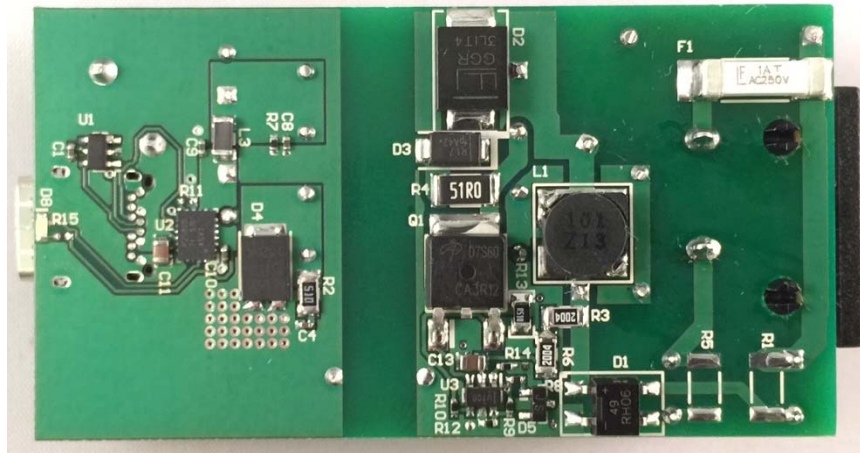
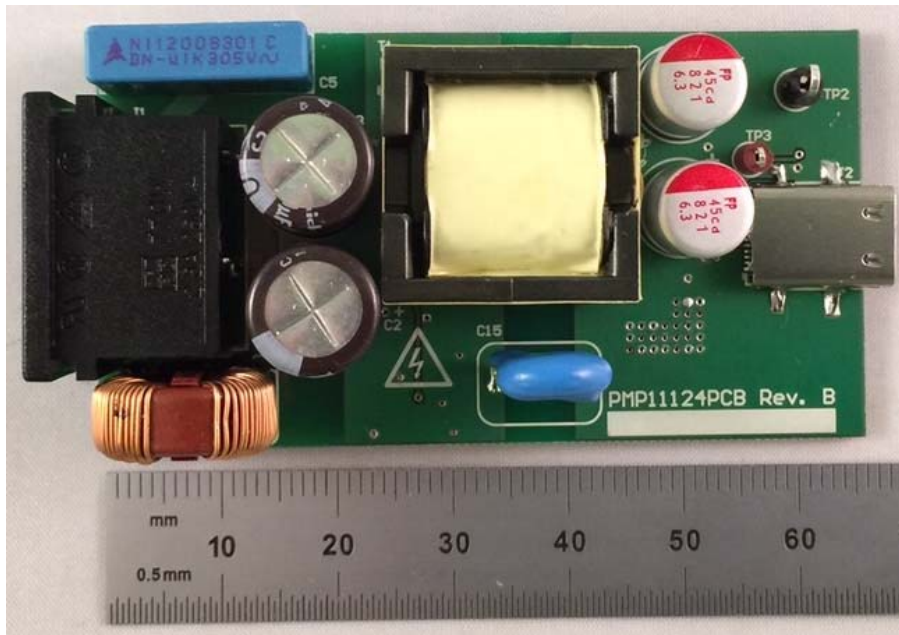


## 1 Photos

The photographs below show the PMP11124 Rev B prototype assembly.



## 2 Standby Power

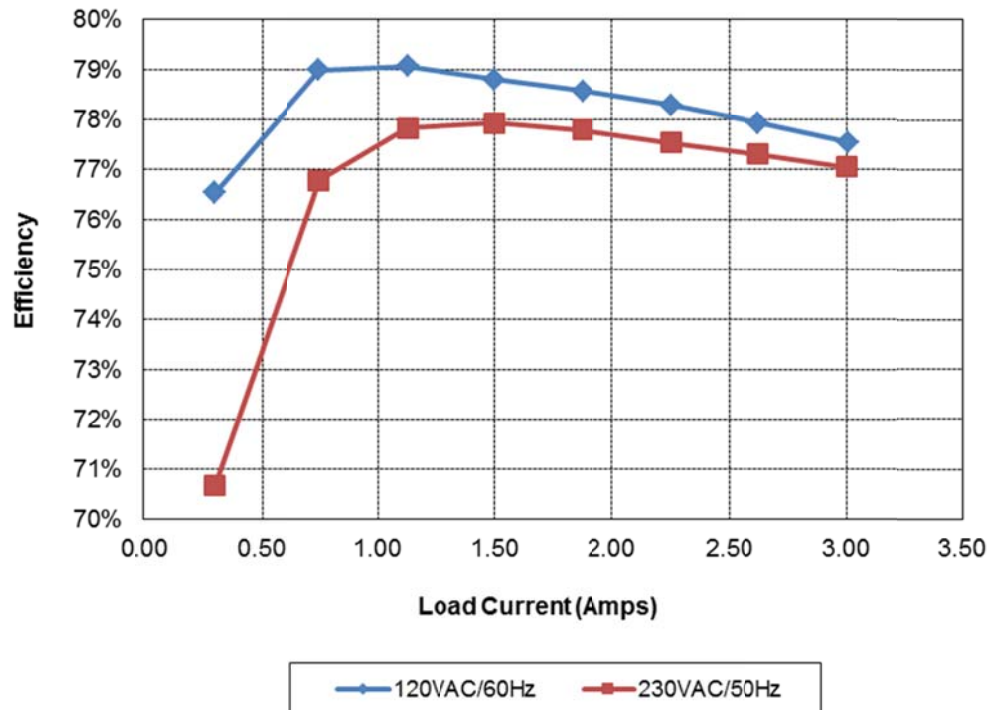
Measured with cable unplugged

No Load	Pin AC (W)
120VAC/60Hz	0.037
230VAC/50Hz	0.065

### 3 Efficiency

#### 3.1 Total Efficiency

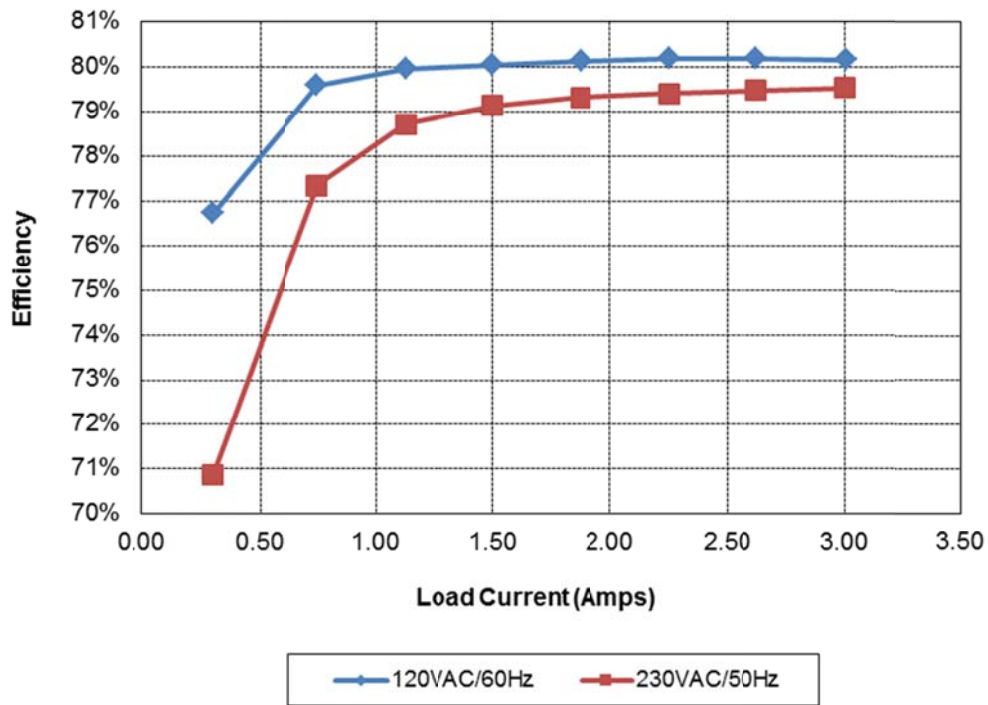
The efficiency measurements below were measured from the AC input to TP3/TP2.



Vin	Pin	Vout	Iout	Load	Efficiency	Avg. Eff.
<b>120VAC/60Hz</b>	2.03	5.18	0.300	10%	76.54%	
	4.90	5.17	0.749	25%	78.99%	<b>78.41%</b>
	9.81	5.15	1.500	50%	78.81%	
	14.77	5.14	2.250	75%	78.29%	
	19.88	5.13	3.005	100%	77.54%	
<b>230VAC/50Hz</b>	2.20	5.18	0.300	10%	70.68%	
	5.05	5.17	0.750	25%	76.78%	<b>77.32%</b>
	9.93	5.16	1.500	50%	77.92%	
	14.93	5.15	2.250	75%	77.54%	
	19.99	5.13	3.001	100%	77.04%	

### 3.2 AC/DC Only Efficiency

The efficiency measurements below were measured from the AC input to C7 (before TPS25810 load switch).



Vin	Pin	Vout	Iout	Load	Efficiency	Avg. Eff.
<b>120VAC/60Hz</b>	2.03	5.20	0.300	10%	76.73%	
	4.90	5.21	0.749	25%	79.59%	<b>80.01%</b>
	9.81	5.24	1.500	50%	80.06%	
	14.77	5.27	2.250	75%	80.20%	
	19.88	5.30	3.005	100%	80.17%	
<b>230VAC/50Hz</b>	2.20	5.20	0.300	10%	70.87%	
	5.05	5.21	0.750	25%	77.35%	<b>78.86%</b>
	9.93	5.24	1.500	50%	79.13%	
	14.93	5.27	2.250	75%	79.41%	
	19.99	5.30	3.001	100%	79.54%	

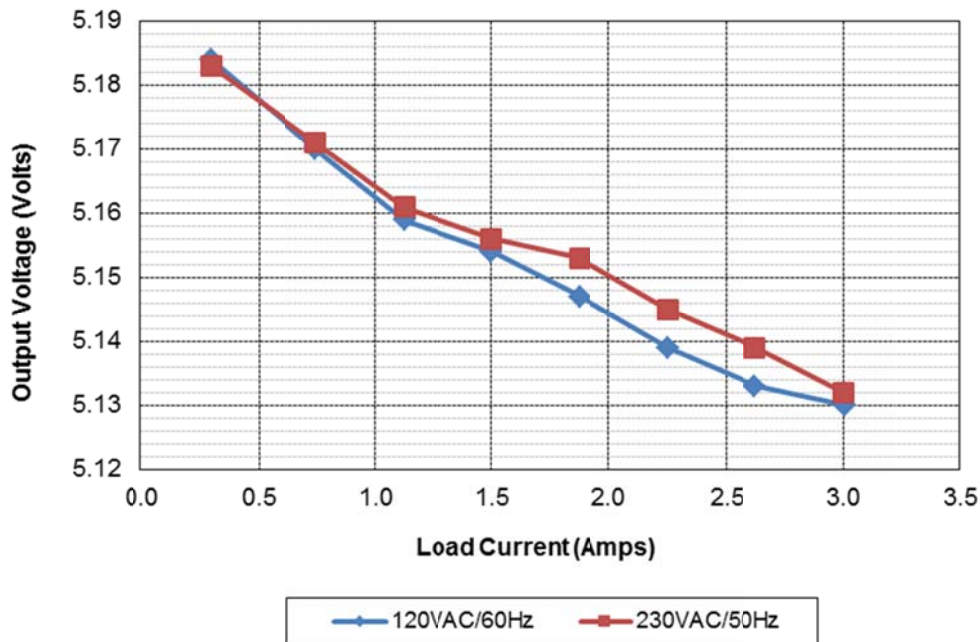
### 3.3 Raw Efficiency Data

Iout	Vout AC/DC	Vout USB-C	Vin	Iin	Pin	PF	Pout AC/DC	Pout USB-C	Losses	Efficiency AC/DC	Efficiency USBC
0.000	5.230		120.0	0.00487	0.0372		0.00	0.00	0.04	0.0%	0.0%
0.300	5.197	5.184	120.0	0.0500	2.032	0.339	1.56	1.56	0.47	76.7%	76.5%
0.749	5.209	5.170	119.9	0.100	4.902	0.408	3.90	3.87	1.00	79.6%	79.0%
1.125	5.218	5.159	119.9	0.138	7.340	0.445	5.87	5.80	1.47	80.0%	79.1%
1.500	5.236	5.154	119.9	0.173	9.810	0.473	7.85	7.73	1.96	80.1%	78.8%
1.876	5.250	5.147	119.9	0.207	12.29	0.496	9.85	9.66	2.44	80.1%	78.6%
2.250	5.265	5.139	119.9	0.239	14.77	0.514	11.85	11.56	2.92	80.2%	78.3%
2.625	5.282	5.133	119.9	0.272	17.29	0.530	13.87	13.47	3.42	80.2%	77.9%
3.005	5.304	5.130	119.9	0.305	19.88	0.544	15.94	15.42	3.94	80.2%	77.5%

Iout	Vout AC/DC	Vout USB-C	Vin	Iin	Pin	PF	Pout AC/DC	Pout USB-C	Losses	Efficiency AC/DC	Efficiency USBC
0.000	5.662		230.0	0.00750	0.0652		0.00	0.00	0.07	0.0%	0.0%
0.300	5.197	5.183	230.0	0.0366	2.200	0.261	1.56	1.55	0.64	70.9%	70.7%
0.750	5.209	5.171	230.0	0.072	5.051	0.307	3.91	3.88	1.14	77.3%	76.8%
1.125	5.220	5.161	230.0	0.096	7.460	0.338	5.87	5.81	1.59	78.7%	77.8%
1.500	5.236	5.156	230.0	0.119	9.925	0.361	7.85	7.73	2.07	79.1%	77.9%
1.875	5.254	5.153	230.0	0.142	12.42	0.381	9.85	9.66	2.57	79.3%	77.8%
2.250	5.269	5.145	230.0	0.163	14.93	0.398	11.86	11.58	3.07	79.4%	77.5%
2.625	5.284	5.139	230.0	0.184	17.45	0.530	13.87	13.49	3.58	79.5%	77.3%
3.001	5.298	5.132	230.0	0.203	19.99	0.427	15.90	15.40	4.09	79.5%	77.0%

## 4 Regulation

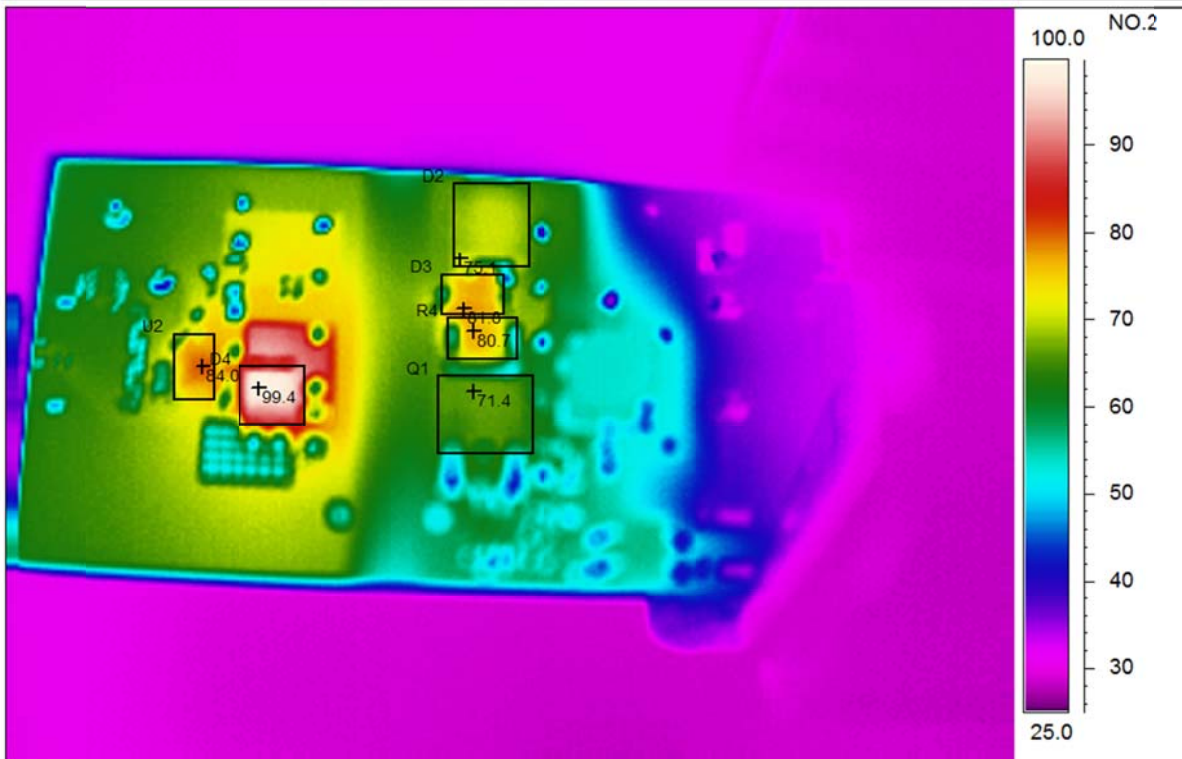
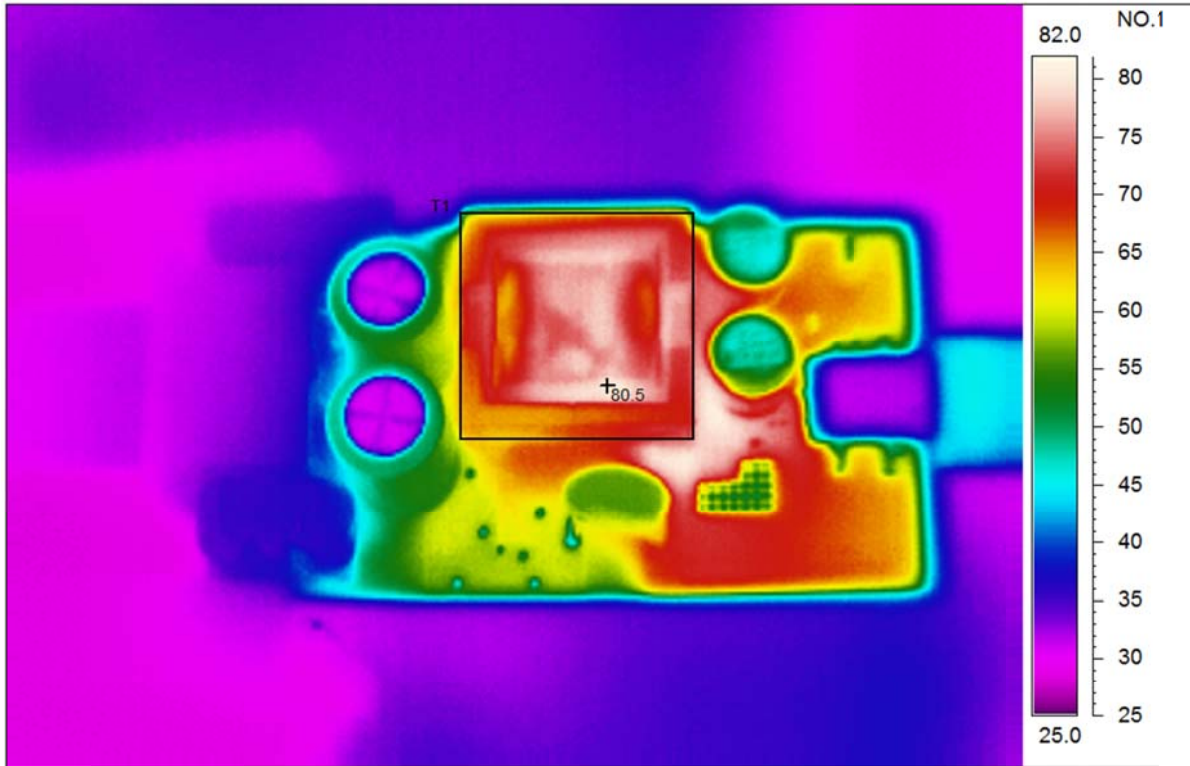
Measured at TP3/TP2.



## 5 Thermal Images

The thermal images below show the output loaded with 3A. The ambient temperature was 25°C.

### 5.1 120VAC/60Hz





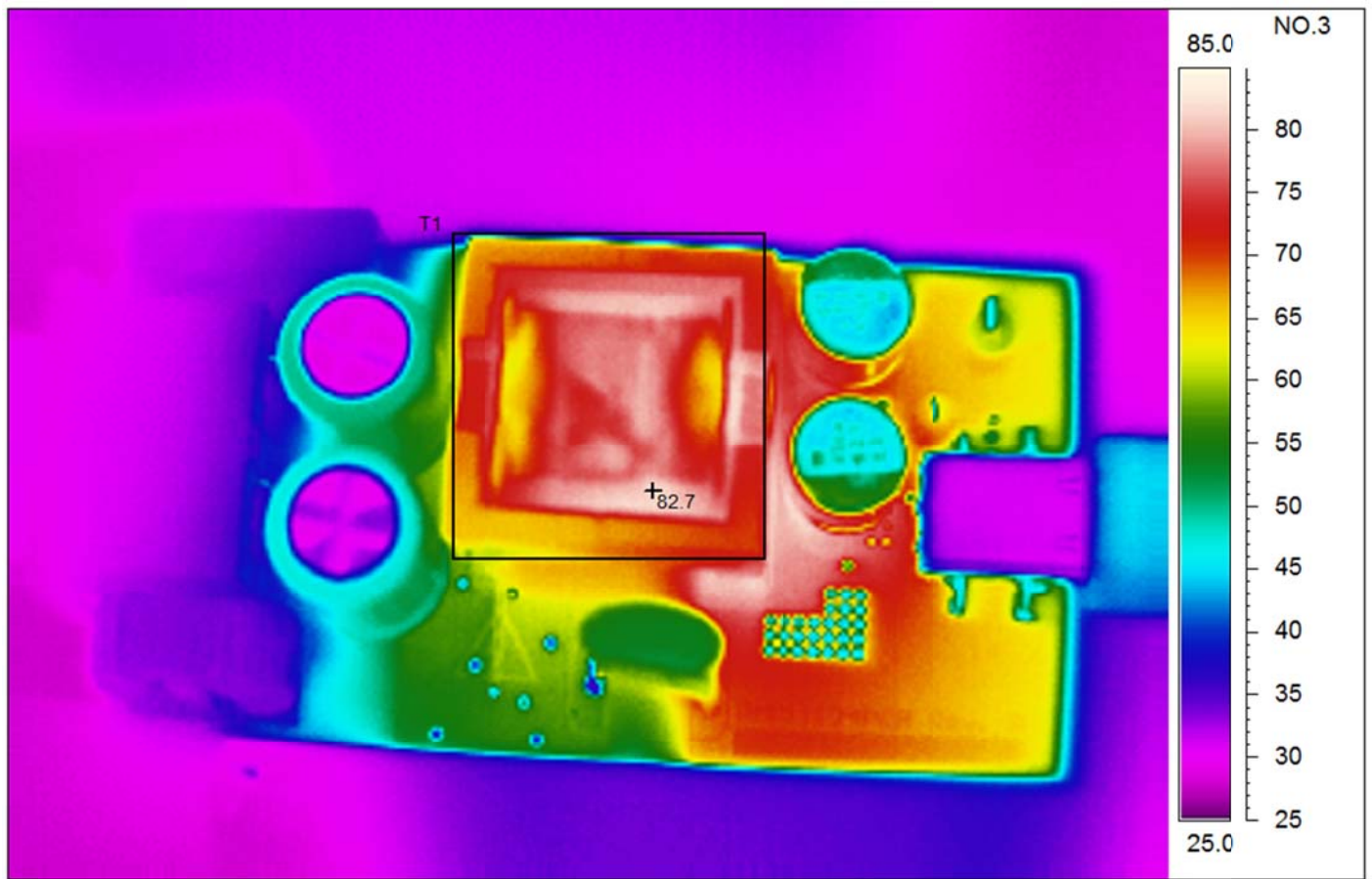
Area analysis	Value
T1 Max	80.5°C

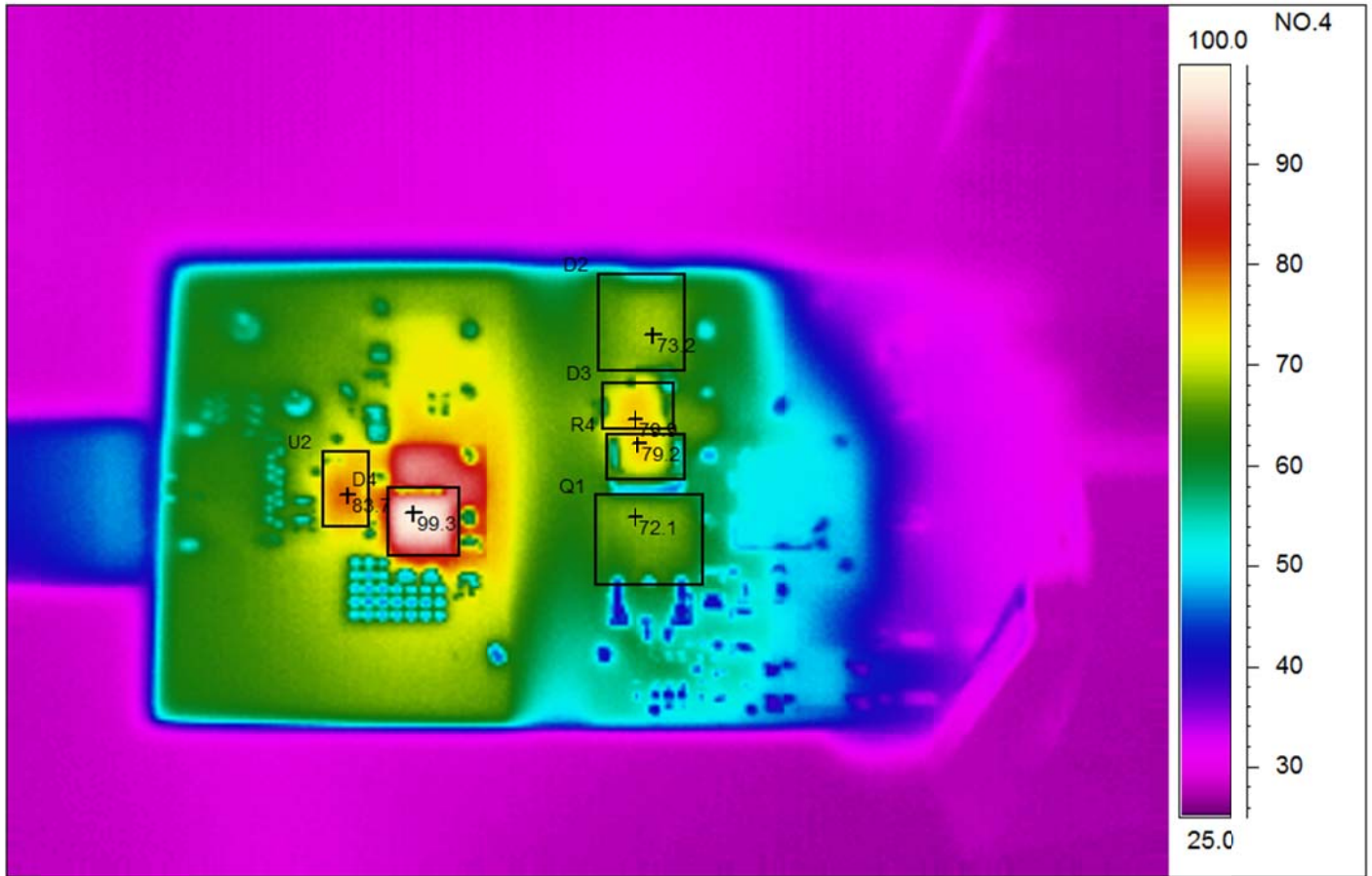
NO.1

Area analysis	Value
U2Max	84.0°C
D4Max	99.4°C
Q1Max	71.4°C
R4Max	80.7°C
D3Max	81.8°C
D2 Max	75.1°C

NO.2

5.2 230VAC/50Hz



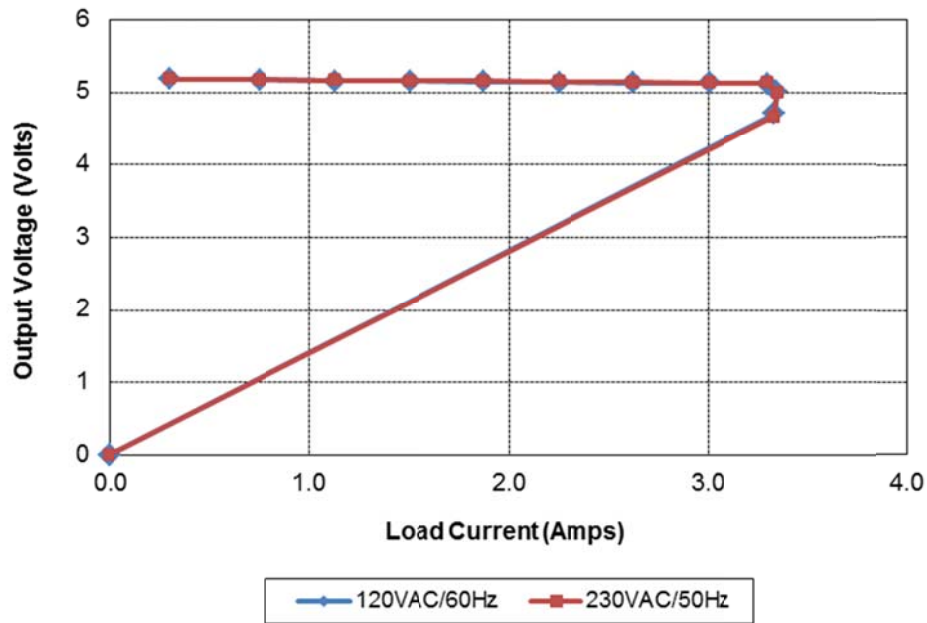


Area analysis	Value	NO.3
T1 Max	82.7°C	

Area analysis	Value	NO.4
U2Max	83.7°C	
D4Max	99.3°C	
Q1Max	72.1°C	
R4Max	79.2°C	
D3Max	79.9°C	
D2 Max	73.2°C	

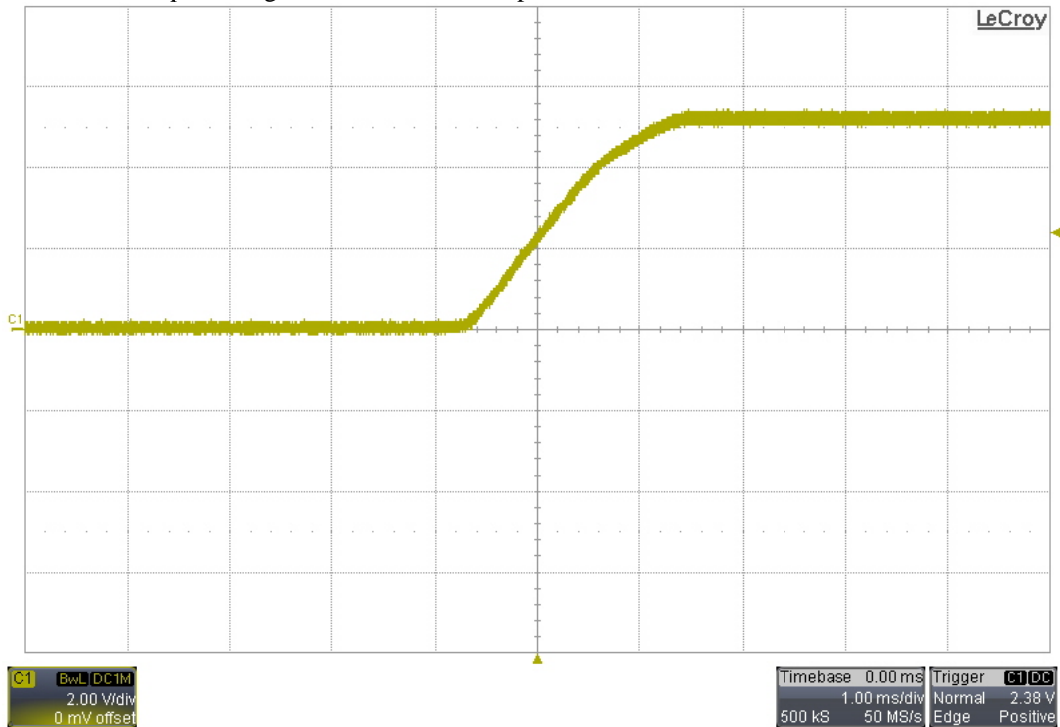
## 6 Current Limit

The plot below shows the output voltage on TP3/TP2 versus output current as the load is increased into current limit.



## 7 Startup

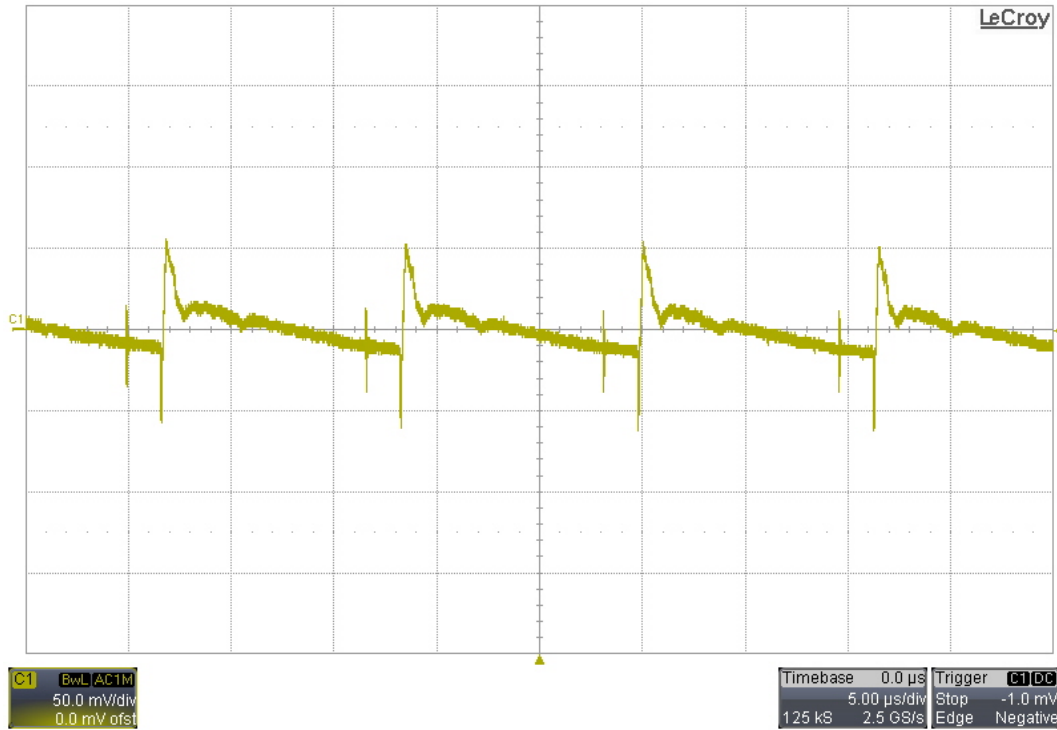
The image below shows the output voltage on TP3/TP2 at startup with no load.



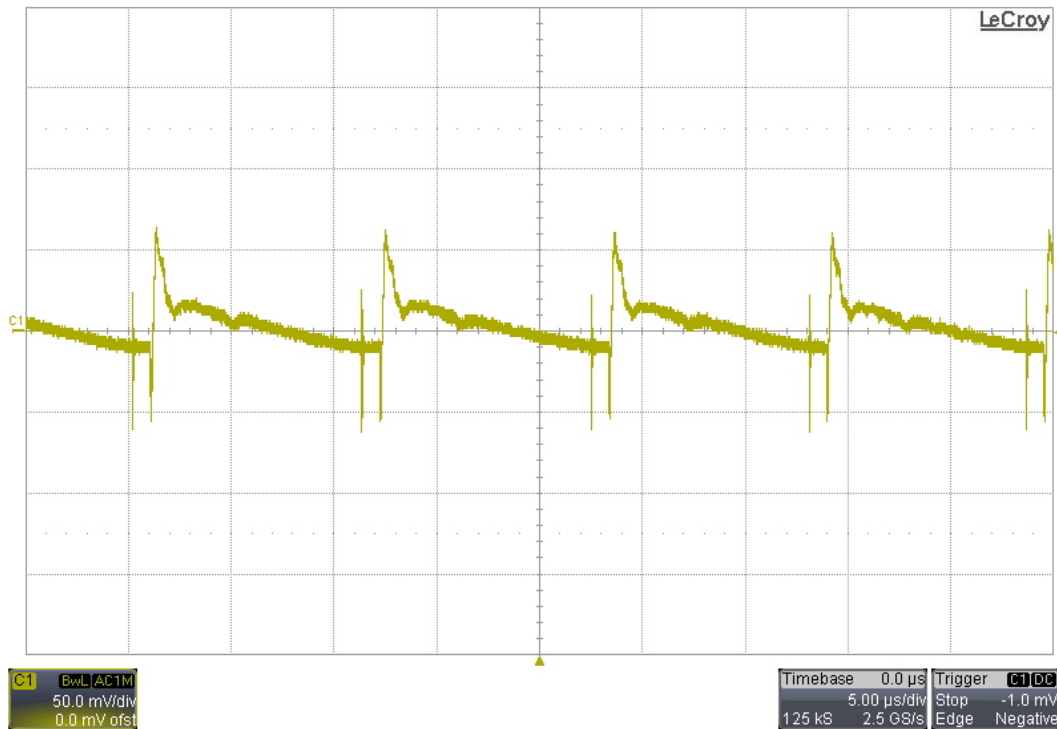


## 8 Output Ripple Voltage

### 8.1 120VAC/60Hz – Measured at TP3/TP2 – 3A Load

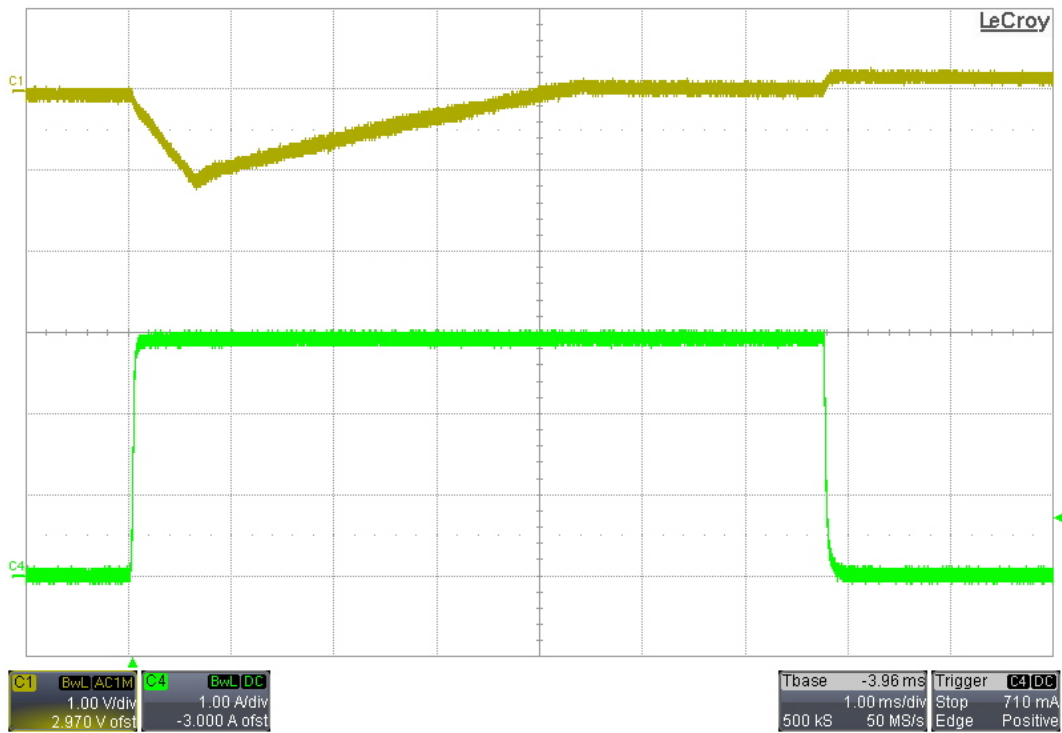


### 8.2 230VAC/50Hz – Measured at TP3/TP2 – 3A Load

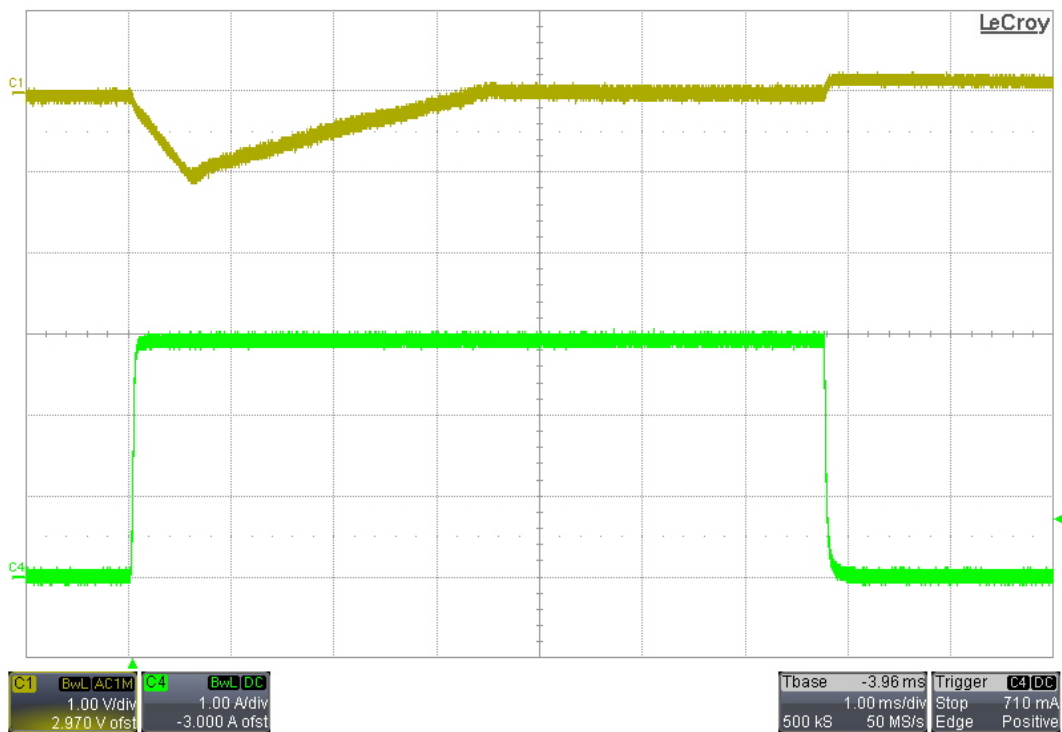


## 9 Load Transients

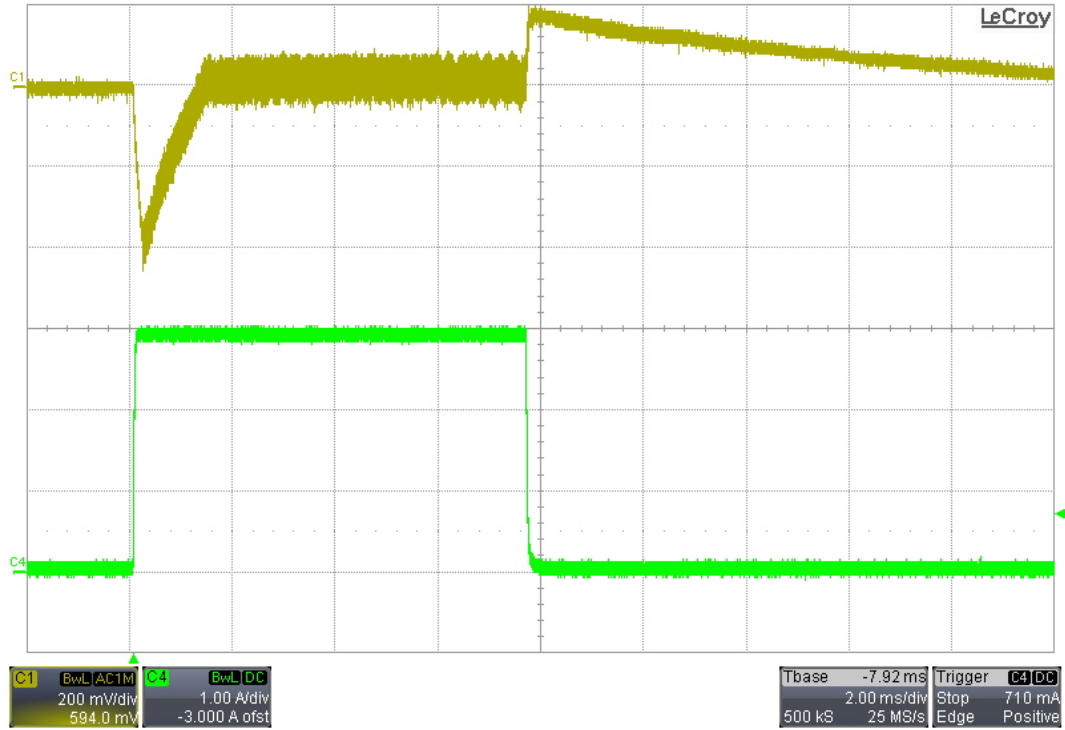
### 9.1 0A to 3A; Transient 120VAC/60Hz Input



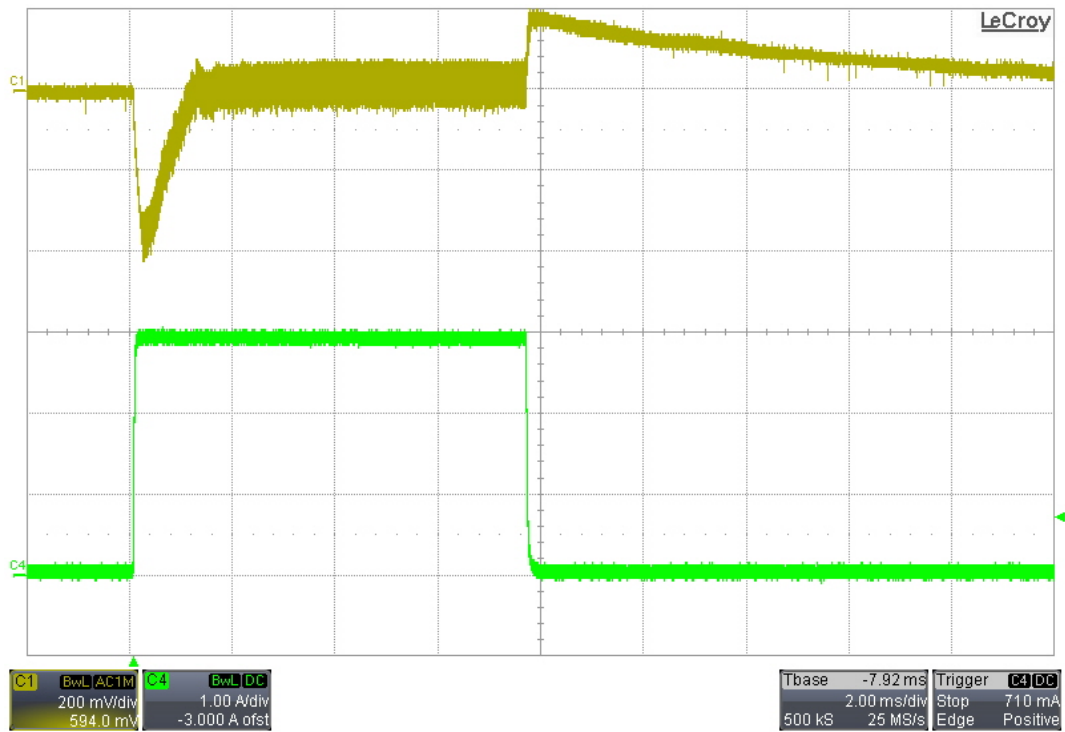
### 9.2 0A to 3A Transient; 230VAC/50Hz Input



## 9.3 50mA to 3A Transient; 120VAC/60Hz Input



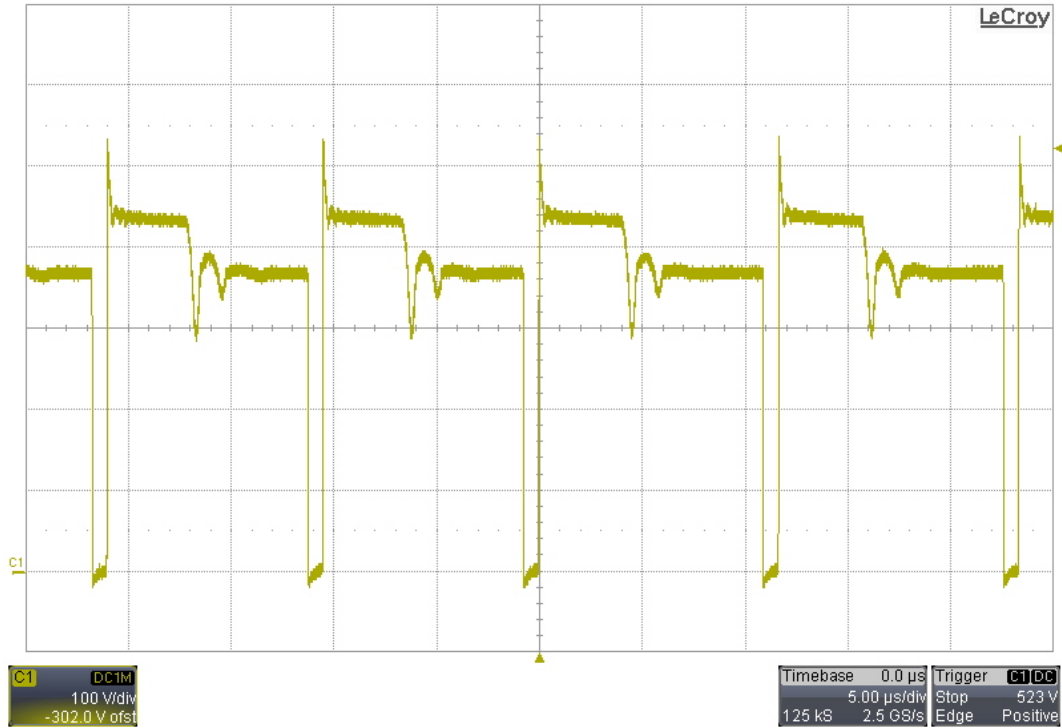
## 9.4 50mA to 3A Transient; 230VAC/50Hz Input



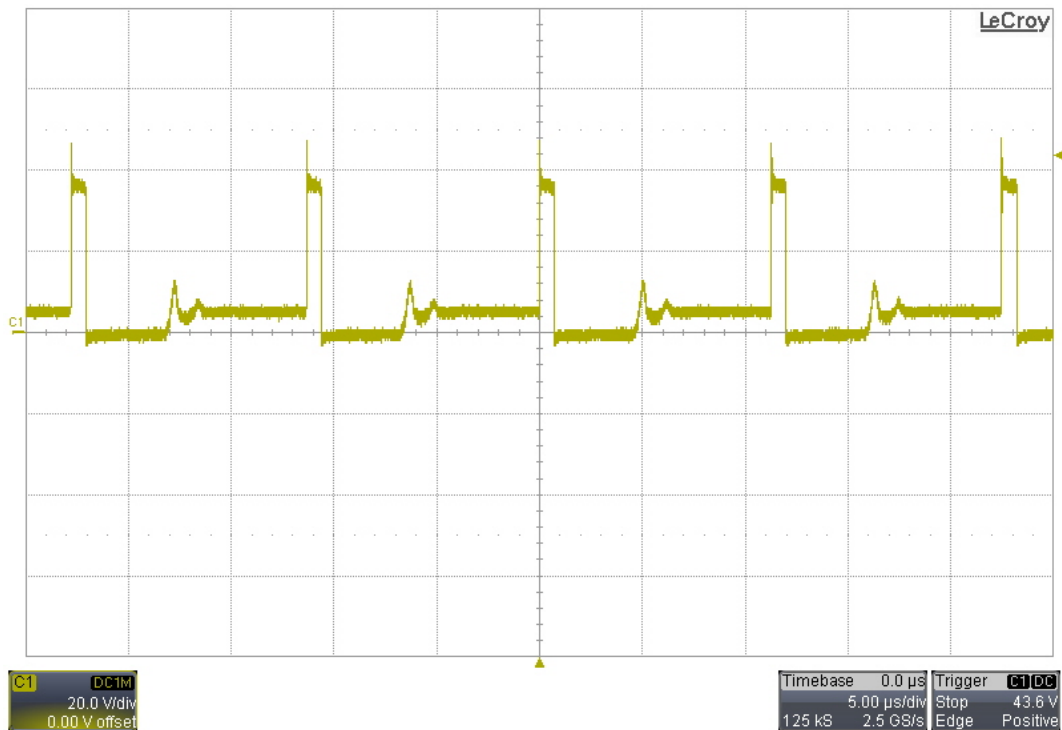
## 10 Switching Waveforms

The input was 265VAC/50Hz, and the output was loaded with 3A.

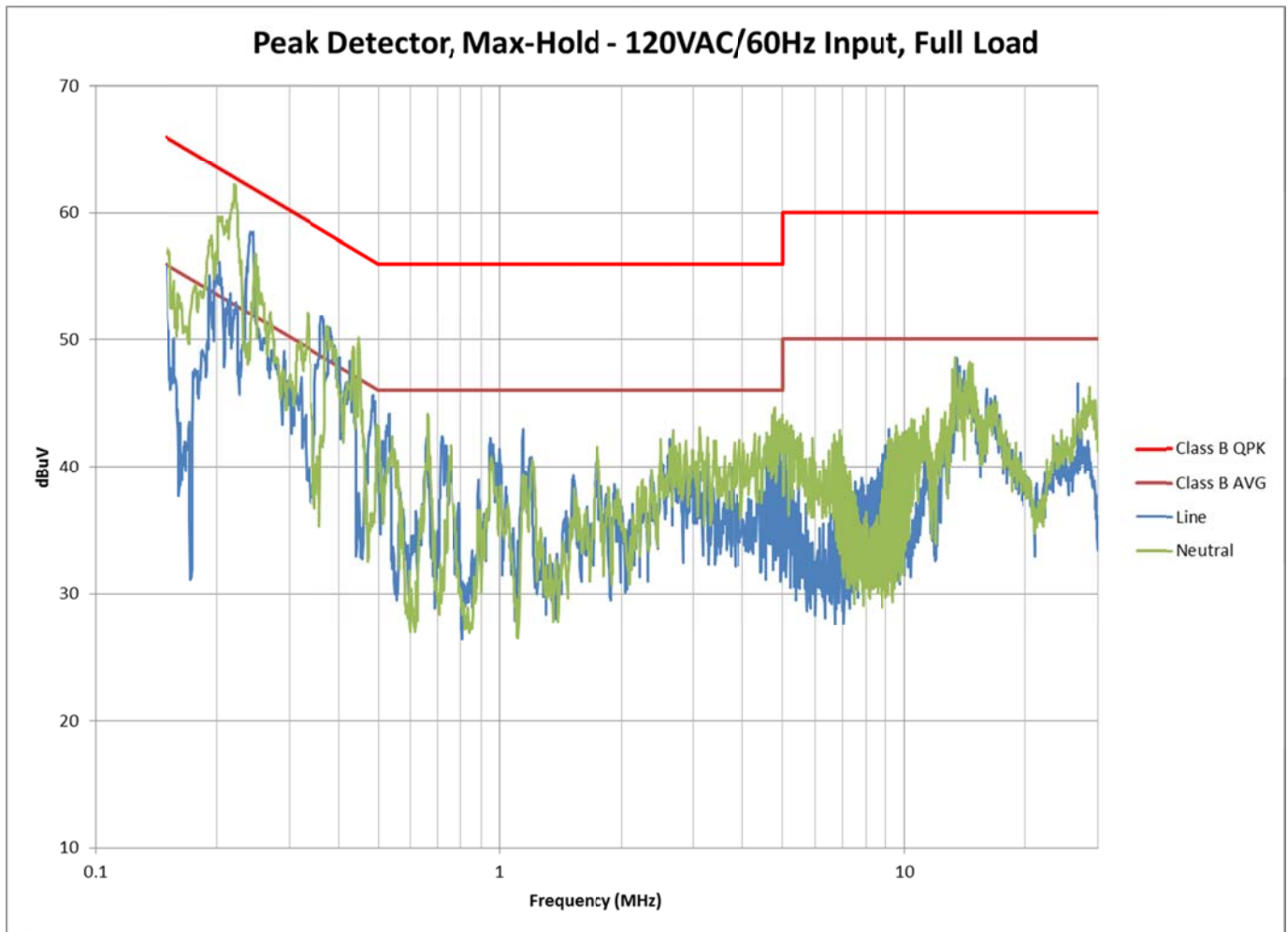
### 10.1 Drain of Primary FET – Q1



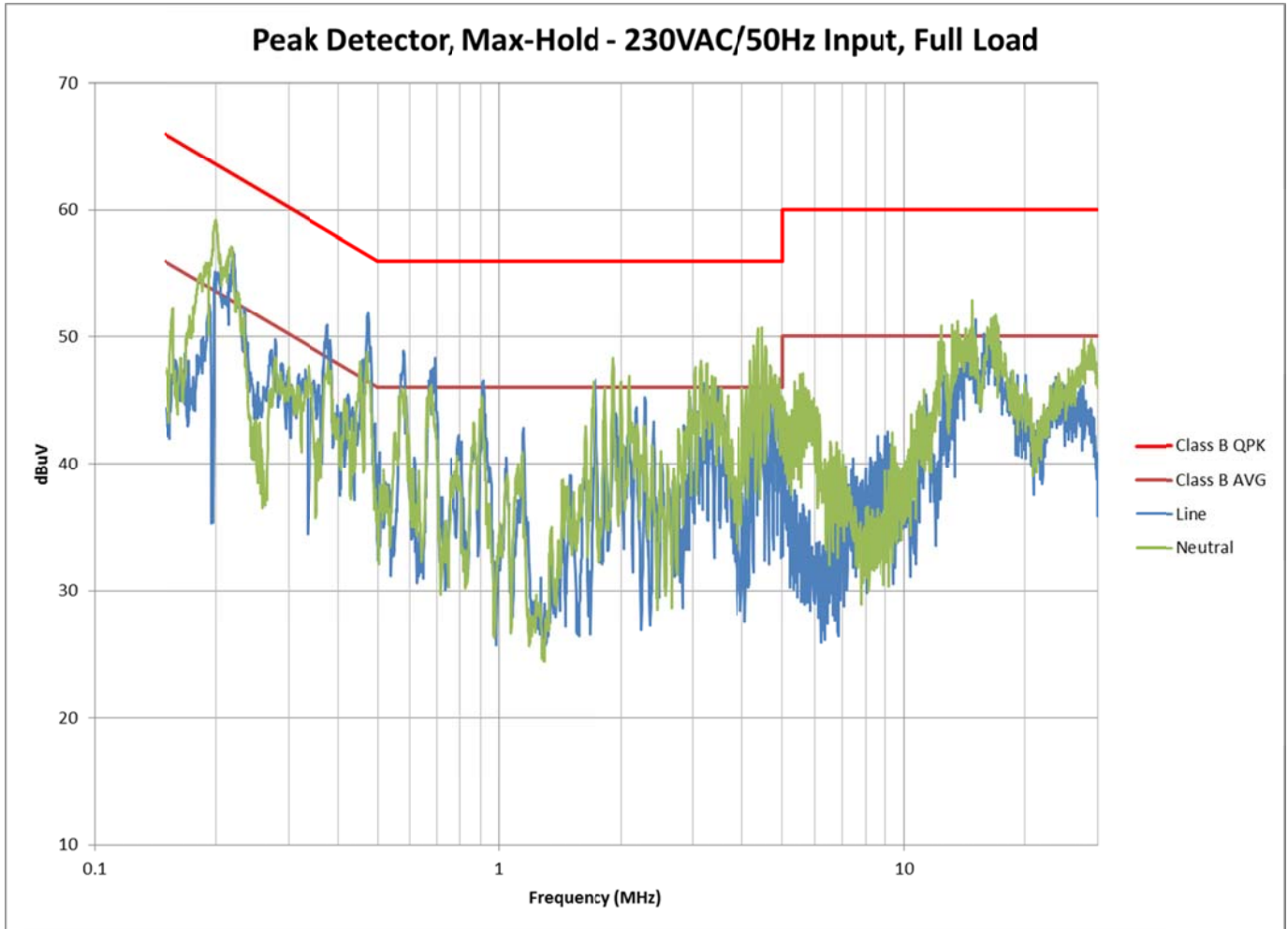
### 10.2 Cathode of Output Diode – D4



### 11 Conducted Emissions







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