Company	Trenz Electronic GmbH
PCN Number	PCN-20260225
Title	TE0808-05 to TE0808-06 Hardware Revision Change
Subject	Hardware Revision Change
Issue Date	2026-03-02

Products Affected

This change affects all Trenz Electronic TE0808 SoMs: TE0808-05*.

Affected Product	Replacement
TE0808-05-6BE81-E	TE0808-06-6BE*1-E
TE0808-05-6BE81-EK	TE0808-06-6BE*1-EK (on request)
TE0808-05-6BE81-F	TE0808-06-6BE*1-F
TE0808-05-6BE81-FK	TE0808-06-6BE*1-FK (on request)
TE0808-05-9BE21-FK	TE0808-06-9BE*1-FK
TE0808-05-9BE81-E	TE0808-06-9BE*1-E
TE0808-05-9BE81-EK	TE0808-06-9BE*1-EK
TE0808-05-9BE81-ES	TE0808-06-9BE*1-ES (on request)
TE0808-05-9BE81-F	TE0808-06-9BE*1-F
TE0808-05-9BE81-FK	TE0808-06-9BE*1-FK (on request)
TE0808-05-9BE84-E	TE0808-06-9BE*4-E
TE0808-05-9BE84-EK	TE0808-06-9BE*4-EK

Affected Product	Replacement
TE0808-05-9GI81-E	TE0808-06-9GI*1-E
TE0808-05-9GI81-EK	TE0808-06-9GI*1-EK
TE0808-05-9GI81-ES	TE0808-06-9GI*1-ES (on request)
TE0808-05-9GI81-C	S-Variant [1)]
TE0808-05-BBE81-E	TE0808-06-BBE*1-E
TE0808-05-BBE81-EK	TE0808-06-BBE*1-EK
TE0808-05-BBE81-ES	TE0808-06-BBE*1-ES (on request)

[1)] Variant changes to customer specific S-variant.

[*)] Because of supply situation final DDR4 memory is not yet defined and might be changed.

Changes

#1 Potential DDR4 SDRAM (U2, U3, U9, U12) change.

Type: BOM change

Reason: Current DDR4 is EOL. **Due to current supply situation for DDR4 chips successor is not yet defined.**

Impact: New DDR timings may be considered in designs.

#2 Changed DCDC (U19, U37) from LTM4638EY#PBF to TPS6287B15VA0WRZVR.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Minor changes in electrical characteristics.

#3 Added TPM (U47).

Type: Schematic Change

Reason: Improve feature list.

Impact: I2C address 0x2E is used for TPM on I2C bus PLL_SCL/PLL_SDA. Interrupt signal is connected to B2B connector J3 pin 84.

#4 Added protection diode D3 to U41.3 (#MR input).

Type: Schematic Change

Reason: Follow datasheet recommendation.

Impact: None. Minor changes in electrical characteristics.

#5 Added pull-up resistor (R104) (default: not assembled) and pull-down resistor (R103) (default: assembled) to configure POR_OVERRIDE (U1).

Type: Schematic Change

Reason: Enable POR_OVERRIDE feature usage.

Impact: None.

#6 Changed diode AND gate BAT54AWT1G (D2) to AND gate SN74LV1T08DCKR (U46).

Type: Schematic Change

Reason: Power domain isolation.

Impact: None. Improved power rail handling. Minor changes in electrical characteristics.

#7 Added pull-up resistor for "HOLD"-function (R109, R111) and "WP"-function (R110, R112) for flash (U7, U17).

Type: Schematic Change

Reason: Enhance usable SPI devices.

Impact: None. Minor changes in electrical characteristics.

#8 Added resistor (R116) and net name "POR_B_R" for optional separation between "POR" signal and flash reset pins.

Type: Schematic Change

Reason: Enable flash reset handling modification.

Impact: None. Minor changes in electrical characteristics.

#9 Added additional decoupling capacitor (C195 ... C201) and removed 4.7 µF capacitor (C159 [REV05], C161 [REV05]) for DDR4 power rail "VTT".

Type: Schematic Change

Reason: Follow AMD recommendation.

Impact: None. Minor changes in electrical characteristics.

#10 Changed AND gate NC7S08P5X (U39, U40, U42 ... U44) to AND gate SN74LV1T08DCKR.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Minor changes in electrical characteristics.

#11 Changed capacitors from X5R to X6S.

Type: BOM Change

Reason: Improve temperature grade.

Impact: Improved temperature grade. Minor changes in electrical characteristics.

#12 Changed 10 nF capacitor (C112) from 16 V, 0402 to 10 V, 0201.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Decreased voltage rating and physical size. Minor changes in electrical characteristics.

#13 Changed resistor (R72, R73, R75, R77, R78, R79, R88, R89, R93, R94) from 4.7 kOhm, 0.05 W, 0201 to 10 kOhm, 0.063 W, 0402.

Type: Schematic Change

Reason: Follow TPS82085SIL datasheet recommendation.

Impact: None. Minor changes in electrical characteristics.

#14 Changed 2 kOhm resistor (R13, R48) to 2.2 kOhm.

Type: BOM Change

Reason: BOM Optimization.

Impact: None. Minor changes in electrical characteristics.

#15 Changed ferrite bead (L6, L8) from MPZ1608S221A to MPZ0603S121HT000.

Type: Schematic Change

Reason: BOM Optimization.

Impact: None. Minor changes in electrical characteristics.

#16 Added net name "REF_1V25" for power rail net (U33 pin 2).

Type: Documentation Change

Reason: Improve documentation.

Impact: None.

#17 Added test points (TP23, TP25, TP37 ... TP67).

Type: Schematic change

Reason: Improve measurement possibilities.

Impact: None.

#18 Changed signal trace lengths.

Type: PCB Change

Reason: Result of changes above.

Impact: Changed trace length have to be taken into account in existing designs. The trace length for new revision will be available in TE080x series pinout generator. Please check if change in trace length still matches your requirements. Adaption of carrier may be necessary.

#19 Added UKCA-logo.

Type: PCB Change

Reason: Improve product classification identification.

Impact: None.

Method of Identification

Revision number is printed on the top side of the PCB.

Production Shipment Schedule

From September 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.

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-20260225)
- 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.