

All measurements have been done with a 1.3mF capacitor at the output.

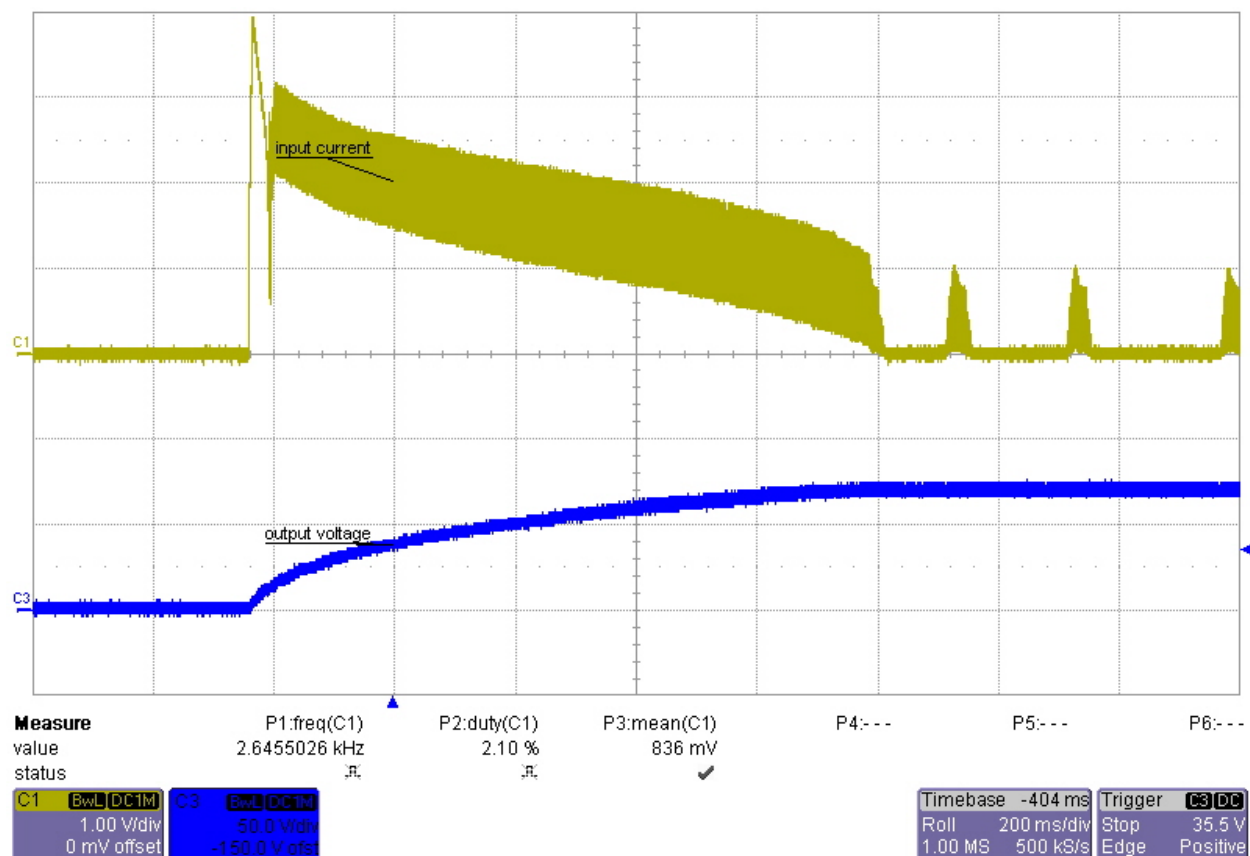
1 Startup

The output voltage at startup is shown in the images below. Input voltage was set to 12Vdc.

no load

Channel C1: input current (1V->150mA).

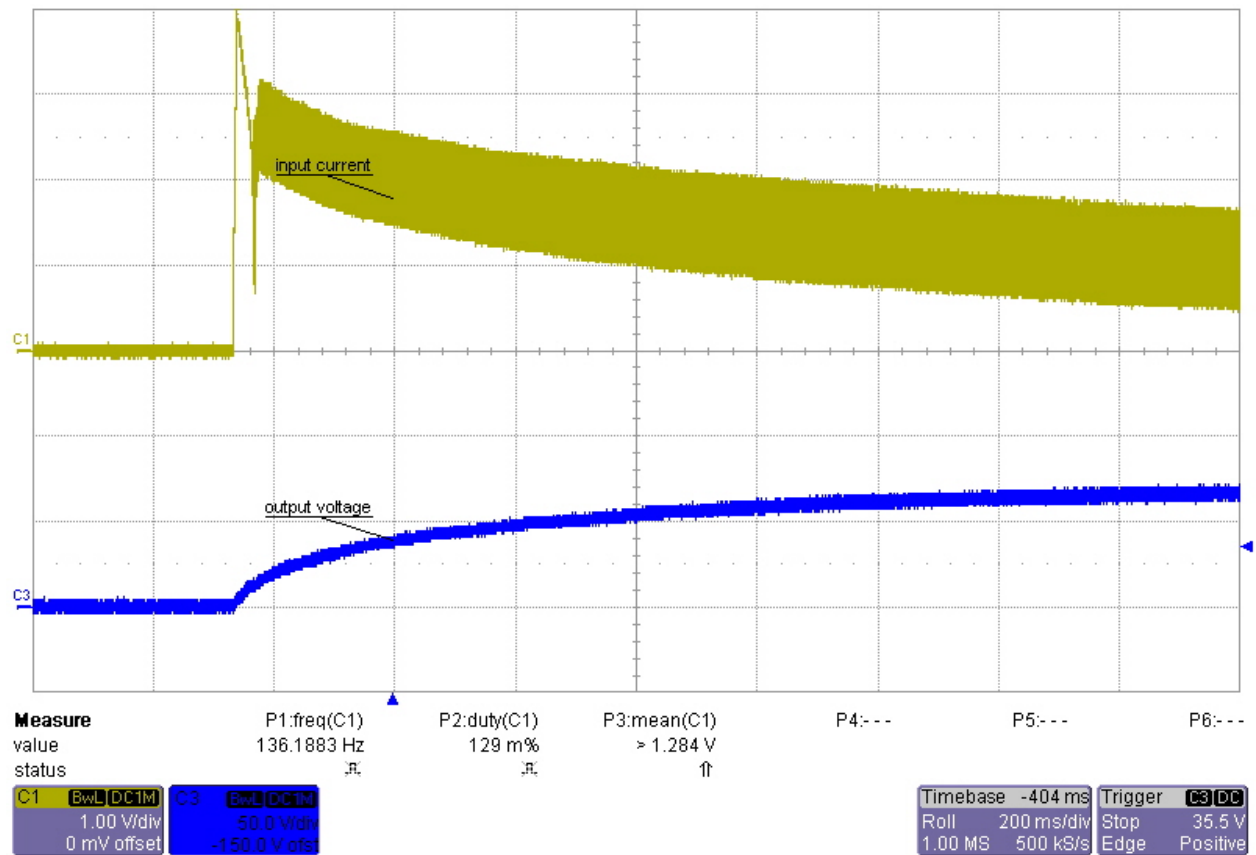
Channel C3: Output Voltage (50V/div)



Load resistance : 2kOhm

Channel C1: input current (1V->150mA).

Channel C3: Output Voltage (50V/div)

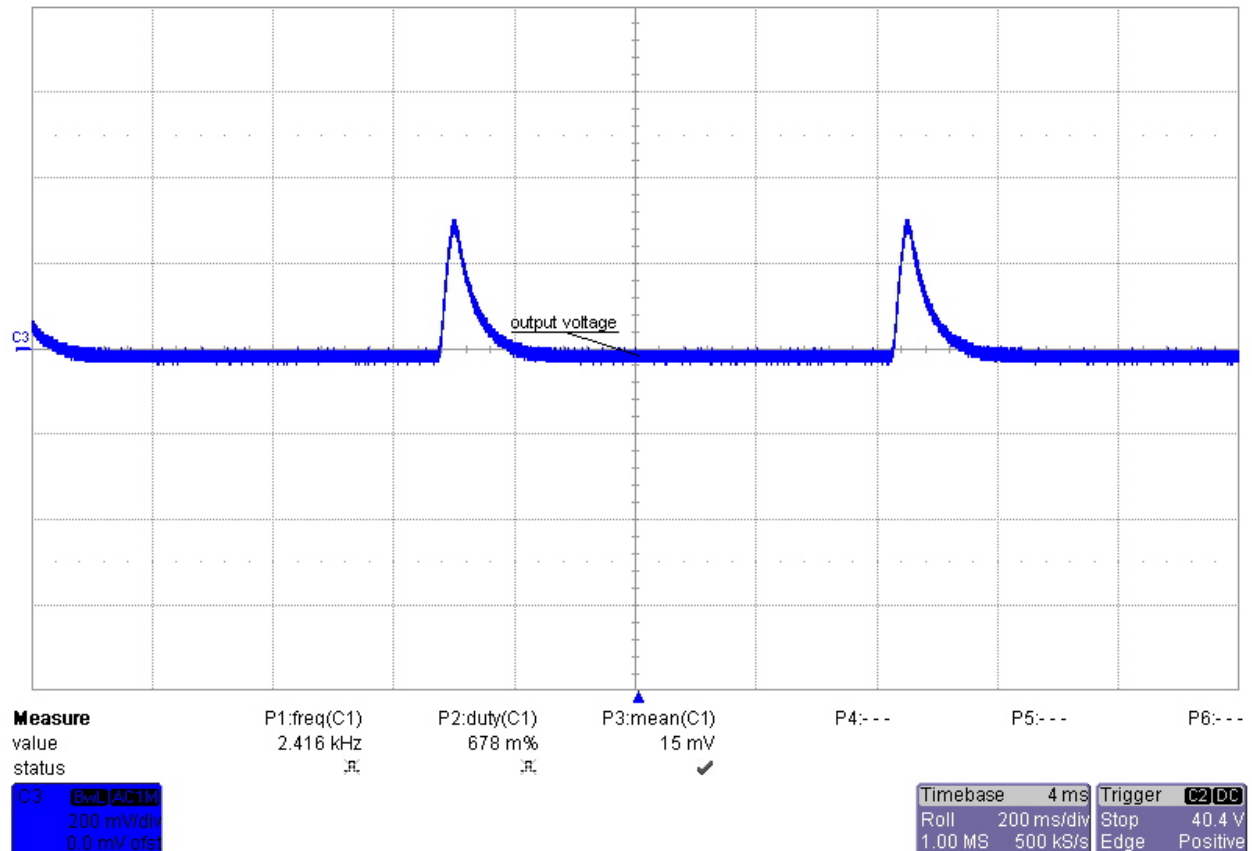


2 Output ripple

The graph below shows the output voltage ripple.

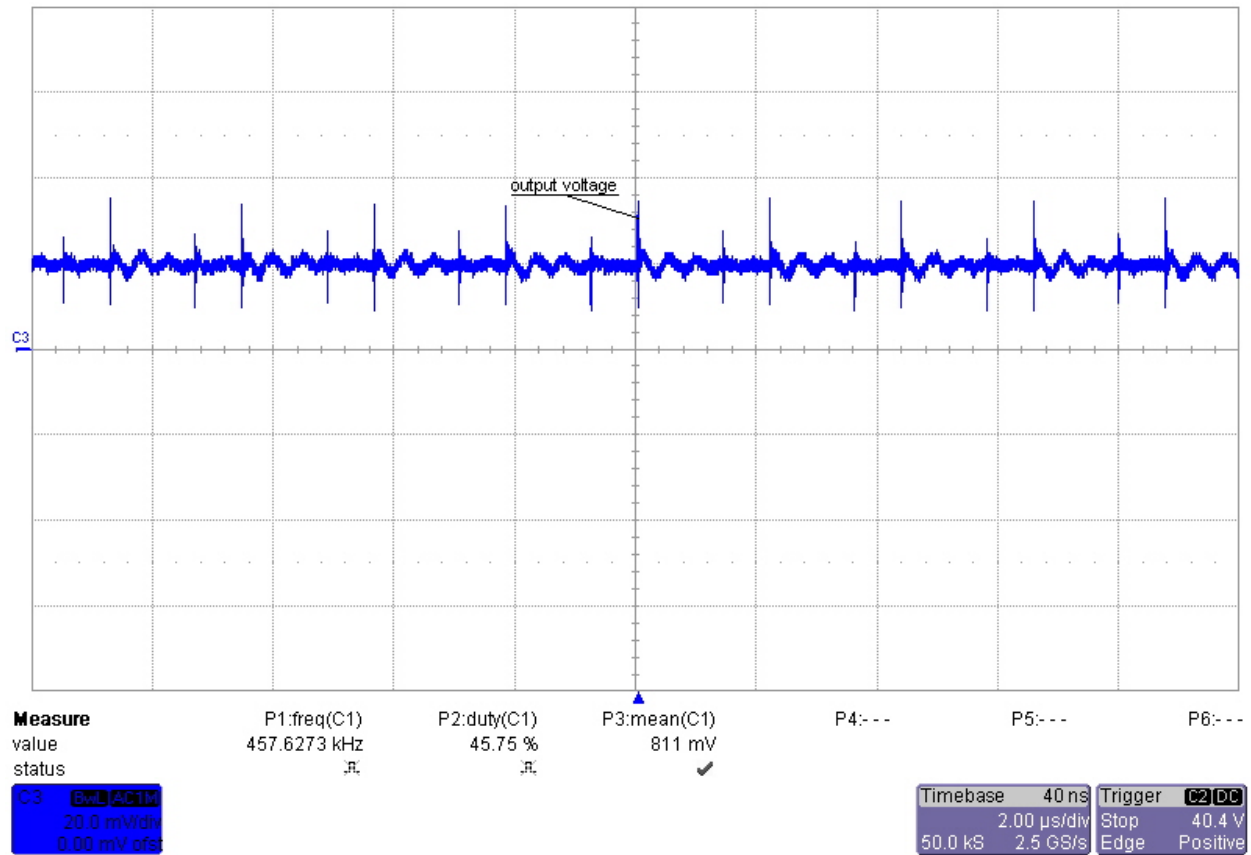
No load

Channel C3: Output Voltage (200mV/div)



Load resistance : 2kOhm

Channel C3: Output Voltage (20mV/div)



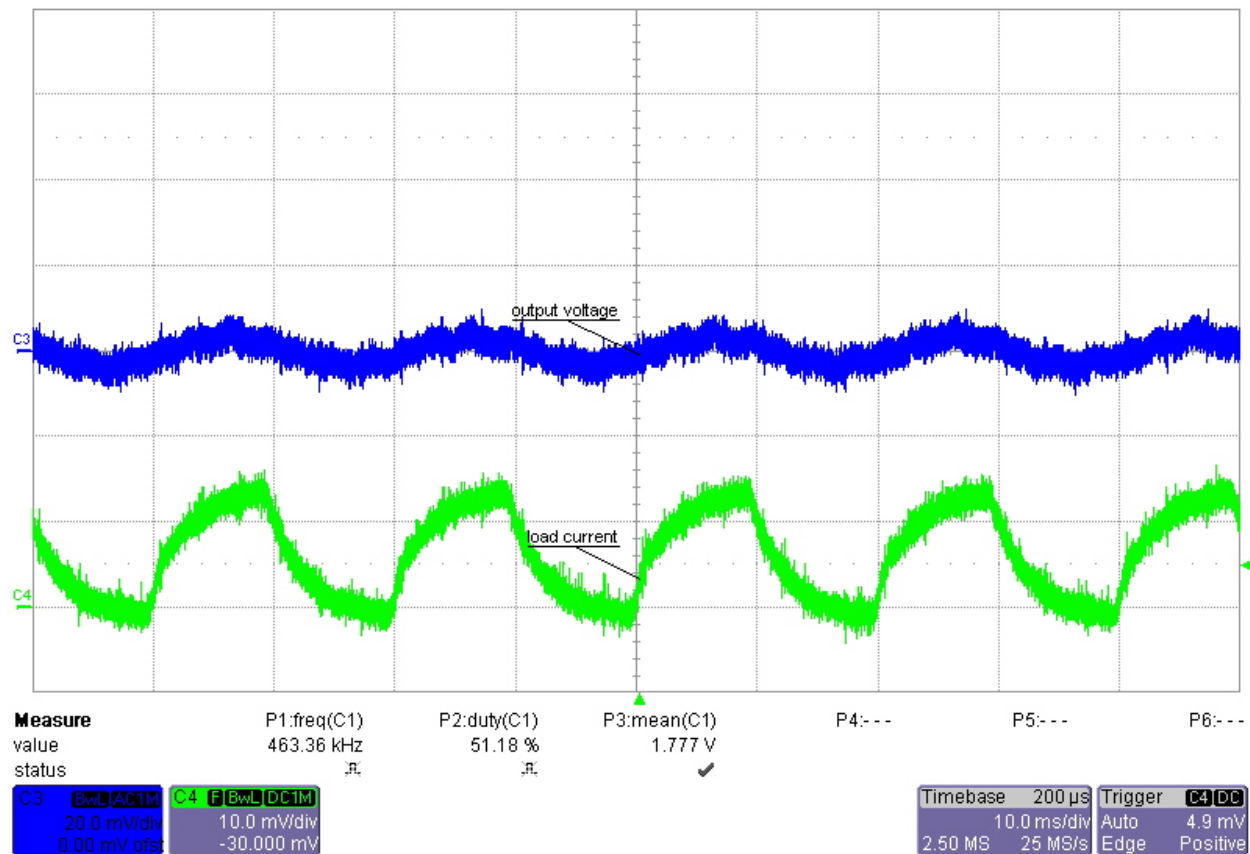
3 Load Transient

The image below shows the response to load transient on the output voltage.

Load step: 100kohm to 300ohm

Channel C3: output voltage (20mV/div)

Channel C4: load current



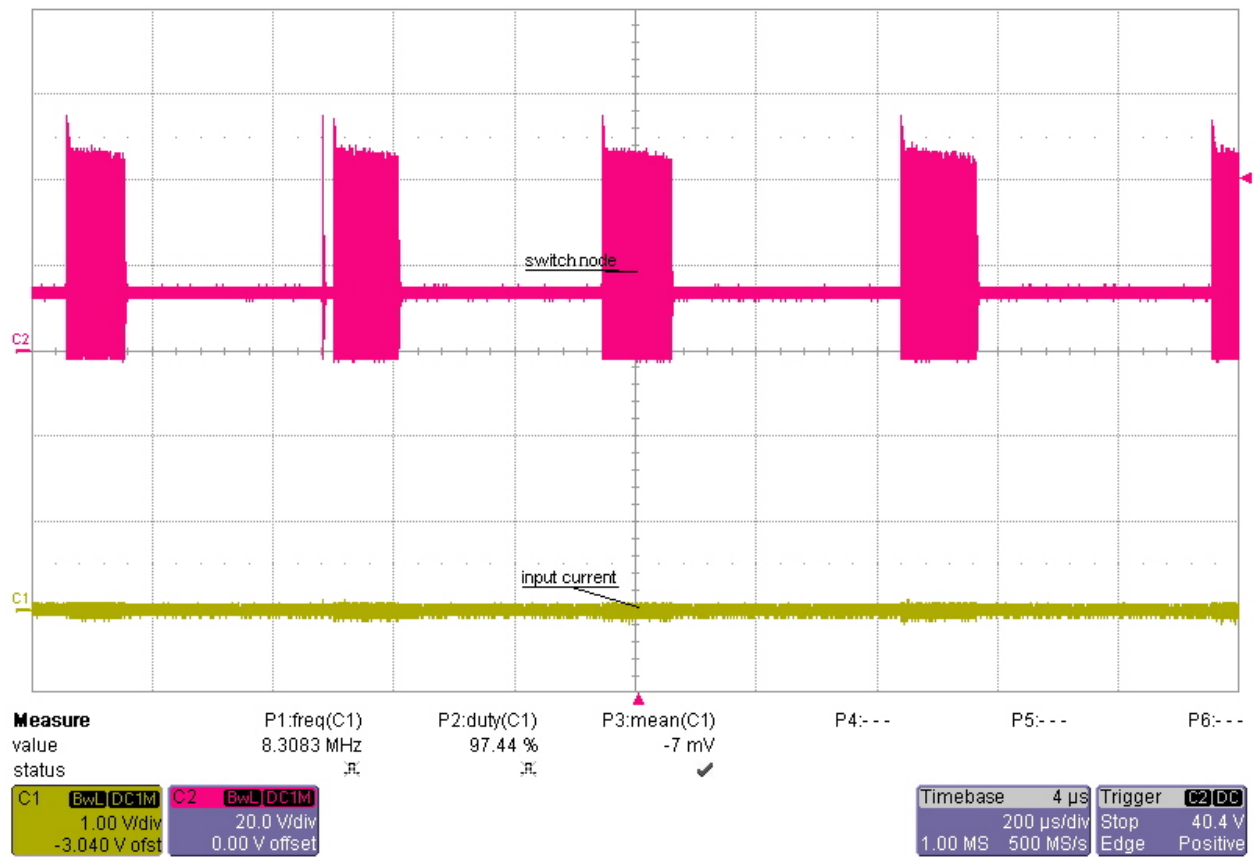
4 Switch-node

The image below shows the switch-node waveform. The input voltage was set to 12Vdc.

no load

Channel C1: input current (1V->150mA).

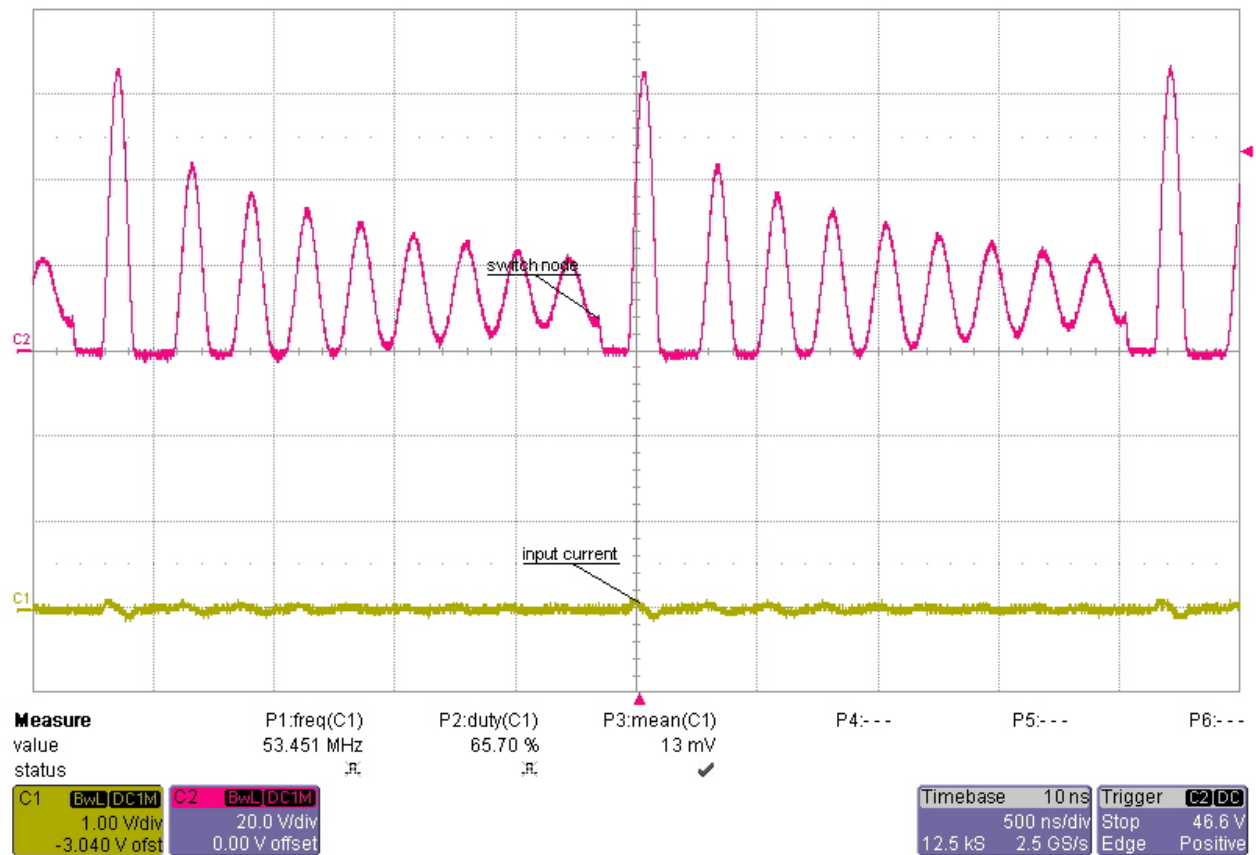
Channel C2: switch node



no load

Channel C1: input current (1V->150mA).

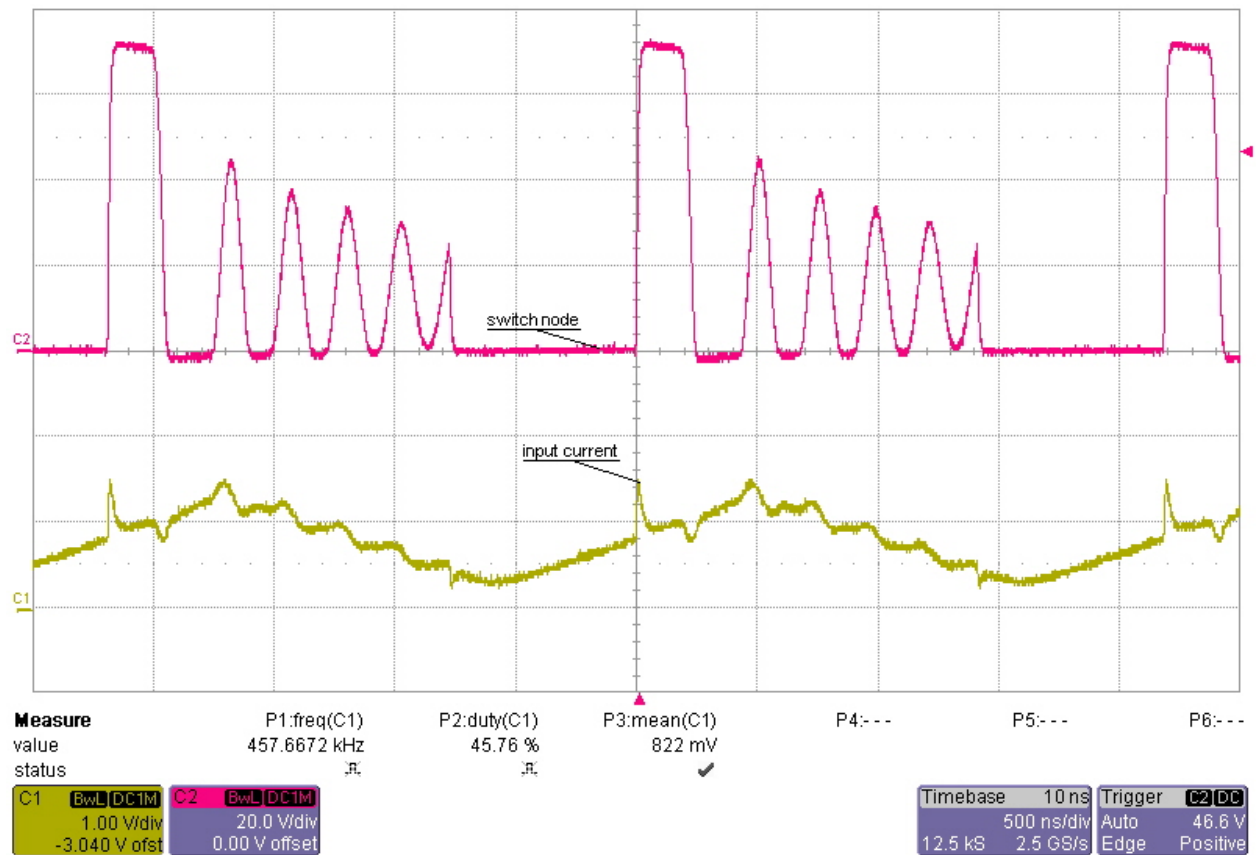
Channel C2: switch node



Load resistance: 2kOhm

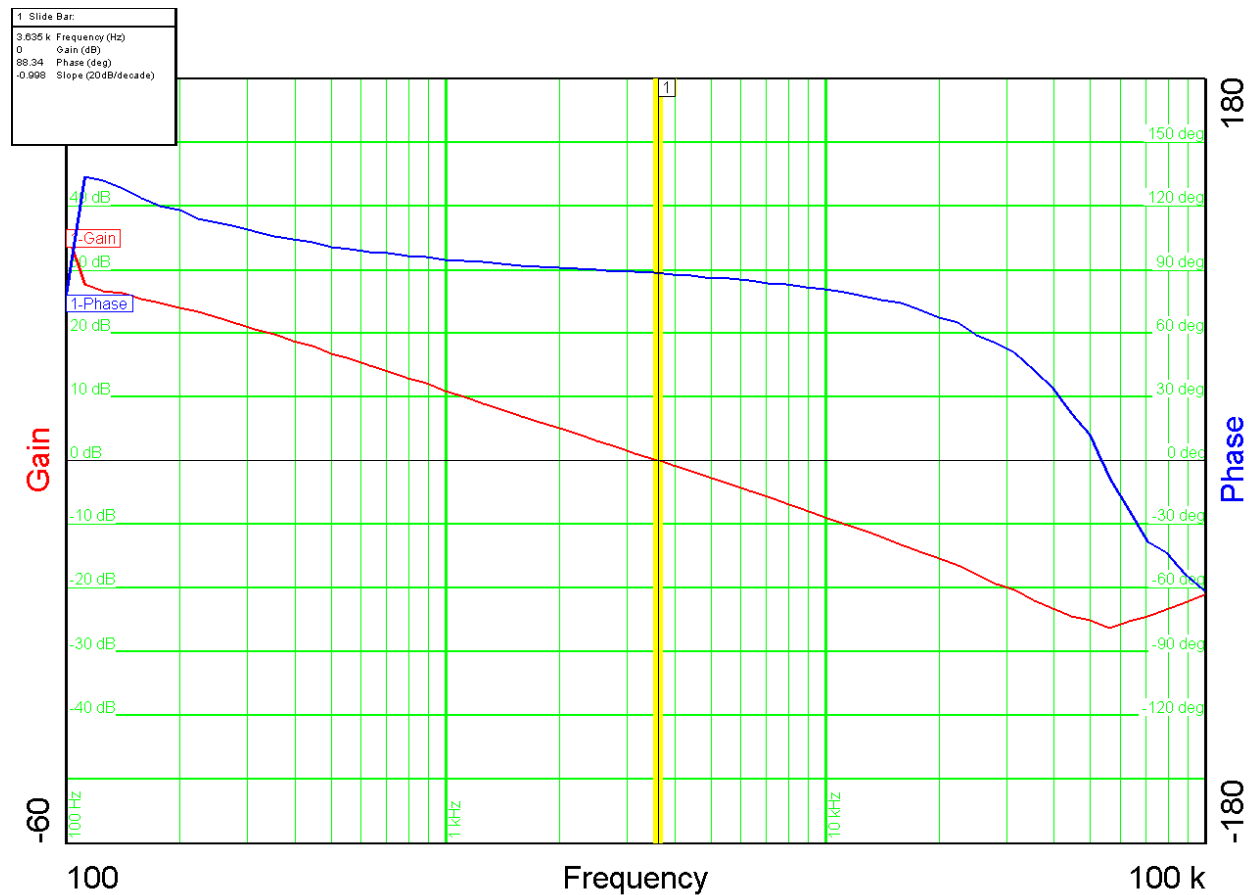
Channel C1: input current (1V->150mA).

Channel C2: switch node



5 Loop Response

The image below shows the loop response of the converter.



Crossover frequency: 3.6kHz
Phase: 88.3°

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