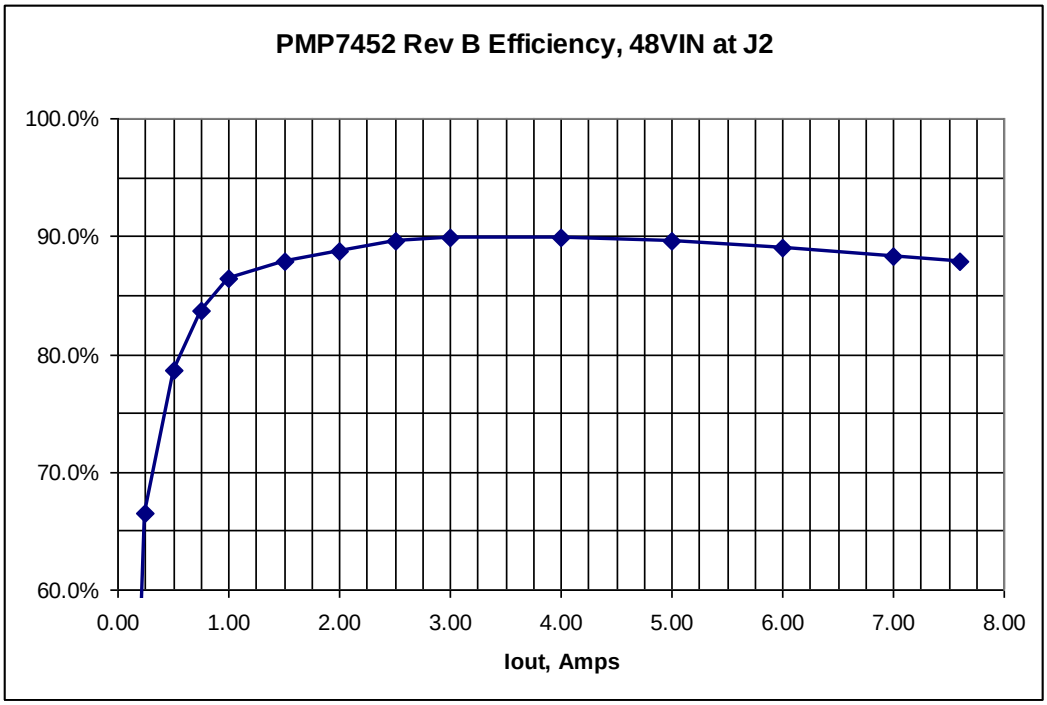
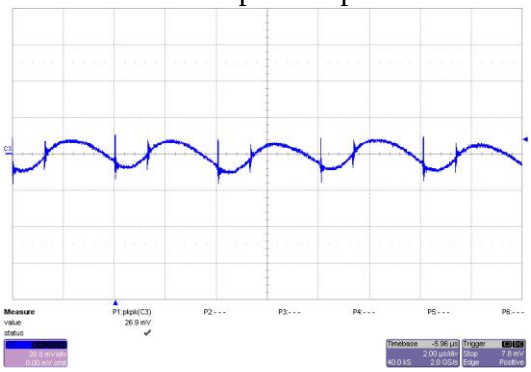
Efficiency



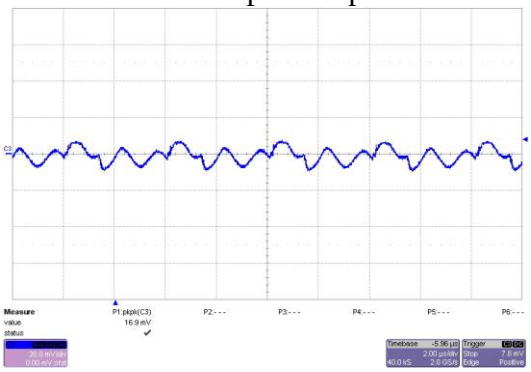
Ripple and Noise

Measurements were taken with a 48V input, 3.3V/7.6A load and 20MHz BWL.

3.3V Ripple (J5), 20mV/div, 20usec/div
Measured 26.9mVpeak to peak:

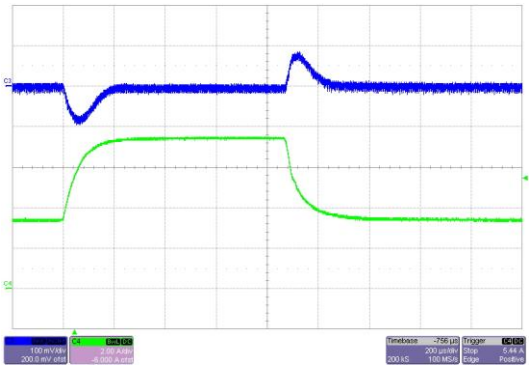


Input Ripple (C5), 20mV/div, 2usec/div
Measured 16.9mV peak to peak:



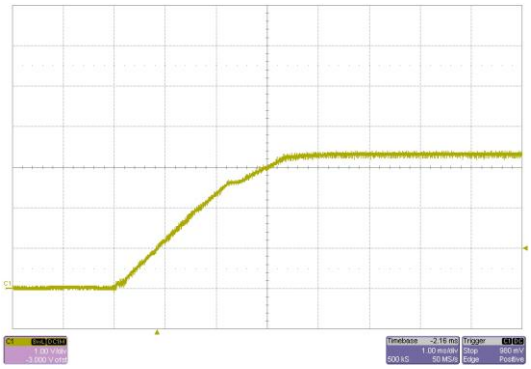
Dynamic Loading

3.3V Load Step
3.8A to 7.6A load step
100mV/div, 200usec/div
80mV overshoot and 90mV undershoot:

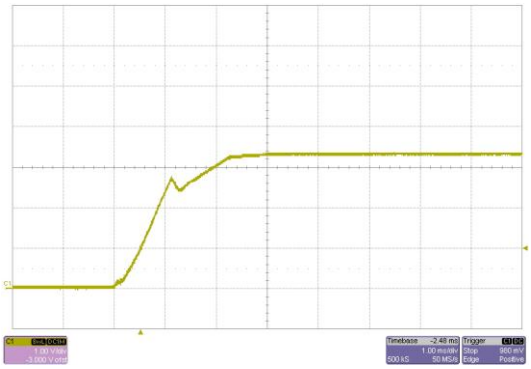


Turn On Response

48VIN, Max load
1V/div, 1msec/div:

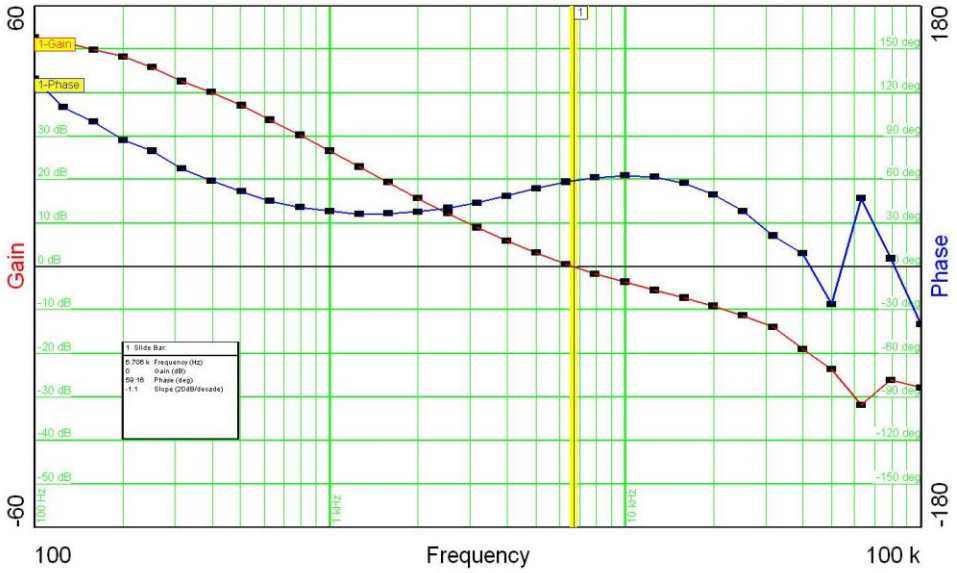


48VIN, 0A Load
1V/div, 1msec/div:

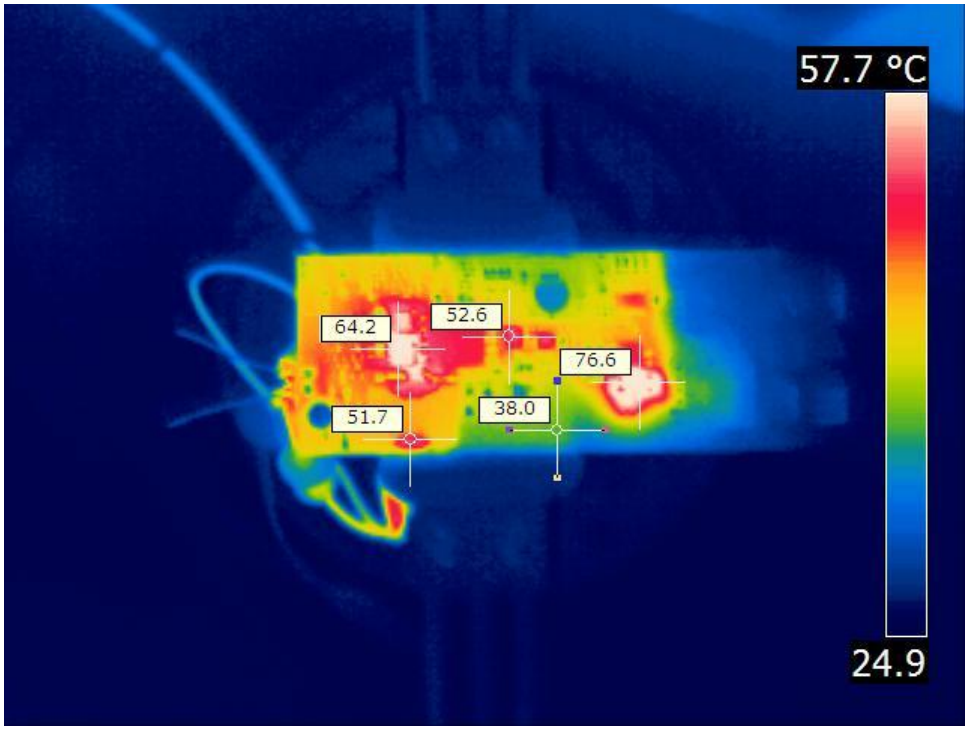


Loop Stability

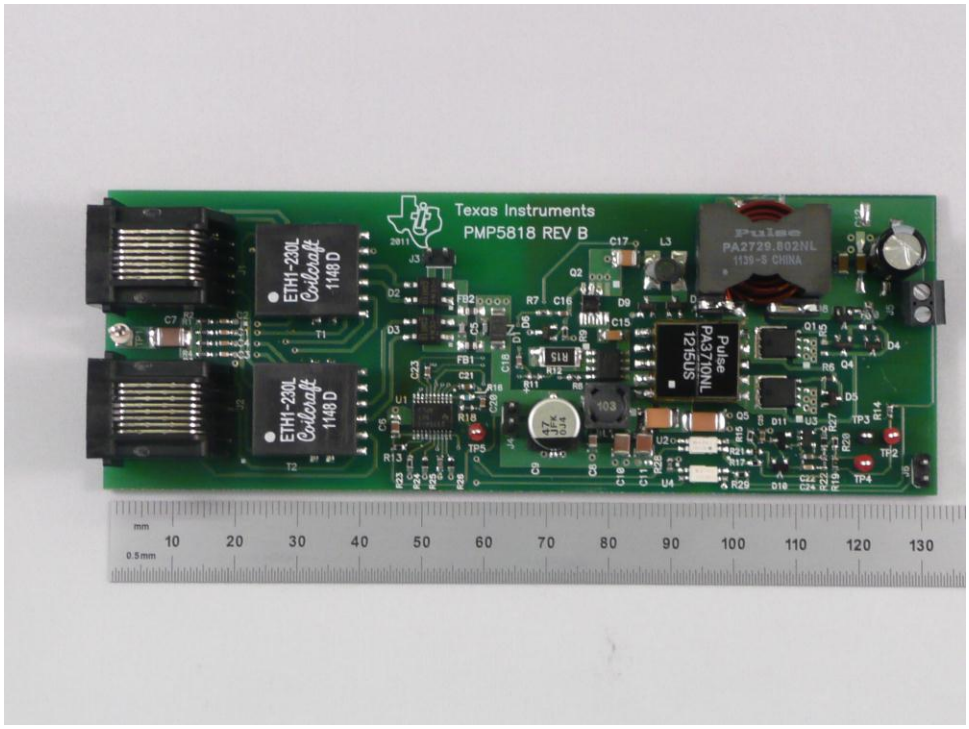
The measured Bode plot of the converter with a 48V input and 7.6A load is shown below. Bandwidth is 6.7KHz; Phase Margin is 59 degrees; Gain Margin is 20 dB.



Thermal Plot



Photo



Note: PMP7452 RevC was built on PMP5818 RevB PCB

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