

### 1 Startup

The photo below shows the startup waveforms. The input voltage is 12V, the outputs are not loaded. The timebase is set to 1ms/Division.

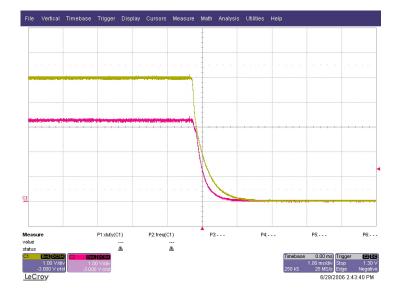
Channel 1 : 5.0V Output – Yellow (1V/Division) Channel 2 : 3.3V Output – Pink (1V/Division



#### 2 Shutdown

The photo below shows the shutdown waveforms. The input voltage is 12V. The timebase is set to 1ms/Division. The outputs are fully loaded.

Channel 1 : 5.0V Output – Yellow (1V/Division) Channel 2 : 3.3V Output – Pink (1V/Division

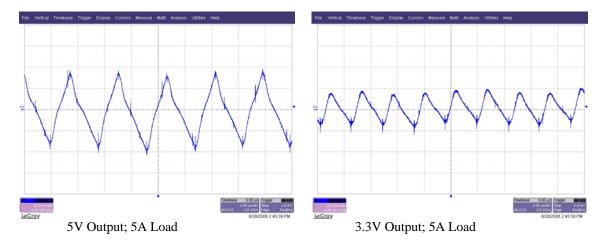




## 3 Output Ripple Voltage

The output voltage ripple is shown in the figures below. The input is 12V.

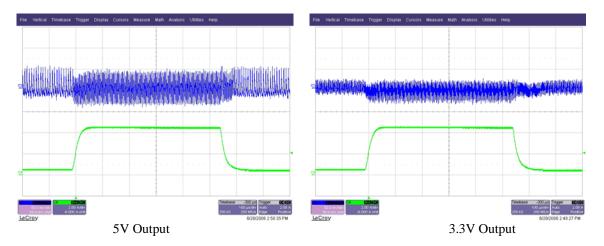
Channel 3: Output Voltage - Blue (20mV/Division; AC Coupled)



#### 4 Load Transients

The photos below show the transient response. The current is pulsed from 0.5A to 4.5A. The timebase is set to 100us/Divison.

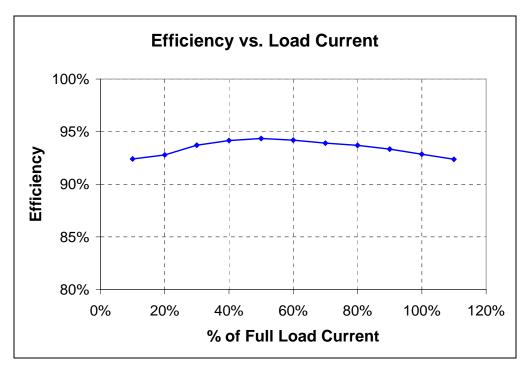
Channel 3 : Output Voltage – Blue (50mV/Division) Channel 4 : Output Current – Green (2A/Division)





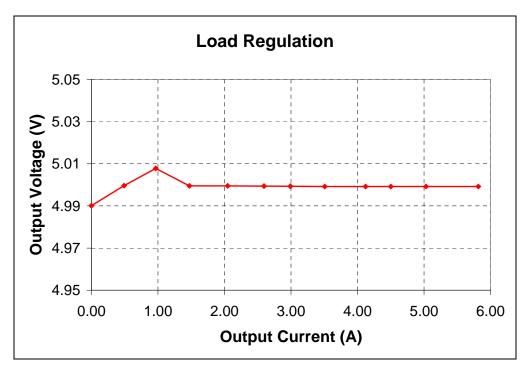
### 5 Efficiency

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

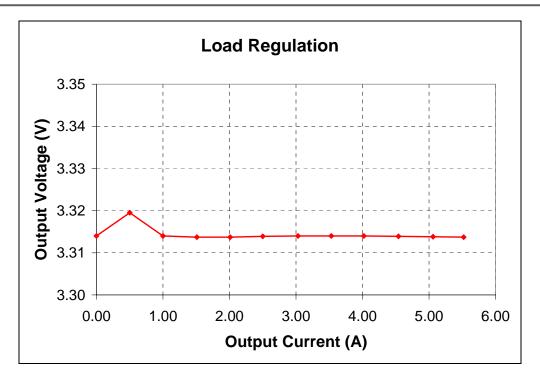


# 6 Load Regulation

The load regulation is shown in the figures below.

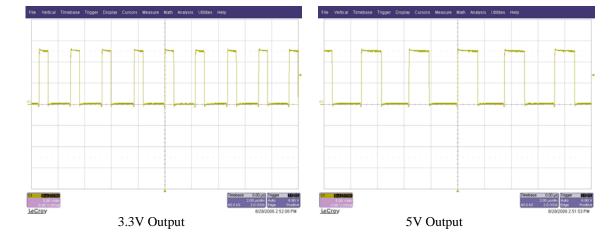






# 7 Switching Waveforms

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



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