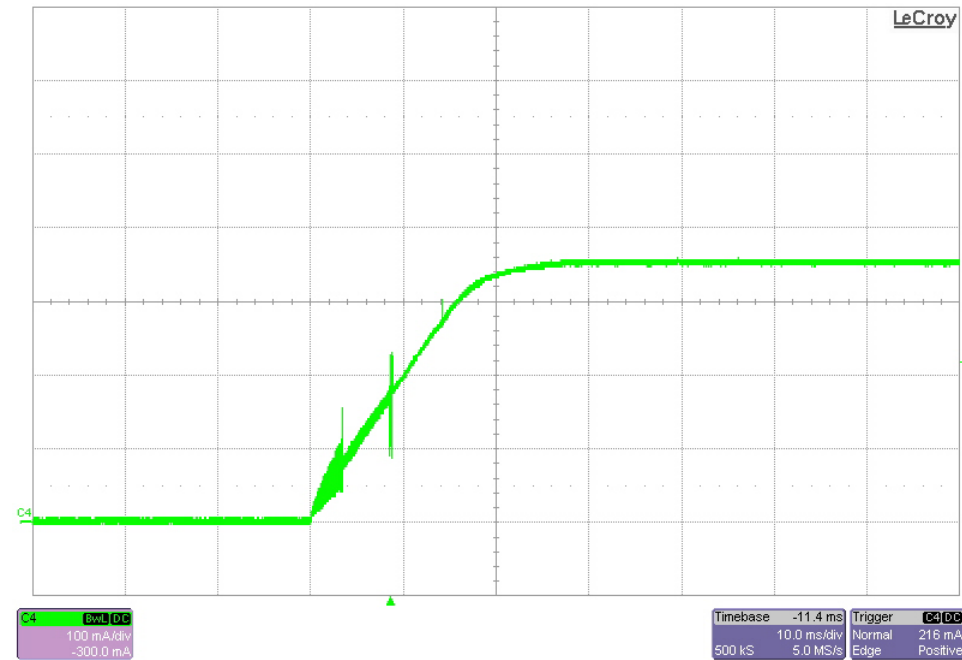
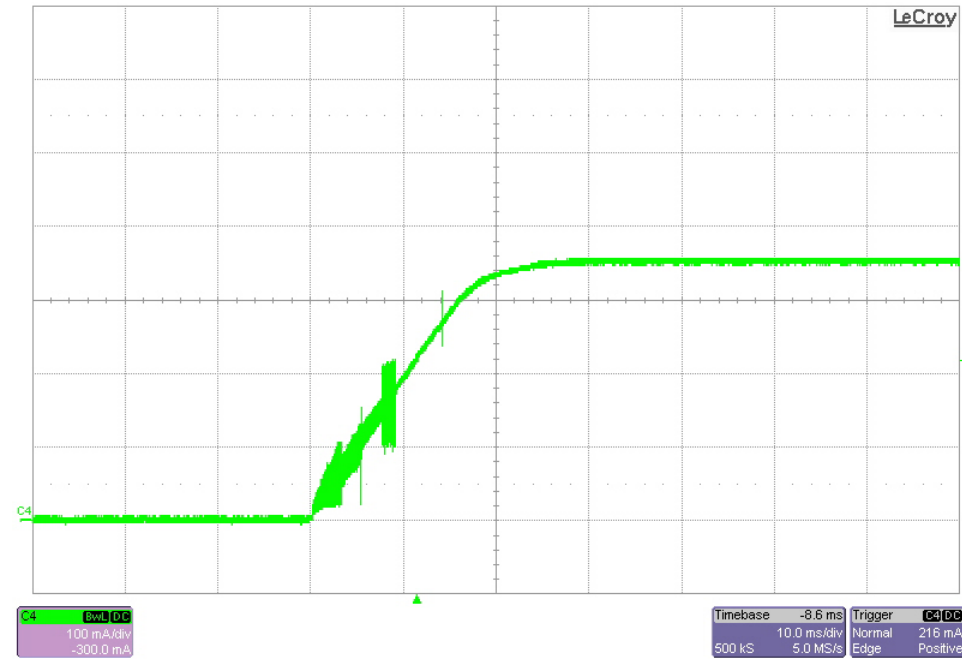


1 Start Up

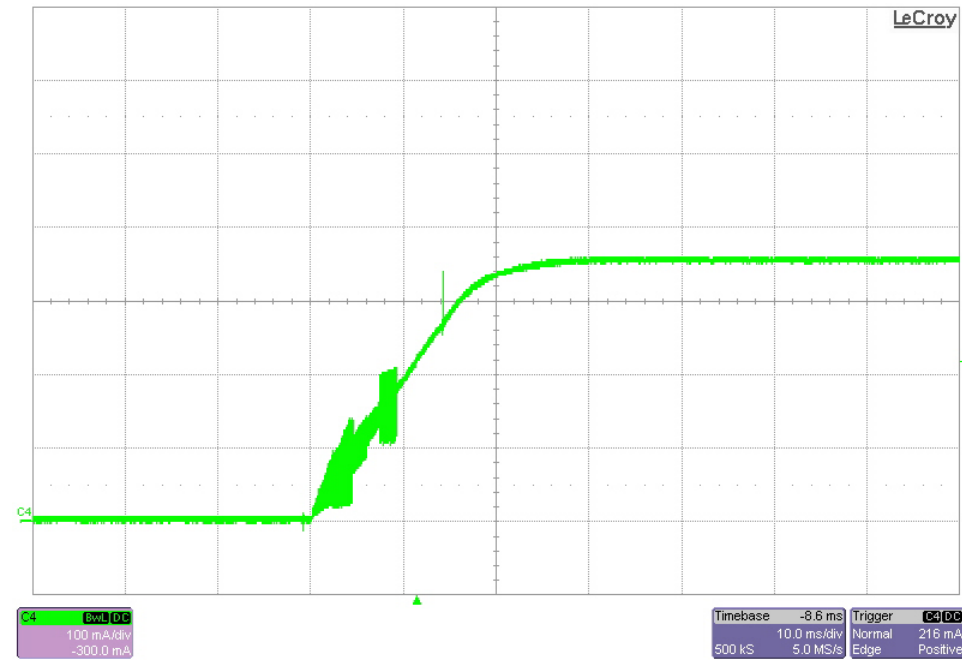
The photo below shows the LED current when 5V input is applied. $I_{out} = 0.35A$, PWM input = 5V (100mA/DIV, 10mS/DIV)



The photo below shows the LED current when 12V input is applied. $I_{out} = 0.35\text{A}$, PWM input = 5V (100mA/DIV, 10mS/DIV)

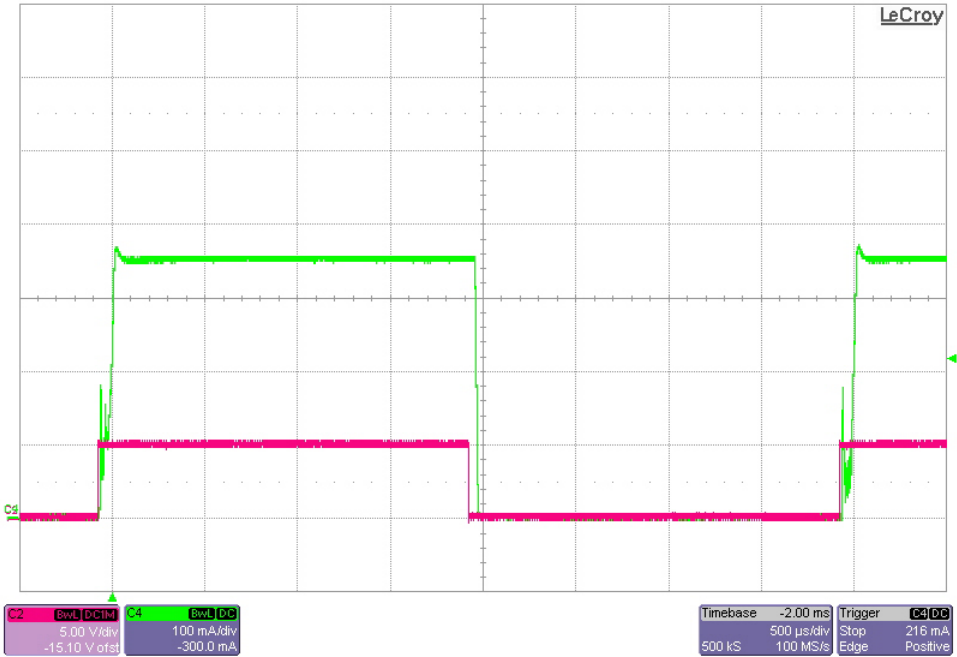


The photo below shows the LED current when 28V input is applied. $I_{out} = 0.35\text{A}$, PWM input = 5V (100mA/DIV, 10mS/DIV)



2 PWM Drive

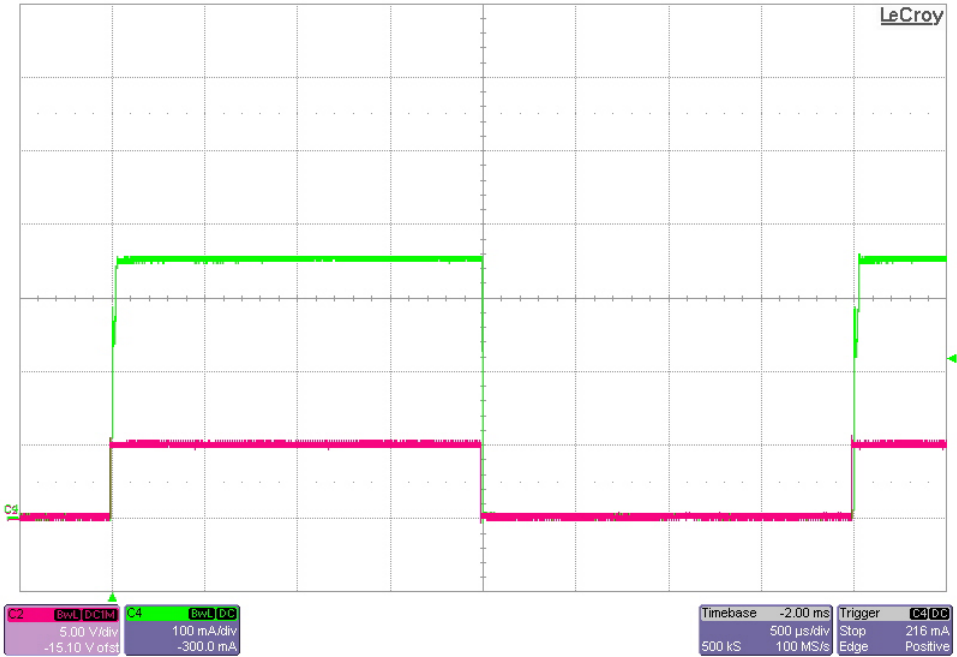
The photo below shows the LED current when modulated by an external 250Hz 50% PWM signal.
Vin = 5V (5V/DIV, 100mA/DIV, 500uS/DIV)



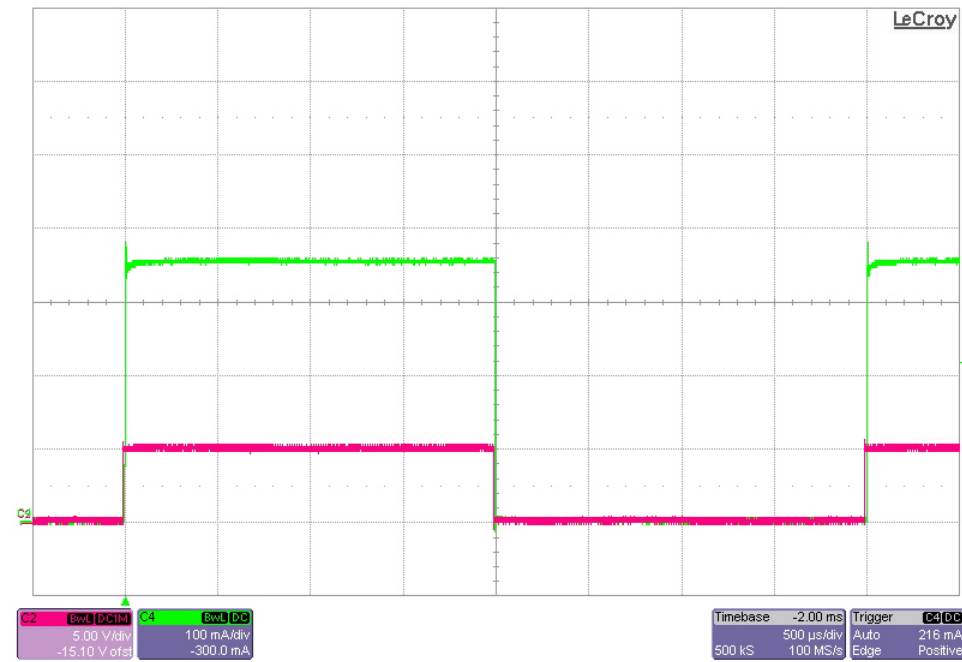
PMP5240 Rev B Test Results



The photo below shows the LED current when modulated by an external 250Hz 50% PWM signal.
Vin = 12V (5V/DIV, 100mA/DIV, 500uS/DIV)



The photo below shows the LED current when modulated by an external 250Hz 50% PWM signal.
Vin = 28V (5V/DIV, 100mA/DIV, 500uS/DIV)



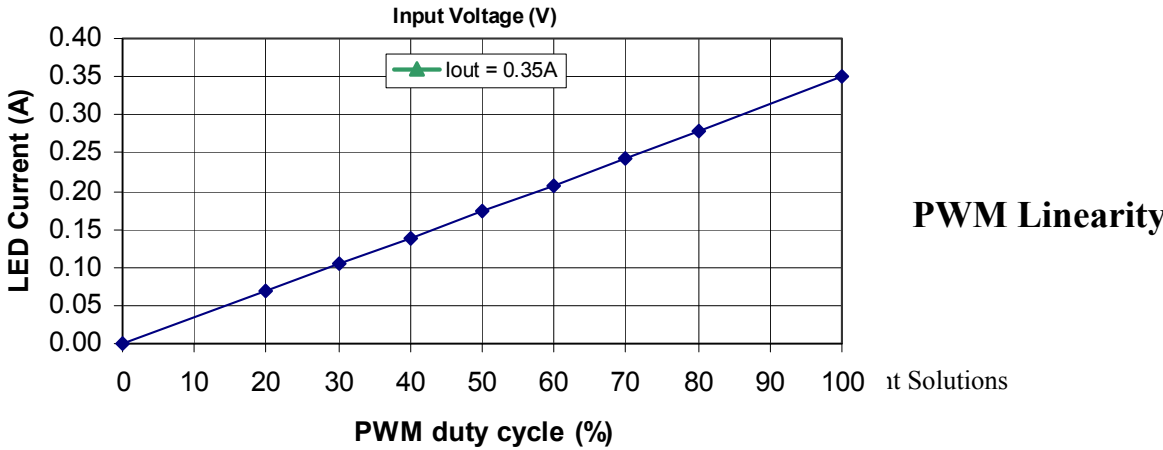
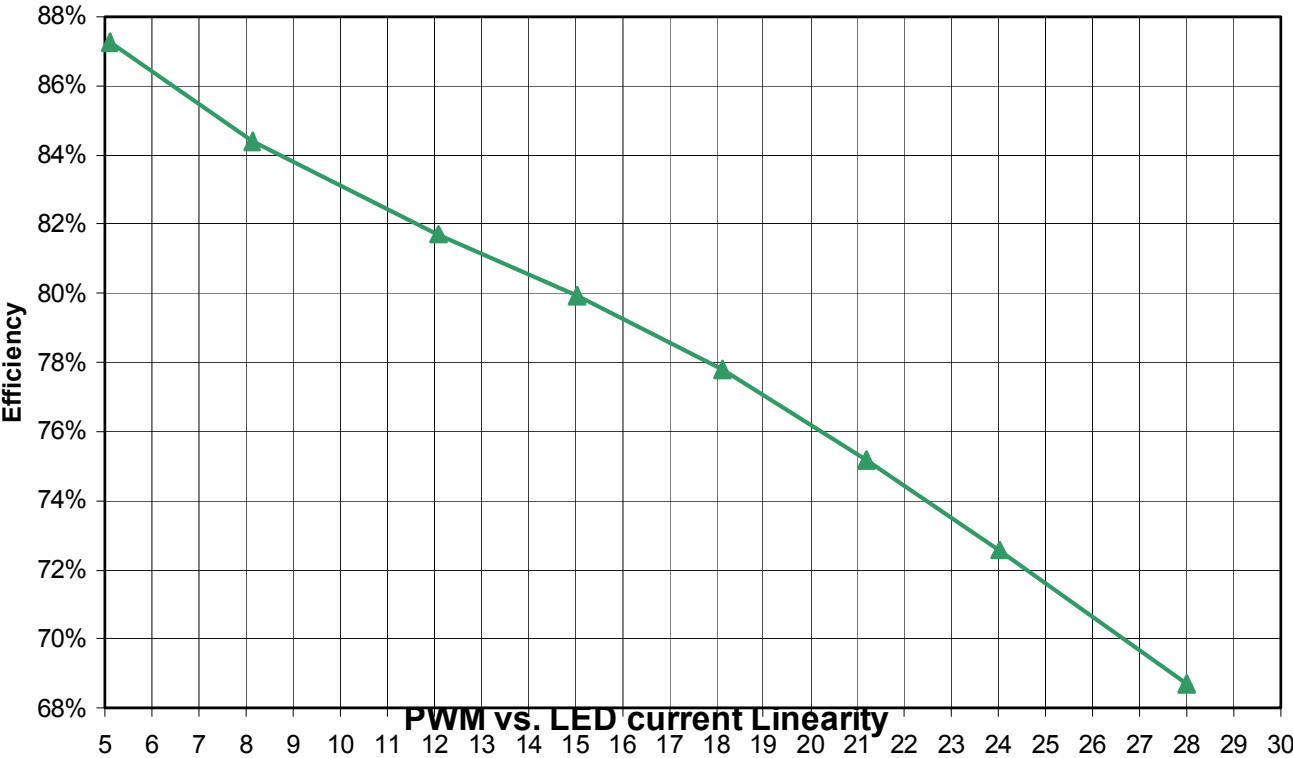
12/18/2009

PMP5240 Rev B Test Results



3 Efficiency

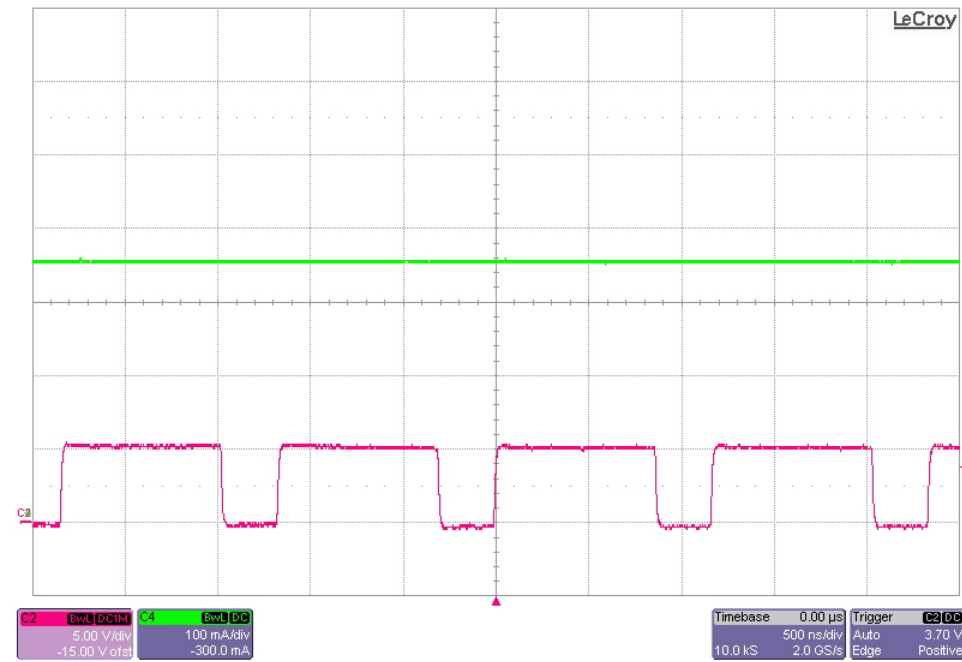
The converter efficiency is shown in the figure below. Iout = 0.35A



4 Switching Voltage Waveforms

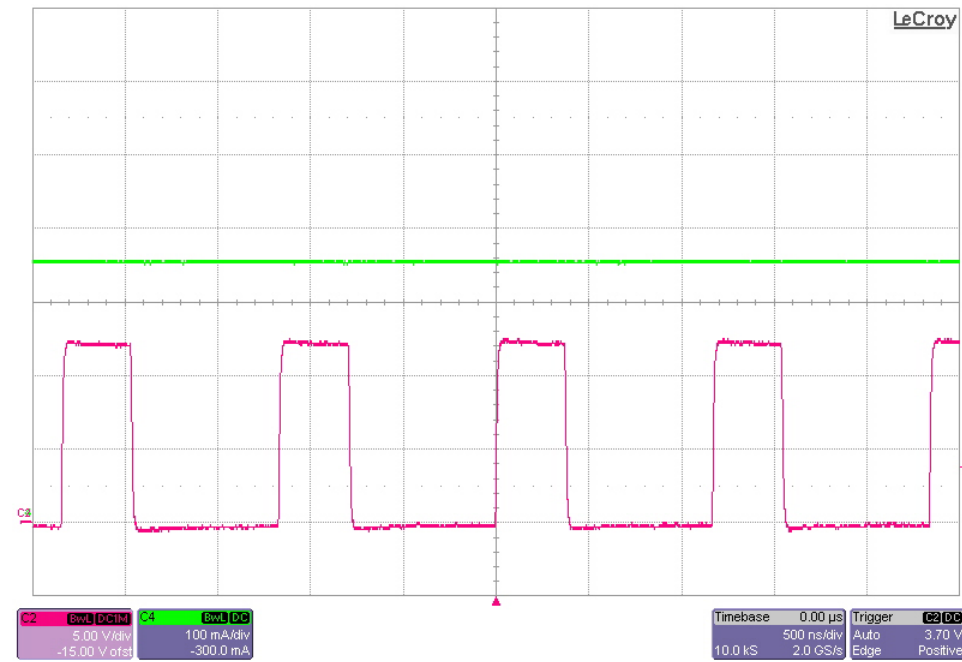
The photo below shows the switching node voltage at the PH node (TP1) and the LED current. The input voltage is 5V and the output current is 0.35A.

(5V/DIV, 100mA/DIV, 500nS/DIV)



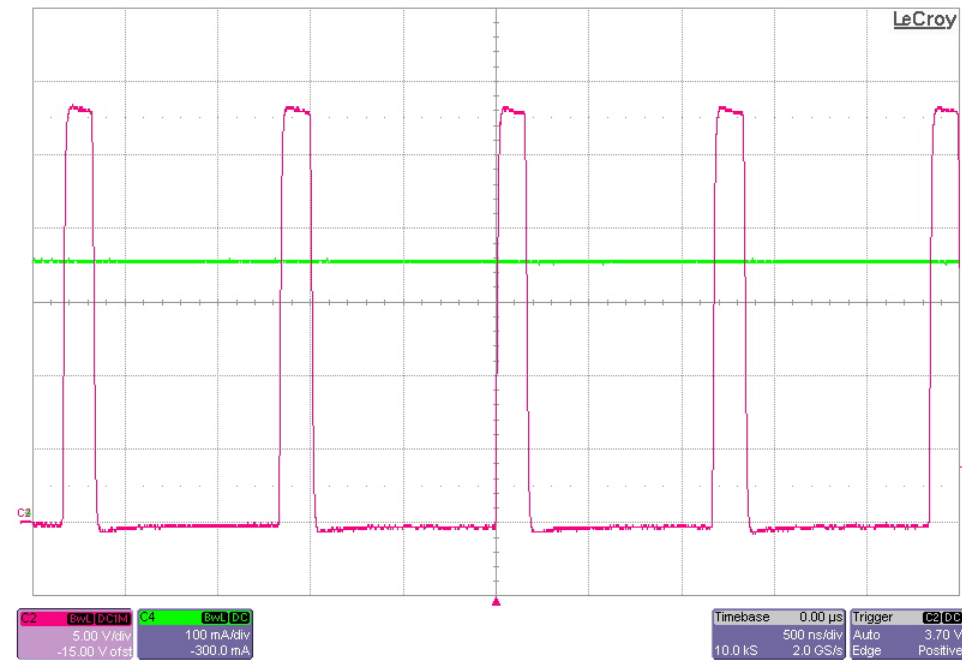
The photo below shows the switching node voltage at the PH node (TP1) and the LED current. The input voltage is 12V and the output current is 0.35A.

(5V/DIV, 100mA/DIV, 500nS/DIV)



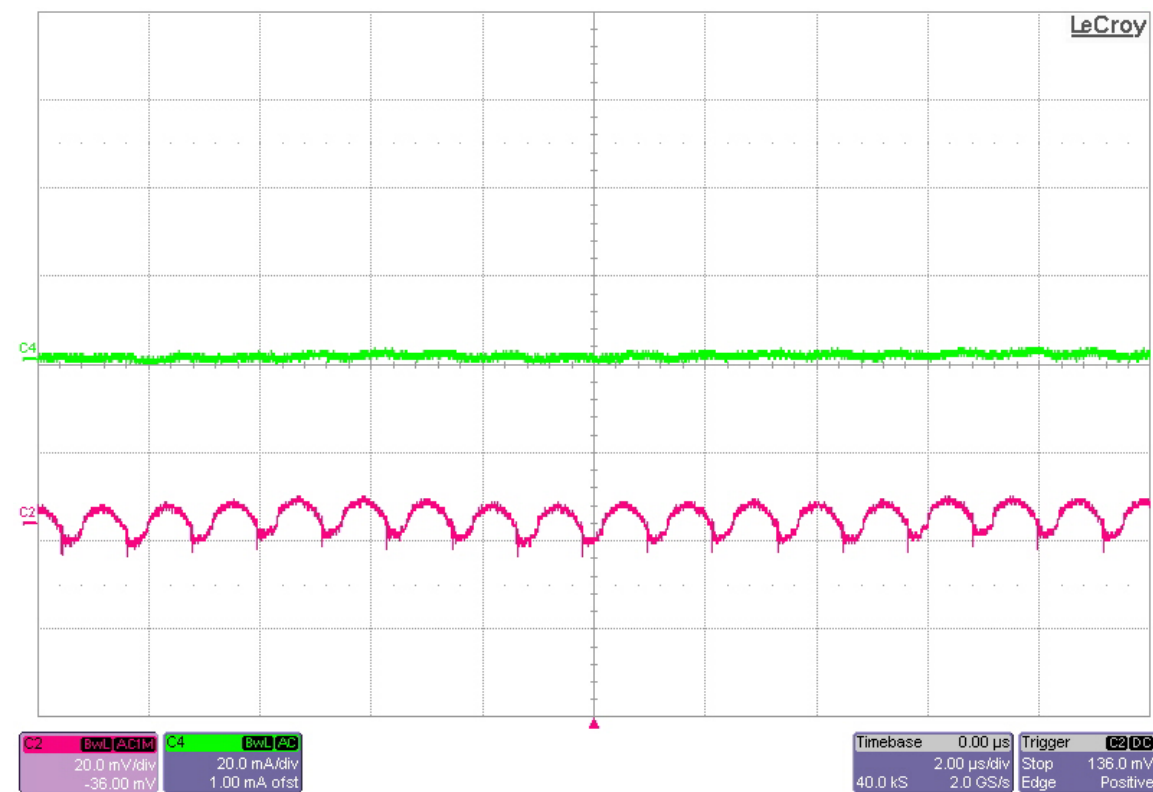
The photo below shows the switching node voltage at the PH node (TP1) and the LED current. The input voltage is 28V and the output current is 0.35A.

(5V/DIV, 100mA/DIV, 500nS/DIV)



5 LED Ripple Voltage and Current

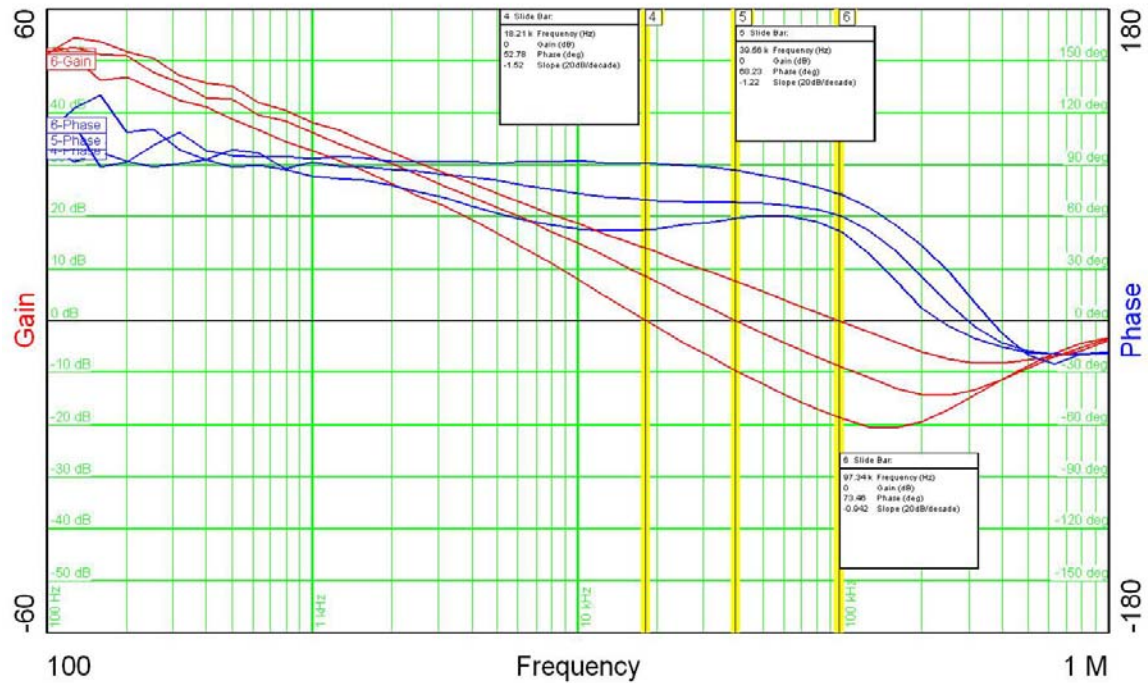
The photo below shows the ripple current and ripple voltage on the LED. The input voltage is 12V and the LED current is 0.35A. (20mV/DIV ac, 20mA/DIV ac, 2uS/DIV)



6 Control Loop Gain / Stability

The plot below shows the loop gain and phase margin with the input voltage at 5V, 12V, and 28V and the output loaded at 0.35A.

5Vin;	Bandwidth = 18KHz	Phase Margin = 53 degrees
12Vin;	Bandwidth = 40KHz	Phase Margin = 68 degrees
28Vin;	Bandwidth = 97KHz	Phase Margin = 73 degrees



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