

Company	Trenz Electronic GmbH
PCN Number	PCN-20250520
Title	TEIB0006-02 to TEIB0006-03 Hardware Revision Change
Subject	Hardware Revision Change
Issue Date	2025-05-26

Products Affected

This change affects all Trenz Electronic TEIB0006 Carrier: TEIB0006-02*.

Affected Product	Replacement
TEIB0006-02	TEIB0006-03-A

Changes

#1 Changed DCDC EN6340QI (U3, U12) to MPM3860GQW-Z and adapted power circuit.

Type: Schematic Change

Reason: EOL of Component.

Impact: None. Increased output current capability. Minor changes in electrical characteristics.

#2 Changed DCDC LTM4638EY#PBF (U19) to MPQ8633BGLE-Z and adapted power circuit.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Increased output current capability. Minor changes in electrical characteristics.

#3 Updated USB Type C connection circuit.

- Added USB SuperSpeed mux/demux switch (U21) and connected it to I2C-bus multiplexer.

- Added MOSFET (T2).
- Added diode (U20).
- Set resistor (R72, R75) to not assembled.
- Changed USB Type C connector (J13) shield connection.
- Changed resistor (R82 [REV03]) from 33 Ohm to zero Ohm and used for shield connection.
- Added shield capacitor (C76) assembly option.
- Added decoupling capacitor (C106).
- Added discharge resistor (R109) assembly option for power rail "VBUS1".
- Changed clock generator (U16) for FT601Q (U11) circuit from oscillator SiT8008BI-73-XXS-30.000000E to crystal CX3225SB0000D0FPLCC.
- Added series termination resistor (R83, R84, R86 ... R90, R94 [REV03]).

Type: Schematic Change

Reason: Improve USB Type C connection.

Impact: Changed USB handling.

#4 Changed MEMS oscillator (U7) from SiT8008AI-73-XXS-12.000000E to SiT8008BI-73-XXS-12.000000E.

Type: Schematic Change

Reason: EOL of Component.

Impact: None. Clock revision changed.

#5 Added debounce capacitor for button S3 (C107) and S4 (C109).

Type: Schematic Change

Reason: Improve button handling.

Impact: None.

#6 Added resistor (R110, R111) and capacitor (C111, C112) for modified SFP cage (J2, J4) shield connection.

Type: Schematic Change

Reason: Improve shield connection.

Impact: None.

#7 Changed power jack (J12) from PJ-002AH-SMT-TR to 694106106102.

Type: Schematic Change

Reason: Improve power supply connection.

Impact: None. Minor changes in electrical characteristics.

#8 Changed fuse 0469007.WR (F1) to 0437003.WR.

Type: Schematic Change

Reason: EOL of Component.

Impact: Decreased current capability. Minor changes in electrical characteristics.

#9 Changed diode (D1) from SMAJ15A-E3 to STIEC45-30AS.

Type: Schematic Change

Reason: Improve input protection.

Impact: None. Minor changes in electrical characteristics.

#10 Changed diode AOZ8808DI-03 (U10, U14, U15) to AOZ8S311UD4-03.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Minor changes in electrical characteristics.

#11 Added capacitor (C120, C121) for B2B connector (J9).

Type: Schematic Change

Reason: Improve power supply.

Impact: None. Minor changes in electrical characteristics.

#12 Added capacitor (C114, C116) for CRUVI LS connector (J14).

Type: Schematic Change

Reason: Improve power supply.

Impact: None. Minor changes in electrical characteristics.

#13 Changed 100 nF capacitor (C1, C4, C6, C7, C10, C12, C13, C15 ... C18, C21, C23 ... C30, C33, C34, C37, C40, C44, C65 ... C68, C77) from 25 V, X5R to 50 V, X7R.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Minor changes in electrical characteristics.

#14 Changed capacitor (C41, C42) from 100 nF, 25 V, X5R to 220 nF, 16 V, X7R.

Type: Schematic Change

Reason: Follow USB SuperSpeed mux/demux switch (U21) evaluation board example.

Impact: None. Minor changes in electrical characteristics.

#15 Changed capacitor (C56 ... C58, C70) from 100 nF, 25 V, X5R to 470 nF, 6.3 V, X5R.

Type: Schematic Change

Reason: Improve power rail integrity.

Impact: None. Minor changes in electrical characteristics.

#16 Changed capacitor (C45, C46, C49, C50, C69) from 470 nF, 6.3 V, X5R to 4.7 μ F, 6.3 V, X5R.

Type: Schematic Change

Reason: Improve power rail integrity.

Impact: None. Minor changes in electrical characteristics.

#17 Changed capacitor (C2, C3, C5, C8, C9, C11) from 10 μ F, 16 V, 0603 to 22 μ F, 25 V, 0805.

Type: Schematic Change

Reason: Follow SFP recommendation.

Impact: None. Minor changes in electrical characteristics.

#18 Changed inductor (L1 ... L4) from 1 μ F (MAMK2520T1R0M) to 4.7 μ F (CIGW252010GL4R7MNE).

Type: Schematic Change

Reason: Follow SFP recommendation.

Impact: None. Minor changes in electrical characteristics.

#19 Changed resistor (R21, R24) from 100 Ohm to 330 Ohm.

Type: Schematic Change

Reason: Decrease LED current.

Impact: None. Minor changes in electrical characteristics.

#20 Added additional test points (TP7 ... TP26).

Type: Schematic Change

Reason: Improve measurement possibilities.

Impact: None.

#21 Removed track-it traceability pad (S/N) from PCB.

Type: Schematic Change

Reason: EOL of Component.

Impact: None.

#22 Added UKCA-logo and ESD protection logo.

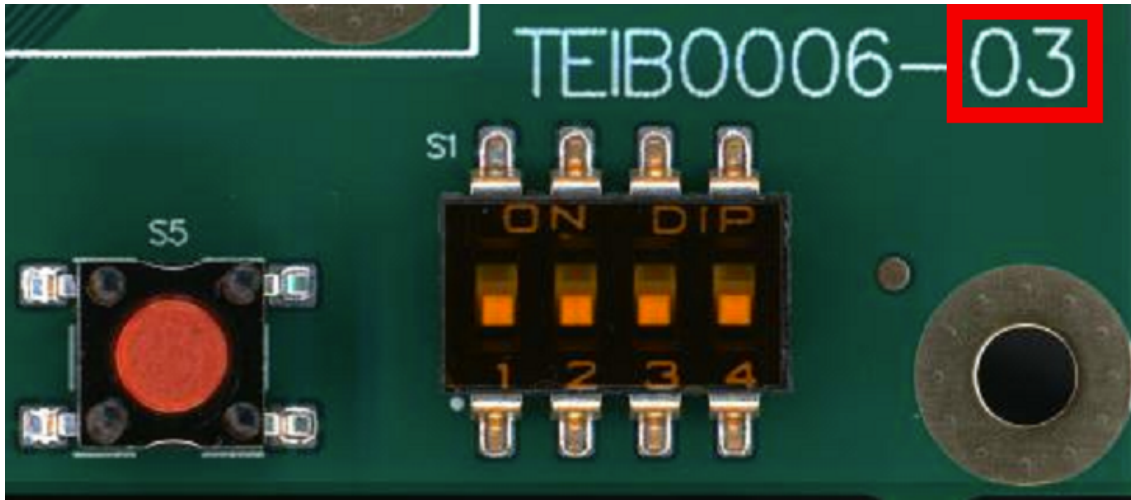
Type: PCB Change

Reason: Improve product classification identification.

Impact: None.

Method of Identification

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



Production Shipment Schedule

This change takes place with immediate effect. If the new revision is not suitable for your application and still the former revision of the board is needed, please contact us.

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-20250520)
- phone
 - national calls: 05741 3200-0
 - international calls: 0049 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.