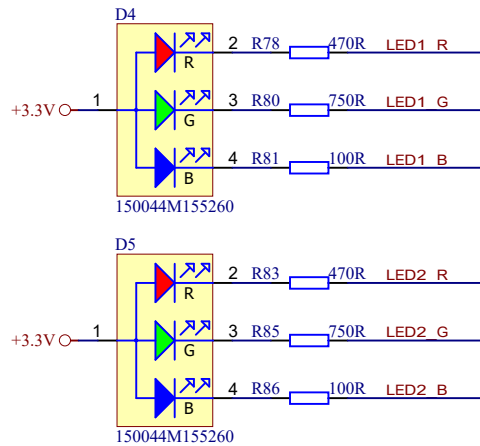
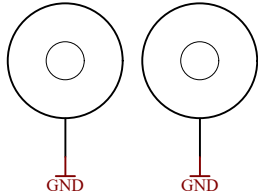


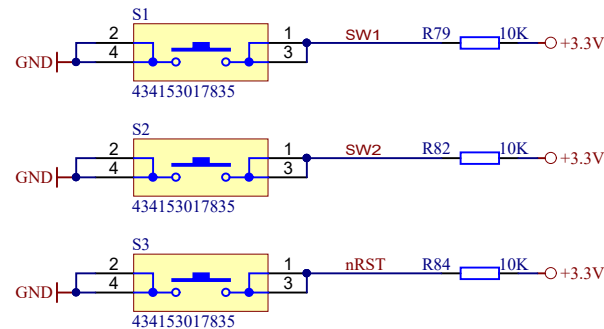
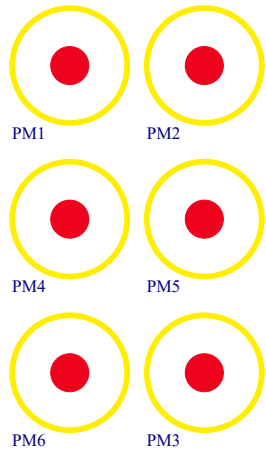
U_B13 B13.SchDoc	U_FPGA-MISC FPGA-MISC.SchDoc	U_Powerboard_Connector Powerboard_Connector.SchDoc
U_B33-B34 B33-B34.SchDoc	U_FPGA-PWR FPGA-PWR.SchDoc	U_FTDI_JTAG FTDI_JTAG.SchDoc
U_B35 B35.SchDoc	U_MIO-BANKS MIO-BANKS.SchDoc	U_SD SD.SchDoc
U_DDR3-RAM DDR3-RAM.SchDoc	U_PS-DDR PS-DDR.SchDoc	U_PWR1 PWR1.SchDoc
U_ETH-PHY ETH-PHY.SchDoc	U_USB-PHY USB-PHY.SchDoc	U_PWR2 PWR2.SchDoc
U_ADC ADC.SchDoc		

Mount.Hole 3.2mm Mount.Hole 3.2mm



Target currents based on manufacturer datasheet for matched intensity (Diode forward voltage) and resulting calculated resistor value:

Red: 3 mA (2.0 V) -> 433R
 Green: 1 mA (2.6 V) -> 700R
 Blue: 5 mA (2.8 V) -> 100R



- +1.0V ○ TP1 ● Testpoint 0.8mm
- +1.5V ○ TP3 ● Testpoint 0.8mm
- +1.8V ○ TP4 ● Testpoint 0.8mm
- VTT ○ TP5 ● Testpoint 0.8mm
- VTTREF ○ TP6 ● Testpoint 0.8mm
- +3.3V ○ TP8 ● Testpoint 0.8mm
- ADC_VAA ○ TP2 ● Testpoint 0.8mm
- +3.3V_ADC ○ TP10 ● Testpoint 0.8mm
- +5.0V ○ TP7 ● Testpoint 0.8mm
- +5.0V_VAA ○ TP9 ● Testpoint 0.8mm
- GND TP11 ● Testpoint 0.8mm
- GND TP12 ● Testpoint 0.8mm

Serial
 Serialnumber 6,3 x 6,3mm
 LOGO1

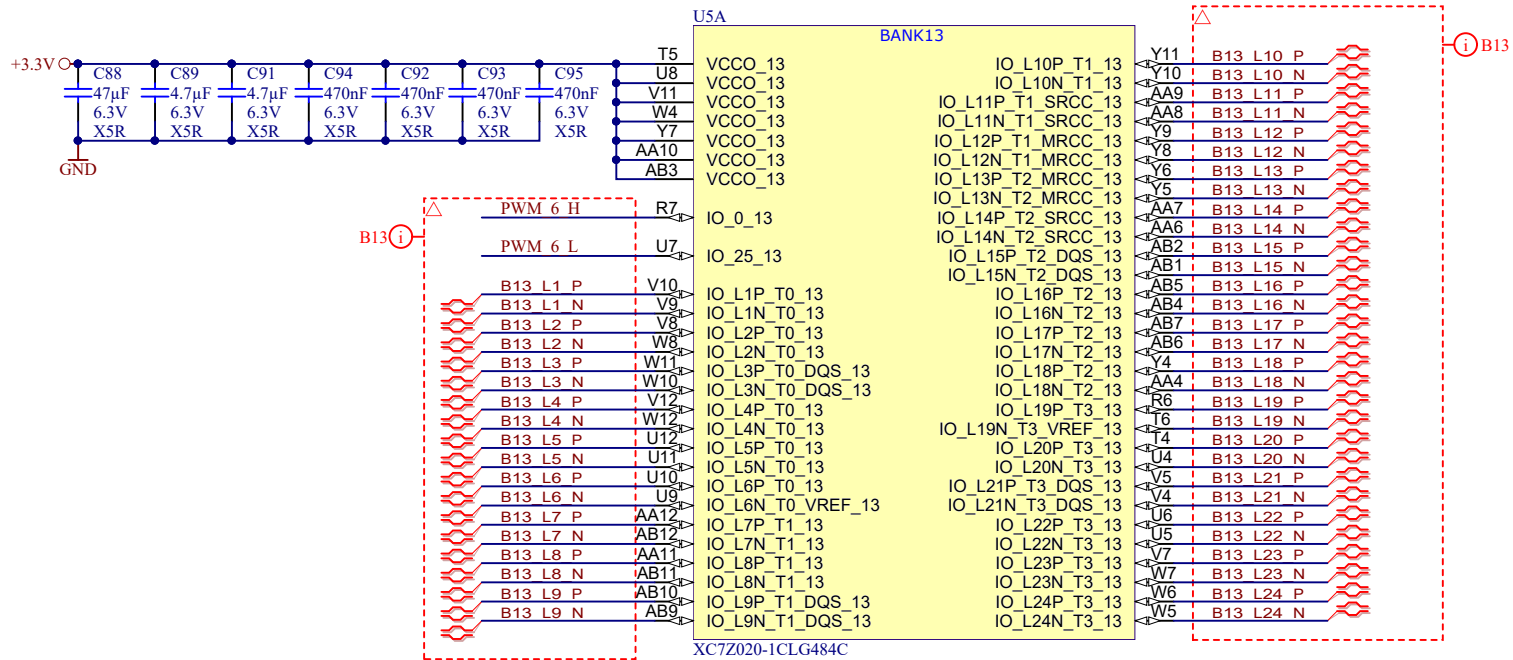
TE Logo PRINT Layer

LOGO PRINT

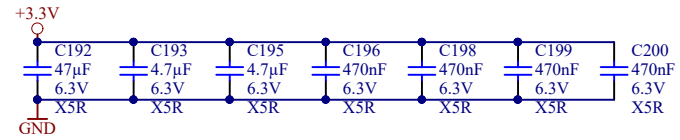
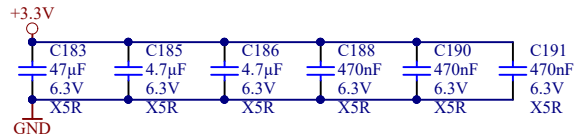
Assembly variant 61C32-A
 Created by VY
 Modified by VY
 Modified at 2020-10-01
 SVN Revision 10327



Title: TE0716 - Main		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 1 of 18
Drawn by: *	Filename: TE0716.SchDoc	

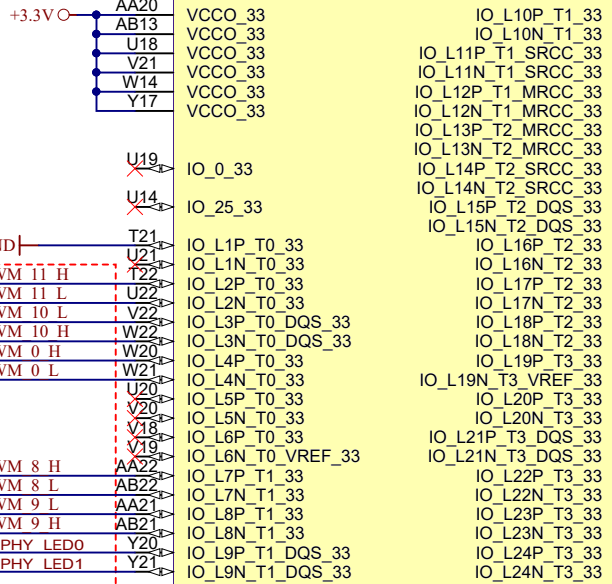


	Title: TE0716 - B13	
	A4	Number: TE0716 61C32-A
	Date: 2020-07-03	Copyright: Trenz Electronic GmbH
	Filename: B13.SchDoc	Page2 of 18



USB

BANK33

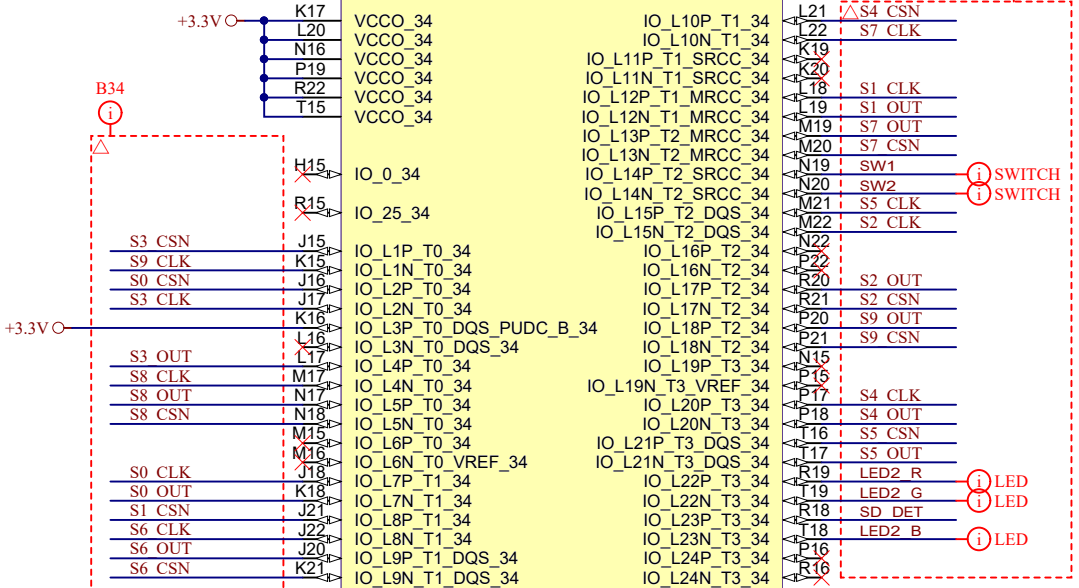


XC7Z020-1CLG484C

B33

USC

BANK34



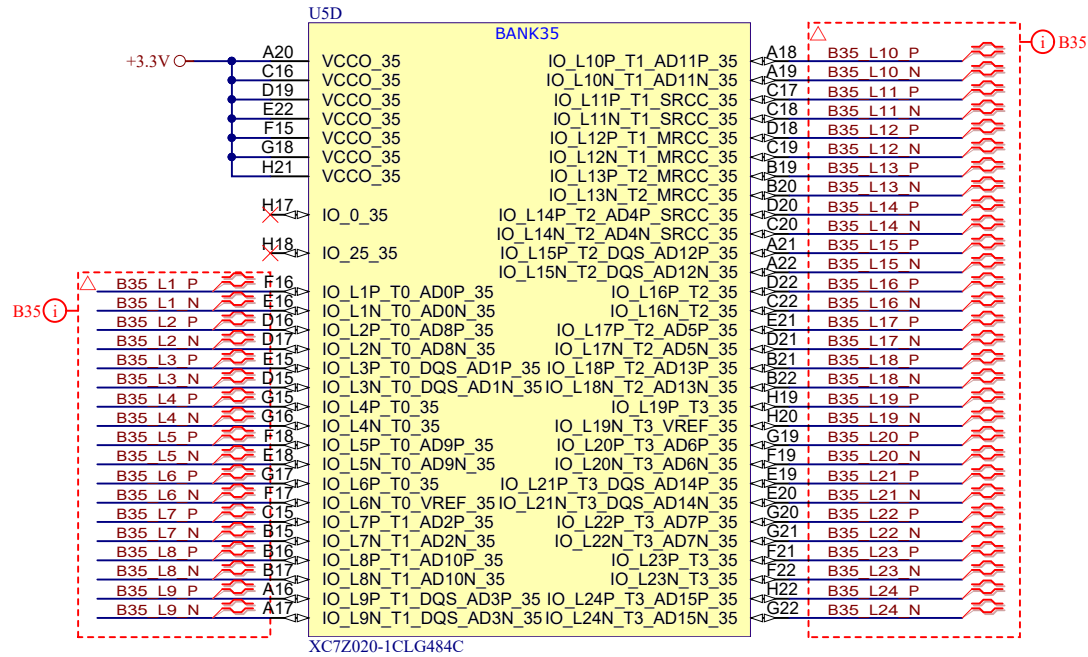
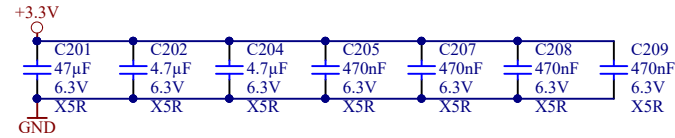

PUDC = high = DISABLE pullups!

XC7Z020-1CLG484C

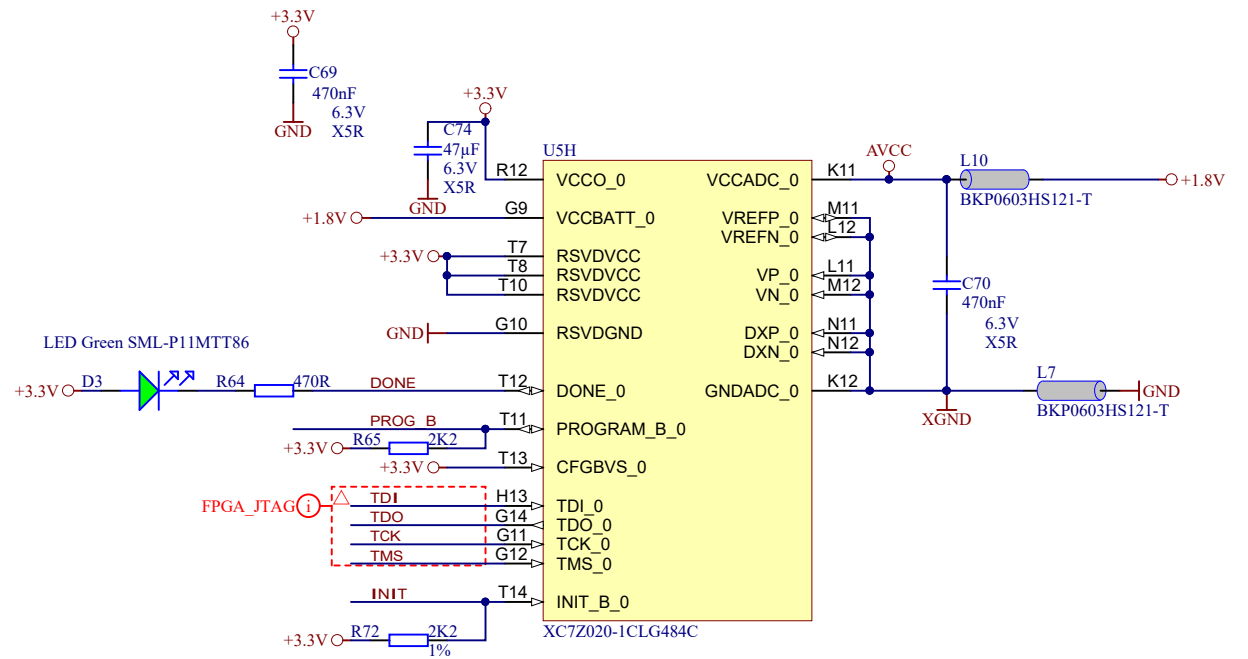
B34




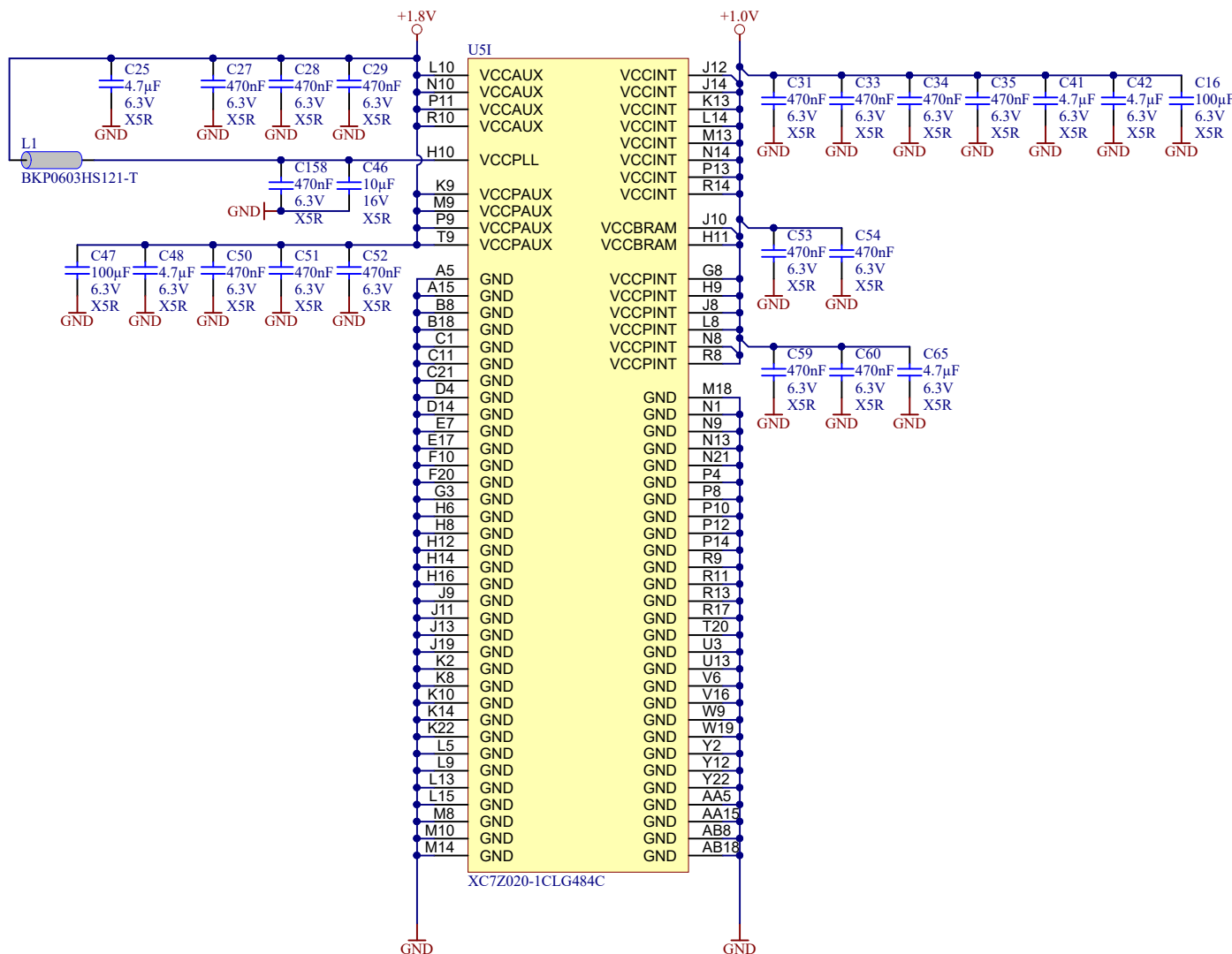
Title: TE0716 - B33 - B34		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page3 of 18
Filename: B33-B34.SchDoc		





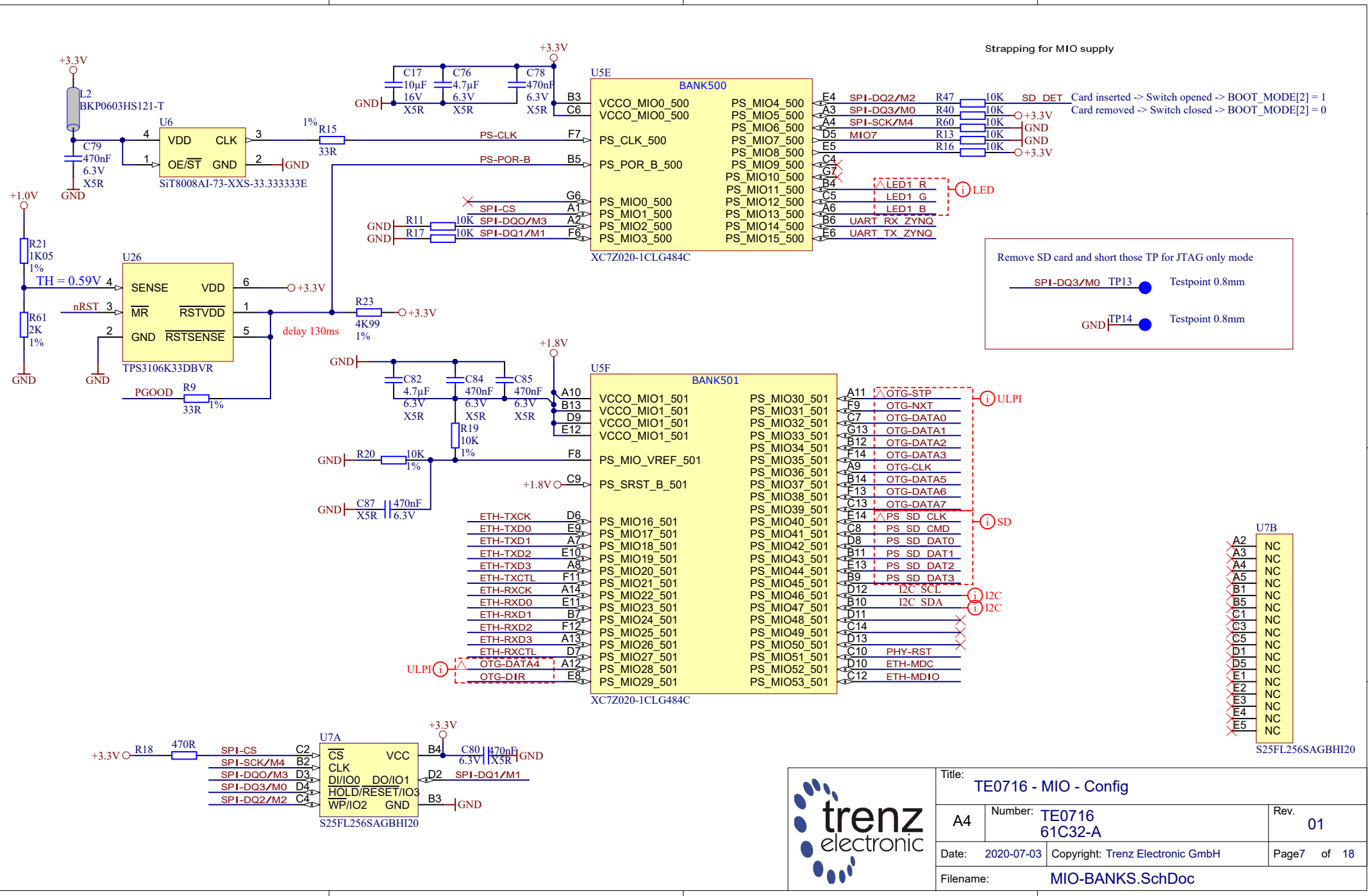
Title: TE0716 - B35		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 4 of 18
Filename: B35.SchDoc		



	Title: TE0716 - B0		
	A4	Number: TE0716 61C32-A	Rev. 01
	Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 5 of 18
	Filename: FPGA-MISC.SchDoc		



		Title: TE0716 - FPGA Power	
		A4	Number: TE0716 61C32-A
Date: 2020-07-03		Copyright: Trenz Electronic GmbH	
Date: 2020-07-03		Page 6 of 18	
Filename: FPGA-PWR.SchDoc			



Strapping for MIO supply

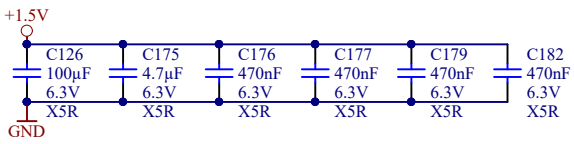
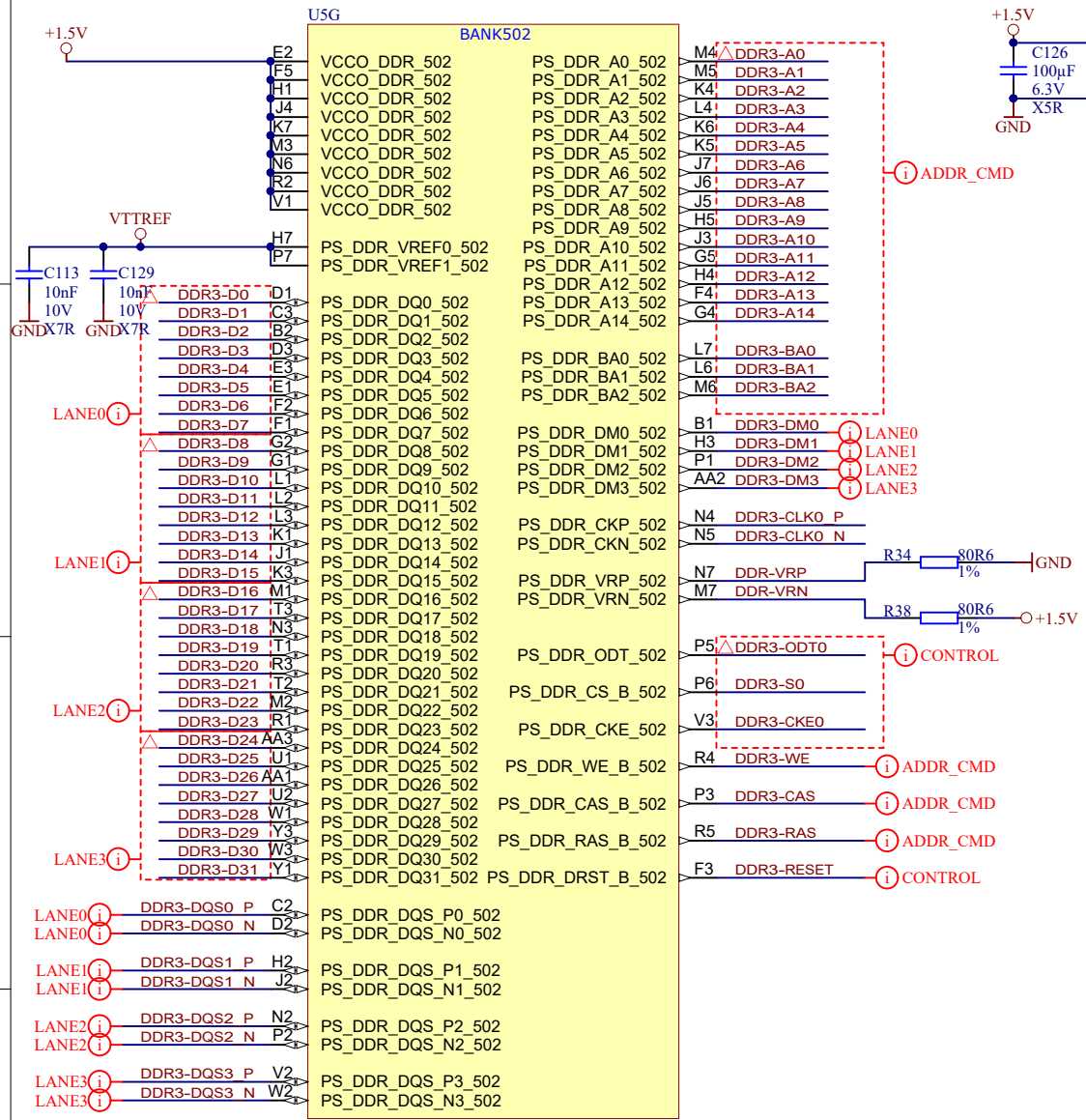
Card inserted -> Switch opened -> BOOT_MODE[2] = 1
 Card removed -> Switch closed -> BOOT_MODE[2] = 0

Remove SD card and short those TP for JTAG only mode


SPI-DQ3/M0 TP13 ● Testpoint 0.8mm
 GND TP14 ● Testpoint 0.8mm

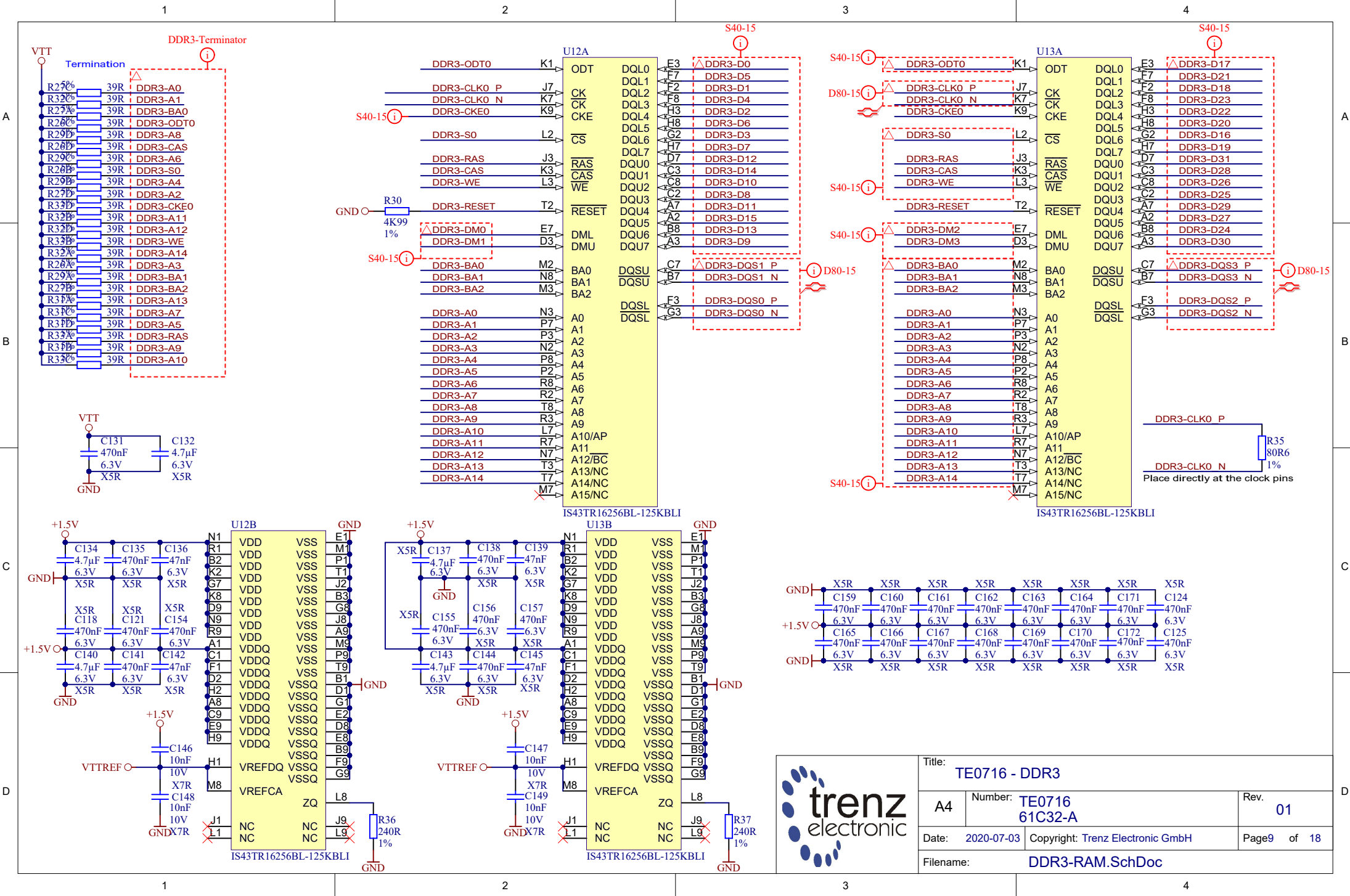


Title: TE0716 - MIO - Config		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 7 of 18
Filename: MIO-BANKS.SchDoc		



XC7Z020-1CLG484C

		Title: TE0716 - PS-DDR	
		A4	Number: TE0716 61C32-A
Date: 2020-07-03		Copyright: Trenz Electronic GmbH	
Page 8		of 18	
Filename: PS-DDR.SchDoc			

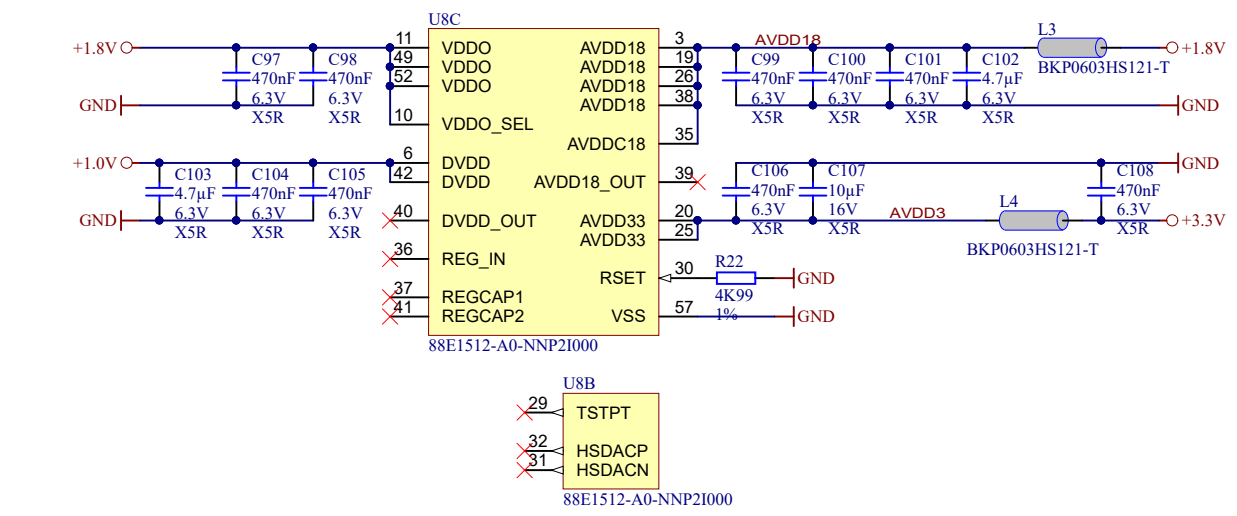
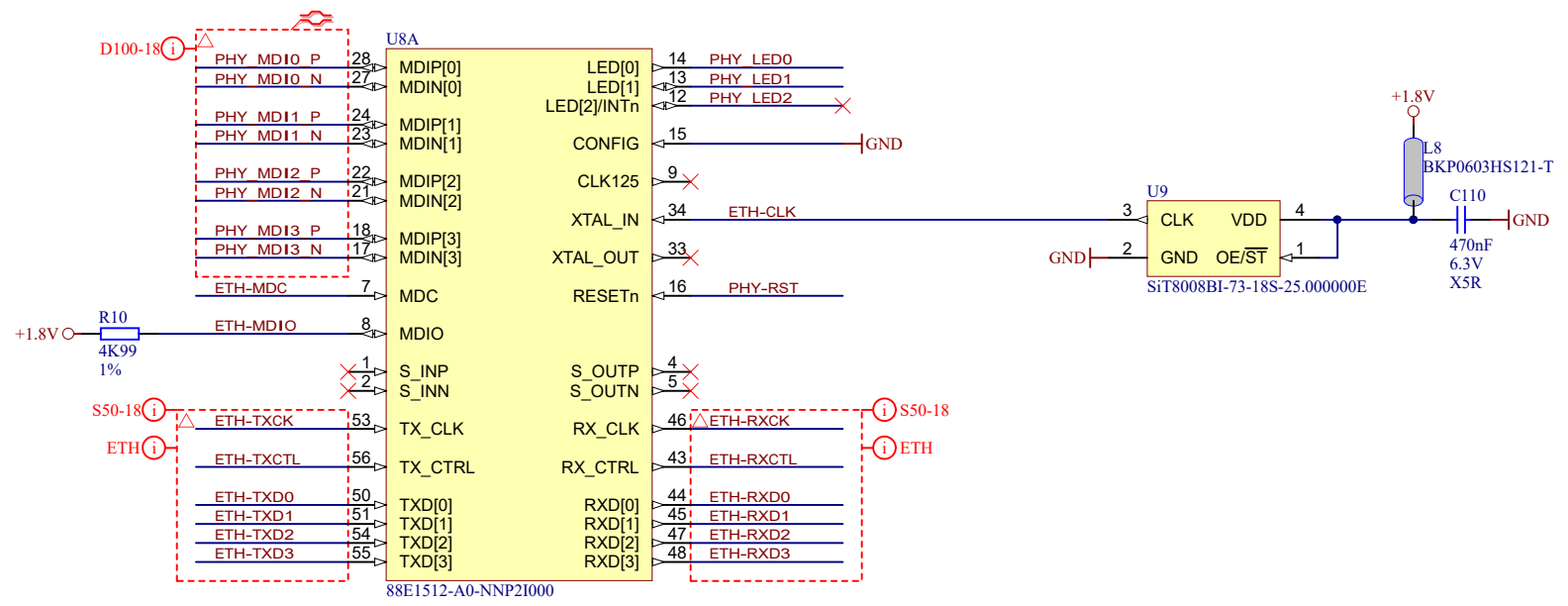



A

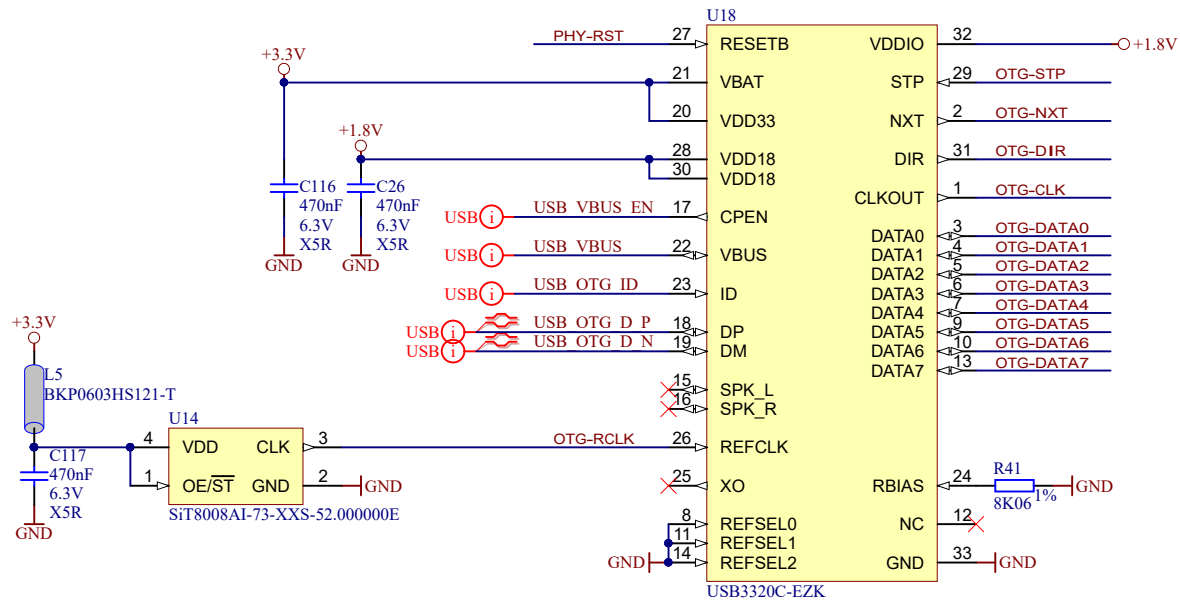
B

C

D



		Title: TE0716 - Ethernet	
		A4	Number: TE0716 61C32-A
Date: 2020-07-03		Copyright: Trenz Electronic GmbH	
Page 10 of 18		Page 10 of 18	
Filename: ETH-PHY.SchDoc		ETH-PHY.SchDoc	



	Title: TE0716 - USB	
	A4	Number: TE0716 61C32-A
	Date: 2020-07-03	Copyright: Trenz Electronic GmbH
	Rev. 01	
Page 11 of 18		
Filename: USB-PHY.SchDoc		

1

2

3

4

A

A

B

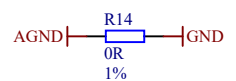
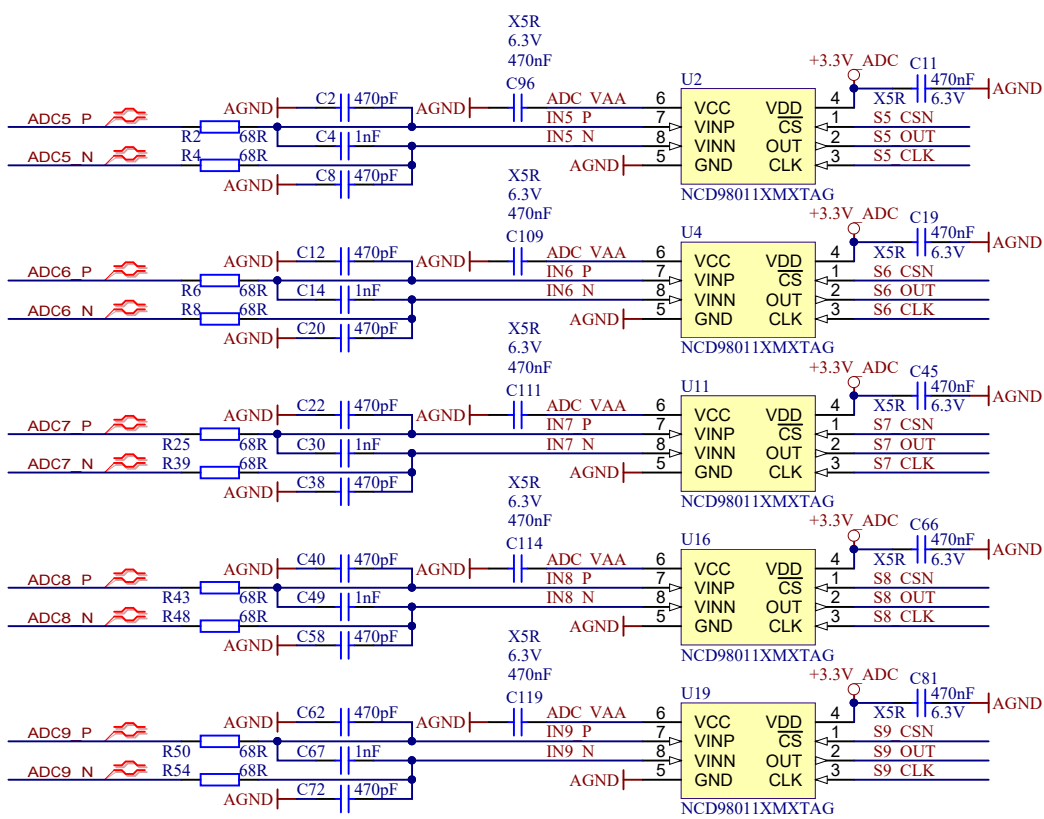
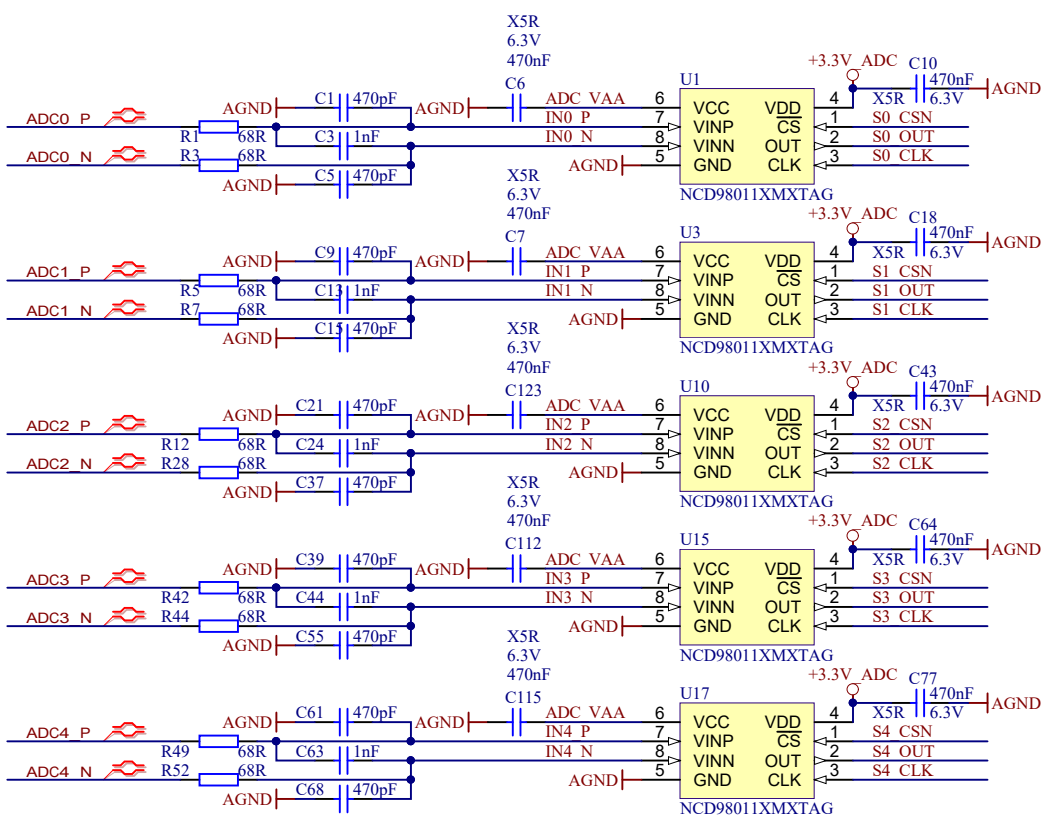
B

C

C

D

D



Title: TE0716 - ADC		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 12 of 18
Filename: ADC.SchDoc		

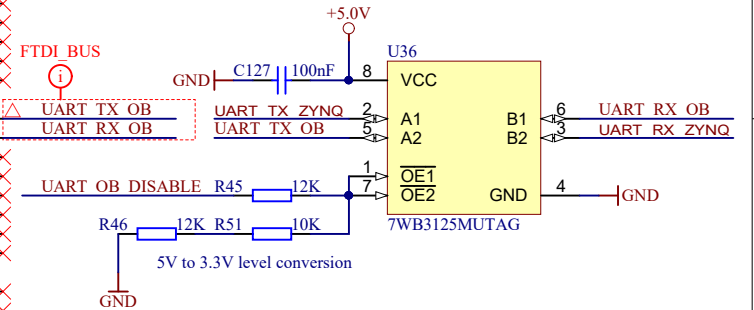
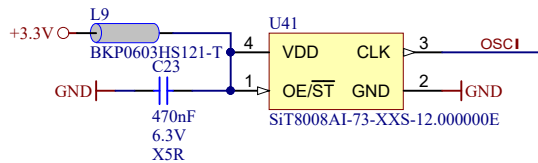
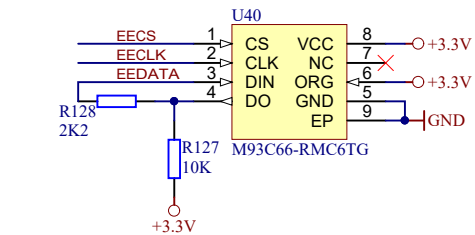
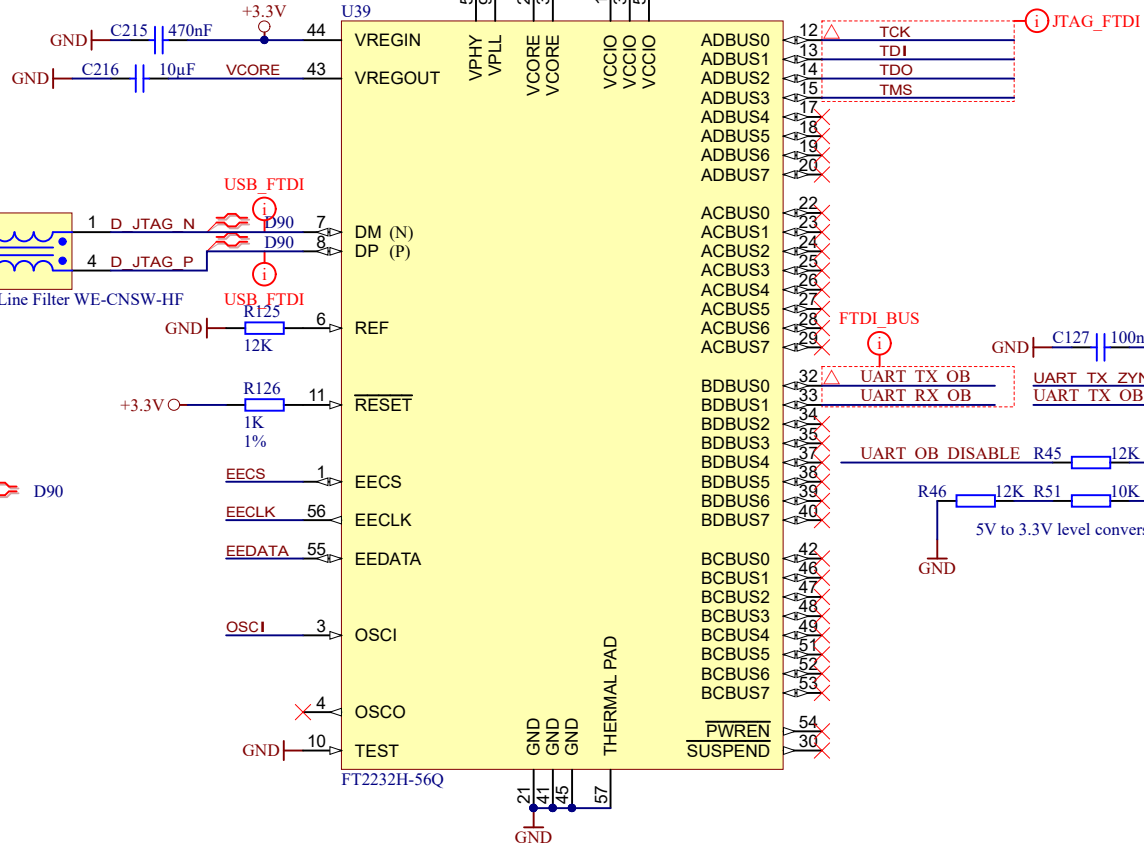
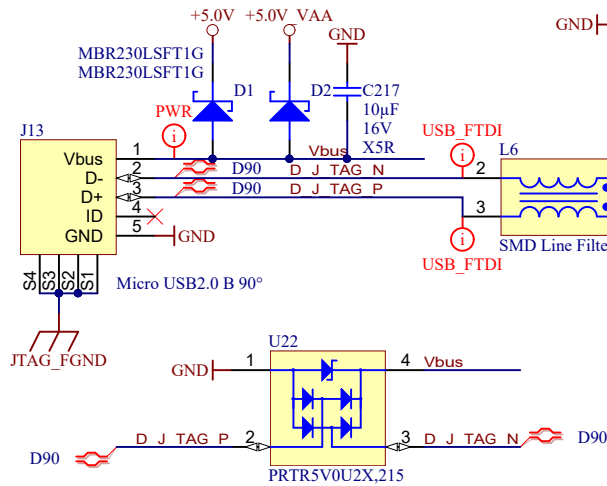
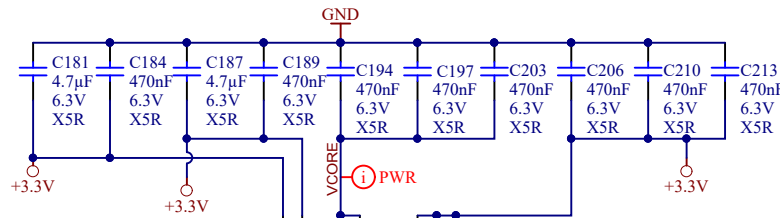
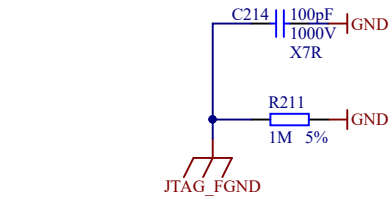
1

2

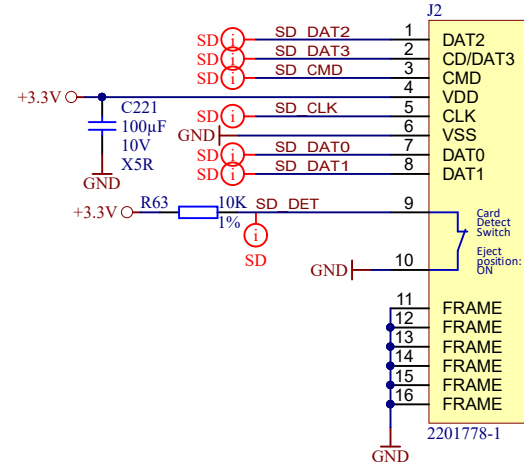
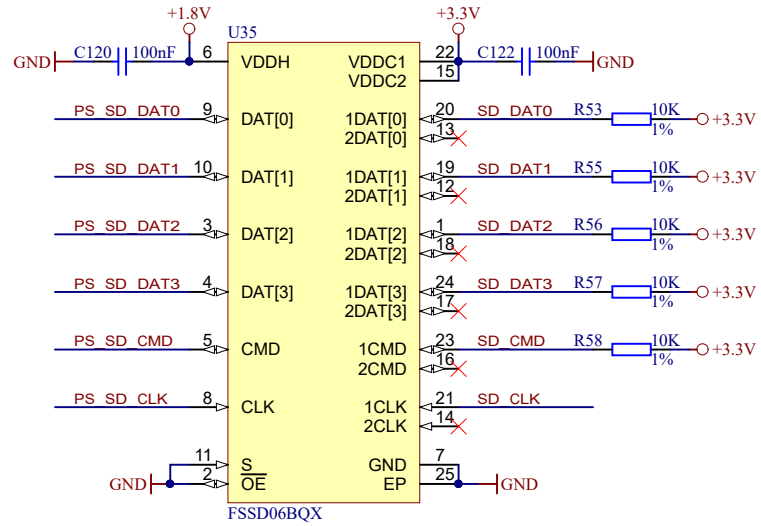
3

4

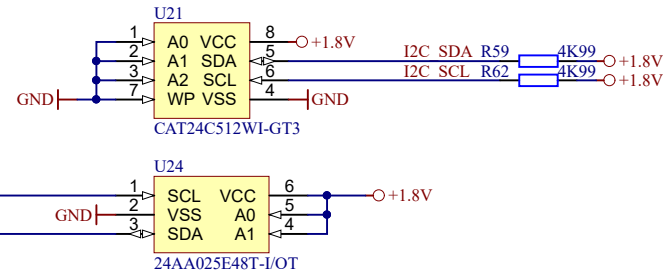
MISC1
 Digilent Serialnumber
 Digilent_SN



Title: TE0716 - FTDI_JTAG		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 13 of 18
Drawn by: *	Filename: FTDI_JTAG.SchDoc	



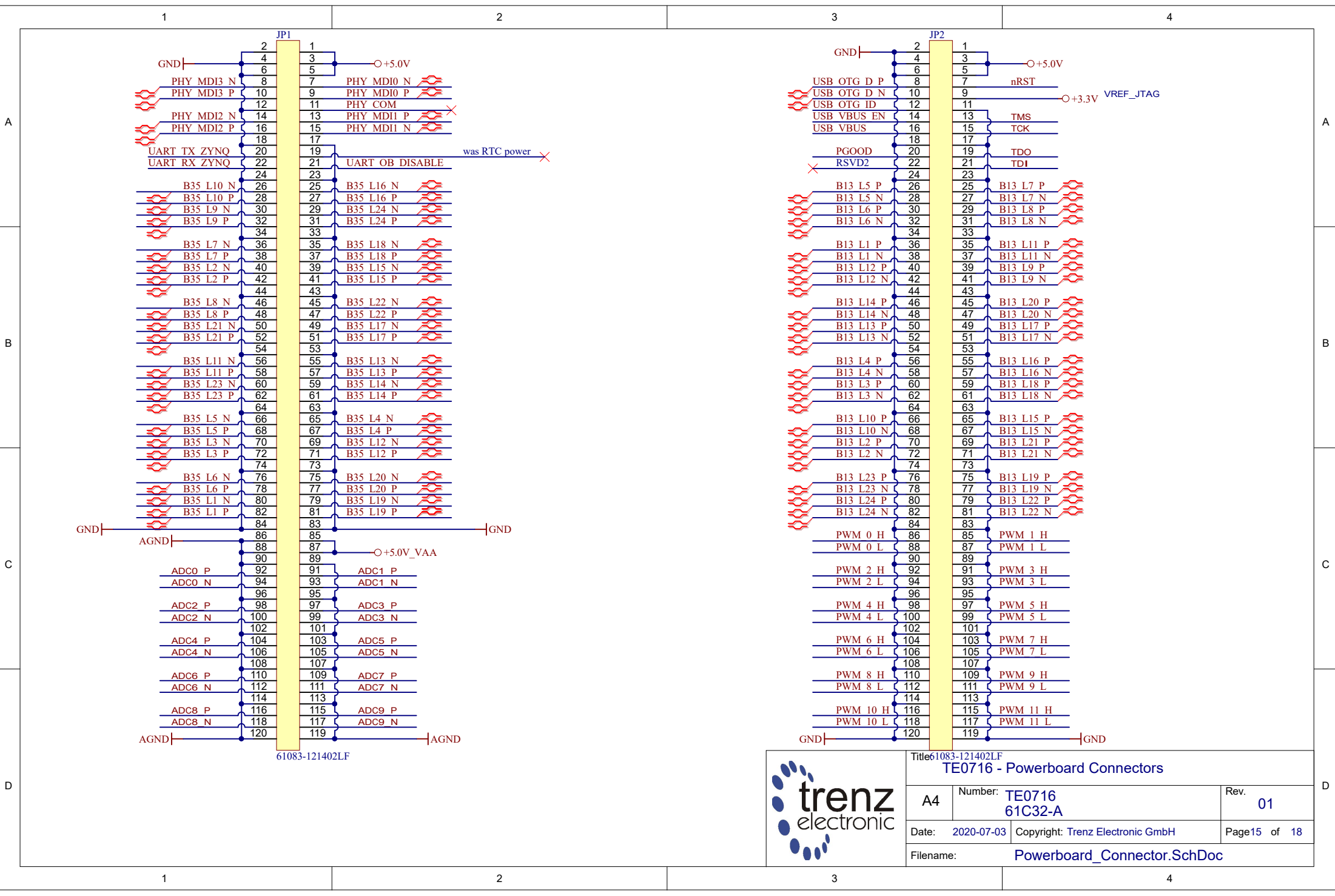
Card inserted -> Switch opened -> BOOT_MODE[2] = 1
 Card removed -> Switch closed -> BOOT_MODE[2] = 0



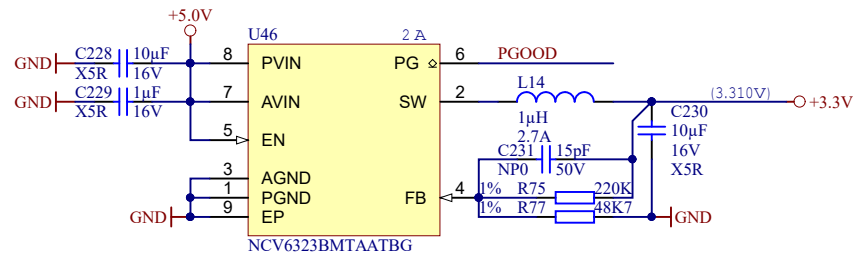
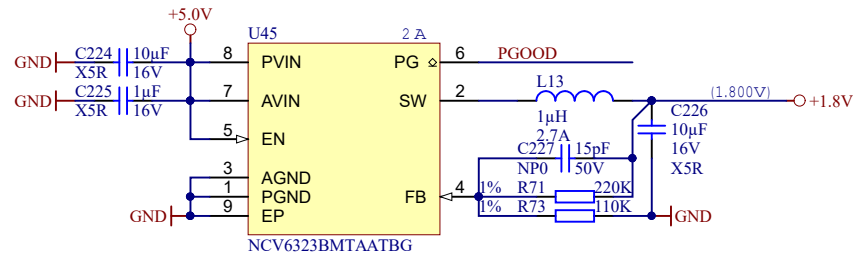
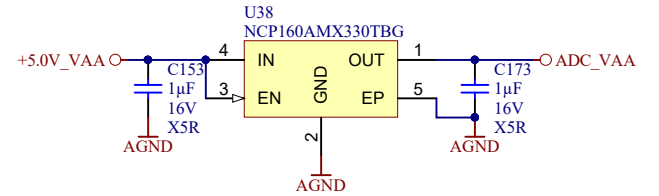
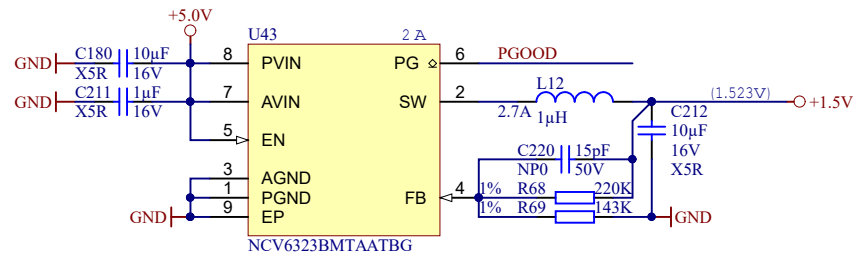
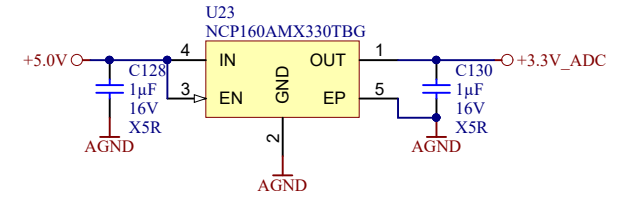
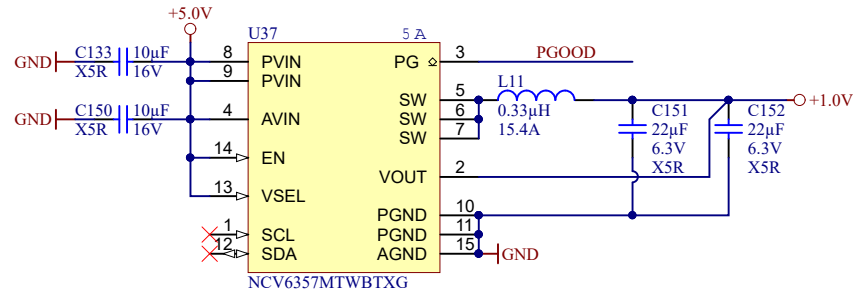
Assembly variant	61C32-A
Created by	VY
Modified by	VY
Modified at	2020-10-01
SVN Revision	10327



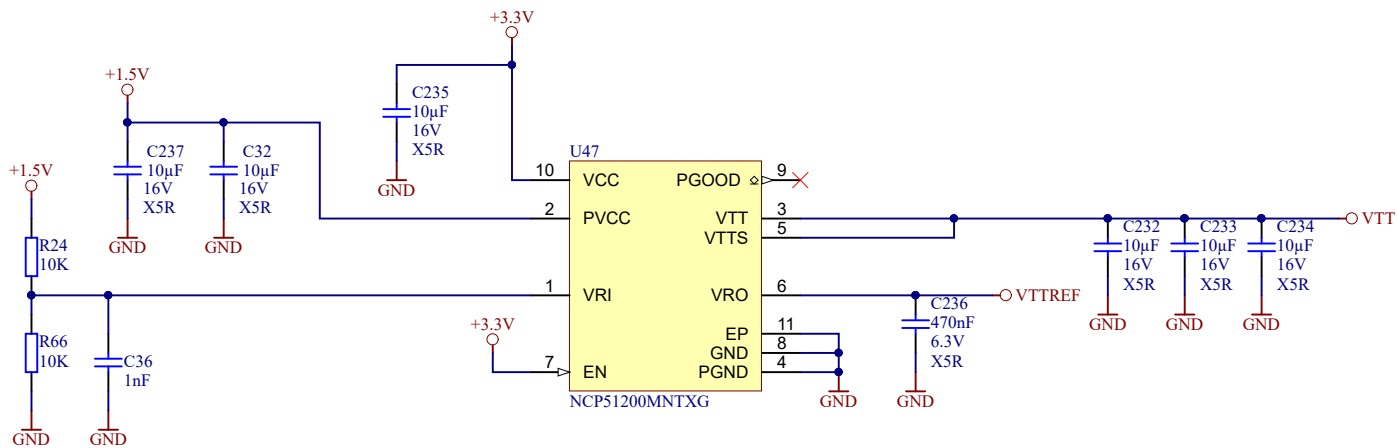
Title: TE0716 - SD		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 14 of 18
Drawn by: *	Filename: SD.SchDoc	




Title: 1083-121402LF TE0716 - Powerboard Connectors		
A4	Number: TE0716 61C32-A	Rev. 01
Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 15 of 18
Filename: Powerboard_Connector.SchDoc		



	Title: TE0716 - PWR1		
	A4	Number: TE0716 61C32-A	Rev. 01
	Date: 2020-07-03	Copyright: Trenz Electronic GmbH	Page 16 of 18
	Drawn by: *	Filename: PWR1.SchDoc	



		Title: TE0716 - PWR2	
		A4	Number: TE0716 61C32-A
Date: 2020-07-03		Copyright: Trenz Electronic GmbH	
Page 17 of 18		Filename: PWR2.SchDoc	
Drawn by: *			