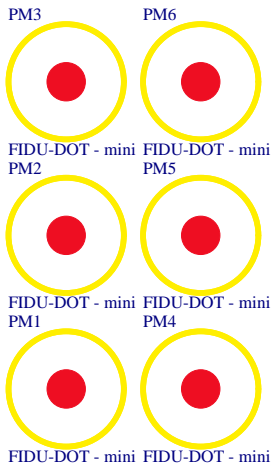
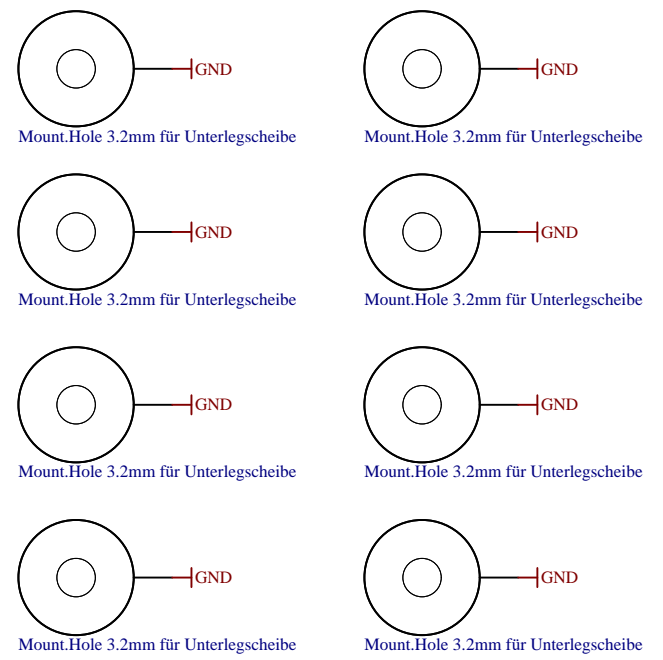


U_J1 J1.SchDoc	U_B_PS_GT B_PS_GT.SchDoc	U_DDR4-TERM DDR4-TERM.SchDoc
U_J2 J2.SchDoc	U_PS_DDR PS_DDR.SchDoc	U_ZU_POWER ZU_POWER.SchDoc
U_J3 J3.SchDoc	U_B_MIO B_MIO.SchDoc	U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_J4 J4.SchDoc	U_B_HD B_HD.SchDoc	U_POWER POWER.SchDoc
U_DDR4-TERM DDR4-TERM.SchDoc	U_Clock Clock.SchDoc	U_POWER_2 POWER_2.SchDoc
U_B64 B64.SchDoc	U_CONFIG CONFIG.SchDoc	U_POWER_3 POWER_3.SchDoc
U_B65 B65.SchDoc	U_DDR4-RAM DDR4-RAM.SchDoc	U_POWER_4 POWER_4.SchDoc
U_B66 B66.SchDoc	U_DDR4-RAM_2 DDR4-RAM_2.SchDoc	U_RC Revision_Changes.SchDoc
U_B_GT B_GT.SchDoc	U_DDR4-RAM_3 DDR4-RAM_3.SchDoc	
U_B_GT_2 B_GT_2.SchDoc	U_DDR4-RAM_4 DDR4-RAM_4.SchDoc	

Special notes:



Serial
Serialnummer 6,3 x 6.3mm

MECHI
TE Address Overlay

LOGO ADDRESS

LOGO1
TE Logo PRINT Layer

LOGO PRINT

Design drawn by:	VY
Checked by:	MR
Assembly variant:	BBE21-L
Created by:	VY
Modified by:	VY
Modified at:	2020-07-23



Title: TE0808		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 1 of 28
Filename: TE0808.SchDoc		

1

2

3

4

A

A

B

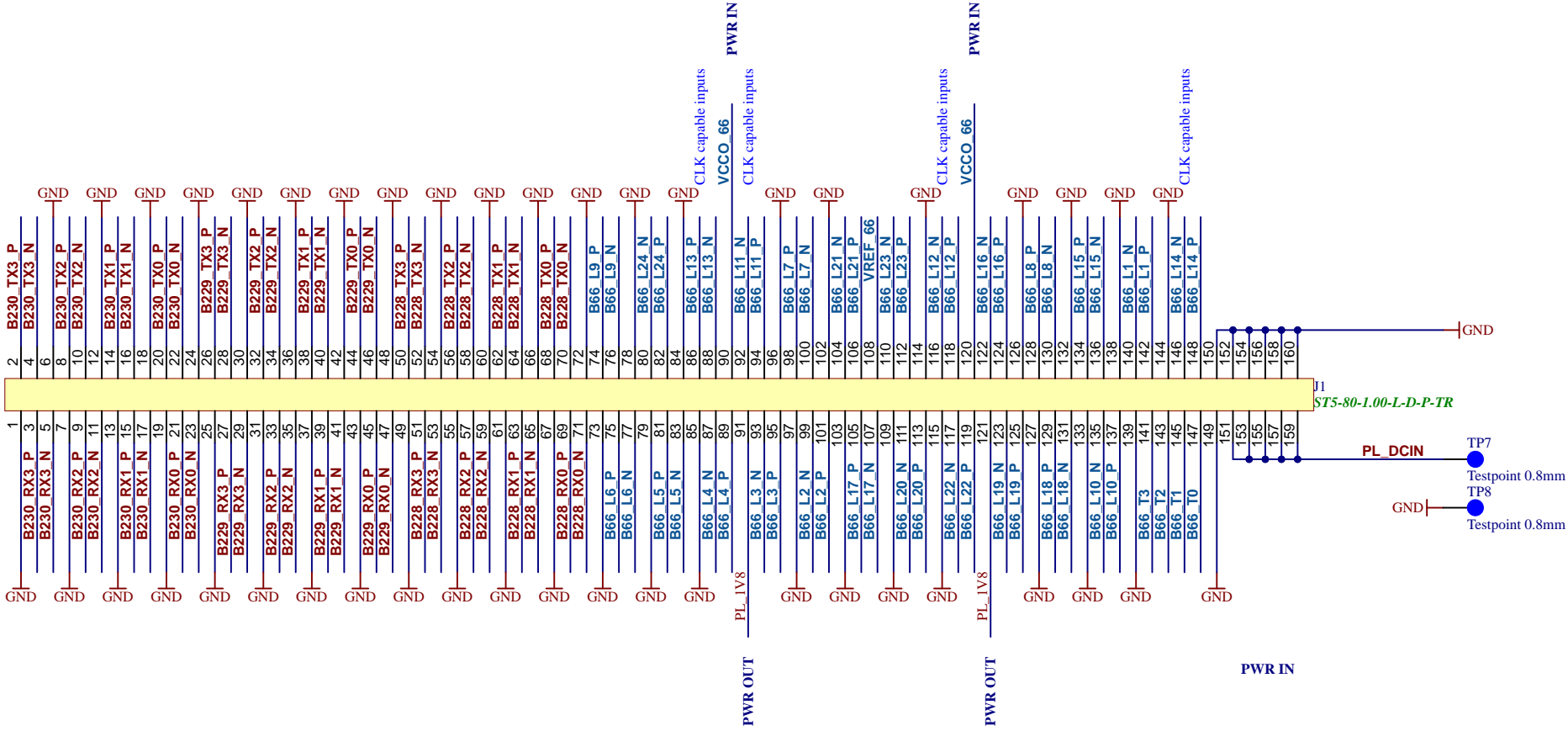
B


C

C

D

D



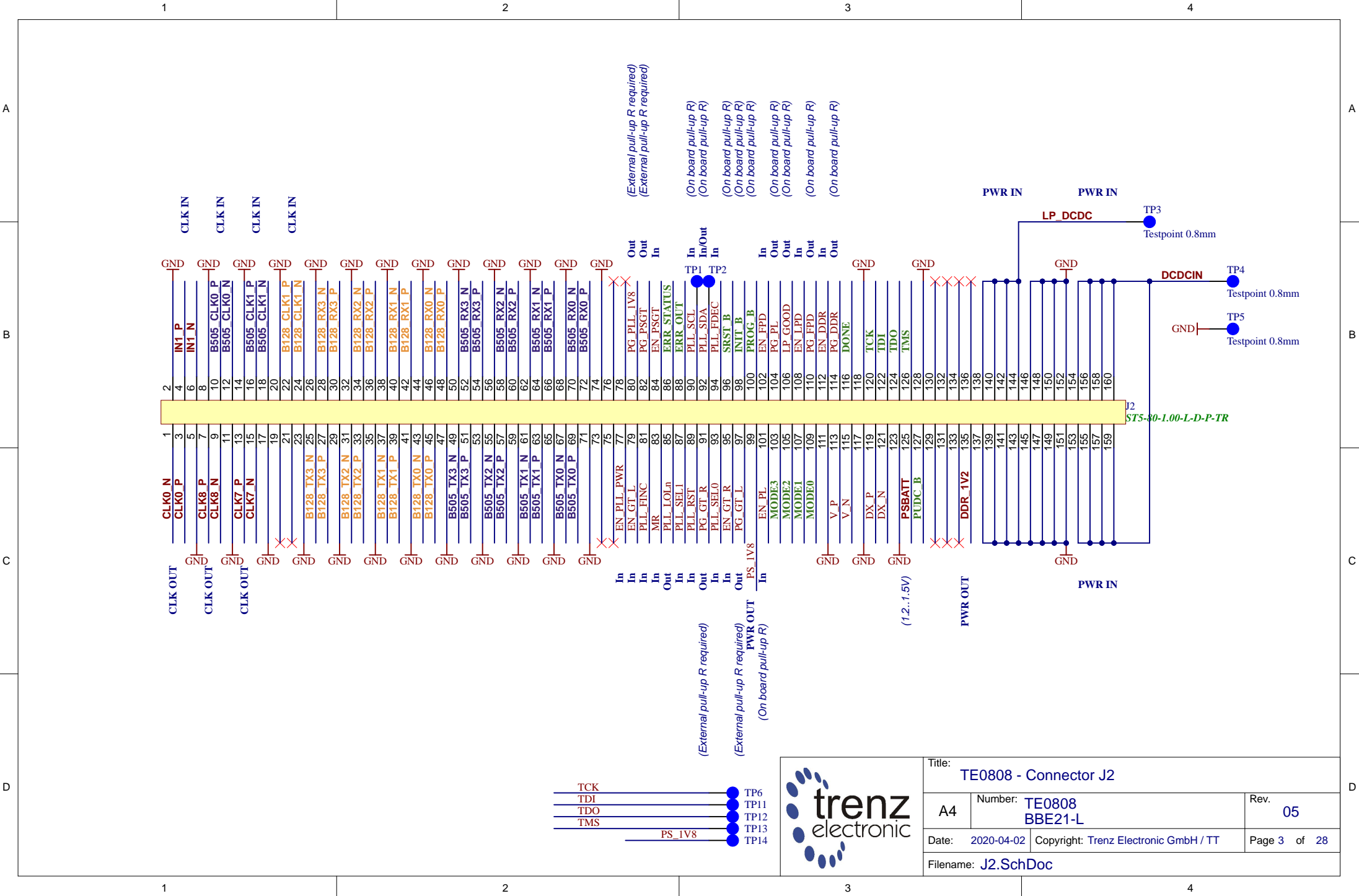
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Date: 2020-04-02		Copyright: Trenz Electronic GmbH / TT	
Filename: J1.SchDoc		Page 2 of 28	

1

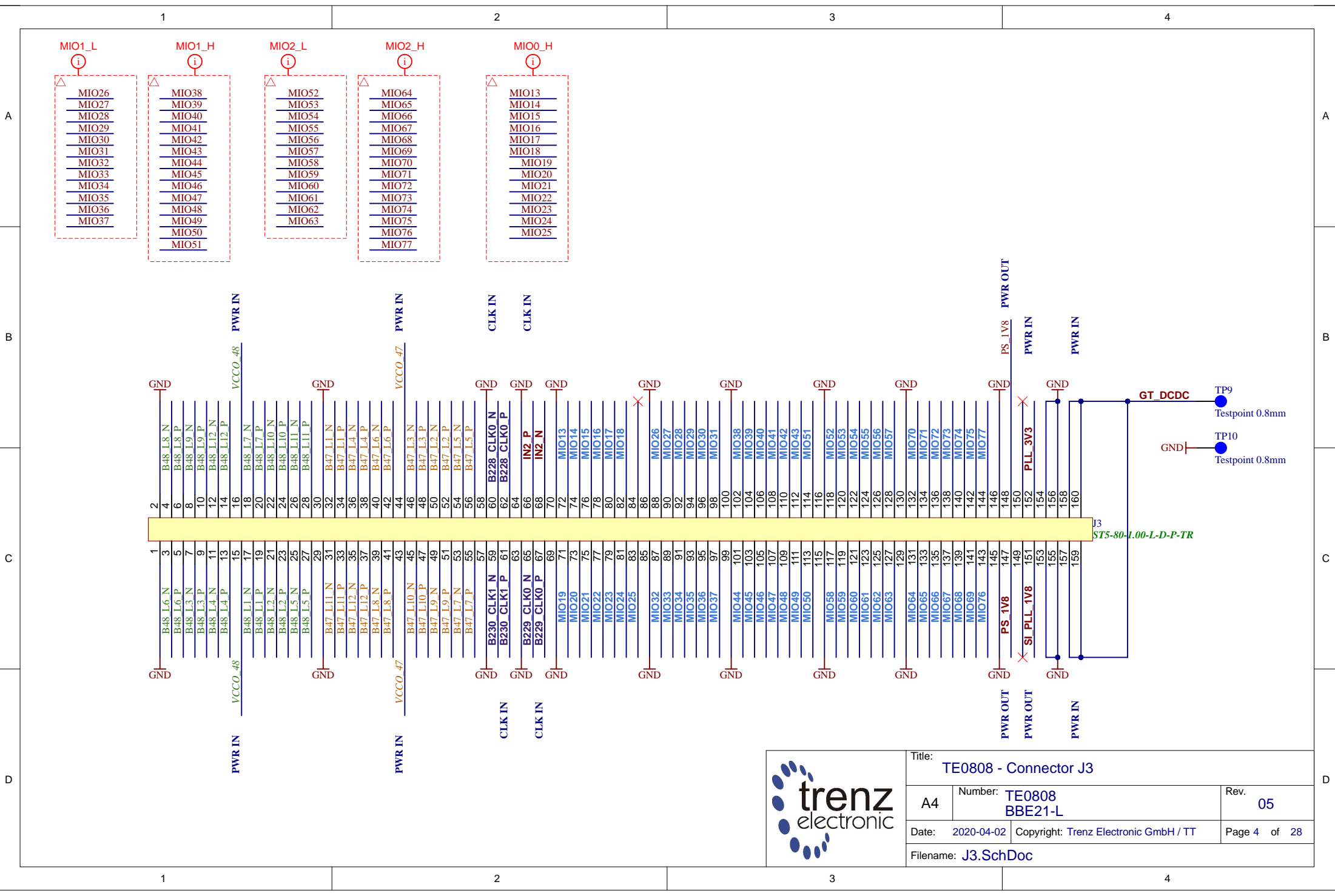
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4



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A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 3 of 28
Filename: J2.SchDoc		



Title: TE0808 - Connector J3		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 4 of 28
Filename: J3.SchDoc		

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A

A

B

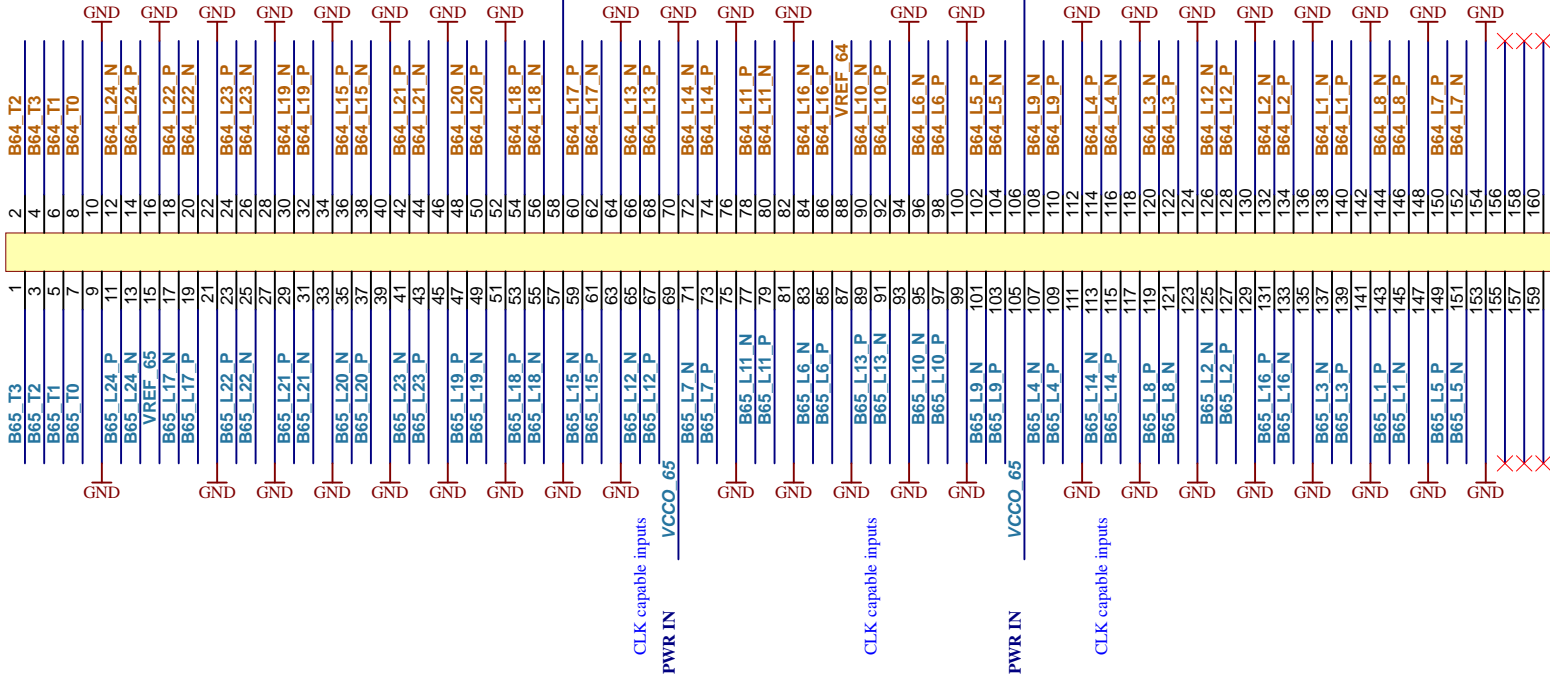
B

C

C

D

D



J4 ST5-80-1.00-L-D-P-TR



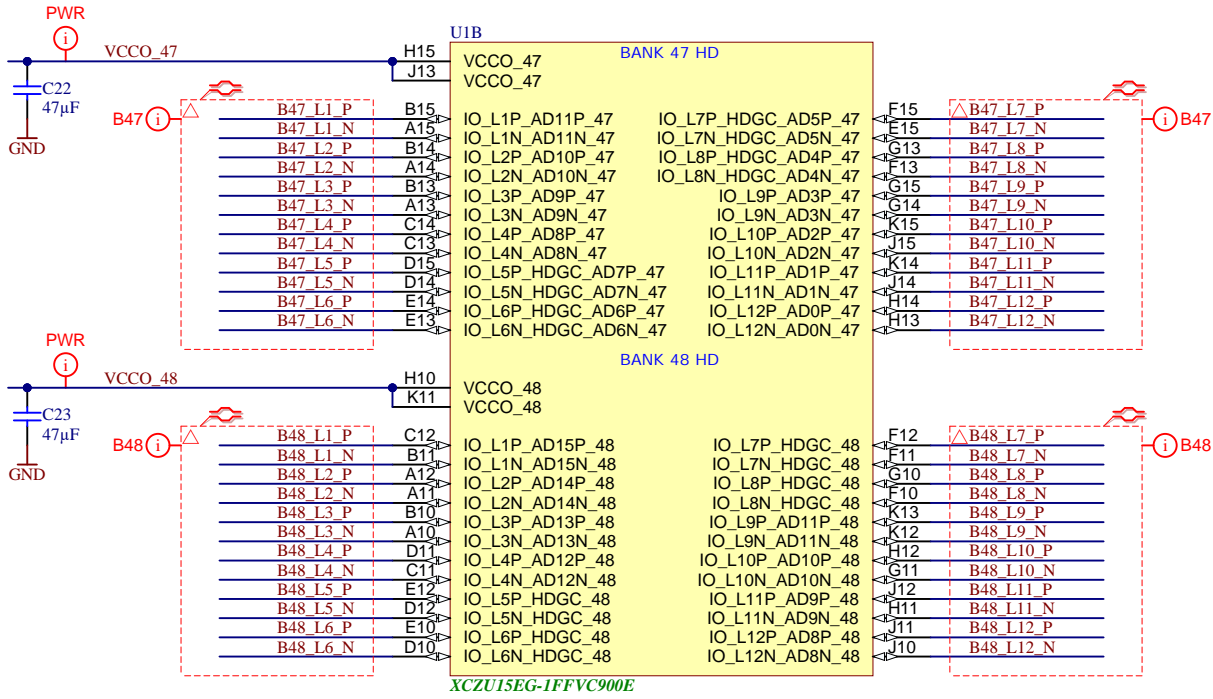
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A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 5 of 28
Filename: J4.SchDoc		

1

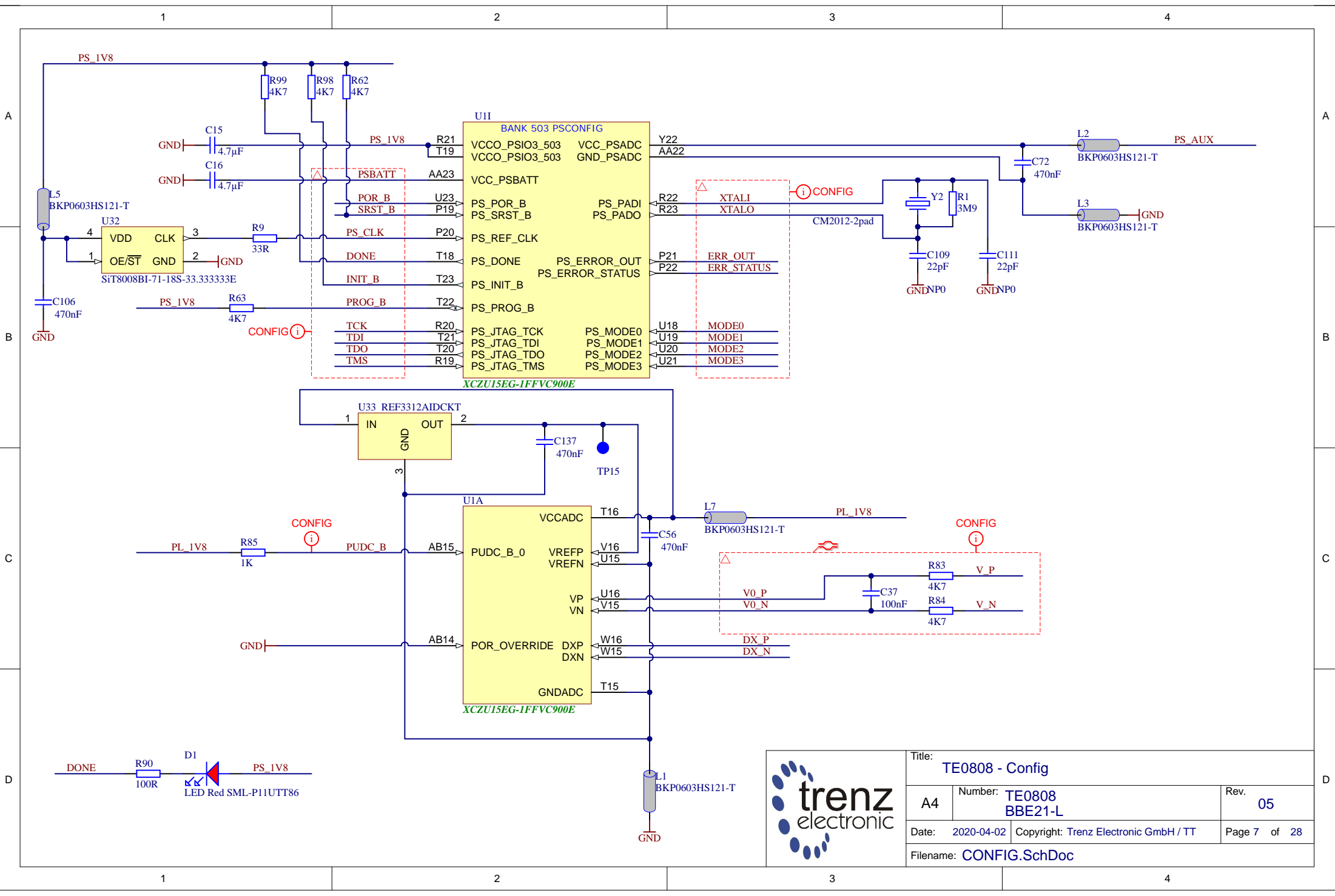
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3

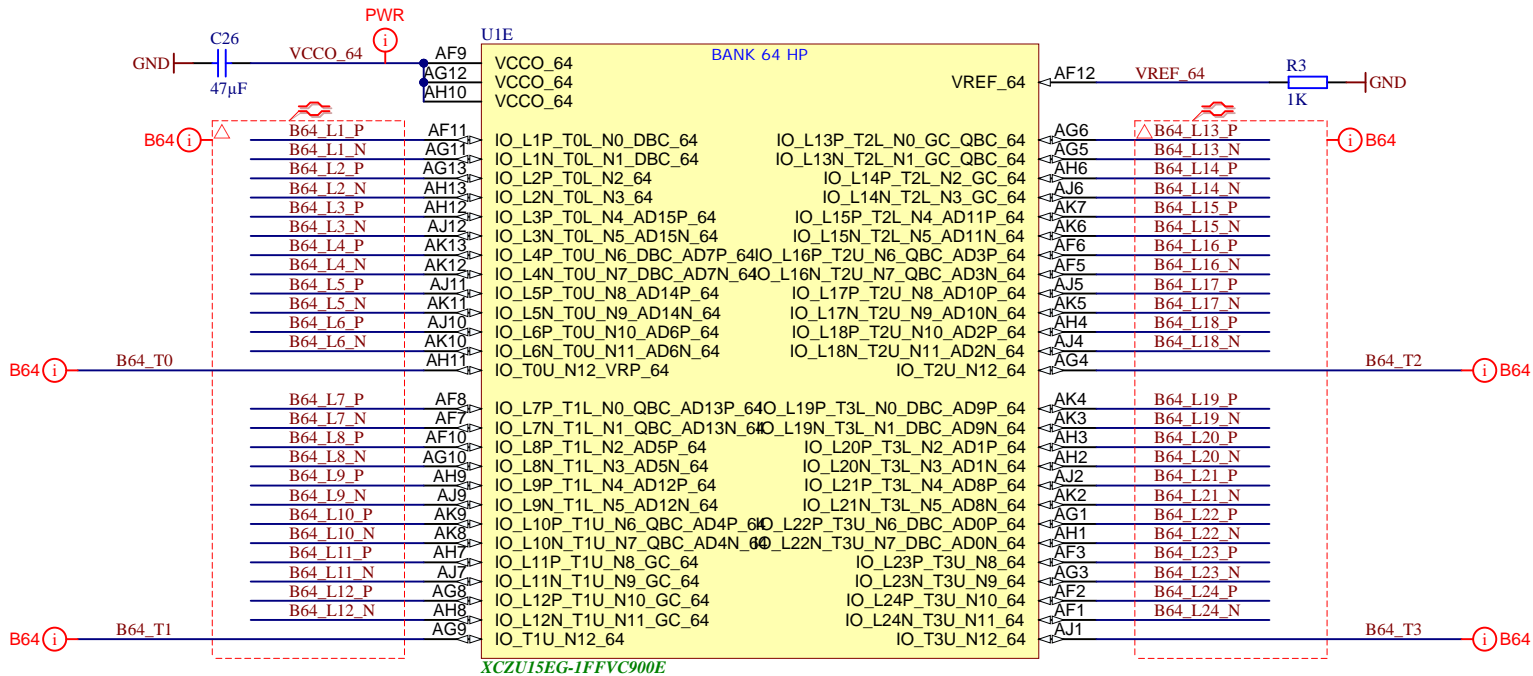
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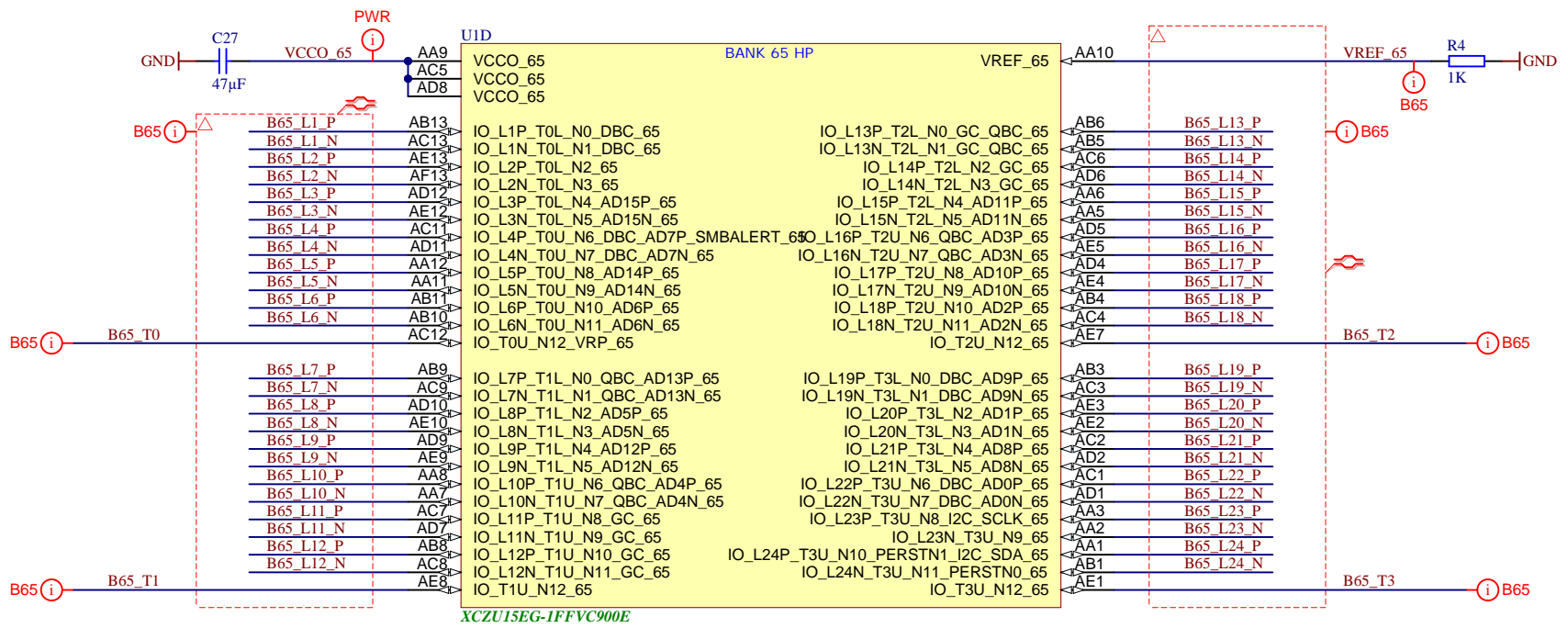
Title: TE0808 - B47HD and B48HD		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 6 of 28
Filename: B_HD.SchDoc		



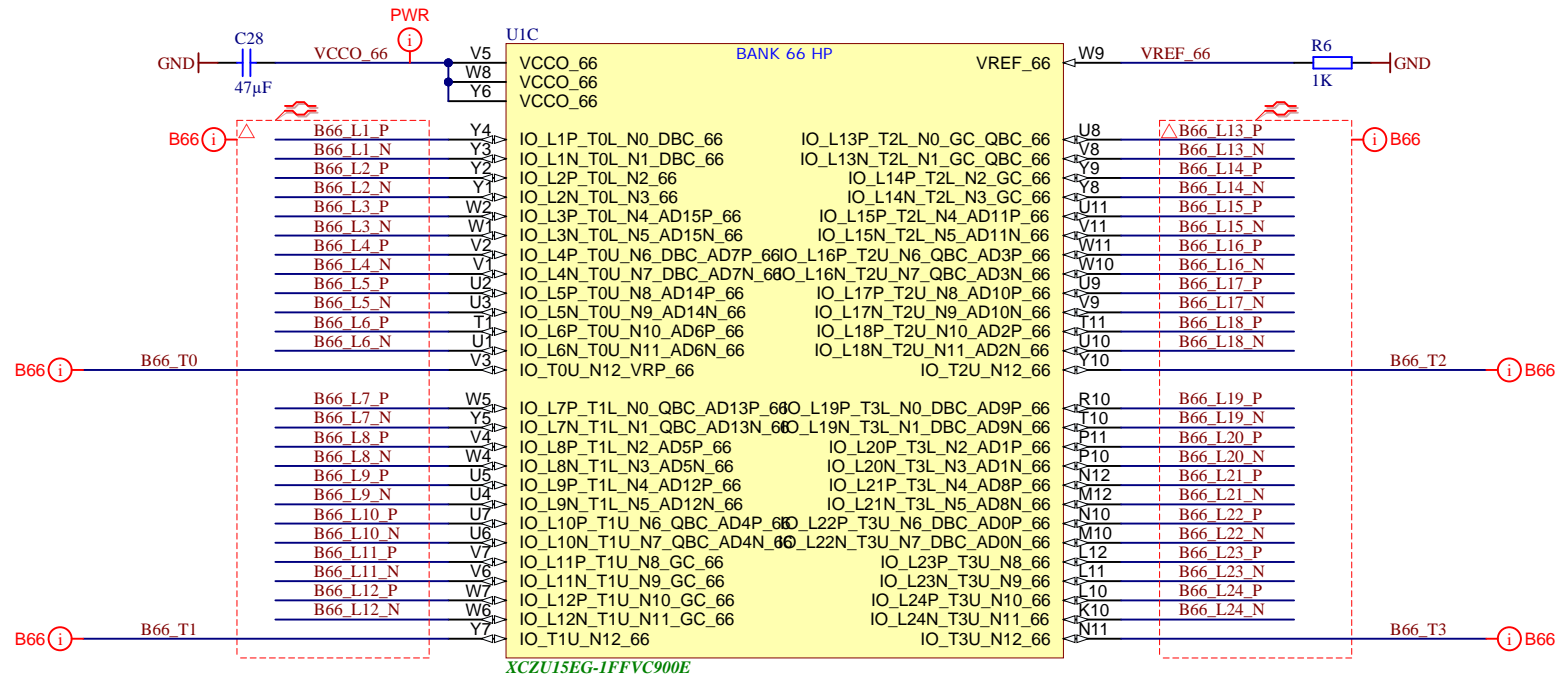
Title: TE0808 - Config		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 7 of 28
Filename: CONFIG.SchDoc		



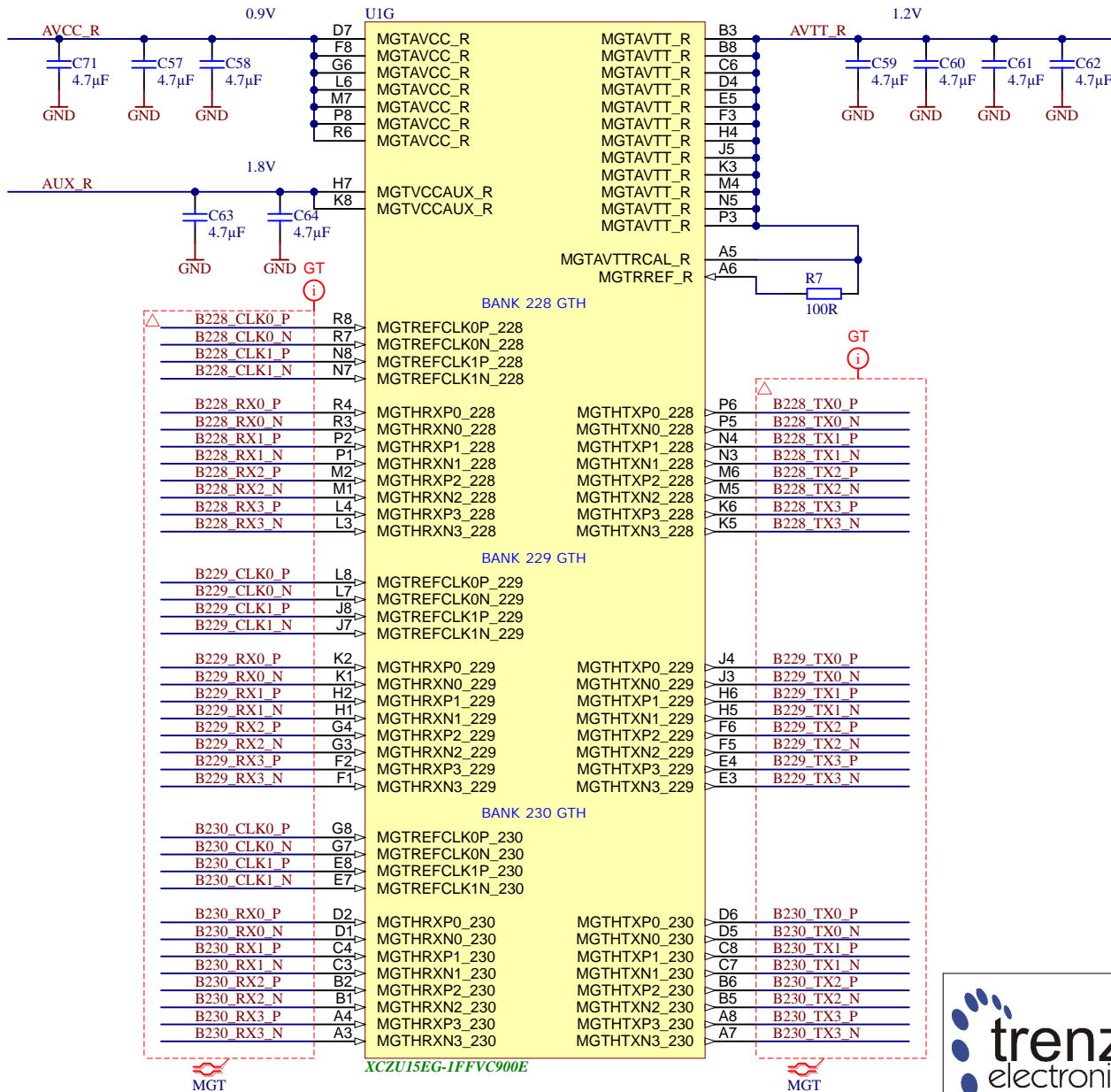
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Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 8 of 28
Filename: B64.SchDoc		




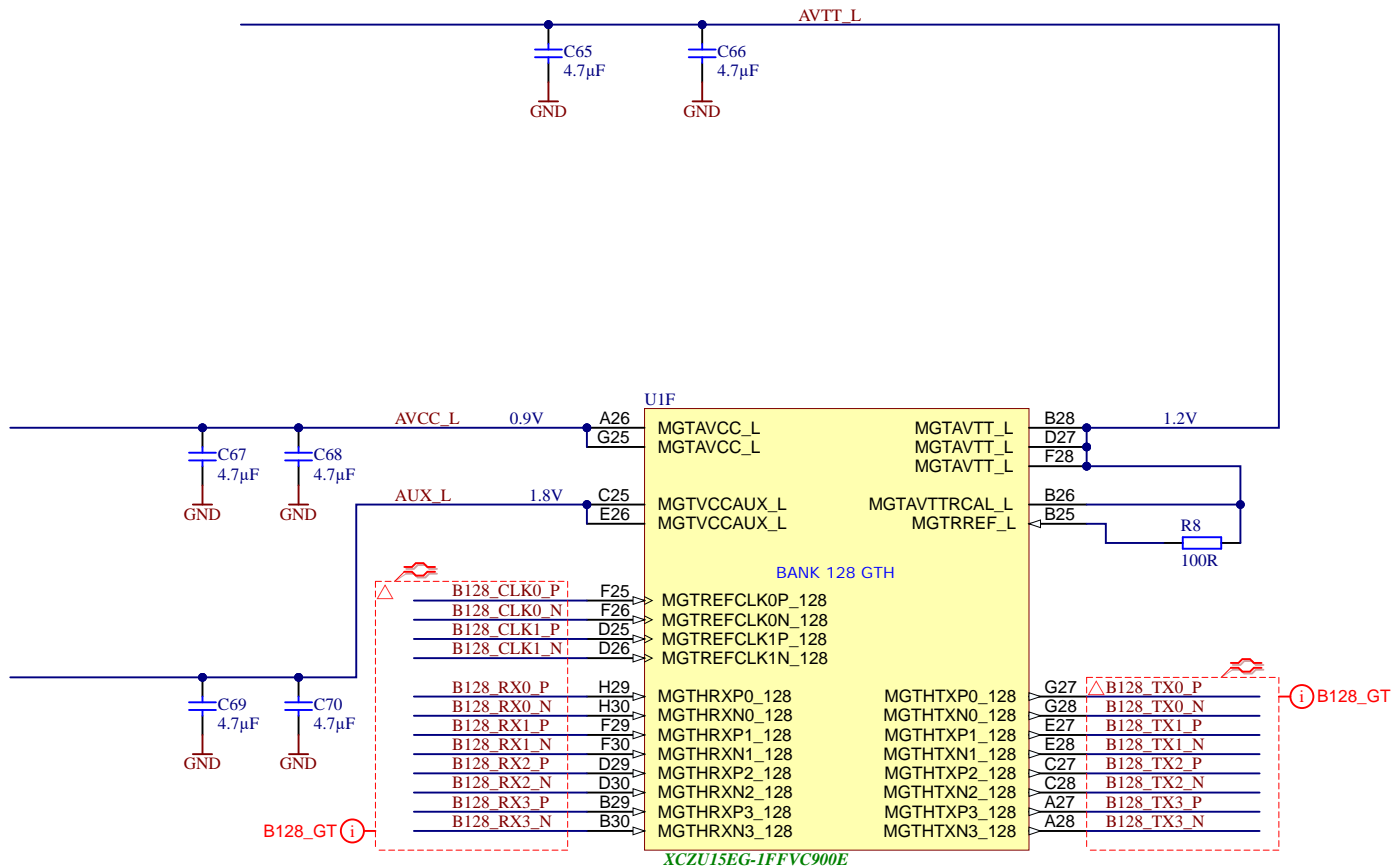
Title: TE0808 - B65		
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Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 9 of 28
Filename: B65.SchDoc		



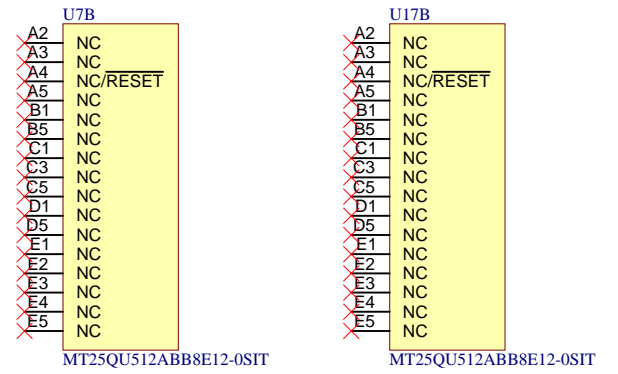
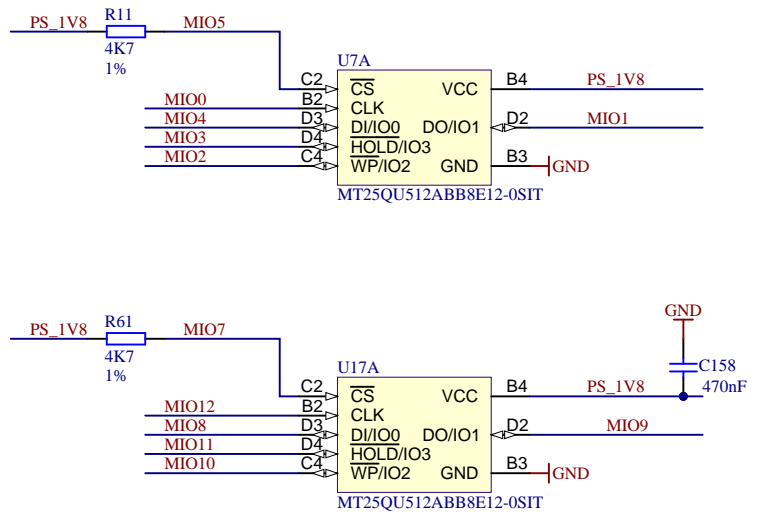
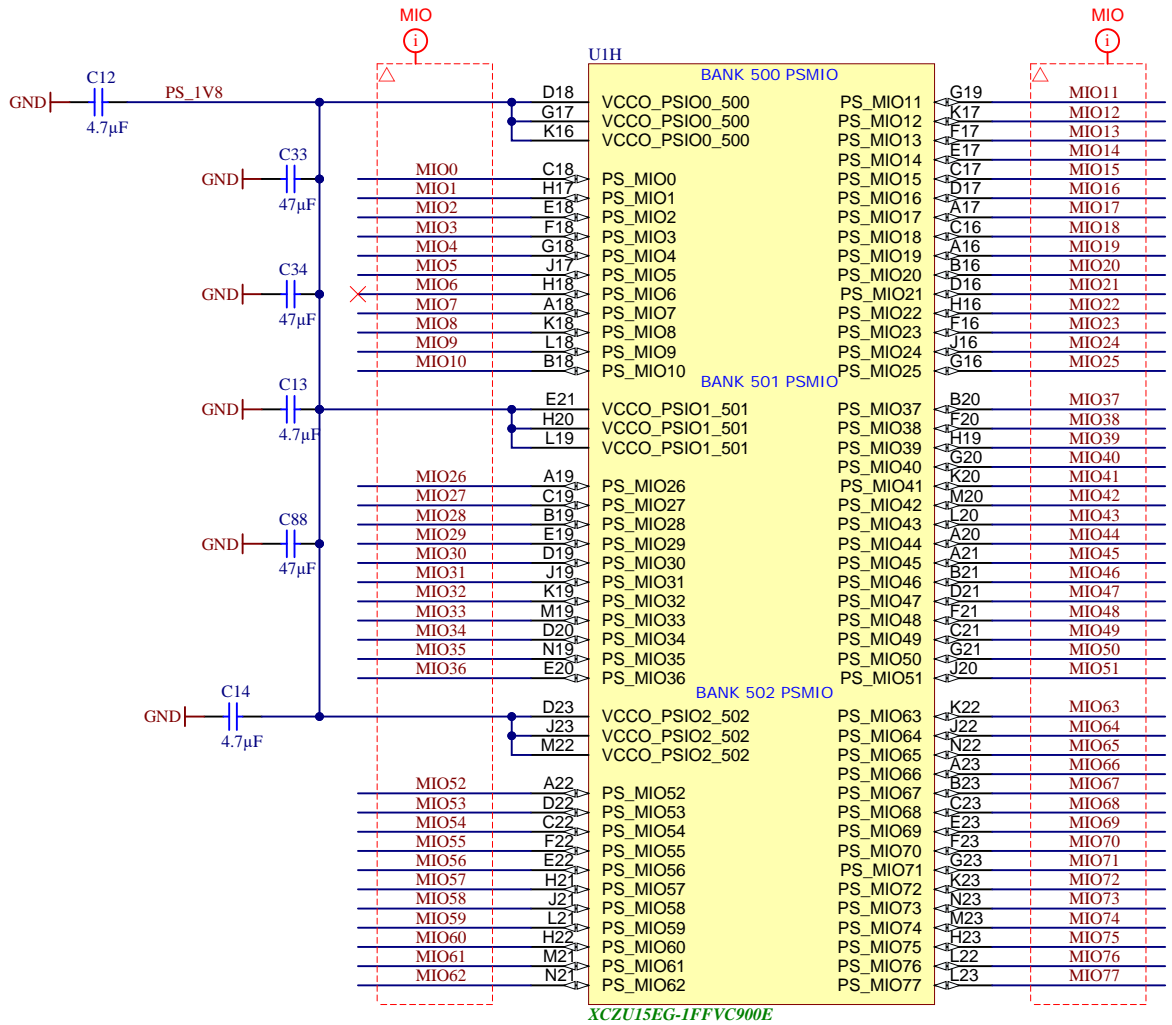
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Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 10 of 28
Filename: B66.SchDoc		



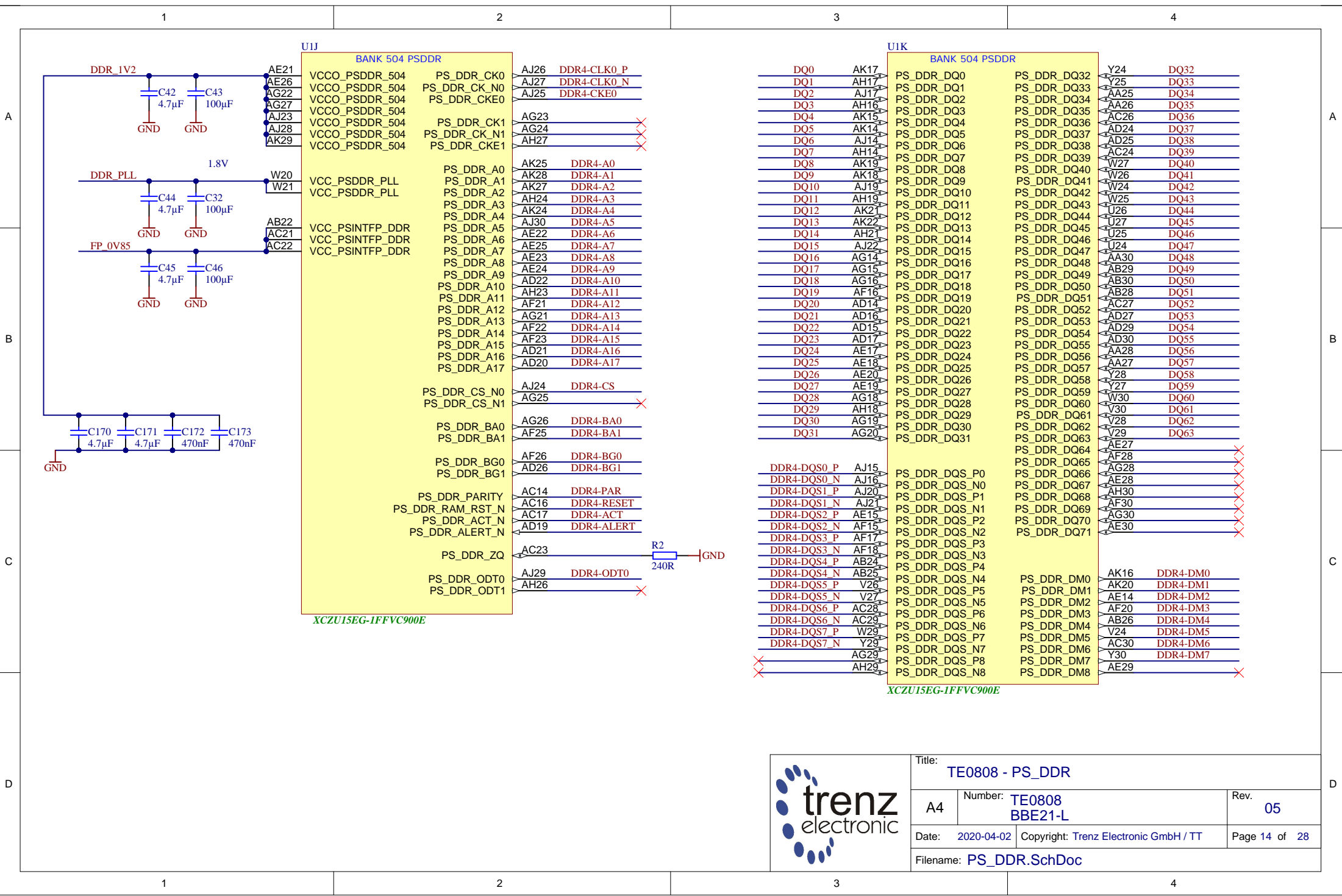
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		A4	Number: TE0808 BBE21-L
Date: 2020-04-02		Copyright: Trenz Electronic GmbH / TT	
Filename: B_GT.SchDoc		Page 11 of 28	



	Title: TE0808 - B128GTH	
	A4	Number: TE0808 BBE21-L
	Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT
	Filename: B_GT_2.SchDoc	
	Rev. 05	Page 12 of 28



Title: TE0808 - MIO Banks		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 13 of 28
Filename: B_MIO.SchDoc		



	Title: TE0808 - PS_DDR	
	A4	Number: TE0808 BBE21-L
	Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT
	Filename: PS_DDR.SchDoc	

Rev.	05
Page 14 of 28	

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A

A

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C

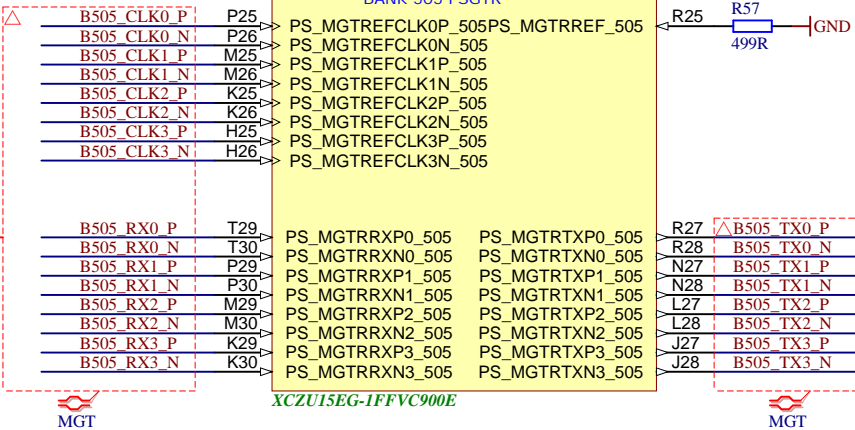
C

D

D

UIL

BANK 505 PSGTR



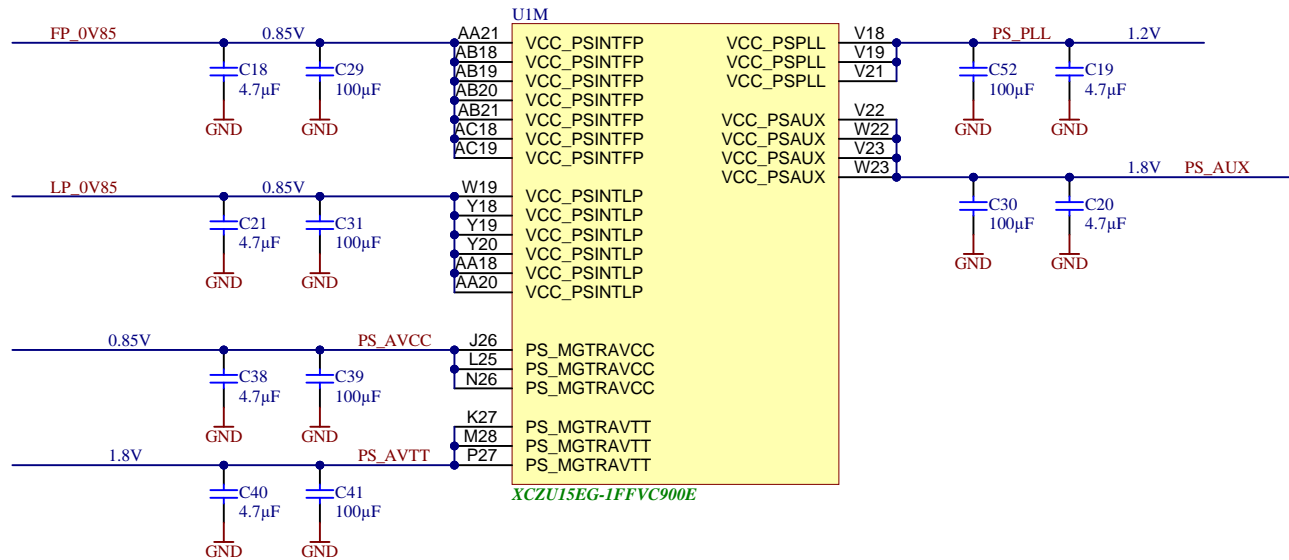
Title: TE0808 - PS_GT		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 15 of 28
Filename: B_PS_GT.SchDoc		


1

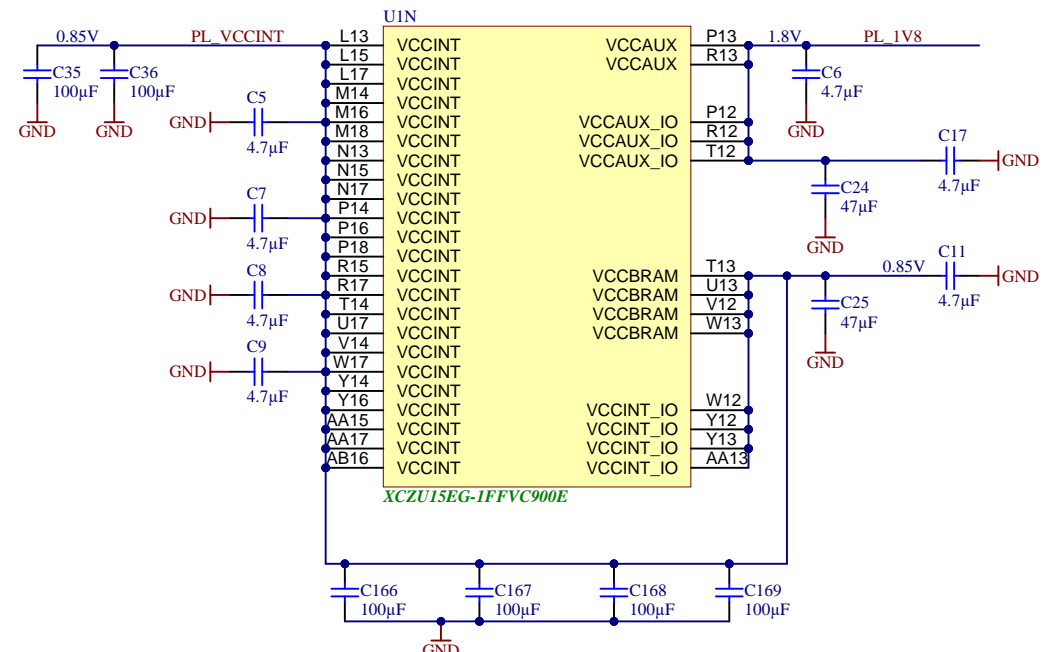
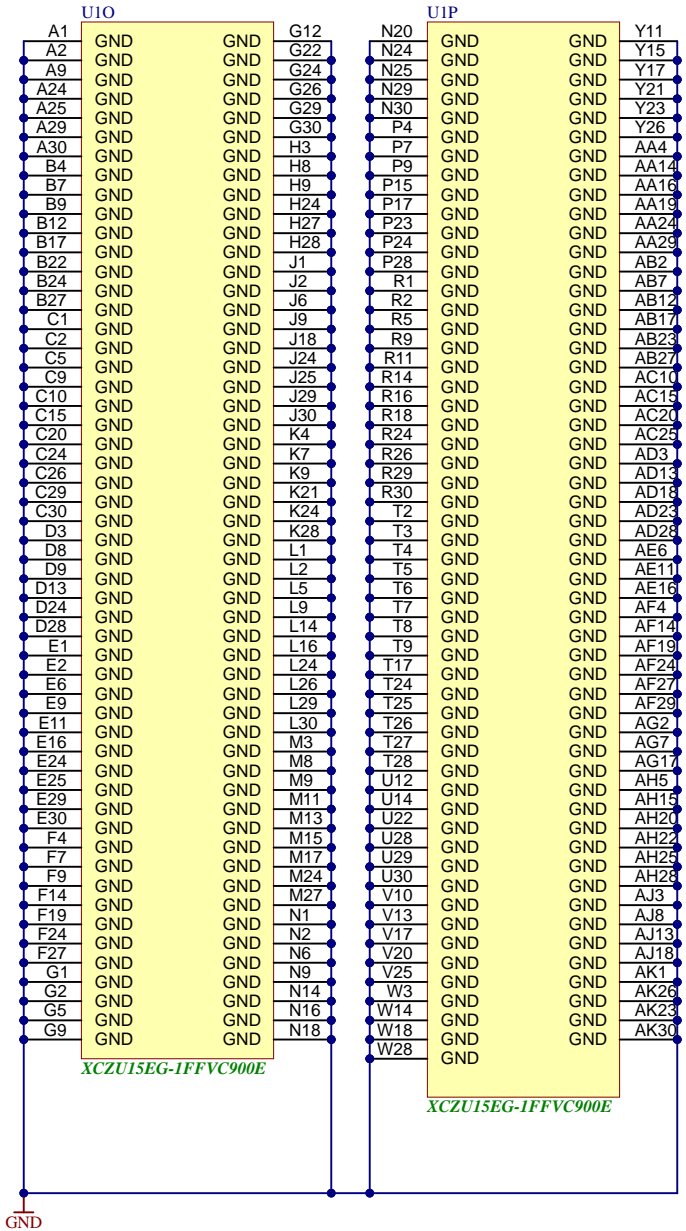
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3

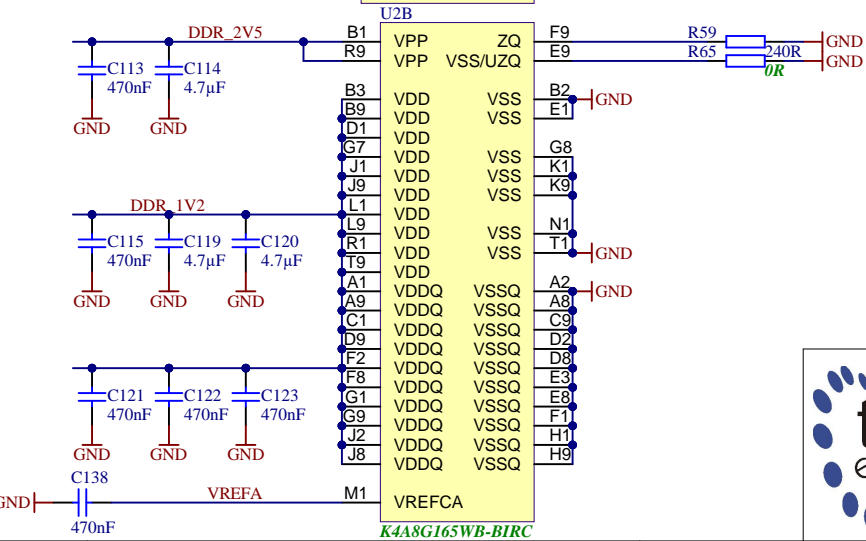
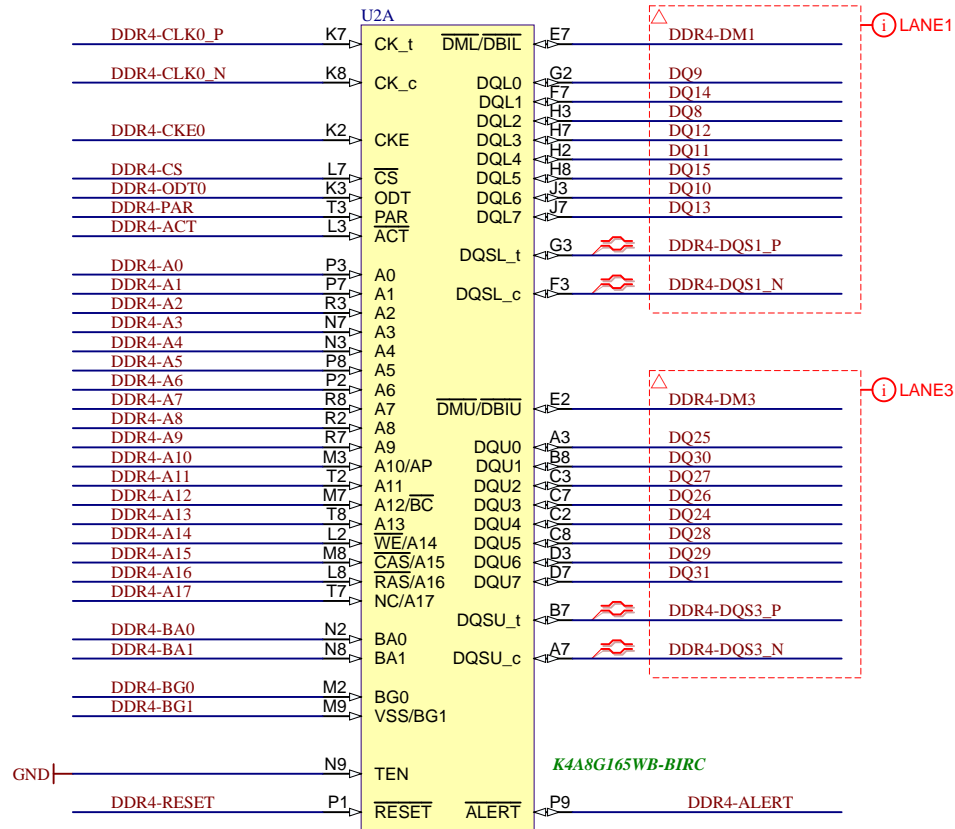
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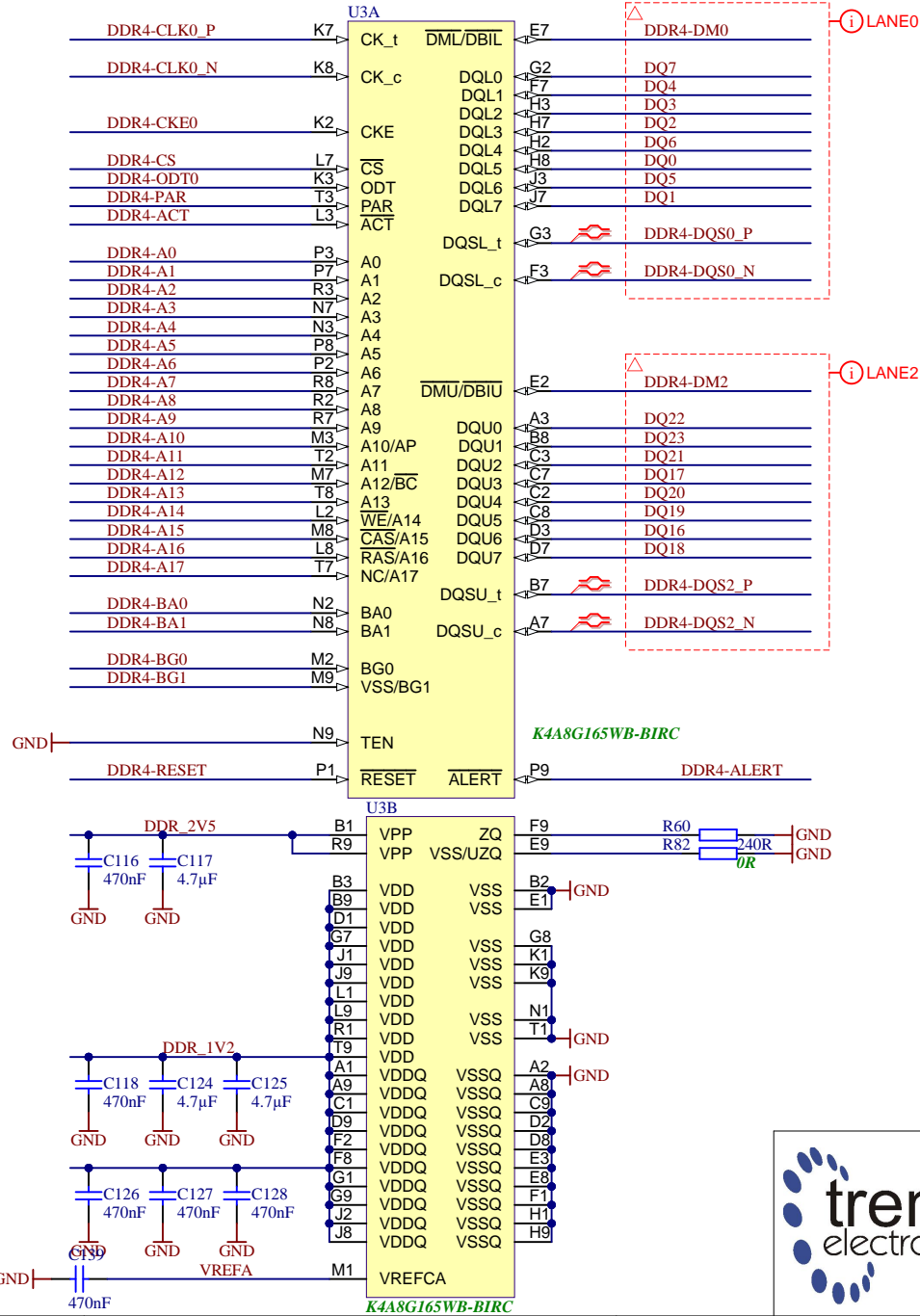
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		A4	Number: TE0808 BBE21-L
Date: 2020-04-02		Copyright: Trenz Electronic GmbH / TT	
Filename: ZU_PS_POWER.SchDoc		Page 16 of 28	



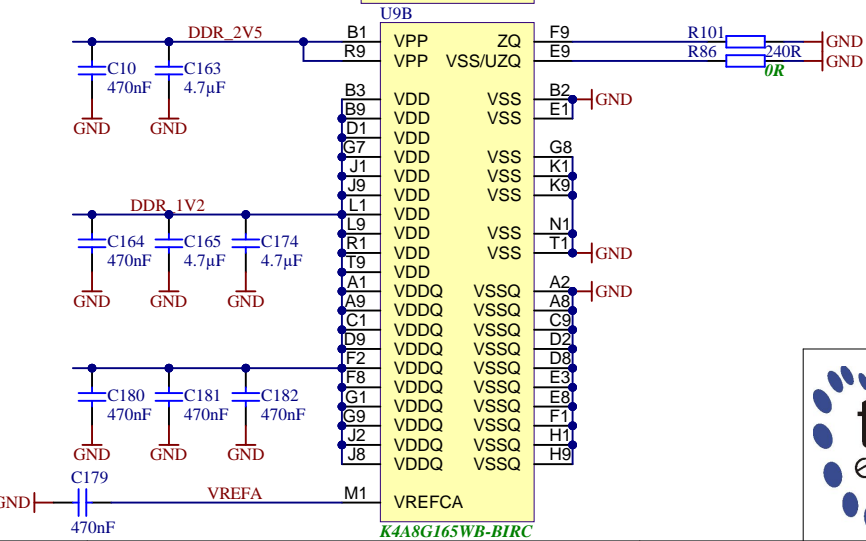
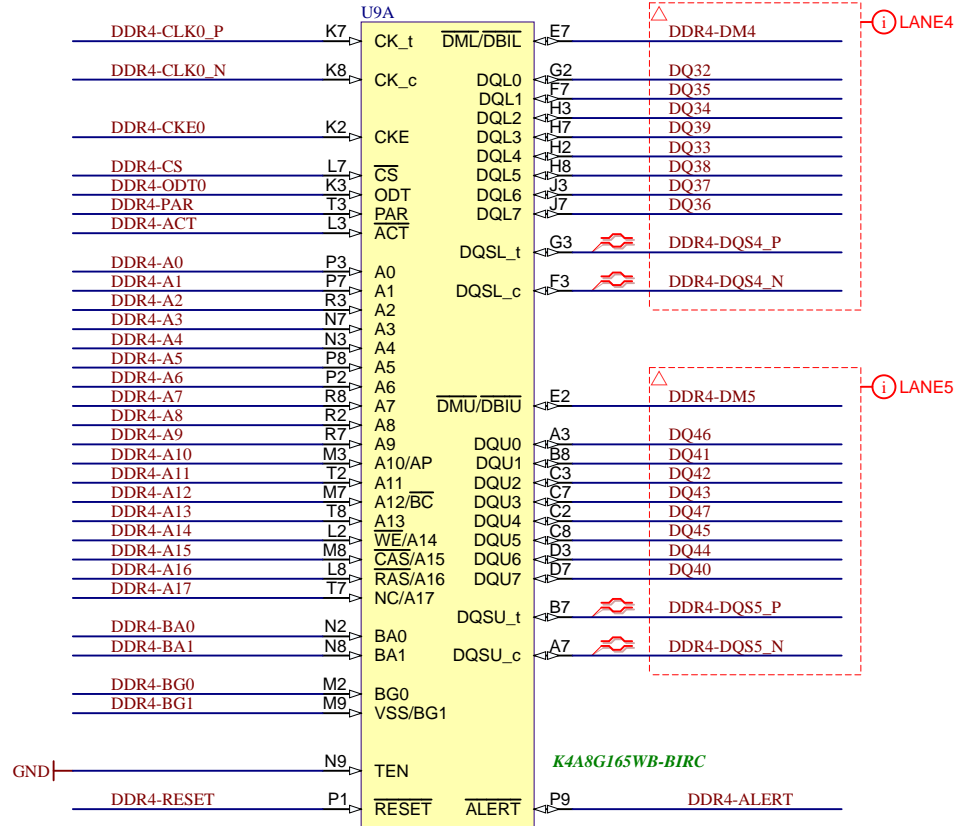
Title: TE0808 - ZU_POWER		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 17 of 28
Filename: ZU_POWER.SchDoc		



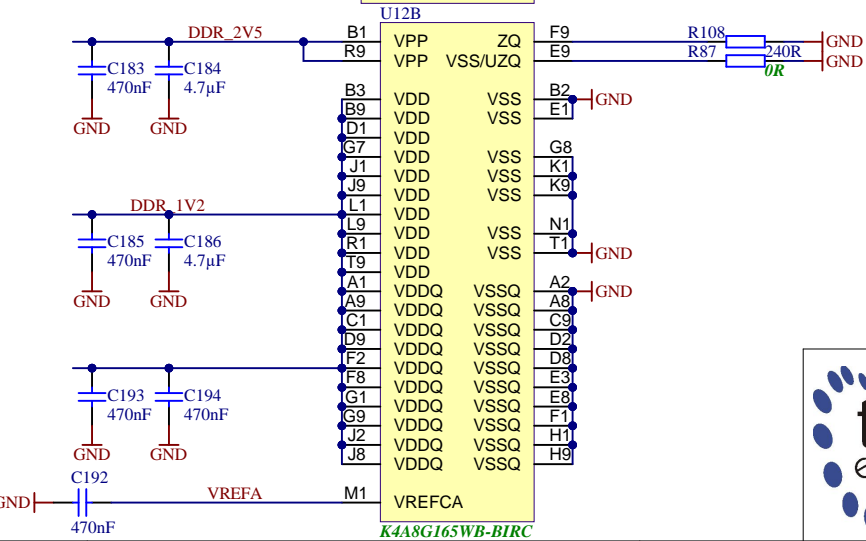
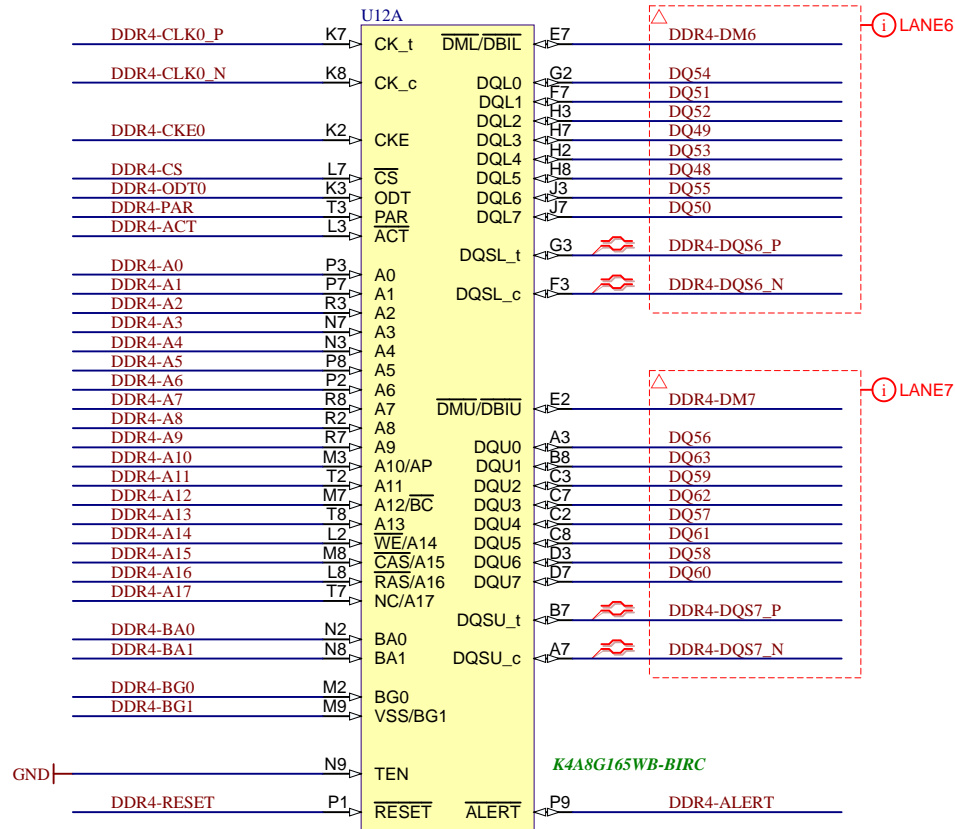
Title: TE0808 - DDR4_1_RAM		
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Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 18 of 28
Filename: DDR4-RAM.SchDoc		



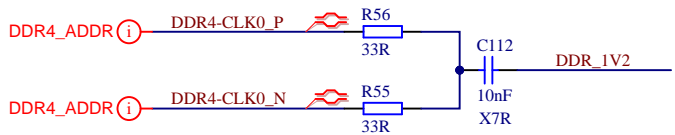
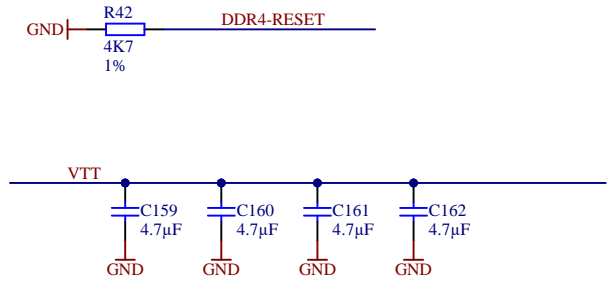
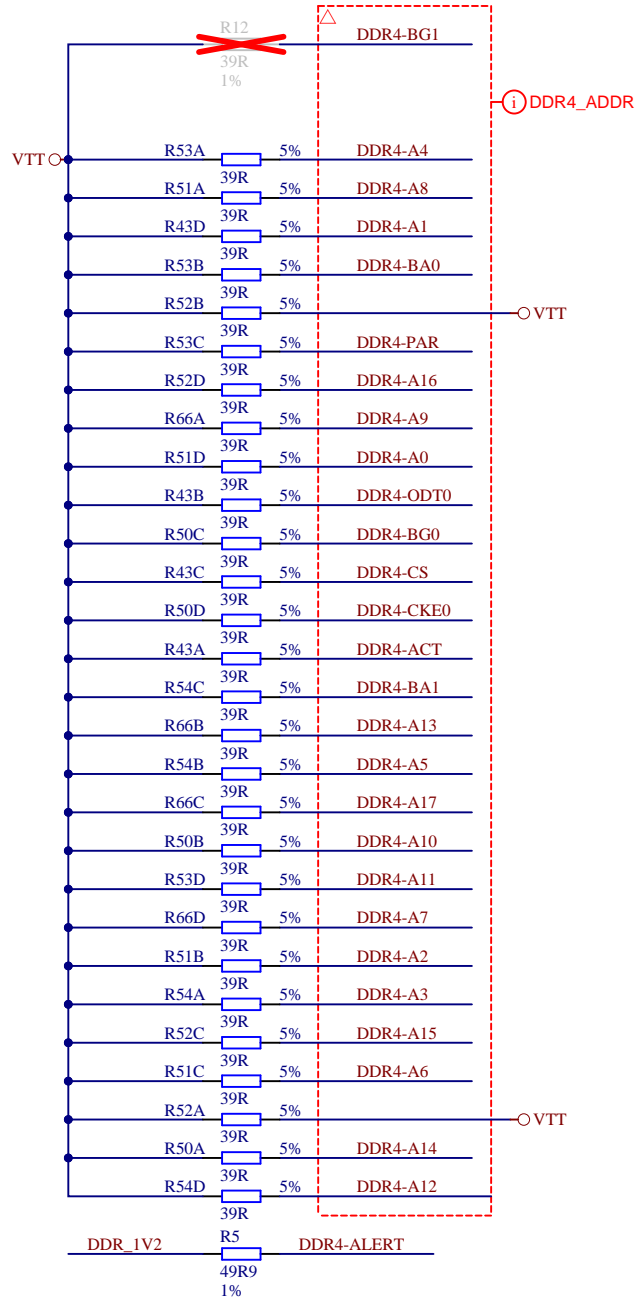
Title: TE0808 - DDR4_2_RAM		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 19 of 28
Filename: DDR4-RAM_2.SchDoc		



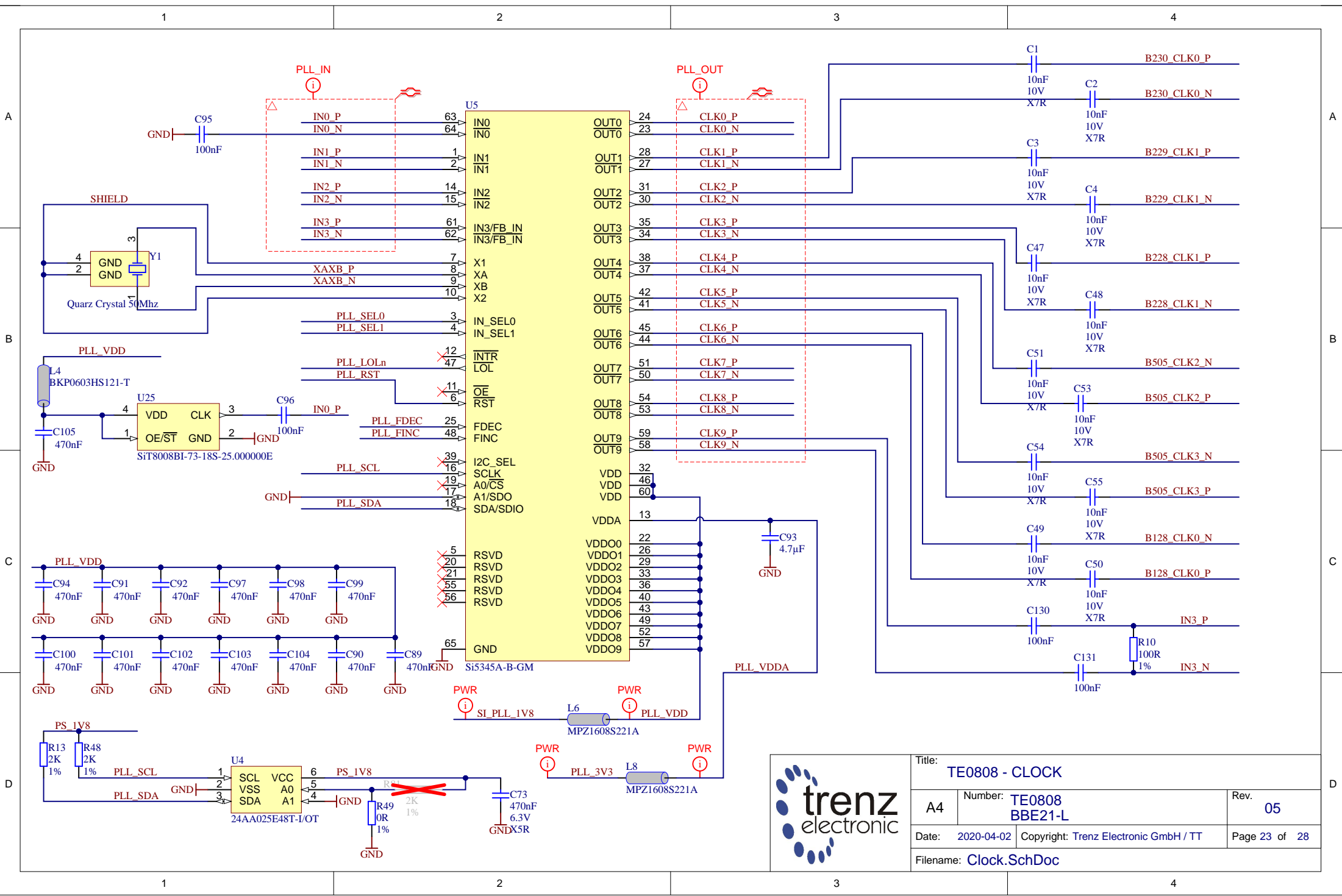
Title: TE0808 - DDR4_3_RAM		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 20 of 28
Filename: DDR4-RAM_3.SchDoc		



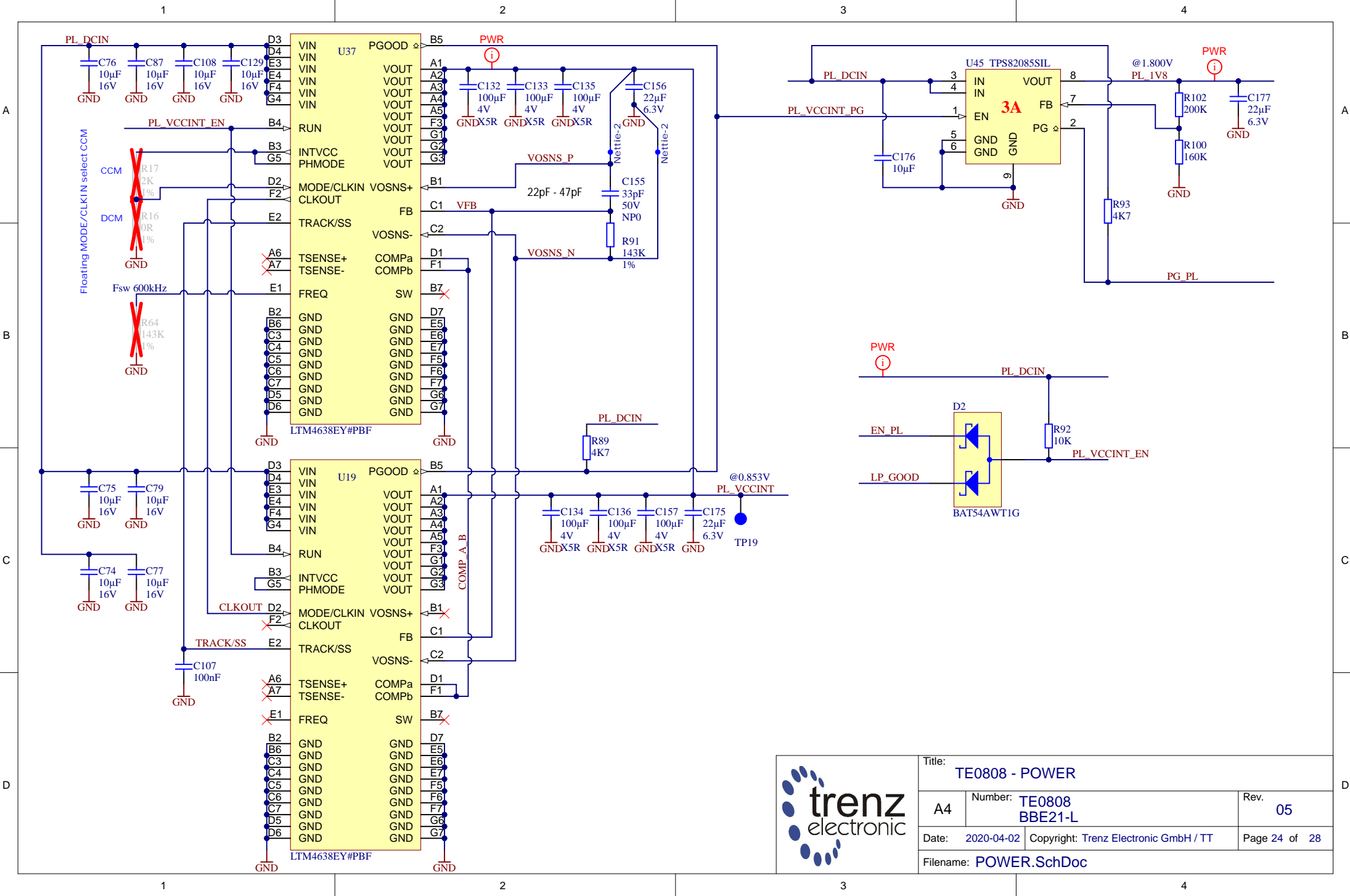
Title: TE0808 - DDR4_4_RAM		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 21 of 28
Filename: DDR4-RAM_4.SchDoc		



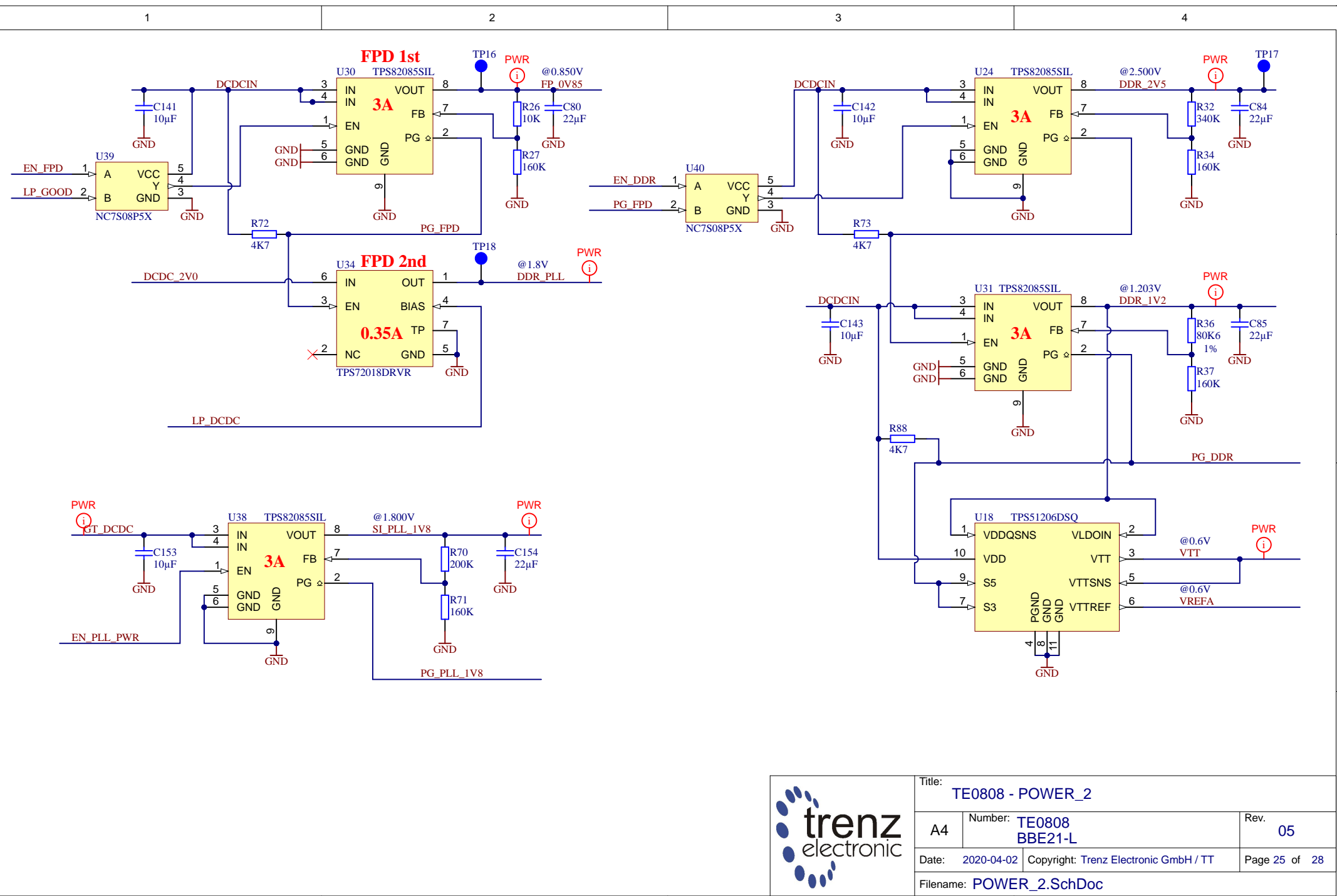
Title: TE0808 - DDR4_TERM		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 22 of 28
Filename: DDR4-TERM.SchDoc		




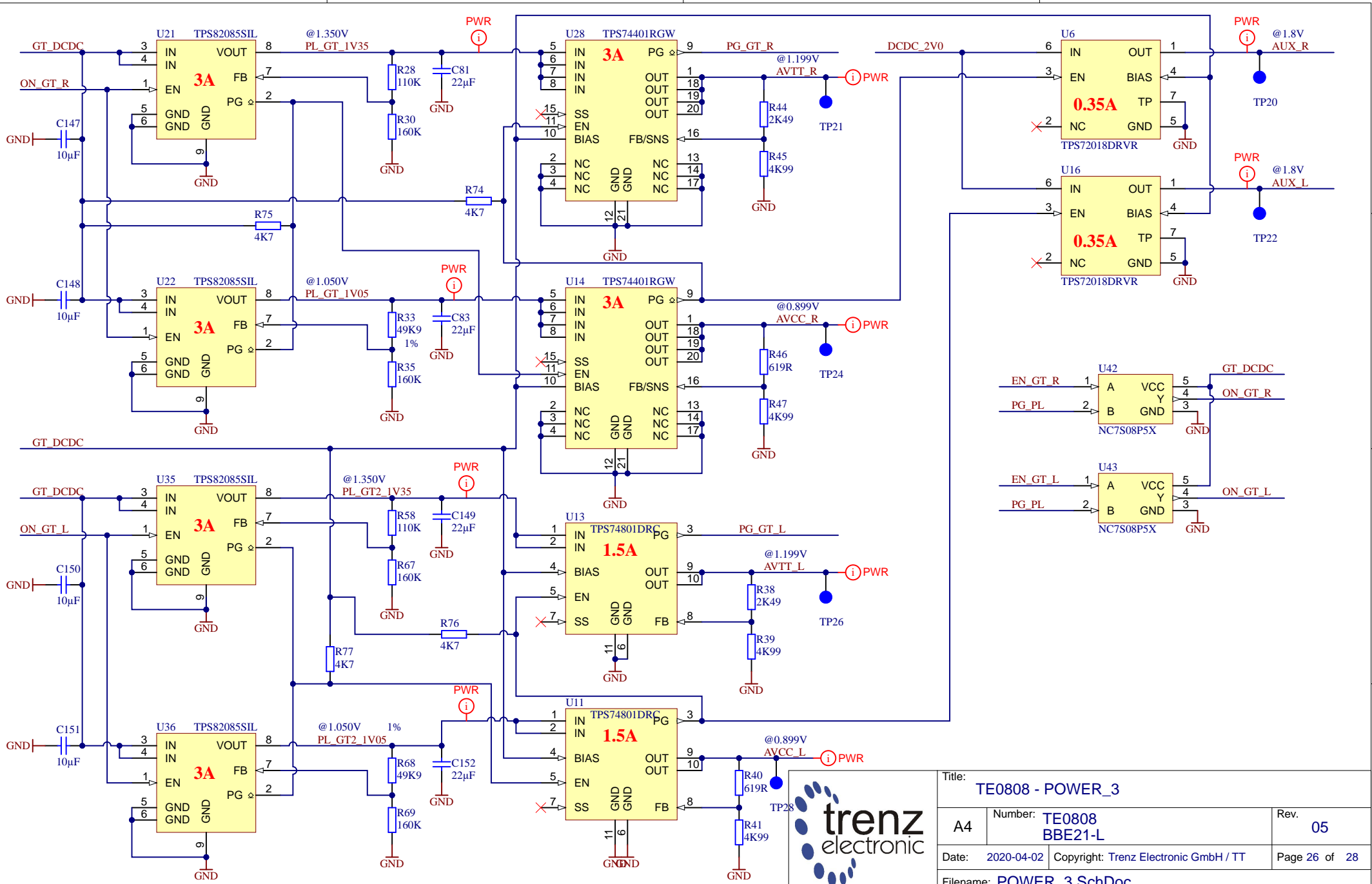
Title: TE0808 - CLOCK		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 23 of 28
Filename: Clock.SchDoc		



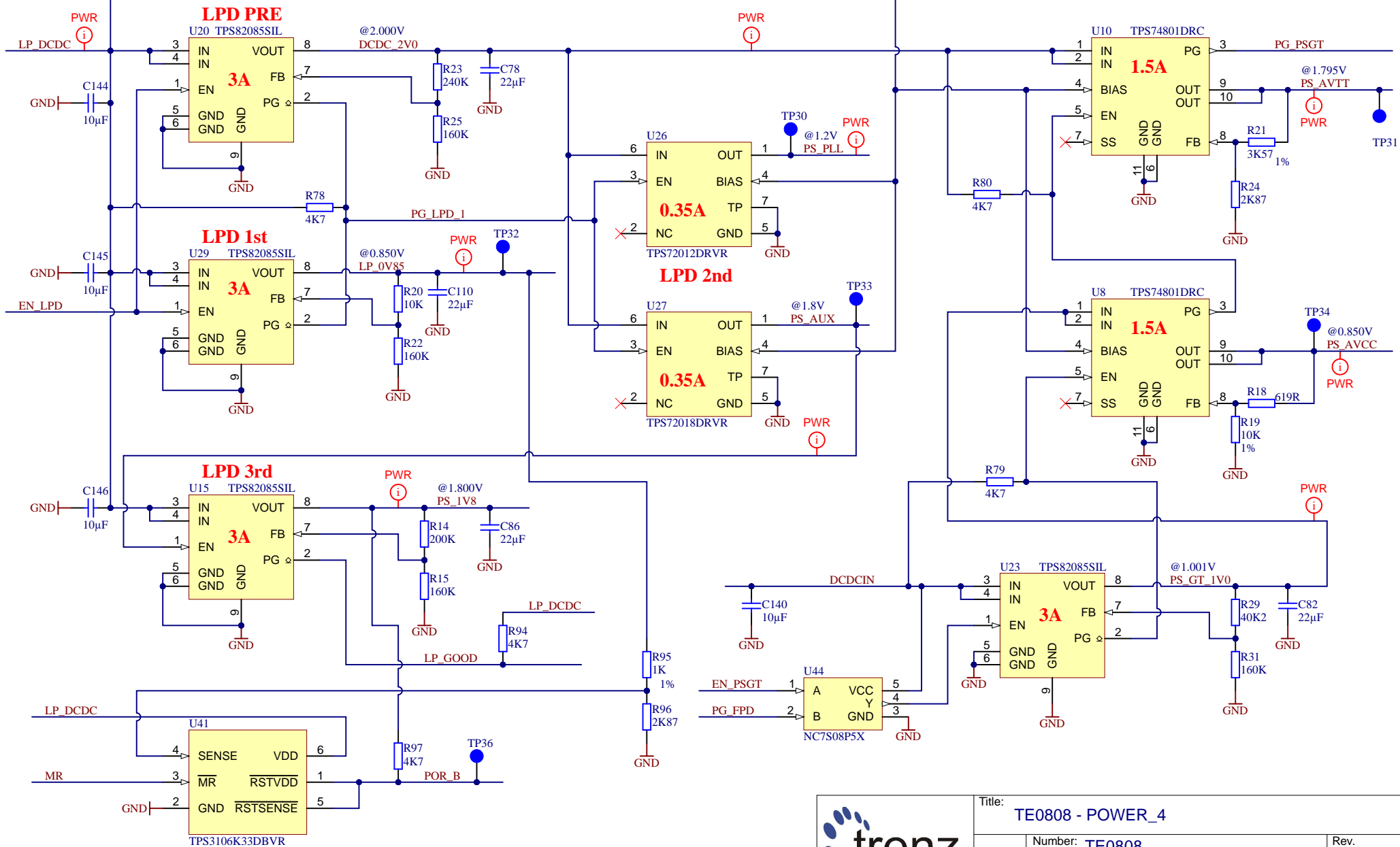
Title: TE0808 - POWER		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 24 of 28
Filename: POWER.SchDoc		



		Title: TE0808 - POWER_2	
		A4	Number: TE0808 BBE21-L
Date: 2020-04-02		Copyright: Trenz Electronic GmbH / TT	
Filename: POWER_2.SchDoc		Page 25 of 28	



Title: TE0808 - POWER_3		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 26 of 28
Filename: POWER_3.SchDoc		



POR_B is "0" when LP_OV85 lower 0.74V



Title: TE0808 - POWER_4		
A4	Number: TE0808 BBE21-L	Rev. 05
Date: 2020-04-02	Copyright: Trenz Electronic GmbH / TT	Page 27 of 28
Filename: POWER_4.SchDoc		

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Revision 04:

- 1. Added resistors R65,R82,R86,R87 (240R) for each DDR4-chip for supporting DDP DDR4 chips
- 2. Full library update

Revision 04a (09.06.2020):


- 1. VY: R19 value was changed to 10K (was: 4K99) to set PS_MGTRAVCC 0.85V

Revision 05:

- 1. VY: revised PL_VCCINT power supply. PCB: revised routing and components placement;
- 2. VY: added signal BG1 for DDP DDR4 IC. Added support of new packages. PCB: revised routing and components placement;
- 3. VY: R5 pulled up to 1.2V. R5 value changed to 49.9R;
- 4. VY: added test points;
- 5. VY: added MAC EEPROM U48. I2C bus PLL_SCL/SDA. Added pull up resistor to I2C bus;
- 6. VY: PCB - revised FPGA location. Package placed 1.5mm closer to connector J3;
- 7. VY: PCB - updated silkscreen. Added company address, CE and WEEE symbols;
- 8. VY: PCB - updated signal trace lengths.

29.11.2022

- 9. Chnaged note near J2.97 and net PG_GT_L from "On board pull-up R" to "External pull-up R Required"

		Title: TE0808 - Changes list		
		A4	Number: TE0808 BBE21-L	Rev. 05
		Date: 2020-04-02	Copyright: Trenz Electronic GmbH	Page 28 of 28
		Filename: Revision_Changes.SchDoc		

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