

**Test Data  
For PMP9415  
2/10/2015**



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### 1. Board Picture



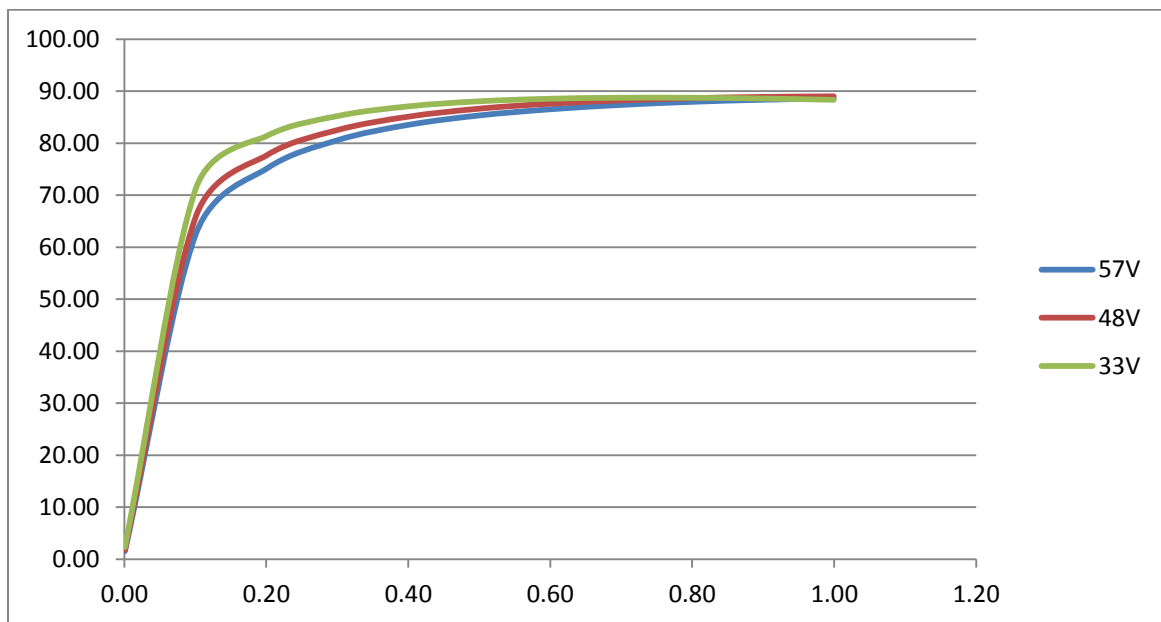
Board Size: 60mm\*18mm

## 2. Design Specifications

<b>Vin Min.</b>	<b>33Vdc</b>
<b>Vin Max.</b>	<b>57Vdc</b>
<b>Vout</b>	<b>12Vdc</b>
<b>Iout</b>	<b>1A</b>

## 3. TYPICAL PERFORMANCE

### 3.1 EFFICIENCY



**Fig1 Efficiency Curve**

### 3.2 Load regulation

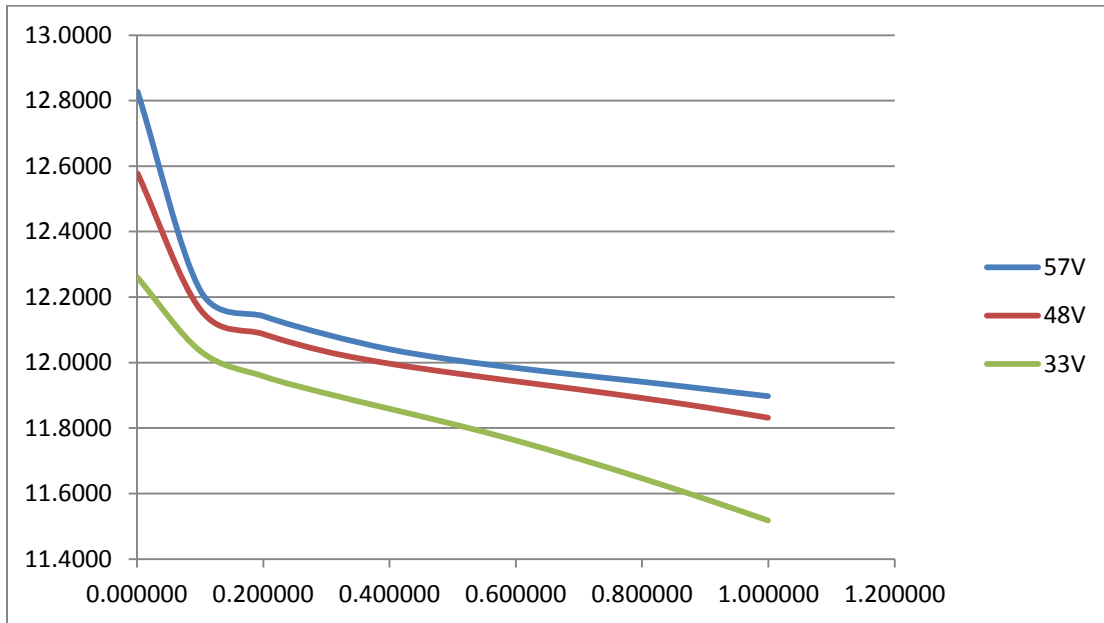


Fig2 Load regulation Curve

### 3.3 Load Transient Response:

Ch1=Vo\_ac(500mV/DIV), CH4=Io(0.5A/DIV)



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



**Fig 4 Transient Response, Vin=48V Io=50%~100%~50%**



**Fig 5 Transient Response, Vin=57V Io=50%~100%~50%**

### 3.4 Power Up

Ch1=Vo(5V/DIV), Ch3=Vin(20V/DIV),CH4=Io(1A/div)

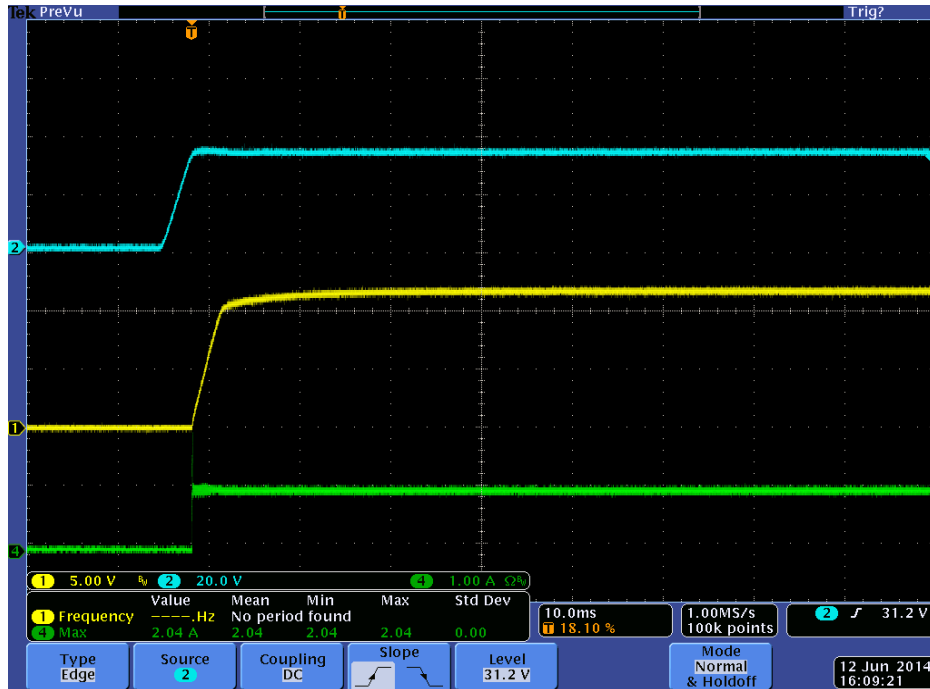


Fig 6 Vin=33V Io=1A Power up

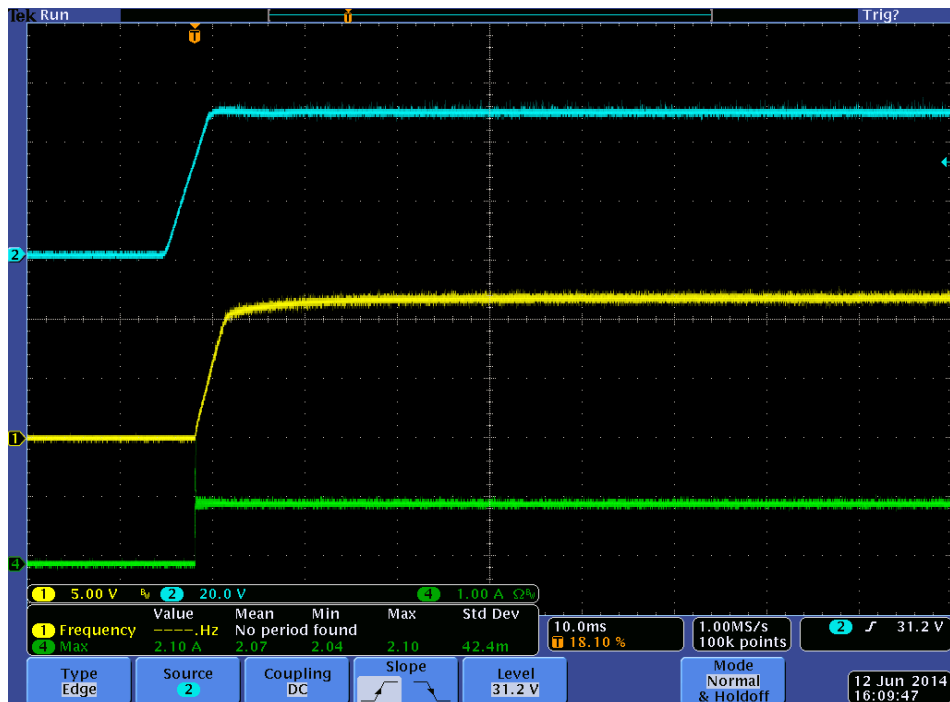


Fig 7 Vin=48V Io=1A Power up

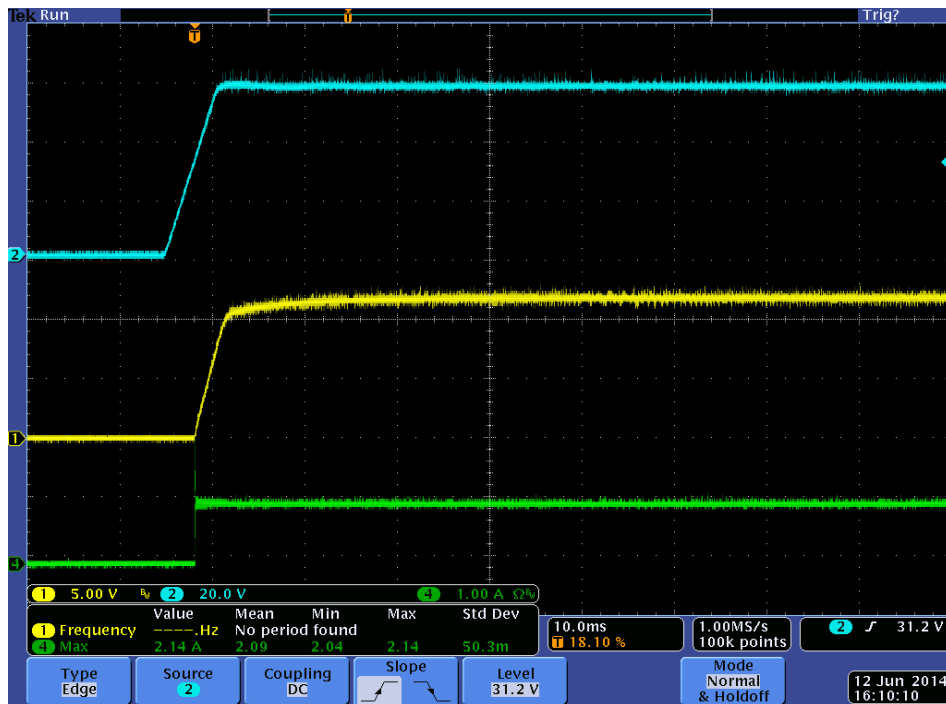


Fig 8 Vin=57V Io=1A Power Up

### 3.5 Ripple

Ch1=Vo\_ac (100mV/DIV) with 20 MHz Bandwidth

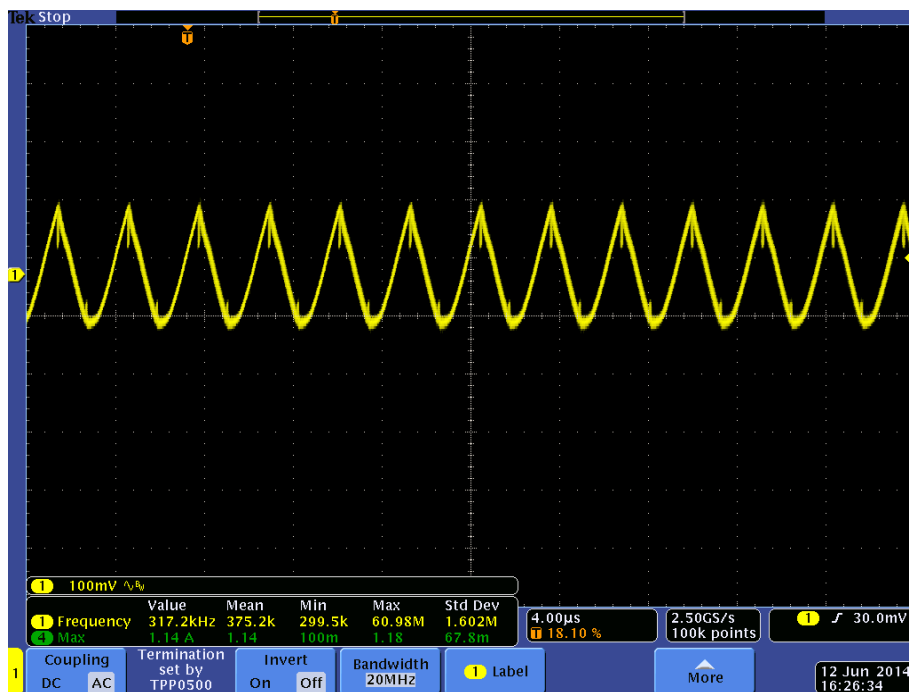


Fig 9 VIN=33V, Io=1A,

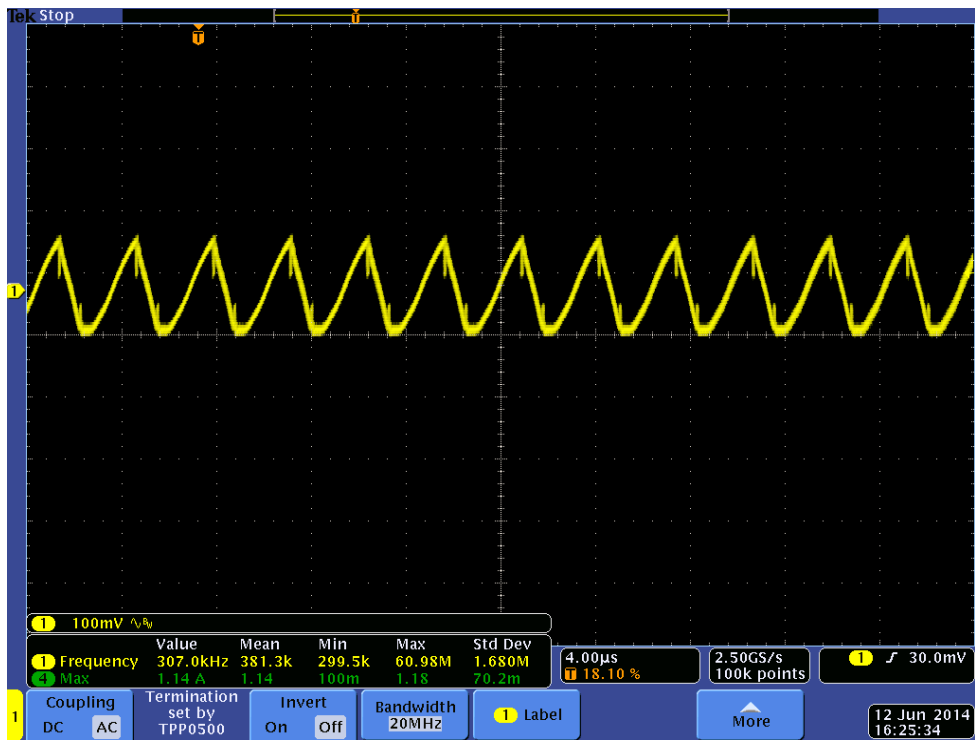


Fig 10 VIN=48V, Io=1A,

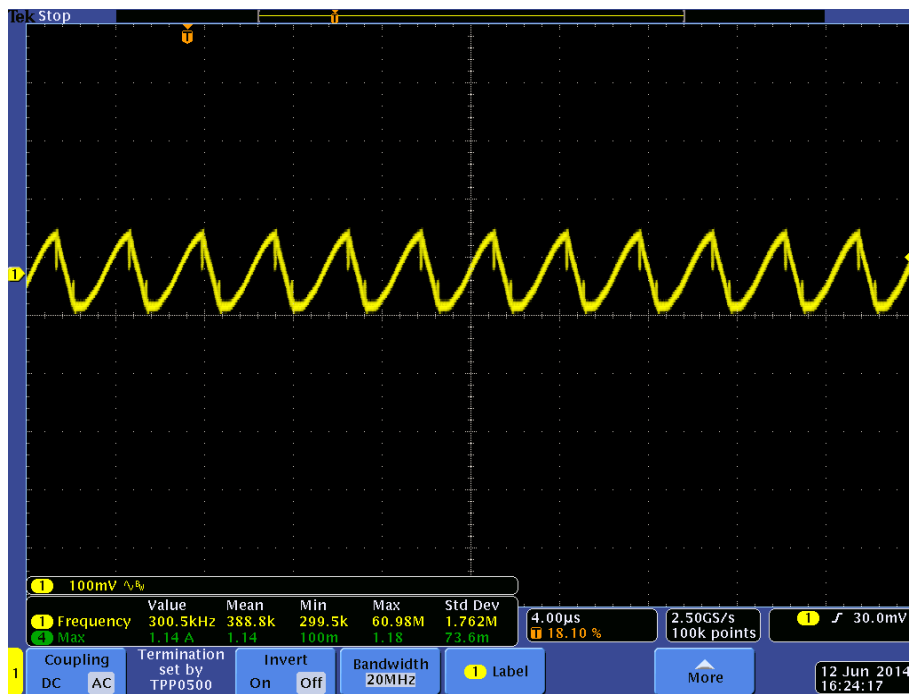


Fig 11 VIN=57V, Io=1A,



### 3.6 SW and Diode Stress

#### 3.6.1 SW voltage and current

CH1=SW Voltage(20V/div), CH4=SW current(1A/div)

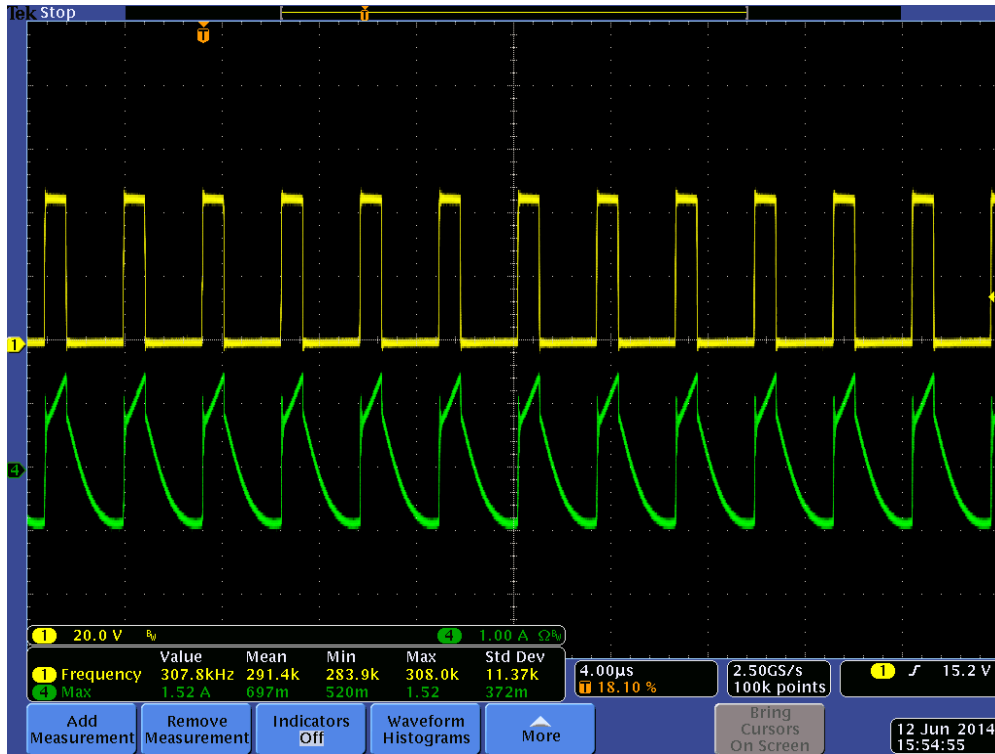


Fig 12 VIN=33VDC, Io=1A

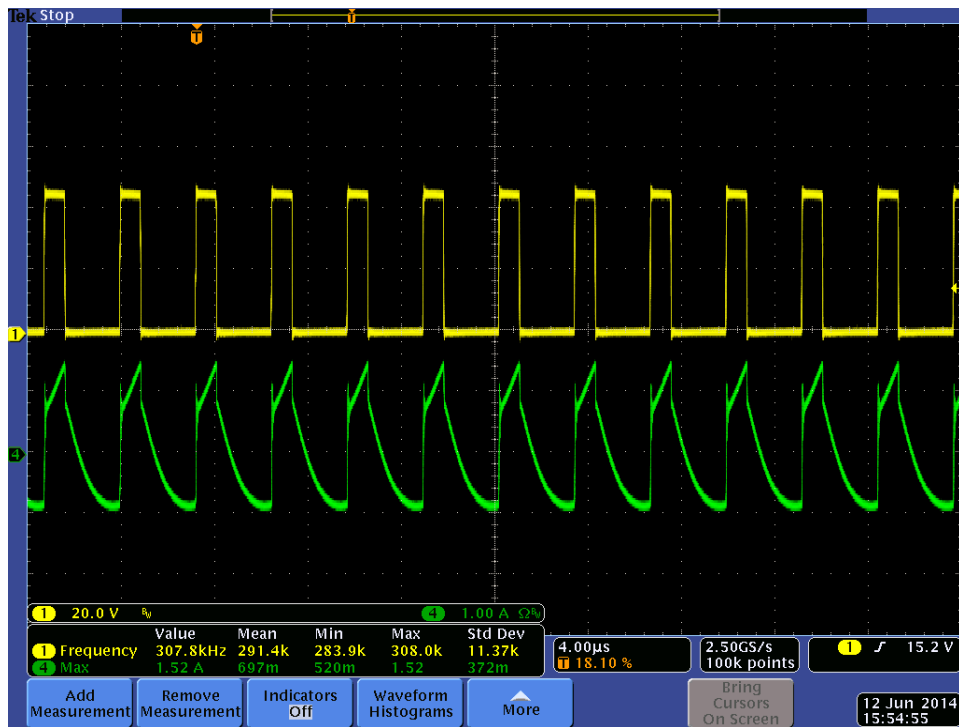


Fig 13 VIN=48VDC, Io=1A

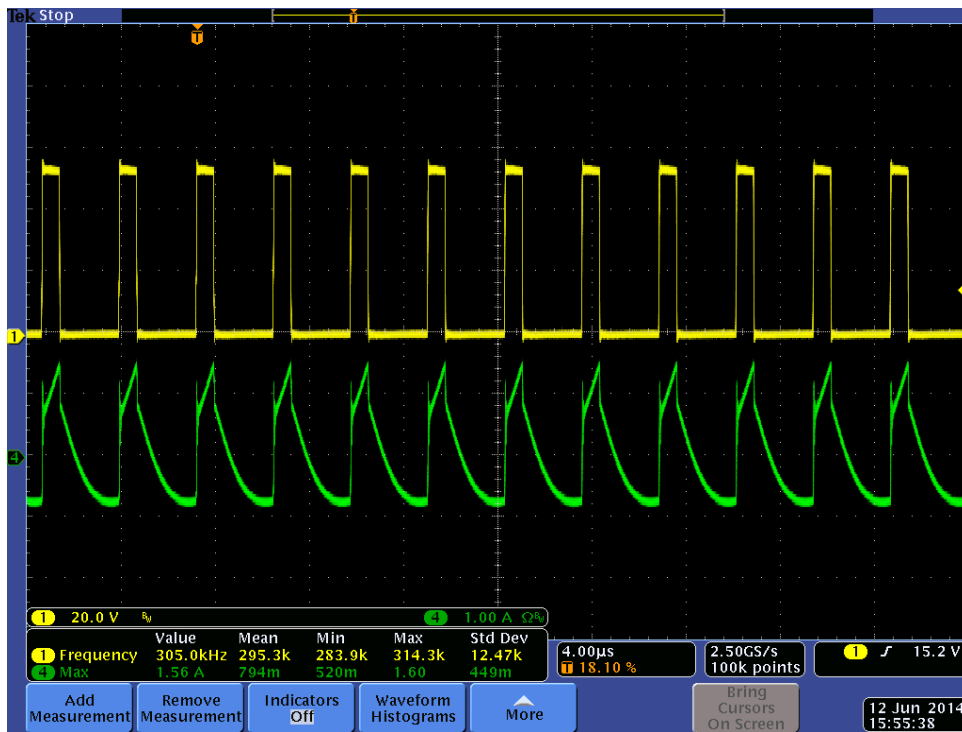
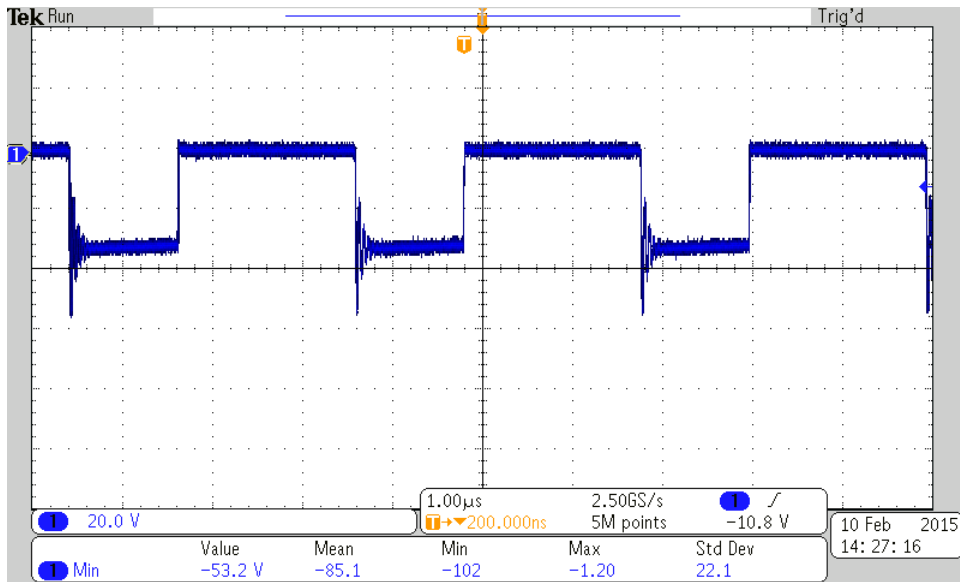


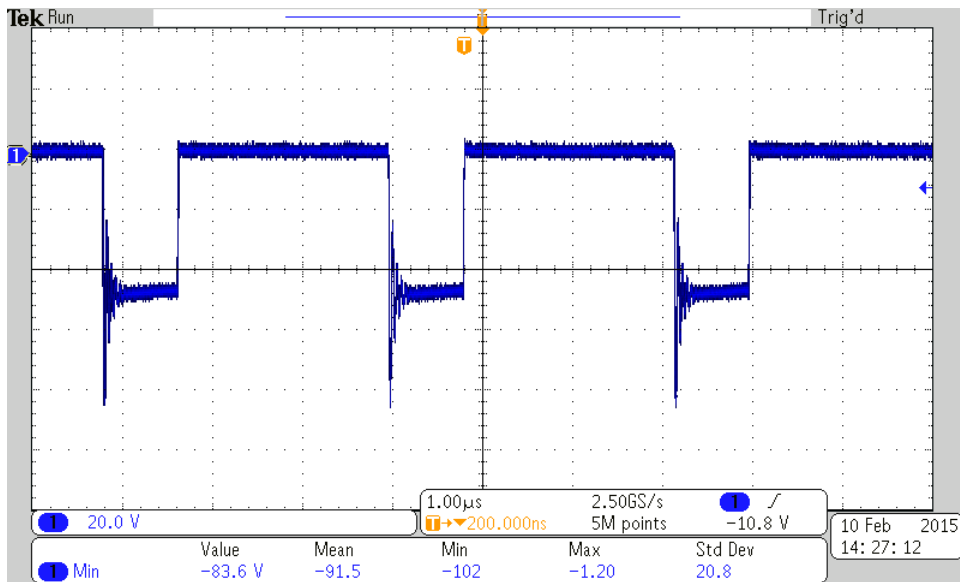
Fig 14 VIN=57VDC, Io=1A

### 3.6.2 Diode voltage

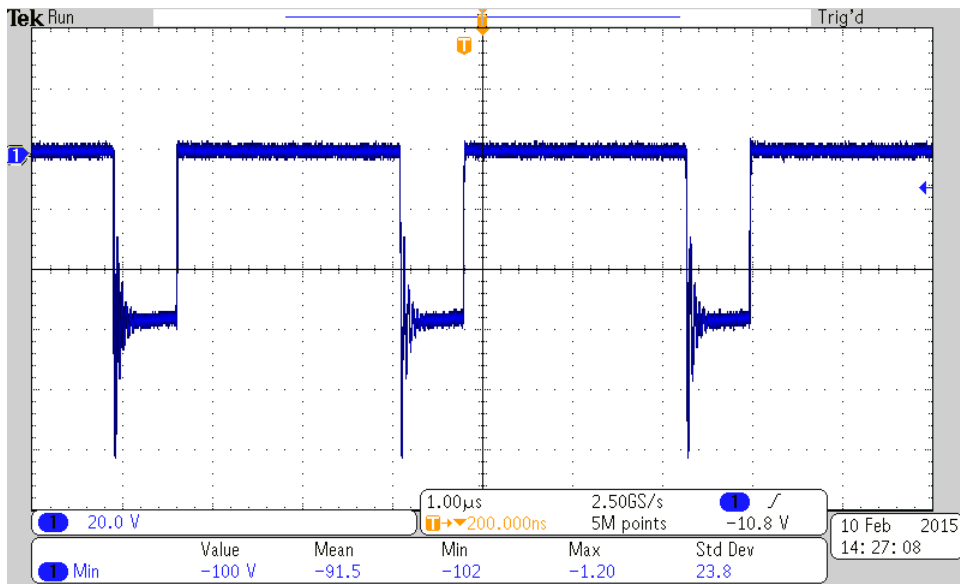
Ch1=Diode Voltage(20V/Div)



**Fig15 VIN=33V, Io=1A**



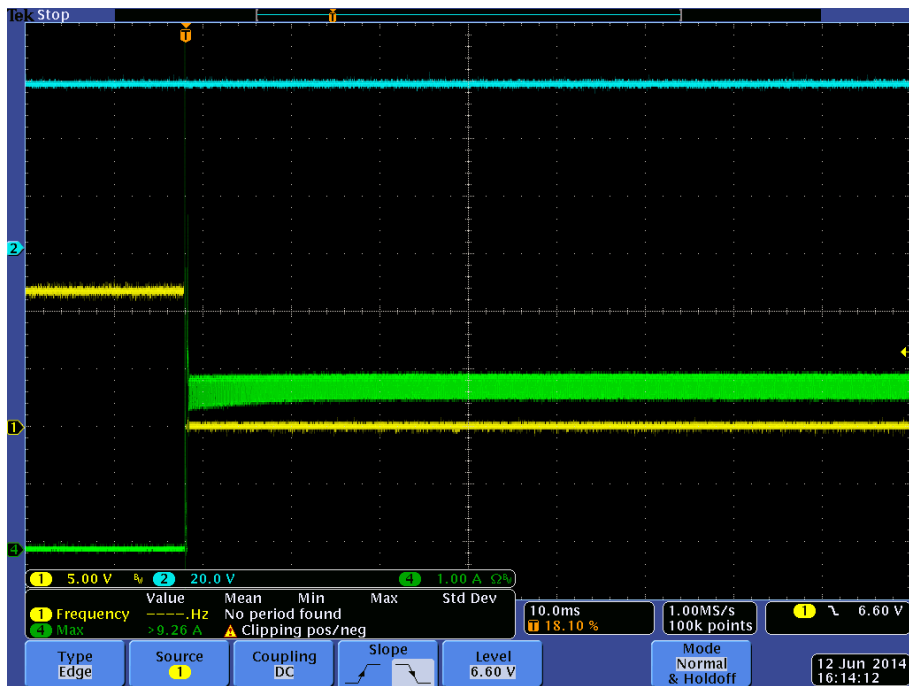
**Fig16 VIN=48V, Io=1A**



**Fig17 VIN=57V, Io=1A**

### 3.7 Short

Ch1=Vo(5V/DIV), Ch2=Vin(20V/Div) Ch4=Io(2A/DIV)



**Fig 18 Vin=48V Short from No Load**

### 3.8 thermal Picture

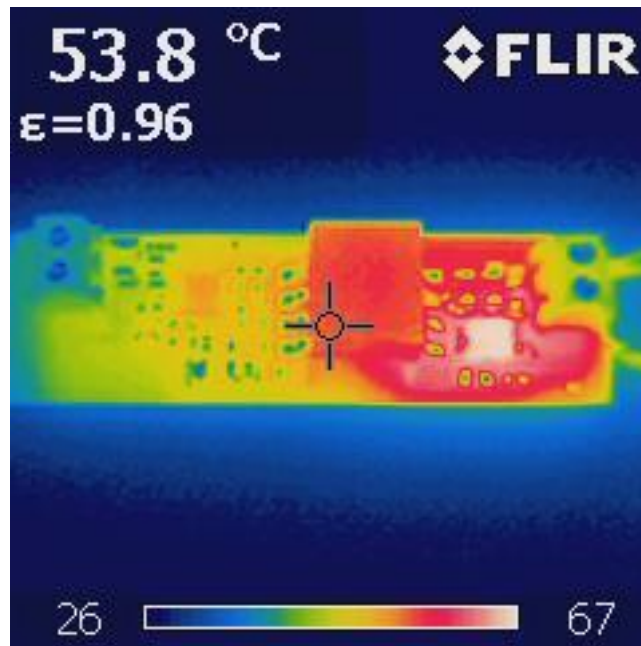


Figure 19 48Vin, 12V 1A thermal in roomtemp

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