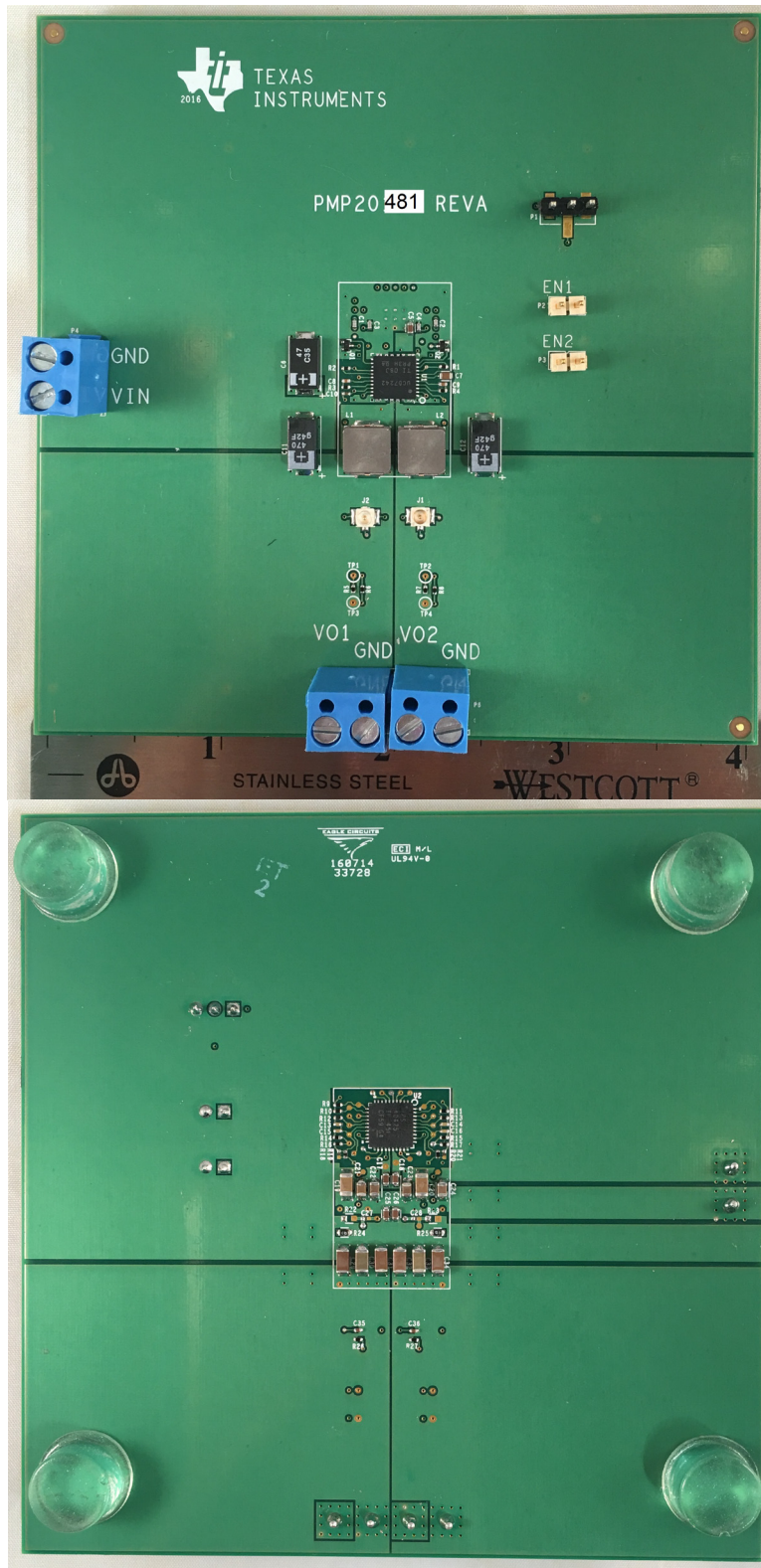
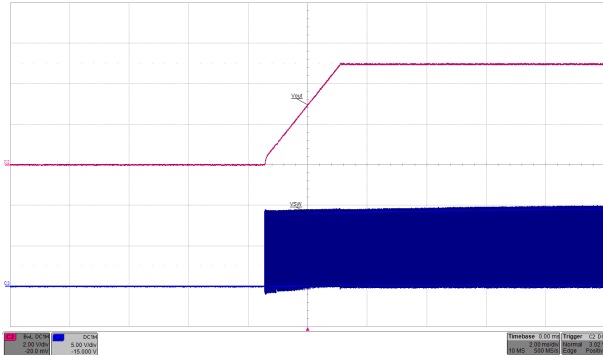


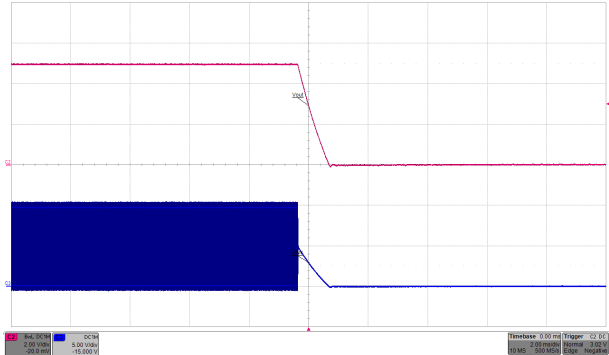
Photo of the prototype



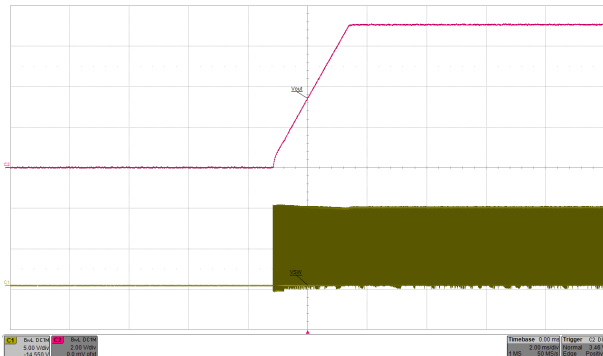
1 Startup and shutdown



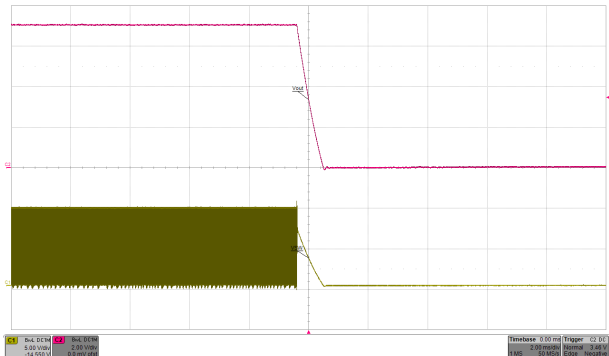
Turn-on, 10Vin, 5.0Vout



Turn-off, 10Vin, 5.0Vout

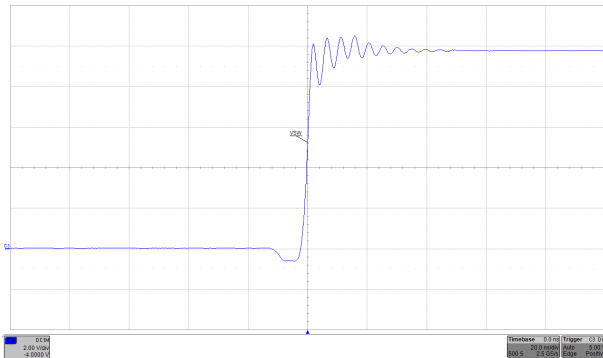


Turn-on, 10Vin, 7.0Vout

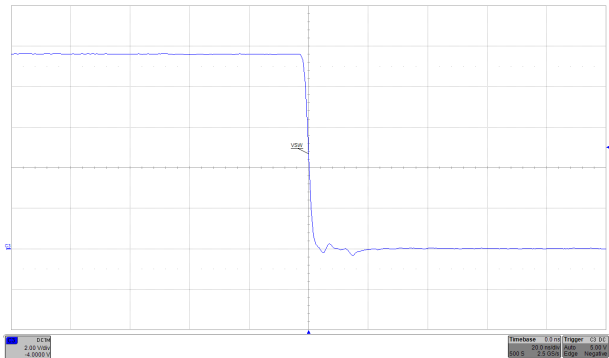


Turn-off, 10Vin, 7.0Vout

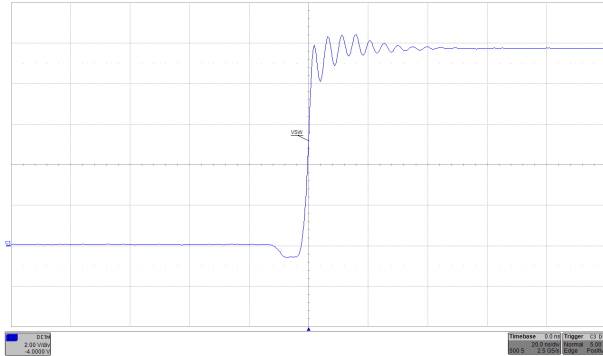
2 Switching Node Waveform



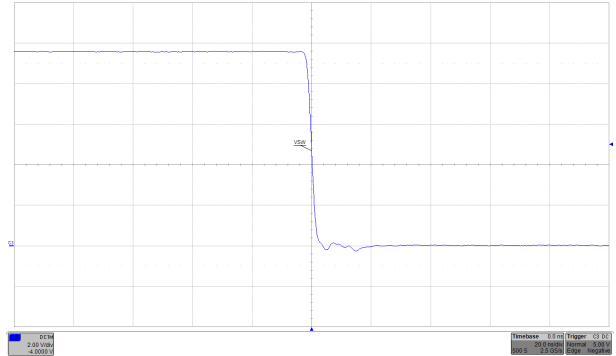
Turn-on, 10Vin, 5V/5A



Turn-off, 10Vin, 5.0V/5A

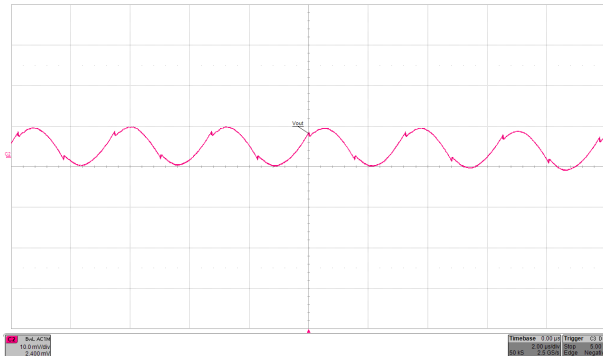


Turn-on, 10Vin, 7V/5A

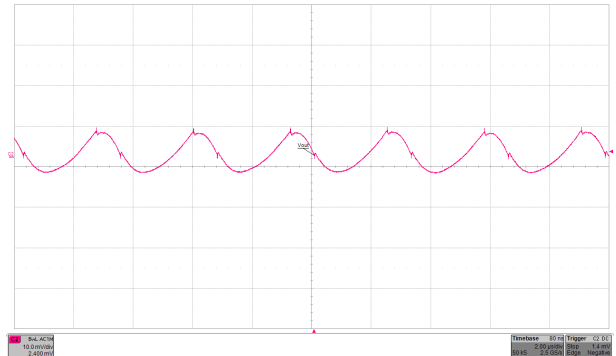


Turn-off, 10Vin, 7.0V/5A

3 Output Ripple

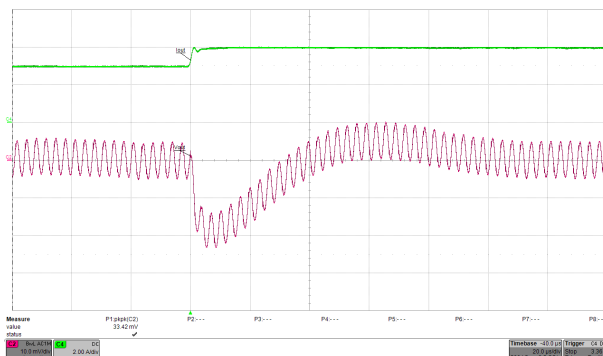


10Vin, 5Vout, 5A Load (COUT: 3x 100uF, 6.3V, X5R, 1206 ceramic cap+1x 330uF, 10V, 35mohm POSCAP.)

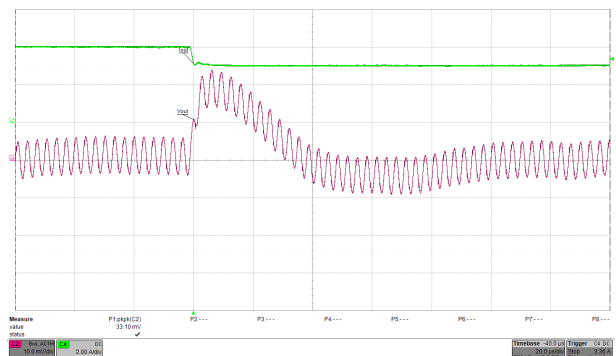


10Vin, 7.0Vout, 5A Load (COUT: 3x 100uF, 6.3V, X5R, 1206 ceramic cap+1x 330uF, 10V, 35mohm POSCAP.)

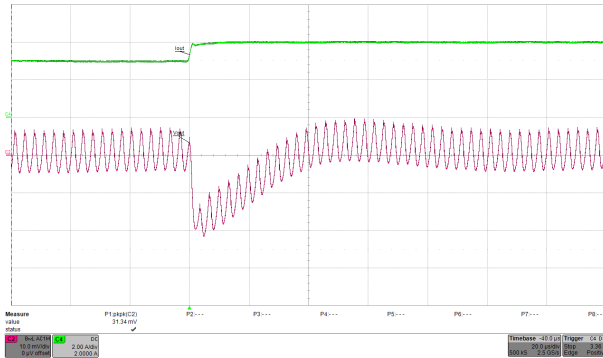
4 Transient



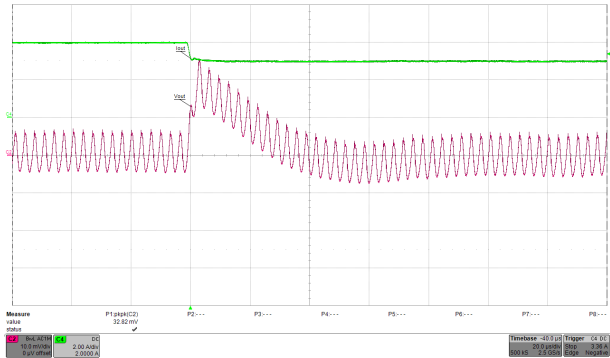
10Vin, 5Vout, 3A to 4A Load Step



10Vin, 5Vout, 4A to 3A Load Step

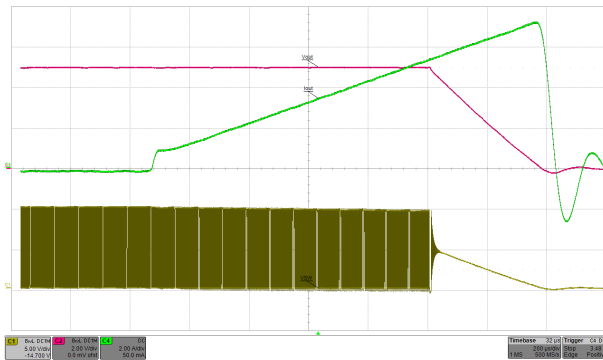


10Vin, 7Vout, 3A to 4A Load Step



10Vin, 7Vout, 4A to 3A Load Step

5 Over-Current protection

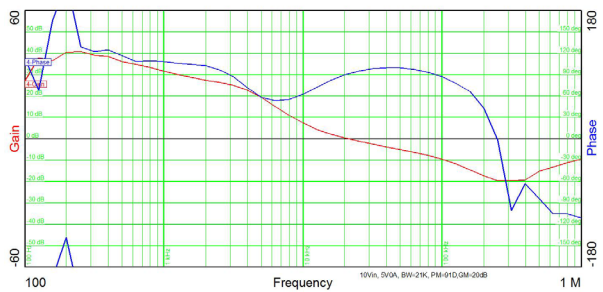


10Vin, 5.0Vout, excessive 10A load applied, OCP=5.6A

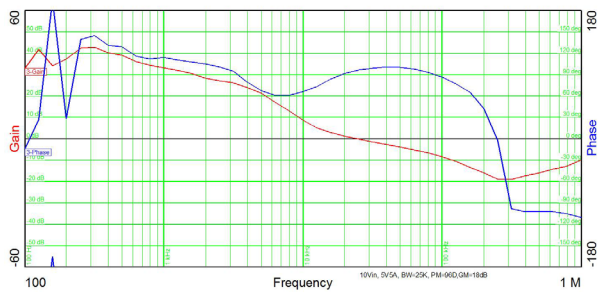


10Vin, 7.0Vout, excessive 10A load applied, OCP=5.6A

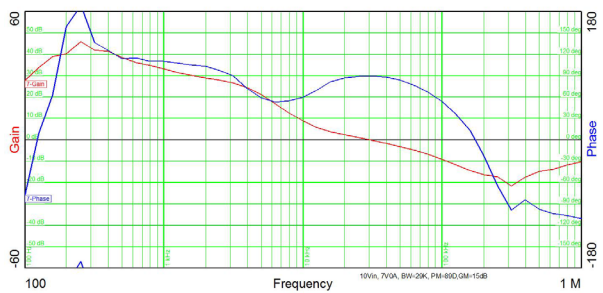
6 Bode Plot



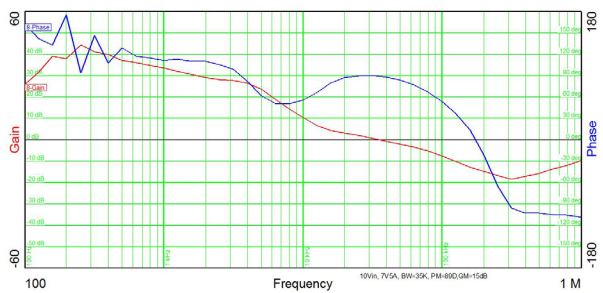
10Vin, 5V/0A, BW=21K, PM=91, GM=20dB



10Vin, 5V/5A, BW=25K, PM=96, GM=18dB

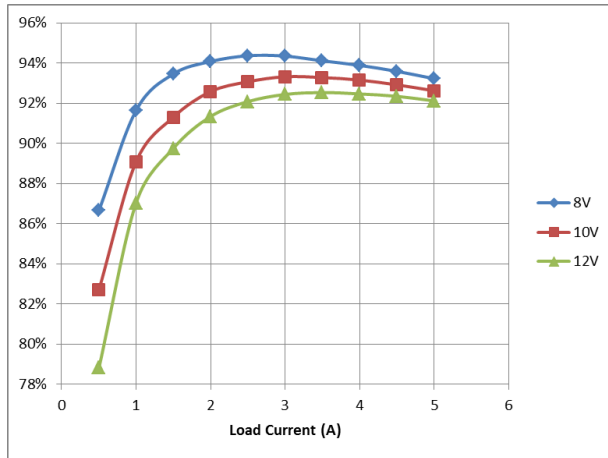


10Vin, 7V/0A, BW=29K, PM=89, GM=15dB

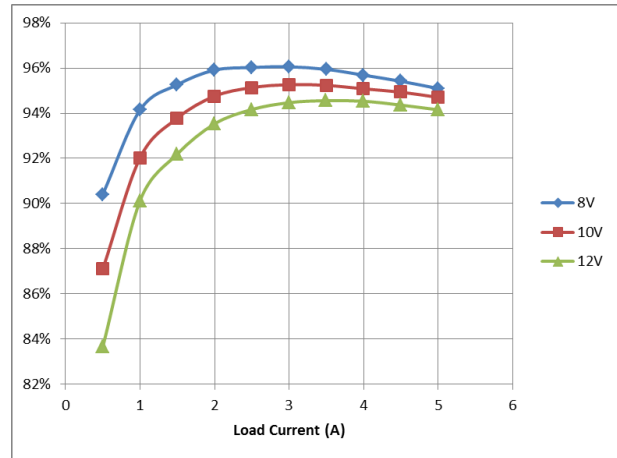


10Vin, 7V/5A, BW=35K, PM=89, GM=15dB

7 Efficiency

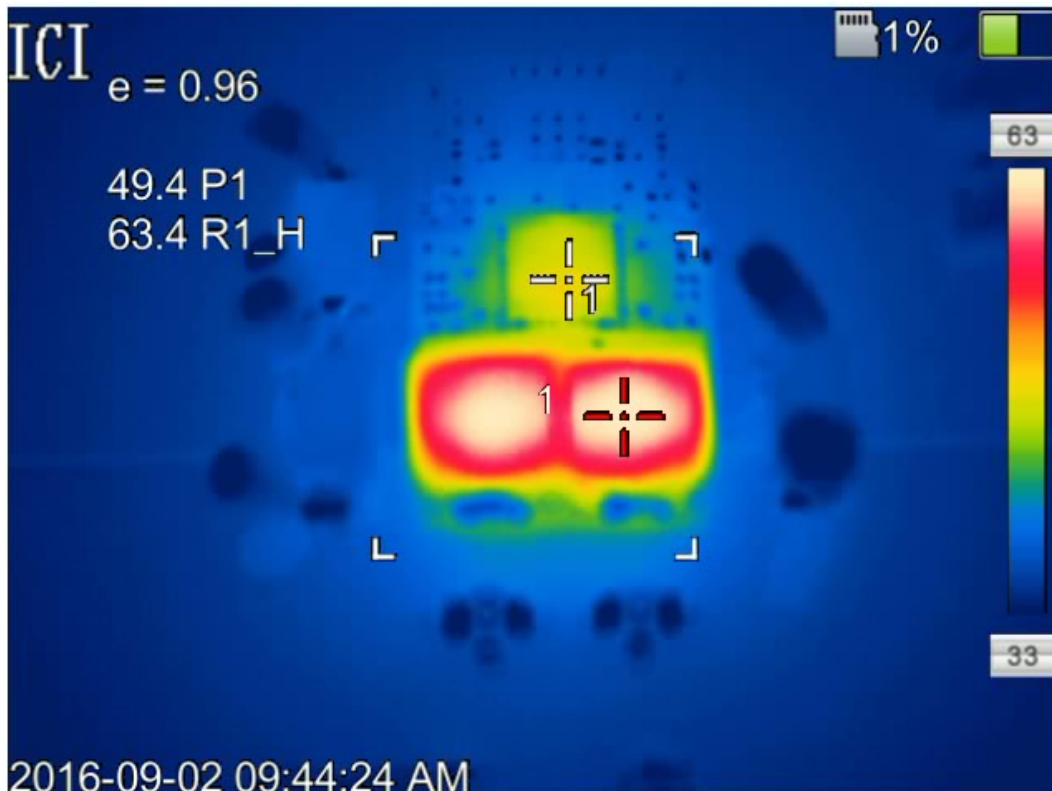


5.0Vout, 300kHz, IHLP-2525-CZ-01-4R7



7.0Vout, 300kHz, IHLP-2525-CZ-01-4R7

8 Thermal



Test conditions: 10Vin, Vout1=5V/5A, Vout2=7V/5A, 300kHz, IHLP2525CZ01-4R7, Natural Convection, 25C ambient temperature. ($T_{FET}=49.4C$, $T_{IND}=63.4C$)

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