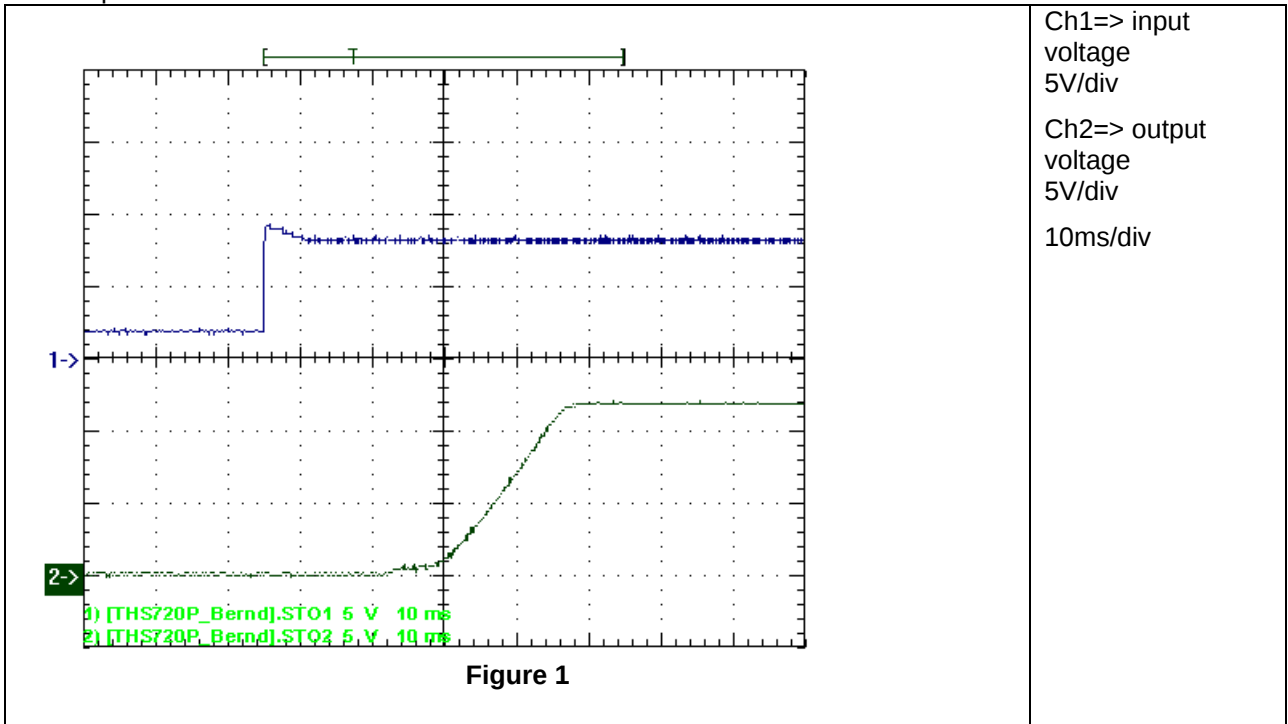


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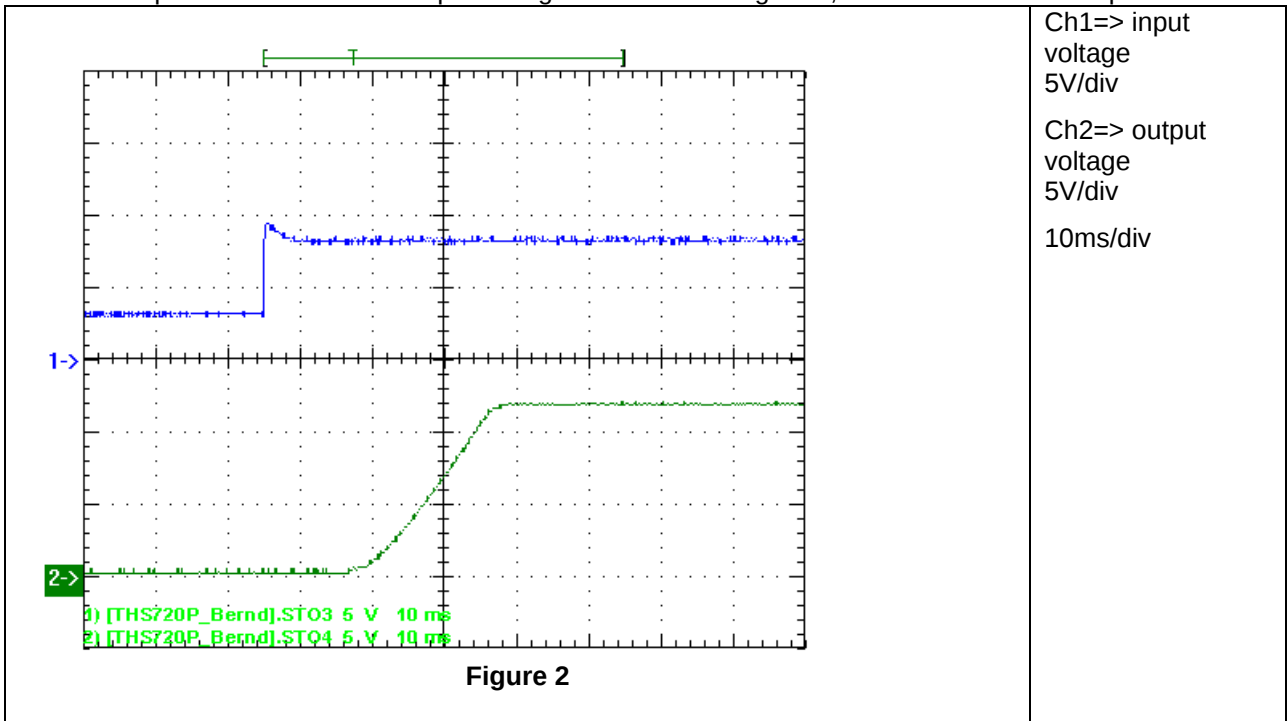
1	Startup.....	2
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3	Efficiency.....	6
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1 Startup

The startup waveform is shown in the Figure 1. The input voltage was set at 8.1V, with 1A load at the output.

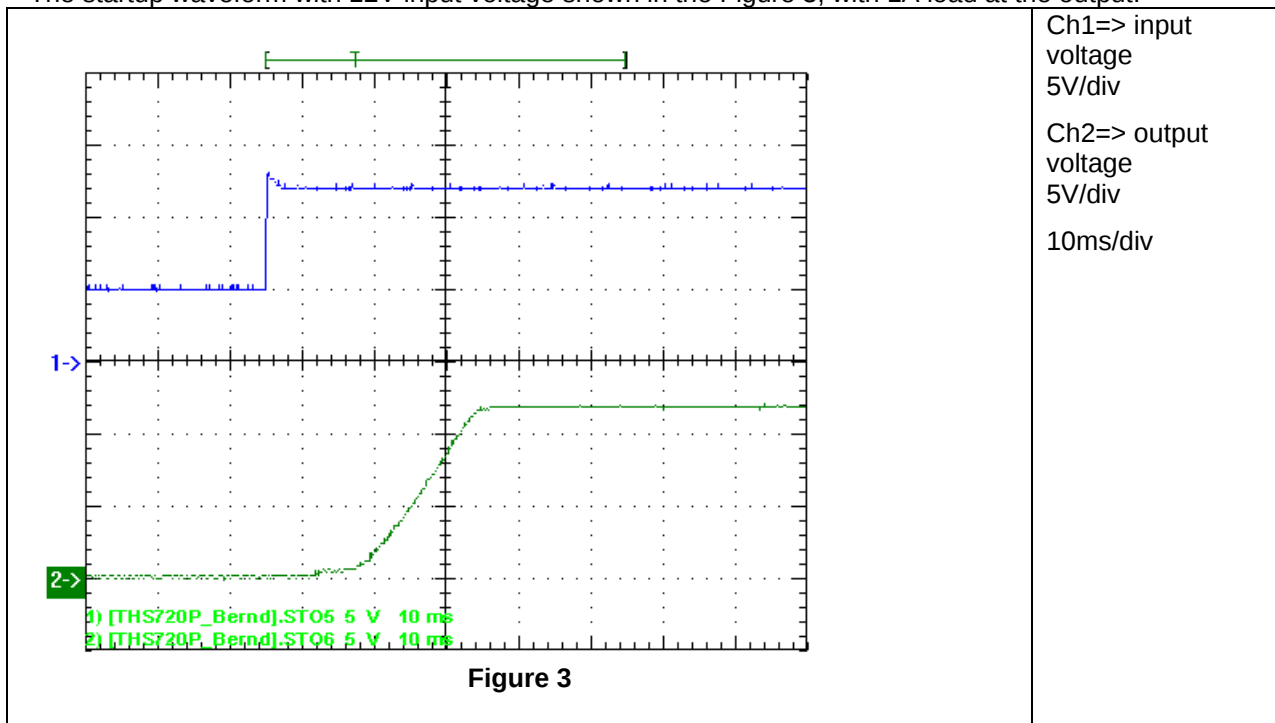


. The startup waveform with 8.1V input voltage shown in the Figure 2; with 0A load at the output.

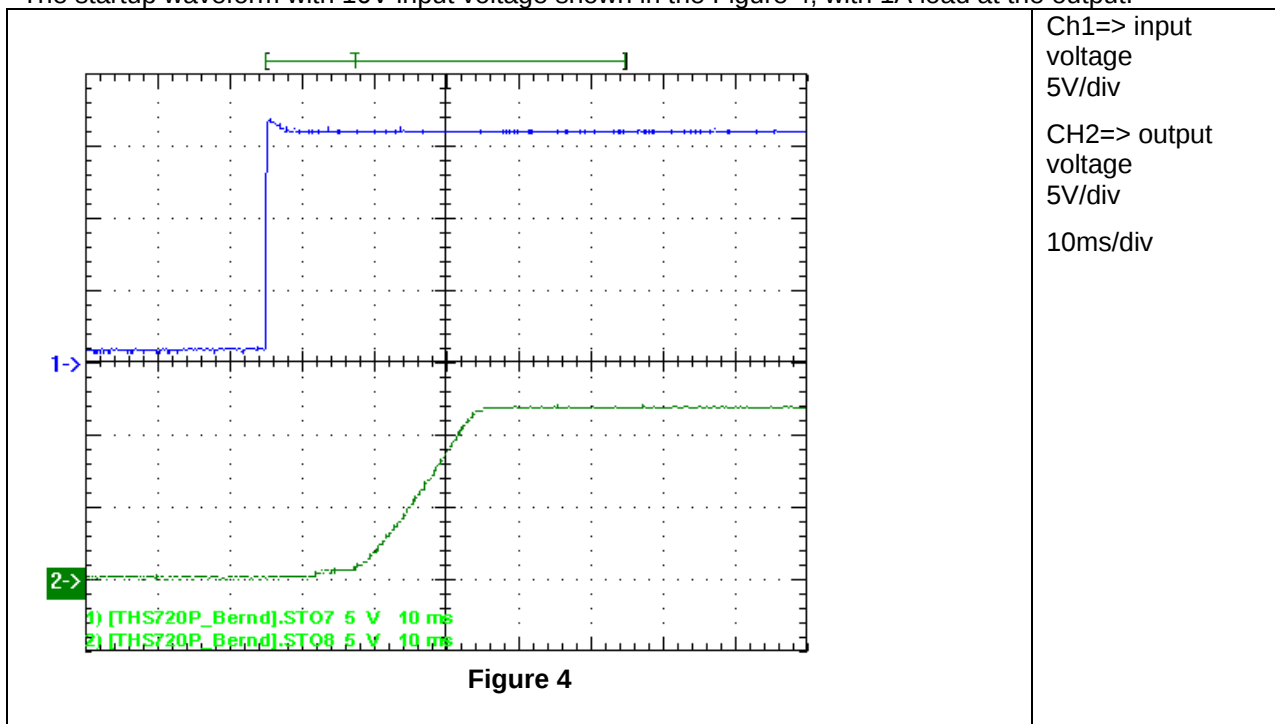


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The startup waveform with 12V input voltage shown in the Figure 3; with 1A load at the output.

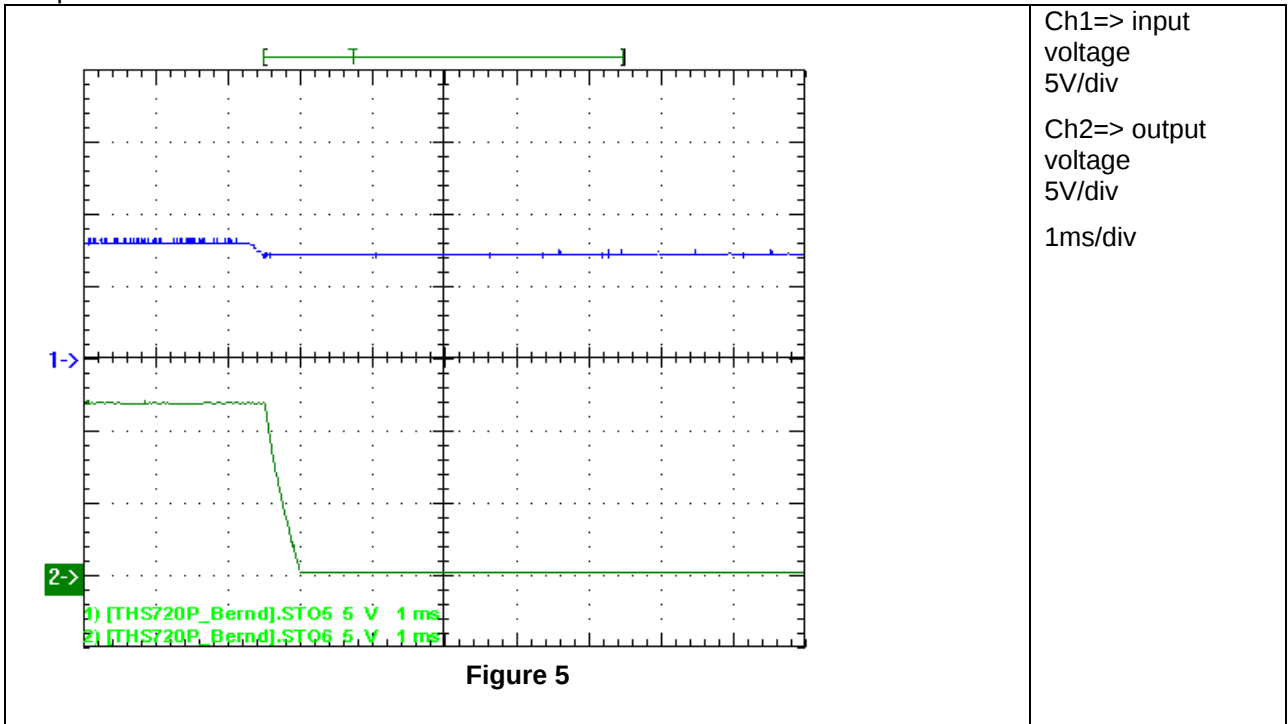


The startup waveform with 16V input voltage shown in the Figure 4; with 1A load at the output.

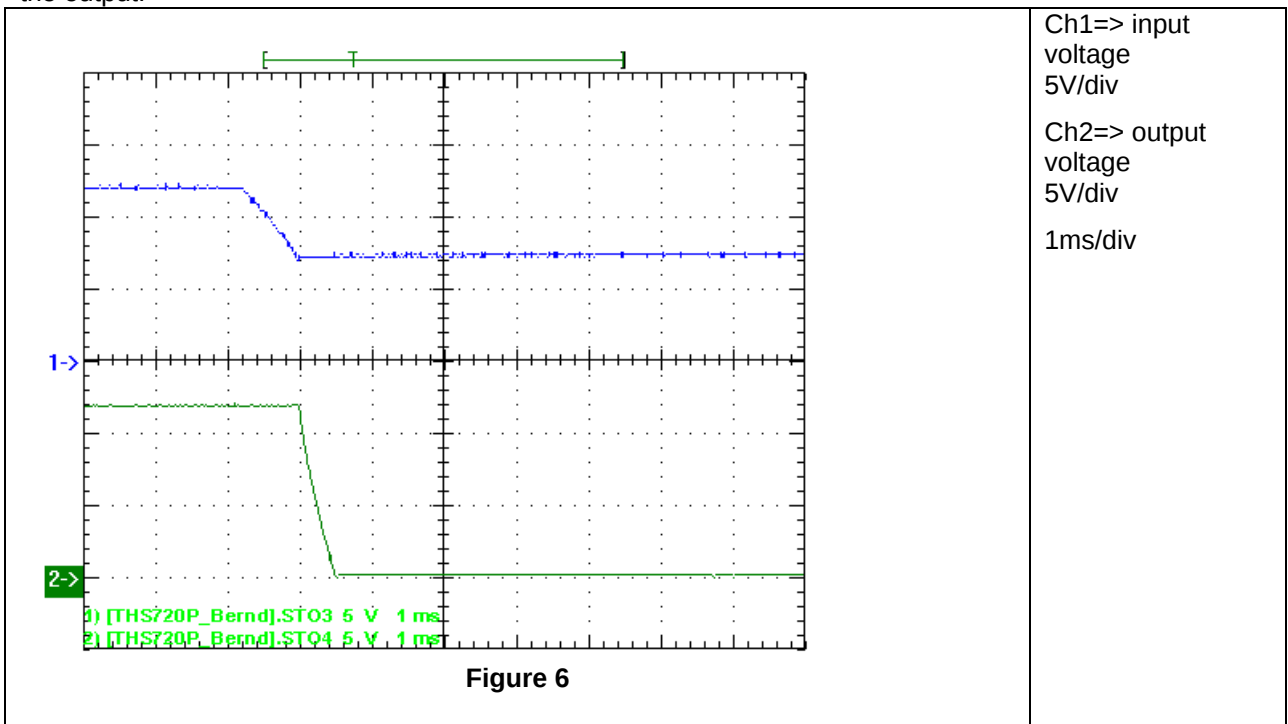


2 Shutdown

The shutdown waveform is shown in the Figure 5 at 8V input voltage. With 1A load applied at the output.

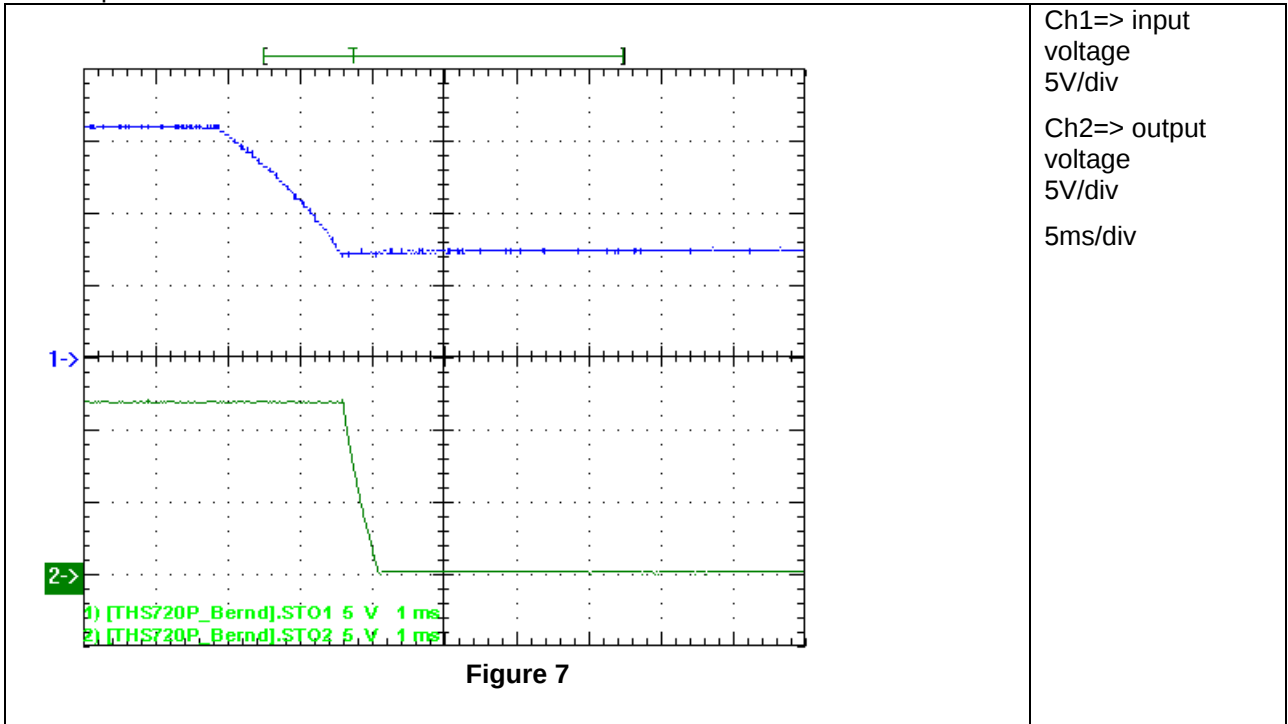


The shutdown waveform is shown in the Figure 6 at 12V input voltage. With 1A load applied at the output.



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The shutdown waveform is shown in the Figure 6 at 16V input voltage. With 1A load applied at the output.



3 Efficiency

The efficiency at different input voltages is shown in the Figure 8 below.

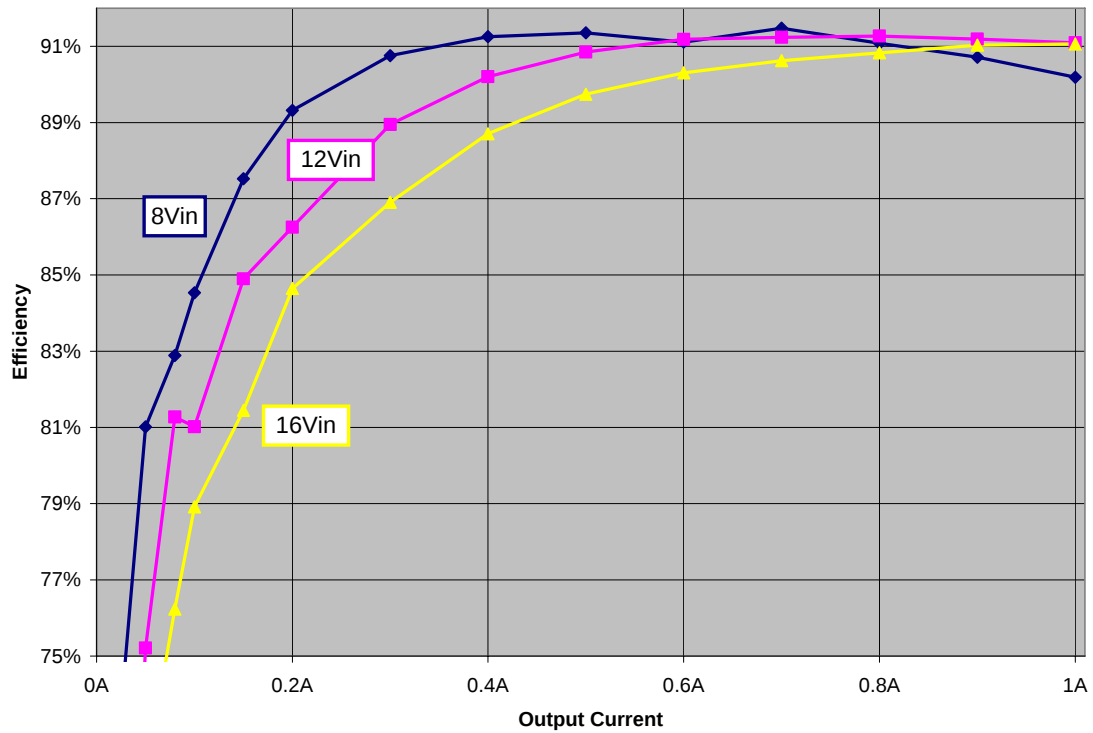


Figure 8

4 Load regulation

The load regulation for 8V, 12 and 16V input voltage is shown in Figure 9.

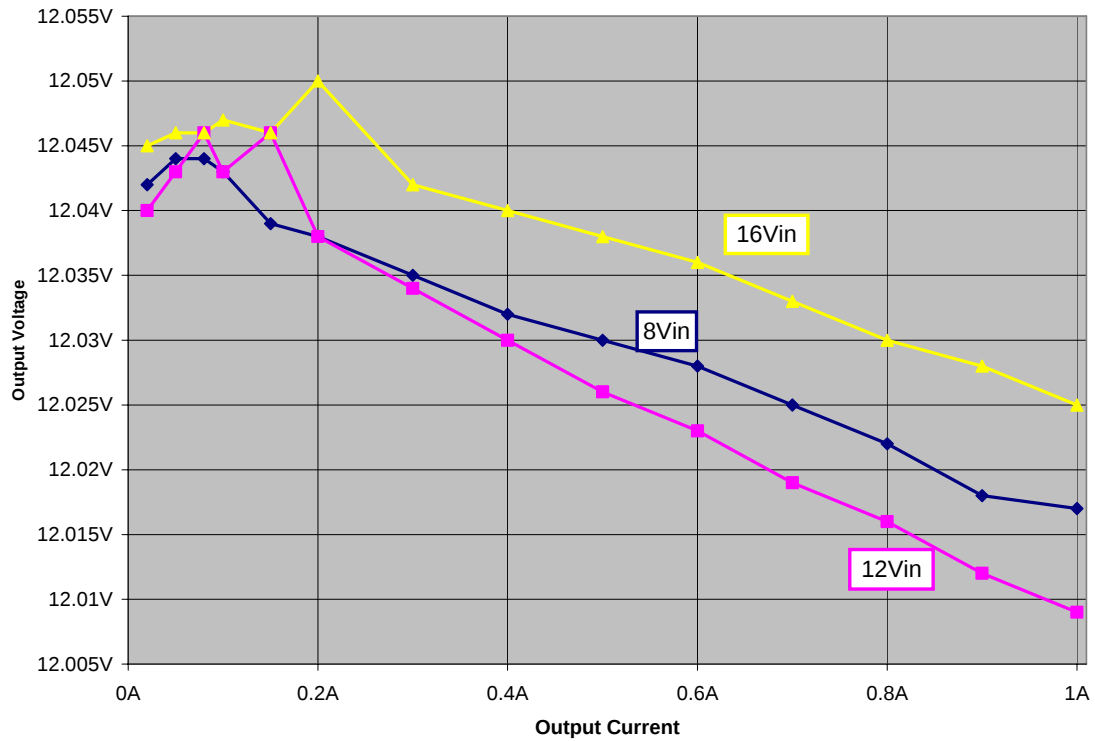


Figure 9

5 Line Regulation

These measurements were performed 1A load.

The effects of variation from the input voltage to the output voltage are shown in Figure 10.

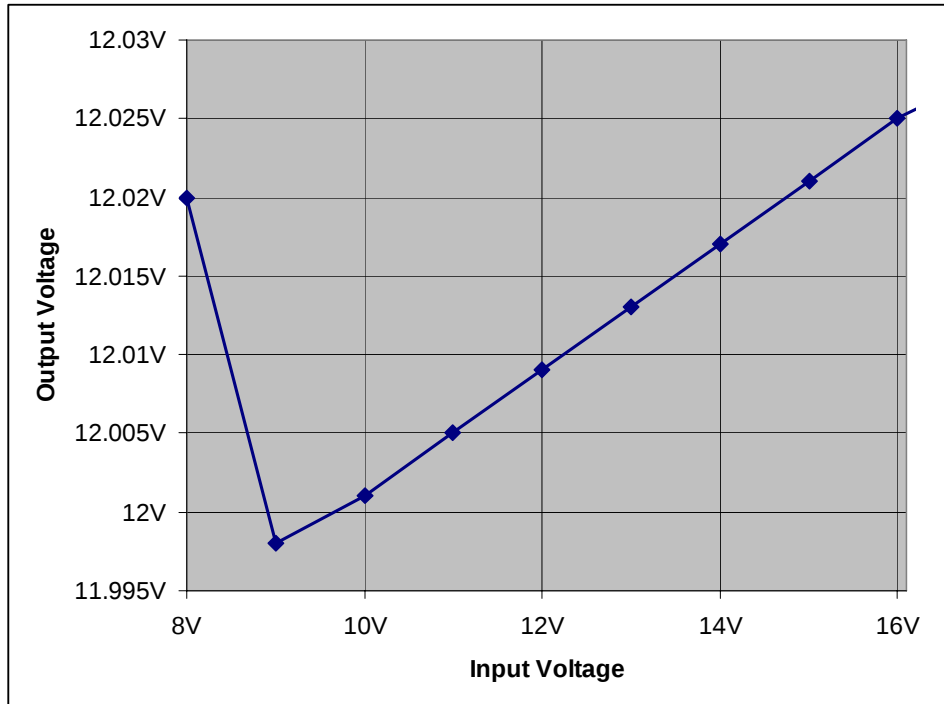


Figure 10

The efficiencies by varying the input voltage are displayed in Figure 11. Output current was set to 1A.

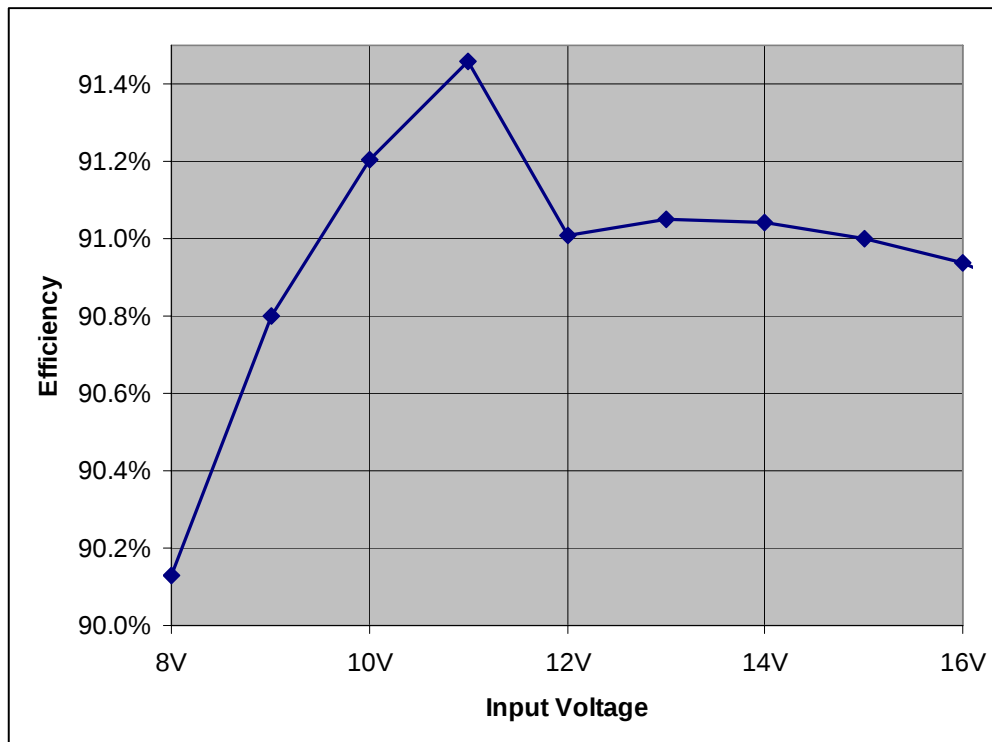


Figure 11

6 Control Loop Frequency Response

Figure 12 shows the loop response. 1A-load applied. The input voltages was 12V.

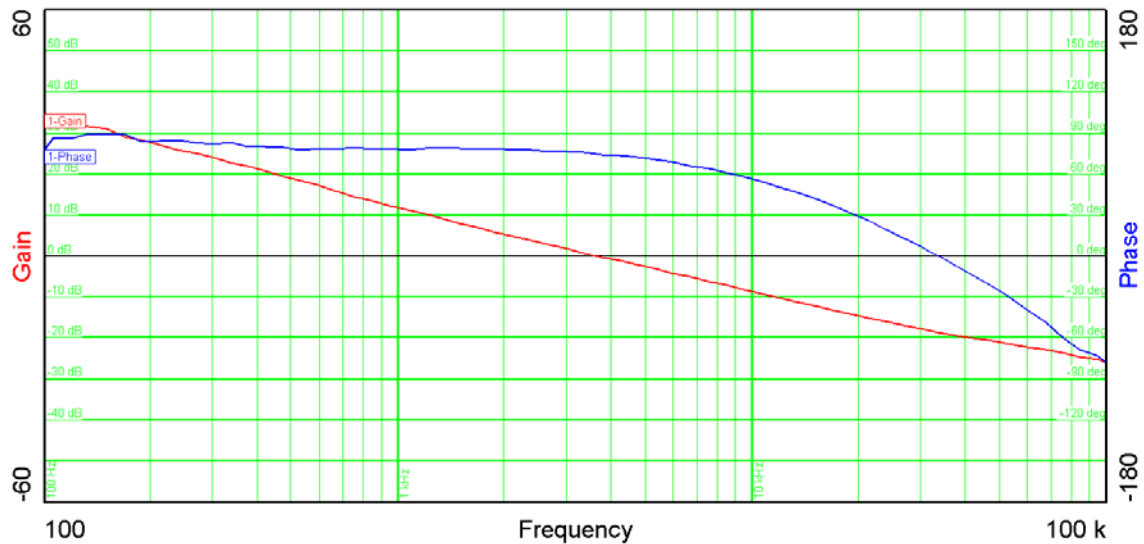


Figure 12

Table 1 summarizes the results from Figure 12

VIN	12V
Bandwidth (kHz)	3.661
Phase margin	74.9°
slope (20dB/decade)	-1.07
gain margin (dB)	-18.74
slope (20dB/decade)	-0.925
freq (kHz)	33.7

Table 1

7 Switch Node Waveform

With 1A-load results in the waveforms shown in Figure 13 and Figure 14. 8V were applied to the input.

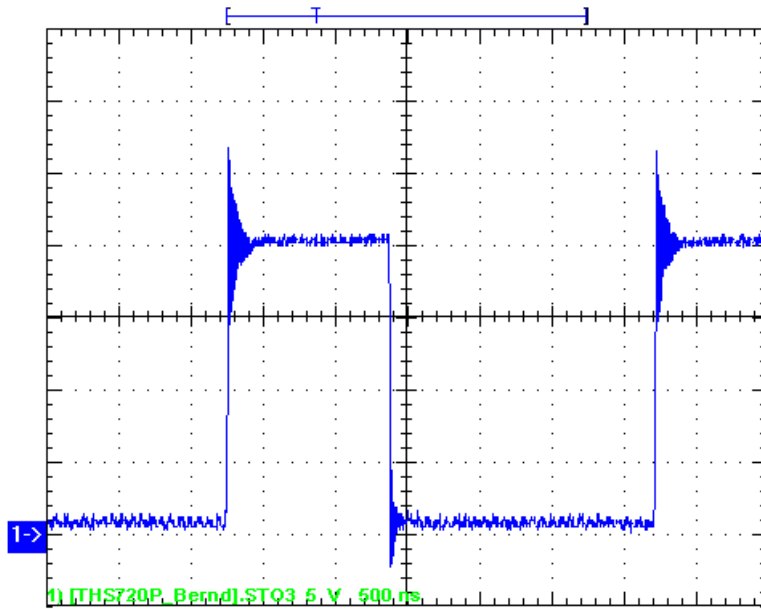


Figure 13

Ch1 =>
switchnode
5V/div
500ns/div
full
bandwidth

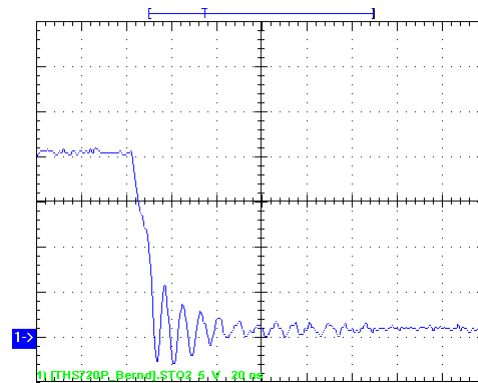
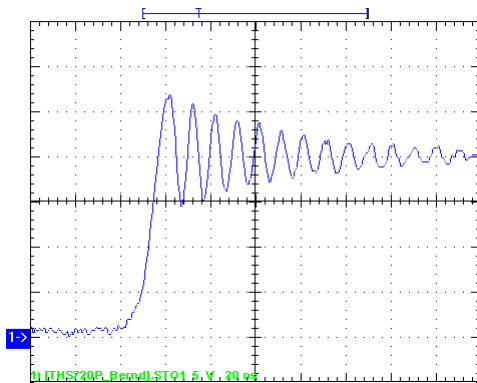
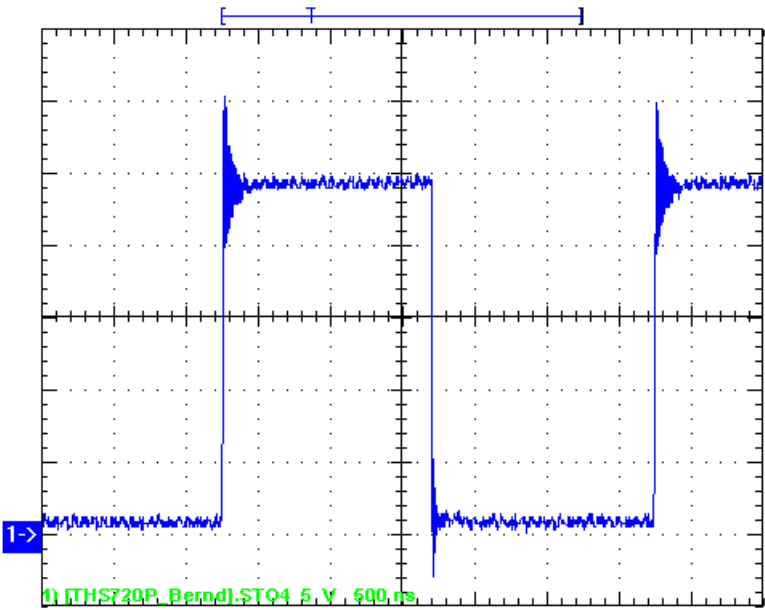
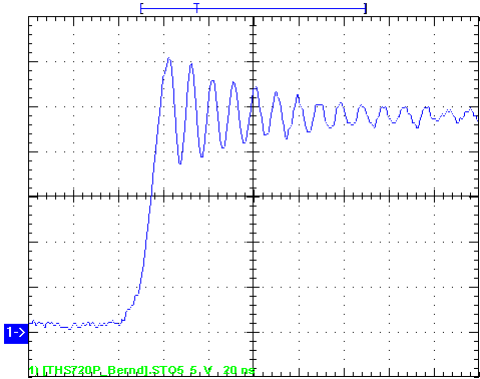
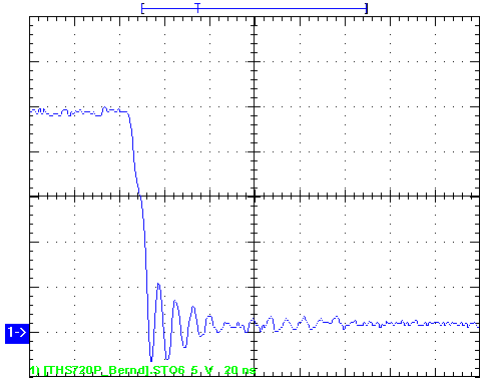


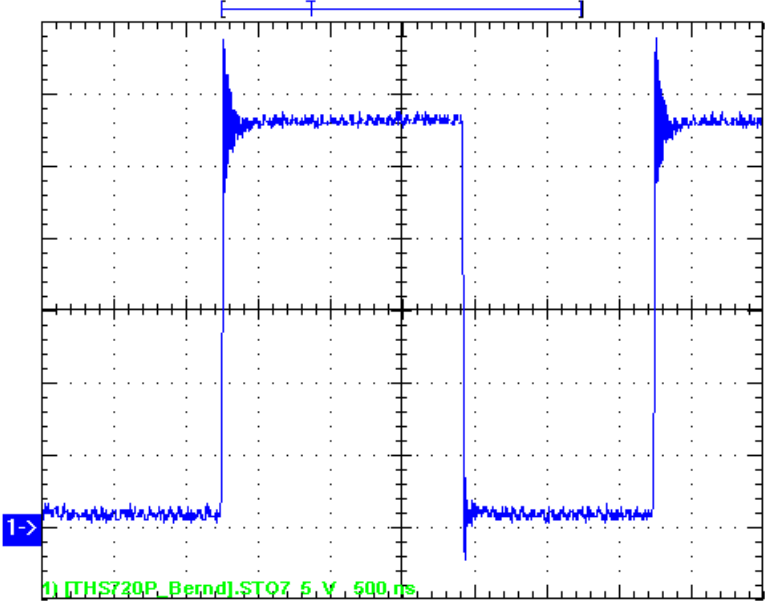
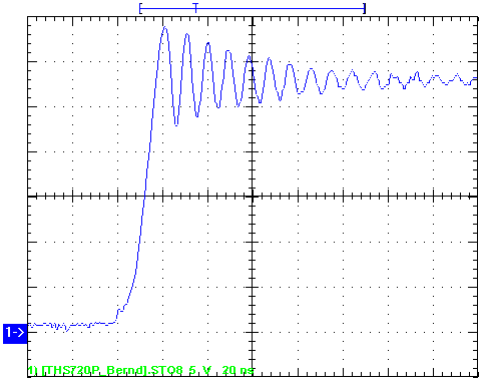
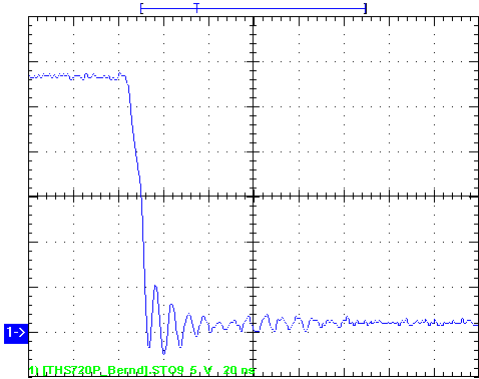
Figure 14

Ch1 =>
5V/div
20ns/div
full
bandwidth

With 1A-load results in the waveforms shown in Figure 15 and Figure 16. 12V were applied to the input.

		Ch1 => switchnode 5V/div 500ns/div full bandwidth
		Ch1 => switchnode 5V/div 20ns/div full bandwidth
Figure 16		

With 1A-load results in the waveforms shown in Figure 17 and Figure 18. 16V were applied to the input.

		Ch1 => switchnode 5V/div 500ns/div full bandwidth
		Ch1 => switchnode 5V/div 20ns/div full bandwidth
Figure 18		

8 Ripple Voltages

The output ripple voltage at 1A load is displayed in Figure 19.

The measurements at 8V, 12 and 16V input voltage were performed separately.

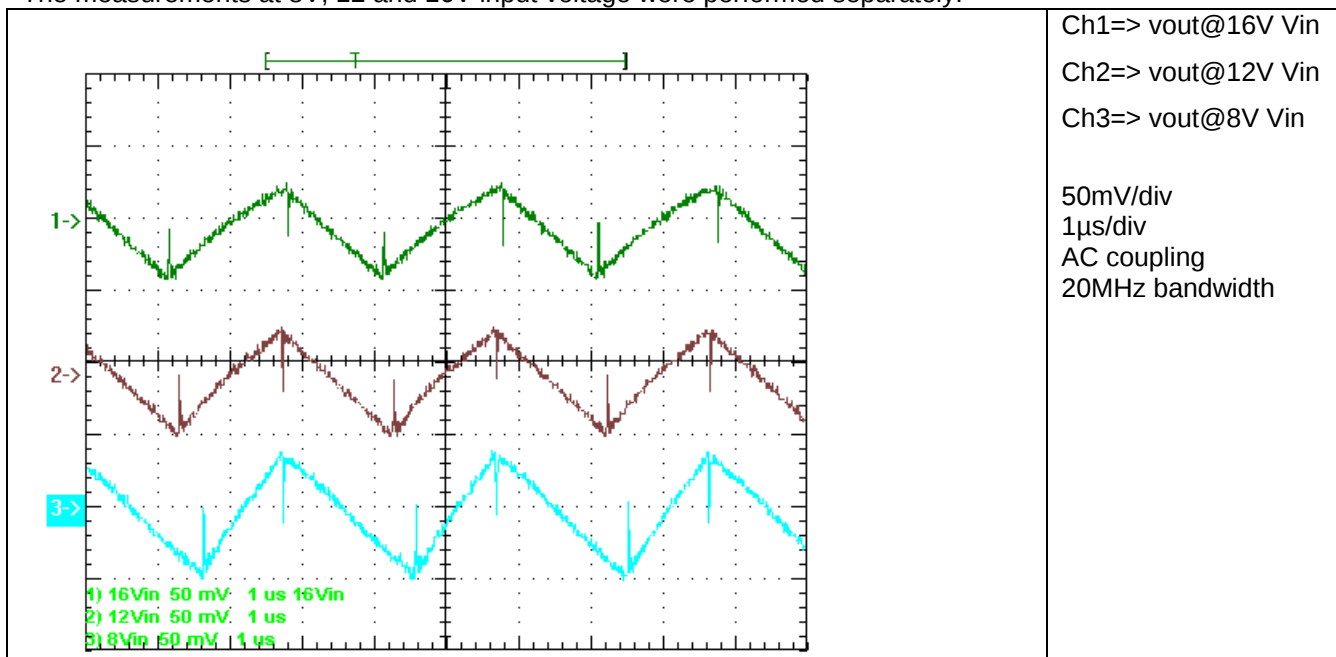


Figure 19

The input ripple voltage is displayed in Figure 20.

The measurements at 8V, 12 and 16V input voltage were performed separately.

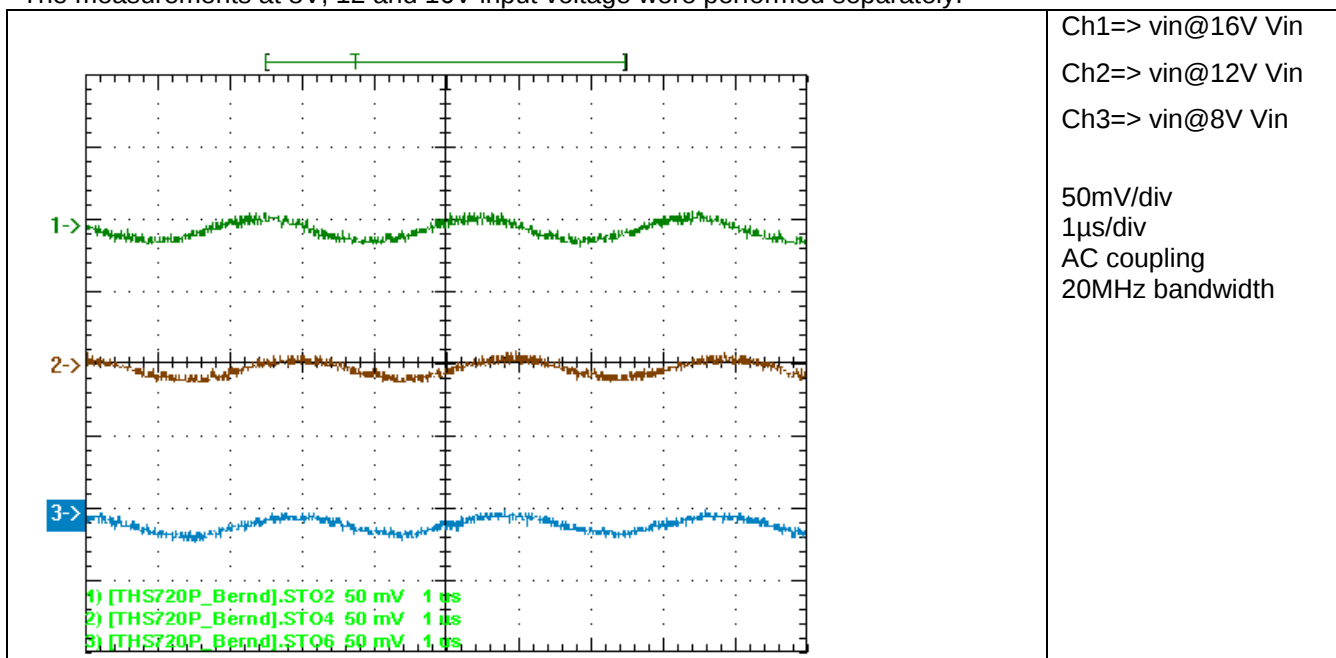
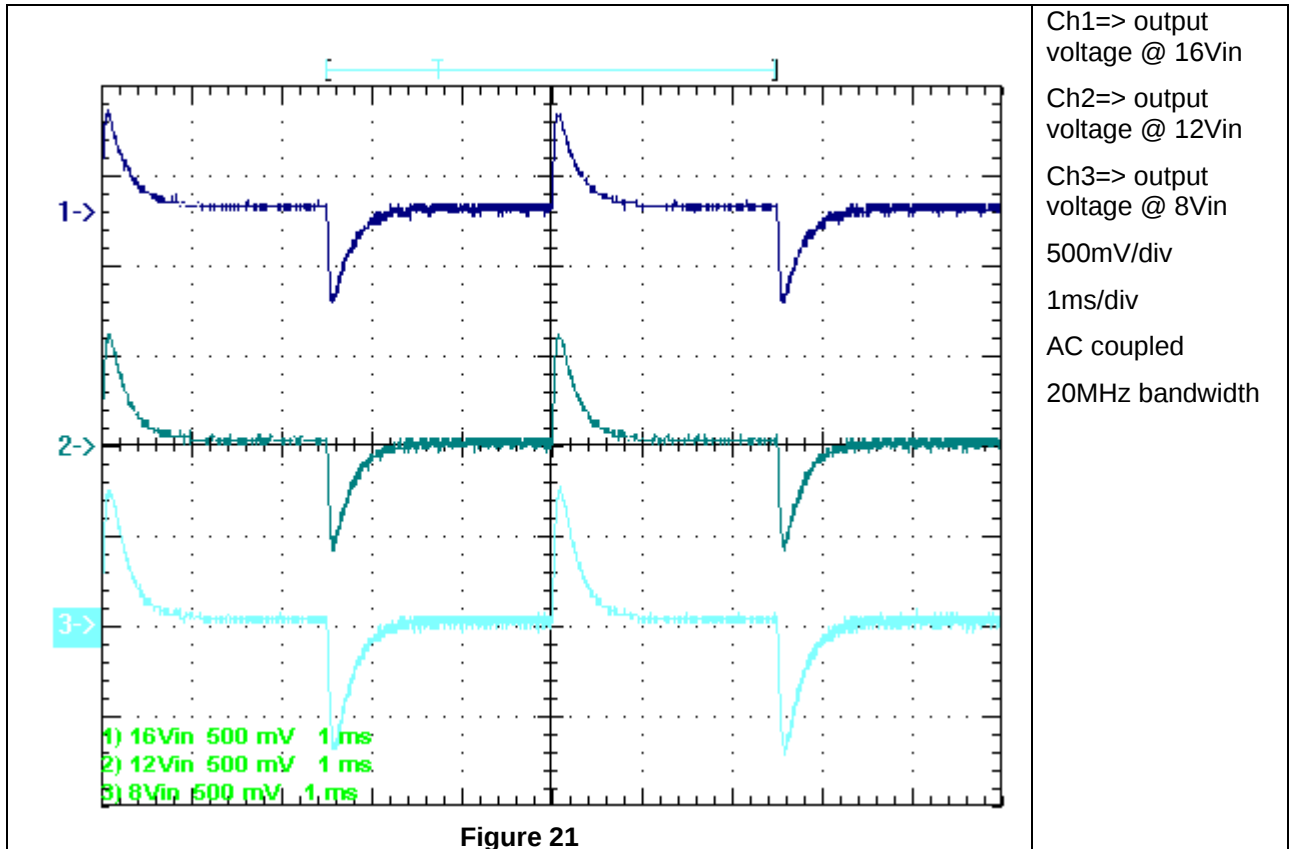


Figure 20

9 Load Transients

A output current change from 0.5A to 1A 200Hz results in Figure 21. The measurements at 8V, 12 and 16V input voltage were performed separately.



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