

**Test Data
For PMP7933
4/3/2013**

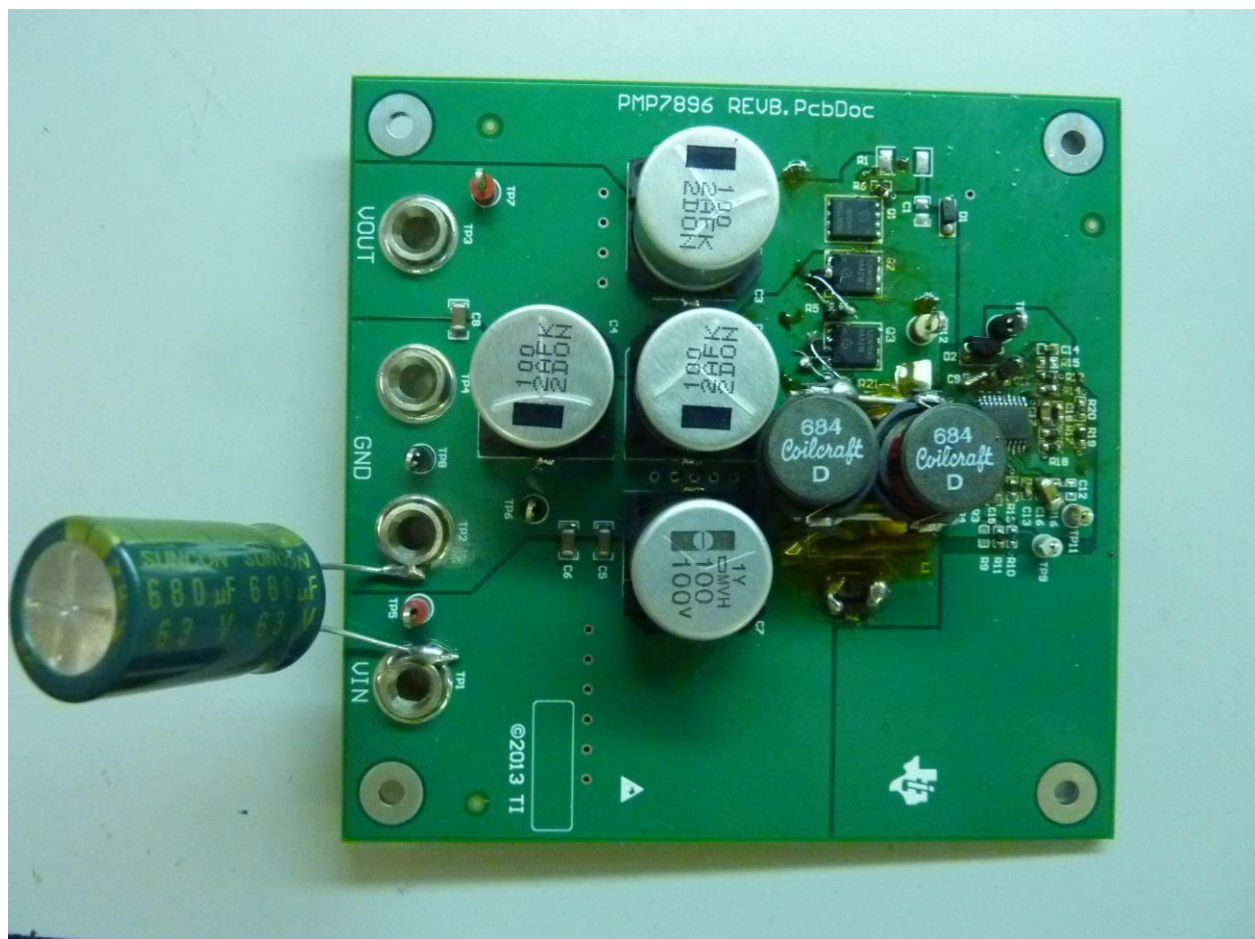


Test SPECIFICATIONS

Vin Nominal	48V
Vout	100V
Iout	1A Max

FABRICATION

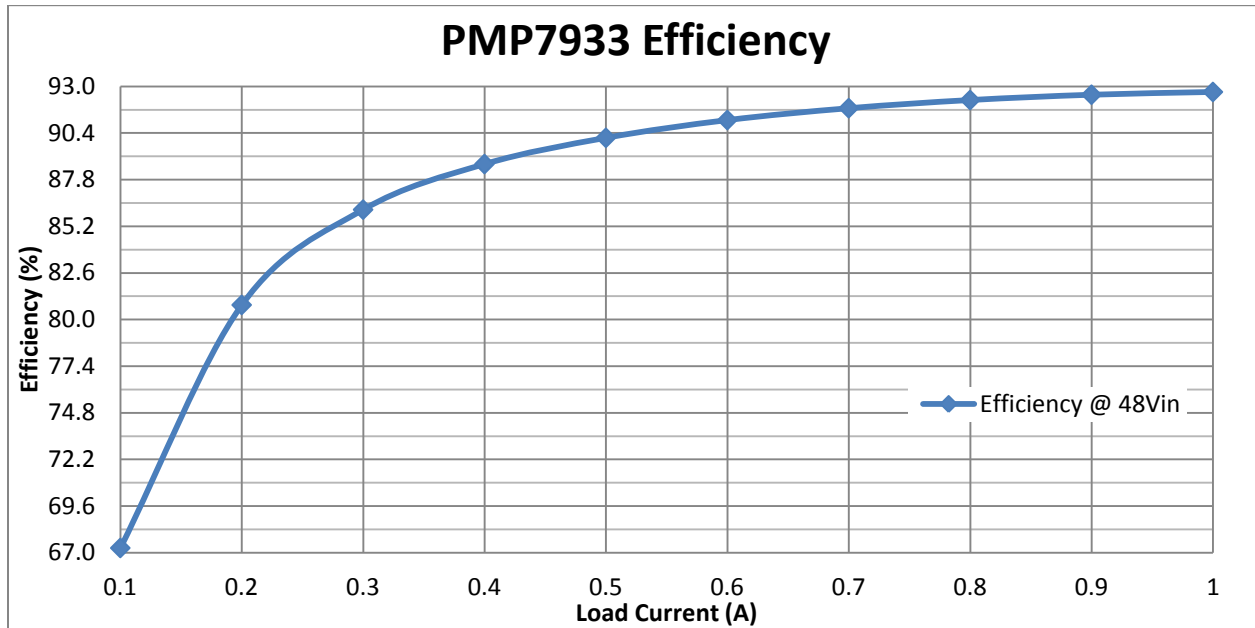
Board Dimensions: 3.85" x 3.95"



***Note:** Due to long input leads from the power supply forming large inductances a bulk capacitor at the input (seen in green in picture) was utilized for dampening.

TYPICAL PERFORMANCE

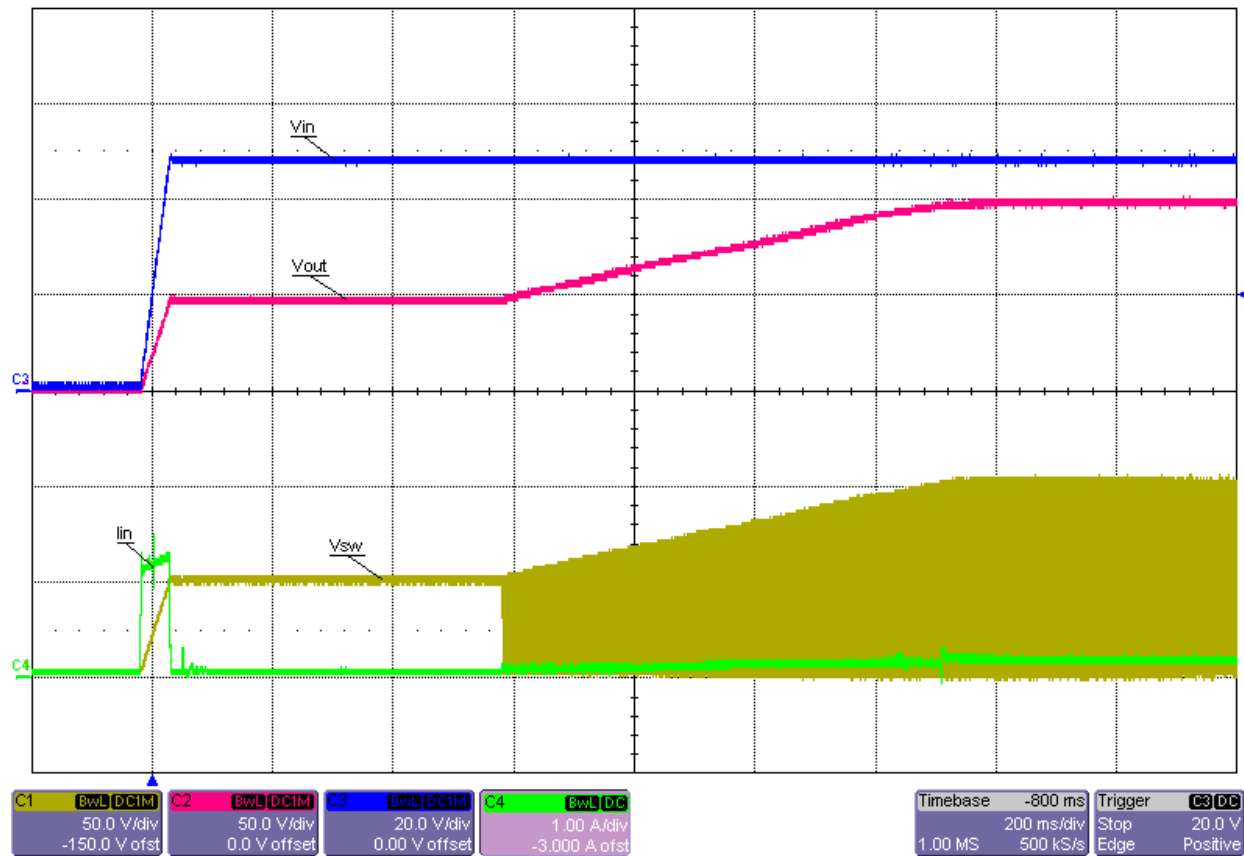
EFFICIENCY



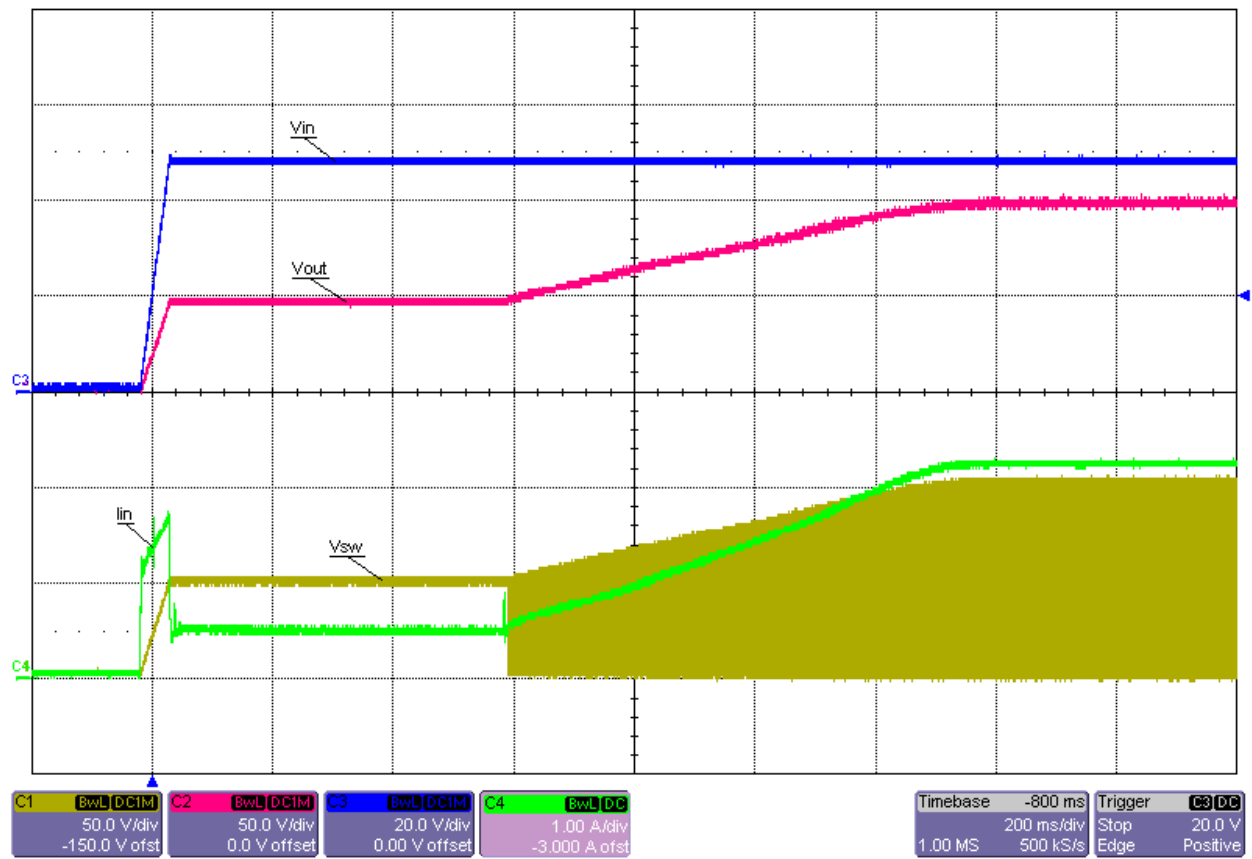
PMP7933 Efficiency						
(with 2 boost FETs P/N: BSC520N15NS3; Synch. FET P/N: BSC190N15NS3)						
Vin (V)	Iin (A)	Vout (V)	Iout (A)	Pin (W)	Pout (W)	Efficiency (%)
48	0.3084	99.564	0.1	14.8032	9.9564	67.3
48	0.5134	99.573	0.2	24.6432	19.9146	80.8
48	0.7226	99.577	0.3	34.6848	29.8731	86.1
48	0.9359	99.581	0.4	44.9232	39.8324	88.7
48	1.1509	99.583	0.5	55.2432	49.7915	90.1
48	1.3661	99.584	0.6	65.5728	59.7504	91.1
48	1.5823	99.585	0.7	75.9504	69.7095	91.8
48	1.7994	99.585	0.8	86.3712	79.668	92.2
48	2.0179	99.588	0.9	96.8592	89.6292	92.5
48	2.2385	99.593	1	107.448	99.593	92.7

Waveforms

Startup

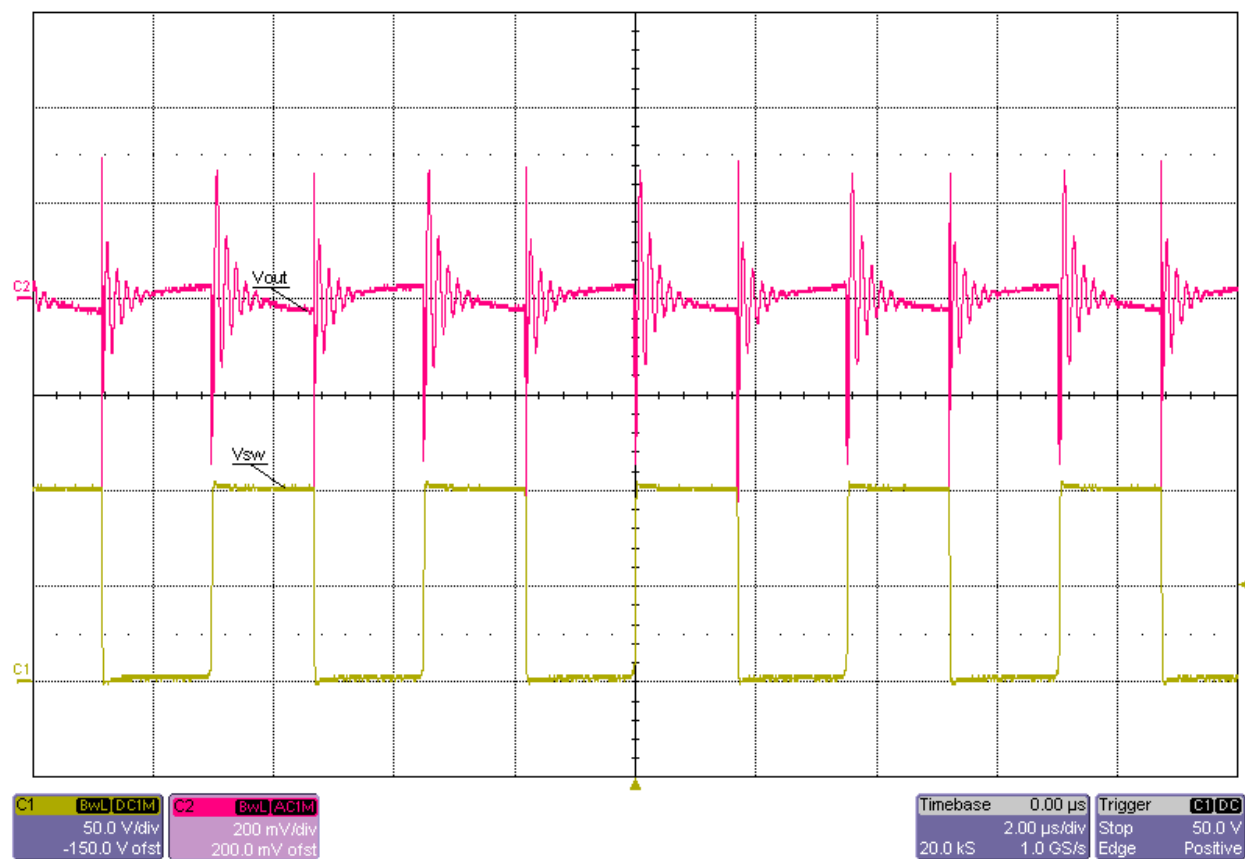


Startup into No Load (48Vin)

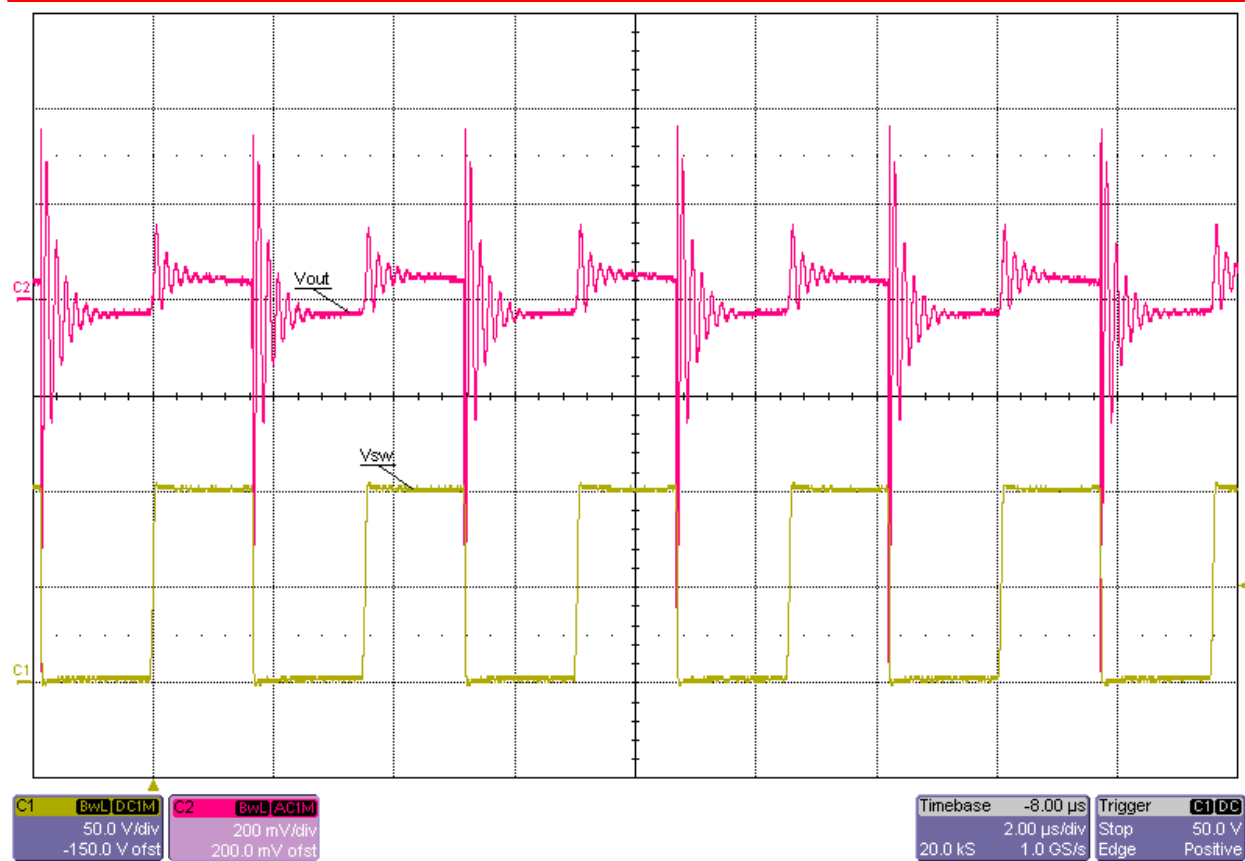


Startup into Full (1A) Load (48Vin)

Output Voltage Ripple and Switch Node Voltage

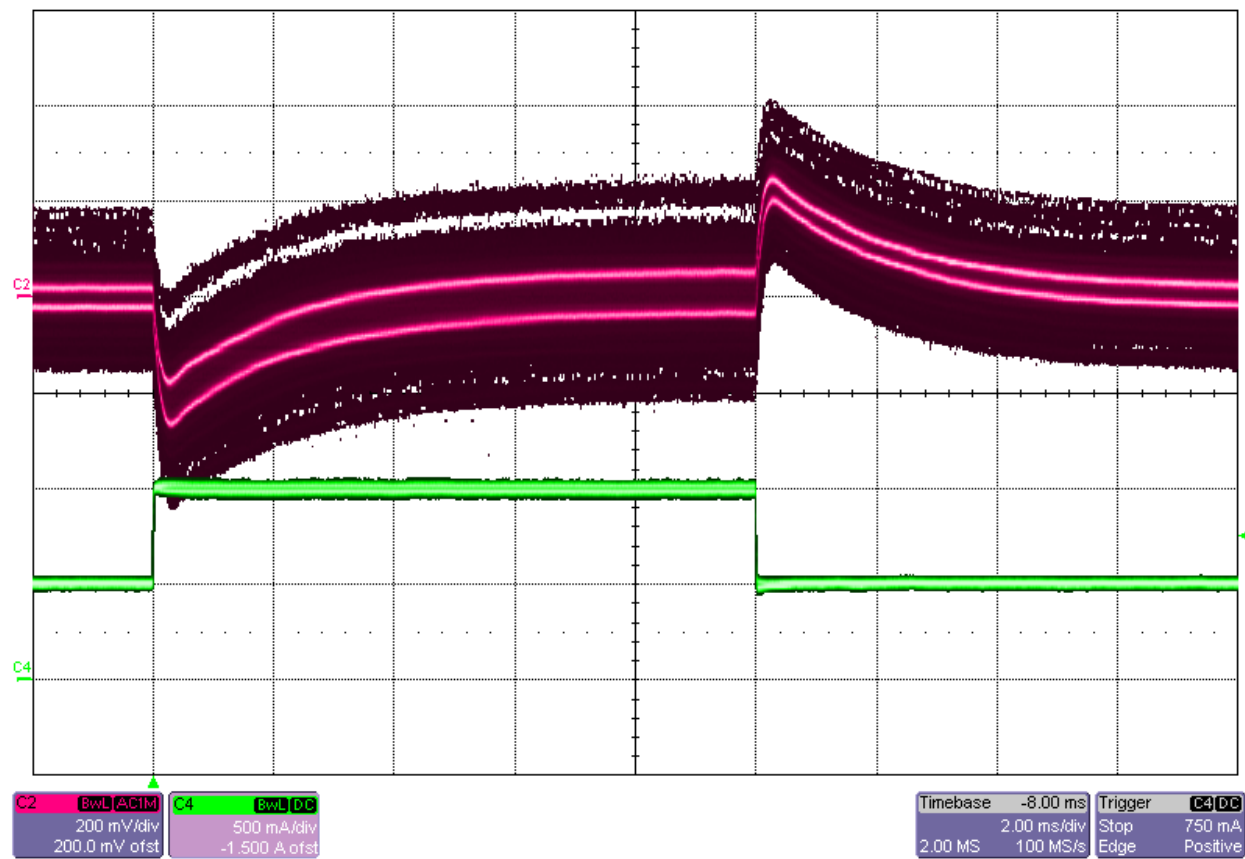


Output Voltage Ripple and Switch Node Voltage at 48Vin No Load ($V_{ripple} \approx 60\text{mVp-p}$)



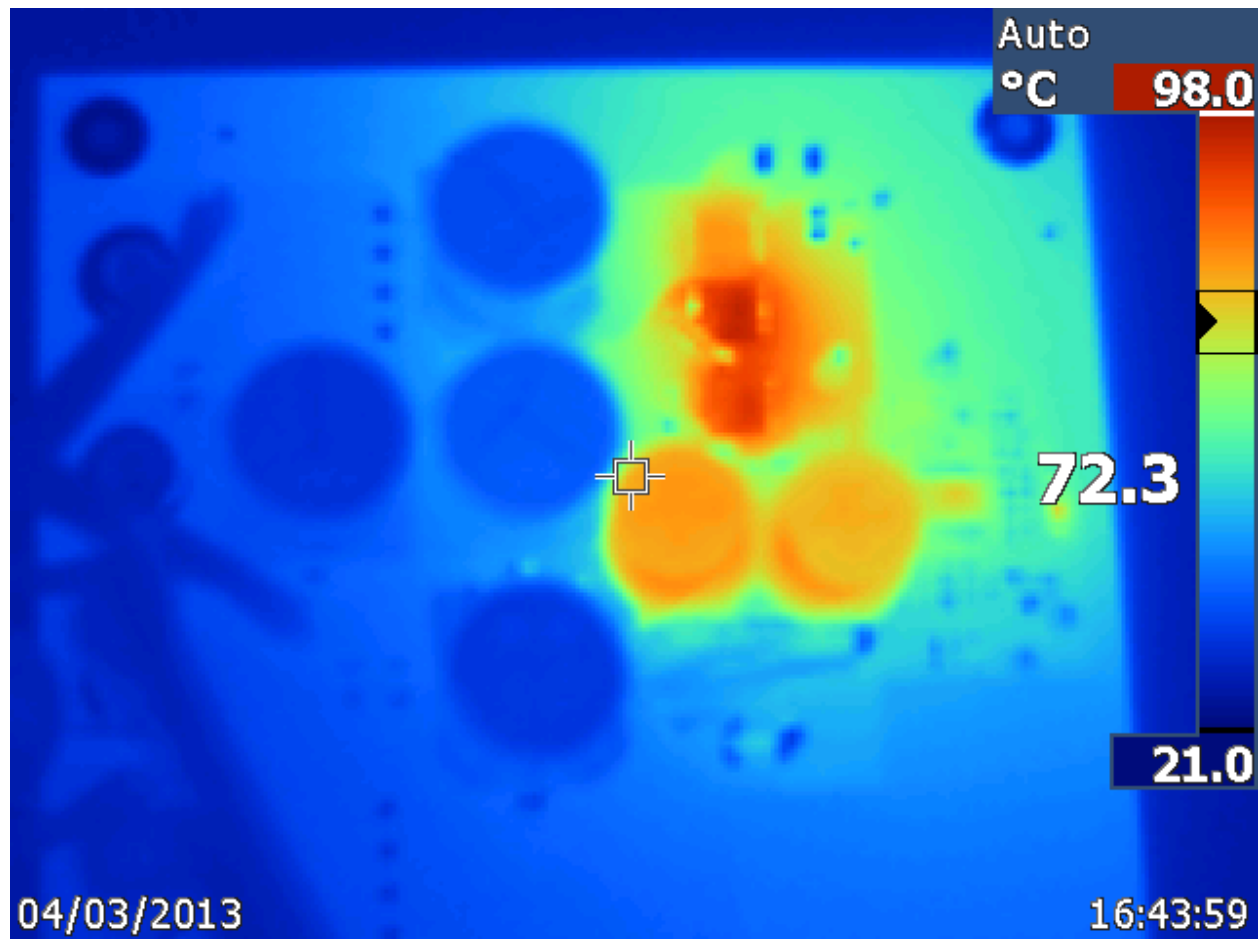
Output Voltage Ripple and Switch Node Voltage at 48Vin Full (1A) Load ($V_{ripple} \approx 60V_{p-p}$)

Load Transient Response



Transient Response at 48Vin 50%-to-100% Load Step (0.5A-to-1A)

Thermal Data



IR Thermal Image taken after running at 1A load for 5 minutes

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