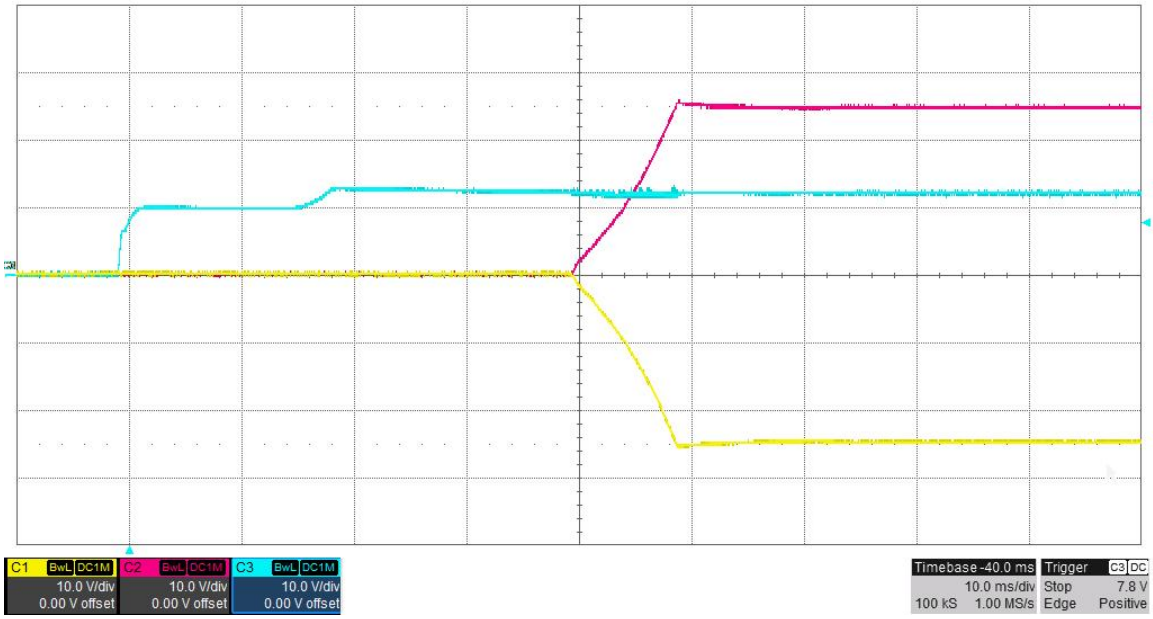
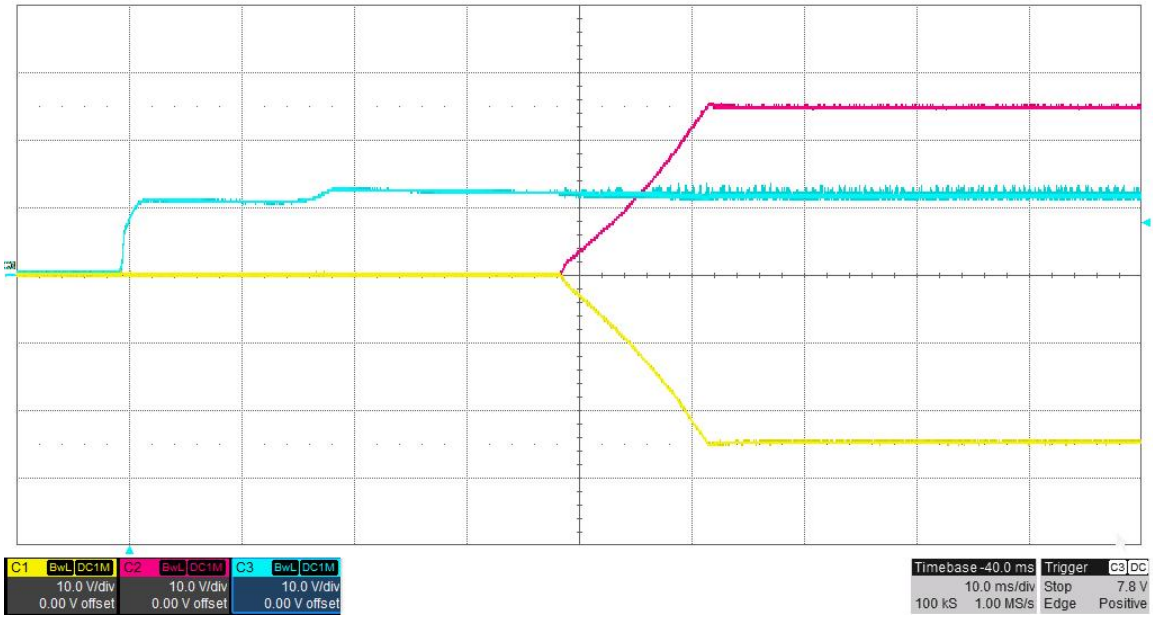
1 Startup

The photo below shows the output voltage startup waveform after the application of 12V in. The +25V/-25V outputs were loaded to 0.01A. (10V/DIV, 10mS/DIV)

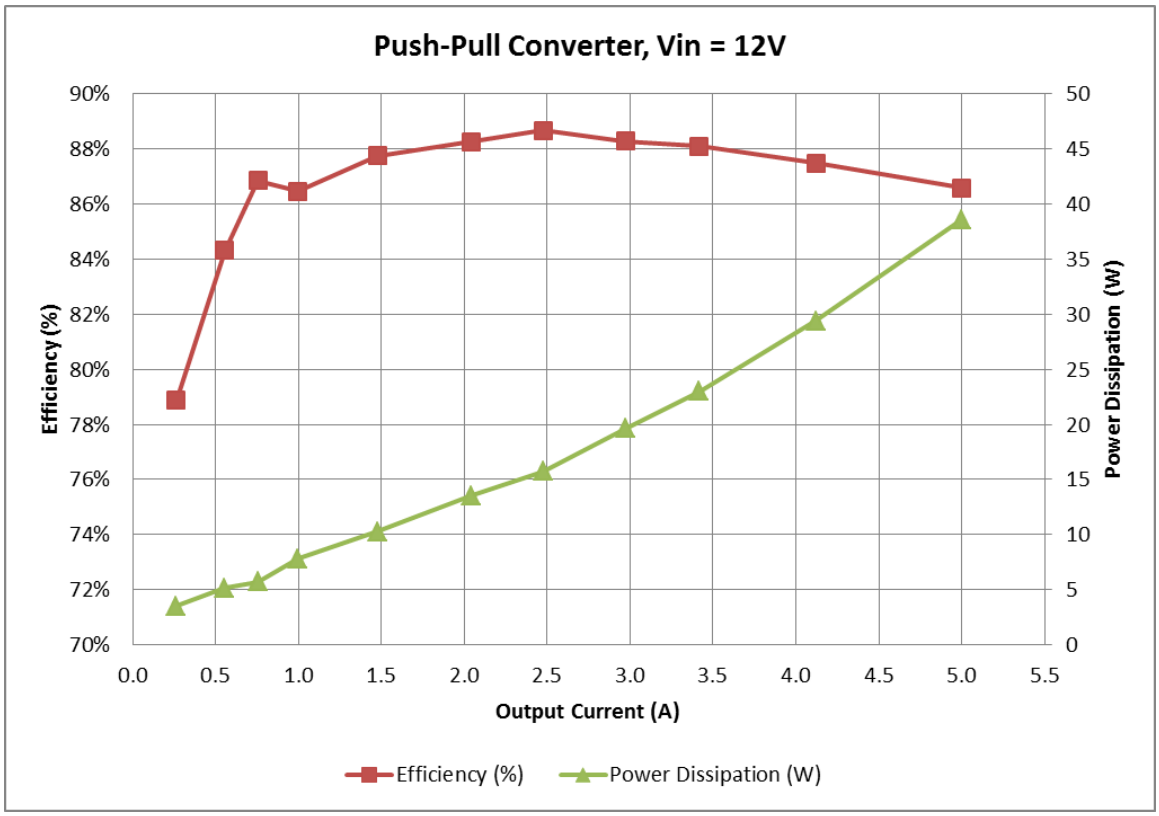


The photo below shows the output voltage startup waveform after the application of 12V in. The +25V/-25V outputs were loaded differentially with 10 ohms (5A). (10V/DIV, 10mS/DIV)



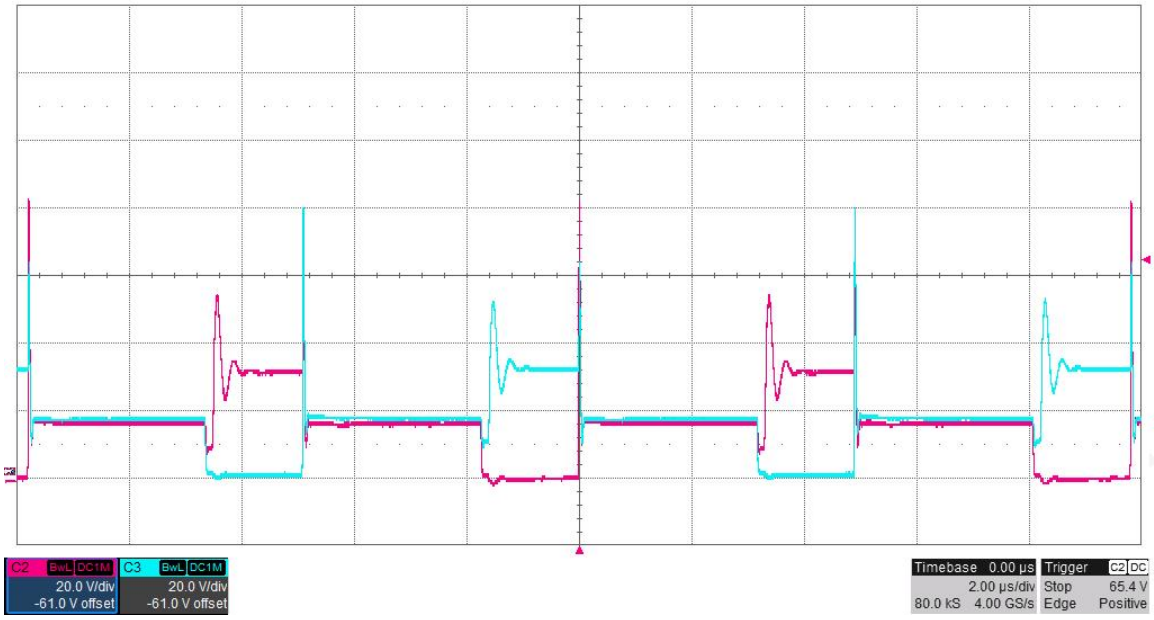
2 Efficiency

The converter efficiency and power dissipation is shown below for Vin = 12V.

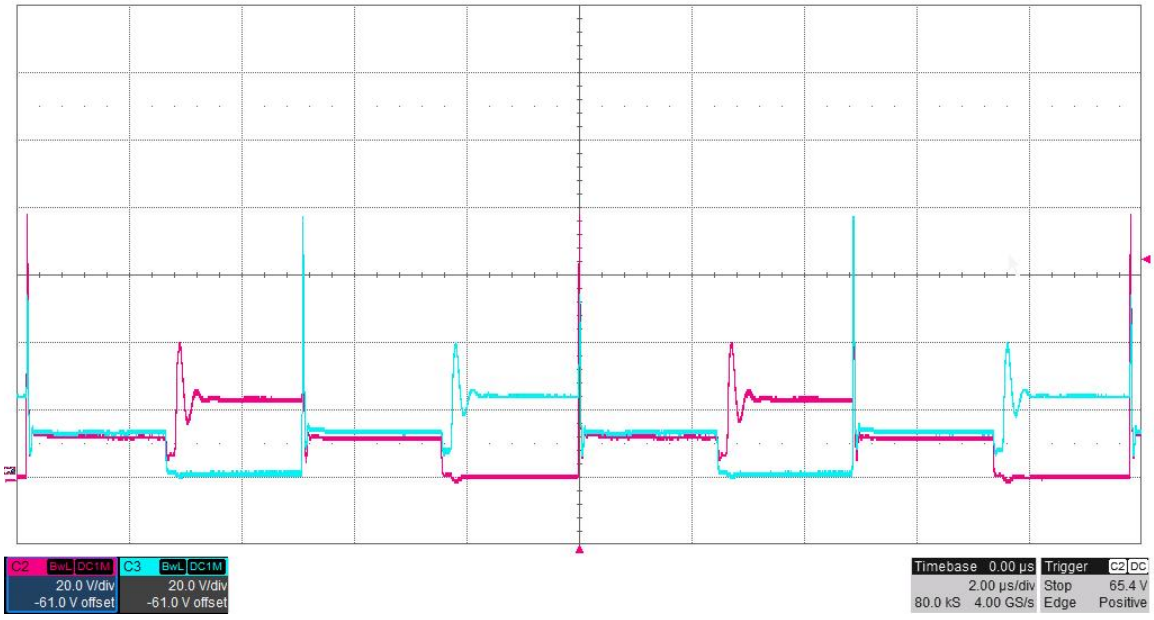


3 Switch Node Waveforms

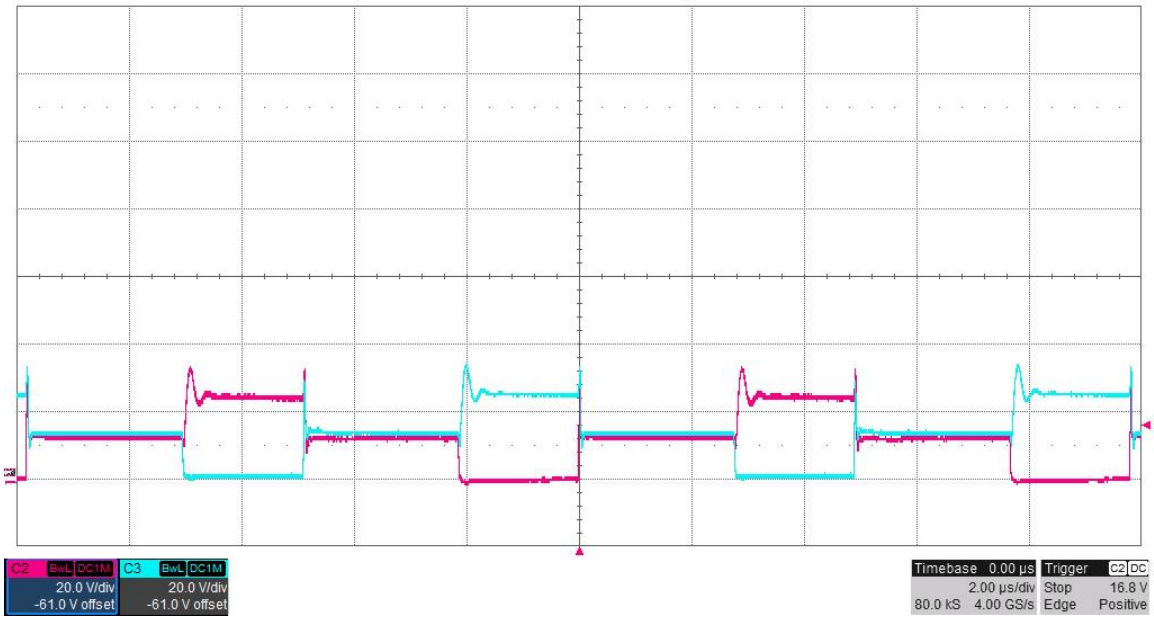
The photo below shows the FET switching voltages for an input voltage of 16V. The outputs were loaded differentially with 10 ohms (5A). (20V/DIV, 2uS/DIV)



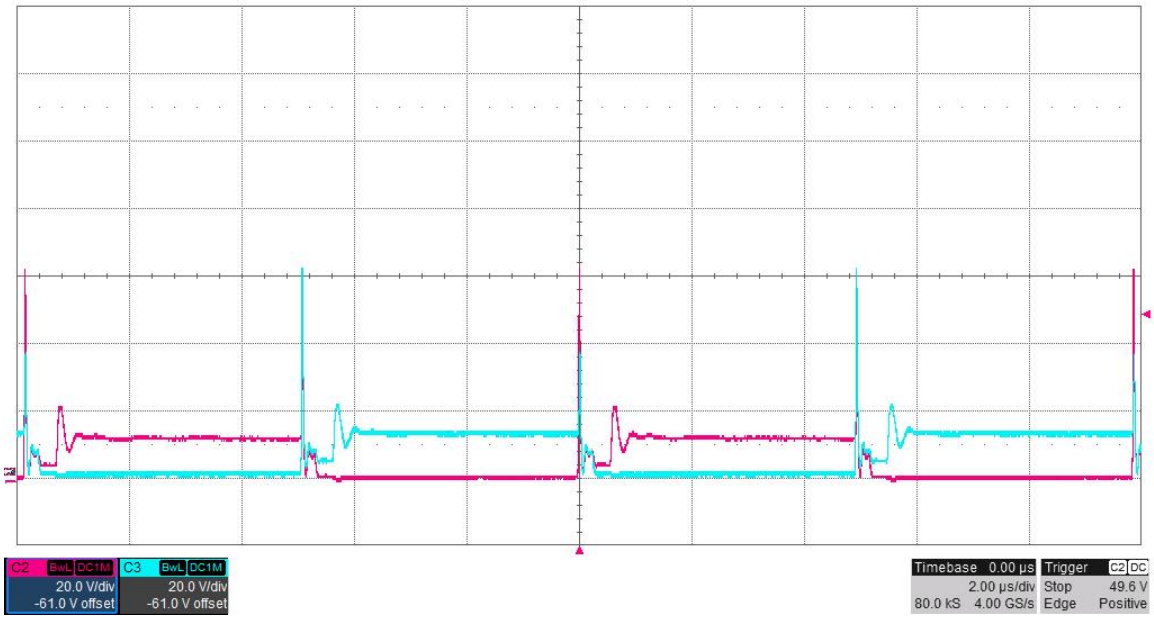
The photo below shows the FET switching voltages for an input voltage of 12V. The outputs were loaded differentially with 10 ohms (5A). (20V/DIV, 2uS/DIV)



The photo below shows the FET switching voltages for an input voltage of 12V. The outputs were loaded differentially with 50 ohms (1A). (20V/DIV, 2uS/DIV)

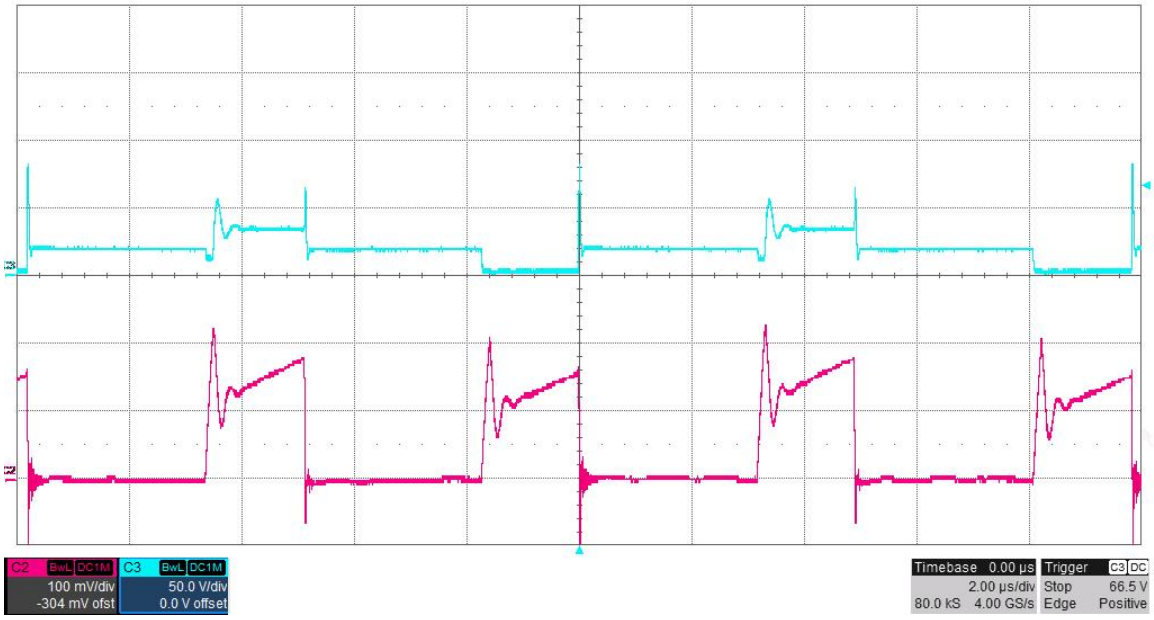


The photo below shows the FET switching voltages for an input voltage of 6V. The outputs were loaded differentially with 10 ohms (5A). (20V/DIV, 2uS/DIV)

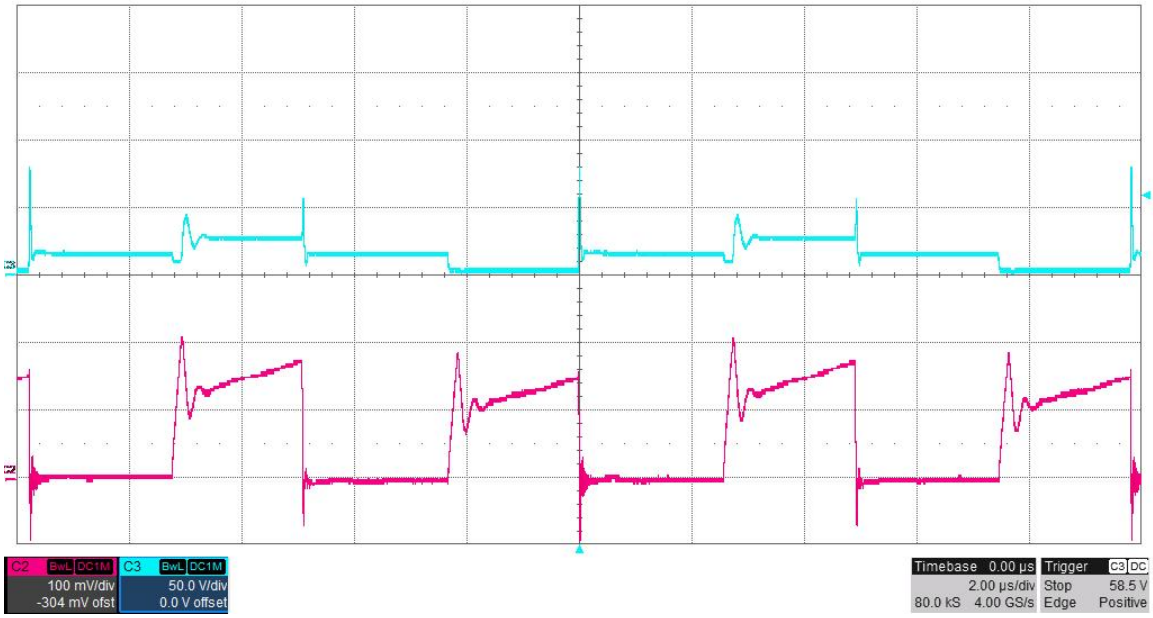


4 Current Sense resistor (R7) pin Waveforms

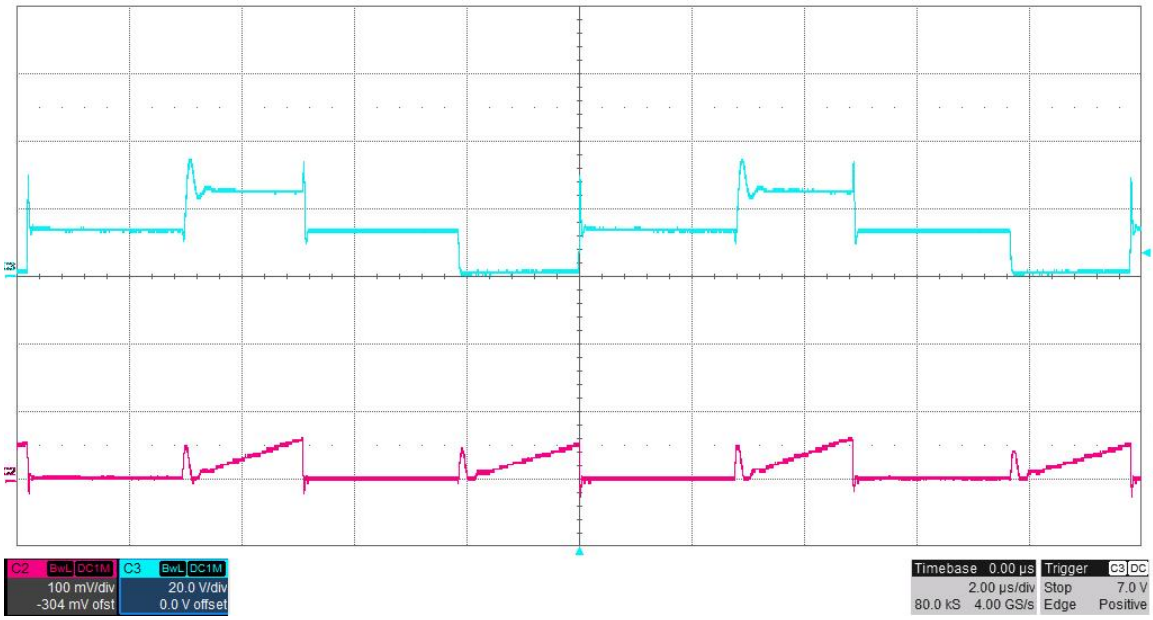
The photo below shows the FET switching voltage and the voltage across R7 for an input voltage of 16V. The outputs were loaded differentially with 10 ohms (5A). (50V/DIV, 100mV/DIV, 2uS/DIV)



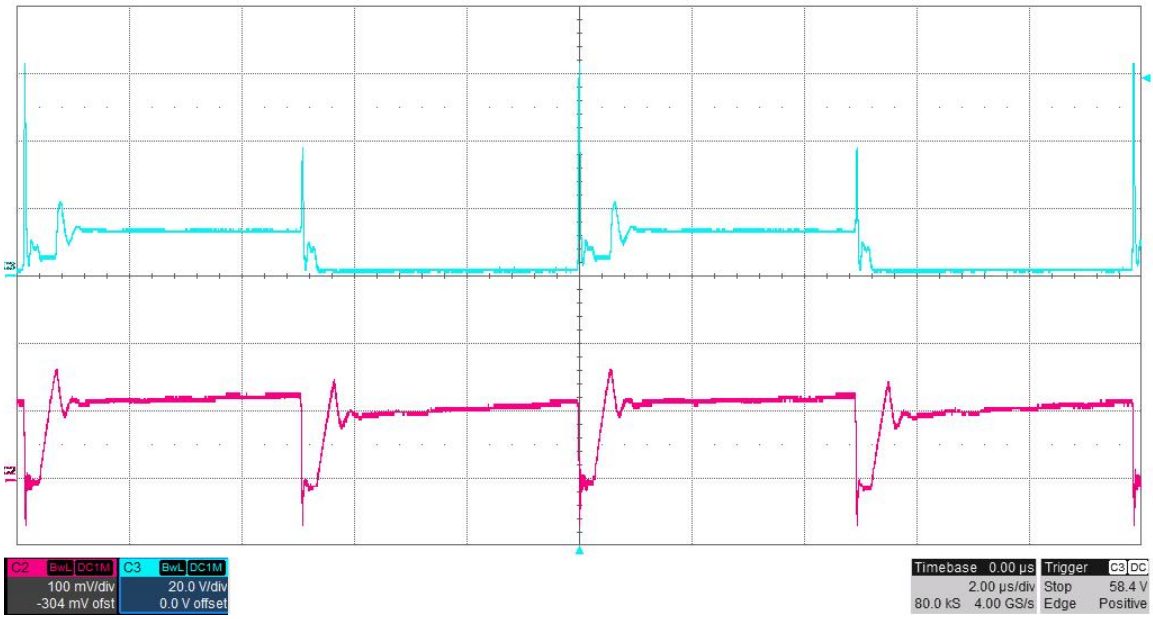
The photo below shows the FET switching voltage and the voltage across R7 for an input voltage of 12V. The outputs were loaded differentially with 10 ohms (5A). (50V/DIV, 100mV/DIV, 2uS/DIV)



The photo below shows the FET switching voltage and the voltage across R7 for an input voltage of 12V. The outputs were loaded differentially with 50 ohms (1A). (20V/DIV, 100mV/DIV, 2uS/DIV)

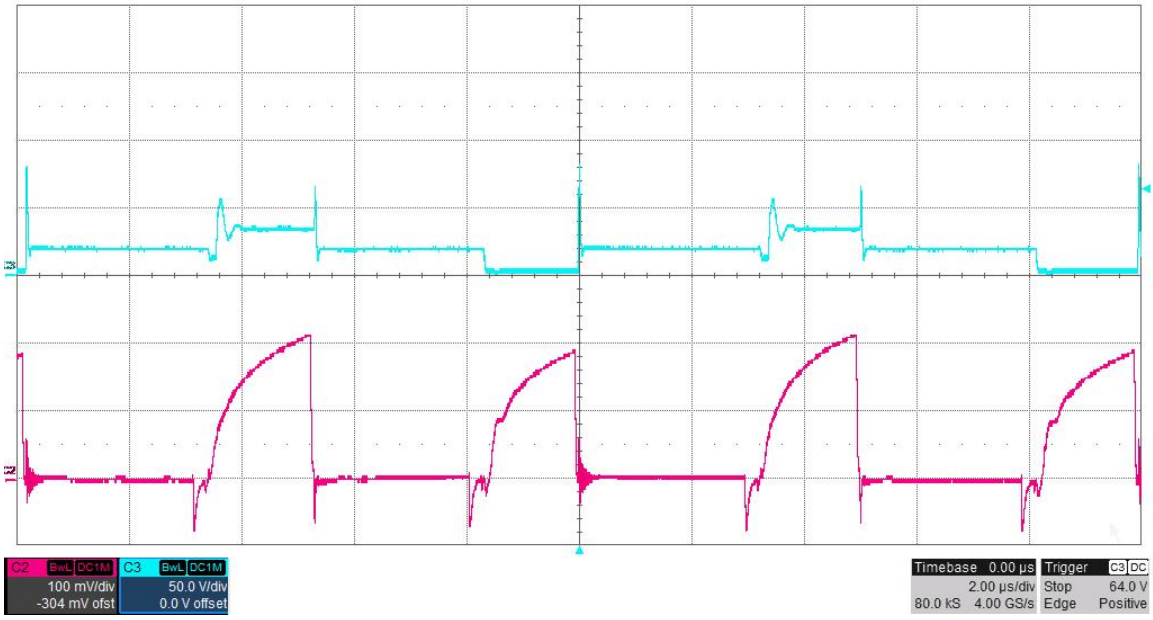


The photo below shows the FET switching voltage and the voltage across R7 for an input voltage of 6V. The outputs were loaded differentially with 10 ohms (5A). (20V/DIV, 100mV/DIV, 2uS/DIV)

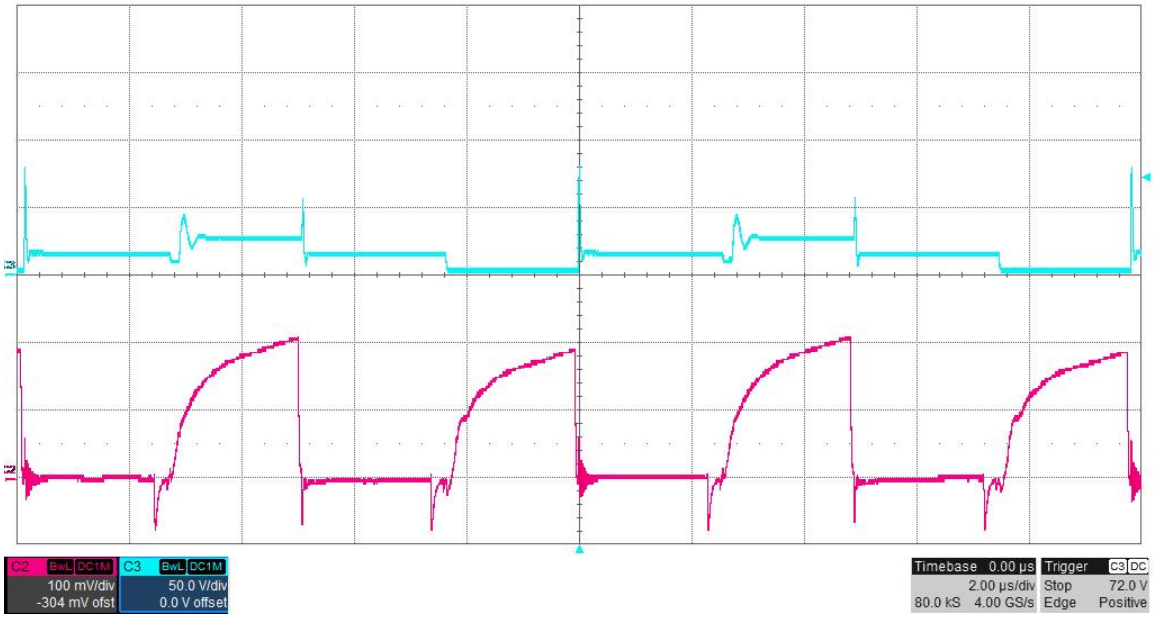


5 CS pin Waveforms

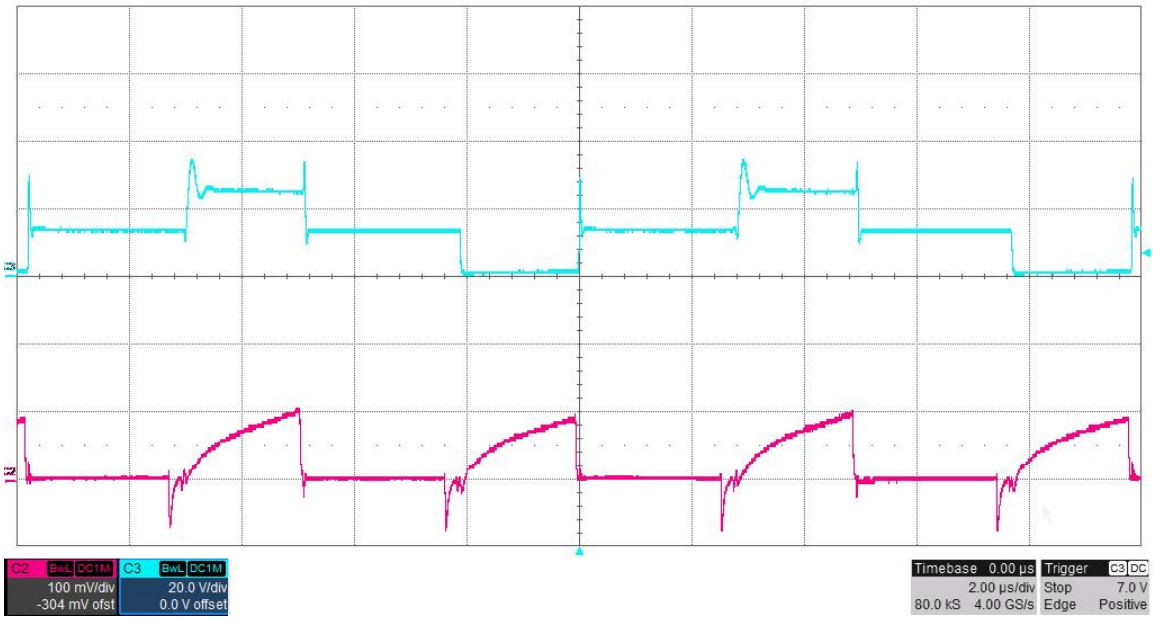
The photo below shows the FET switching voltage and the controller CS pin voltage for an input voltage of 16V. The outputs were loaded differentially with 10 ohms (5A). (50V/DIV, 100mV/DIV, 2uS/DIV)



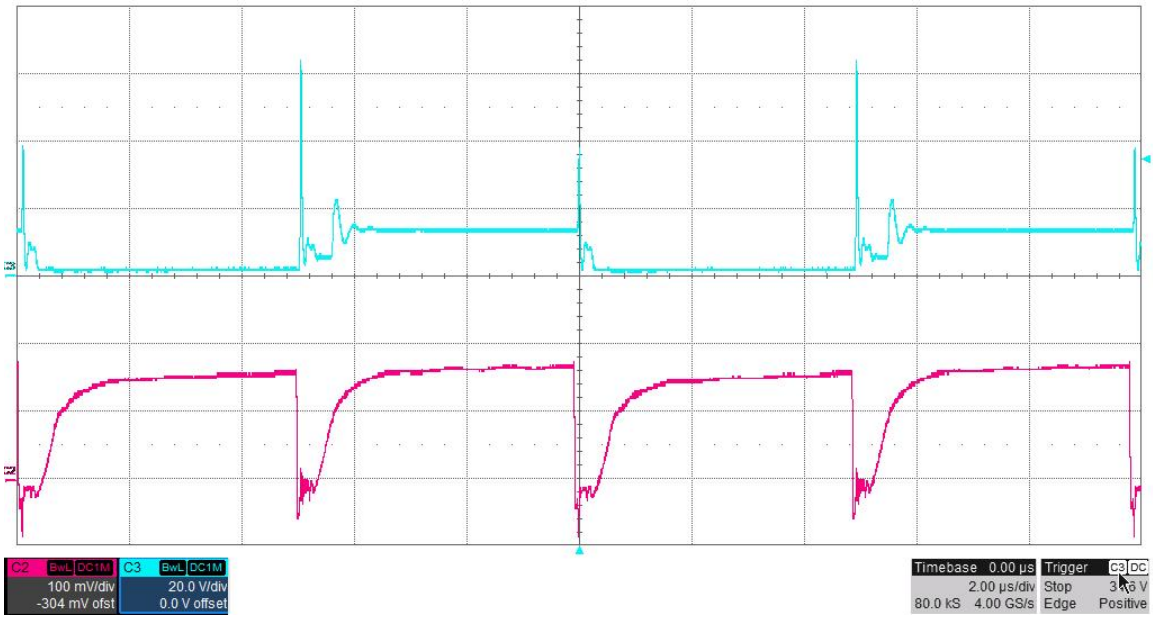
The photo below shows the FET switching voltage and the controller CS pin voltage for an input voltage of 12V. The outputs were loaded differentially with 10 ohms (5A). (50V/DIV, 100mV/DIV, 2uS/DIV)



The photo below shows the FET switching voltage and the controller CS pin voltage for an input voltage of 12V. The outputs were loaded differentially with 50 ohms (1A). (20V/DIV, 100mV/DIV, 2uS/DIV)

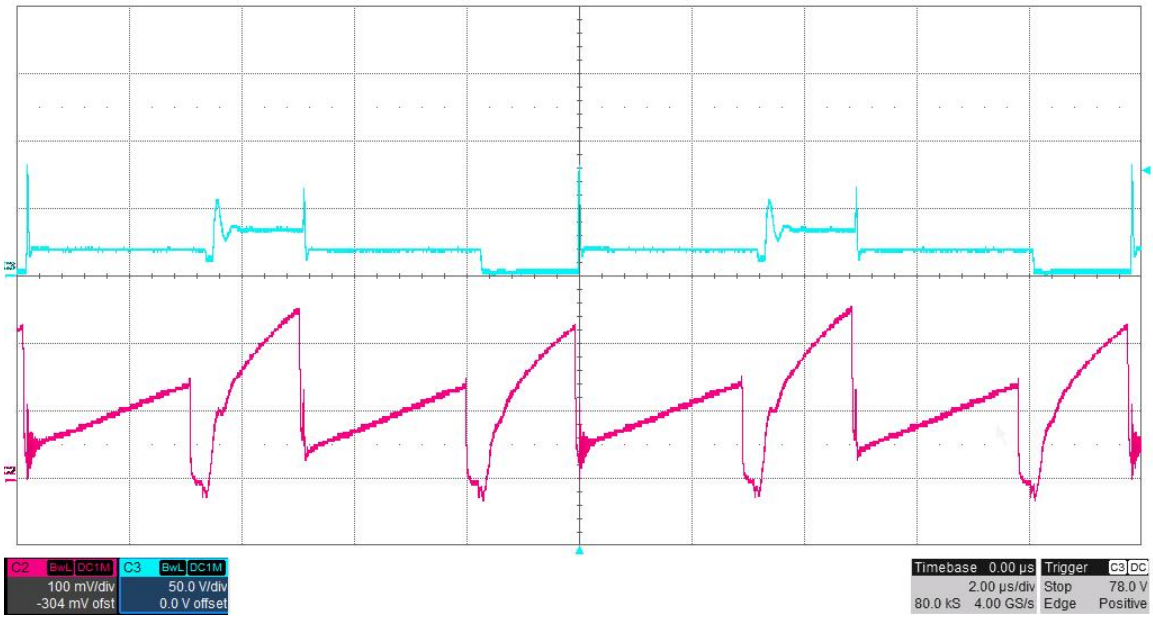


The photo below shows the FET switching voltage and the controller CS pin voltage for an input voltage of 6V. The outputs were loaded differentially with 10 ohms (5A). (20V/DIV, 100mV/DIV, 2uS/DIV)

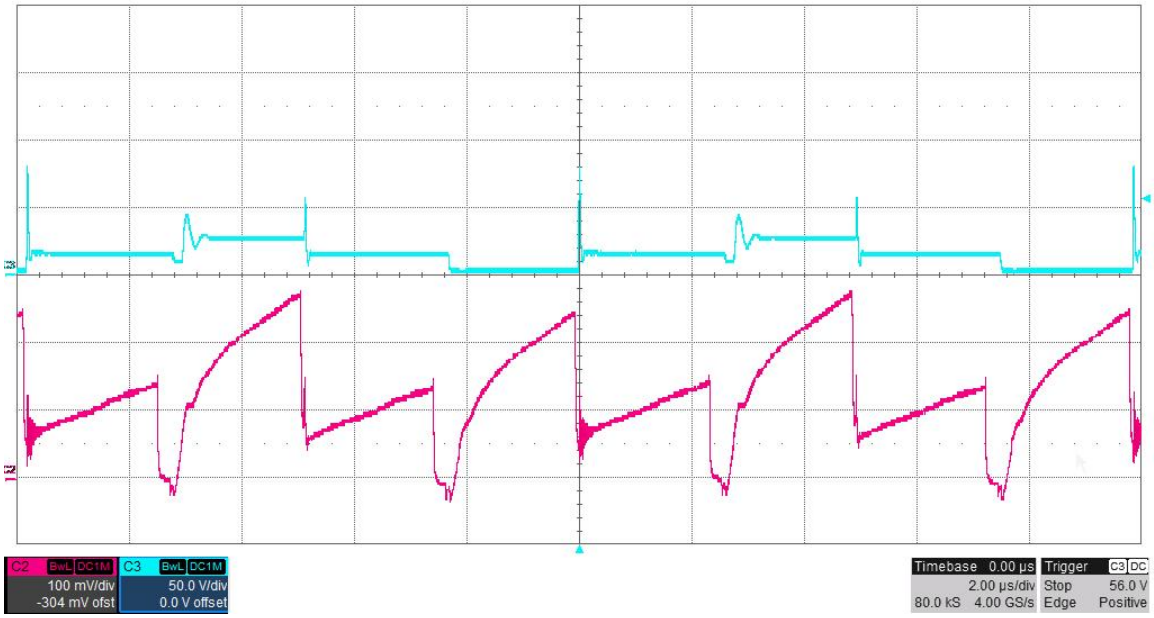


6 RAMP pin Waveforms

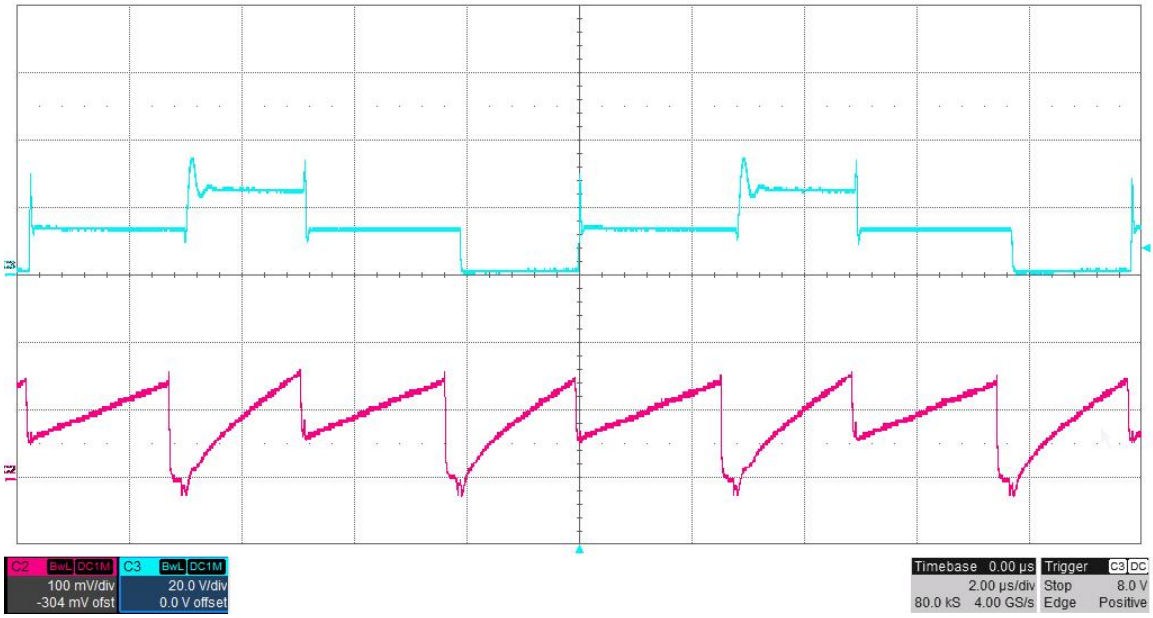
The photo below shows the FET switching voltage and the controller RAMP pin voltage for an input voltage of 16V. The outputs were loaded differentially with 10 ohms (5A).
(50V/DIV, 100mV/DIV, 2uS/DIV)



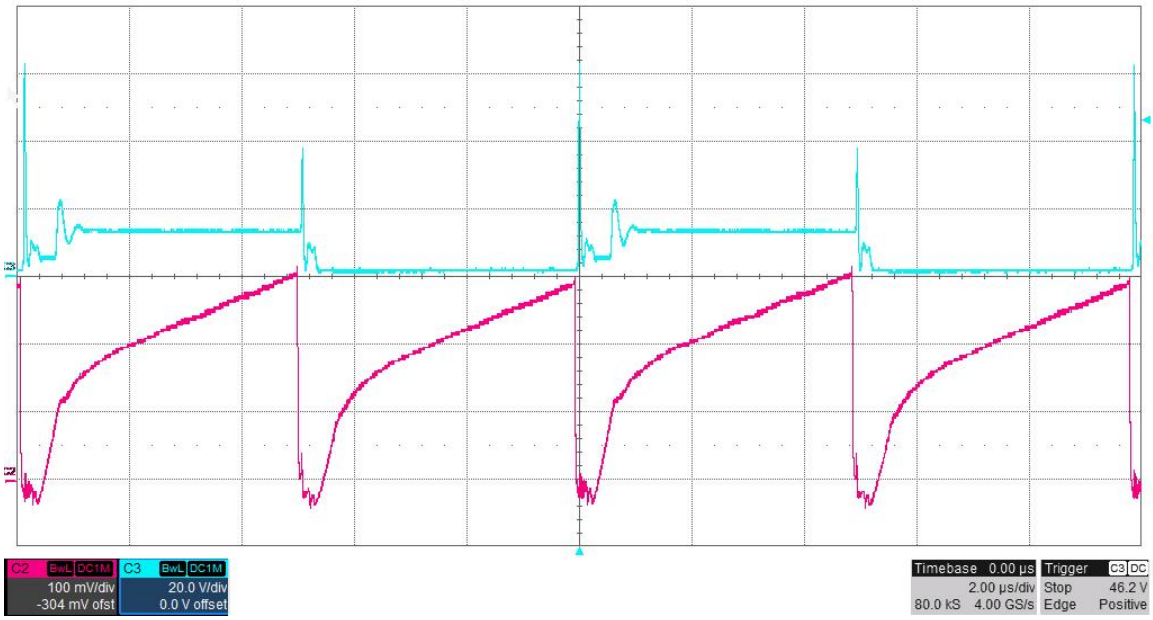
The photo below shows the FET switching voltage and the controller RAMP pin voltage for an input voltage of 12V. The outputs were loaded differentially with 10 ohms (5A).
(50V/DIV, 100mV/DIV, 2uS/DIV)



The photo below shows the FET switching voltage and the controller RAMP pin voltage for an input voltage of 12V. The outputs were loaded differentially with 50 ohms (1A).
(20V/DIV, 100mV/DIV, 2uS/DIV)

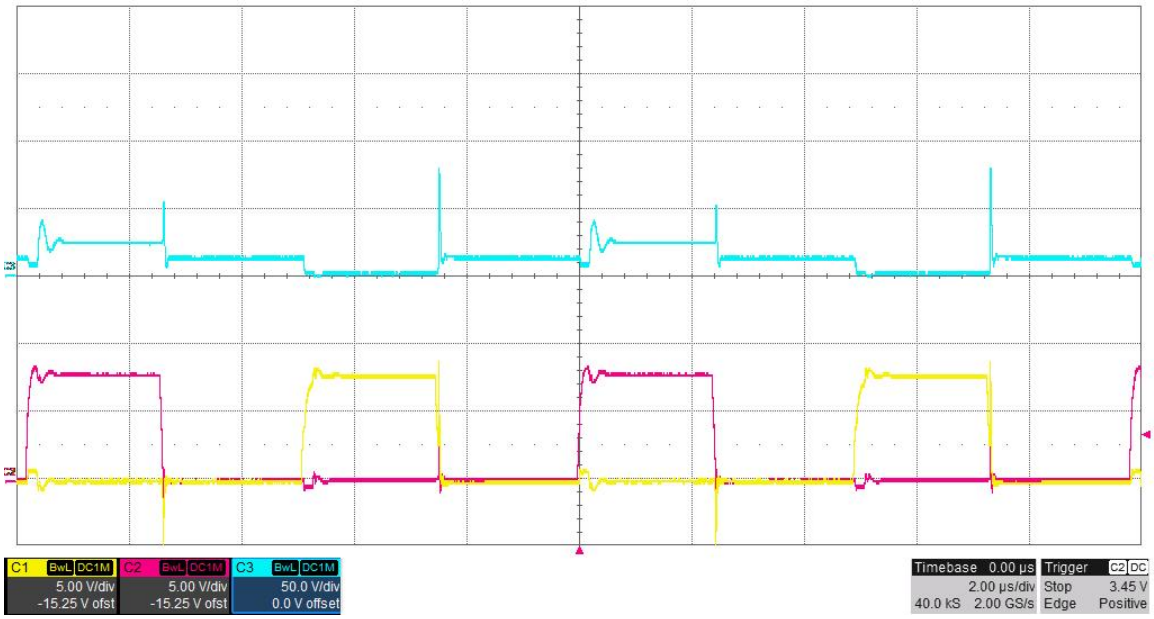


The photo below shows the FET switching voltage and the controller RAMP pin voltage for an input voltage of 6V. The outputs were loaded differentially with 10 ohms (5A).
(20V/DIV, 100mV/DIV, 2uS/DIV)

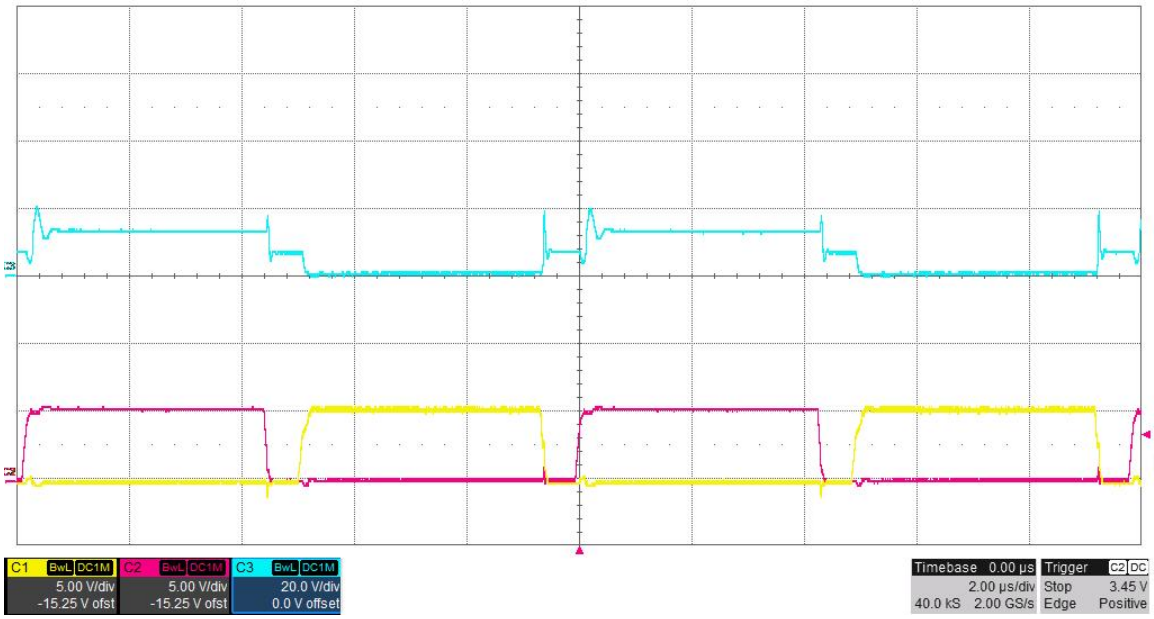


7 Gate drive Waveforms

The photo below shows the FET switching voltage and the OUTA and OUTB FET gate driver voltages for an input voltage of 12V. The outputs were loaded differentially with 10 ohms (5A).
(5V/DIV, 2uS/DIV)



The photo below shows the FET switching voltage and the OUTA and OUTB FET gate driver voltages for an input voltage of 6V. The outputs were loaded differentially with 10 ohms (1A).
(5V/DIV, 2uS/DIV)



8 Photo

The photo below shows the PMP11186 REVB assembly modified with the G154054ALF transformer and snubber clamp resistors R8, R9 removed.

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