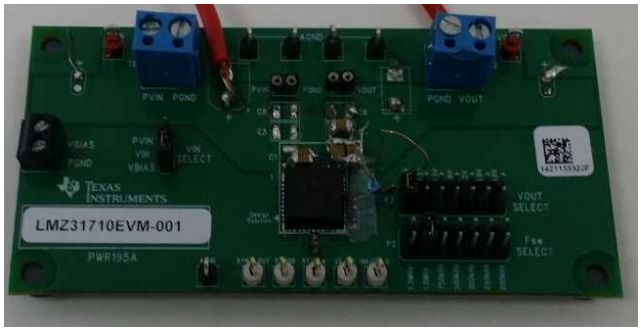
Test Data
For PMP10638
4/4/2015

Context

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

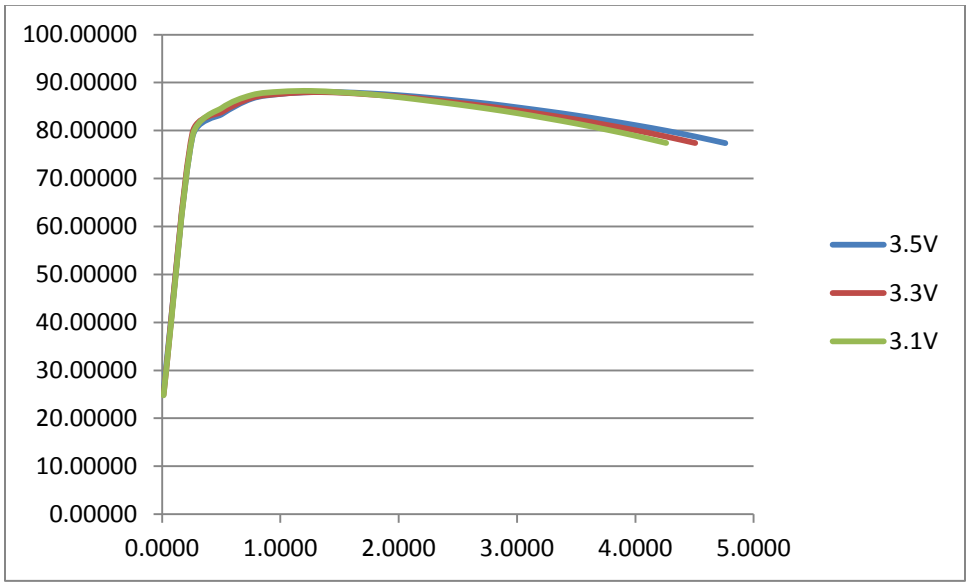


Fig1 Efficiency Curve

3.2 Power Loss

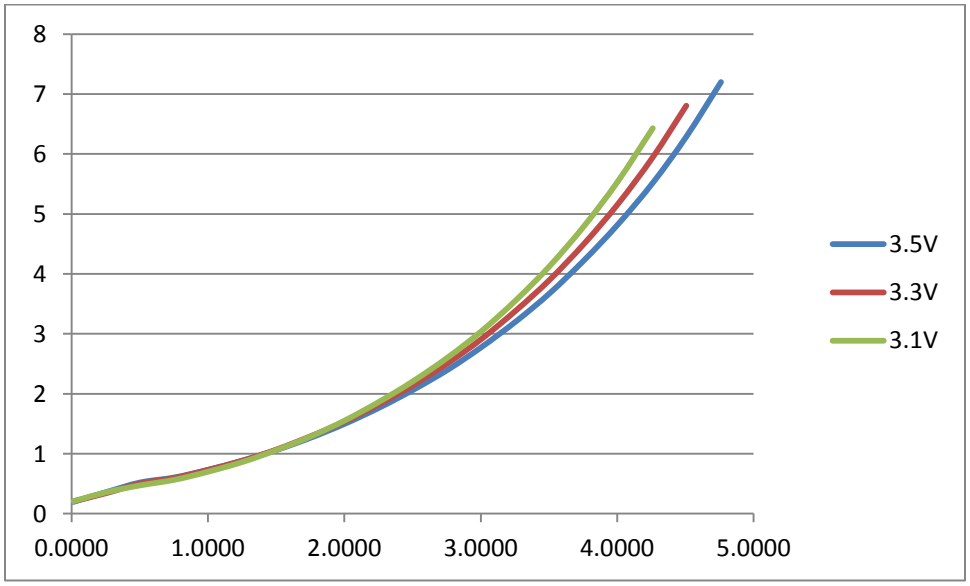


Fig2 Load regulation Curve

3.3 Load Transient Response:

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

Test Guild: Probe GND connect to Input GND

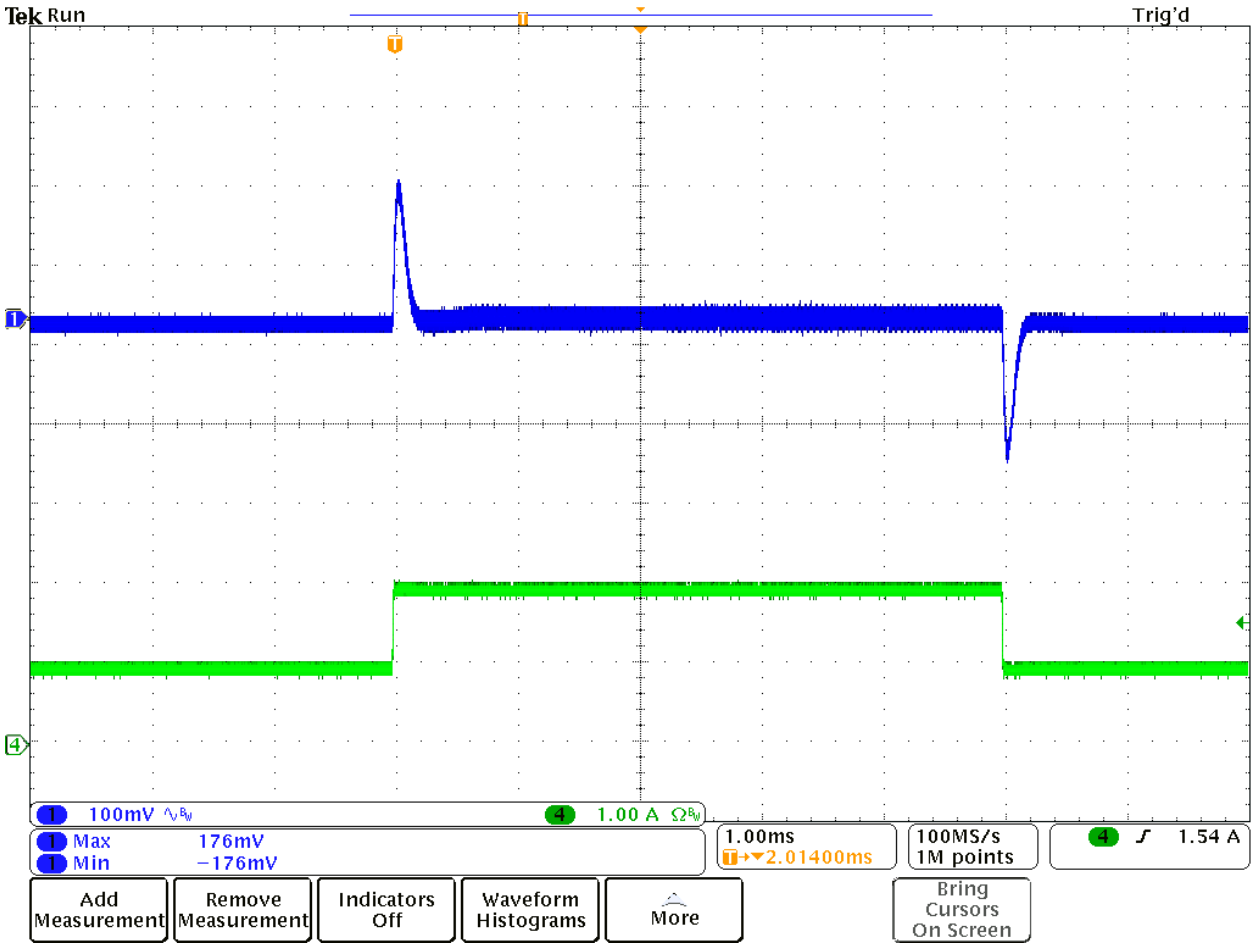


Fig3 Transient Response, Vin=3.3V DC Io=25%~50%~20%

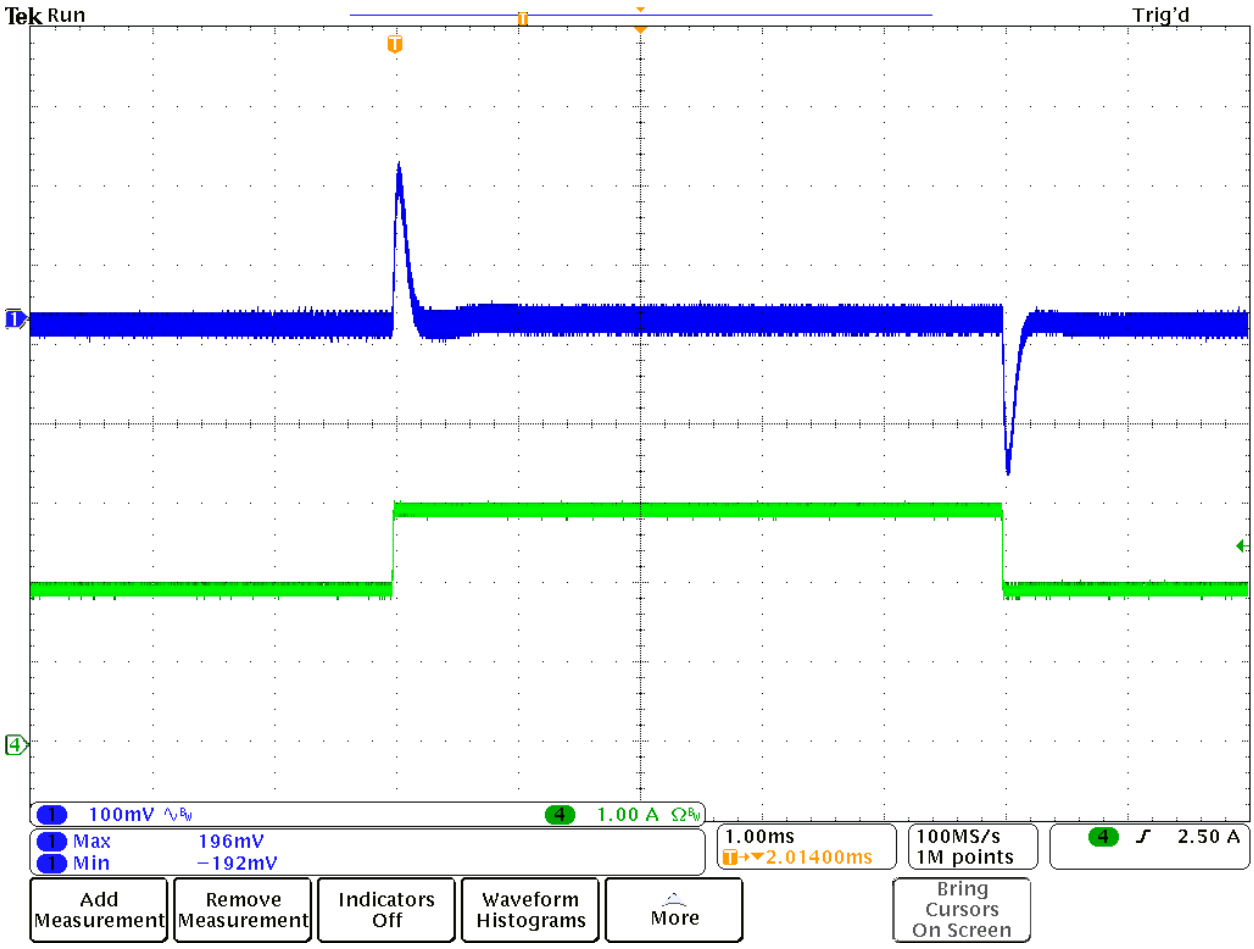


Fig 4 Transient Response, Vin=3.3V DC Io=50%~75%~50%

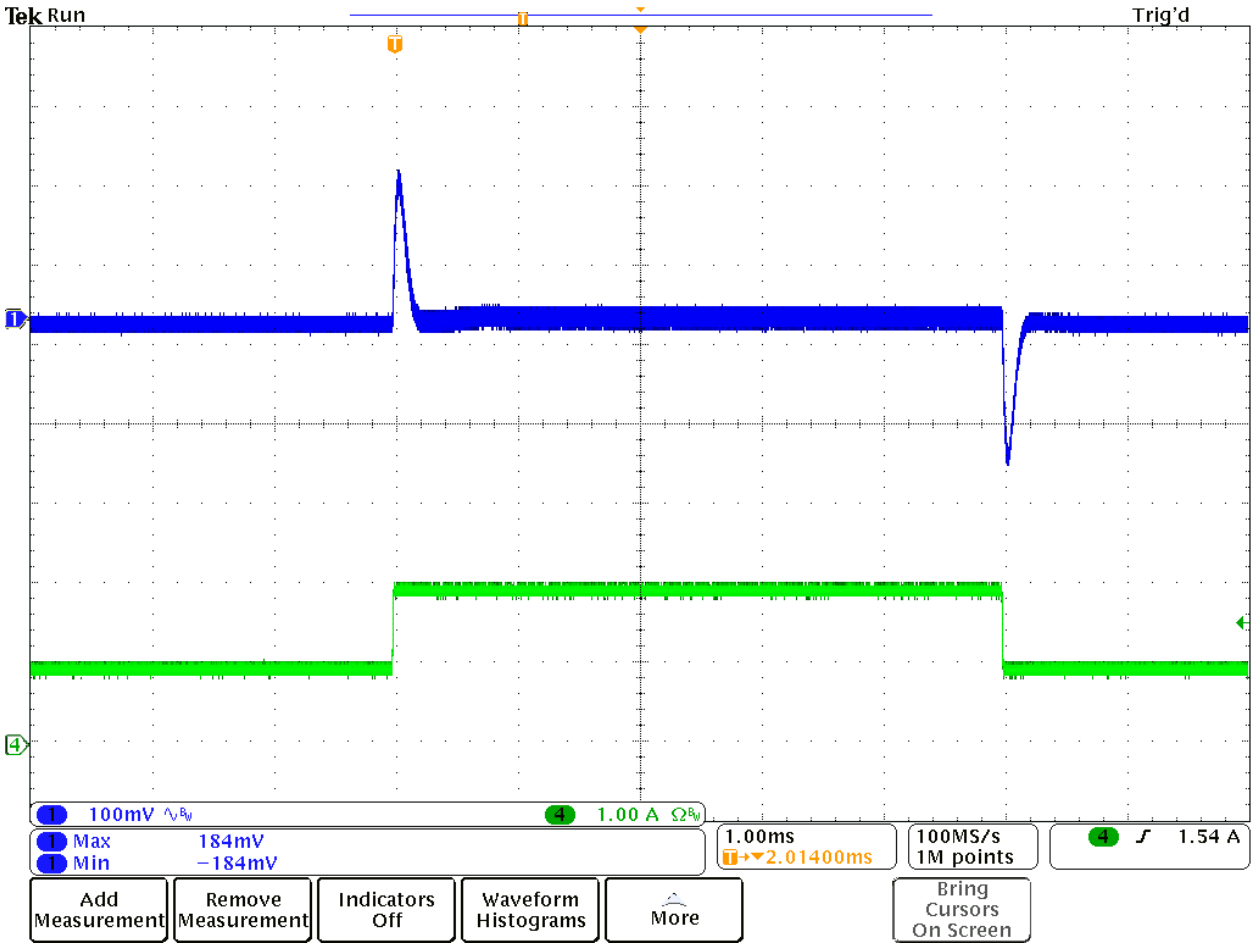


Fig 5 Transient Response, Vin=3.1V DC Io=25%~50%~20%

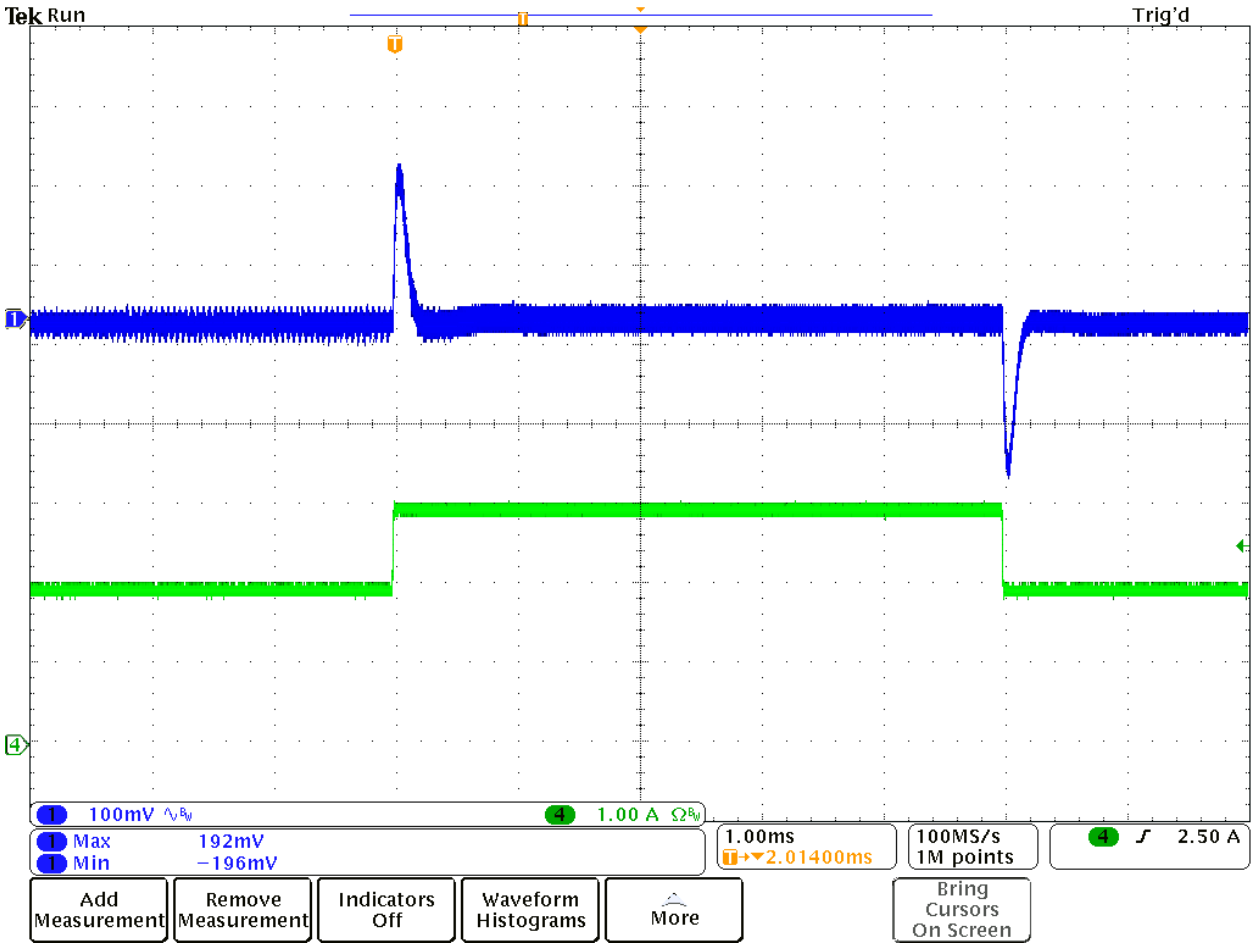


Fig 6 Transient Response, Vin=3.1V DC Io=50%~75%~50%

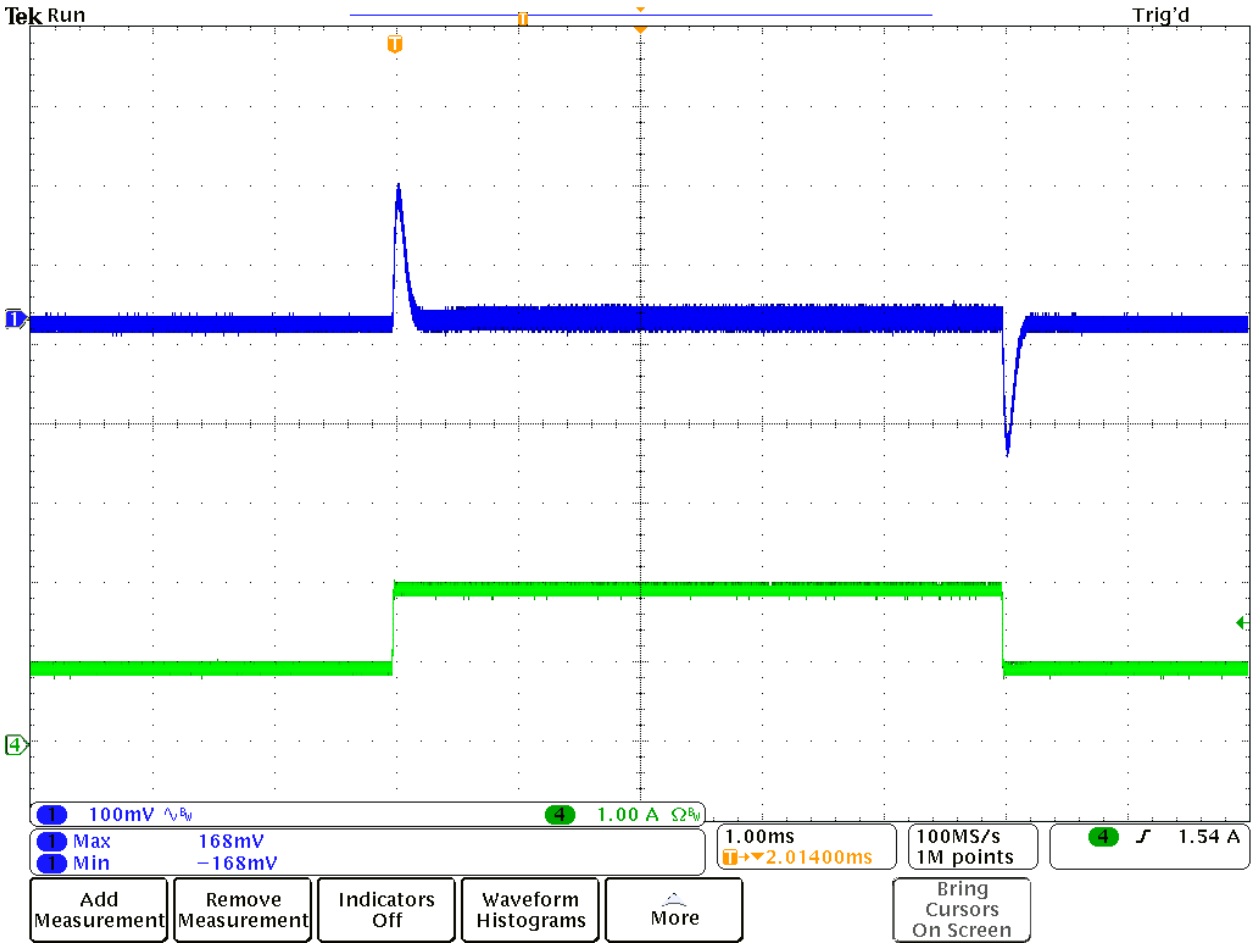


Fig7 Transient Response, Vin=3.5V DC Io=25%~50%~20%

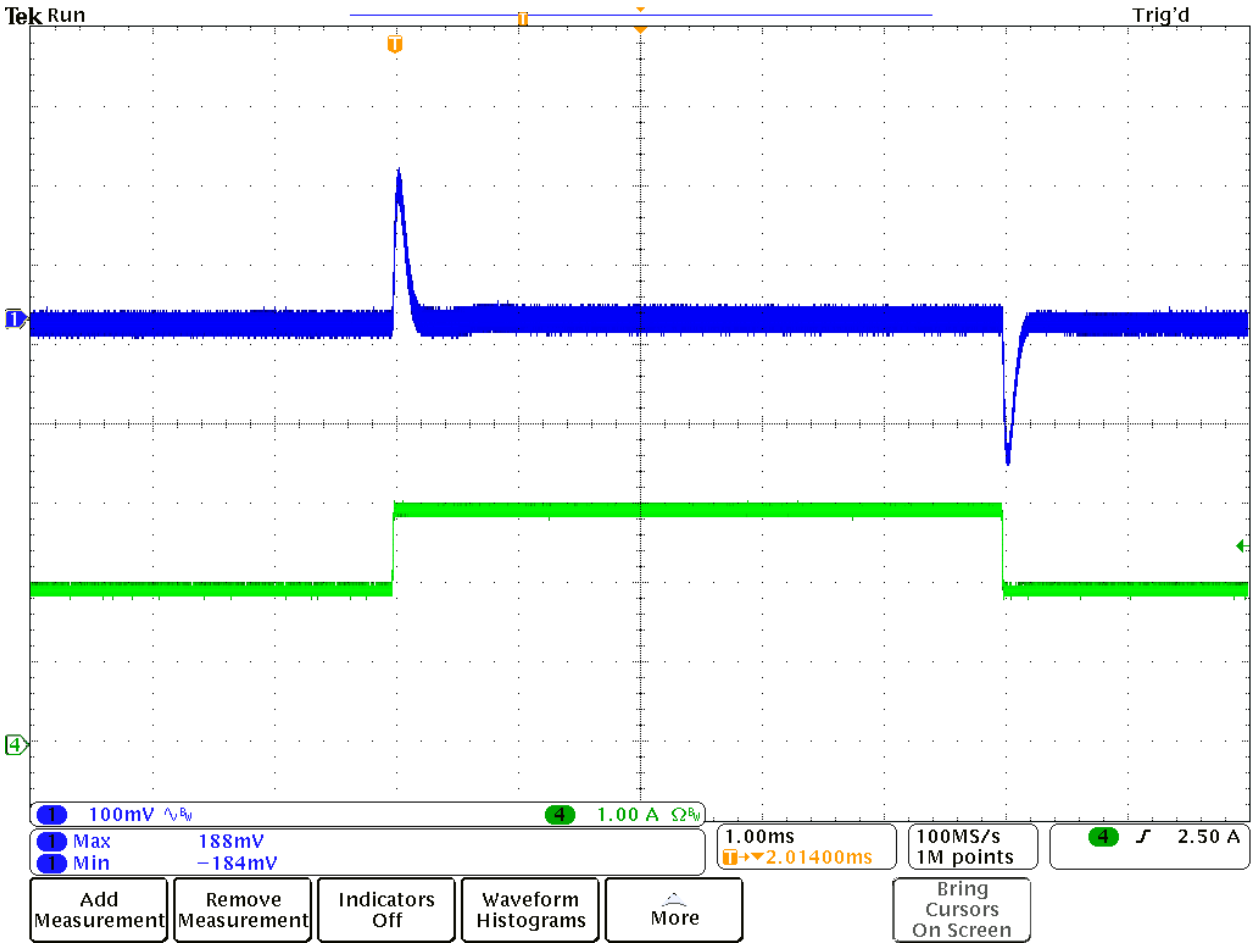


Fig 8 Transient Response, Vin=3.5V DC Io=50%~75%~50%

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

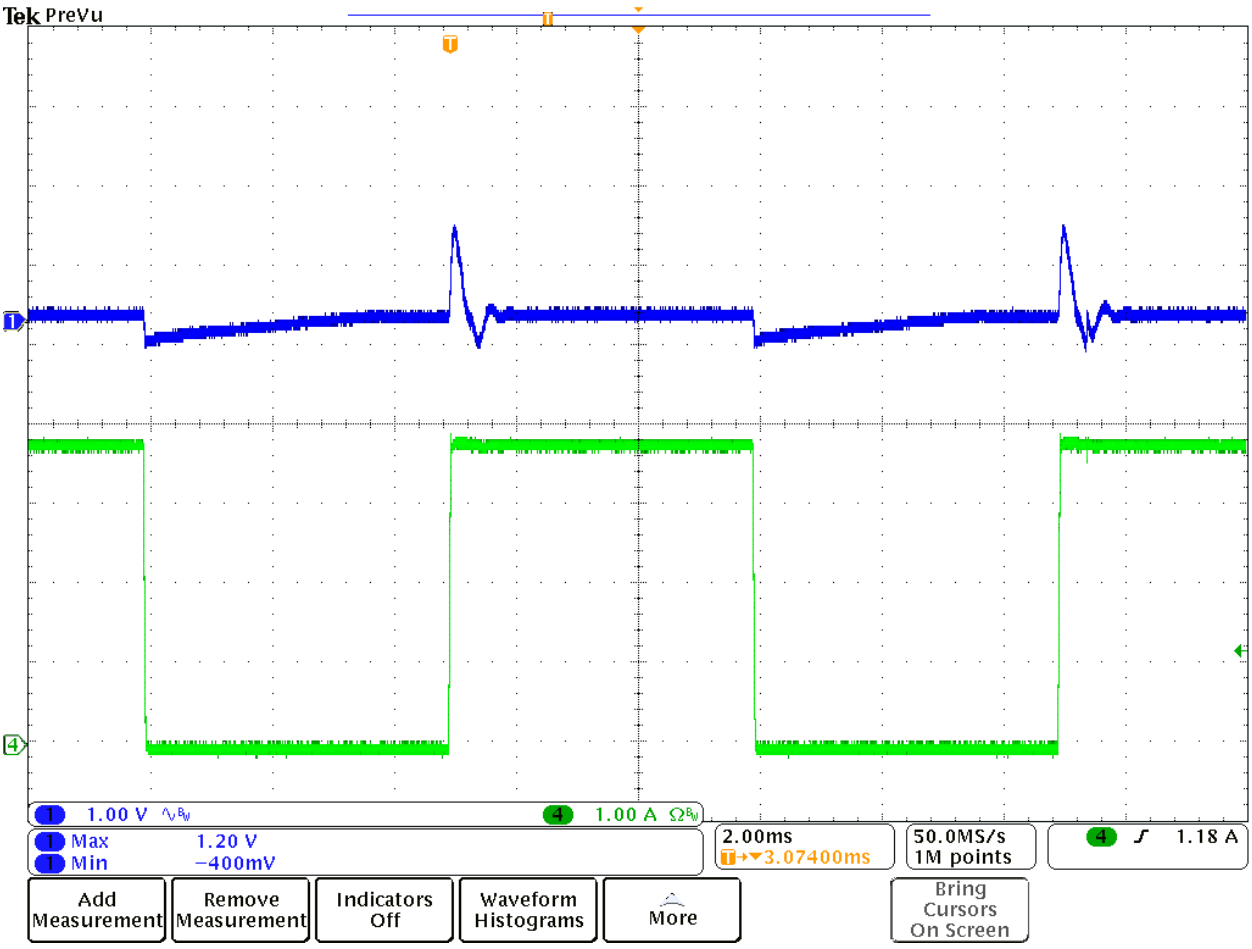


Fig 9 Transient Response, Vin=3.1V DC Io=0A-3.8A

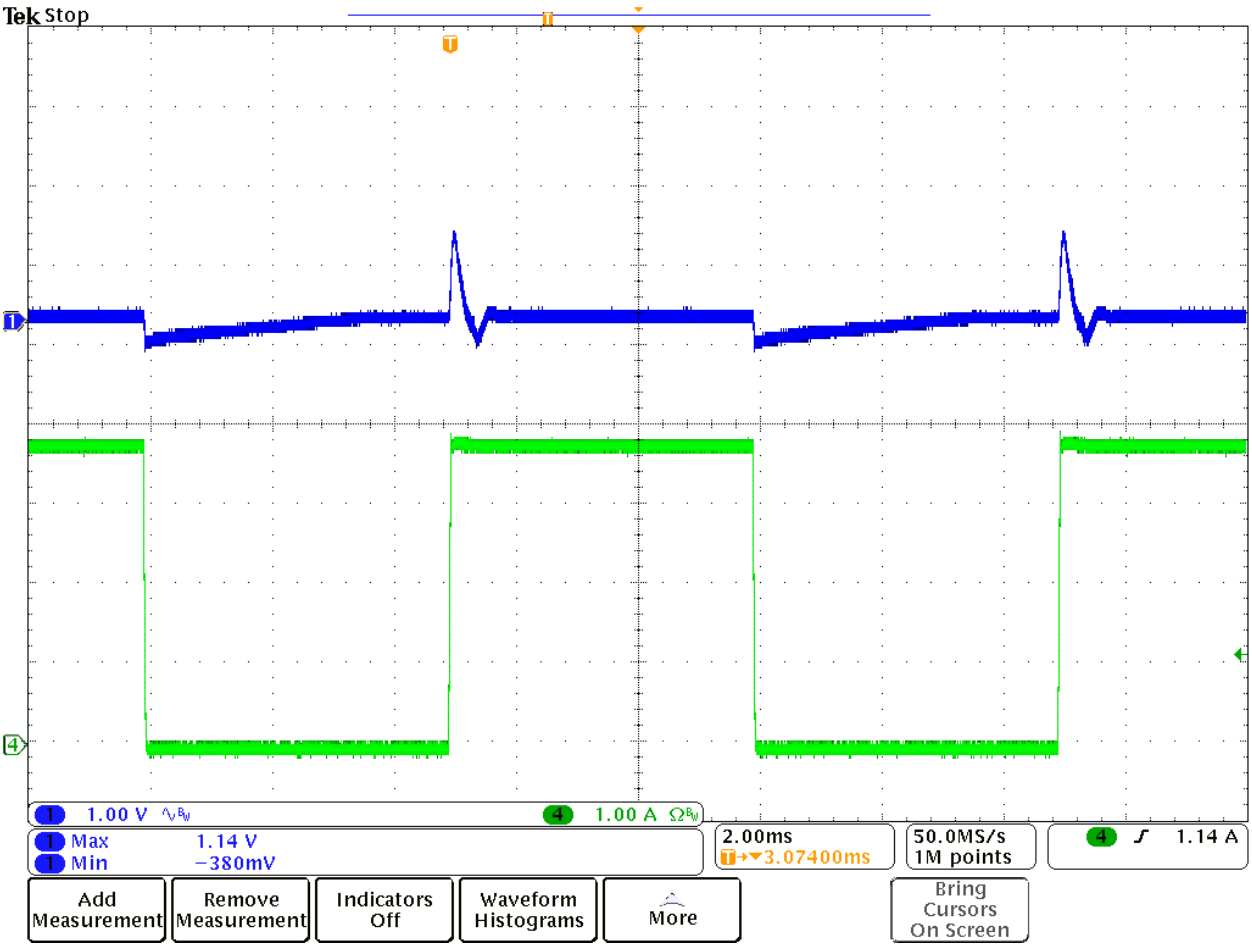


Fig 10 Transient Response, Vin=3.3V DC Io=0A-3.8A

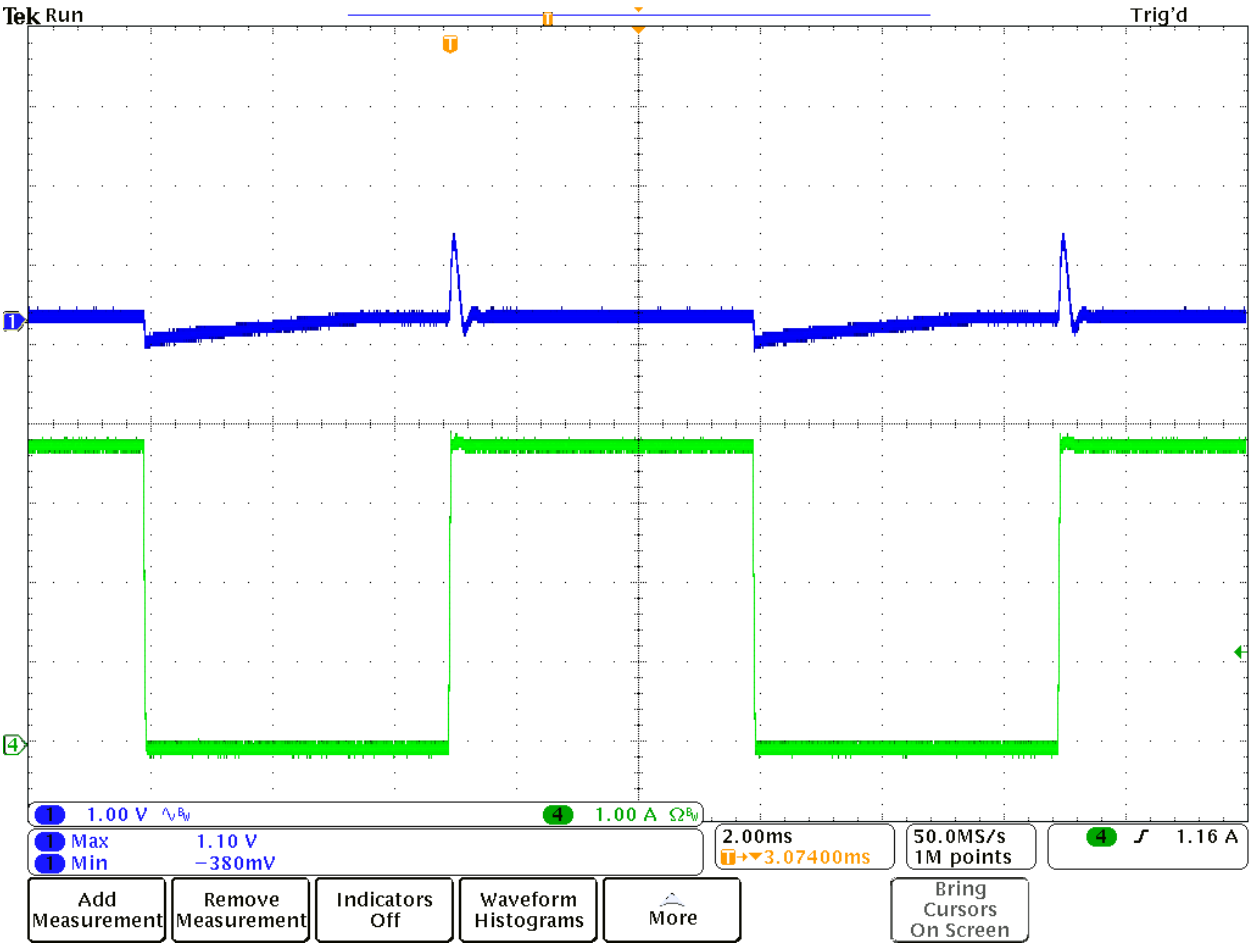


Fig 11 Transient Response, Vin=3.5V DC Io=0A-3.8A

3.4 Power up and Power down

Ch1=Vo(2V/DIV),Ch2=VIN(2V/DIV) Ch3=PVIN(1V/DIV),CH4=Io(1A/div)

Test Guild: All Probe GND connect to Input GND, CH1+ connect to –Vo, CH2+ connect to VIN, CH3+ connect to PVIN

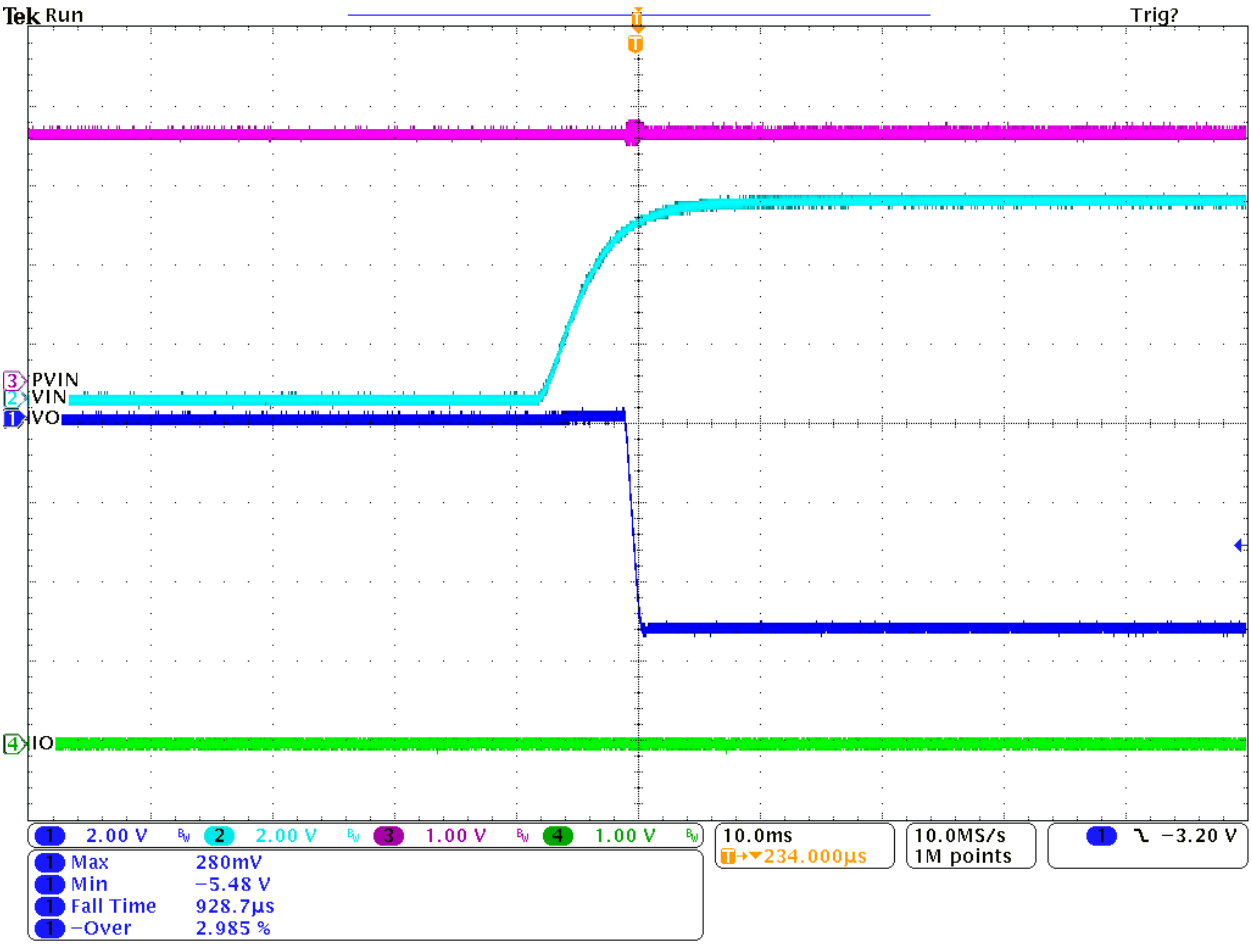


Fig 12 Vin=3.1V Io=0A Power up from VIN

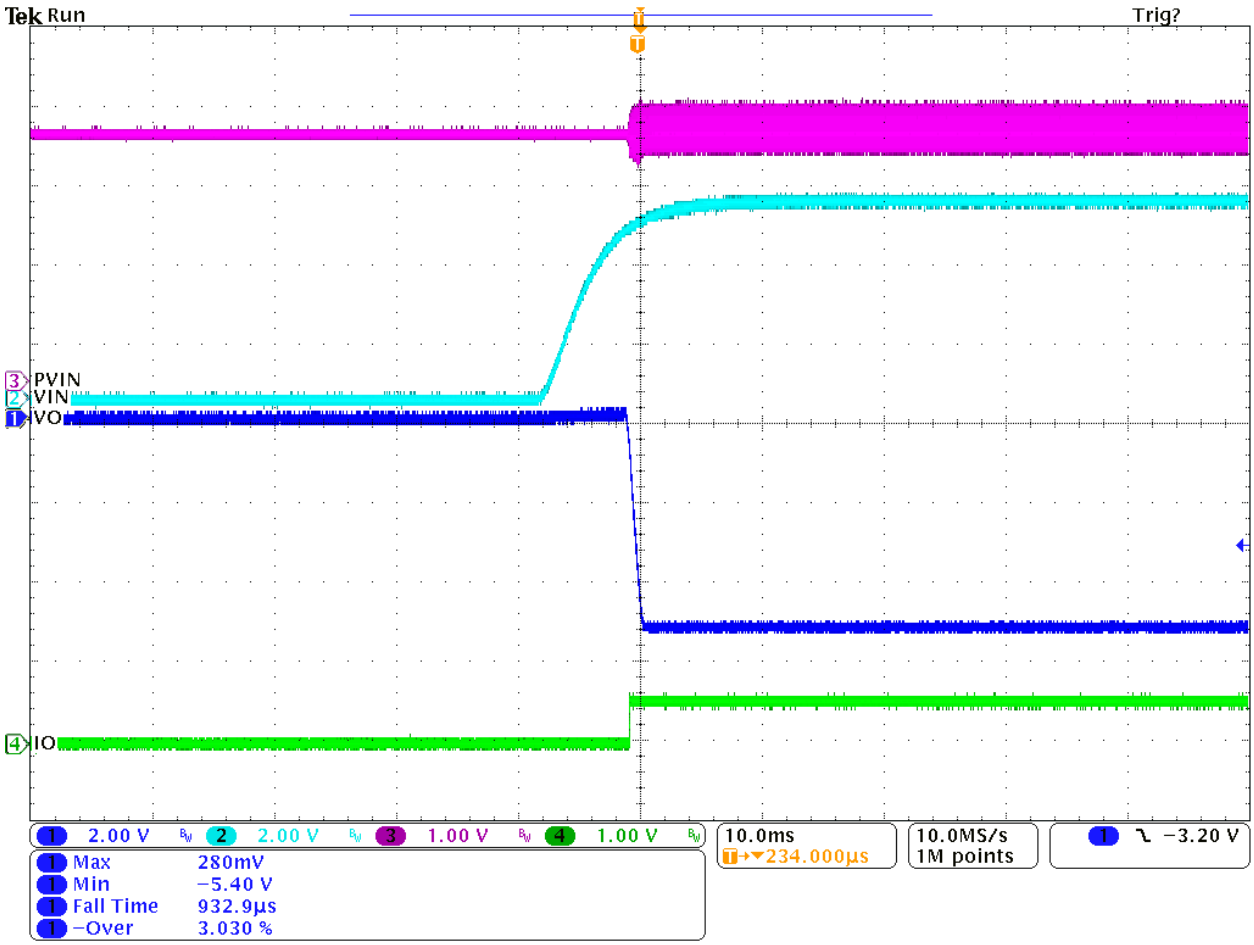


Fig 13 Vin=3.1V Io=2A Power up

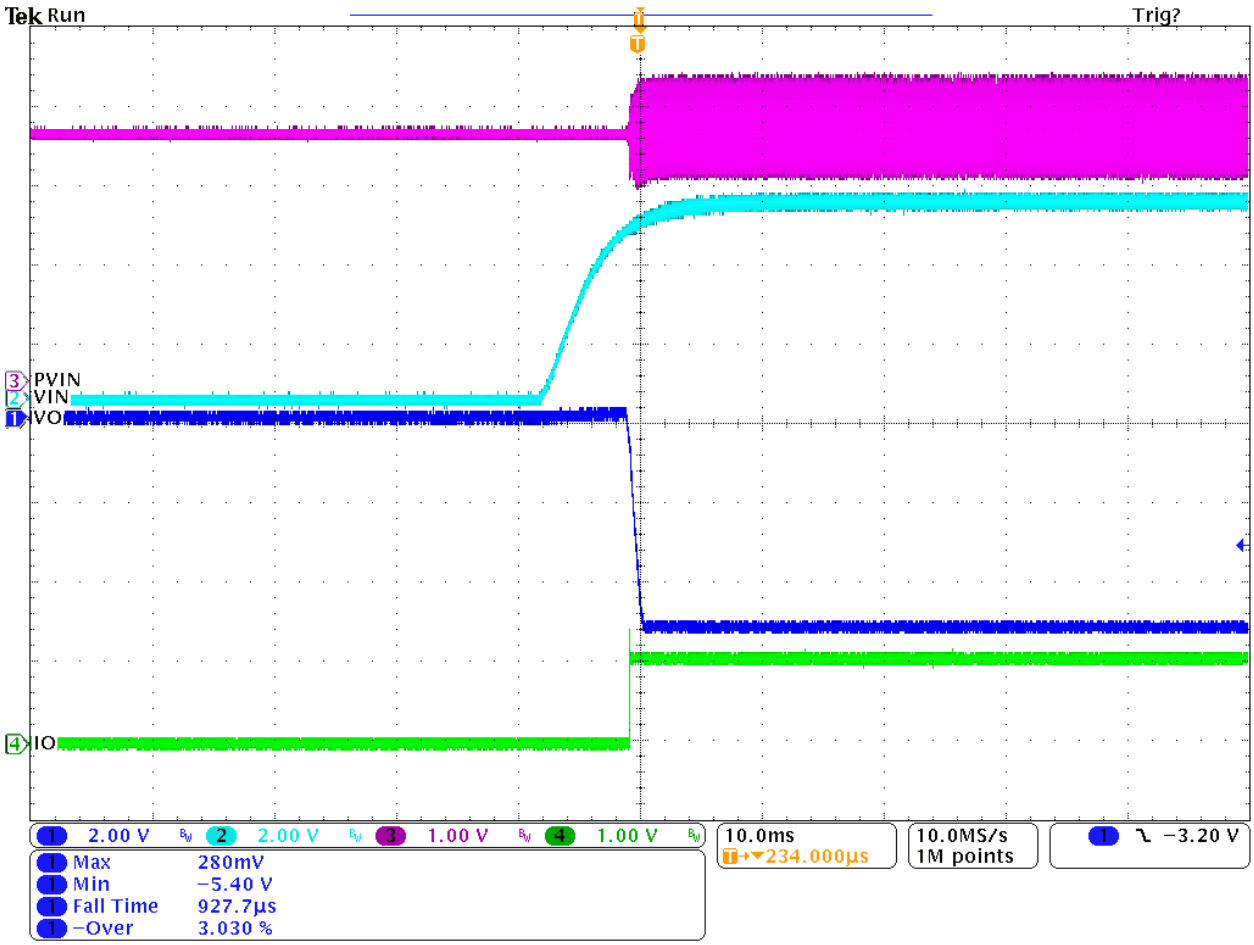


Fig 14 Vin=3.1V Io=4A Power up

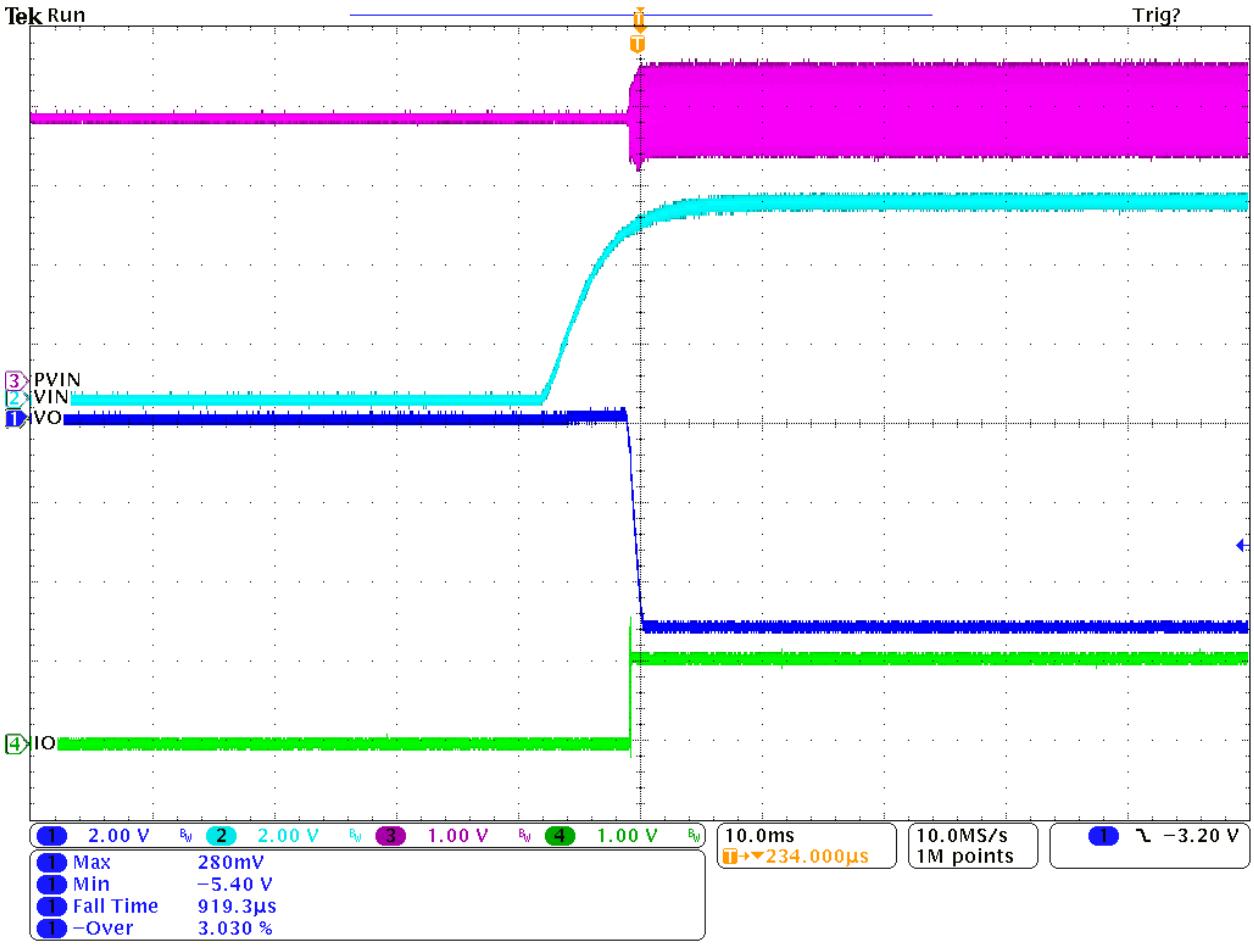


Fig 15 Vin=3.3V Io=0A Power Up

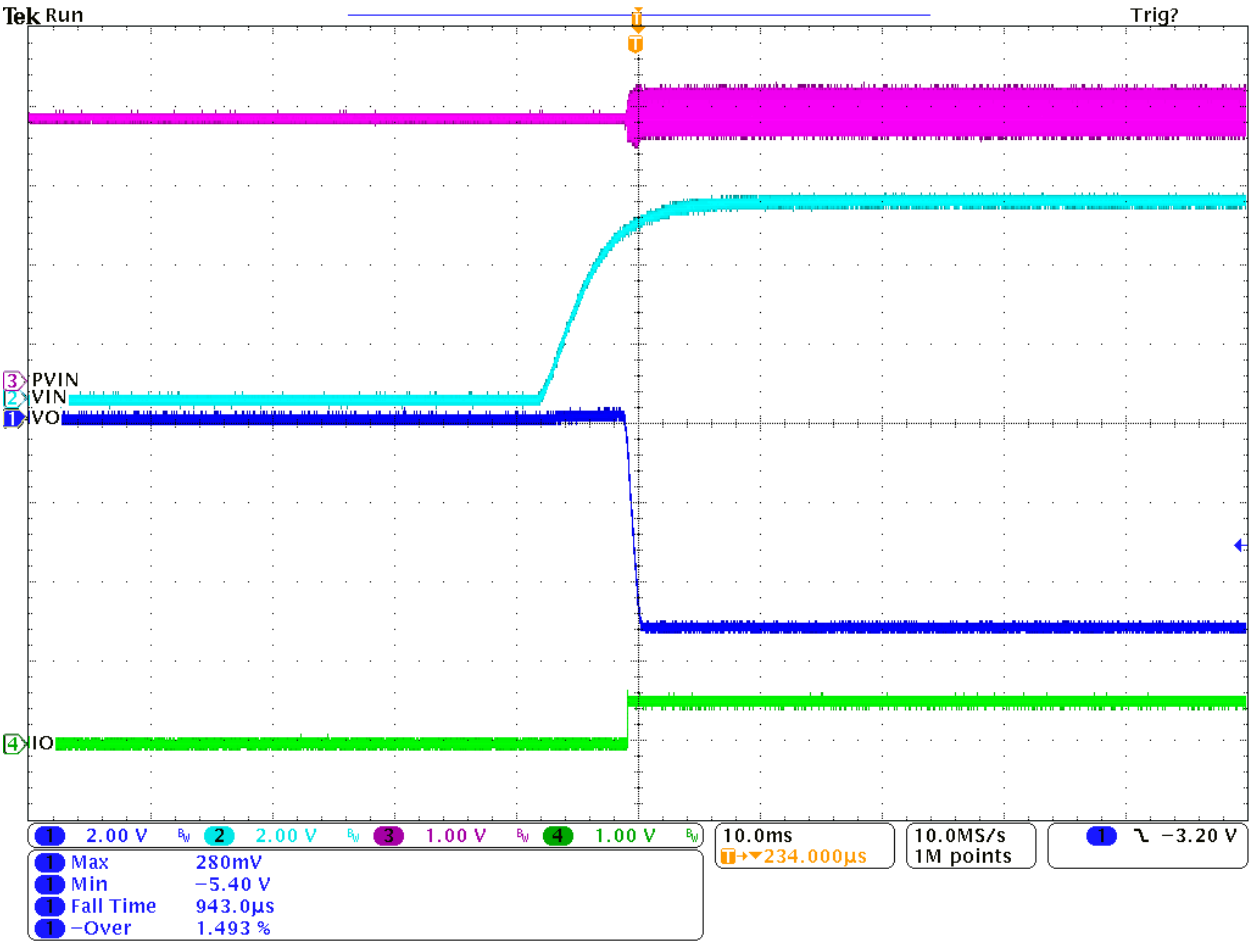


Fig 16 Vin=3.3V Io=2A Power up

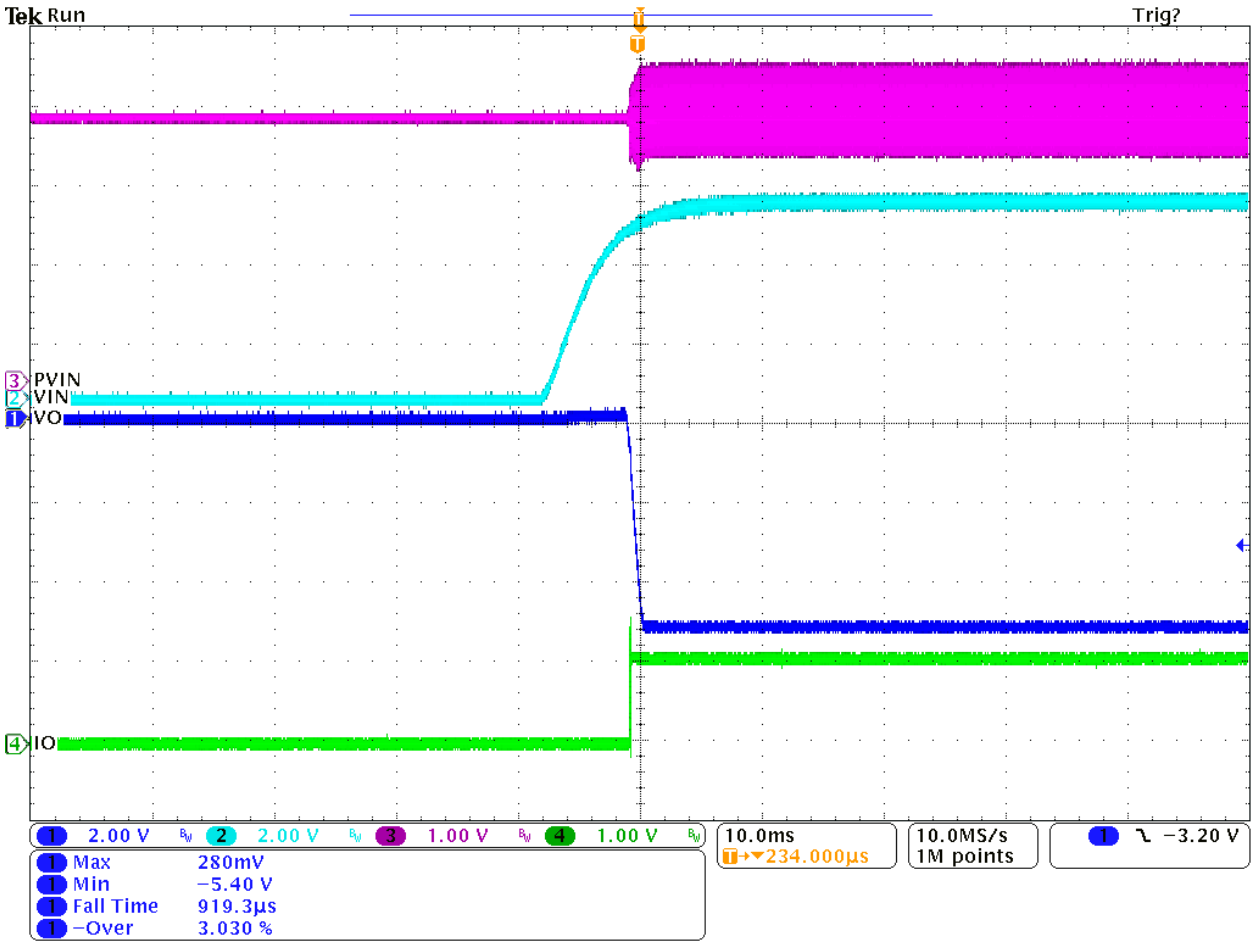


Fig 17 Vin=3.3V Io=4A Power up

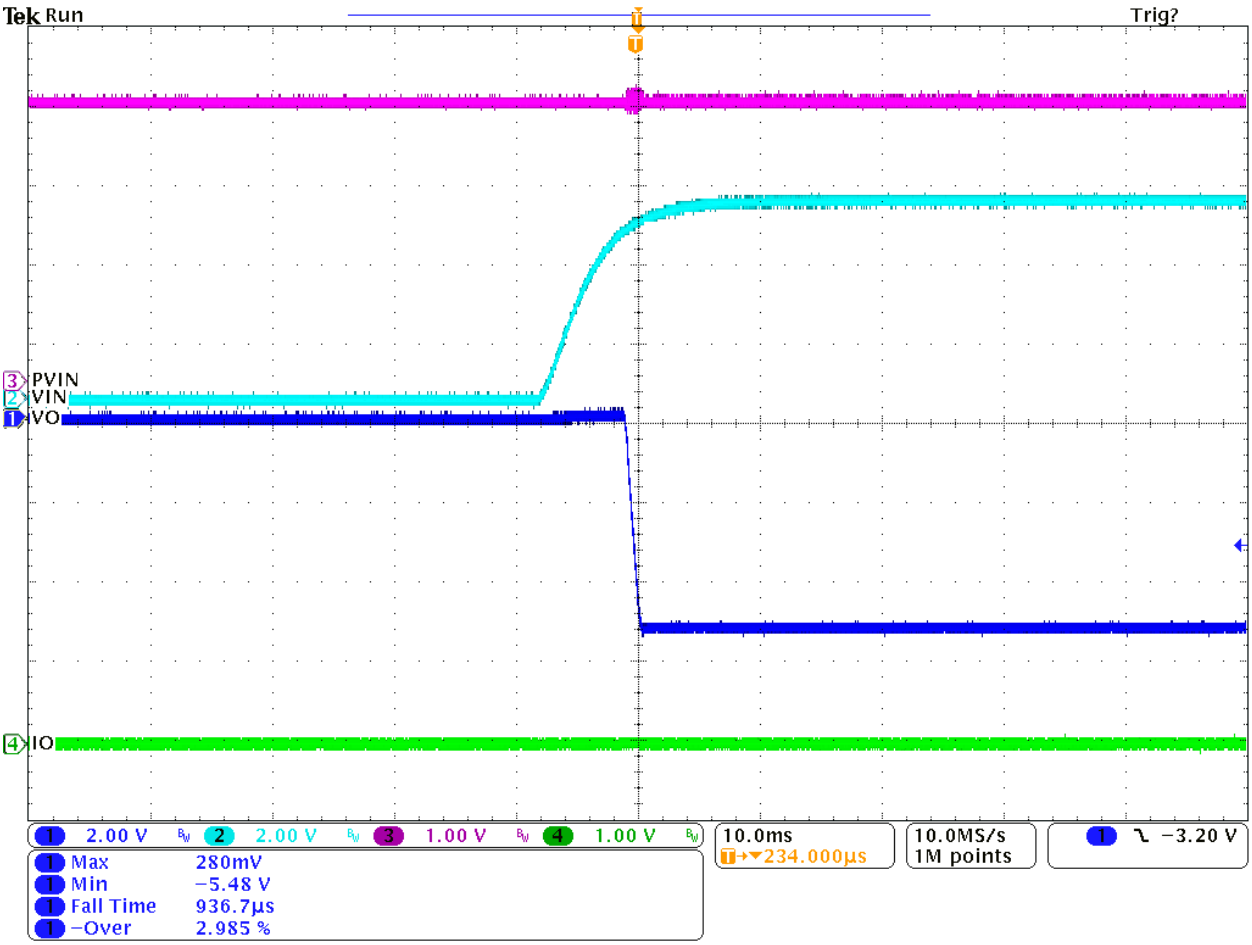


Fig 18 Vin=3.5V Io=0A Power up

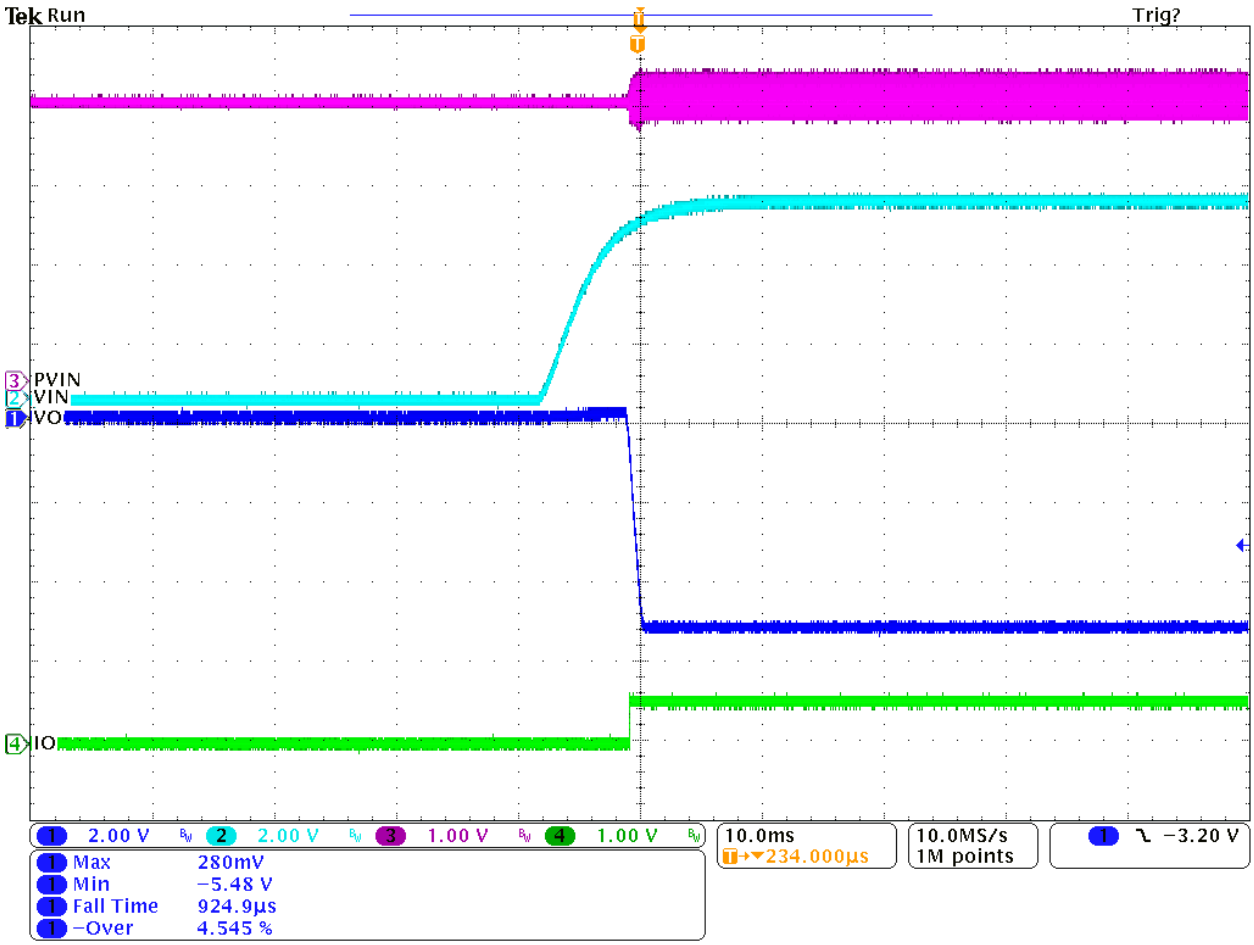


Fig 19 Vin=3.5V Io=2A Power up

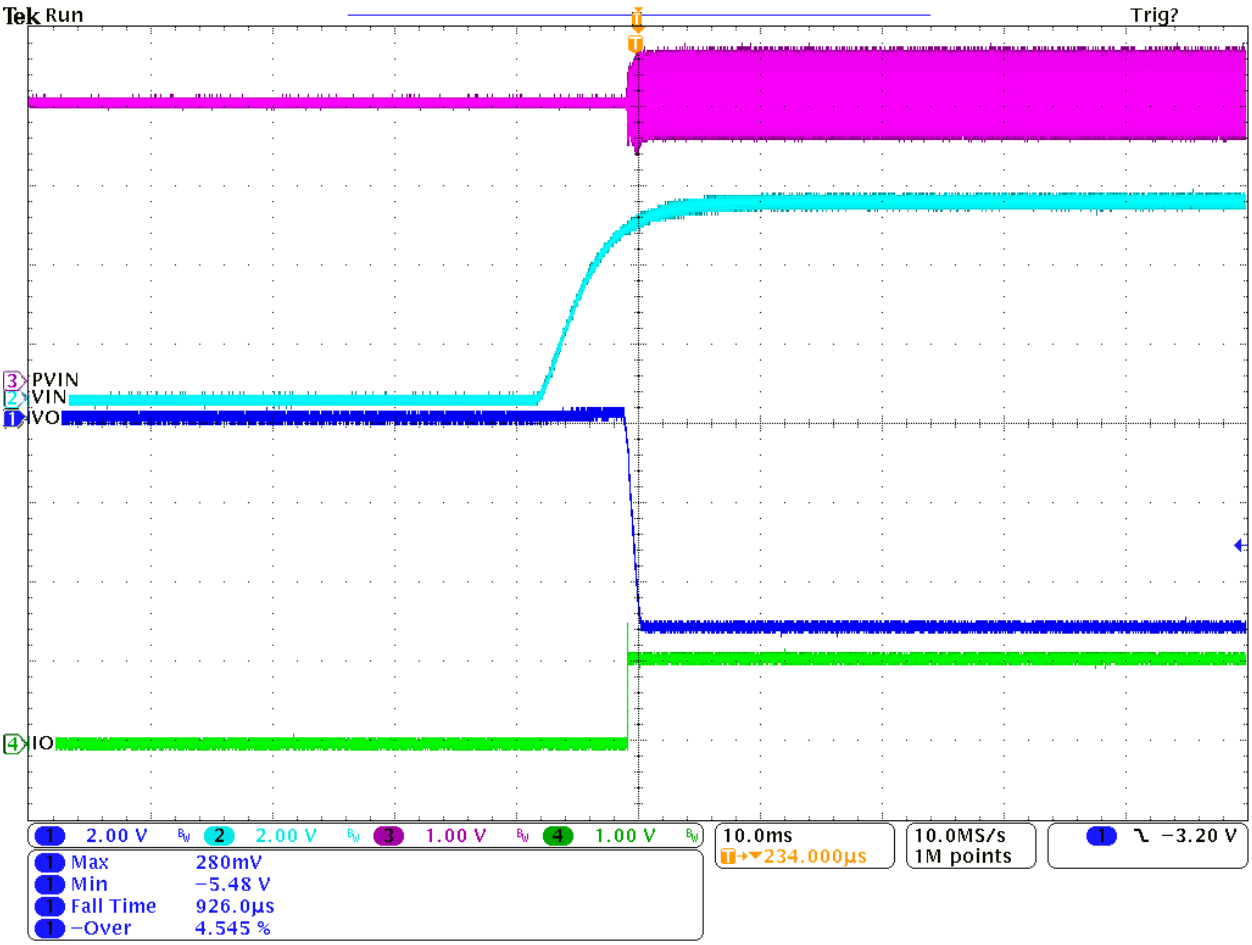


Fig 20 Vin=3.5V Io=4A Power up

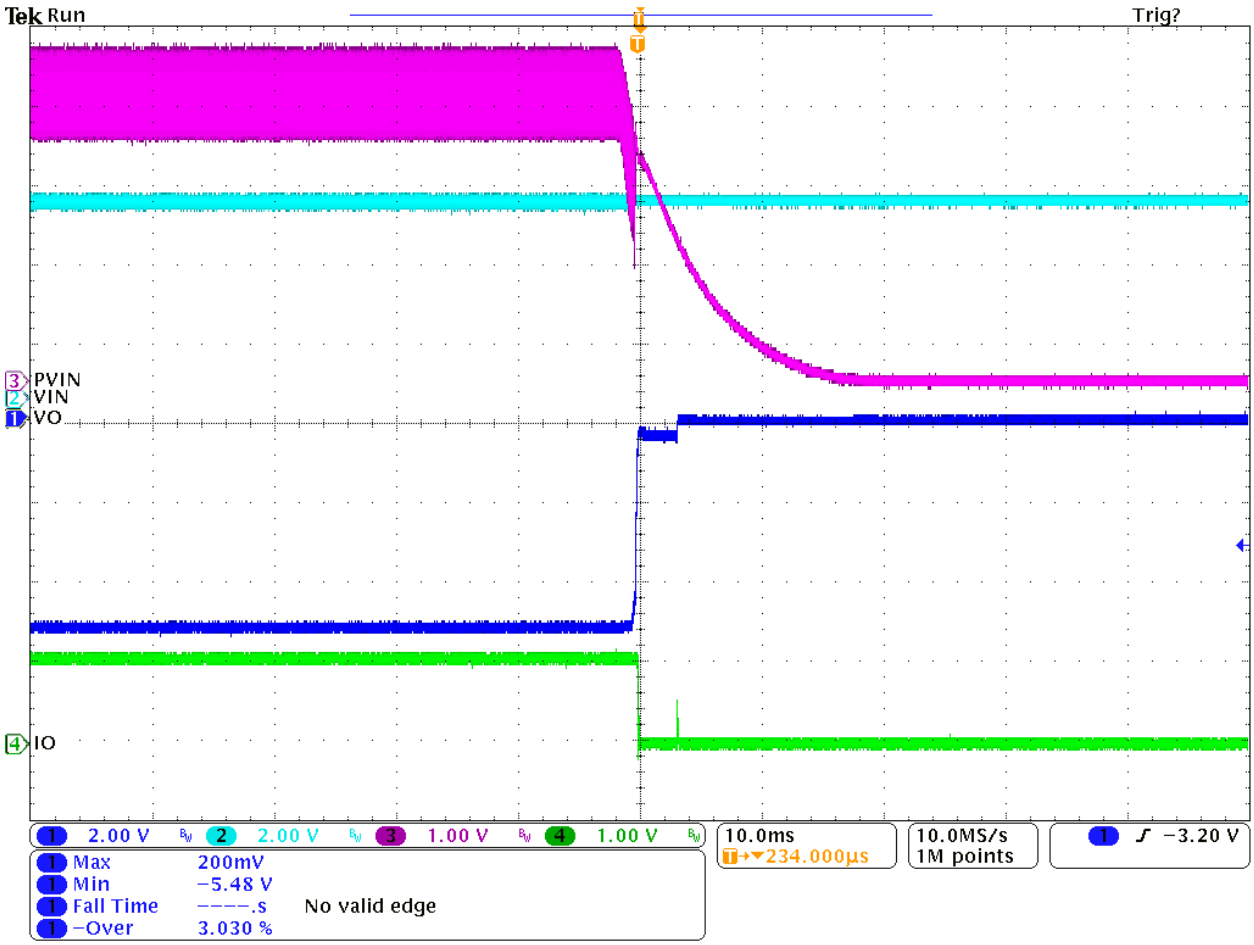


Fig 21 Io=4A Power Down

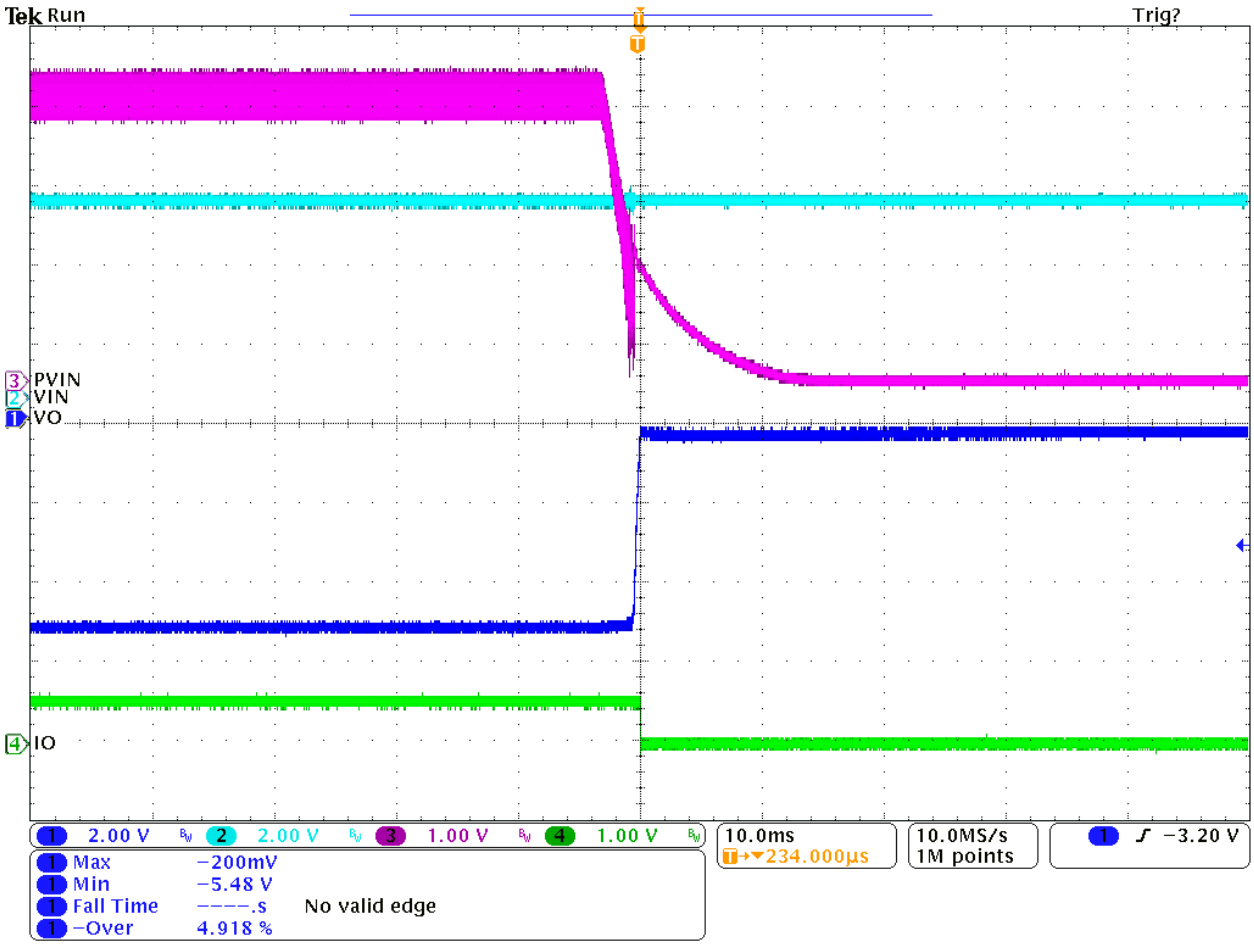


Fig 22 Io=2A Power Down

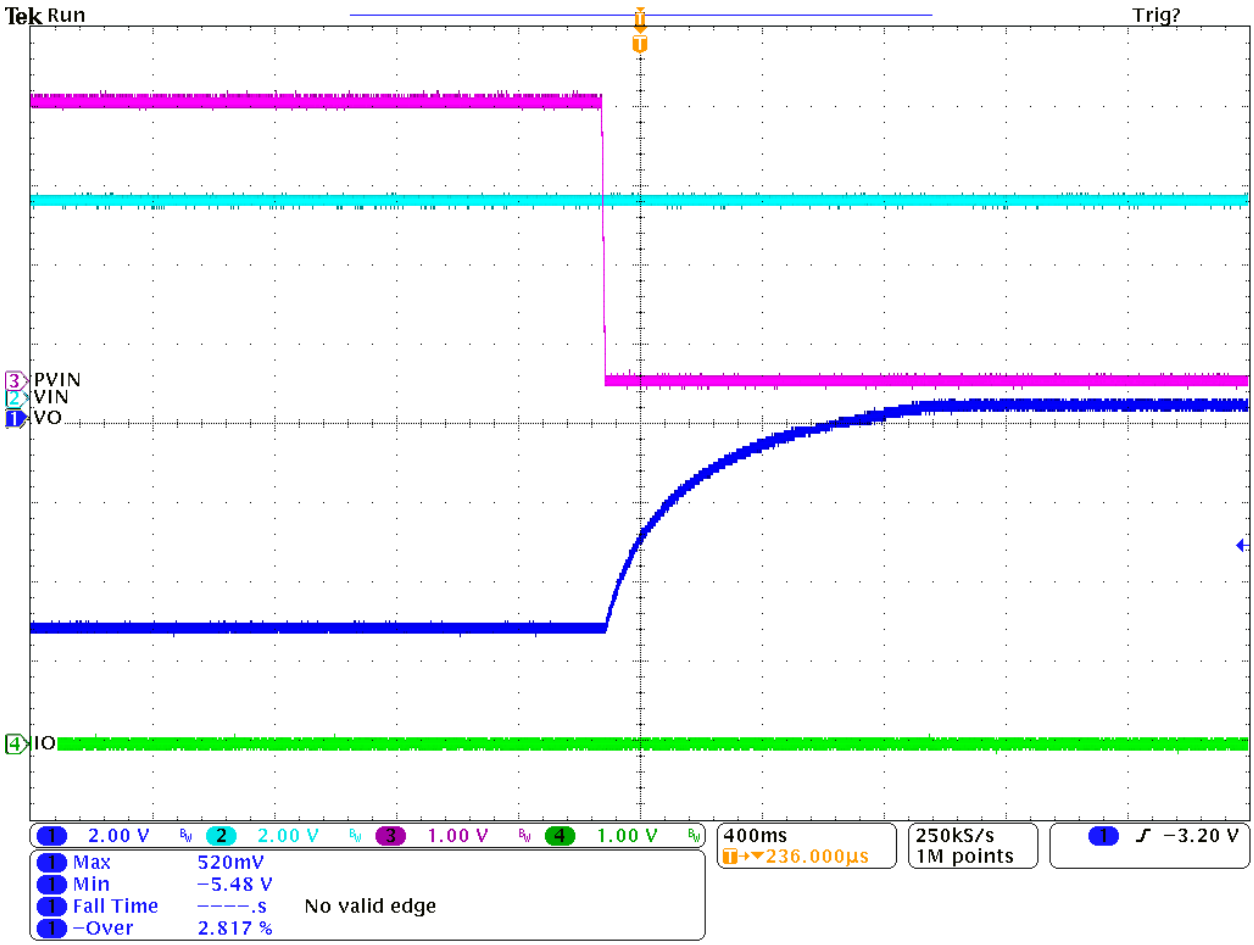


Fig 23 Io=0A Power Down

3.5 Ripple

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

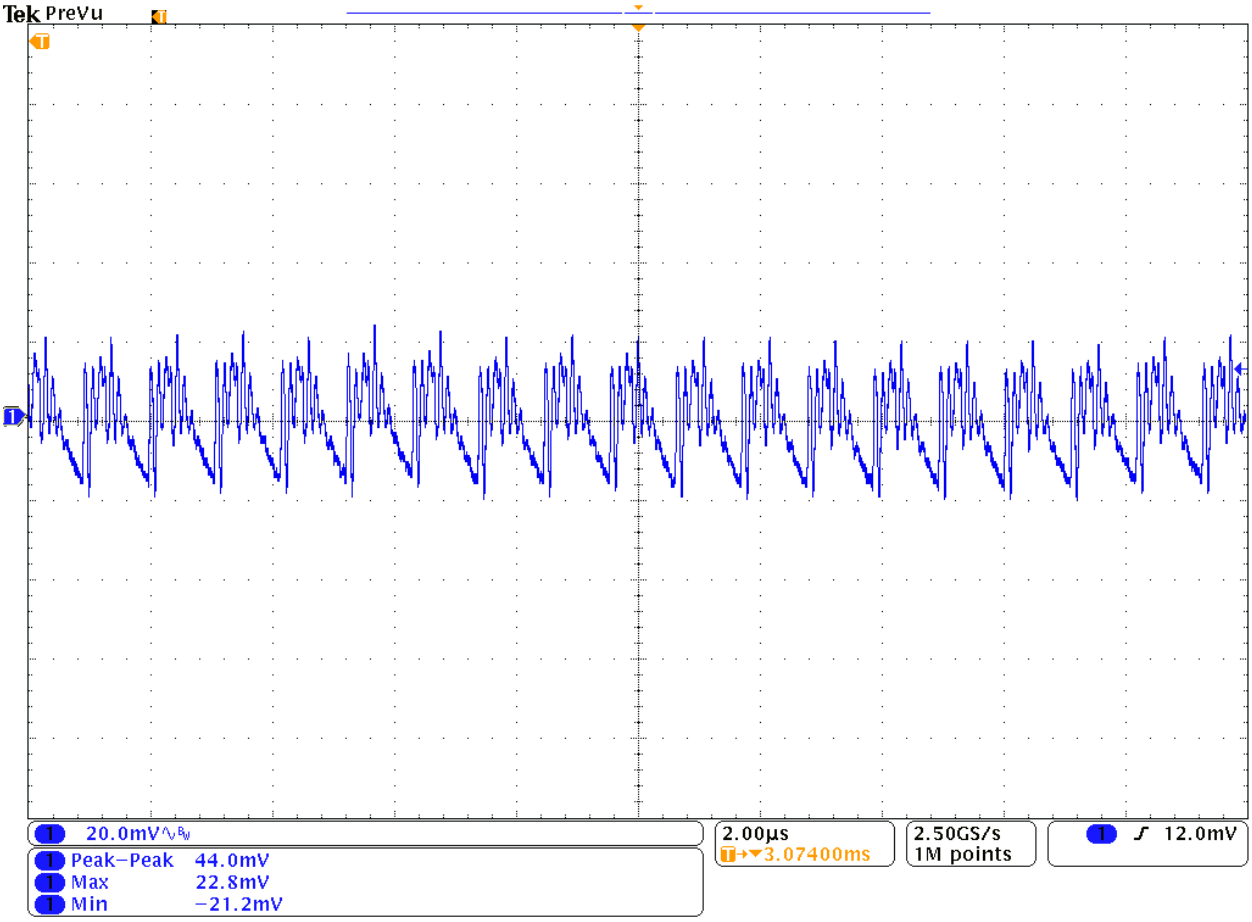


Fig 24 VIN=3.3V, Io=4A,

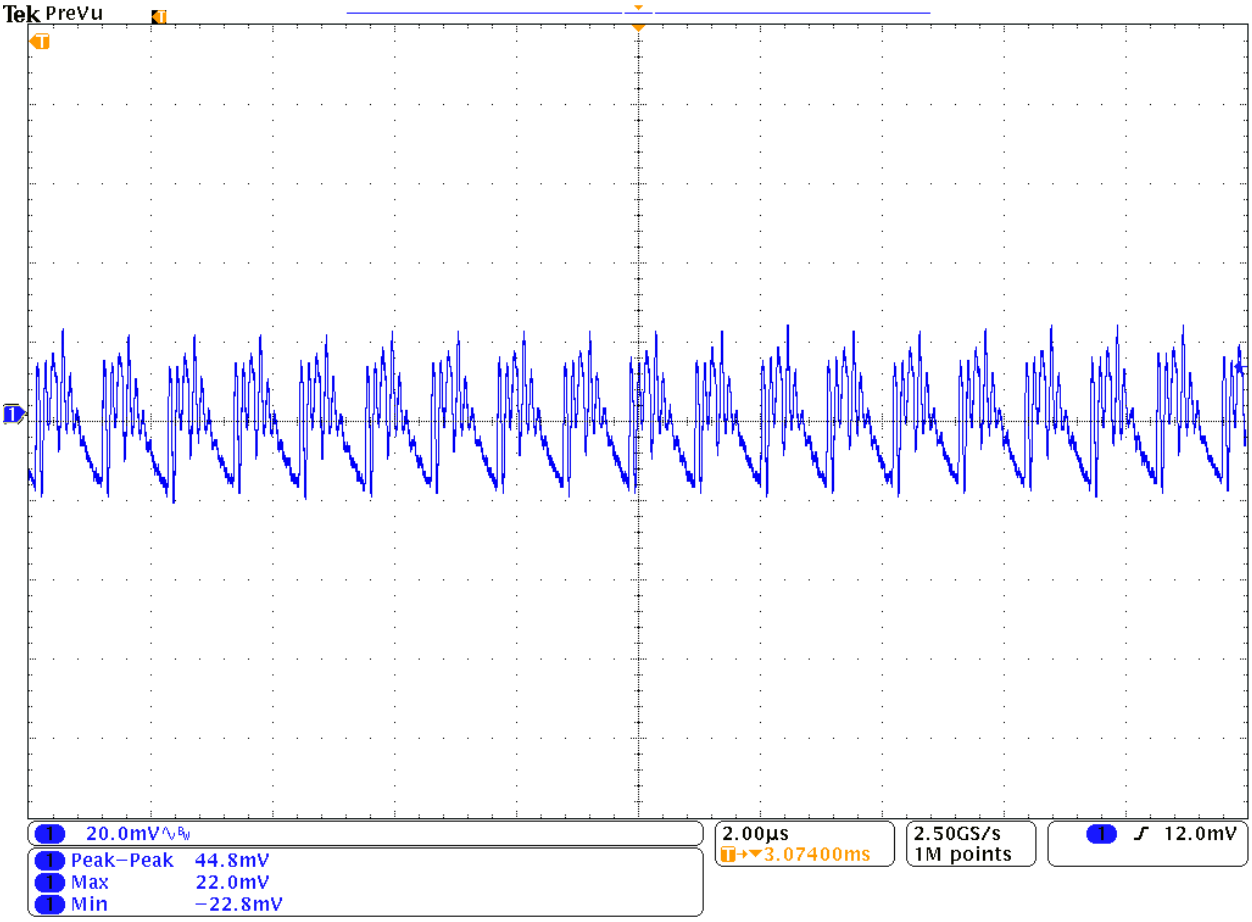


Fig 25 VIN=3.1V, Io=4A,

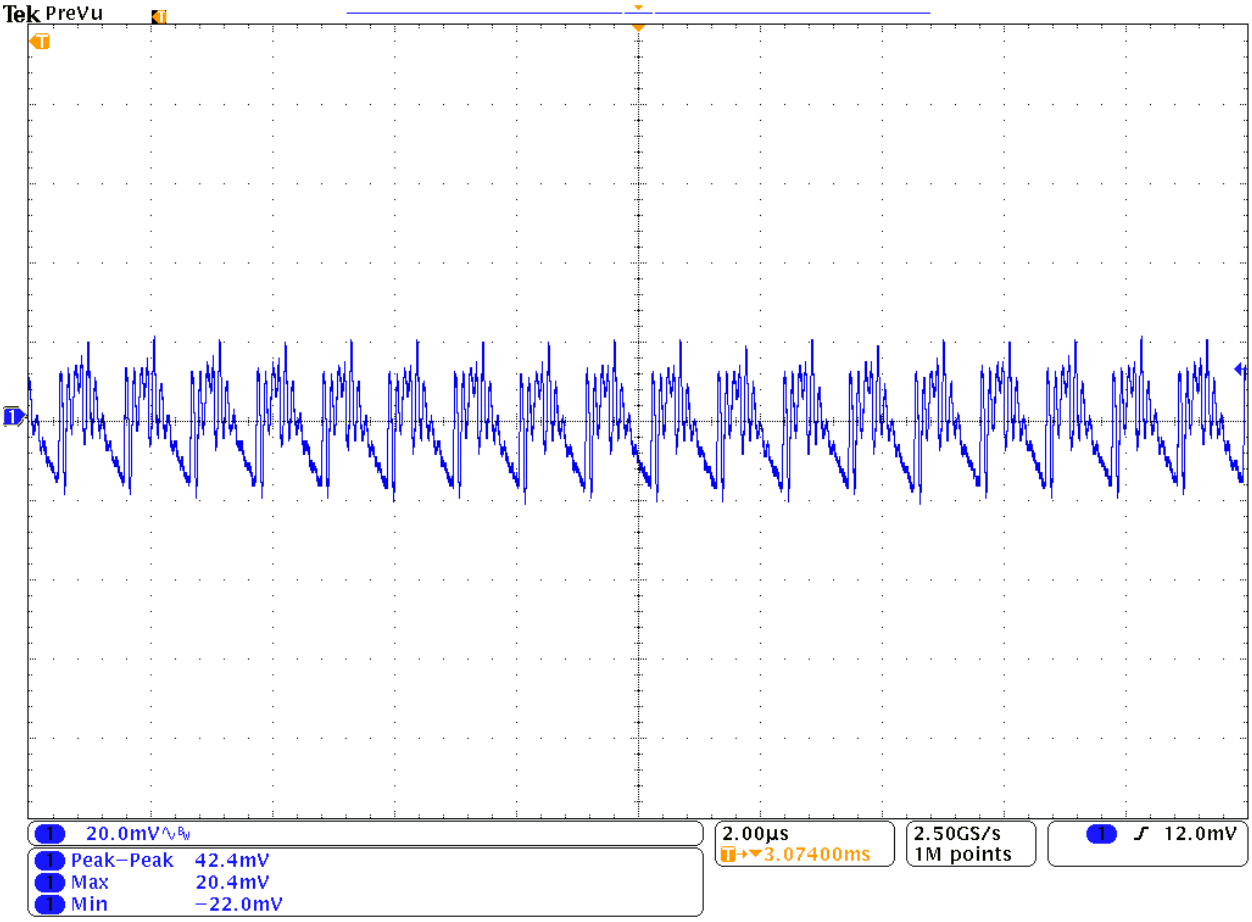


Fig 26 VIN=3.5VDC, Io=4A,

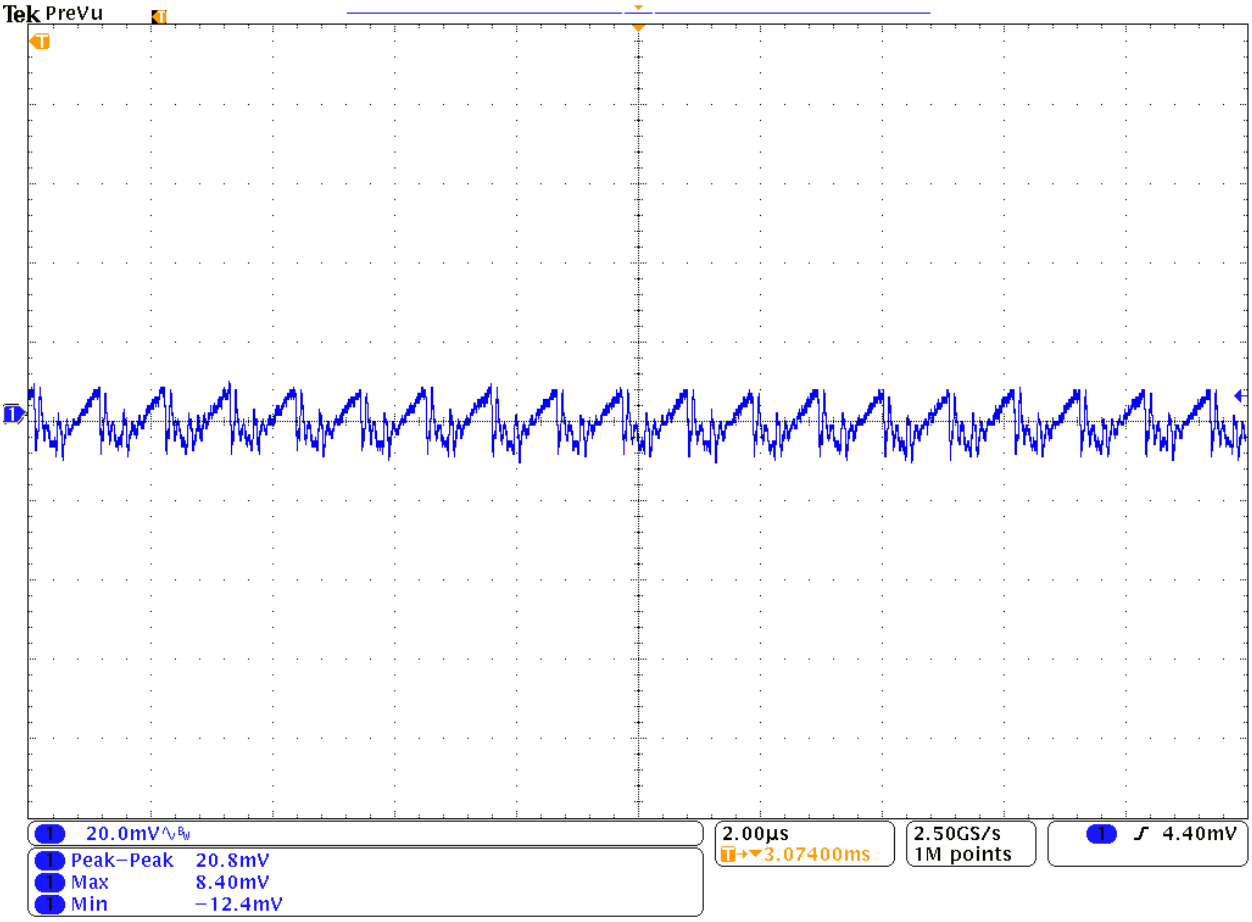


Fig 27 VIN=3.1VDC, Io=2A,

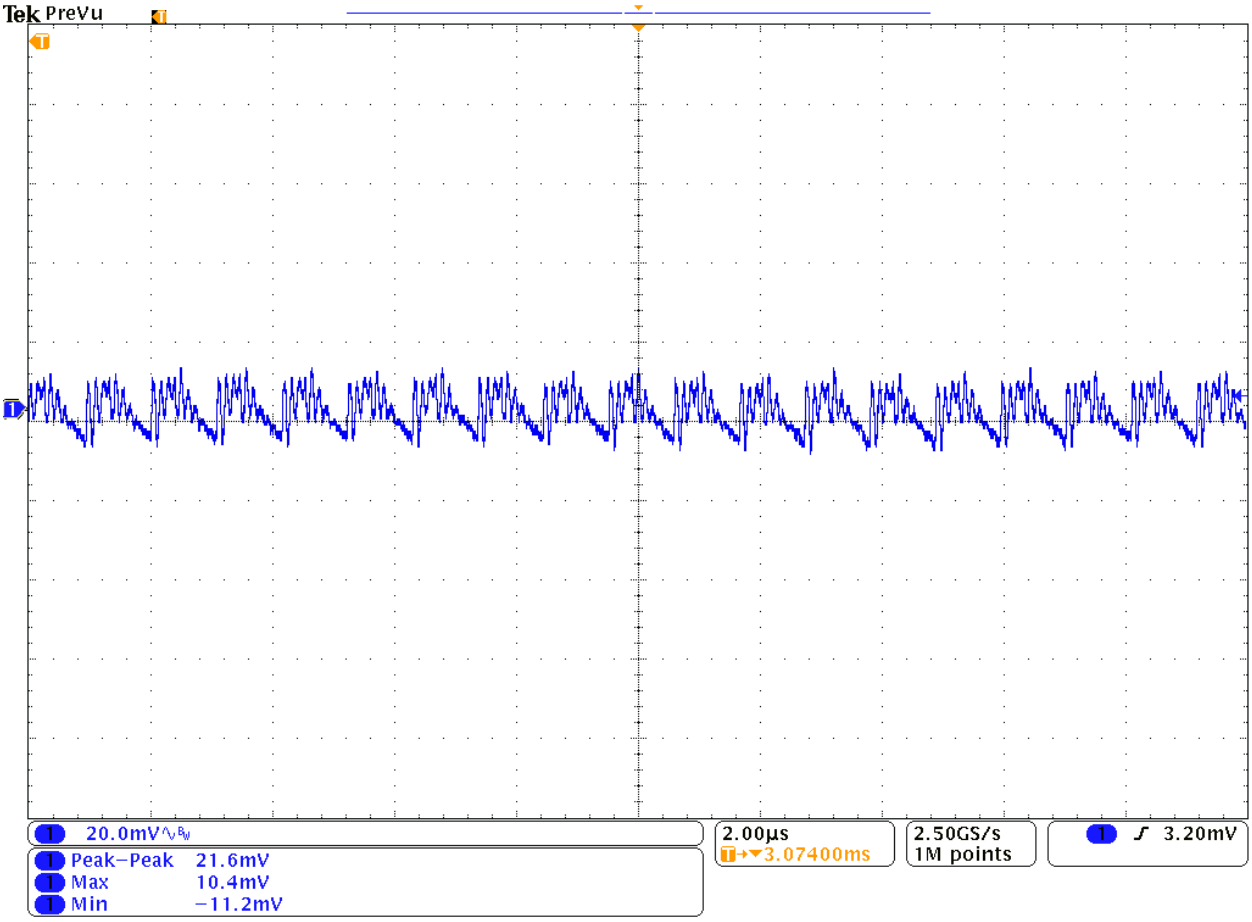


Fig 28 VIN=3.3VDC, Io=2A,

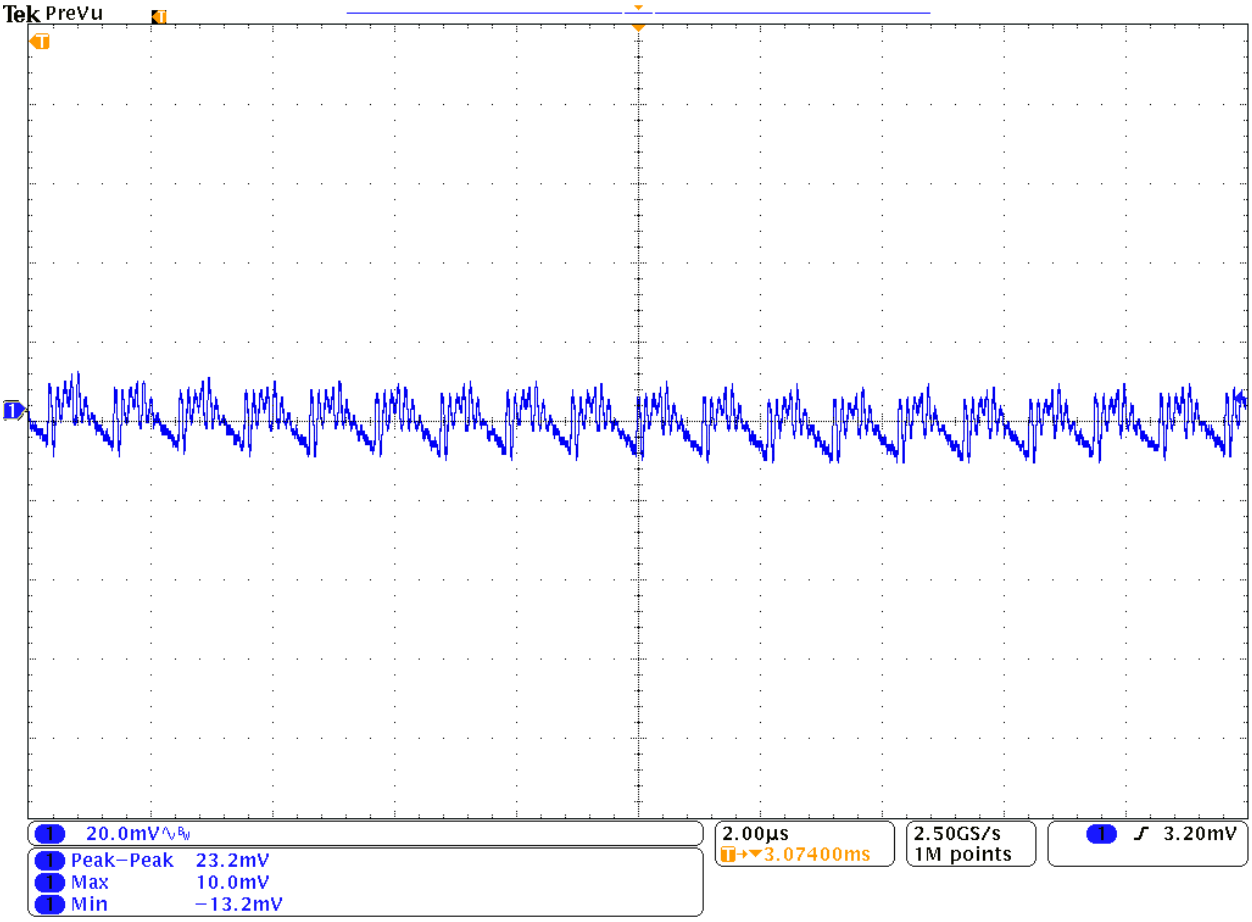


Fig 29 VIN=3.5VDC, Io=2A

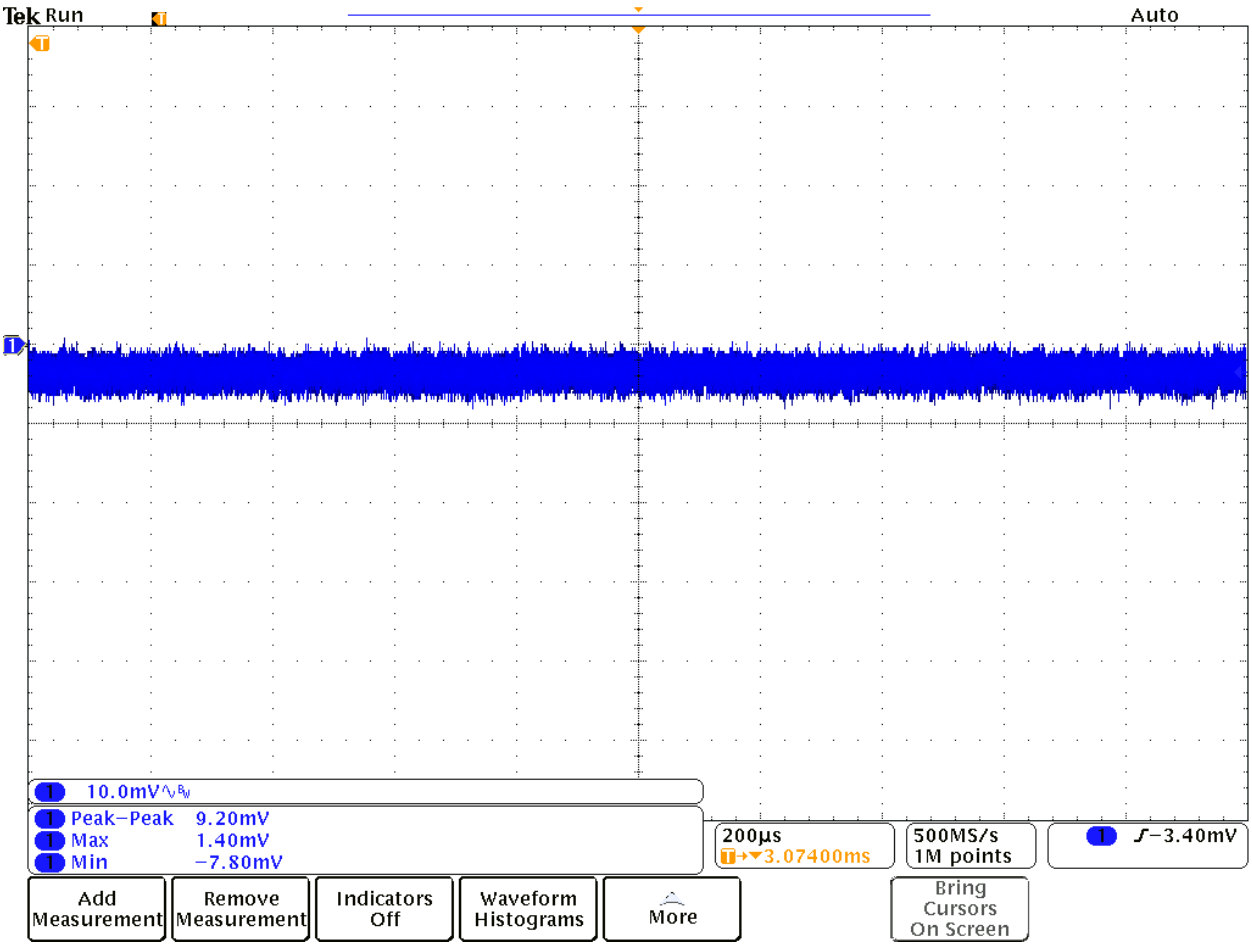


Fig 30 VIN=3.1VDC, Io=0A

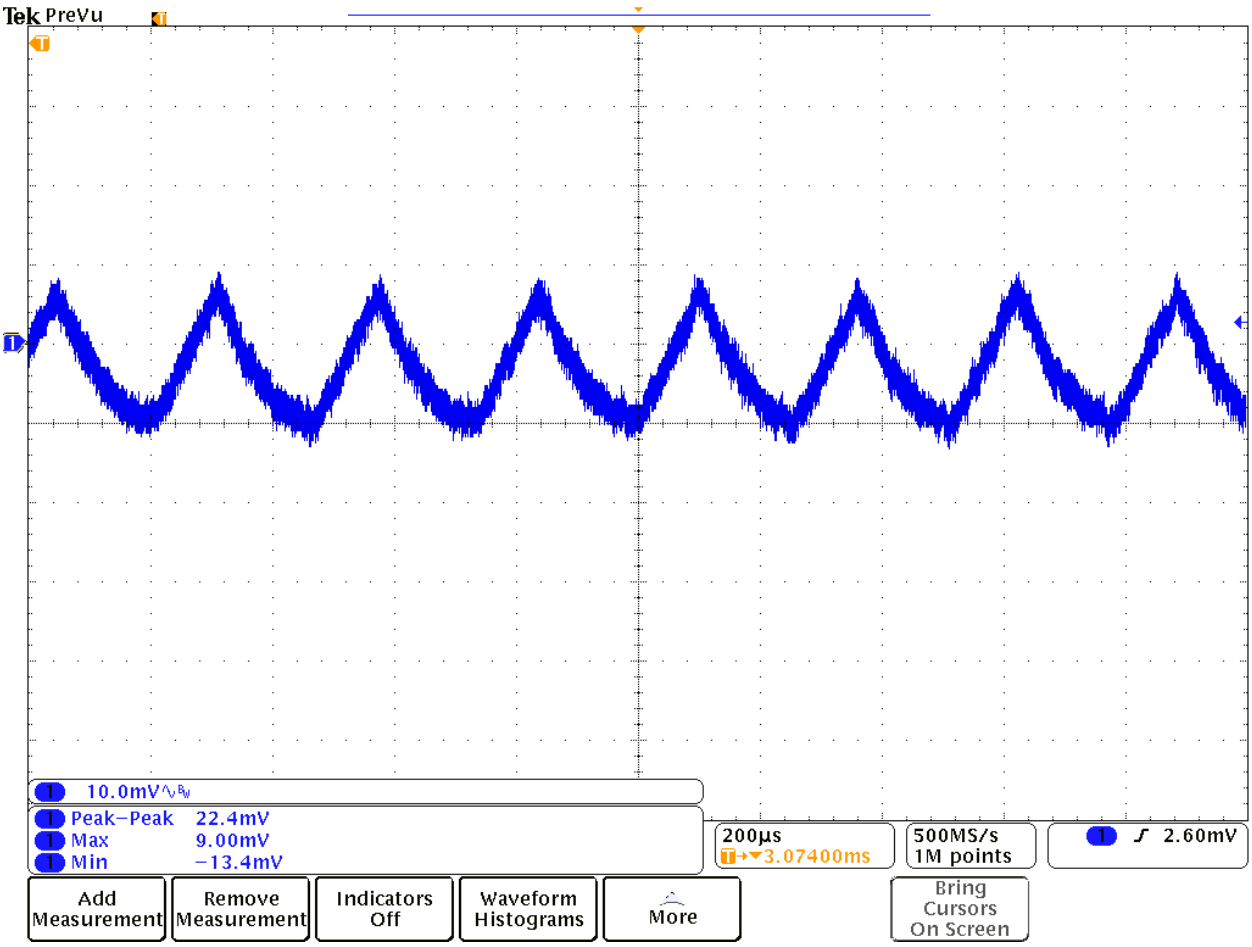


Fig 31 VIN=3.3VDC, Io=0A

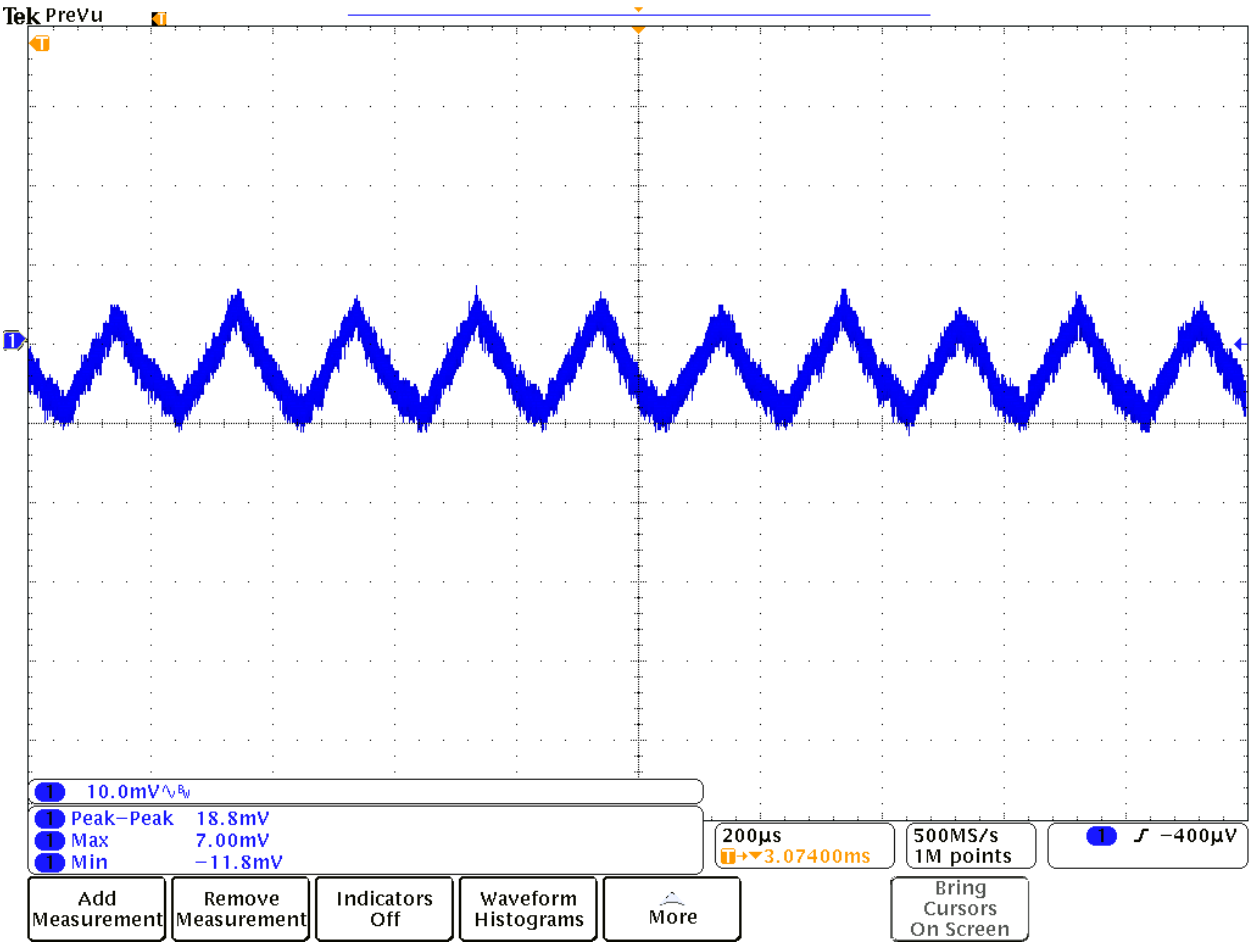


Fig 32 VIN=3.5VDC, Io=0A,

3.5 LOOP

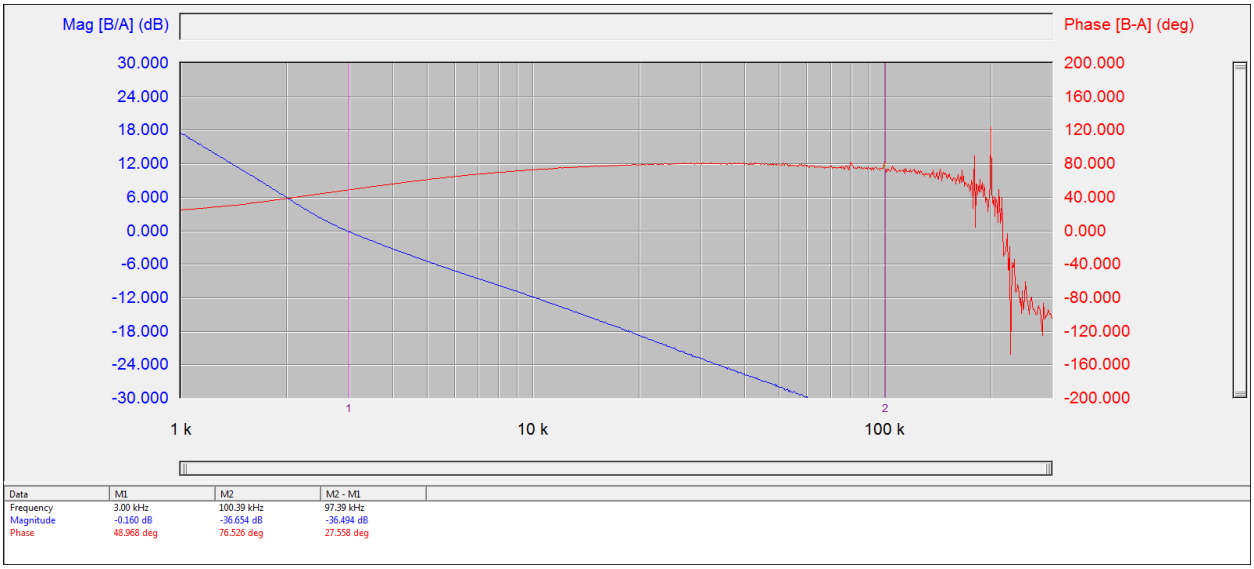


Fig 33 Vin=3.1V Io=0.05A

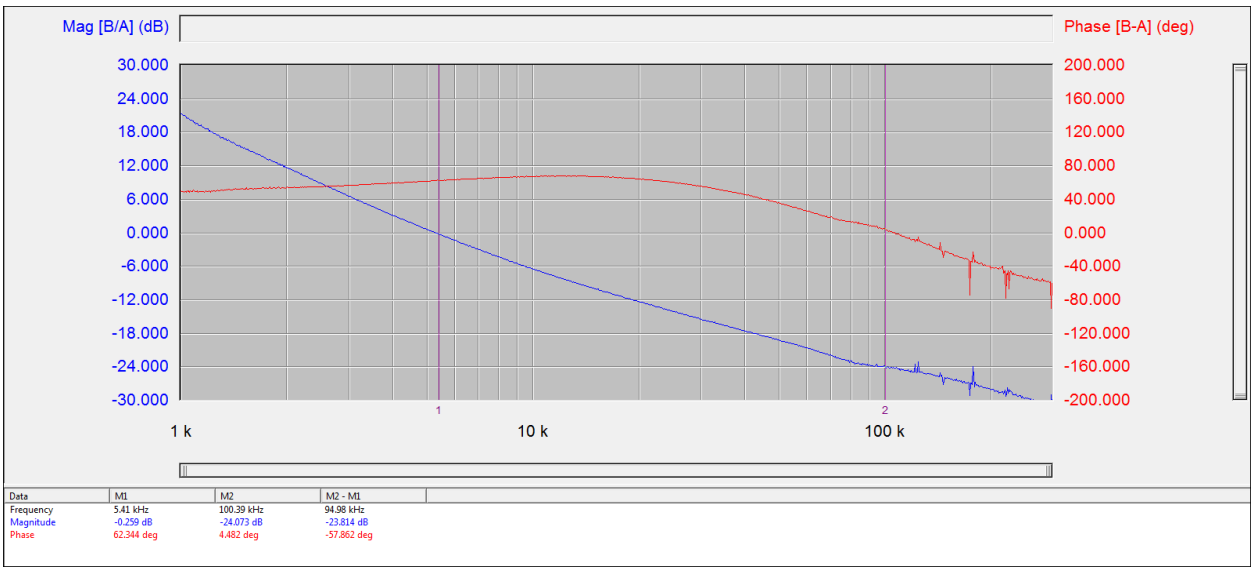


Fig 34 Vin=3.1V Io=2A

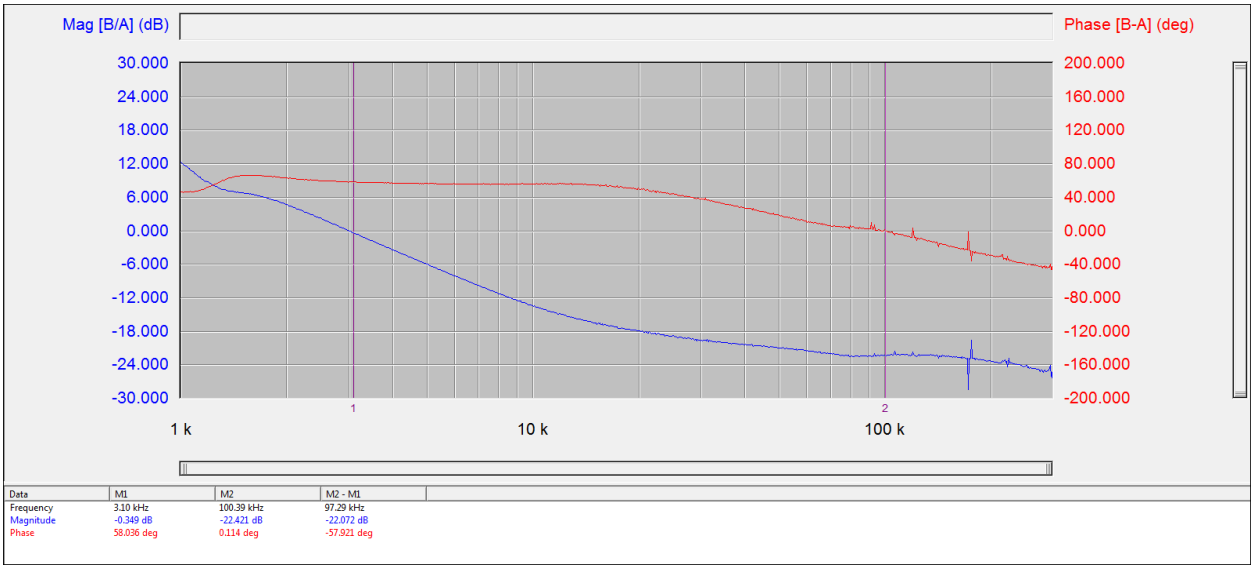


Fig 35 Vin=3.1V Io=4A

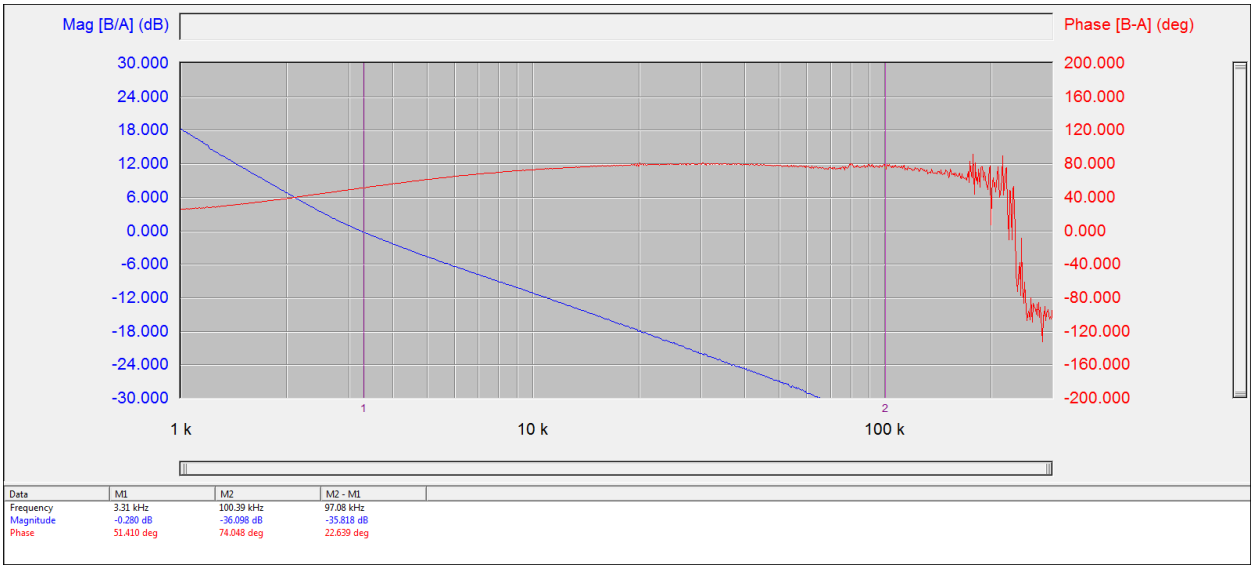


Fig 36 Vin=3.1V Io=0.05A

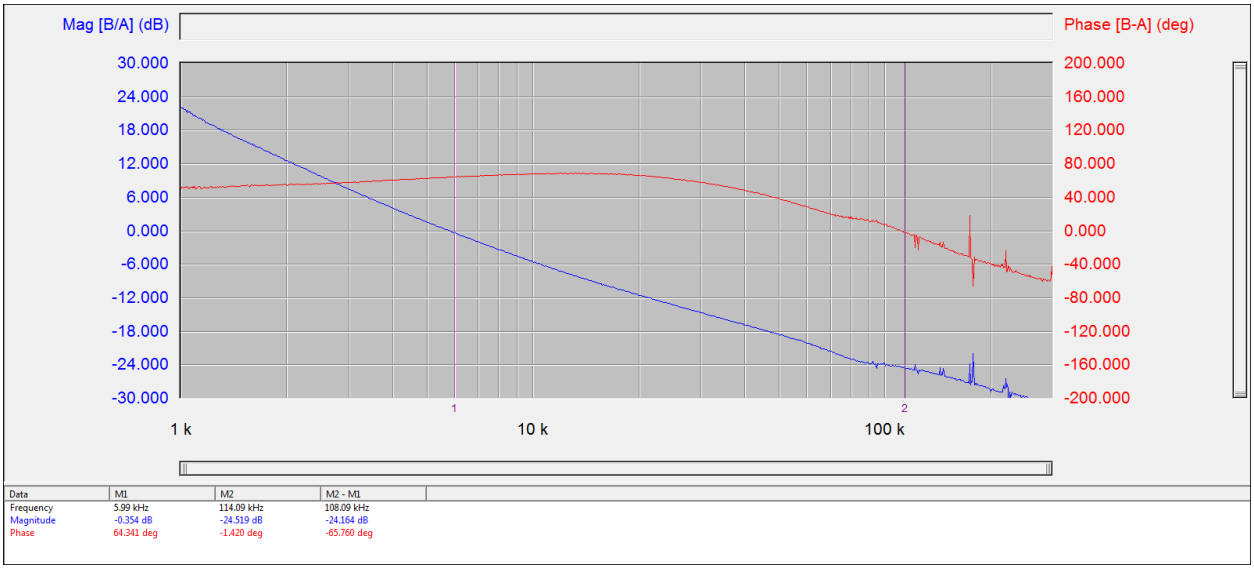


Fig 37 Vin=3.3V Io=2A

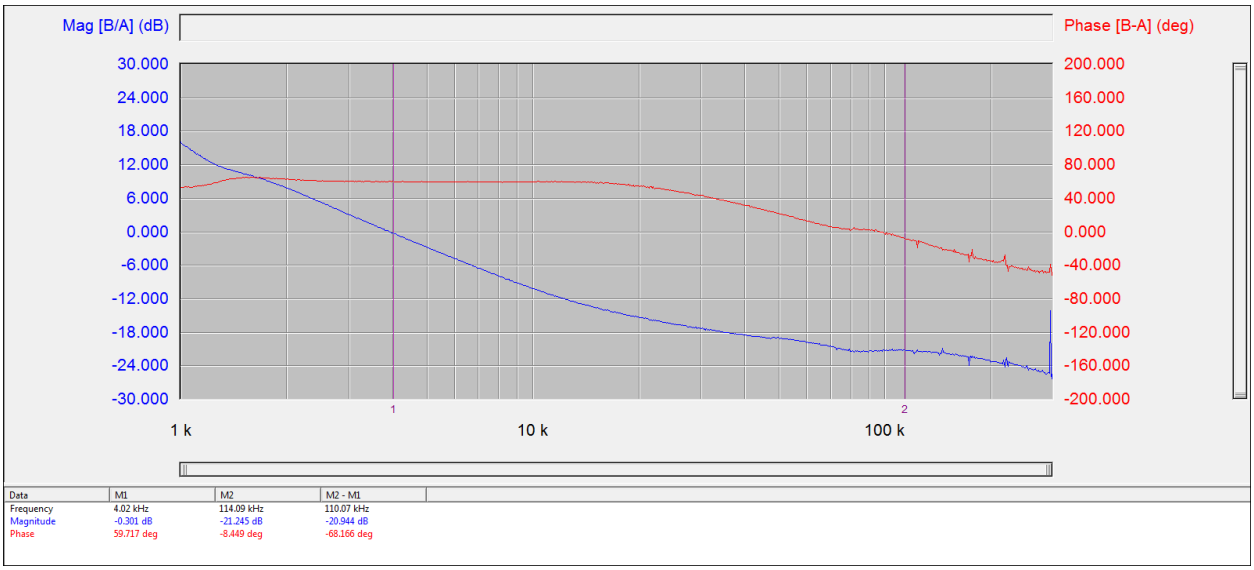


Fig 38 Vin=3.3V Io=4A

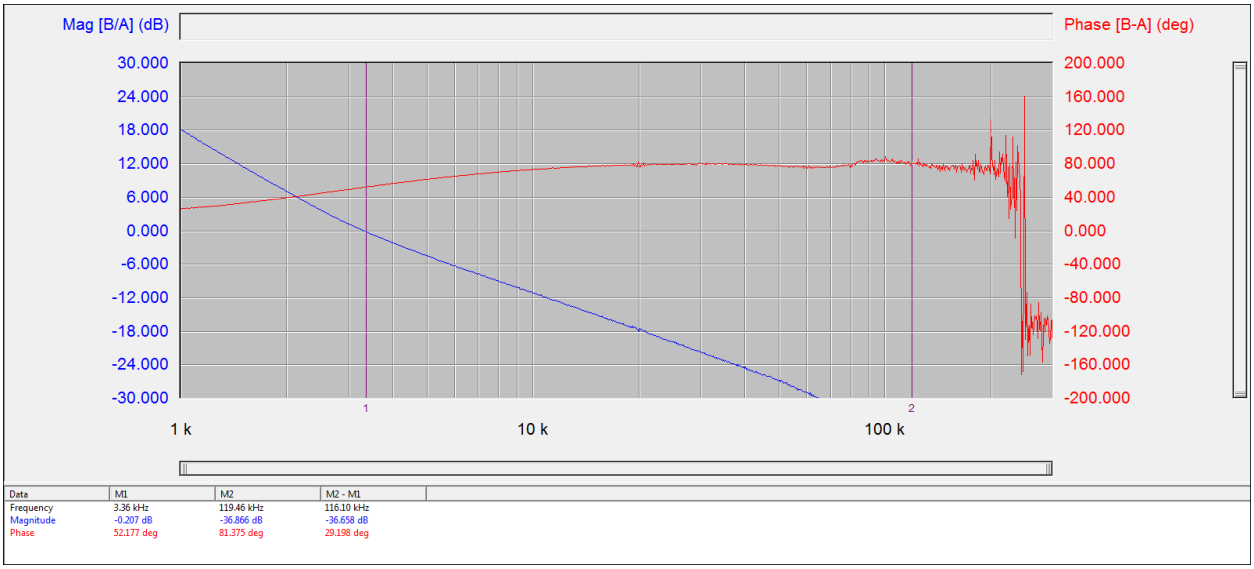


Fig 39 Vin=3.5V Io=0.05A

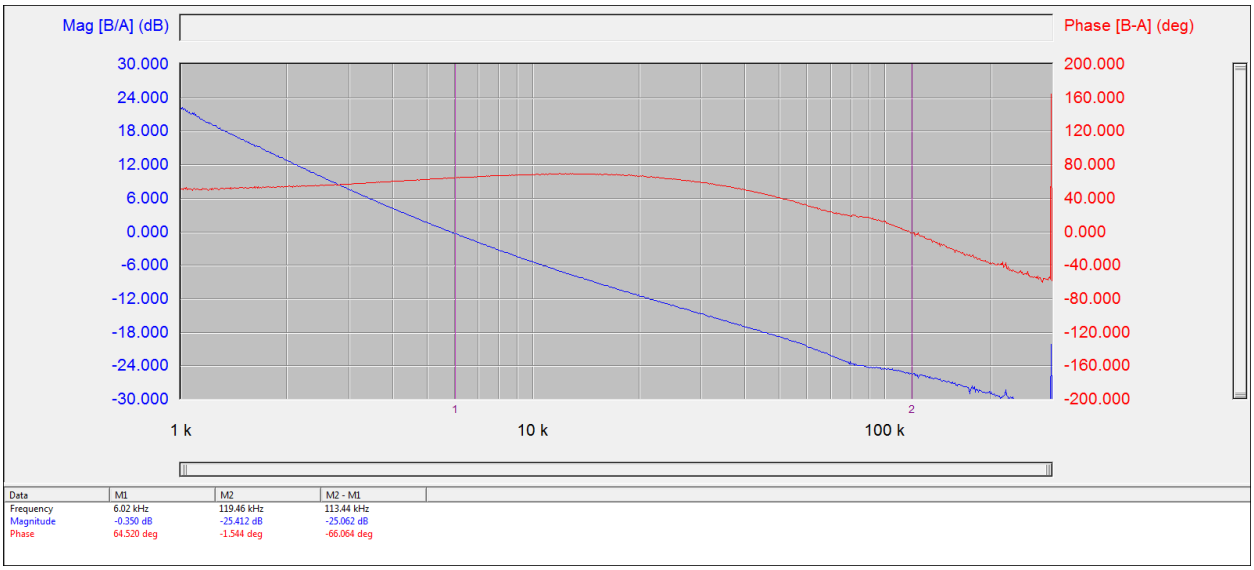


Fig 40 Vin=3.5V Io=2A

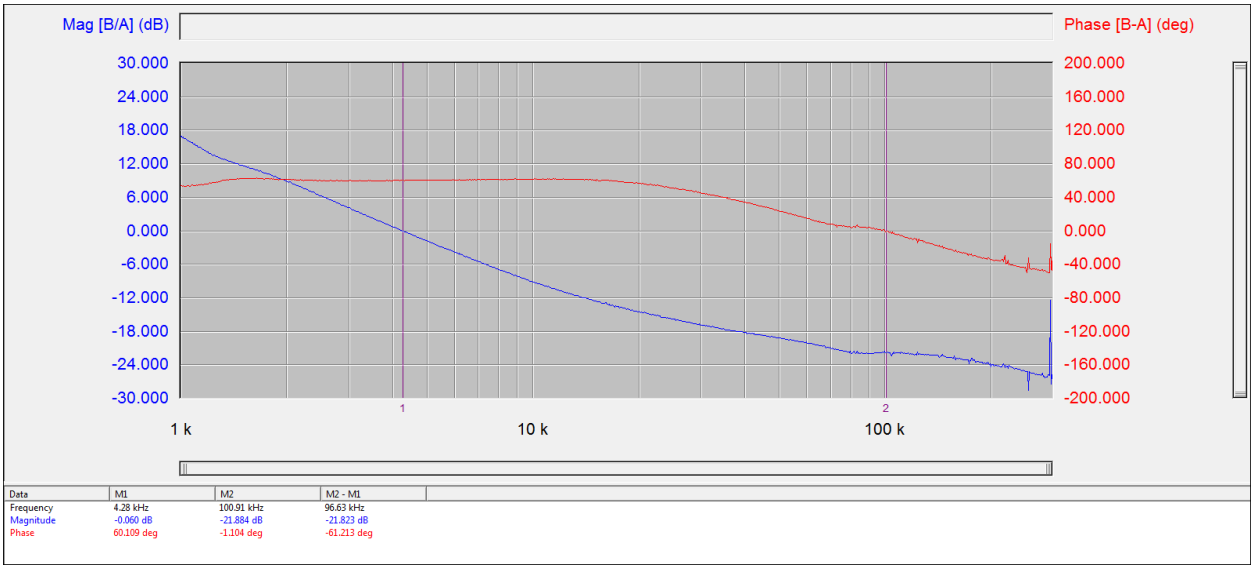


Fig 41 Vin=3.5V Io=4A

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