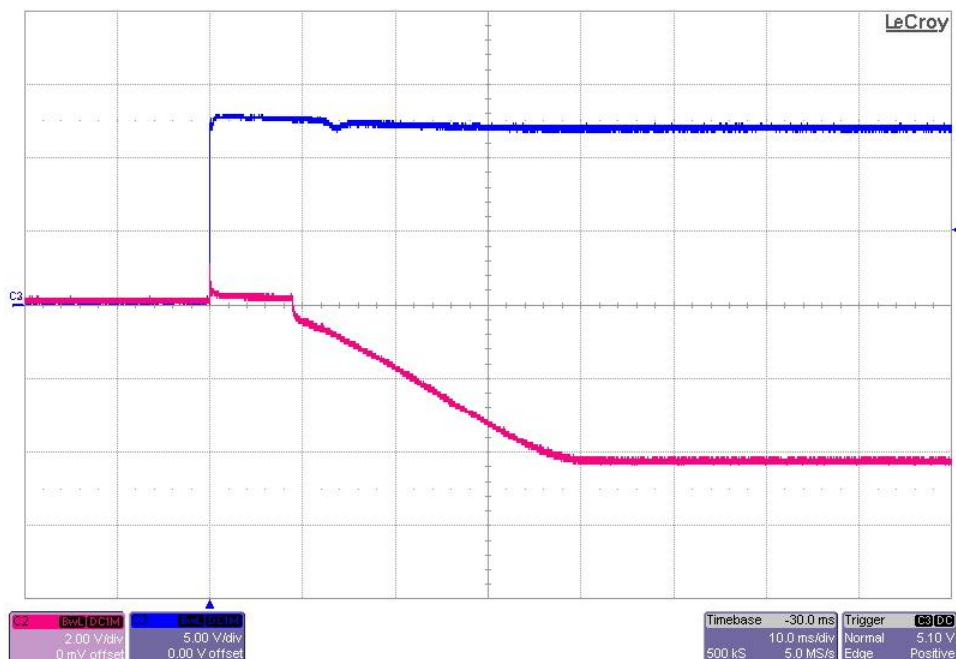
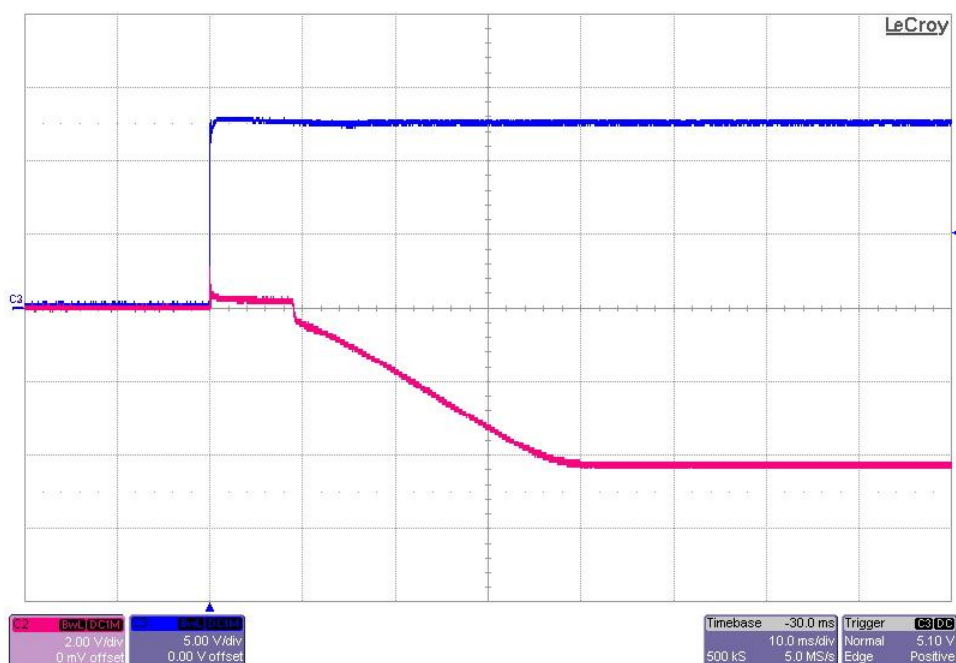


1 Startup

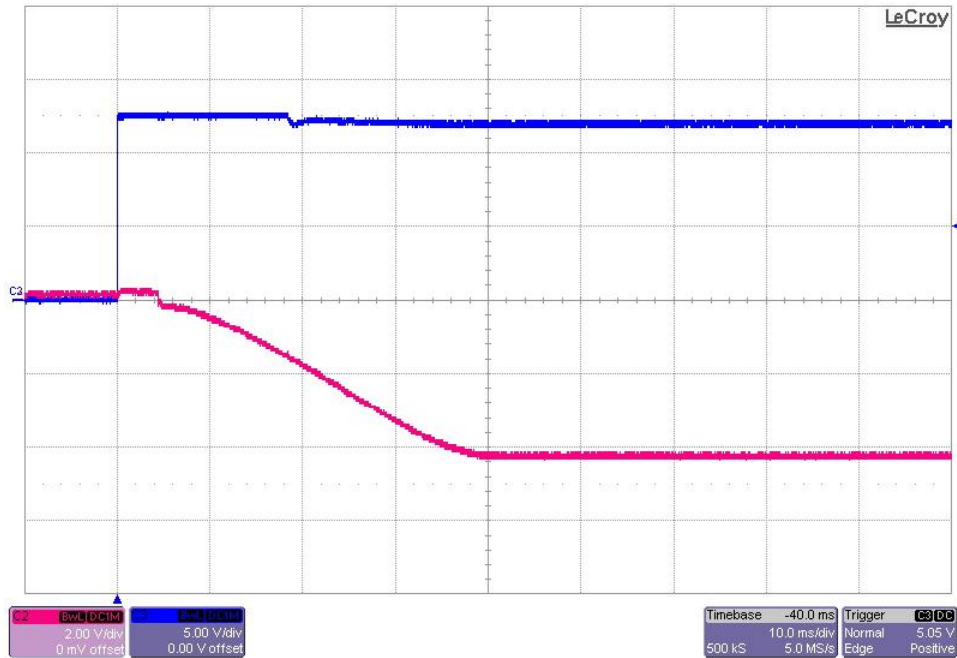
The photo below shows the output voltage startup waveform after the application of 12V in. The -4.35V output was loaded to 15A. (Vin is 5V/DIV, Vout is 2V/DIV, 10mS/DIV)



The photo below shows the output voltage startup waveform after the application of 12V in. The -4.35V output was loaded to 0A. (Vin is 5V/DIV, Vout is 2V/DIV, 10mS/DIV)



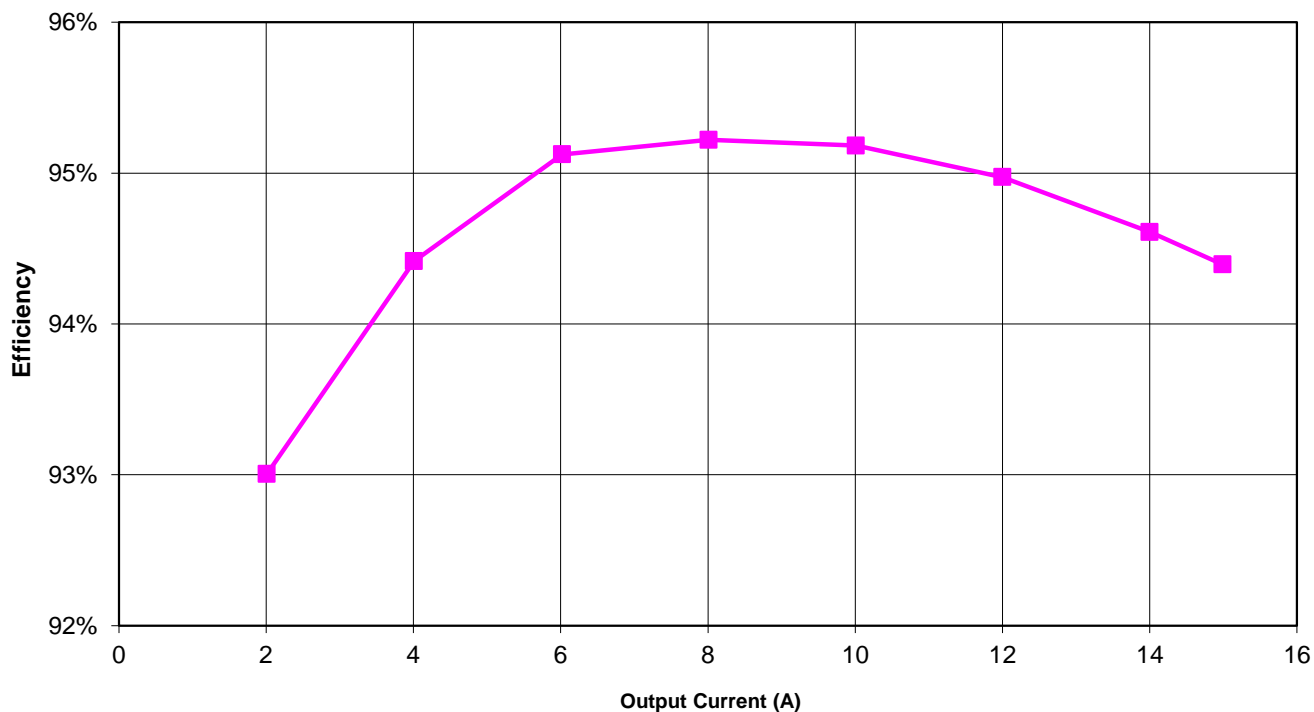
The photo below shows the output voltage startup waveform after an ENABLE high (input jumper J2 removed) while the 12V input was present. The -4.35V output was loaded to 15A. (EN is 5V/DIV, Vout is 2V/DIV, 10mS/DIV)



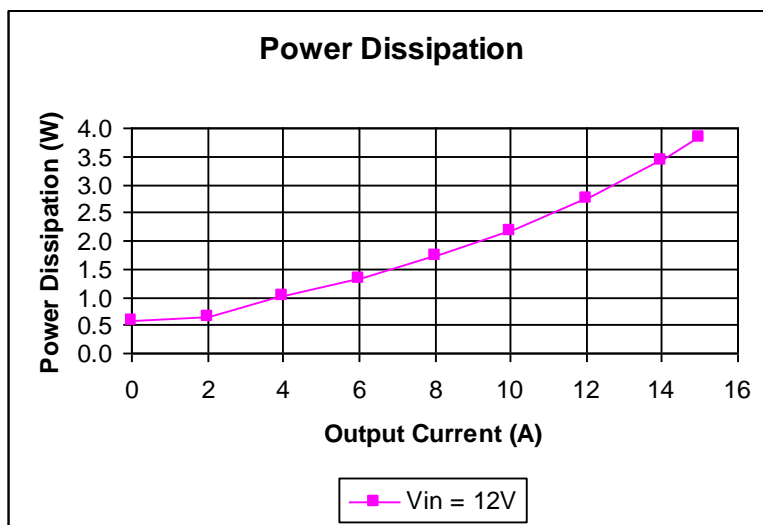
2 Efficiency

The converter efficiency is shown in the figure below. $V_{out} = -4.35V$, $V_{in} = 12V$

Converter Efficiency



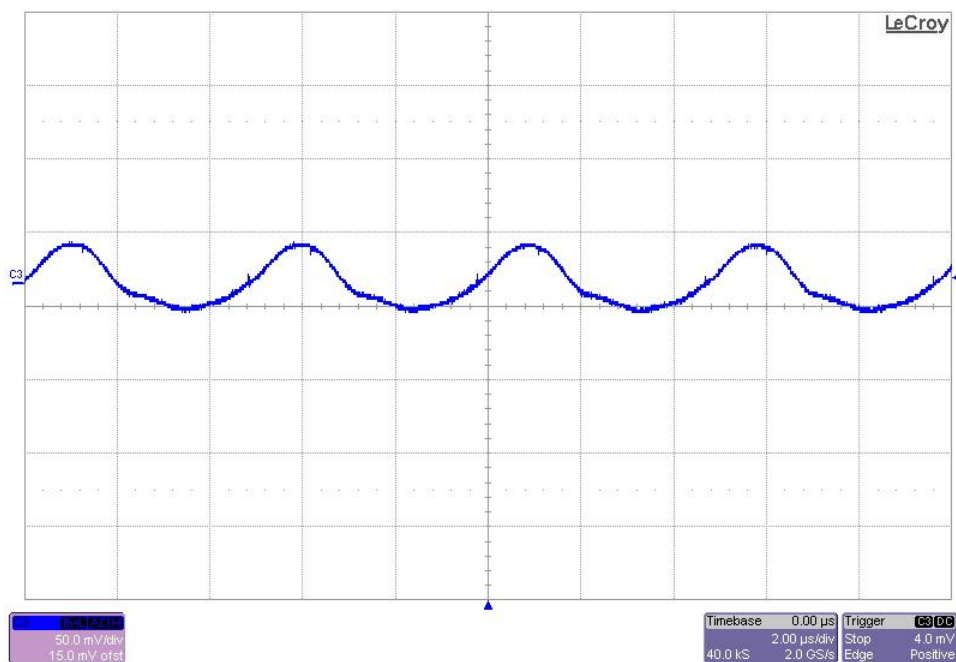
—■— $V_{in} = 12V$



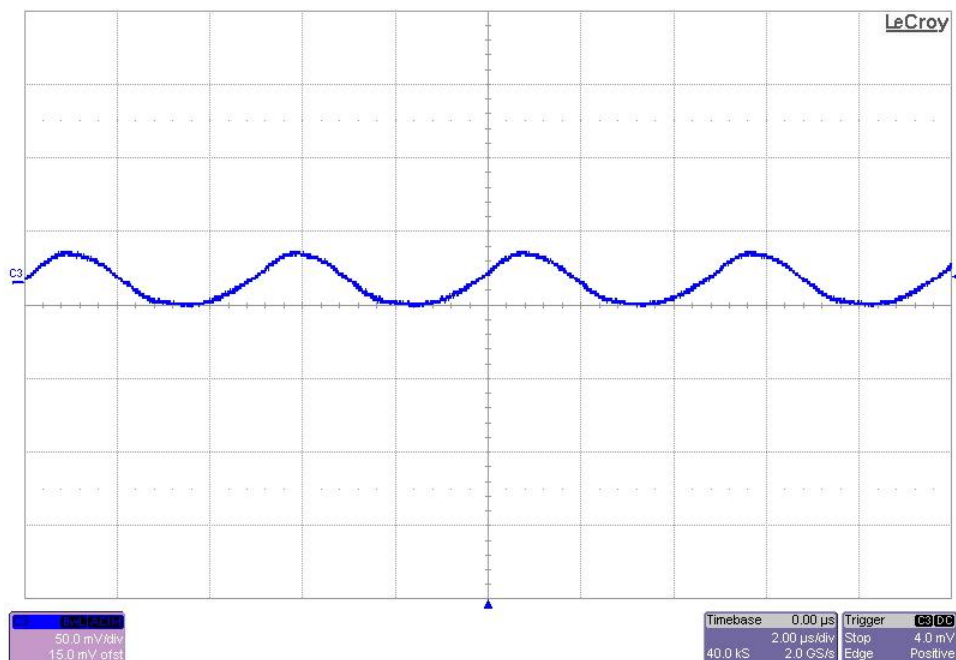
—■— $V_{in} = 12V$

3 Output Ripple Voltage

The output ripple voltage is shown in the figure below. The image was taken with the output loaded to 15A. The input voltage set to 12V. (50mV/DIV, 2uS/DIV)

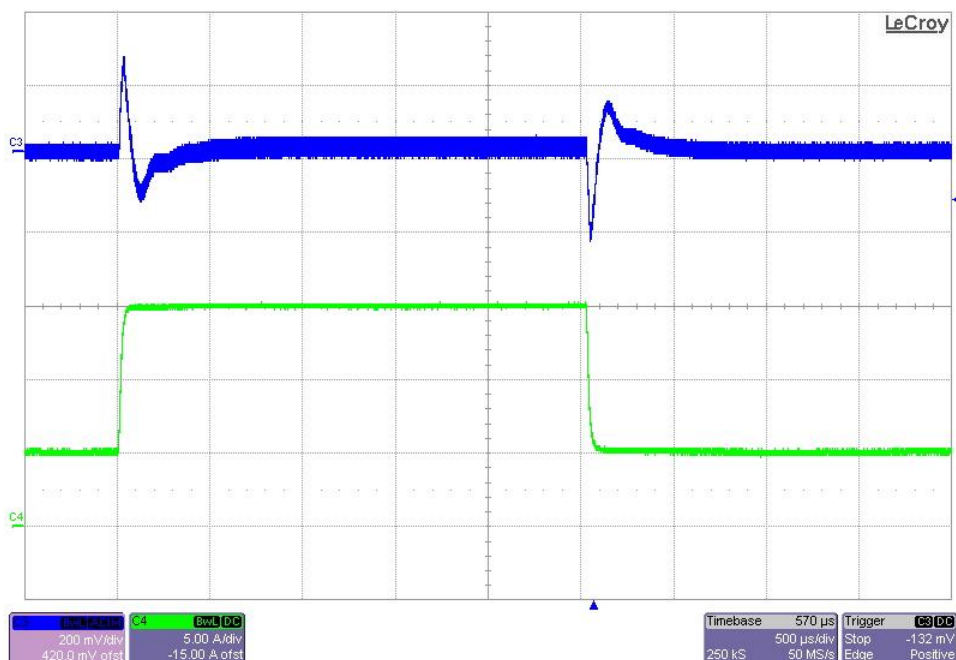


The output ripple voltage is shown in the figure below. The image was taken with the output loaded to 0A. The input voltage set to 12V. (50mV/DIV, 2uS/DIV)

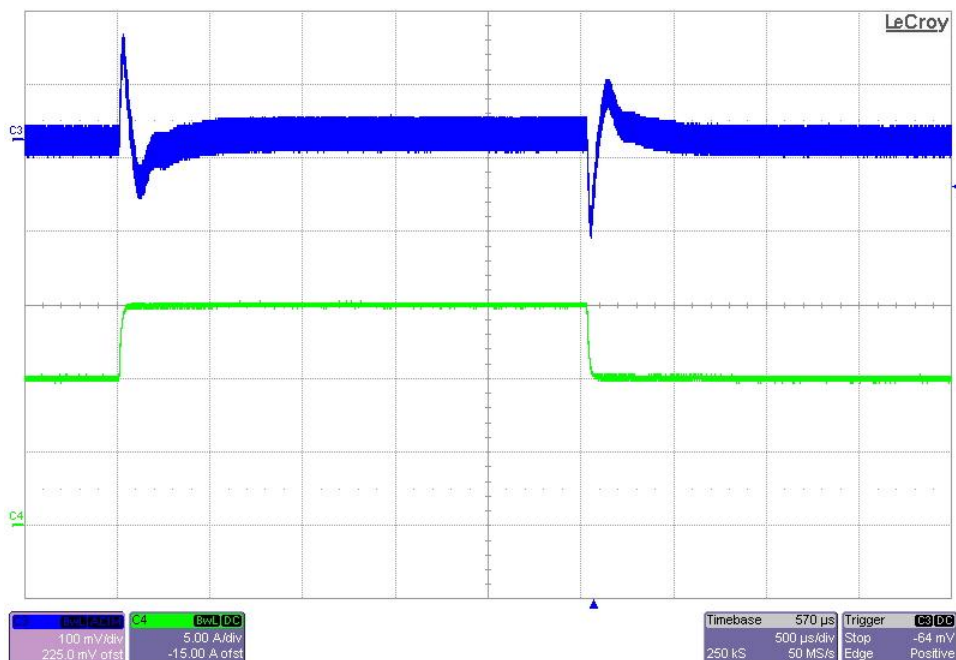


4 Load Transients

The photo below shows the output voltage (ac coupled) when the load current is stepped between 5A and 15A. $V_{in} = 12V$. (200mV/DIV, 5A/DIV, 500uS/DIV)

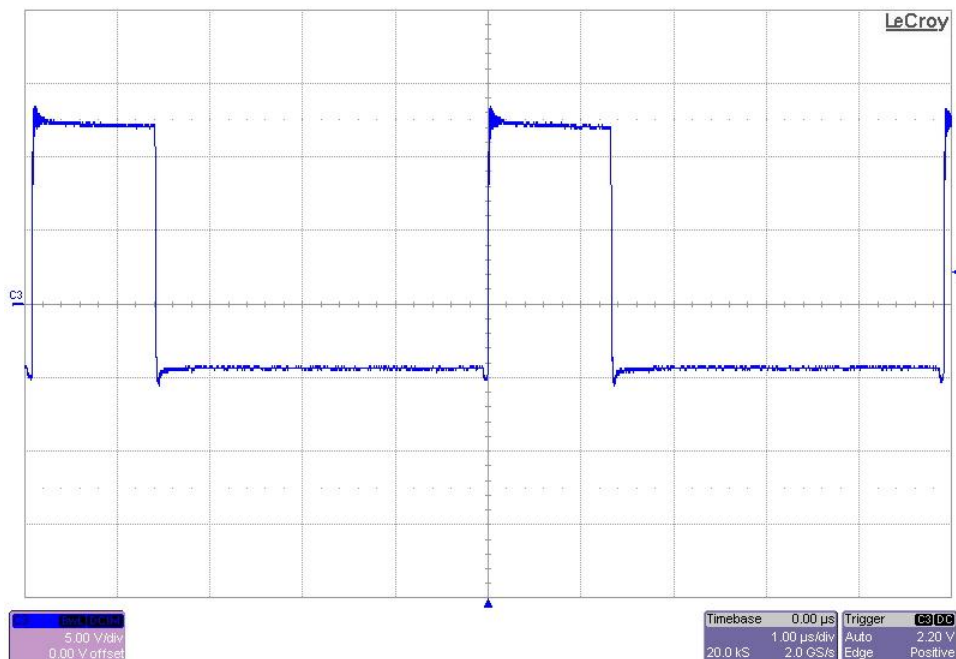


The photo below shows the output voltage (ac coupled) when the load current is stepped between 10A and 15A. $V_{in} = 12V$. (100mV/DIV, 5A/DIV, 500uS/DIV)

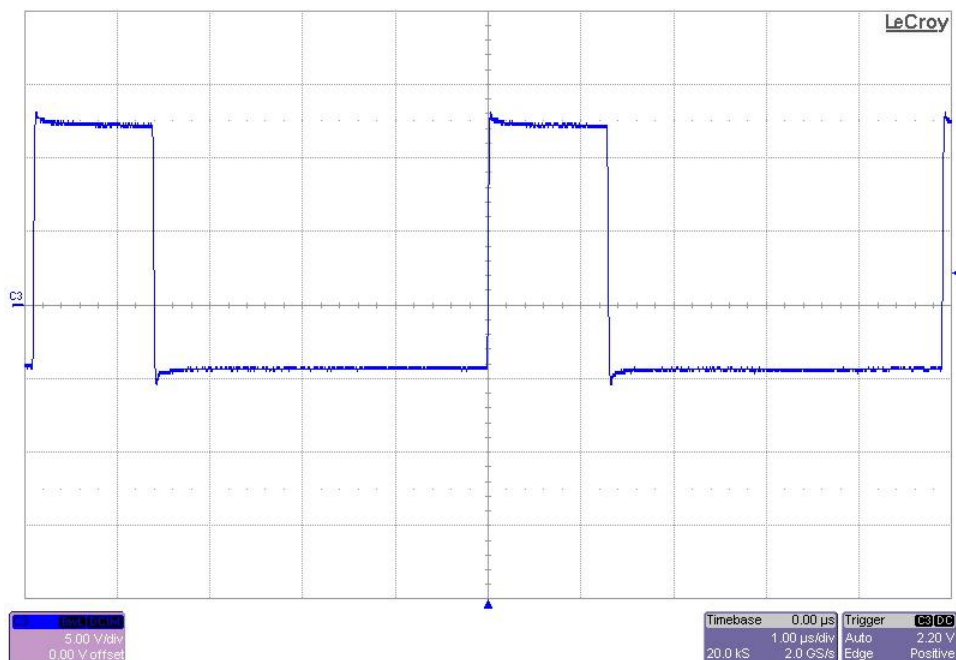


5 Switch Node Waveforms

The photo below shows the FET switch node (TP6). The input voltage is 12V and the output is loaded to 15A. (5V/DIV, 1uS/DIV)



The photo below shows the FET switch node (TP6). The input voltage is 12V and the output is loaded to 0A. (5V/DIV, 1uS/DIV)

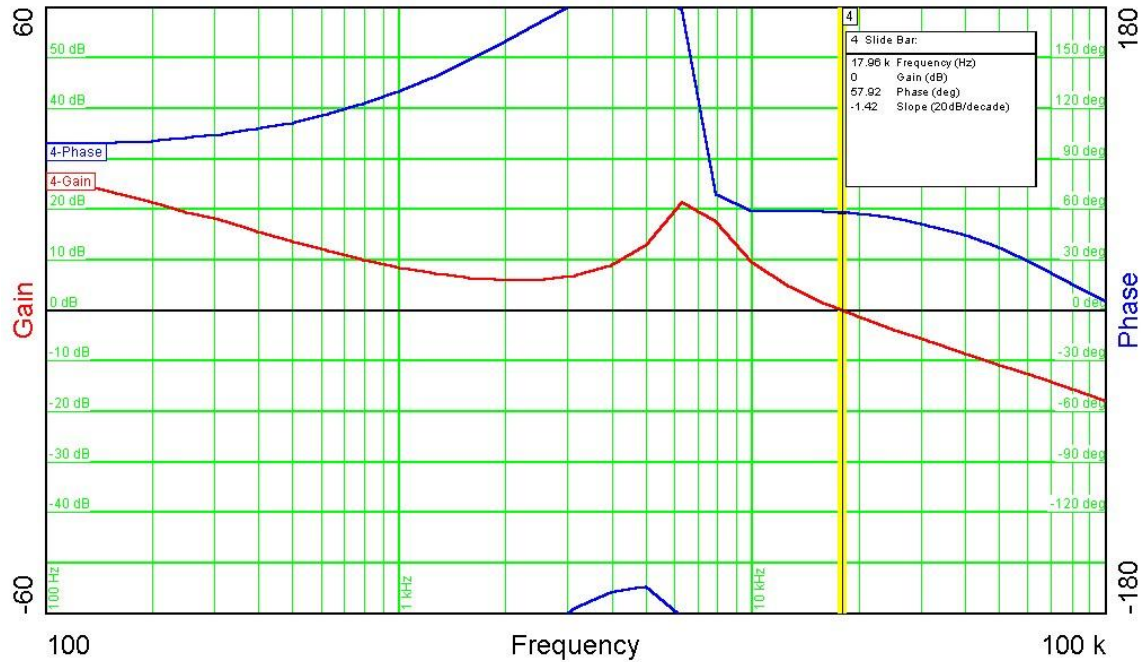


6 Control Loop Gain / Stability

The plot below shows the loop gain and phase margin with the output loaded to 15A. The input voltage was set to 12V.

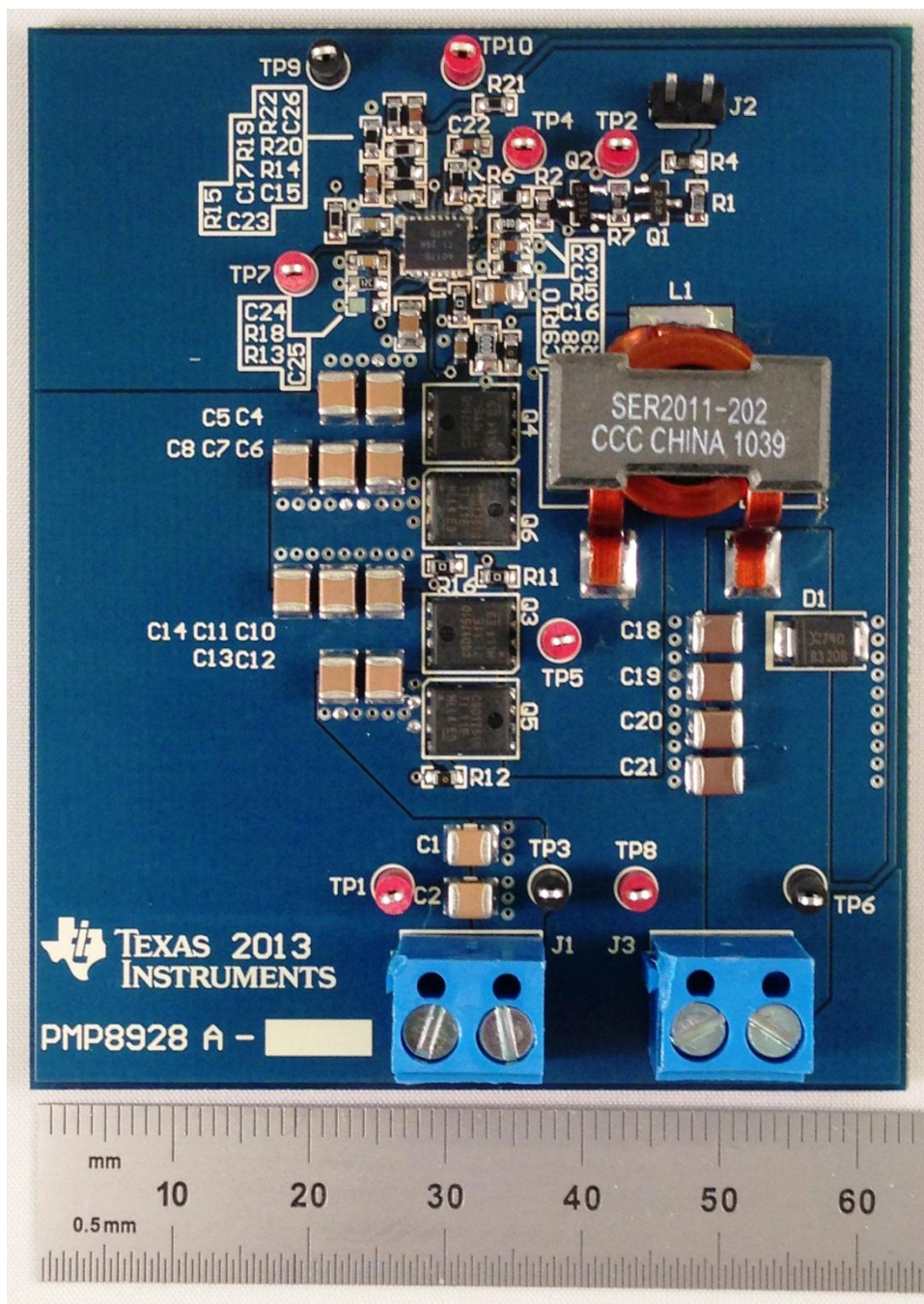
Band Width = 18KHz,

Phase Margin = 58 degrees



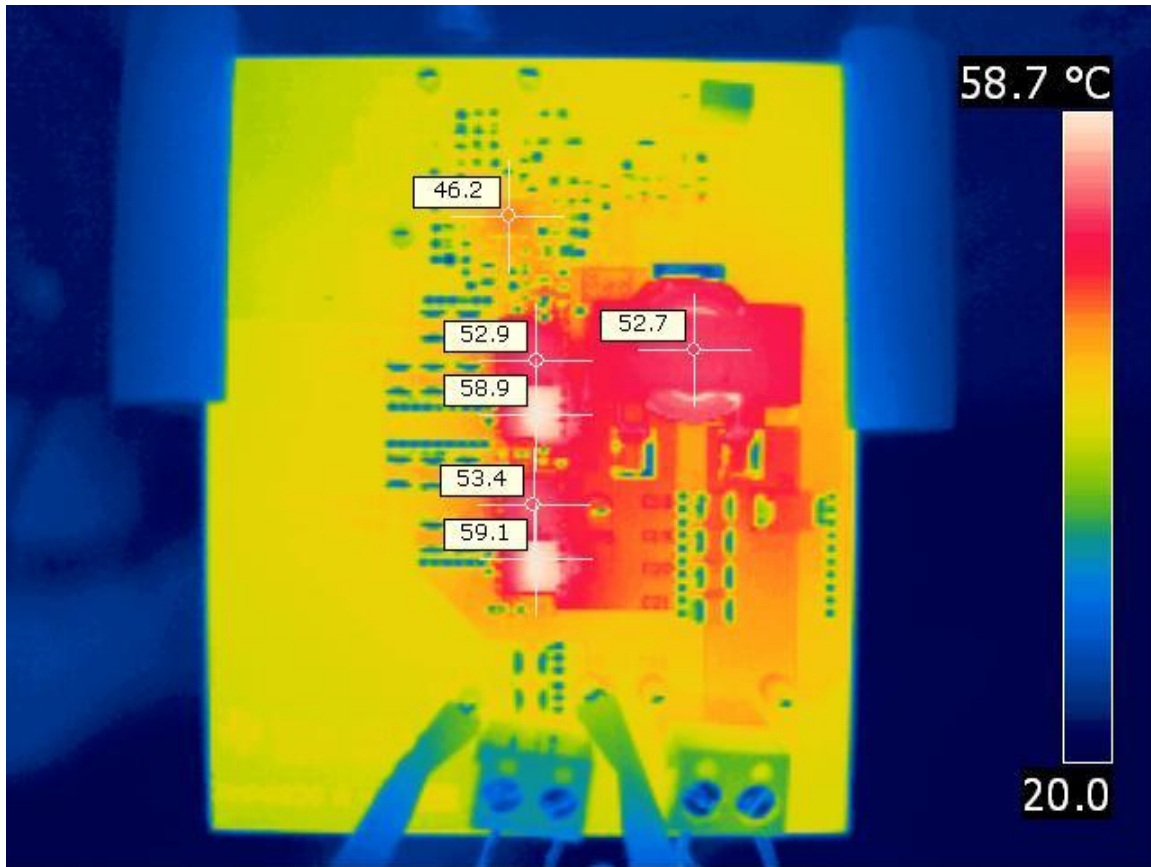
7 Photo

The photo below shows the PMP8928 REVA assy.



8 Thermal Image

A thermal image is shown below when operating at 12V input and 15A output, with no airflow.



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