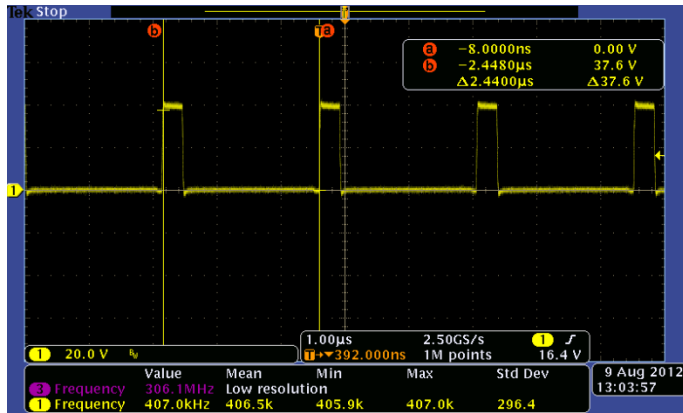
Waveforms



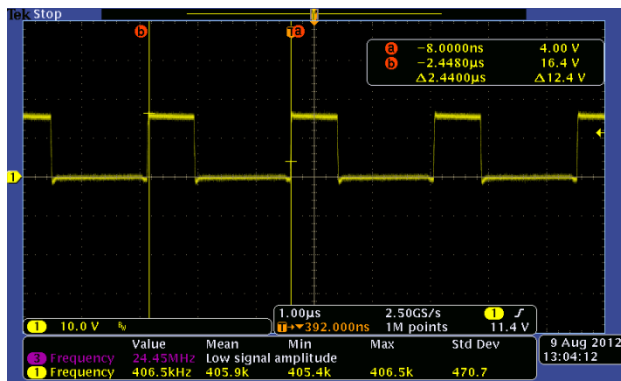
12Vin Start Up Full Load Ch3- Vout, Ch4 – Input current



8V in VSwitch Full load

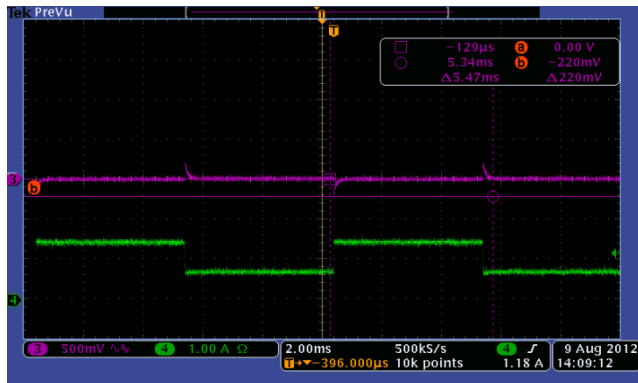


40V in VSwitch Full load

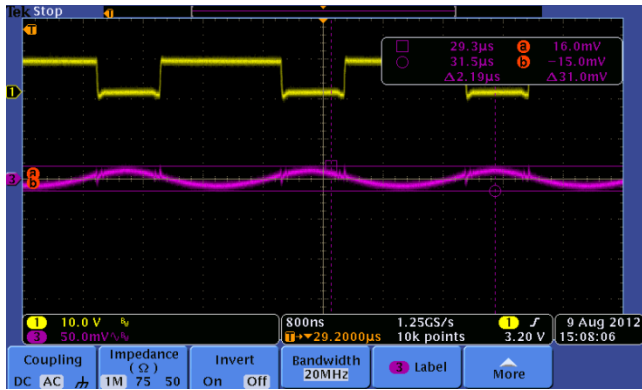


16V in VSwitch Full load

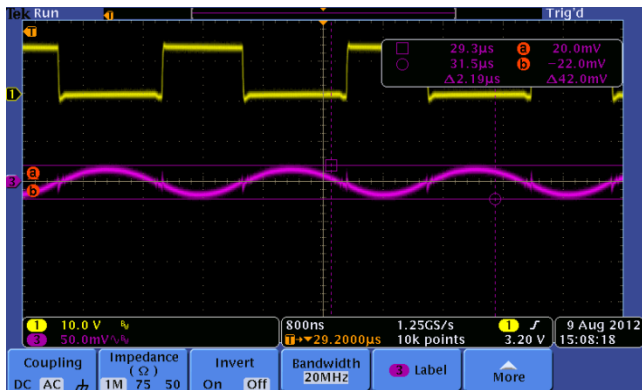
All Transients completed with 1A/us slew rate.



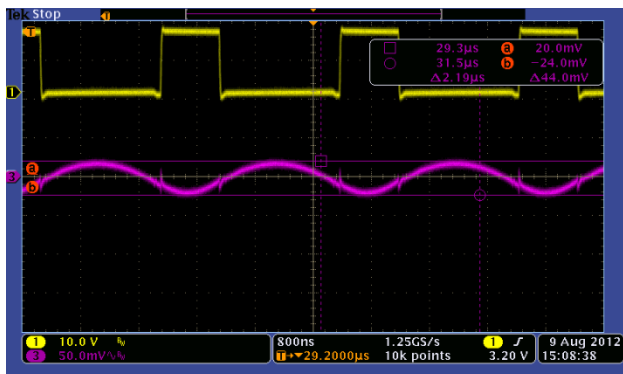
Transient Response 12Vin, 0.75 to 1.5A



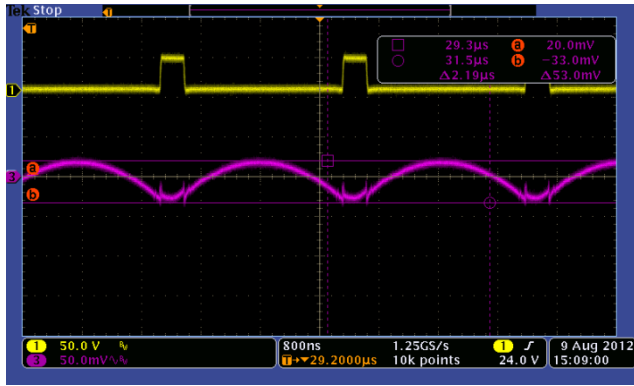
Vout Ripple 8Vin full load out.



Vout Ripple 12Vin full load out.

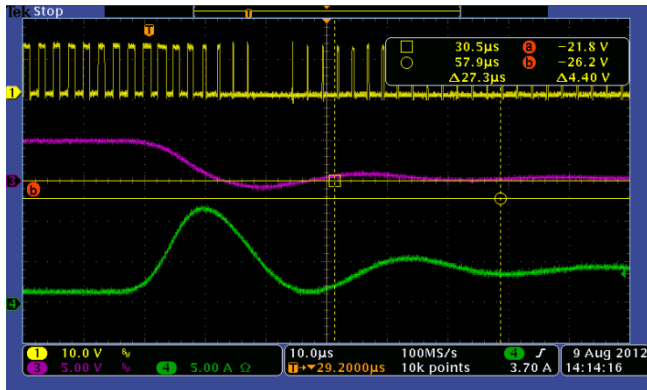


Vout Ripple 16Vin full load out.

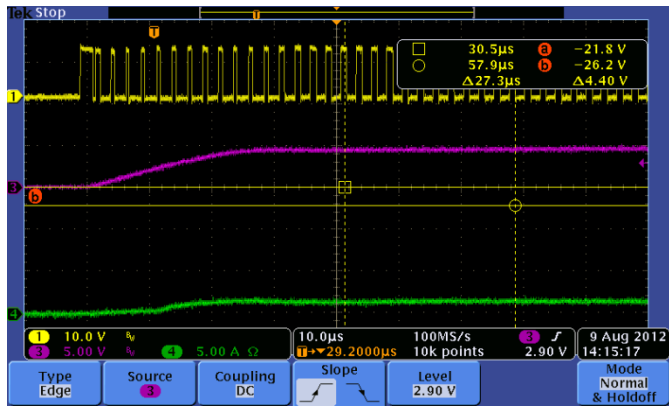


Vout Ripple 40Vin full load out.

Short Circuit test



12V in Short Circuit test, Ch1- Switch Node, Ch3 Vout, C4 Iout



12Vin, Short Circuit Recovery

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