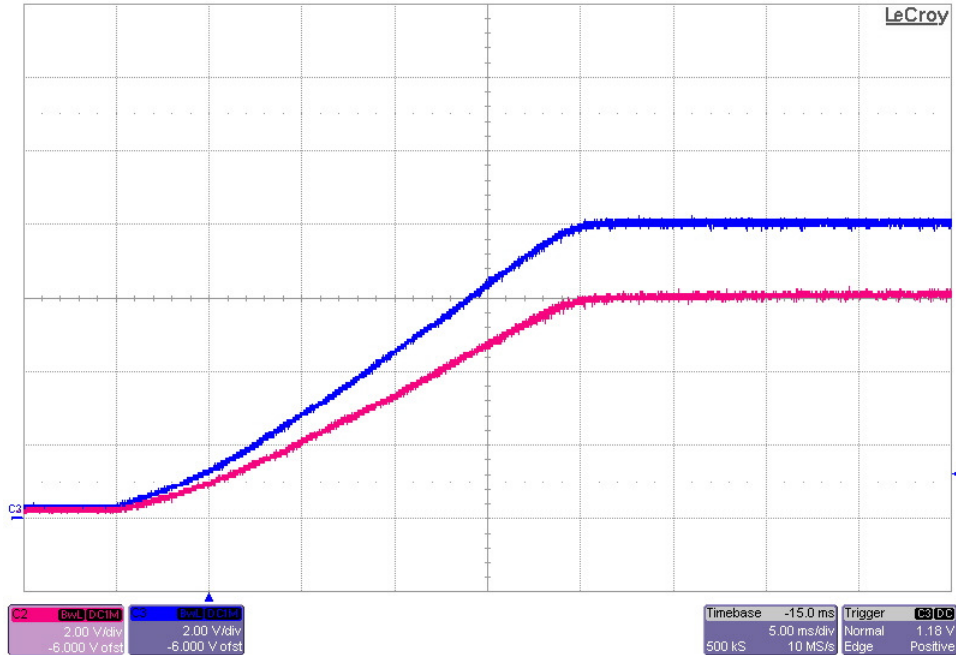
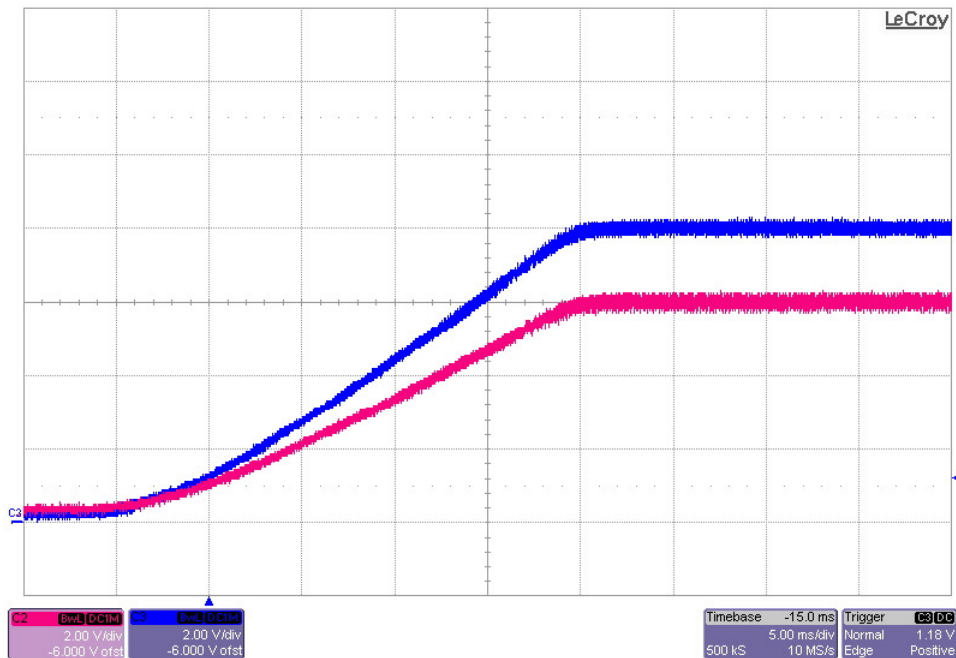


1 Startup

The photo below shows the 8V and 6V output voltage startup waveforms after the application of 48Vdc in. The outputs were loaded to 0A. (2V/DIV, 5mS/DIV)

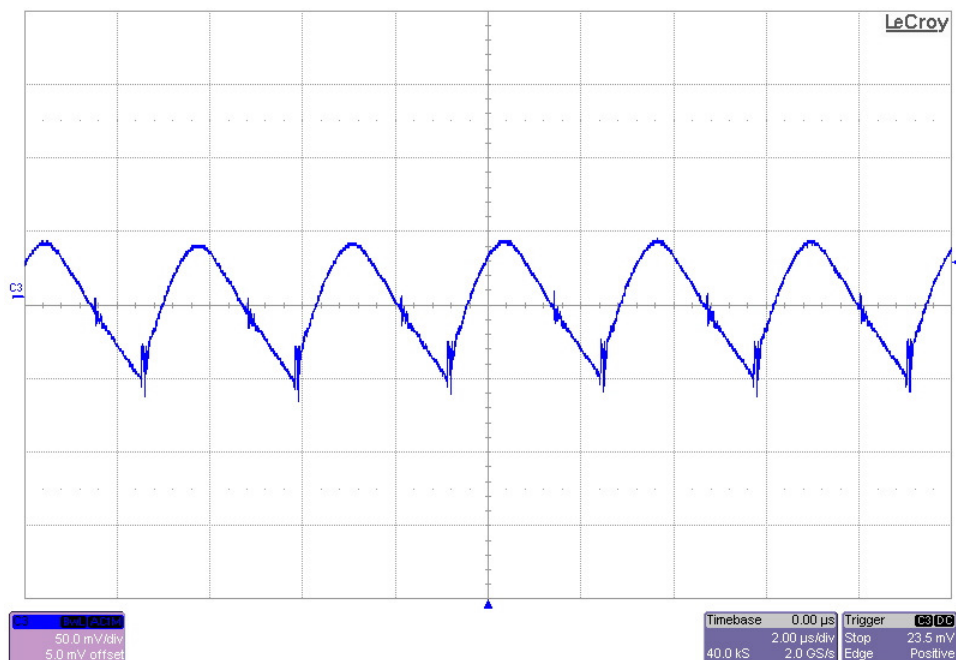


The photo below shows the 8V and 6V output voltage startup waveforms after the application of 48Vdc in. The outputs were loaded to 0.25A each. (2V/DIV, 5mS/DIV)

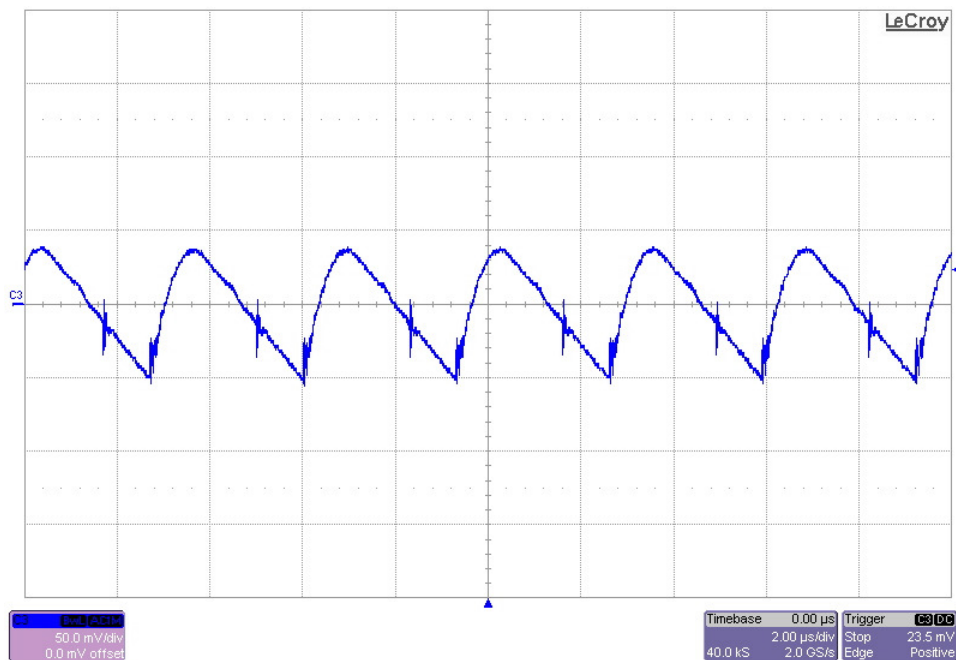


2 Output Ripple Voltage

The 8V output ripple voltage is shown in the figure below. The image was taken with both output loaded to 0.25A and the input voltage set to 48Vdc. (50mV/DIV, 2uS/DIV)

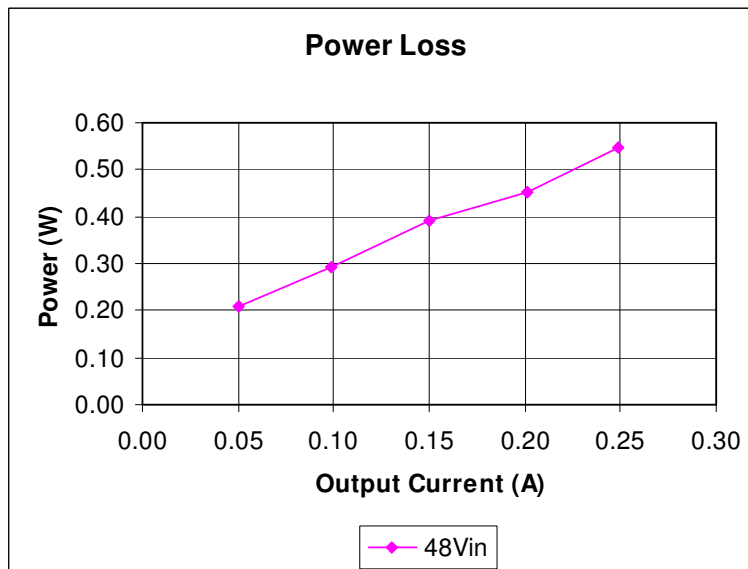
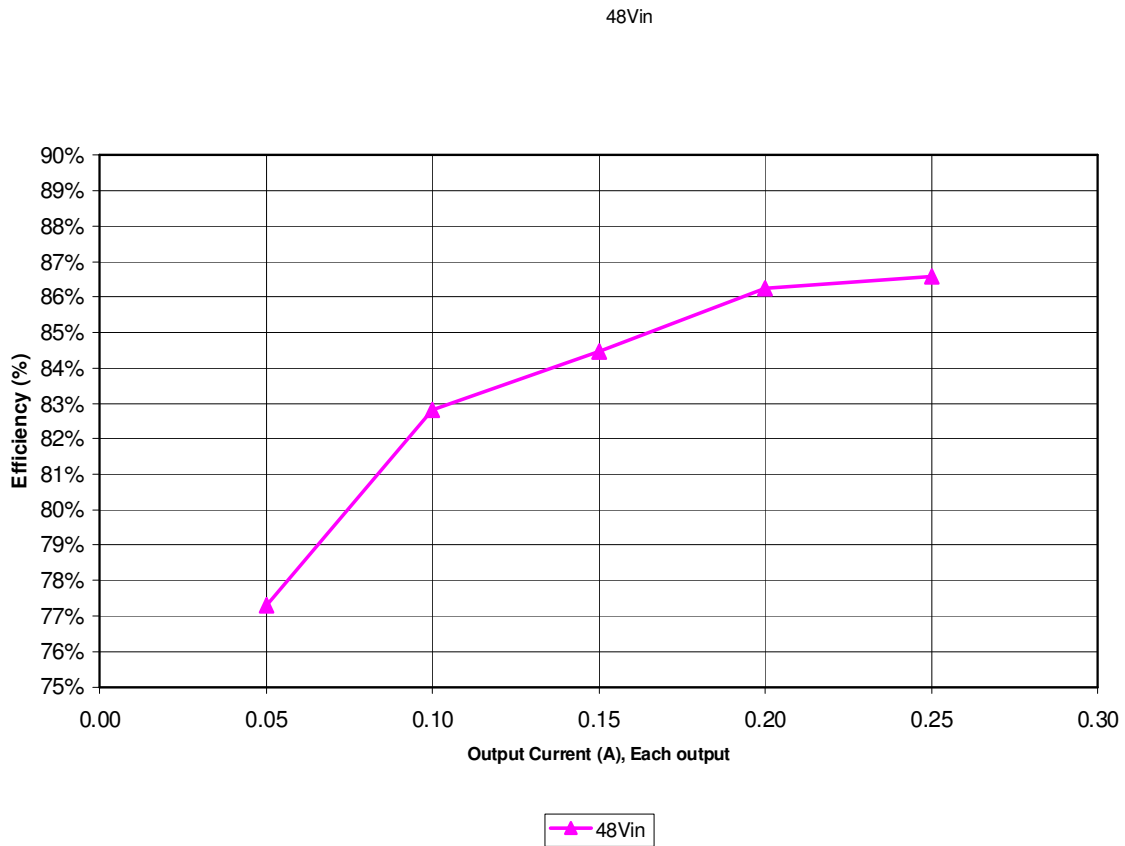


The 6V output ripple voltage is shown in the figure below. The image was taken with both output loaded to 0.25A and the input voltage set to 48Vdc. (50mV/DIV, 2uS/DIV)



3 Efficiency

The converter efficiency is shown in the figure below.



4 Voltage Regulation / Cross Regulation

The converter's balanced and cross load regulation is shown in the figure below.

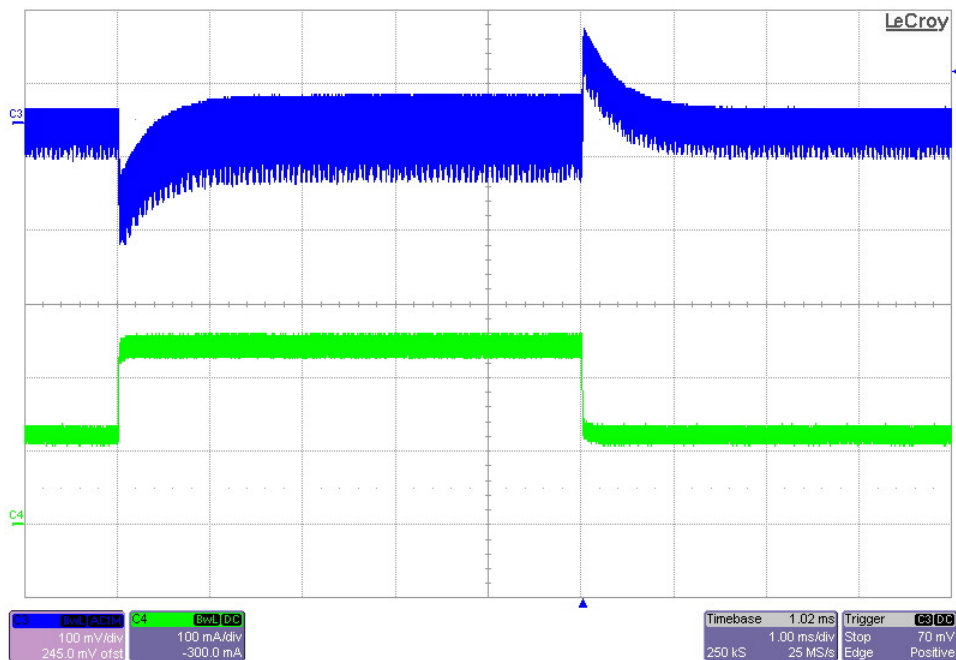
Vout1	Iout1	Vout2	Iout2
6.045	0.050	8.080	0.050
6.059	0.099	8.080	0.100
6.067	0.150	8.080	0.150
6.073	0.201	8.080	0.200
6.080	0.249	8.080	0.250

Vout1	Iout1	Vout2	Iout2
6.380	0.05	8.08	0.25
7.440	0.005	8.08	0.25
9.040	0	8.08	0.25

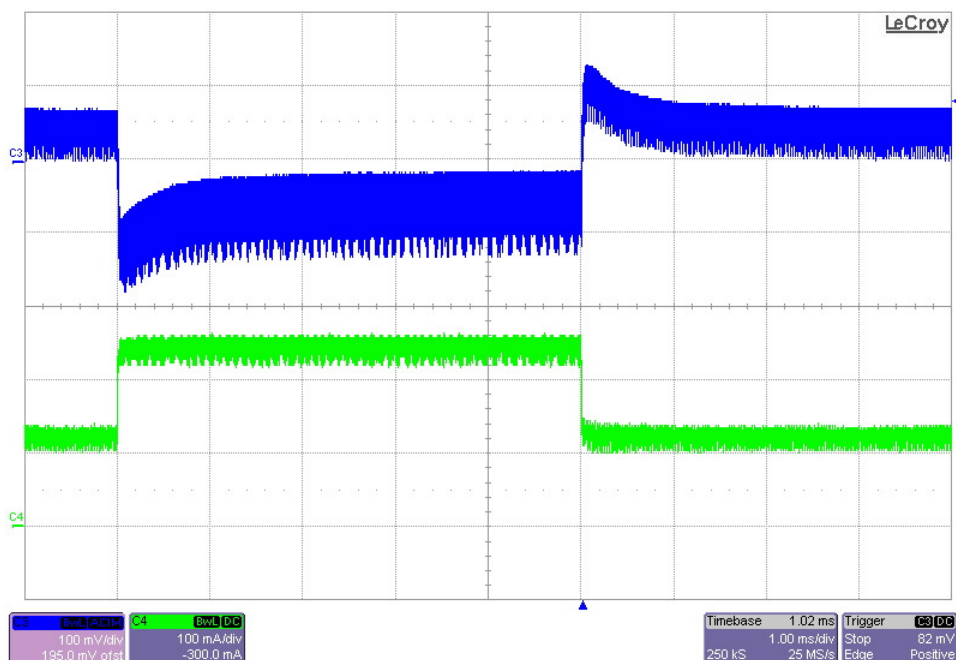
5.893	0.249	8.08	0.05
5.338	0.25	8.08	0.005
4.871	0.255	8.08	0

5 Load Transients

The photo below shows the 8V output voltage (top, ac coupled) when the load current is stepped between 0.125A to 0.25A. $V_{in} = 48V_{dc}$, 6V @ 0.25A (100mV/DIV, 100mA/DIV, 1mS/DIV)

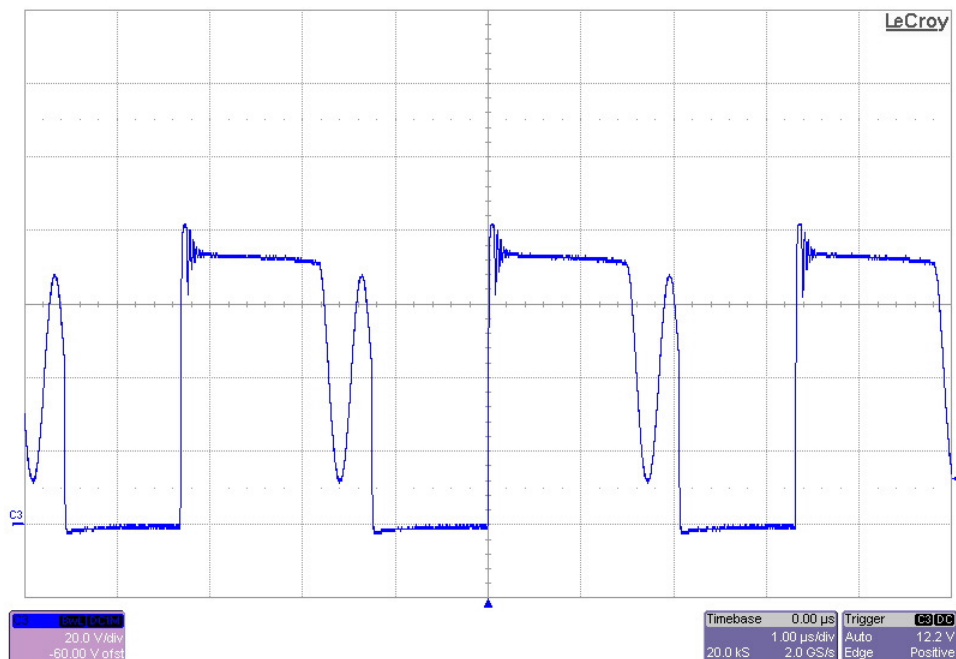


The photo below shows the 6V output voltage (top, ac coupled) when the load current is stepped between 0.125A to 0.25A. $V_{in} = 48V_{dc}$, 8V @ 0.25A (100mV/DIV, 100mA/DIV, 1mS/DIV)

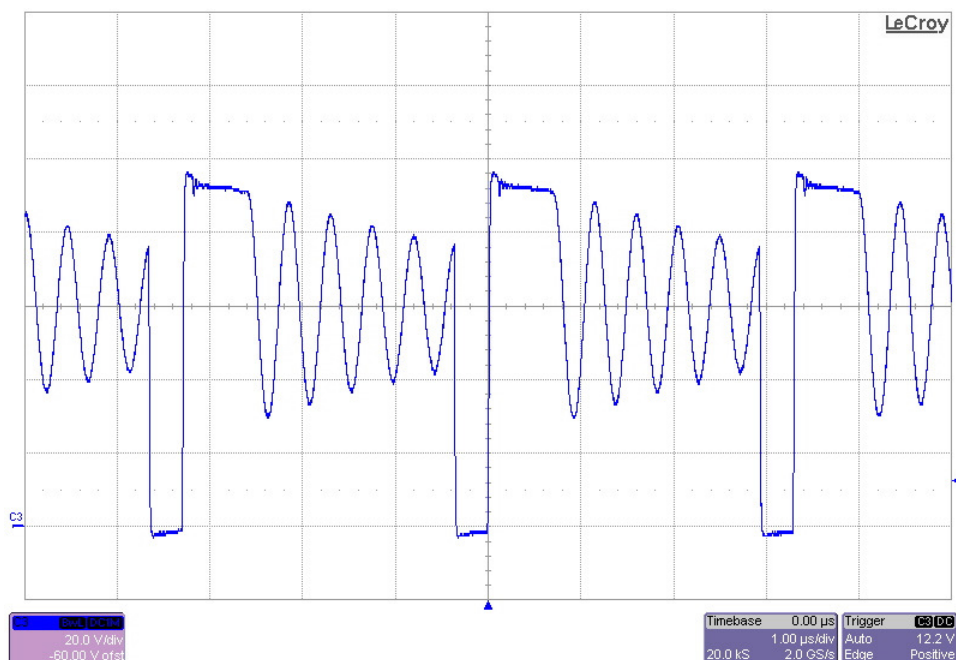


6 Waveforms

The photo below is of the N-ch FET drain waveform. The input voltage is 40V and the outputs are loaded to 0.25A each. (20V/DIV, 1uS/DIV)



The photo below is of the N-ch FET drain waveform. The input voltage is 60V and the outputs are loaded to 0.05A each. (20V/DIV, 1uS/DIV)



7 Loop Gain

The plot below shows the loop gain with each output loaded at 0.25A.

Loop Gain (Vin = 40V)

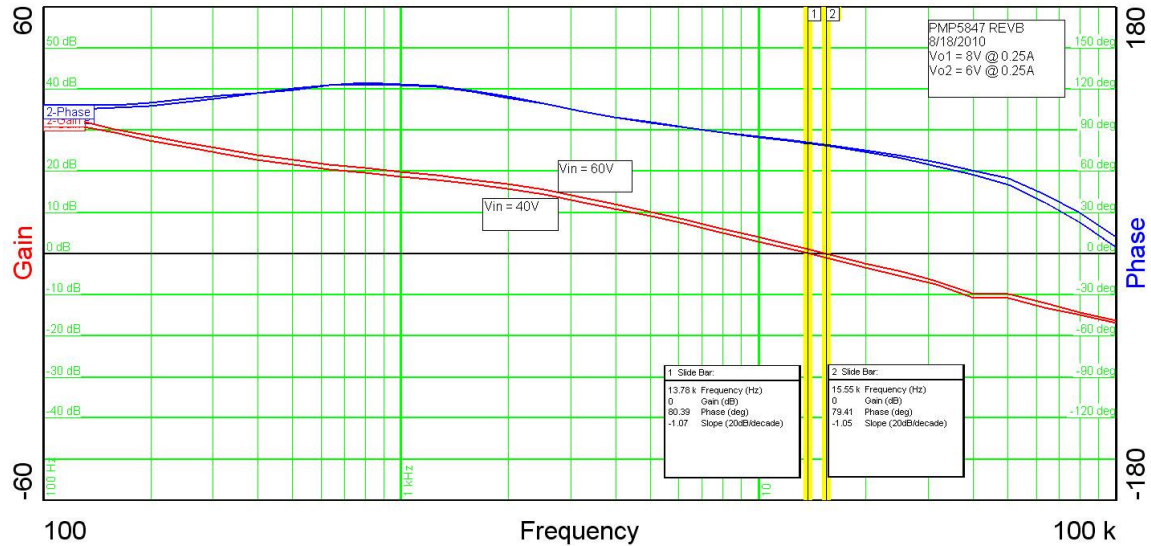
BW: 13.8KHz

PM: 80 degrees

Loop Gain (Vin = 60V)

BW: 15.6KHz

PM: 79 degrees



The plot below shows the loop gain with each output loaded at 0.05A.

Loop Gain (Vin = 40V)

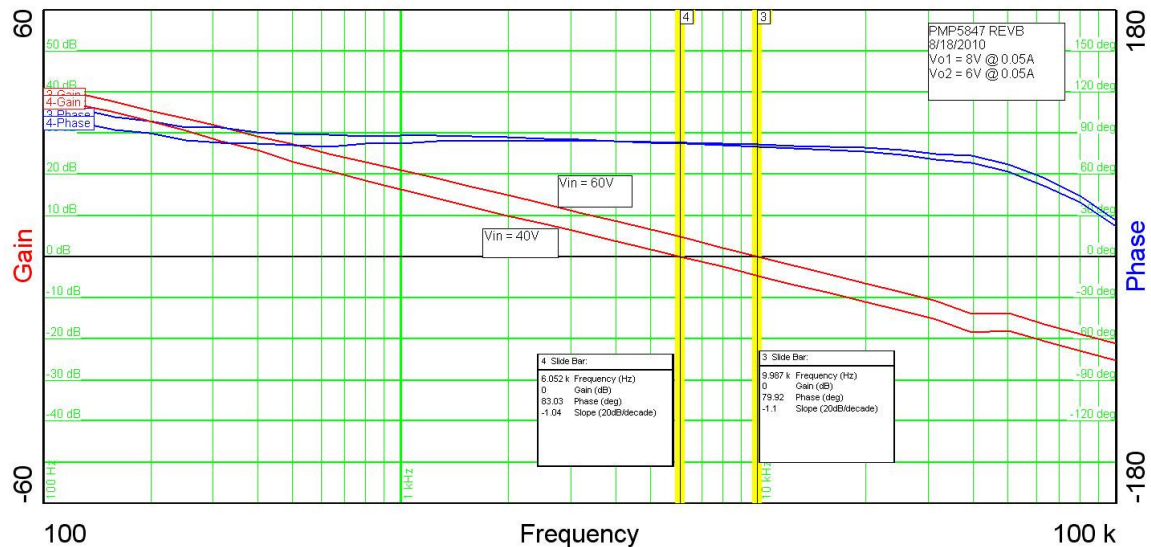
BW: 6.1KHz

PM: 83 degrees

Loop Gain (Vin = 60V)

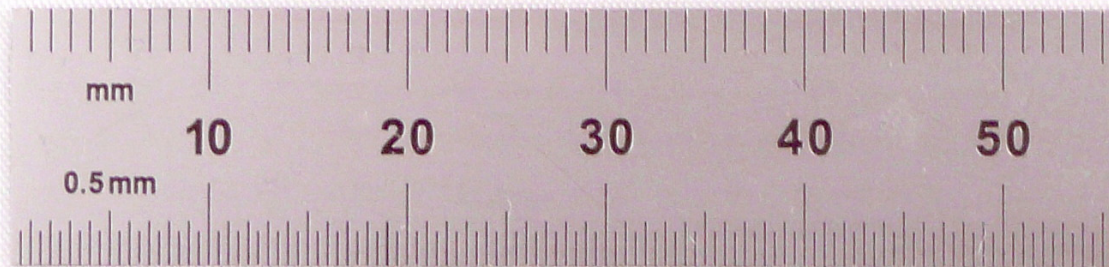
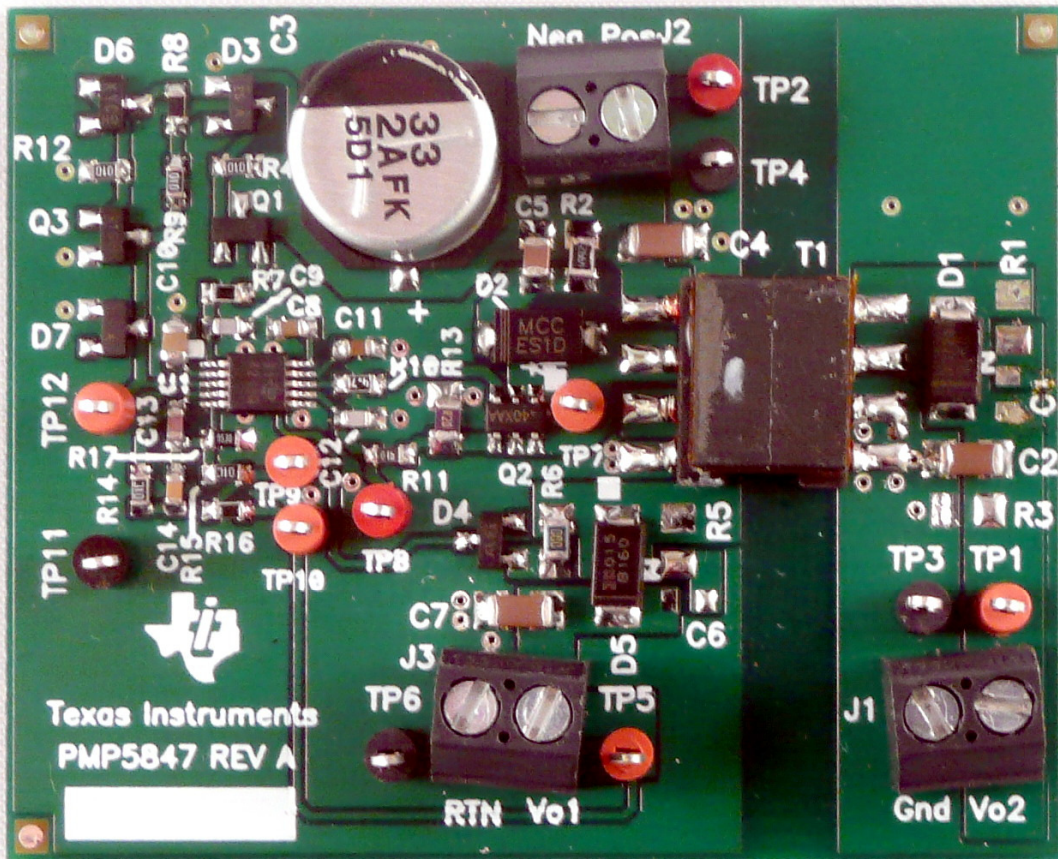
BW: 10.0KHz

PM: 80 degrees



8 Photo

The photo below shows the PMP5847 REVB assembly, built on the REVA PWB.



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