PCN-20210201 TEP0002-02 to TEP0002-03 Hardware Revision Change

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Company	Trenz Electronic GmbH
PCN Number	PCN-20210201
Title	TEP0002-02 to TEP0002-03 Hardware Revision Change
Subject	Hardware Revision Change
Issue Date	2021-02-01

Products Affected

This change affects all Trenz Electronic TEP0002 of revision 02: TEP0002-02

Affected Product	Replacement
TEP0002-02	TEP0002-03

Changes

#1 5V and 12V DCDCs changed from LM4510 to LTC3115-1

Type: PCB Change
Reason: Reduce excessive startup current and cost optimization.
Impact: Less startup current drawn. No further functional impact. Circuit around new DCDCs changed according to datasheet.

#2 Removed series resistor and load capacitor on current sense outputs (R18, R22, R26, C46, C57, C67). R116 replaced by 0Ohm resistor, C186 set to not fitted. (See note at Shipment Schedule.)

Type: PCB Change
Reason: Not needed for optimal operation. Higher sampling frequencies caused voltage drop and non linear behaviour.
Impact: Improved accuracy.

#3 Changed voltage sense voltage dividers values of R10, R13, R15, R16 from 10kOhm (0.063W 0402) to 5.6KOhm (1W, 0603) and R8, R12, R14, R17 from 1.5 KOhm (0.063W, 0402) to 910Ohm (0.063W, 0402)

Type: BOM Change
Reason: Improve performance.
Impact: Calibration has to be redone. Measurable maximum voltage is decreased from 38.3V to 35.7V, resolution slightly improved.

Method of Identification

The revision number is printed on the top side of the PCB.

Production Shipment Schedule

Revison 03 is available from February 2021, if you still need the revision 02 please contact us.
Prereleased Revision 03 boards with Serial numbers below and including 566308 have R116 with value 490Ohm and C186 fitted in contradiction to change #2.

Contact Information

If you have any questions related to this PCN, please contact Trenz Electronics Technical Support at

- forum.trenz-electronic.de
- wiki.trenz-electronic.de
- support%trenz-electronic.de (subject = PCN-20210201)
- phone
    - national calls: 05741 3200-0
    - international calls: +49 5741 3200-0

Disclaimer

Any projected dates in this PCN are based on the most current product information at the time this PCN is being issued, but they may change due to unforeseen circumstances. For the latest schedule and any other information, please contact your local Trenz Electronic sales office, technical support or local distributor.

This PCN follows JEDEC Standard J-STD-046.