



**TPS53319 – 1V@5.7A  
PMP7340\_REVA  
2/14/12**

The tests performed were as follows:

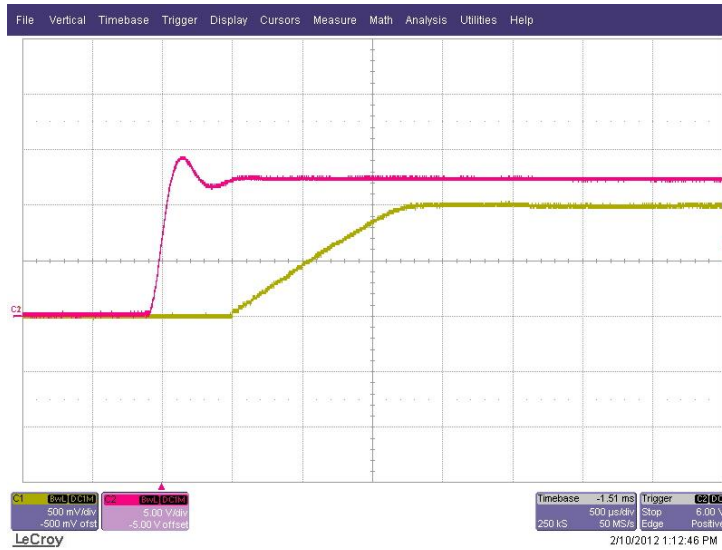
- A. TPS53319 – 1V@5.7A
  - 1. Turn-On (No Load)
  - 2. Output Voltage Ripple (No Load and Full Load)
  - 3. Transient Response
  - 4. Efficiency
  - 5. Load Regulation
  - 6. Bode Plot

## 1 Turn-On – (TPS53319 : 1V@0A)

The photo below shows the startup waveforms. The output is not loaded. The timebase is set to 500us/Division.

Channel 1 – Yellow : 1V Output – (500mV/Division)

Channel 2 – Pink : Input Voltage – (5V/Division)

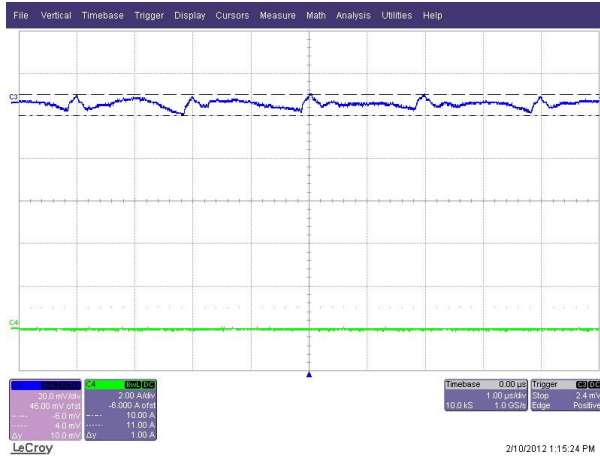


## 2 Output Voltage Ripple – (TPS53319 : 1V@5.7A)

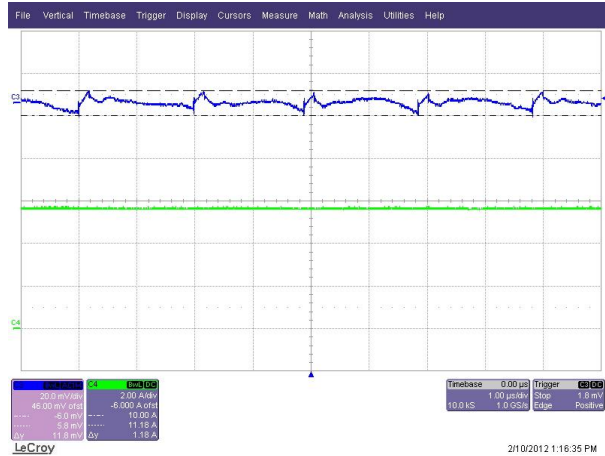
The photo below shows the output voltage ripple and output current. The input voltage is 12V. The timebase is set to 1us/division.

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

Channel 4 – Green : Output Current – (2A/Division)



Output Current = 0A



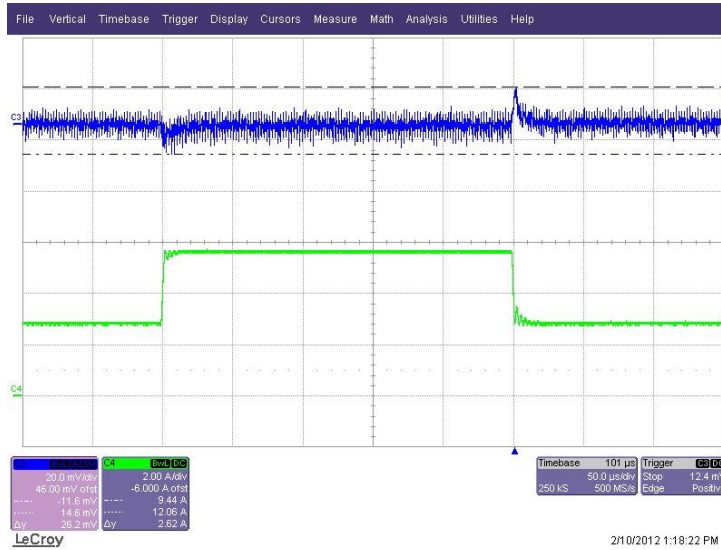
Output Current = 5.7A

### 3 Transient Response – (TPS53319 : 1V@5.7A)

The transient response of the converter is shown in the figure below. The input voltage is 12V. The current is pulsed 50% from 2.8A to 5.7A. The timebase is set to 50us/Division.

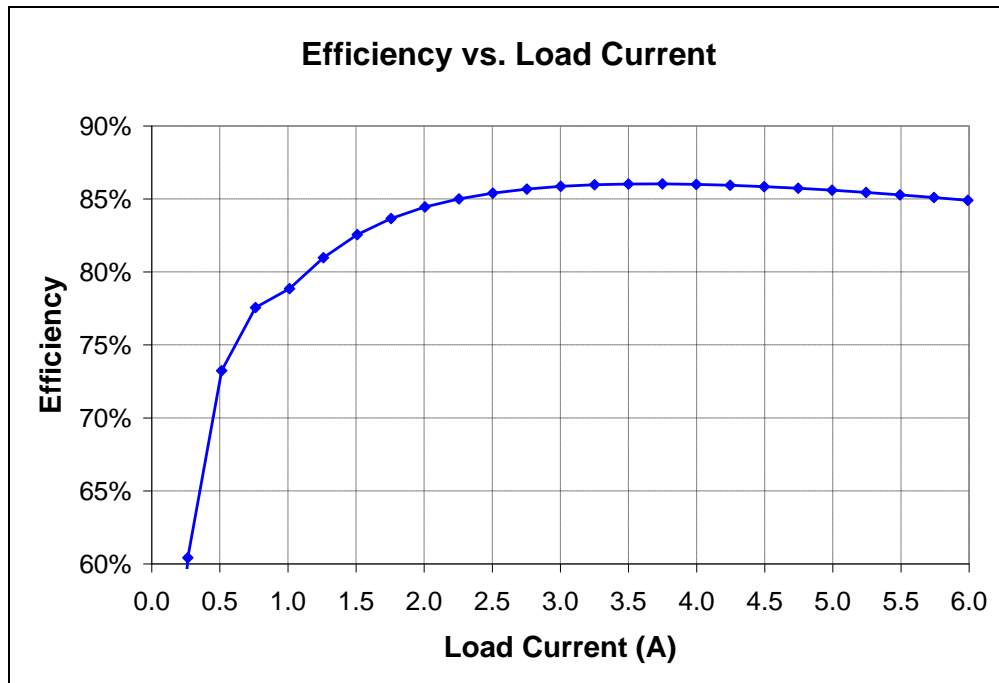
Channel 3 – Blue : Output Voltage – (20mV/Division; AC Coupled)

Channel 4 – Green : Output Current – (2A/Division)



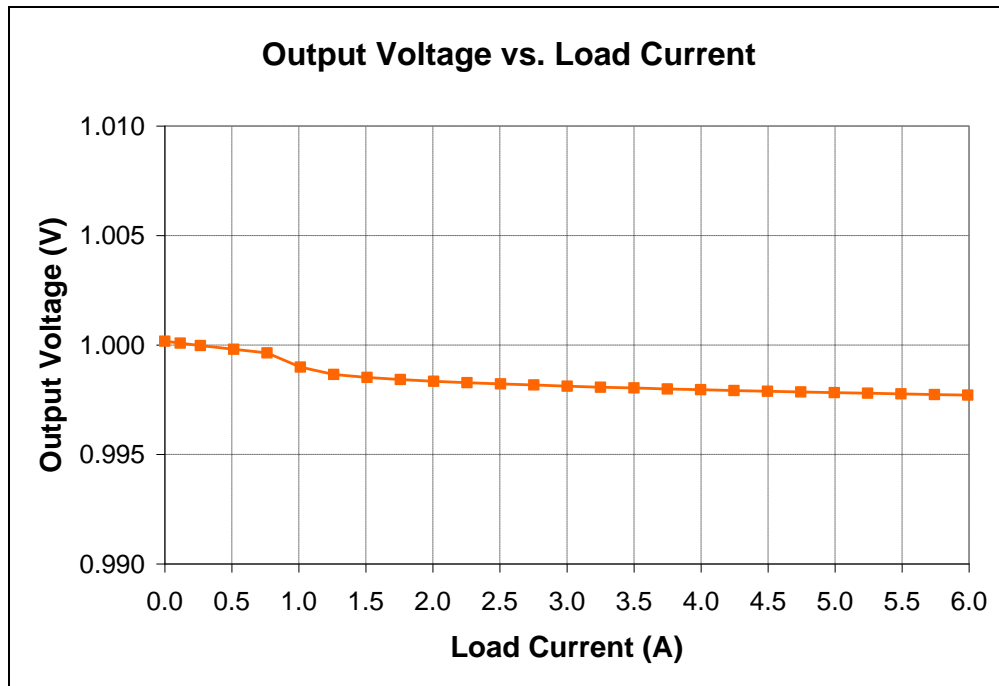
### 4 Efficiency – (TPS53319 : 1V@5.7A)

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



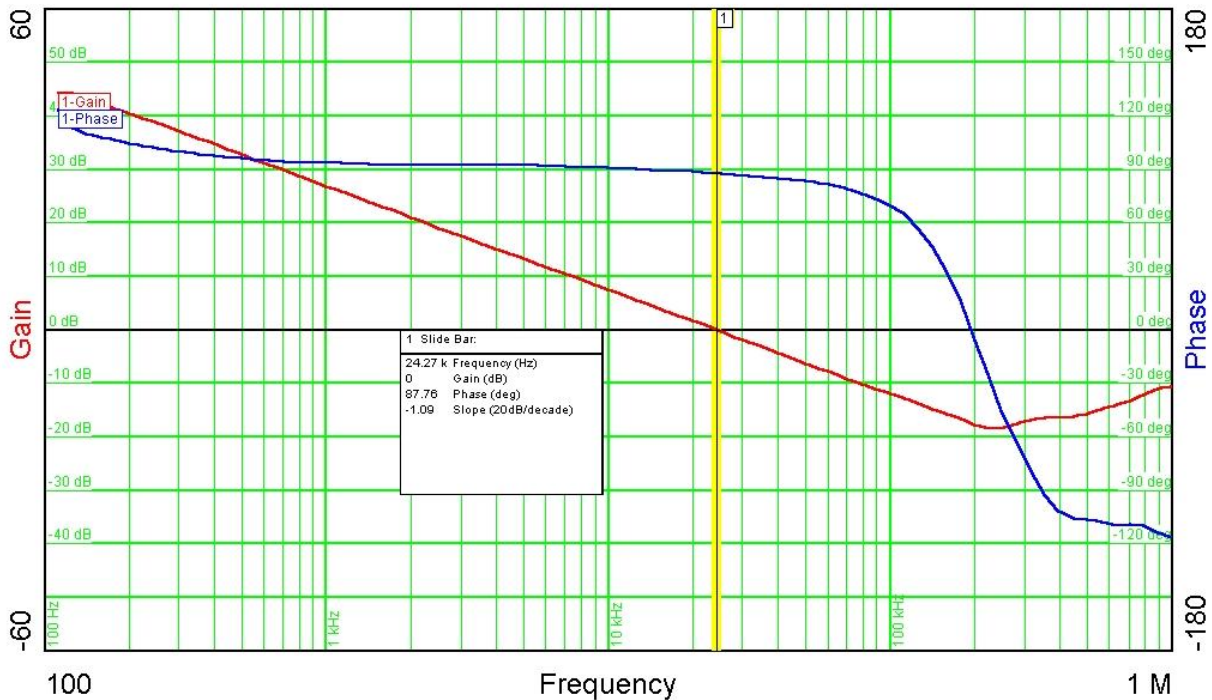
### 5 Load Regulation – (TPS53319 – 1V@5.7A)

The load regulation of the converter is shown in the figure below.



### 6 Loop Response – (TPS53319 – 1V@5.7A)

The loop response of the converter is shown in the figure below. The input voltage is 12V.



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