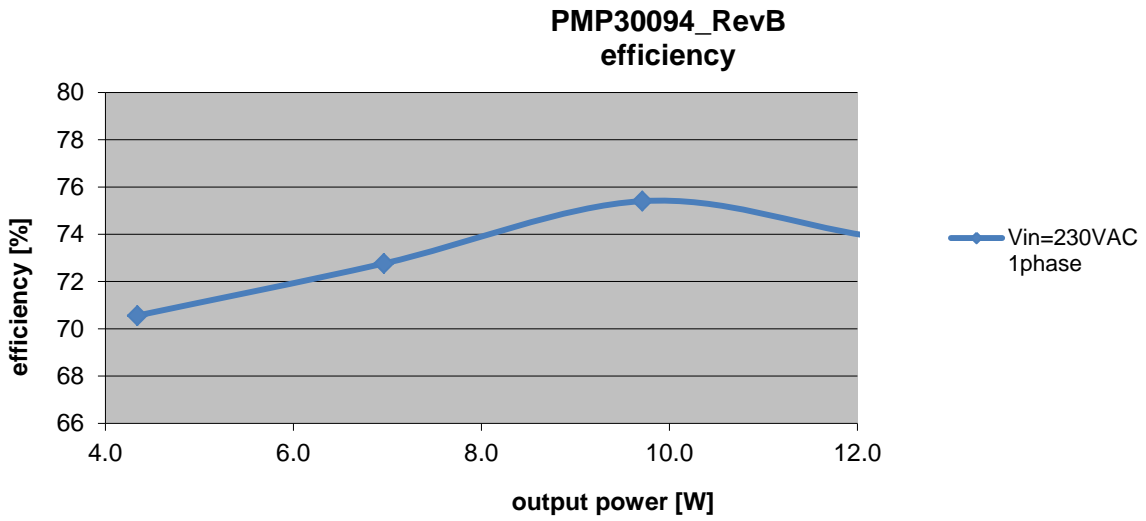
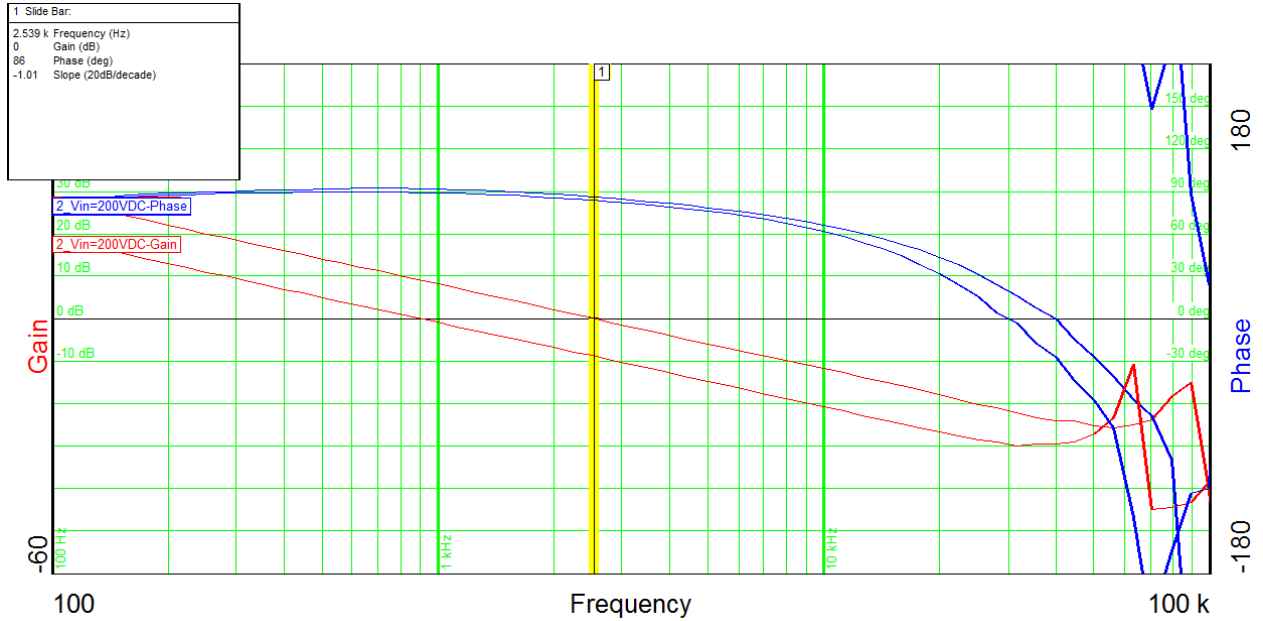


# 1 Efficiency



## 2 Control Loop Frequency Response



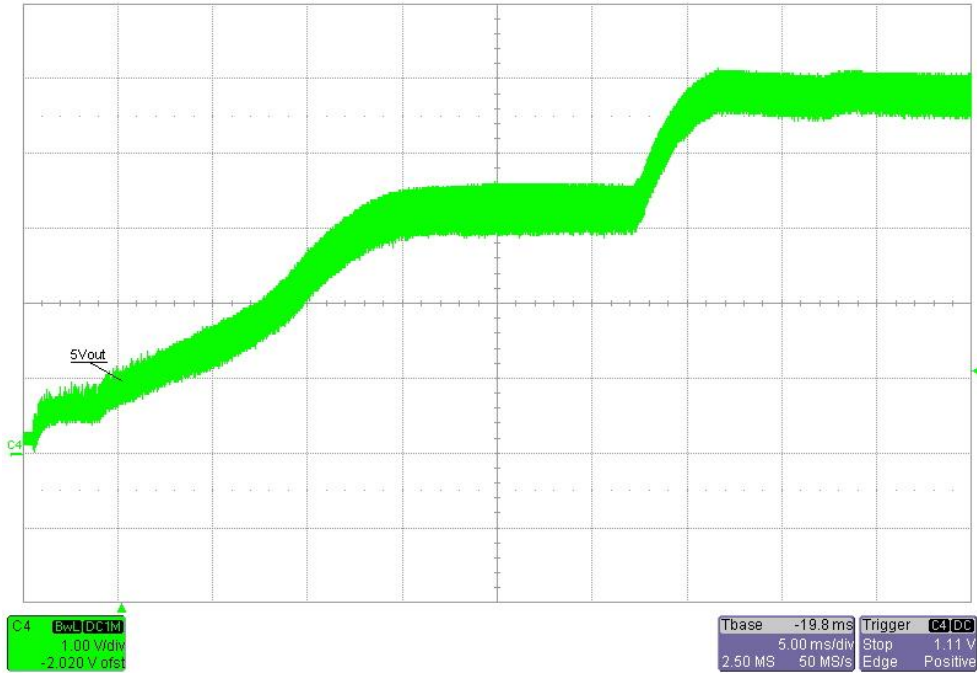
Output power = 5V@2A, 7V@0.3A  
 Input voltage = 200VDC  
 Phase margin = 89°  
 Bandwidth = 0.9kHz

Output power = 5V@2A, 7V@0.3A  
 Input voltage = 630VDC  
 Phase margin = 86°  
 Bandwidth = 2.5kHz

### 3 Startup 5Vout

Input voltage = 140VAC

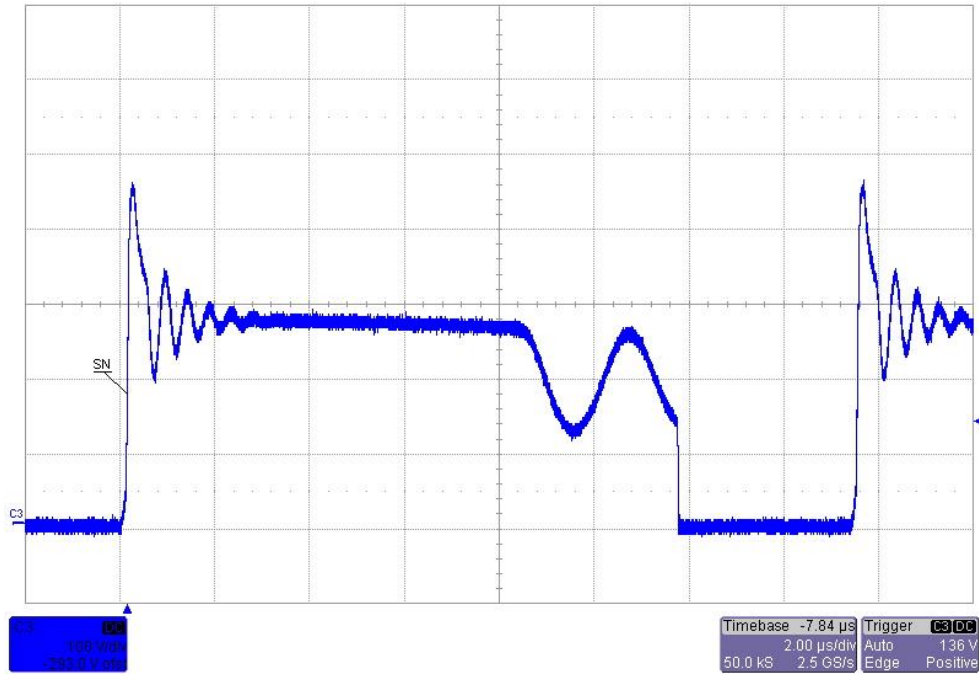
Load current = full load



## 4 Switch Node

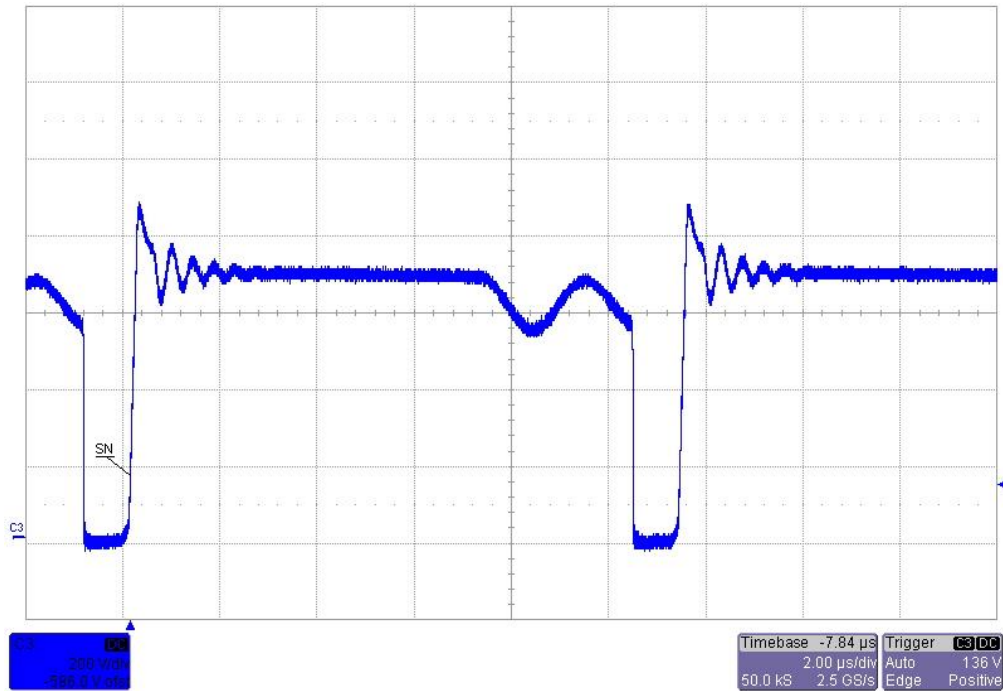
Input voltage = 200VDC

Load current = full load



Input voltage = 630VDC

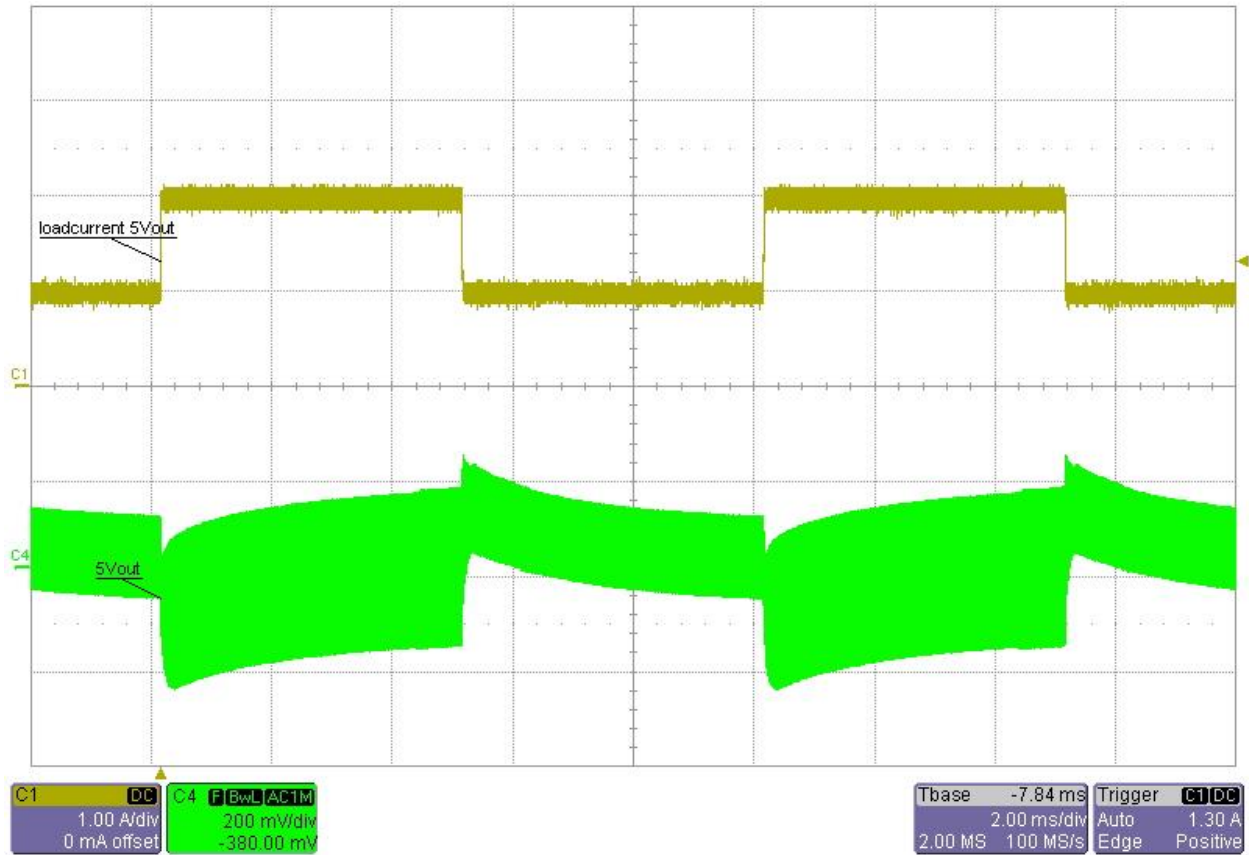
Load current = full load



## 5 Load step 5Vout

Input voltage = 230VAC

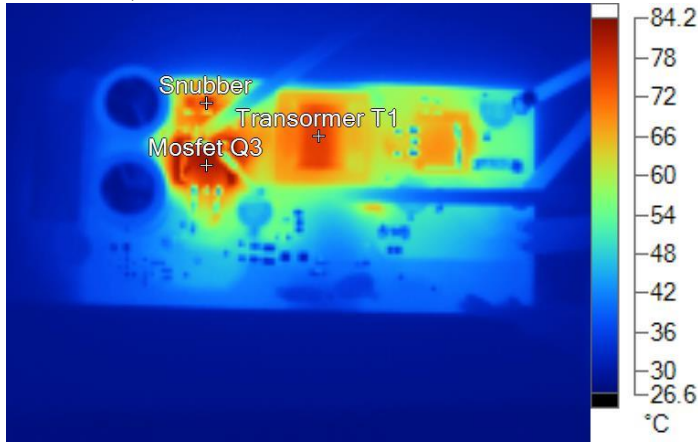
Load current = 1A to 2A



## 6 Thermal Analysis

The images below show the infrared images taken from the FlexCam after 15min at full ,load (5V@2A / 7V@0.3A) output power.

Input voltage = 630VDC  
 Output power = full load  
 Ambient temperature = 25°C  
 No heatsink, no airflow



IR20160907\_0907 full load Vin=630VDC.is2

Name	Temperature
Transformer T1	76.0°C
Mosfet Q3	81.0°C
Snubber	79.4°C

Input voltage = 200VDC  
 Output power = full load  
 Ambient temperature = 25°C  
 No heatsink, no airflow



IR20160907\_0908 full load Vin=200VDC.is2

Name	Temperature
Transformer T1	70.6°C
Mosfet Q3	52.4°C
Snubber	74.0°C



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