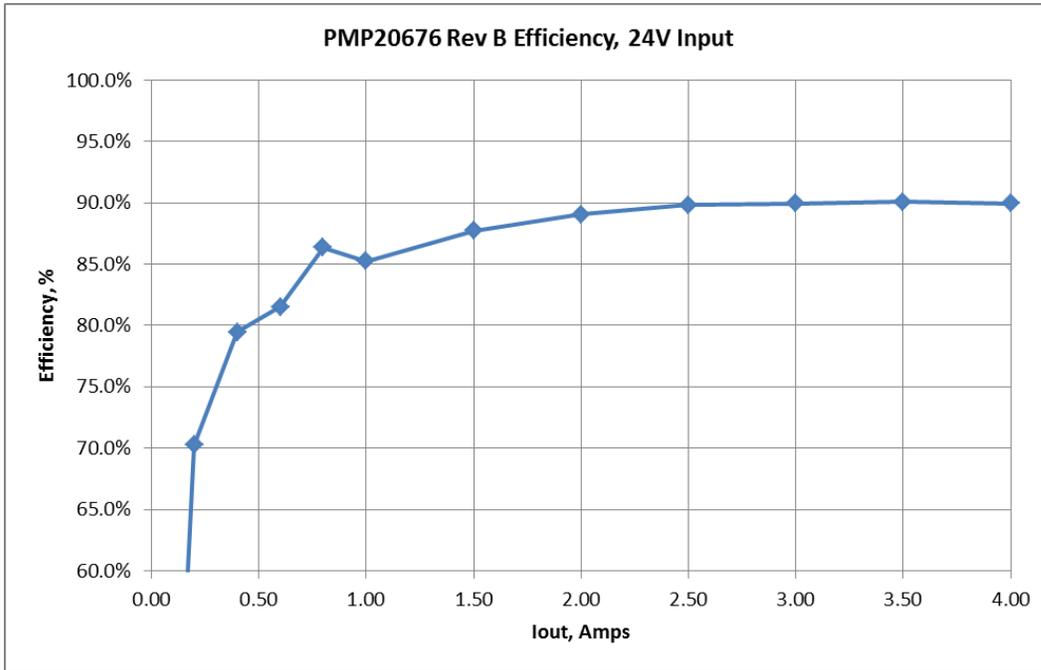


Testing performed with 24V input, 4A load and 20MHz bandwidth unless noted.

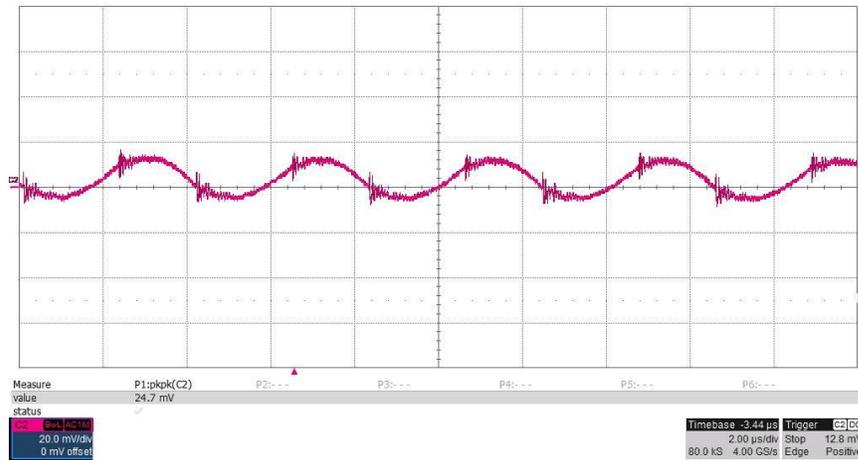
**Efficiency**



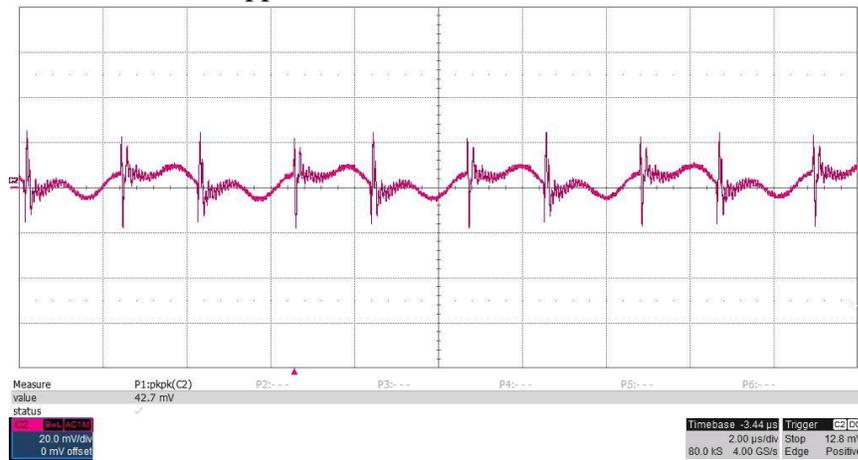
<u>Iout</u>	<u>Vout</u>	<u>Iin</u>	<u>Vin</u>	<u>Eff</u>
0.00	11.97	0.023	24.00	0.0%
0.20	11.97	0.142	24.00	70.2%
0.40	11.97	0.251	24.00	79.5%
0.60	11.97	0.367	24.00	81.5%
0.80	11.97	0.462	24.00	86.4%
1.00	11.97	0.585	24.00	85.3%
1.50	11.97	0.853	24.00	87.7%
2.00	11.97	1.120	24.00	89.1%
2.50	11.97	1.388	24.00	89.8%
3.00	11.97	1.663	24.00	90.0%
3.50	11.97	1.938	24.00	90.1%
4.00	11.97	2.218	24.00	89.9%

**Ripple and Noise**

Output ripple, 20mV/div, 2usec/div  
Measured 24.7mVpp across J2:



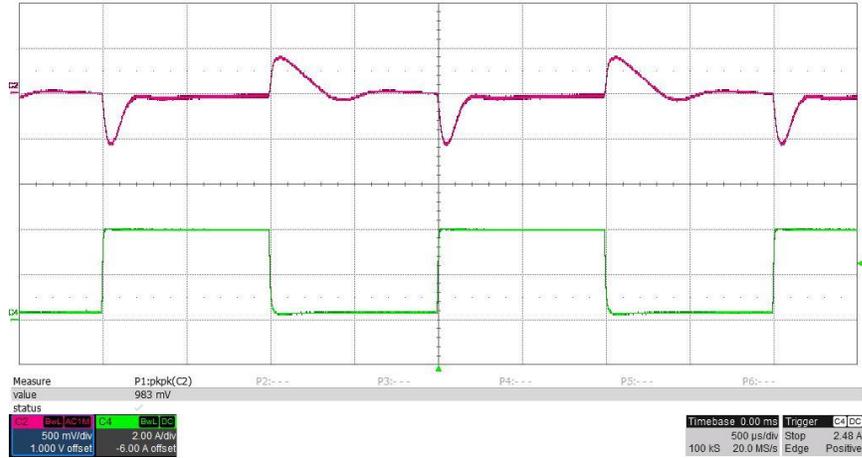
Input ripple, 20mV/div, 2usec/div  
Measured 42.7mVpp across C3:



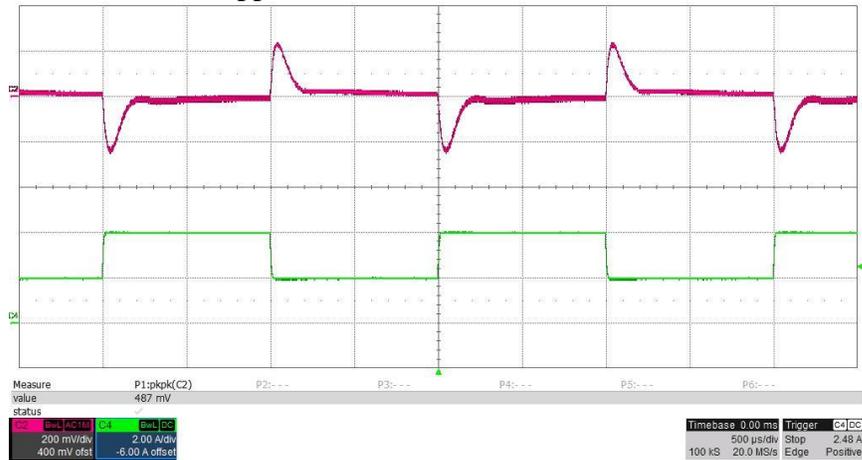
### Dynamic Loading

Output load step response, 400mA to 4A load step  
500mV/div, 2A/div, 500usec/div, slew rate = 400mA/usec

Measured 983mVpp across J2:



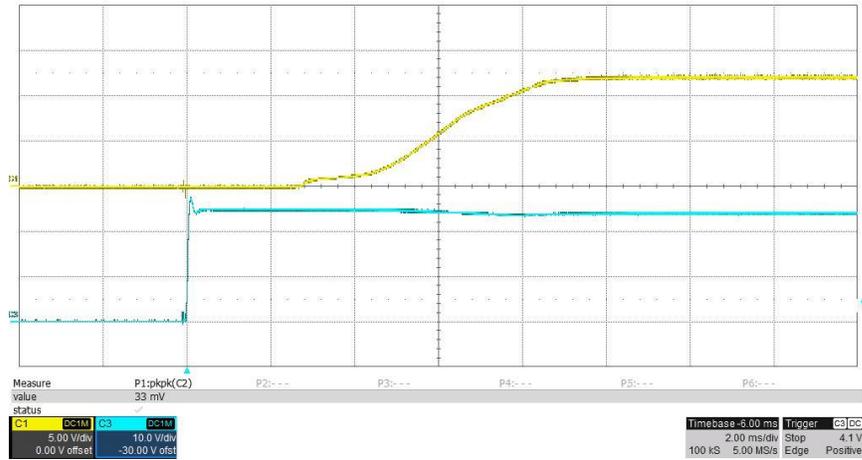
Output load step response, 2A to 4A load step  
200mV/div, 2A/div, 500usec/div, slew rate = 400mA/usec  
Measured 487mVpp across J2:



### Turn On Response

4A load, 2msec/div  
CH1: Vout, 5V/div

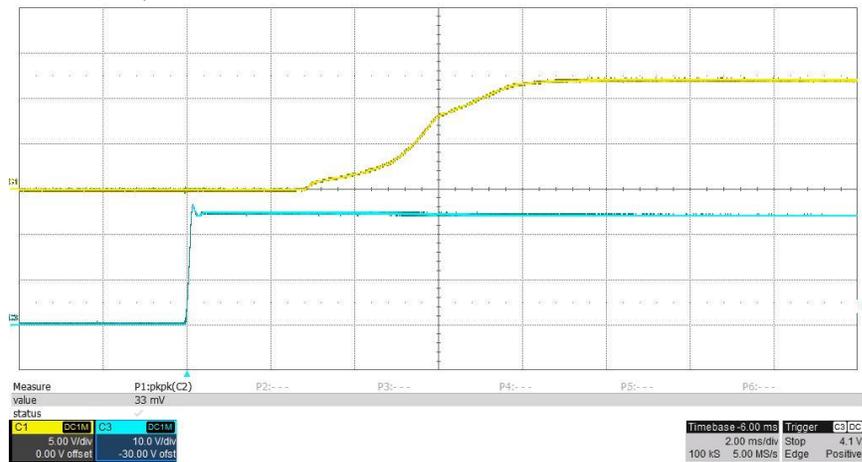
CH3: Vin, 10V/div:



0A load, 1msec/div:

CH1: Vout, 5V/div

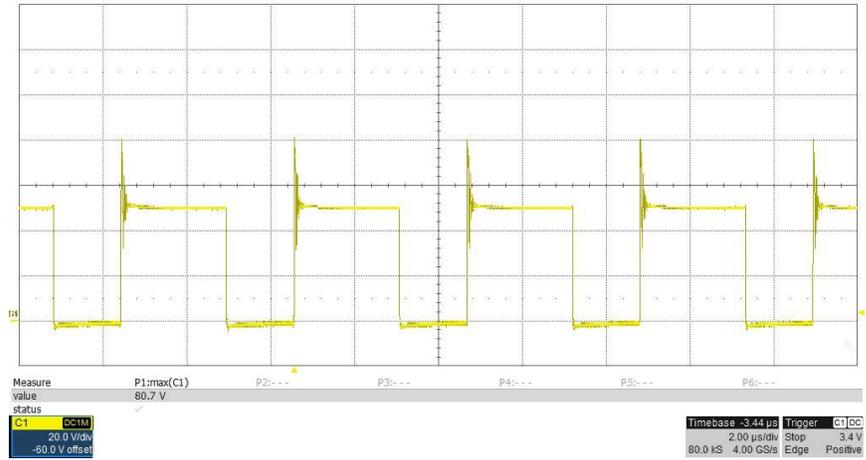
CH3: Vin, 10V/div:



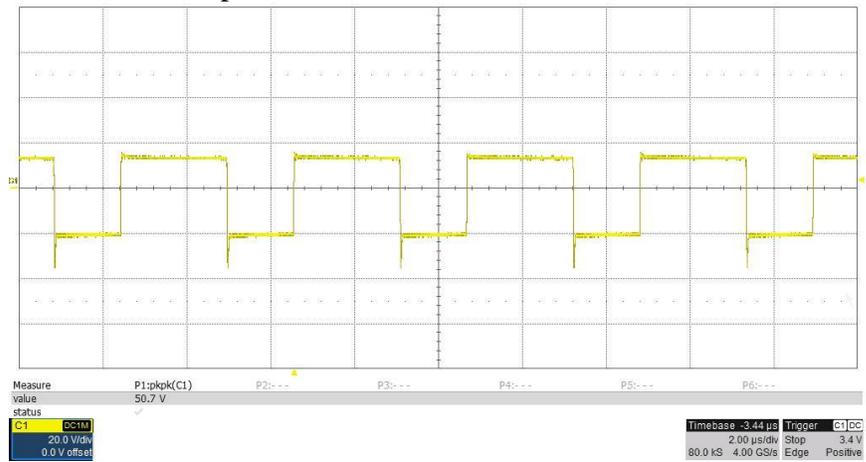
## Waveforms

Vds, Q1, 20V/div, 2usec/div, 30Vdc input, 750MHz bandwidth

Measured 80.7Vpeak:

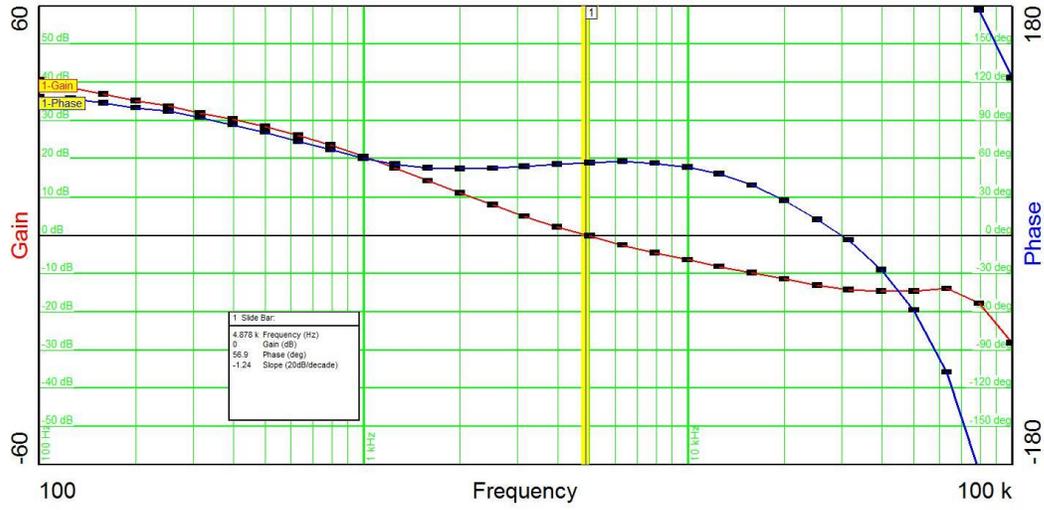


Vanode-GND, D1, 20V/div, 2usec/div, 30Vdc input, 750MHz bandwidth  
Measured 50.7Vpeak:



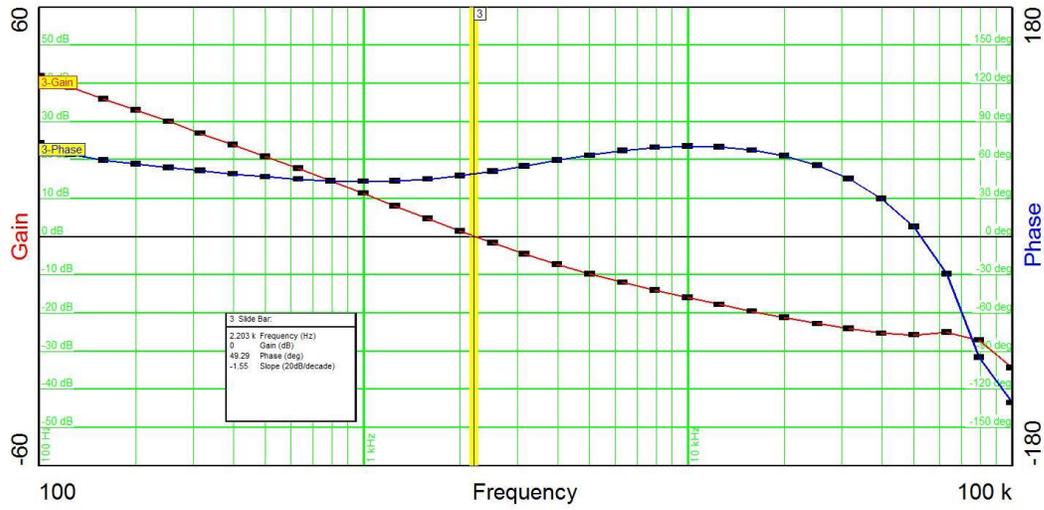
**Loop Stability**

4A Load:



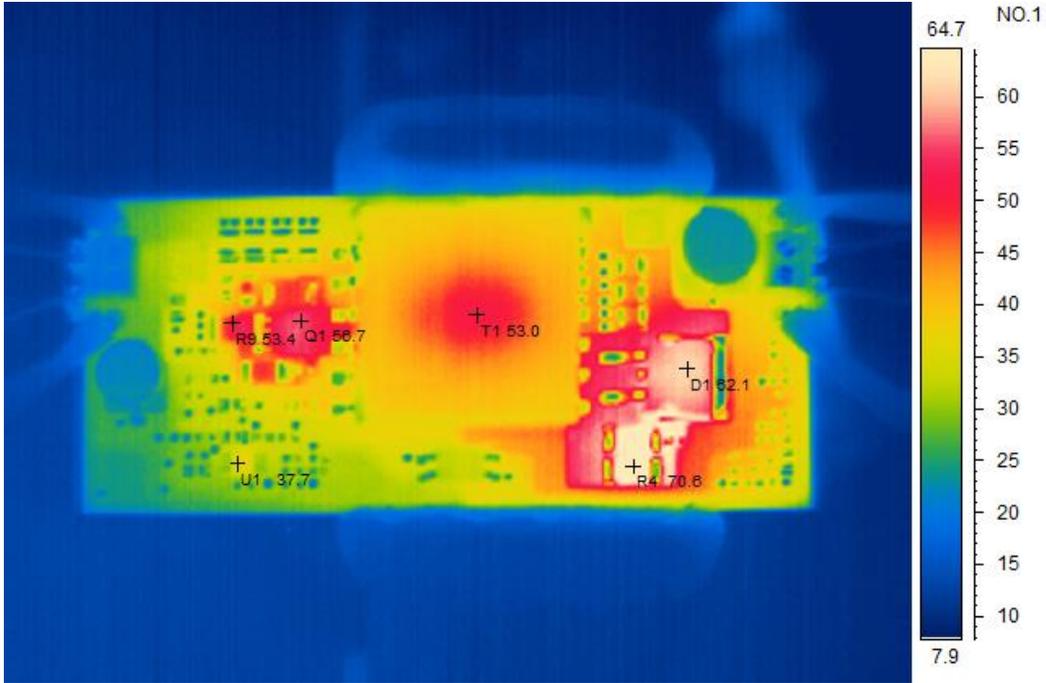
Bandwidth= 4.8 kHz Phase Margin=56 degrees Gain Margin=14dB

400mA Load:

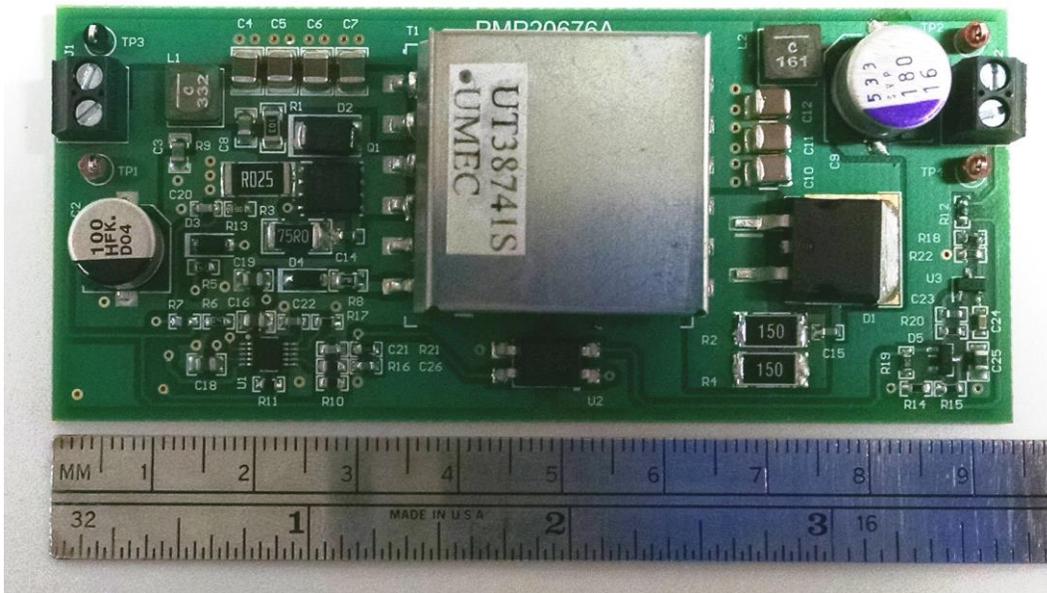


Bandwidth= 2.2 kHz Phase Margin=49 degrees Gain Margin=25dB

**Thermal**



Photo



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