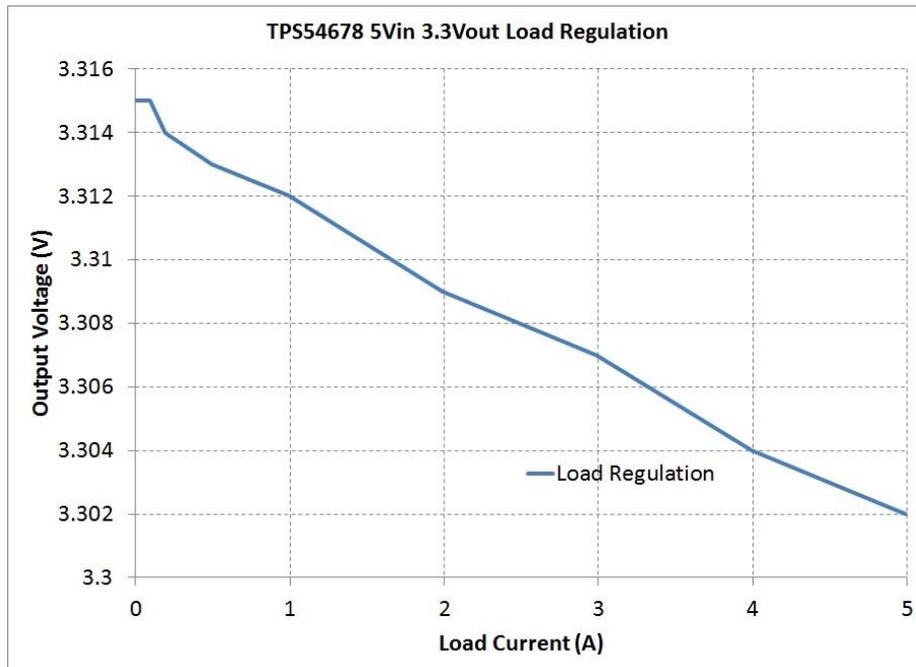
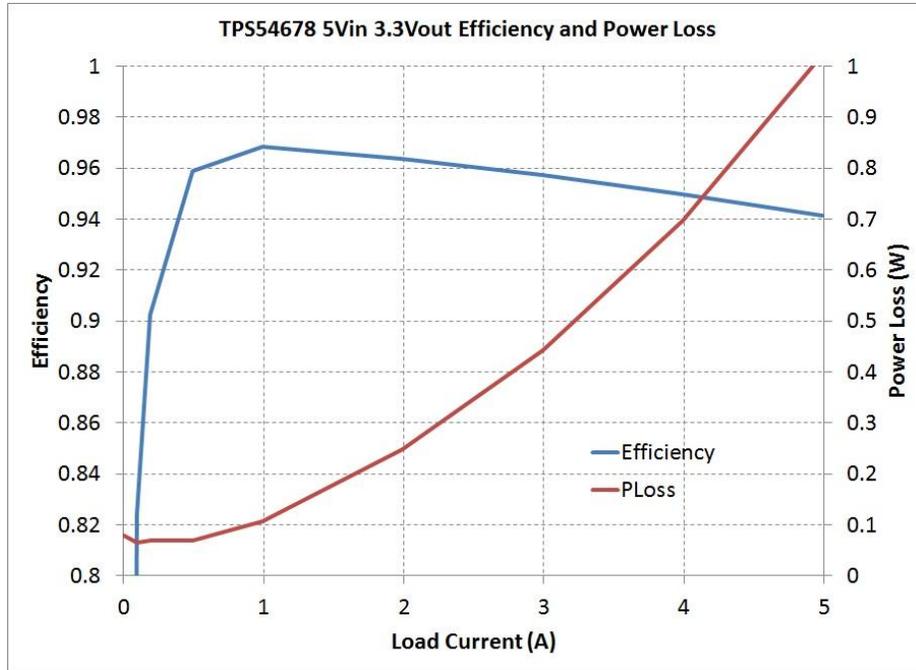


1 Efficiency and Regulation

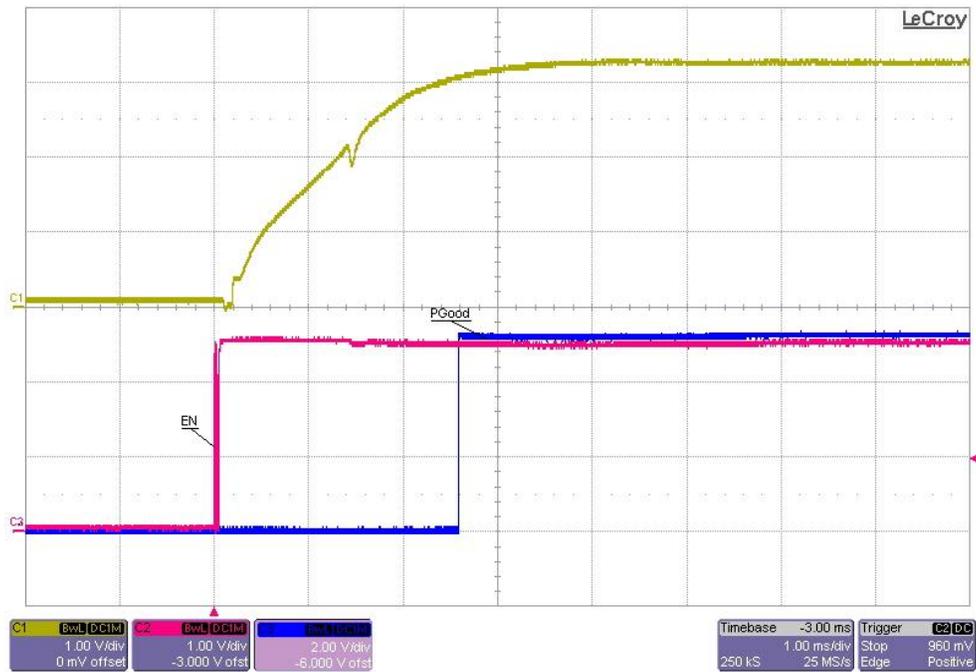
The efficiency, load regulation and raw data are shown for the 3.3V output power supply at 5V input.



V _{in}	I _{in}	P _{in}	V _{out}	I _{out}	P _{out}	P _{loss}	Efficiency
5.00	0.016	0.08	3.315	0	0	0.08	
5.00	0.074	0.37	3.315	0.092	0.30498	0.06502	0.82427
5.00	0.141	0.705	3.314	0.192	0.636288	0.068712	0.902536
5.00	0.34	1.7	3.313	0.492	1.629996	0.070004	0.958821
5.00	0.68	3.4	3.312	0.994	3.292128	0.107872	0.968273
5.00	1.368	6.84	3.309	1.992	6.591528	0.248472	0.963674
5.00	2.066	10.33	3.307	2.99	9.88793	0.44207	0.957205
5.00	2.776	13.88	3.304	3.99	13.18296	0.69704	0.949781
5.00	3.5	17.5	3.302	4.99	16.47698	1.02302	0.941542

2 Startup and Shutdown

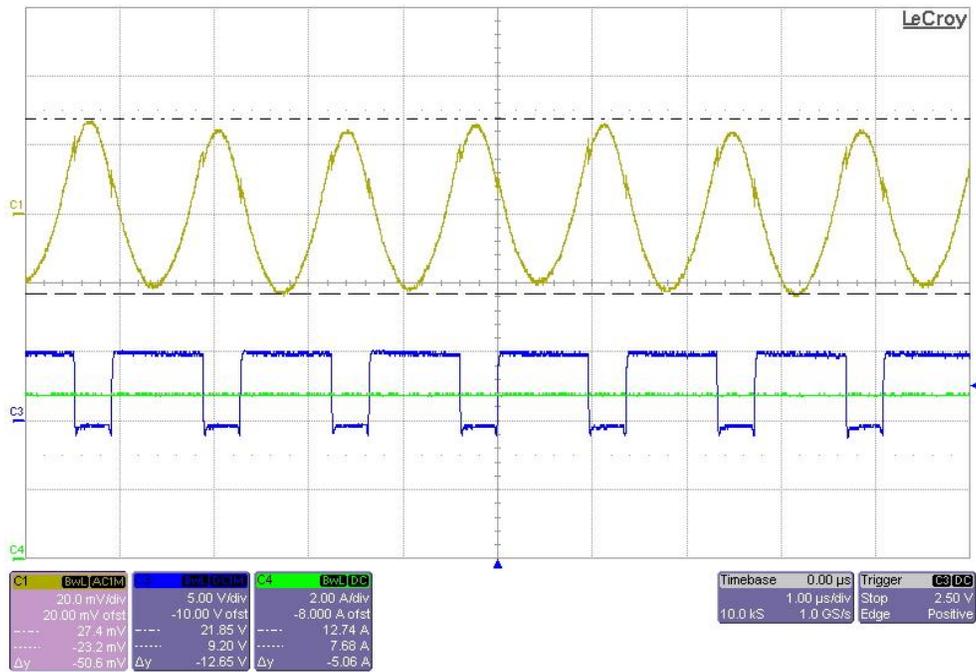
The startup and shutdown at 1A load is shown in the images below. (Channel 1 = V_{out}, Channel 2 = Enable, Channel 3 = Power Good)

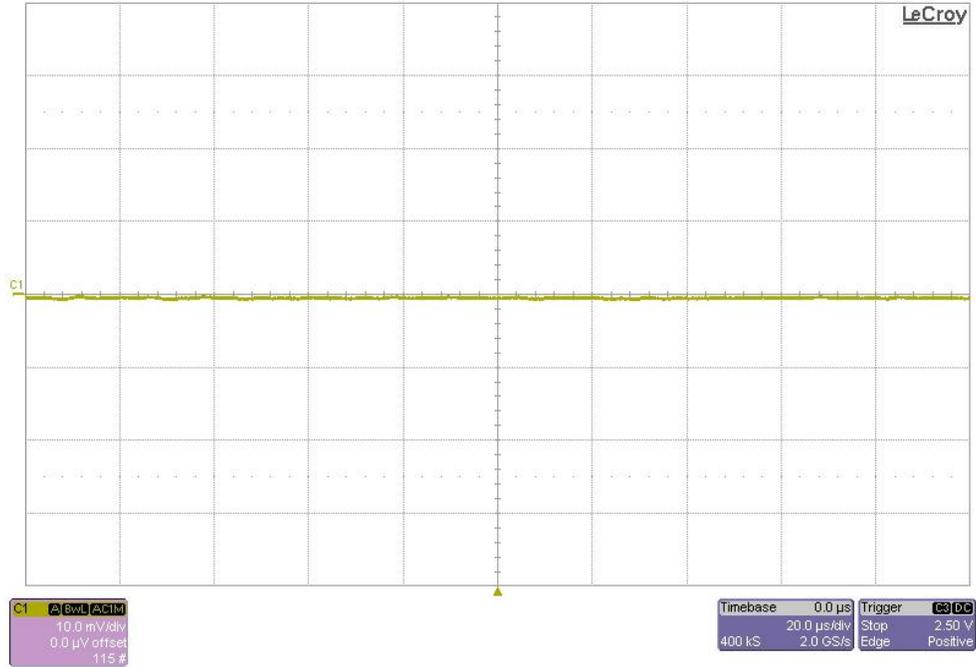




3 Output Ripple

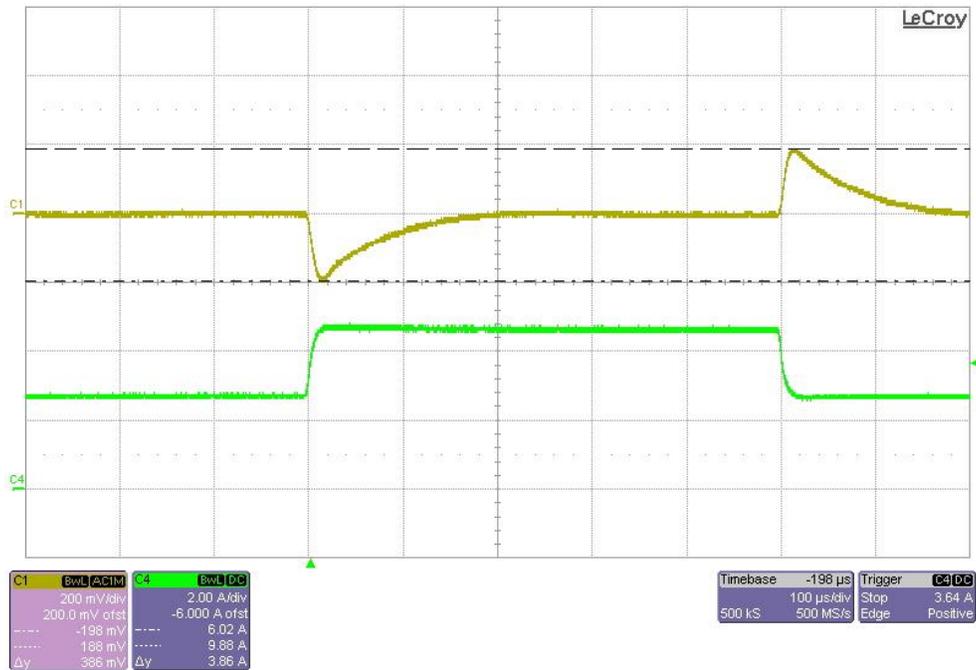
The images below show the output ripple at 5A. The first image is before the 2nd stage LC filter, and the second image is after the 2nd stage LC filter with averaging. The second image's switch node is not shown due to noise coupling into the measurement. (Channel 1 = Vout, Channel 3 = Switch Node, Channel 4 = Iout)





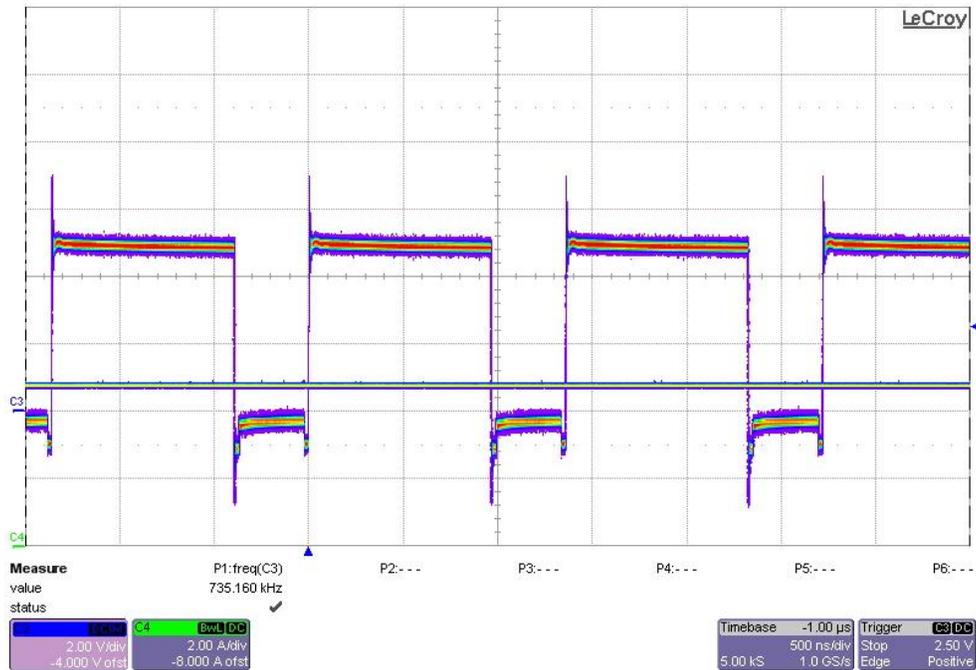
4 Transient Response

The image below shows the 3-to-5A transient response. Adjustments to this design are needed for transient load steps above 2A. (Channel 1 = Vout, Channel 4 = Iout)



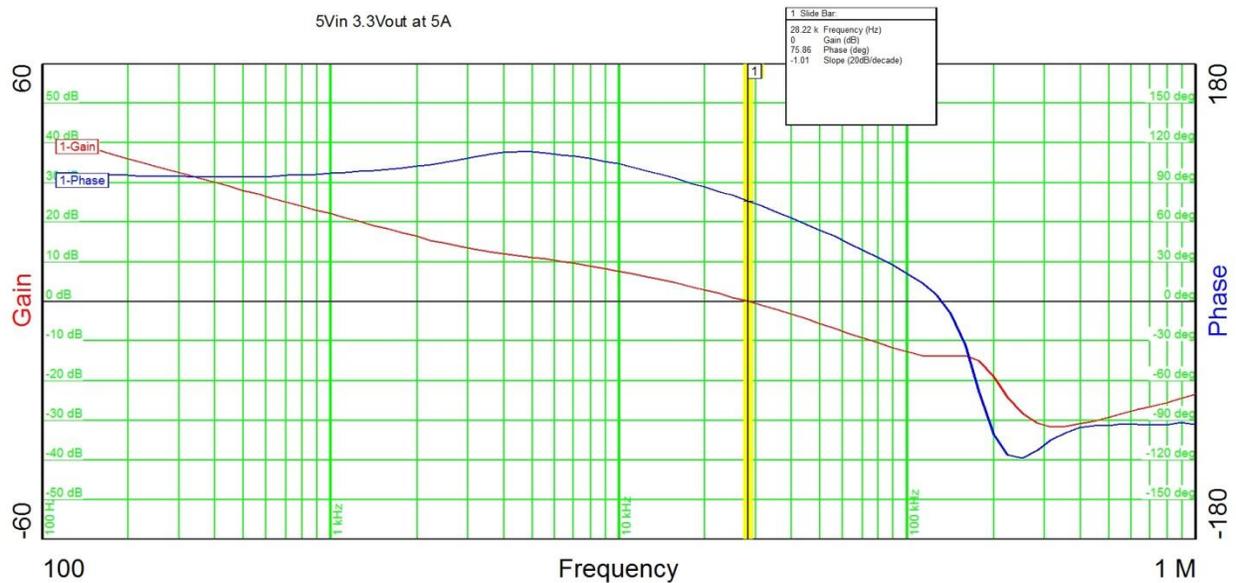
5 Switch Node

The switch node jitter, max/min voltages and switching frequency are shown in persistence at 5A load. (Channel 3 = Switch node, Channel 4 = Iout)



6 Loop Response

The loop response at 5V input and 5A load current is shown below.



7 Thermal Image

The thermal image at 5V input and 5A load current is shown below.



8 EVM Photo



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