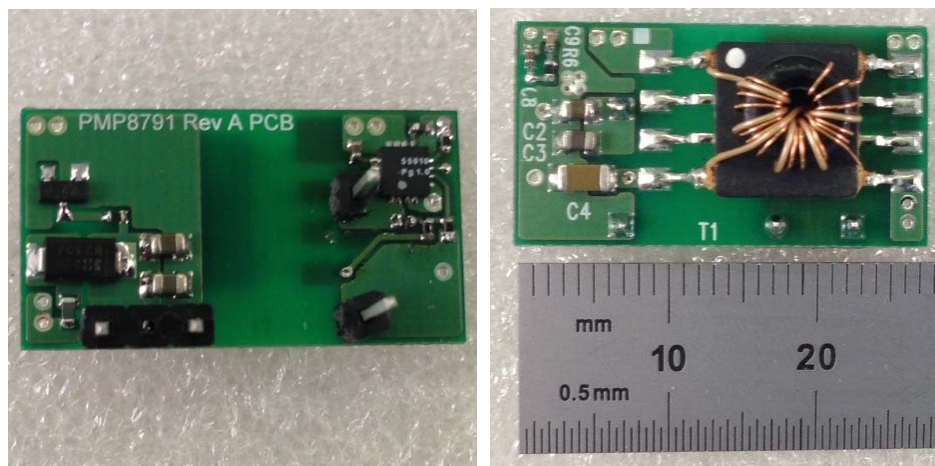


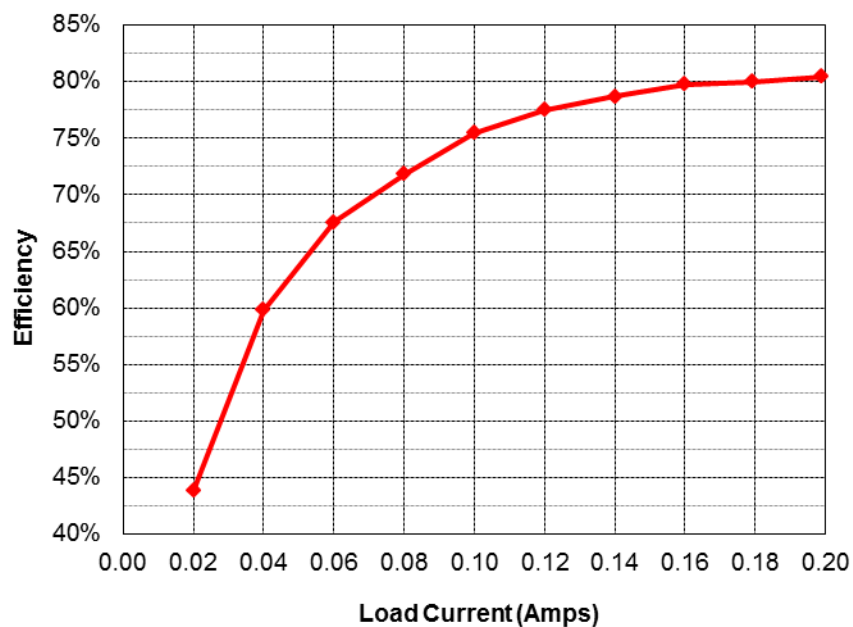
1 Photo

The photos below show the PMP8791 Rev A demo board.



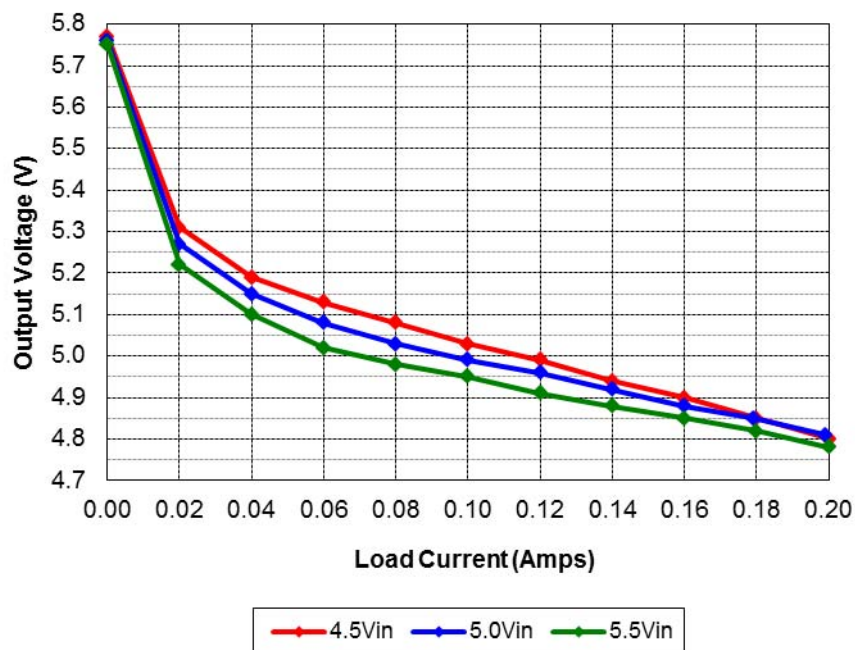
2 Efficiency

The efficiency data is shown in the table and graph below.



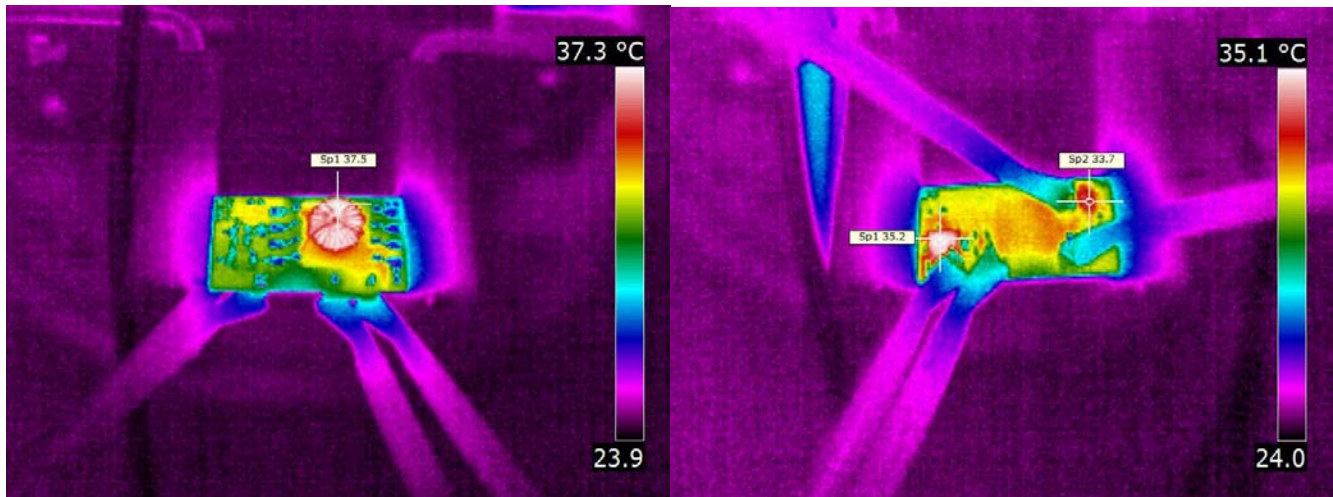
Vin	Iin	Iout	Vout	Pout	Losses	Efficiency
5.01	0.032	0.000	5.76	0.00	0.160	0.0%
5.01	0.048	0.020	5.27	0.11	0.135	43.8%
4.99	0.069	0.040	5.15	0.21	0.138	59.8%
5.01	0.090	0.060	5.08	0.30	0.146	67.6%
5.00	0.112	0.080	5.03	0.40	0.158	71.9%
5.01	0.132	0.100	4.99	0.50	0.162	75.5%
5.02	0.153	0.120	4.96	0.60	0.173	77.5%
5.00	0.175	0.140	4.92	0.69	0.186	78.7%
5.02	0.195	0.160	4.88	0.78	0.198	79.8%
5.00	0.217	0.179	4.85	0.87	0.217	80.0%
5.02	0.237	0.199	4.81	0.96	0.233	80.5%

3 Regulation



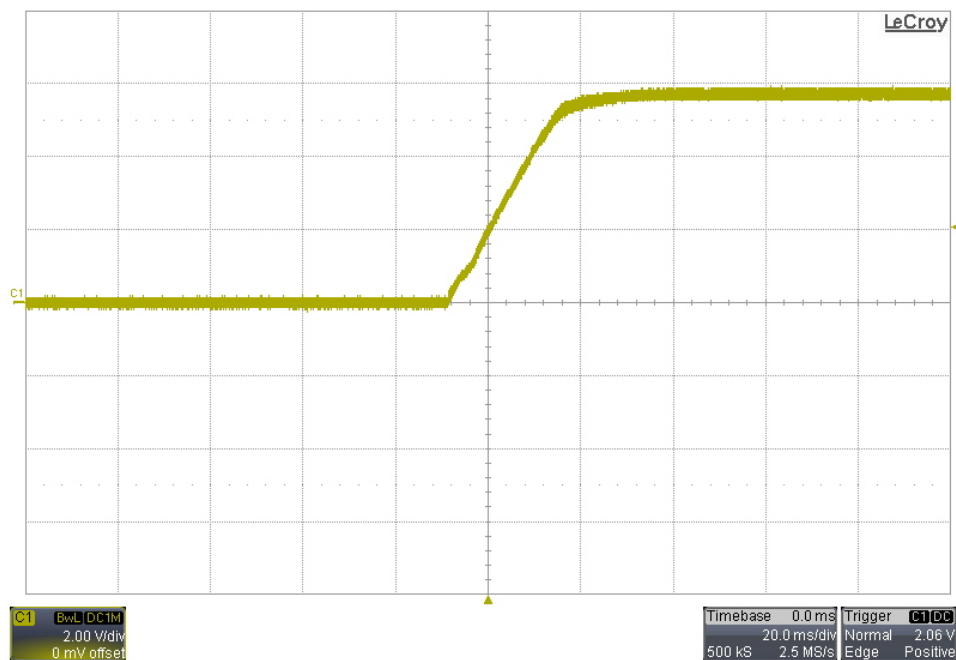
4 Thermal Images

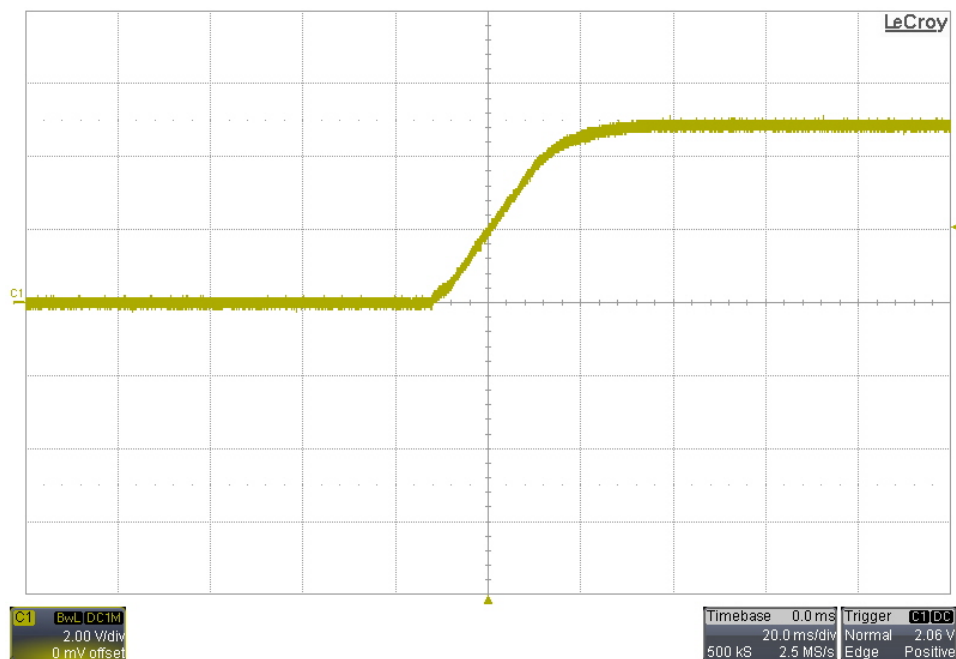
The thermal images below show the top and bottom of the board with a 200mA load and no forced air flow. The ambient temperature was 25°C.



5 Startup

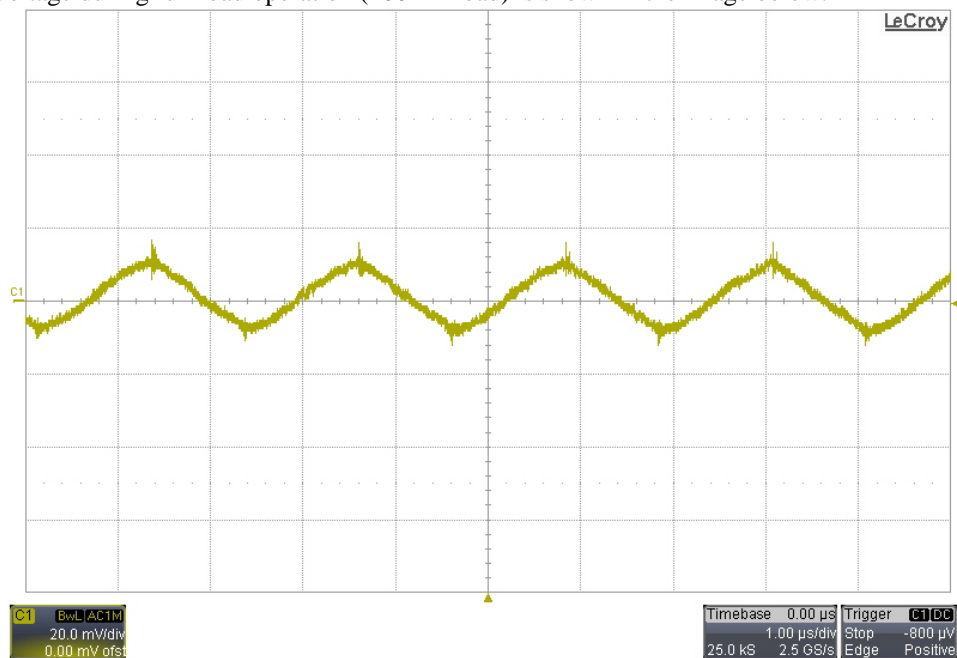
The output voltage at startup is shown in the images below. The top image was captured with no load, and the bottom image was captured with a 25 ohm load.





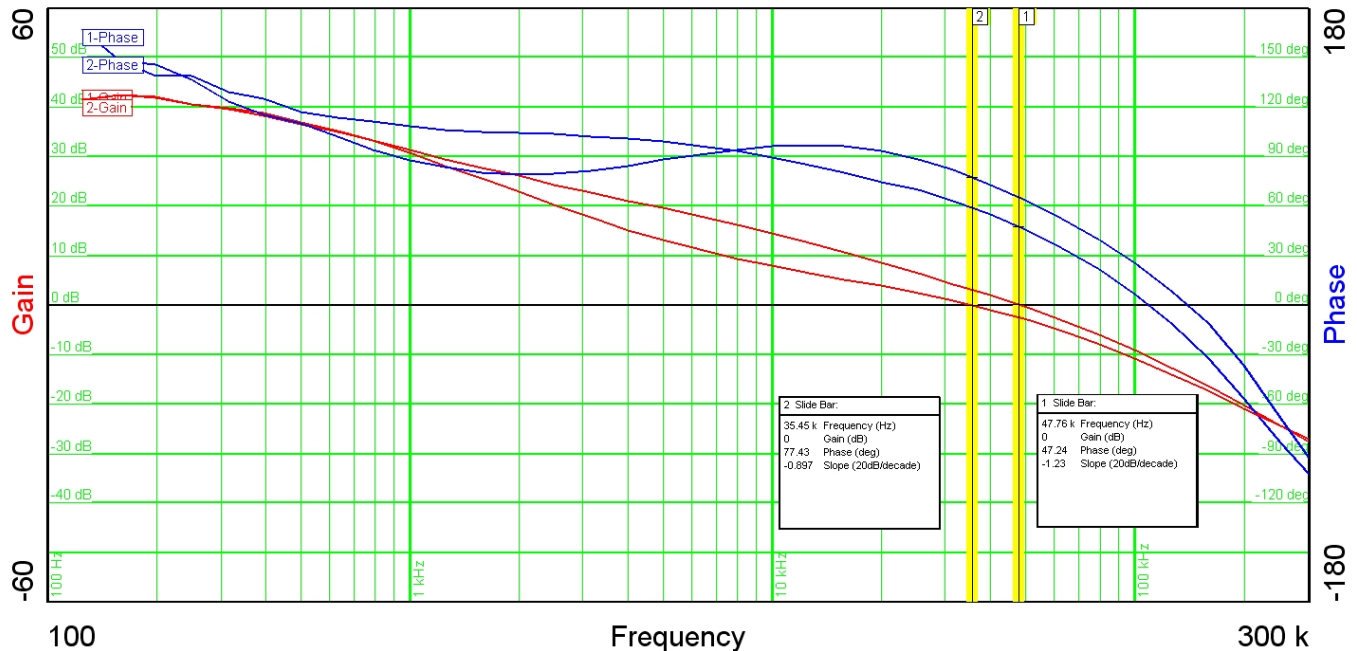
6 Output Ripple Voltage

The output ripple voltage during full load operation (200mA load) is shown in the image below.



7 Loop Response

The image below shows the loop response of the converter. For plot #1, the output was unloaded. For plot #2, the output was loaded with 200mA.

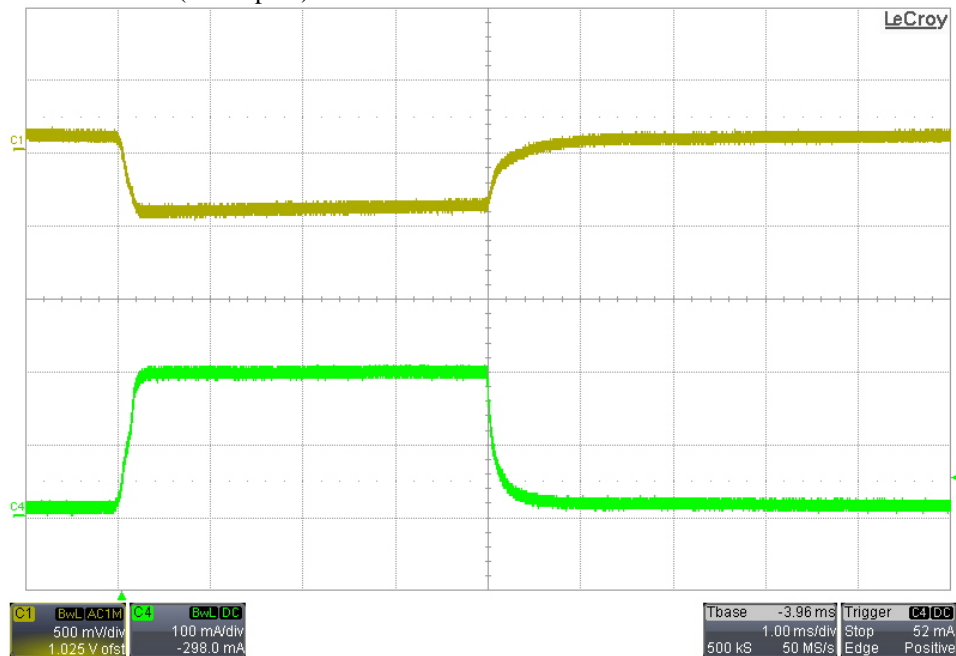


8 Load Transients

The image below shows the response to a 20mA to 200mA load transient.

Channel 1: Vout (ac coupled) 500mV/div

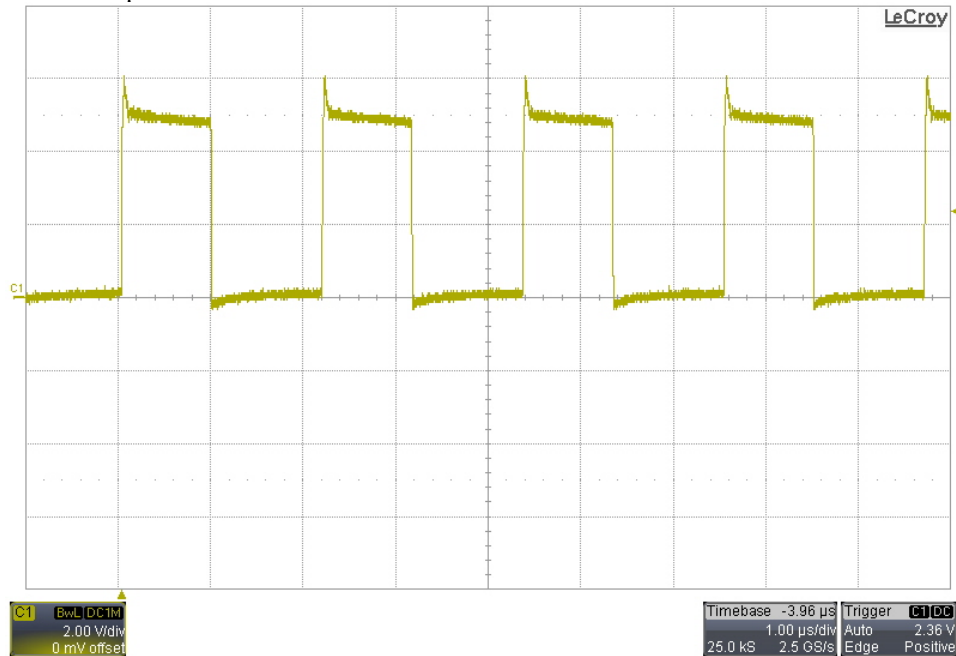
Channel 4: Iout 100mA/div



9 Switching Waveforms

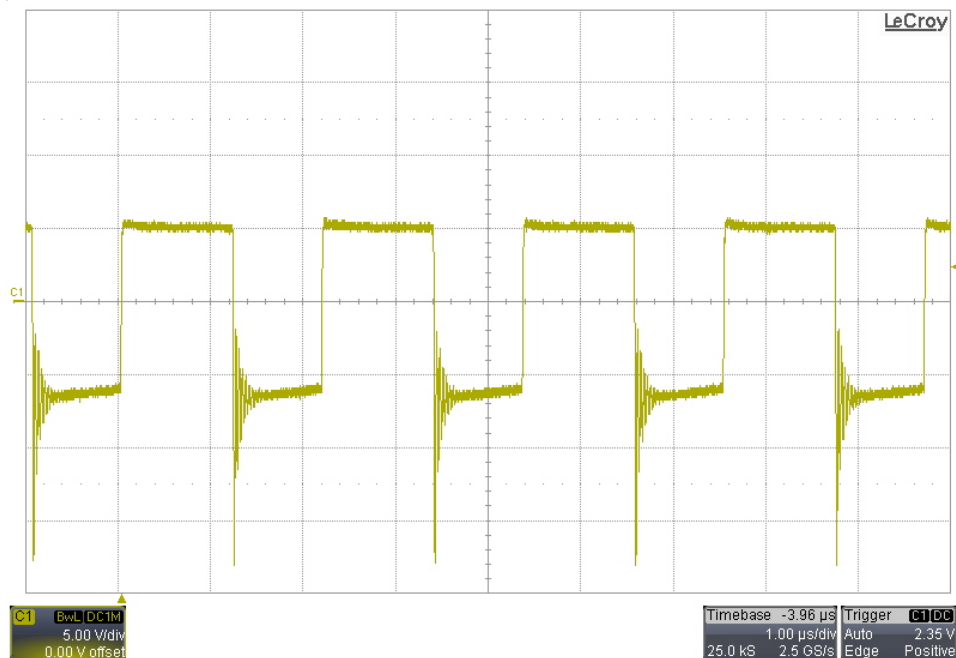
9.1 Primary Waveform

The image below shows the voltage waveform on the phase pins (pins 10, 11, and 12) of the controller (U1). The output was loaded with 200mA and the input was 5.5V.



9.2 Secondary Waveform

The image below shows the voltage waveform on the anode of the output diode (D1). The output was loaded with 200mA and the input was 5.5V.



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