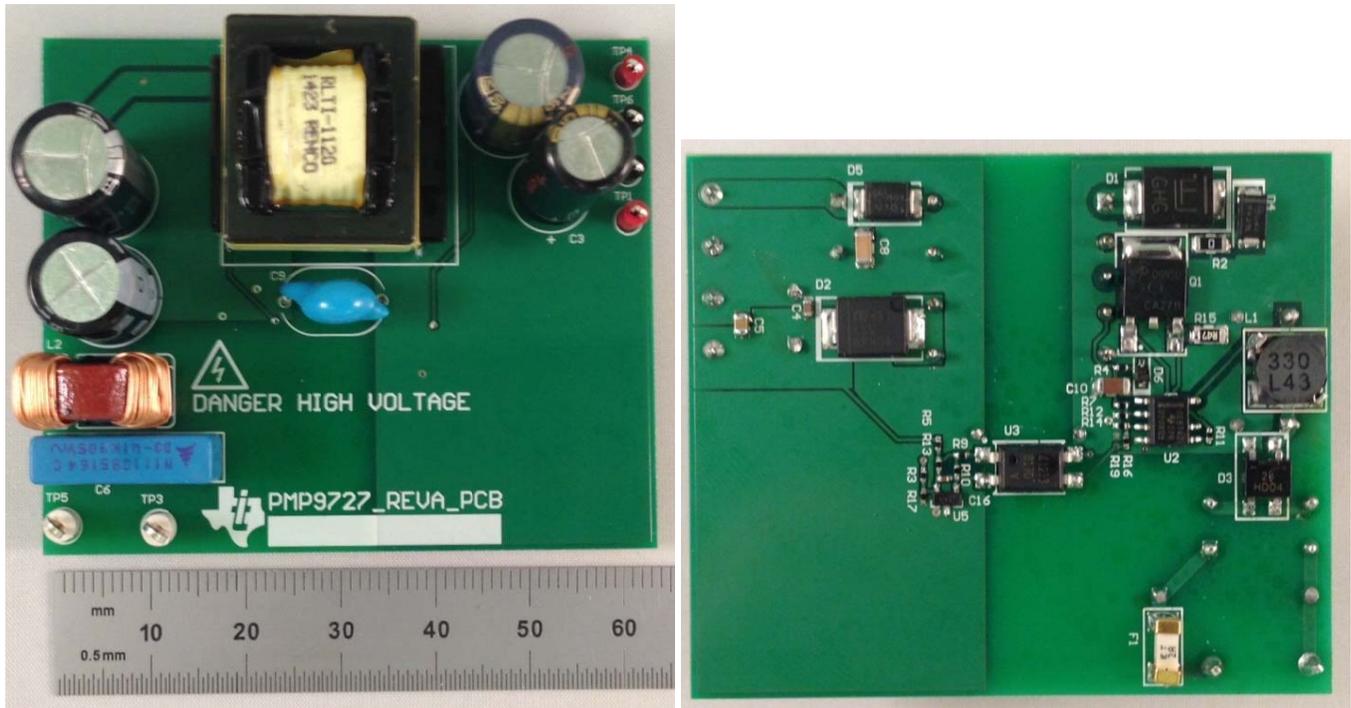
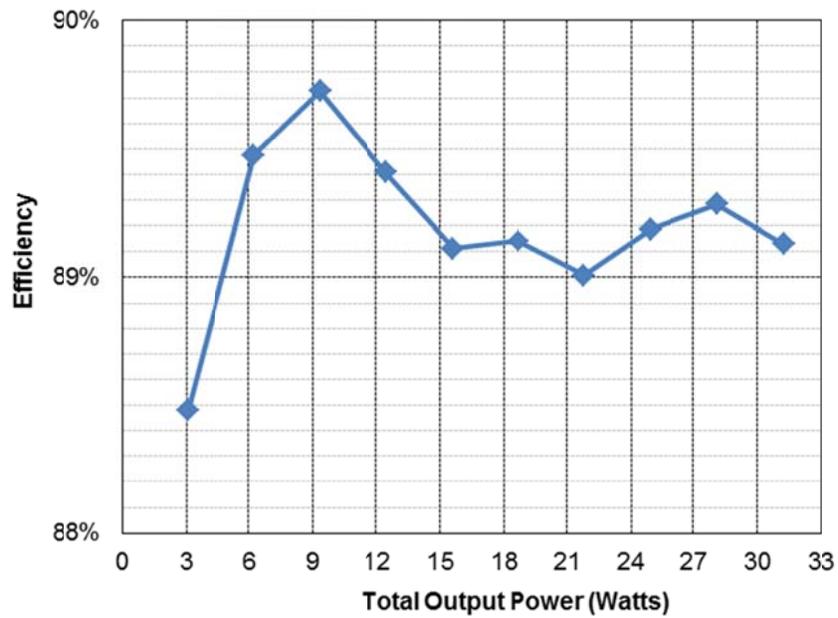


## 1 Photos

The photograph below shows the PMP9727 Rev A prototype assembly.



## 2 Efficiency

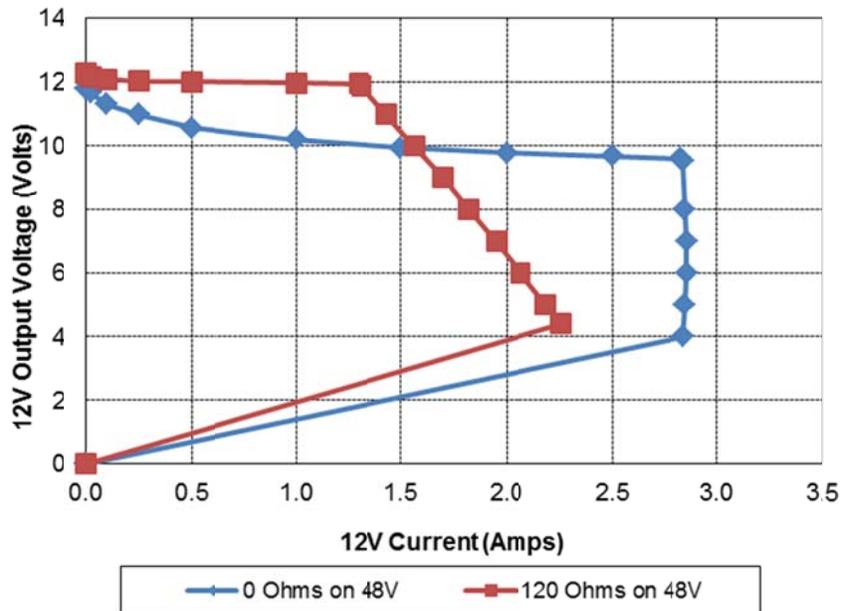


115VAC/60Hz										
12V Output		48V Output								
Iout	Vout	Iout	Vout	Vin	Iin	Pin	PF	Pout	Losses	Efficiency
0.000	11.94	0.000	47.92	115.1	0.0060	0.079		0.00	0.08	0.0%
0.100	11.91	0.040	48.09	115.1	0.090	3.52	0.34	3.11	0.41	88.5%
0.199	11.90	0.080	48.13	115.0	0.157	6.95	0.40	6.22	0.73	89.5%
0.298	11.89	0.120	48.16	115.0	0.214	10.39	0.43	9.32	1.07	89.7%
0.399	11.89	0.160	48.19	115.0	0.270	13.93	0.45	12.45	1.48	89.4%
0.502	11.88	0.200	48.20	115.0	0.324	17.51	0.47	15.60	1.91	89.1%
0.602	11.88	0.240	48.20	115.0	0.374	21.00	0.49	18.72	2.28	89.1%
0.700	11.89	0.280	48.19	115.0	0.423	24.51	0.50	21.82	2.69	89.0%
0.801	11.88	0.320	48.19	115.0	0.470	27.96	0.52	24.94	3.02	89.2%
0.900	11.89	0.361	48.19	115.0	0.518	31.47	0.53	28.10	3.37	89.3%
1.001	11.89	0.401	48.18	114.9	0.565	35.03	0.55	31.22	3.81	89.1%

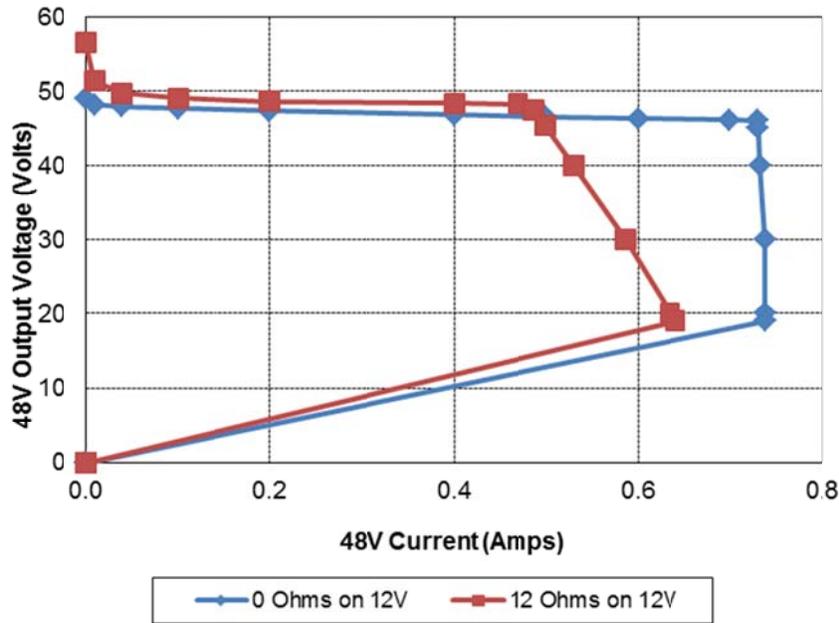
### 3 Current Limit

The input was 115VAC/60Hz

#### 3.1 12V Output Current Limit

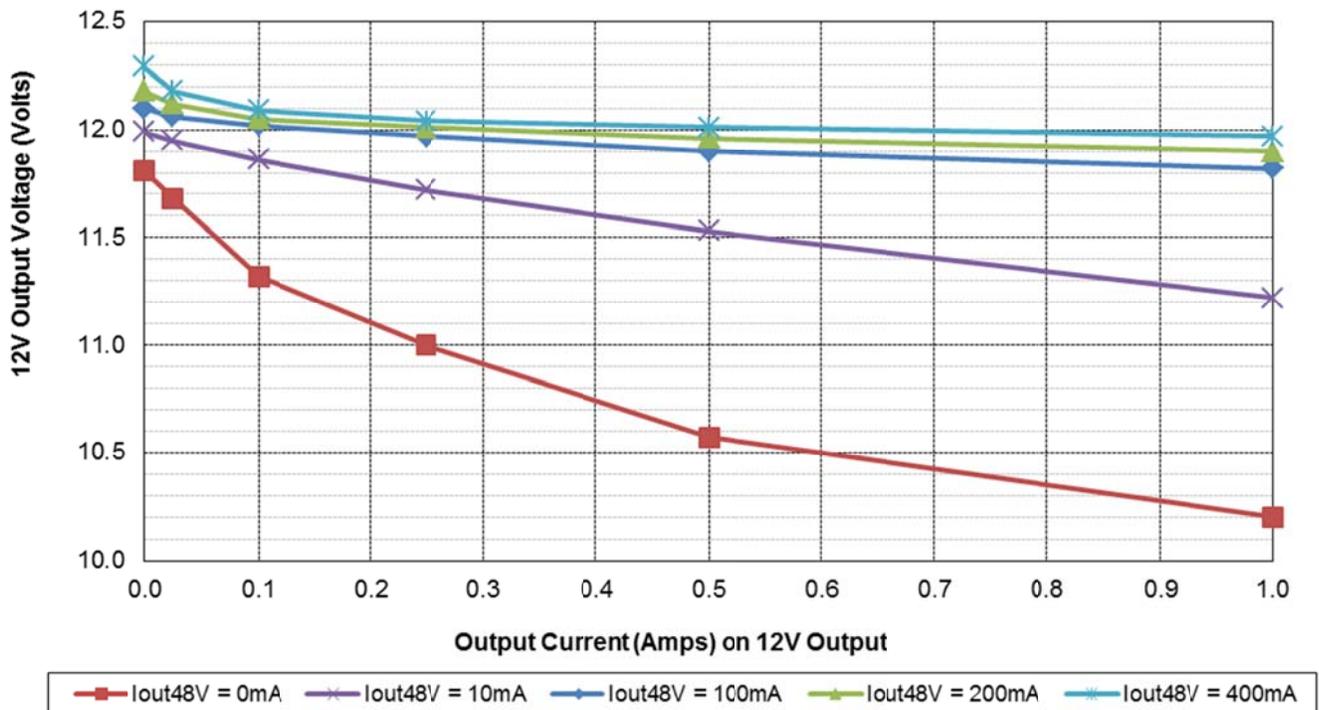


### 3.2 48V Output Current Limit

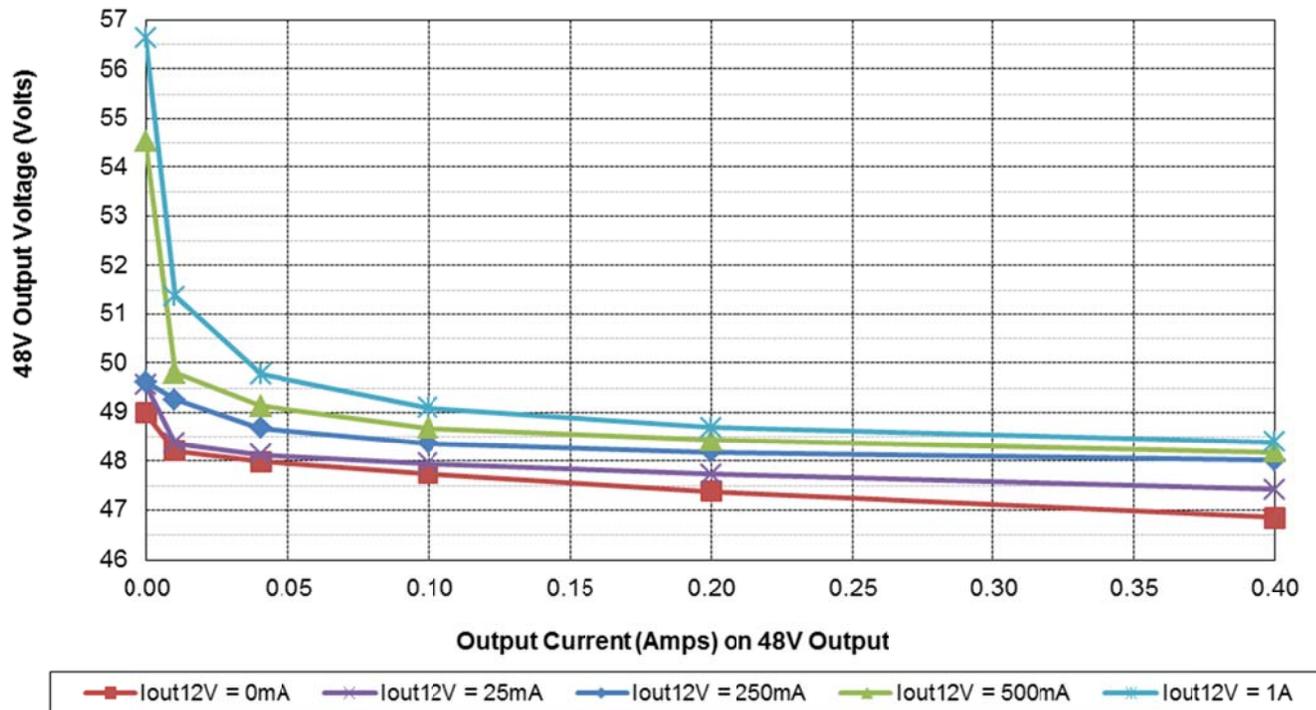


## 4 Regulation

### 4.1 12V Regulation

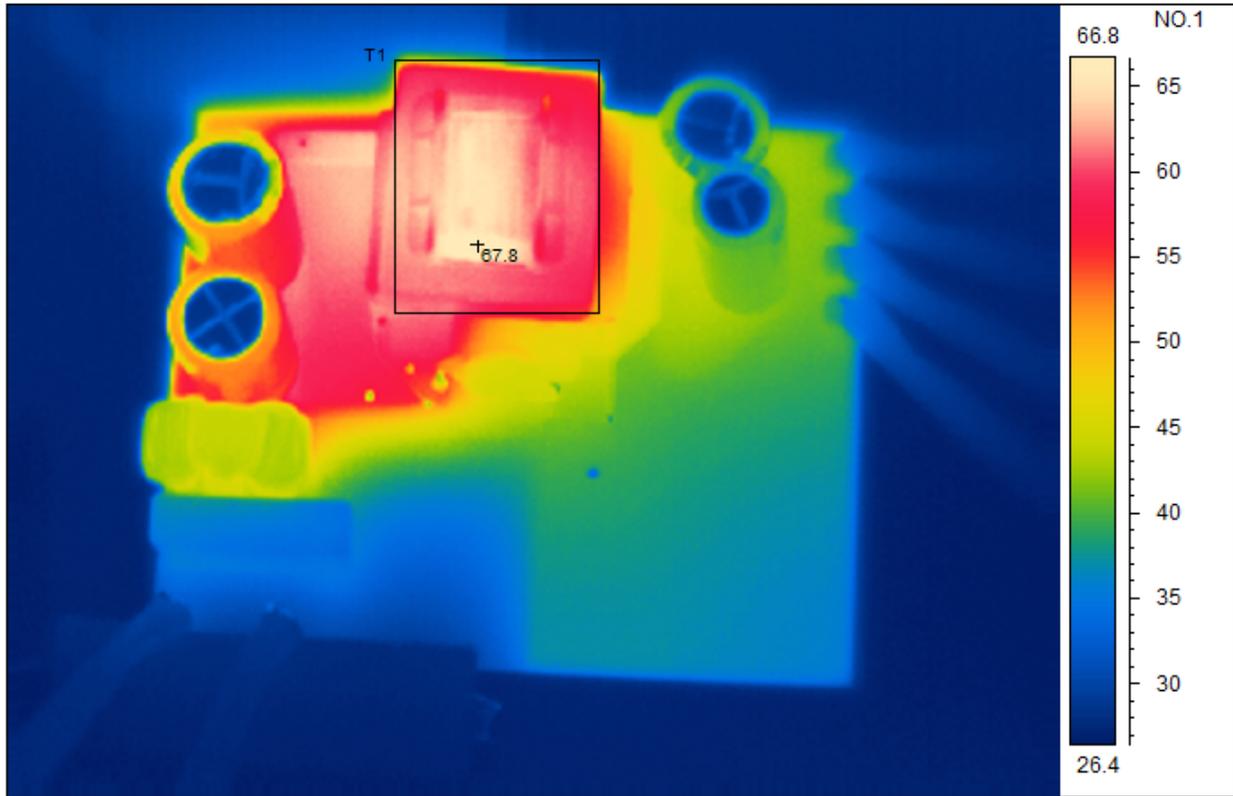


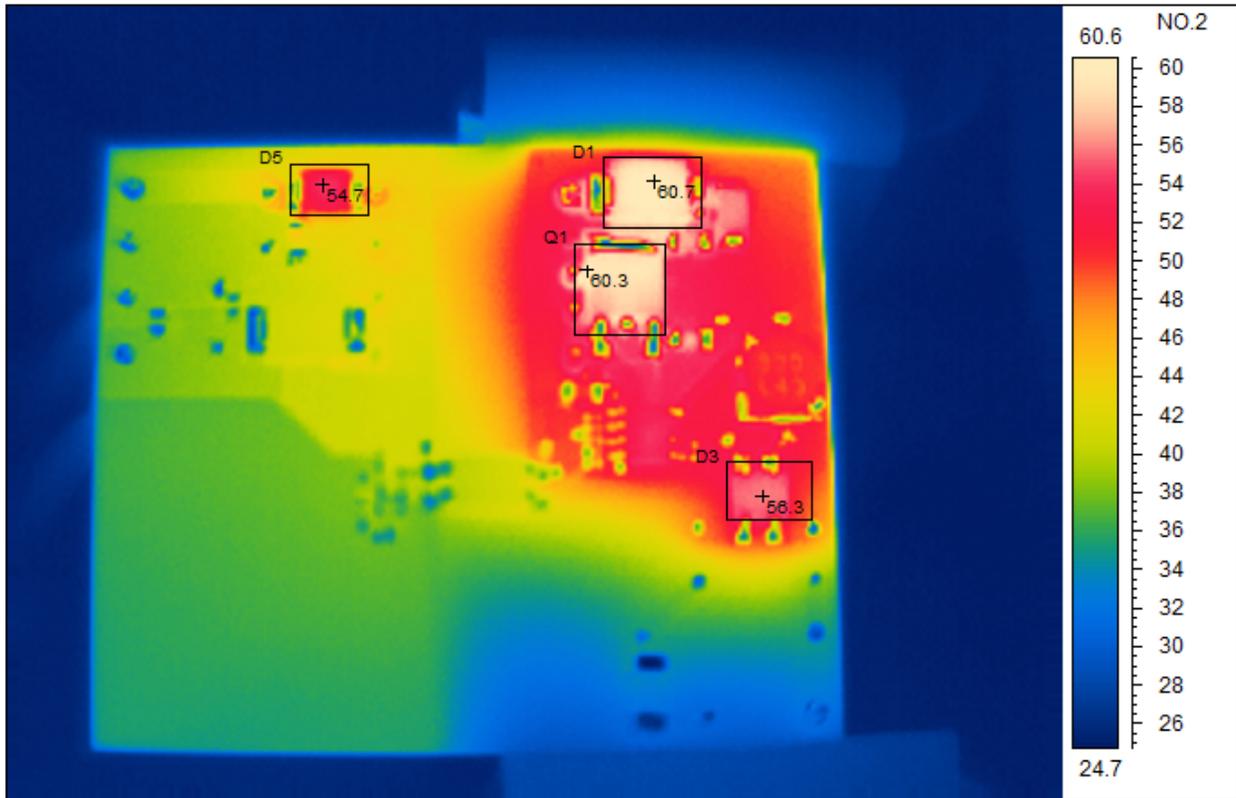
## 4.2 48V Regulation



## 5 Thermal Images

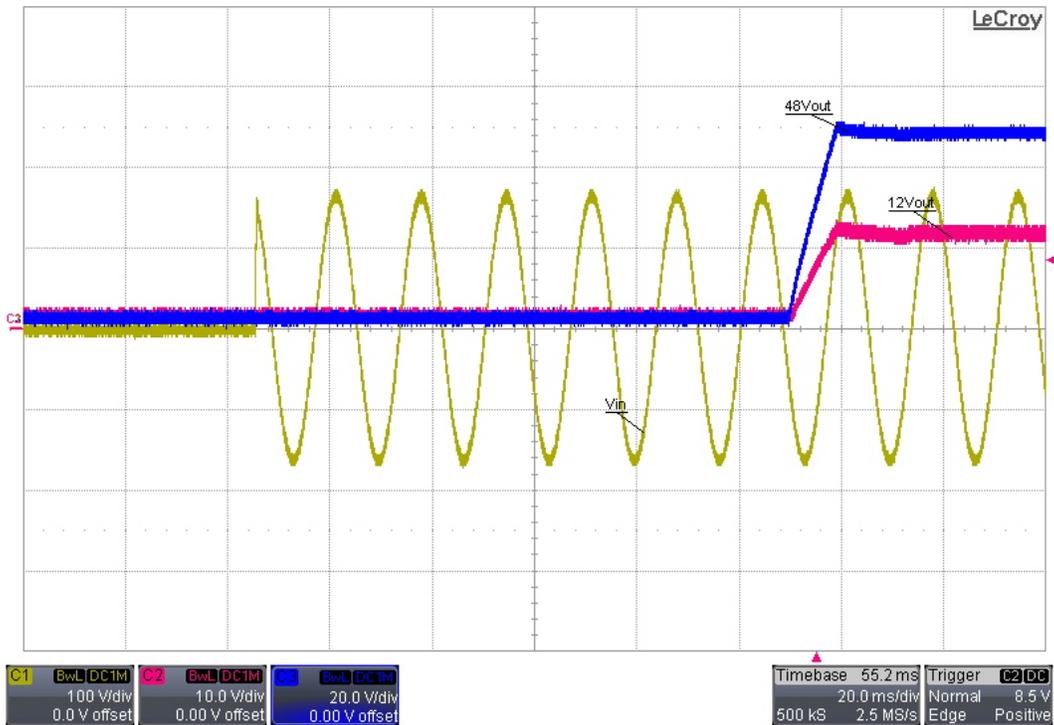
The ambient temperature was 25°C, with no forced air flow. The 12V output was loaded with 12Ω. The 48V output was load with 120Ω. The input was 115VAC/60Hz.



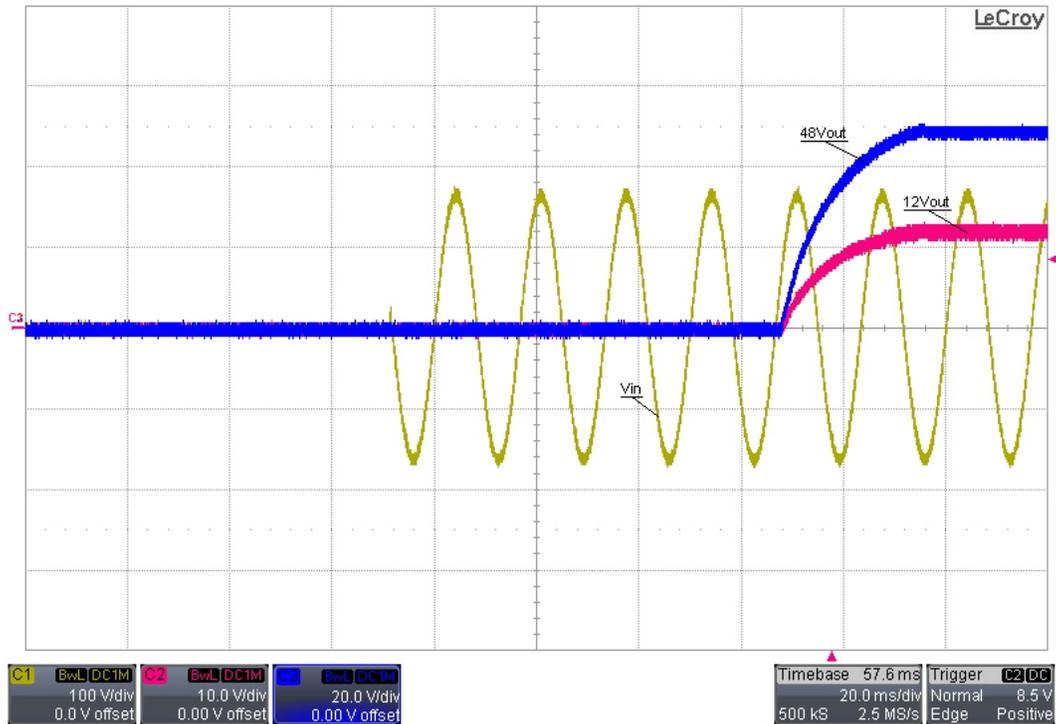


## 6 Startup

### 6.1 Startup – No Load



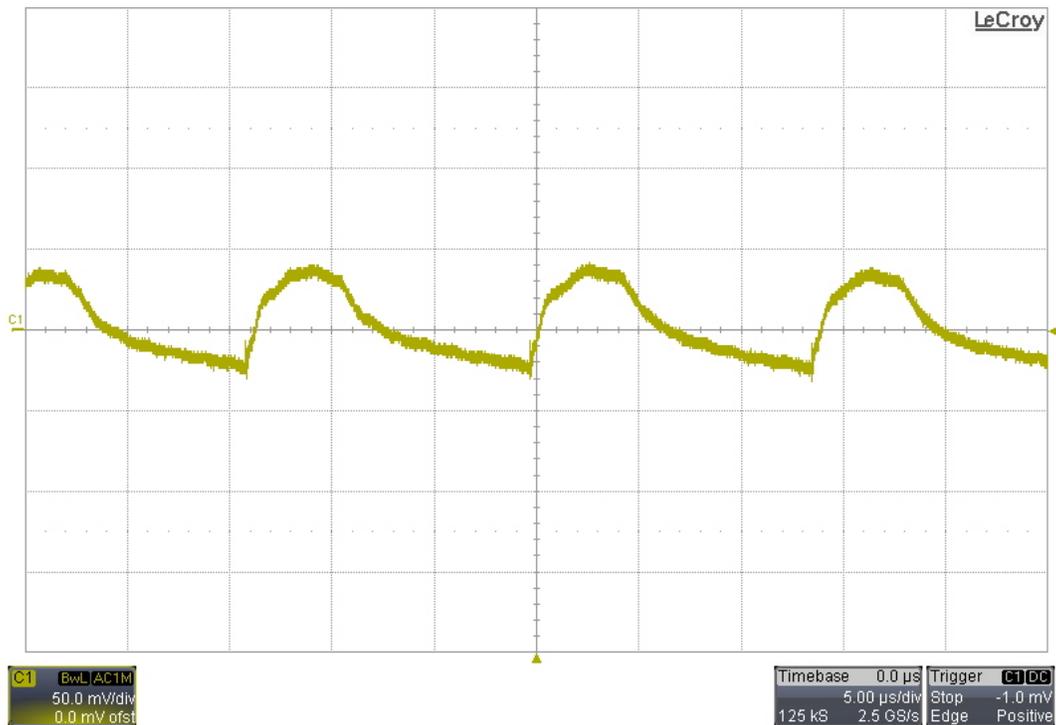
### 6.2 Startup – 12V/12Ω & 48V/120Ω



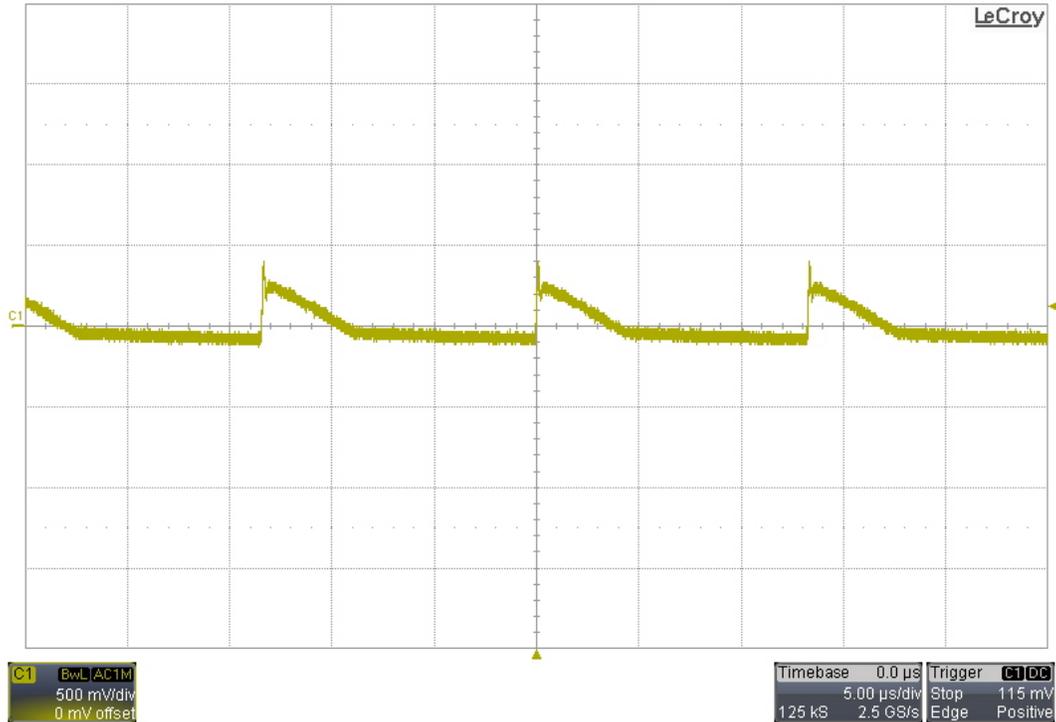
## 7 Output Ripple Voltage

The 12V output was loaded with 12Ω and the 48V output was loaded with 120Ω.

### 7.1 12V Output Ripple Voltage – Measured at TP13



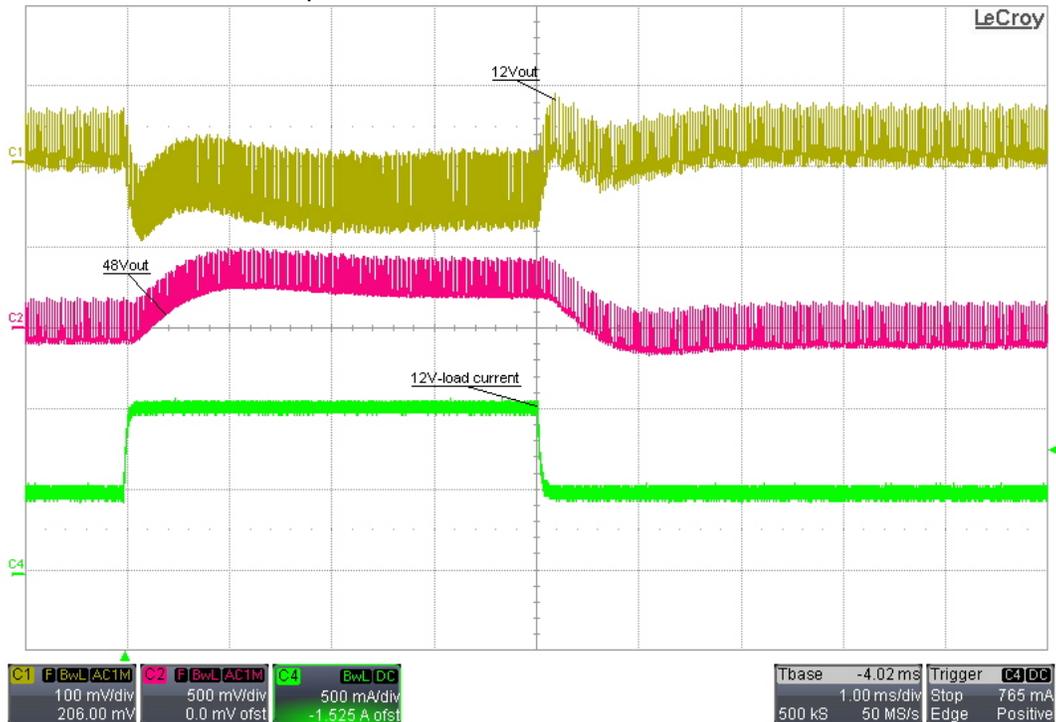
## 7.2 48V Output Ripple Voltage



## 8 Load Transients

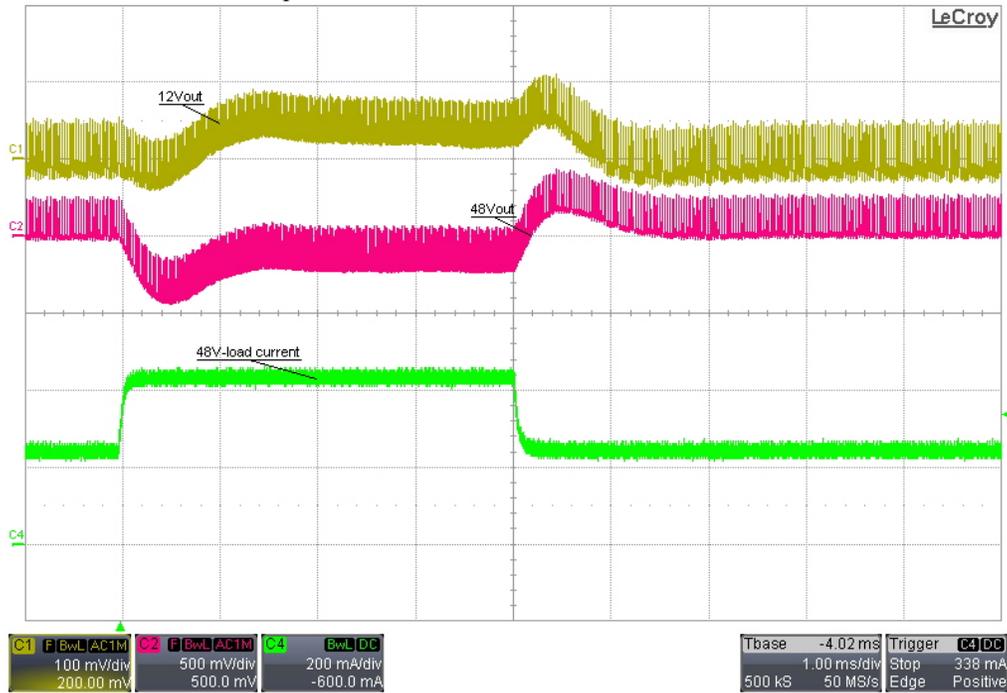
### 8.1 12V, 500mA to 1A Transient

The input was 115VAC/60Hz. The 48V output was loaded with 0.2A.



### 8.2 48V, 200mA to 400mA Transient

The input was 115VAC/60Hz. The 12V output was loaded with 0.5A.

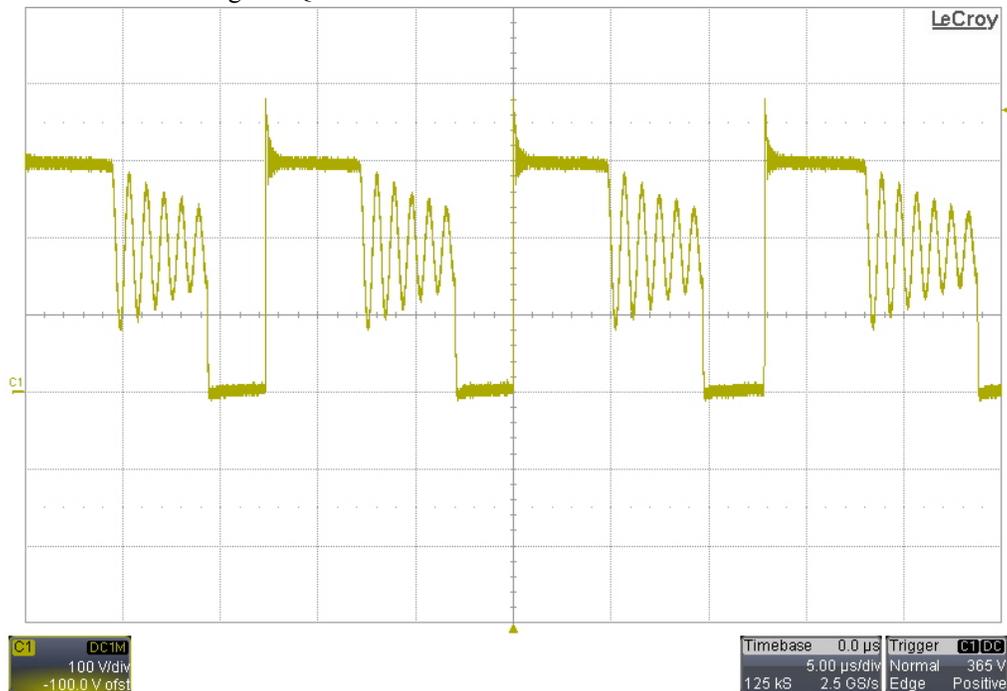


## 9 Switching Waveforms

The input was 135VAC/60Hz. The 12V output was loaded with 12Ω and the 48V output was loaded with 120Ω.

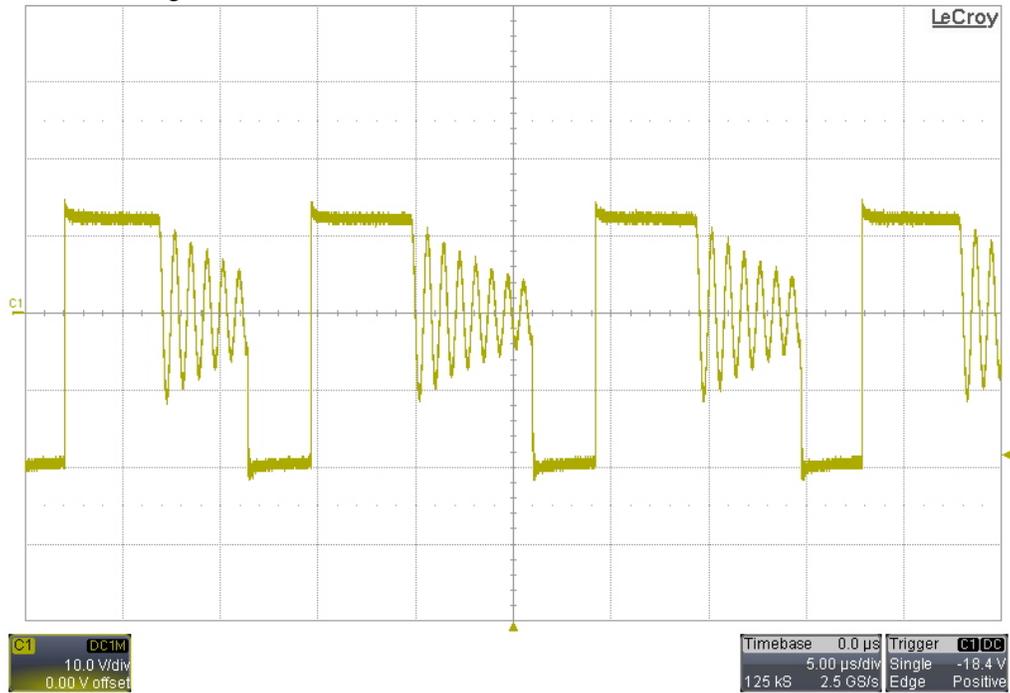
### 9.1 Primary Waveform

The image below shows the drain voltage on Q1.



## 9.2 12V Secondary Waveform

The image below shows the voltage on the anode of D2.



## 9.3 48V Secondary Waveforms

The image below shows the voltage on the anode of D5.



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