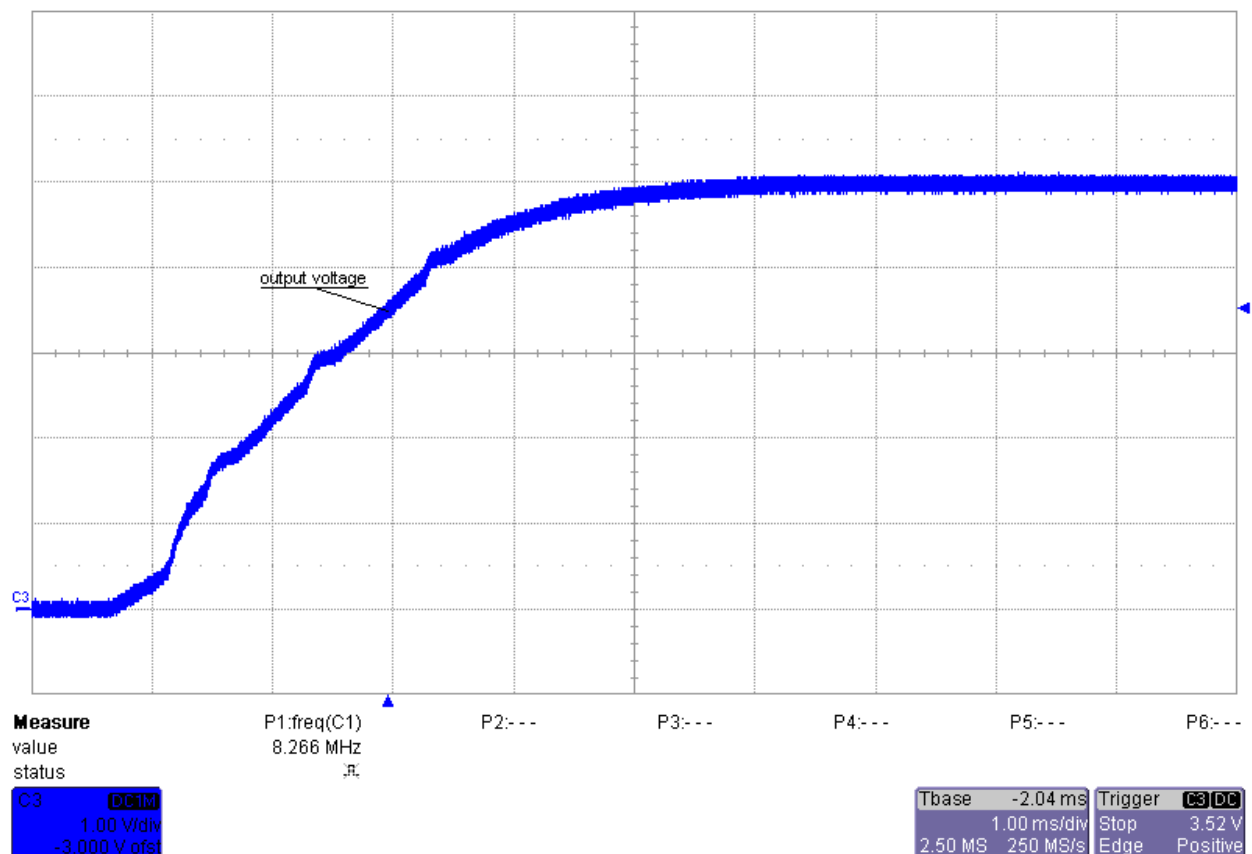
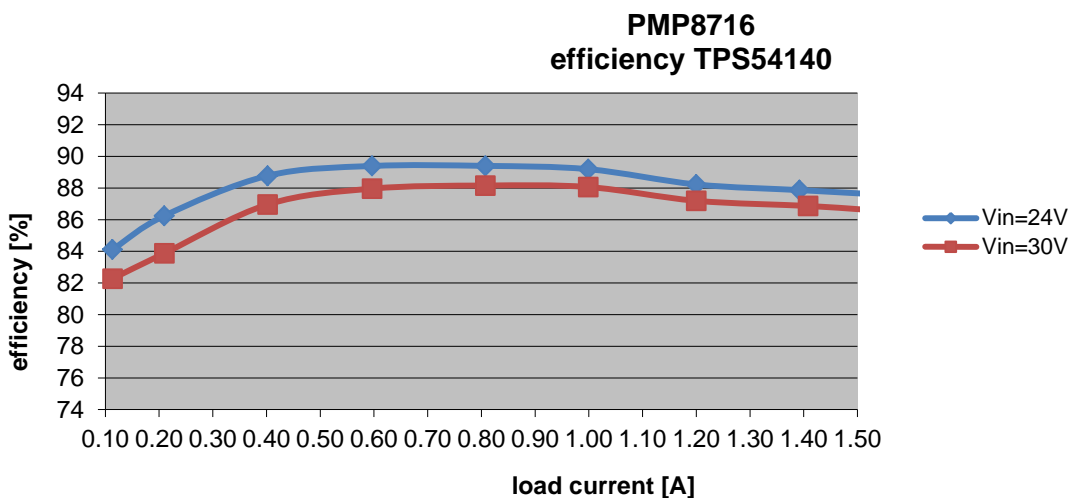


1 Startup (TPS54140)

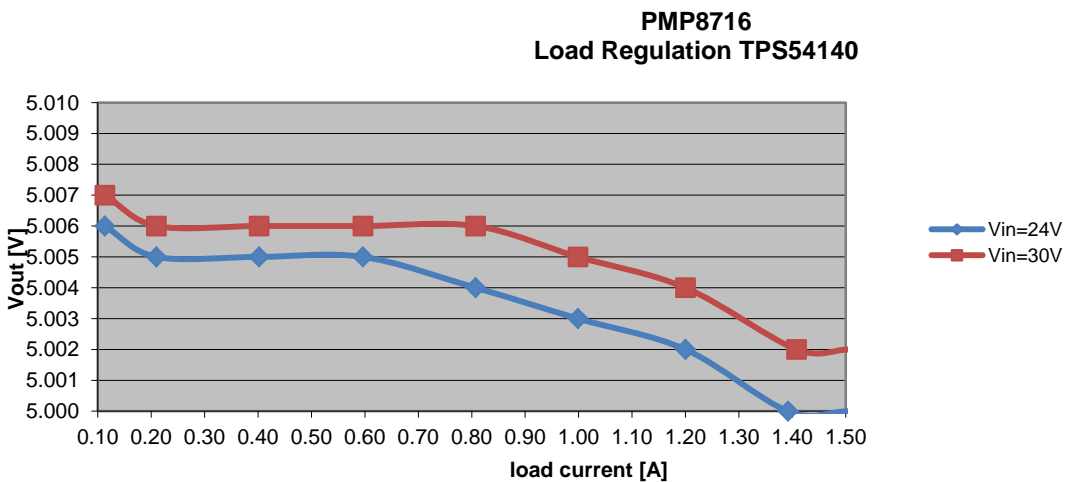
Input voltage = 24V
Load current = 1.5A



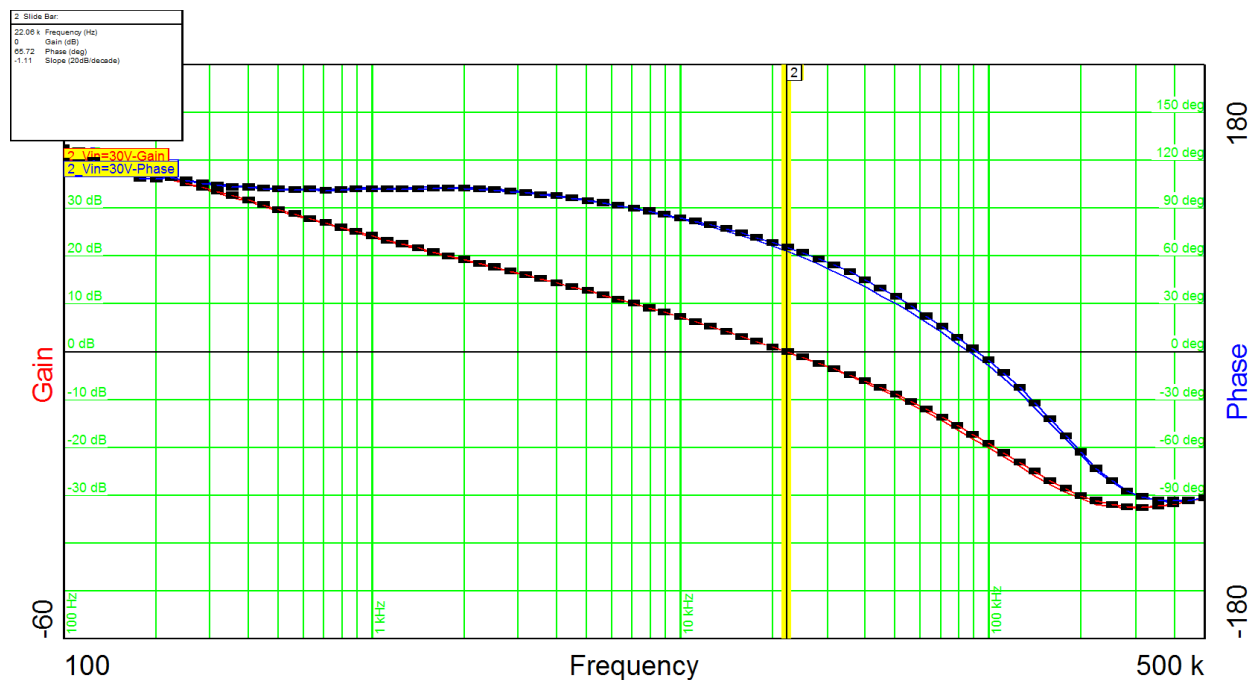
2 Efficiency (TPS54140)



3 Load regulation (TPS54140)



4 Control Loop Frequency Response (TPS54140)

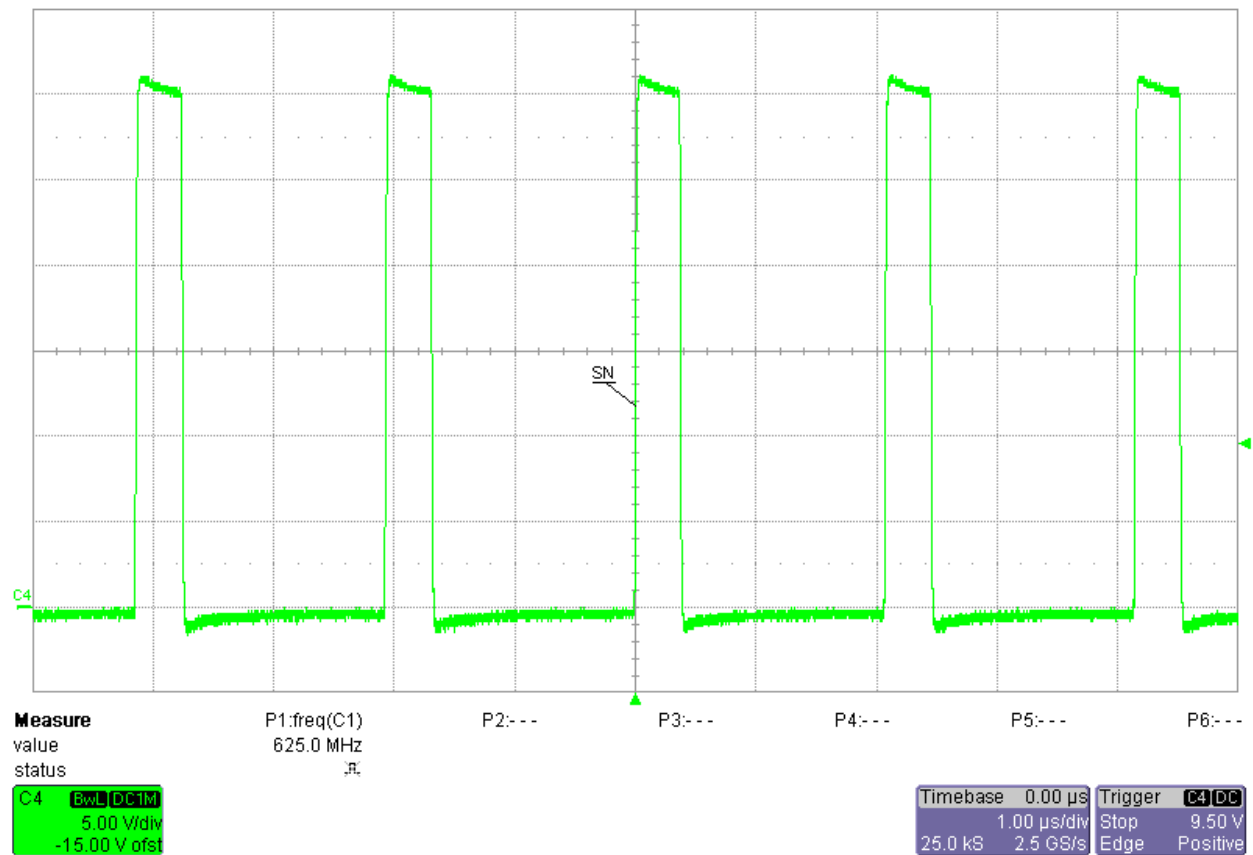


Input voltage = 24V
Phase margin = 63.4°
Bandwidth = 22.0kHz

Input voltage = 30V
Phase margin = 65.7°
Bandwidth = 22.1kHz

5 Switch node Waveform (TPS54140)

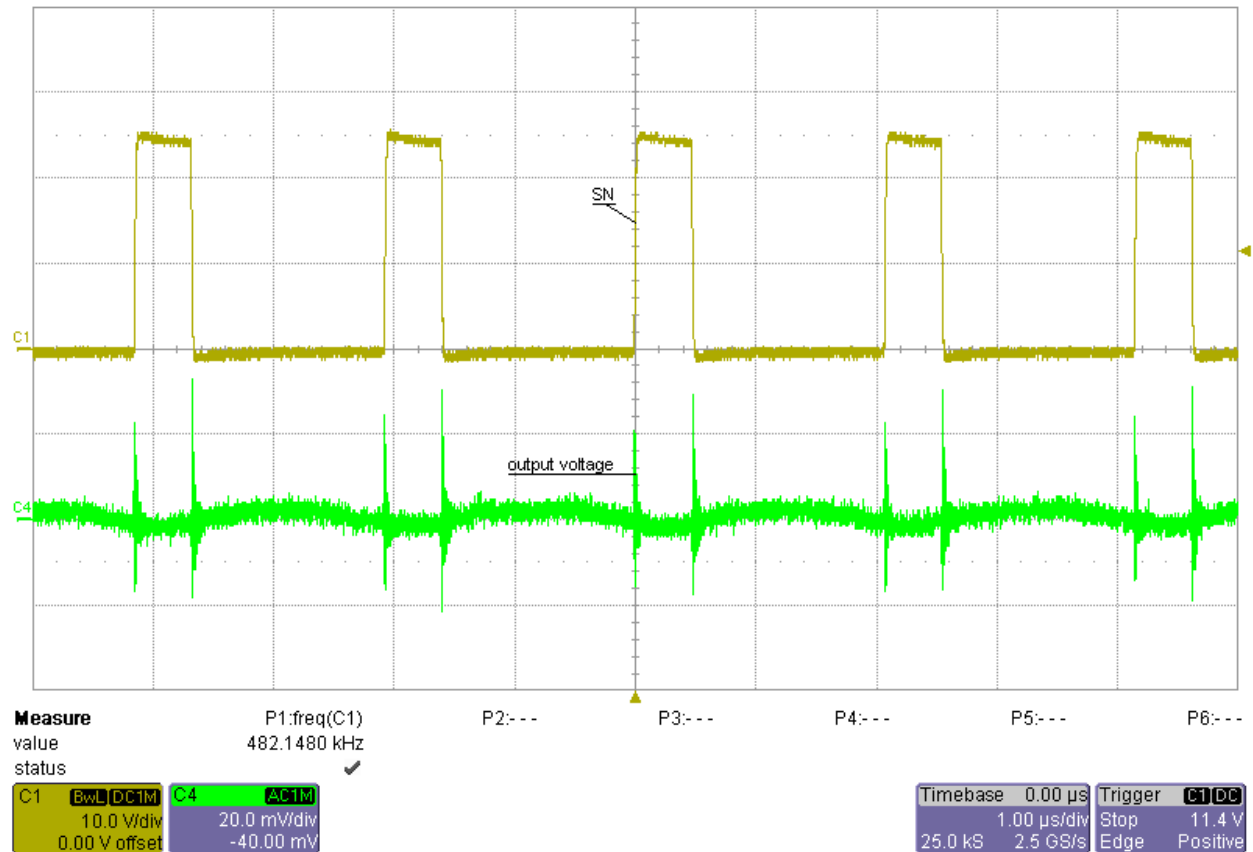
Input voltage = 30V
Load current = 1.5A



6 Output ripple voltage (TPS54140)

Input voltage = 24V

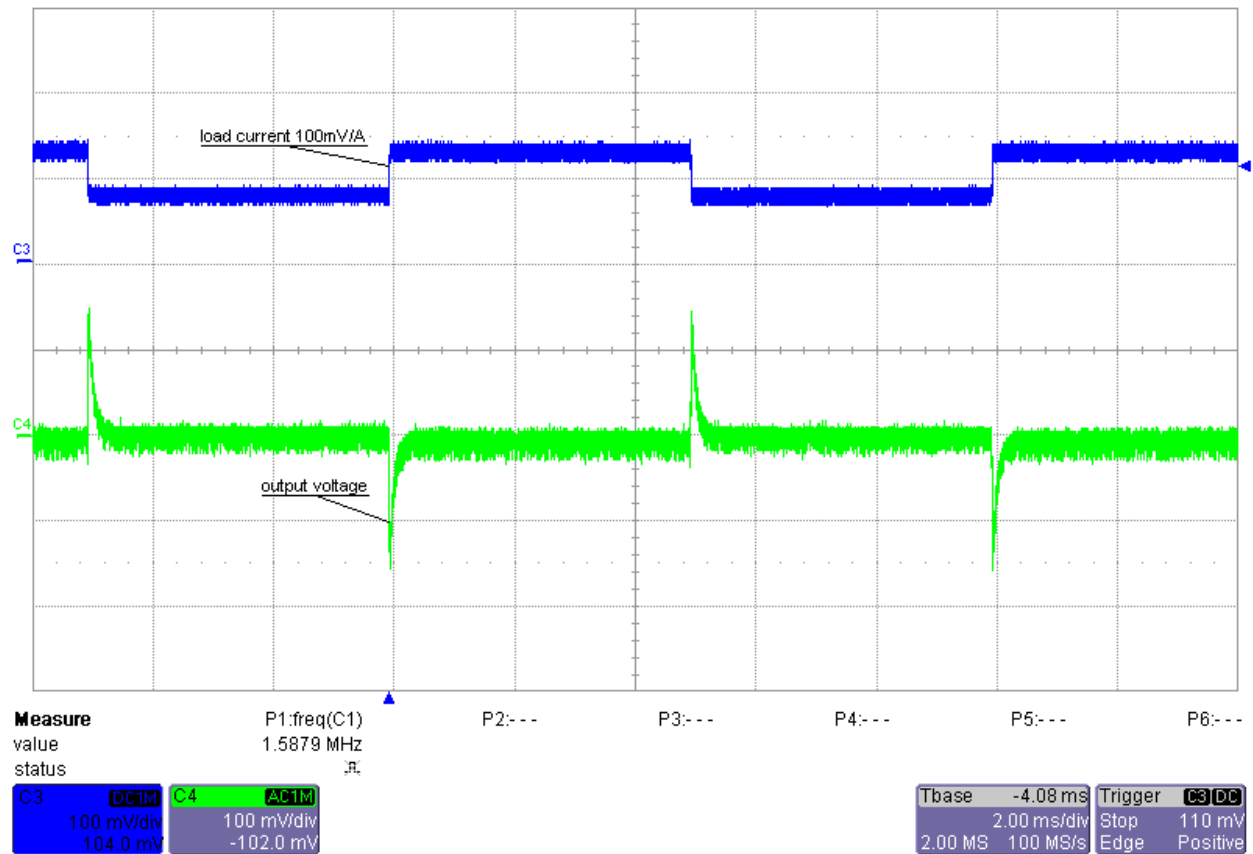
Load current = 1.5A



7 Load Transients (TPS54140)

Input voltage = 24V

Load current = 0.75A to 1.5A



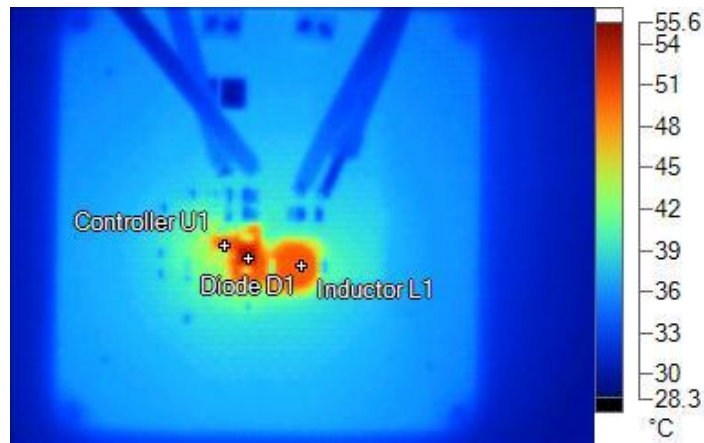
8 Thermal Analysis (TPS54140)

The images below show the infrared images taken from the FlexCam after 15min at full load.

Input voltage = 24V

Load current = 1.5A

Ambient temperature = 25°C

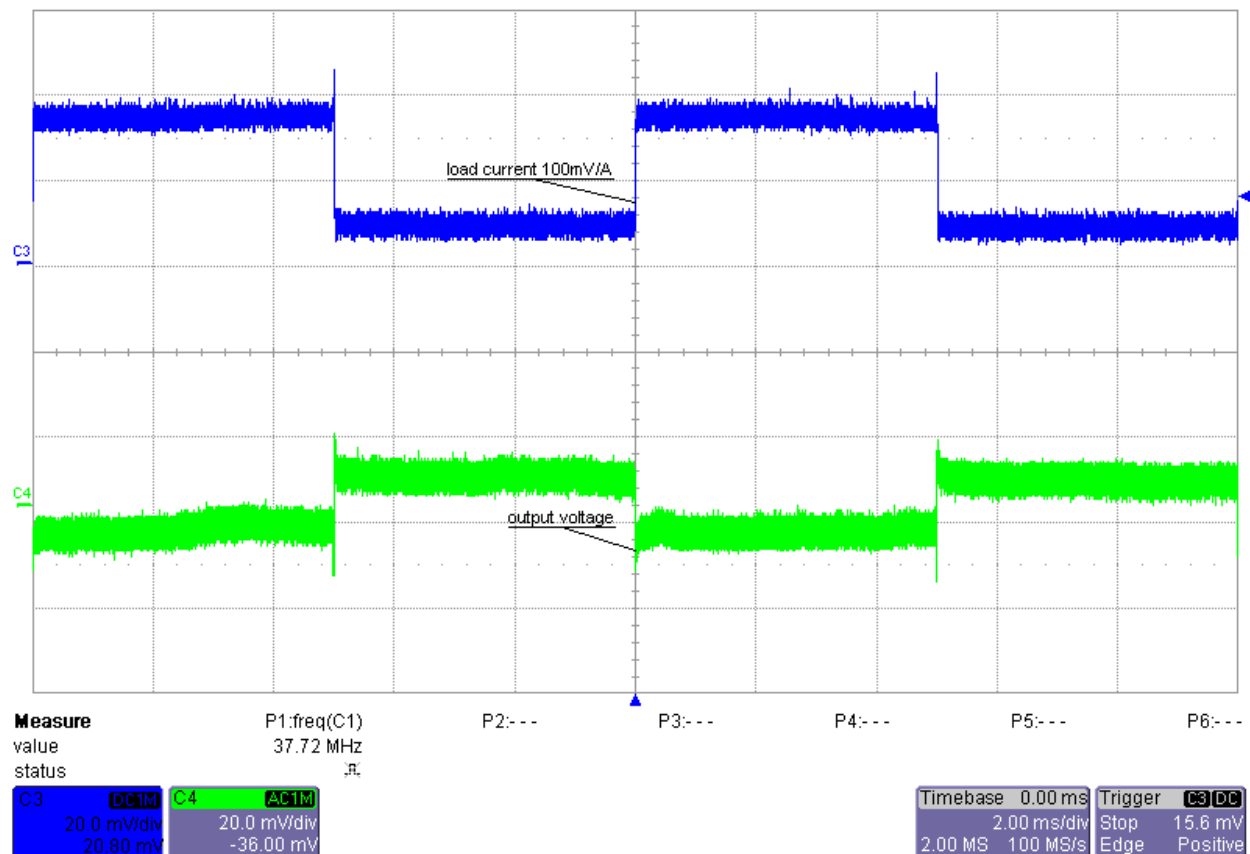


Name	Temperature	
Inductor L1	50.4°C	
Diode D1	54.6°C	
Controller U1	50.0°C	

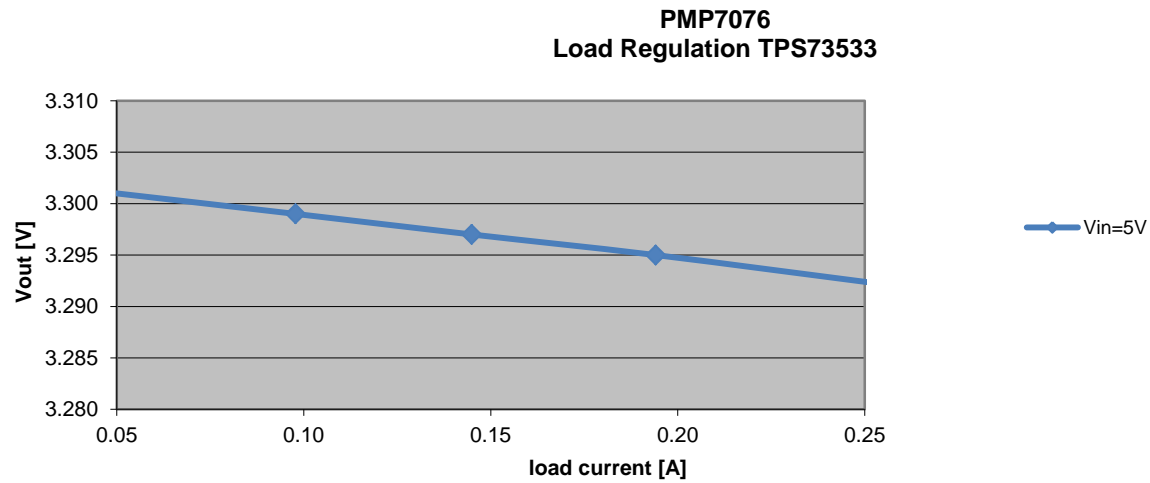
9 Load Transients (TPS73533)

Input voltage = 5V

Load current = 0.1A to 0.25A



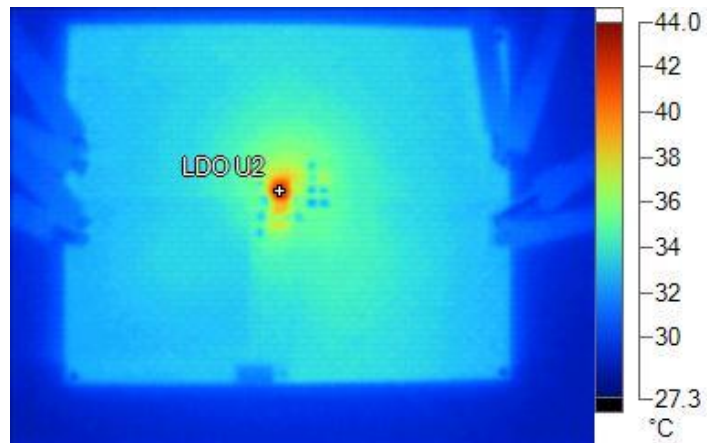
10 Load Regulation (TPS73533)



11 Thermal Analysis (TPS73533)

The images below show the infrared images taken from the FlexCam after 15min at full load.

Input voltage = 5V
 Load current = 0.25A
 Ambient temperature = 25°C



Name	Temperature	
LDO U2	42.8°C	

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2. You have full and exclusive responsibility to assure the safety and compliance of your products with all such laws and other applicable regulatory requirements, and also to assure the safety of any activities to be conducted by you and/or your employees, affiliates, contractors or designees, using the EVM. Further, you are responsible to assure that any interfaces (electronic and/or mechanical) between the EVM and any human body are designed with suitable isolation and means to safely limit accessible leakage currents to minimize the risk of electrical shock hazard.
3. Since the EVM is not a completed product, it may not meet all applicable regulatory and safety compliance standards (such as UL, CSA, VDE, CE, RoHS and WEEE) which may normally be associated with similar items. You assume full responsibility to determine and/or assure compliance with any such standards and related certifications as may be applicable. You will employ reasonable safeguards to ensure that your use of the EVM will not result in any property damage, injury or death, even if the EVM should fail to perform as described or expected.

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