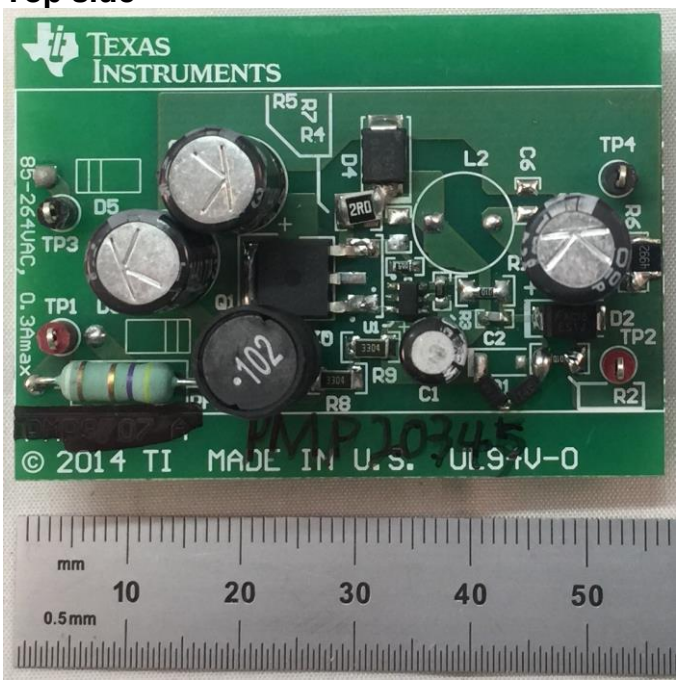
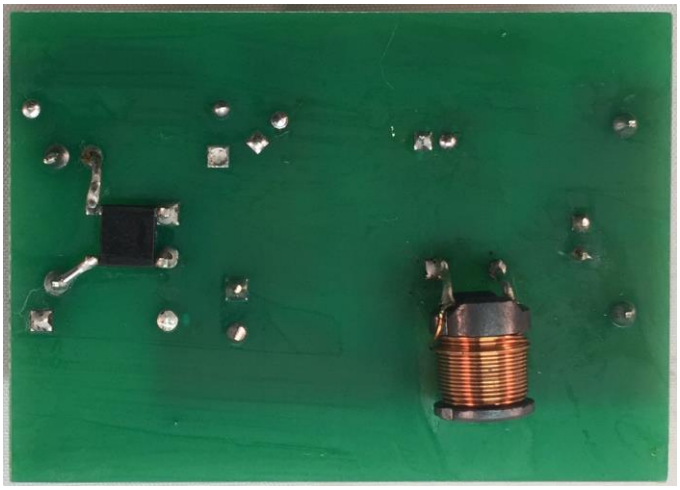
1 Photo

The photographs below show the PMP20345 Rev A assembly. This circuit was built on a PMP9707 Rev A PCB.

Top side



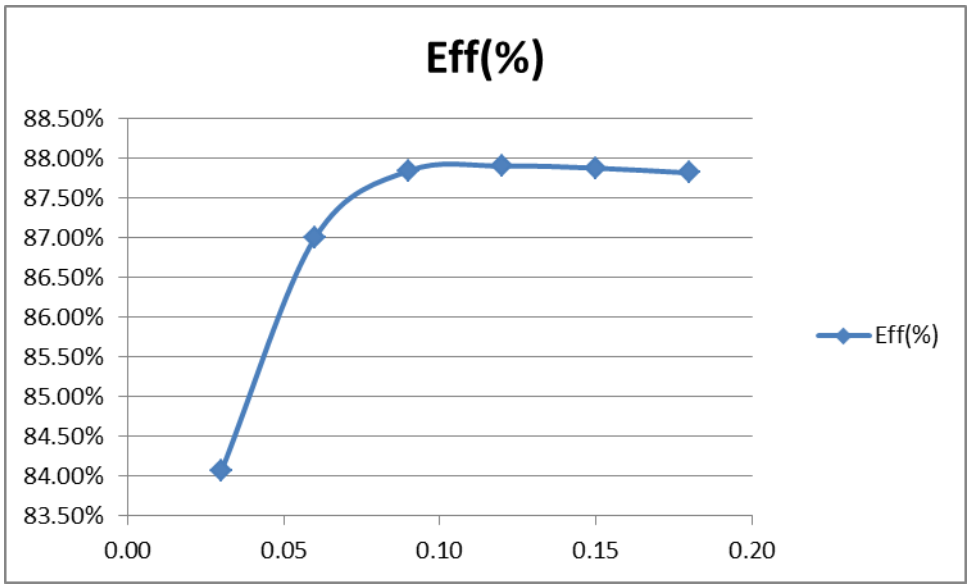
Bottom side



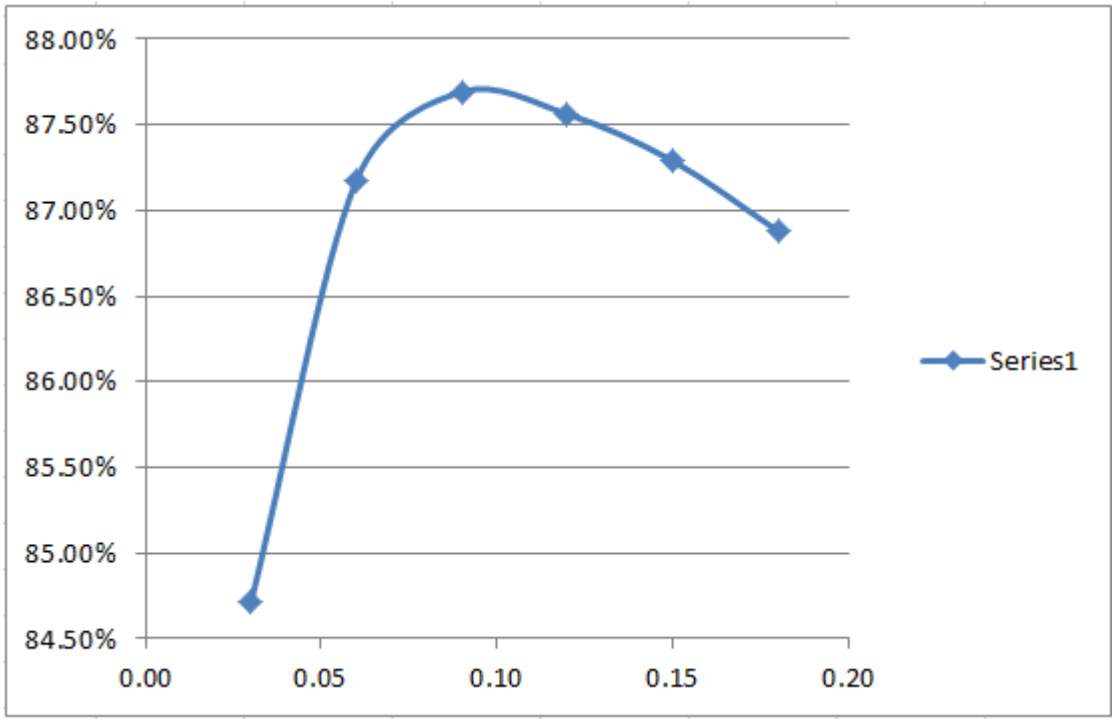
2 Converter efficiency

The efficiency data is shown in the table and graph below

Vin(V)	Pin(W)	Vout(V)	Iout(A)	Pout(W)	Eff(%)
138.08	10.11	49.30	0.18	8.87	87.82%
138.10	8.42	49.30	0.15	7.40	87.88%
138.14	6.73	49.30	0.12	5.92	87.90%
138.16	5.05	49.30	0.09	4.44	87.84%
138.19	3.40	49.30	0.06	2.96	87.00%
138.23	1.76	49.40	0.03	1.48	84.06%
138.27	0.10	49.70	0.00	0.00	

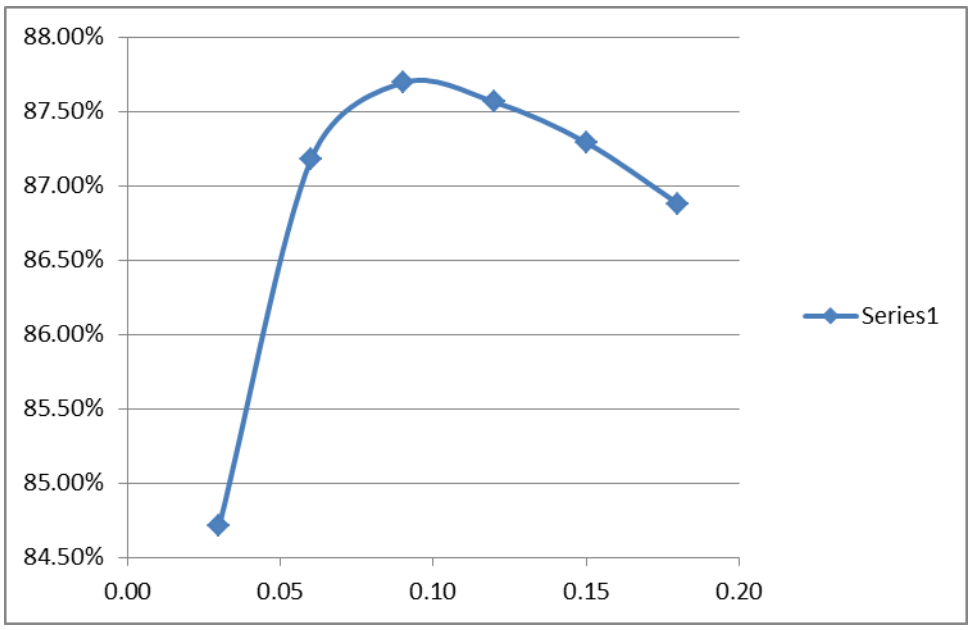


Vin(V)	Pin(W)	Vout(V)	Iout(A)	Pout(W)	Eff(%)
110.01	10.24	49.40	0.18	8.89	86.88%
110.03	8.49	49.40	0.15	7.41	87.29%
110.08	6.77	49.40	0.12	5.93	87.56%
110.10	5.07	49.40	0.09	4.45	87.69%
110.14	3.40	49.40	0.06	2.96	87.18%
110.17	1.75	49.50	0.03	1.49	84.71%
110.22	0.08	49.80	0.00		



PMP20345 Rev A Test Results

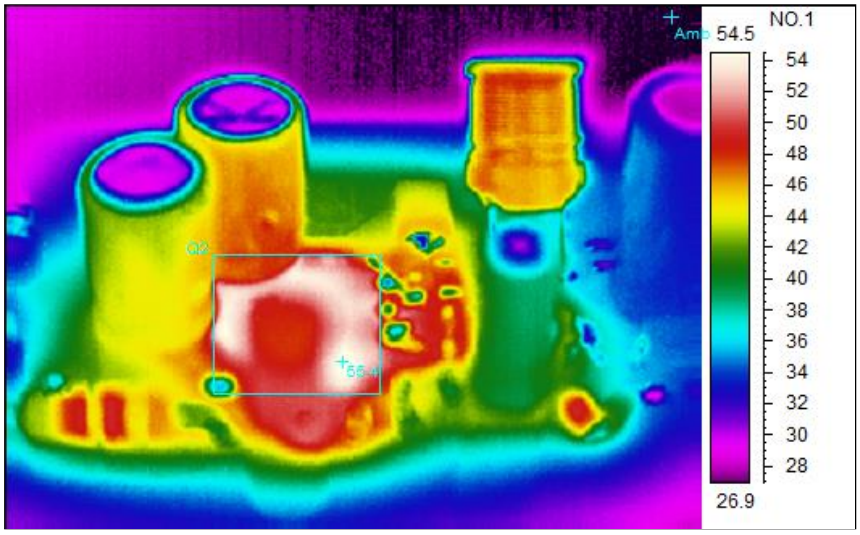
Vin(V)	Pin(W)	Vout(V)	Iout(A)	Pout(W)	Eff(%)
89.93	10.33	49.30	0.18	8.87	85.93%
89.97	8.54	49.30	0.15	7.40	86.64%
90.01	6.78	49.30	0.12	5.92	87.21%
90.06	5.06	49.30	0.09	4.44	87.69%
90.09	3.39	49.30	0.06	2.96	87.15%
90.15	1.74	49.30	0.03	1.48	85.15%
90.18	0.08	49.70	0.00	0.00	0.00%



3 Thermal Images

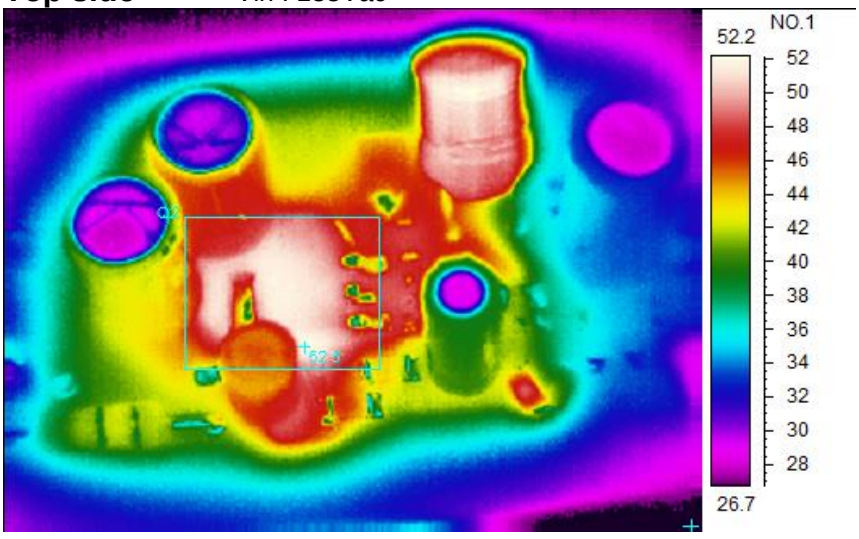
The thermal images below show a top view and bottom view of the board. The ambient temperature was 20ºC with no forced air flow. The outputs were at 50V/0.18A loads.

- **Top side** Vin : 90Vac



Spot analysis	Value
Amb Temperature	27.0°C
Area analysis	**Value**
Q2Max	55.4°C

- **Top side** Vin : 138Vac



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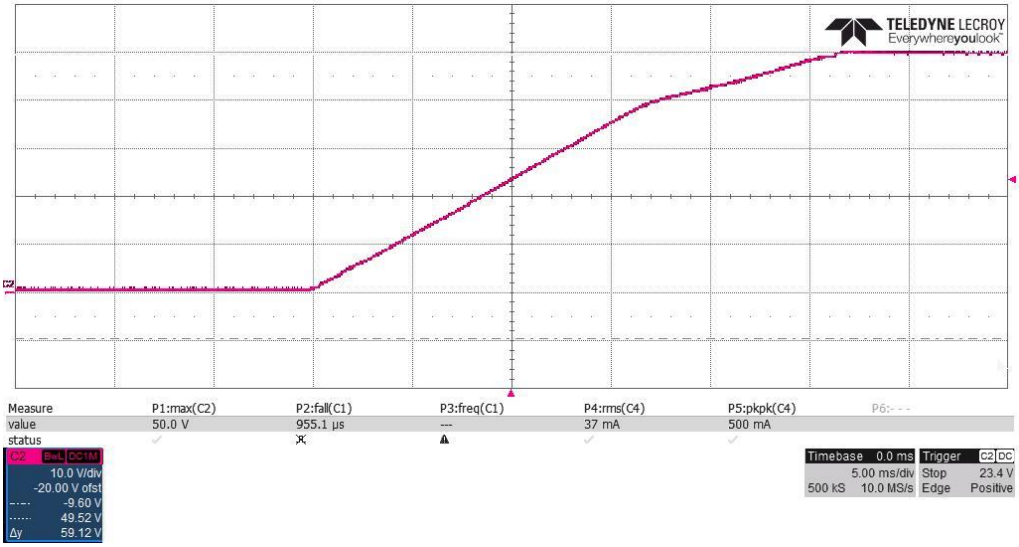
Spot analysis	Value
Amb Temperature	26.2°C
Area analysis	**Value**
Q2Max	52.5°C

4 Startup

The output voltages at startup are shown in the images below.

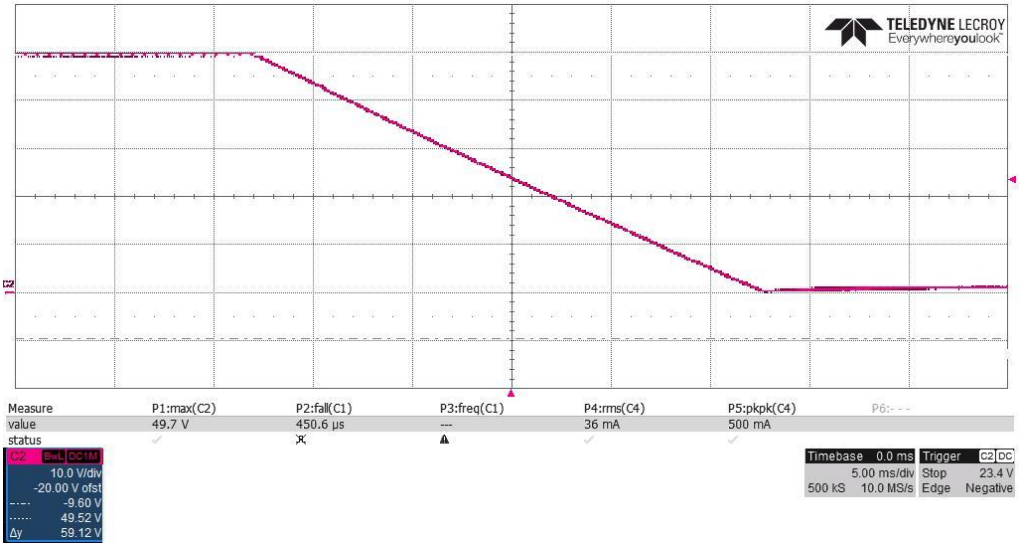
4.1.1 Start Up @ 110V_{AC}: 50V/0.18A



5 Turnoff

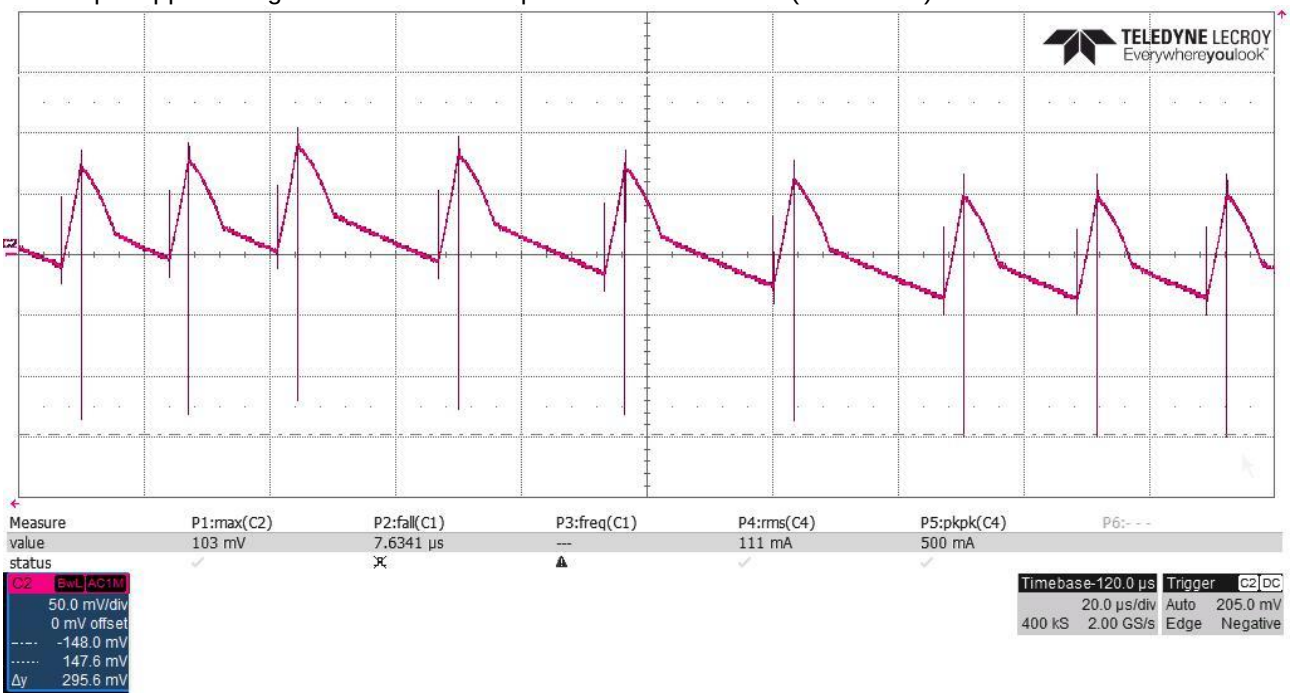
The output voltages at turnoff are shown in the images below.

5.1.1 Turnoff @ 110V_{AC}: 50V/0.18A



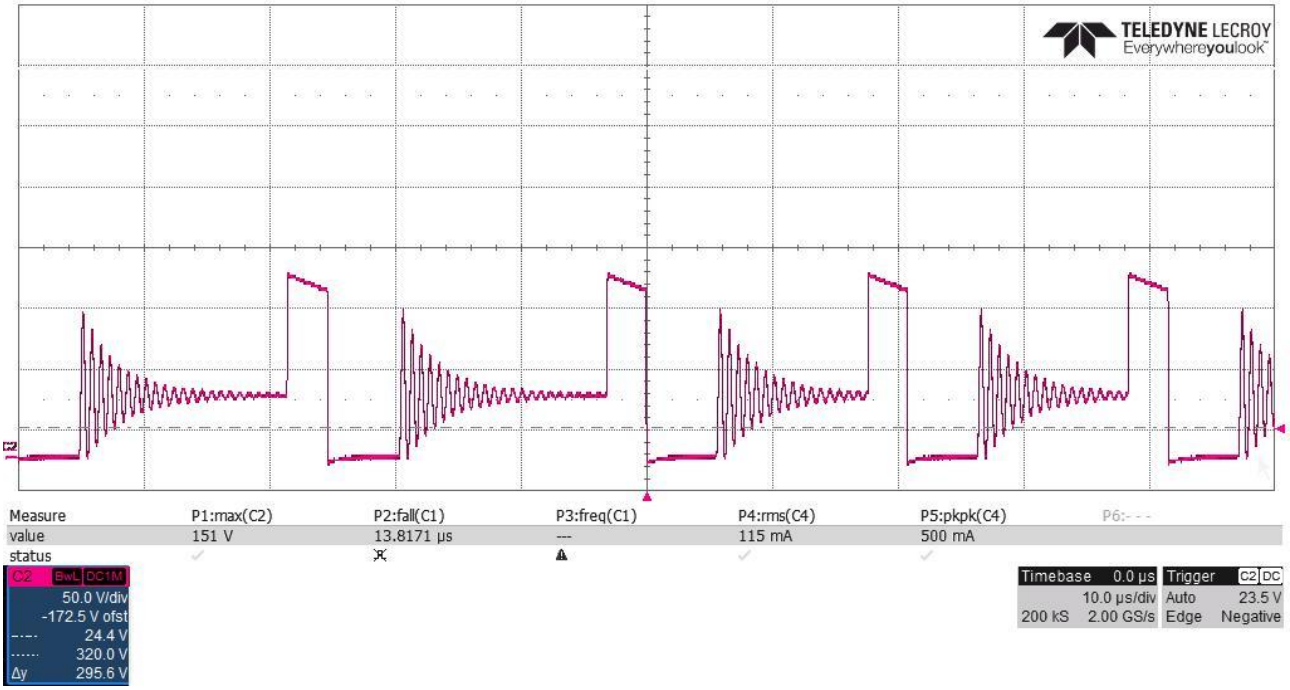
6 Output Ripple Voltage

The output ripple voltages are shown in the plots below at full load (50V/0.18A).



7 Switching Waveforms

The images below show key switching waveforms of PMP20345RevA. The waveforms are measured with full load(50V/0.18A). CH2: D4



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