

Company	Trenz Electronic GmbH
PCN Number	PCN-20250107
Title	TEI0006-04 to TEI0006-05 Hardware Revision Change
Subject	Hardware Revision Change
Issue Date	2026-05-18

1 Products Affected

This change affects all Trenz Electronic TEI0006 SoMs of Revision 04: TEI0006-04*.

Affected Product	Replacement
TEI0006-04-ALC13A	TEI0006-05-ALC13A
TEI0006-04-ALE13A	TEI0006-05-ALE13A
TEI0006-04-ANE13A	TEI0006-05-ANE13A
TEI0006-04-APE13A	TEI0006-05-APE13A
TEI0006-04-API23A	TEI0006-05-API23A

2 Changes

2.1 #1 Added ZDM mode with 0R resistors as assembly option

Type: Schematic Change

Reason: Add Zero delay mode or optional backwards compatibility with older revisions of TEI0006.

Impact: Default assembly is R49 and R51 not fitted, R166, R167, R168, C181, C182 fitted. This results in former not used CLK9 is looped back to Feedback Input IN3 of U14 for ZDM. Former CLK input from B2B (CLKIN) is now connected to IN1 of U20. Therefore the CLK configuration has to be updated to account for this. If backwards compatibility is needed, a special assembly version has to be ordered where R49, R51 are fitted and R166, R167, R168, C181, C182 not fitted. This results in exact connection as in revision 04.

2.2 #2 Added testpoints (TP23..39) on top layer

Type: Schematic Change

Reason: Improve manual testability for customers.

Impact: All voltages accessible on top layer via testpoints.

2.3 #3 Added TPM 2.0 crypto IC ST33KTPM2I3WBZA9 (U20)

Type: Schematic Change

Reason: Add option for additional security features.

Impact: TPM features available.

2.4 #4 Added additional bypass capacitors to DDR4 VTT net

Type: Schematic Change

Reason: Respect DDR4 implementation recommendation.

Impact: Improved decoupling.

2.5 #5 Changed capacitors X5R to X7R/X6S

Type: BOM change

Reason: Improve temperature range.

Impact: None, capacitors have slightly larger capacitance variation.

2.6 #6 Added R171 to BST pin of U4

Type: Schematic Change

Reason: Follow MPS datasheet for MP8869S.

Impact: None, BST resistor can be optimised if necessary.

2.7 #7 Capacitors C159, C165, C153, C141, C148, C173, C211, C53, C65, C55, C68, C43, C89, C90, C4, C26 replaced with 100nF

Type: BOM change

Reason: BOM optimisation.

Impact: None.

2.8 #8 Added resistor R174 (0R) between CPLD and FPGA

Type: Schematic Change

Reason: Improve signal integrity of clock signal (Stub free routing).

Impact: None, improved routing.

2.9 #9 Added optional resistors R175, R176 (0R, DNP) to optionally directly connect I2C bus to FPGA.

Type: Schematic Change

Reason: 1.8V I2C bus connection to the FPGA (Bank B2A) nets M10_IO3/M10_IO4 is made via 0R resistors (set as DNP).

Impact: None.

3 Method of Identification

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



4 Production Shipment Schedule

From April 2026, after old stock is gone. If the new revision is not suitable for your application and still the former revision of the board is needed, please contact us.

5 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-20260107)
- phone
 - national calls: 05741 3200-0
 - international calls: 0049 5741 3200-0

6 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.