

|                   |                                                   |
|-------------------|---------------------------------------------------|
| <b>Company</b>    | Trenz Electronic GmbH                             |
| <b>PCN Number</b> | PCN-20241204                                      |
| <b>Title</b>      | TEB0835-02 to TEB0835-03 Hardware Revision Change |
| <b>Subject</b>    | Hardware Revision Change                          |
| <b>Issue Date</b> | 2025-02-07                                        |

## Products Affected

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This change affects all Trenz Electronic TEB0835 Carrier: TEB0835-02\*.

| <b>Affected Product</b> | <b>Replacement</b> |
|-------------------------|--------------------|
| TEB0835-02-A            | TEB0835-03-A       |

## Changes

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#1 Changed DCDC (U1, U4) from TPS82085SIL to TPS62913RPUR, changed input power supply from voltage rail "5V" to "12V" and adapted circuit accordingly. Added switch (SW1) for DCDC (U4) enable signal.

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**Type:** Schematic Change

**Reason:** Changed input voltage range.

**Impact:** None. Minor changes in electrical characteristics.

#2 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.

### #3 Changed battery supply circuit.

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- Changed output voltage for net "PSBATT" from 1.8 V to 1.2 V.
- Changed placement order for battery holder (B1), diode (D13) and LDO (U18).
- Changed LDO (U18) from TPS780180300DRV to TPS7A0212PDBVR.
- Changed diode (D13) from SDMG0340LC-7-F to BAS70-05W.
- Changed capacitor (C86) from 4.7  $\mu$ F to 470 nF.

**Type:** Schematic Change

**Reason:** Decrease output voltage from 1.8 V to 1.2 V to follow AMD recommendation.

**Impact:** None. Reduced battery voltage for power rail "PSBATT".

### #4 Added optional not assembled DCDC (U8) enable switch (SW3, R271).

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**Type:** Schematic Change

**Reason:** Provide possibility to disable DCDC (U8) manually.

**Impact:** None. Improved optional manual power handling.

### #5 Added optional not assembled DCDC (U8) mode selection switch (SW2, R272).

---

**Type:** Schematic Change

**Reason:** Provide possibility to use forced continuous mode.

**Impact:** None. Improve DCDC handling.

### #6 Changed 10 nF capacitor (C37, C40) to 1 nF to adjust inrush current.

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**Type:** BOM Change

**Reason:** Adjust inrush current.

**Impact:** Improved inrush current behaviour.

### #7 Renamed module power rail "5V" to "V\_MODULE".

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**Type:** Documentation Change

**Reason:** Separate voltage rail name from voltage to use different voltages for voltage rail.

**Impact:** None. Follow net name structure to provide possibility to supply net with 5 V (default) or 12 V (assembly option).

#8 Added assembly option to supply power net "V\_MODULE either from power net "V\_5V0" via ferrite bead (L36, L37) (default) or from power net "12V" via ferrite bead (L38, L39) (assembly option). Added capacitor (C202 ... 207).

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**Type:** Schematic Change

**Reason:** Improve power supply for module.

**Impact:** None. Minor changes in electrical characteristics.

## #9 Changed LED connection architecture.

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- Connected B2B connector signal (J18 [REV02] / JB2 [REV03]) signal ([Pin - Signal name], [122 - B49\_L5\_P], [124 - B49\_L5\_N], [126 - B49\_L6\_P], [128 - B49\_L6\_N]) to connector J45.
- Connected B2B connector signal (J18 [REV02] / JB2 [REV03]) signal ([Pin - Signal name], [122 - B49\_L5\_P], [124 - B49\_L5\_N], [126 - B49\_L6\_P], [128 - B49\_L6\_N], [130 - B49\_L7\_P]) via 33 Ohm resistor to added MOSFET (T2, T37, T38) [REV03] switching LEDs.
- Changed LED designator (D6 → LED0, D7 → LED1, D8 → LED2, D9 → LED3, D10 → LED4, D12 → LED5).
- Removed LED (D11).
- Changed 330 Ohm resistor (R216 ... R221) to 33 Ohm.
- Added resistor (R134, R191, R234, R237 ... R239, R280 ... R283, R286) [REV03].

**Type:** Schematic Change

**Reason:** Insert dual function possibility for connector signals.

**Impact:** None. Use signals for LED and/or for connector interfacing.

## #10 Changed RF (J1, J3, J5, J7, J9, J11)[REV02] connector from SMA (5-1814400-1) to SMP (734060241).

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**Type:** Schematic Change

**Reason:** Harmonize RF connectors.

**Impact:** Connectors are mechanically not connectable to old cables.

## #11 Changed RF connector (J2, J4, J6, J8, J10, J12 ... J16)[REV02] from U.FL (U.FL-R-SMT-1) to SMP (734060241).

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**Type:** Schematic Change

**Reason:** Harmonize RF connectors.

**Impact:** Connectors are mechanically not connectable to old cables.

#12 Changed balun from TCM2-33WX+ to TCM2-43X+ and changed designators from "T" (T2 ... T17) [REV02] to "TR" (TR1 ... TR16) [REV03] with number decreased by one e.g. T2 → TR1.

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**Type:** BOM Change

**Reason:** Increase bandwidth.

**Impact:** Changes in electrical characteristics.

#13 Changed RF designators from "J" (J1 ... J16) [REV02] to "XS" (XS1 ... XS16) [REV03] e.g. J1 → XS1.

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**Type:** Documentation Change

**Reason:** Improve readability and documentation.

**Impact:** None.

#14 Changed ADC input filter.

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| Resistor Designator                                                                   | Old resistor value<br>(TEB0835-02-A) | New resistor value<br>(TEB0835-03-A) |
|---------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|
| R7, R8, R35, R36,<br>R21, R22, R49, R50,<br>R14, R15, R42, R43,<br>R28, R29, R56, R57 | 590 Ohm                              | 1 MOhm (DNP)                         |
| R6, R9, R34, R37,<br>R20, R23, R48, R51,<br>R13, R16, R41, R44,<br>R27, R30, R55, R58 | 17.4 Ohm                             | 0 Ohm                                |

**Type:** Schematic Change

**Reason:** Improve signal quality.

**Impact:** Changes in electrical characteristics.

## #15 Changed DAC output filter.

| Resistor Designator                                                                          | Old Value | New Value |
|----------------------------------------------------------------------------------------------|-----------|-----------|
| R63, R64, R70, R71,<br>R77, R78, R84, R85,<br>R91, R92, R98, R99,<br>R105, R106, R112, R113  | 590 Ohm   | 1 MOhm    |
| R62, R65, R69, R72,<br>R76, R79, R83, R86,<br>R90, R93, R97, R100,<br>R104, R107, R111, R114 | 17.4 Ohm  | 0 Ohm     |

**Type:** Schematic Change

**Reason:** Improve signal quality.

**Impact:** Changes in electrical characteristics.

## #16 Changed ADC (ADCx\_IN to ADC\_INx for x = 0 ... 7) and DAC (DACx\_OUT to DAC\_OUTx for x = 0 ... 7) net names.

**Type:** Documentation Change

**Reason:** Improve readability and documentation.

**Impact:** None.

## #17 Added shield 3670412 (Shield1, Shield2).

**Type:** Schematic Change.

**Reason:** Improve signal quality.

**Impact:** Changes in electrical characteristics.

## #18 Set ADC and DAC clock alternative input circuit to not assembled (J20, J27, J32 ... J35, J38, T26 ... T32, R160, R162, R163, R167, R168, R176, R177, R227, R228, R230, R231, R233, R236)[REV03].

**Type:** BOM Change

**Reason:** BOM reduction.

**Impact:** None.

## #19 Changed connector (J36) from U.FL (U.FL-R-SMT-1) to SMA (R125426000).

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**Type:** Schematic Change

**Reason:** Improve connectivity.

**Impact:** Changes in electrical characteristics. Connectors are mechanically not connectable to old cables.

## #20 Added RFSoc multi-tile clock via signals "B65\_L11\_(P/N)" from PLL (U5) signals "CLKOUT8\_(P/N)" or via optional external source with not assembled circuit components (J42, T34, R241, R158, R159, C124, C126).

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**Type:** Schematic Change

**Reason:** Enable ADC/DAC synchronization.

**Impact:** None.

## #21 Added RFSoc multi-tile clock via signals "B65\_L12\_(P/N)" from PLL (U5) signals "CLKOUT7\_(P/N)" or via optional external source with not assembled circuit components (J43, T35, R242, R243, R244, C129, C131).

---

**Type:** Schematic Change

**Reason:** Enable ADC/DAC synchronization.

**Impact:** None.

## #22 Added synchronisation option for PLL on RFSoc module (TE0835) via signals "EXT\_CLK\_IN1\_P/N". Default single ended clock supply supported via SMA R125426000 (J46), resistor (R224, R287) and signal "EXT\_CLK\_IN1\_P". GND is connected to signal "EXT\_CLK\_IN1\_N" via resistor (R290) in default connection. Optional circuit modification via components (T36, R266, R267) possible.

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**Type:** Schematic Change

**Reason:** Enable PLL synchronization option for RFSoc module (TE0835).

**Impact:** None.

#23 Changed FireFly connector (J22, J24) from UEC5-019-2-H-D-RA-1 to UEC5-019-1-H-D-RA-1-A and changed pinout (name and order) for high-speed lanes.

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**Type:** Schematic Change

**Reason:** Fix high-speed lane pinout.

**Impact:** Enabled PCIe communication and usage of parts with CDR but reduced data throughput from 28 Gbps to 16 Gbps.

#24 Changed FireFly connector (J23, J25) from ECUO to PCUO version.

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**Type:** Schematic Change

**Reason:** Enable PCIe via FireFly.

**Impact:** None.

#25 Added slide switch (S7, R192, R387, R390, R409, R410, R415)[REV03] for FireFly configuration.

---

**Type:** Schematic Change

**Reason:** Follow Firefly specification. Enable manually setting for FireFly cable present signal "CPRSNT#".

**Impact:** None.

#26 Added load switch (Q2, C175 ... C178, C198 ... C201, C212 ... C216, R276, L34, L35) to supply VCC\_1.8 FireFly connector (J23 - Pin 9, J25 - Pin 9) power rail.

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**Type:** Schematic Change

**Reason:** Follow Firefly specification to enable optical Gen 4 FireFly usage.

**Impact:** None.

#27 Added FireFly termination resistor (R246 ... R261, R284, R285, R305, R311, R314, R315, R318, R325, R326, R330 ... R336). Resistor (R246, R248, R250, R252, R254, R256, R258, R260, R285, R305, R315, R318, R330, R331, R334, R335) are not assembled.

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**Type:** Schematic Change

**Reason:** Enable impedance matching option.

**Impact:** None.

## #28 Added FireFly resistor (R337 ... R384) detect network.

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**Type:** Schematic Change

**Reason:** Enable PCIe Detect feature for FireFly interface.

**Impact:** None.

## #29 Added termination resistor (R296 ... R299, R302, R303, R307 ... R310, R312, R313, R317, R320, R403 ... R405, R408) for FireFly connector (J22, J24).

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**Type:** Schematic Change

**Reason:** Follow FireFly specification.

**Impact:** None. Improve system performance.

## #30 Changed signal names, added pull-up resistor and changed pull-up resistor designator for FireFly signals.

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| Old net name<br>(TEB0835-02-A) | New net name<br>(TEB0835-03-A) | Old pull-up<br>resistor designator<br>(TEB0835-02-A) | New pull-up<br>resistor designator<br>(TEB0835-03-A) |
|--------------------------------|--------------------------------|------------------------------------------------------|------------------------------------------------------|
| FFA_MPRS                       | FF0_PRESENT#                   | R191                                                 | R289                                                 |
| FFA_MSEL                       | FF0_SELECT#                    | -                                                    | -                                                    |
| FFA_INTL                       | FF0_CPERST#                    | -                                                    | R409                                                 |
| FFA_RSTL                       | FF0_CPRSNT#                    | -                                                    | R410                                                 |
| FFB_MPRS                       | FF1_PRESENT#                   | R194                                                 | R288                                                 |
| FFB_MSEL                       | FF1_SELECT#                    | -                                                    | -                                                    |
| FFB_INTL                       | FF1_CPERST#                    | -                                                    | R390                                                 |
| FFB_RSTL                       | FF1_CPRSNT#                    | -                                                    | R387                                                 |

**Type:** Schematic Change

**Reason:** Follow FireFly specification and improve readability.

**Impact:** None.

#31 Changed capacitor designators for FireFly connectors (J23, J25) and changed 100 nF capacitors from 6.3 V, 0201 to 25 V, 0402.

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**Type:** Schematic Change

**Reason:** BOM Optimization.

**Impact:** None. Minor changes in electrical characteristics.

#32 Changed clock source for signal "SYSREFCLK\_P/N" from "CLKOUT7\_P/N" [REV02] to "CLKOUT9\_P/N" [REV03].

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**Type:** Schematic Change

**Reason:** Simplify routing.

**Impact:** Trenz Reference Design reflects it but custom firmware needs to be checked and updated by customer.

#33 Connect clock signal "CLKOUT9A\_P/N" to B2B connector signal "B65\_L13\_P/N" and removed it from PLL (U5) feedback clock input. Connected capacitor (C47, C170) at PLL (U5) feedback clock input.

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**Type:** Schematic Change

**Reason:** Simplify routing.

**Impact:** Trenz Reference Design reflects it but custom firmware needs to be checked and updated by customer.

#34 Changed termination for clock signal "CLKIN0\_P/N" via capacitor C47 [REV02] PLL (U5) and resistor (R119 [REV02], R120 [REV02]).

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**Type:** Schematic Change

**Reason:** Follow Silicon Labs recommendation.

**Impact:** None. Minor changes in electrical characteristics.

#35 Connected PLL (U5) VDD via inductor (L17 [REV03]) to 1.8V instead of using multiple inductors (L17 [REV02], L19 [REV02], L22 [REV02]).

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**Type:** Schematic Change

**Reason:** BOM Optimization.

**Impact:** None. Minor changes in electrical characteristics.

### #36 Added pull-up resistor (R294) for signal "DSPLL0\_LOL\_N".

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**Type:** Schematic Change

**Reason:** Improve signal handling.

**Impact:** Improve circuit reliability.

### #37 Changed B2B connector designators:

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| Old designator<br>(TEB0835-02-A) | New designator<br>(TEB0835-03-A) |
|----------------------------------|----------------------------------|
| J17                              | JB1                              |
| J18                              | JB2                              |

**Type:** Documentation Change

**Reason:** Improve readability and documentation.

**Impact:** None.

### #38 Changed B2B connector J17 [REV02] / JB1 [REV03] pinout:

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| Pin | Old net<br>(TEB0835-02-A) | New net<br>(TEB0835-03-A) | Connected to<br>connector J44 |
|-----|---------------------------|---------------------------|-------------------------------|
| 17  | Not connected             | MIO17                     | B18                           |
| 19  | Not connected             | MIO18                     | B17                           |
| 21  | Not connected             | MIO19                     | B16                           |
| 23  | Not connected             | MIO20                     | B14                           |
| 25  | Not connected             | MIO21                     | A14                           |
| 27  | Not connected             | MIO22                     | B13                           |
| 29  | Not connected             | MIO23                     | A13                           |

| Pin | Old net<br>(TEB0835-02-A) | New net<br>(TEB0835-03-A) | Connected to<br>connector J44 |
|-----|---------------------------|---------------------------|-------------------------------|
| 31  | Not connected             | MIO24                     | B12                           |
| 33  | Not connected             | MIO13/25                  | A8                            |
| 35  | Not connected             | MIO38                     | A12                           |
| 37  | Not connected             | MIO39                     | A7                            |
| 38  | Not connected             | MIO26                     | B8                            |
| 39  | Not connected             | MIO40                     | A9                            |
| 40  | Not connected             | MIO27                     | B5                            |
| 41  | Not connected             | MIO41                     | A5                            |
| 42  | Not connected             | MIO30                     | B7                            |
| 44  | Not connected             | MIO31                     | B3                            |
| 46  | Not connected             | MIO34                     | B4                            |
| 47  | Not connected             | MIO44                     | B9                            |

**Type:** Schematic Change

**Reason:** Increase interface options.

**Impact:** None.

### #39 Changed B2B connector J18 [REV02] / JB2 [REV03] pinout:

| Pin | Old net<br>(TEB0835-02-A) | New net<br>(TEB0835-03-A) | Connected to |
|-----|---------------------------|---------------------------|--------------|
| 1   | Not connected             | GND                       | GND          |
| 2   | Not connected             | GND                       | GND          |

| Pin | Old net<br>(TEB0835-02-A) | New net<br>(TEB0835-03-A) | Connected to       |
|-----|---------------------------|---------------------------|--------------------|
| 36  | Not connected             | CLKA_P                    | J45 Pin A2         |
| 38  | Not connected             | CLKA_N                    | J45 Pin B1         |
| 15  | Not connected             | B65_L1_P                  | J45 Pin B7         |
| 17  | Not connected             | B65_L1_N                  | J45 Pin A8         |
| 6   | Not connected             | B65_L2_P                  | J45 Pin B13        |
| 4   | Not connected             | B65_L2_N                  | J45 Pin A14        |
| 3   | Not connected             | B65_L3_P                  | J45 Pin B12        |
| 5   | Not connected             | B65_L3_N                  | J45 Pin A12        |
| 14  | Not connected             | B65_L4_P                  | J45 Pin B16        |
| 12  | Not connected             | B65_L4_N                  | J45 Pin A17        |
| 10  | Not connected             | B65_L5_P                  | J45 Pin B15        |
| 8   | Not connected             | B65_L5_N                  | J45 Pin A15        |
| 11  | Not connected             | B65_L6_P                  | J45 Pin B9         |
| 13  | Not connected             | B65_L6_N                  | J45 Pin A9         |
| 19  | Not connected             | B65_L8_P                  | J45 Pin B6         |
| 21  | Not connected             | B65_L8_N                  | J45 Pin A6         |
| 7   | Not connected             | B65_L9_P                  | J45 Pin B10        |
| 9   | Not connected             | B65_L9_N                  | J45 Pin A11        |
| 22  | Not connected             | B65_L11_P                 | CLKOUT8_N via C118 |

| Pin | Old net<br>(TEB0835-02-A) | New net<br>(TEB0835-03-A) | Connected to                                                                      |
|-----|---------------------------|---------------------------|-----------------------------------------------------------------------------------|
| 20  | Not connected             | B65_L11_N                 | CLKOUT8_P via C127                                                                |
| 18  | Not connected             | B65_L12_P                 | CLKOUT7_N via C128                                                                |
| 16  | Not connected             | B65_L12_N                 | CLKOUT7_P via C137                                                                |
| 25  | Not connected             | B65_L13_P                 | CLKOUT9A_P via C132                                                               |
| 23  | Not connected             | B65_L13_N                 | CLKOUT9A_N via C133                                                               |
| 24  | Not connected             | B65_L16_P                 | B18                                                                               |
| 26  | Not connected             | B65_L16_N                 | A18                                                                               |
| 156 | Not connected             | EXT_CLK_IN1_P             | J46 via R224 and R287 (default)<br>or<br>J46 via R224 and T36 Pin 1<br>(optional) |
| 158 | Not connected             | EXT_CLK_IN1_N             | GND via R290 (default) or<br>GND via T36 Pin 3                                    |

**Type:** Schematic Change

**Reason:** Increase interface options.

**Impact:** None.

#### #40 Added 100 Ohm clock termination resistor for signals "CLKD\_P/N" (R120 [REV03]), "CLKE\_P/N" (R291) and "CLKF\_P/N" (R193 [REV03]).

**Type:** Schematic Change

**Reason:** Improve signal integrity.

**Impact:** None.

#### #41 Changed power supply structure for FTDI (U12) interface.

- Changed USB net name "USB\_VBUS" to "5V\_VBUS".
- Added power supply circuit (U19, D6, D7, C220, C217, L19 [REV03], C171, R273 (optional), R274 (optional)) to provide power rail "3.3V\_FTDI" to FTDI chip (U12).

- Possible power supply for LDO (U19) via power rail "5V\_VBUS" (D6) or/and "V\_5V0" (D7).
- Supply EEPROM (U15), oscillator (U16) and FTDI chip (U12) from power net "3.3V\_FTDI".

**Type:** Schematic Change

**Reason:** BOM Optimization. Improve USB interfacing.

**Impact:** None.

#42 Changed buffer (U13, U14) from SN74LVC1G07DRL to SN74AVC4T774RSVR and adapted according circuits. Used buffer (U13) for tri-stating JTAG signals and buffer (U14) for UART signal voltage translation. Removed series resistor (R237 ... R240) for JTAG signals.

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**Type:** Schematic Change

**Reason:** JTAG and UART handling improvement.

**Impact:** None.

#43 Added optional connection between FTDI chip (U12) signal ADBUS4 and power net 3.3V\_FTDI via pull-up resistor (R124).

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**Type:** Schematic Change

**Reason:** Improve JTAG interfacing.

**Impact:** None.

#44 Added USB filter (L25) for FTDI USB signals.

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**Type:** Schematic Change

**Reason:** Improve signal integrity.

**Impact:** None. Minor changes in electrical characteristics.

#45 Removed FTDI EEPROM AMD-Licence key (MISC1).

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**Type:** Firmware Change

**Reason:** Change according to FTDI programming method released by AMD with Tool Version 2022.2 and newer (UG980- Chapter: Programming FTDI Devices for Vivado Hardware Manager Support)

**Impact:** AMD Licence key is compatible with AMD Tools greater and equal 2017.1 release. Programmer will be identified as Xilinx device with prefix 'TE' ,see [AMD FTDI JTAG Programmer#IdentificationofAMD/TrenzLicence](https://wiki.trenz.local/display/PD/AMD+FTDI+JTAG+Programmer#AMDFTDIJTAGProgrammer-IdentificationofAMD/TrenzLicence)<sup>1</sup>

#46 Set resistor (R223) as not assembled to set USB mode.

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**Type:** Schematic Change

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<sup>1</sup> <https://wiki.trenz.local/display/PD/AMD+FTDI+JTAG+Programmer#AMDFTDIJTAGProgrammer-IdentificationofAMD/TrenzLicence>

**Reason:** Improve USB interfacing.

**Impact:** None.

#47 Added connector (J44, J45, L26 (default: not assembled), L27, L40, L41, C183 ... C185, C208 ... C211).

---

**Type:** Schematic Change

**Reason:** Increase interfacing options.

**Impact:** None.

#48 Added TE0835 front panel (MECH1), screws (MECH3, MECH4) and PCB Spacer (MP1 ... MP4).

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**Type:** BOM Change

**Reason:** Improve board handling.

**Impact:** None.

#49 Added light pipe (LP1).

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**Type:** Schematic Change

**Reason:** Improve board handling.

**Impact:** None.

#50 Changed MEMS oscillator (U16) from SiT8008AI-73-XXS-12.000000E to SiT8008BI-73-XXS-12.000000E.

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**Type:** Schematic Change

**Reason:** EOL of Component.

**Impact:** None. Clock revision changed.

#51 Changed LED (D1 ... D3) from SML-P11MTT86R to LG R971-KN-1-0-20-R18.

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**Type:** Schematic Change

**Reason:** BOM Optimization

**Impact:** None. Minor changes in electrical characteristics.

#52 Disconnected mounting hole (MH1, MH5) from GND.

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**Type:** Schematic Change

**Reason:** Improve analog/digital GND separation.

**Impact:** None.

## #53 Changed MOSFET (T18 ... T21) from SIS444DN-T1-GE3 to SIS4604LDN-T1-GE3.

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**Type:** Schematic Change

**Reason:** EOL of Component.

**Impact:** None. Minor changes in electrical characteristics.

## #54 Changed following resistors:

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1. 4.7 kOhm resistor (R157, R202) from 0.05 W, 0201 to 0.063 W, 0402.
2. 33 Ohm resistor (R208) from 0.05 W, 0201 to 0.063 W, 0402.

**Type:** Schematic Change

**Reason:** BOM Optimization

**Impact:** None. Minor changes in electrical characteristics.

## #55 Changed ferrite bead (L12) from BKP0603HS121-T to BLM15PX121SN1D.

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**Type:** Schematic Change

**Reason:** EOL of Component.

**Impact:** None. Minor changes in electrical characteristics.

## #56 Changed ferrite bead (L10, L11) from LI0402E300R-10 to BLM15PX121SN1D.

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**Type:** Schematic Change

**Reason:** BOM Optimization

**Impact:** None. Minor changes in electrical characteristics.

## #57 Changed inductor (L4, L5, L7, L8) from VLS3012HBX-1R0M to LPWI252010S1R0T.

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**Type:** Schematic Change

**Reason:** BOM Optimization

**Impact:** None. Minor changes in electrical characteristics.

## #58 Changed following capacitors:

1. 100 nF capacitor (C4 ... C35, C47, C50, C52 ... C54, C56, C57, C68, C77, C104, C106 ... C112, C115 ... C118, C143, C144, C146, C149, C150, C153, C154, C157, C158, C161, C162, C165, C166, C169) from 6.3 V, X5R, 0201 to 50 V, X7R, 0402.
2. 100 nF capacitor (C88 ... C97) from X5R to X7R.
3. Capacitor (C123) from 100 nF, 6.3 V, X5R, 0201 to 220 nF, 50 V, X7R, 0603.
4. 470 nF capacitor (C145) from 0201 to 0402.
5. Capacitor (C135) from 100 nF, 0201 to 1  $\mu$ F, 0402.
6. Capacitor (C44, C46, C48, C49, C132, C133) from 10 V, 0201 to 50 V, 0402.

**Type:** Schematic Change

**Reason:** BOM Optimization

**Impact:** None. Minor changes in electrical characteristics.

## #59 Changed unused MOSFET (T33B) inputs from short to GND to floating pins.

**Type:** Schematic Change

**Reason:** Simplify routing.

**Impact:** None.

## #60 Changed I2C signal names and designators for I2C pull-up resistors.

| Old net name<br>(TEB0835-02-A) | New net name<br>(TEB0835-03-A) | Old pull-up<br>resistor designator<br>(TEB0835-02-A) | New pull-up<br>resistor designator<br>(TEB0835-03-A) |
|--------------------------------|--------------------------------|------------------------------------------------------|------------------------------------------------------|
| FFB_SCL                        | FF0_SCL                        | R196                                                 | R262                                                 |
| FFB_SDA                        | FF0_SDA                        | R195                                                 | R263                                                 |
| FFA_SCL                        | FF1_SCL                        | R193                                                 | R264                                                 |
| FFA_SDA                        | FF1_SDA                        | R192                                                 | R265                                                 |

**Type:** Schematic Change

**Reason:** Improve FireFly naming readability.

**Impact:** None.

## #61 Added test point (TP22 ... TP34, TP45).

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**Type:** Schematic Change

**Reason:** Improve voltage measurement possibilities.

**Impact:** None.

## #62 Changed fiducials to standard fiducial type.

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**Type:** Schematic Change

**Reason:** Use standard fiducials.

**Impact:** None.

## #63 Added UKCA-logo.

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**Type:** PCB Change

**Reason:** Improve product classification.

**Impact:** None.

## #64 Added I2C address table, power overview and clock overview. Updated legal notices, system overview and revision history. Updated page count and order.

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**Type:** Documentation Update

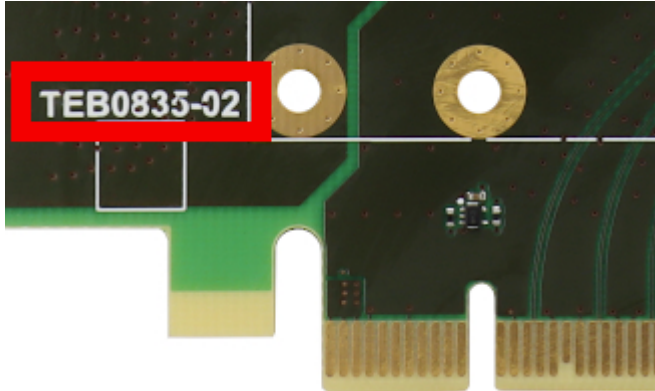
**Reason:** Documentation Improvement.

**Impact:** None.

## Method of Identification

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



## Production Shipment Schedule

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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

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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>2</sup>
- [wiki.trenz-electronic.de](http://wiki.trenz-electronic.de)<sup>3</sup>
- [support@trenz-electronic.de](mailto:support@trenz-electronic.de)<sup>4</sup> (subject = PCN-20241204)
- phone
  - national calls: 05741 3200-0
  - international calls: 0049 5741 3200-0

## 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.

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

<sup>3</sup> <http://wiki.trenz-electronic.de/>

<sup>4</sup> <mailto:support@trenz-electronic.de?subject=PCN-20241204>