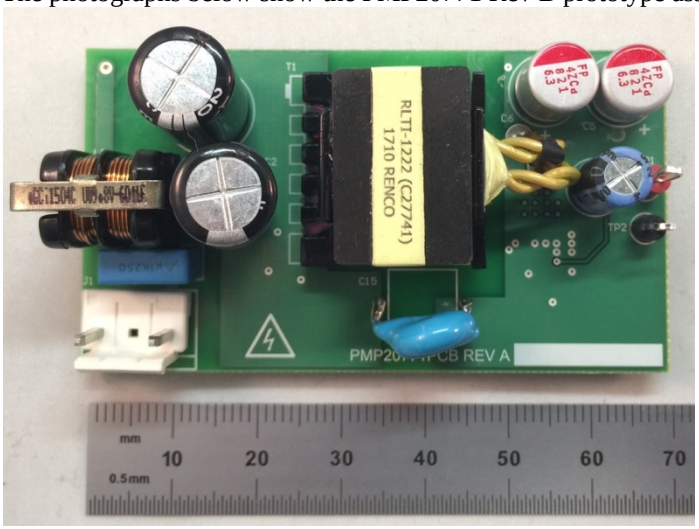
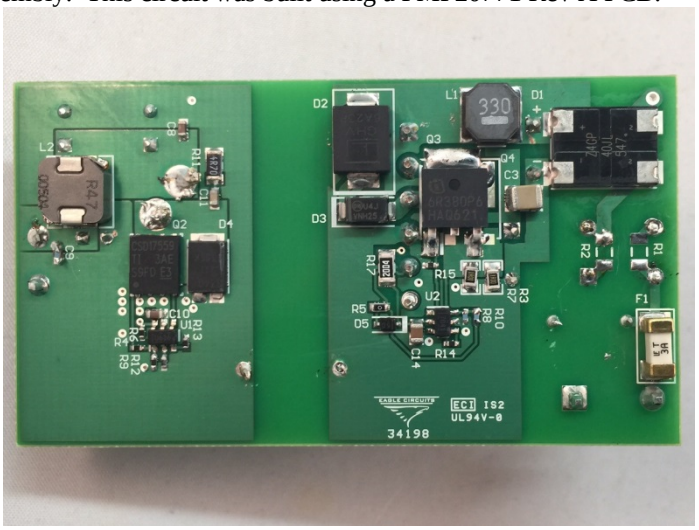
# PMP20771 Rev B
# 120VAC Input; 5V/5A PSR Flyback
# Test Results

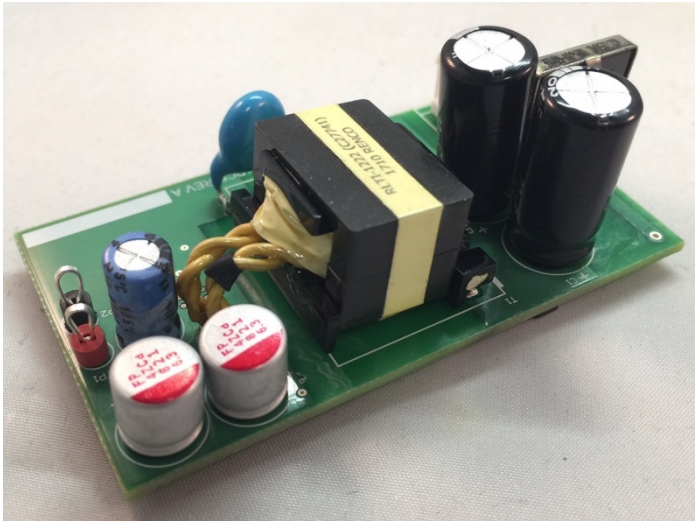
## Contents

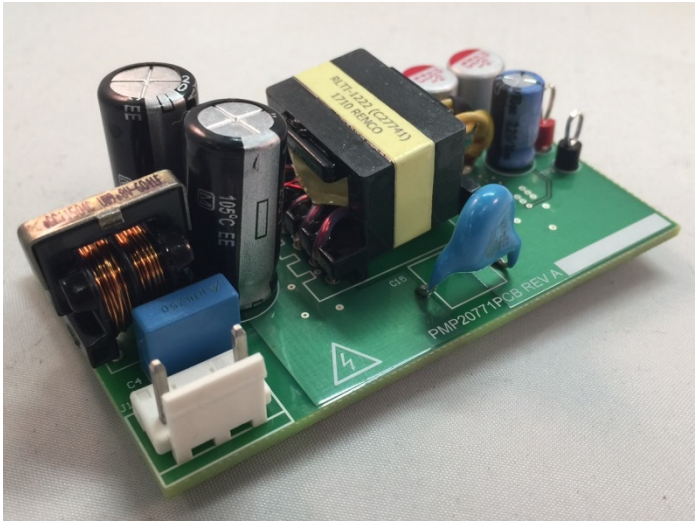
# 1 Photos

The photographs below show the PMP20771 Rev B prototype assembly. This circuit was built using a PMP20771 Rev A PCB.






# 2 Standby Power (No Load)

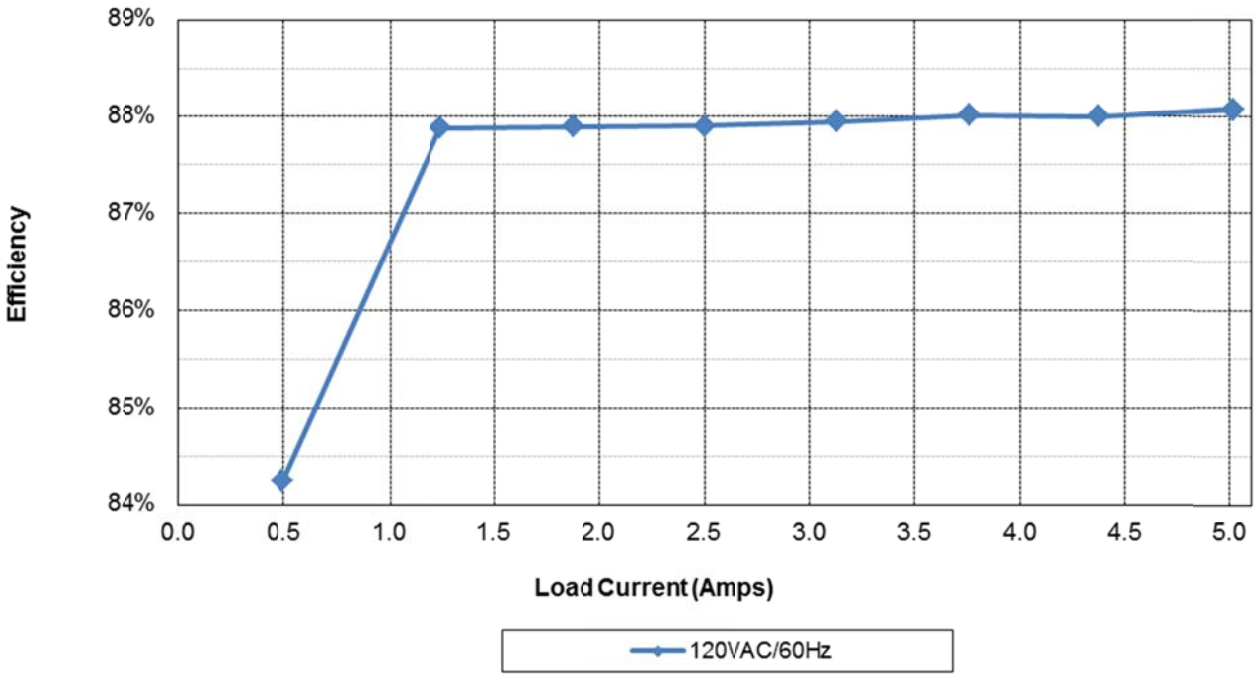
| Input Voltage | Input Power |
|---|---|
| 120VAC/60Hz | 67.1mW |

# 3 Efficiency

## 3.1 Average Efficiency

| Vin | Pin | Vout | Iout | Load | Efficiency | Avg. Eff. |
|---|---|---|---|---|---|---|
| **120VAC/60Hz** | 3.04 | 5.20 | 0.492 | 10% | 84.24% | |
| | 7.27 | 5.13 | 1.245 | 25% | 87.89% | **87.97%** |
| | 14.74 | 5.18 | 2.500 | 50% | 87.91% | |
| | 22.39 | 5.24 | 3.763 | 75% | 88.02% | |
| | 30.14 | 5.29 | 5.020 | 100% | 88.07% | |

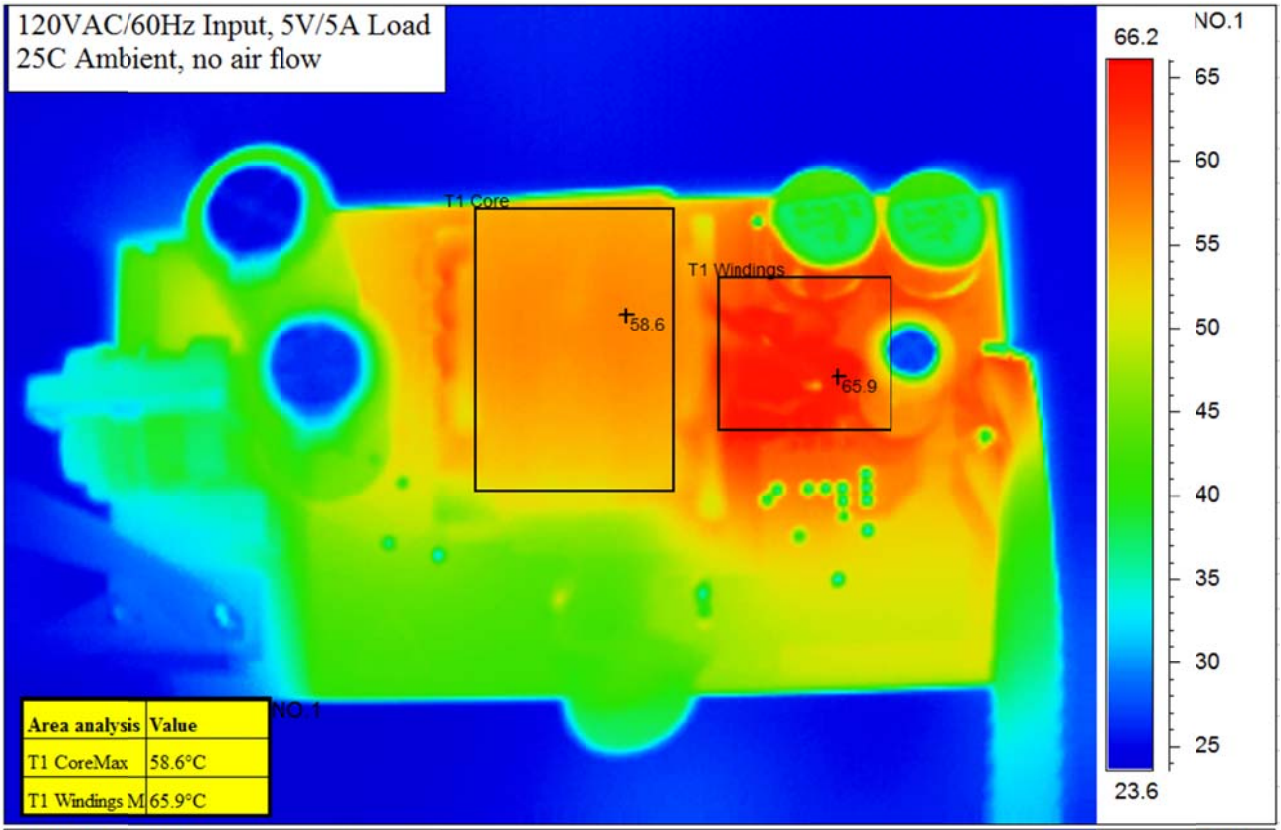
## 3.2 Charts

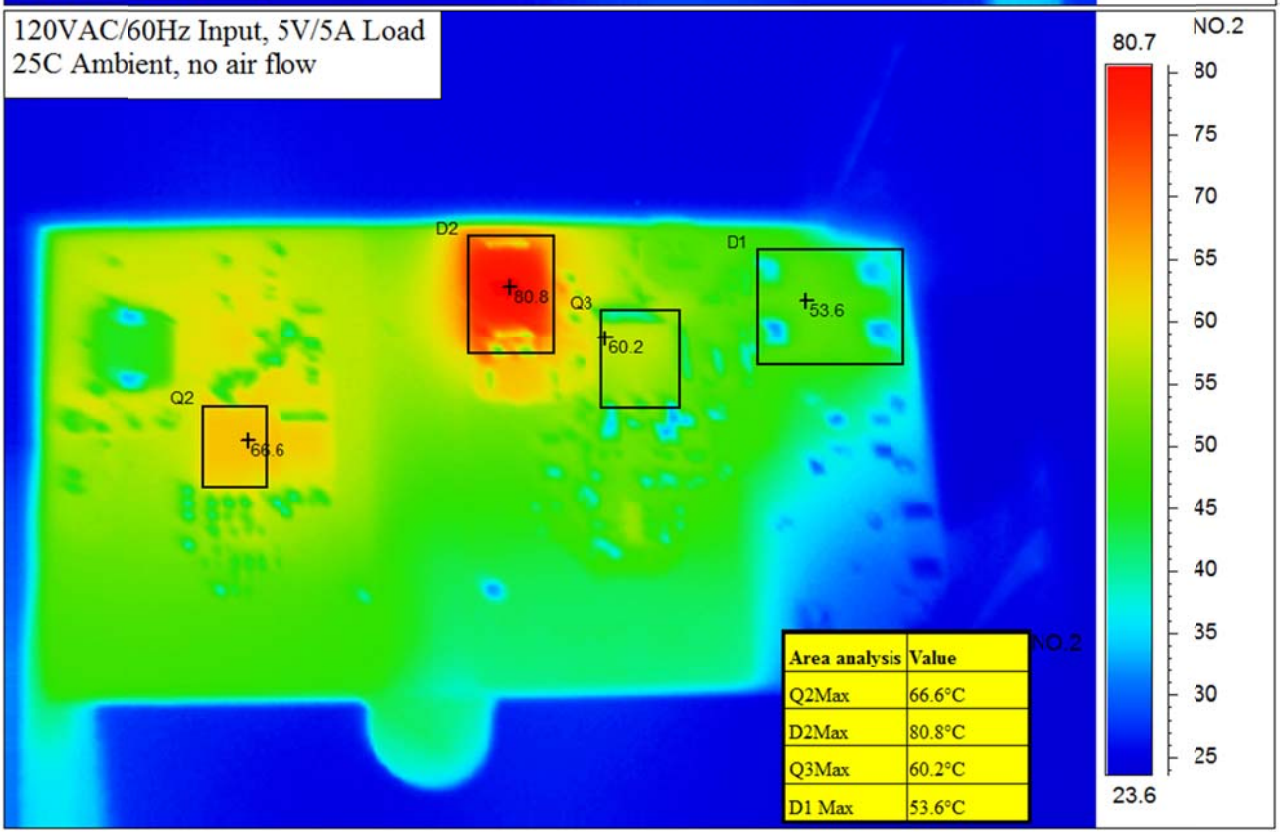



## 3.3 Raw Data

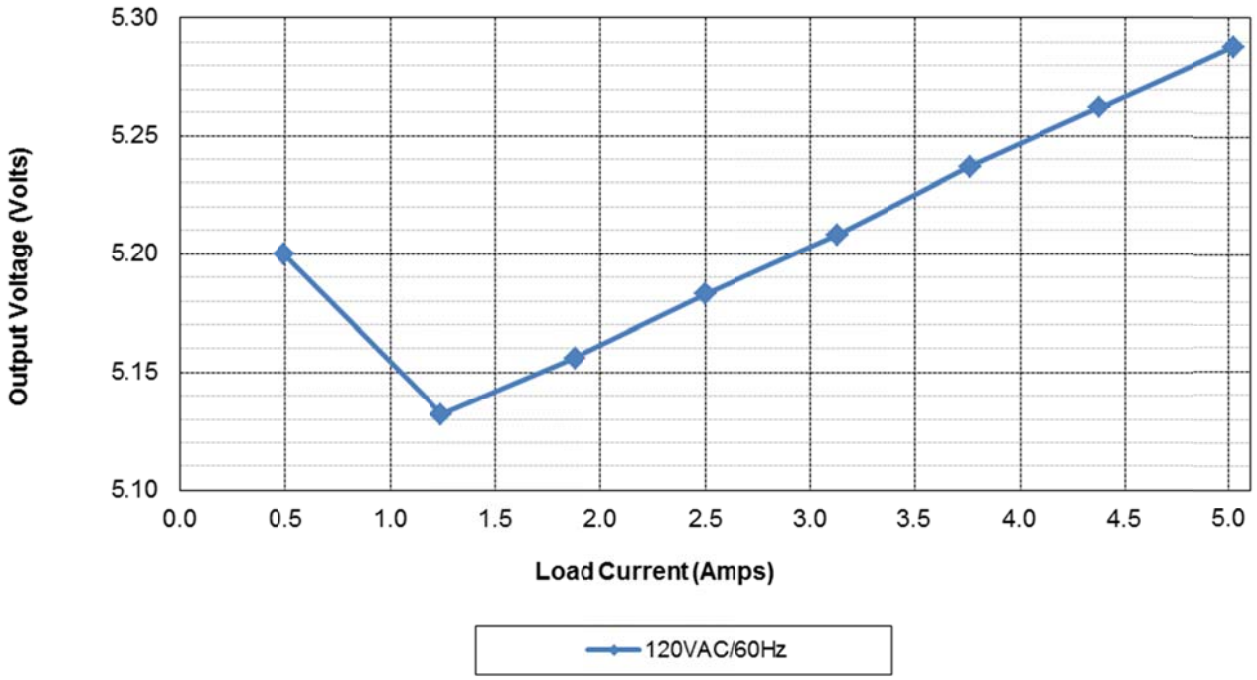
| **120VAC/60Hz** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Iout | Vout | Vin | Iin | Pin | PF | Pout | Losses | Efficiency |
| 0.000 | 5.400 | 120.0 | 0.061 | 0.0671 | | 0.00 | 0.07 | 0.0% |
| 0.492 | 5.200 | 120.0 | 0.082 | 3.037 | 0.309 | 2.56 | 0.48 | 84.2% |
| 1.245 | 5.132 | 120.0 | 0.164 | 7.270 | 0.370 | 6.39 | 0.88 | 87.9% |
| 1.877 | 5.156 | 120.0 | 0.225 | 11.010 | 0.408 | 9.68 | 1.33 | 87.9% |
| 2.500 | 5.183 | 120.0 | 0.282 | 14.740 | 0.436 | 12.96 | 1.78 | 87.9% |
| 3.131 | 5.208 | 120.0 | 0.337 | 18.54 | 0.459 | 16.31 | 2.23 | 88.0% |
| 3.763 | 5.237 | 120.0 | 0.390 | 22.39 | 0.479 | 19.71 | 2.68 | 88.0% |
| 4.38 | 5.262 | 120.0 | 0.441 | 26.19 | 0.494 | 23.05 | 3.14 | 88.0% |
| 5.02 | 5.288 | 120.0 | 0.494 | 30.14 | 0.509 | 26.55 | 3.59 | 88.1% |

## 4 Thermal Images



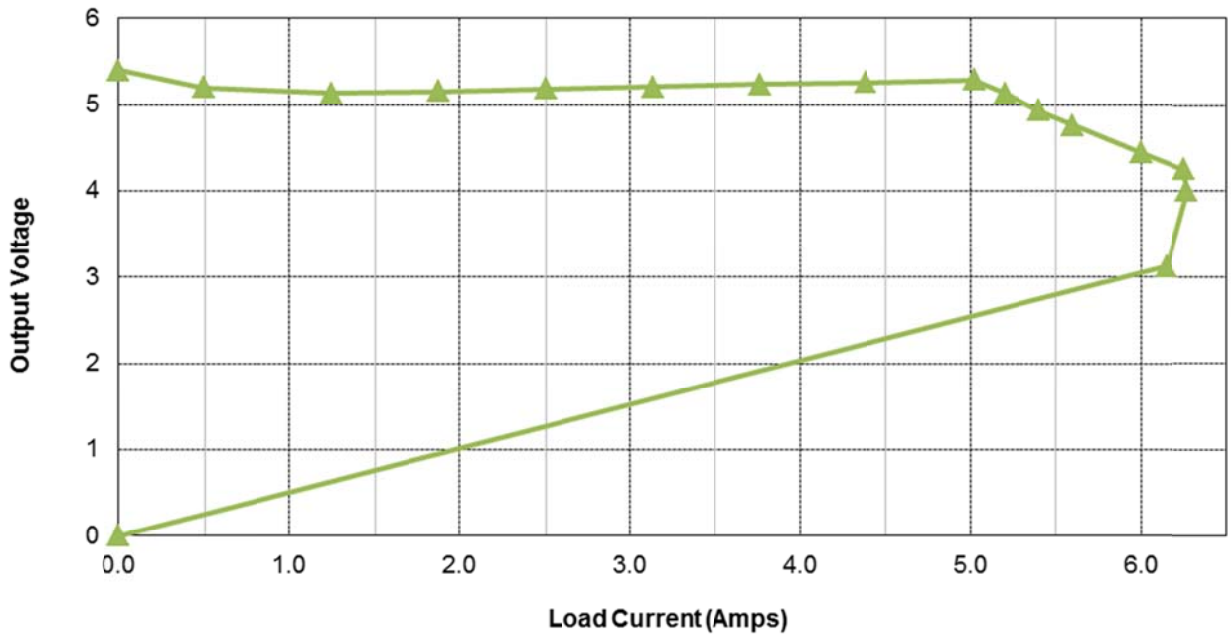



## 5 Regulation

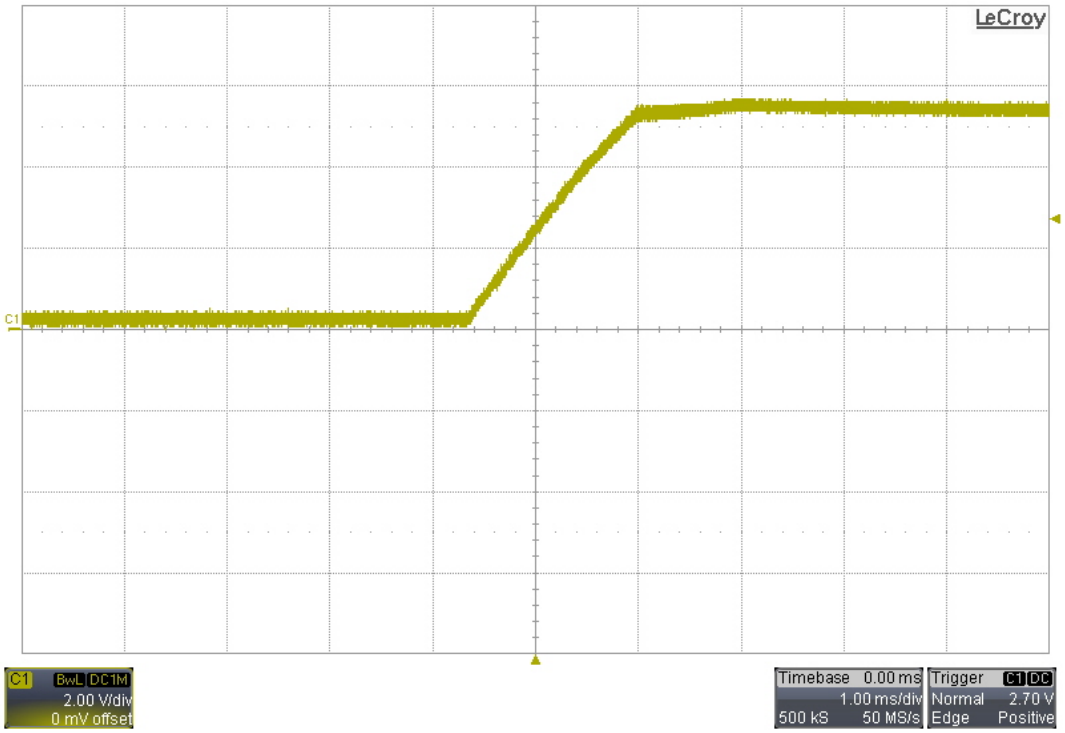



## 6 Current Limit

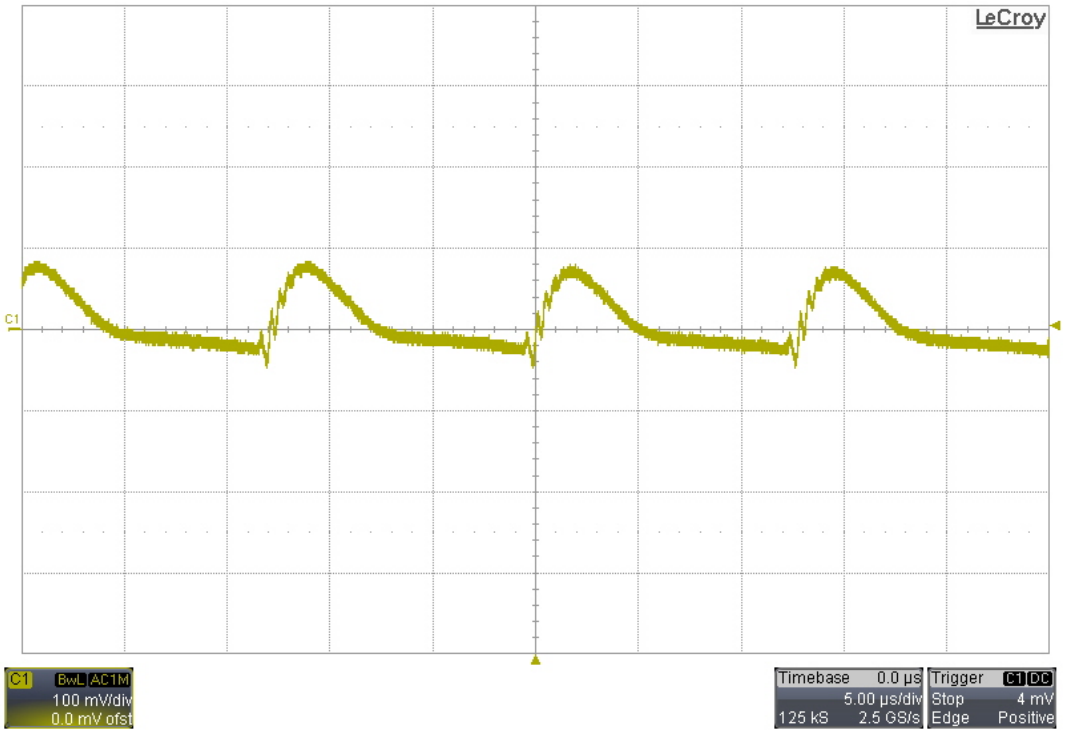
The plot below shows the output voltage versus output current as the load is increased into current limit.



## 7 Startup – No Load

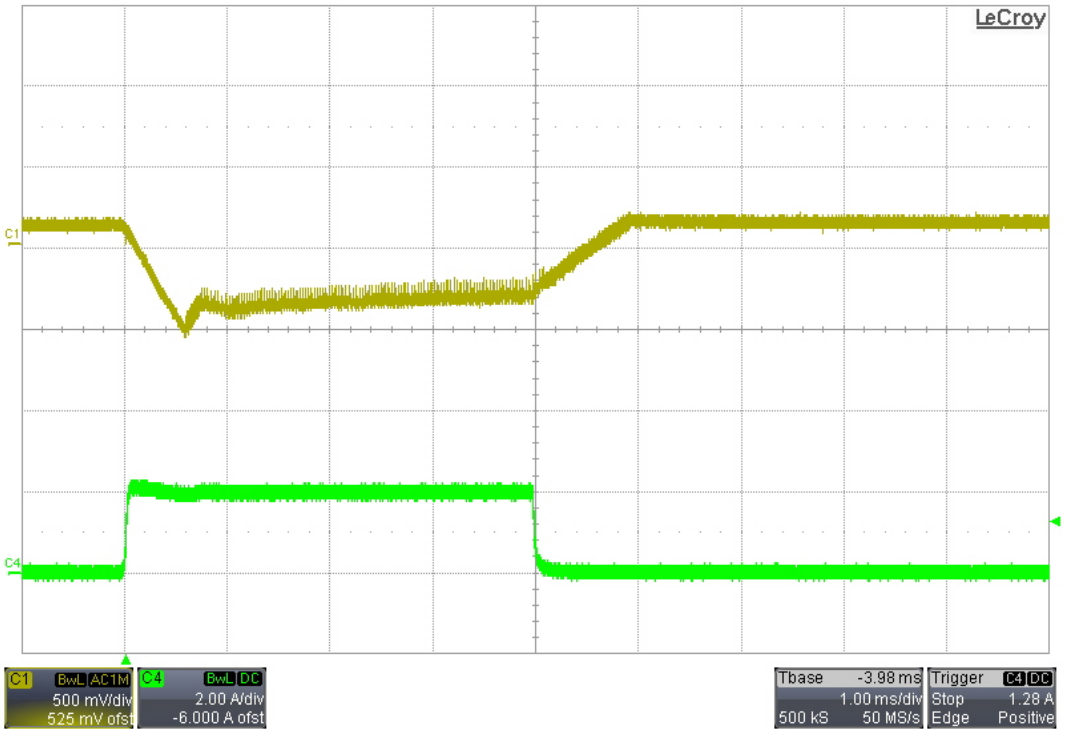



## 8 Output Ripple Voltage – 120VAC/60Hz, 5A Load

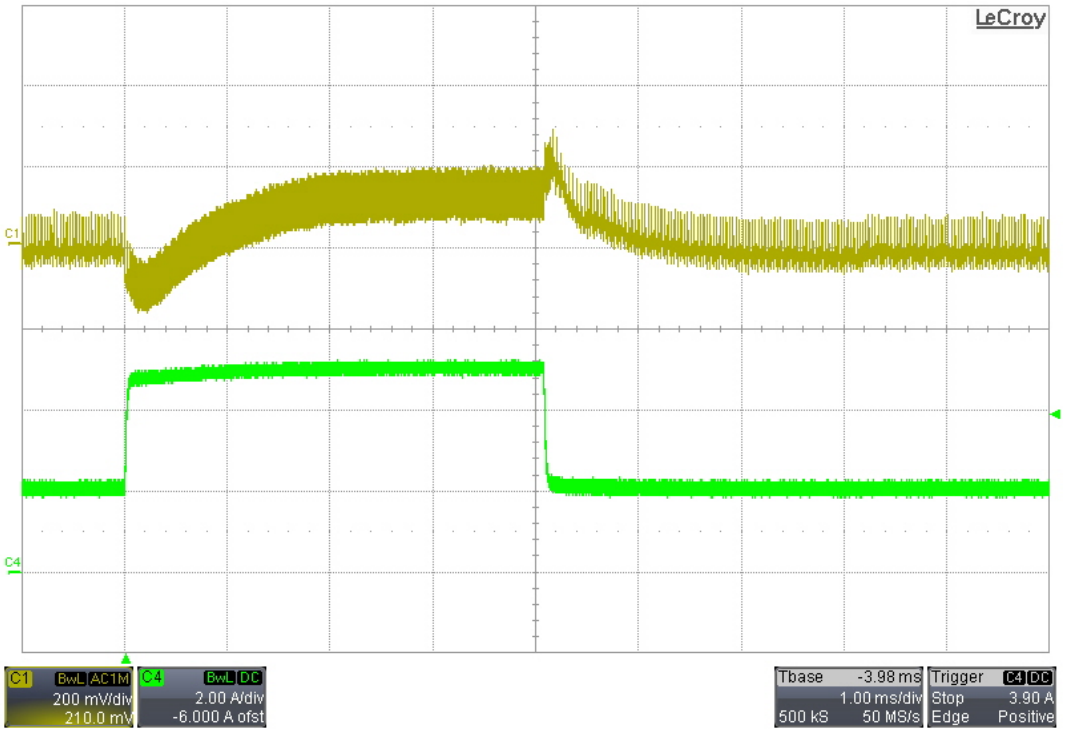


# 9 Load Transients

## 9.1 0A-2A; 120VAC/60Hz Input



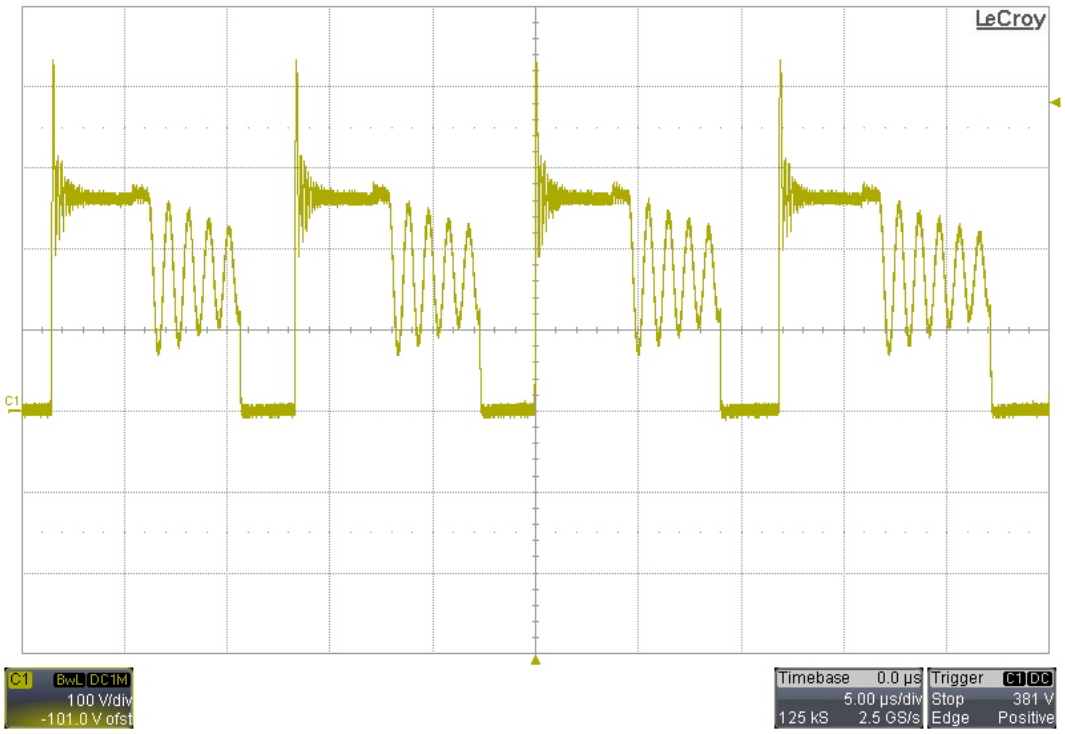

## 9.2 2A-5A; 120VAC/60Hz Input



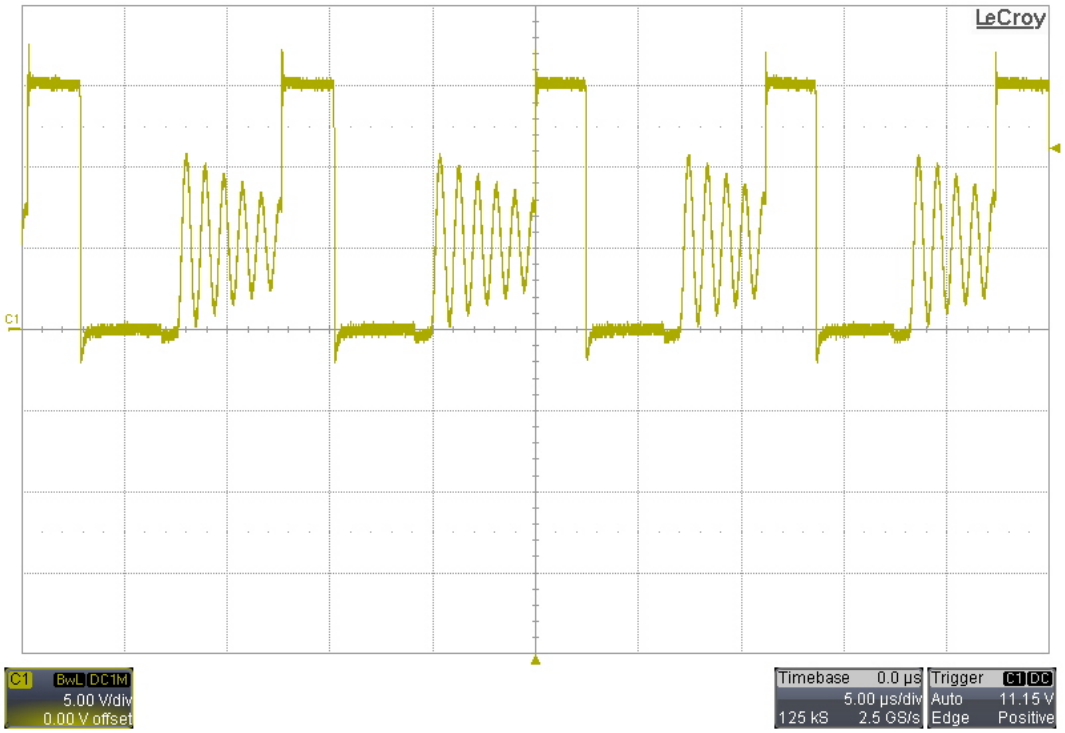
## 10 Switching Waveforms

The input was 132VAC/60Hz, and the output was loaded with 5A.

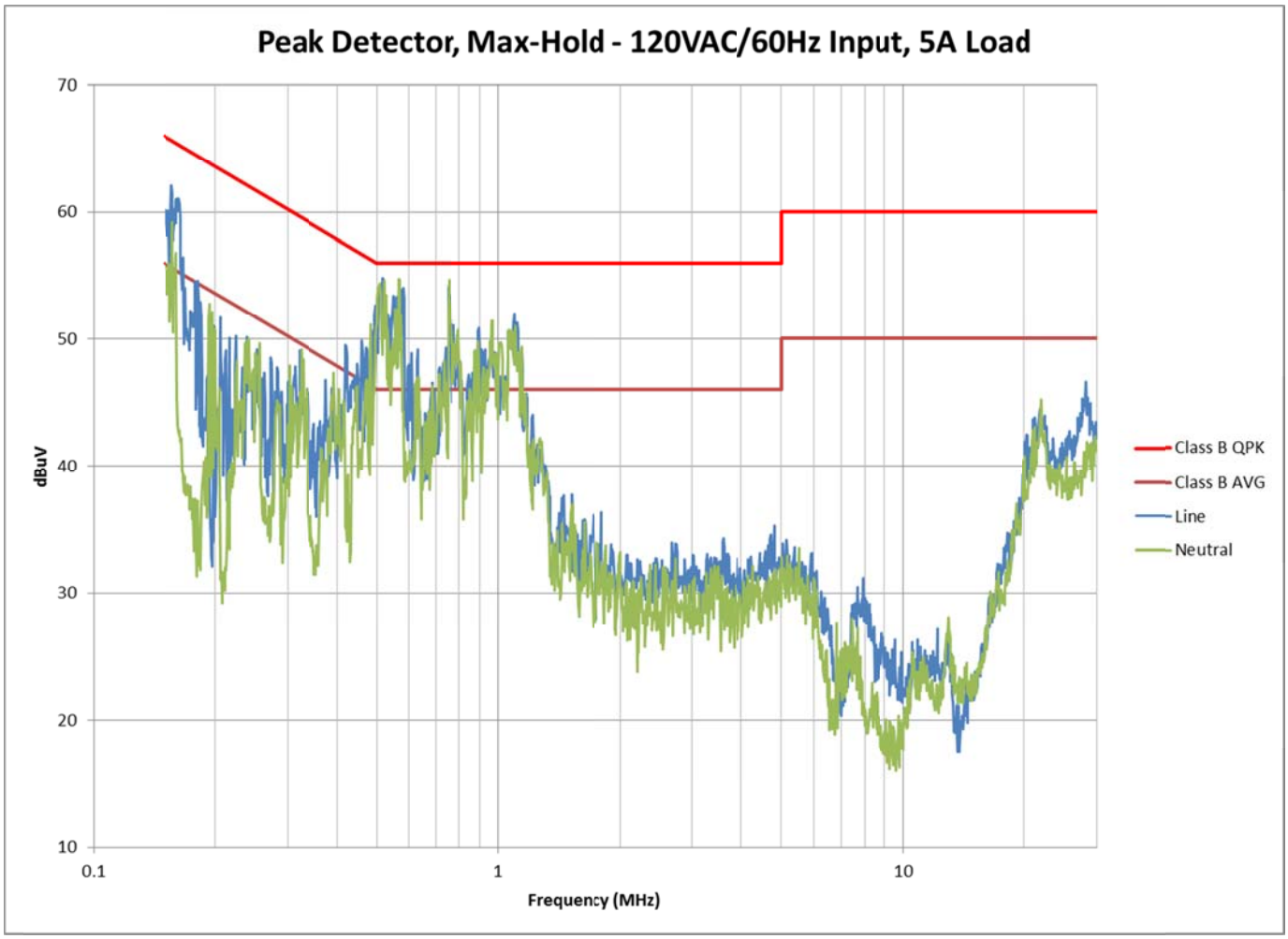
### *10.1 Drain of Primary FET – Q3*




### *10.2 Drain of Sync FET – Q2*



## 11 Conducted Emissions



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