

PMP5368 Test report:

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Regulation / losses: 5V Bias provided with on board TPS51103 linear reg.

Vin Volts	Iin mA	Vout Volts	Iout mA	Efficiency %	Losses in mW
19.06	758	1.511	8010	83.8	2344
19.02	557.5	1.512	6000	85.6	1532
19.04	369	1.512	3998.5	86.1	980
19.01	191.5	1.513	2000	83.1	614
19.02	103	1.515	1004.5	77.7	437
19.03	51	1.517	495	77.4	220
19.03	0.38	1.516	0	N/A	7
12.01	1171	1.511	8010	86.1	1961
12.03	855	1.511	6000	88.1	1220
12.01	563	1.511	3998.5	89.4	720
11.995	285.5	1.5115	2000	88.3	402
12.02	149	1.513	1004.5	84.9	271
12.00	75	1.5165	495	83.4	149
12.00	0.38	1.516	0	N/A	5
7.99	1739	1.512	8010	87.2	1783
7.98	1270	1.512	6000	89.5	1063
8.00	829.5	1.511	3998.5	91.0	594
7.98	416	1.5115	2000	91.1	297
7.98	216	1.512	1004.5	88.1	205
7.99	107.5	1.516	495	87.4	109
7.99	0.385	1.516	0	N/A	3

Short circuit protection verified at 19Vin. Model shuts down and Enable needs to be toggled to re-start.

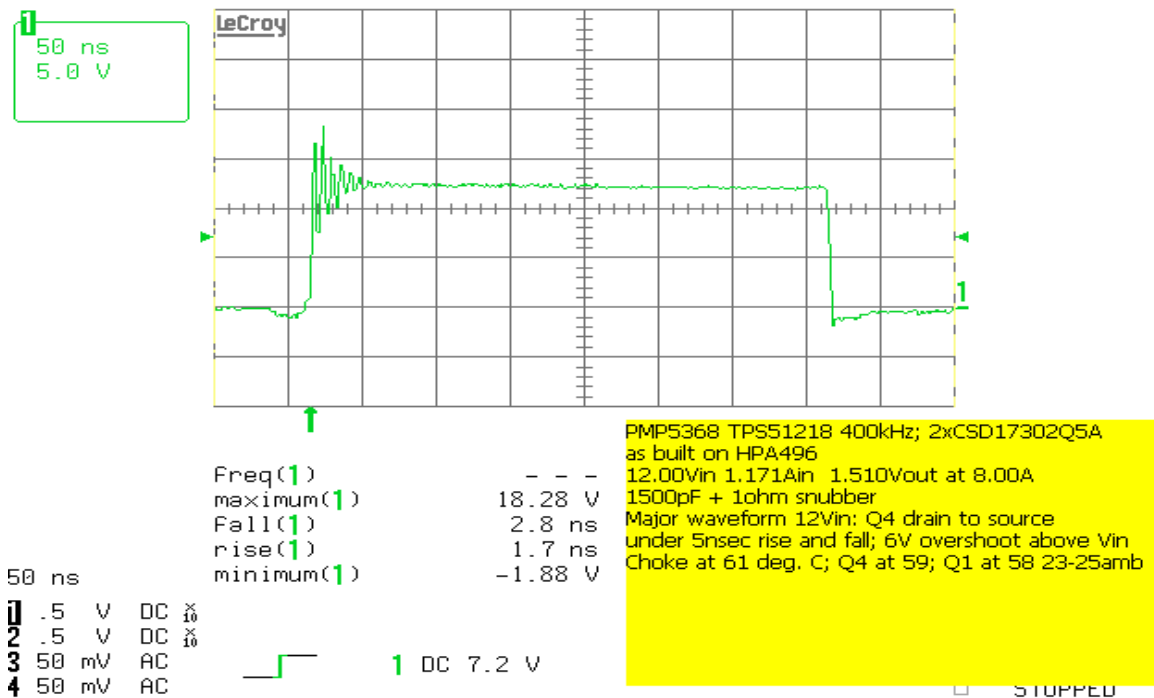
With 5V Bias derived off a switcher, further efficiency improvement will be seen, especially at 19Vin where about 80mW less input power will be needed.

Thermal: 23-25 ambient**Full load at 12Vin: Choke at 61 deg. C; Q4 at 59; Q1 at 58****Full load at 19Vin: Choke at 66 deg. C; Q4 at 56; Q1 at 64 snubber R at 63**

Major waveform: 12Vin:

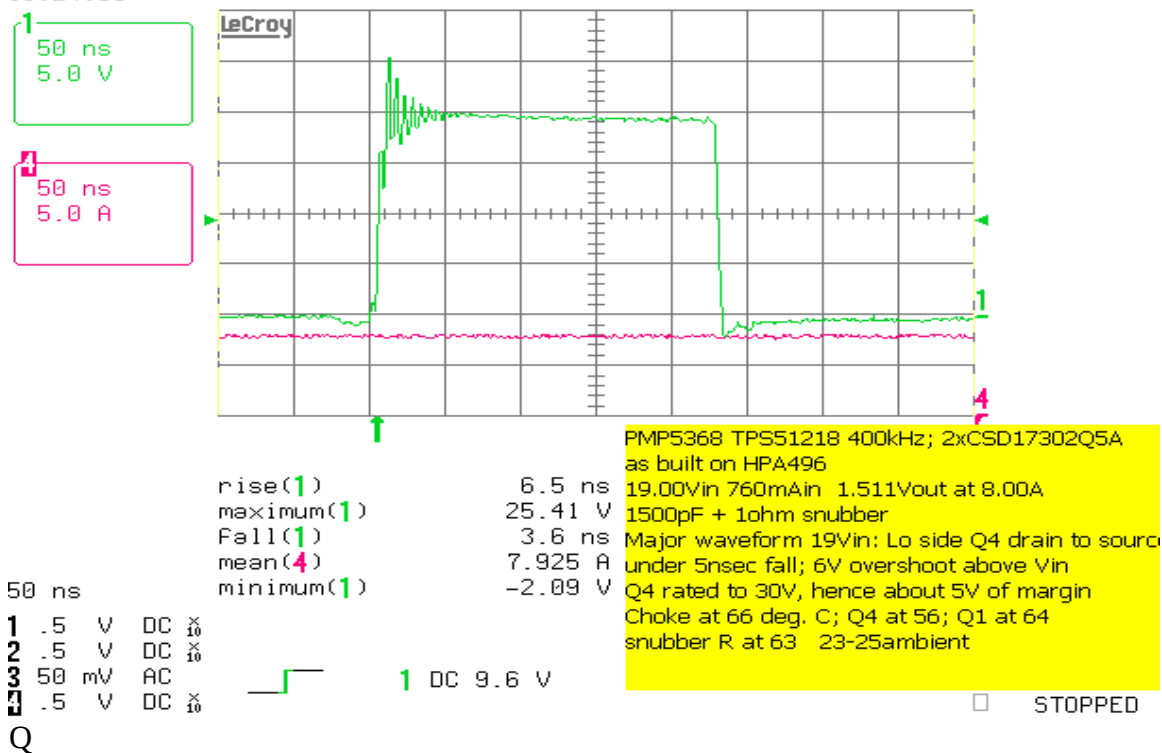
18-Mar-10
14:47:44

Reading Floppy Disk Drive



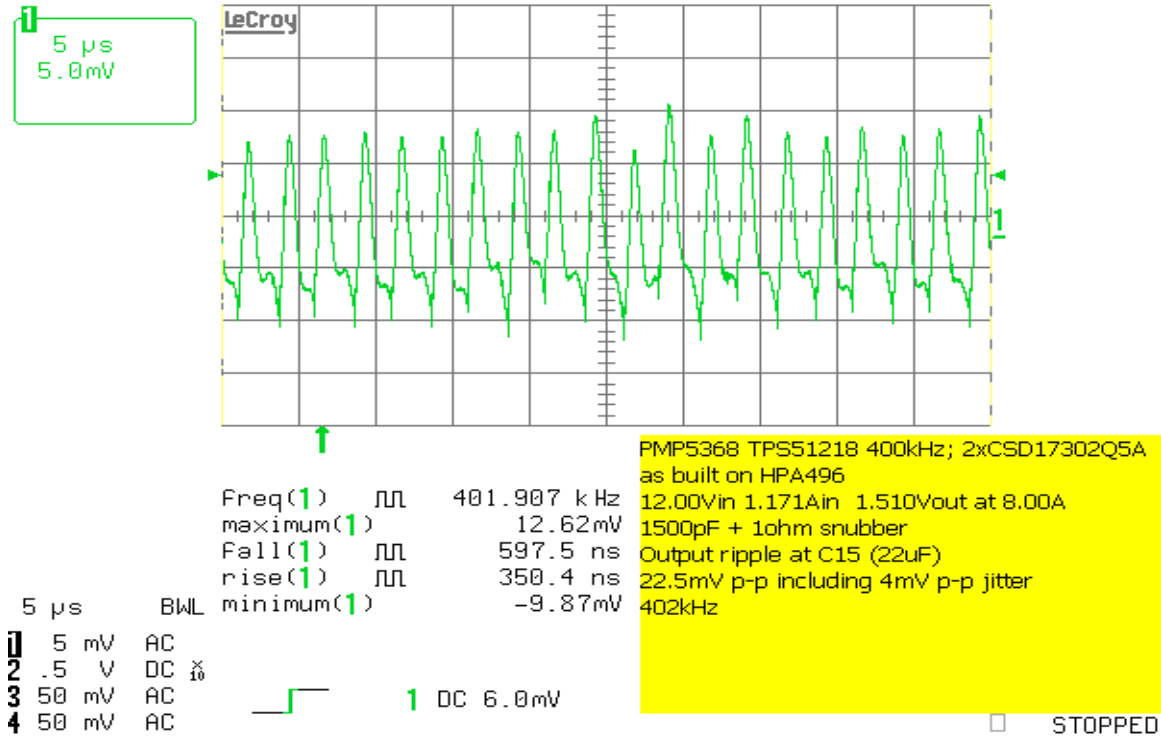
And at 19Vin:

18-Mar-10
16:24:06



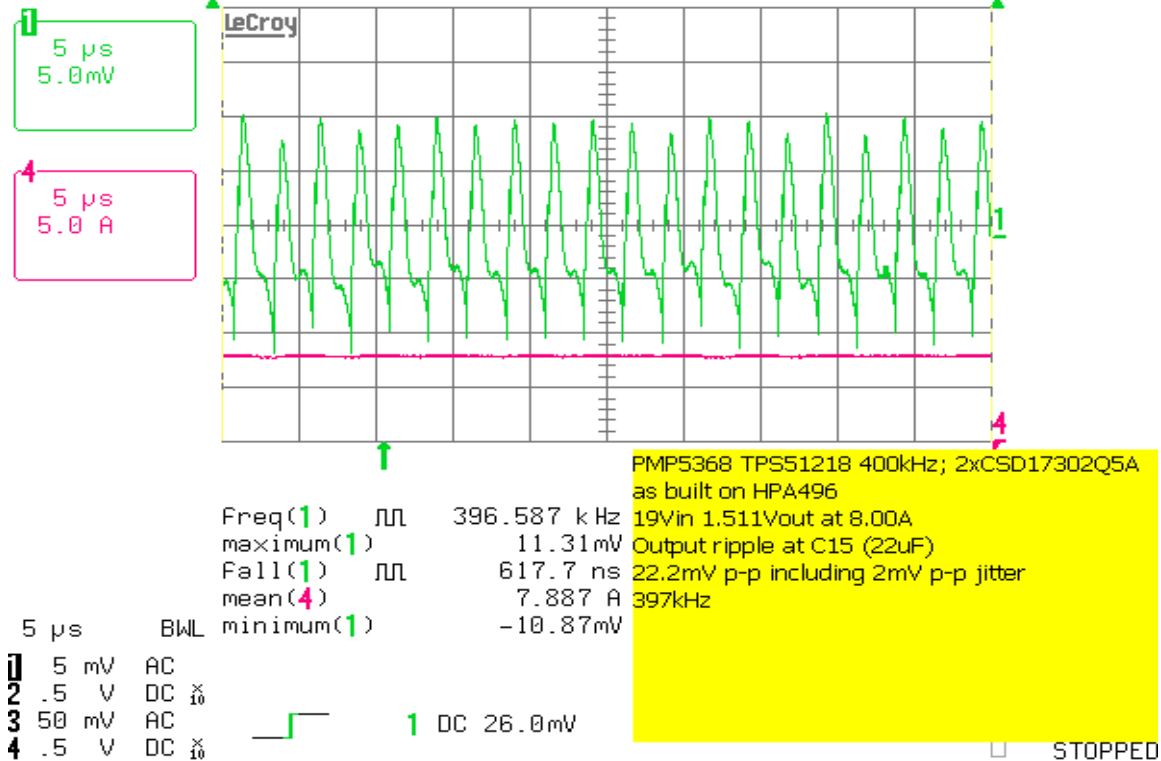
Output ripple measured at output cap C15 (22uF ceramic): 12Vin Full 8A load

18-Mar-10
14:51:42



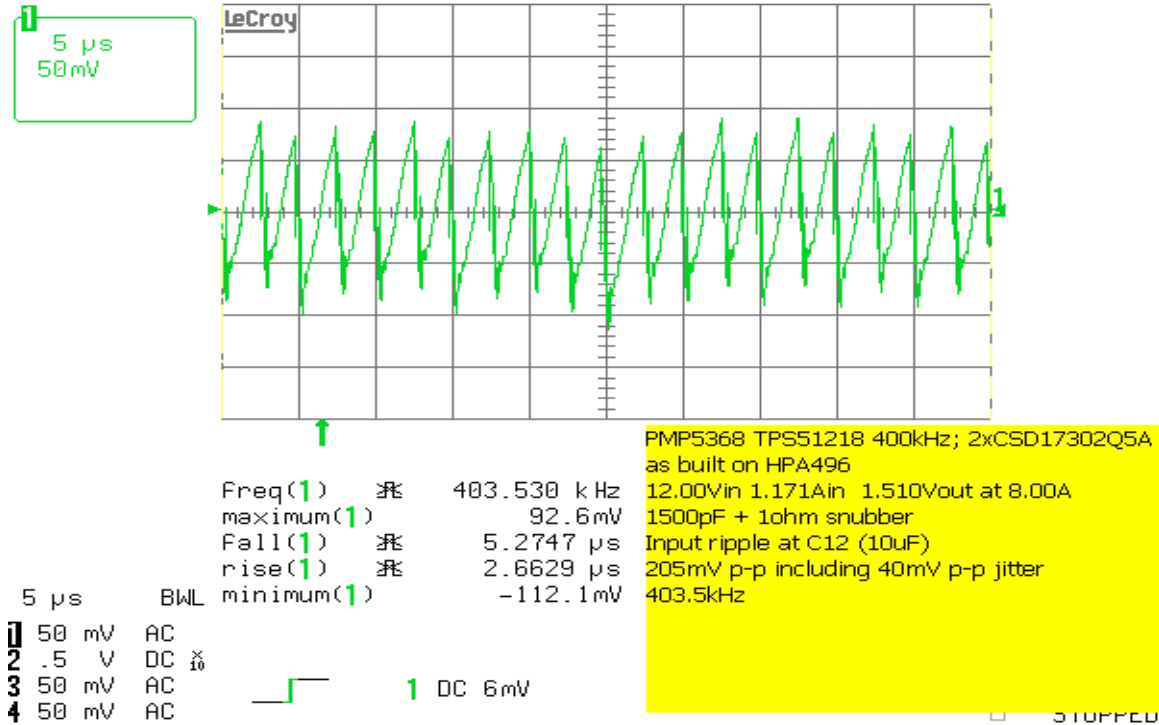
And at 19Vin:

18-Mar-10
16:28:58



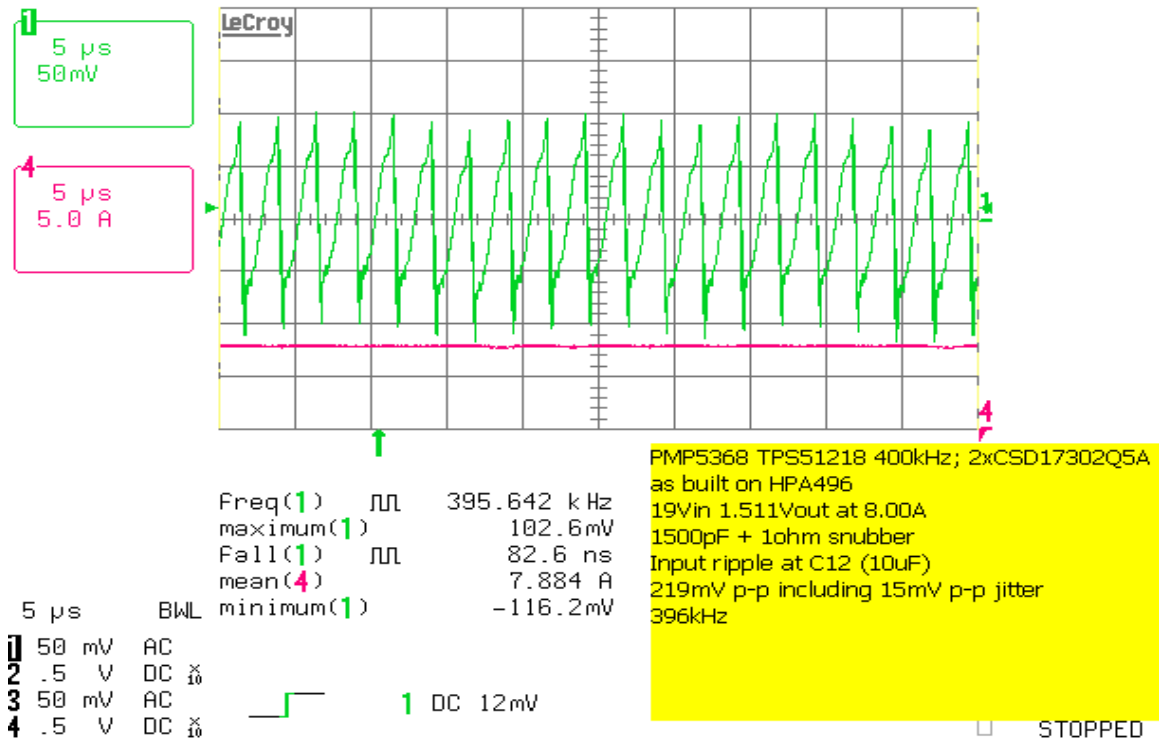
Input ripple at C12 (10uF ceramic): 12Vin and full 8A load

18-Mar-10
14:53:12



and at 19Vin:

18-Mar-10
16:30:17



Qq

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