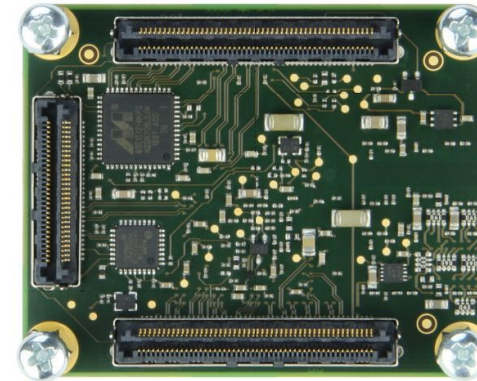




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Schematics and other handouts serve for informational purposes only!

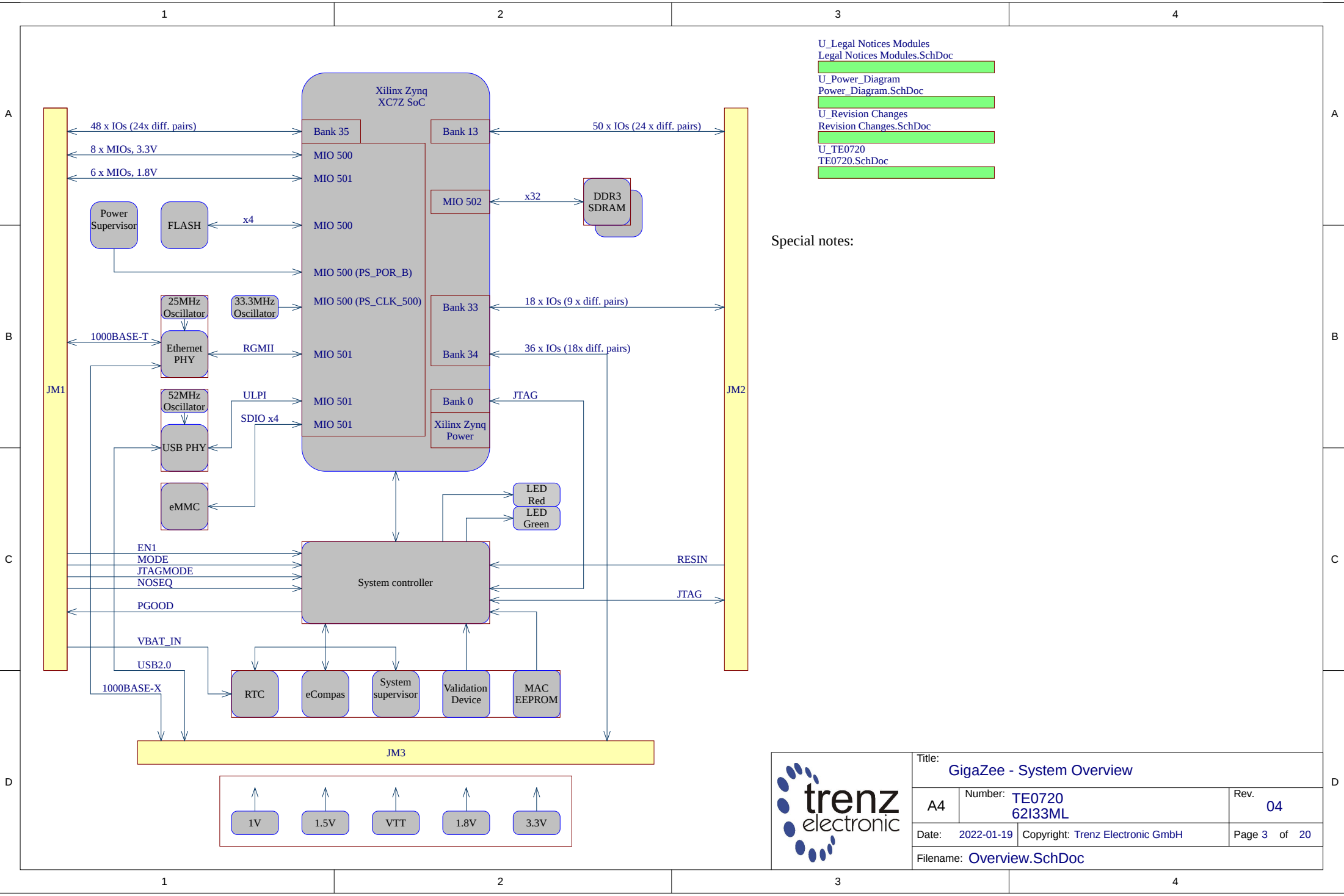
	Title: GigaZee		
	A4	Number: TE0720 62I33ML	Rev. 04
	Date: 2022-01-19	Copyright: Trenz Electronic GmbH / TT	Page 1 of 20
	Filename: Legal Notices Modules.SchDoc		

1		2		3		4	
A	REV		Description				A
	-01		Initial revision				
	-02						
	-03						
B	-04		1. Revised power supply circuit, replaced next components: - EN6347QI (U1) by MPM3840GQV-Z, - EP53F8QI (U2, U3) by MPM3834CGPA, - TPS27082LDDCR (Q1) by MP5077GG-Z. 2. Added power supervisor BD39040MUF (U27). Next signal connected to system controller: - PG_All (U27 - U19.C12) with pull-up resistor R67; - WDEN (U27.13 - U19.C6) with pull-down resistor R80; - WDIN (U27.14 - U19.N8); - WDOUT (U27.16 - U19.M3). 3. Signal MIO8 (U5.E5) connected to system controller (U19.N7) 4. Added pull-down resistors R64 (net ON_1V0) and R65 (net ON_1V8) 5. Revised voltage supervisor U26 circuit: U26.6 (VDD) connected to 3.3VIN, Added protection diode D3 to U26.3 (#MR input) 6. Replaced BKP0603HS (L1, L2, L3, L4, L5, L7, L8) by MPZ0603S121HT000 7. Auxiliary information has been added on Samtec B2B connectors page 8. PCB: Revised layout of power supplies 9. PCB: Revised layout of Samtec B2B signals. The length of the tracks has been changed. Pinout of Samtec B2B connectors not affected 10: PCB: Added option to install Heatsink SuperGrip (c) 11. Added capacitors C7, C8 (100uF, 1V) 12. Changed voltage divider resistors (R21, R61) to set the threshold for U26.		VY		B
	-04A		1. Added note regarding VCCIO34, page B2B-Connectors		VY		
C						C	
D							D
1		2		3		4	

		Title: GigaZee - Revision History		
		A4	Number: TE0720 62I33ML	Rev. 04
		Date: 2022-01-19	Copyright: Trenz Electronic GmbH	Page 2 of 20
		Drawn by: VY	Filename: Revision Changes.SchDoc	



Title: GigaZee - Revision History		
A4	Number: TE0720 62I33ML	Rev. 04
Date: 2022-01-19	Copyright: Trenz Electronic GmbH	Page 2 of 20
Drawn by: VY	Filename: Revision Changes.SchDoc	



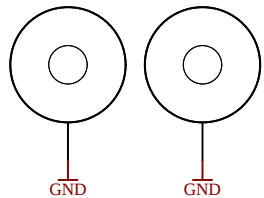
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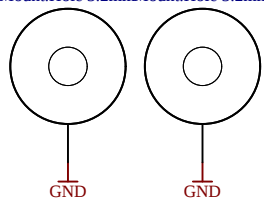
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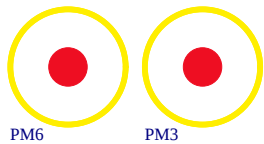
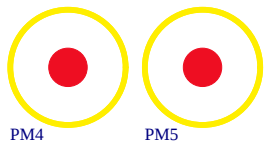
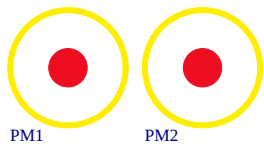
Mount.Hole 3.2mmMount.Hole 3.2mm



Mount.Hole 3.2mmMount.Hole 3.2mm



1V	TP1	Testpoint 0.8mm
VIN	TP2	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
3.3VIN	TP7	Testpoint 0.8mm
3.3V	TP8	Testpoint 0.8mm
VCCIO13	TP9	Testpoint 0.8mm
VCCIO33	TP10	Testpoint 0.8mm
VCCIO34	TP11	Testpoint 0.8mm
VCCIO35	TP12	Testpoint 0.8mm
AVCC	TP13	Testpoint 0.8mm
AVREF	TP14	Testpoint 0.8mm
AGND	TP15	Testpoint 0.8mm
GND	TP16	Testpoint 0.8mm
GND	TP17	Testpoint 0.8mm
GND	TP18	Testpoint 0.8mm
GND	TP19	Testpoint 0.8mm
GND	TP20	Testpoint 0.8mm



Serial
Serial
Serialnumber 6,3 x 6.3mm

Assembly variant 62I33ML
Created by MR
Modified by MR
Modified at 2021-06-07

SVN Revision Unknown revision



Title: GigaZee - TE0720

A4

Number: TE0720
62I33ML

Rev. 04

Date: 2022-01-19

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Page 4 of 20

Drawn by: VY

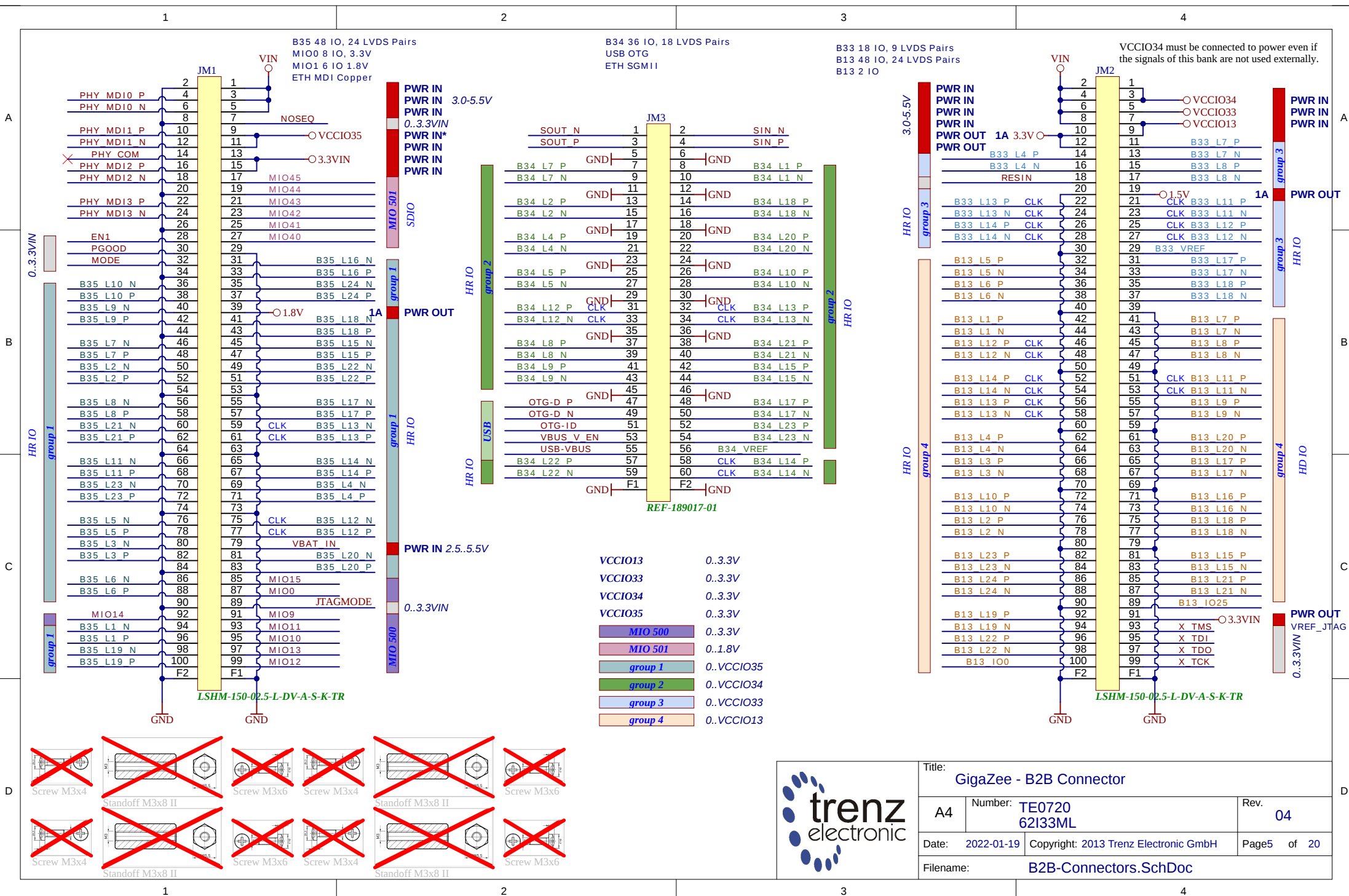
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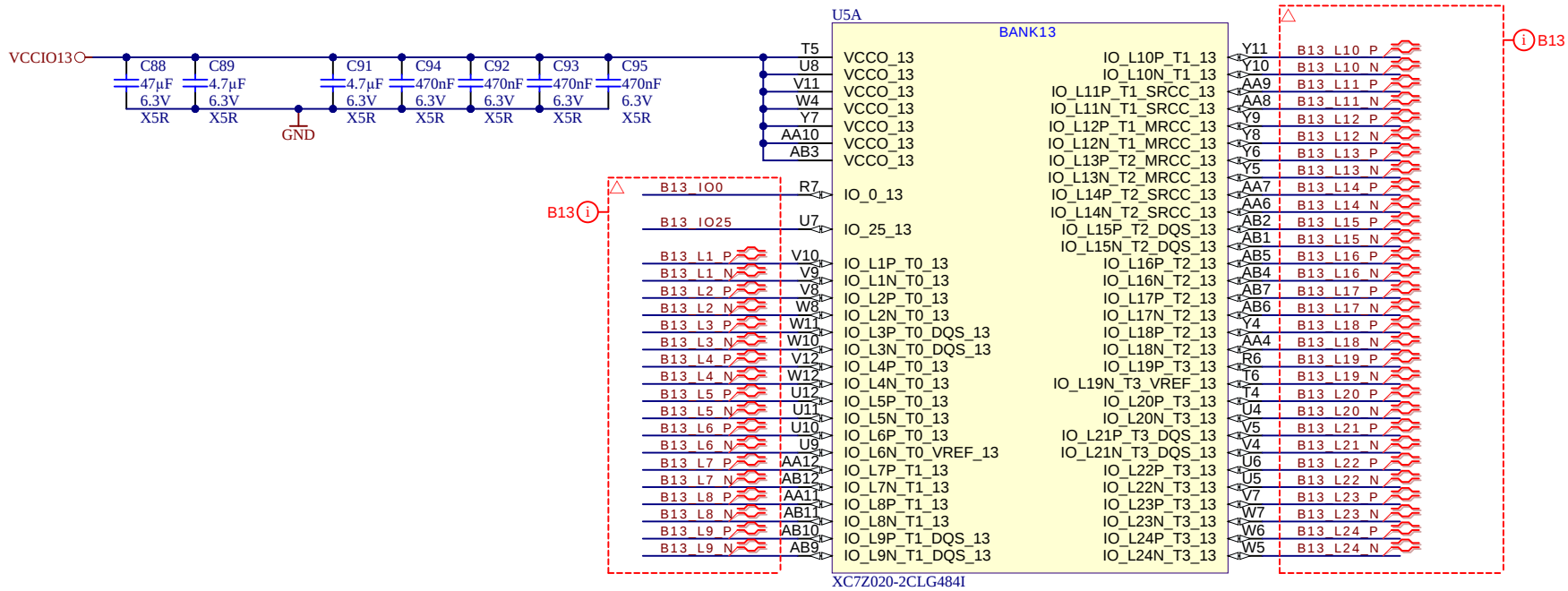
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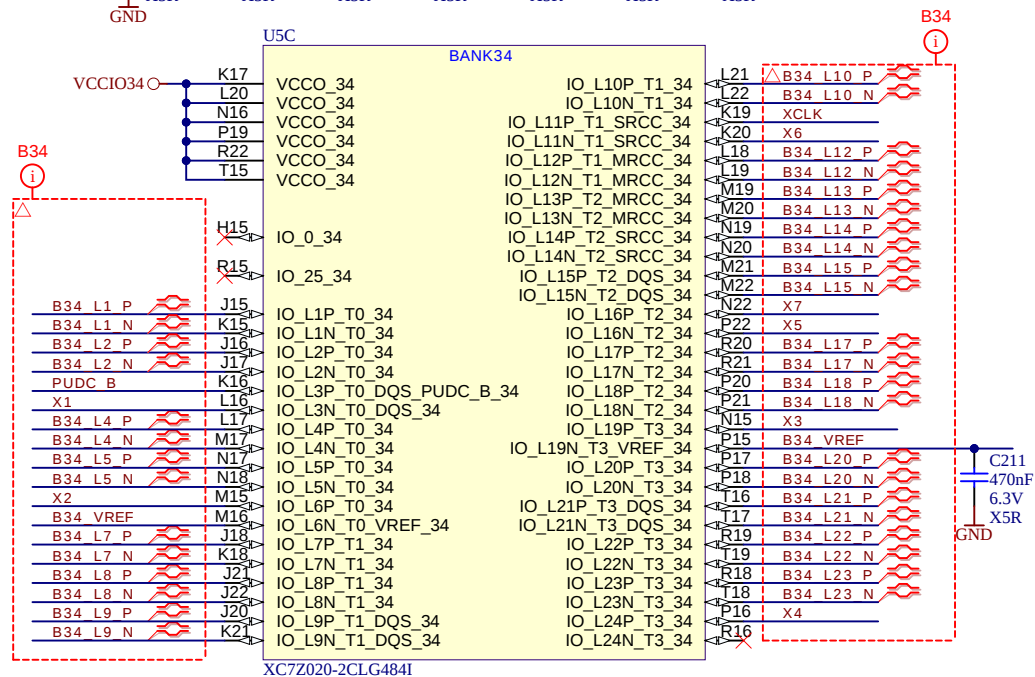
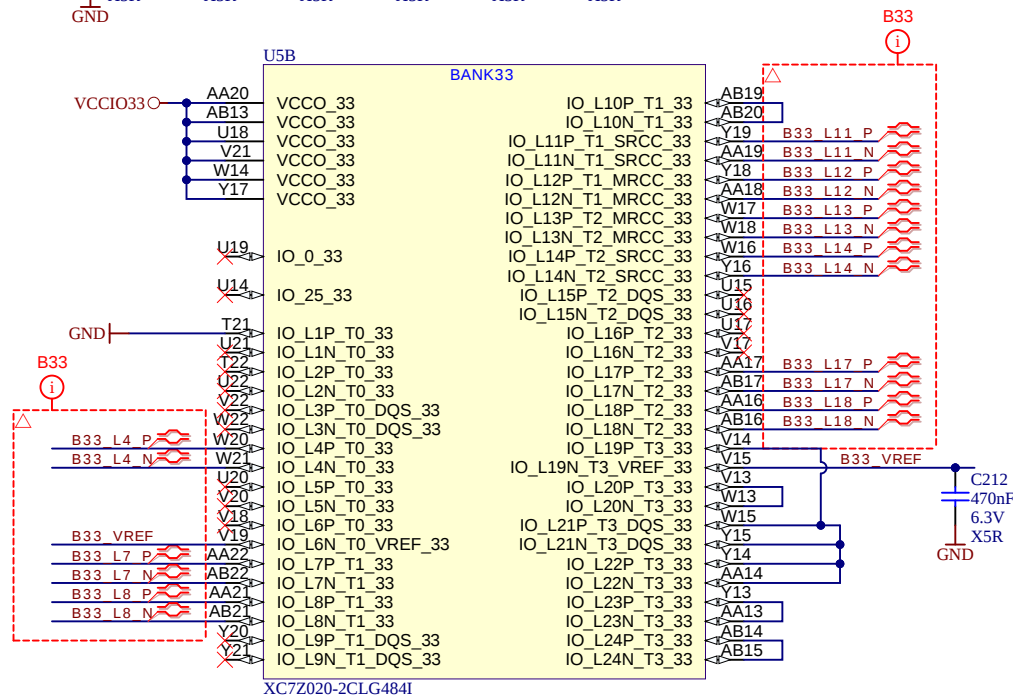
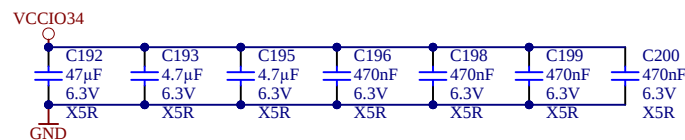
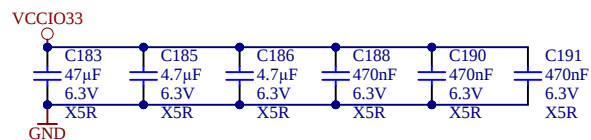
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	Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page6 of 20
	Filename: B13.SchDoc		

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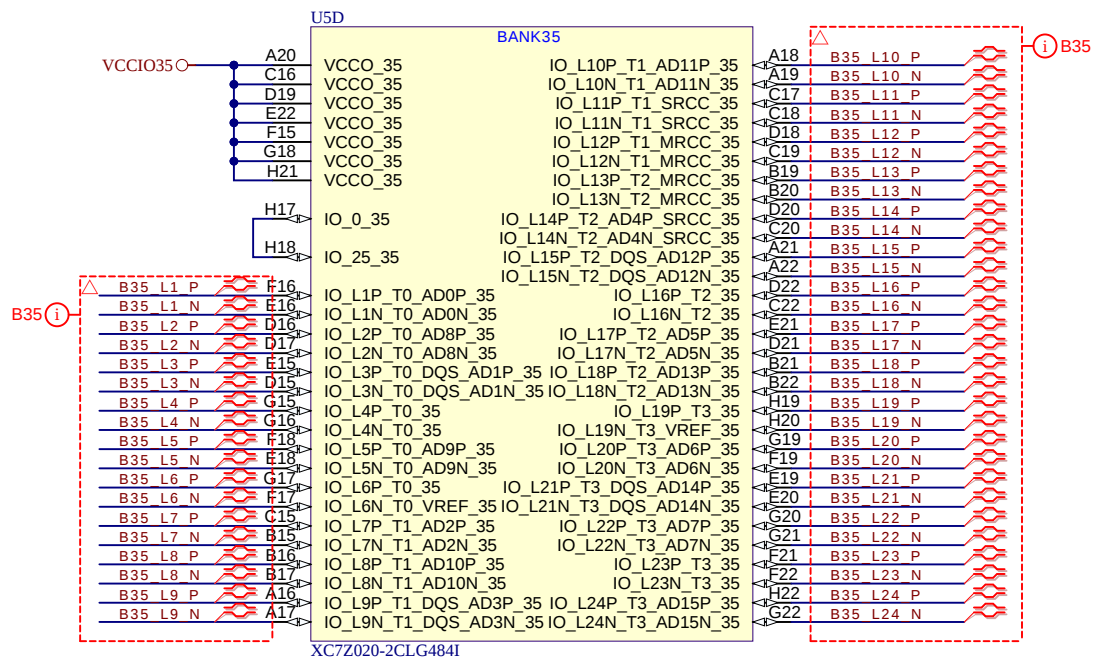
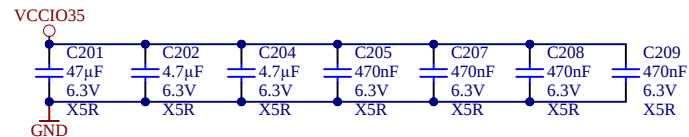
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A4	Number: TE0720 62I33ML	Rev. 04	
Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH		Page7 of 20
Filename: B33-B34.SchDoc			

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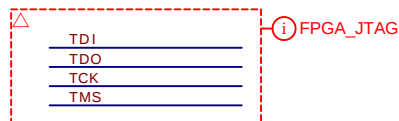
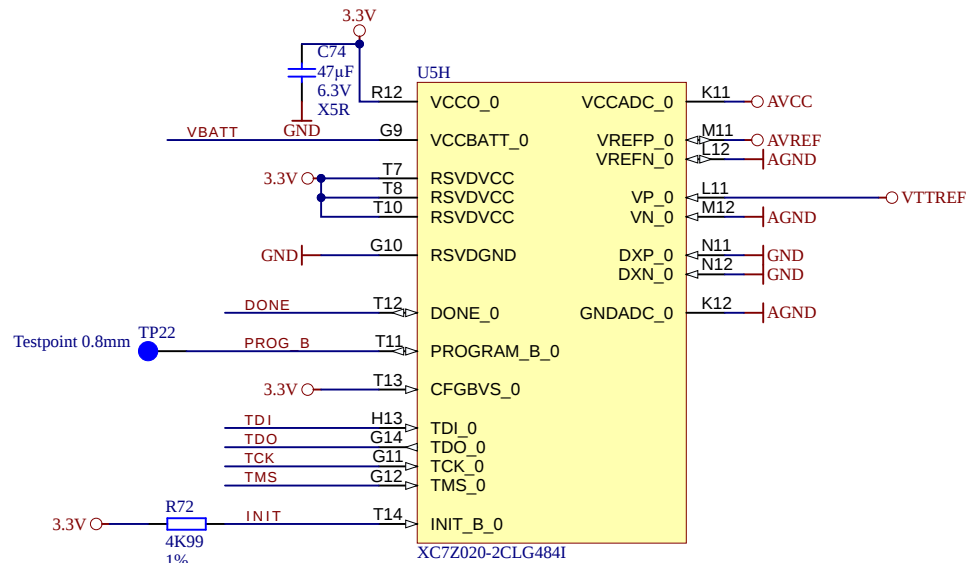
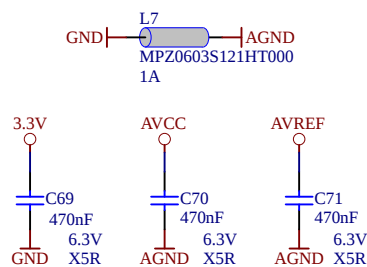
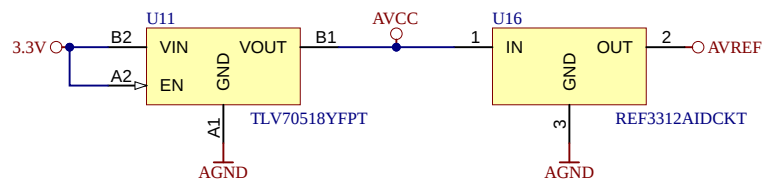
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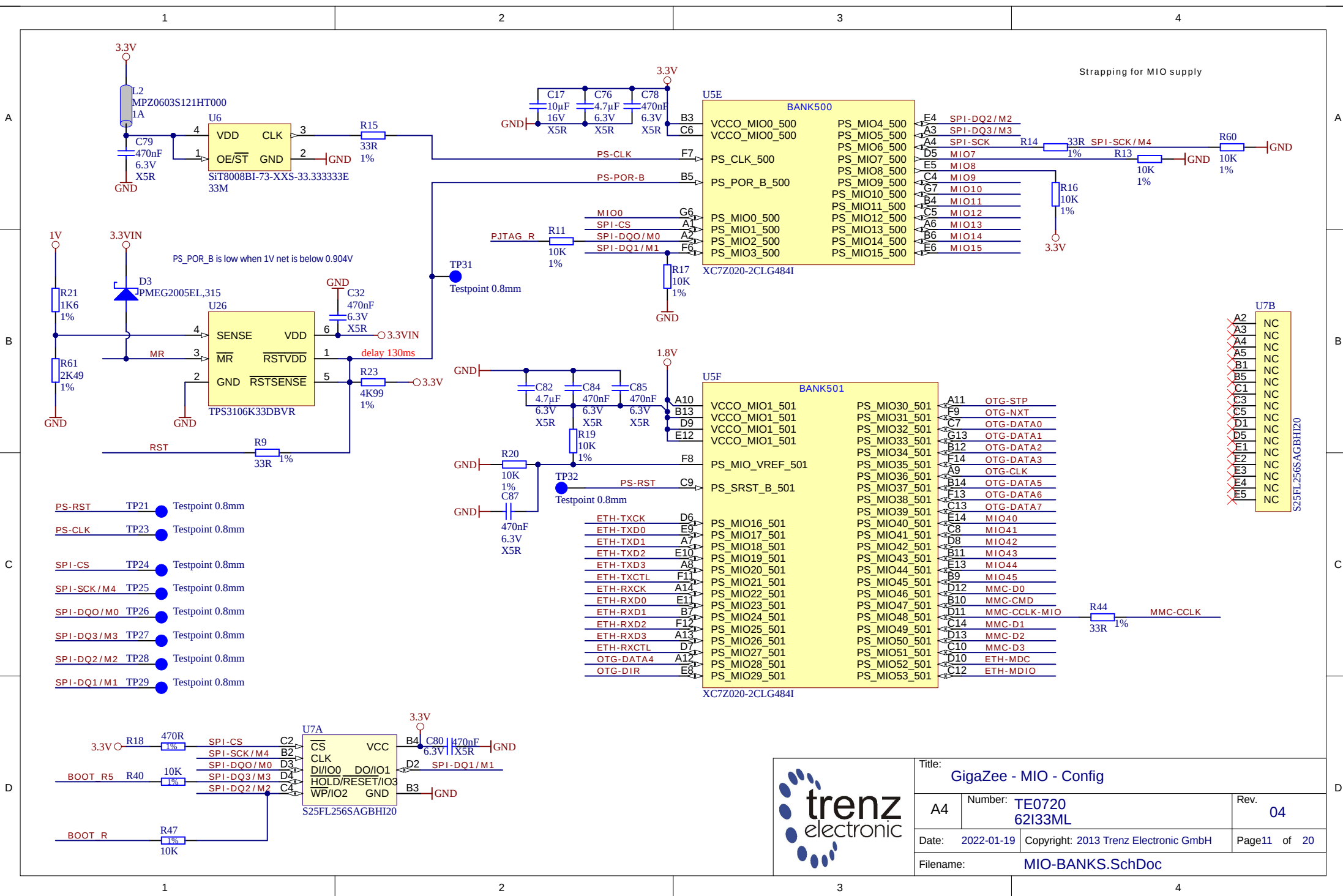
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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH		Page 8 of 20
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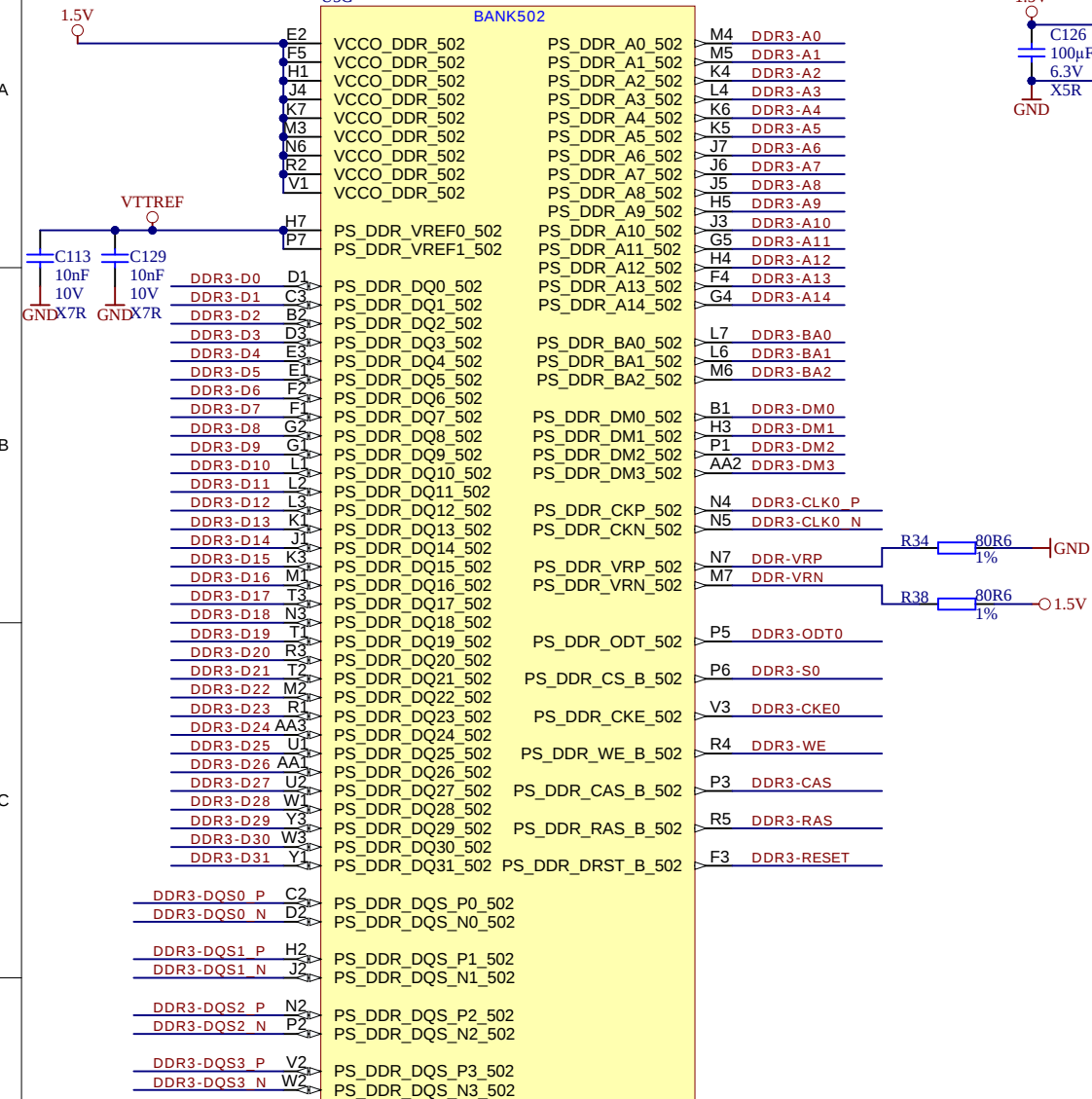


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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH		Page9 of 20
Filename: FPGA-MISC.SchDoc		Rev. 04	

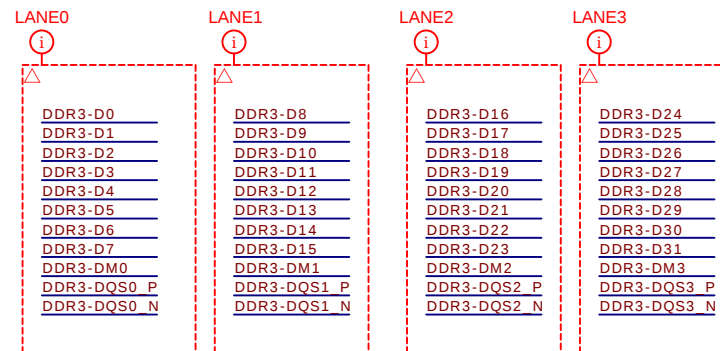
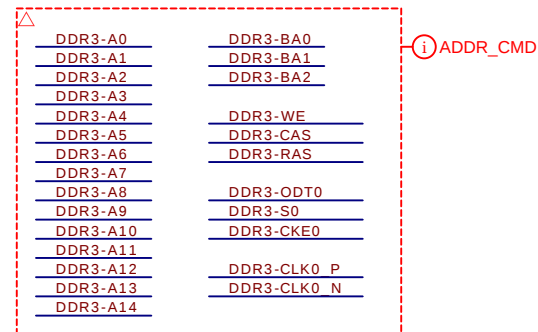
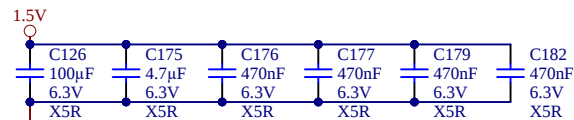


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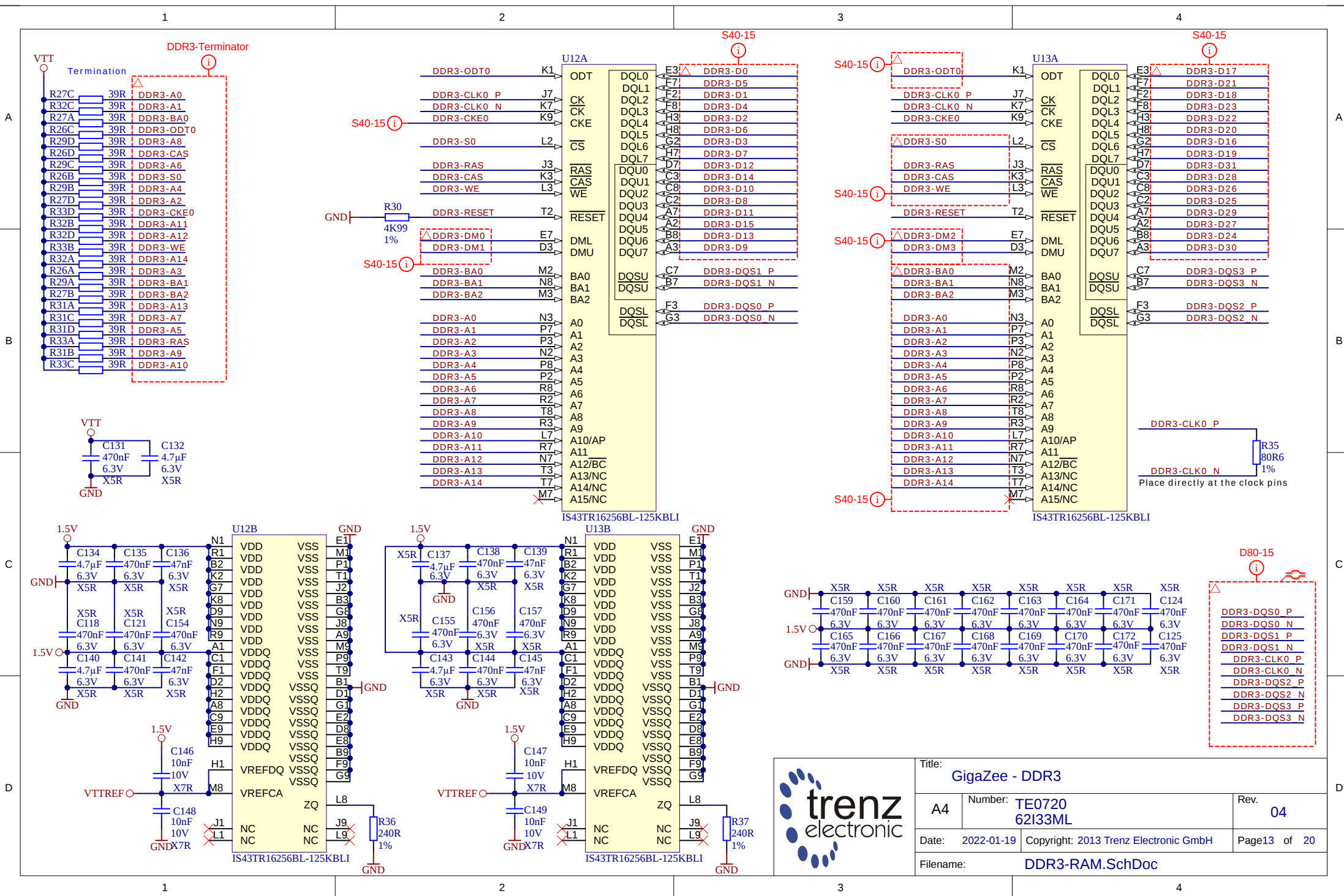
BANK502

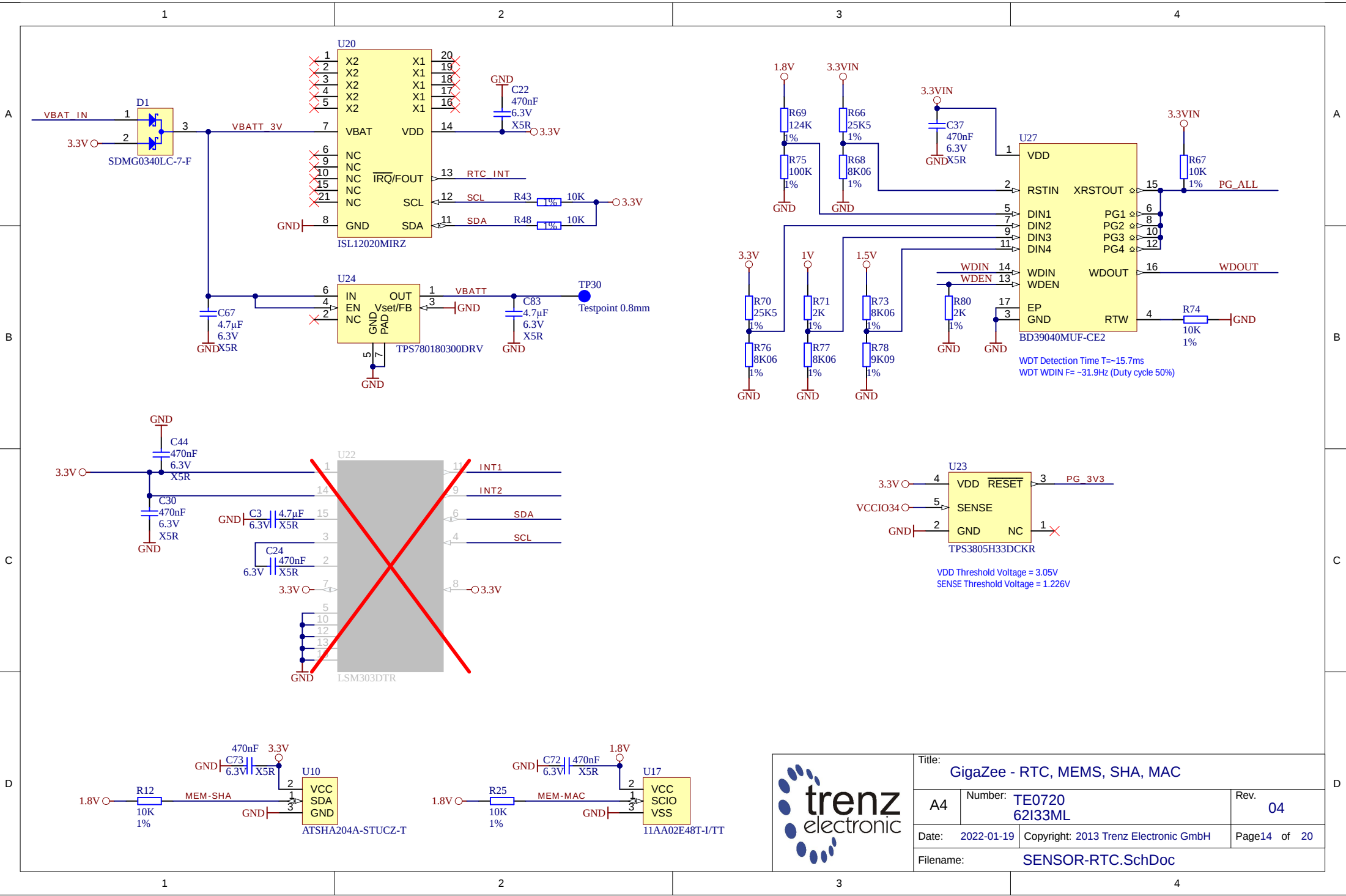


XC7Z020-2CLG484I



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		A4	Number: TE0720 62I33ML
Date: 2022-01-19		Copyright: 2013 Trenz Electronic GmbH	
Filename: PS-DDR.SchDoc		Page12 of 20	
		Rev. 04	





Title: GigaZee - RTC, MEMS, SHA, MAC		
A4	Number: TE0720 62I33ML	Rev. 04
Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page14 of 20
Filename: SENSOR-RTC.SchDoc		

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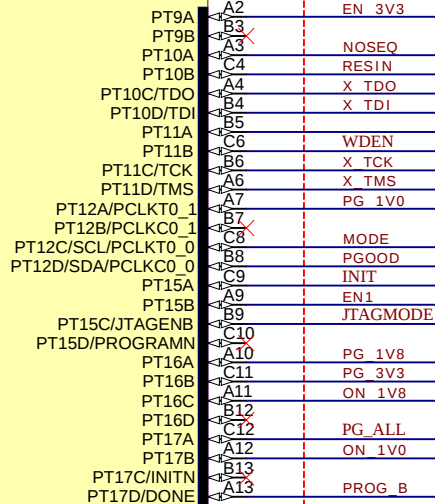
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U19A

BANK 0



LCMXO2-1200HC-4MG132I

CPLD_3V3

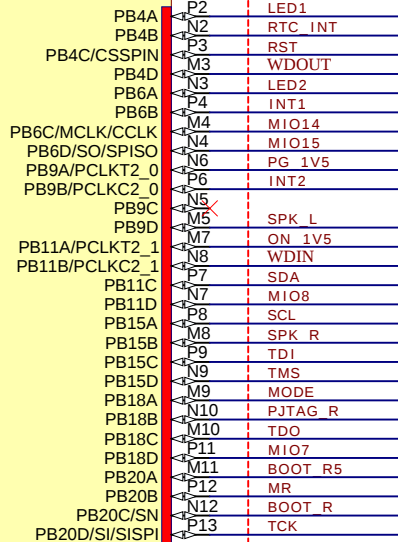
i

CPLD_1V8

i

U19C

BANK 2



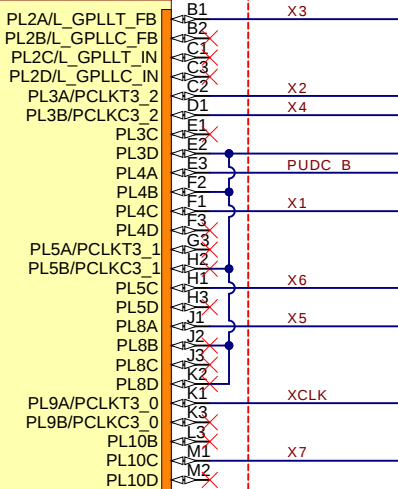
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CPLD_3V3

i

U19D

BANK 3



LCMXO2-1200HC-4MG132I

CPLD_B34

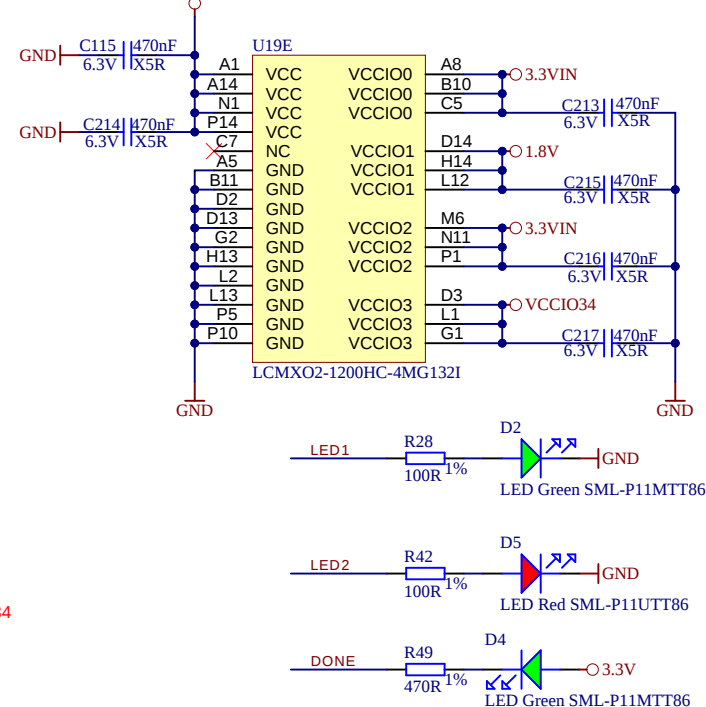
i

VCCIO34



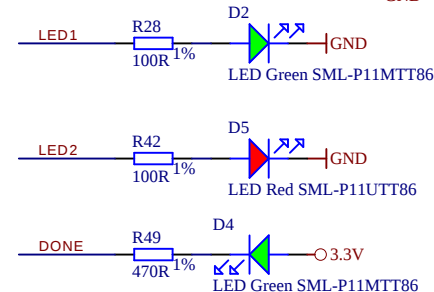
U19E

BANK 1



LCMXO2-1200HC-4MG132I

GND



LED Green SML-P11MTT86

LED Red SML-P11UTT86

LED Green SML-P11MTT86

Title: GigaZee - System Controller

A4	Number: TE0720 62I33ML	Rev. 04
	Date: 2022-01-19	Page15 of 20
Filename: SystemController.SchDoc		

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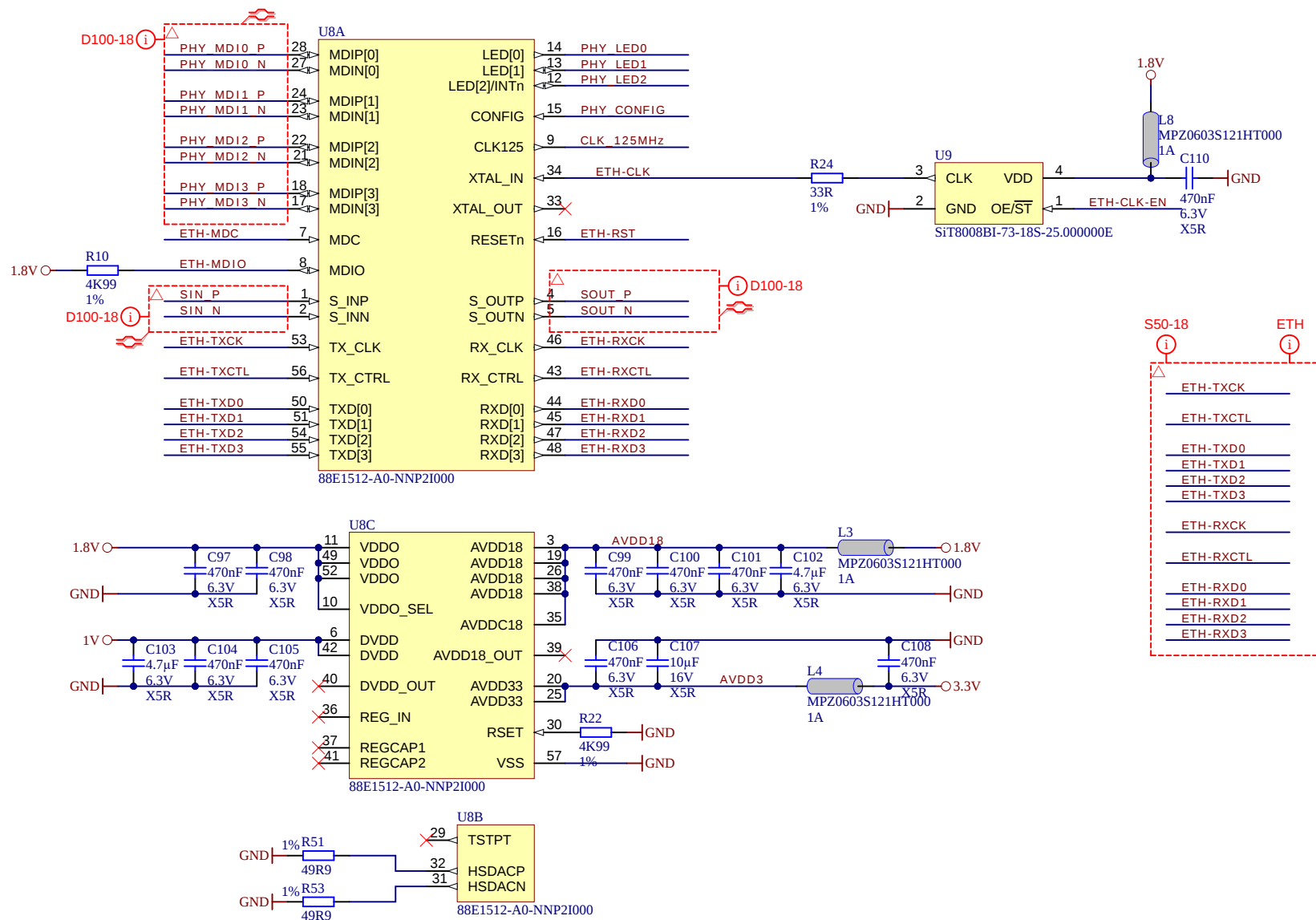


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Title: GigaZee - Ethernet		
A4	Number: TE0720 62I33ML	Rev. 04
Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	
Filename: ETH-PHY.SchDoc		Page17 of 20

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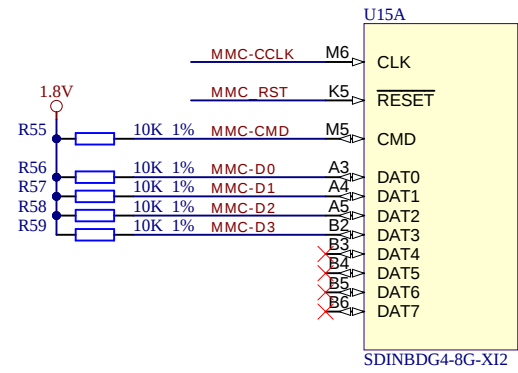
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4

U15D

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A2	NC	NC	H3
A8	NC	NC	H12
A9	NC	NC	H13
A10	NC	NC	H14
A11	NC	NC	J1
A12	NC	NC	J2
A13	NC	NC	J3
A14	NC	NC	J12
B1	NC	NC	J13
B7	NC	NC	J14
B8	NC	NC	K1
B9	NC	NC	K2
B10	NC	NC	K3
B11	NC	NC	K12
B12	NC	NC	K13
B13	NC	NC	K14
B14	NC	NC	L1
C1	NC	NC	L2
C3	NC	NC	L3
C7	NC	NC	L12
C8	NC	NC	L13
C9	NC	NC	L14
C10	NC	NC	M1
C11	NC	NC	M2
C12	NC	NC	M3
C13	NC	NC	M7
C14	NC	NC	M8
D1	NC	NC	M9
D2	NC	NC	M10
D3	NC	NC	M11
D4	NC	NC	M12
D12	NC	NC	M13
D13	NC	NC	M14
D14	NC	NC	N1
E1	NC	NC	N3
E2	NC	NC	N6
E3	NC	NC	N7
E12	NC	NC	N8
E13	NC	NC	N9
E14	NC	NC	N10
F1	NC	NC	N11
F2	NC	NC	N12
F3	NC	NC	N13
F12	NC	NC	N14
F13	NC	NC	P1
F14	NC	NC	P2
G1	NC	NC	P8
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G12	NC	NC	P11
G13	NC	NC	P12
G14	NC	NC	P13
H1	NC	NC	P14

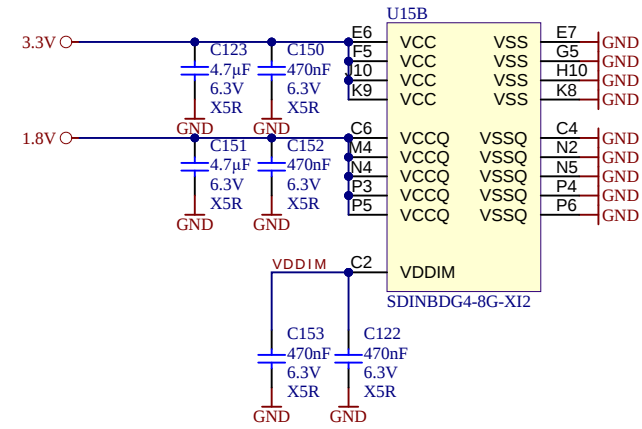
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U15C

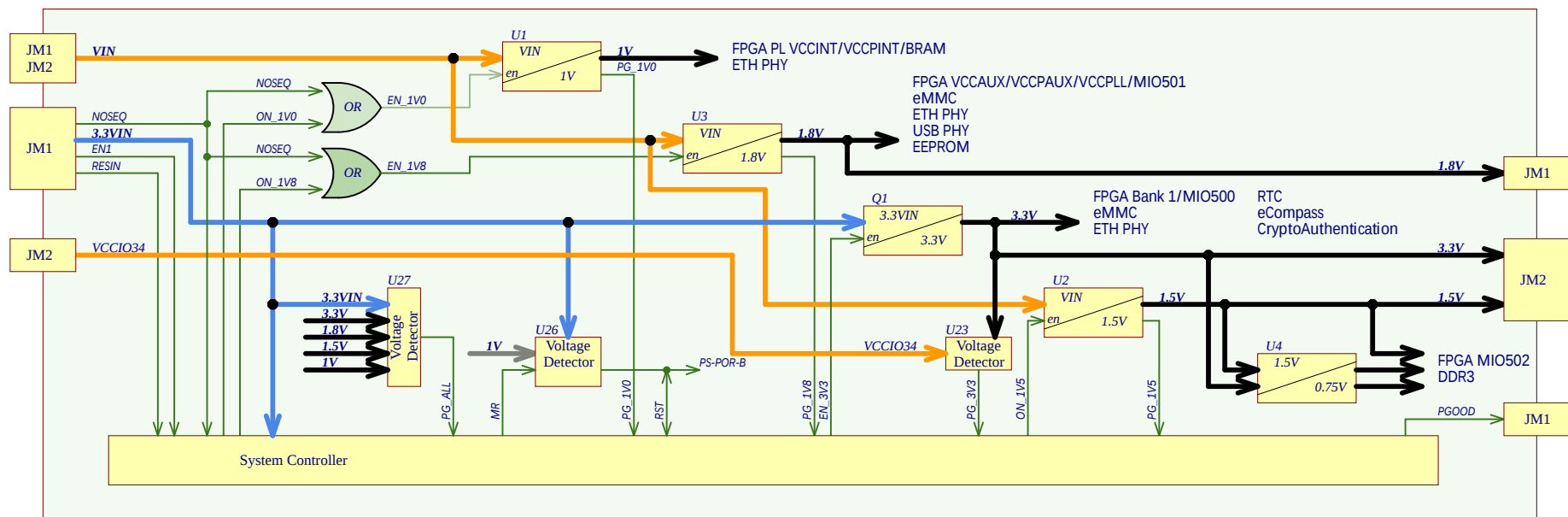
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A7	RFU
C5	RFU/NC
E5	RFU
E8	RFU
E9	RFU
F10	RFU
G3	RFU
G10	RFU/NC
H5	RFU
J5	RFU/DS
K6	RFU/VSS
K7	RFU
K10	RFU
P7	RFU/NC
P10	RFU

SDINBDG4-8G-XI2



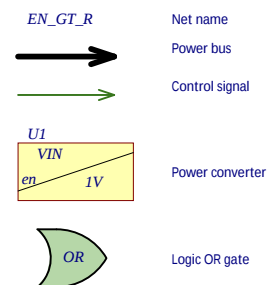
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A4	Number: TE0720 62I33ML	Rev. 04
Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page18 of 20
Filename: eMMC.SchDoc		

Power-on sequencing:

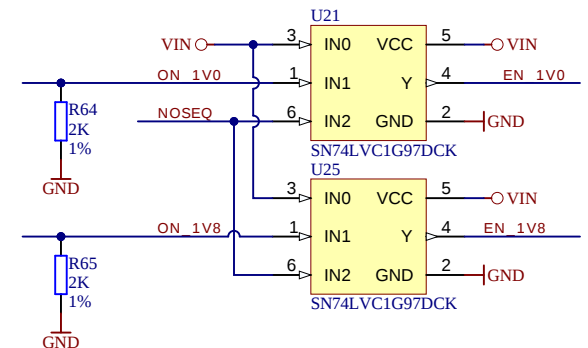
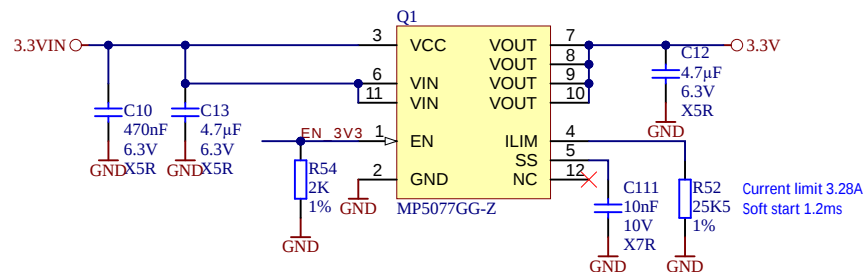
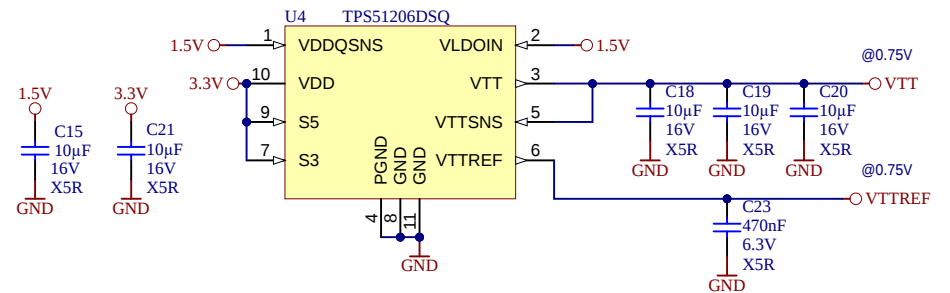
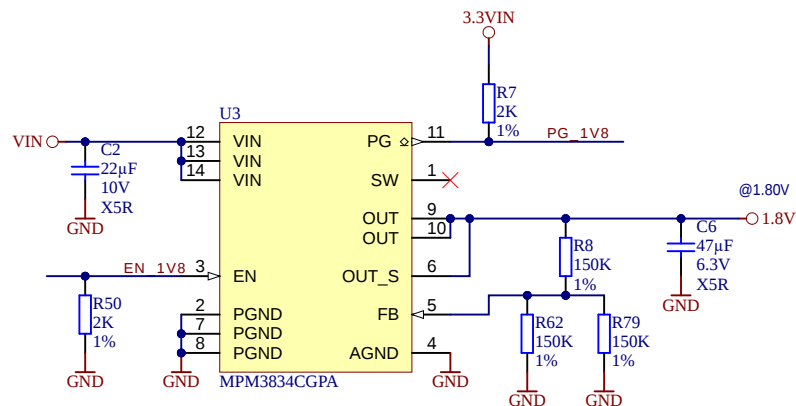
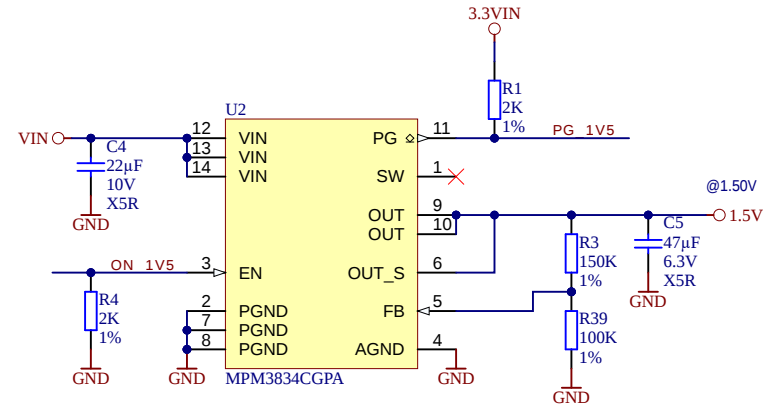
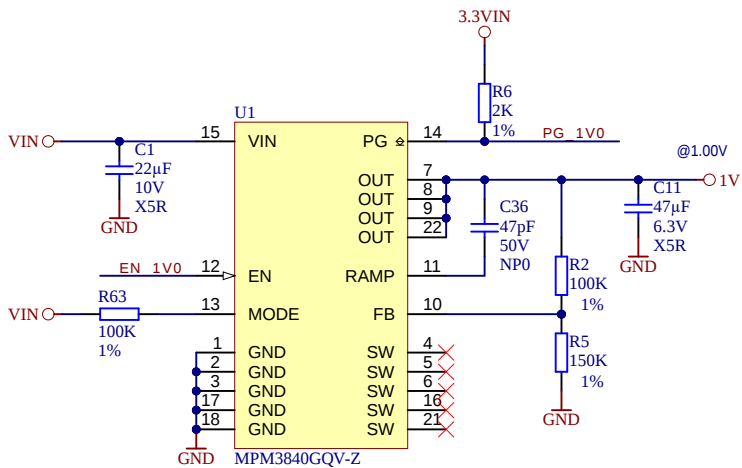


Recommended Operating Conditions

Power Rail	Direction	Range	Tolerance	Description	Note
VIN	IN	3.3 - 5V	+/-5%	Micromodule Power	Mandatory
3.3VIN	IN	3.3V	+/-5%	Micromodule Power	Mandatory
VCCIO13	IN	1.2 - 3.3V	+/-5%	HR IO Bank13	-
VCCIO33	IN	1.2 - 3.3V	+/-5%	HR IO Bank33	-
VCCIO34	IN	1.5 - 3.3V	+/-5%	HR IO Bank34	Mandatory
VCCIO35	IN	1.2 - 3.3V	+/-5%	HR IO Bank35	-
VBAT_IN	IN	2.5 - 5V	+/-5%	RTC	-
1.8V	OUT	1.8V	+/-5%	For Carrier card Periphery	-
3.3V	OUT	3.3V	+/-5%	For Carrier card Periphery	-
DDR_PWR	OUT	1.5V	+/-5%	For Carrier card Periphery	
VREF_JTAG	OUT	3.3V	+/-5%	For Carrier card Periphery	Connected to 3.3VIN



	Title: GigaZee - Power Diagram		
	A4	Number: TE0720 62I33ML	Rev. 04
	Date: 23.05.2025	Copyright: Trenz Electronic GmbH / TT	Page 19 of 20
	Filename: Power_Diagram.SchDoc		



		Title: GigaZee - Power	
		A4	Number: TE0720 62I33ML
		Date: 2022-01-19	Page20 of 20
		Filename: Power.SchDoc	Rev. 04