1 Startup

The startup waveform with input voltage = 5V is shown in Figure 1. A load of 250mA at both channels was applied.

Channel C2: **input voltage**
2V/div, 10ms/div

Channel C1: **output voltage positive channel**
5V/div, 10ms/div

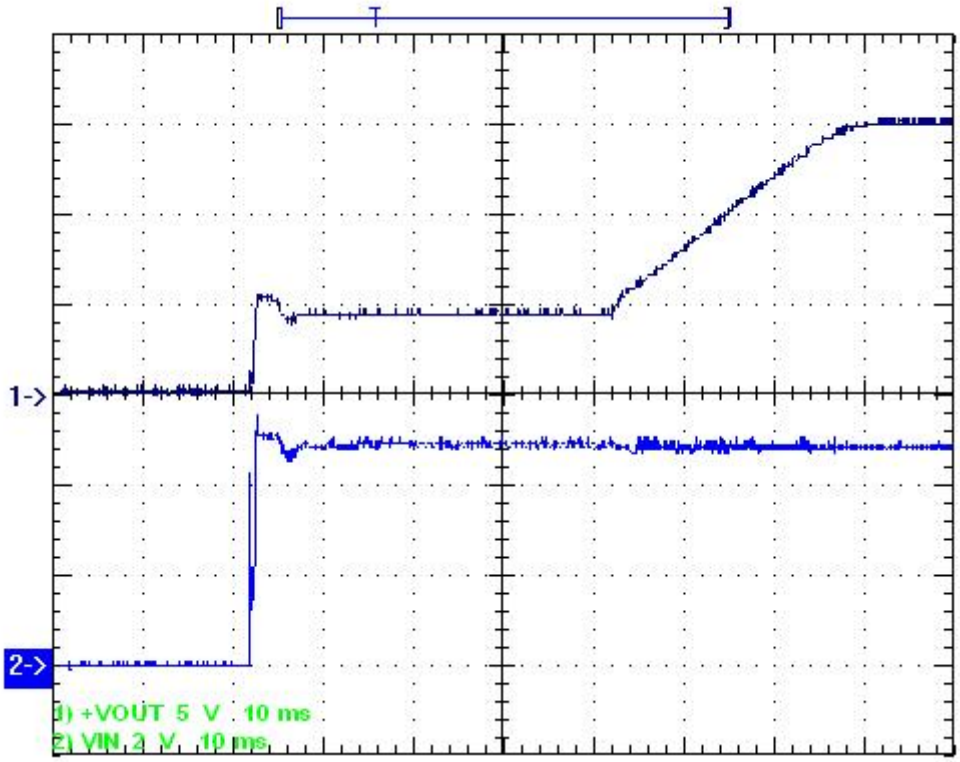


Figure 1

The startup waveform with input voltage = 5V is shown in Figure 2. A load of 250mA at both channels was applied.

Channel C2: **input voltage**
2V/div, 10ms/div

Channel C1: **output voltage negative channel**
5V/div, 10ms/div

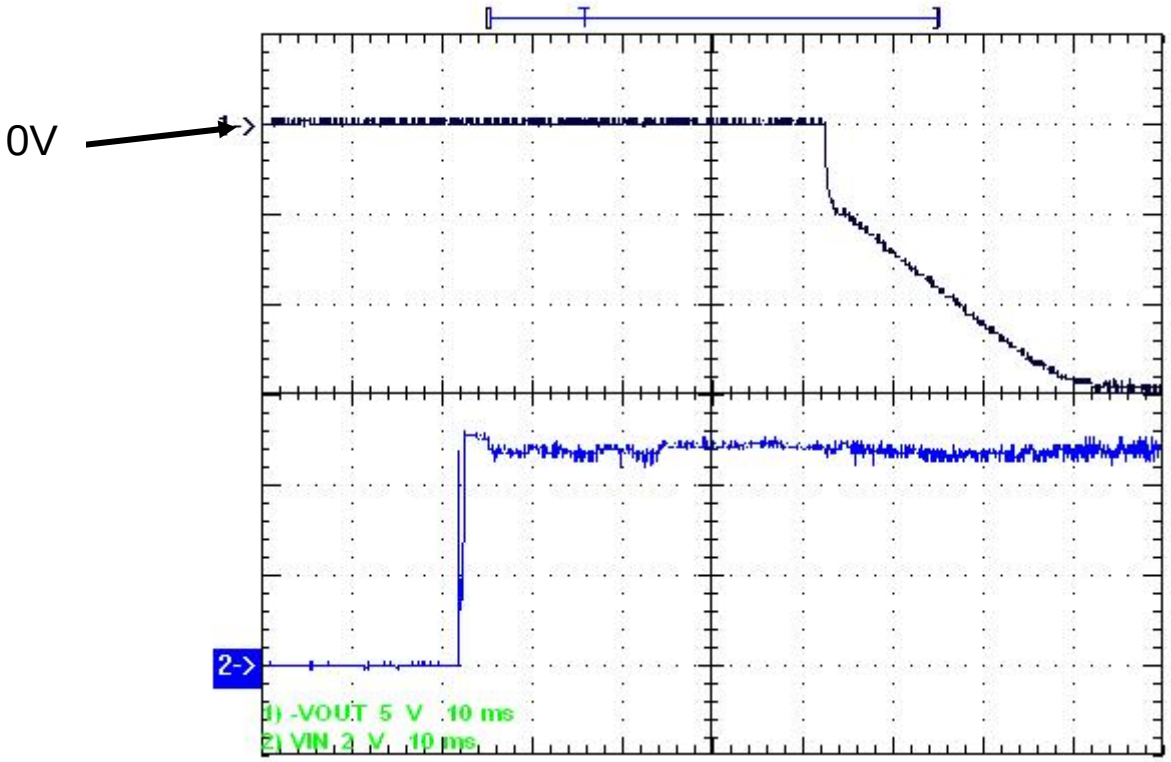


Figure 2

2 Shut down

The shut down waveform with input voltage = 5V is shown in Figure 3. A load of 250mA at both channels was applied.

Channel C2: **input voltage**
2V/div, 2ms/div

Channel C1: **output voltage positive channel**
5V/div, 2ms/div

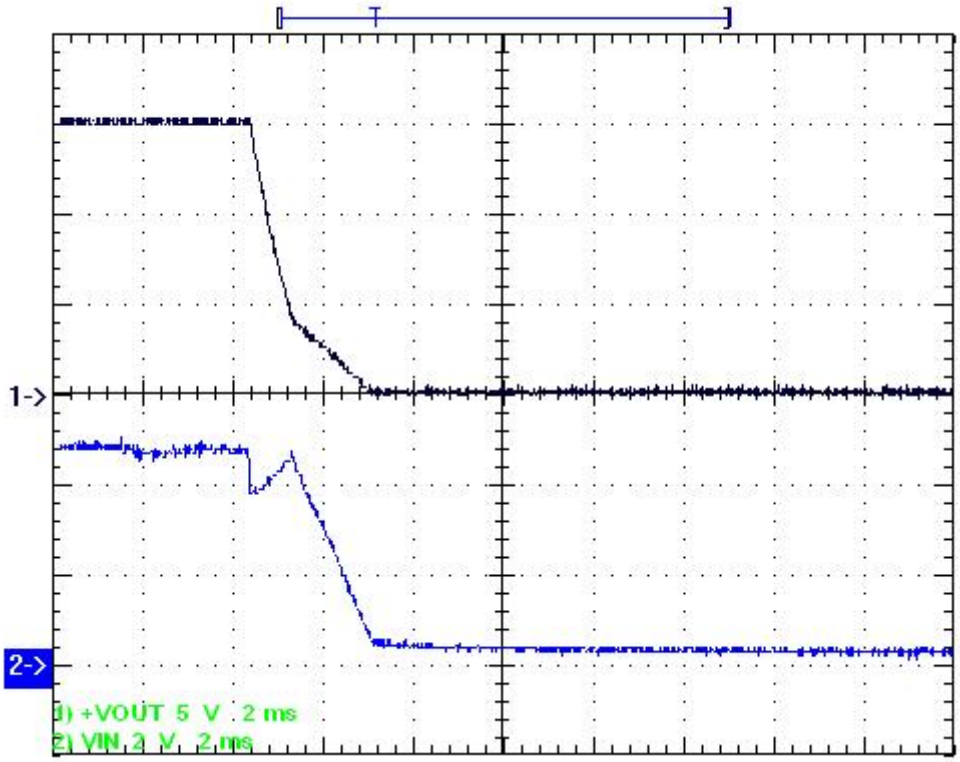


Figure 3

The shut down waveform with input voltage = 5V is shown in Figure 4. A load of 250mA at both channels was applied.

Channel C2: **input voltage**
2V/div, 2ms/div

Channel C1: **output voltage negative channel**
5V/div, 2ms/div

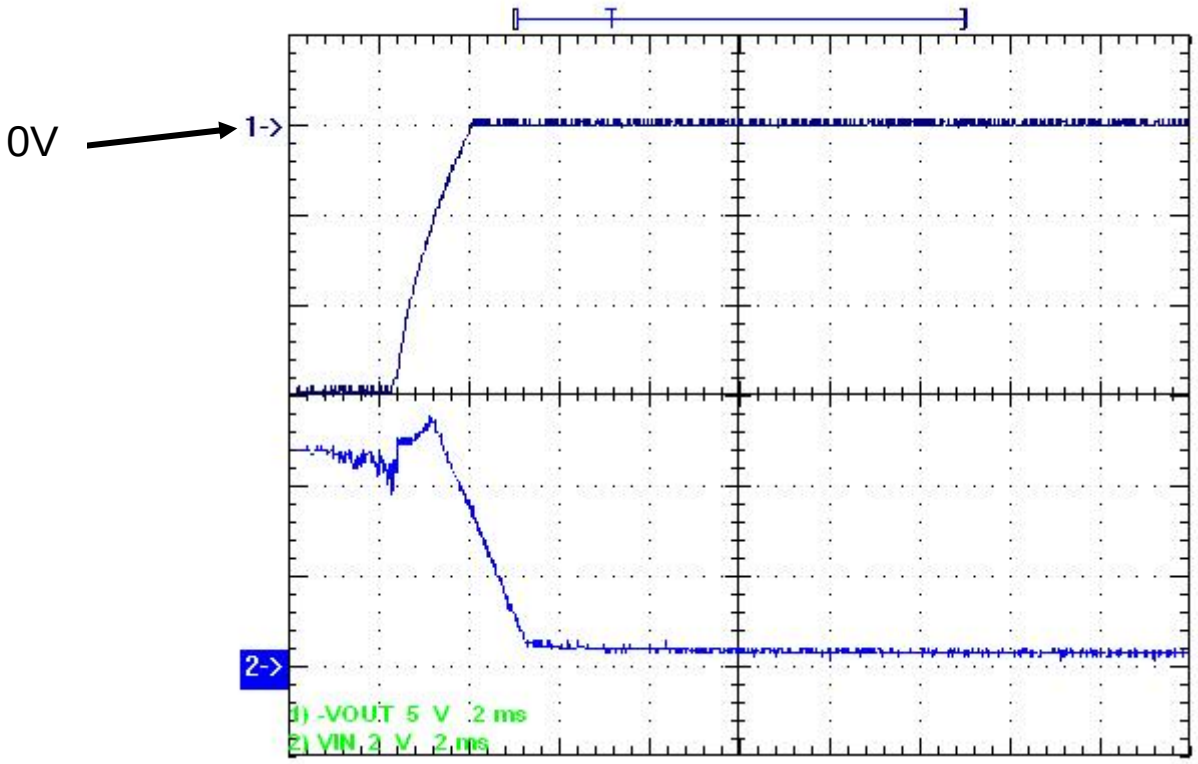


Figure 4

3 Efficiency

The efficiency is shown in Figure 5. Both channels were charged with the same current.

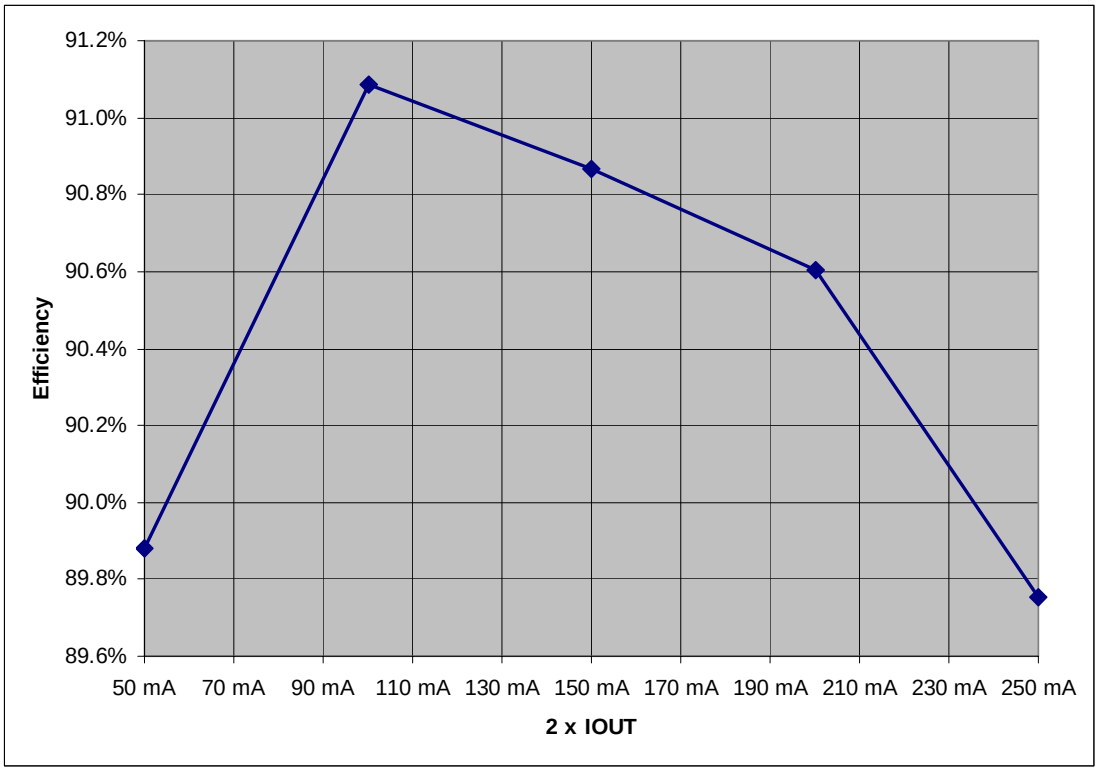


Figure 5

4 Load Regulation

The output voltages with different load currents is shown in Figure 6.

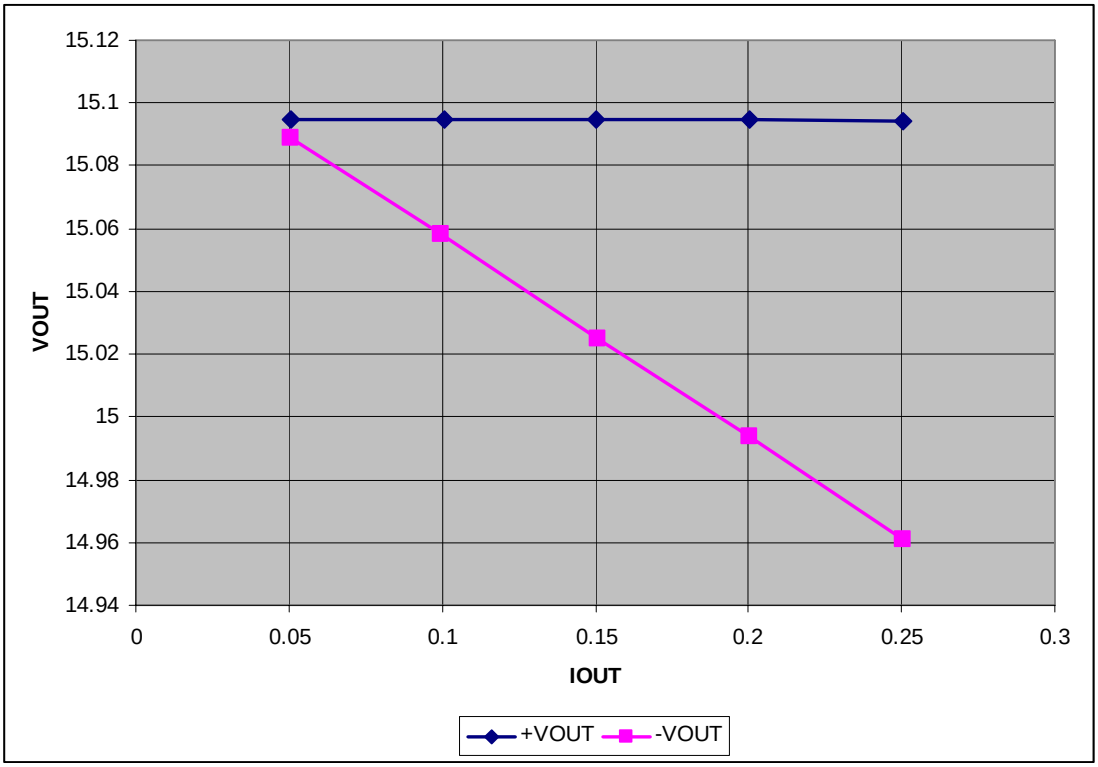


Figure 6

5 Cross Regulation

The output voltages from the negative channel -15V w/ 10kOhm basic load are:

RED: >5% **Green: <2%**

+15V	-15V	0mA	10mA	20mA	50mA	100mA	200mA	250mA
	0mA	15.23	15.32	15.33	15.36	15.45	15.77	16.00
	10mA	15.00	15.13	15.16	15.21	15.24	15.29	15.30
	20mA	14.97	15.09	15.12	15.17	15.20	15.24	15.26
	50mA	14.90	15.03	15.05	15.10	15.13	15.17	15.18
	100mA	14.83	14.95	14.98	15.03	15.06	15.10	15.11
	200mA	14.71	14.85	14.88	14.97	14.96	15.00	15.01
	250mA	14.65	14.81	14.83	14.88	14.92	14.95	14.97

Table 1

Table 1 at Zero Load Condition transformed to graph is shown on Figure 7.

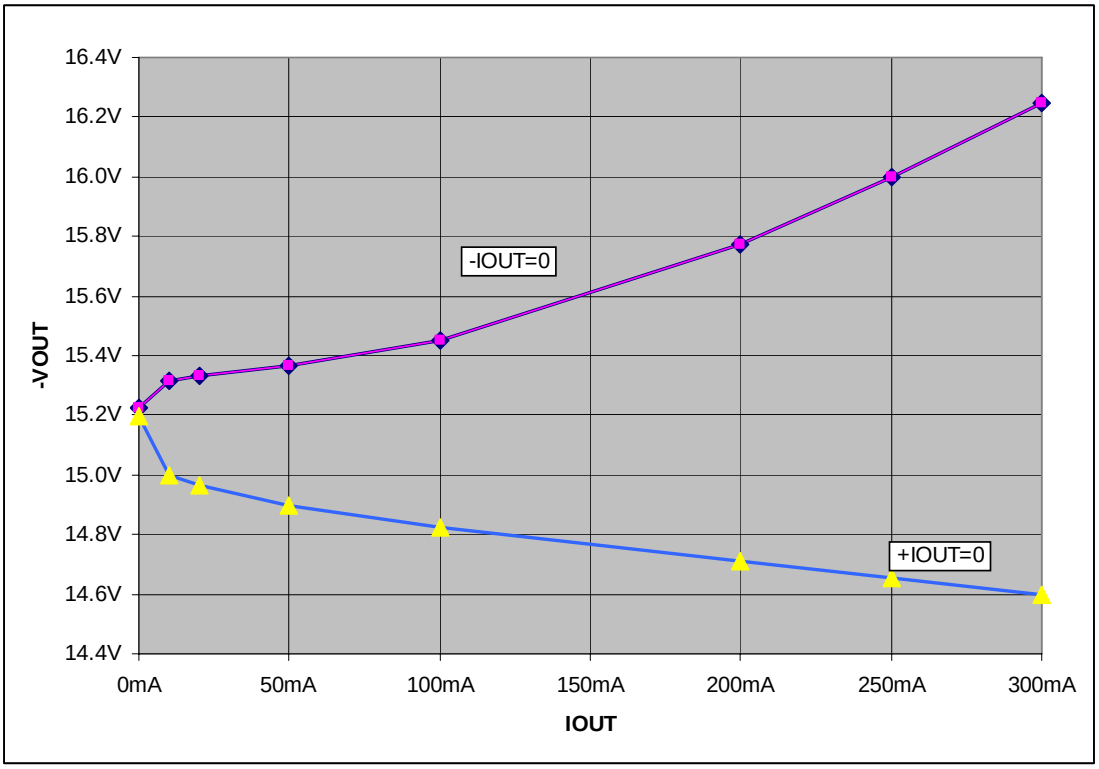


Figure 7

**** All the other measurements were performed without that basic load 10kOhm ****

6 Output ripple voltage

The output ripple voltage of the positive channel w/ a load of 250mA (each channel) is displayed in Figure 8. The waveform was taken AC-coupled and with bw 20MHz.

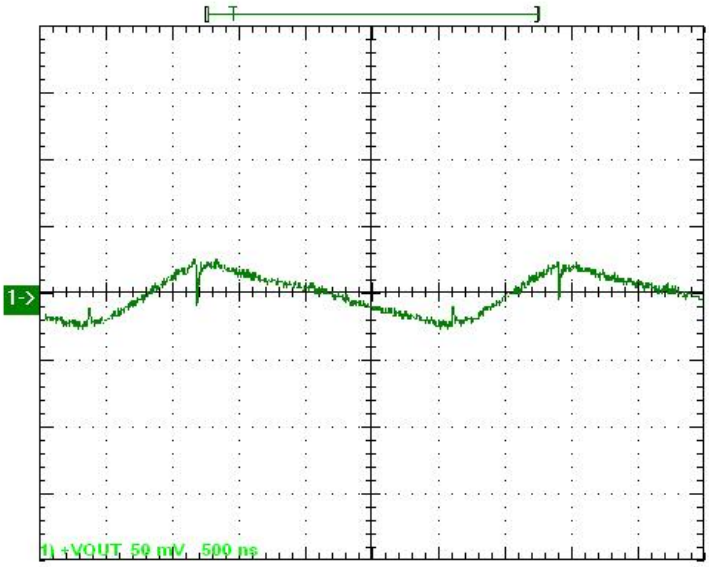


Figure 8

The output ripple voltage of the negative channel w/ a load of 250mA (each channel) is displayed in Figure 9. The waveform was taken AC-coupled and with bw 20MHz.

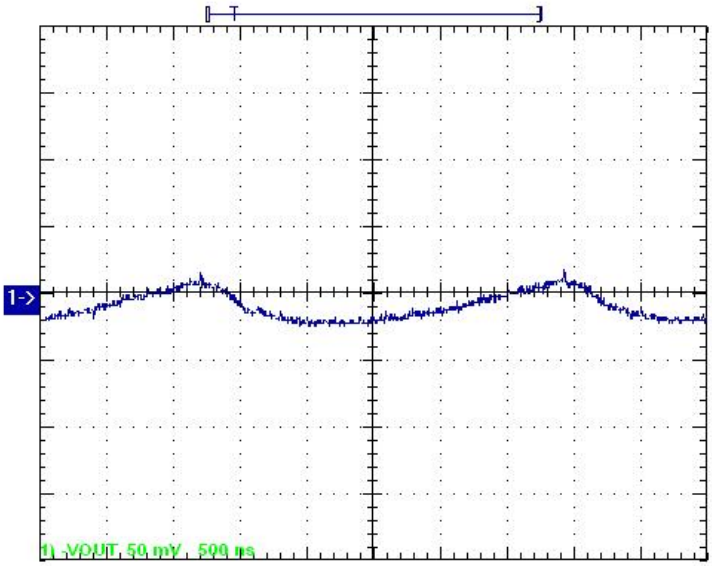


Figure 9

7 Frequency response

Figure 10 shows the loop response with 250mA load at the positive channel and 0 and 150mA at the negative channel.

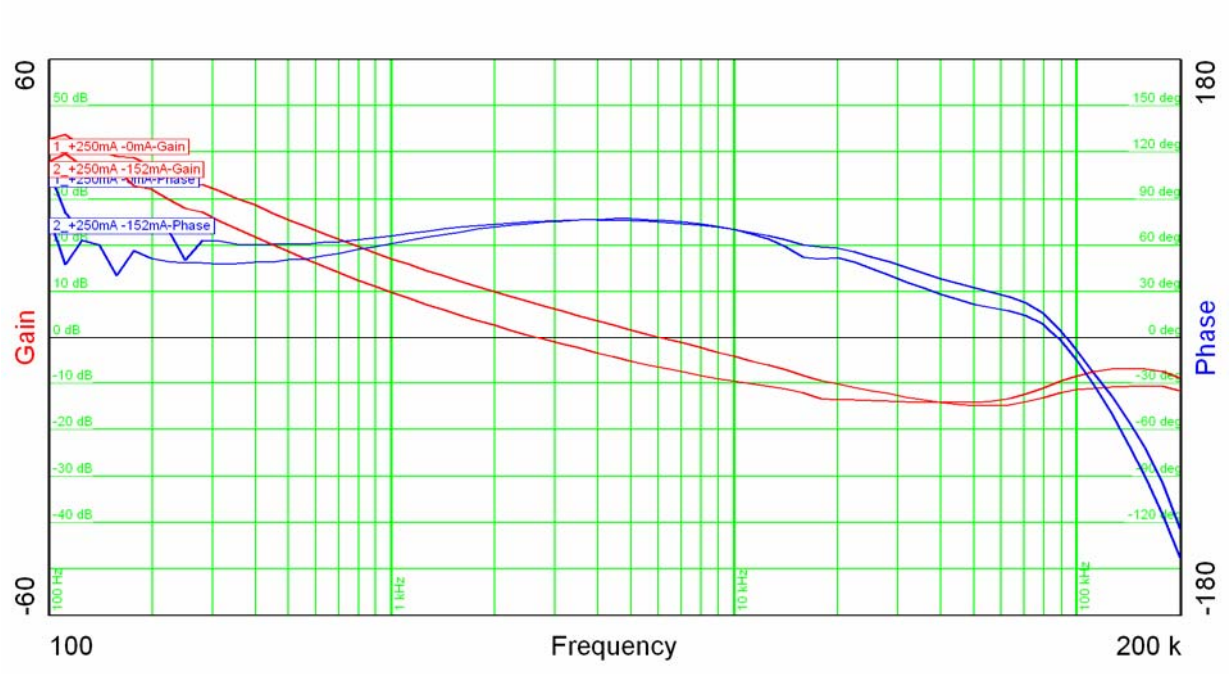


Figure 10

-IOUT	0mA	152mA
fco	6.078kHz	2.67kHz
PhaseMargin	75.1°	74.6°
GainMargin	-11.79dB	-9.75dB

8 Miscellaneous waveforms

The voltage at the switch node is shown in Figure 11. The image shows the waveforms with input voltage 5V.

Channel 1: switchnode @ 250mA Iout (at both channels) (with 20MHz bandwidth)

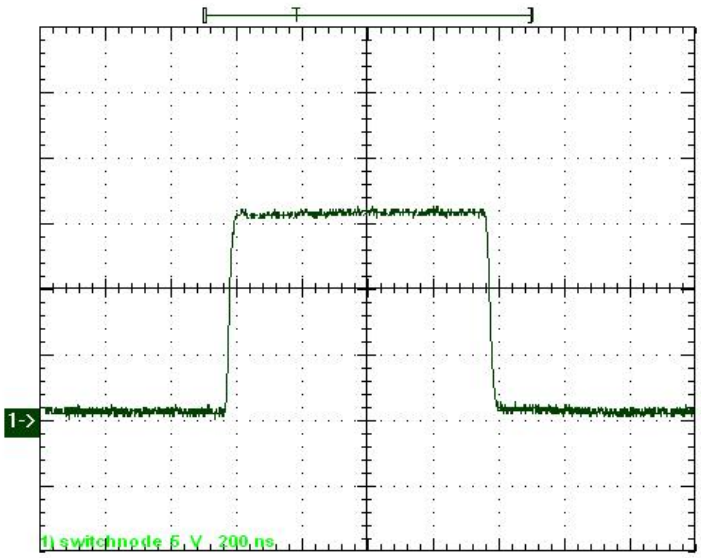
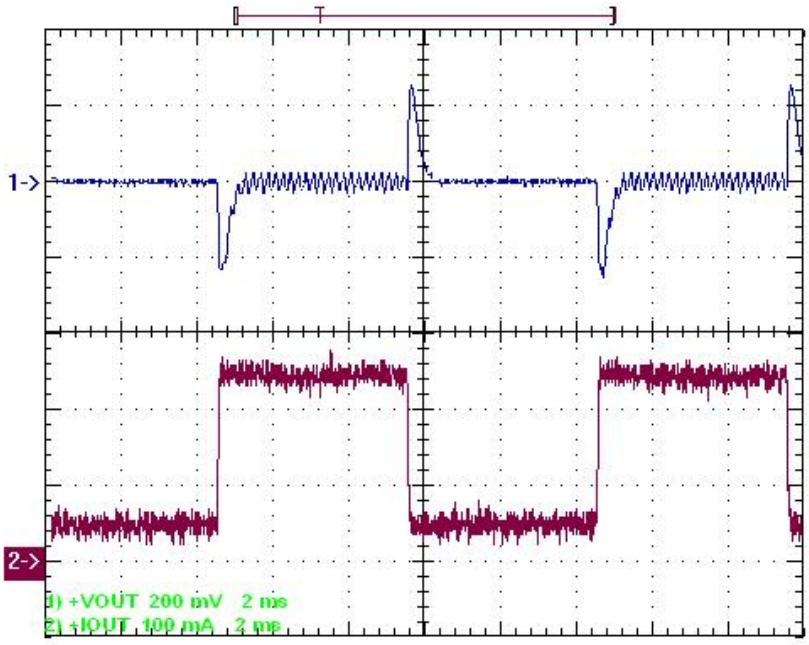


Figure 11

9 Load Transient

The waveforms were taken with 100mA on one channel and a transient from 50mA to 250mA (100Hz) at the other channel.

Figure 12 shows the waveform of the pos. channel with the transient at the same channel.



Ch1 +VOUT (AC with 20MHz bw) 200mV/div

CH2 +IOUT (20MHz) 100mA/div

Timebase 2ms/div

Figure 12

Figure 13 shows the waveform of the neg. channel with the transient at the pos. channel.

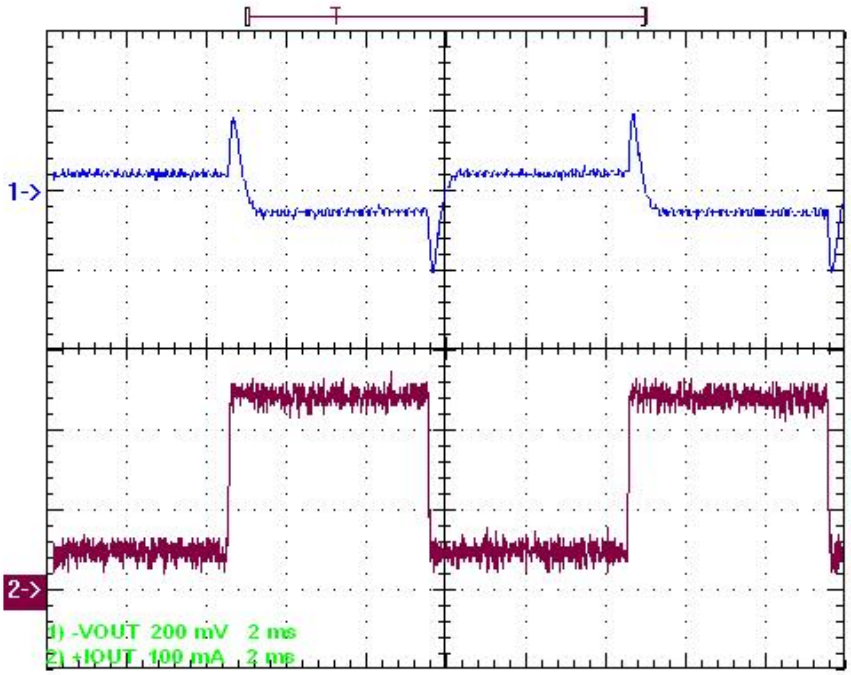


Figure 13

Figure 14 shows the waveform of the pos. channel with the transient at the neg. channel.

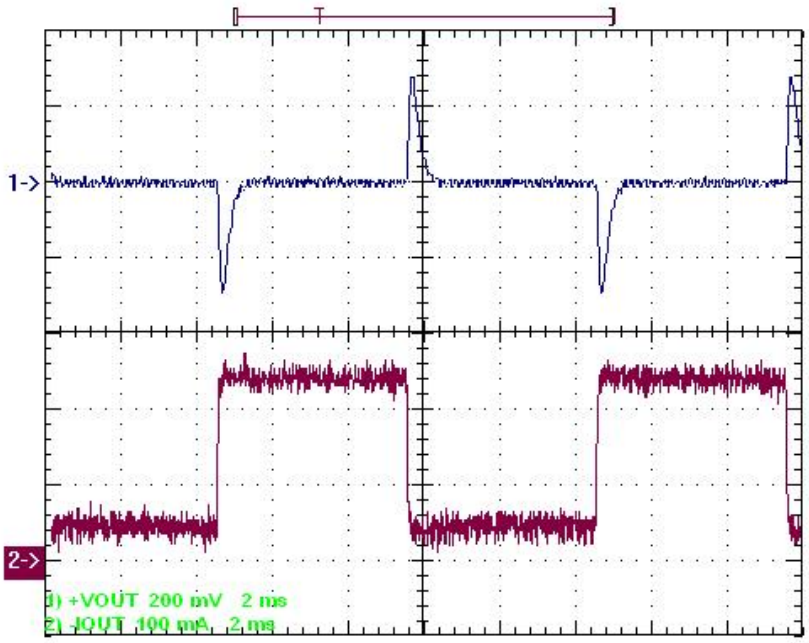


Figure 14

Figure 15 shows the waveform of the neg. channel with the transient at the same channel.

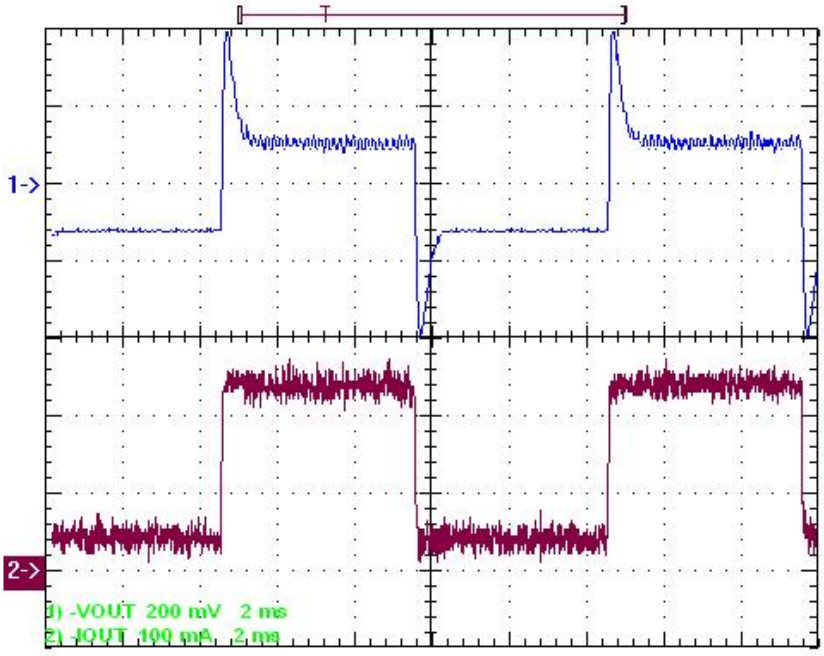


Figure 15

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