

**Test Data  
For PMP7916  
2/15/2013**

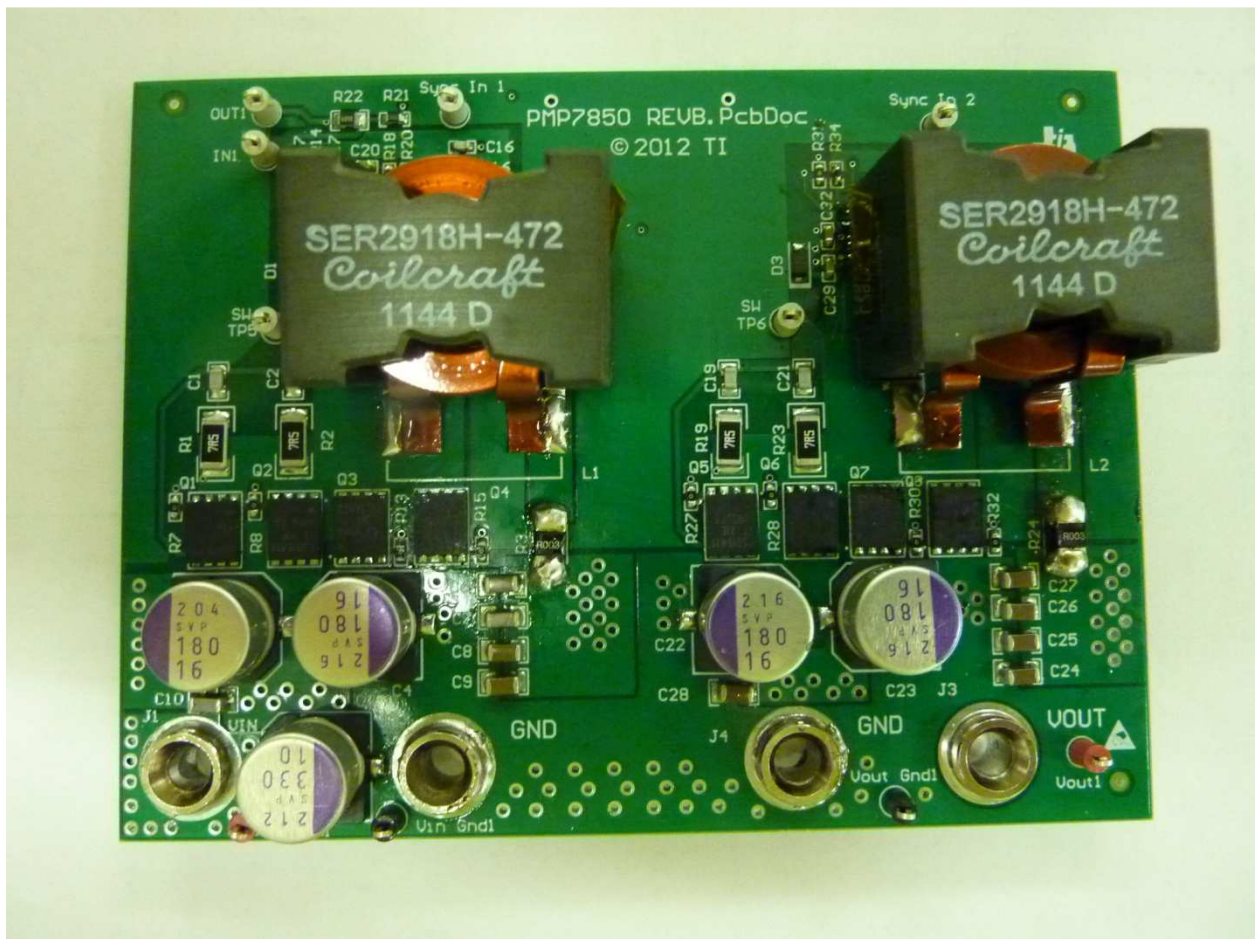


## Test SPECIFICATIONS

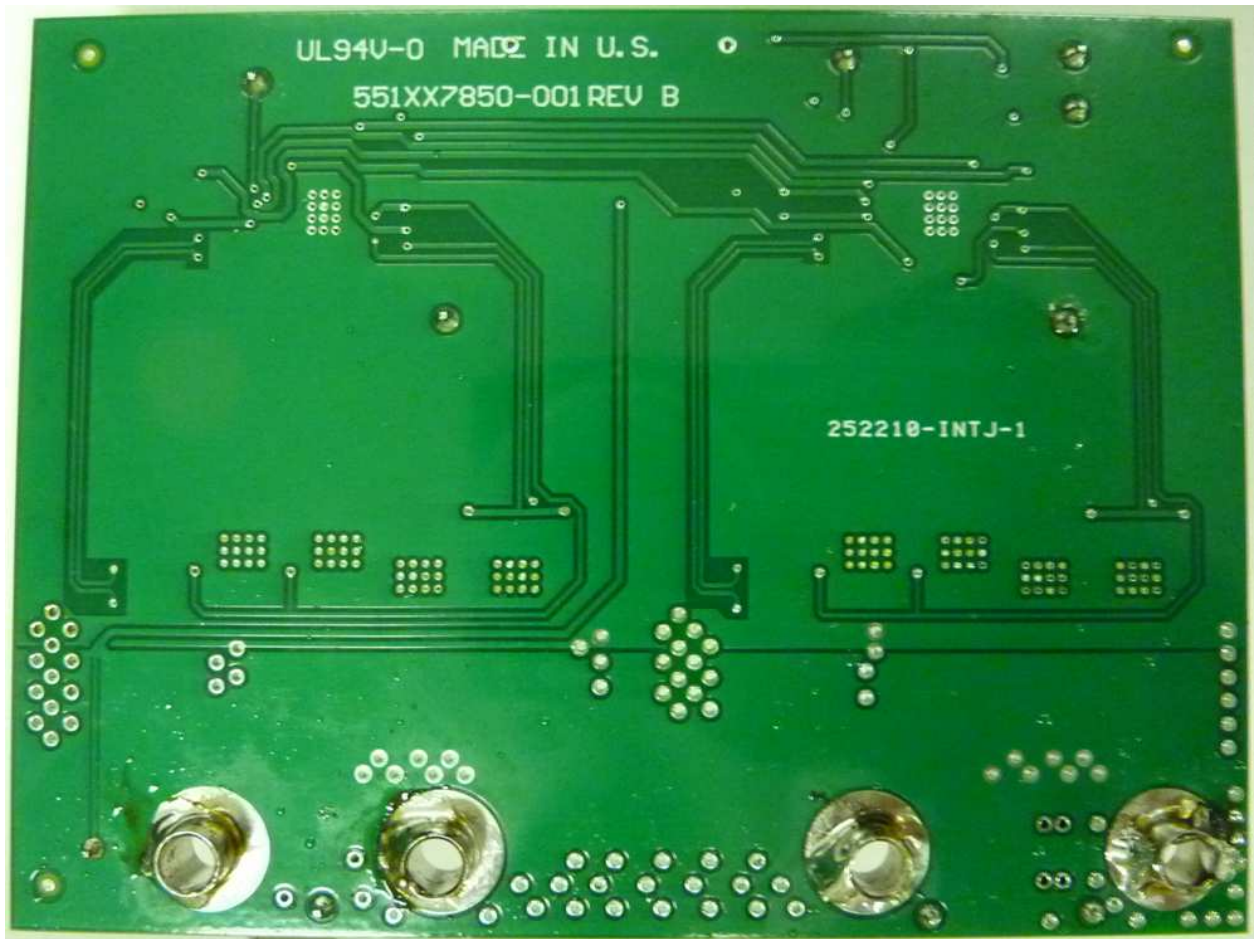
<b>Vin</b>	<b>6V</b>
<b>Vout</b>	<b>12V</b>
<b>Iout</b>	<b>42A Max</b>

## FABRICATION

Board Dimensions: 4" x 3"

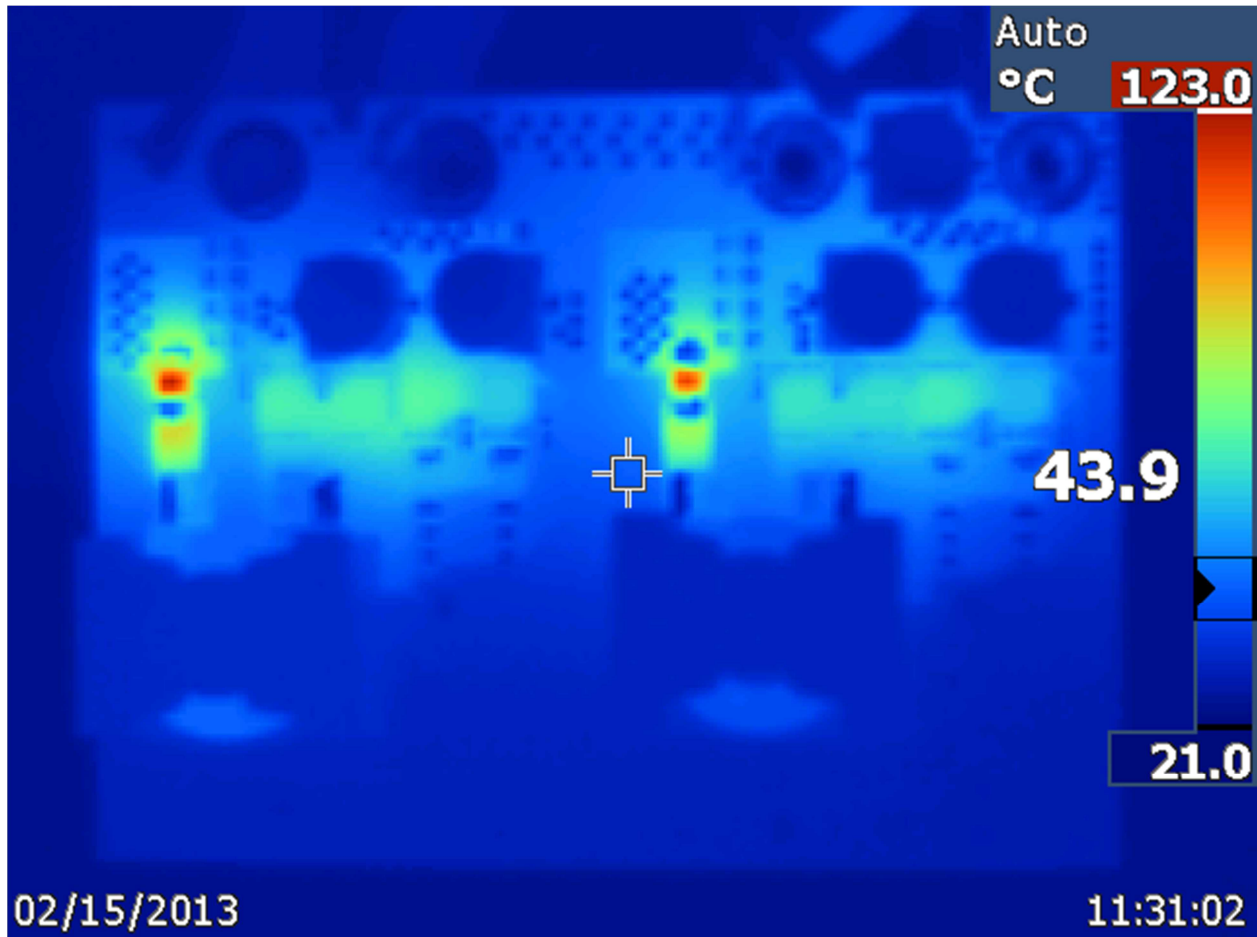


Top Side



**Bottom Side**

**Thermal Data**



**Infrared Thermal Image taken after running at 42A output load for 5 seconds – Recommend larger Rsense Resistors. Also, this board has 1oz of copper on outer layers and 0.5oz of copper on inner layers (2). Increasing copper weight will help thermal temp rise time.**

## TYPICAL PERFORMANCE

### EFFICIENCY

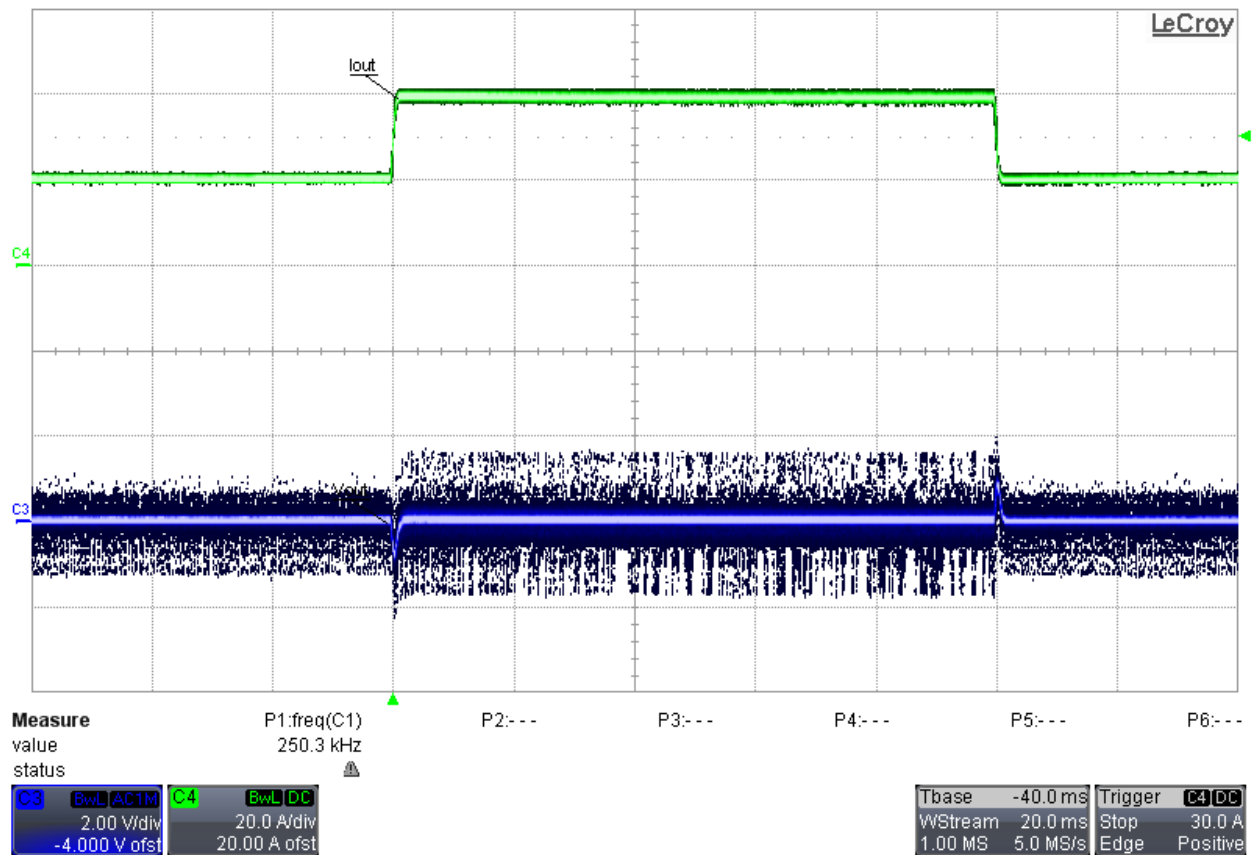
Vin (V)	Iin (A)	Vout (V)	Iout (A)	Pin (W)	Pout (W)	Efficiency (%)
5.9864	89.776	11.8197	41.172	537.44	486.64	90.5

### CURRENT SHARING PERFORMANCE

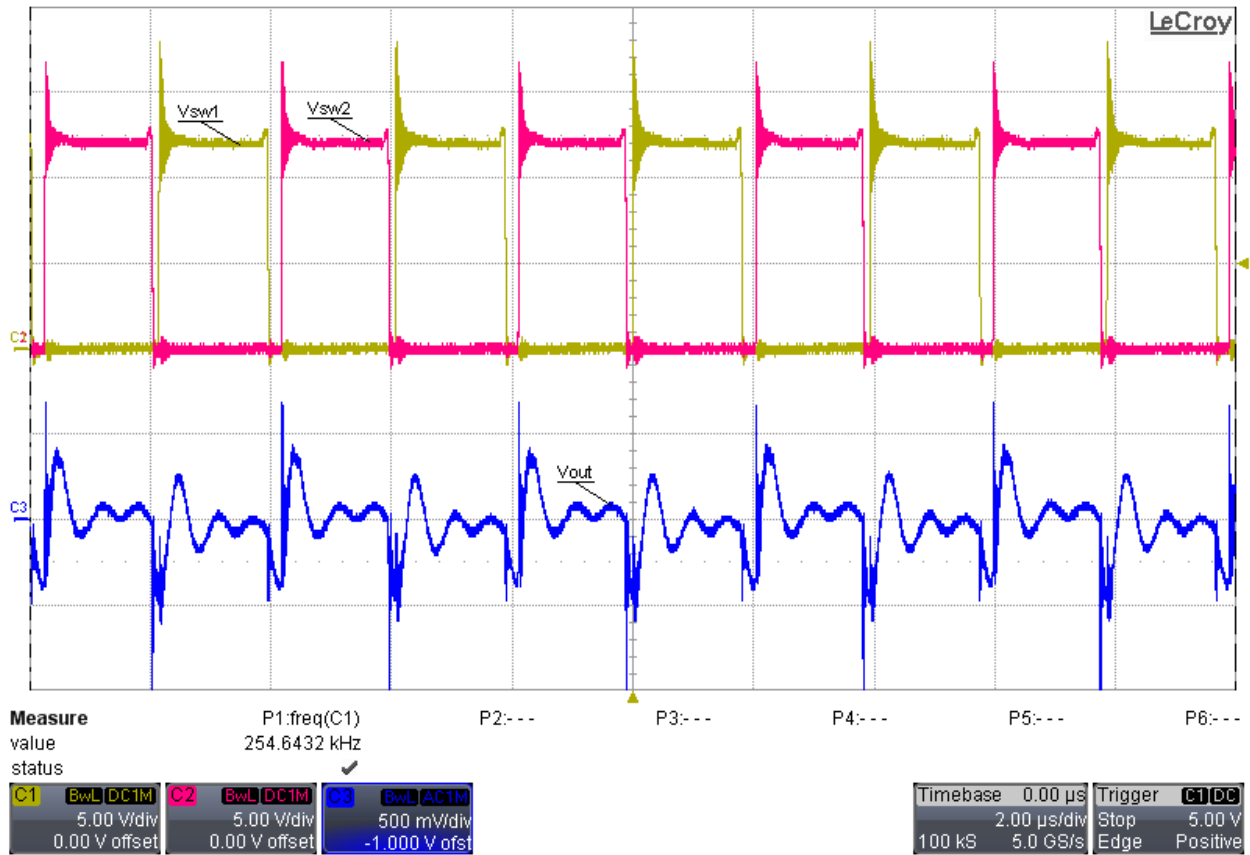
Current Sharing = 45.5A +/- 5.5%

## Waveforms

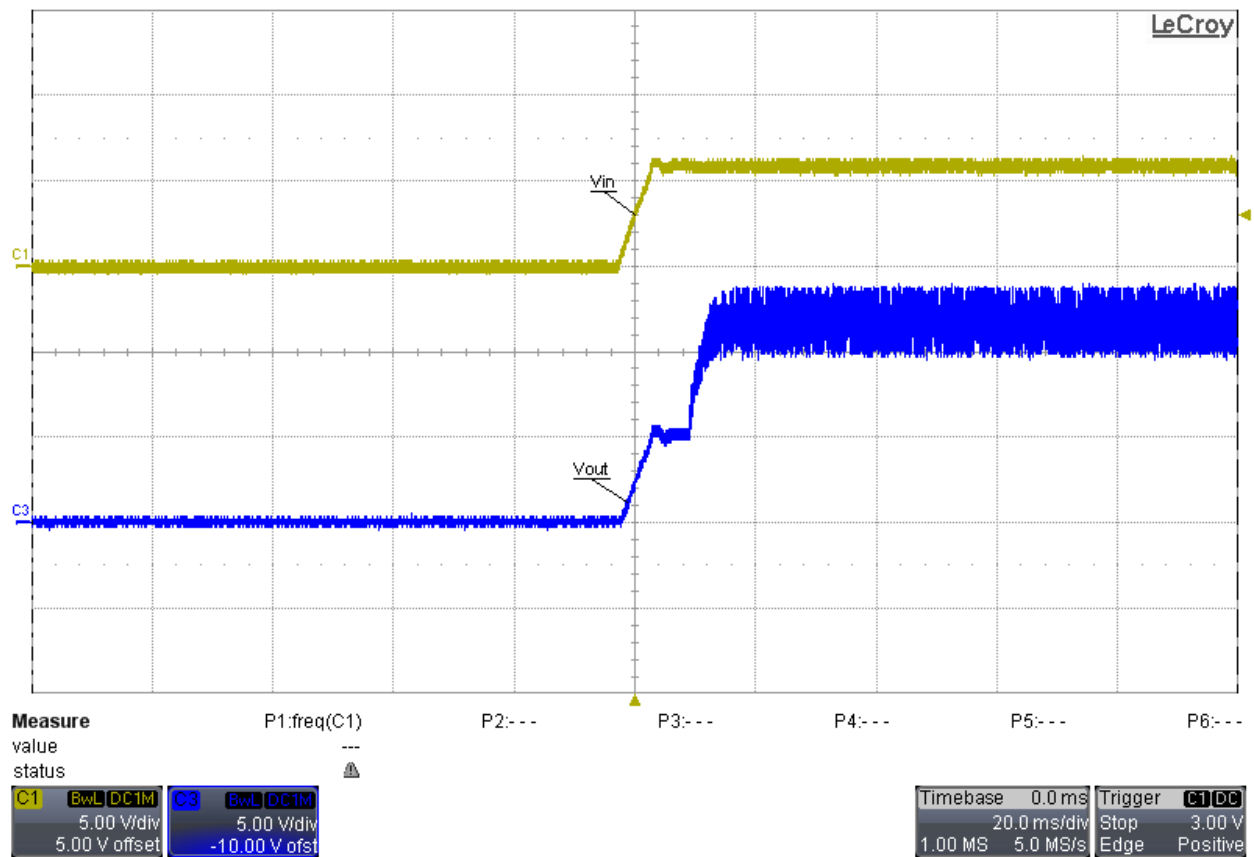
### Load Transient Response



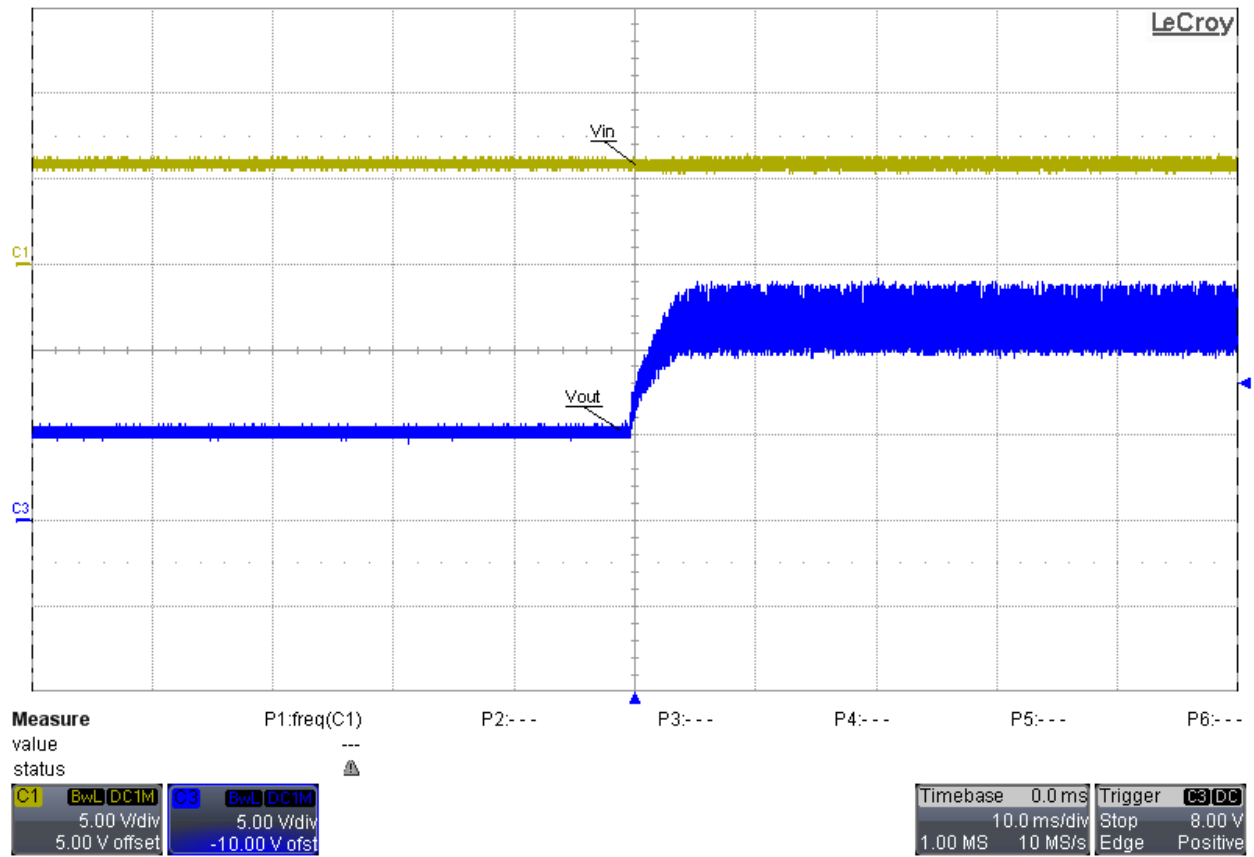
### Transient Response at 20A-to-40A Load Step

**Output Voltage Ripple and Switch Node Voltage**


**Output Voltage Ripple and Switch Node Voltage at 6Vin 42A load ( $V_{ripple} \approx 800\text{mVp-p}$ ) – Recommend more Cout for lower ripple content.**

**Startup**

**Startup into 42A Load (6Vin)**





**Startup into 42A Load with UVLO-pin control via N-CH MOSFET (6Vin)**



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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
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