

Regarding the usage of our schematics and alike documentation for Trenz baseboard TE0706 .
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 Schematics and other handouts serve for informational purposes only!

Design drawn by: VG
Checked by:
Assembly variant: A
Created by: VG
Modified by: -
Modified at: -



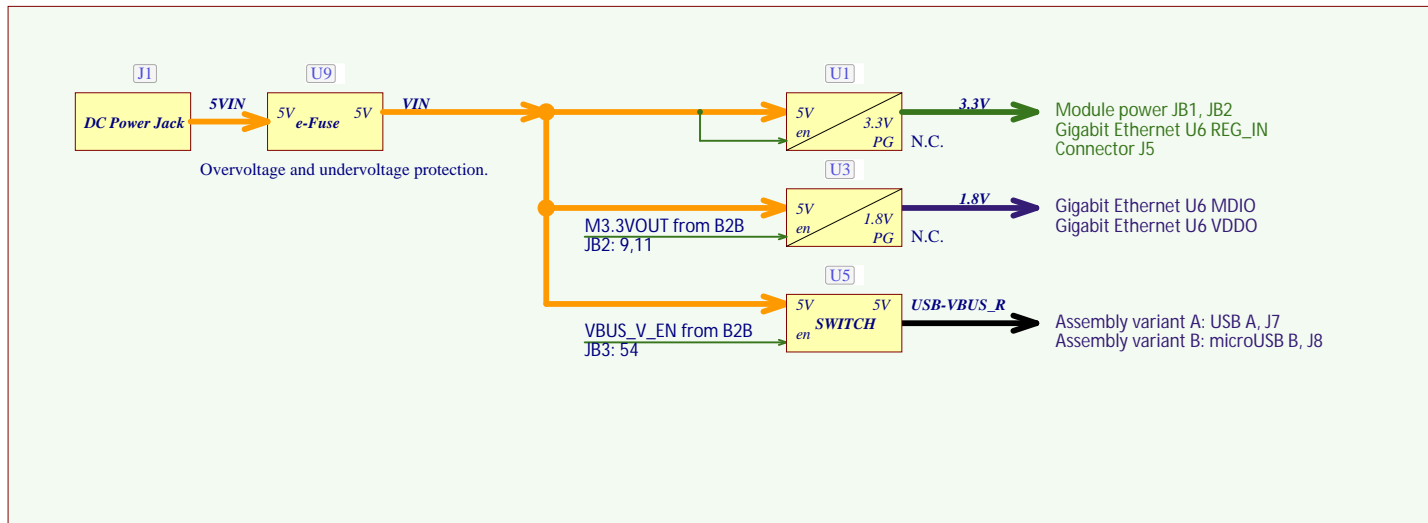
Title: Legal Notices		
A4	Number: TE0706 A	Rev. 04
Date: 2024-05-14	Copyright: Trenz Electronic GmbH / TT	Page 1 of 12
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REV	Description	
-01	Initial revision	
-02	1. Added support for 1.8V IO TE0715-30 (added 3-pin headers for variable voltage banks). 2. PWR connector type changed THT->SMD. 3. Swapped xmod RX <>TX. 4. Added 0 ohm to disconnect CLK125 for GT module compatibility. 5. Changed micro-USB. 6. Add ferrite beads L1. 7. Update Razorbeam Connectors, full update lib. 8. Added serial number (traceability pad). 9. Added thermal vias to mounting holes.	28.06.2016
	10. U8 MP5010ADQ-LF-Z replaced to MP5010BDQ-LF-Z	23.11.2017
-03	1. MicroSD card connector (J3) changed to industrial. 2. Changed PB (S2) to industrial. 3. Replaced input power protection. 4. Added jumper (J11) to select SD level shifter voltage on FPGA side. 5. Added power switch for SD level shifter supply voltages to ensure power sequencing of level shifter. 6. Replaced R5 and VBUS capacitors, add 0Ohm resistors to OTG-ID. 7. Replaced jumpers by SMD versions.	28.12.2018
	8. Replaced R34 by 953k and R38 by147k.	29.08.2019
	9. Set S/N Track-it Pad to not fitted (EOL).	04.05.2022
-04	1. Components updated from the library. 2. L3, L5 Ferrit beads BKP0603HS121-T replaced with MPZ0603S121HT000. 3. EOL SMD component J9 was replaced with THT. 4. SMD Pin Headers J10 - J13 were replaced with THT. 5. EOL component U3 EN5311Q1 was replaced with MPM3834CGPA-Z. 6. EOL component U1 EN6347Q1 was replaced with MPM3860GQW-Z. 7. Added Diode D1, D2 for USB ESD protection. 8. Eth Phy Powersupply modified: L1, R27 removed from schematic; for U6 DVDD supply used internal LDOs. 9. Q1 TPS27081ADDCR was replaced with MP5077GG-Z. 10. EOL component J4 micro SD Card was replaced. 11. Added testpoints TP1 - TP9. 12. Added series terminator R27 to avoid ringing effect. 13. The signals were renamed: - VCCIOB ----> VCCIOC - VCCIOC ----> VCCIOD according to Trenz Module Connection Table. 14. Added Legal Notices page. 15. Added Power diagram page. 16. Added Block diagramm. 17. Added series terminators R50-55 to avoid ringing effect. 18. PGOOD connected to S1-1 DIP Switch and pulled-up by resistor R56 to 3.3V. 19. Added a pull-up resistor R57 on RESIN. Not all 4x5 modules have internal pull-up for this pin on the module. 20. Added mechanical components: - Screw M3x6 (2 pcs.); - Standoff M3x10; - U2 - TE0790-03 XMOD FTDI JTAG Adapter; - J14 - J18 - Jumpers 2.54mm Pitch. 21. In assembly variant A resistor R39 is installed according to USB PHY specification.	VG 14.05.2024



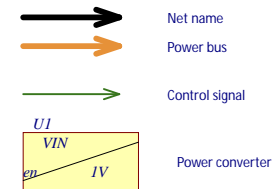
Title: Revision History		
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Power-on sequencing



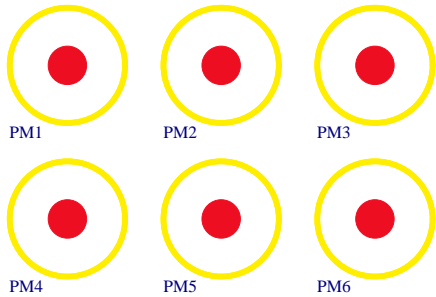
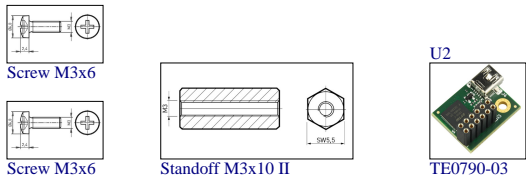
Supported Voltage Ranges:

Power Rail	Direction	Range	Tolerance	Description	Note
5VIN	IN	5V	+/-5%	External Power	-
3.3V	OUT	3.3V	+/-3%	Micromodule Power	-
USB-VBUS_R	OUT	5V	+/-5%	USB Power	-

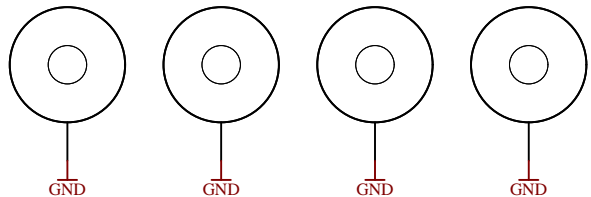


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	A4	Number: TE0706 A	Rev. 04
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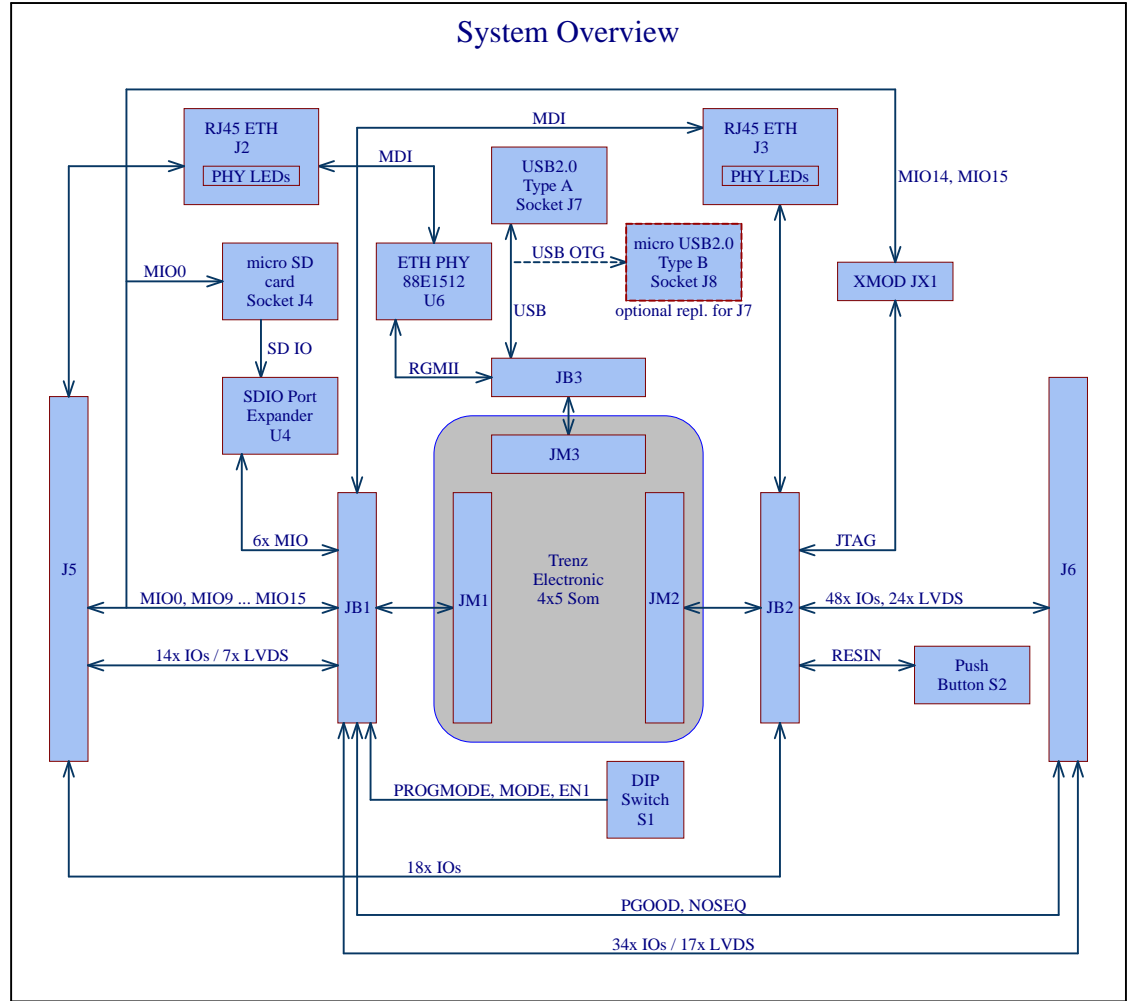
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B2B_Connectors.SchDoc
- U_LED_SW_BUT
LED_SW_BUT.SchDoc
- U_USB
USB.SchDoc
- U_ETH-PHY
ETH-PHY.SchDoc
- Ethernet
Ethernet.SchDoc
- U_POWER
POWER.SchDoc
- SDCard
SDCard.SchDoc
- U_VG_CONN
VG_CONN.SchDoc



Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm



System Overview



Serial
Serial
Serialnumber 6,3 x 6.3mm

UKCA
UKCA Logo on Top Overlay

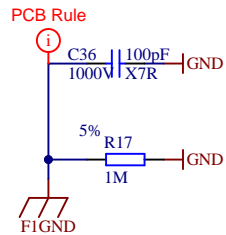
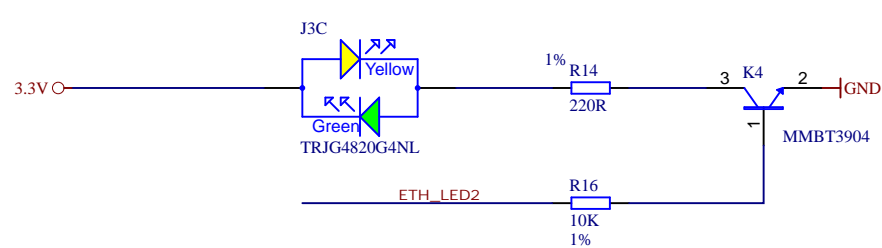
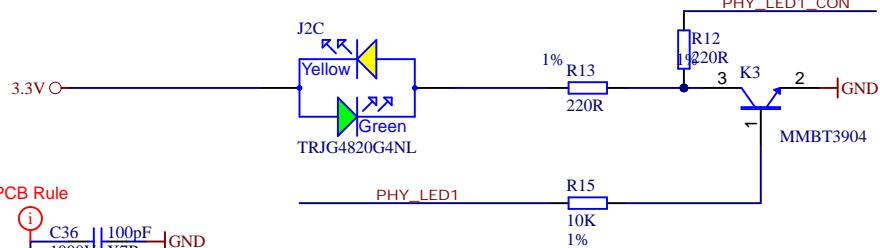
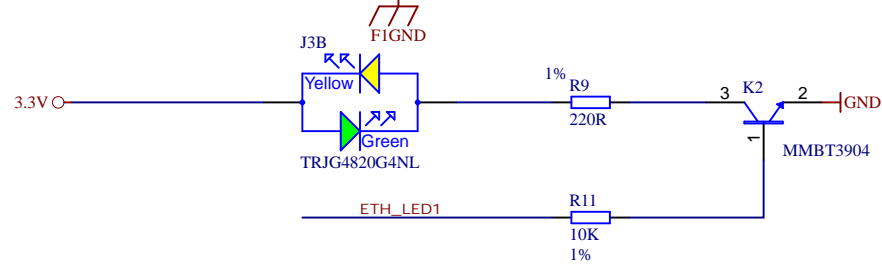
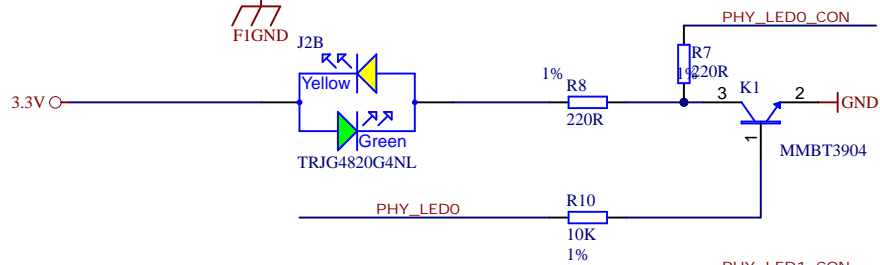
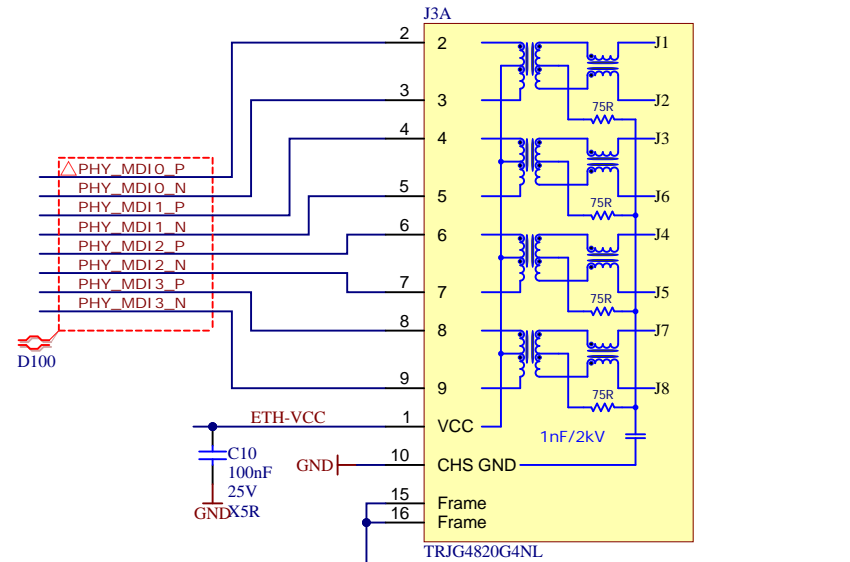
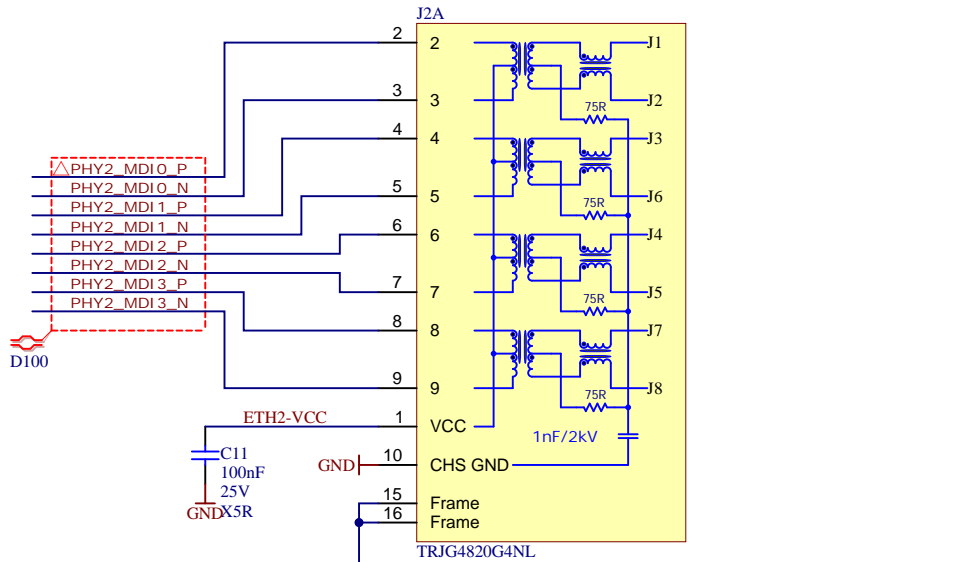
UKCA-TOPOVERLAY
LOGO1
TE Logo PRINT Layer

LOGO PRINT
LOGO2
CE Logo on Top Overlay

CE-TOPOVERLAY



Title: Overview		
A4	Number: TE0706 A	Rev. 04
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	Title: Ethernet		
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1

2

3

4

A

A

B

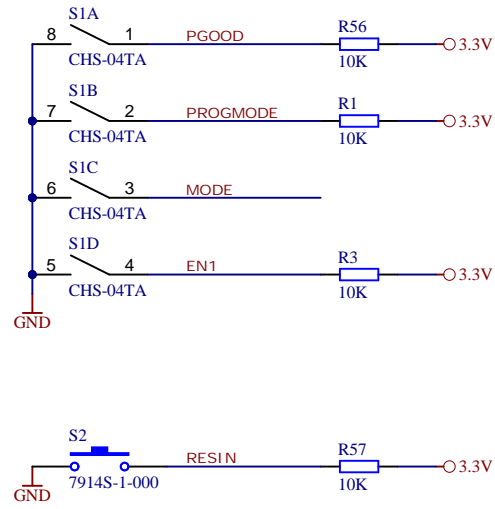
B


C

C

D

D



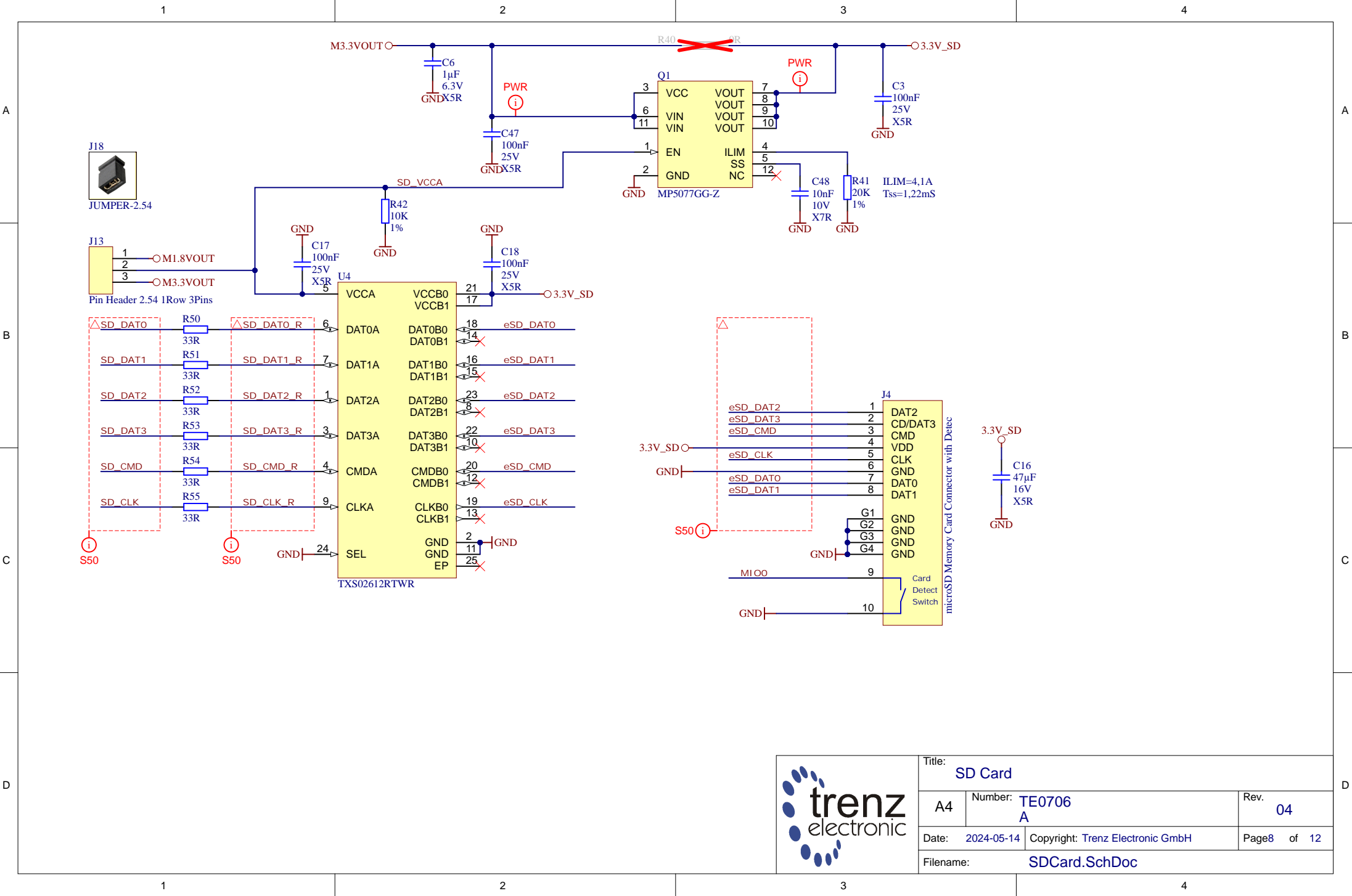
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	A4	Number: TE0706 A	Rev. 04
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	Filename: LED_SW_BUT.SchDoc		

1

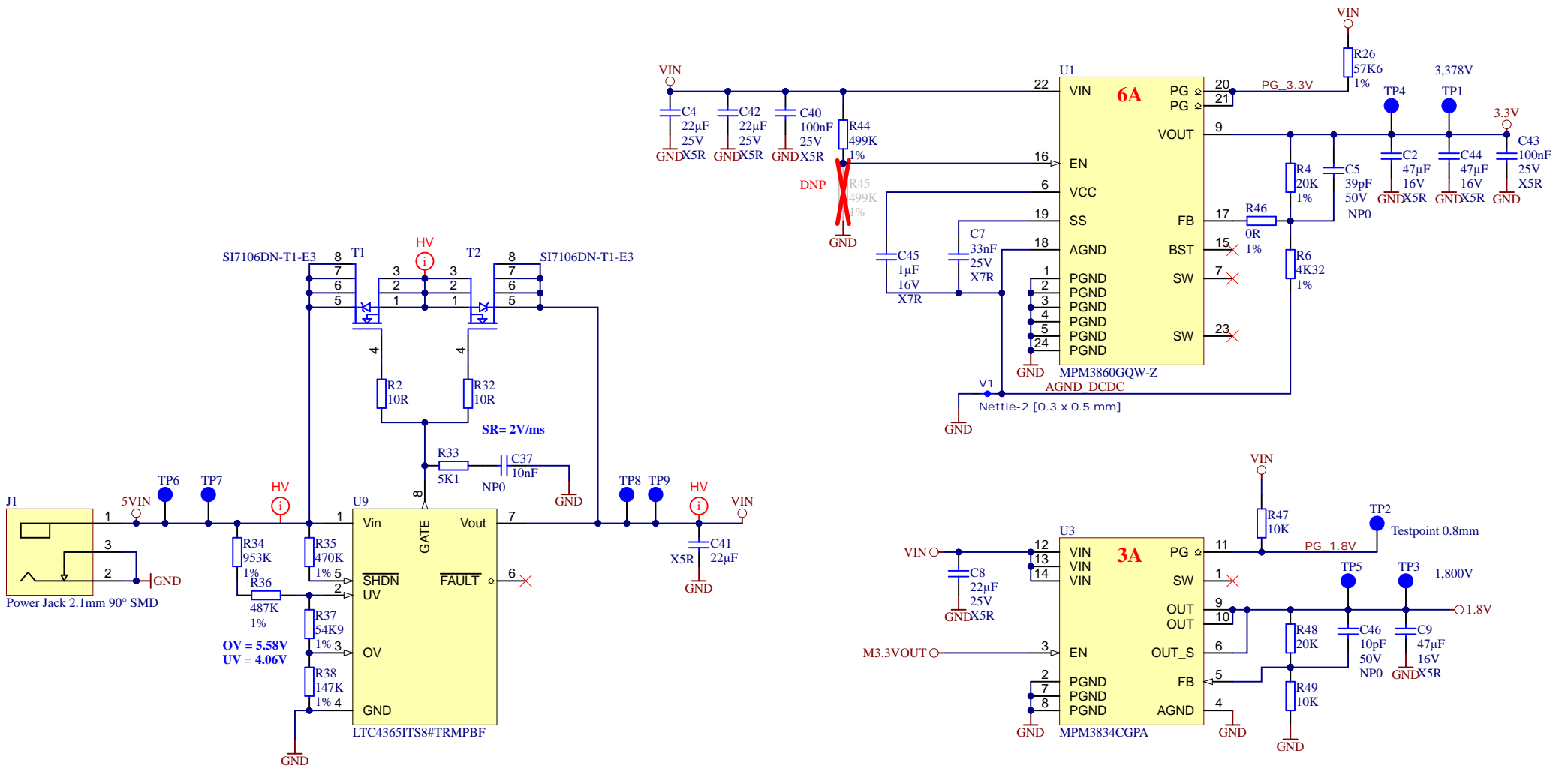
2


3

4

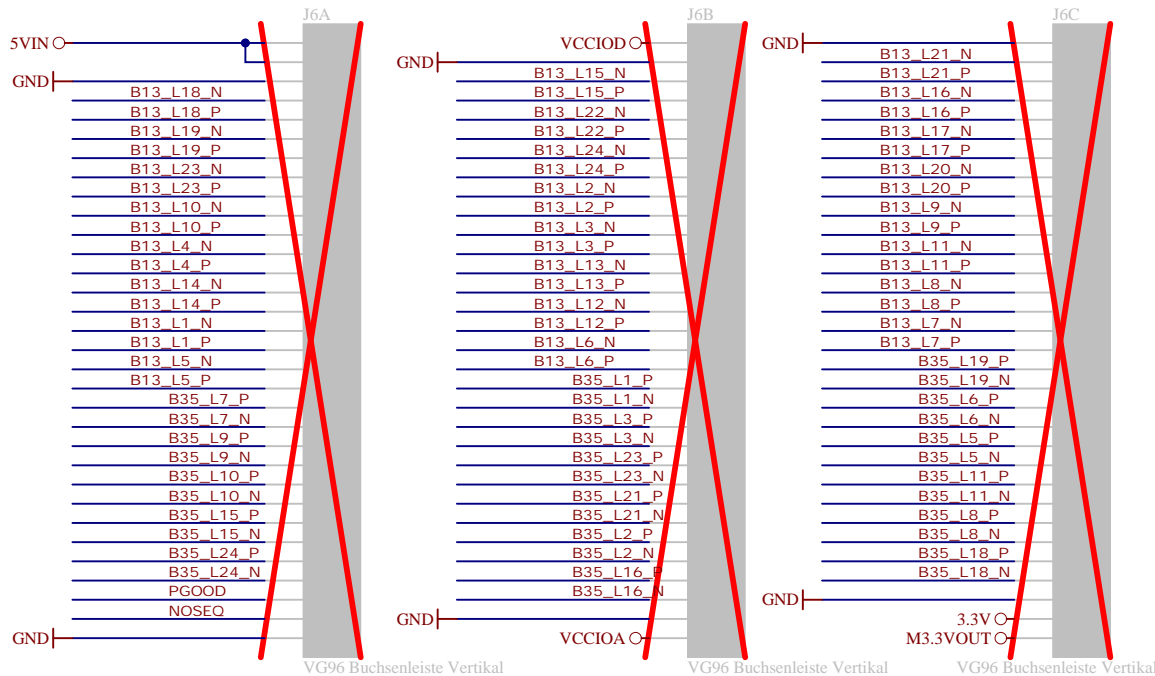
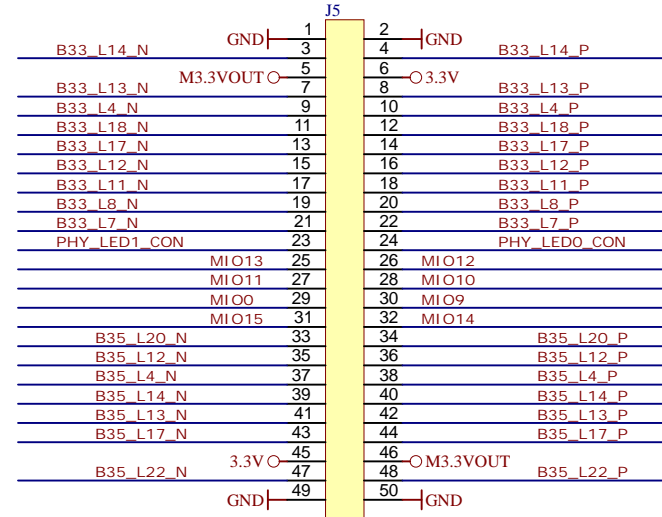
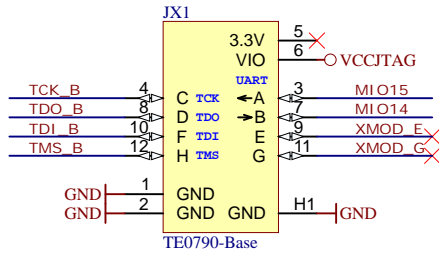


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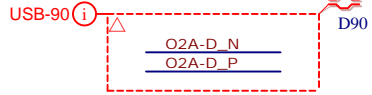
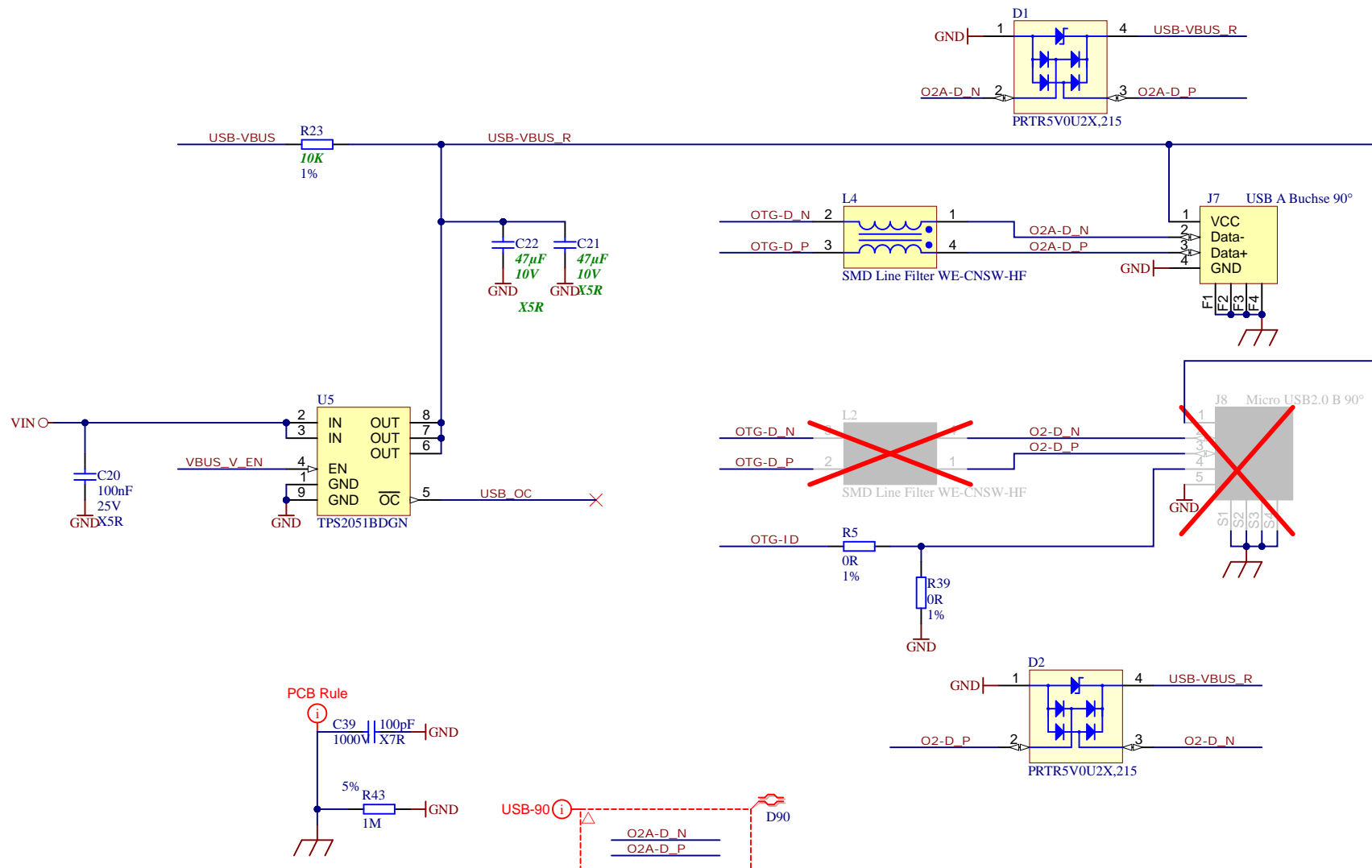


	Title: Power		
	A4	Nummer: TE0706 A	Rev. 04
	Datum: 2024-05-14	Zeichner: Trenz Electronic GmbH	Blatt 9 von 12
	Filename: POWER.SchDoc		

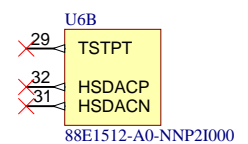
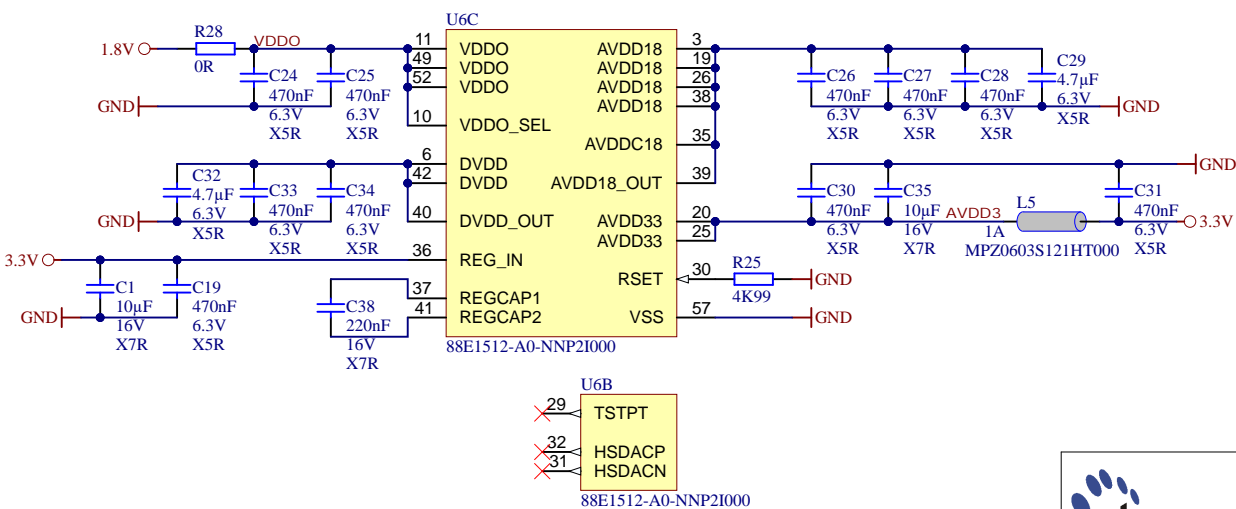
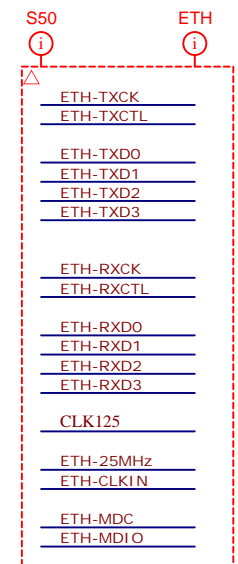
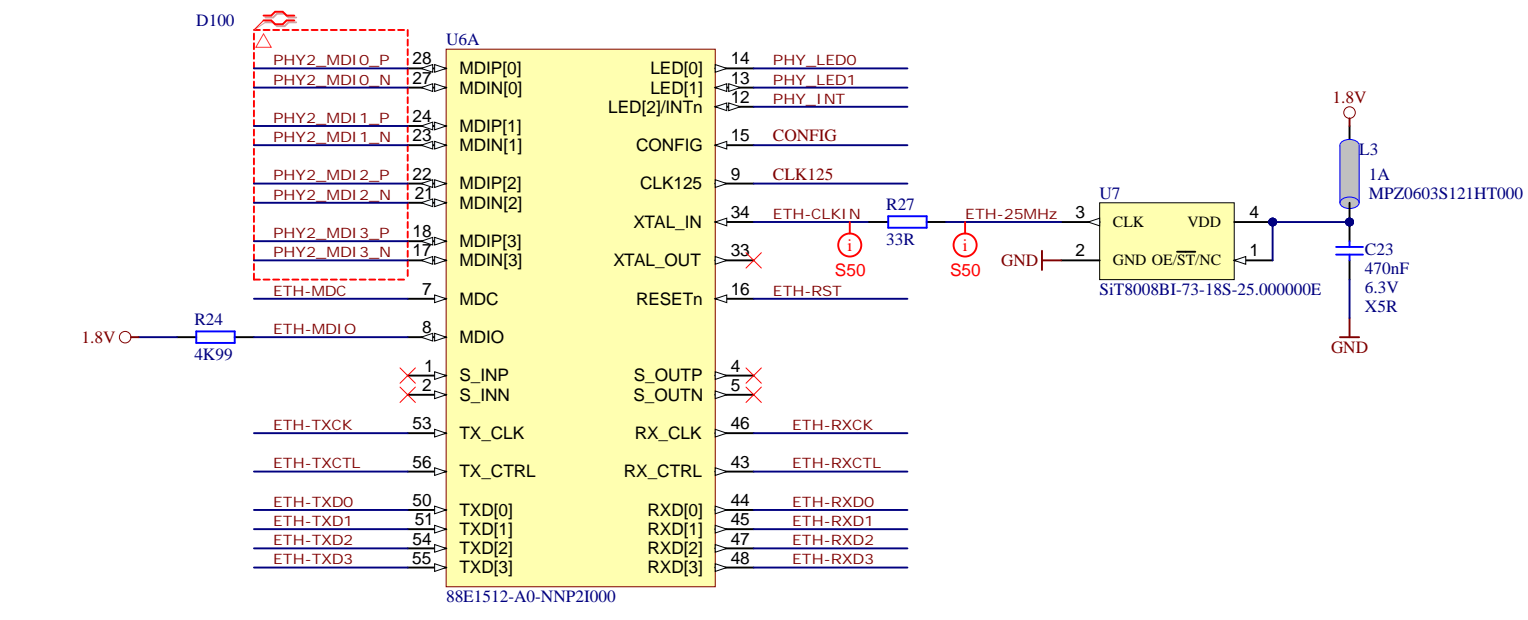
XMOD-FT2232H header: JTAG and UART



Title: External Connector		
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	Title: USB	
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