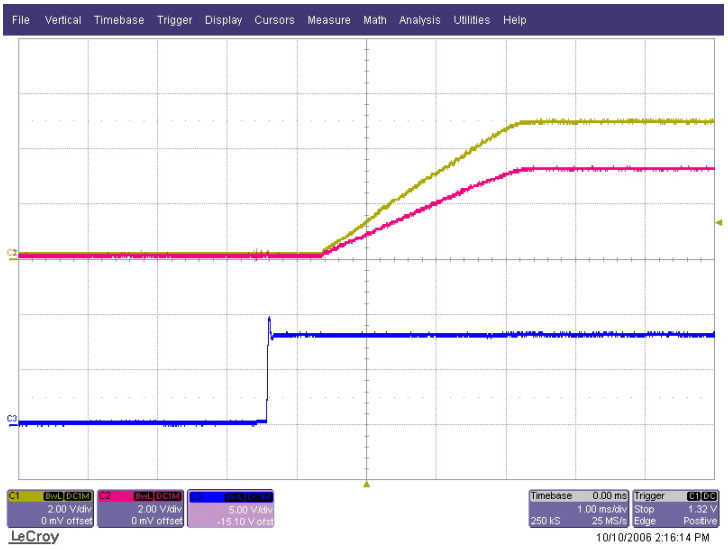
PMP2165 RevA Test Results

1 Startup

The photo below shows the startup waveforms. The input voltage is 8.4V, the outputs are not loaded. The timebase is set to 1ms/Division.

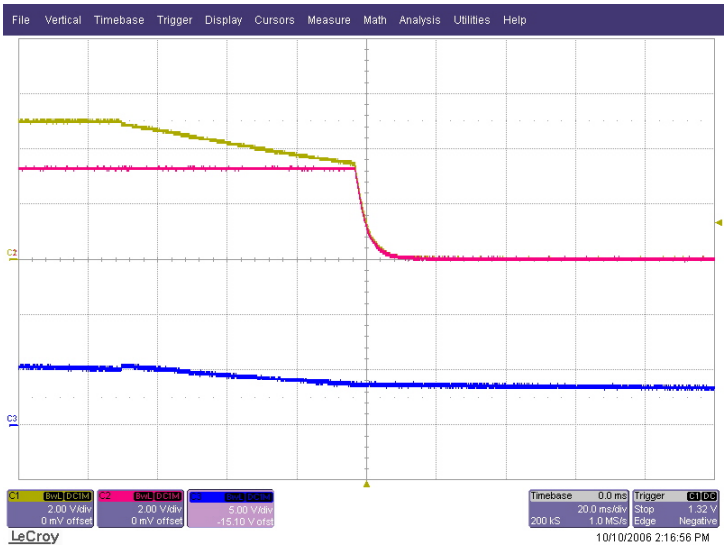
Channel 1 : 5.0V Output – Yellow (2V/Division)
Channel 2 : 3.3V Output – Pink (2V/Division)
Channel 3 : 8.4V Input – Blue (5V/Division)



2 Shutdown

The photo below shows the shutdown waveforms. The input voltage is 8.4V. The timebase is set to 20ms/Division. The outputs are unloaded.

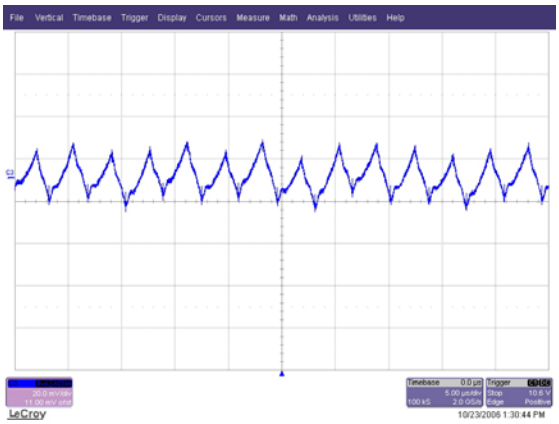
Channel 1 : 5.0V Output – Yellow (2V/Division)
Channel 2 : 3.3V Output – Pink (2V/Division)
Channel 3 : 8.4V Input – Blue (5V/Division)



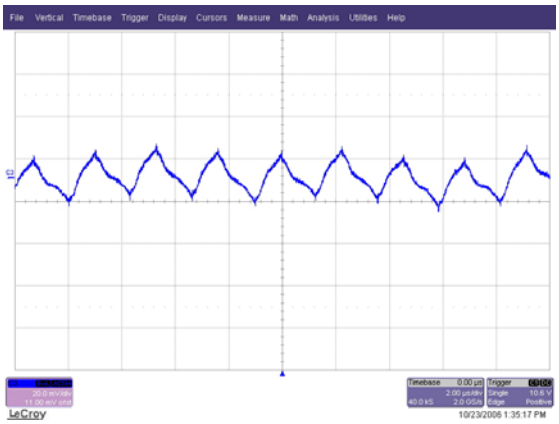
3 Output Ripple Voltage

The output voltage ripple is shown in the figures below. The input is 8.4V.

Channel 3 : Output Voltage – Blue (20mV/Division; AC Coupled)



5V Output; 4A Load; 5us/Division

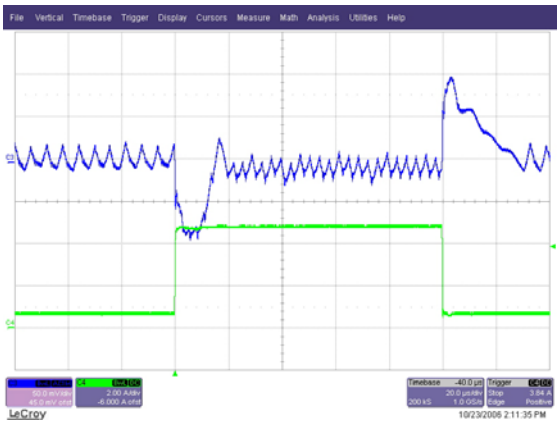


3.3V Output; 4.5A Load; 2us/Division

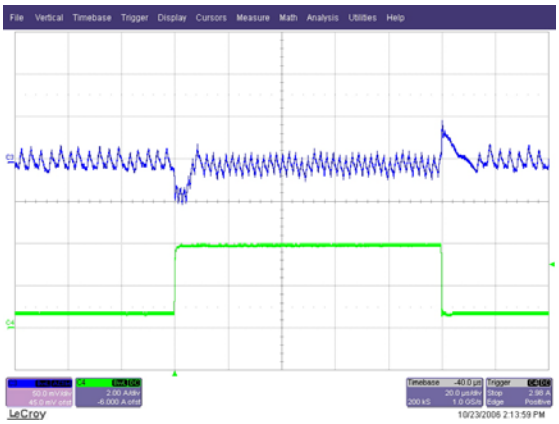
4 Load Transients

The photos below show the transient response. The current is pulsed from 10% to 90% at ~10A/us. The timebase is set to 20us/Divison.

Channel 2 : Output Voltage – Pink (50mV/Division)
Channel 4 : Output Current – Green (1A/Division)



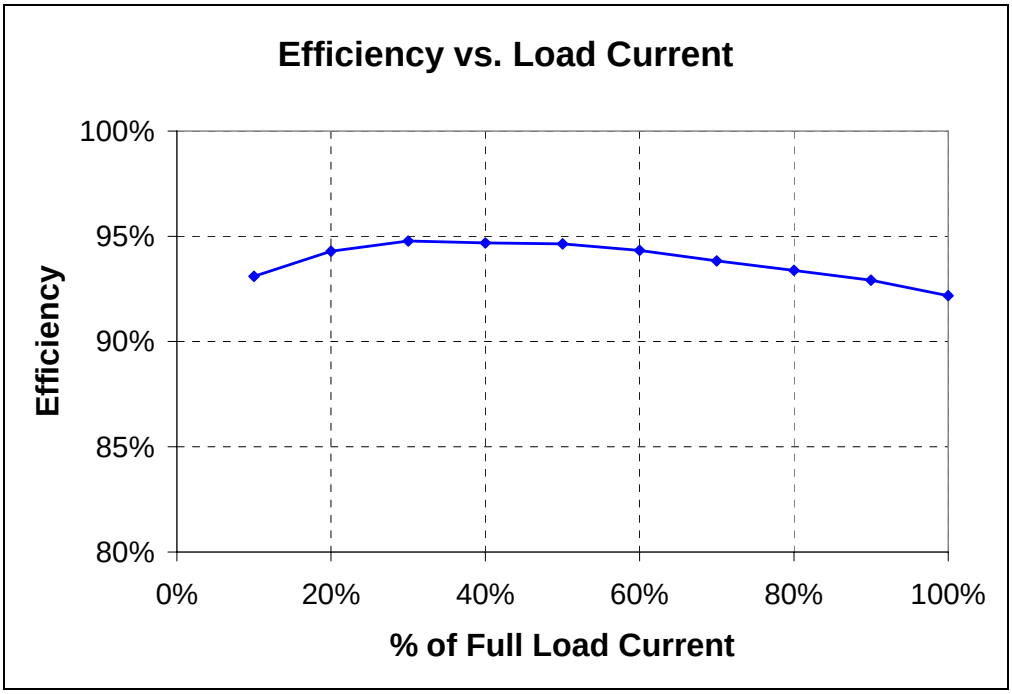
5V Output



3.3V Output

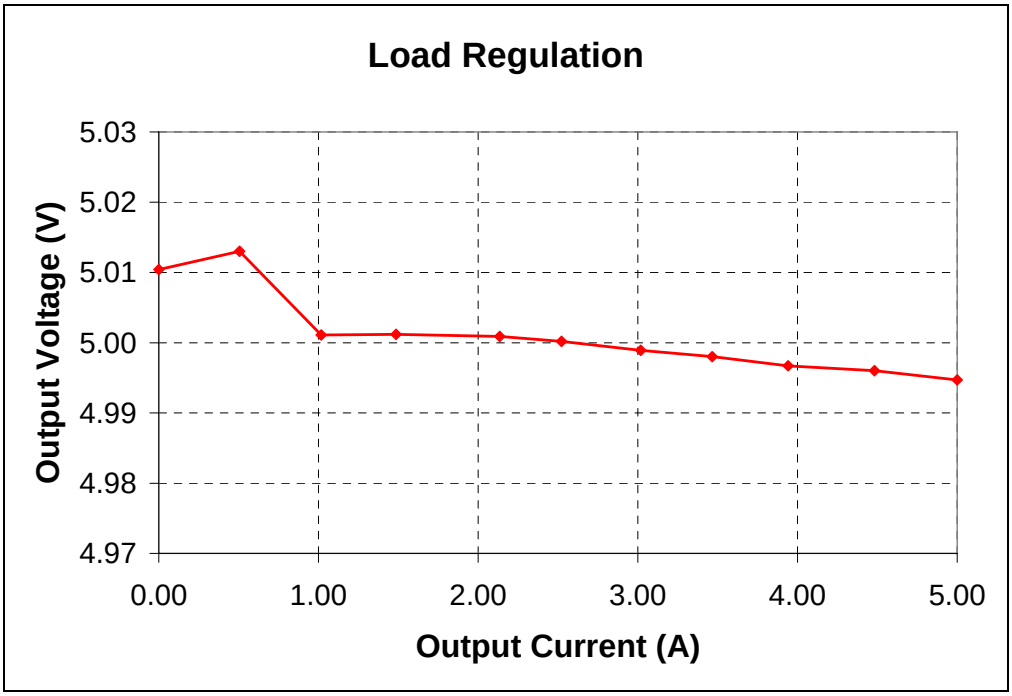
5 Efficiency

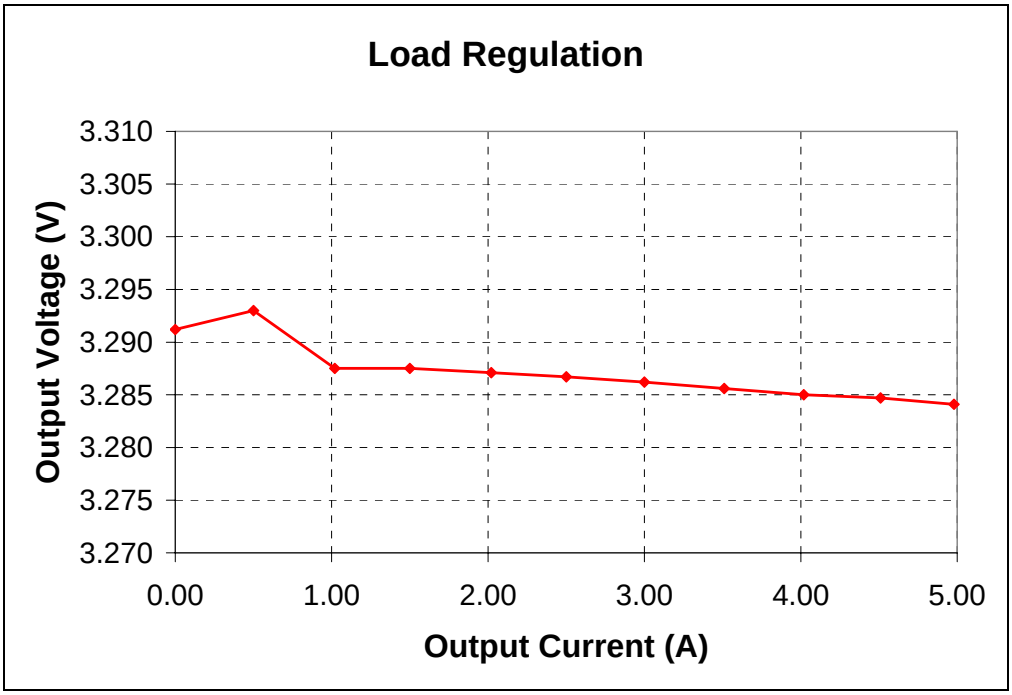
The efficiency of the converter is shown in the figure below.



6 Load Regulation

The load regulation is shown in the figures below.

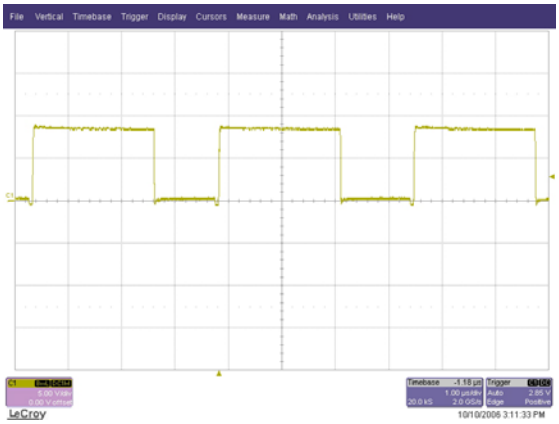




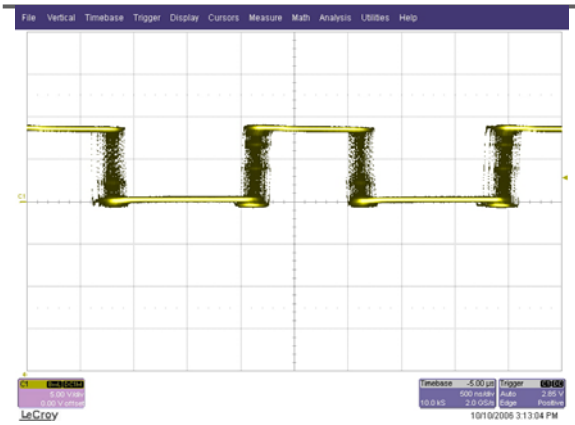
7 Switching Waveforms

The plots below show the switching waveforms for the converter. The input is 12V.

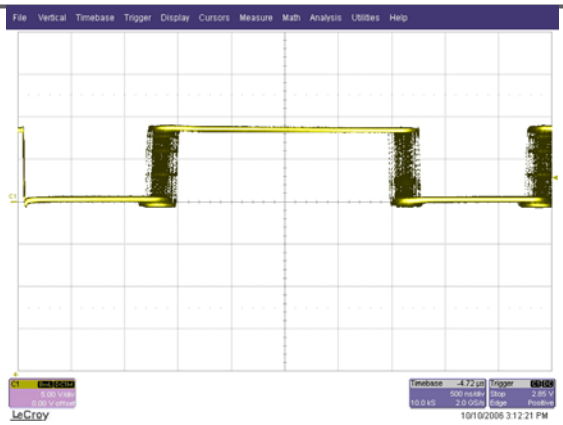
3.3V Output



5V Output



3.3V Output



5V Output

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