

### Thermal Consideration

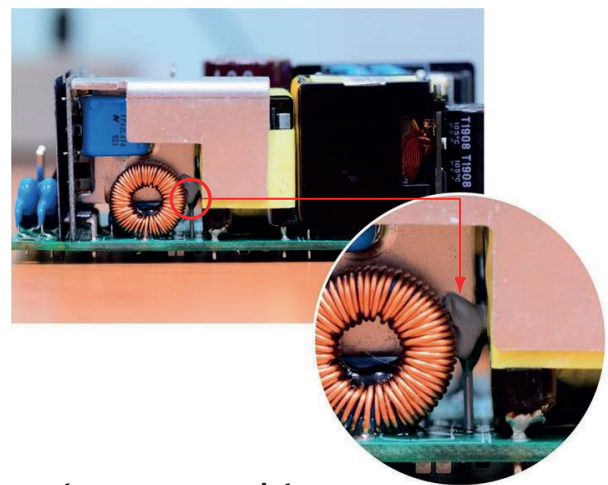
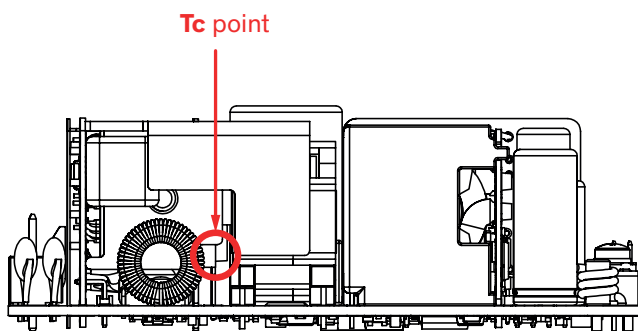
#### Temperature measure point

For reliable over temperature protection we are measuring the power supplies temperature continuously on the hottest spot. This spot is called Temperature measure point. For some use cases it is important to know where exactly this Temperature measure point is located on the electronics. Beside that it is important to know that temperature is assessed among different components in order to sense the maximum temperature value under different conditions.

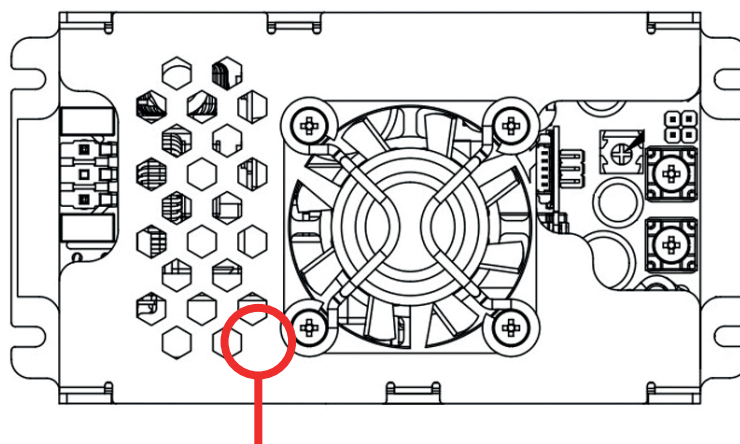
The mentioned Temperature measure point in this document is valid for the following series:

**TPI 300L-M / TPI 300-M / TPP 300A-M / TPP 300-M**

Note: The Temperature measure point for the encased versions is at the exact same spot as for the open frame version due to the same electronics inside.



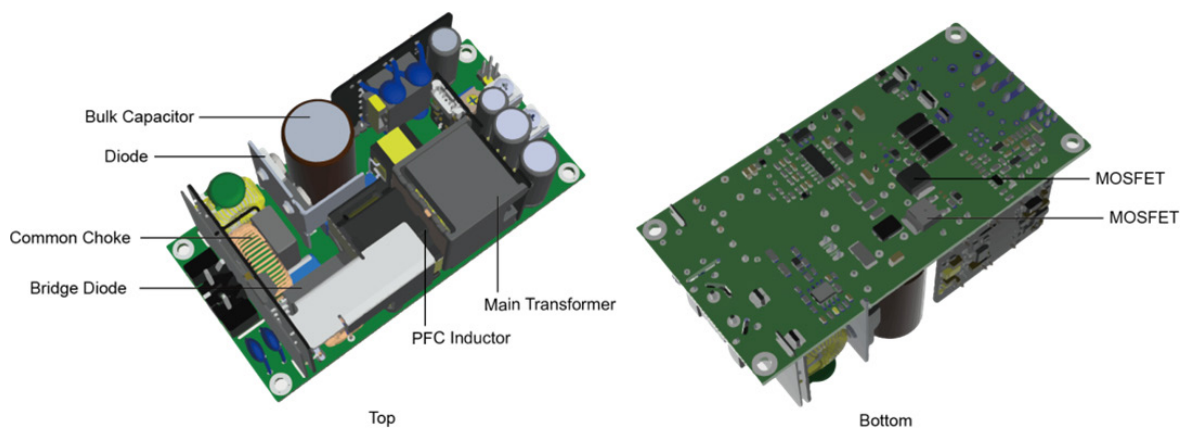
**TPI 300L-M & TPP 300A-M: Temperature measure point**



**TPI 300-M & TPP 300-M: Temperature measure point**  
(inside the casing, same position as open frame version)

### Thermal Consideration

#### Max. temperature of key components

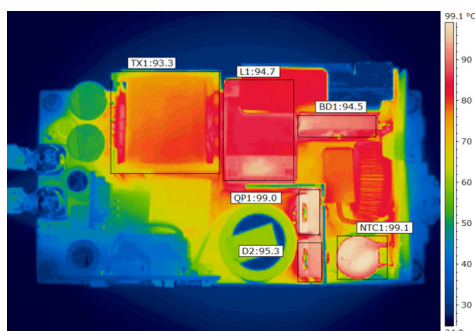


Component	Bridge Diode	Common Choke	PFC Inductor	MOSFET	Bulk Cap.	Diode	Main Transformer
Temp. limit [°C]	120	125	125	120	105	120	125

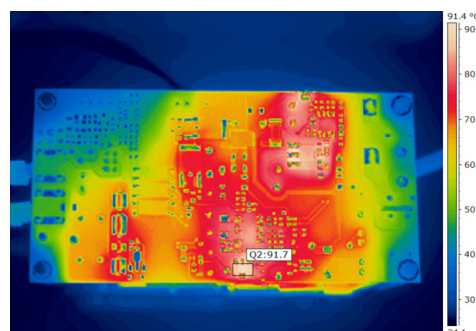
Note: - TPP 300-112A-M is chosen as a representative model in this document.

#### Thermal cam images

115 Vin; Full Load; Natural Convection; Top View

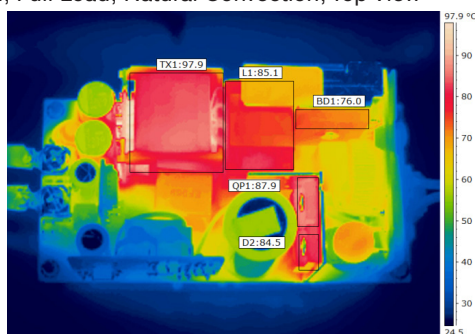


115 Vin; Full Load; Natural Convection; Bottom View

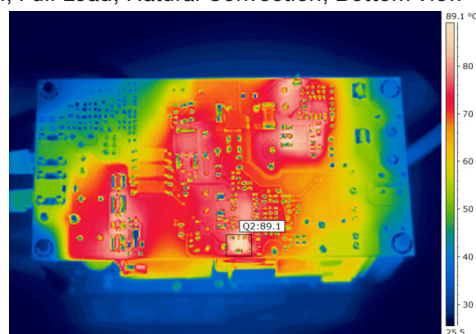


Component	TX1	L1	QP1	D2	BD1	NTC1	Q2
Temp. [°C]	93.3	94.7	99	95.3	94.5	99.1	91.7

230 Vin; Full Load; Natural Convection; Top View



230 Vin; Full Load; Natural Convection; Bottom View



Component	TX1	L1	QP1	D2	BD1	Q2
Temp. [°C]	97.9	85.1	87.9	84.5	76	89.1

**Fan characteristic**

Fan Speed versus Sensor Temperature

