

# PCN-20140730 TE0720-01 to TE0720-02

<b>Company</b>	Trenz Electronic Gmbh
<b>PCN Number</b>	PCN-20140730
<b>Title</b>	TE0720-01 to TE0720-02
<b>Subject</b>	Trenz Electronic TE0720 SoM (system on module): revision 1 to revision 2 upgrade
<b>Issue Date</b>	20140730

## Products Affected

This change affects all Trenz Electronic TE0720 SoMs of the first revision: TE0720-01-.\*.

affected product	suggested upgrade
TE0720-01-.*	TE0720-02-.*

## Changes

### #1 JTAG only boot mode is now supported

**Type:** Enhancement

**Reason:** Enhancement of functionality

**Impact:** None

### #2 Winbond W25Q256FV SPI Flash memory replaced with Spansion S25FL256

**Type:** Enhancement

**Reason:** Spansion S25FL256 is supported by current Xilinx design tools (ISE14.7, Vivado) W25Q256 is only supported by u-boot, Linux and Vivado SDK Programmer

**Impact:** May have to re-evaluate applications that write to the SPI Flash

### #3 Texas Instruments TPS51200 Sink/Source DDR Termination Regulator replaced with TPS51206

**Type:** BOM change

**Reason:** TPS51206 was changed due to BOM optimization

**Impact:** None

### #4 Changed MDIO pullup from 10k to 4k7

**Type:** BOM change

**Reason:** Avoiding potential problems when PHY management bus is configured at high speeds

**Impact:** None

## **#5 Changed eMMC core supply from switched 3.3Vout to 3.3Vin**

**Type:** Schematic change

**Reason:** eMMC startup timing improvement

**Impact:** None

## **#6 MAC EEPROM power changed from 3.3V to 1.8V**

**Type:** Schematic change

**Reason:** PCB and System Controller optimization

**Impact:** None

## **#7 I2C Multiplexing no longer needed (to select between RTC and MEMS), all I2C devices are on the same bus.**

**Type:** Schematic change

**Reason:** Change to new type of MEMS with only one I2C

**Impact:** None (if the old GPIO based I2C mux is used it just has no effect now)

## **#8 ST LSM303DLM (e-compass: 3D accelerometer and 3D magnetometer) MEMS is no longer assembled in standard assembly variants**

**Type:** BOM change

**Reason:** ST LSM303DLM MEMS has been discontinued

**Impact:** None for designs that did not use the MEMS sensor, please contact us for customized BOM if necessary

## **#9 Removed test pads on top layer**

**Type:** Layout change

**Reason:** No longer needed as the System Controller factory programming is done during tests using main B2B Connectors

**Impact:** None (test pads only used at factory)

## **#10 Increased component clearance from mounting holes on bottom layer**

**Type:** Enhancement

**Reason:** Decreasing the possibility to damage the module with improper extraction methods

**Impact:** None

## #11 System Controller in-system programming via B2B JTAG pins

**Type:** Enhancement

**Reason:** Enhancement for Factory tests and programming

**Impact:** None

## #12 JM1 pin 89 has new function that enables System Controller JTAG Chain no impact for old designs that connect this pin to GND

**Type:** Enhancement

**Reason:** Enhancement for Factory tests and programming

**Impact:** None

## Method of Identification

The model code and revision number (e.g. TE0720-01 or TE0720-02) are printed on the top side of the PCB.

## Production Shipment Schedule

From June 2014.

## Contact Information

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

- [forum.trenz-electronic.de](http://forum.trenz-electronic.de)
- [wiki.trenz-electronic.de](http://wiki.trenz-electronic.de)
- [support@trenz-electronic.de](mailto:support@trenz-electronic.de) (subject = PCN-20140730)
- phone
  - national calls: 05223 65301-0
  - international calls: 0049 5223 65301-0

## 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.