

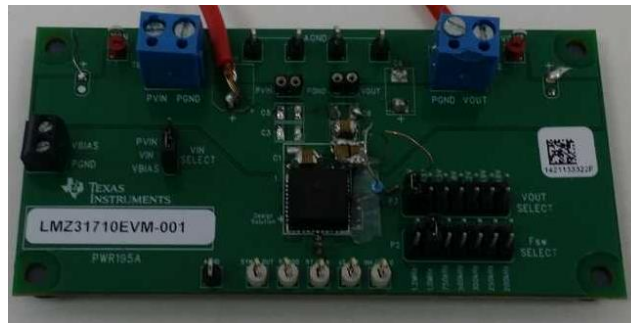
**Test Data
For PMP10638
4/4/2015**



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1. Board Picture



2. Design Specifications

Vin Min.	3.1Vdc
Vin Max.	3.5Vdc
Vout	-5.2Vdc
Iout	4A
fsw	1Mhz
Temp	25Deg C

3. TYPICAL PERFORMANCE

3.1 EFFICIENCY

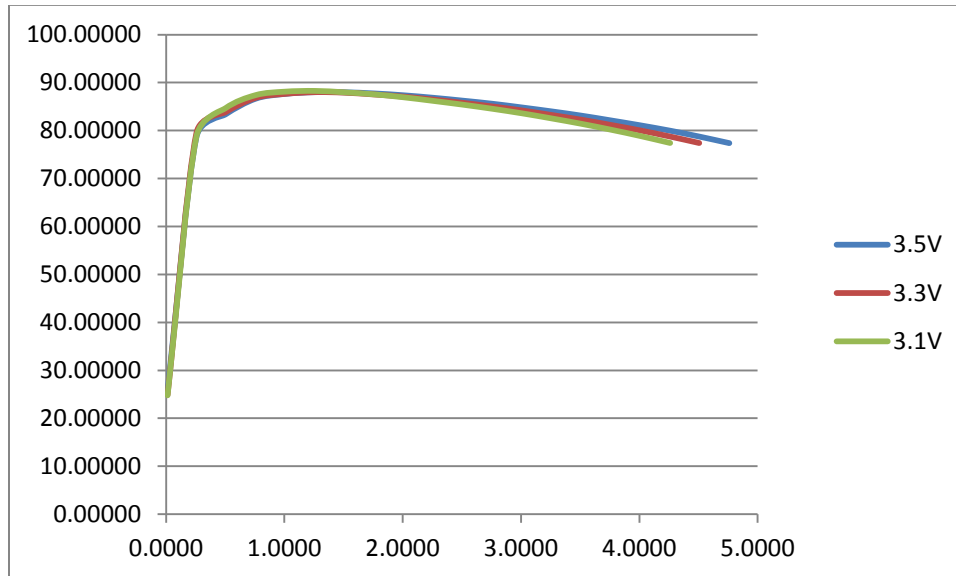


Fig1 Efficiency Curve

3.2 Power Loss

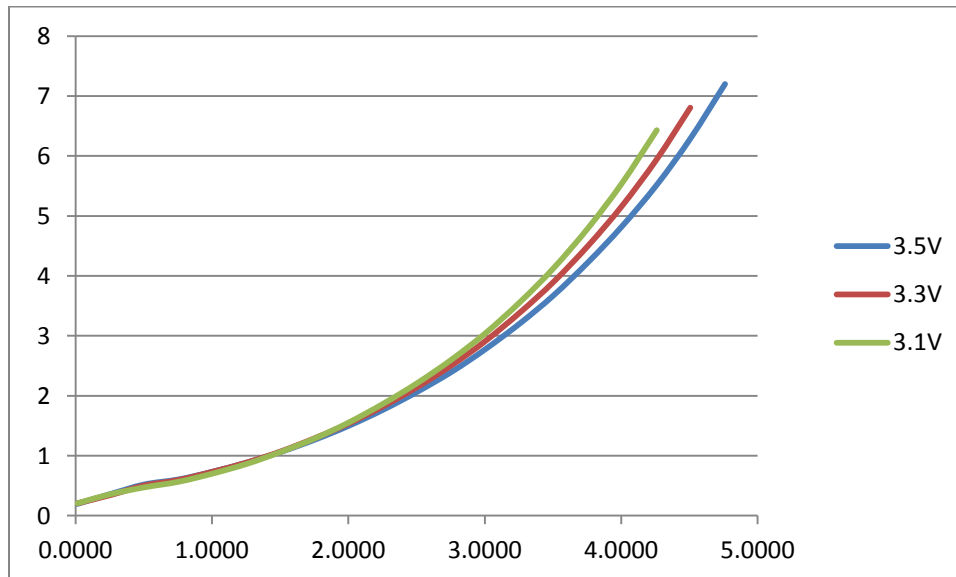


Fig2 Load regulation Curve

3.3 Load Transient Response:

Ch1=Vo_ac(100mV/DIV), CH4=Io(1A/DIV)

Test Guild: Probe GND connect to Input GND

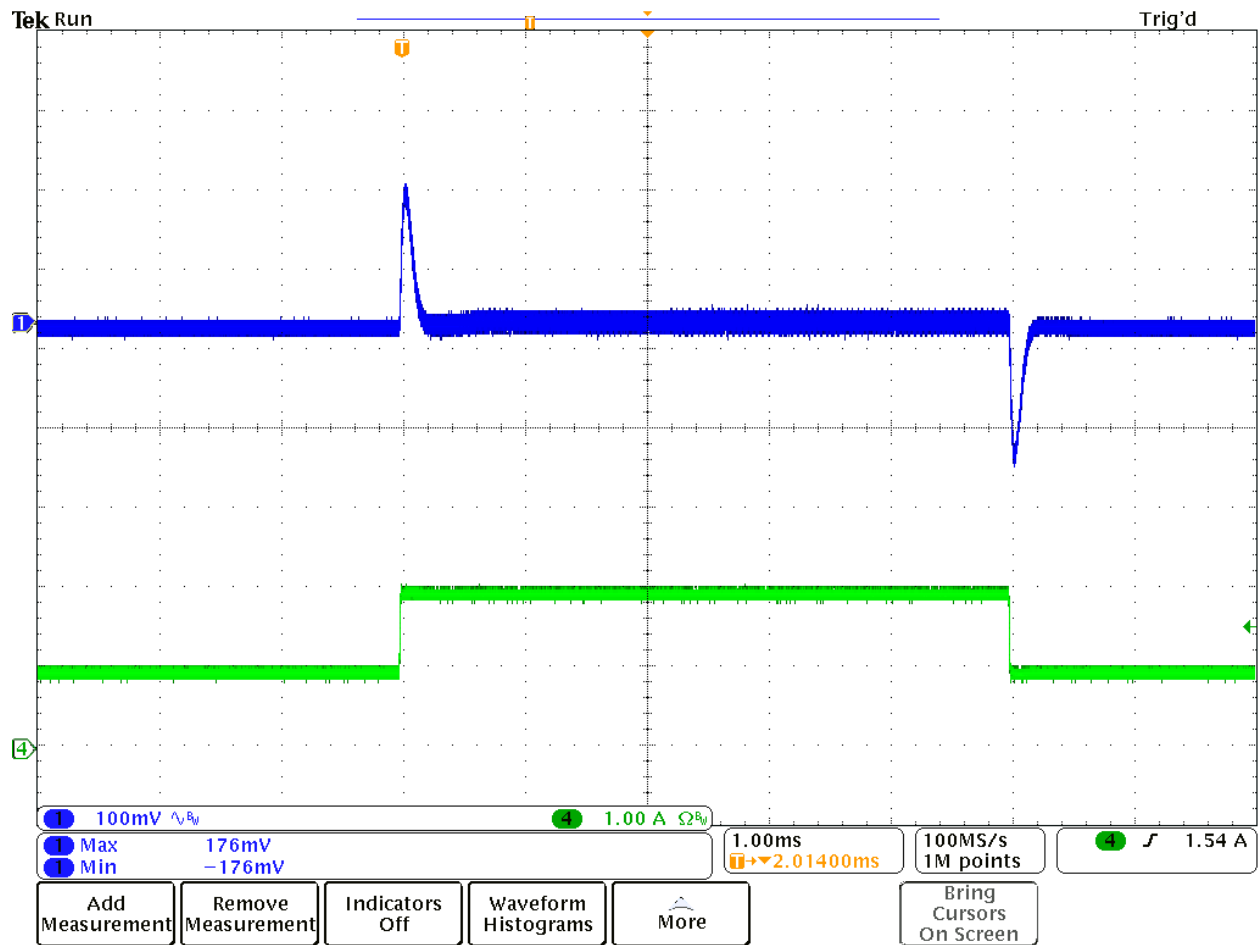


Fig3 Transient Response, Vin=3.3V DC Io=25%~50%~20%

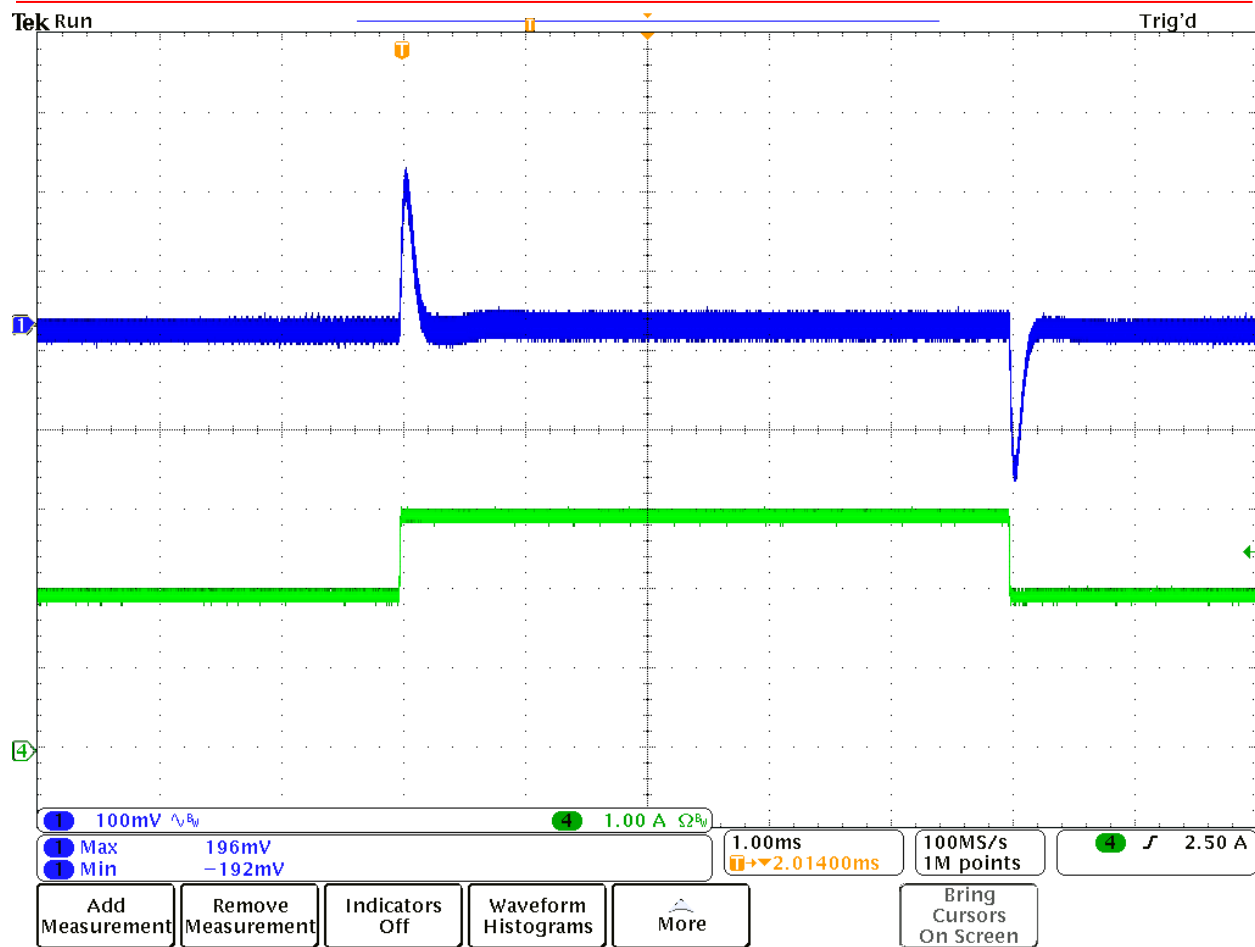


Fig 4 Transient Response, $V_{in}=3.3V$ DC $I_o=50\% \sim 75\% \sim 50\%$

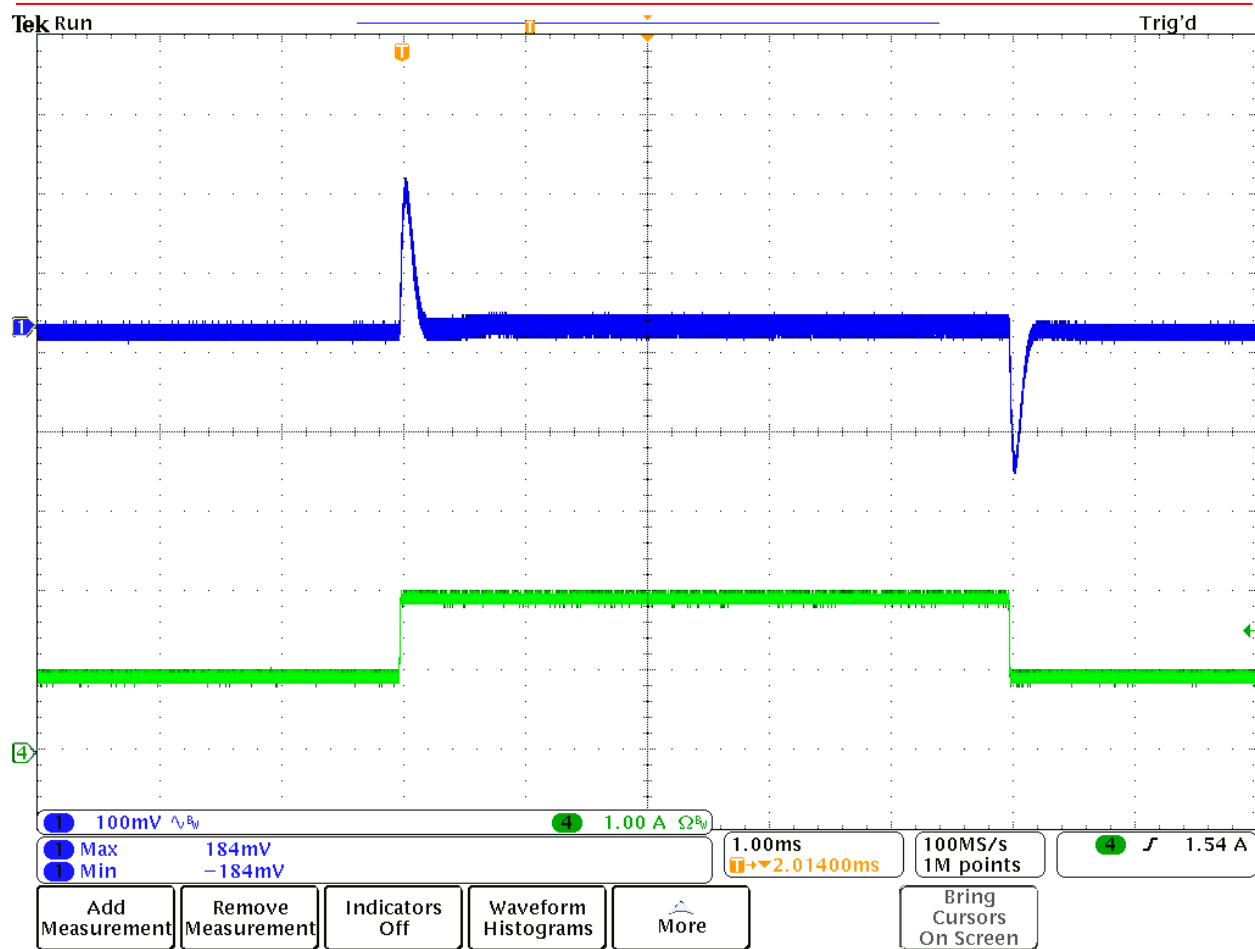


Fig 5 Transient Response, $V_{in}=3.1V$ DC $I_o=25\% \sim 50\% \sim 20\%$

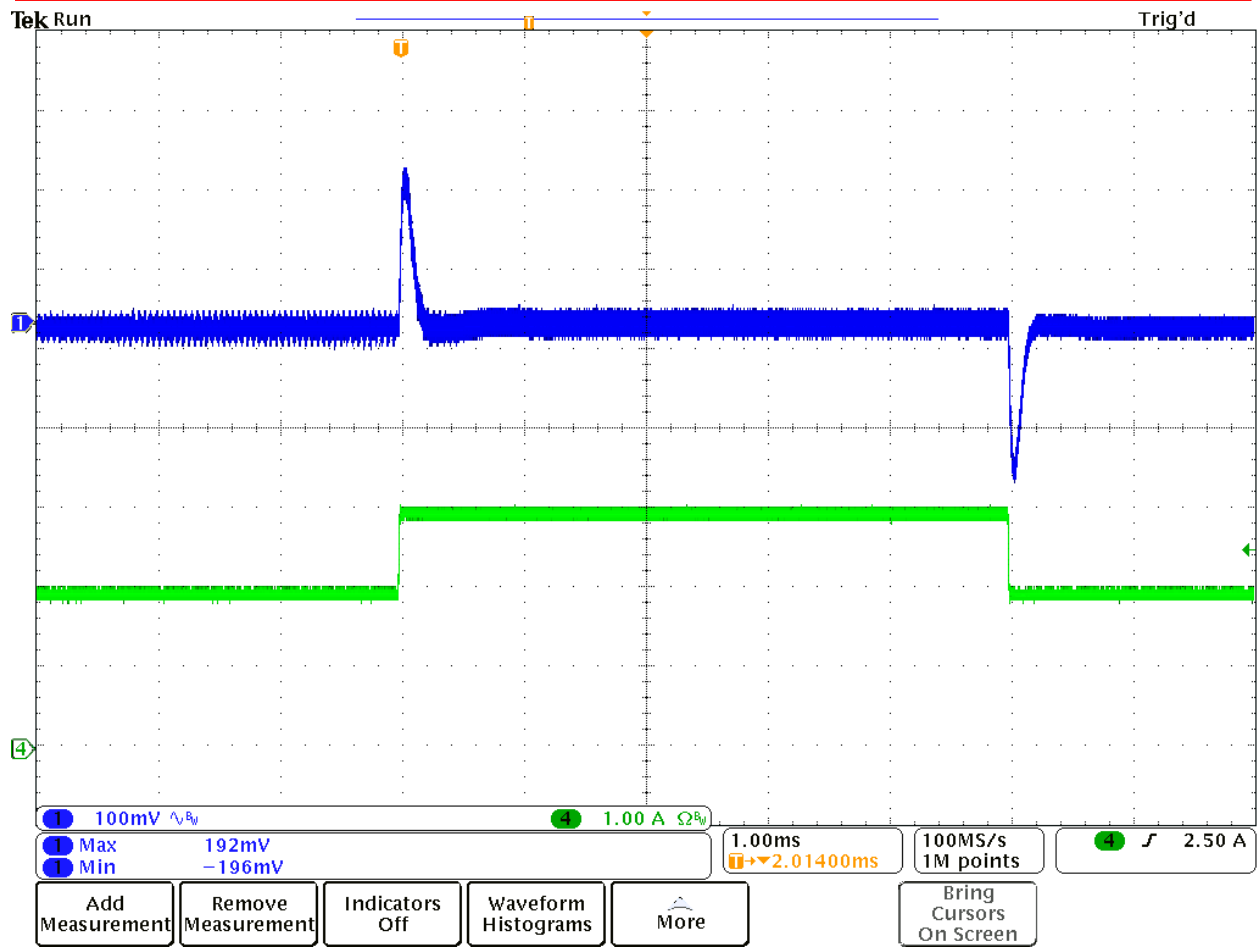


Fig 6 Transient Response, Vin=3.1V DC Io=50%~75%~50%

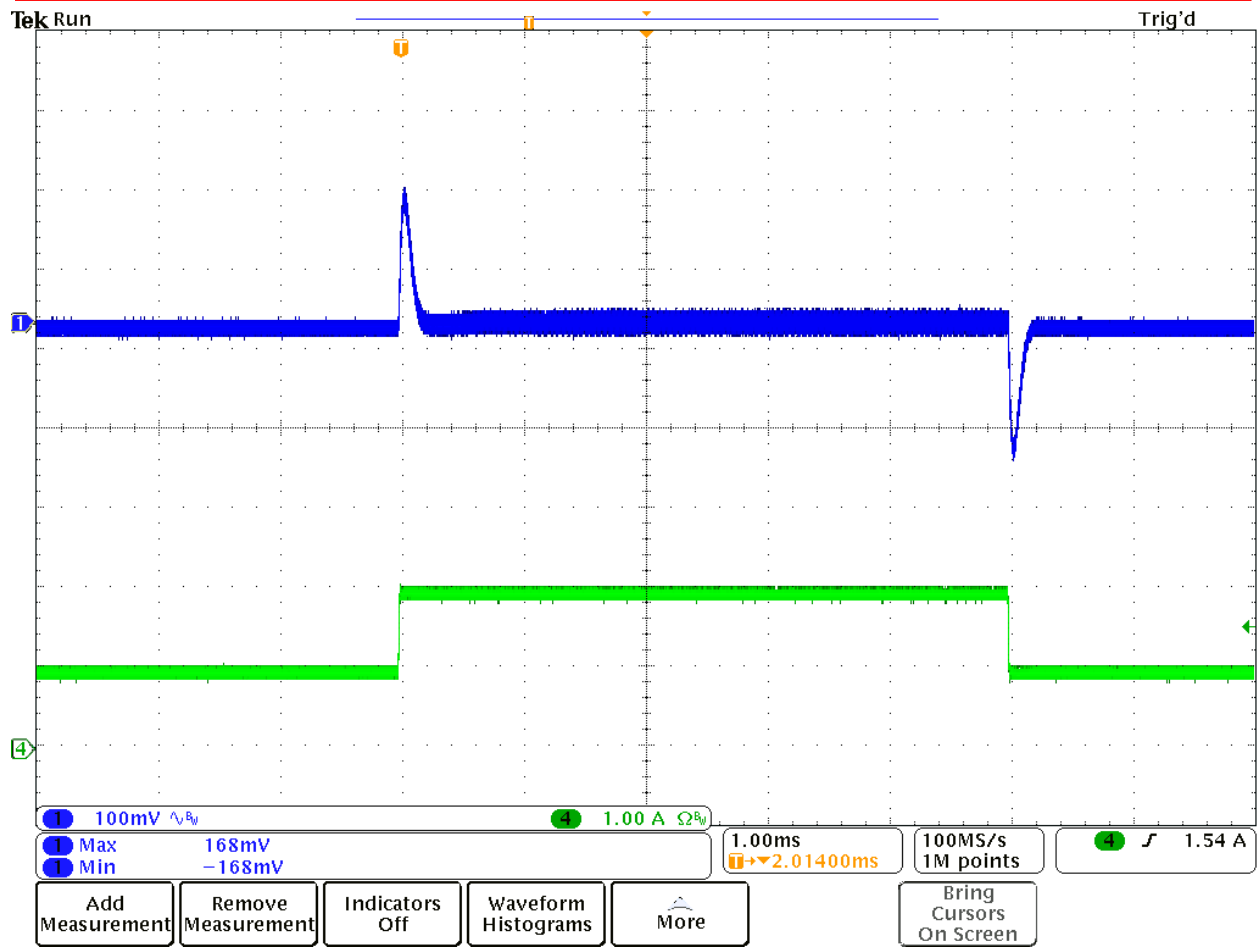


Fig7 Transient Response, $V_{in}=3.5V$ DC $I_o=25\% \sim 50\% \sim 20\%$

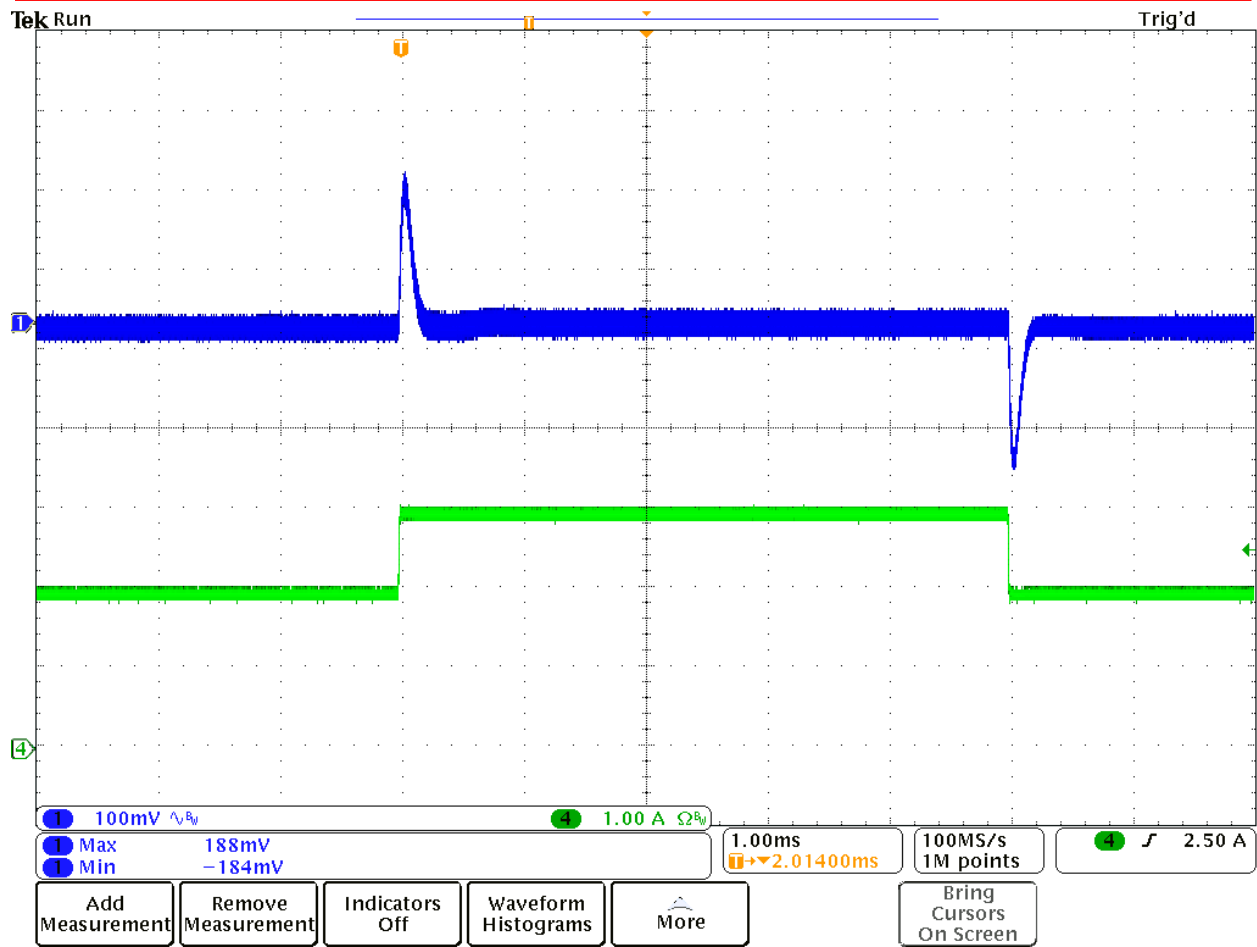


Fig 8 Transient Response, $V_{in}=3.5V$ DC $I_o=50\%\sim 75\%\sim 50\%$

Ch1= $V_{o_ac}(1V/DIV)$, CH4= $I_o(1A/DIV)$

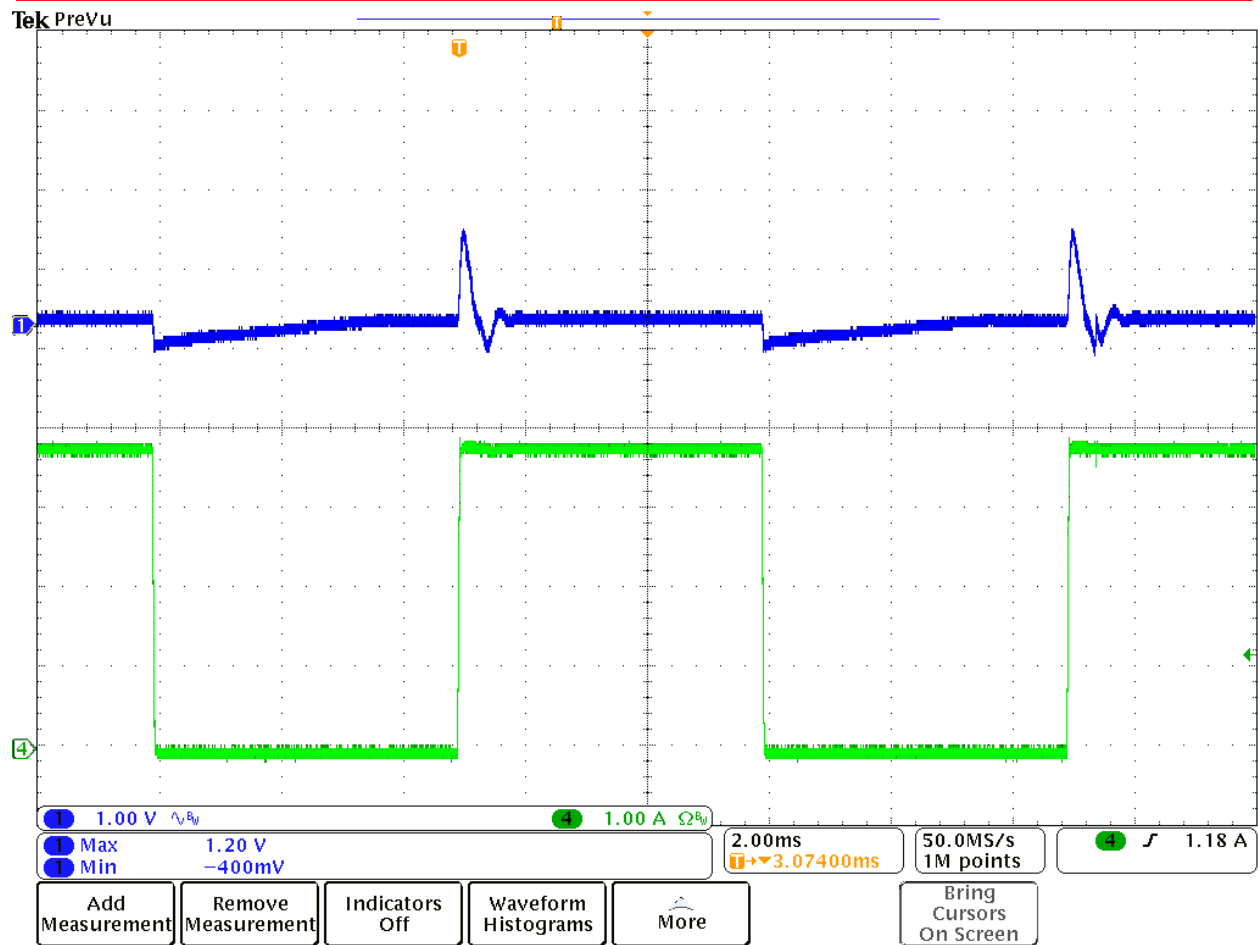


Fig 9 Transient Response, $V_{in}=3.1V$ DC $I_o=0A-3.8A$

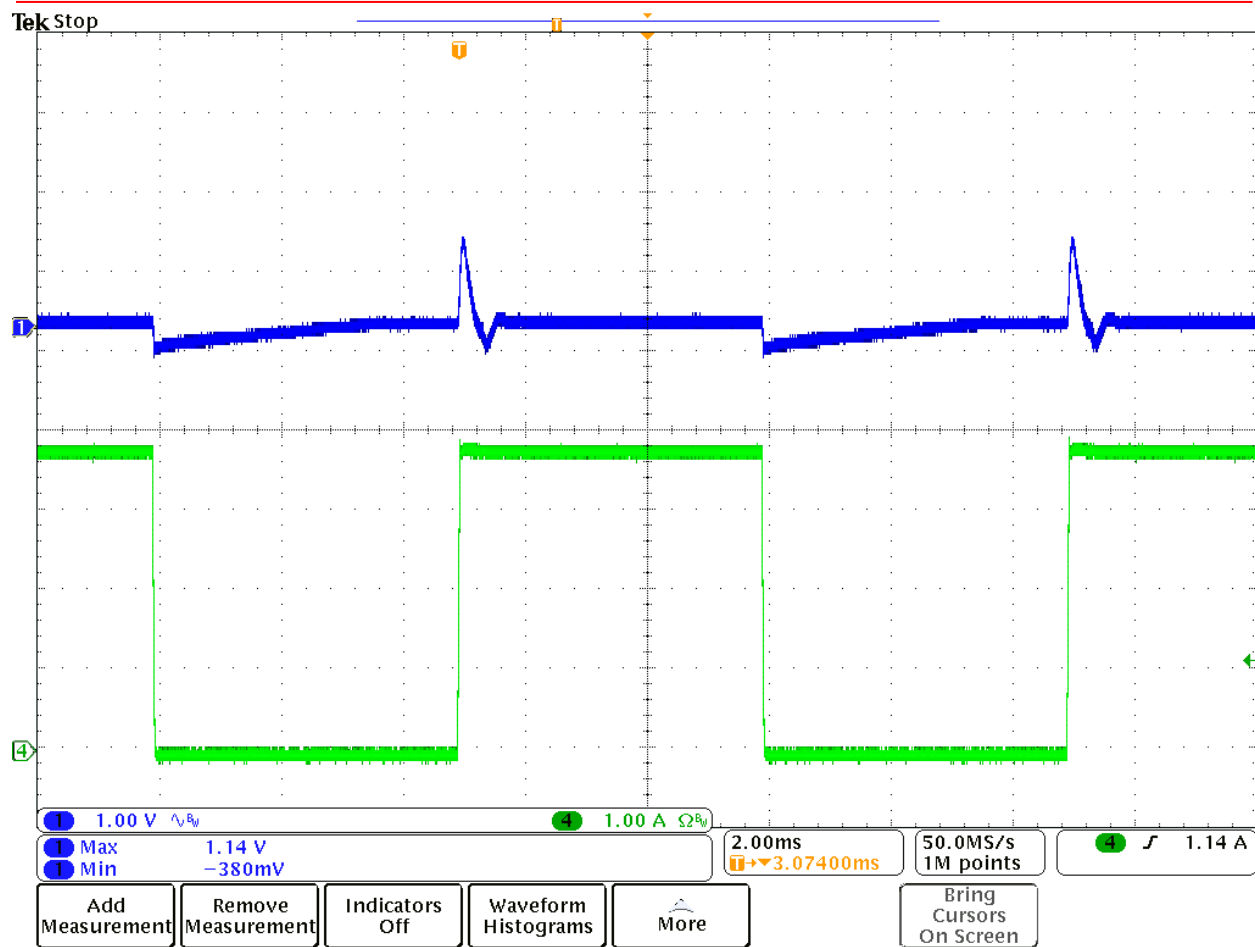


Fig 10 Transient Response, $V_{in}=3.3V$ DC $I_o=0A-3.8A$

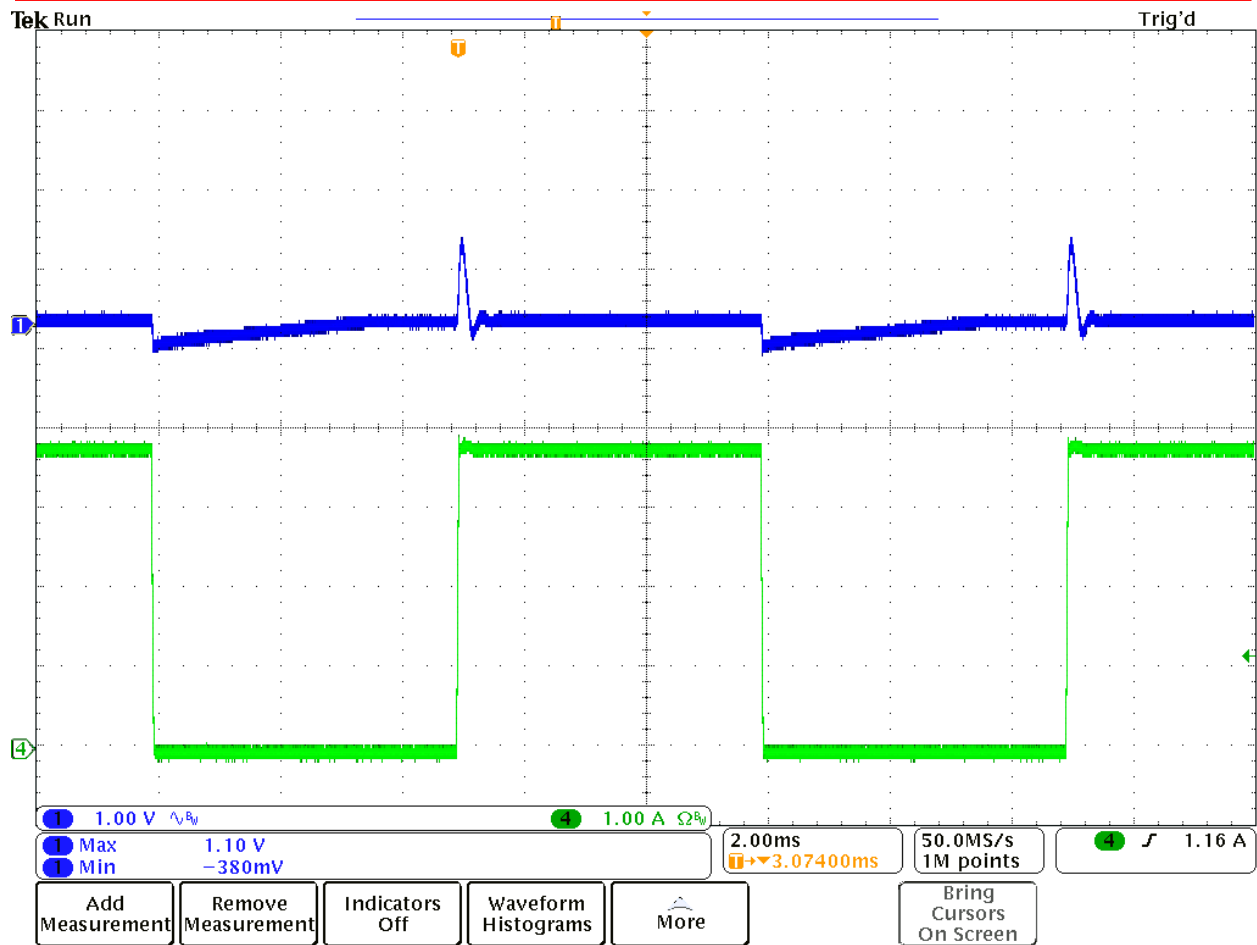


Fig 11 Transient Response, $V_{in}=3.5V$ DC $I_o=0A-3.8A$

3.4 Power up and Power down

Ch1= V_o (2V/DIV), Ch2= V_{IN} (2V/DIV) Ch3= P_{VIN} (1V/DIV), Ch4= I_o (1A/div)

Test Guild: All Probe GND connect to Input GND, CH1+ connect to $-V_o$, CH2+ connect to V_{IN} , CH3+ connect to P_{VIN}

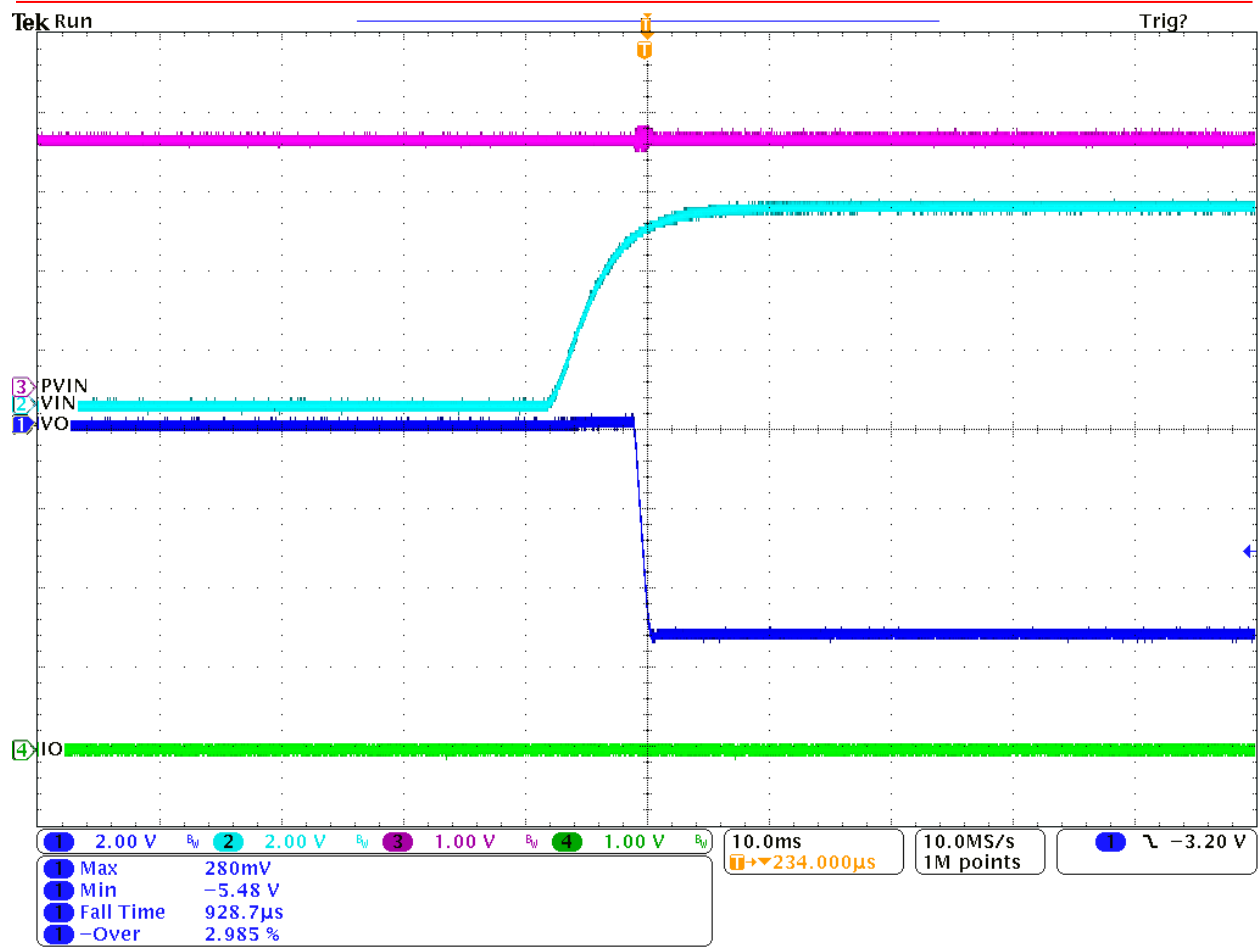


Fig 12 Vin=3.1V Io=0A Power up from VIN

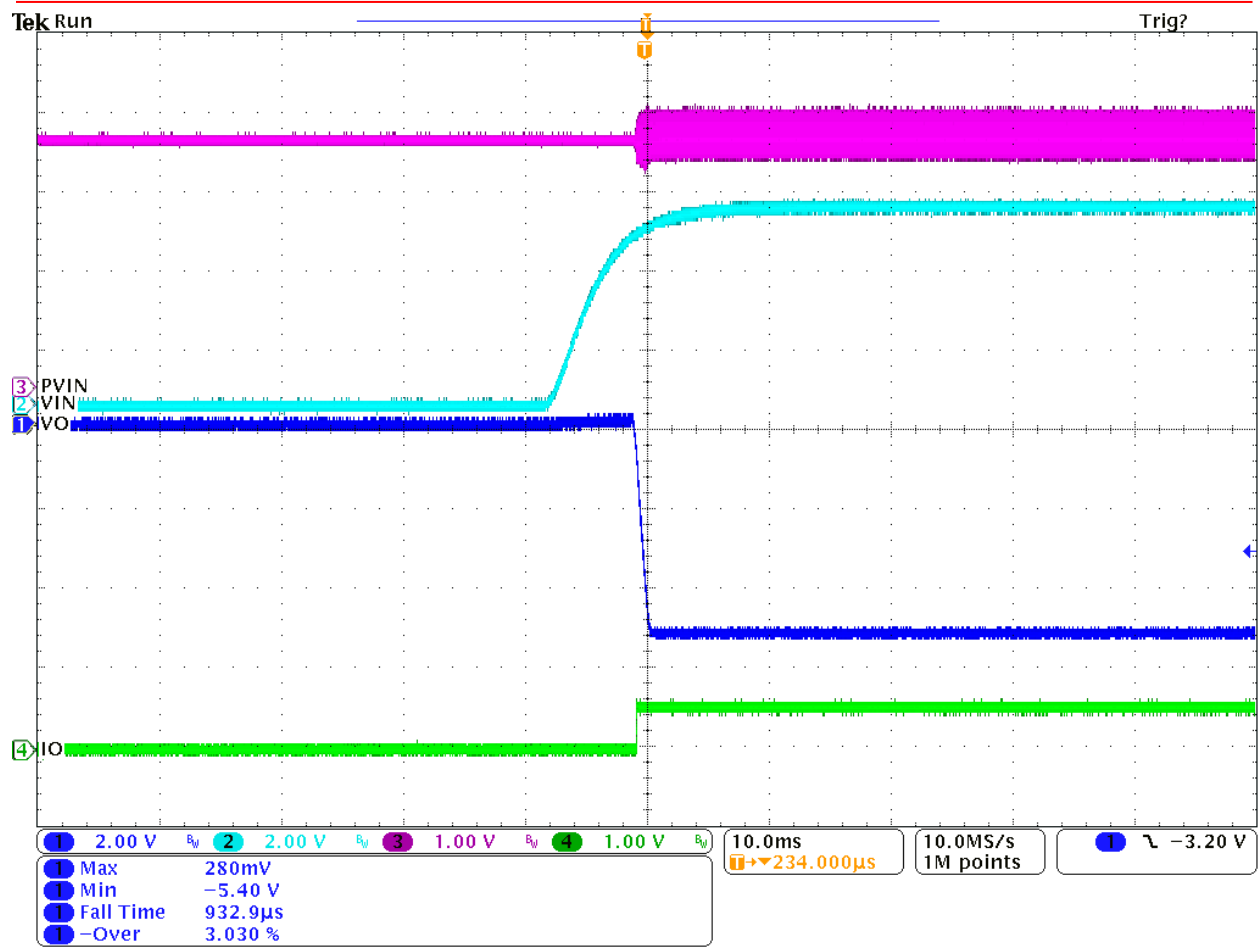


Fig 13 Vin=3.1V Io=2A Power up

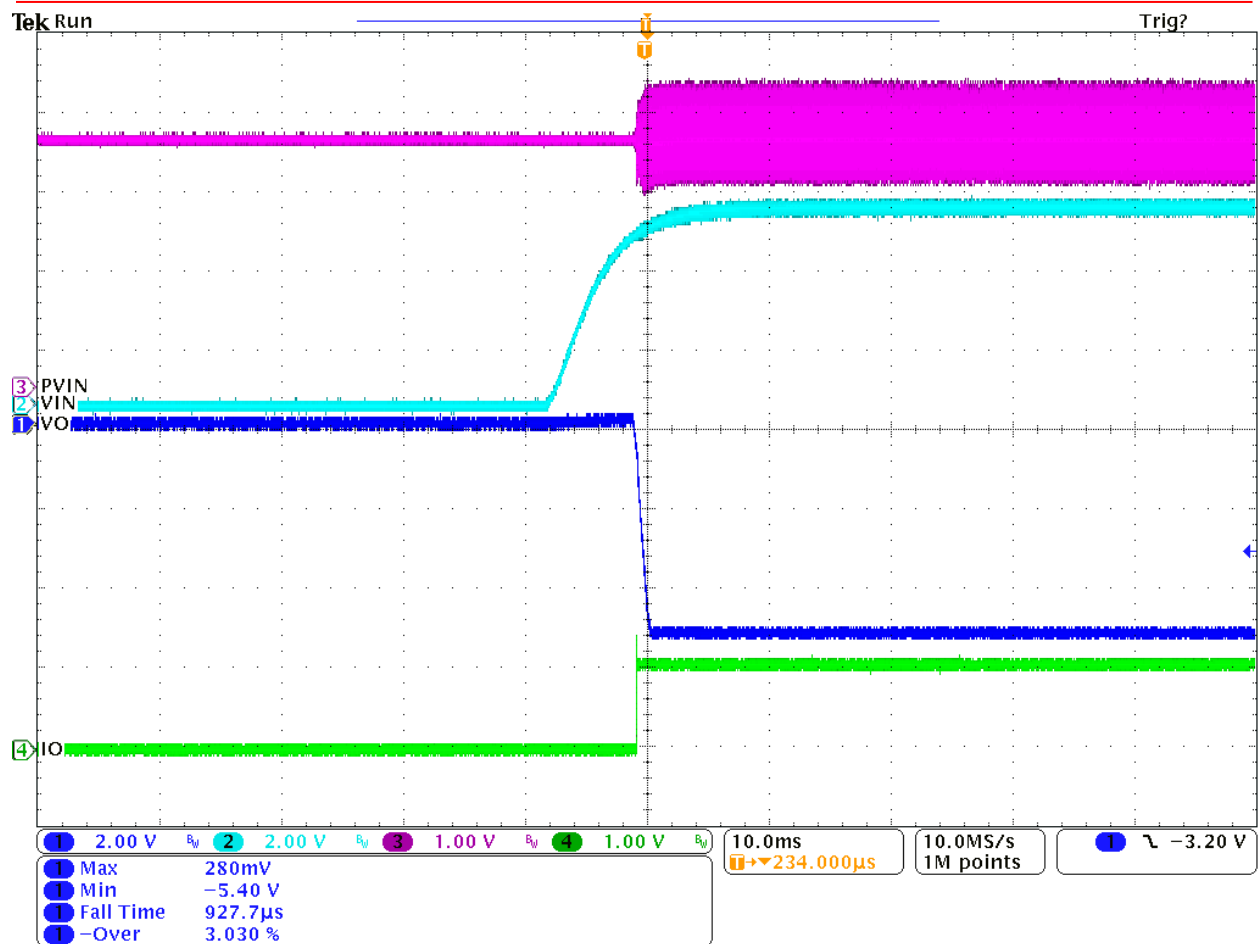


Fig 14 Vin=3.1V Io=4A Power up

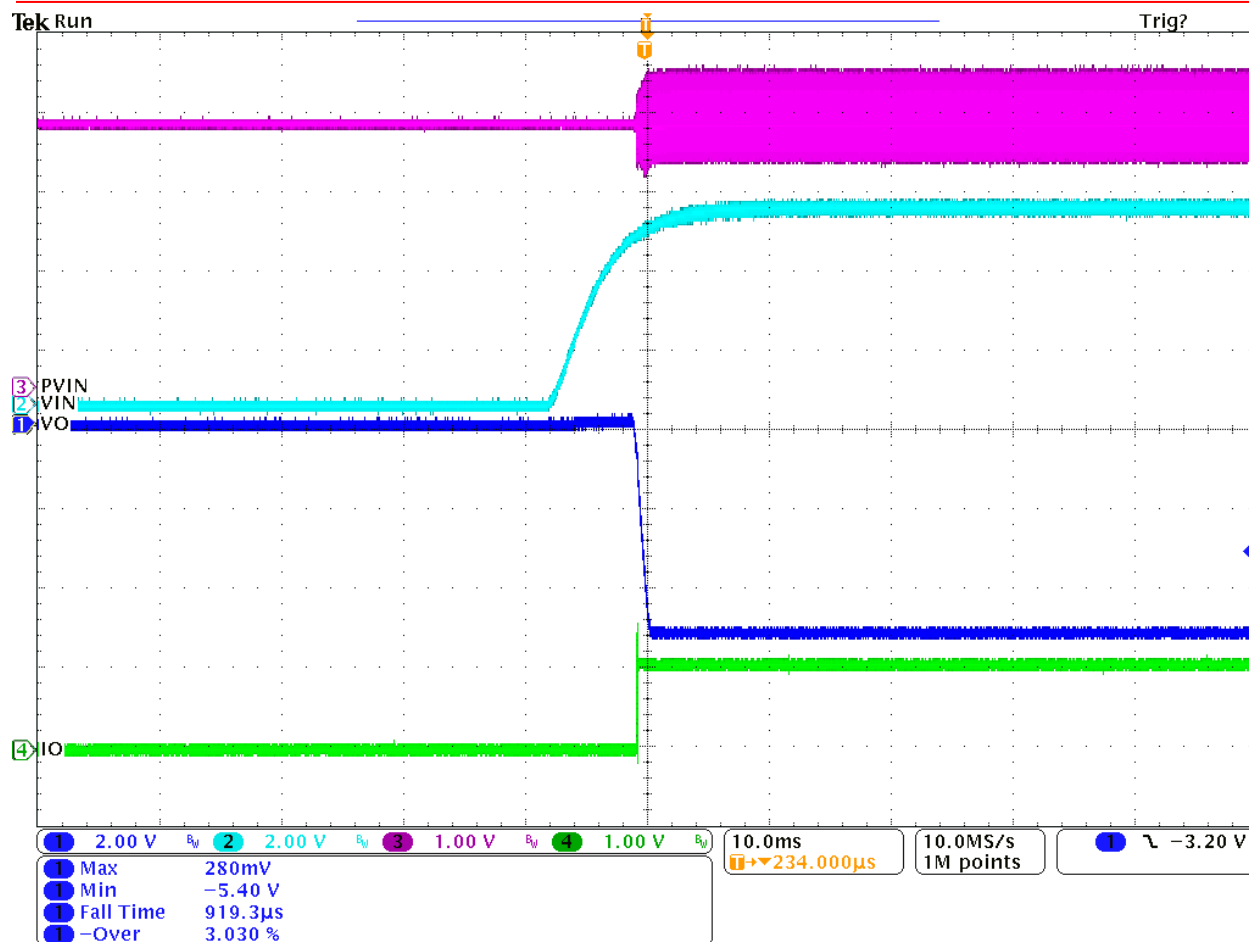


Fig 15 Vin=3.3V Io=0A Power Up

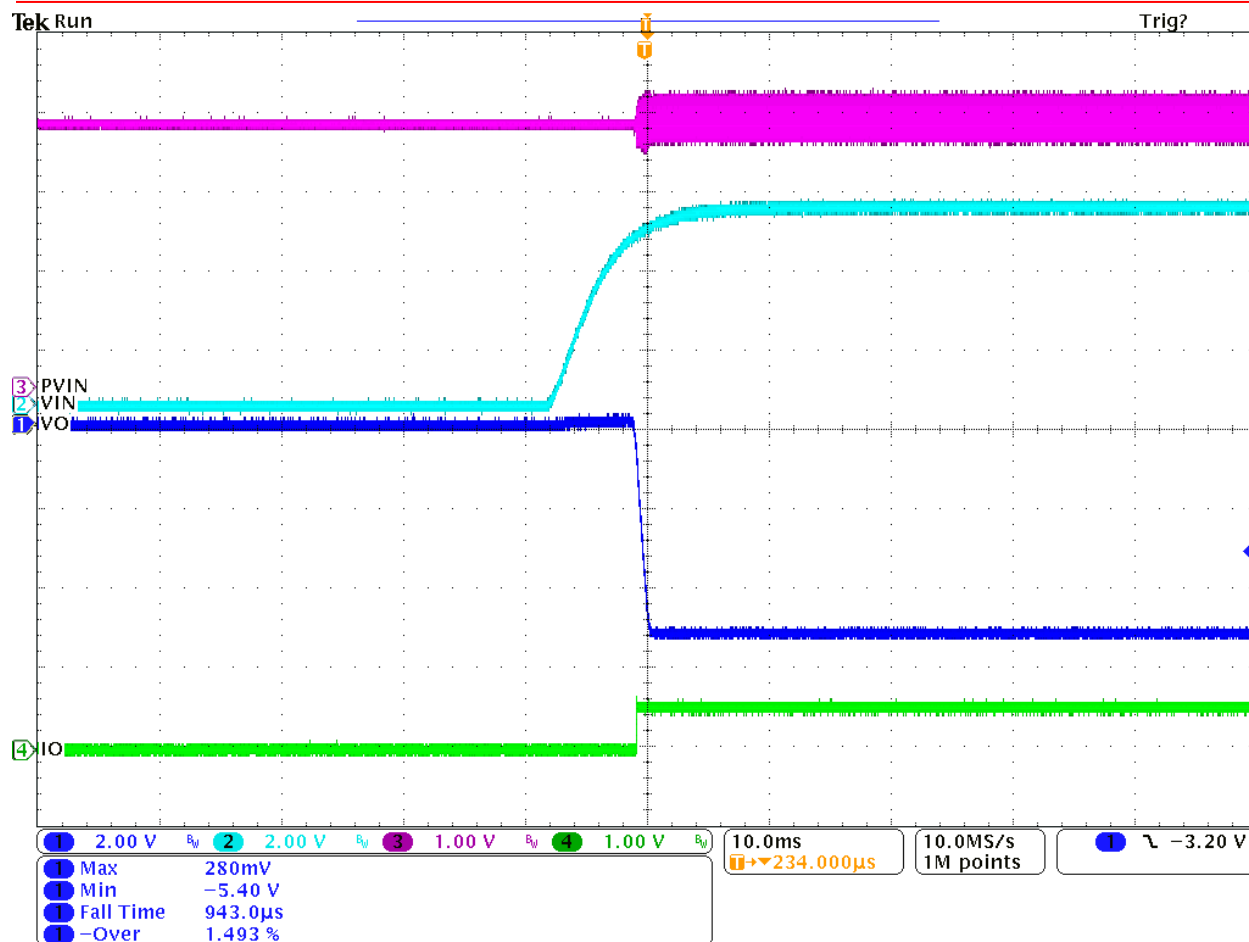


Fig 16 Vin=3.3V Io=2A Power up

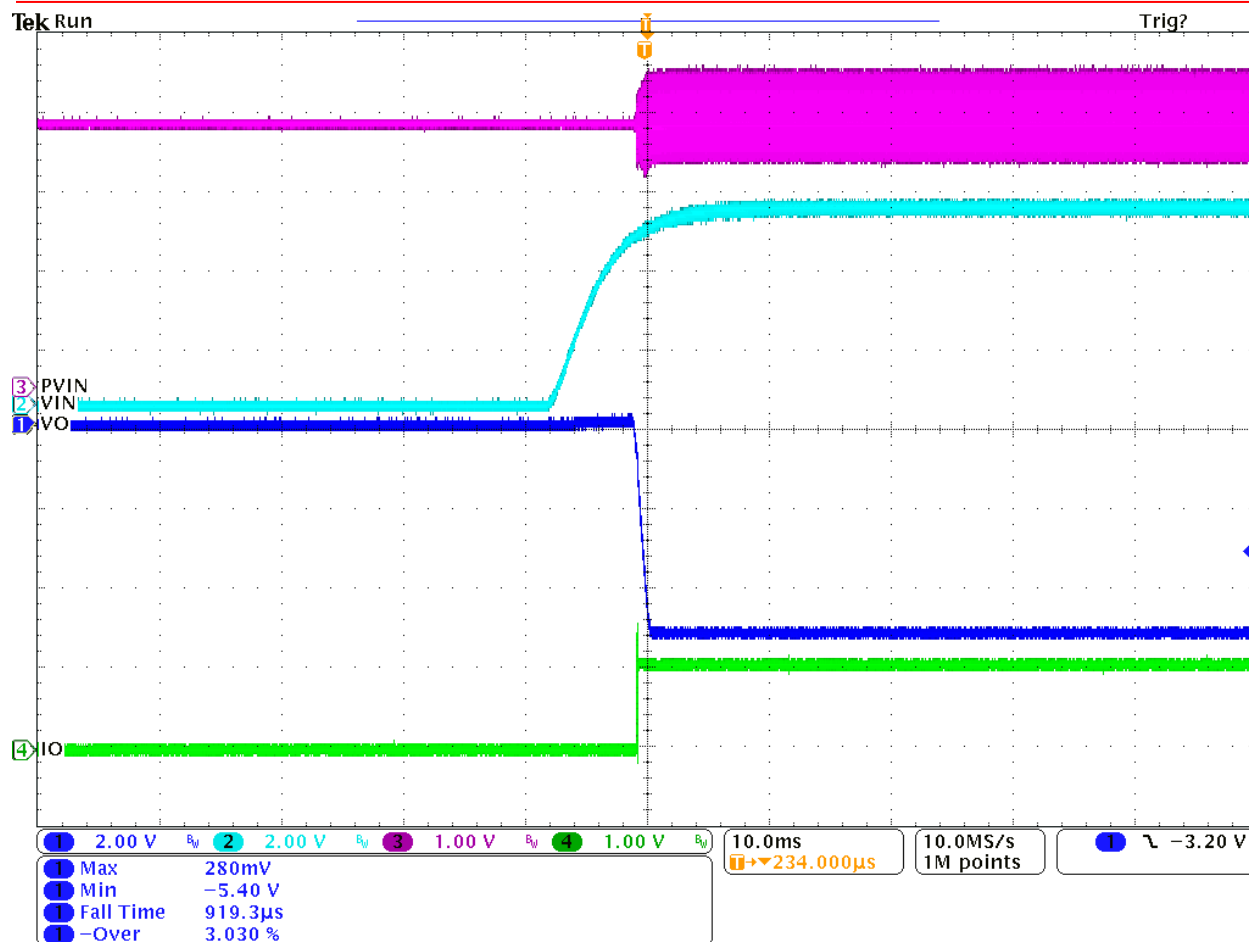


Fig 17 Vin=3.3V Io=4A Power up

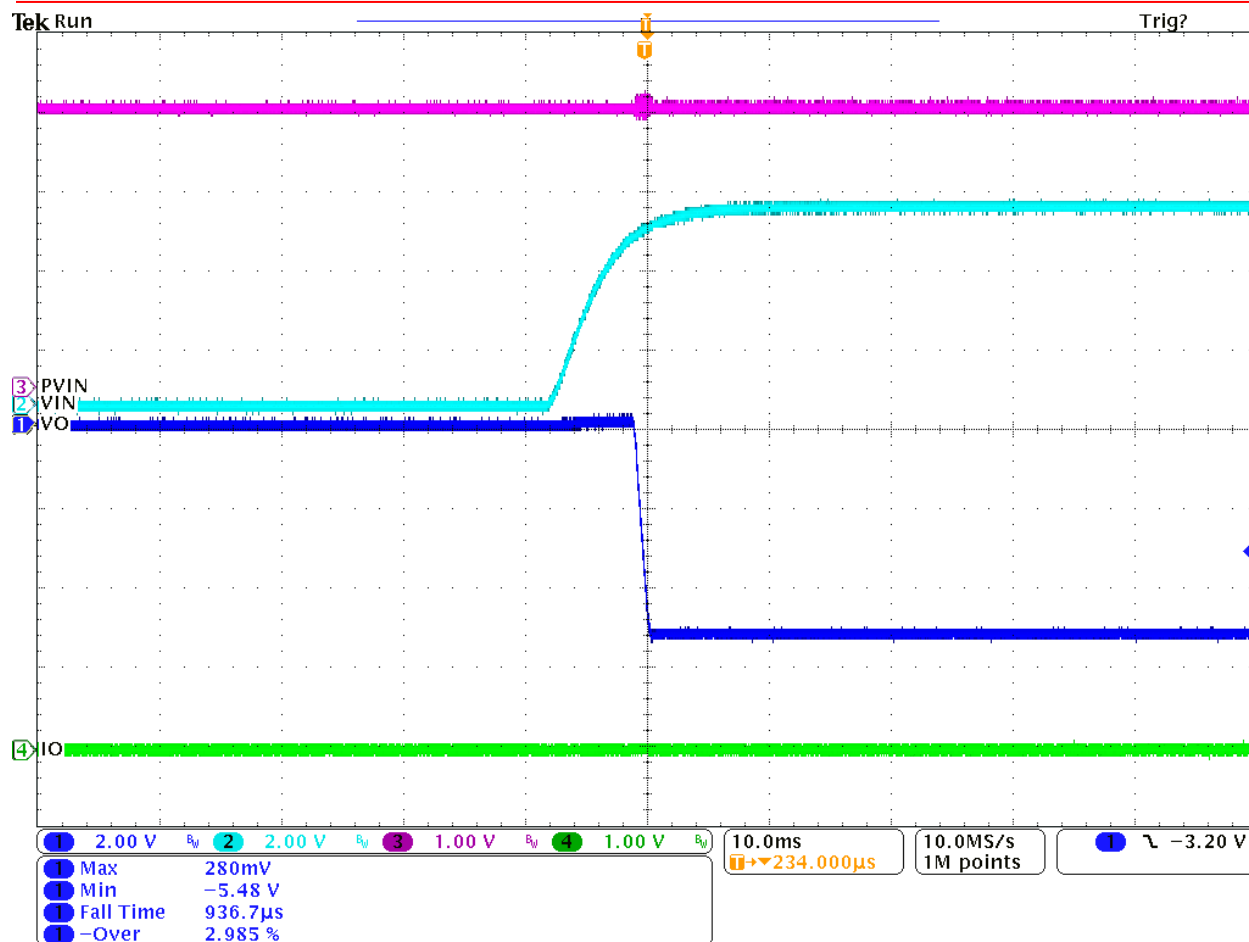


Fig 18 Vin=3.5V Io=0A Power up

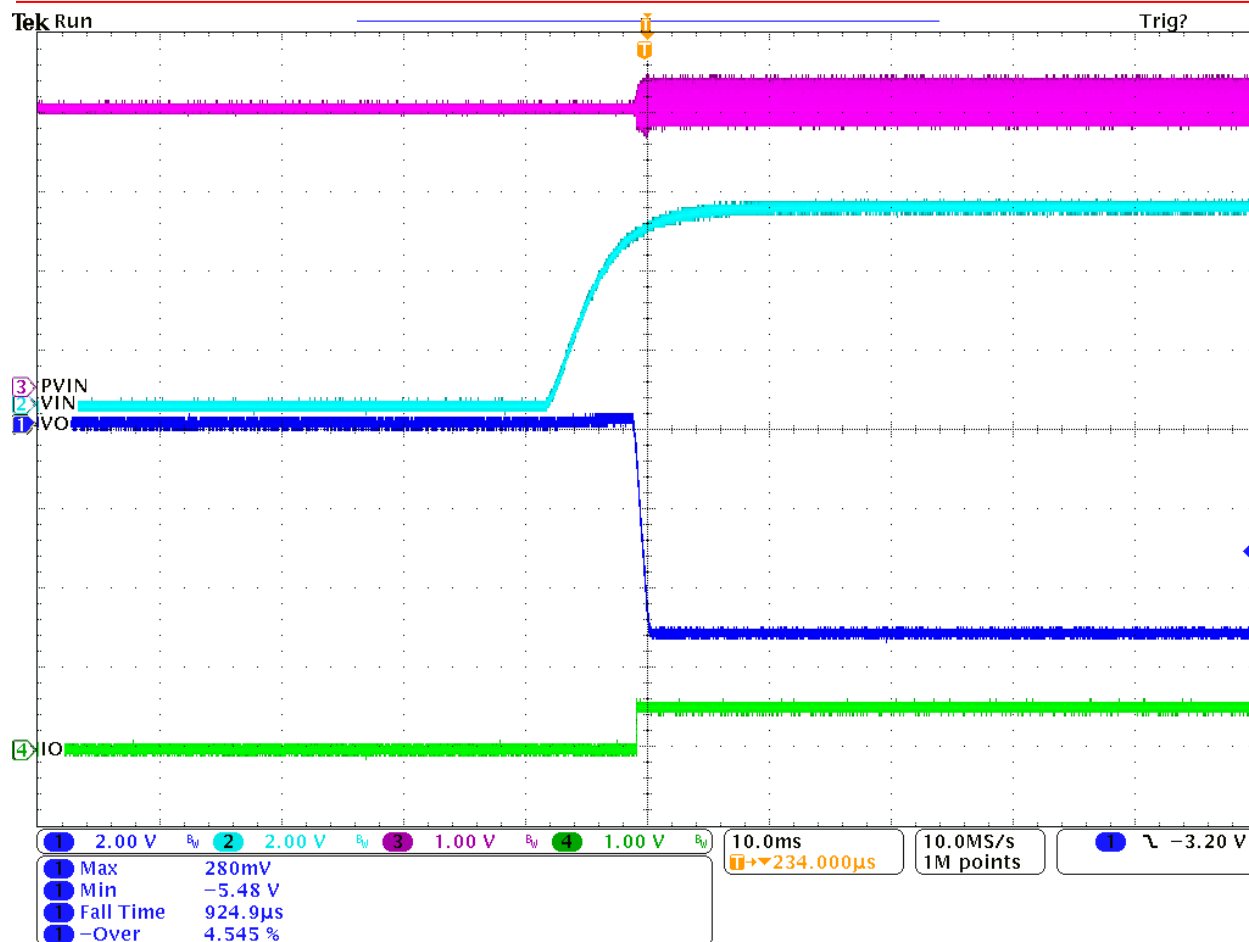


Fig 19 Vin=3.5V Io=2A Power up

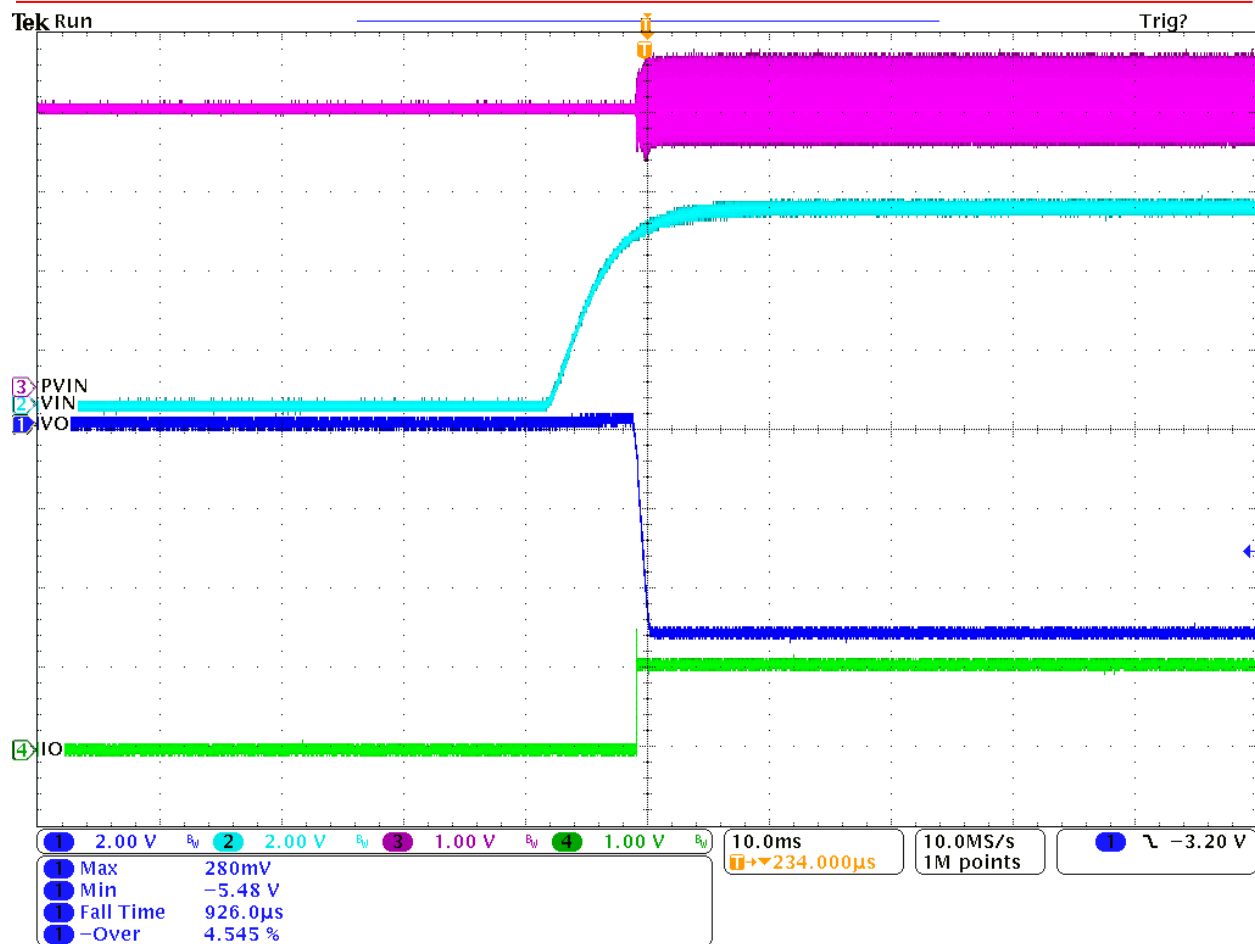


Fig 20 Vin=3.5V Io=4A Power up

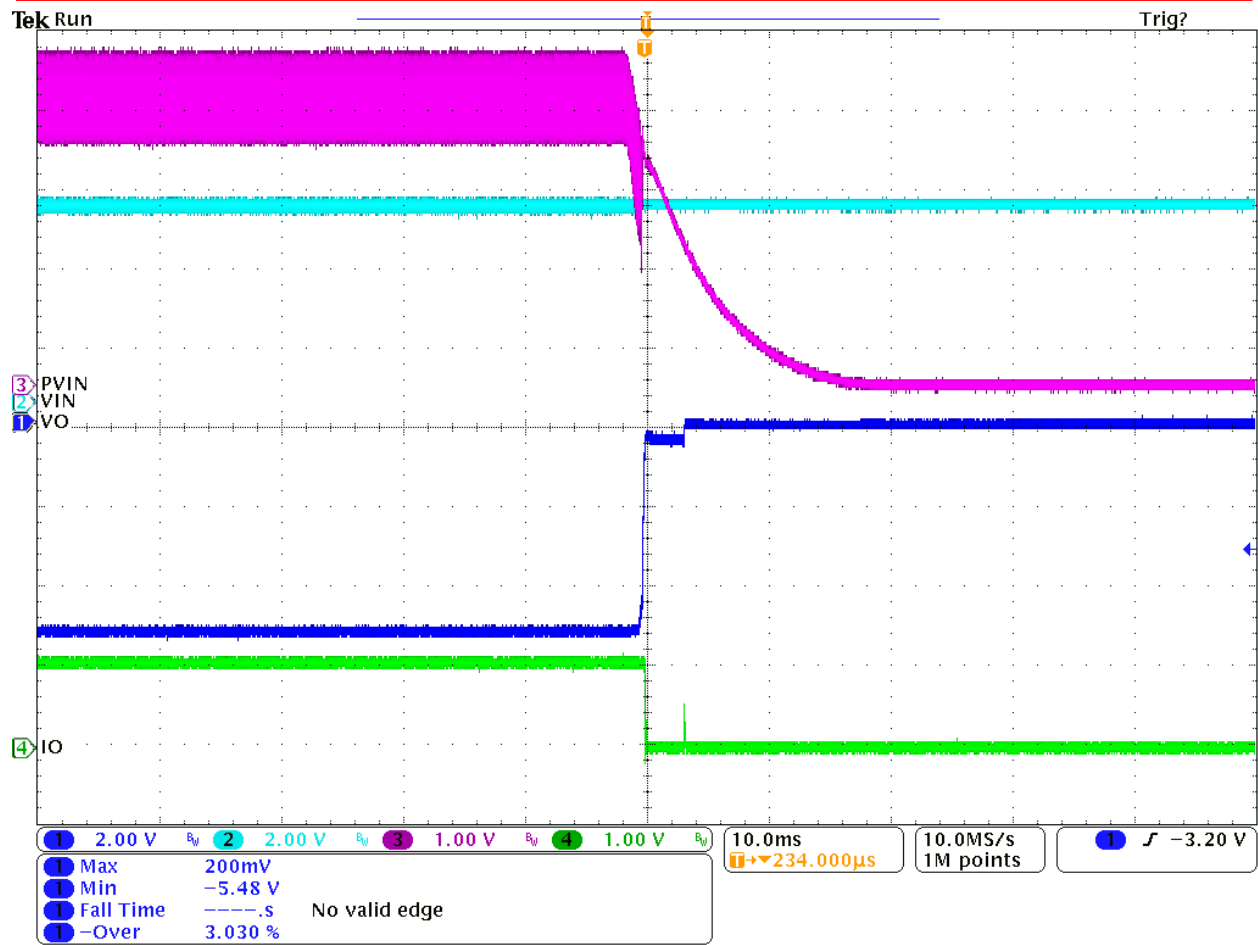


Fig 21 $I_o=4A$ Power Down

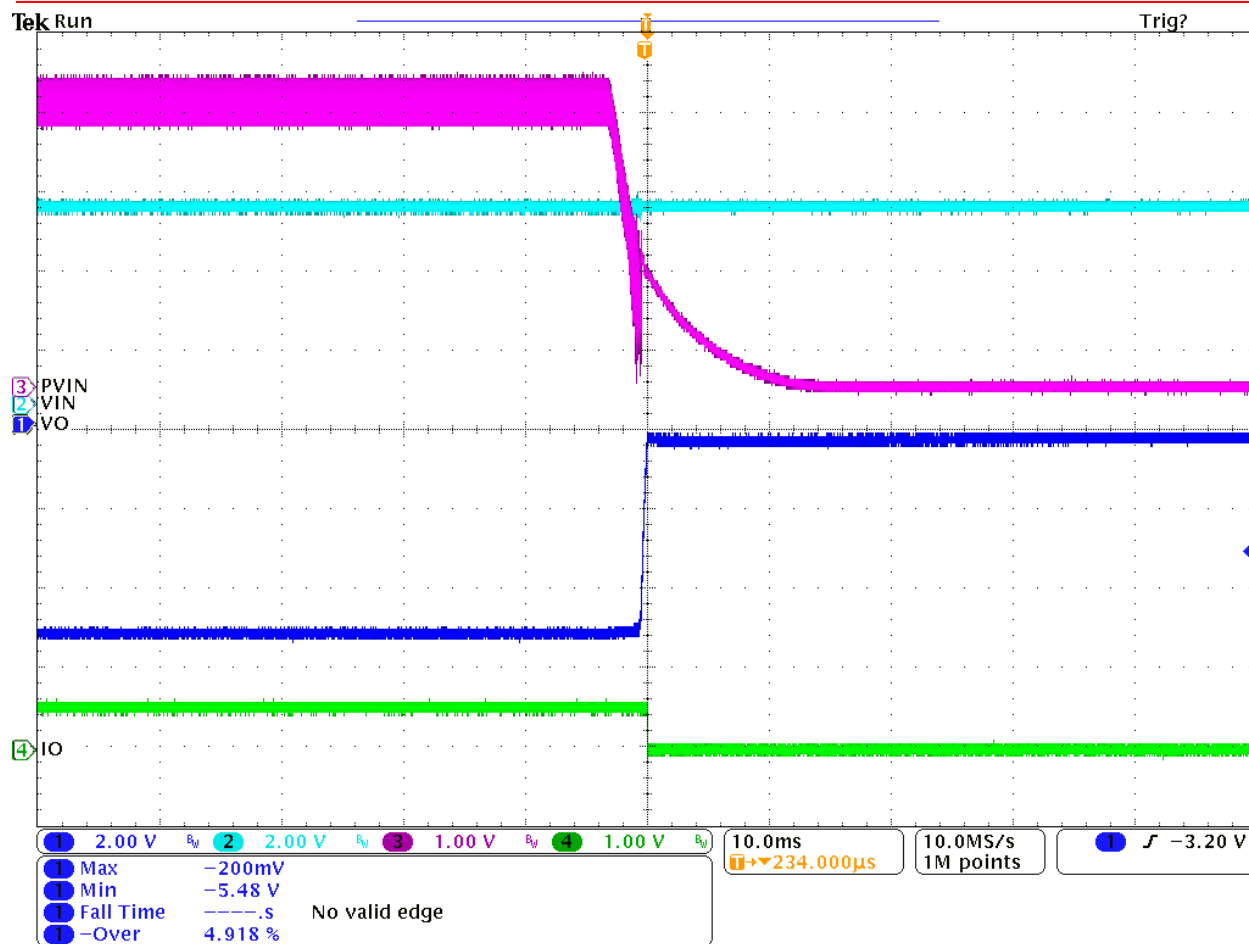


Fig 22 Io=2A Power Down

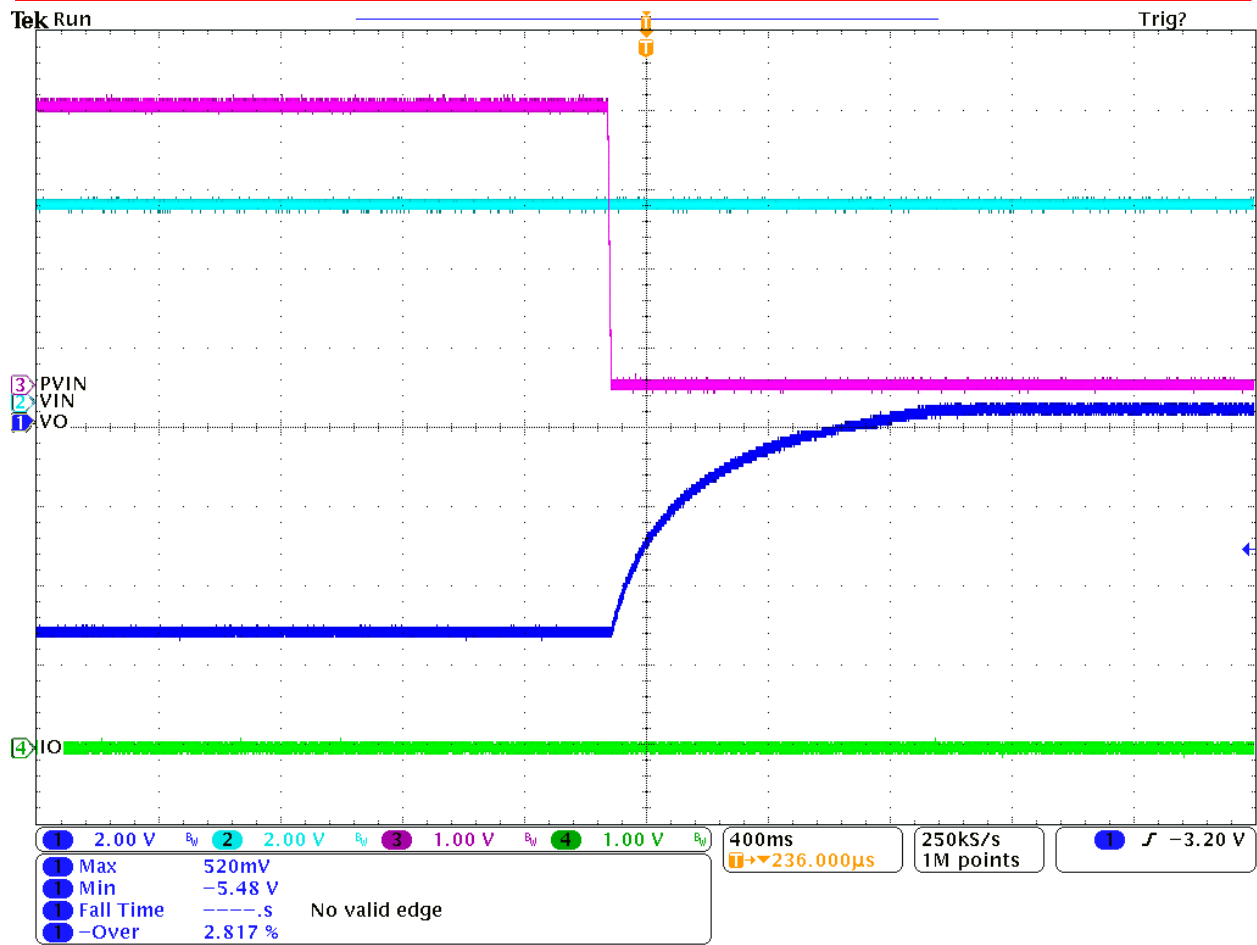


Fig 23 $I_o=0A$ Power Down

3.5 Ripple

Ch1=Vo_ac (20mV/DIV) with 20 MHz Bandwidth

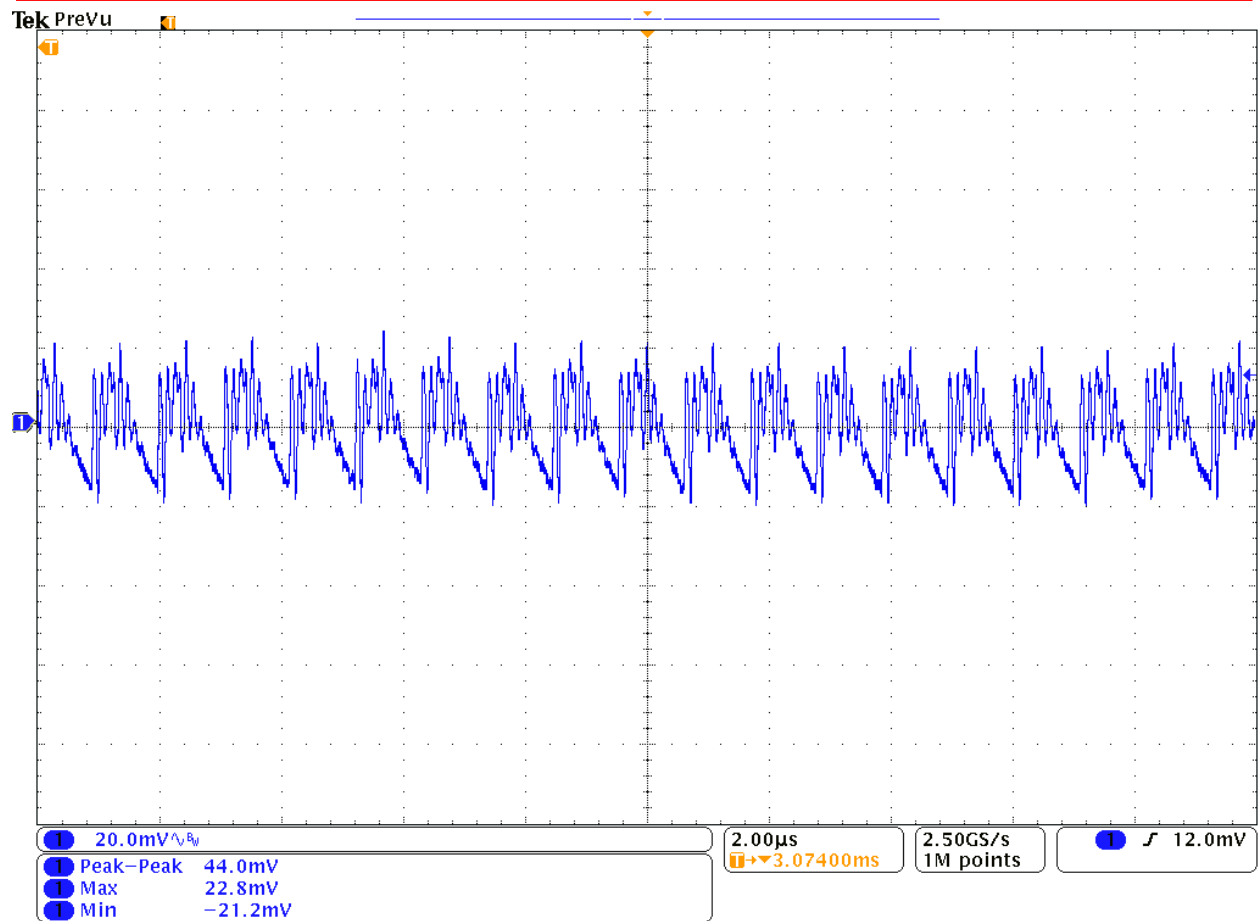


Fig 24 VIN=3.3V, Io=4A,

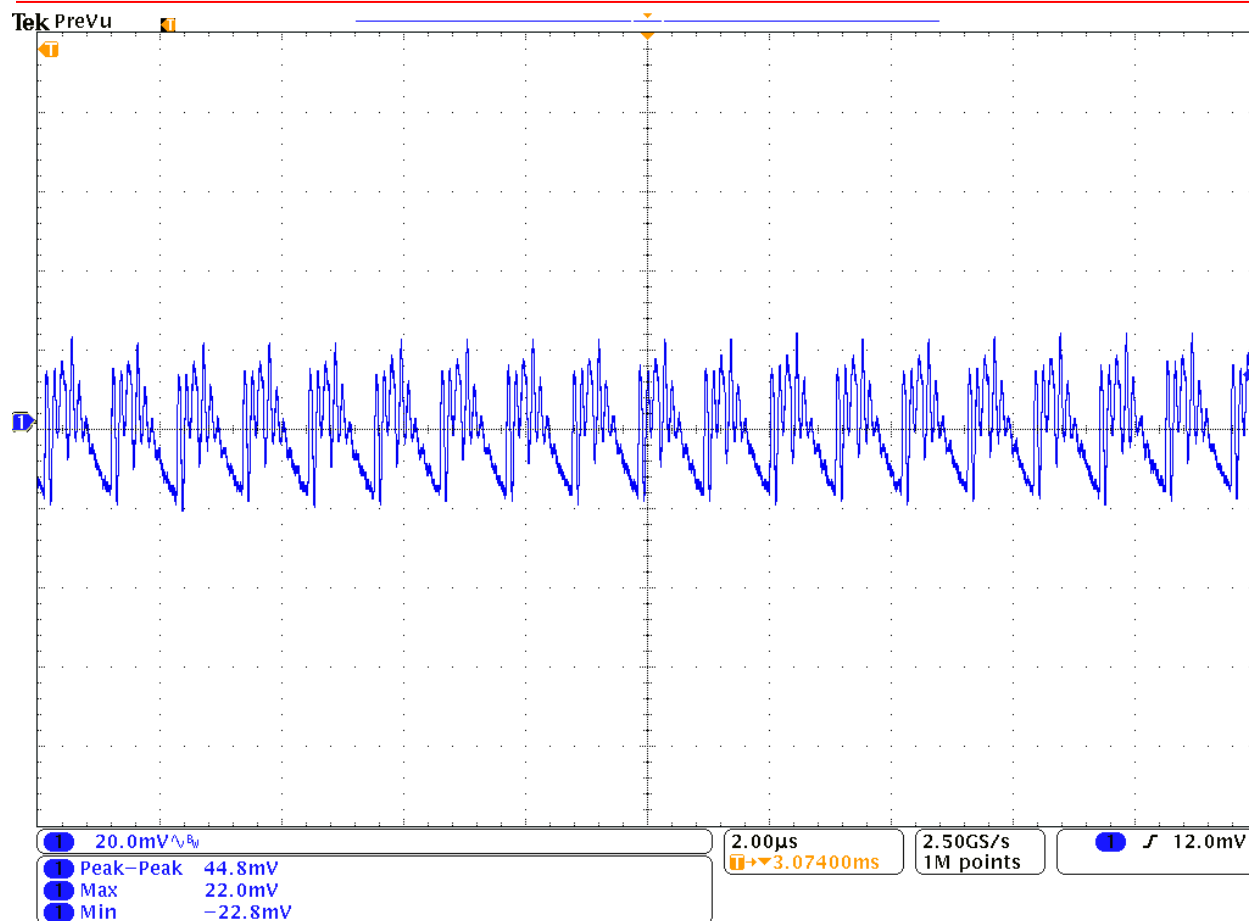


Fig 25 VIN=3.1V, Io=4A,

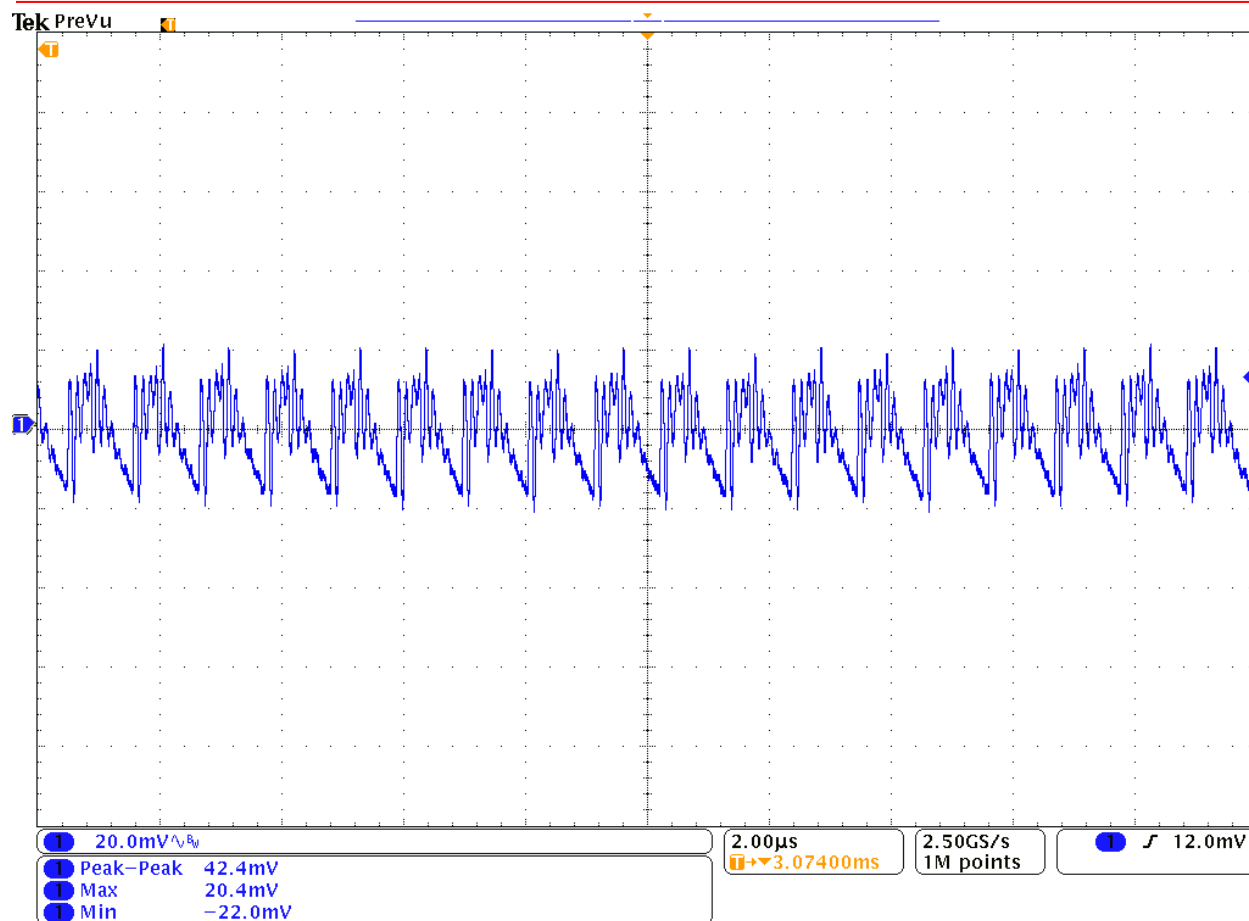


Fig 26 VIN=3.5VDC, Io=4A,

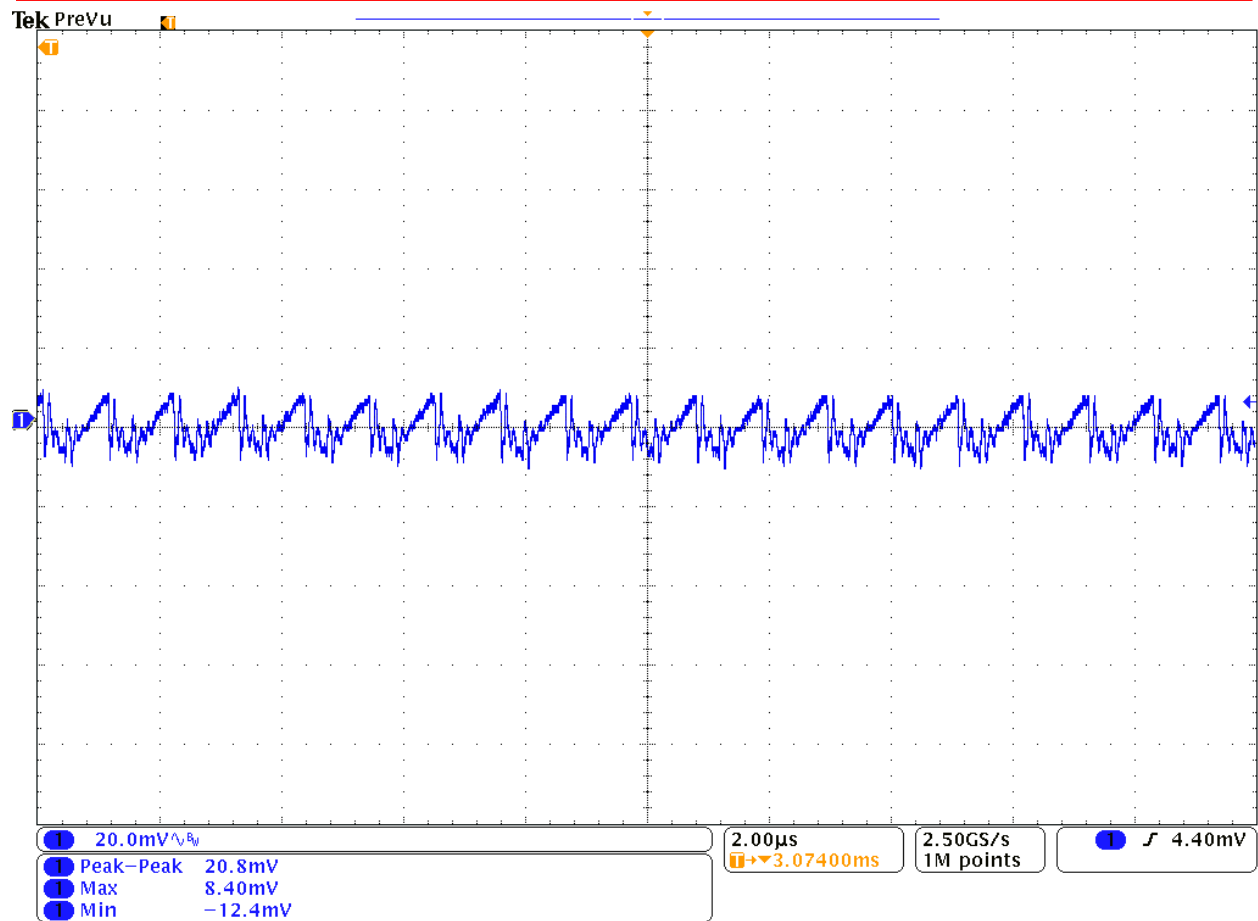


Fig 27 VIN=3.1VDC, Io=2A,

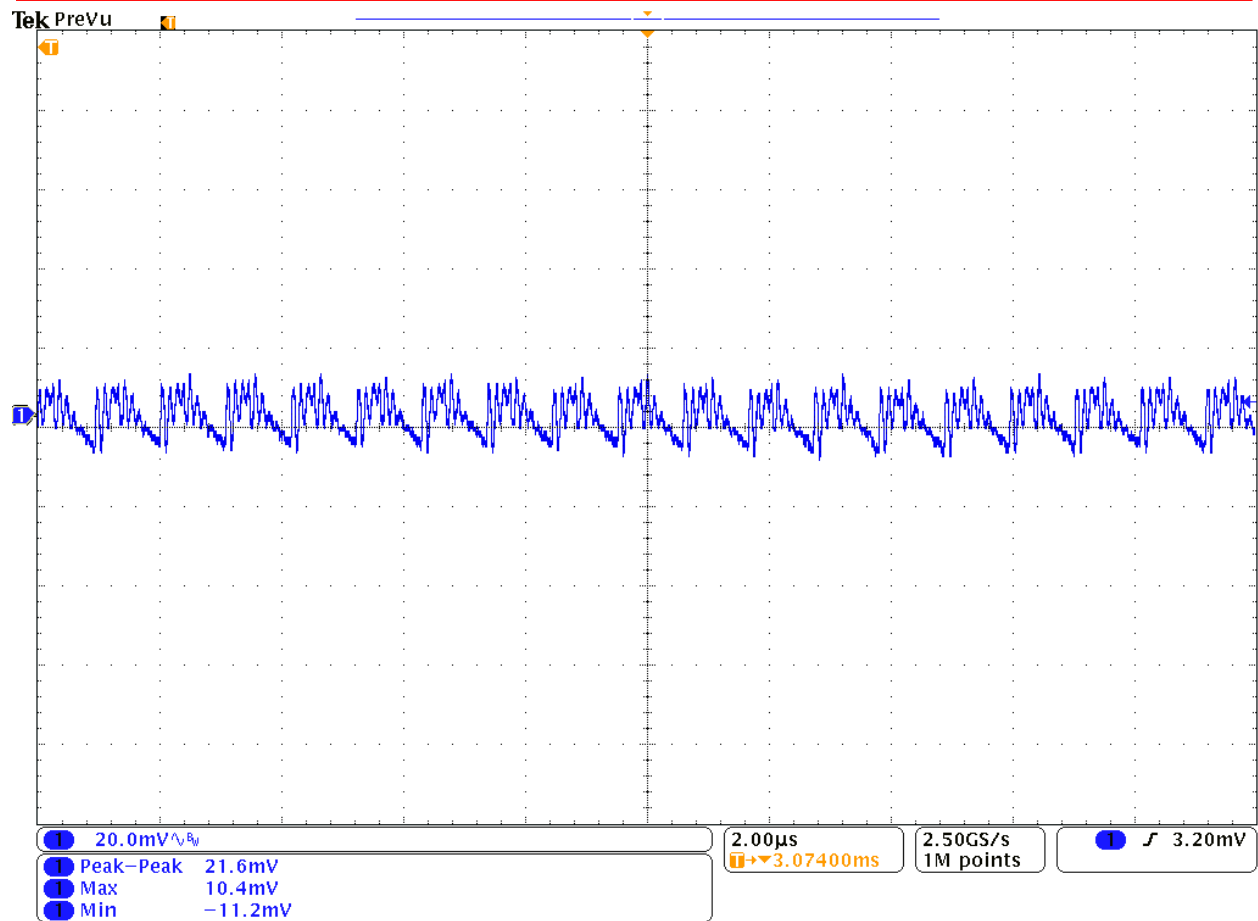


Fig 28 VIN=3.3VDC, Io=2A,

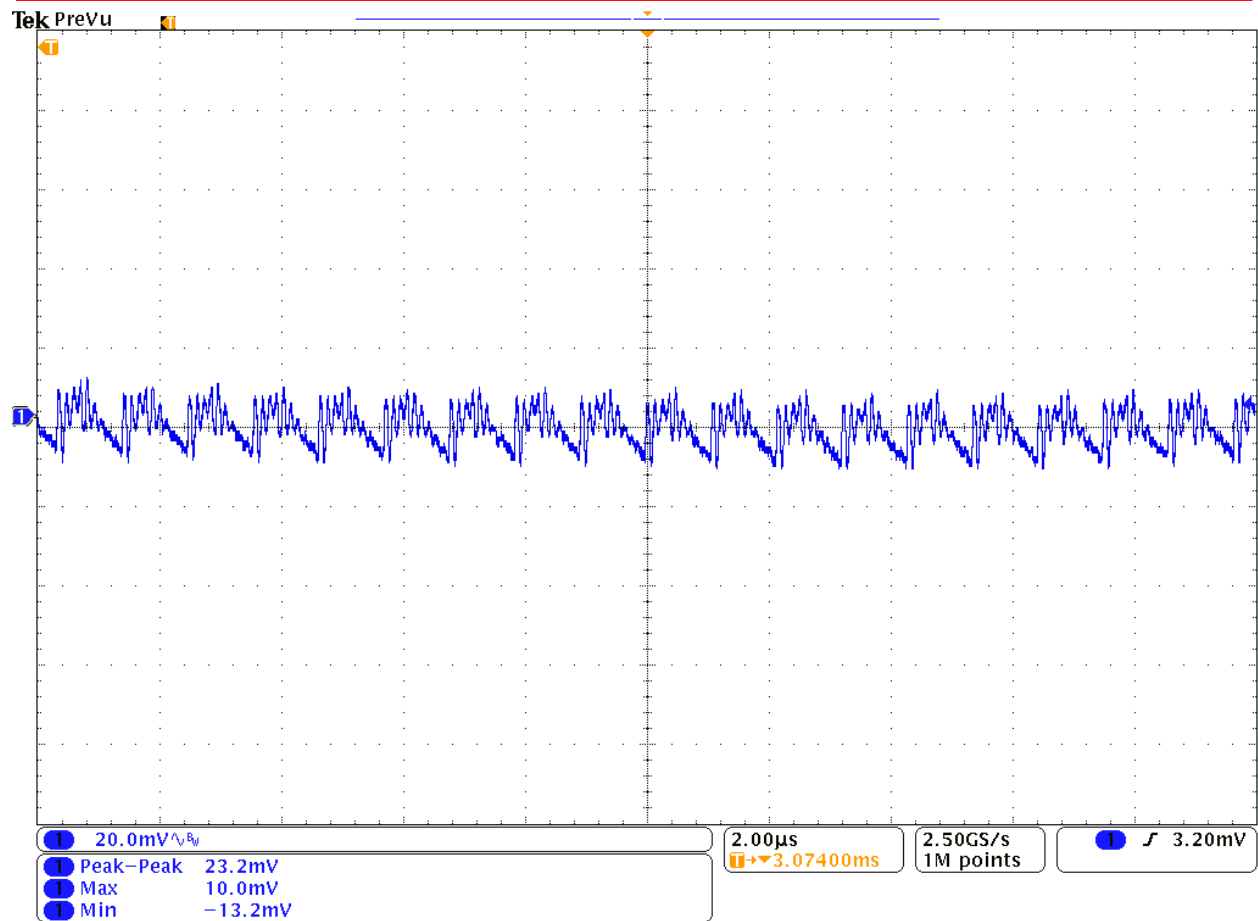


Fig 29 VIN=3.5VDC, Io=2A

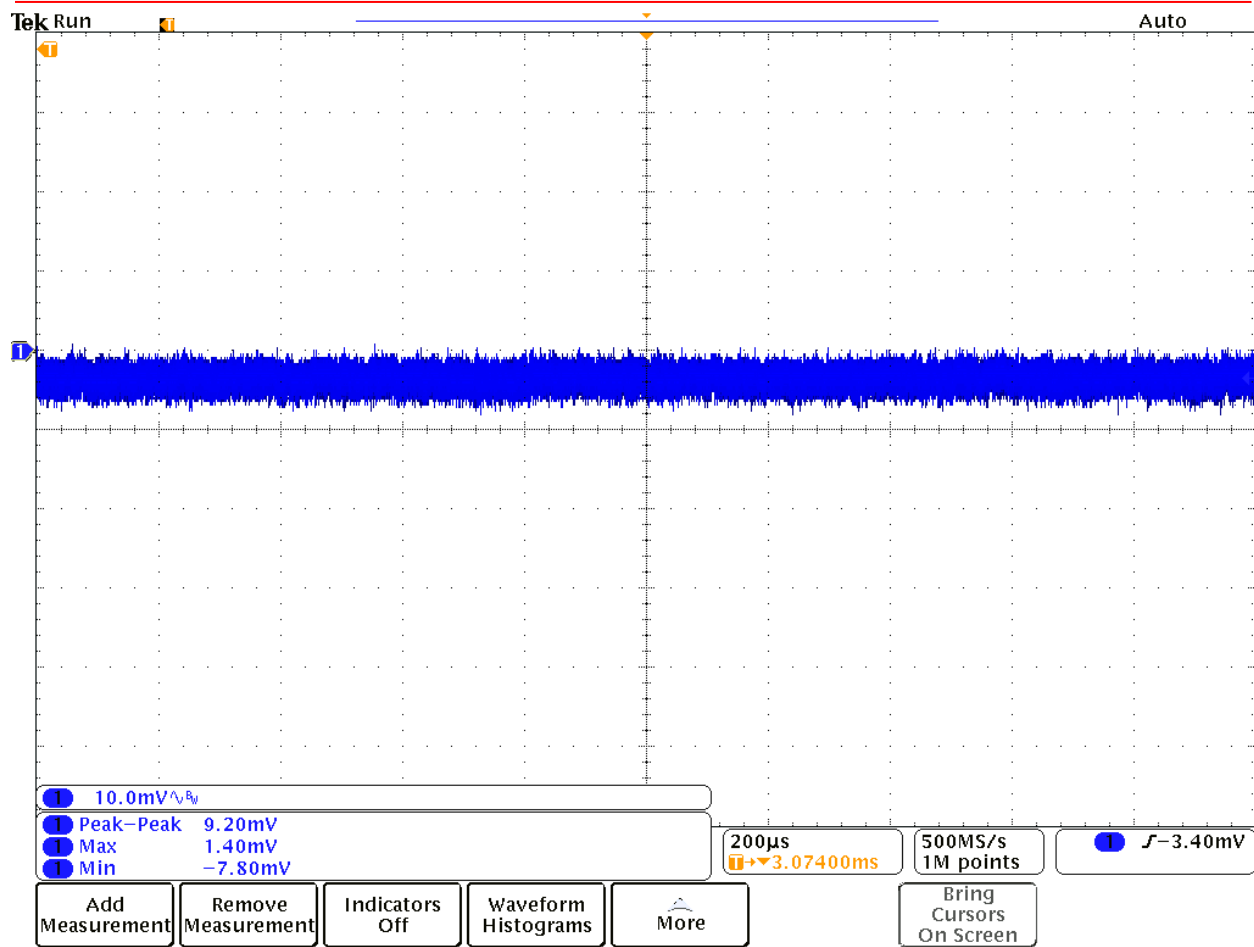


Fig 30 VIN=3.1VDC, Io=0A

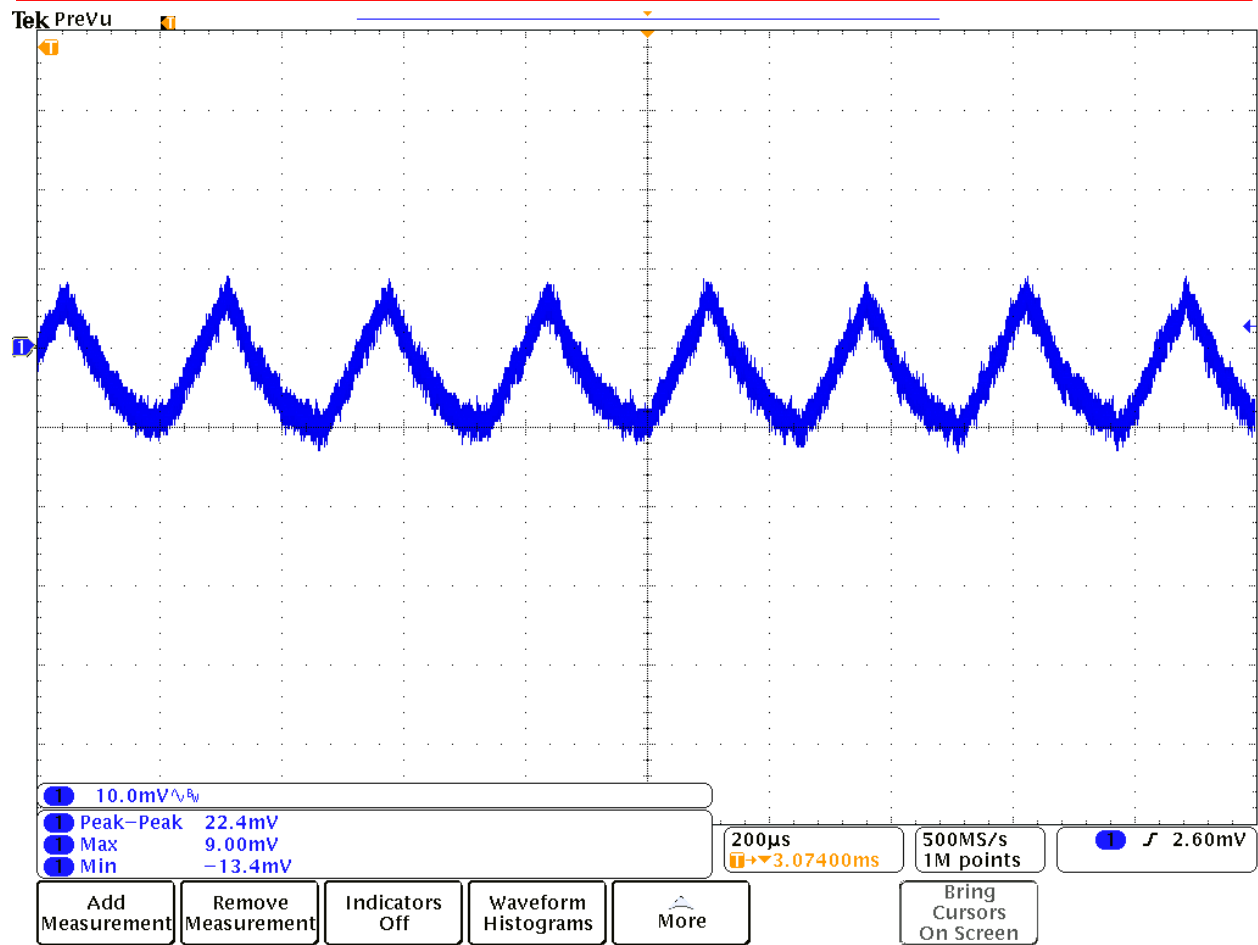


Fig 31 VIN=3.3VDC, Io=0A

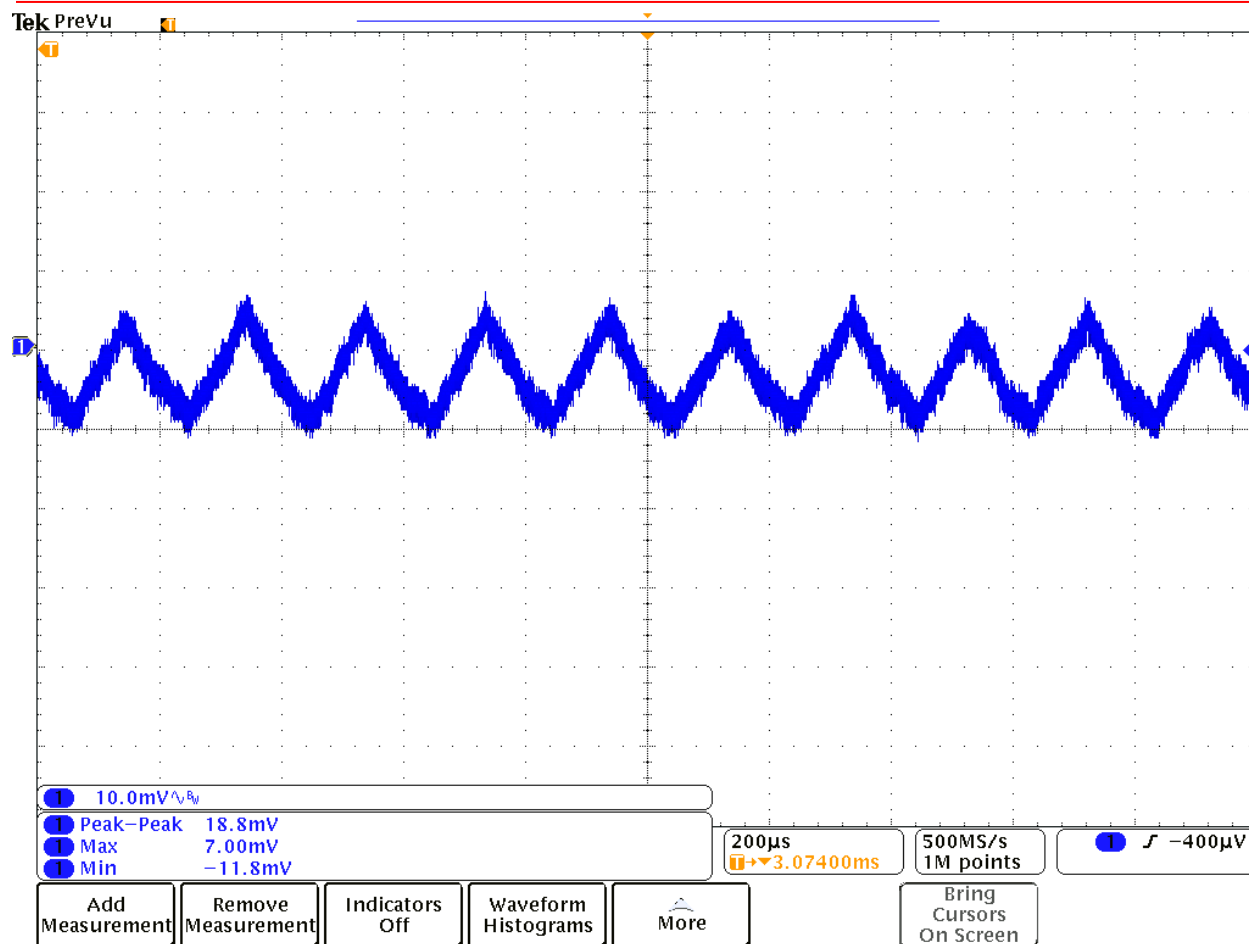
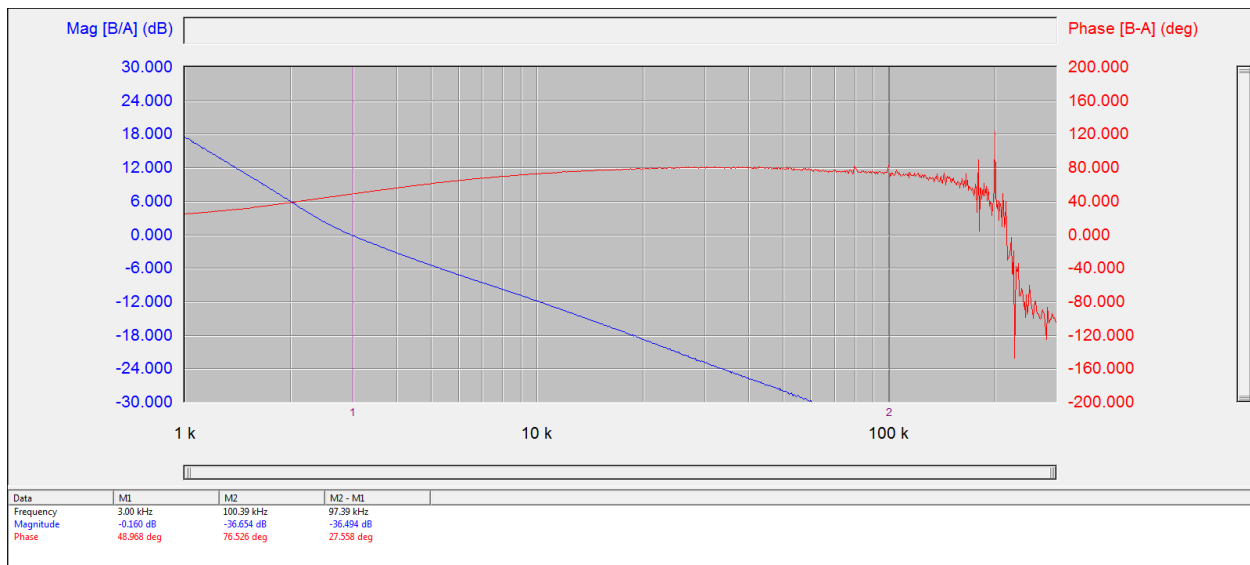
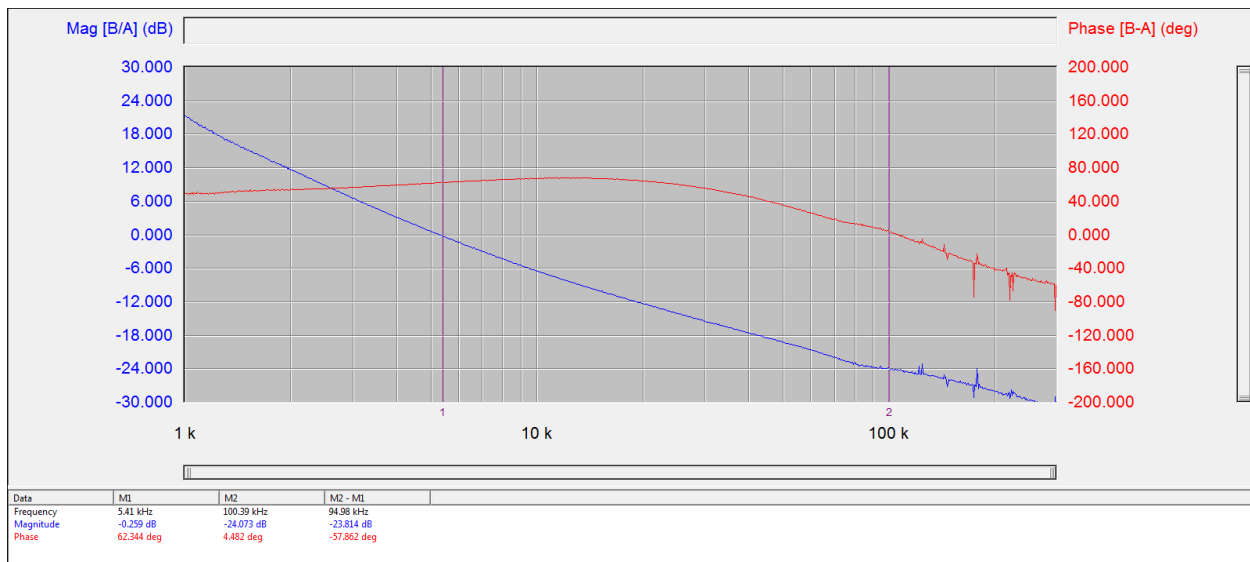


Fig 32 VIN=3.5VDC, Io=0A,

3.5 LOOP


Fig 33 Vin=3.1V Io=0.05A

Fig 34 Vin=3.1V Io=2A

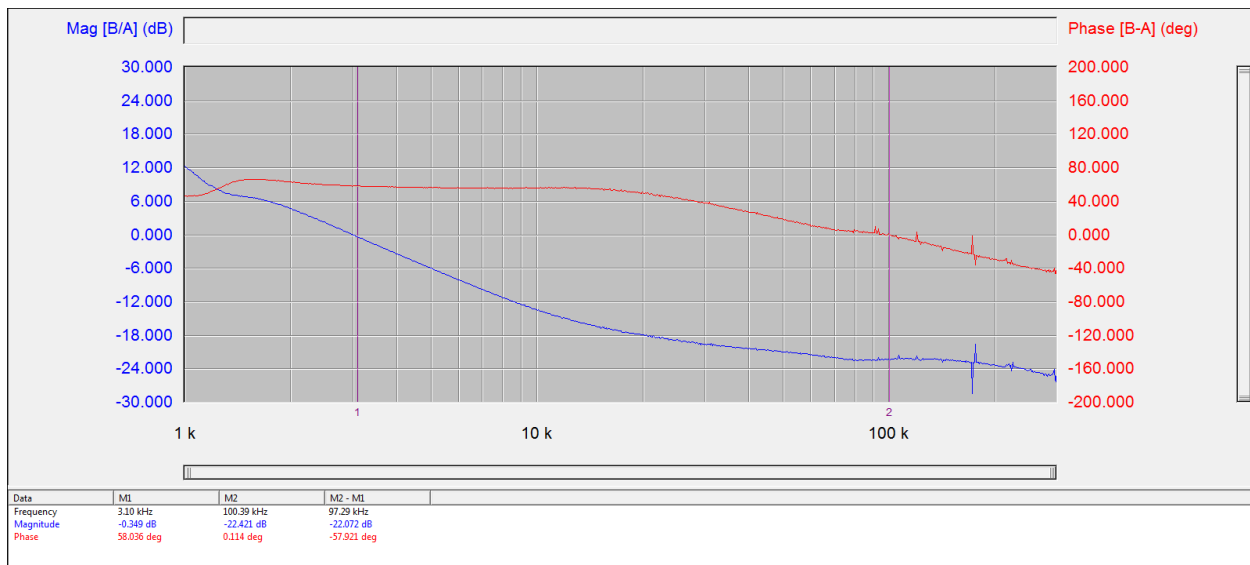


Fig 35 Vin=3.1V Io=4A

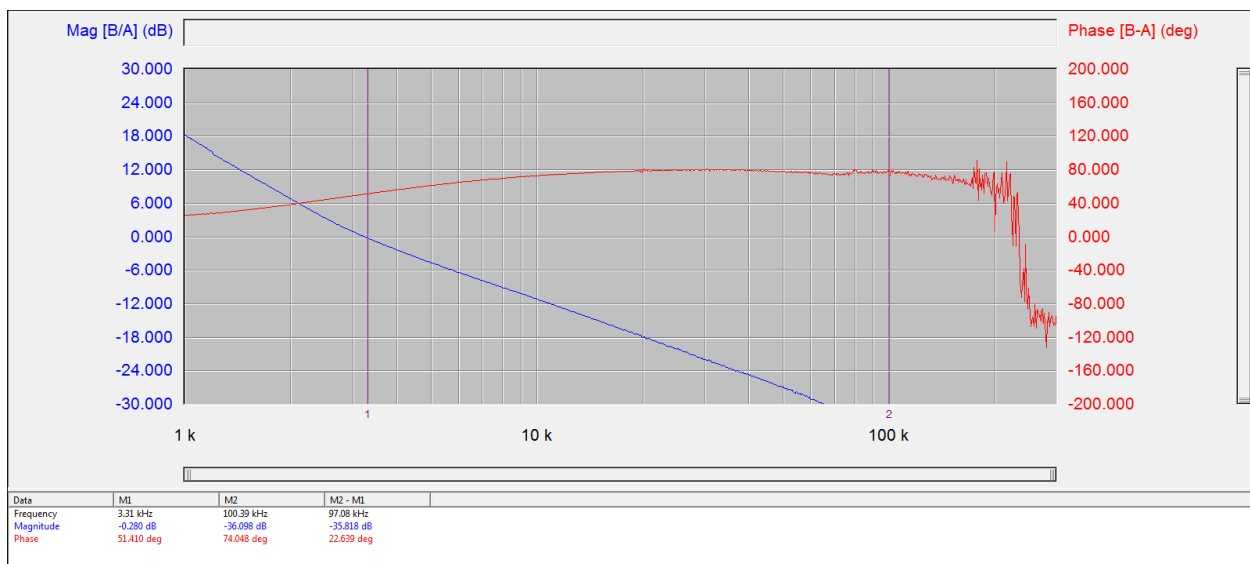
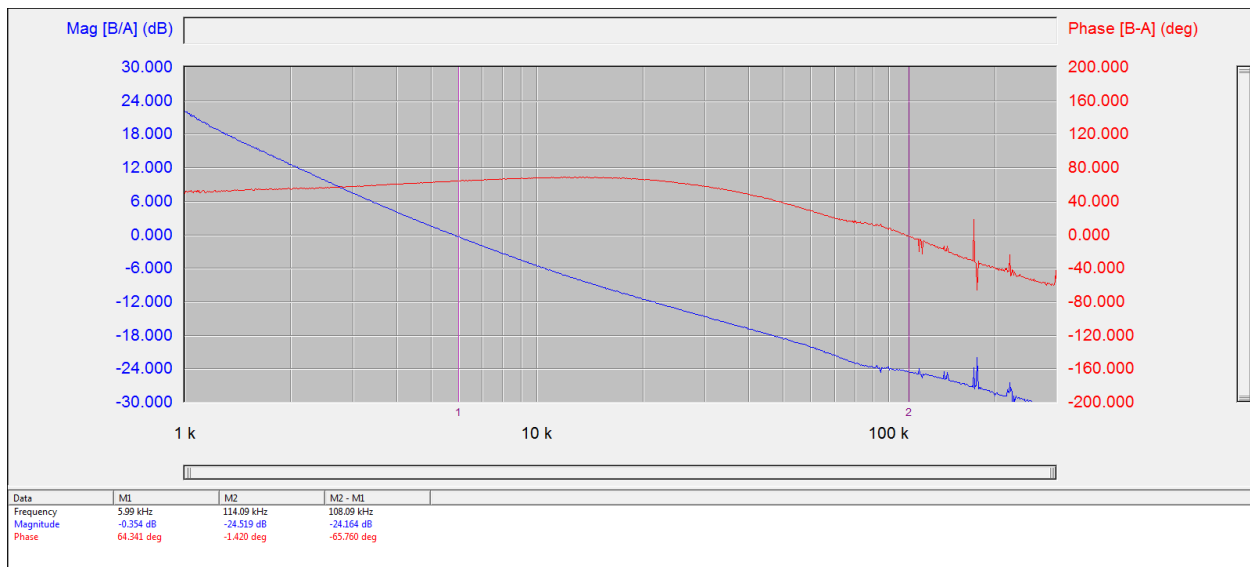
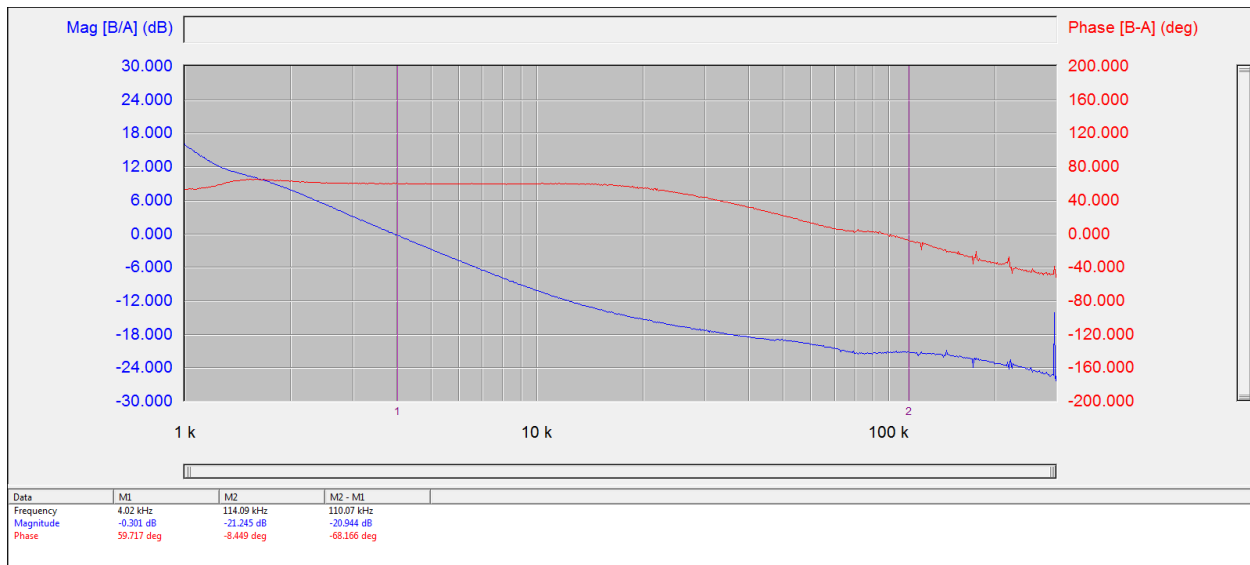
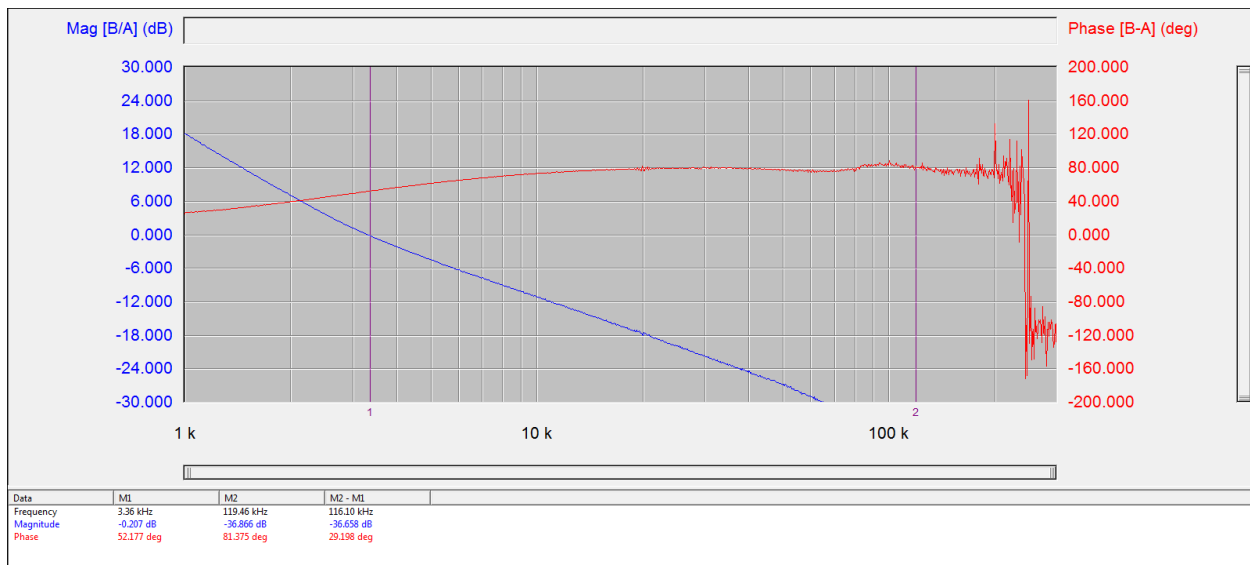
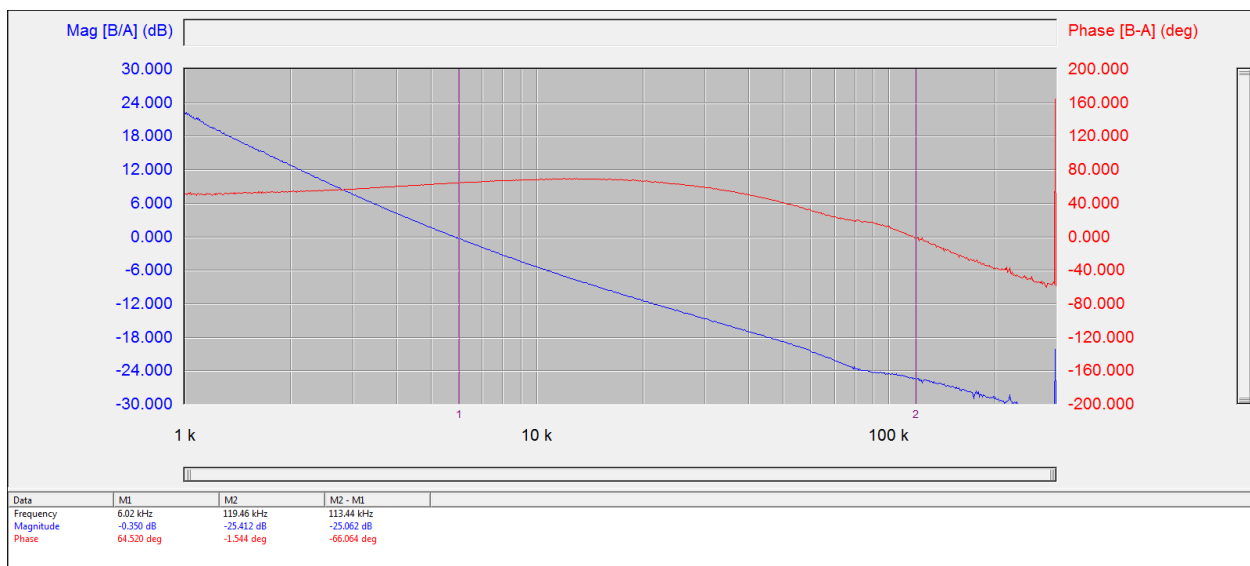


Fig 36 Vin=3.1V Io=0.05A


Fig 37 Vin=3.3V Io=2A

Fig 38 Vin=3.3V Io=4A


Fig 39 Vin=3.5V Io=0.05A

Fig 40 Vin=3.5V Io=2A

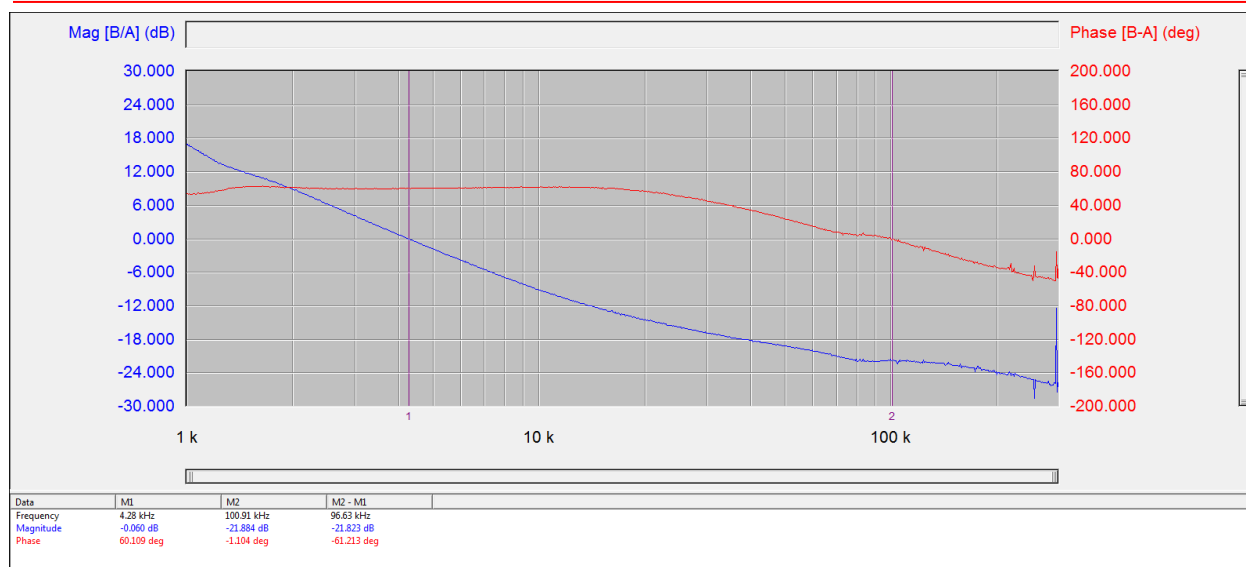


Fig 41 Vin=3.5V Io=4A

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