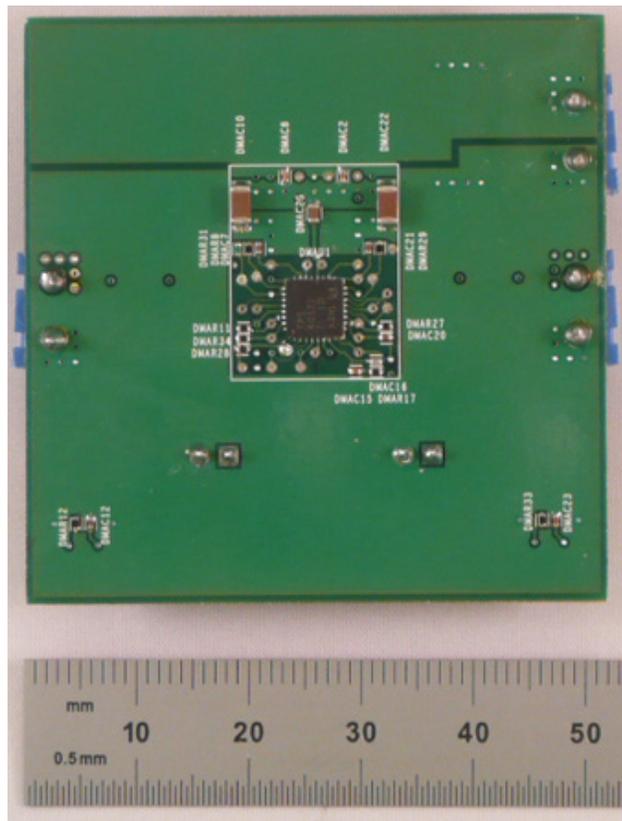
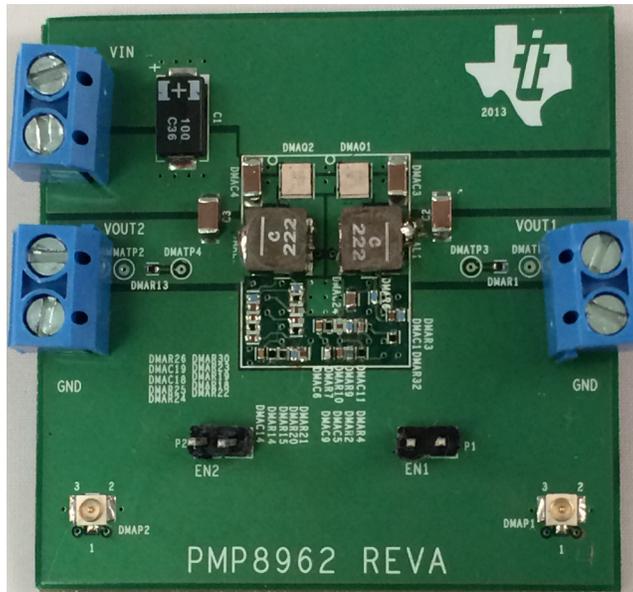
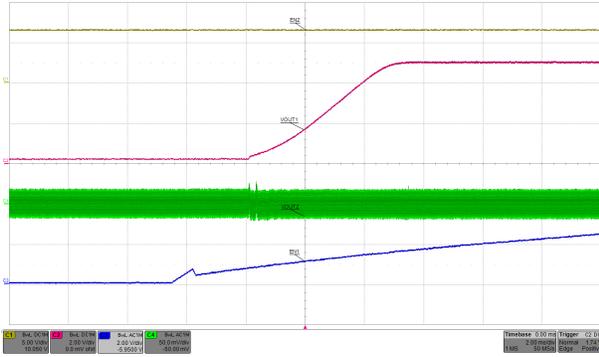


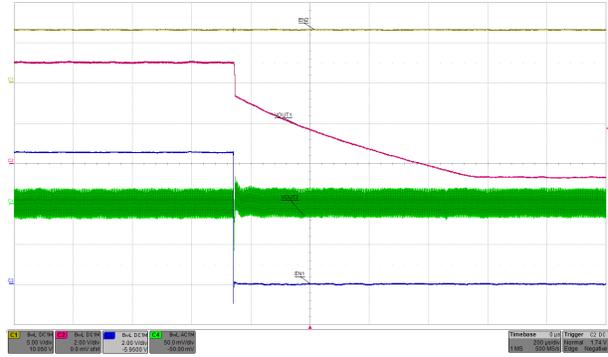
Photo of the prototype



1 Startup and shutdown



Turn-on, 12Vin, 5.0Vout



Turn-off, 12Vin, 5.0Vout

2 Switching Node Waveform

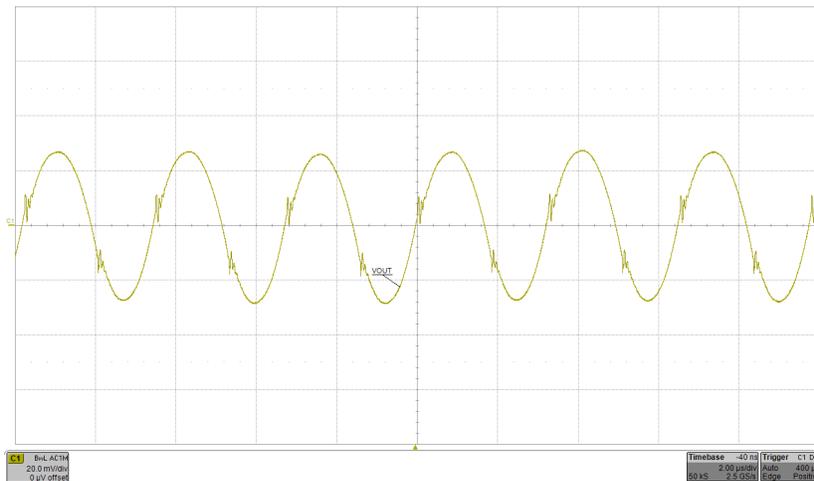


Turn-on, 12Vin, 5.0V/5.5A, 5.1Ohm boot resistor



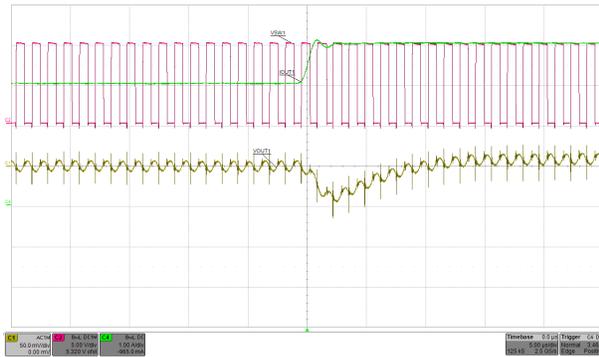
Turn-off, 12Vin, 5.0V/5.5A, 5.1Ohm boot resistor

3 Output Ripple

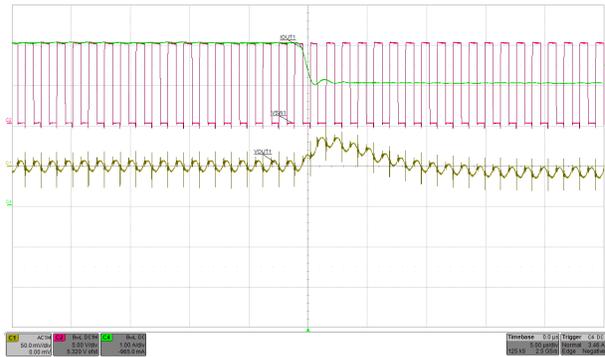


12Vin, 5.0Vout, 6A Load (COUT: 2x 47uF, 10V, X5R, 1206 ceramic cap.)

4 Transient

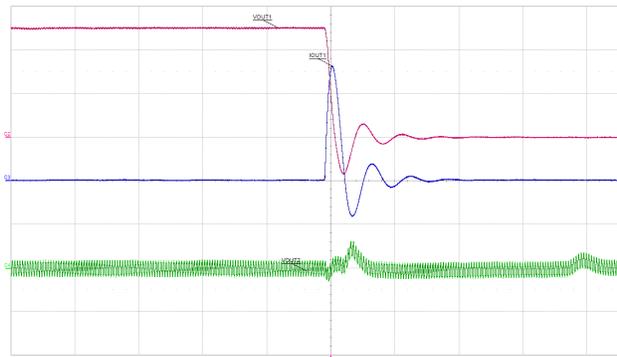


10Vin, 5.0Vout, 3A to 4A Load Step

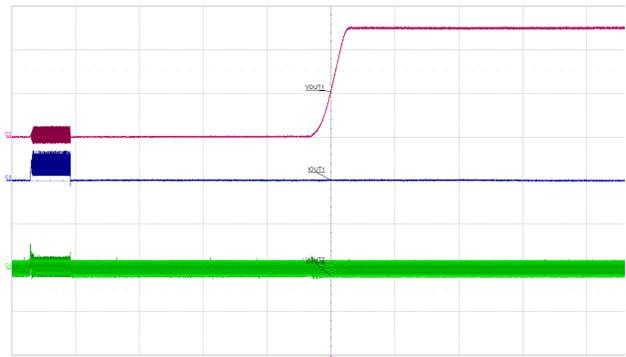


10Vin, 5.0Vout, 4A to 3A Load Step

5 Short-circuit protection

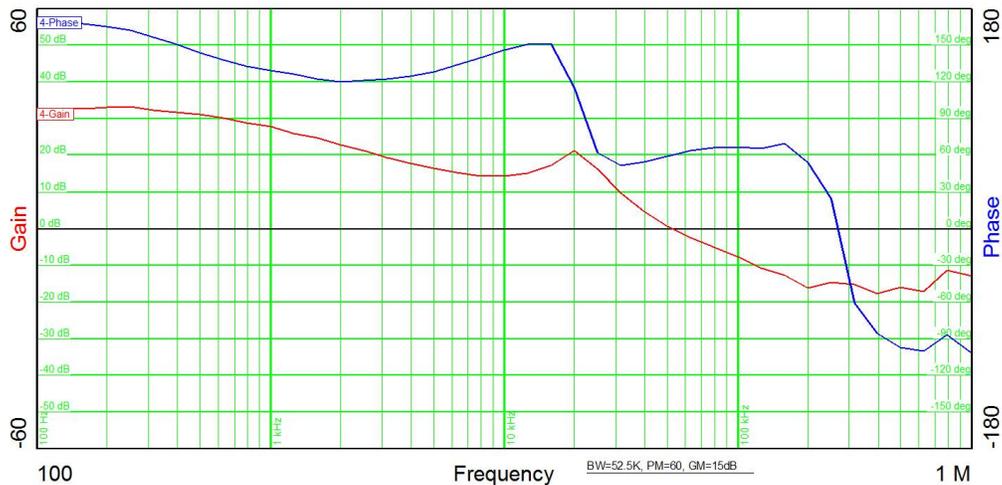


10Vin, 5.0Vout, Short circuit applied



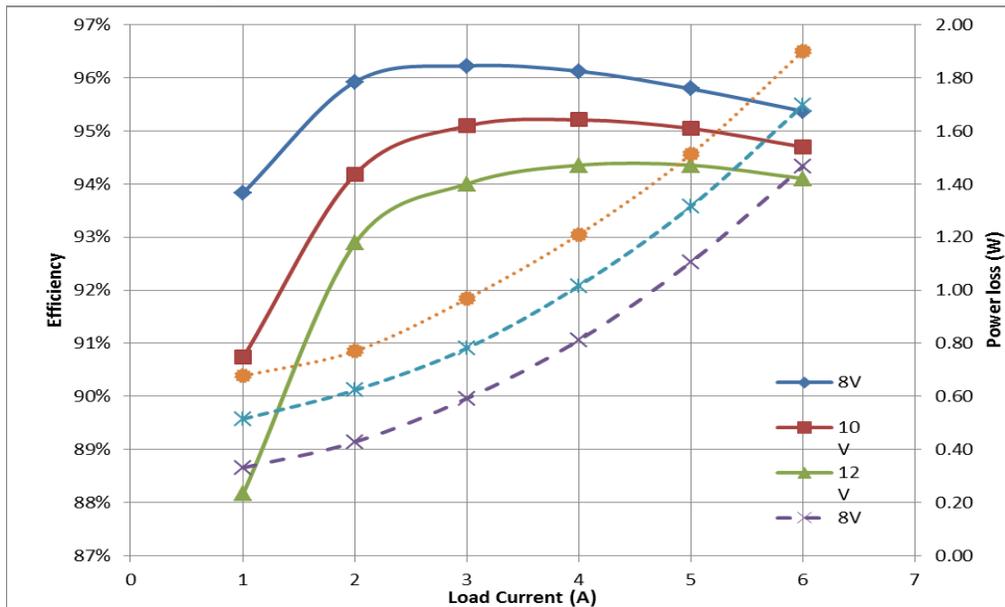
10Vin, 5.0Vout, Short circuit released

6 Bode Plot



12Vin, 5V/6A, BW=52.5K, PM=60, GM=15dB

7 Efficiency



8 Thermal



Test conditions: 10Vin, Vout1=5V/5.5A, Vout2=5V/5.5A, 300kHz, XAL5030-222, Natural Convection, 25C ambient temperature. ($T_{FET}=70.6C$, $T_{IND}=72.6C$)

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