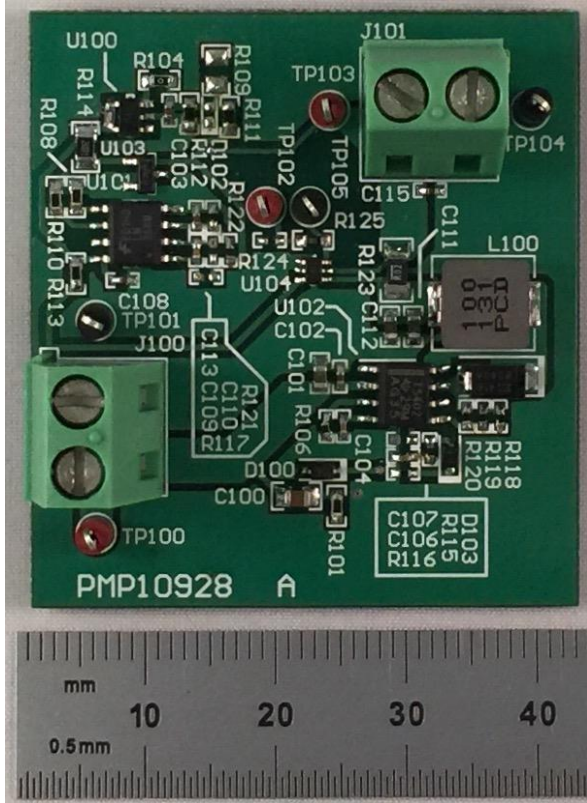


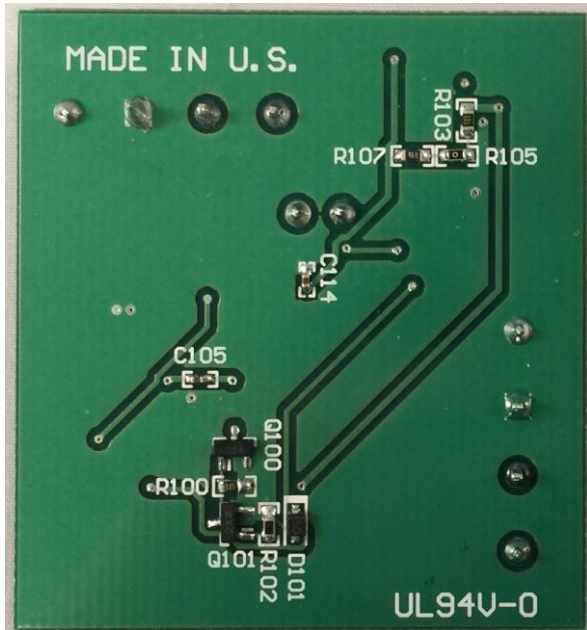
1 Photo

The photographs below show the PMP10928 Rev A assembly. This circuit was built on a PMP10928 Rev A PCB.

Top side

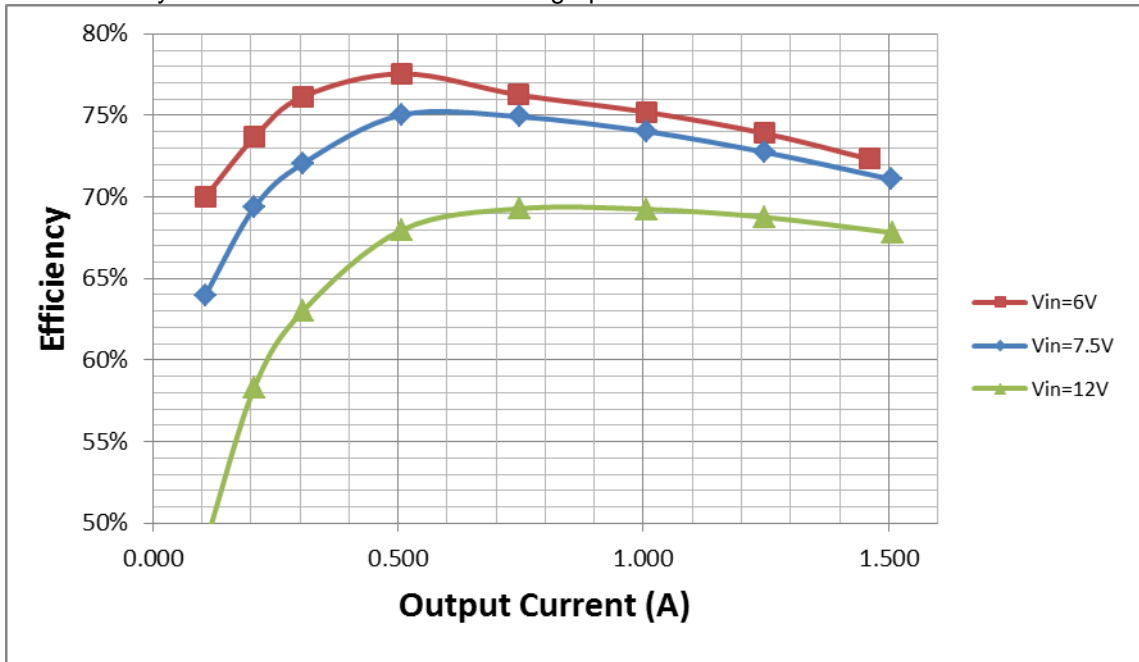


Bottom side



2 Converter Efficiency

The efficiency data is shown in the tables and graph below.



V_{in}=6V

V _{in} (DC)	I _{in} (A)	P _{in} (W)	V _{out} (V)	I _{out} (A)	P _{out} (W)	Losses(W)	Eff. (%)
6.04	0.50400	3.044	1.507	1.461	2.202	0.842433	72.33%
5.98	0.41400	2.476	1.466	1.248	1.830	0.646152	73.90%
6.03	0.32700	1.972	1.471	1.008	1.483	0.489042	75.20%
6.07	0.23800	1.445	1.477	0.746	1.102	0.342818	76.27%
6.01	0.16140	0.971	1.482	0.508	0.753	0.2178036	77.56%
6.07	0.09870	0.599	1.486	0.307	0.456	0.1427096	76.17%
6.03	0.06930	0.418	1.488	0.207	0.308	0.1100709	73.67%
6.01	0.03800	0.228	1.493	0.107	0.160	0.068439	70.01%
6.08	0.00424	0.026	1.502	0.000	0.000	0.02579192	0.00%

V_{in}=7.5V

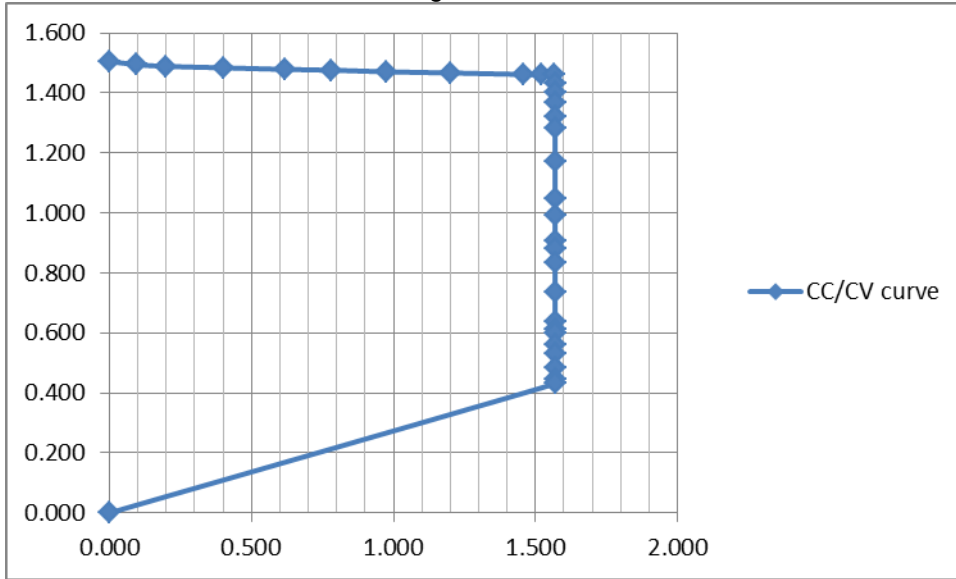
Vin(DC)	Iin(A)	Pin(W)	Vout(V)	Iout(A)	Pout(W)	Losses(W)	Eff. (%)
7.48	0.41410	3.097	1.461	1.507	2.202	0.895741	71.08%
7.51	0.33460	2.513	1.466	1.247	1.828	0.684744	72.75%
7.47	0.26820	2.003	1.471	1.008	1.483	0.520686	74.01%
7.54	0.19530	1.473	1.477	0.747	1.103	0.369243	74.93%
7.49	0.13370	1.001	1.482	0.507	0.751	0.250039	75.03%
7.50	0.08440	0.633	1.486	0.307	0.456	0.176798	72.07%
7.46	0.05953	0.444	1.488	0.207	0.308	0.1360778	69.36%
7.52	0.03320	0.250	1.493	0.107	0.160	0.089913	63.99%
7.49	0.00529	0.040	1.505	0.000	0.000	0.0396221	0.00%

V_{in}=12V

Vin(DC)	Iin(A)	Pin(W)	Vout(V)	Iout(A)	Pout(W)	Losses(W)	Eff. (%)
11.97	0.27160	3.251	1.462	1.508	2.205	1.046356	67.81%
11.98	0.22240	2.664	1.468	1.248	1.832	0.832288	68.76%
11.98	0.17880	2.142	1.473	1.007	1.483	0.658713	69.25%
11.99	0.13290	1.593	1.478	0.747	1.104	0.489405	69.29%
11.98	0.09250	1.108	1.483	0.508	0.753	0.354786	67.98%
11.95	0.06060	0.724	1.487	0.307	0.457	0.267661	63.04%
11.99	0.04408	0.529	1.489	0.207	0.308	0.2202962	58.32%
12.03	0.02727	0.328	1.494	0.107	0.160	0.1682001	48.73%
12.07	0.00872	0.105	1.512	0.000	0.000	0.1052504	0.00%

3 CC/CV curve

The constant current, constant voltage curve of PMP10928 Rev A is shown as below.



Vout(V)	1.505	1.495	1.489	1.484	1.479	1.476	1.471	1.467	1.462	1.461	1.460	1.432
Iout(A)	0.000	0.096	0.201	0.402	0.619	0.780	0.975	1.201	1.460	1.523	1.568	1.569

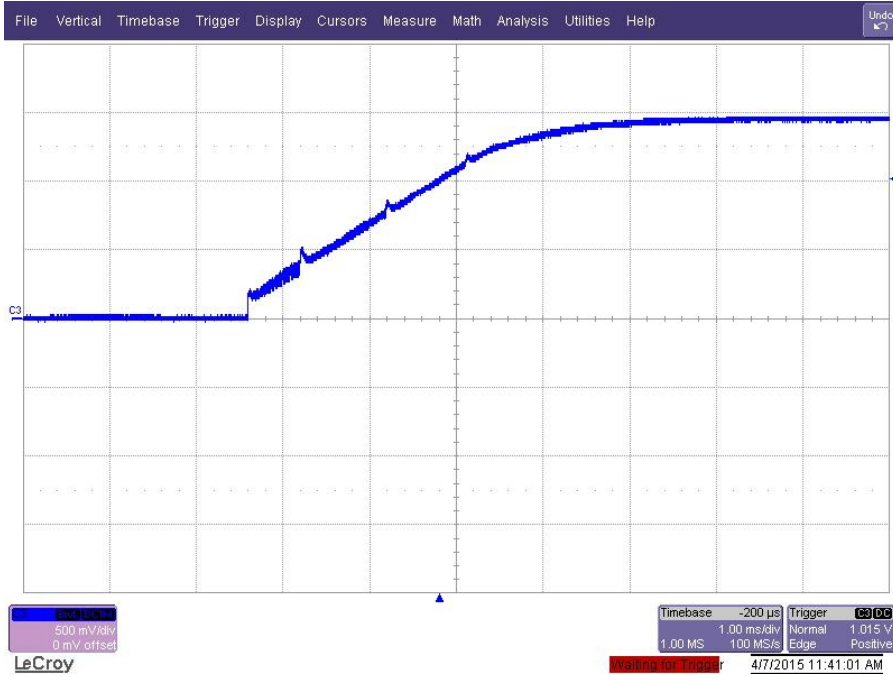
Vout(V)	1.403	1.367	1.319	1.284	1.170	1.049	0.992	0.906	0.879	0.836	0.736	0.638
Iout(A)	1.569	1.569	1.569	1.569	1.569	1.569	1.569	1.569	1.569	1.569	1.569	1.569

Vout(V)	0.612	0.600	0.562	0.532	0.483	0.444	0.431	0.000
Iout(A)	1.569	1.569	1.569	1.569	1.569	1.569	1.569	0.000

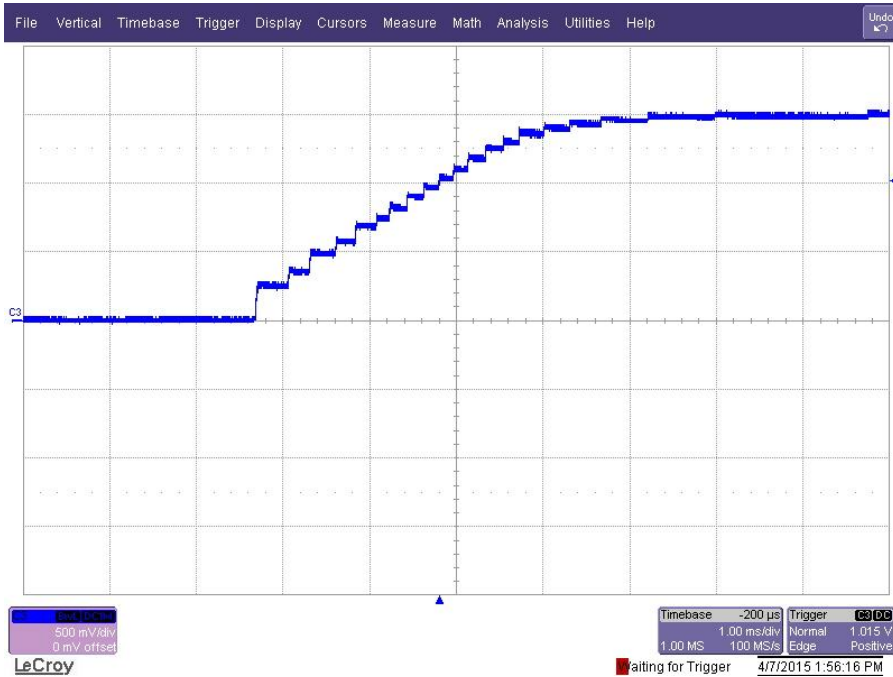
4 Startup

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

4.1 1.5A Load @ 7.5V_{IN}:



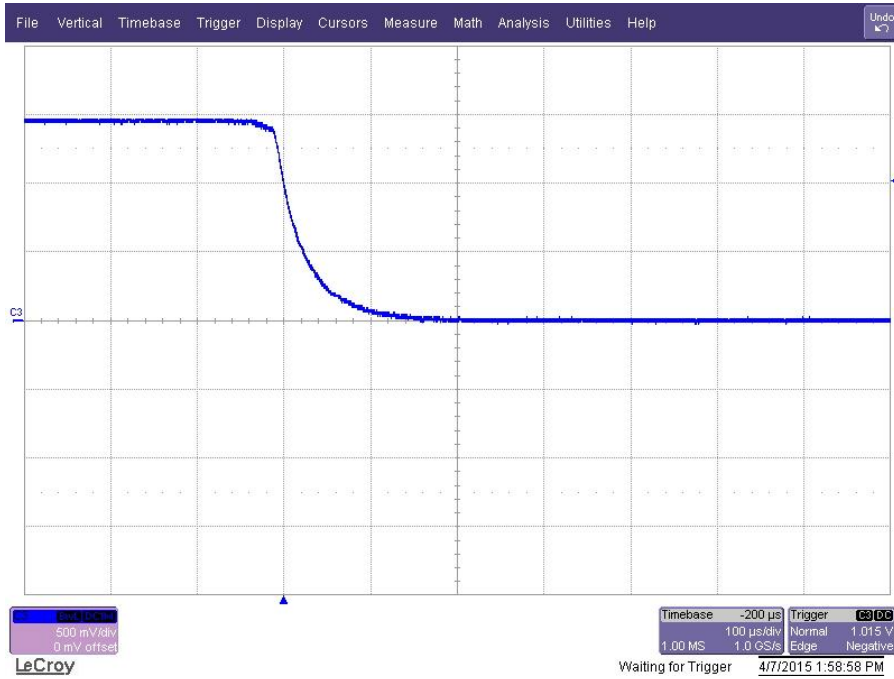
4.2 0A Load @ 7.5V_{IN}:



5 Turn-off

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

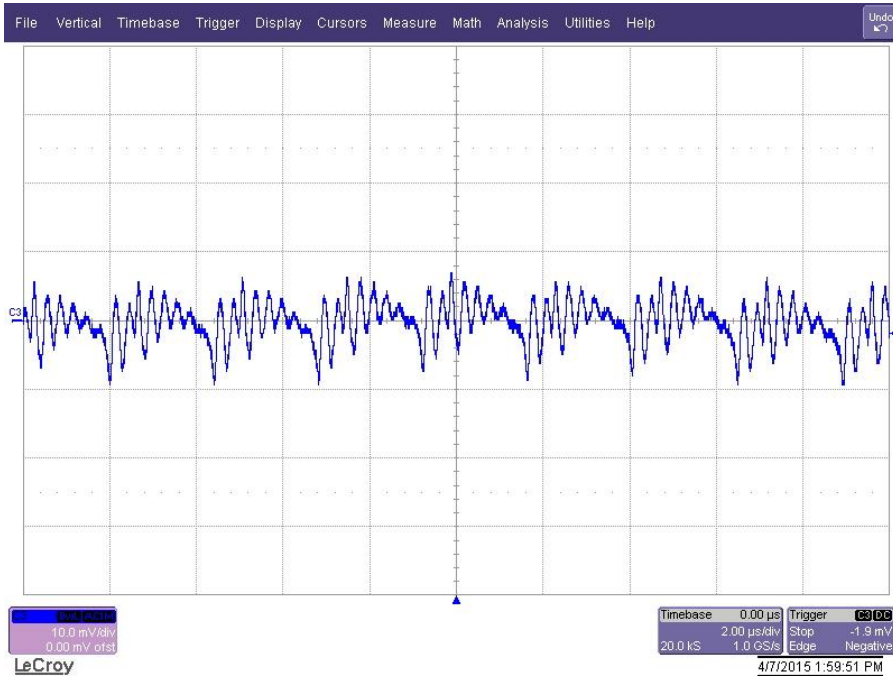
5.1 1.5A Load @ 7.5V_{IN}:



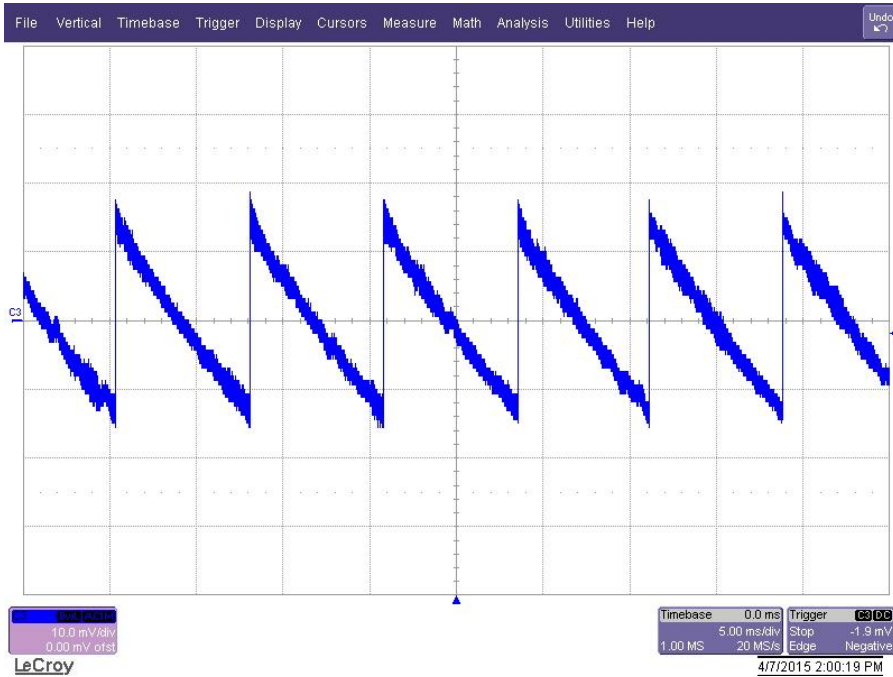
6 Output Ripple Voltages

The output ripple voltages are shown in the plots below.

6.1 1.5A Load @ 7.5V_{IN}:



6.2 0A Load @ 7.5V_{IN}:



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