

# PCN-20180511 TE0841-01 to TE0841-02 Hardware Revision Upgrade

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|-------------------|---|
| <b>Company</b>    | Trenz Electronic GmbH   |
| <b>PCN Number</b> | PCN-20180511  |
| <b>Title</b>      | PCN-20180511 TE0841-01 to TE0841-02 hardware revision upgrade |
| <b>Subject</b>    | Hardware revision 01 to 02                                    |
| <b>Issue Date</b> | 20180511  |

## Products Affected

This change affects all Trenz Electronic TE0841 SoMs: TE0841-01\*.

| Affected Product | Replacement |
|------------------|-------------|
| TE0841-01*       | TE0841-02*  |

## Changes

### #1 Change SPI Flash from N25Q256A11E1240E to N25Q512A11G1240E

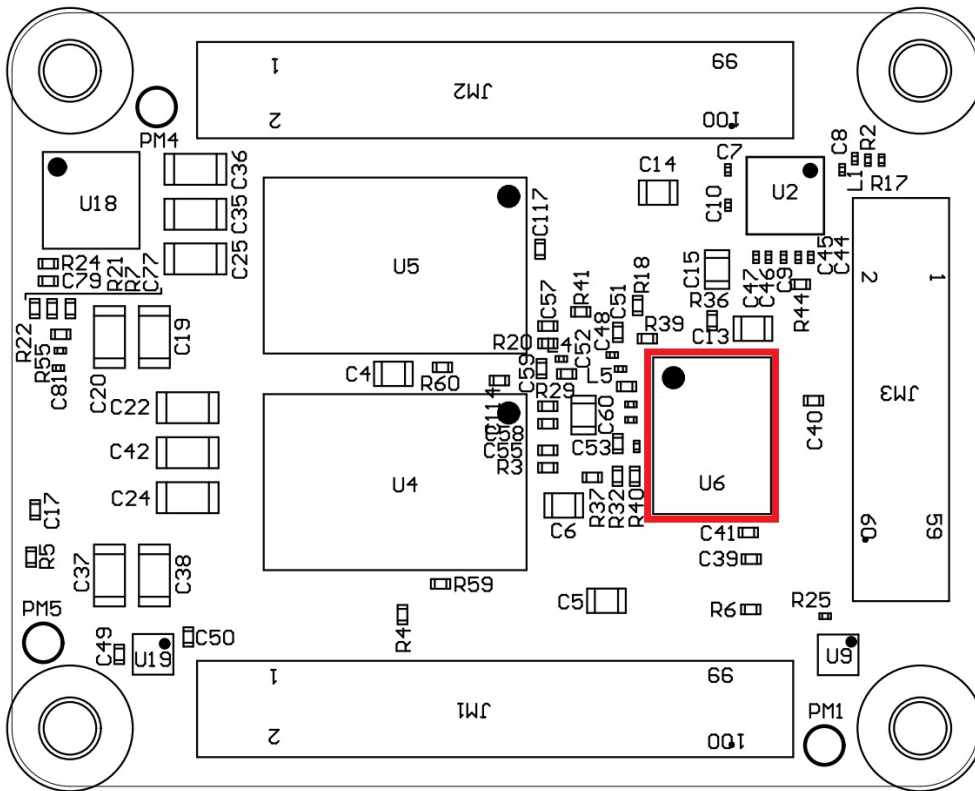
**Type:** BOM change

**Reason:** N25Q256A11E1240E became obsolete, the replacement part is not available for purchase. This is only an interim solution, because N25Q512A11G1240E is also obsolete already. It will be changed after the replacement parts will be available.

**Impact:** size changed from 256 MBit to 512 MBit per chip. JEDEC ID changed from BB19h to BB20h, both with manufacturer ID 20h.

### Method of identification

Locate Flash on backside of PCB:



N25Q256A11E1240E



N25Q512A11G1240E



## #2 Change of DDR4 from NT5AD256M16B2-GN to K4A8G165WB-BIRC

Type: BOM change

**Reason:** NT5AD256M16B2-GN will be obsolete, doubles the DDR size, industrial temperature grade of DDR.

**Impact:** new DDR timing and size need to be considered in customer design.

### #3 Fixed sense connection on DCDC

**Type:** Layout change

**Reason:** Sense connection was not optimal, voltage drop under high load was too high.

**Impact:** None

### #4 Added support for 16 GBIT DDR4 chips

**Type:** Layout change

**Reason:** Add support for higher memory capacity.

**Impact:** None

### #5 Added strong pull-down to EN\_PL

**Type:** Layout change

**Reason:** Improved reliability.

**Impact:** None

### #6 Added additional testpoints for I2C bus

**Type:** Layout change

**Reason:** Improved testing capability.

**Impact:** None

### #7 Added additional MEMS oscillator (25MHz)

**Type:** Layout change

**Reason:** Improved usability.

**Impact:** None

### #8 Changed pull-up on PG\_DDR from VIN to 3.3VIN

**Type:** Layout change

**Reason:** Error correction.

**Impact:** None

### #9 Added pull-down to EN\_DDR

**Type:** Layout change

**Reason:** Error correction.

**Impact:** None

## Production Shipment Schedule

From May 2018, after old stock is gone.

## Contact Information

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)
- [wiki.trenz-electronic.de](http://wiki.trenz-electronic.de)
- [support@trenz-electronic.de](mailto:support@trenz-electronic.de) (subject = PCN-20180511)
- 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.