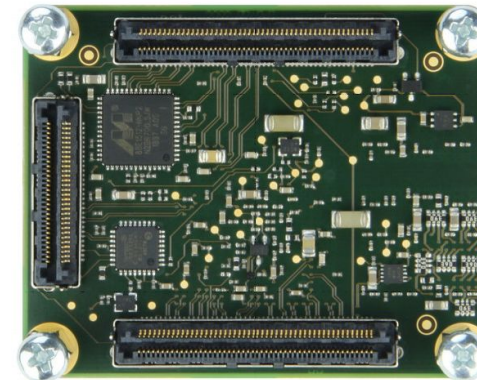
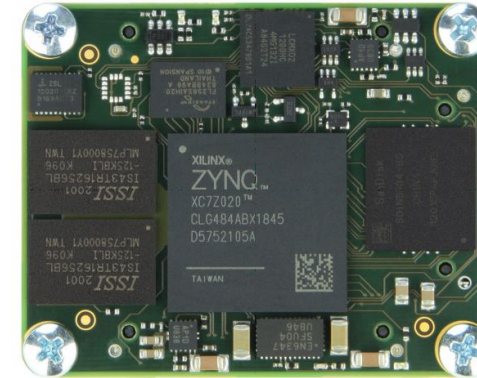




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Schematics and other handouts serve for informational purposes only!

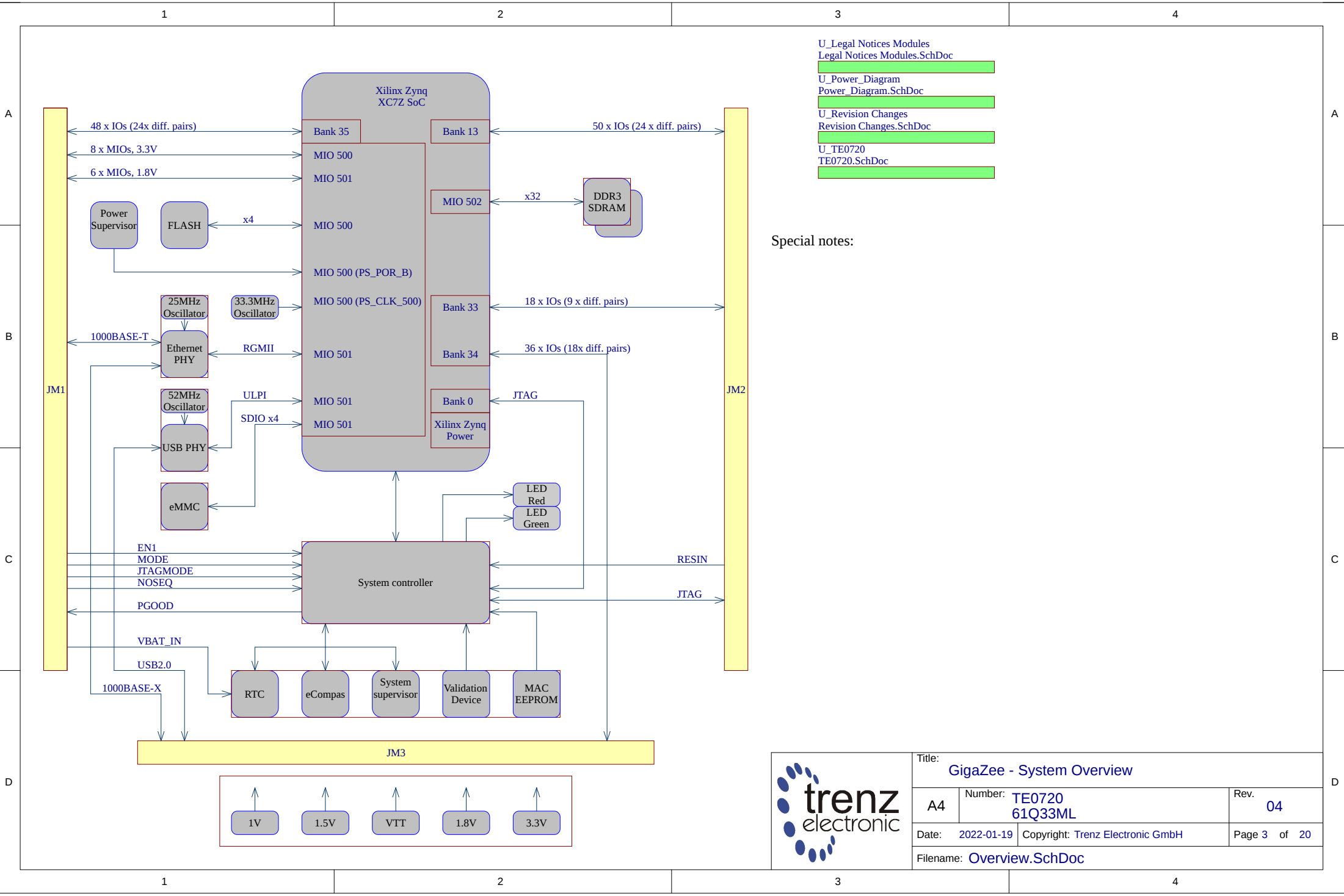
	Title: GigaZee		
	A4	Number: TE0720 61Q33ML	Rev. 04
	Date: 2022-01-19	Copyright: Trenz Electronic GmbH / TT	Page 1 of 20
	Filename: Legal Notices Modules.SchDoc		

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 61Q33ML	Rev. 04
		Date: 2022-01-19	Copyright: Trenz Electronic GmbH	
		Drawn by: VY	Filename: Revision Changes.SchDoc	
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Date: 2022-01-19	Copyright: Trenz Electronic GmbH	Page 2 of 20
Drawn by: VY	Filename: Revision Changes.SchDoc	



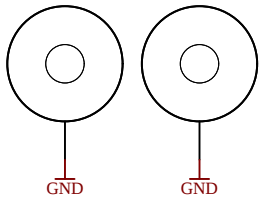
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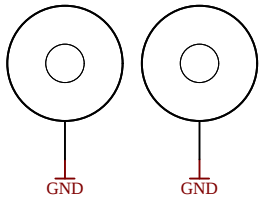
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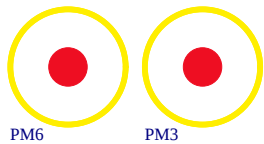
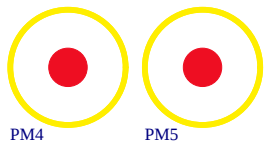
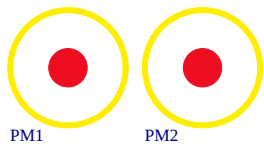
Mount.Hole 3.2mmMount.Hole 3.2mm



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 61Q33ML
Created by MR
Modified by MR
Modified at 2021-07-06

SVN Revision Unknown revision



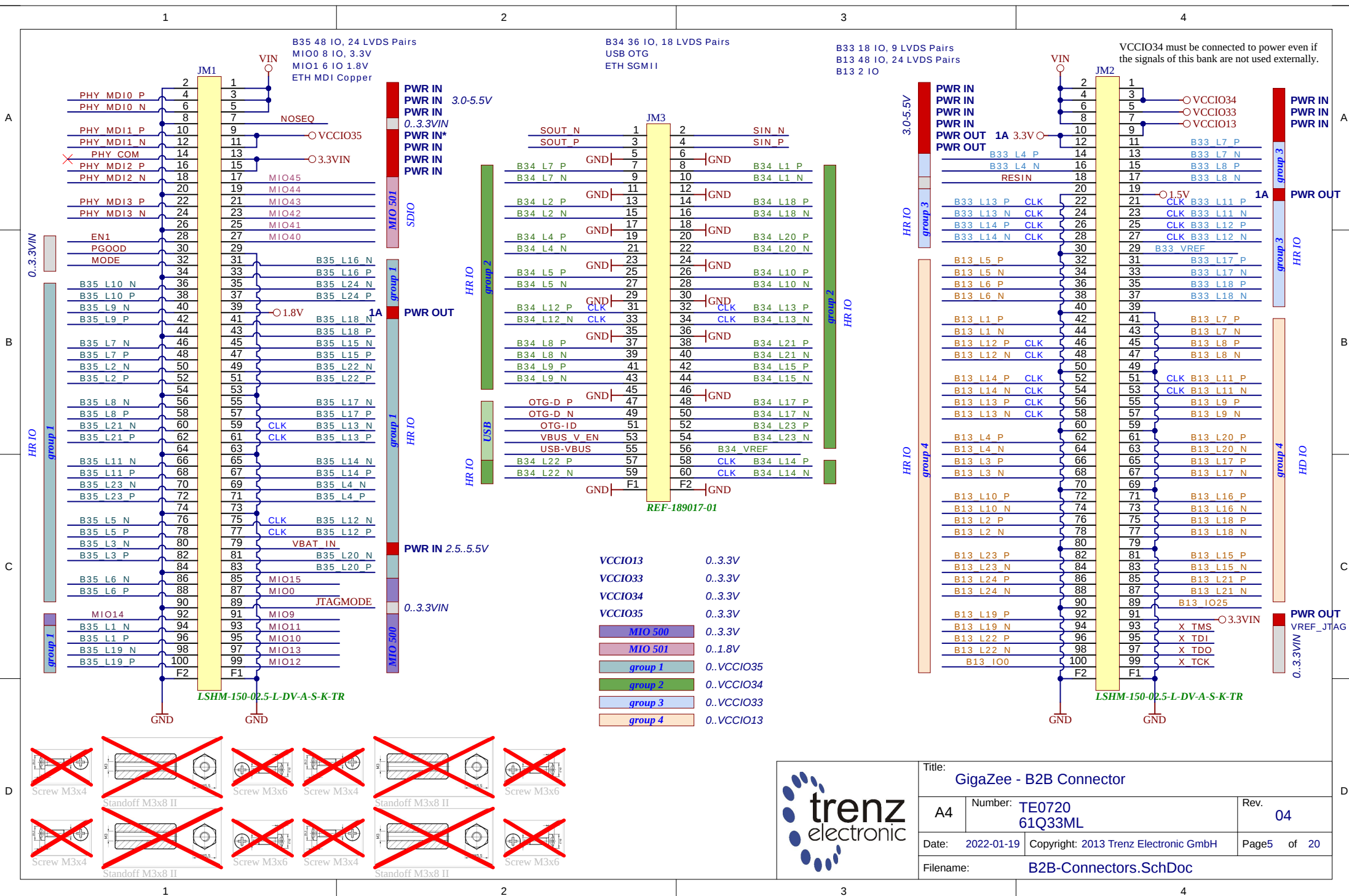
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A4	Number: TE0720 61Q33ML	Rev. 04
Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page 4 of 20
Drawn by: VY	Filename: TE0720.SchDoc	

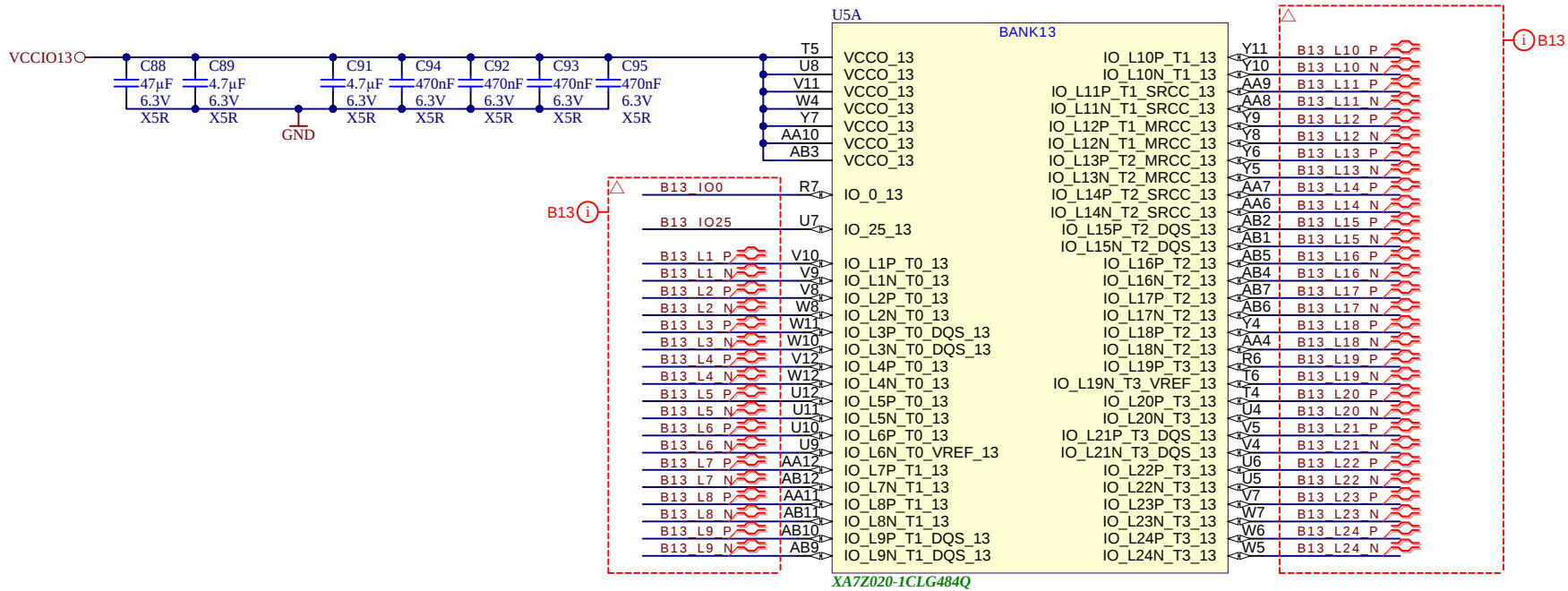
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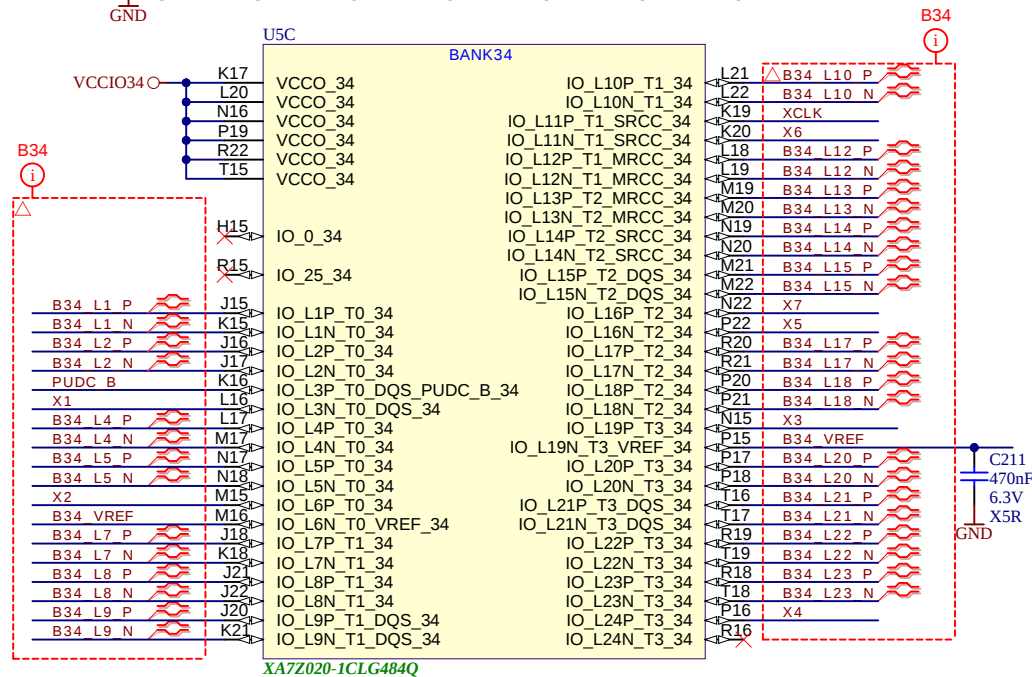
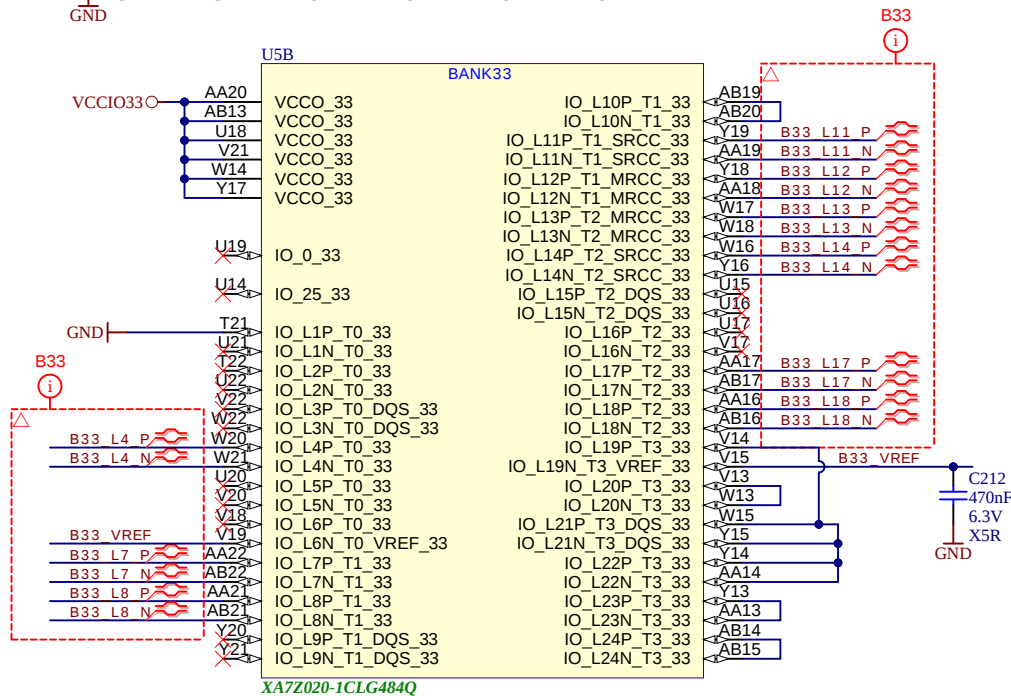
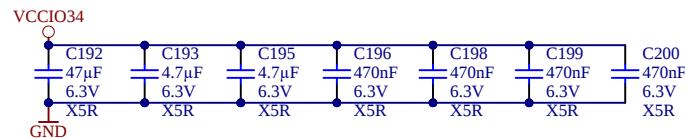
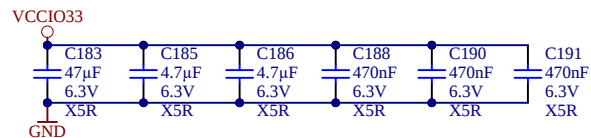
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	A4	Number: TE0720 61Q33ML	Rev. 04
	Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page6 of 20
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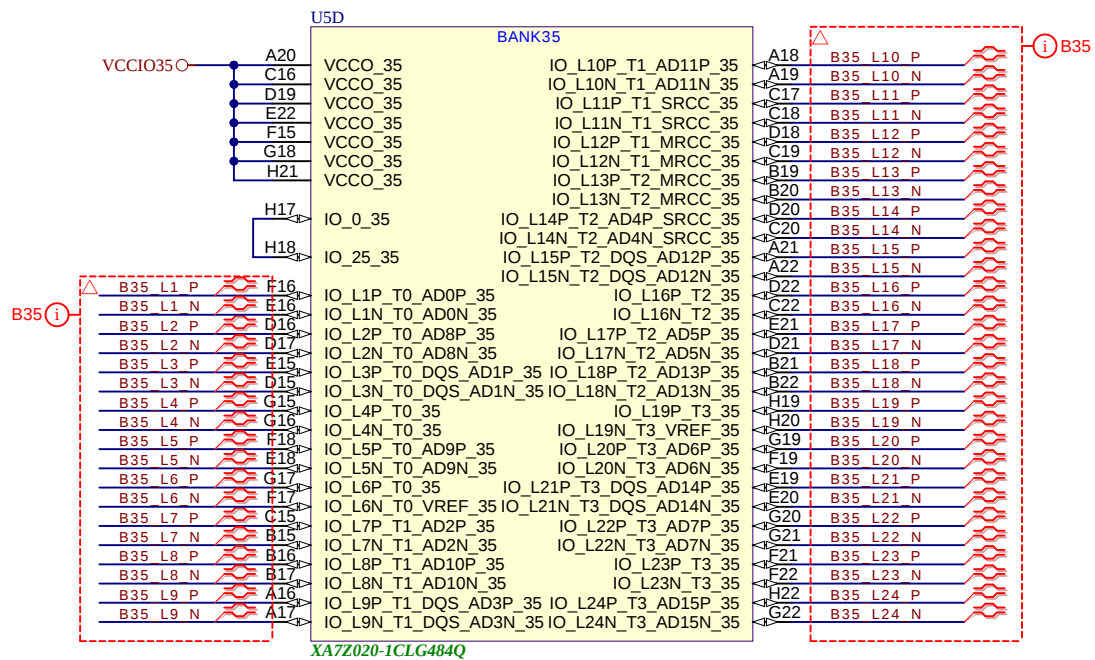
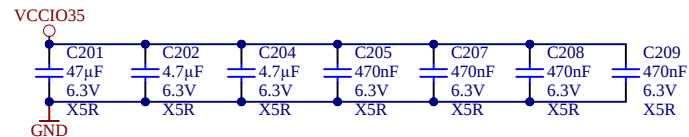
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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH		Page7 of 20
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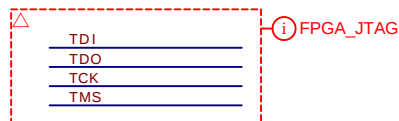
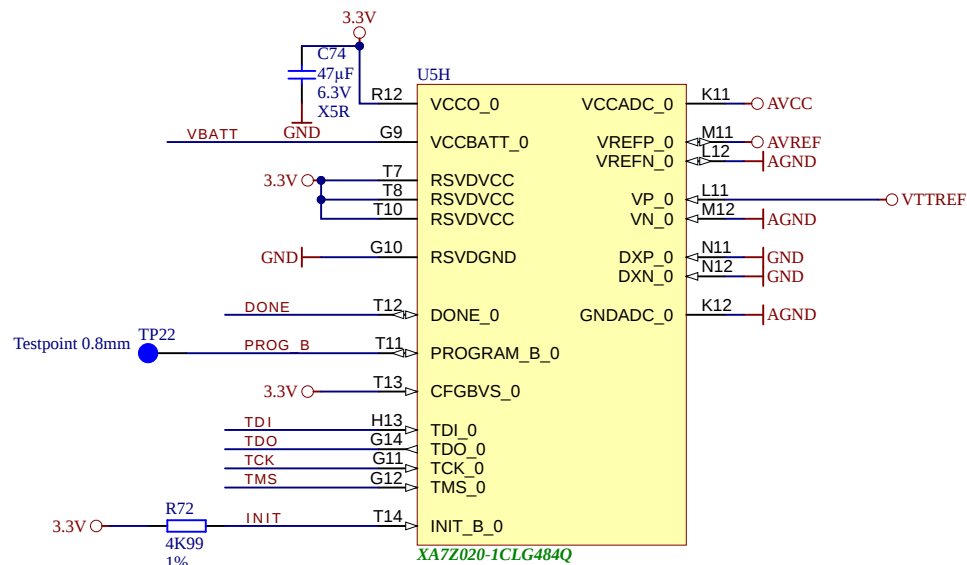
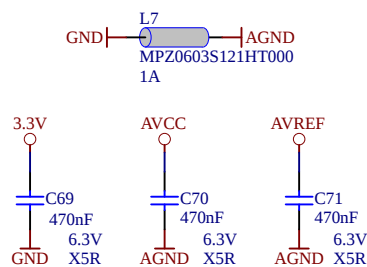
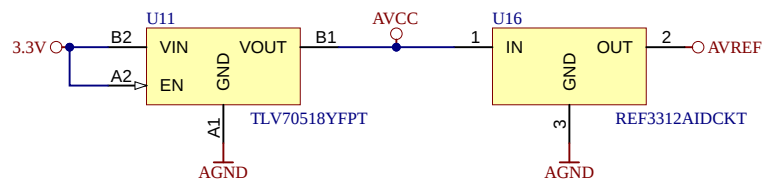
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XA7Z020-1CLG484Q



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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH		Page 8 of 20
Filename: B35.SchDoc			



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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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A

A

B

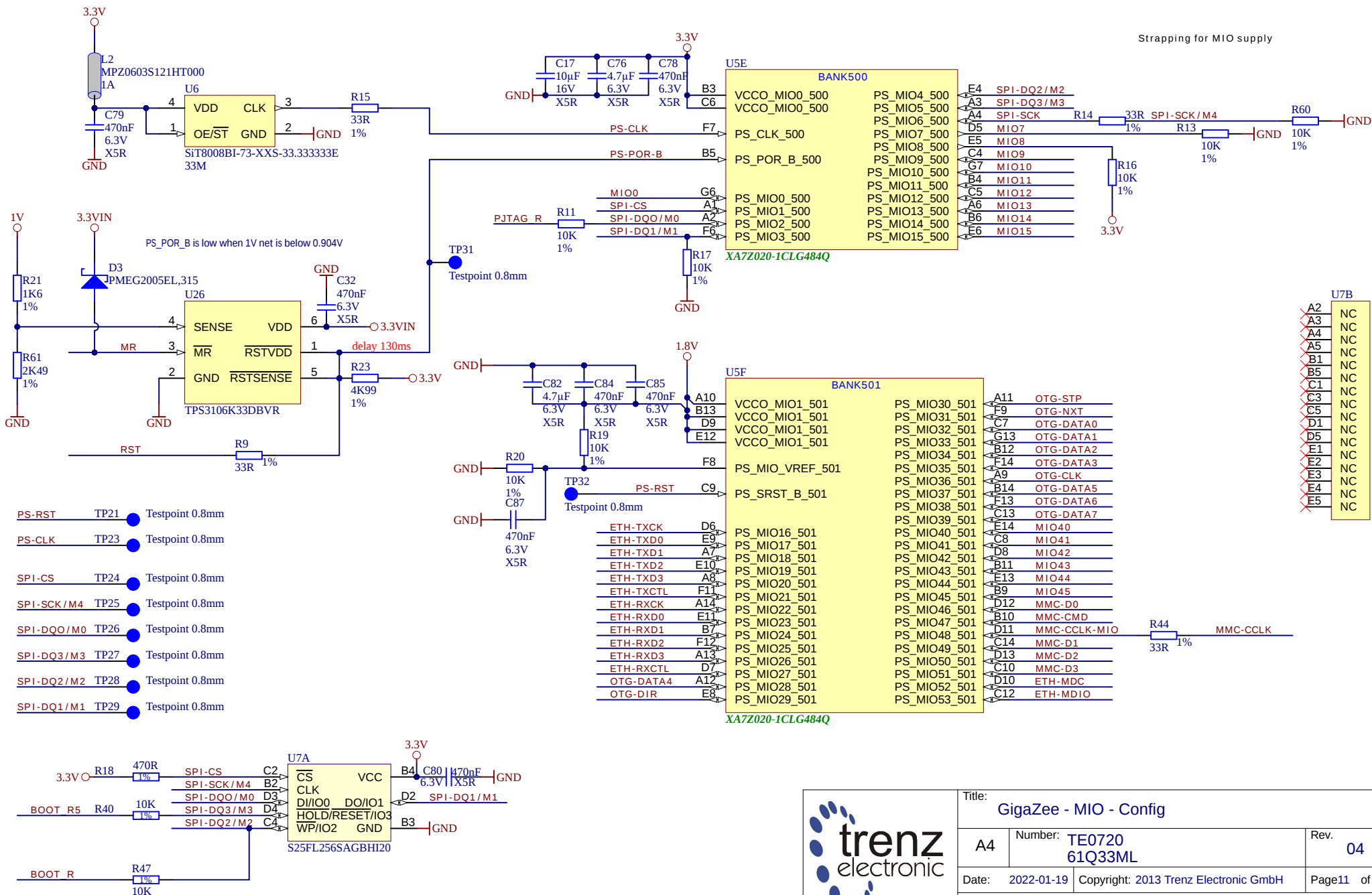
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C

C

D

D



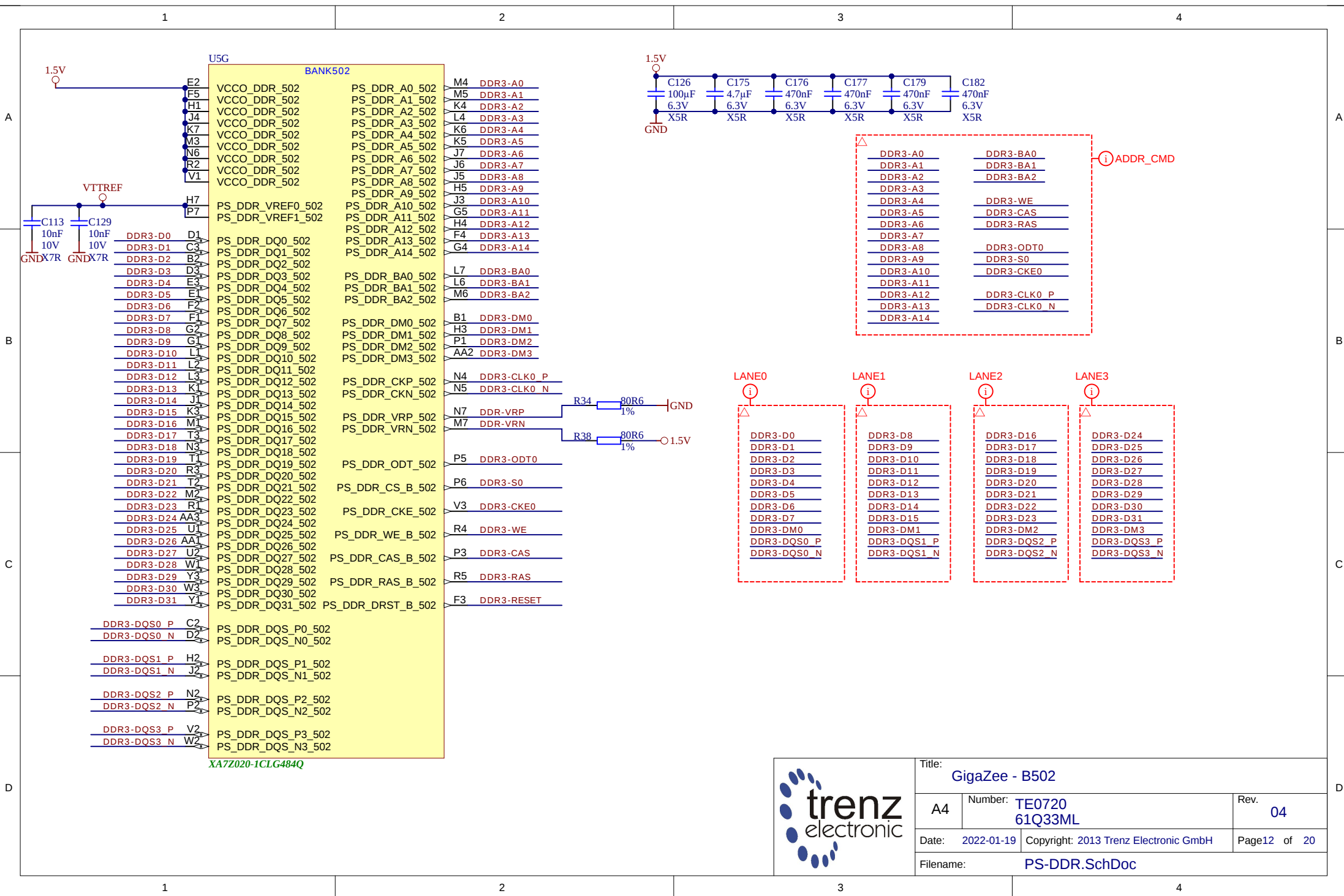
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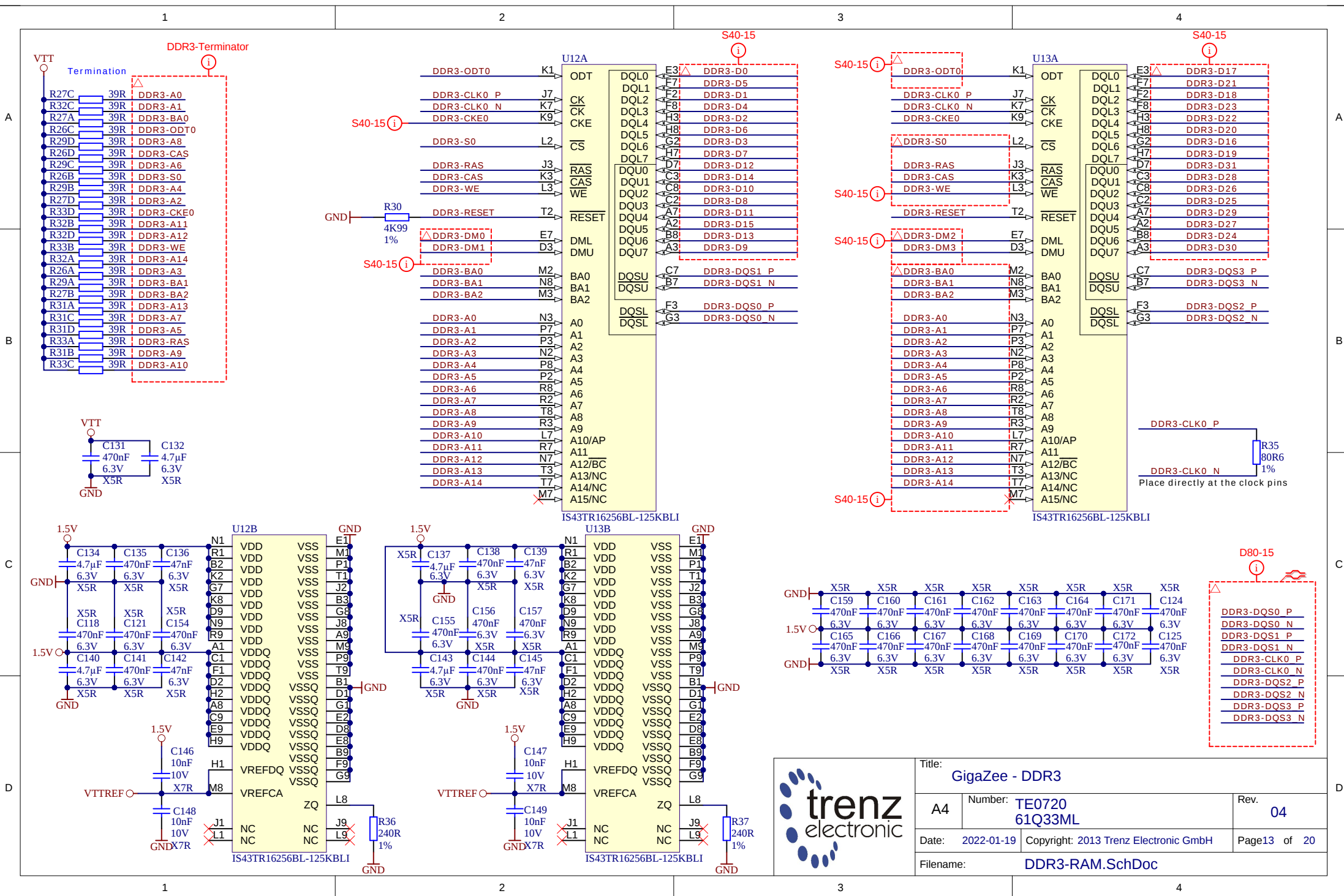
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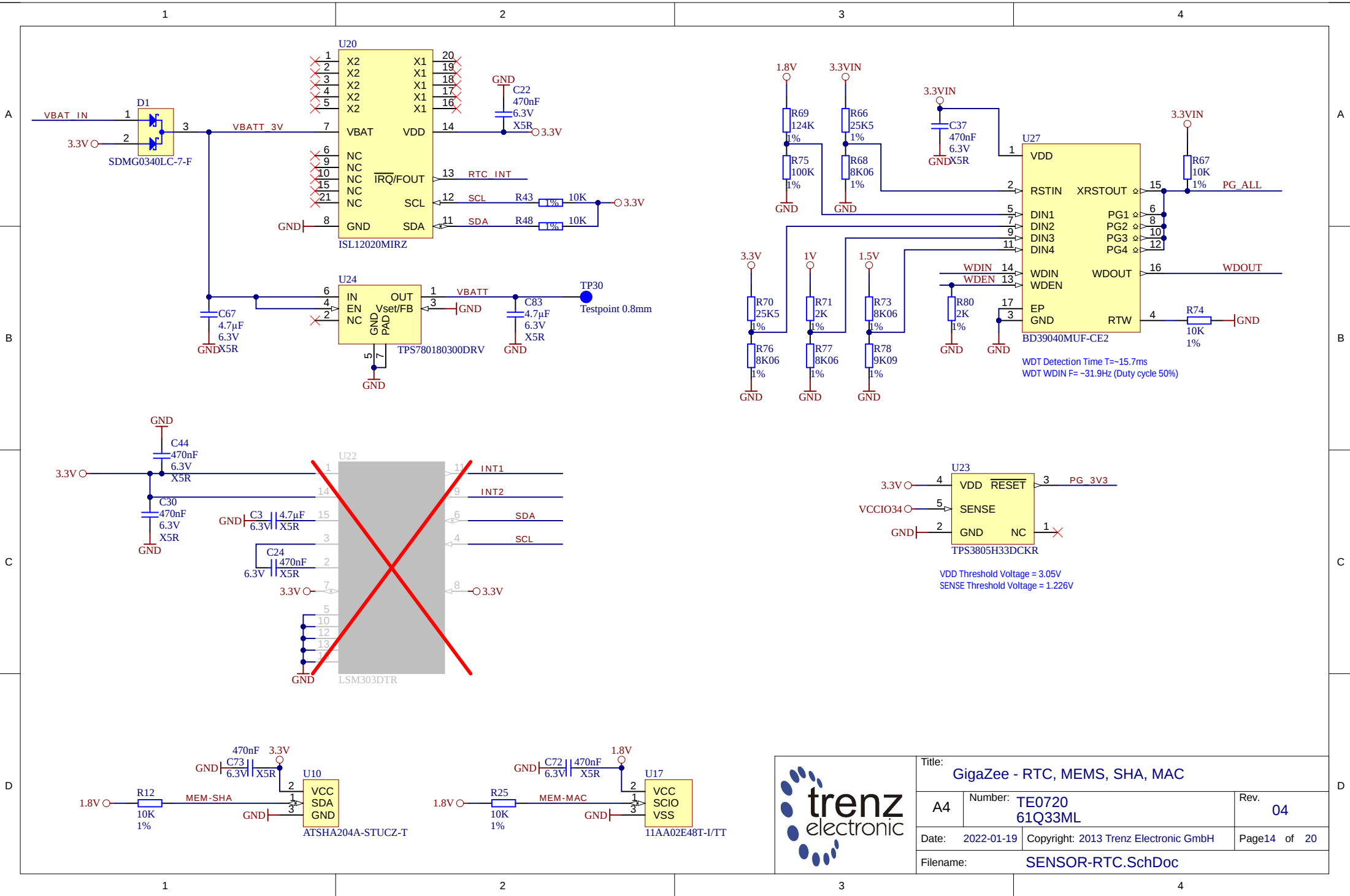
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Title: GigaZee - RTC, MEMS, SHA, MAC		
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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page14 of 20
Filename: SENSOR-RTC.SchDoc		

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A

A

B

B

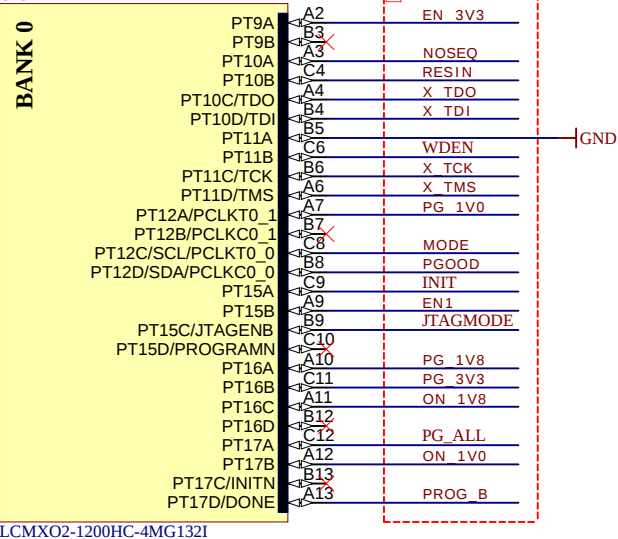
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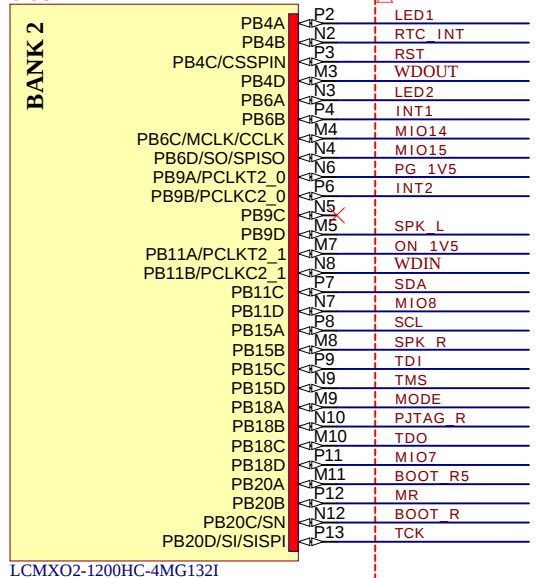
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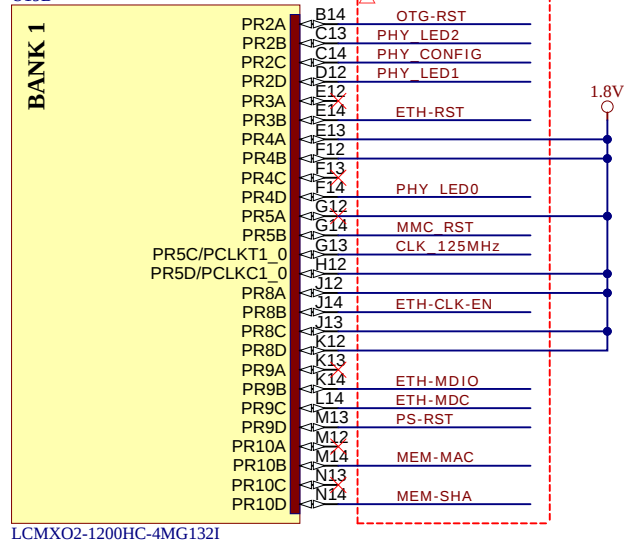
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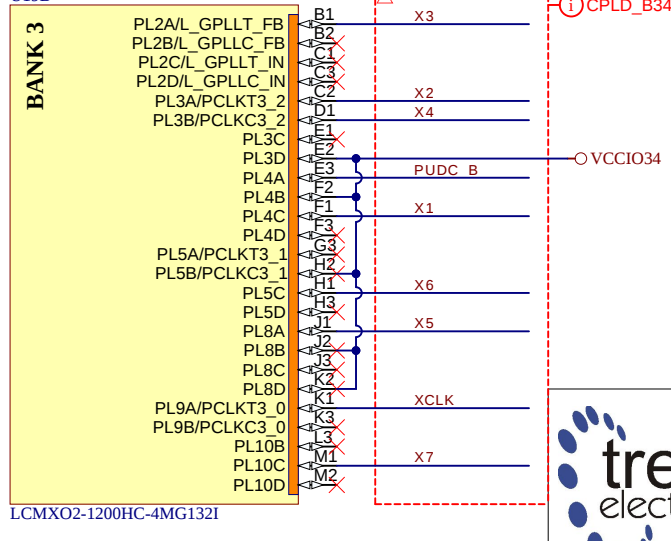
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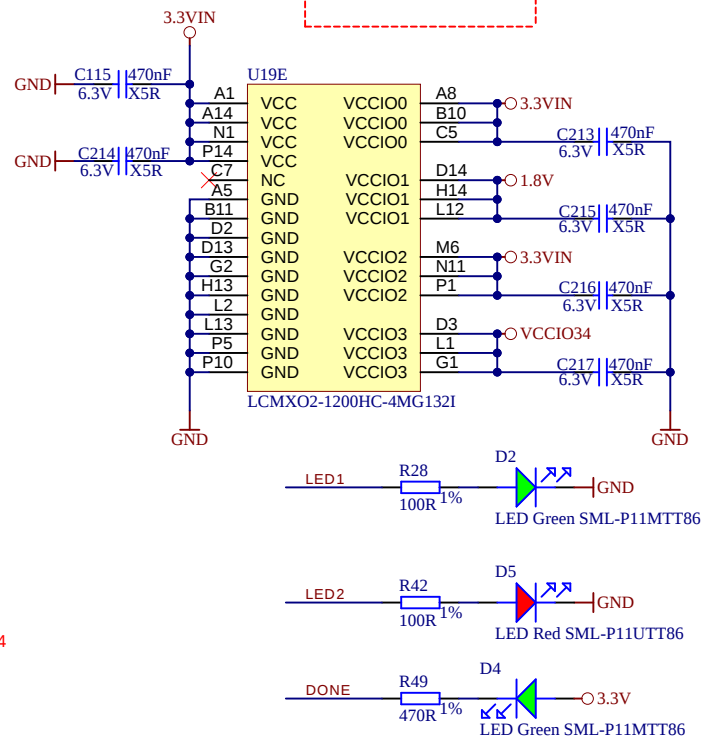
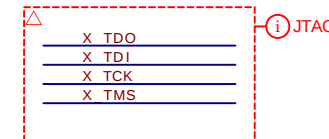
U19B



U19D



CPLD_3V3



Title: GigaZee - System Controller		
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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	Page15 of 20
Filename: SystemController.SchDoc		

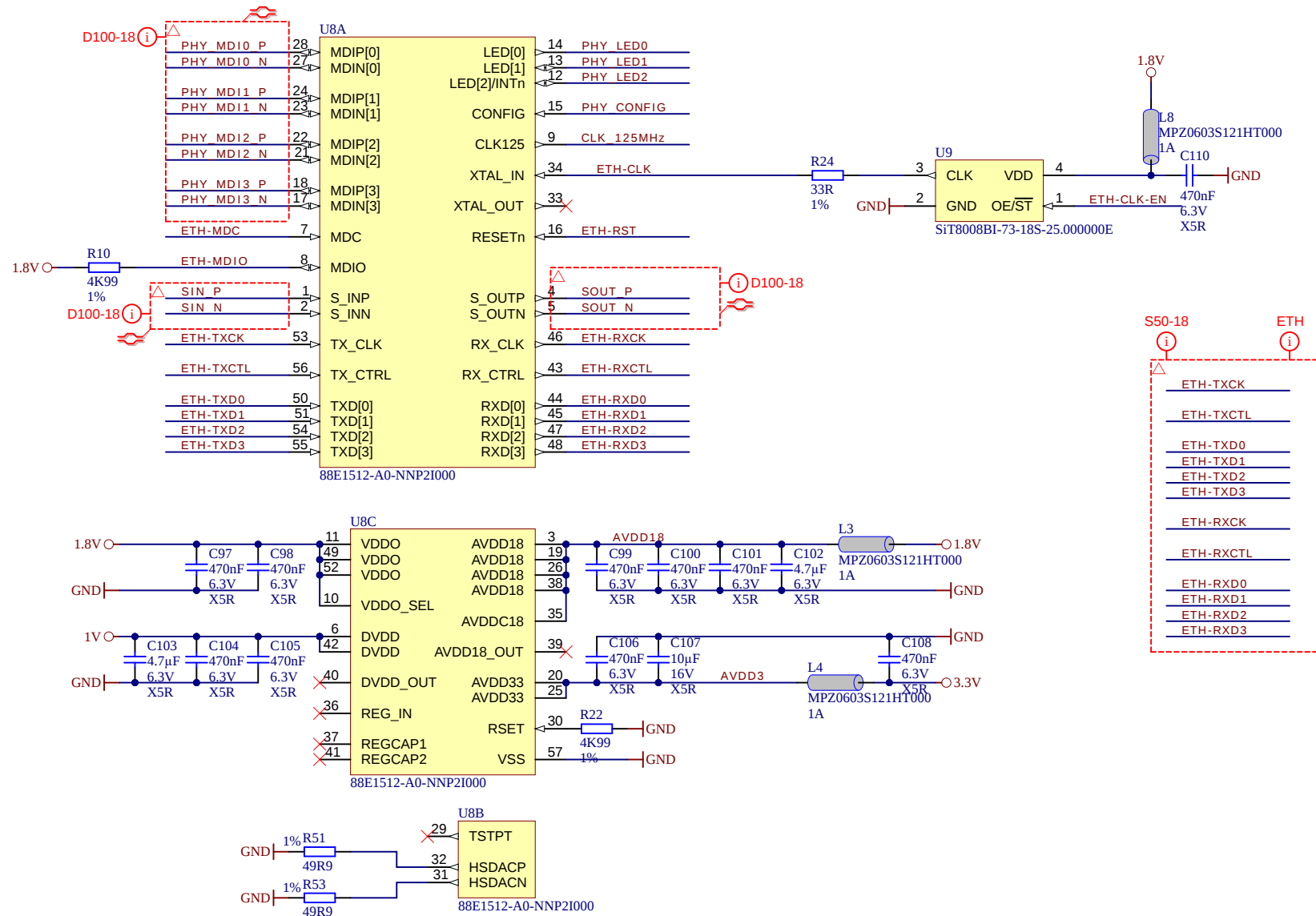
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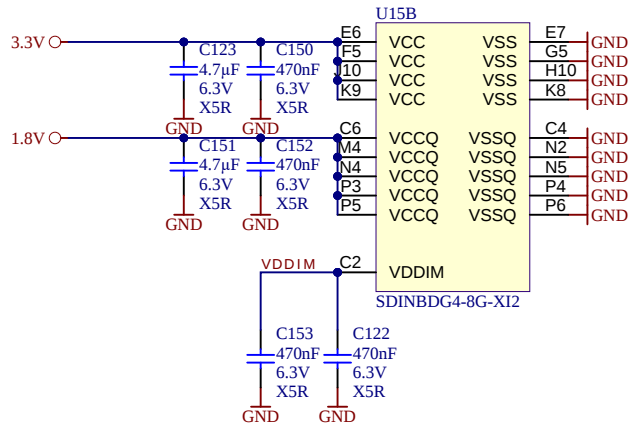
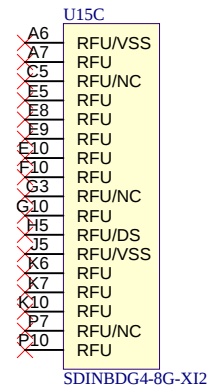
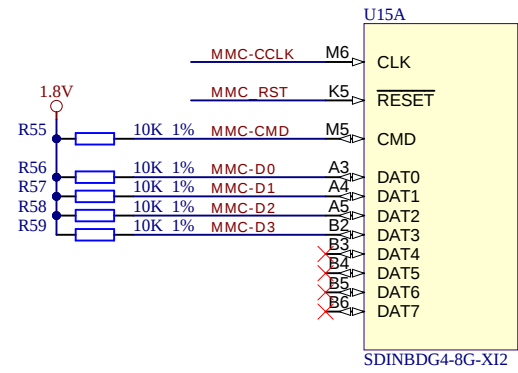
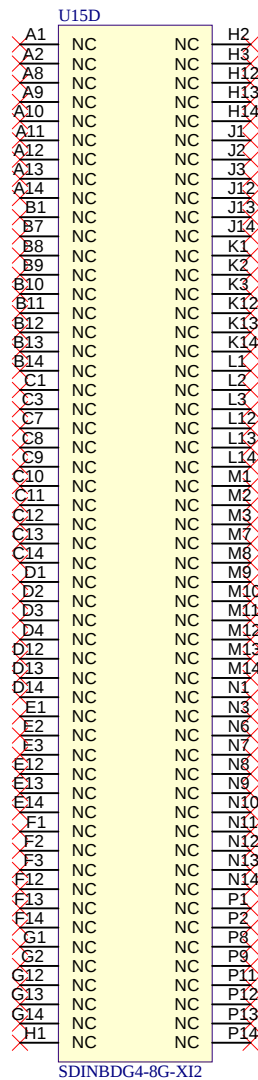
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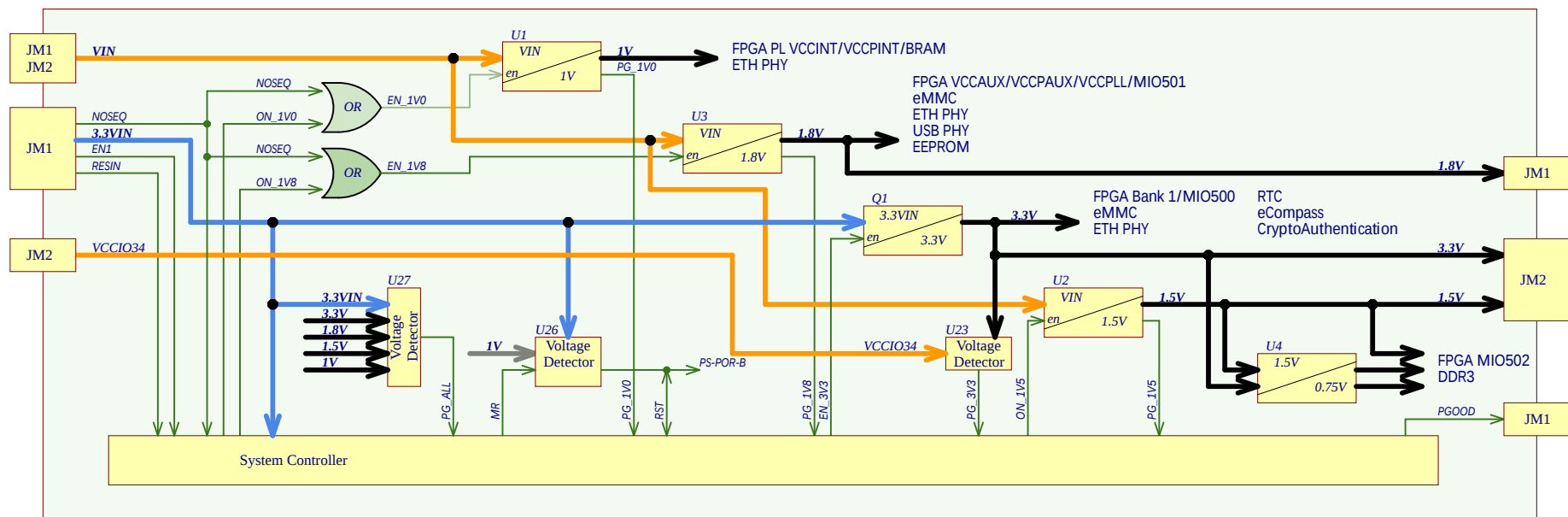




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Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH	
Filename: ETH-PHY.SchDoc		Page17 of 20

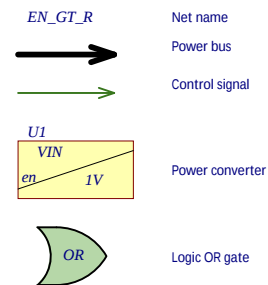


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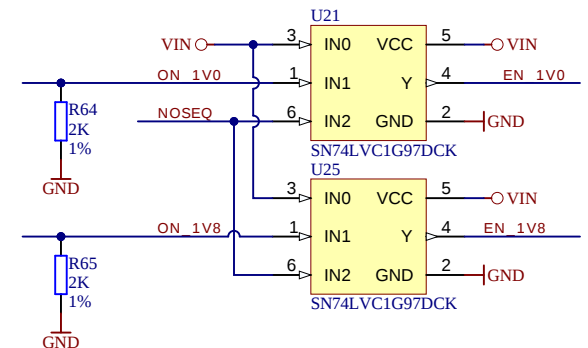
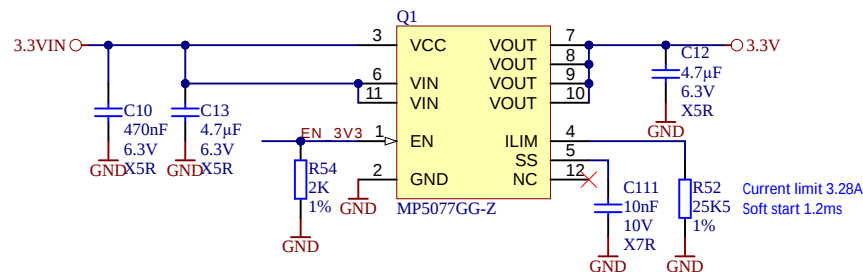
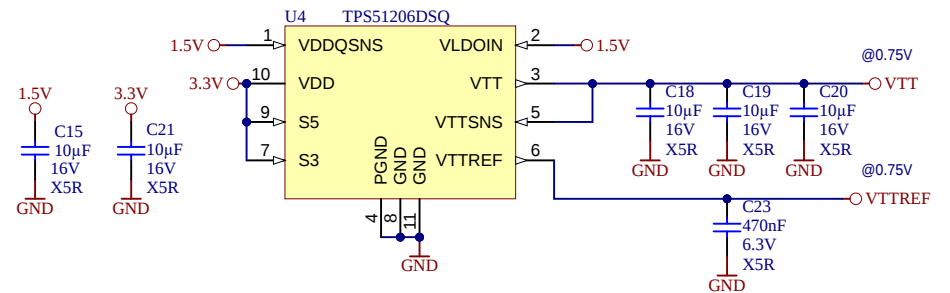
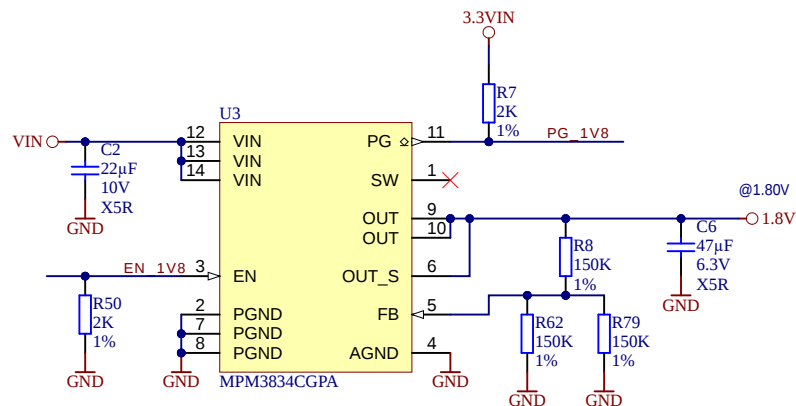
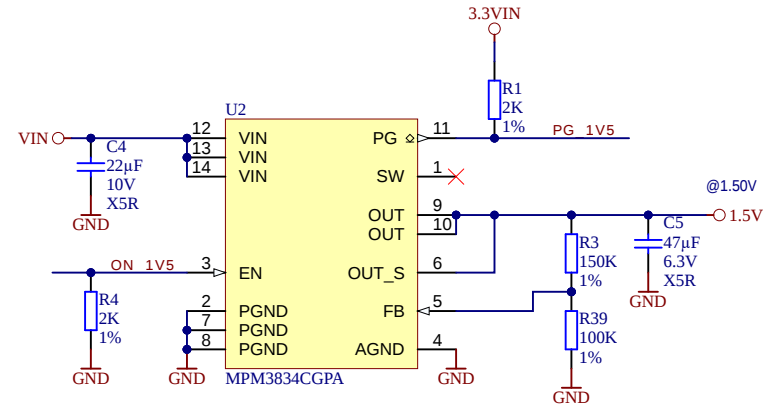
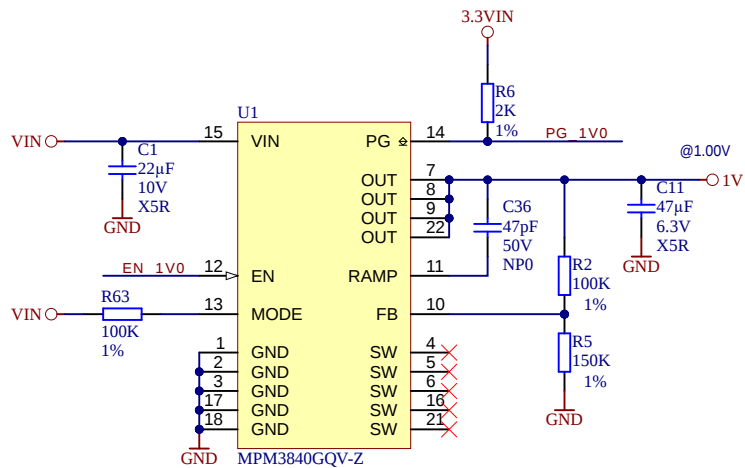


Recommended Operating Conditions

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 61Q33ML	Rev. 04
Date: 23.05.2025	Copyright: Trenz Electronic GmbH / TT	Page 19 of 20
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		Title: GigaZee - Power	
		Number: TE0720 61Q33ML	Rev. 04
Date: 2022-01-19	Copyright: 2013 Trenz Electronic GmbH		Page20 of 20
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