

<b>Company</b>	Trenz Electronic GmbH
<b>PCN Number</b>	PCN-20240614
<b>Title</b>	TE0706-03 to TE0706-04 Hardware Revision Change
<b>Subject</b>	Hardware Revision Change
<b>Issue Date</b>	2024-07-08

## 1 Products Affected

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This change affects all Trenz Electronic TE0706 SoMs: TE0706-03\*.

<b>Affected Product</b>	<b>Changes</b>	<b>Replacement</b>
TE0706-03	#1 ... #25	TE0706-04-A
TE0706-03-D	#2 ... #25	TE0706-04-B

## 2 Changes

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### 2.1 #1 Changed resistor (R39) from not fitted to fitted.

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**Type:** BOM Change

**Reason:** Do not allow floating signal "OTG\_ID".

**Impact:** None.

### 2.2 #2 Changed DCDC EN6347QI (U1) to MPM3860GQW-Z and adapted power circuit.

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**Type:** Schematic Change

**Reason:** EOL of Component.

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

## 2.3 #3 Changed DCDC EN5311QI (U3) to MPM3834CGPA-Z and adapted power circuit.

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**Type:** Schematic Change

**Reason:** EOL of Component.

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

## 2.4 #4 Changed load switch TPS27081ADDCR (Q1) to MP5077GG-Z and adapted circuit.

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**Type:** Schematic Change

**Reason:** BOM Optimization.

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

## 2.5 #5 Changed SD Card connector (J4) from 504077-1891 to 104031-0811.

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**Type:** Schematic Change

**Reason:** EOL of Component.

**Impact:** Mechanical component size increased.

## 2.6 #6 Changed ETH PHY (U6) power supply to use internal LDOs.

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**Type:** Schematic Change

**Reason:** Follow Marvell recommendation.

**Impact:** None.

## 2.7 #7 Added ESD protection diode (D1, D2) for USB.

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**Type:** Schematic Change

**Reason:** ESD Protection.

**Impact:** None. Added ESD protection.

## 2.8 #8 Added series resistor (R27) for ETH PHY clock signal.

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**Type:** Schematic Change

**Reason:** Improve signal integrity.

**Impact:** None.

## 2.9 #9 Added series termination resistor (R50 ... R55) for SDIO signals.

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**Type:** Schematic Change

**Reason:** Improve signal integrity.

**Impact:** None.

## 2.10 #10 Added pull-up resistor (R57) to signal "RESIN".

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**Type:** Schematic Change

**Reason:** Harmonize "RESIN" signal handling.

**Impact:** None. Module internal pull-up resistor for signal "RESIN" is not needed anymore.

## 2.11 #11 Connected signal "PGOOD" to DIP switch S1 and pulled it up to voltage rail 3.3V via resistor (R56).

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**Type:** Schematic Change

**Reason:** Enable boot mode JTAG-only for Zynq modules.

**Impact:** JTAG-only boot mode can be selected with DIP switch S1 for Zynq modules.

## 2.12 #12 Changed ferrid bead (L3, L5) from BKP0603HS121-T to MPZ0603S121HT000.

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**Type:** BOM Change

**Reason:** EOL of component.

**Impact:** None.

## 2.13 #13 Changed pin header (J9) from SMD to THT.

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**Type:** Schematic Change

**Reason:** Improve manufacturing process.

**Impact:** None.

## 2.14 #14 Changed pin header (J10 ... J13) from SMD to THT.

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**Type:** Schematic Change

**Reason:** Improve manufacturing process.

**Impact:** None.

## 2.15 #15 Added testpoint (TP1 ... TP9).

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**Type:** Schematic Change

**Reason:** Voltage and system monitoring improvement.

**Impact:** None.

## 2.16 #16 Renamed power rail name from "VCCIOC" to "VCCIOD".

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**Type:** Schematic Change

**Reason:** Follow Trenz module connection table.

**Impact:** None.

## 2.17 #17 Renamed power rail name from "VCCIOB" to "VCCIOC".

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**Type:** Schematic Change

**Reason:** Follow Trenz module connection table.

**Impact:** None.

## 2.18 #18 Removed track-it traceability pad S/N.

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**Type:** Schematic Change

**Reason:** EOL of Component.

**Impact:** None.

## 2.19 #19 Changed fiducials to standard fiducial type.

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**Type:** Schematic Change

**Reason:** Use standard fiducials.

**Impact:** None.

## 2.20 #20 Updated Trenz address.

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**Type:** PCB Change

**Reason:** Update address.

**Impact:** None.

## 2.21 #21 Added UKCA- and RoHS-logo.

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**Type:** PCB Change

**Reason:** Improve product classification.

**Impact:** None.

## 2.22 #22 Updated components from library.

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**Type:** Schematic Change

**Reason:** Use latest component data.

**Impact:** None.

## 2.23 #23 Added legal notices, block and power diagram. Updated revision history. Updated page count and order.

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**Type:** Documentation Update

**Reason:** Documentation improvement.

**Impact:** None.

### 3 Method of Identification

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



### 4 Production Shipment Schedule

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From March 2025, 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

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

- [forum.trenz-electronic.de](http://forum.trenz-electronic.de/)<sup>1</sup>
- [wiki.trenz-electronic.de](http://wiki.trenz-electronic.de/)<sup>2</sup>
- [support@trenz-electronic.de](mailto:support@trenz-electronic.de)<sup>3</sup> (subject = PCN-20240614)
- phone
  - national calls: 05741 3200-0
  - international calls: 0049 5741 3200-0

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<sup>1</sup> <http://forum.trenz-electronic.de/>

<sup>2</sup> <http://wiki.trenz-electronic.de/>

<sup>3</sup> <mailto:support@trenz-electronic.de?subject=PCN-20240614>

## 6 Disclaimer

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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.