

PCN-20231004 TE0711-01 to TE0711-02 Hardware Revision Change

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Company	Trenz Electronic GmbH
PCN Number	PCN-20231004
Title	TE0711-01 to TE0711-02 Hardware Revision Change
Subject	Hardware Revision Change
Issue Date	2023-10-23

Products Affected

This change affects all Trenz Electronic TE0711 SoMs: TE0711-01*.

Affected Product	Replacement
TE0711-01-35-2C	TE0711-02-42C-1-A
TE0711-01-100-2C	TE0711-02-72C-1-A
TE0711-01-100-2I	TE0711-02-72I-1-A
TE0711-01-35-2I	TE0711-02-42I-1-A
TE0711-01-100-3E	-

Changes

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

Type: Schematic Change

Reason: EOL of Component.

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

#2 Changed DCDC (U11) from EN5311QI to MPM3834CGPA and adapted power circuit.

Type: Schematic Change

Reason: EOL of Component.

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

#3 Changed power supervisor (U23) from TPS3805H33DCKR to STM6710LWB6F and adapted circuits.

Type: Schematic Change

Reason: Improved power monitoring.

Impact: Improved power monitoring circuit by supervising additional voltage rails. If monitored voltages are out of range signal "PG_ALL" is triggered.

#4 Changed load switch (Q1) from TPS27082LDDCR to MP5077GG-Z and adapted circuit.

Type: Schematic Change

Reason: BOM Optimization.

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

#5 Changed clock (U6) from SiT8008AI-73-XXS-12.000000E to SiT8008BI-73-XXS-12.000000E.

Type: Schematic Change

Reason: Use new clock revision.

Impact: None.

#6 Added diode (D5) between signal nets "INIT" and "PROG_B".

Type: Schematic Change

Reason: Keep FPGA in reset while signal "PROG_B" is low during initial power-up.

Impact: None.

#7 Added pull-up resistor R25 for signal net "PROG_B".

Type: Schematic Change

Reason: Remove floating signal situations and enable signal measurement.

Impact: None. Firmware reflects it but custom firmware needs to be updated by customer.

#8 Changed ferrid bead BKP0603HS121-T (L1...L6) to MPZ0603S121HT000.

Type: Schematic Change

Reason: EOL of Component.

Impact: None.

#9 Changed resistor (R15) from 2.2 kOhm to 470 Ohm.

Type: Schematic Change

Reason: Follow AMD recommendation.

Impact: None.

#10 Added pull-up resistor (R22) for clock U3 enable signal.

Type: Schematic Change

Reason: Follow clock enable recommendation.

Impact: None.

#11 Changed fiducials to standard fiducial type.

Type: Schematic Change

Reason: Use standard fiducials.

Impact: None.

#12 Added serial number box (Serial).

Type: Schematic Change

Reason: Production improvement.

Impact: None.

#13 Added testpoints (TP1...TP19).

Type: PCB Change

Reason: Improve voltage monitoring and signal monitoring.

Impact: None.

#14 Changed CE logo position.

Type: PCB Change

Reason: Result of changes above.

Impact: None.

#15 Added UKCA logo.

Type: PCB Change

Reason: Required for export to UK.

Impact: None.

#16 Signal trace lengths changed

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 [4x5 series pinout generator](#). Please check if change in trace length still matches your requirements. Adaption of carrier may be necessary.

#17 Updated components from library.

Type: Schematic Change

Reason: Use latest component data.

Impact: None.

#18 Updated group tables and colours on "B2B_Connector" page.

Type: Documentation Update

Reason: Documentation improvement.

Impact: None.

#19 Updated legal notices, revision history, block and power diagram. Updated page count and order.

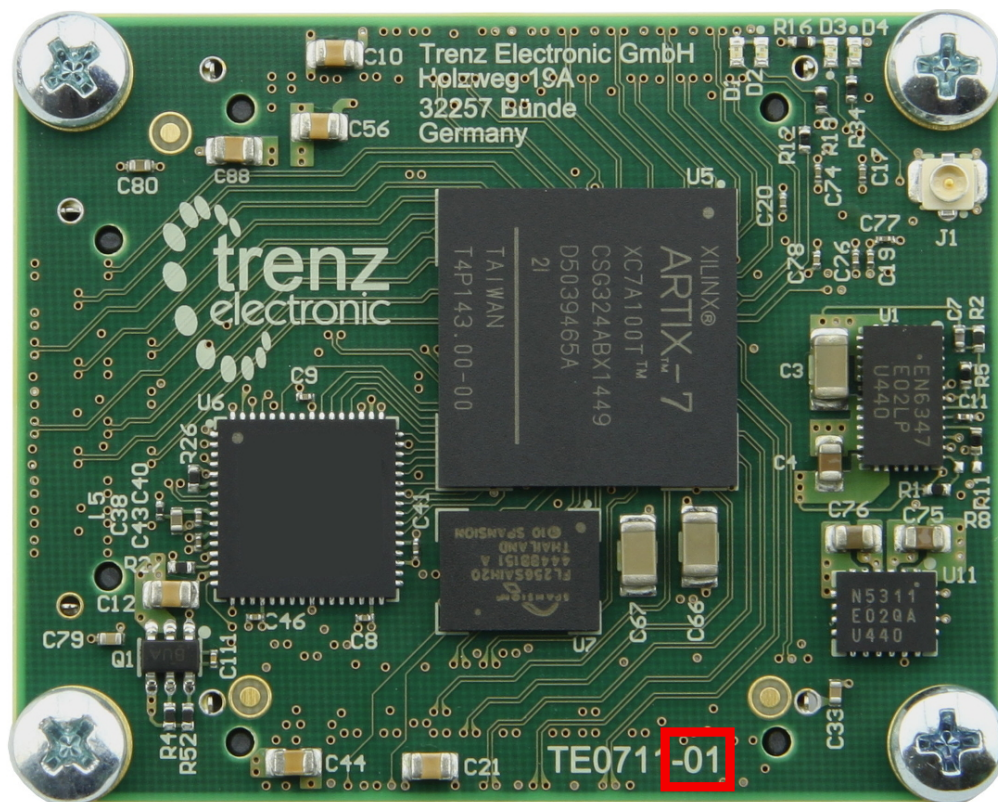
Type: Documentation Update

Reason: Documentation improvement.

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-20231004)
- 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.