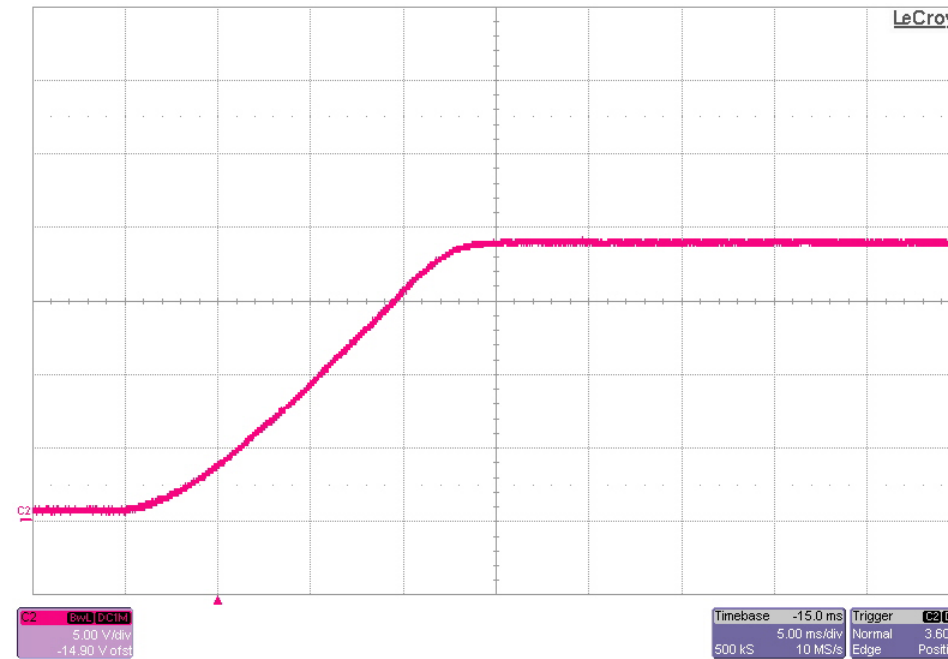


1 Output Voltage Startup

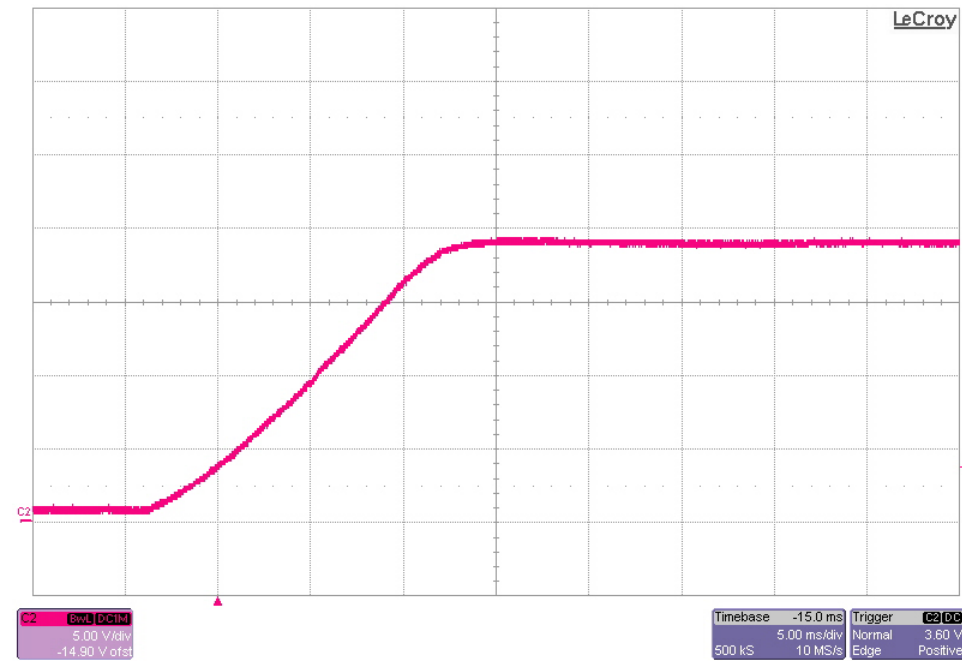
The photo below shows the 19V output voltage startup waveforms after the application of 10Vdc in. The output was loaded to 0A. (5V/DIV, 5mS/DIV)



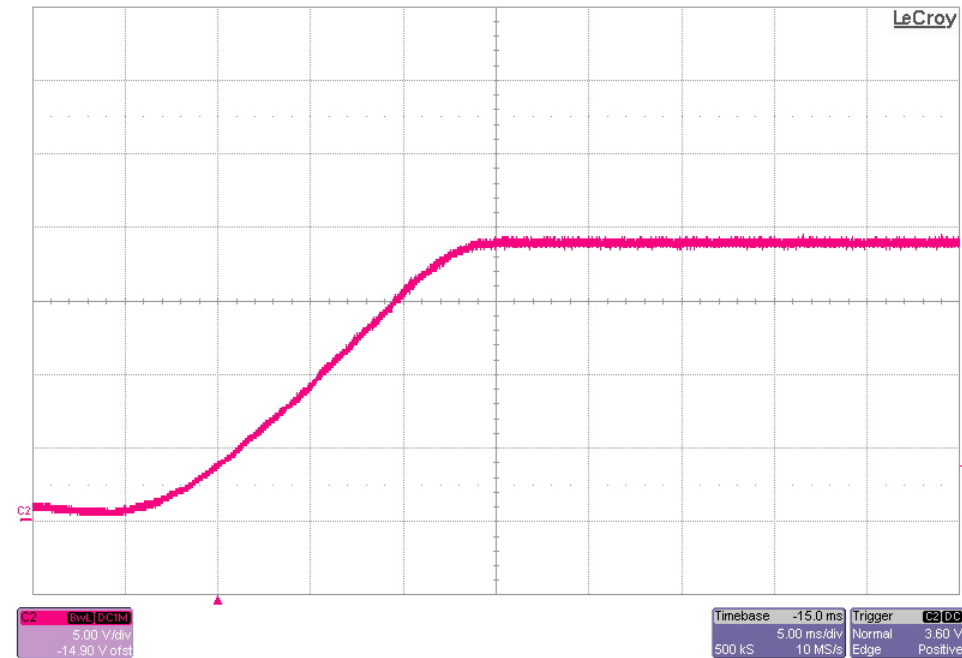
The photo below shows the 19V output voltage startup waveforms after the application of 33Vdc in. The output was loaded to 0A. (5V/DIV, 5mS/DIV)

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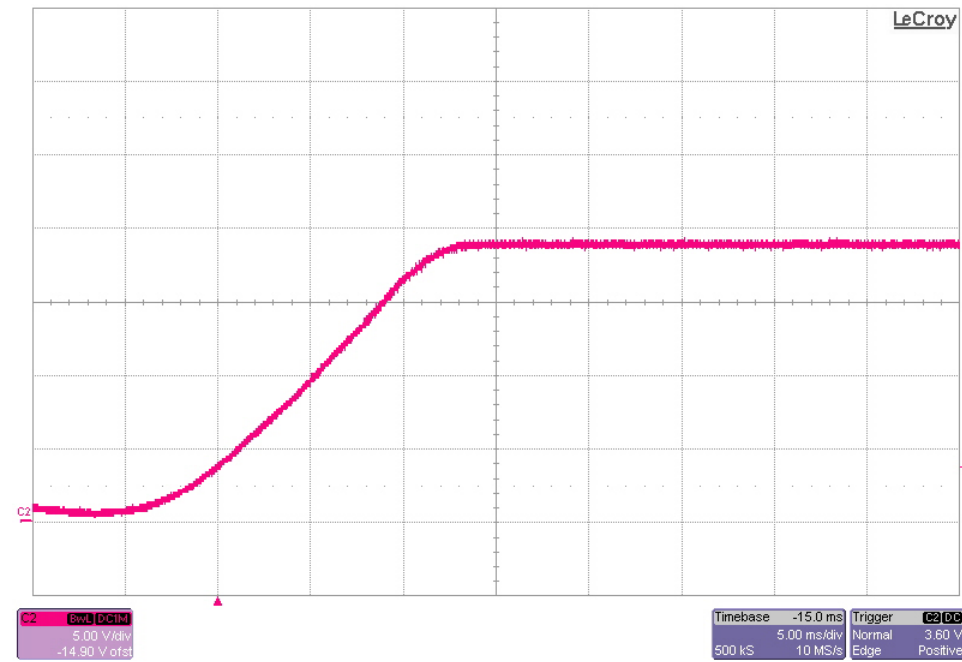
PMP5064 Rev B Test Results



The photo below shows the 19V output voltage startup waveforms after the application of 10Vdc in. The output was loaded to 4.7A. (5V/DIV, 5mS/DIV)

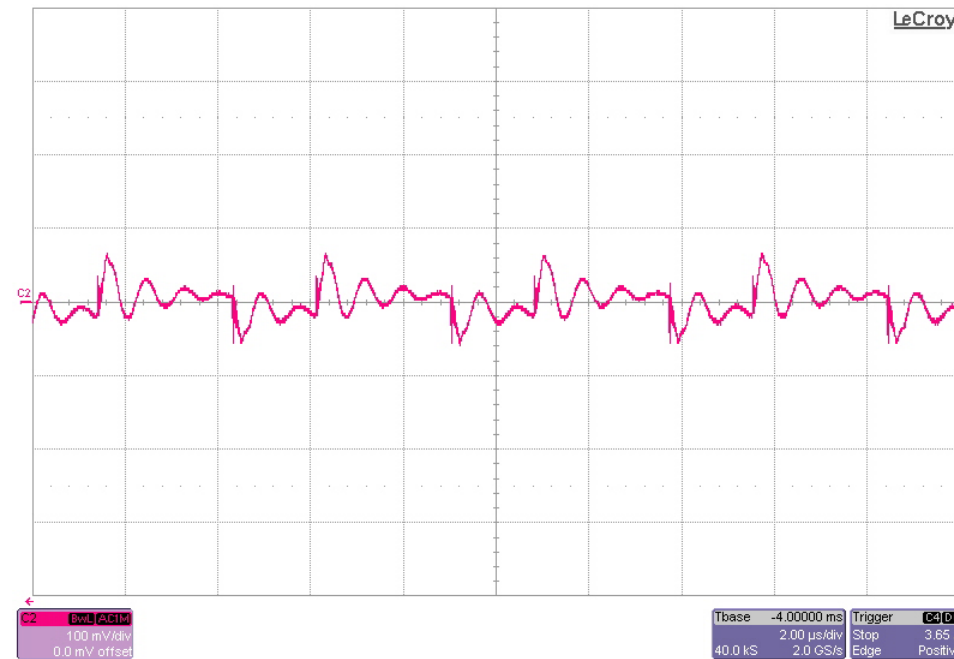


The photo below shows the 19V output voltage startup waveforms after the application of 33Vdc in. The output was loaded to 4.7A. (5V/DIV, 5mS/DIV)

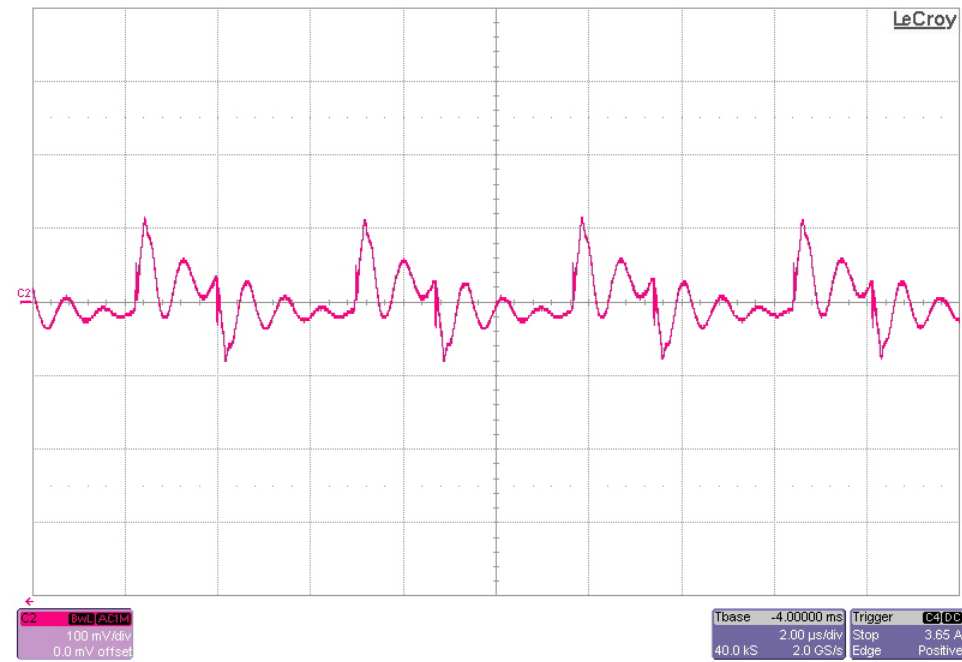


2 Output Ripple Voltage

The 19V output ripple voltage is shown in the figure below. The image was taken with the output loaded at 4.7A and the input voltage set to 33Vdc. (100mV/DIV, 2uS/DIV)

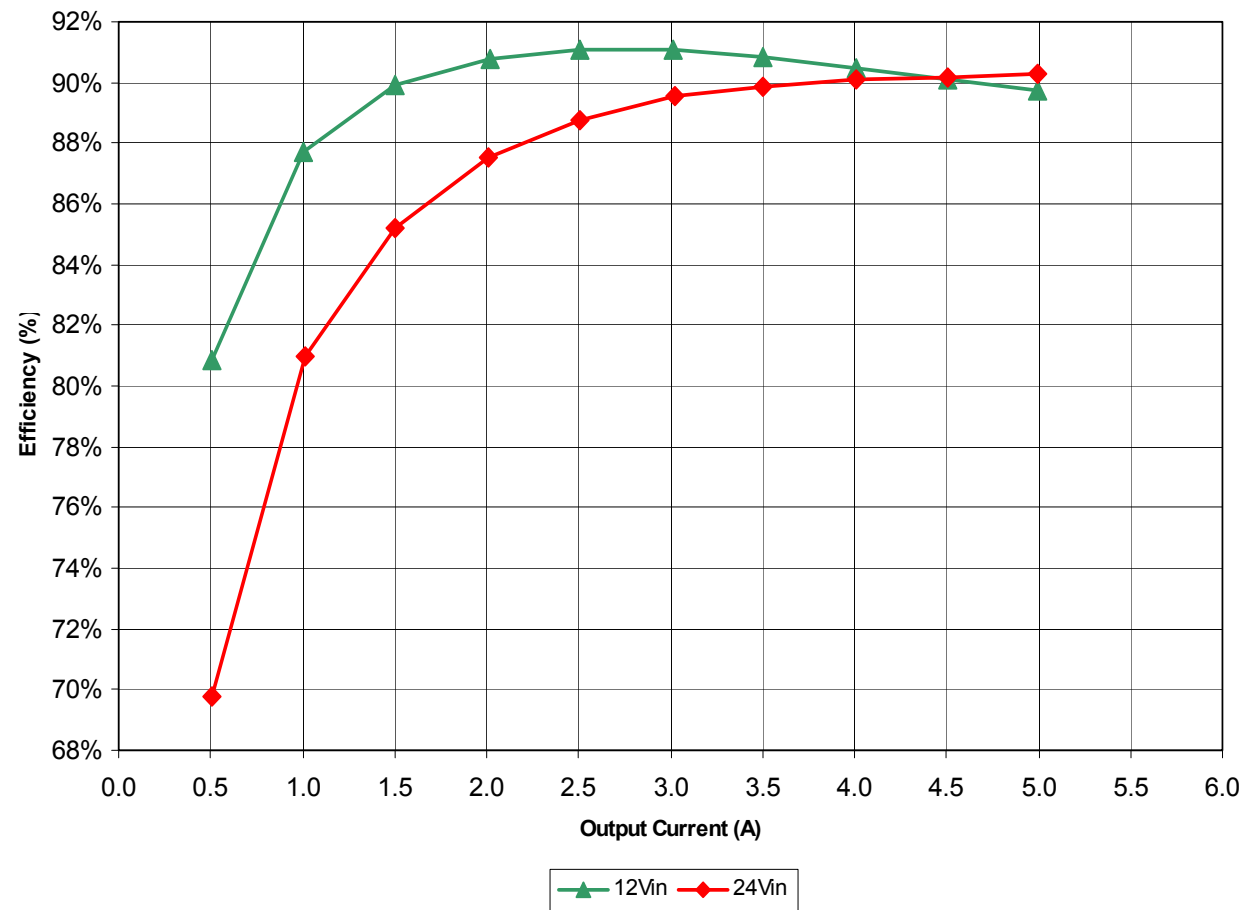


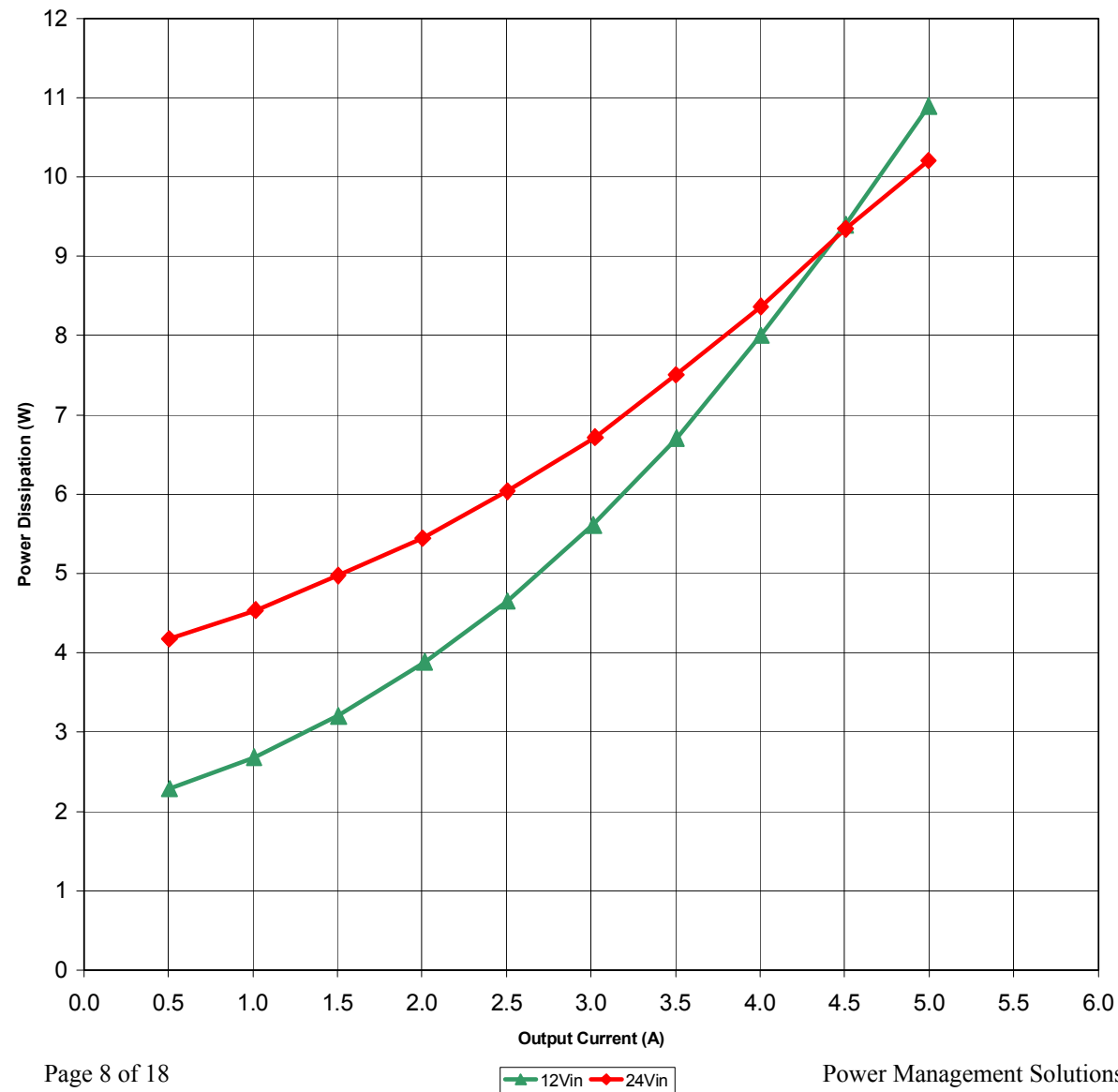
The 19V output ripple voltage is shown in the figure below. The image was taken with the output loaded at 4.7A and the input voltage set to 12Vdc. (100mV/DIV, 2uS/DIV)



3 Efficiency

The converter efficiency is shown in the figure below.



Power Dissipation

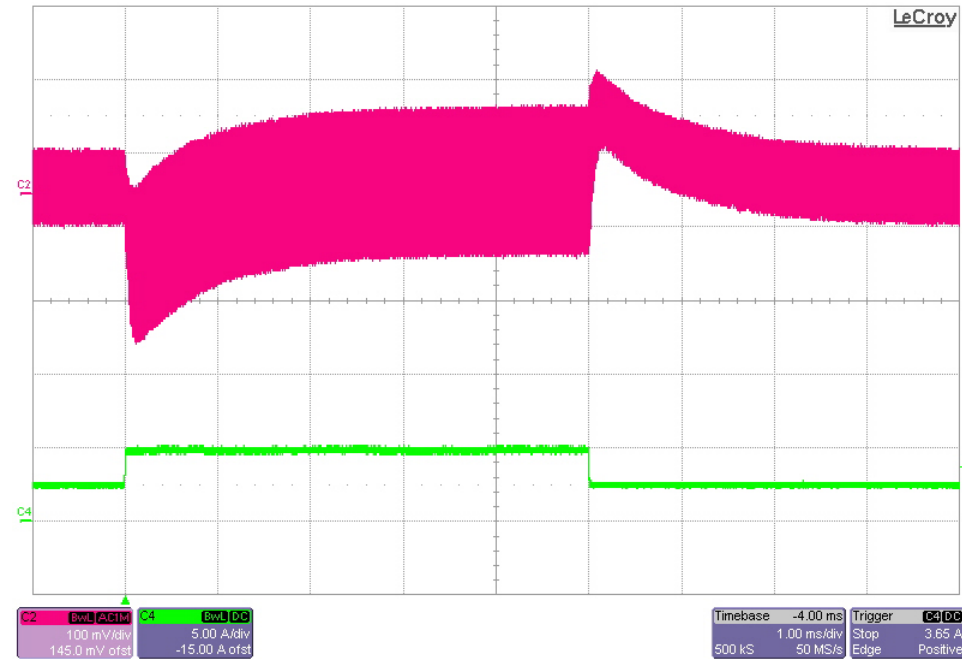
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PMP5064 Rev B Test Results



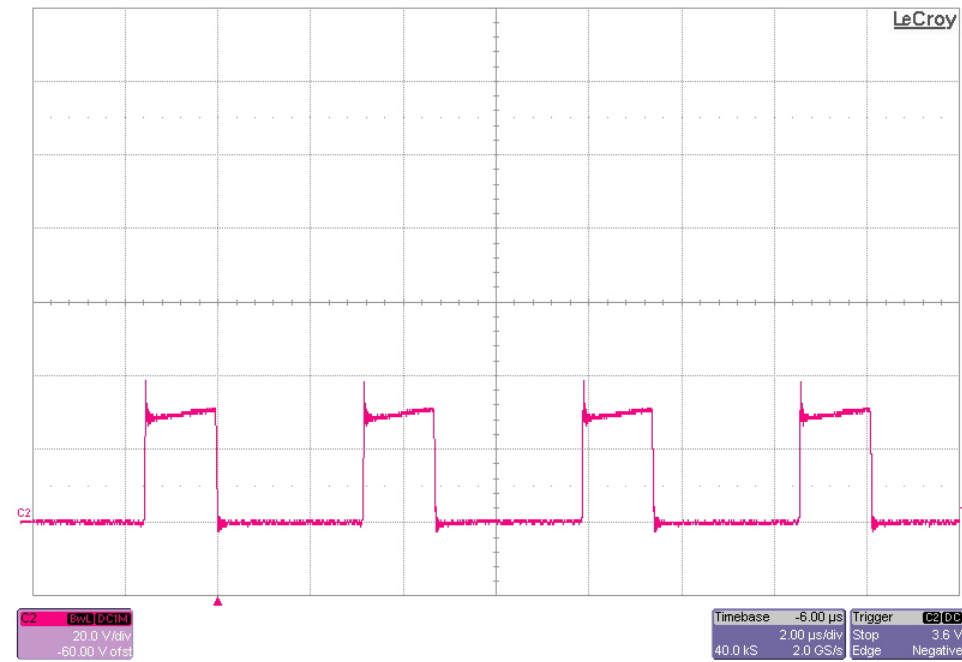
4 Load Transients

The photo below shows the response of the 19V output voltage (ac coupled) to the load current stepping between 2.5A and 5A. $V_{in} = 12V_{dc}$. (100mV/DIV, 5A/DIV, 1mS/DIV)

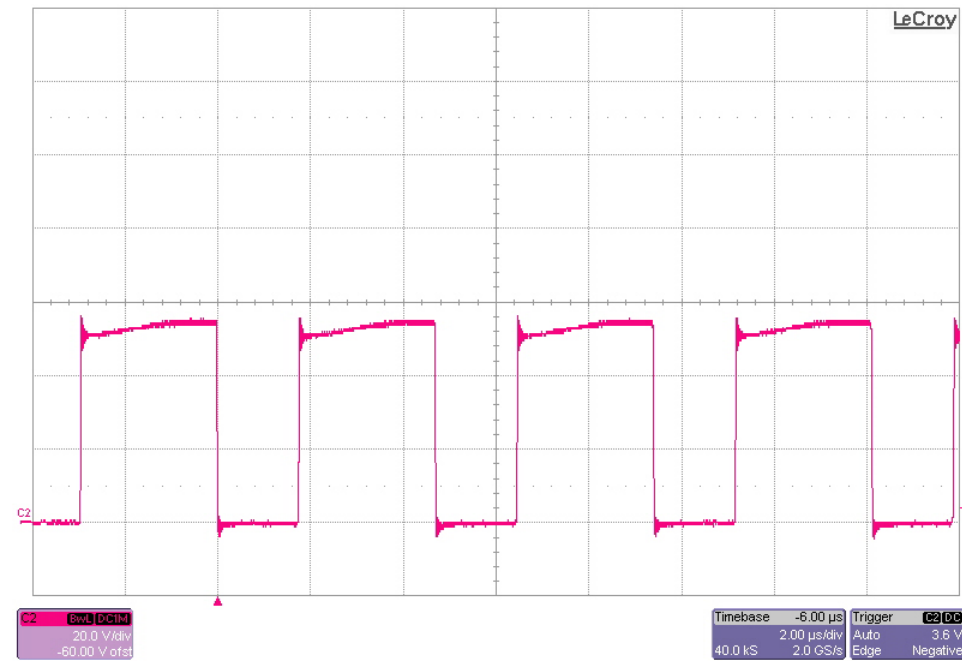


5 Switch Node Waveforms

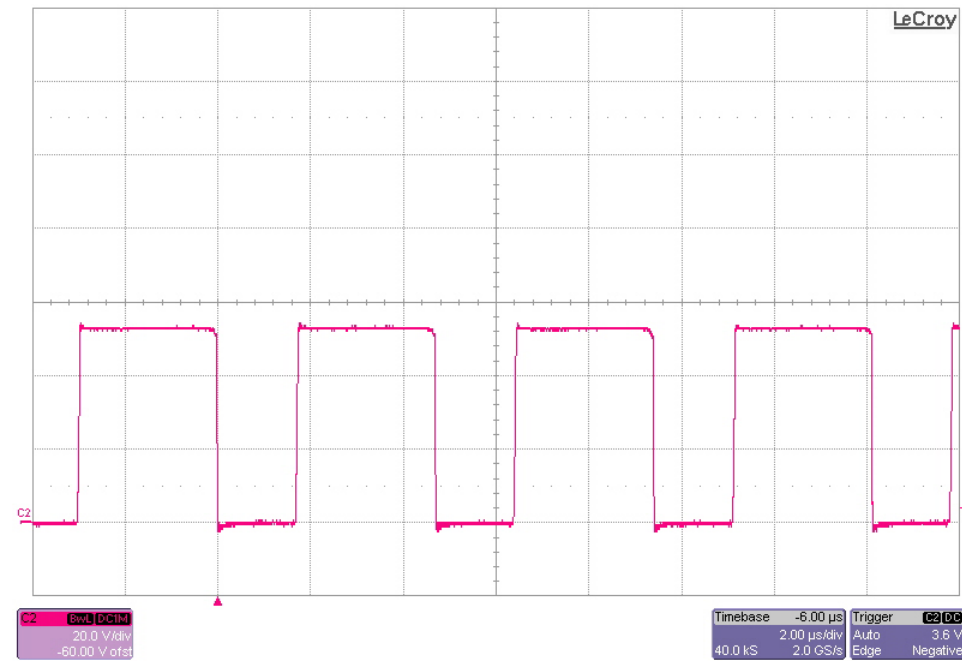
The photos below show the FET drain voltage. The input voltage is 10V and the output is loaded to 4.7A. (20V/DIV, 2uS/DIV)



The photos below show the FET drain voltage. The input voltage is 33V and the output is loaded to 4.7A. (20V/DIV, 2µS/DIV)



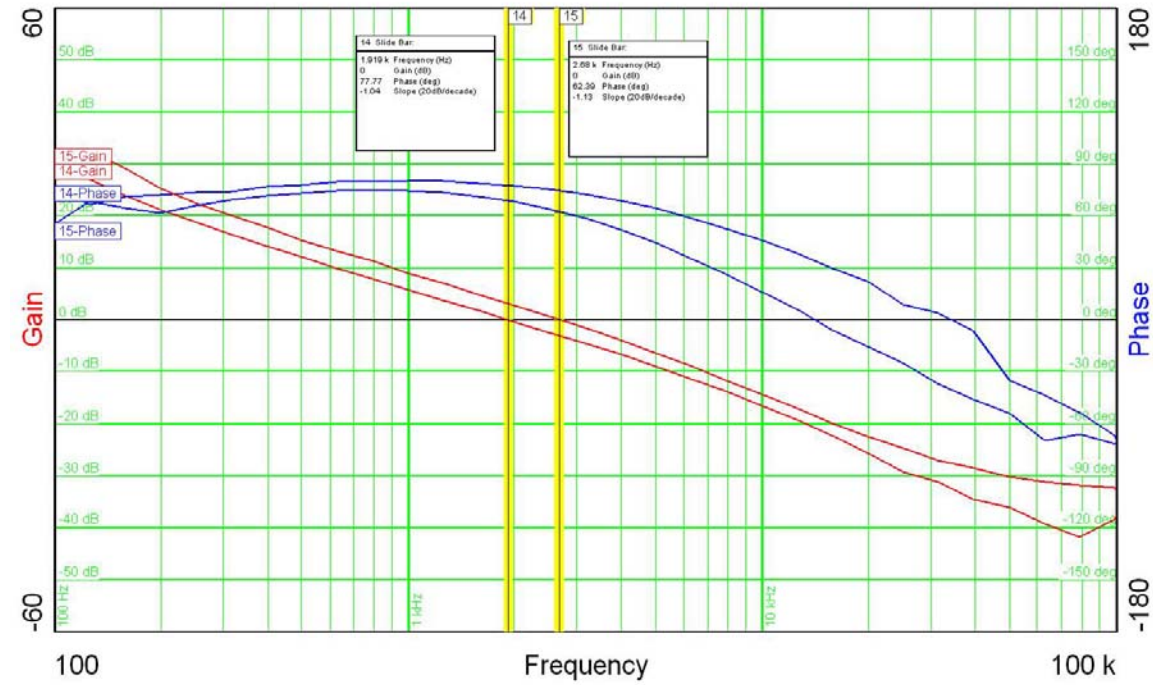
The photos below show the FET drain voltage. The input voltage is 33V and the output is loaded to 0.5A. (20V/DIV, 2 μ S/DIV)



6 Loop Gain

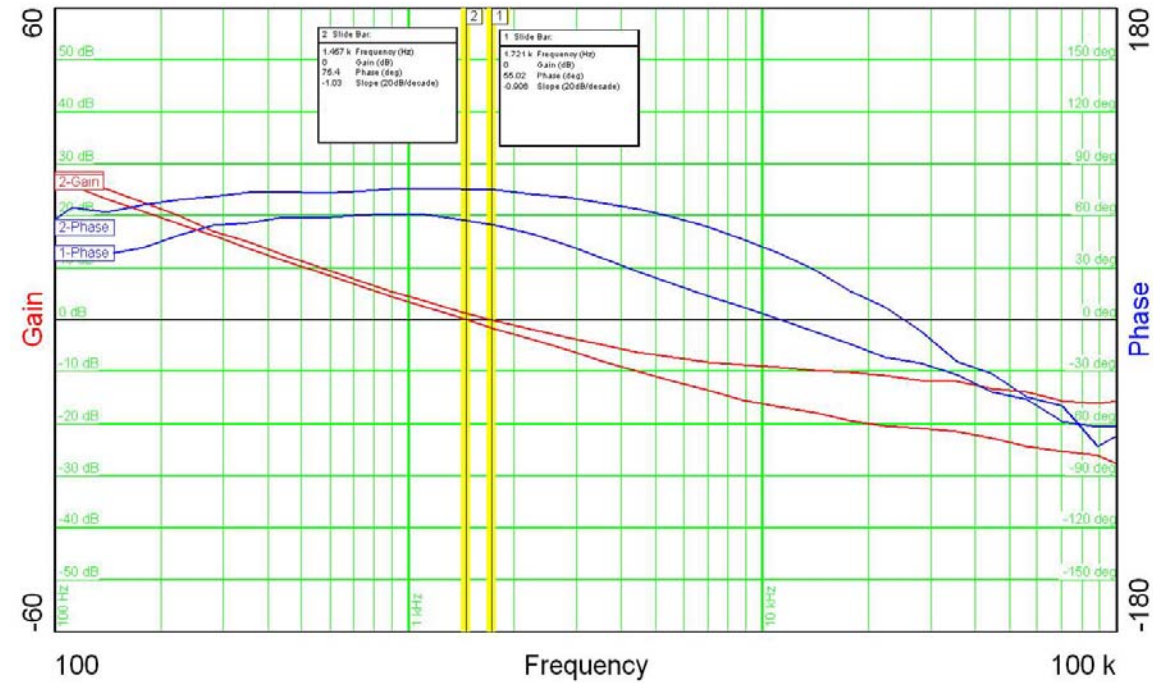
Closed loop gain; $V_{in} = 33V$, $I_{out} = 1A$ and $4.7A$

Bandwidth = 2.7KHz	Phase Margin = 62 degrees	($I_{out} = 4.7A$)
Bandwidth = 1.9KHz	Phase Margin = 78 degrees	($I_{out} = 1A$)



Closed loop gain; $V_{in} = 10V$, $I_{out} = 1A$ and $4.7A$

Bandwidth = 1.7KHz	Phase Margin = 55 degrees	($I_{out} = 4.7A$)
Bandwidth = 1.5KHz	Phase Margin = 75 degrees	($I_{out} = 1A$)



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