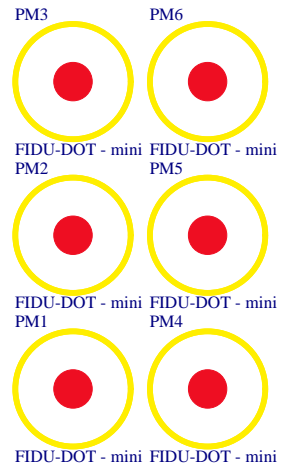
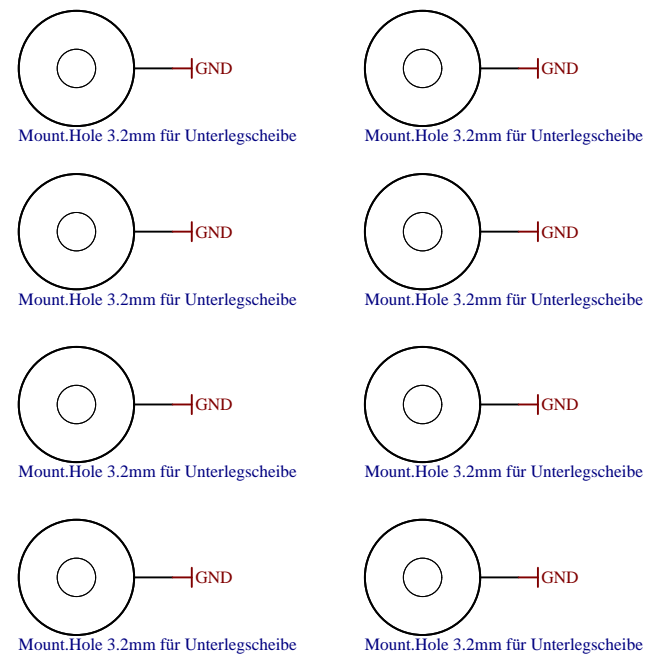


U_J1 J1.SchDoc	U_B_PS_GT B_PS_GT.SchDoc	U_DDR4-TERM DDR4-TERM.SchDoc
U_J2 J2.SchDoc	U_PS_DDR PS_DDR.SchDoc	U_ZU_POWER ZU_POWER.SchDoc
U_J3 J3.SchDoc	U_B_MIO B_MIO.SchDoc	U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_J4 J4.SchDoc	U_B_HD B_HD.SchDoc	U_POWER POWER.SchDoc
U_DDR4-TERM DDR4-TERM.SchDoc	U_Clock Clock.SchDoc	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_TE0818-Overview TE0818-Overview.SchDoc
U_B_GT_2 B_GT_2.SchDoc	U_DDR4-RAM_4 DDR4-RAM_4.SchDoc	
U_Legal Notices Modules Legal Notices Modules.SchDoc	U_Power_Diagram.SchDoc Power_Diagram.SchDoc	

Special notes:



Serial
Serialnummer 6,3 x 6.3mm

MECHI
TE Address Overlay

LOGO ADDRESS

LOGO1
TE Logo PRINT Layer

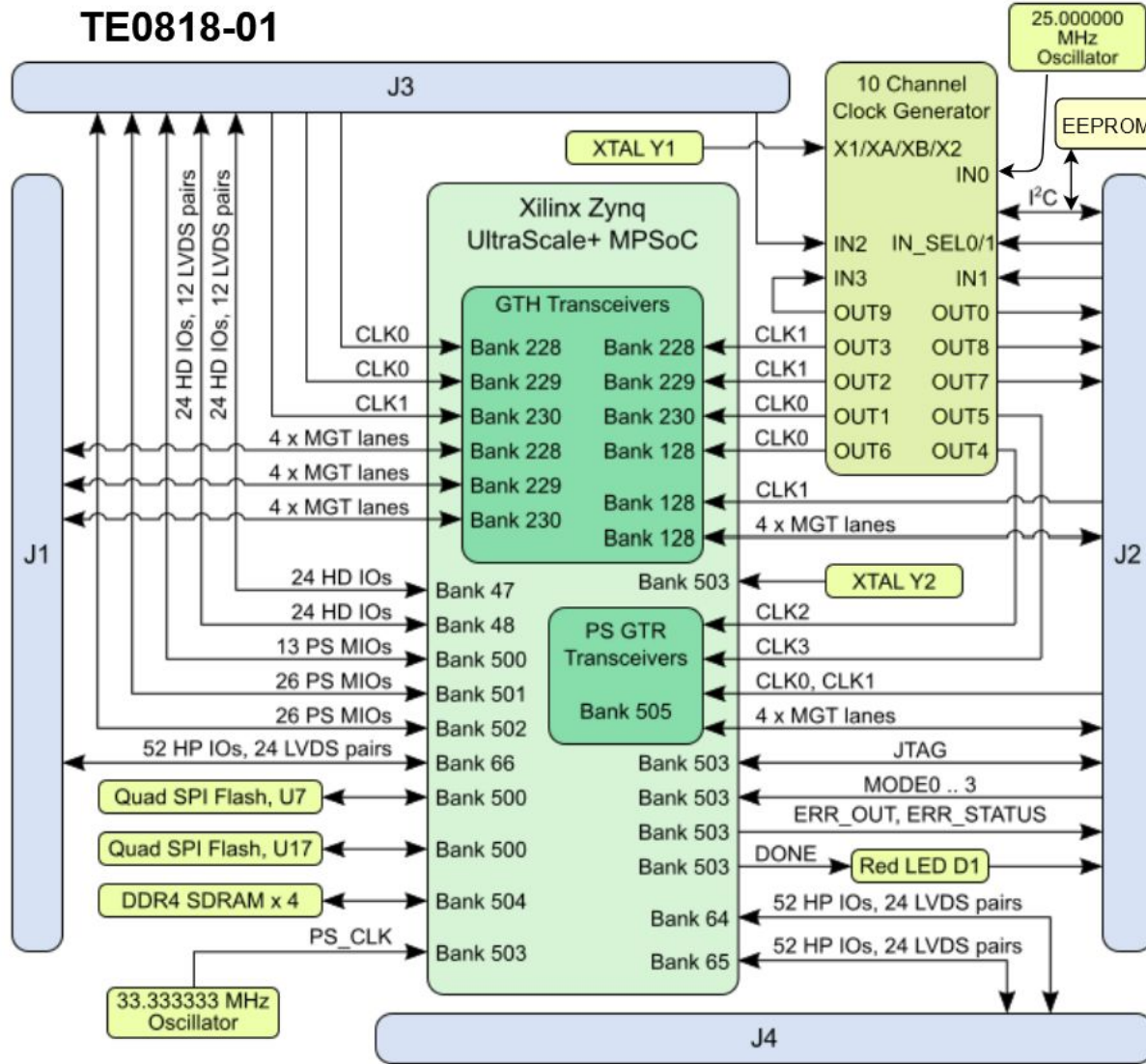
LOGO PRINT


Design drawn by:	VT
Checked by:	IG
Assembly variant:	6BE21-A
Created by:	ED
Modified by:	ED
Modified at:	2021-07-08

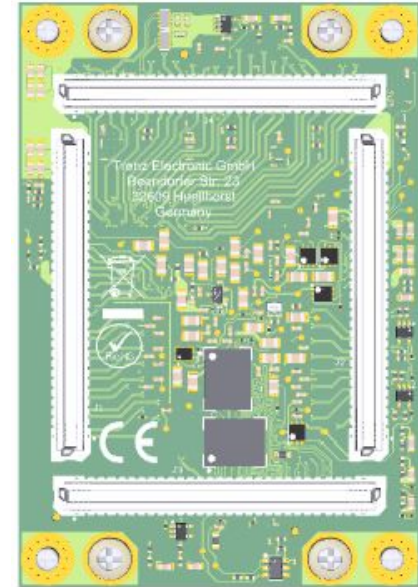
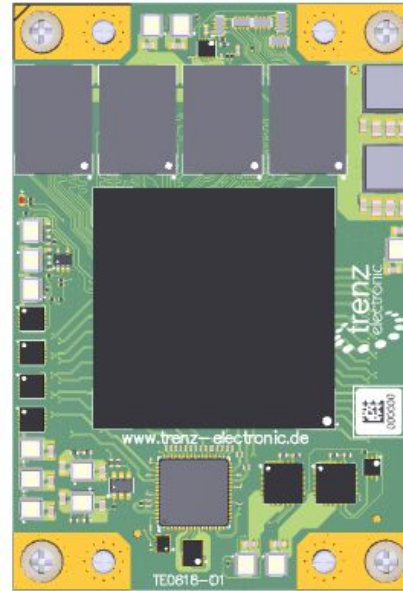
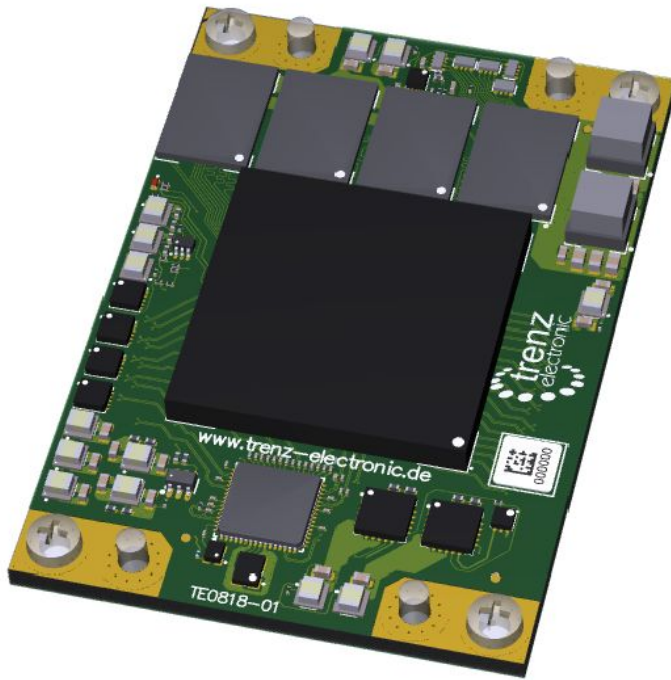


Title: TE0818		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 1 of 31
Filename: TE0818.SchDoc		

TE0818-01




			Title: Module TE0818 - System Overview	
			A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH		Page 2 of 31
Filename: TE0818-Overview.SchDoc				

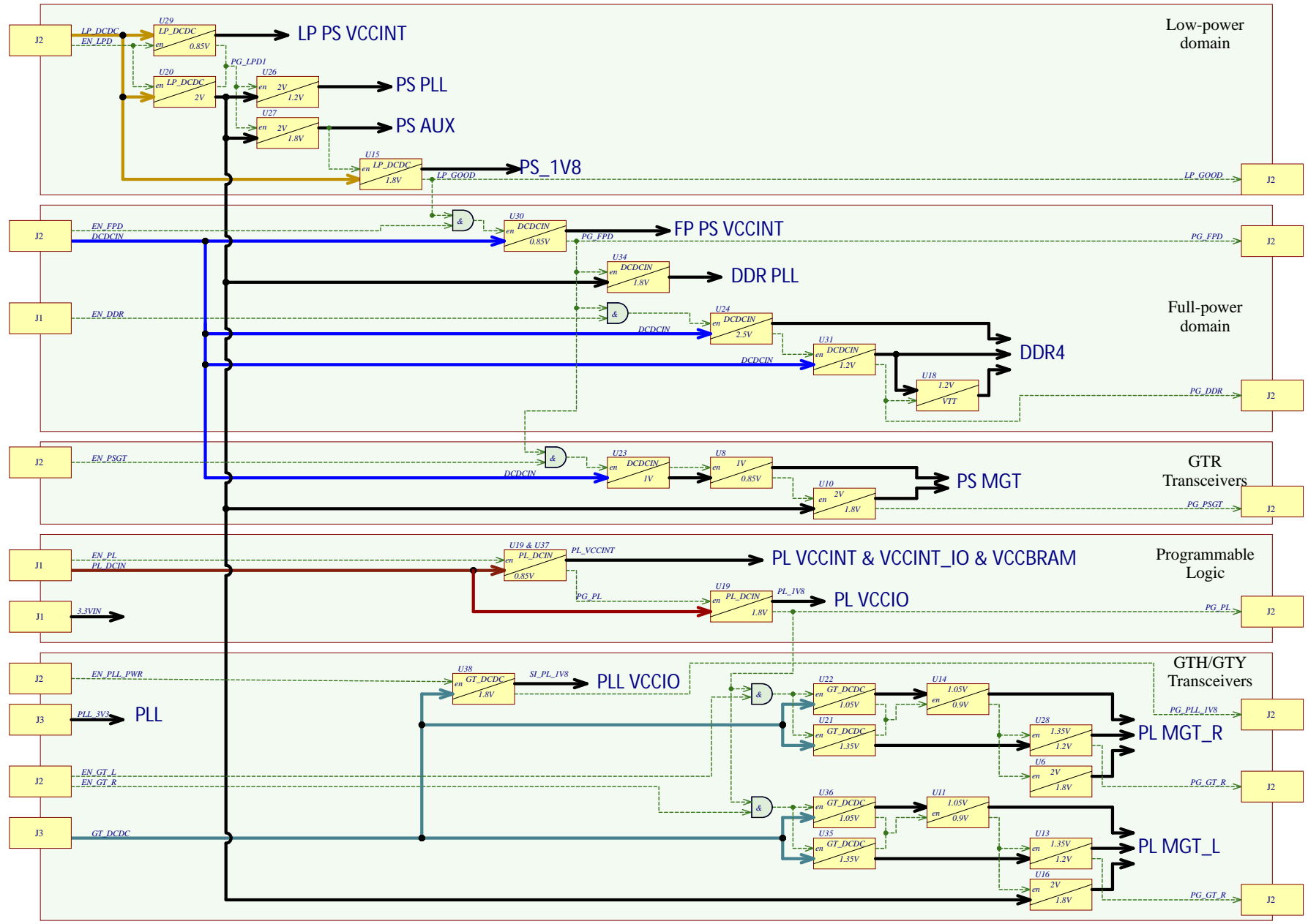


Regarding the usage of our schematics and alike documentation for Trenz module TE0818.

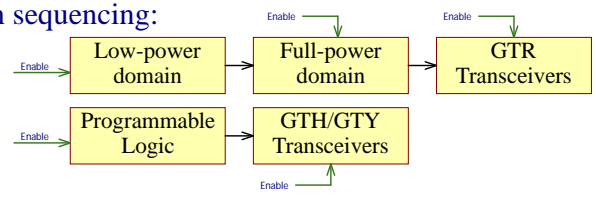
Project is protected under copyright and we strongly and strictly prohibit the reverse engineering or recreation, even if the design is just adapted or modified. TE0818 is protected under such right and in case of plagiarism we will have to do anything necessary in order to protect our assets.

Schematics and other handouts serve for informational purposes only!

	Title: TE0818		
	A4	Number: TE0818 6BE21-A	Rev. 01
	Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 3 of 31
	Filename: Legal Notices Modules.SchDoc		



Power-on sequencing:

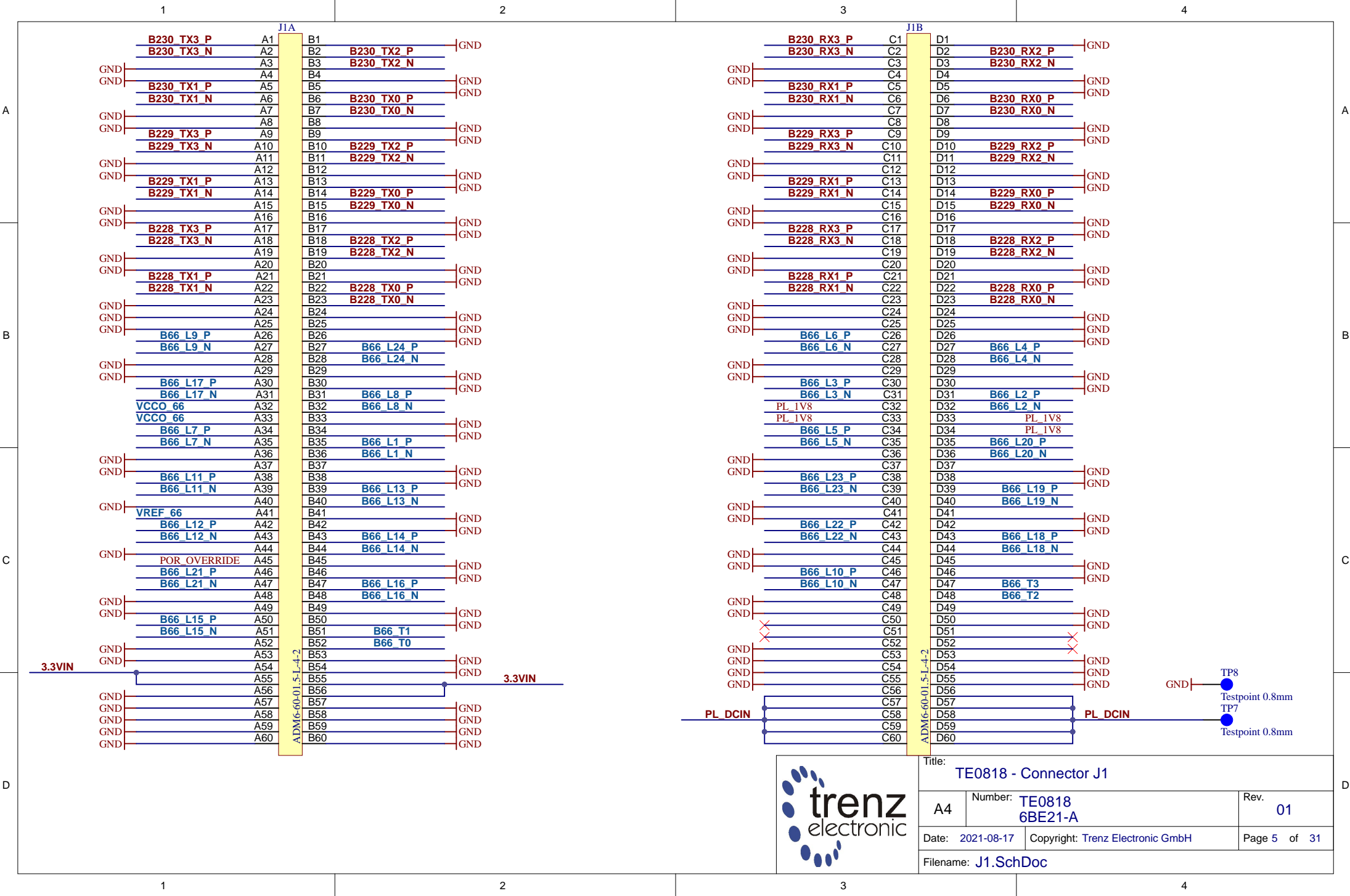


Legend:

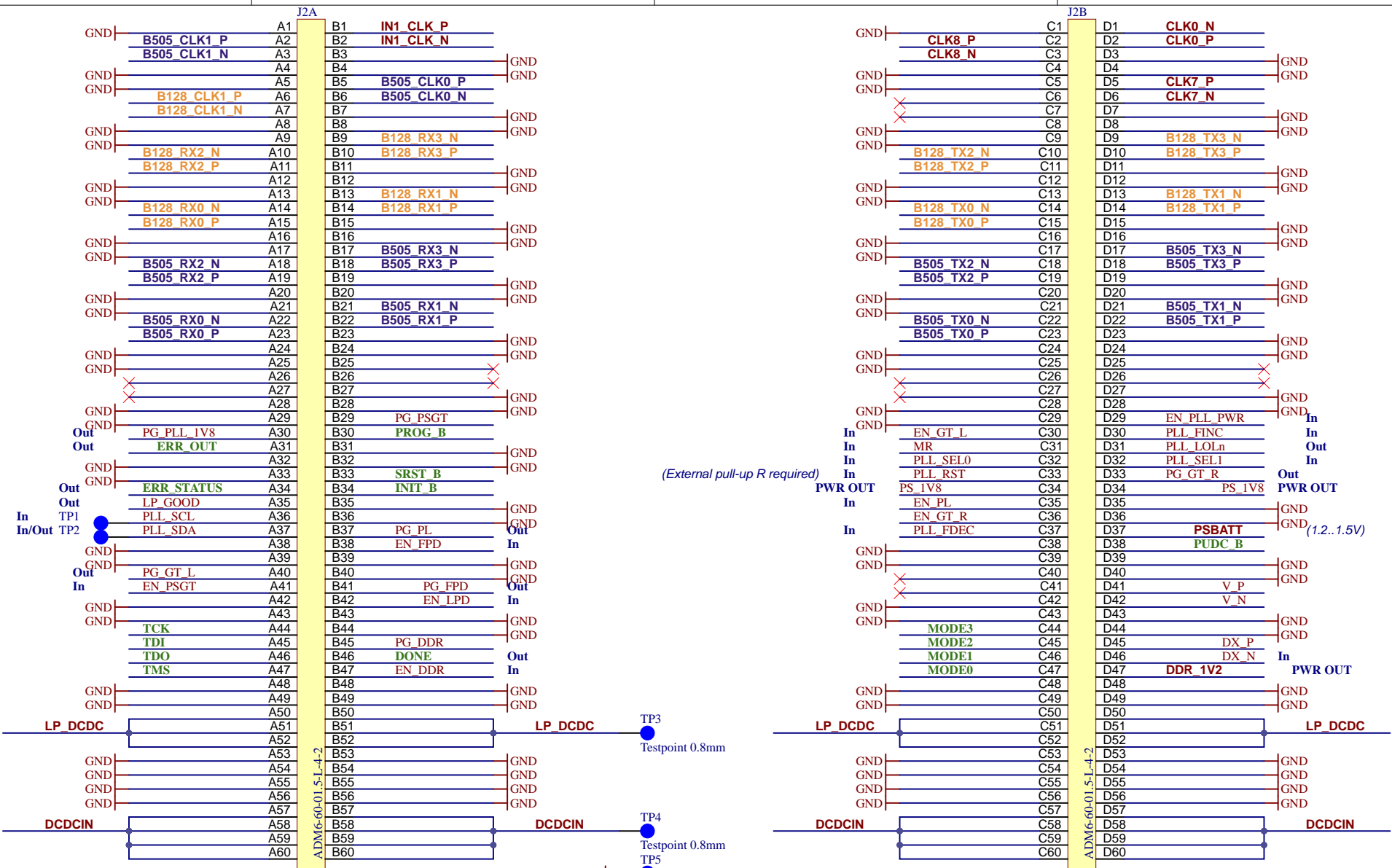
- Net name
- Power bus
- Control signal
- Power bus in FPGA speedgrade -1/-2/-3 assembly variants
- Power bus in FPGA speedgrade -1L/-2L assembly variants (low power)
- Optional power converter
- Logic AND gate



Title: TE0813 - Power Diagram		
A3	Number: TE0818 6BE21-A	Rev. 01
Datum: 2021-01-19	Copyright: Trenz Electronic GmbH	Page 4 of 31
Filename: Power_Diagram.SchDoc		

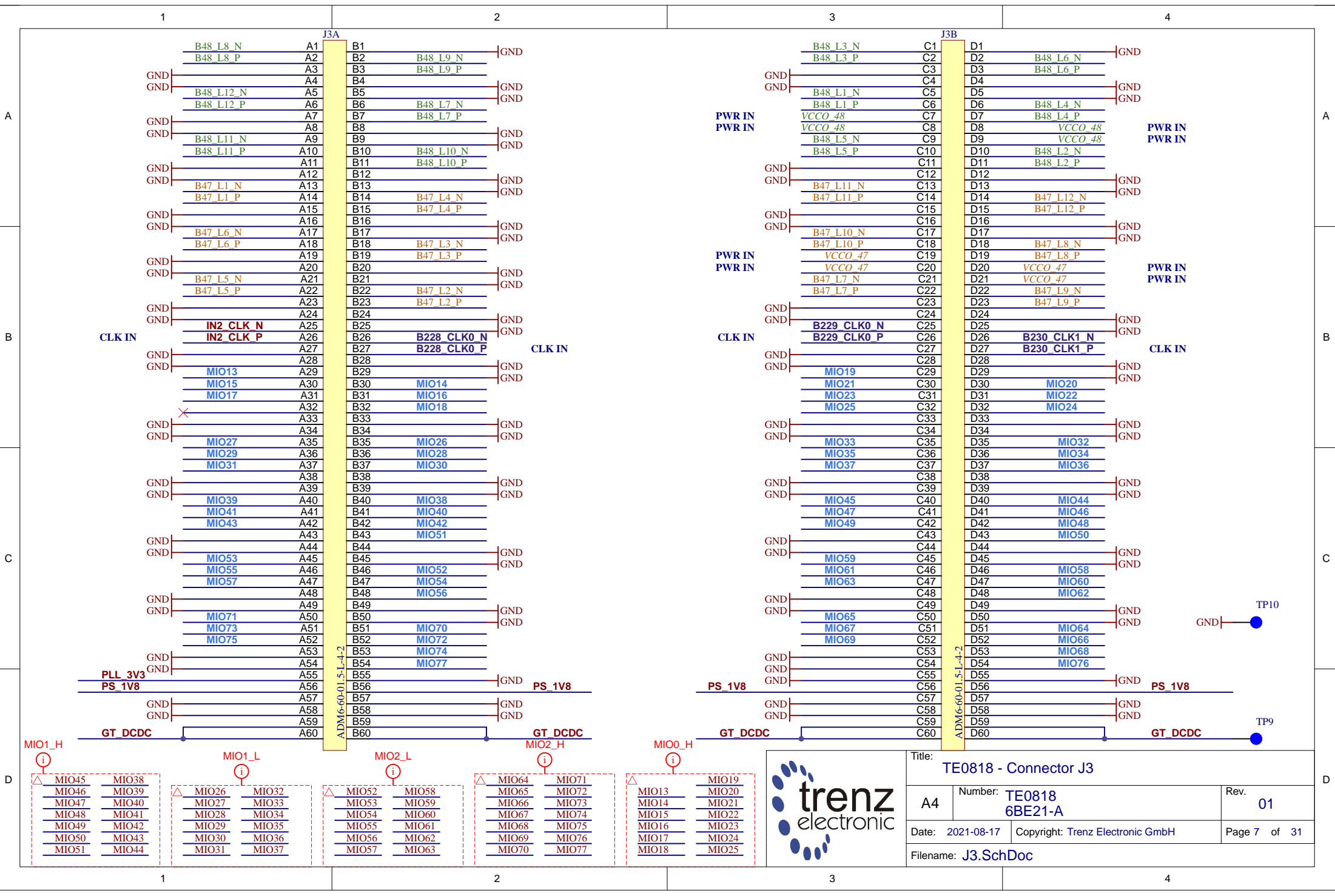


Title: TE0818 - Connector J1		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 5 of 31
Filename: J1.SchDoc		



(External pull-up R required)

			Title: TE0818 - Connector J2	
			A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH		Page 6 of 31
Filename: J2.SchDoc				



MIO1_H	MIO45	MIO38	MIO1_L	MIO26	MIO32	MIO2_L	MIO52	MIO58	MIO2_H	MIO64	MIO71	MIO0_H	MIO13	MIO19
	MIO46	MIO39		MIO27	MIO33		MIO53	MIO59		MIO65	MIO72		MIO14	MIO20
	MIO47	MIO40		MIO28	MIO34		MIO54	MIO60		MIO66	MIO73		MIO15	MIO21
	MIO48	MIO41		MIO29	MIO35		MIO55	MIO61		MIO67	MIO74		MIO16	MIO22
	MIO49	MIO42		MIO30	MIO36		MIO56	MIO62		MIO68	MIO75		MIO17	MIO23
	MIO50	MIO43		MIO31	MIO37		MIO57	MIO63		MIO69	MIO76		MIO18	MIO24
	MIO51	MIO44								MIO70	MIO77			MIO25



Title: TE0818 - Connector J3		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 7 of 31
Filename: J3.SchDoc		

1

2

3

4

A

A

B

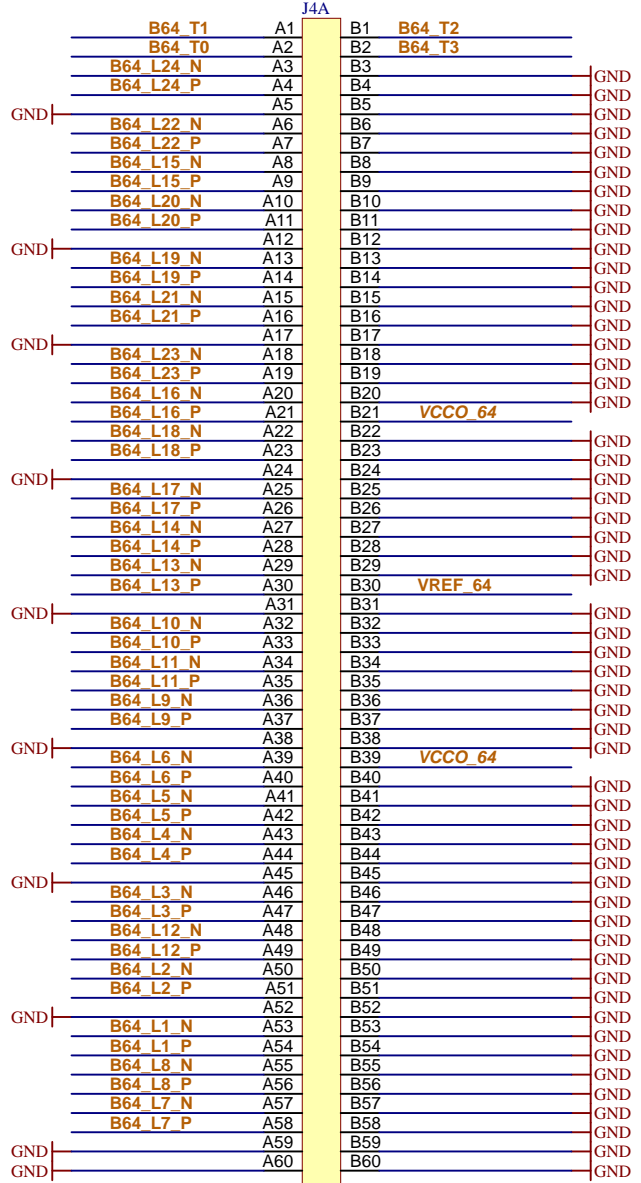
B

C

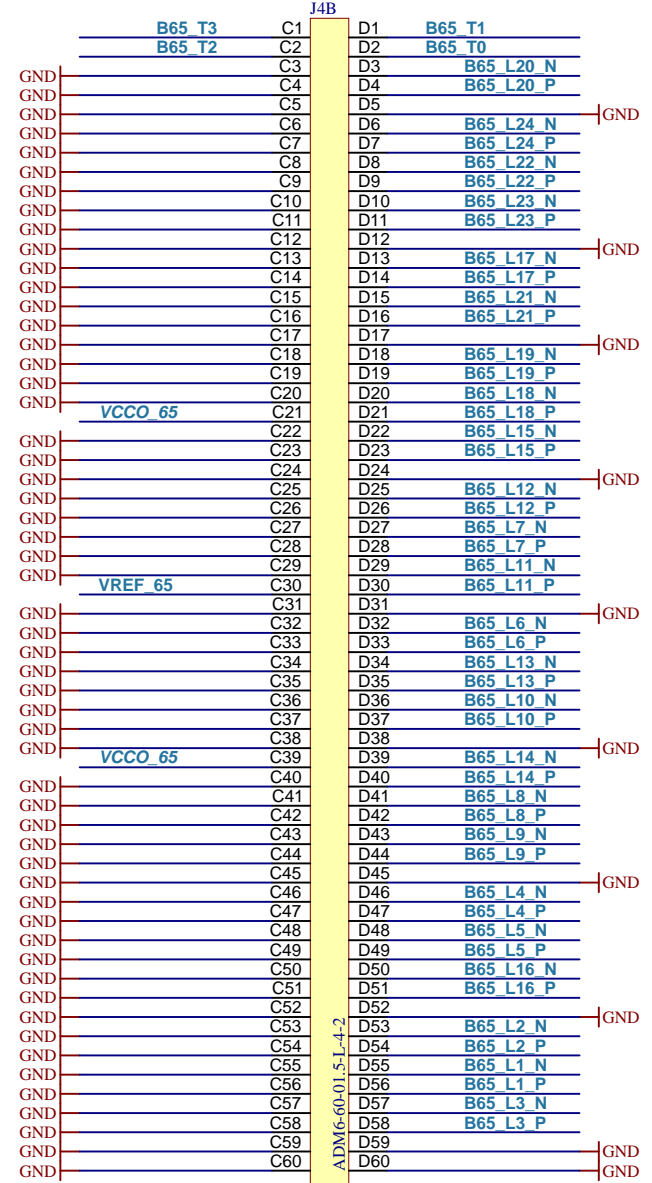
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D

D



ADM6-60-01.5-L-4-2



ADM6-60-01.5-L-4-2



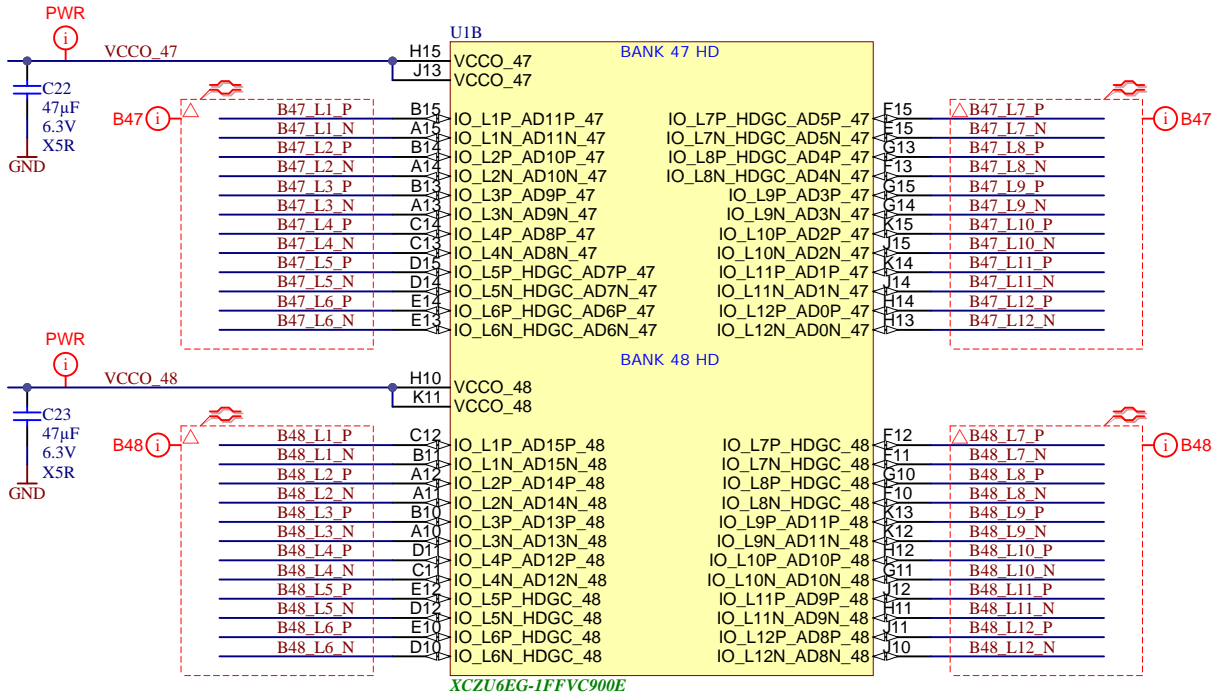
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Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 8 of 31
Filename: J4.SchDoc		

1


2

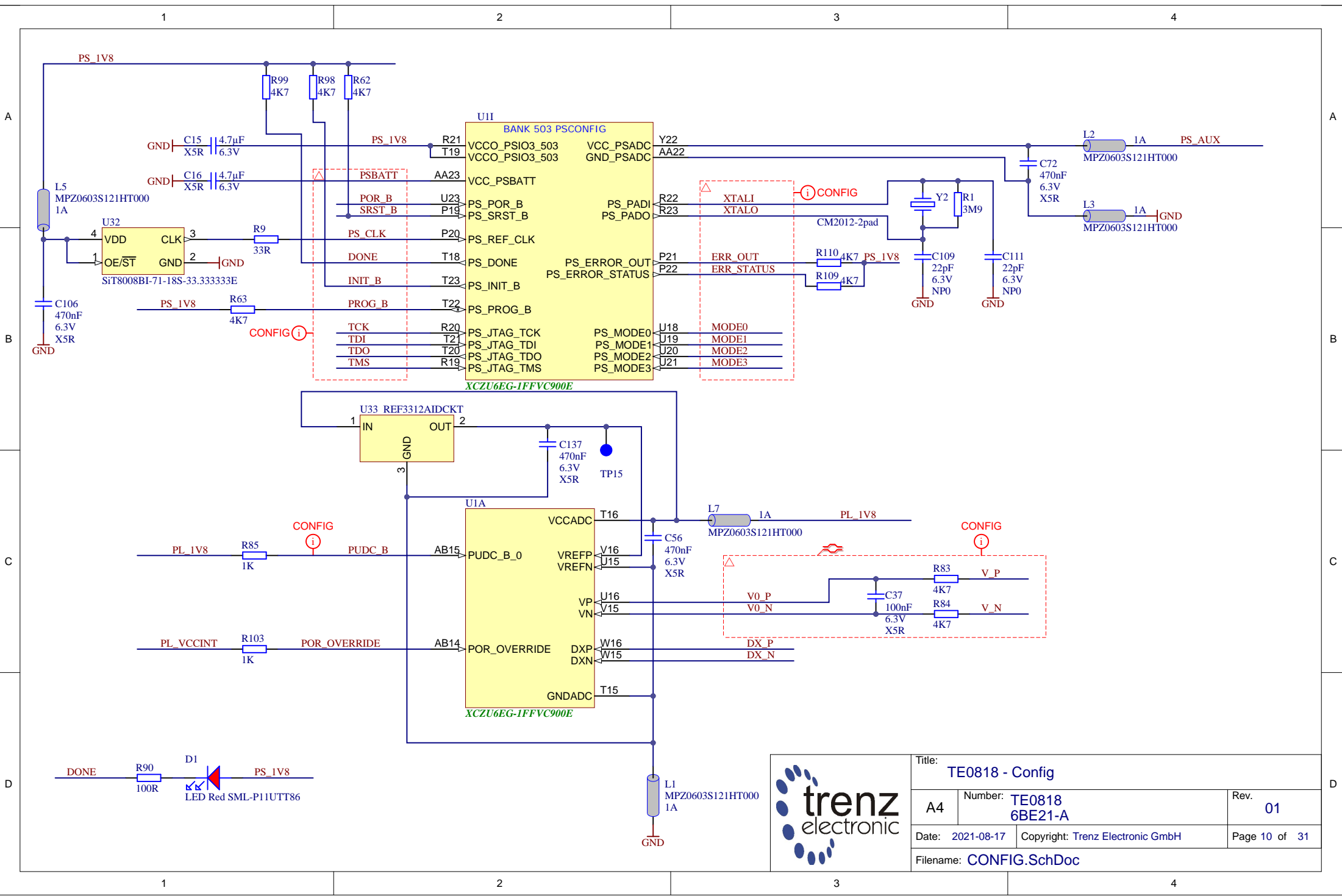
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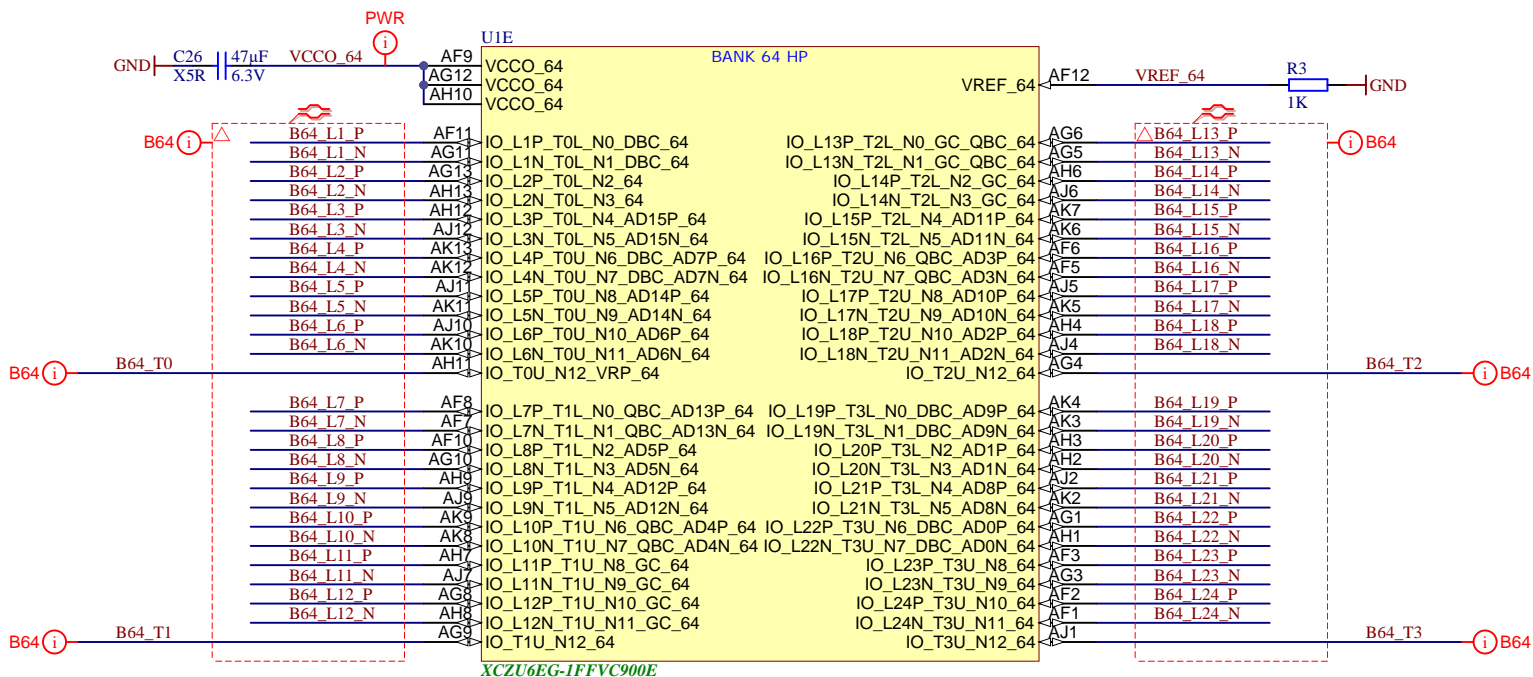


XCZU6EG-1FFVC900E

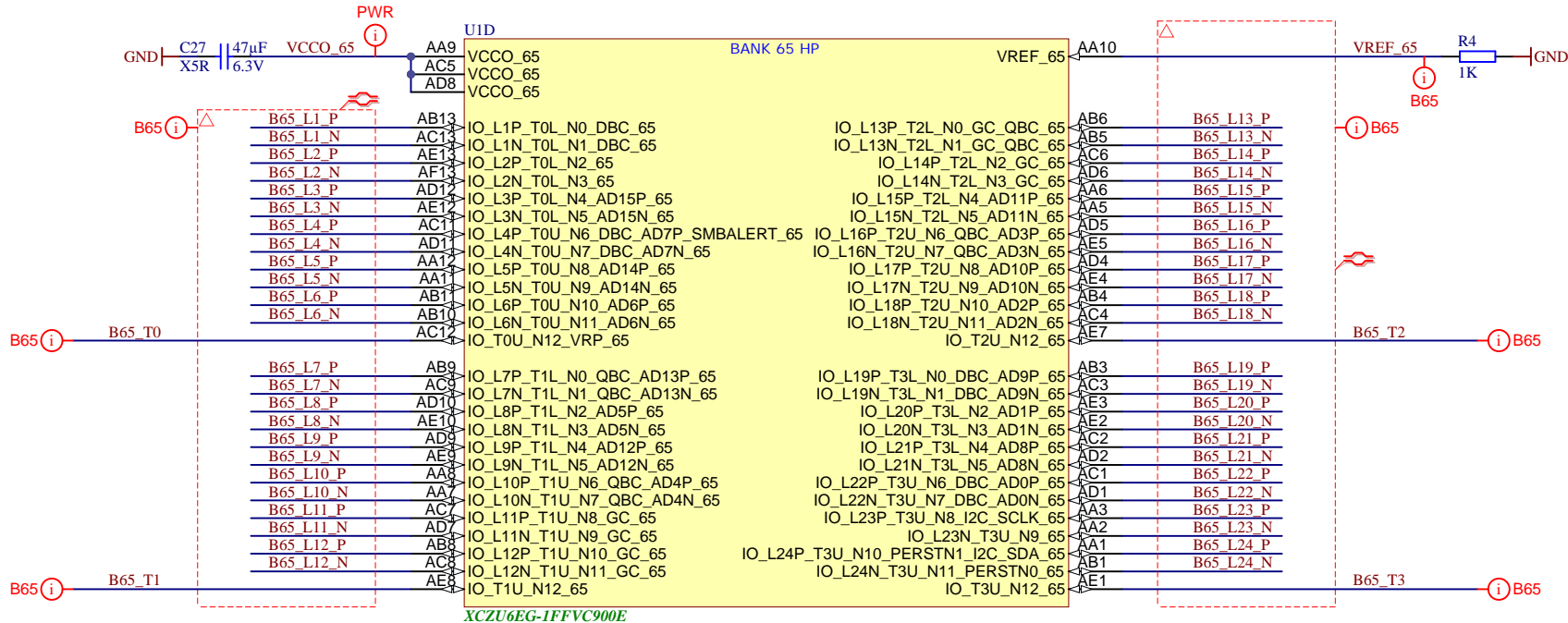
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Date: 2021-08-17		Copyright: Trenz Electronic GmbH	
Filename: B_HD.SchDoc		Page 9 of 31	



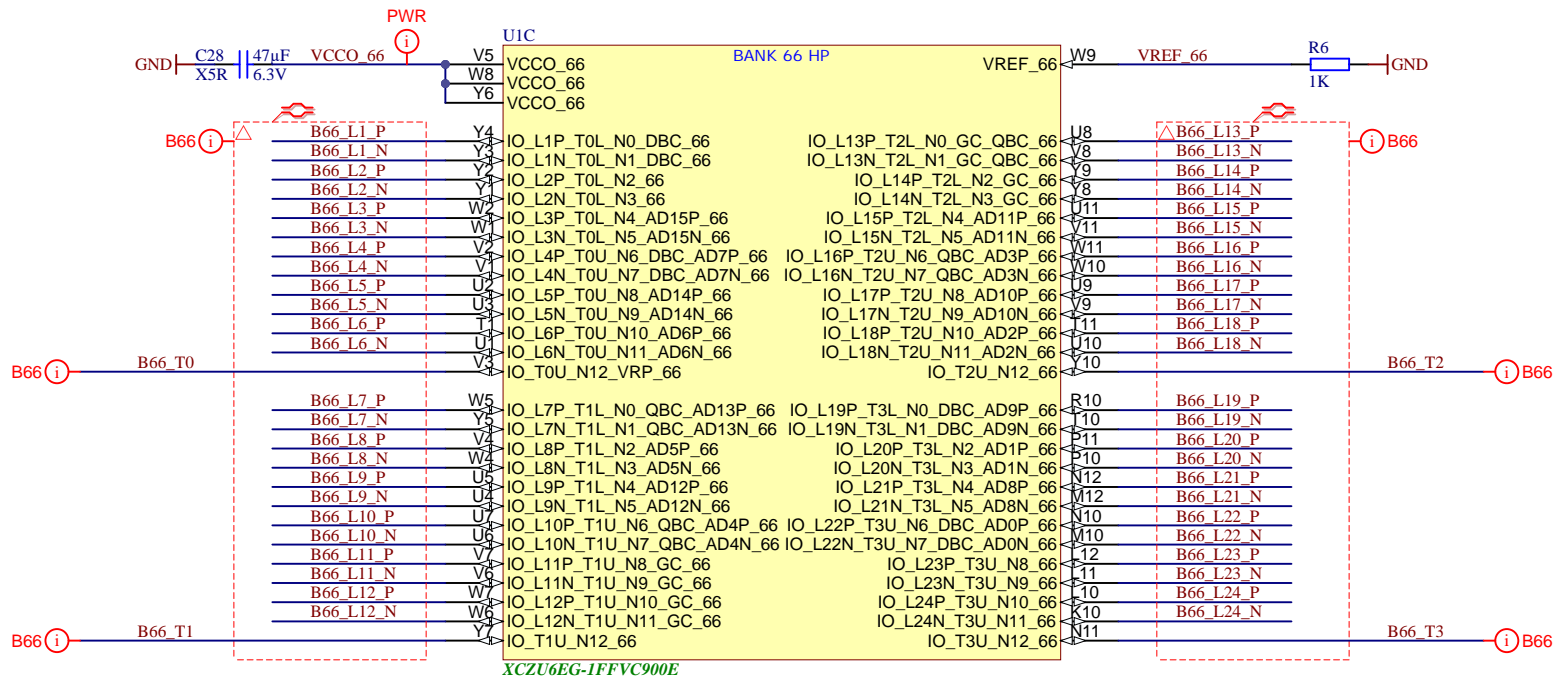
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Date: 2021-08-17	Copyright: Trenz Electronic GmbH	
Filename: CONFIG.SchDoc		Page 10 of 31




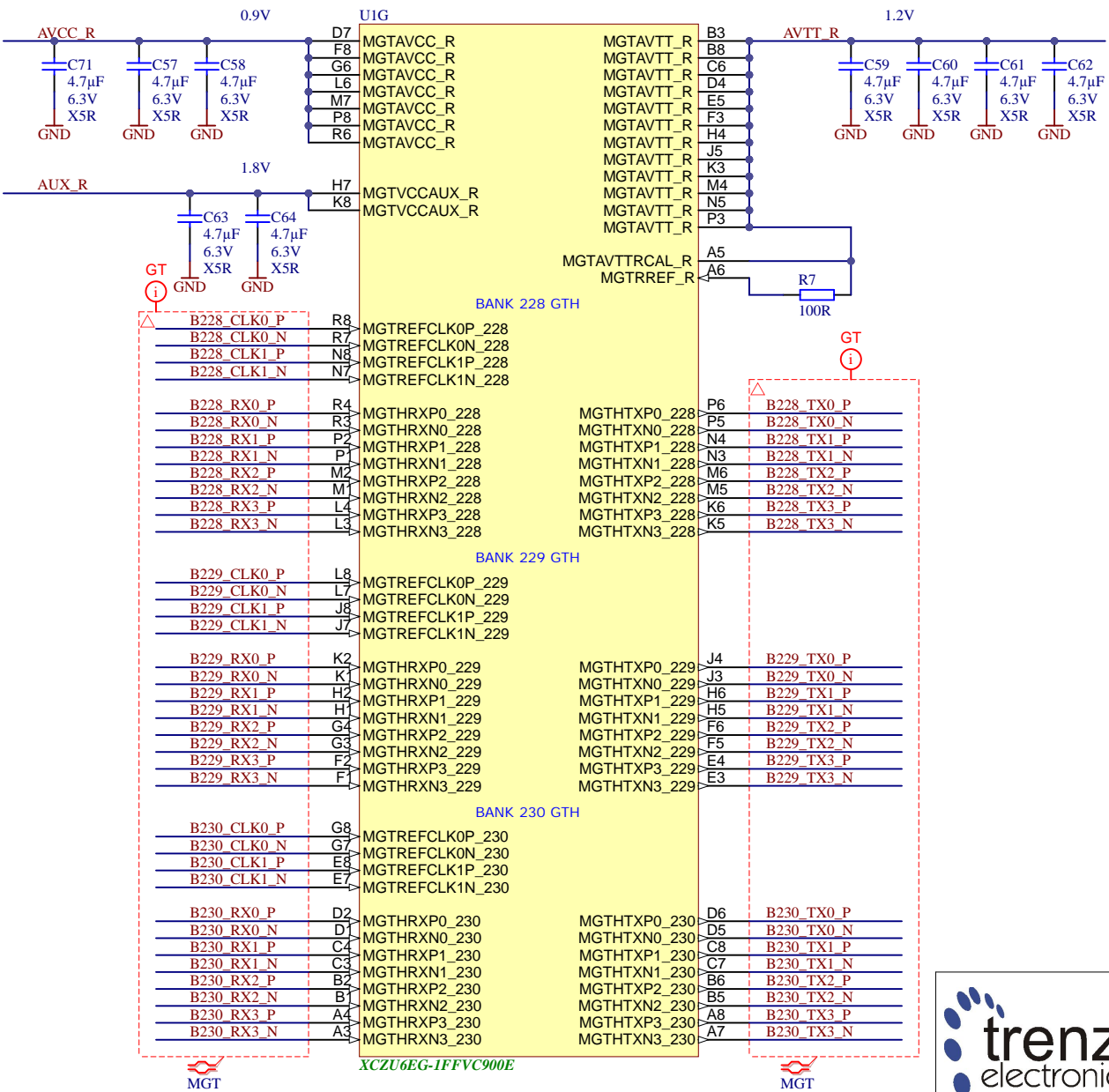
Title: TE0818 - B64		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	
Page 11 of 31		
Filename: B64.SchDoc		



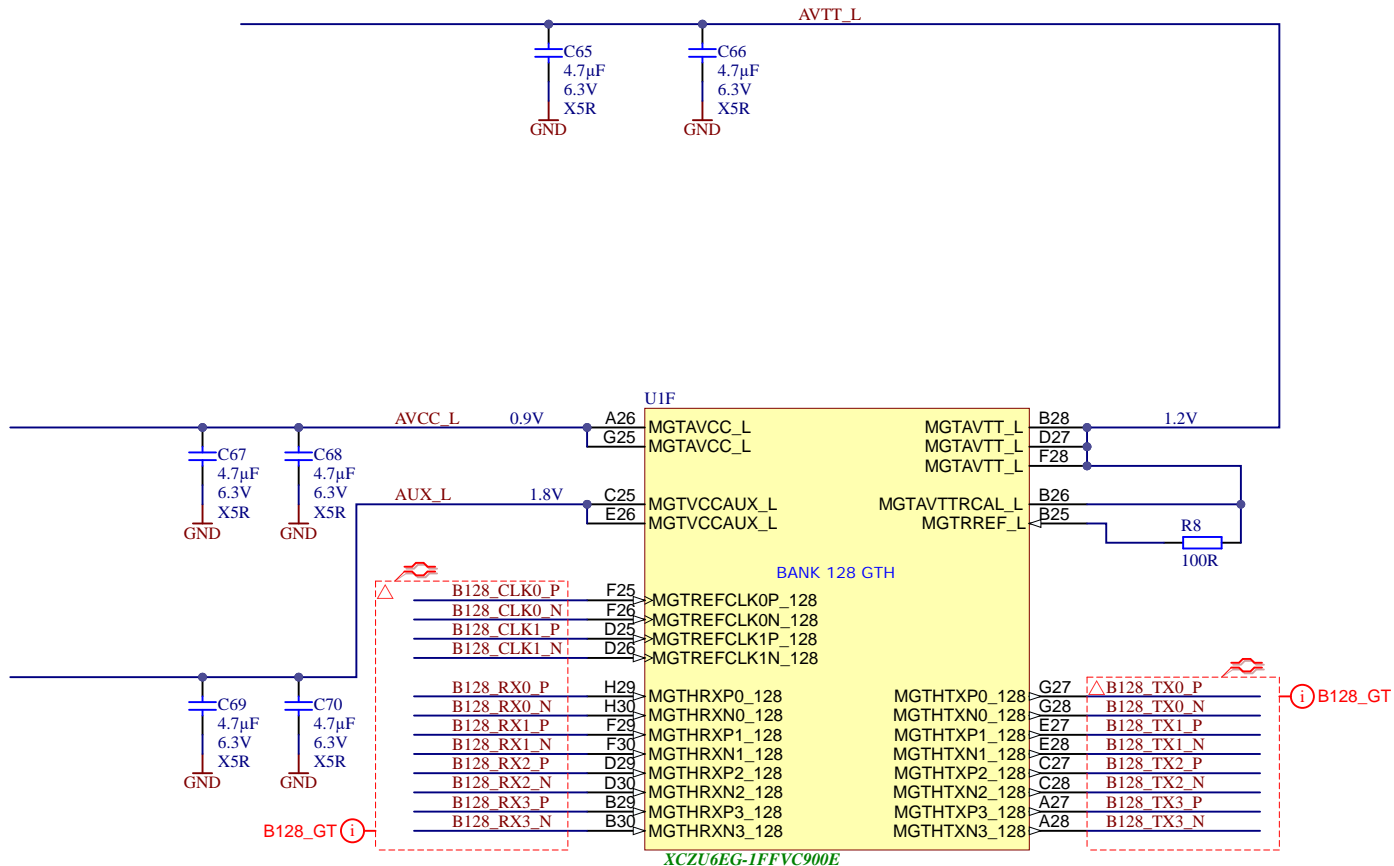
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A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 12 of 31
Filename: B65.SchDoc		




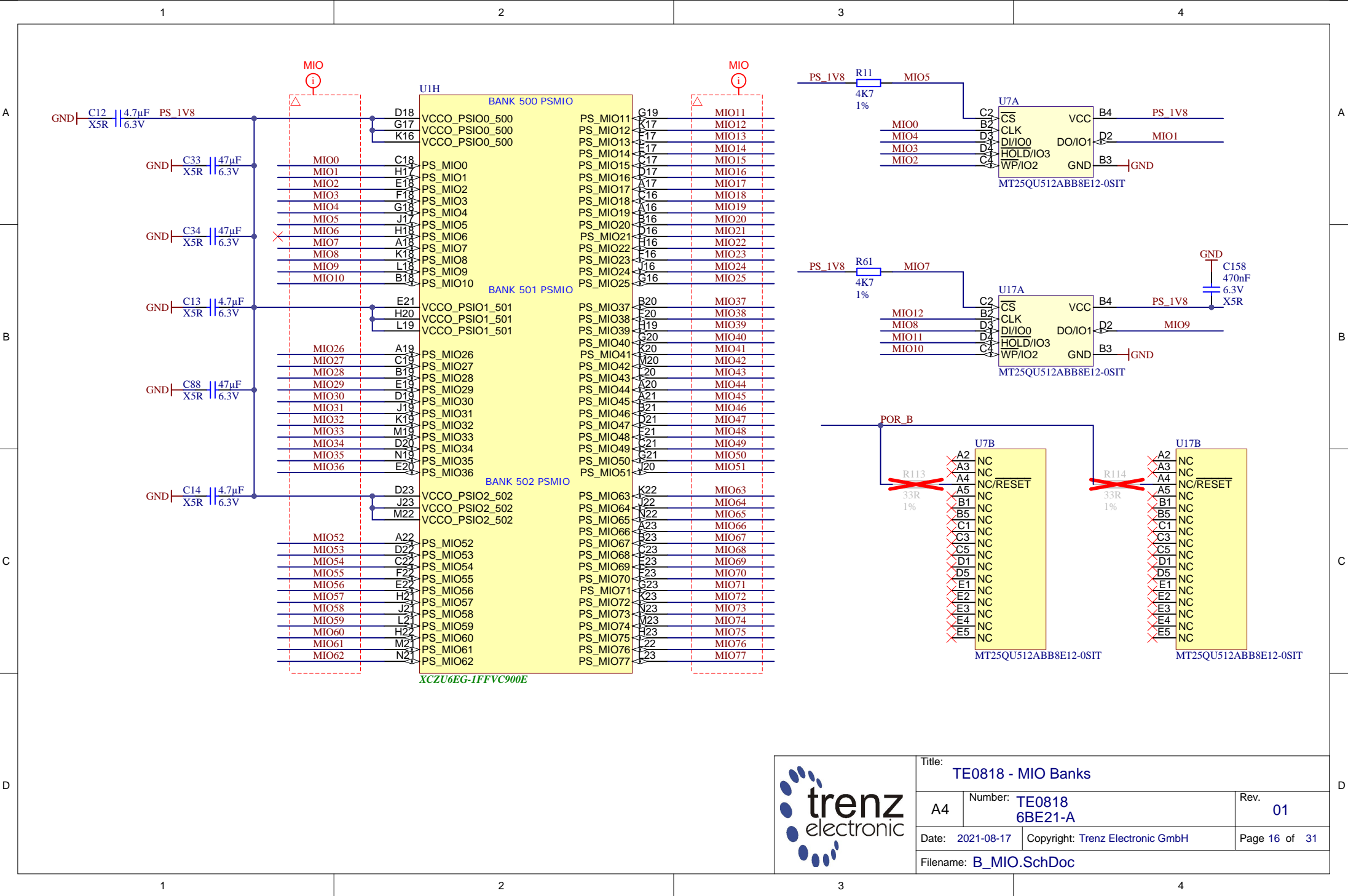
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		A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH	
Filename: B66.SchDoc		Page 13 of 31	




Title: TE0818 - B228GTH_B229GTH_B230GTH		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 14 of 31
Filename: B_GT.SchDoc		



		Title: TE0818 - B128GTH	
		A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH	
Filename: B_GT_2.SchDoc		Page 15 of 31	



		Title: TE0818 - MIO Banks	
		A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH	
Date: 2021-08-17		Page 16 of 31	
Filename: B_MIO.SchDoc			

A

A

B

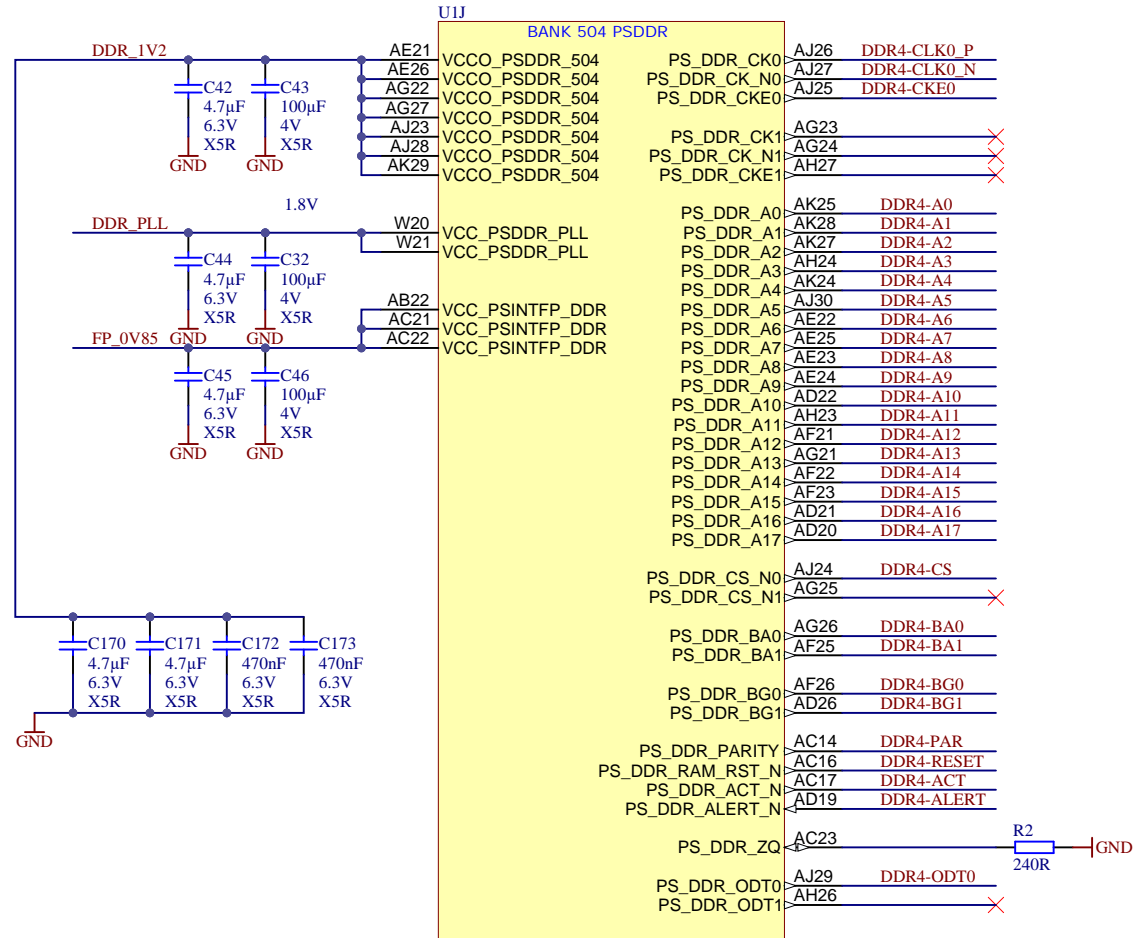
B

C

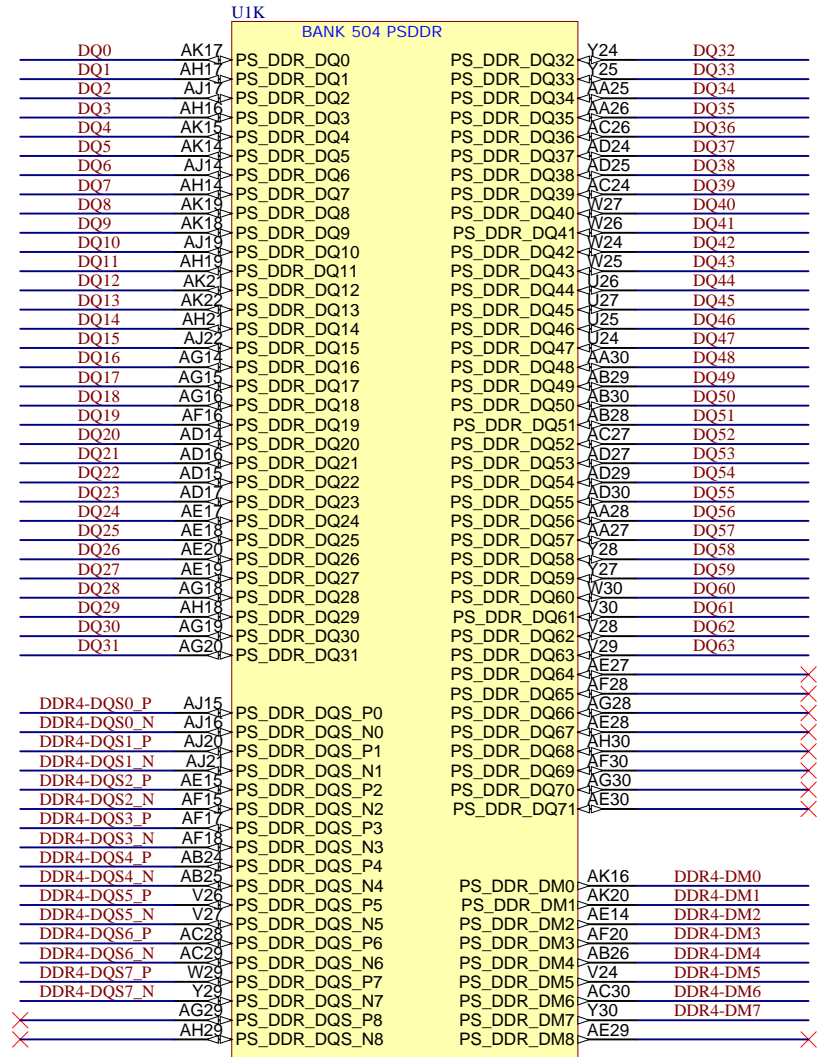
C

D

D



XCZU6EG-1FFVC900E



XCZU6EG-1FFVC900E



Title: TE0818 - PS_DDR		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 17 of 31
Filename: PS_DDR.SchDoc		

1

2

3

4

A

A

B

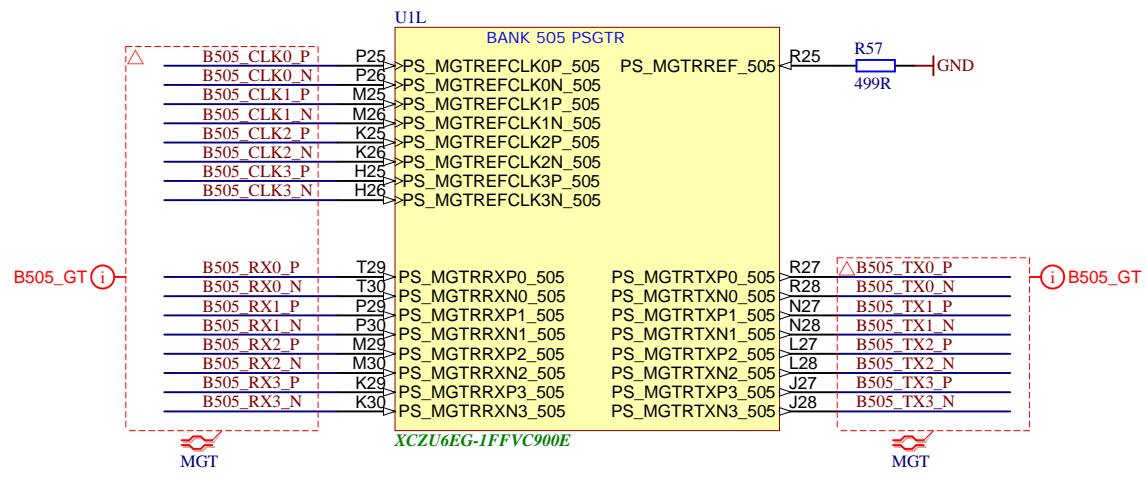
B


C

C

D

D



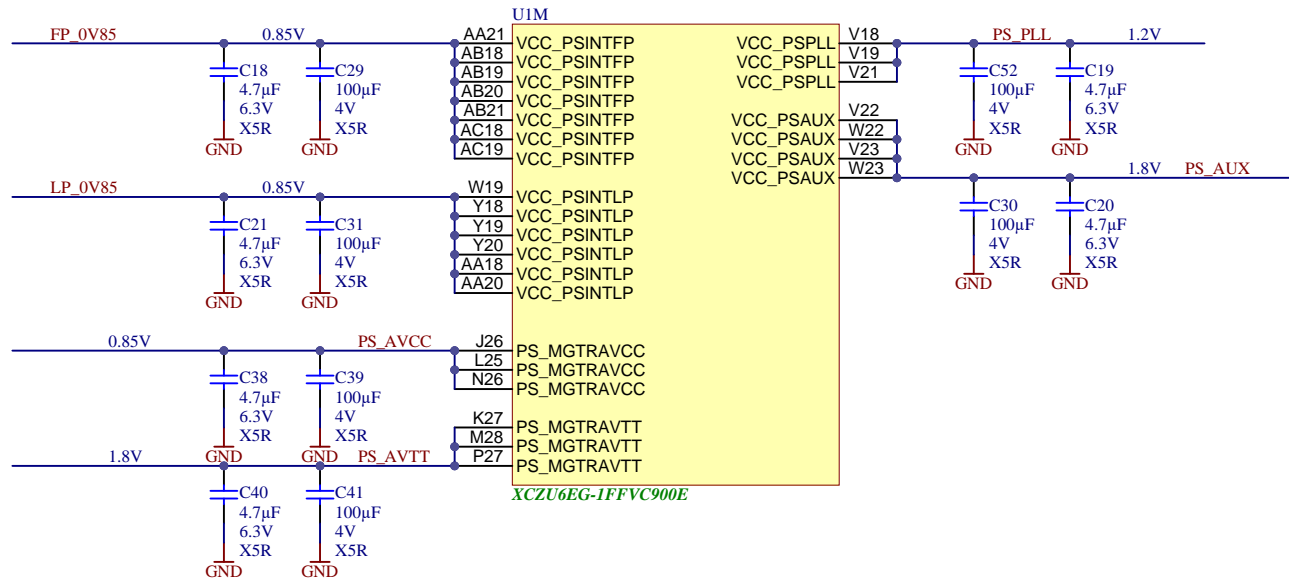
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Date: 2021-08-17		Copyright: Trenz Electronic GmbH	
Filename: B_PS_GT.SchDoc		Page 18 of 31	


1

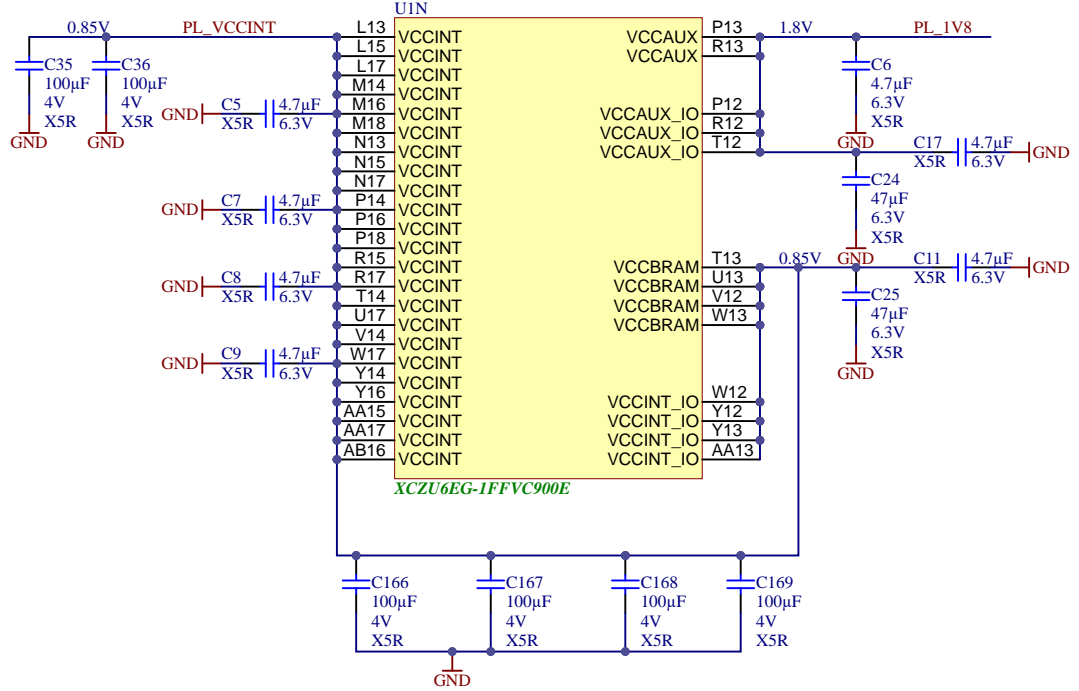
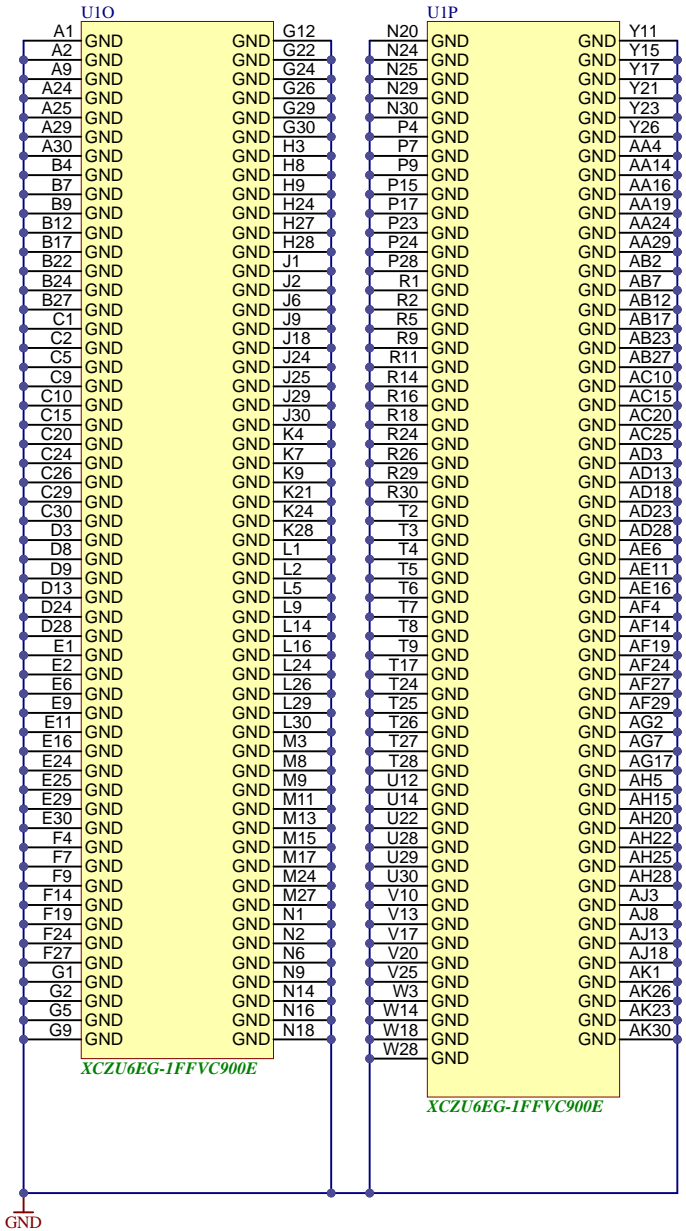
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3

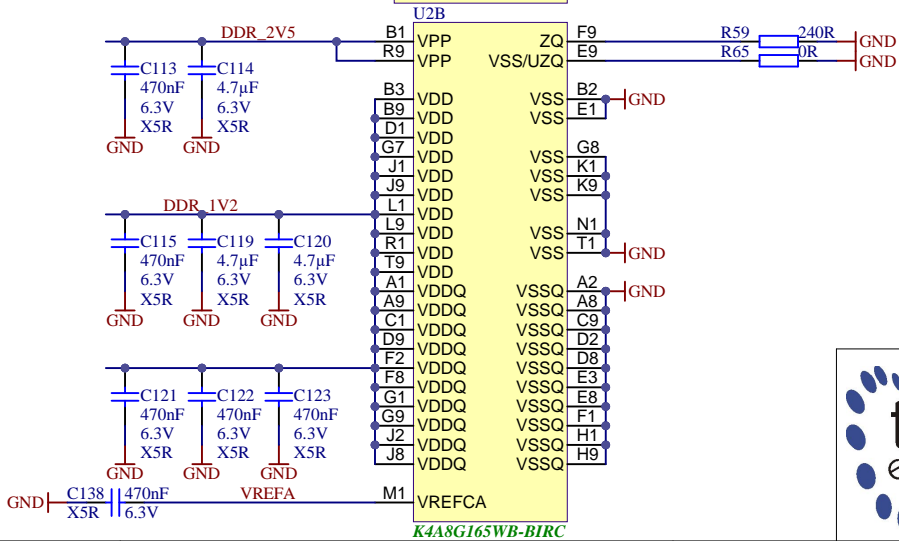
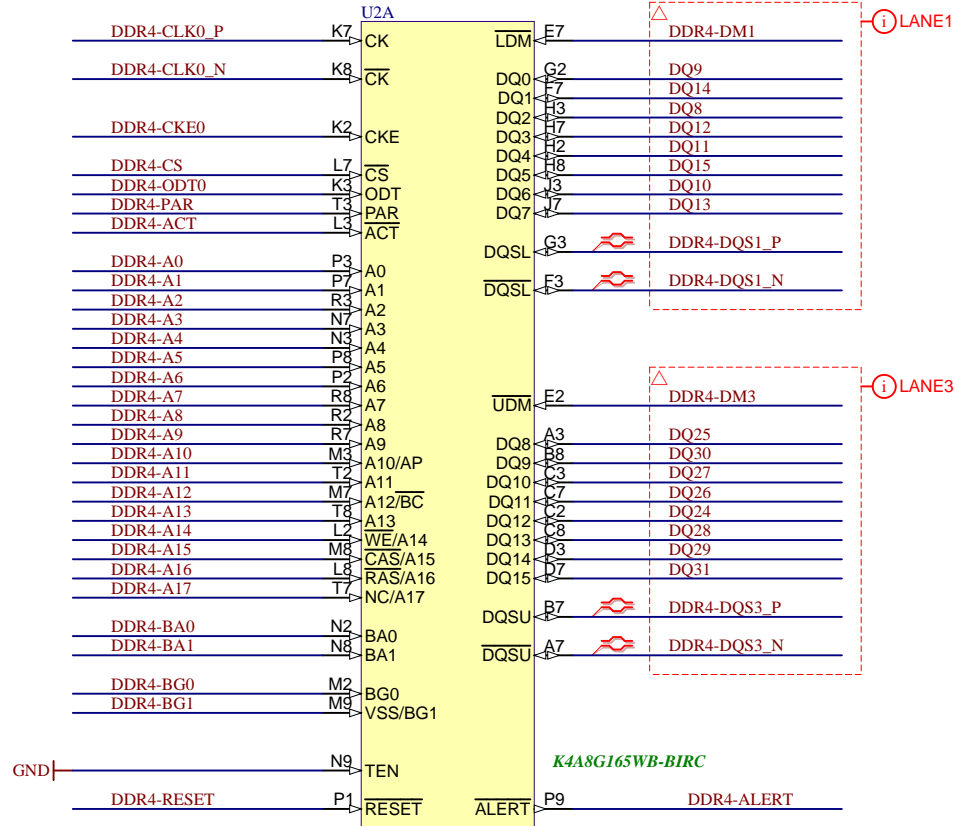
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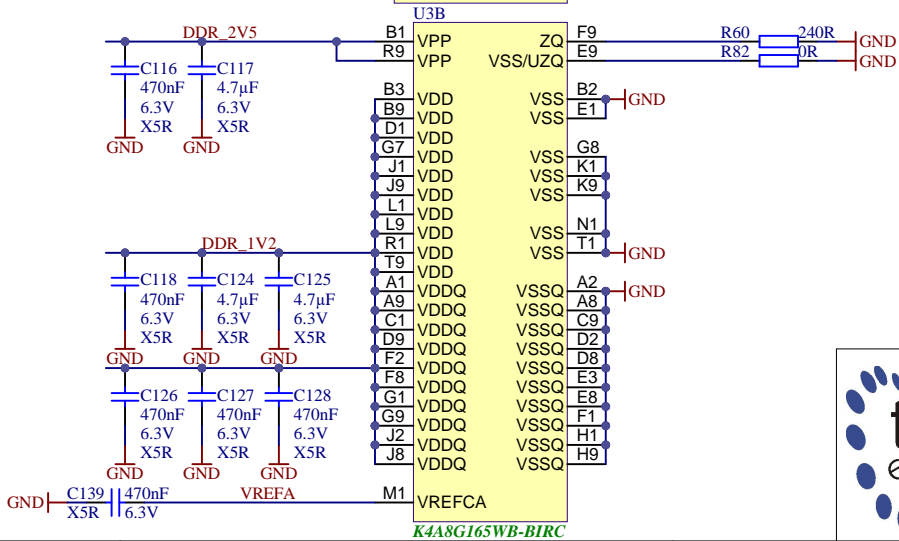
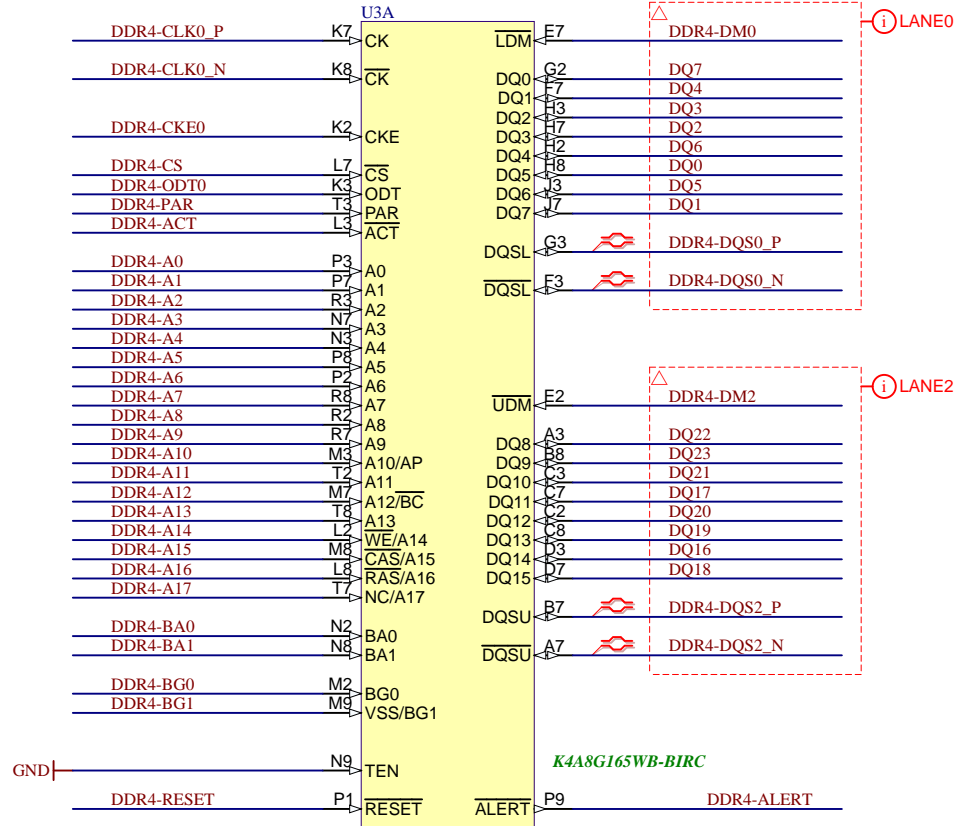
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		A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH	
Date: 2021-08-17		Page 19 of 31	
Filename: ZU_PS_POWER.SchDoc			



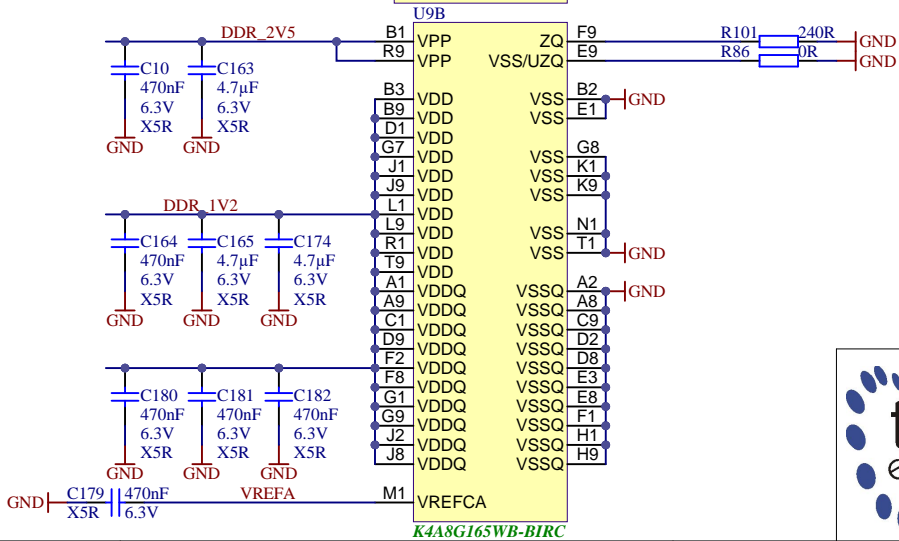
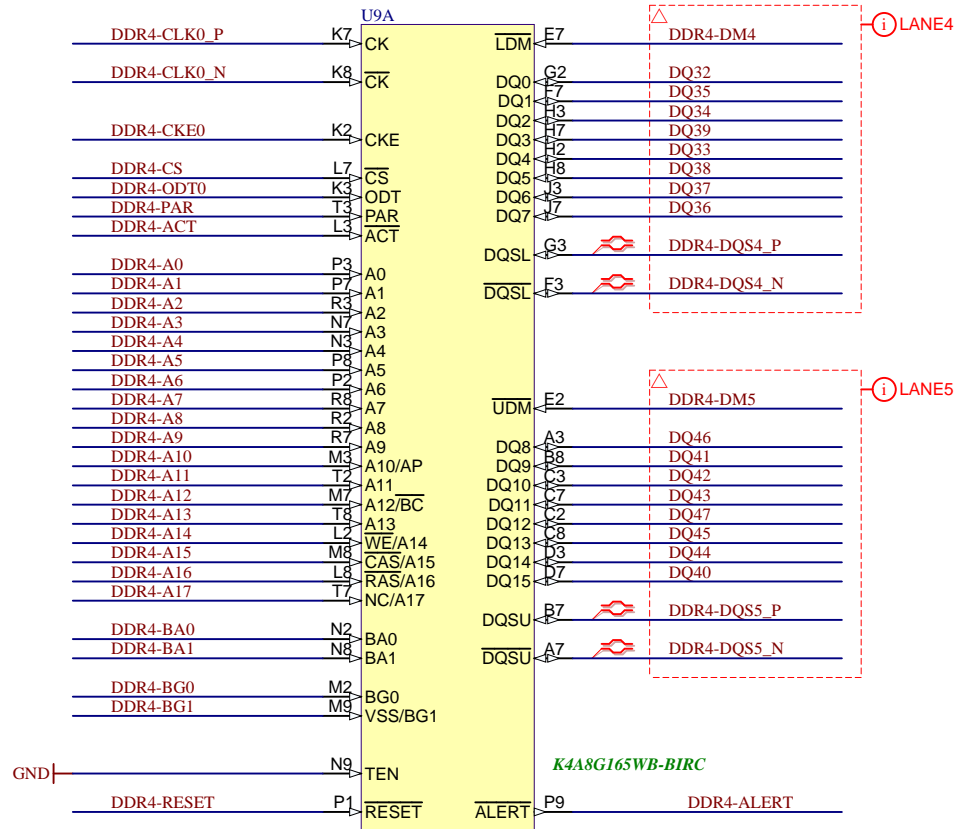
Title: TE0818 - ZU_POWER		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 20 of 31
Filename: ZU_POWER.SchDoc		



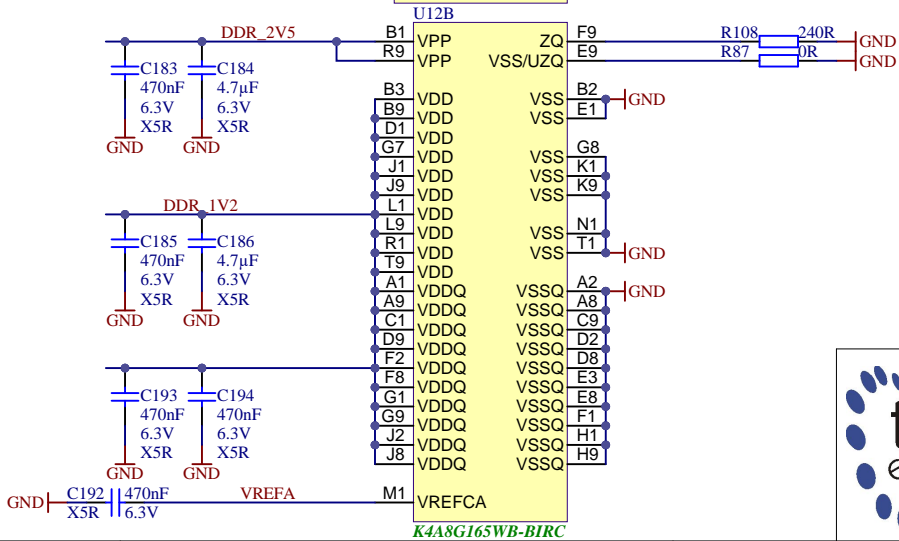
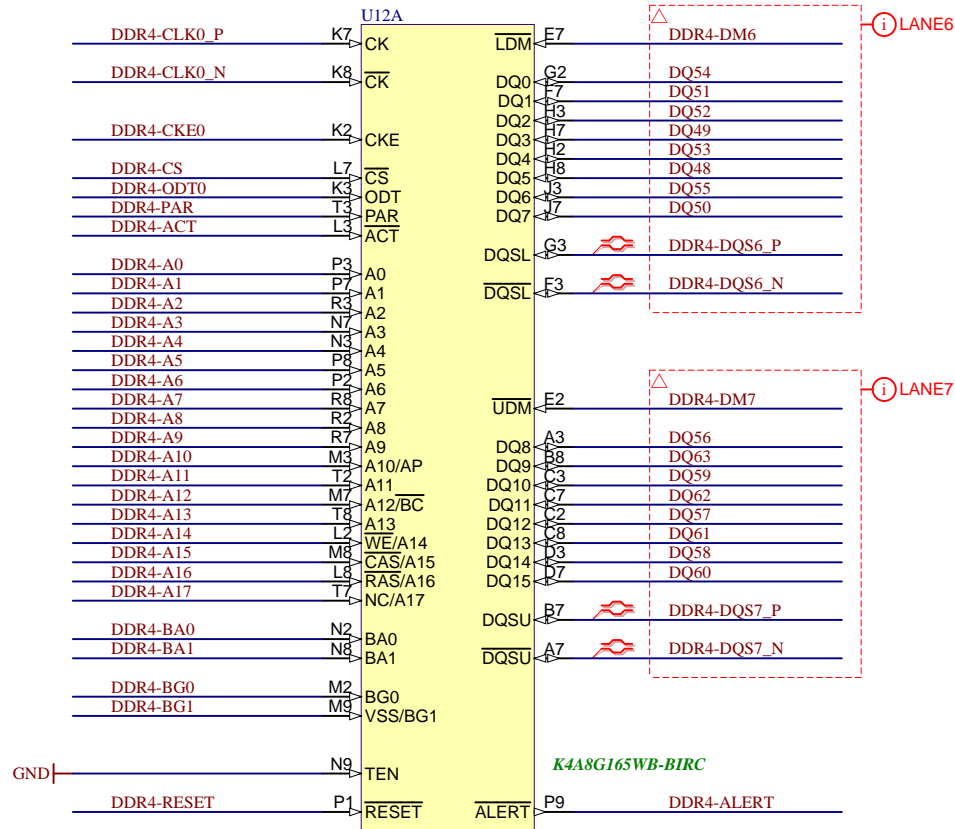
Title: TE0818 - DDR4_1_RAM		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 21 of 31
Filename: DDR4-RAM.SchDoc		



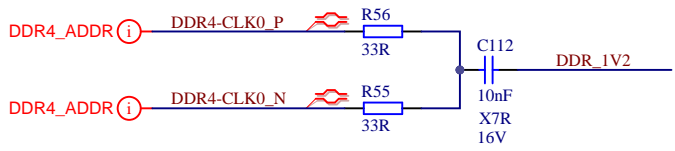
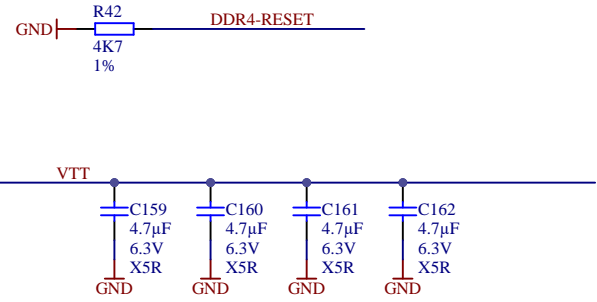
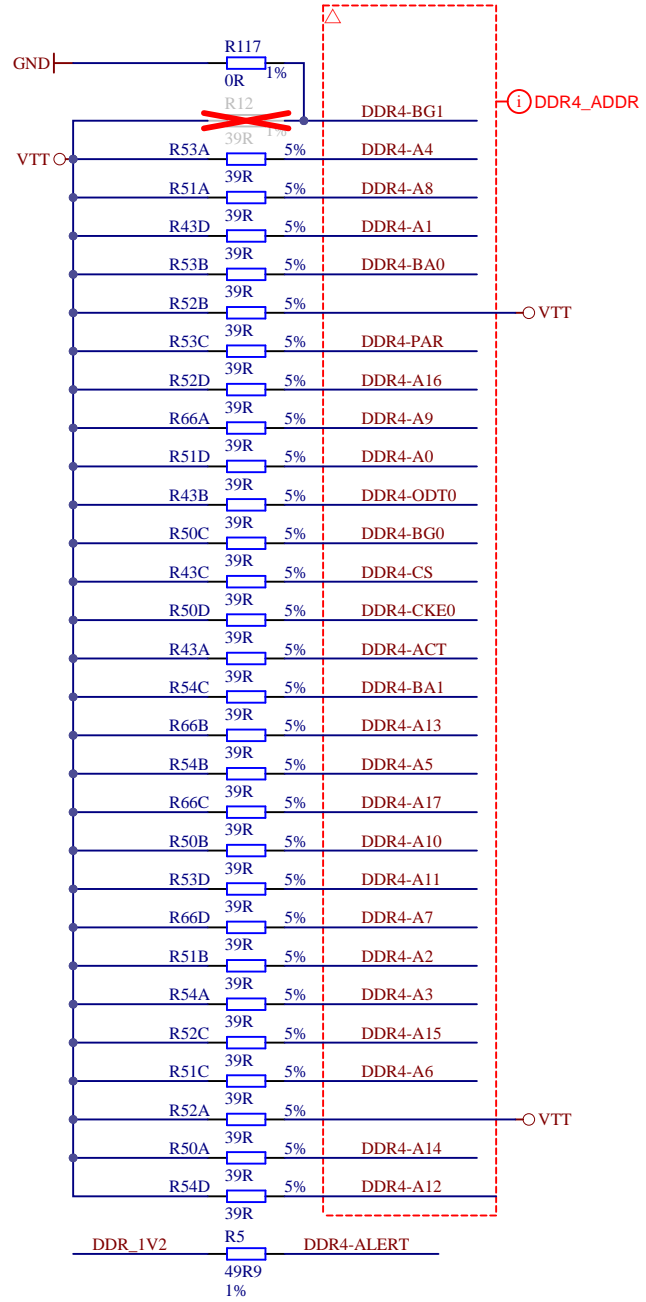
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Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 22 of 31
Filename: DDR4-RAM_2.SchDoc		



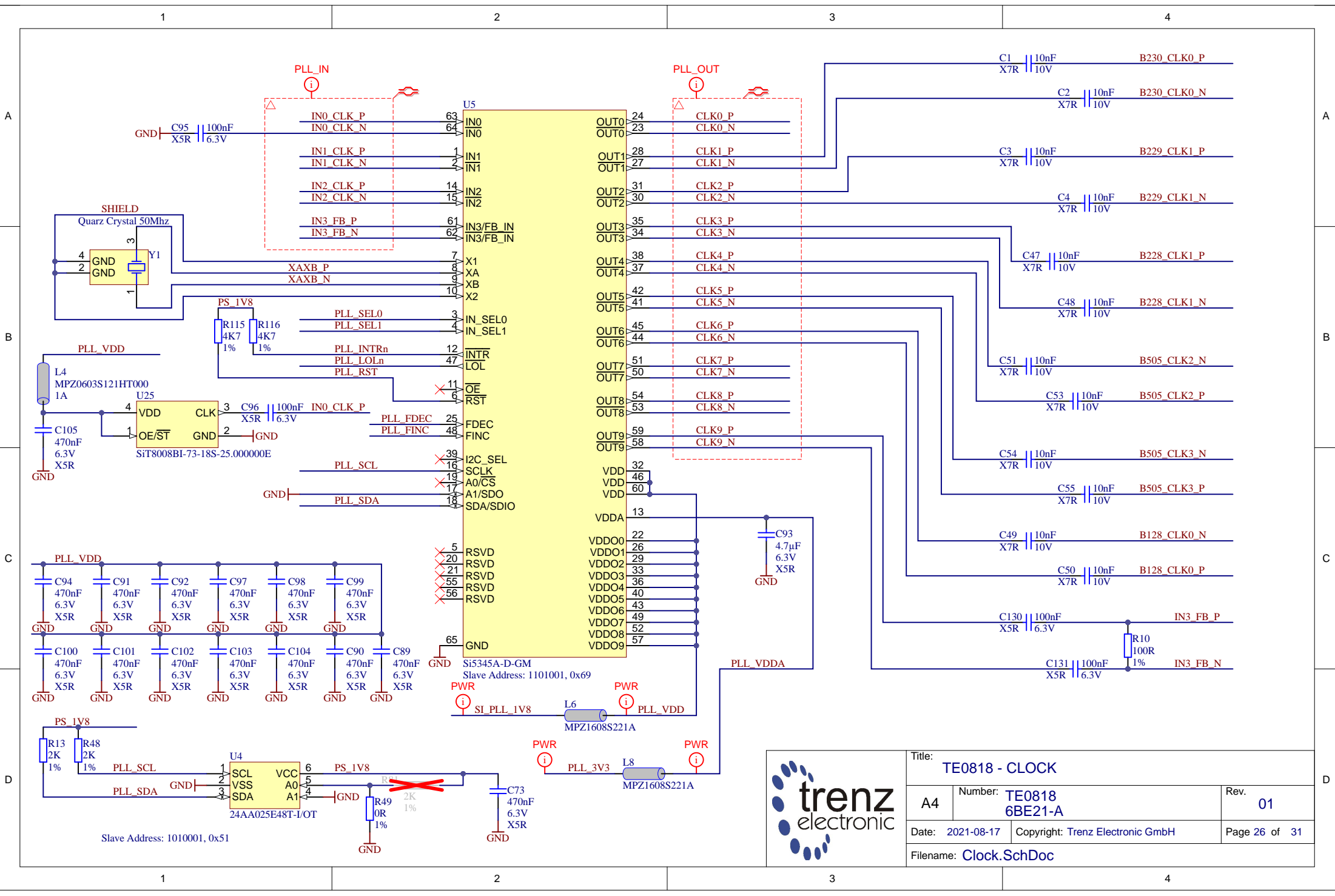
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A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 23 of 31
Filename: DDR4-RAM_3.SchDoc		



Title: TE0818 - DDR4_4_RAM		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 24 of 31
Filename: DDR4-RAM_4.SchDoc		



Title: TE0818 - DDR4_TERM		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 25 of 31
Filename: DDR4-TERM.SchDoc		



Title: TE0818 - CLOCK		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 26 of 31
Filename: Clock.SchDoc		

1

2

3

4

A

A

B

B

C

C

D

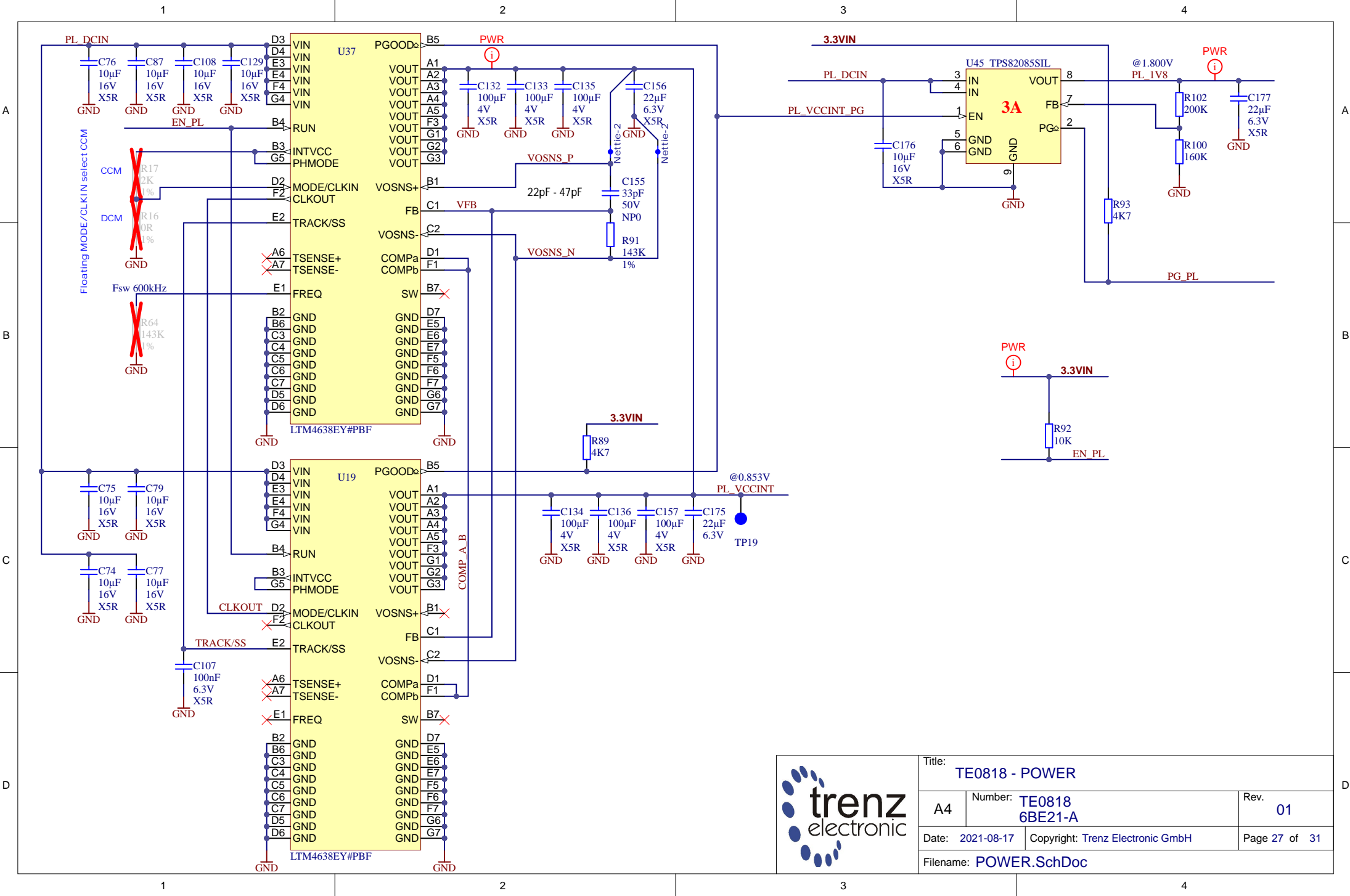
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1

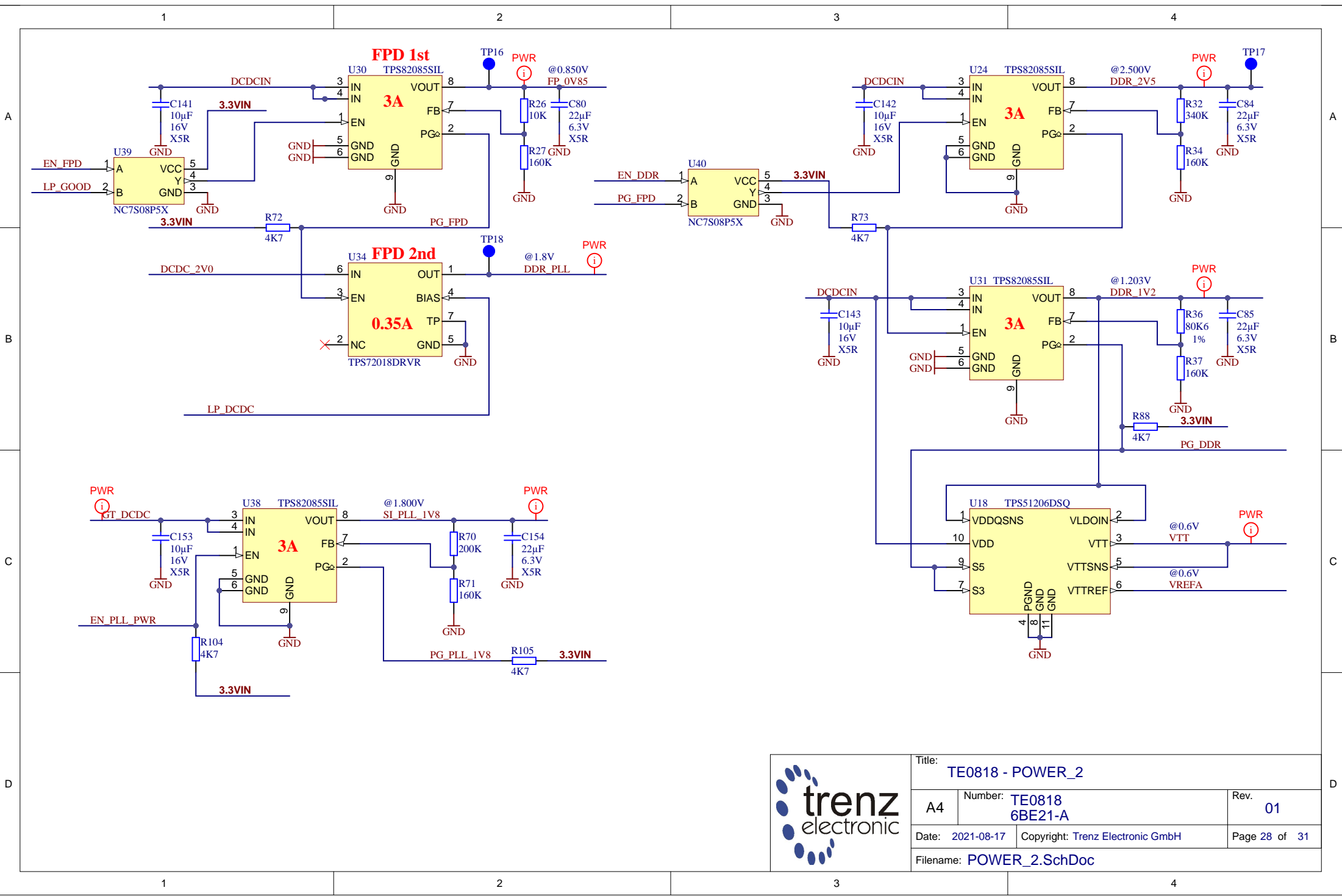
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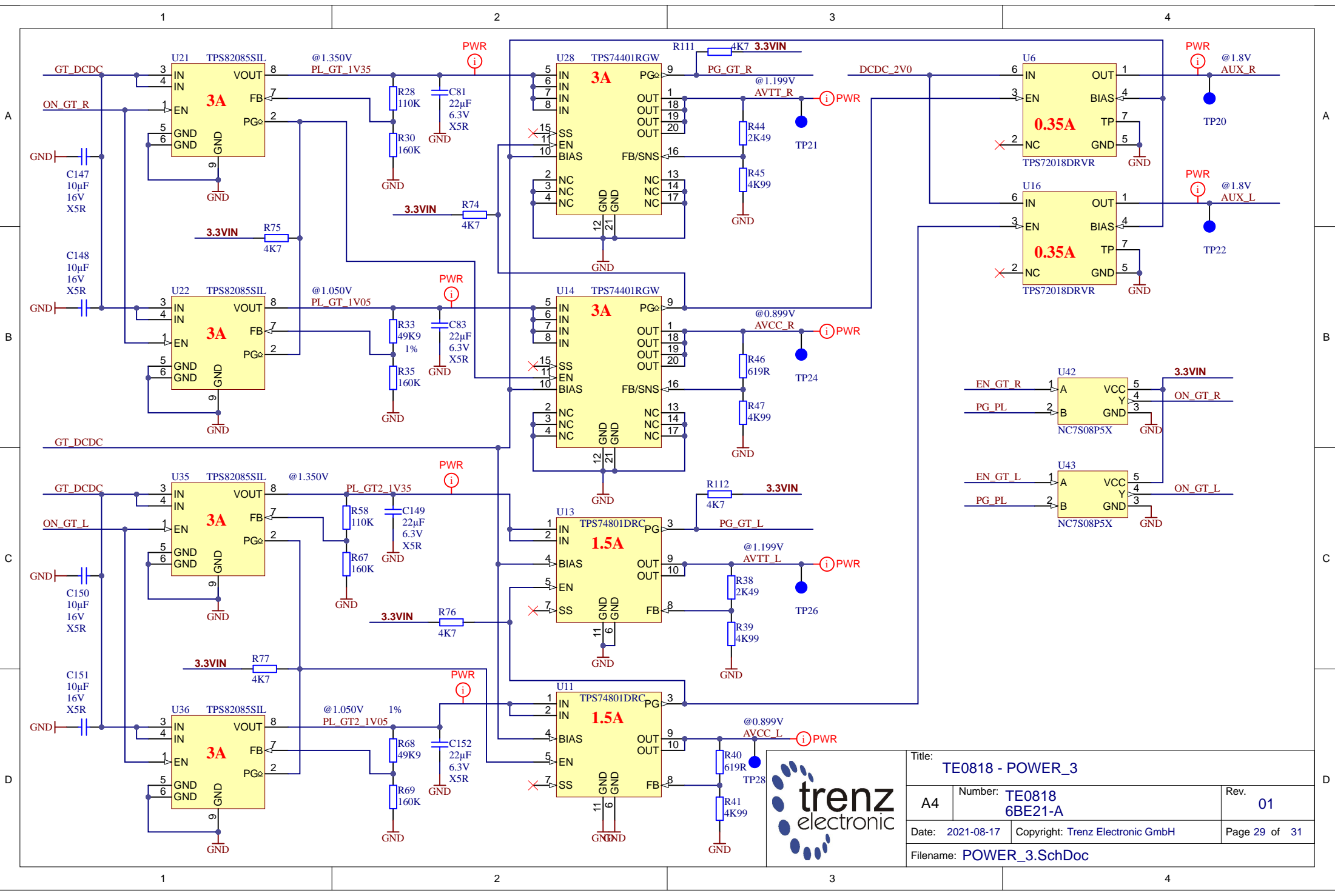
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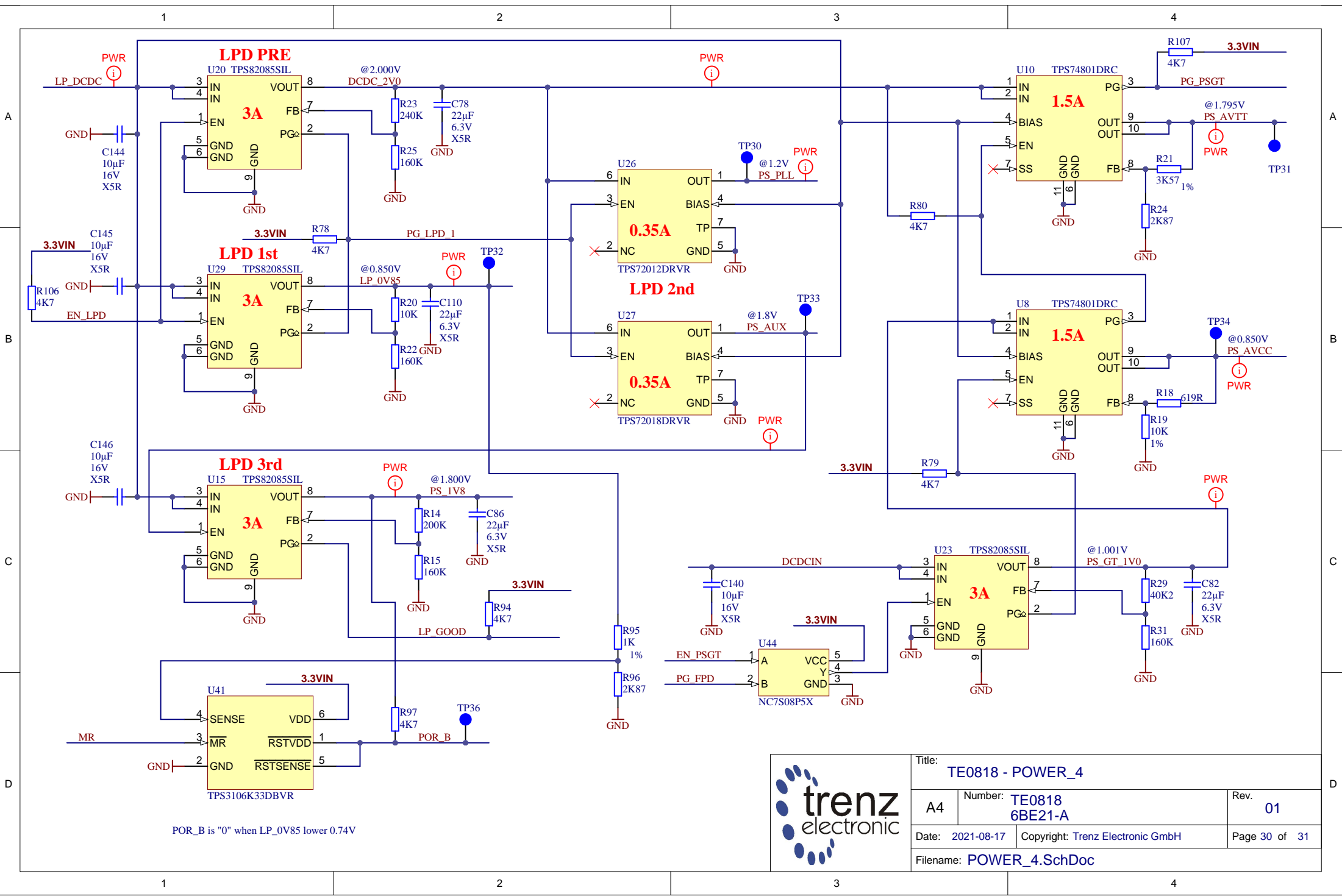
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			A4	Number: TE0818 6BE21-A
Date: 2021-08-17		Copyright: Trenz Electronic GmbH		Page 27 of 31
Filename: POWER.SchDoc				



	Title: TE0818 - POWER_2	
	A4	Number: TE0818 6BE21-A
	Date: 2021-08-17	Copyright: Trenz Electronic GmbH
	Filename: POWER_2.SchDoc	
	Rev. 01	Page 28 of 31



Title: TE0818 - POWER_3		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 29 of 31
Filename: POWER_3.SchDoc		



POR_B is "0" when LP_OV85 lower 0.74V



Title: TE0818 - POWER_4		
A4	Number: TE0818 6BE21-A	Rev. 01
Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 30 of 31
Filename: POWER_4.SchDoc		

1

2

3

4

A

A

B

B


C

C

D

D

REV	DATE	Description	
-01	2021-05	Initial revision	VT

	Title: TE0818 - Changes list		
	A4	Number: TE0818 6BE21-A	Rev. 01
	Date: 2021-08-17	Copyright: Trenz Electronic GmbH	Page 31 of 31
	Filename: Revision_Changes.SchDoc		

1

2

3

4