

**Test Data
For PMP9416
2/12/2015**



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1. Board Picture



Board Size: 62mm*40mm(actual size is 25mm*25mm)

2. Design Specifications

Vin Min.	33Vdc
Vin Max.	57Vdc
Vout	5Vdc
Iout	1A

3. TYPICAL PERFORMANCE

3.1 EFFICIENCY

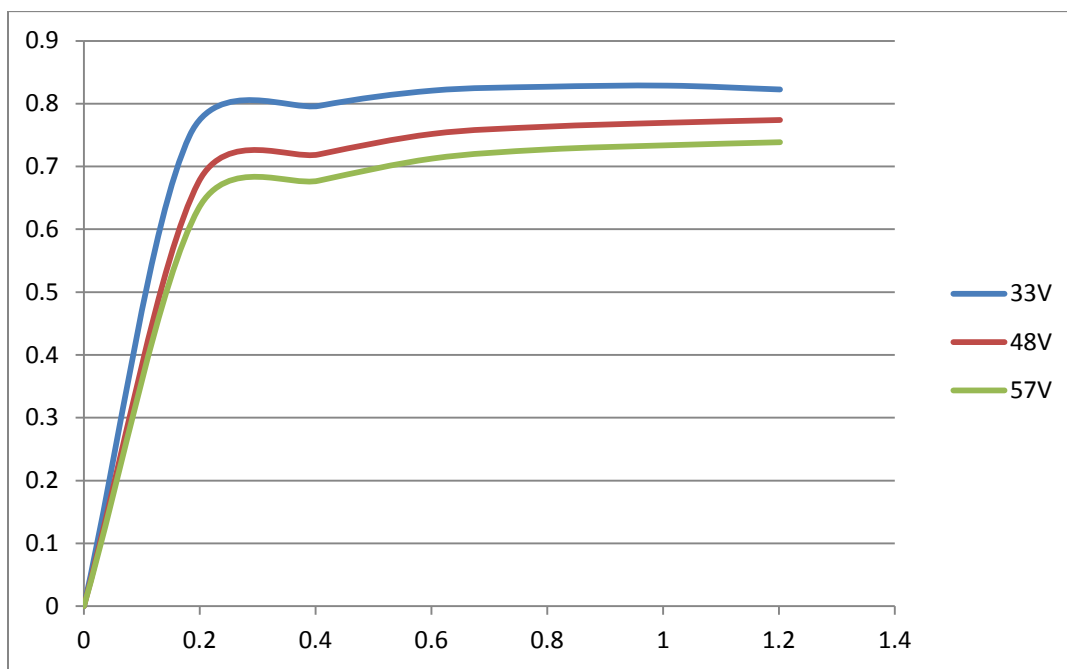


Fig1 Efficiency Curve

3.2 Power Loss

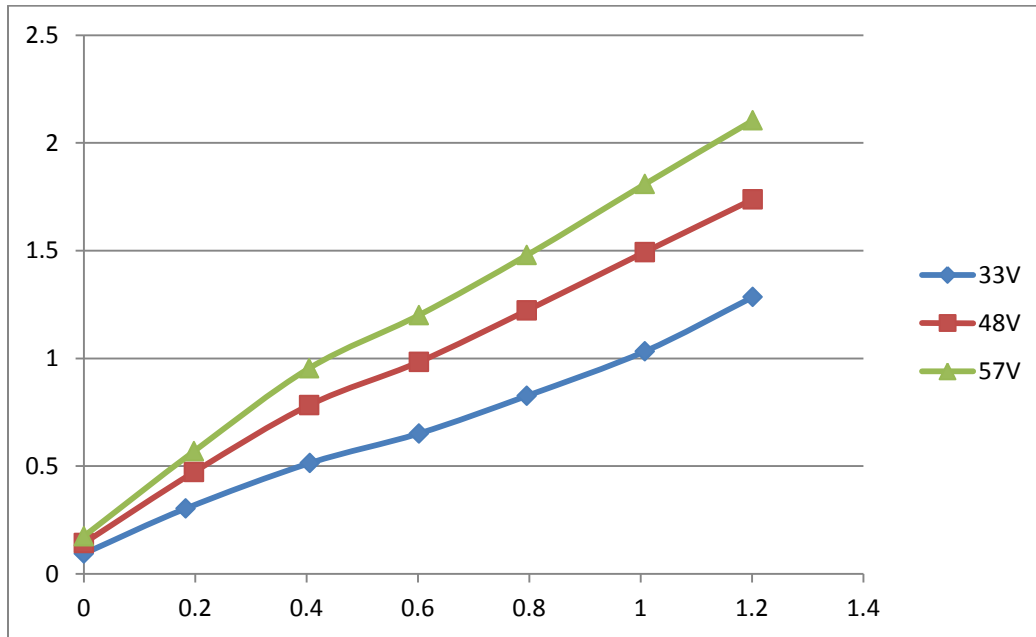


Fig2 Power Loss Curve

3.3 Load Transient Response:

Ch1=Vo_ac(100mV/DIV), CH4=Io(0.5A/DIV)

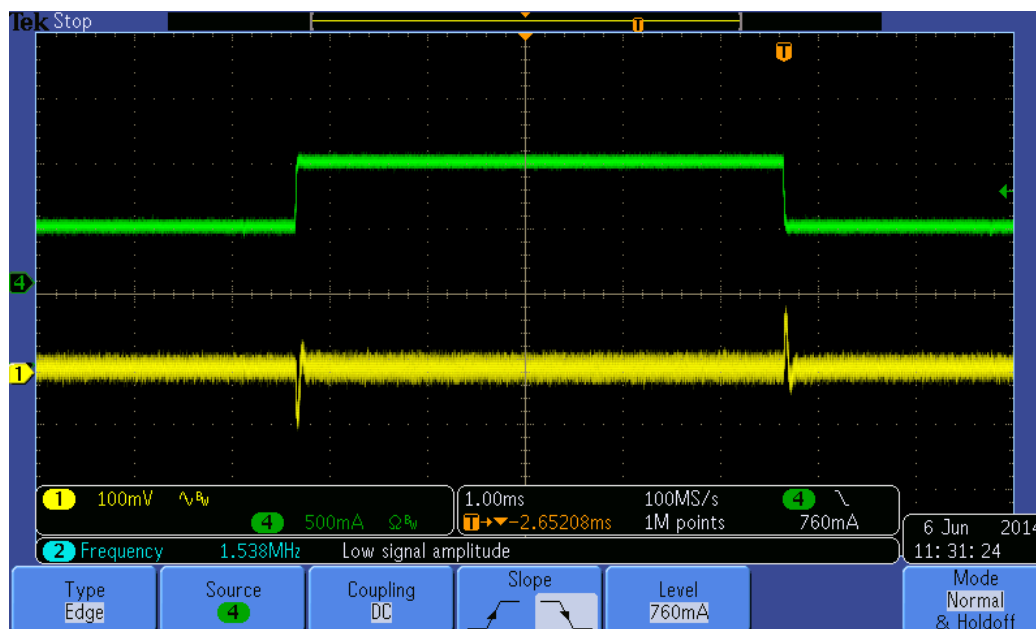


Fig3 Transient Response, Vin=33V Io=50%~100%~50%

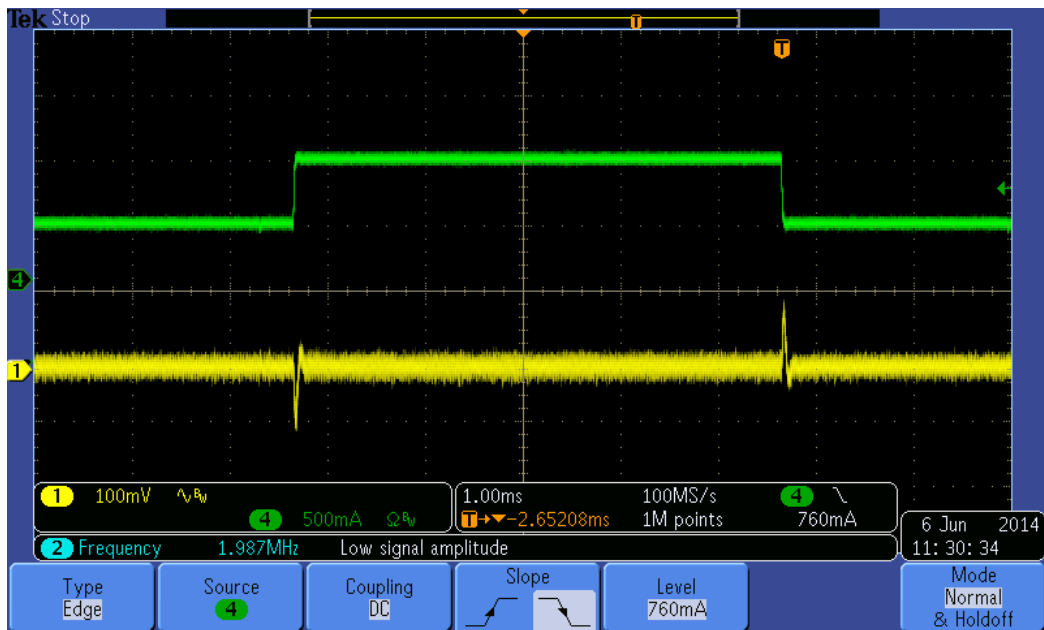


Fig 4 Transient Response, $V_{in}=48V$ $I_o=50\% \sim 100\% \sim 50\%$

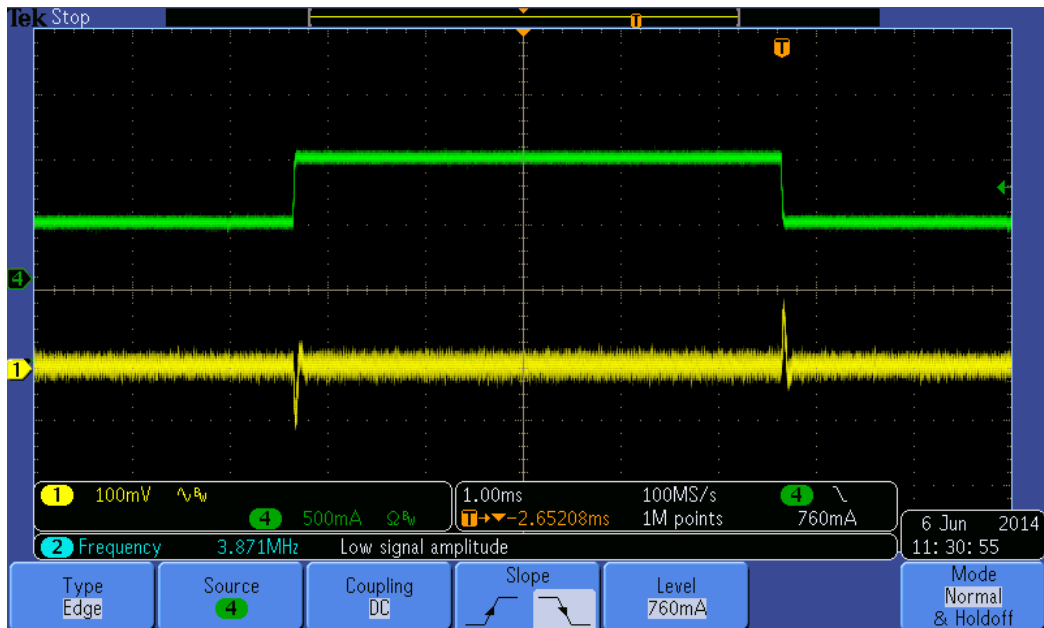


Fig 5 Transient Response, $V_{in}=57V$ $I_o=50\% \sim 100\% \sim 50\%$

3.4 Power Up and Power Down

Ch1= V_o (5V/DIV), Ch3= V_{in} (20V/DIV), CH4= I_o (1A/div)

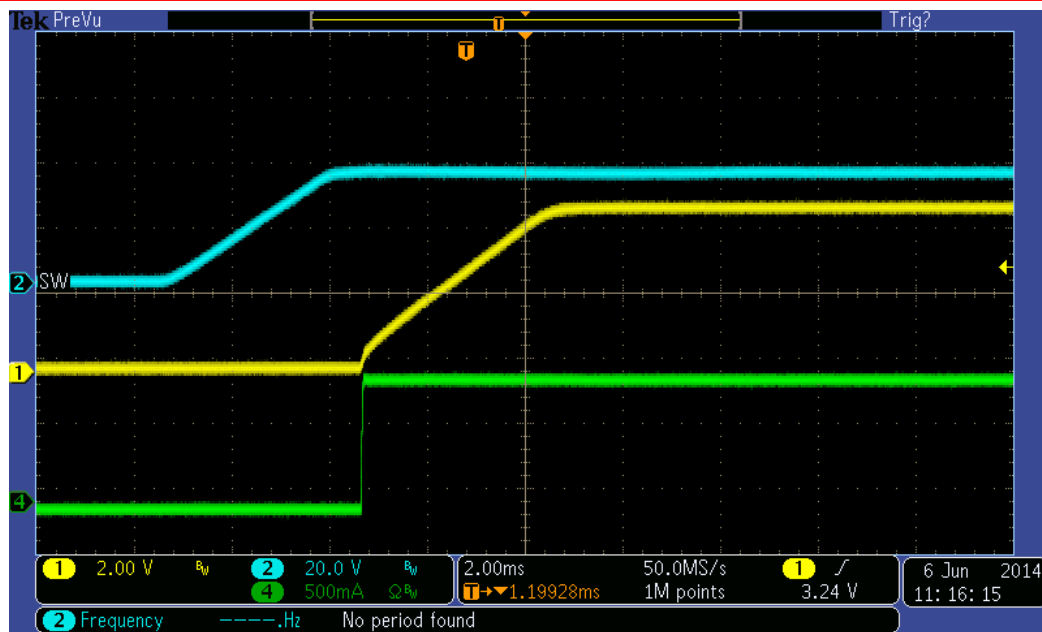


Fig 6 Vin=33V Io=1A Power up

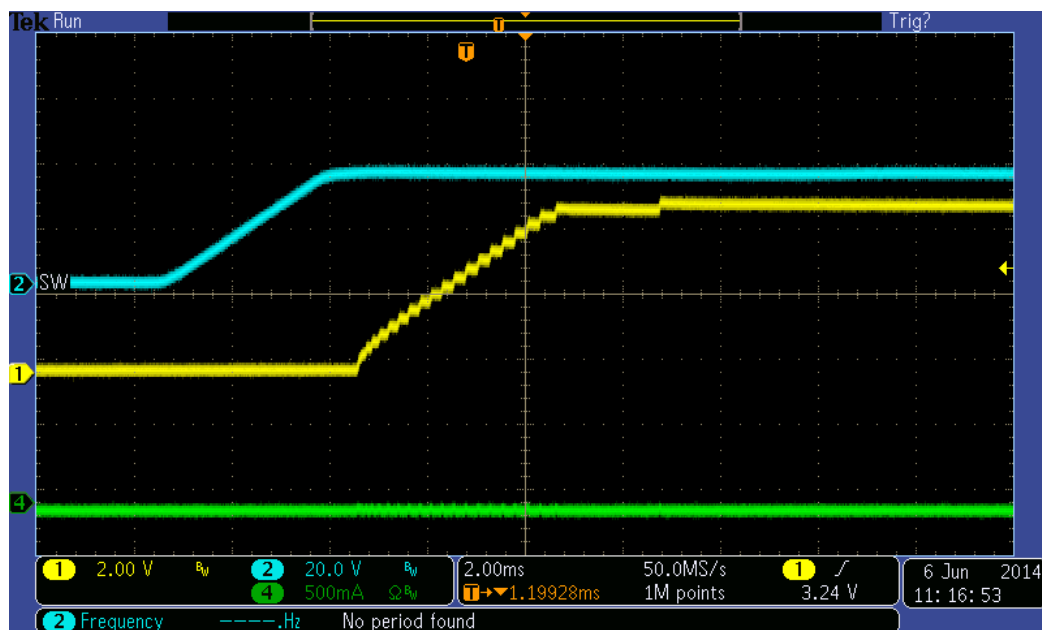


Fig 7 Vin=33V Io=0A Power up

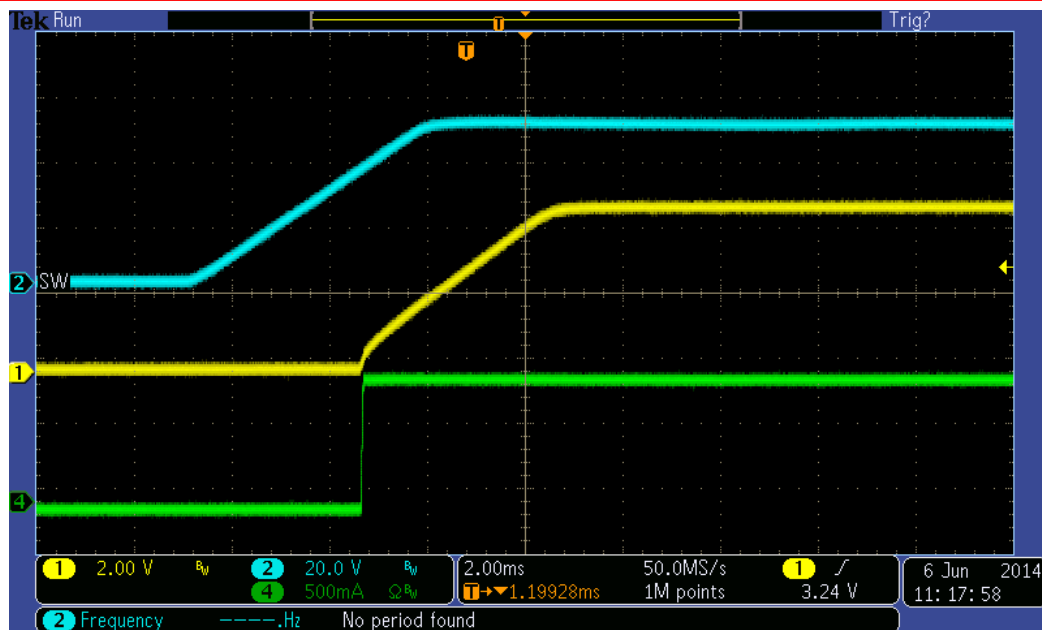


Fig 8 $V_{in}=48V$ $I_o=1A$ Power up

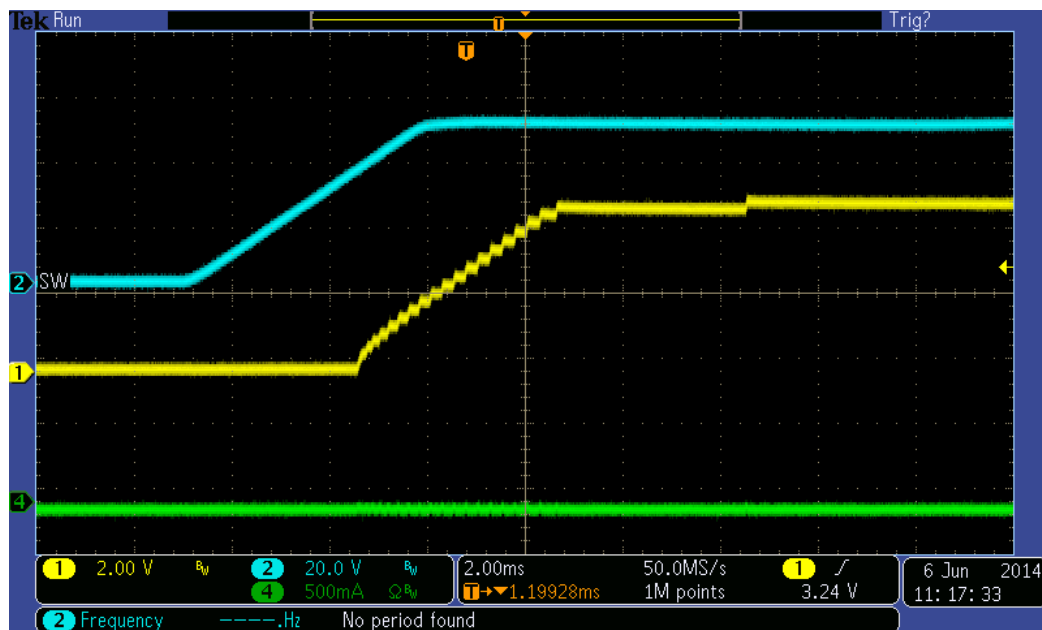


Fig 9 $V_{in}=48V$ $I_o=0A$ Power up

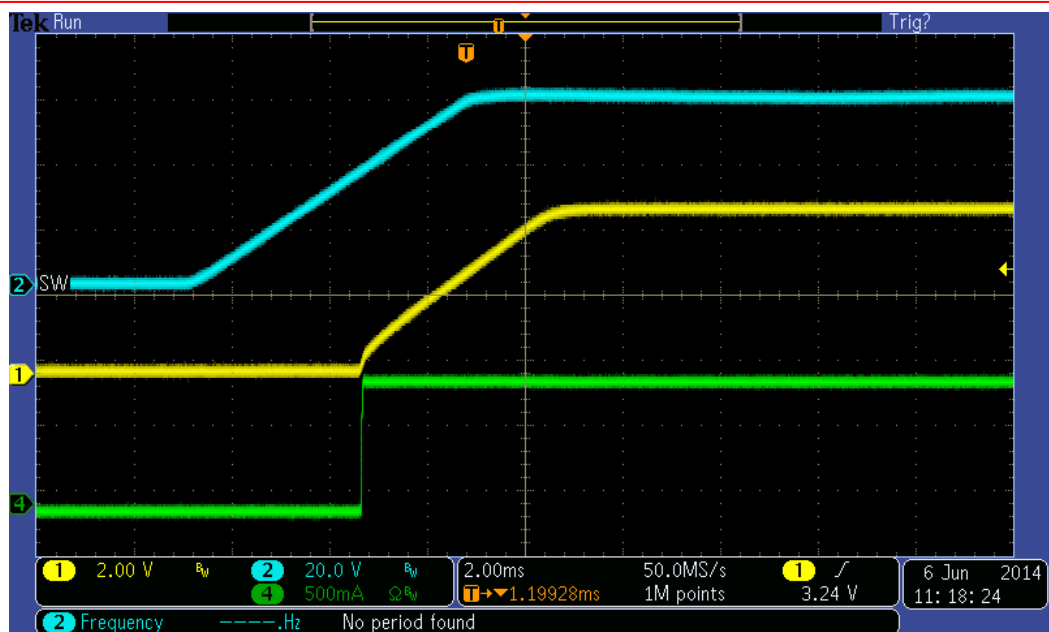


Fig 10 Vin=57V Io=1A Power Up

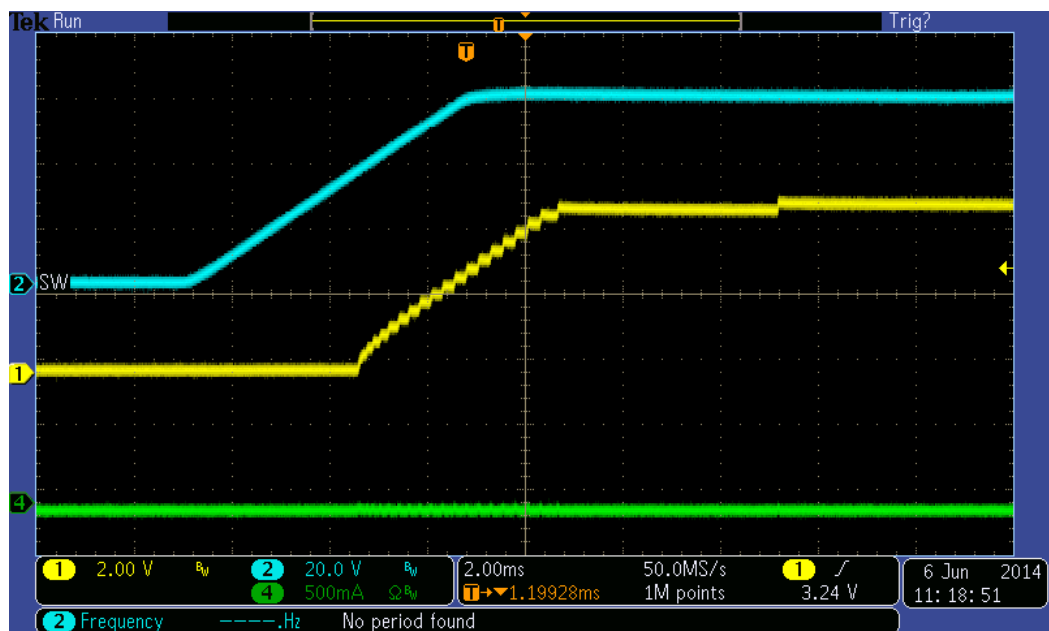


Fig 11 Vin=57V Io=0A Power Up

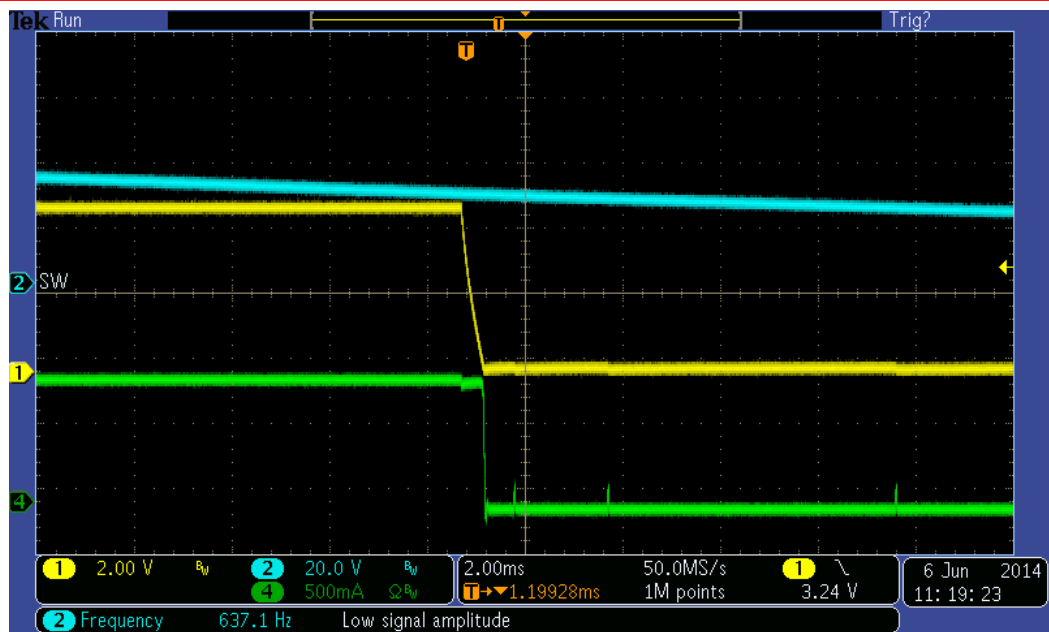


Fig 12 $I_o=1A$ Power Down

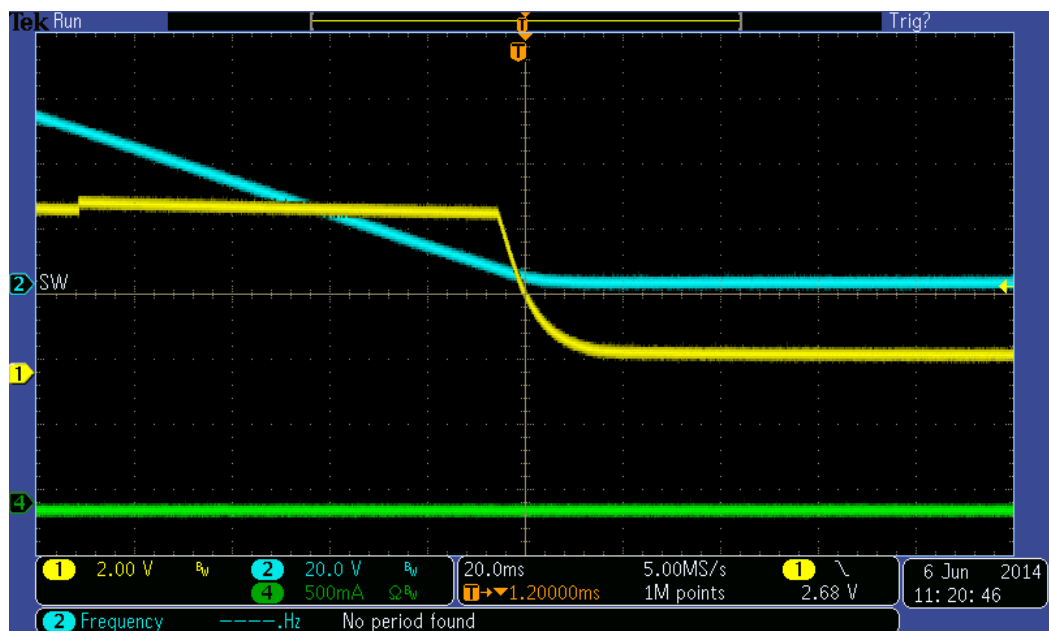


Fig 13 $I_o=0A$ Power Down

3.5 Ripple

Ch1=Vo_ac (100mV/DIV) with 20 MHz Bandwidth CH2=SW(20V/DIV)

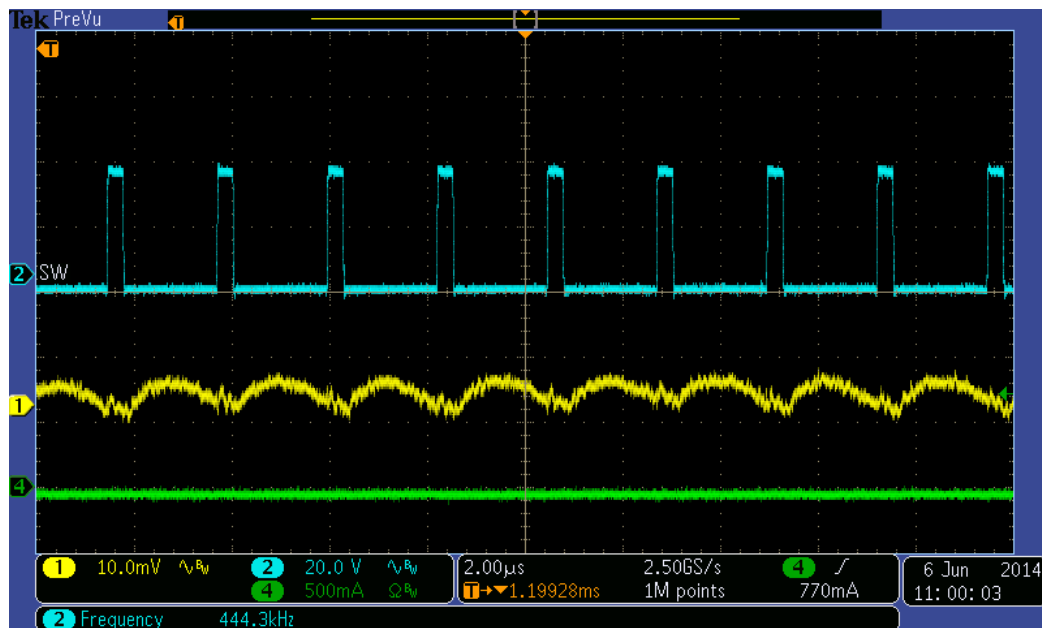


Fig 12 VIN=33V, Io=1A,

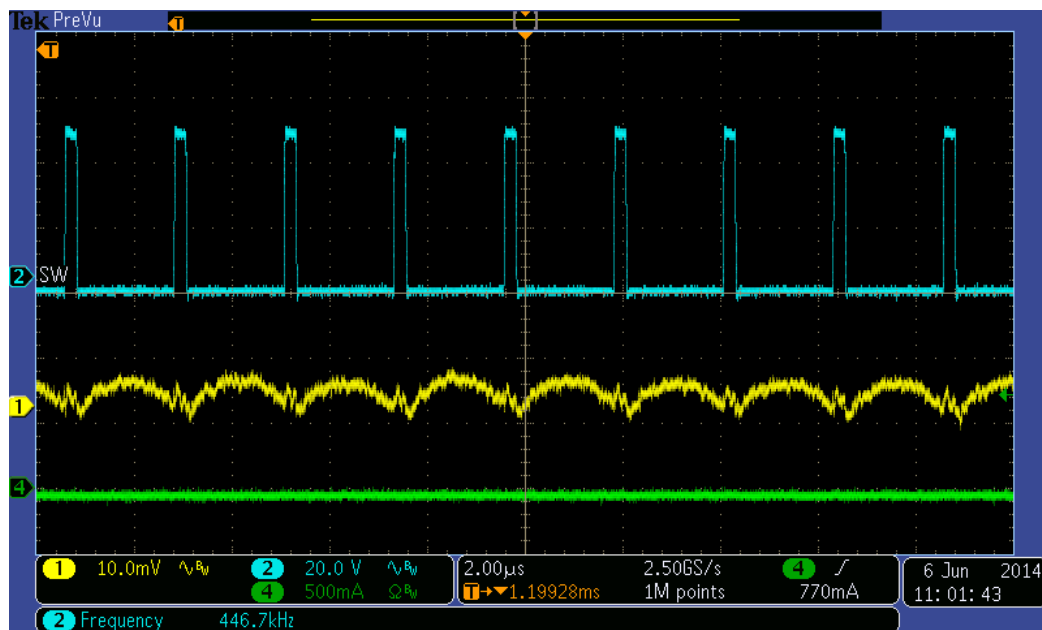


Fig 13 VIN=48V, Io=1A,

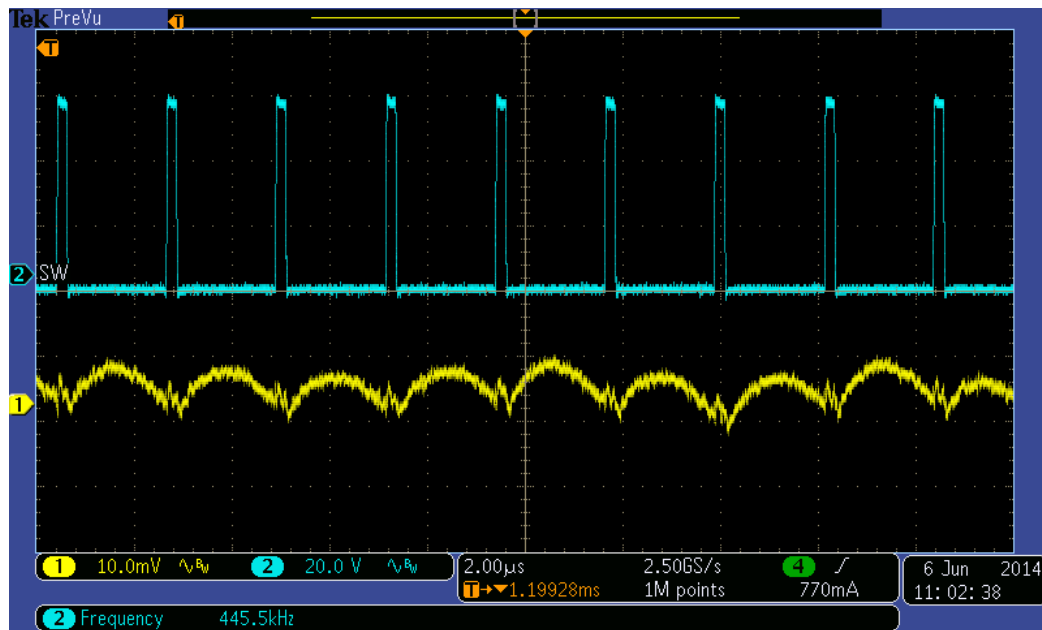


Fig 14 VIN=57V, Io=1A,

3.6 SW Stress

CH2=SW Voltage(20V/div), CH4=SW current(0.5A/div)

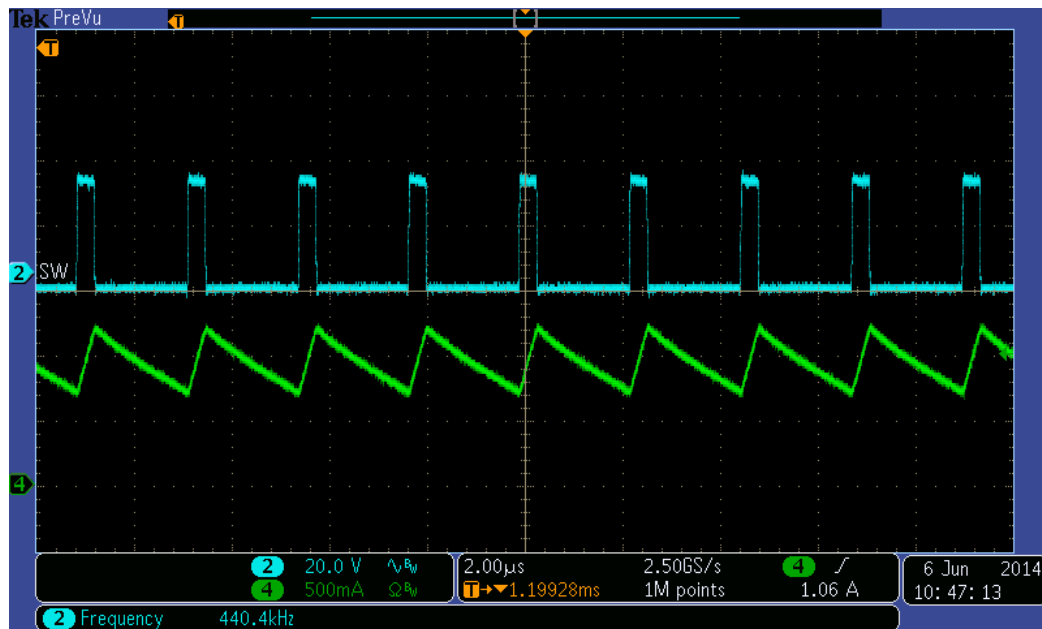


Fig 15 VIN=33VDC, Io=1A

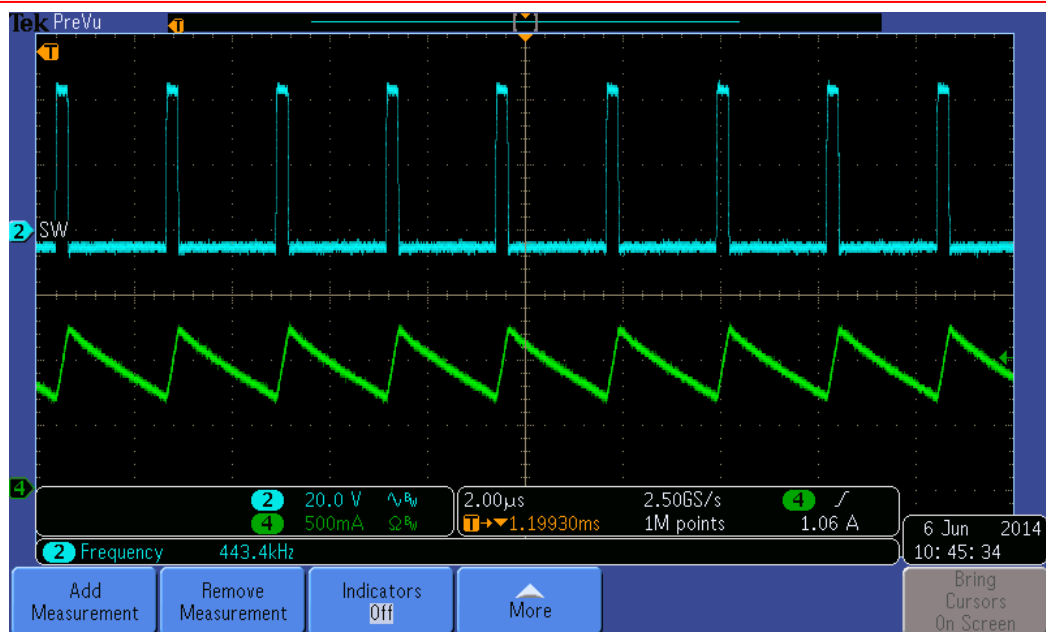


Fig 16 VIN=48VDC, Io=1A

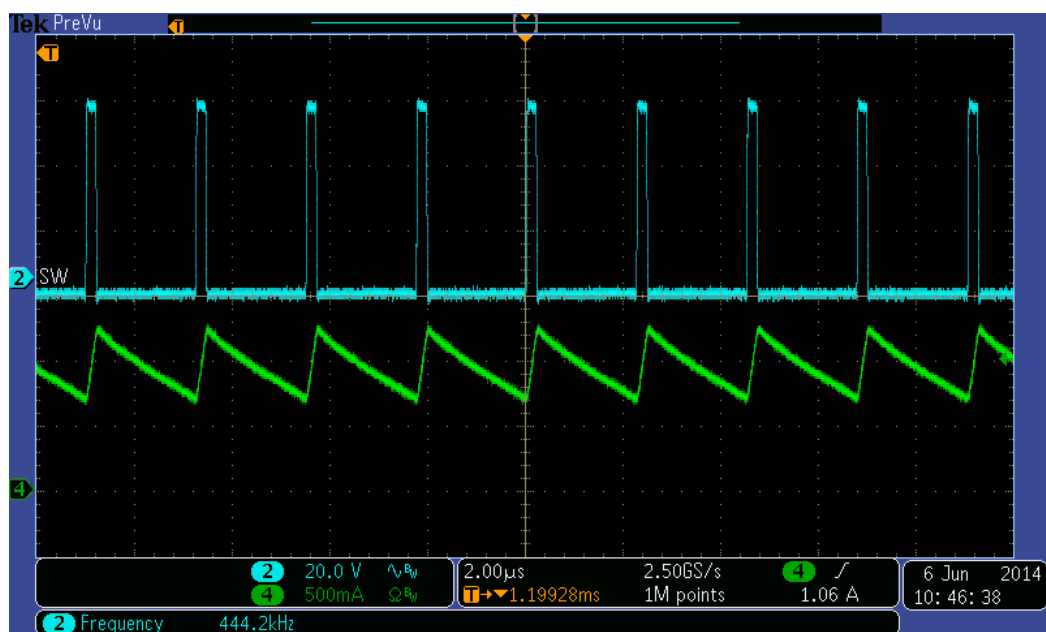


Fig 17 VIN=57VDC, Io=1A

3.7 Short

Ch1=Vo(2V/DIV), Ch4=Io(2A/DIV)

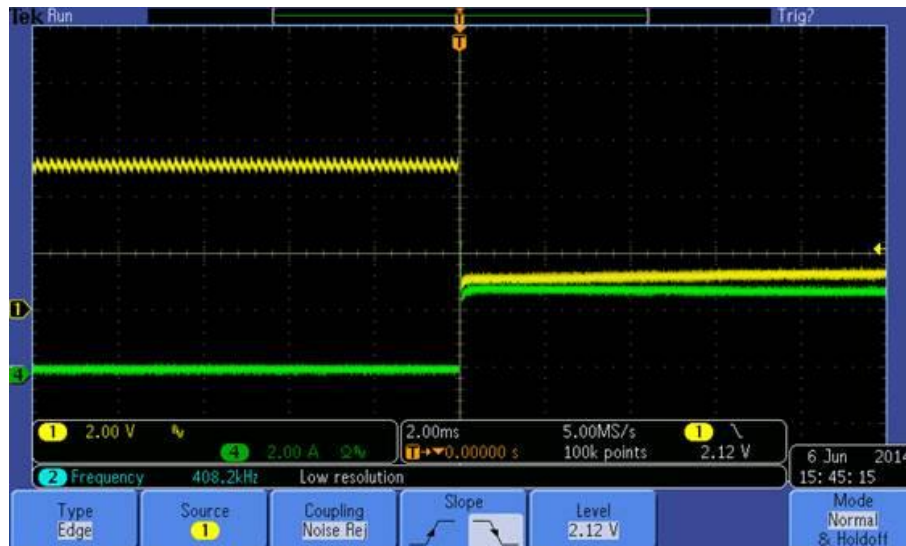


Fig 18 Vin=48V Short from No Load

3.8 thermal Picture

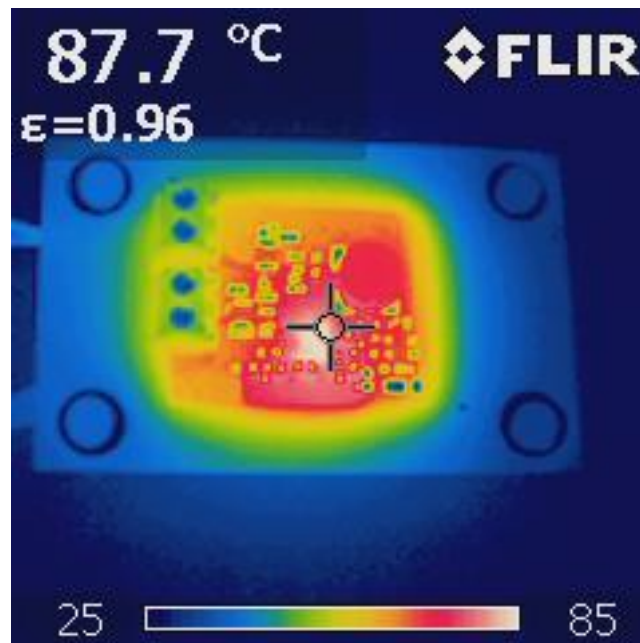


Figure 19 48Vin, 12V 1A thermal in roomtemp

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