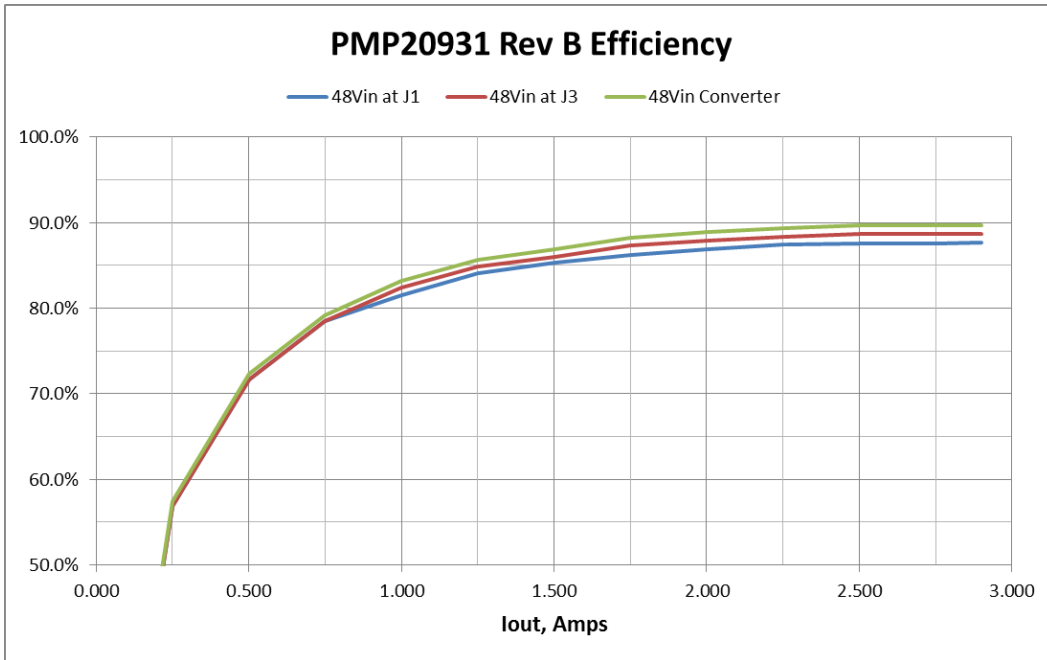


All measurement taken with 48V input, 2.9A load and 20MHz bandwidth unless noted.

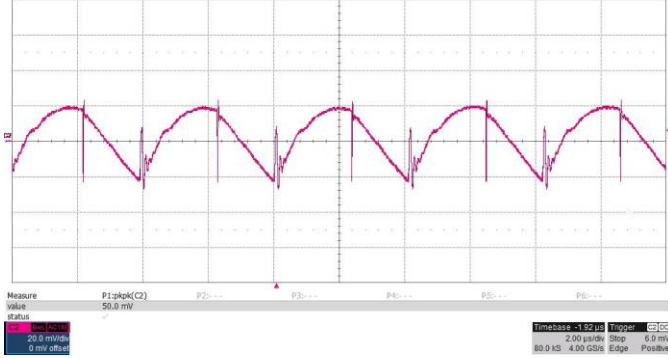
**Efficiency**



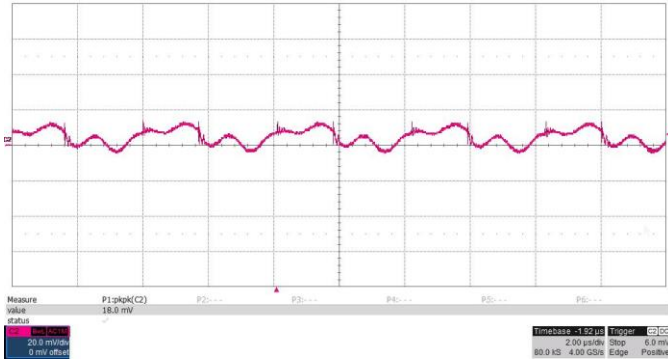
<b>J4</b>	<b>J4</b>	<b>J1</b>	<b>J1</b>	<b>J1</b>	<b>J3</b>	<b>J3</b>	<b>J3</b>	<b>Conv</b>	<b>Conv</b>
<b>Iout</b>	<b>Vout</b>	<b>Iin</b>	<b>Vin</b>	<b>Eff</b>	<b>Iin</b>	<b>Vin</b>	<b>Eff</b>	<b>Vin</b>	<b>Eff</b>
0.000	3.718	0.014	48.01	0.0%	0.015	48.02	0.0%	47.66	0.0%
0.250	3.717	0.034	48.01	56.9%	0.034	48.01	56.9%	47.62	57.4%
0.500	3.717	0.054	48.02	71.7%	0.054	48.01	71.7%	47.59	72.3%
0.750	3.716	0.074	48.01	78.4%	0.074	48.00	78.5%	47.57	79.2%
1.000	3.716	0.095	48.01	81.5%	0.094	48.00	82.4%	47.55	83.1%
1.250	3.715	0.115	48.00	84.1%	0.114	48.01	84.8%	47.54	85.7%
1.500	3.715	0.136	48.00	85.4%	0.135	48.00	86.0%	47.52	86.9%
1.750	3.714	0.157	48.00	86.2%	0.155	48.01	87.3%	47.51	88.3%
2.000	3.714	0.178	48.00	86.9%	0.176	48.01	87.9%	47.49	88.9%
2.250	3.713	0.199	48.01	87.4%	0.197	48.00	88.3%	47.47	89.3%
2.500	3.713	0.221	48.00	87.5%	0.218	48.01	88.7%	47.47	89.7%
2.750	3.713	0.243	48.00	87.5%	0.240	48.00	88.6%	47.45	89.7%
2.900	3.714	0.256	48.00	87.7%	0.253	48.01	88.7%	47.45	89.7%

**Ripple and Noise**

Output ripple  
20mV/div, 2usec/div  
Measured 50mVpp across C16:

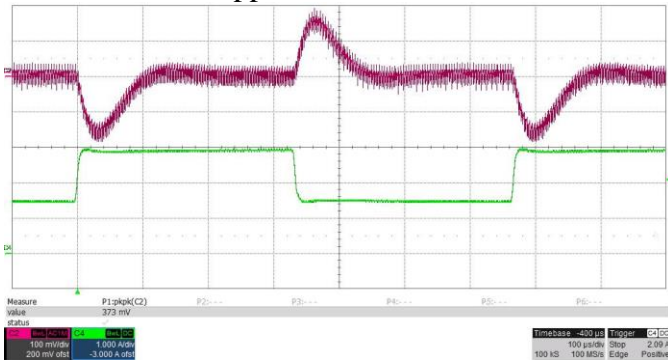


Input ripple  
20mV/div, 2usec/div  
Measured 18mVpp across C11:



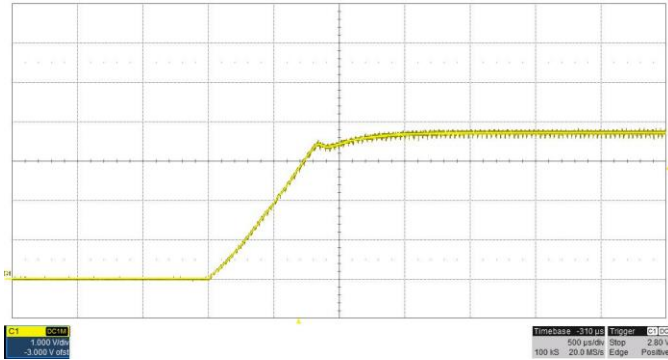
**Dynamic Loading**

Output load step response, 1.45A to 2.9A load step  
100mV/div, 1A/div, 100usec/div, slew rate = 250mA/usec  
Measured 373mVpp across C16:

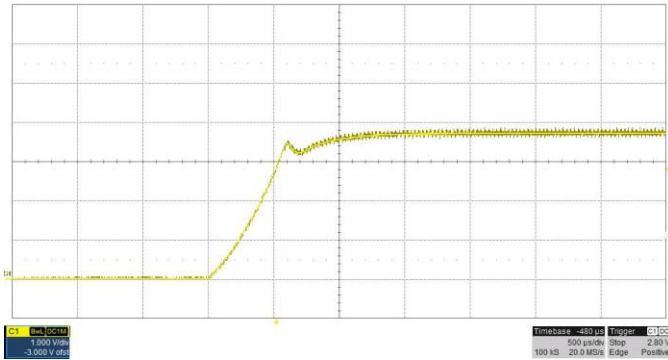


**Turn On Response**

2.9A load, 1V/div, 500usec/div:

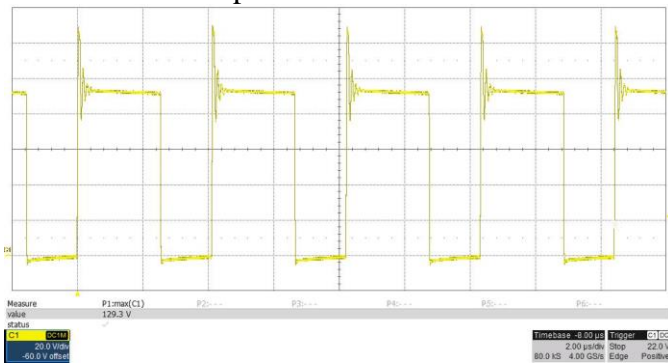


0A load, 1V/div, 500usec/div:



**Waveforms**

V<sub>ds</sub>, Q3, 20V/div, 2usec/div, 57VDC input, 2.9A load, 750MHz bandwidth  
Measured 129.3Vpeak:



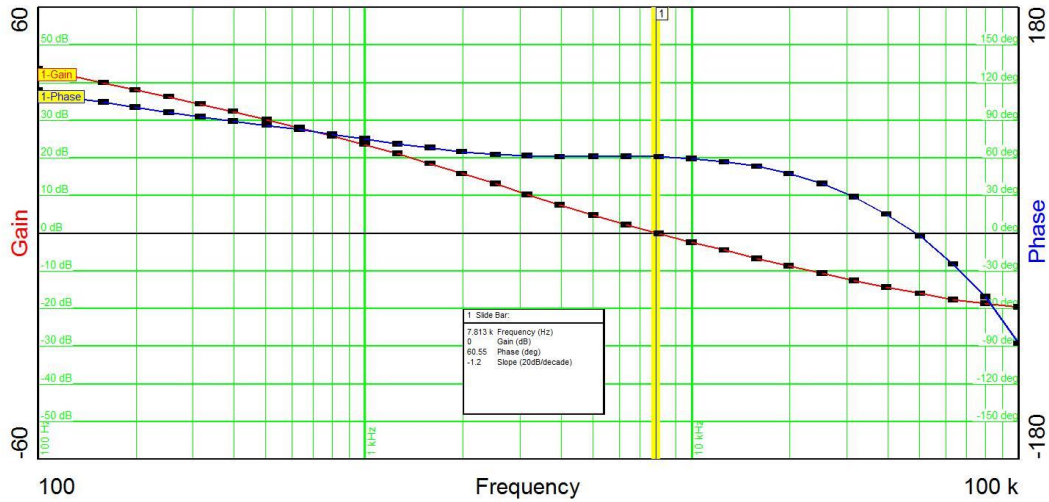
V<sub>ds</sub>, Q2, 5V/div, 2usec/div, 57VDC input, 0A load, 750MHz bandwidth  
 Measured 26.3Vpeak:



V<sub>ds</sub>, Q2, 5V/div, 2usec/div, 57VDC input, 2.9A load, 750MHz bandwidth  
 Measured 16.3Vpeak:



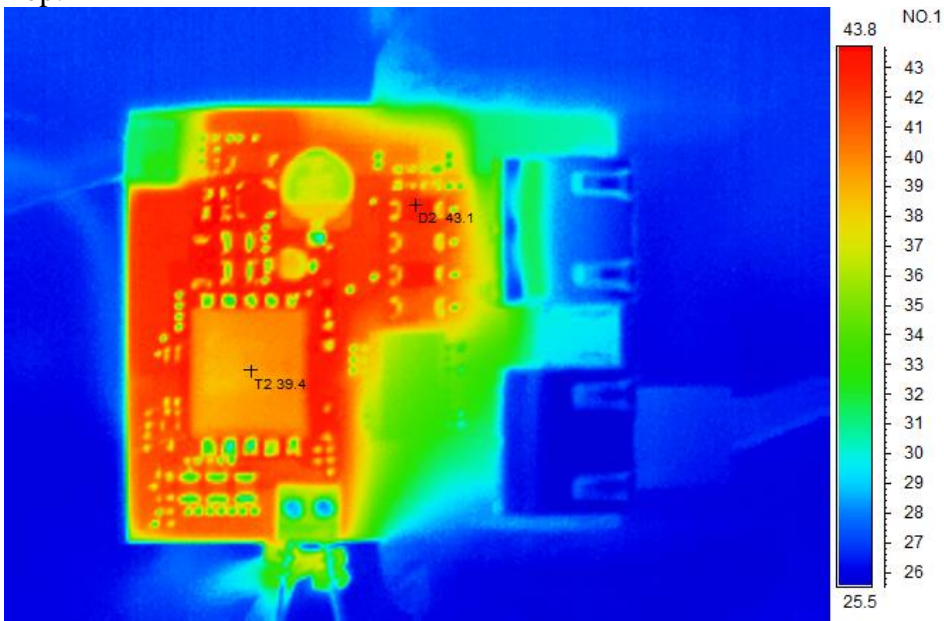
**Loop Stability**



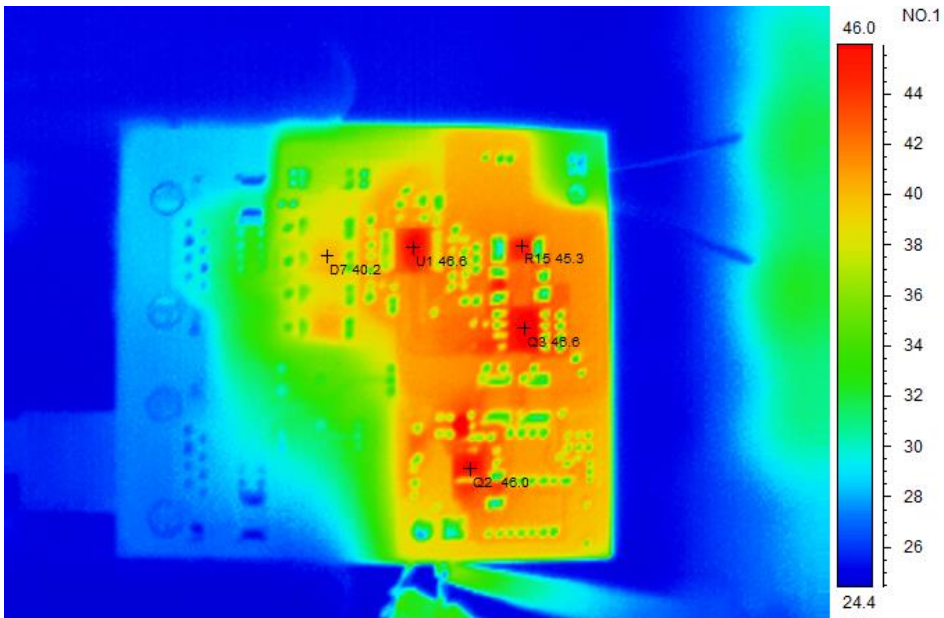
Bandwidth= 7.8 kHz Phase Margin=60 degrees Gain Margin=16dB

Thermal

Top:

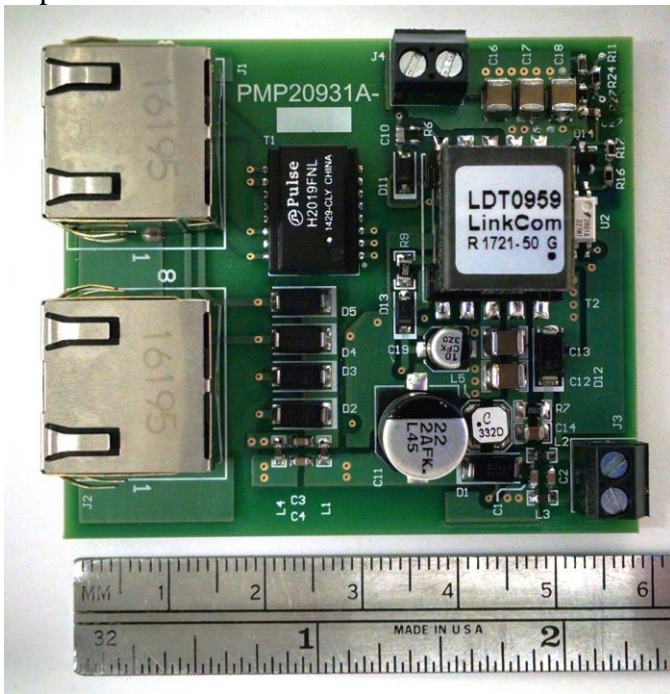


Bottom:

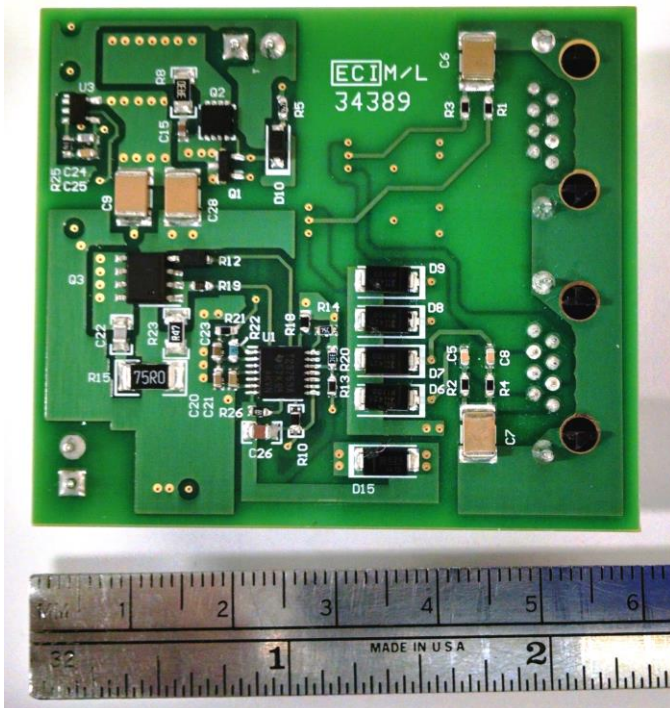


Photo

Top:



Bottom:



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