

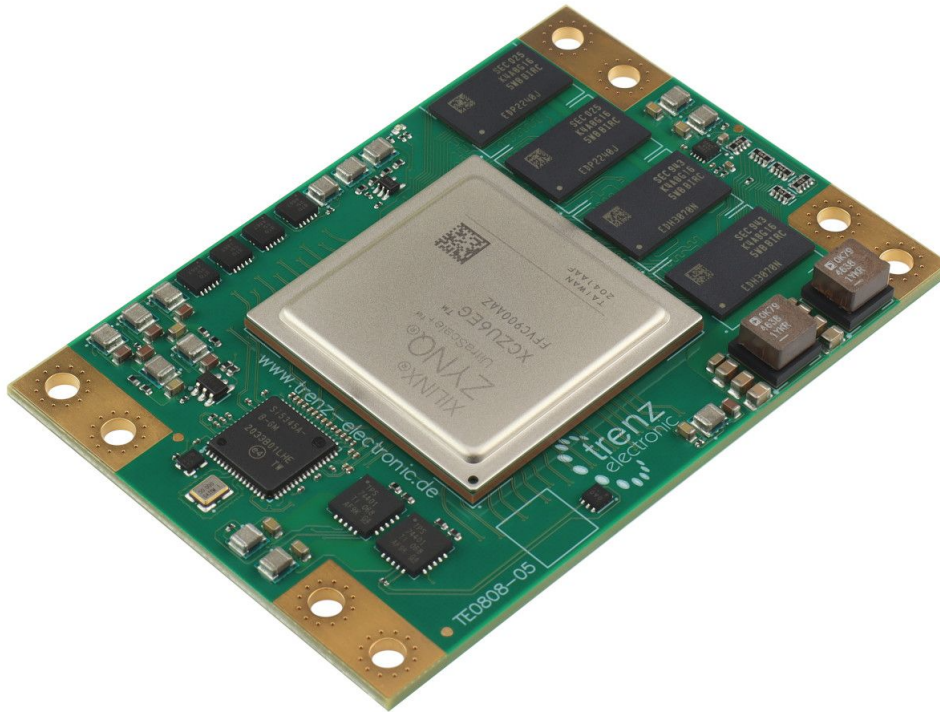


Photo Shows Similar Product

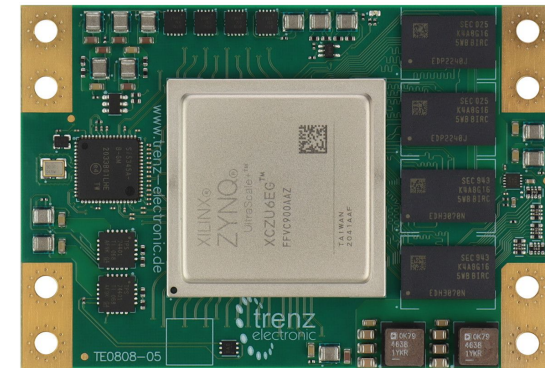


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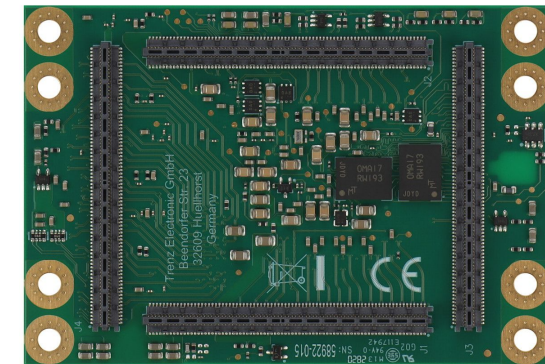


Photo Shows Similar Product

Regarding the usage of our schematics and alike documentation for Trenz module TE0808.

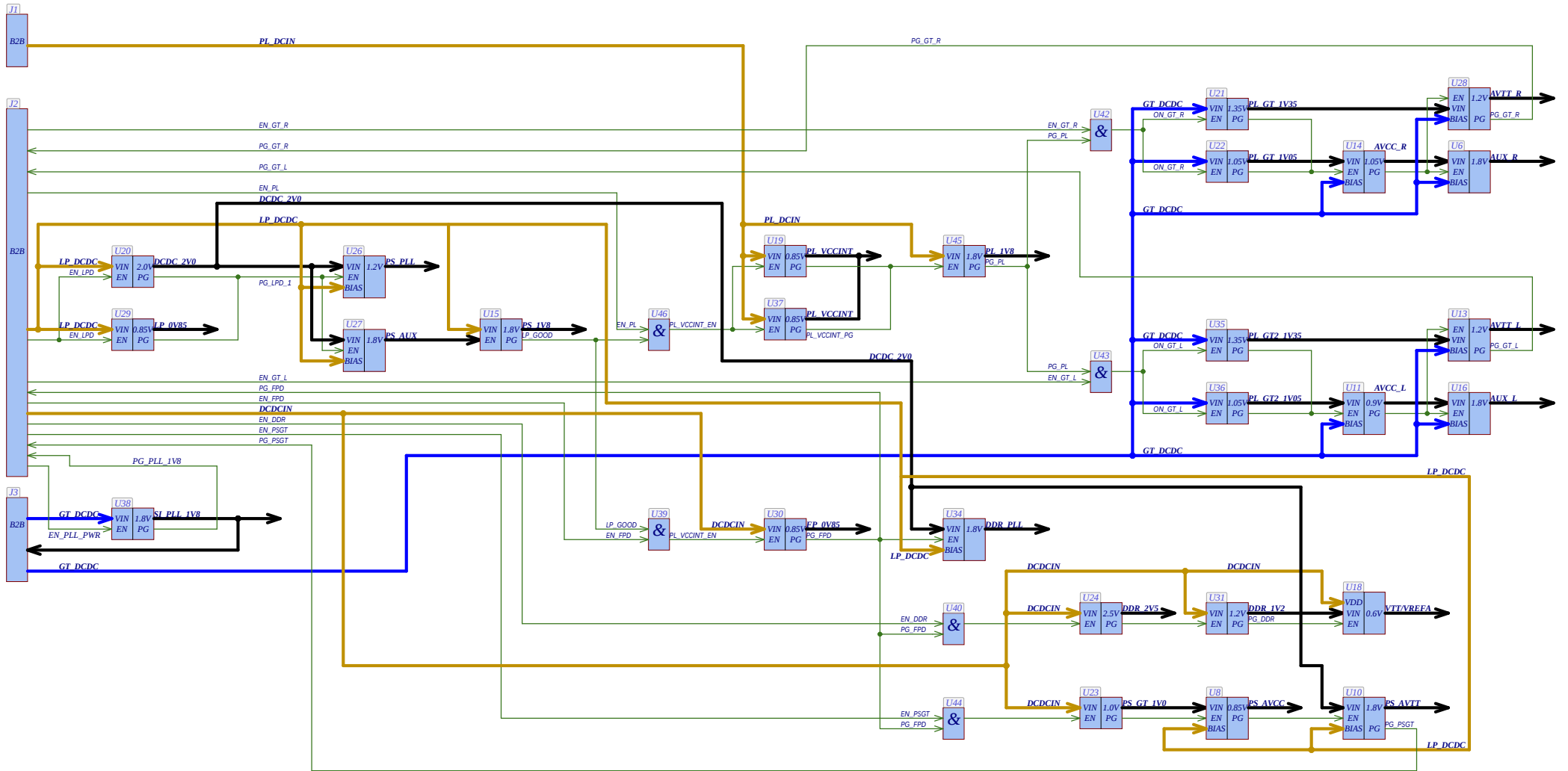
Project is protected under copyright and we strongly and strictly prohibit the reverse engineering or recreation, even if the design is just adapted or modified. TE0808 is protected under such right and in case of plagiarism we will have to do anything necessary in order to protect our assets.

Schematics and other handouts serve for informational purposes only!

	Title: TE0808 - Legal Notices		
	A4	Number: TE0808 BBE51-E	Rev. 06
	Date: 12/4/2025	Copyright: Trenz Electronic GmbH	Page 1 of 32
	Filename: Legal Notices.SchDoc		

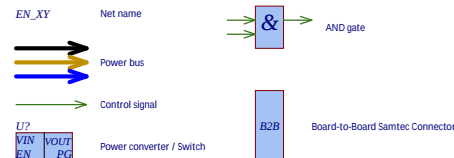
1		2		3		4																				
A	<table><tr><td>REV</td><td>Description</td><td></td></tr><tr><td>-01</td><td>Initial revision</td><td></td></tr><tr><td>-04</td><td>1) Added resistors R65,R82,R86,R87 (240R) for each DDR4-chip for supporting DDP DDR4 chips 2) Full library update</td><td></td></tr><tr><td>-04a</td><td>1) R19 value was changed to 10K (was: 4K99) to set PS_MGTRAVCC 0.85V</td><td>VY</td></tr></table>						REV	Description		-01	Initial revision		-04	1) Added resistors R65,R82,R86,R87 (240R) for each DDR4-chip for supporting DDP DDR4 chips 2) Full library update		-04a	1) R19 value was changed to 10K (was: 4K99) to set PS_MGTRAVCC 0.85V	VY	A							
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		Date: 2/26/2026	Copyright: Trenz Electronic GmbH		Page 2 of 32																					
		Filename: Revision_Changes.SchDoc																								
1		2		3		4																				

Power-on sequencing:

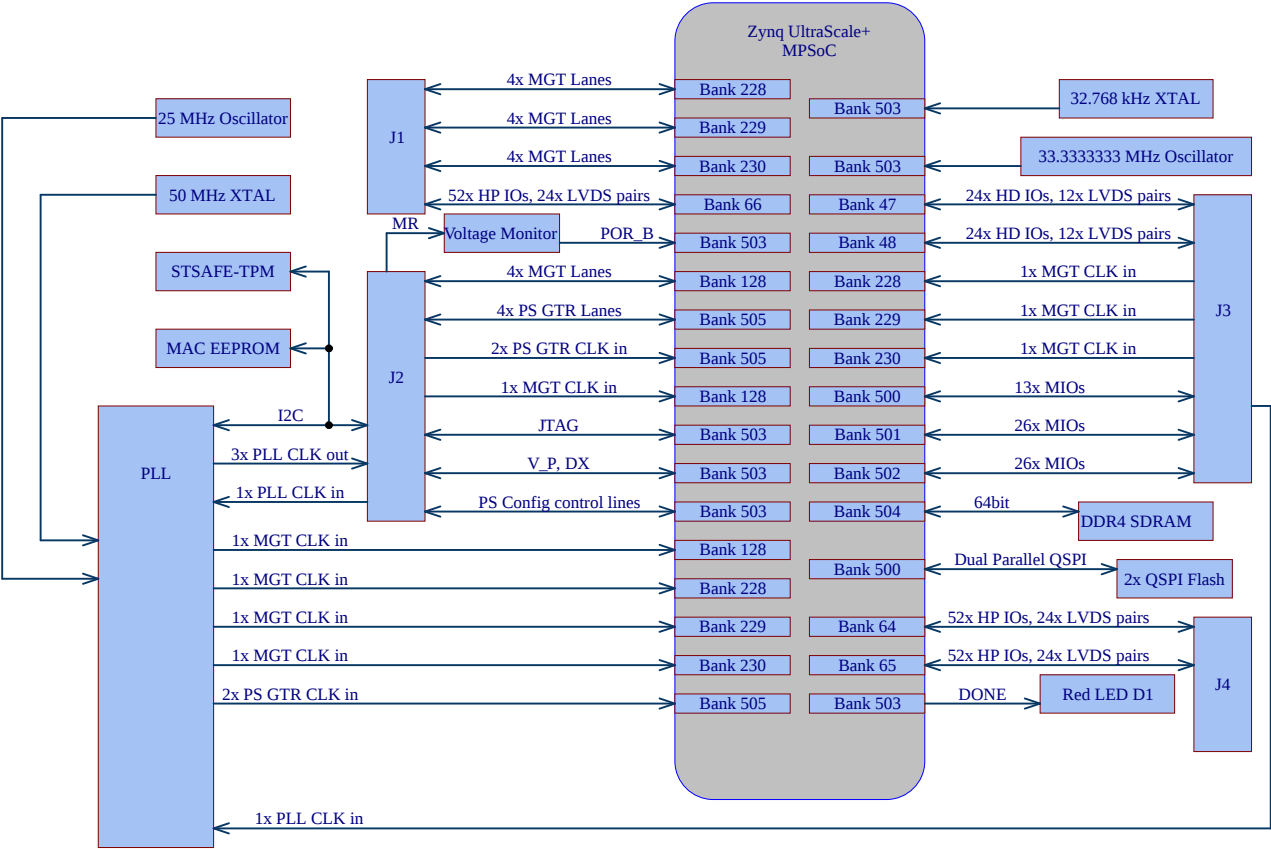


Supported Voltage Ranges:

Power Rail	Direction	Range	Description	Note
PL DCIN	IN	2.5V-5.5V	Micromodule Power	-
DCDCIN	IN	3.1V-5.5V	Micromodule Power	-
LP DCDC	IN	3.1V-3.6V	Micromodule Power	-
GT DCDC	IN	3.1V-5.5V	Micromodule Power	-
PLL 3V3	IN	3.14V-3.47V	PLL Power	-
PSBATT	IN	1.2 - 1.5V	SoC Vbatt	-
VCCO_65	IN	0.95 - 1.9V	IO HP Bank65 Power	-
VCCO_64	IN	0.95 - 1.9V	IO HP Bank64 Power	-
VCCO_66	IN	0.95 - 1.9V	IO HP Bank66 Power	-
VCCO_47	IN	1.14 - 3.4V	IO HP Bank47 Power	-
VCCO_48	IN	1.14 - 3.4V	IO HP Bank48 Power	-

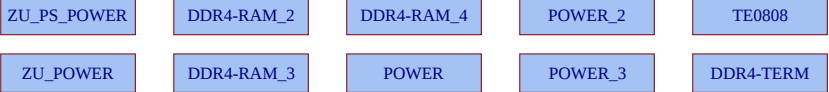


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A3	Number: TE0808 BBE51-E	Rev. 06
Datum: 12/30/2025	Copyright: Trenz Electronic GmbH	Page 3 of 32
Filename: Power_Diagramm.SchDoc		



I2C Address Table

U4	EEPROM	0x50
U5	PLL	0x69
U47	TPM	0x2E





Title:TE0808 - System Overview

A4

Number:TE0808
BBE51-E

Rev.06

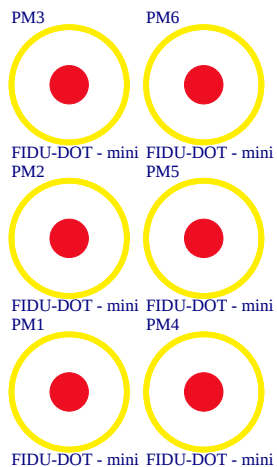
Date:1/6/2026

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Page 4 of 32

Filename: System_Overview.SchDoc

Special notes:



~~Serial1~~
Serialnumber 6,3 x 6.3mm

Serial2
Serial
Serialnumber 6,3 x 6.3mm
AD only

UKCA1

UKCA Logo on Top Overlay

UKCA-TOPOVERLAY

Design drawn by: MT
Checked by: VY
Assembly variant: BBE51-E
Created by: MT
Modified by: MT
Modified at: 2025-12-18



Title:
TE0808

A4

Number: TE0808
BBE51-E

Rev.
06

Date: 2/2/2026

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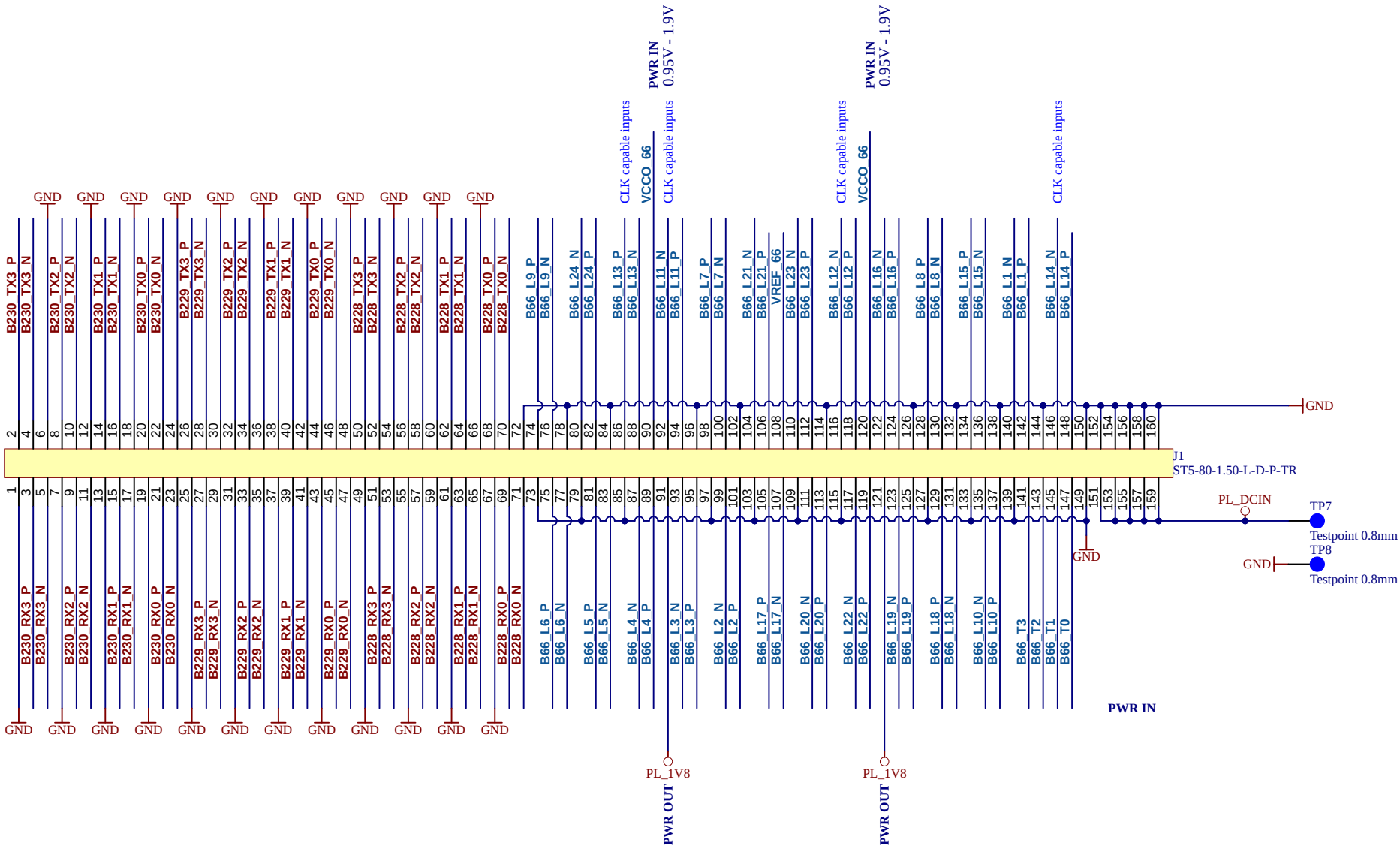
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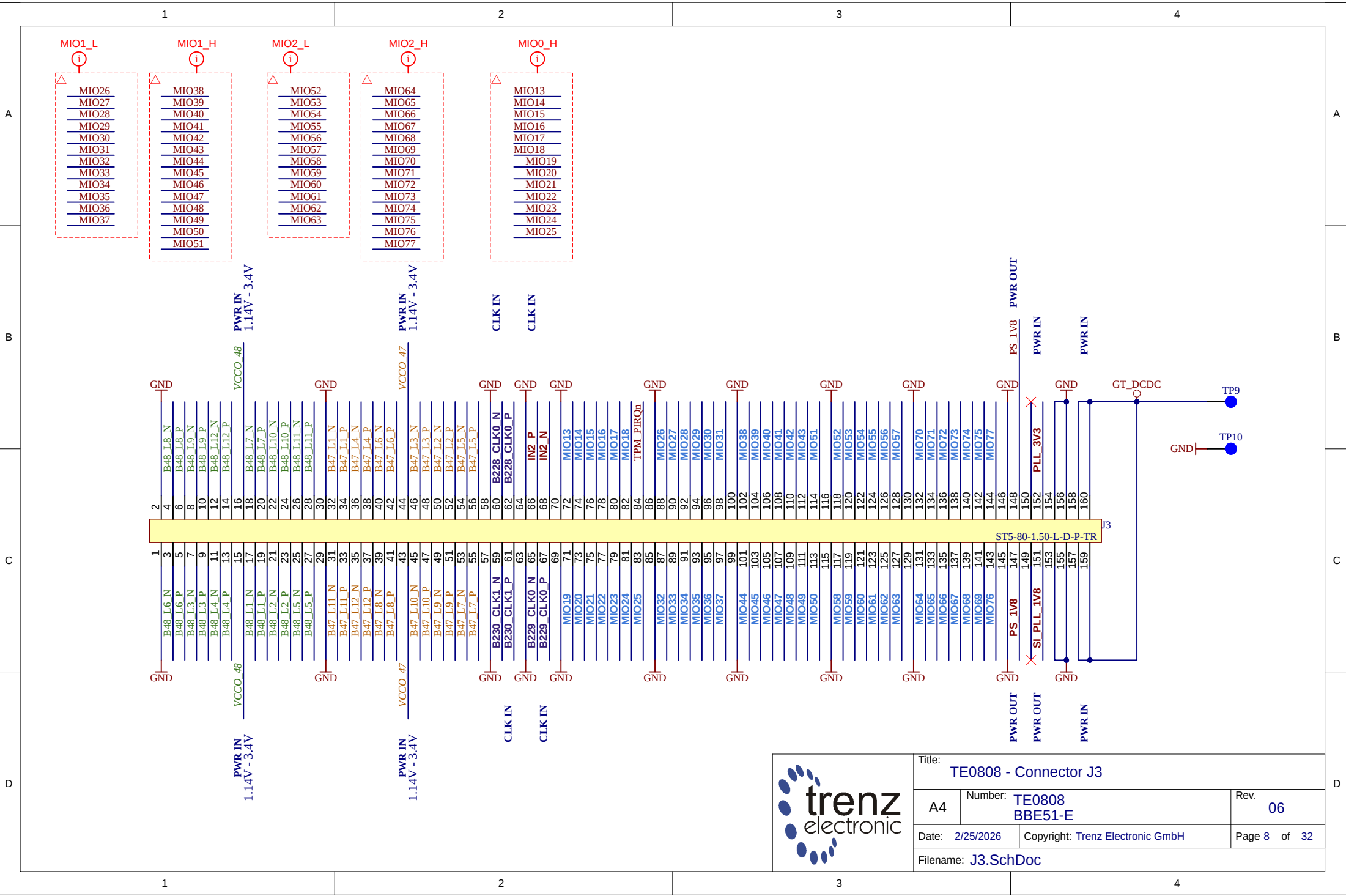
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Date: 2/25/2026	Copyright: Trenz Electronic GmbH	Page 6 of 32
Filename: J1.SchDoc		

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Title: TE0808 - Connector J3		
A4	Number: TE0808 BBE51-E	Rev. 06
Date: 2/25/2026	Copyright: Trenz Electronic GmbH	Page 8 of 32
Filename: J3.SchDoc		

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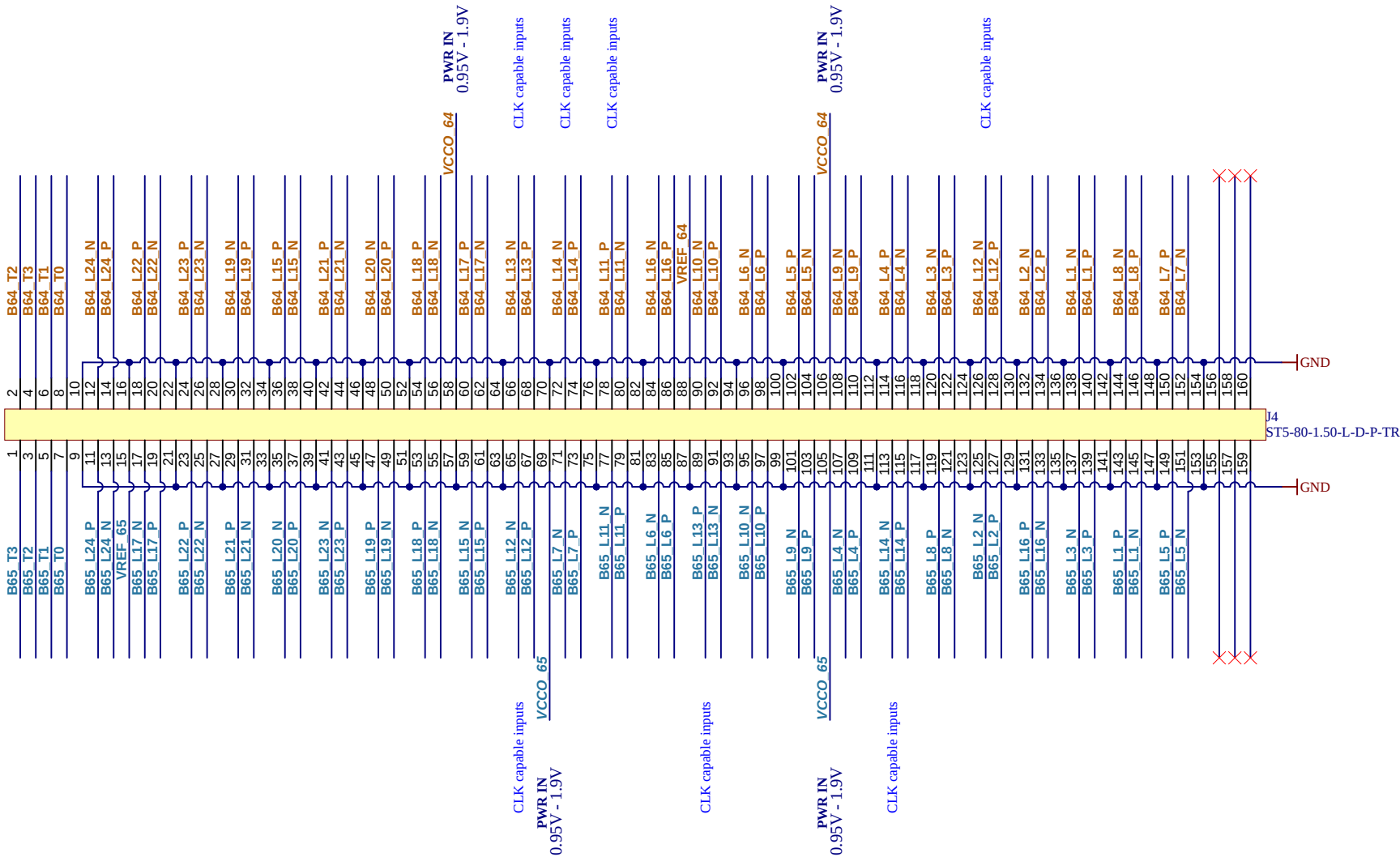
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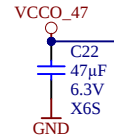
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1.14V - 3.4V



PWR

B47

U1B

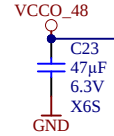
BANK 47 HD

B47_L1_P	B15
B47_L1_N	A15
B47_L2_P	B14
B47_L2_N	A14
B47_L3_P	B13
B47_L3_N	A13
B47_L4_P	C14
B47_L4_N	C13
B47_L5_P	D15
B47_L5_N	D14
B47_L6_P	E14
B47_L6_N	E13

VCCO_47	IO_L1P_AD11P_47	IO_L7P_HDGC_AD5P_47
VCCO_47	IO_L1N_AD11N_47	IO_L7N_HDGC_AD5N_47
	IO_L2P_AD10P_47	IO_L8P_HDGC_AD4P_47
	IO_L2N_AD10N_47	IO_L8N_HDGC_AD4N_47
	IO_L3P_AD9P_47	IO_L9P_AD3P_47
	IO_L3N_AD9N_47	IO_L9N_AD3N_47
	IO_L4P_AD8P_47	IO_L10P_AD2P_47
	IO_L4N_AD8N_47	IO_L10N_AD2N_47
	IO_L5P_HDGC_AD7P_47	IO_L11P_AD1P_47
	IO_L5N_HDGC_AD7N_47	IO_L11N_AD1N_47
	IO_L6P_HDGC_AD6P_47	IO_L12P_AD0P_47
	IO_L6N_HDGC_AD6N_47	IO_L12N_AD0N_47

F15	B47_L7_P
E15	B47_L7_N
G13	B47_L8_P
F13	B47_L8_N
G15	B47_L9_P
G14	B47_L9_N
K15	B47_L10_P
J15	B47_L10_N
K14	B47_L11_P
J14	B47_L11_N
H14	B47_L12_P
H13	B47_L12_N

1.14V - 3.4V



PWR

B48

BANK 48 HD

B48_L1_P	C12
B48_L1_N	B11
B48_L2_P	A12
B48_L2_N	A11
B48_L3_P	B10
B48_L3_N	A10
B48_L4_P	D11
B48_L4_N	C11
B48_L5_P	E12
B48_L5_N	D12
B48_L6_P	E10
B48_L6_N	D10

VCCO_48	IO_L1P_AD15P_48	IO_L7P_HDGC_48
VCCO_48	IO_L1N_AD15N_48	IO_L7N_HDGC_48
	IO_L2P_AD14P_48	IO_L8P_HDGC_48
	IO_L2N_AD14N_48	IO_L8N_HDGC_48
	IO_L3P_AD13P_48	IO_L9P_AD11P_48
	IO_L3N_AD13N_48	IO_L9N_AD11N_48
	IO_L4P_AD12P_48	IO_L10P_AD10P_48
	IO_L4N_AD12N_48	IO_L10N_AD10N_48
	IO_L5P_HDGC_48	IO_L11P_AD9P_48
	IO_L5N_HDGC_48	IO_L11N_AD9N_48
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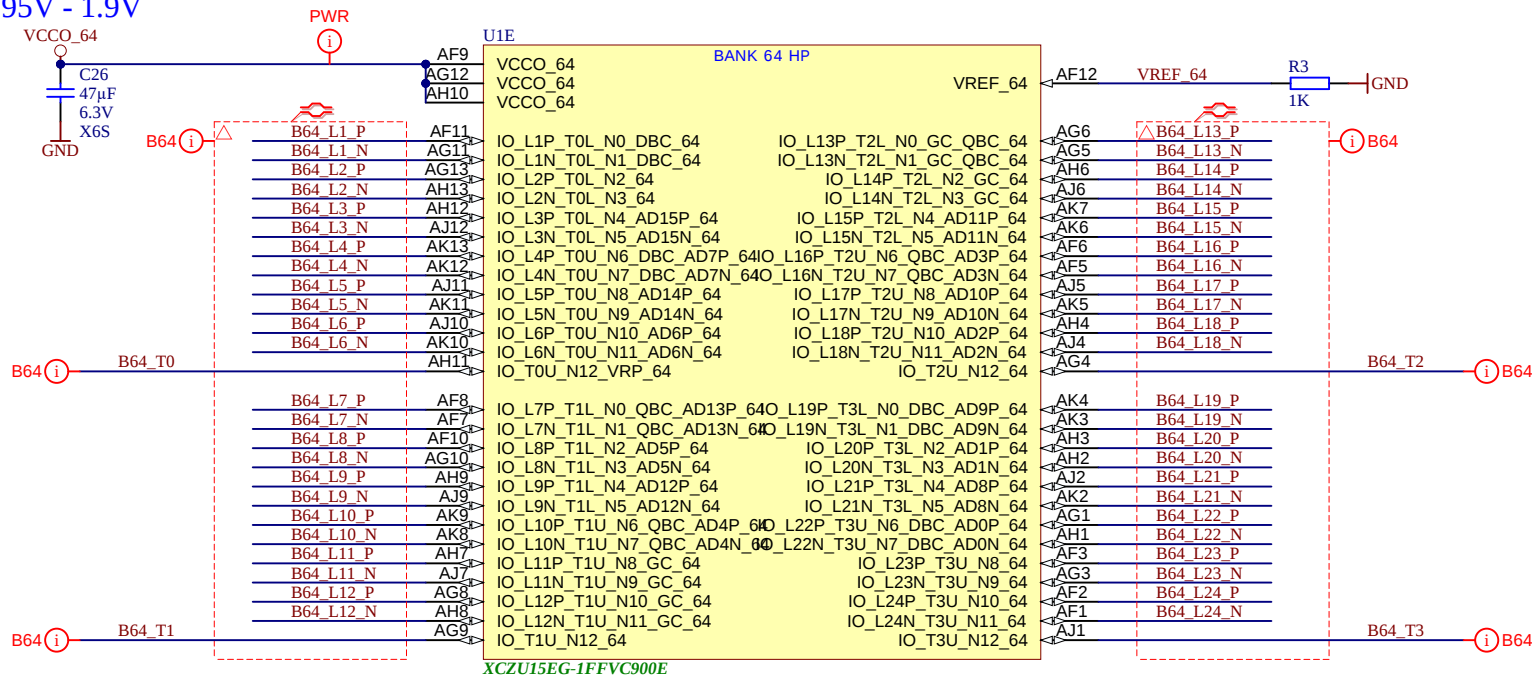
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G10	B48_L8_P
F10	B48_L8_N
K13	B48_L9_P
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H12	B48_L10_P
G11	B48_L10_N
J12	B48_L11_P
H11	B48_L11_N
J11	B48_L12_P
J10	B48_L12_N

XCZU15EG-1FFVC900E



Title: TE0808 - B47HD and B48HD		
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Date: 8/15/2025	Copyright: Trenz Electronic GmbH	Page 10 of 32
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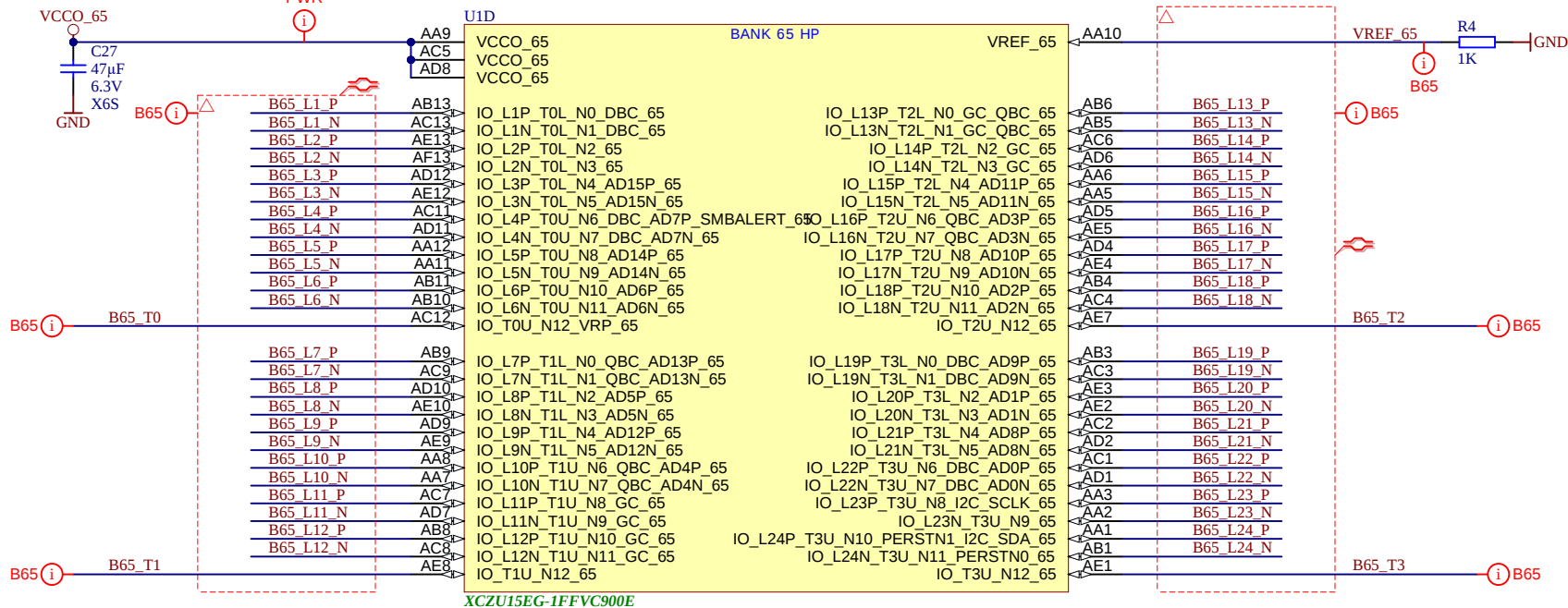
0.95V - 1.9V





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Date: 8/15/2025	Copyright: Trenz Electronic GmbH	Page 12 of 32
Filename: B64.SchDoc		

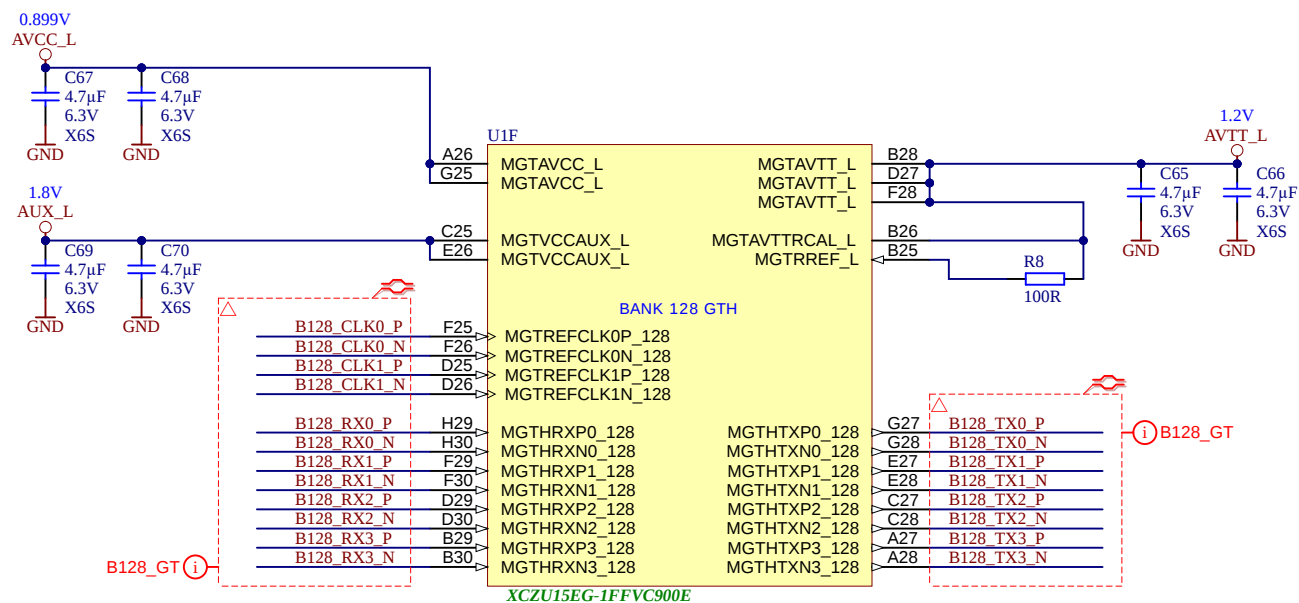
0.95V - 1.9V



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Filename: B65.SchDoc		



Filename: B GT.SchDoc



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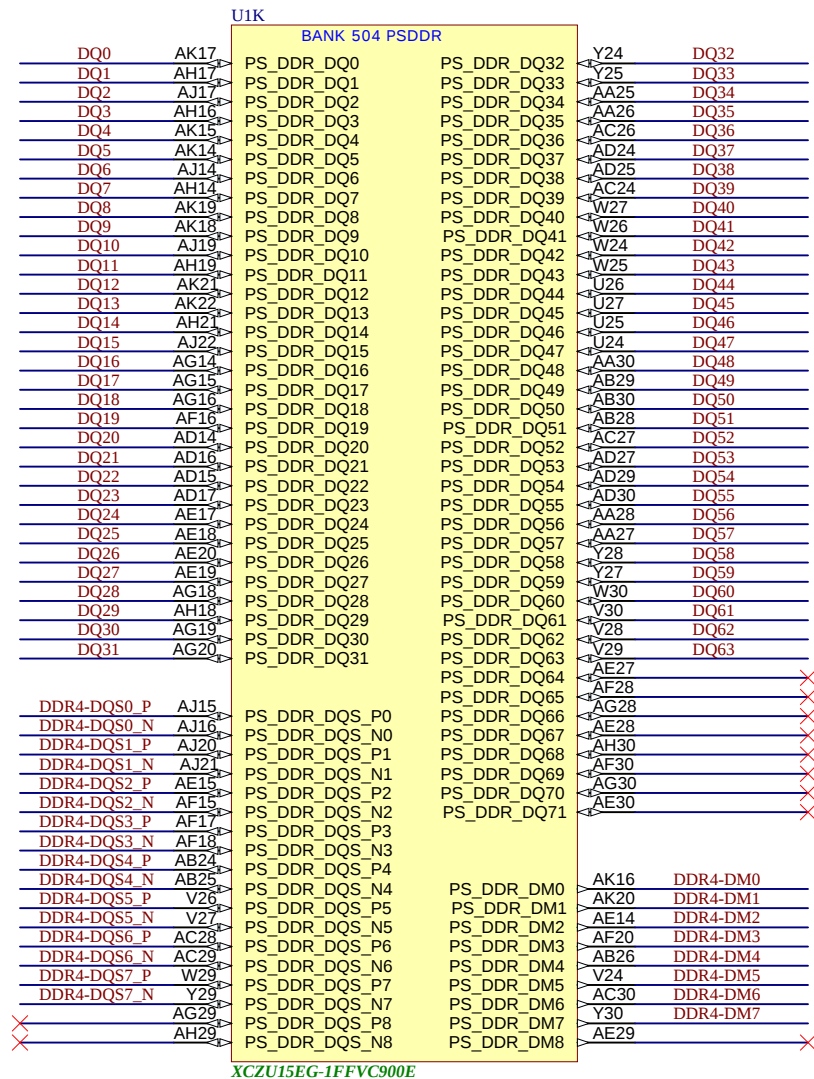
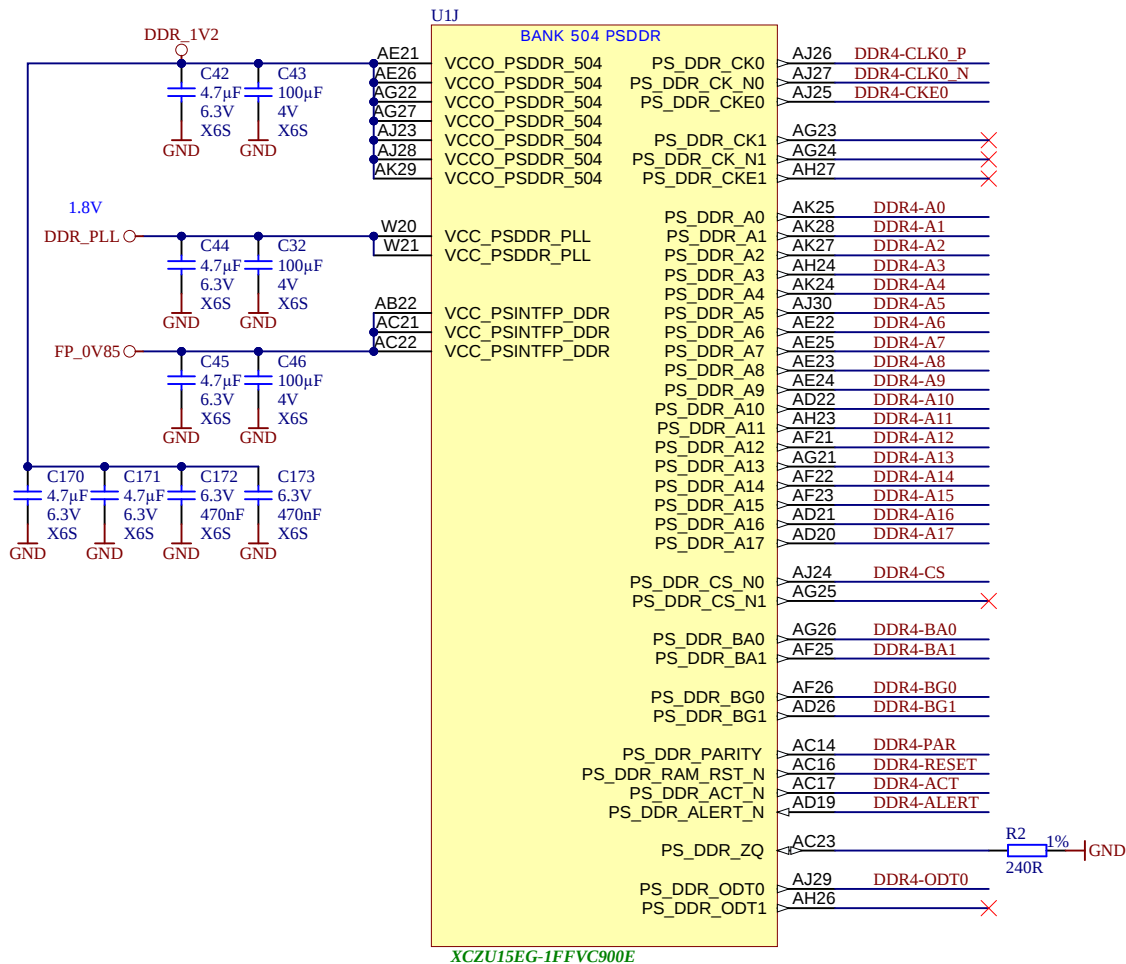
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Title: TE0808 - PS_DDR			
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Filename: PS_DDR.SchDoc			

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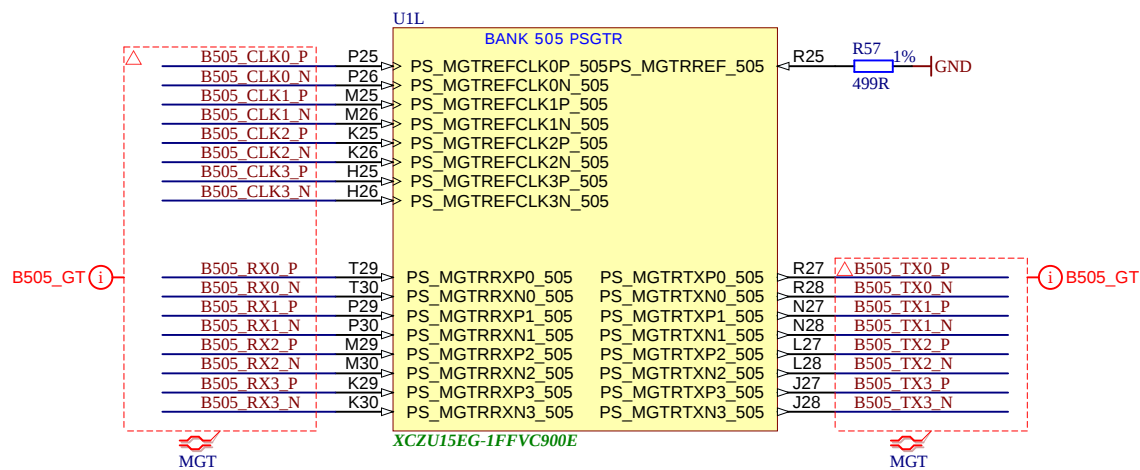
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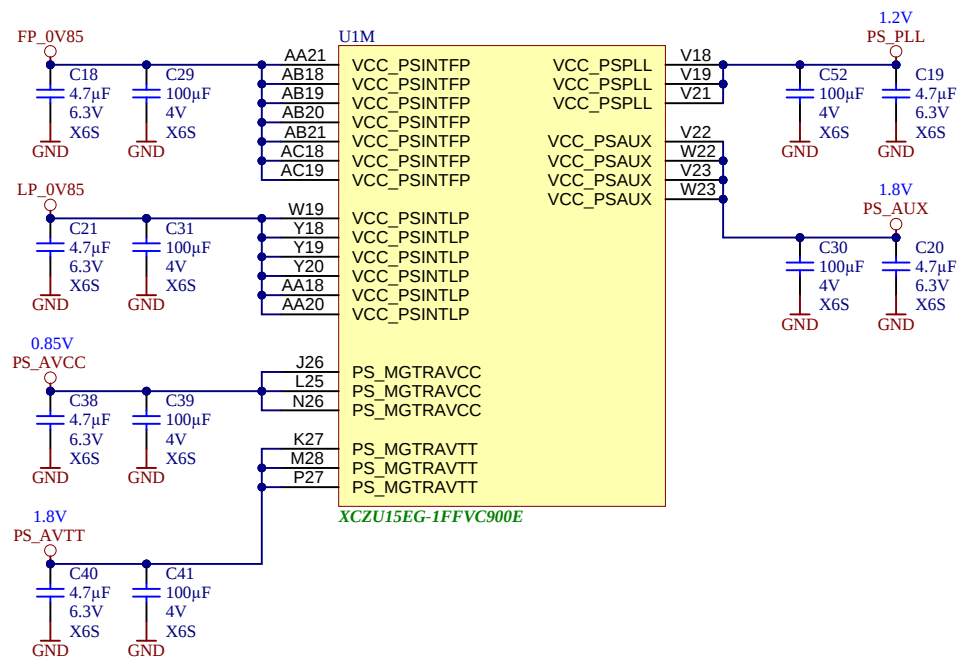
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	Title: TE0808 - ZU_PS_POWER	
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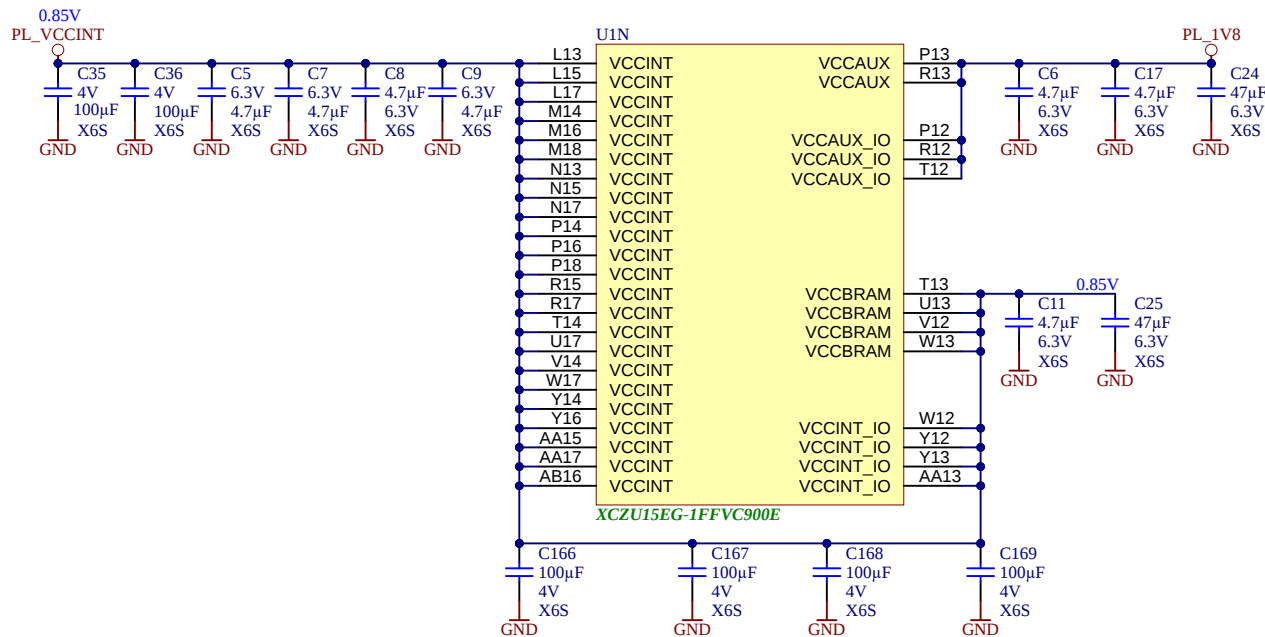
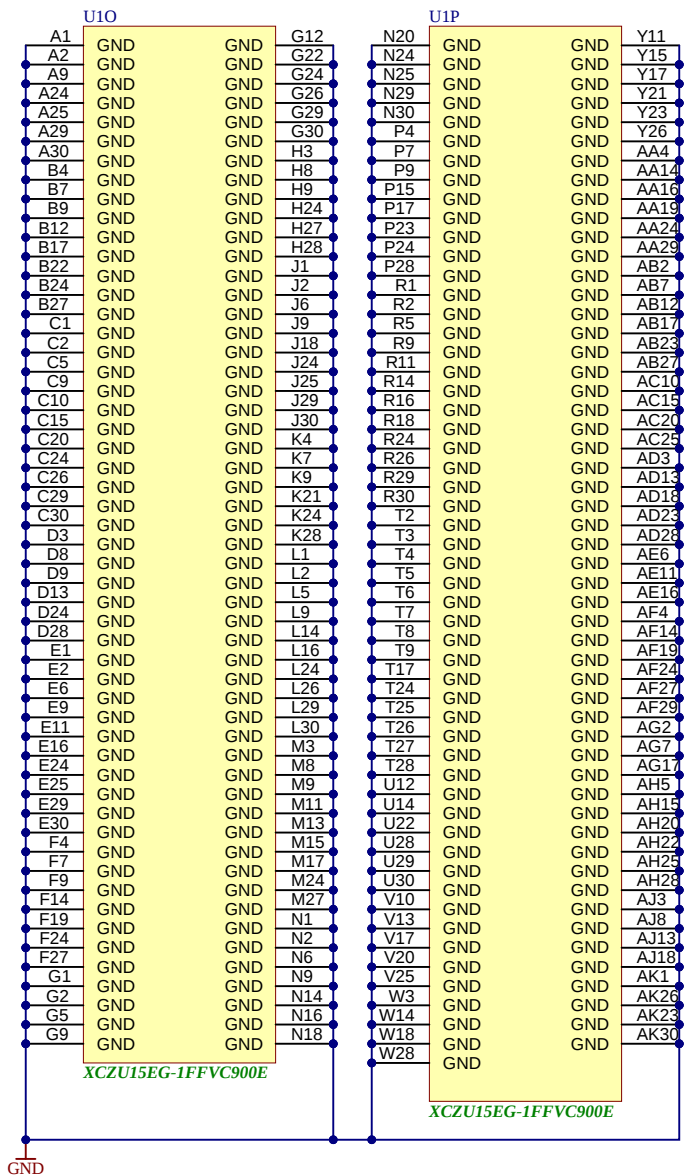
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Title: TE0808 - ZU_POWER		
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Date: 12/3/2025	Copyright: Trenz Electronic GmbH	Page 21 of 32
Filename: ZU_POWER.SchDoc		

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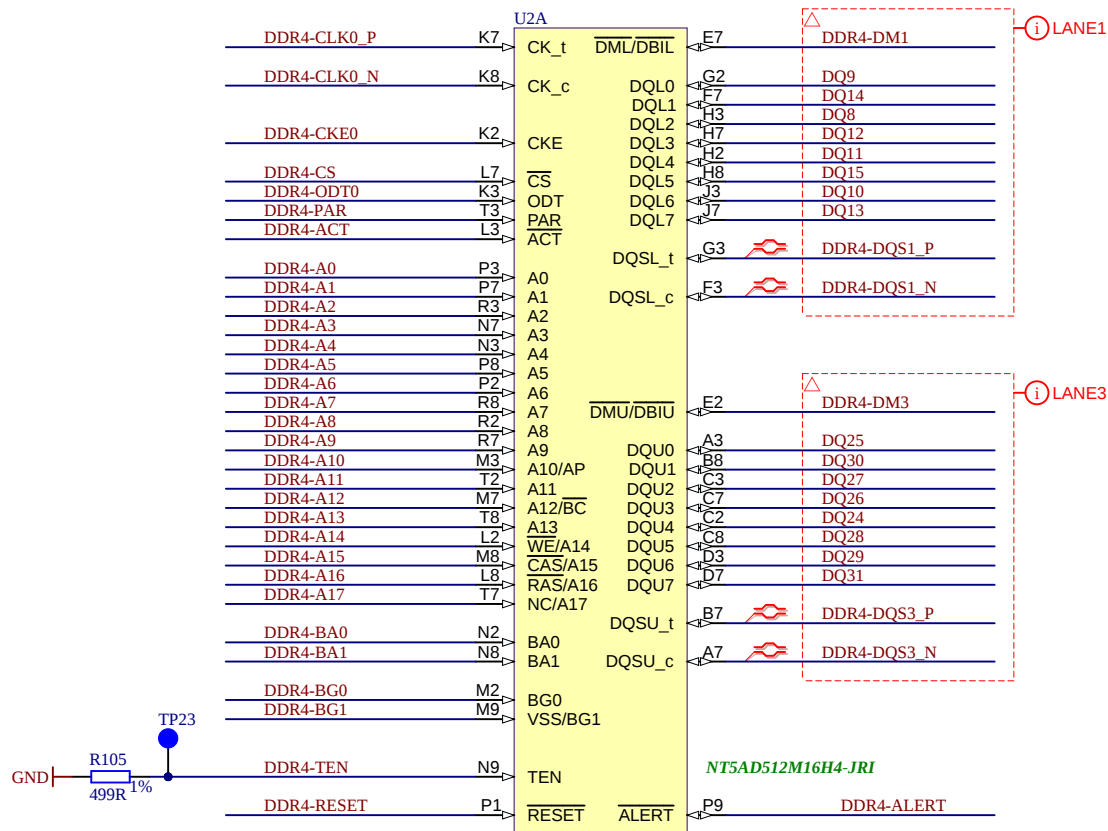
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NT5AD512M16H4-JRI



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A4	Number: TE0808 BBE51-E	Rev. 06
Date: 12/3/2025	Copyright: Trenz Electronic GmbH	Page 22 of 32
Filename: DDR4-RAM.SchDoc		

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Title: TE0808 - DDR4_3_RAM		
A4	Number: TE0808 BBE51-E	Rev. 06
Date: 12/3/2025	Copyright: Trenz Electronic GmbH	Page 24 of 32
Filename: DDR4-RAM 3.SchDoc		

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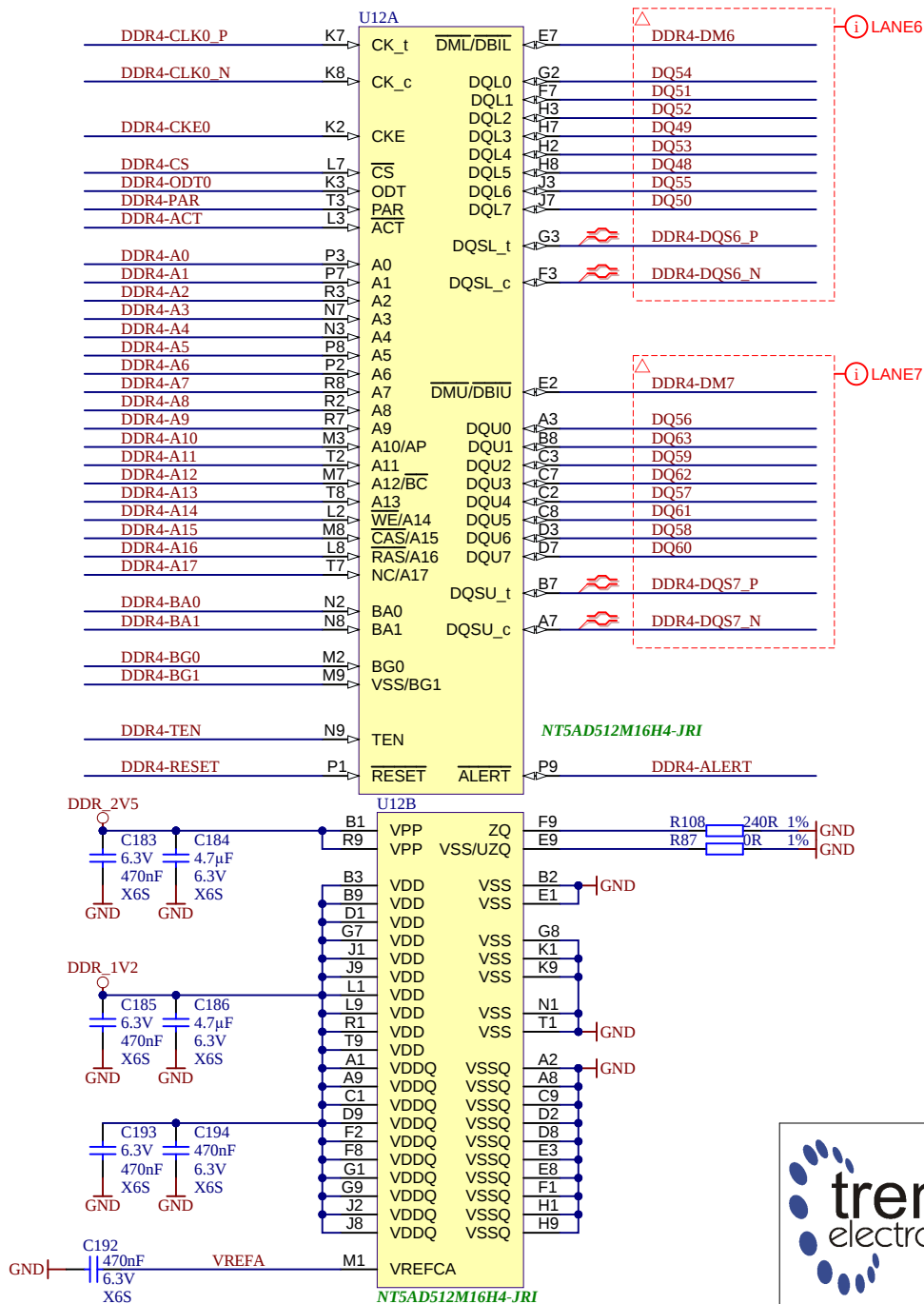
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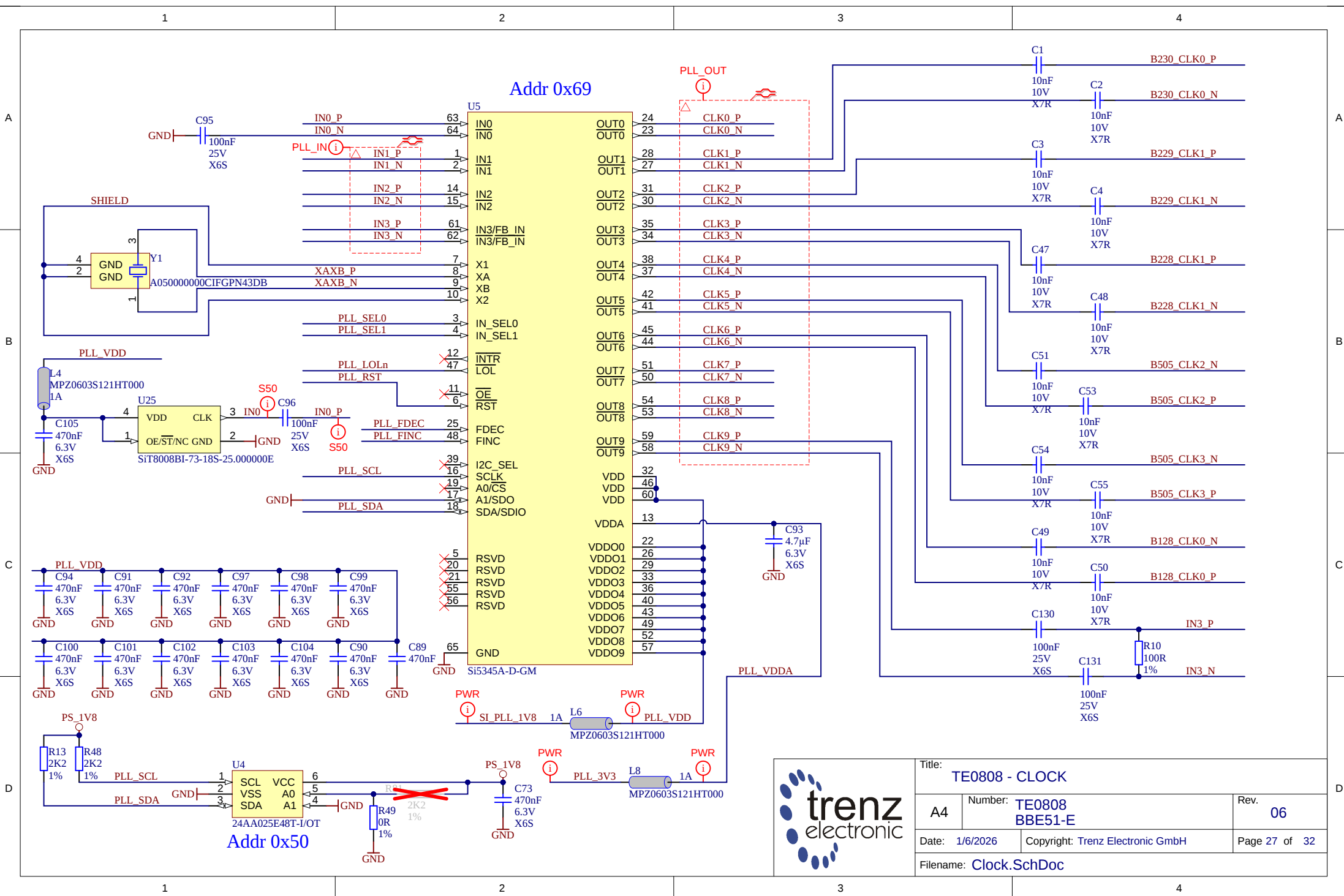
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A4	Number: TE0808 BBE51-E	Rev. 06
Date: 12/3/2025	Copyright: Trenz Electronic GmbH	Page 25 of 32
Filename: DDR4-RAM_4.SchDoc		

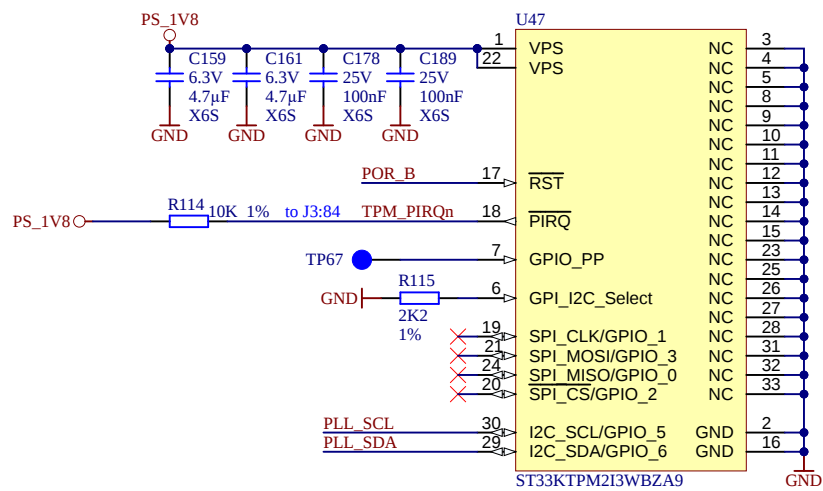
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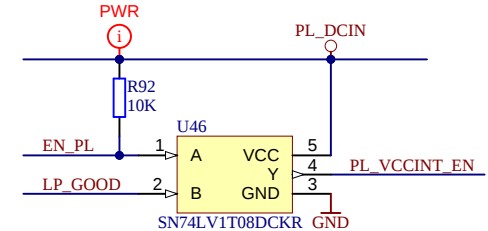
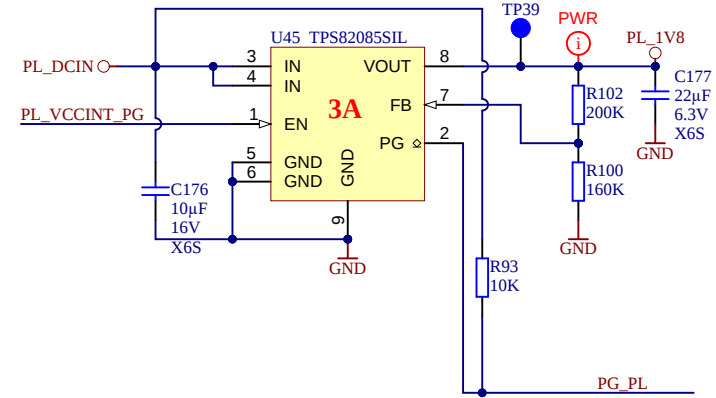
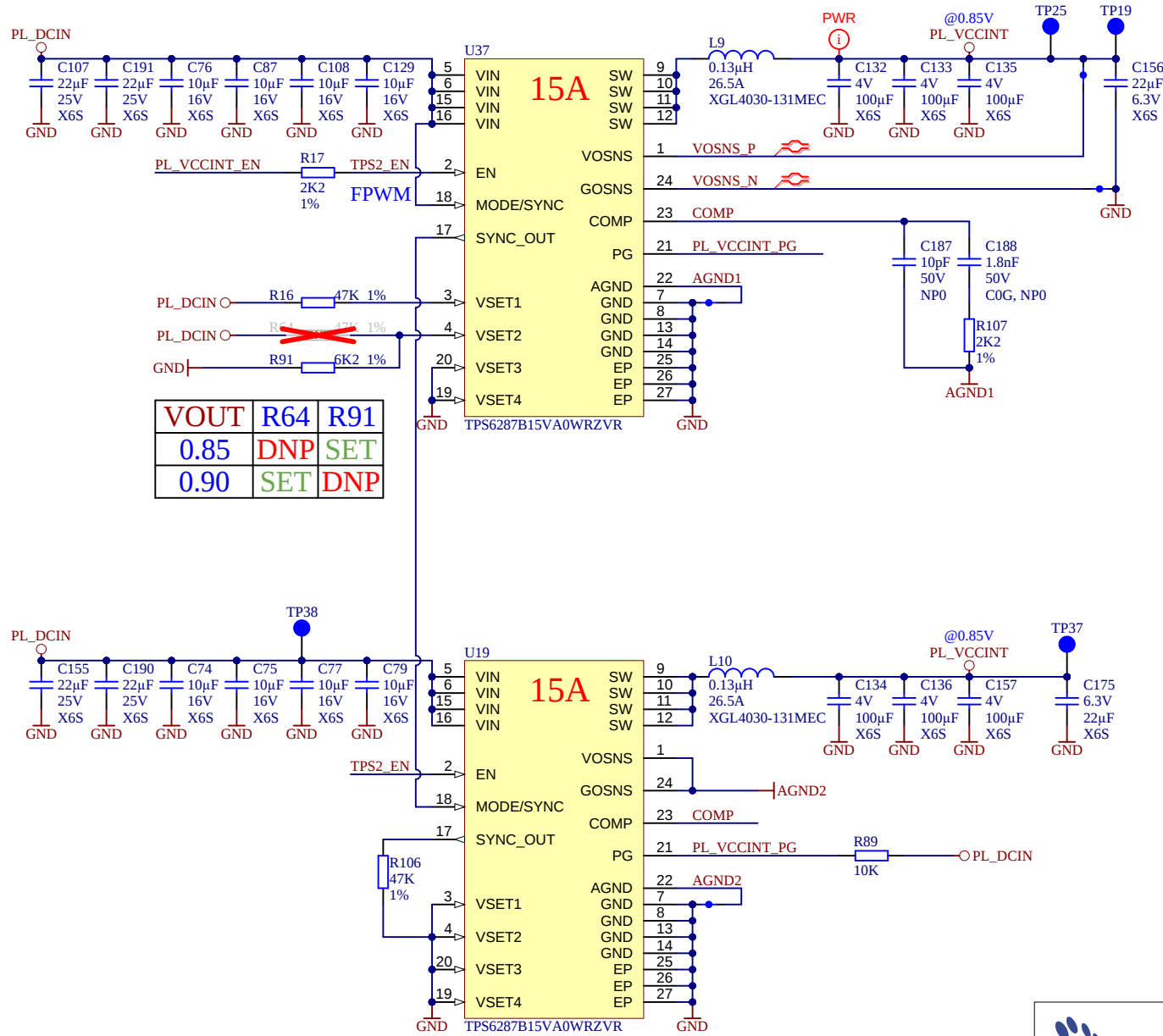
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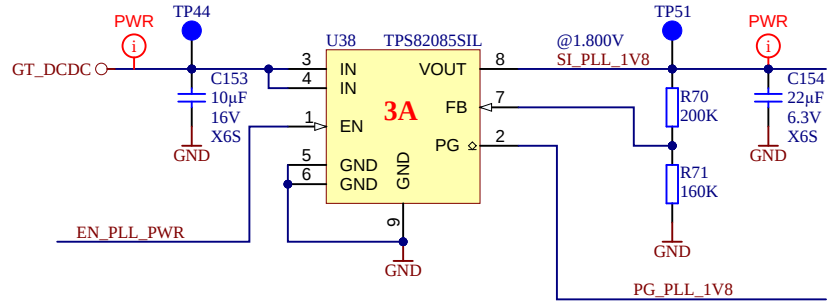
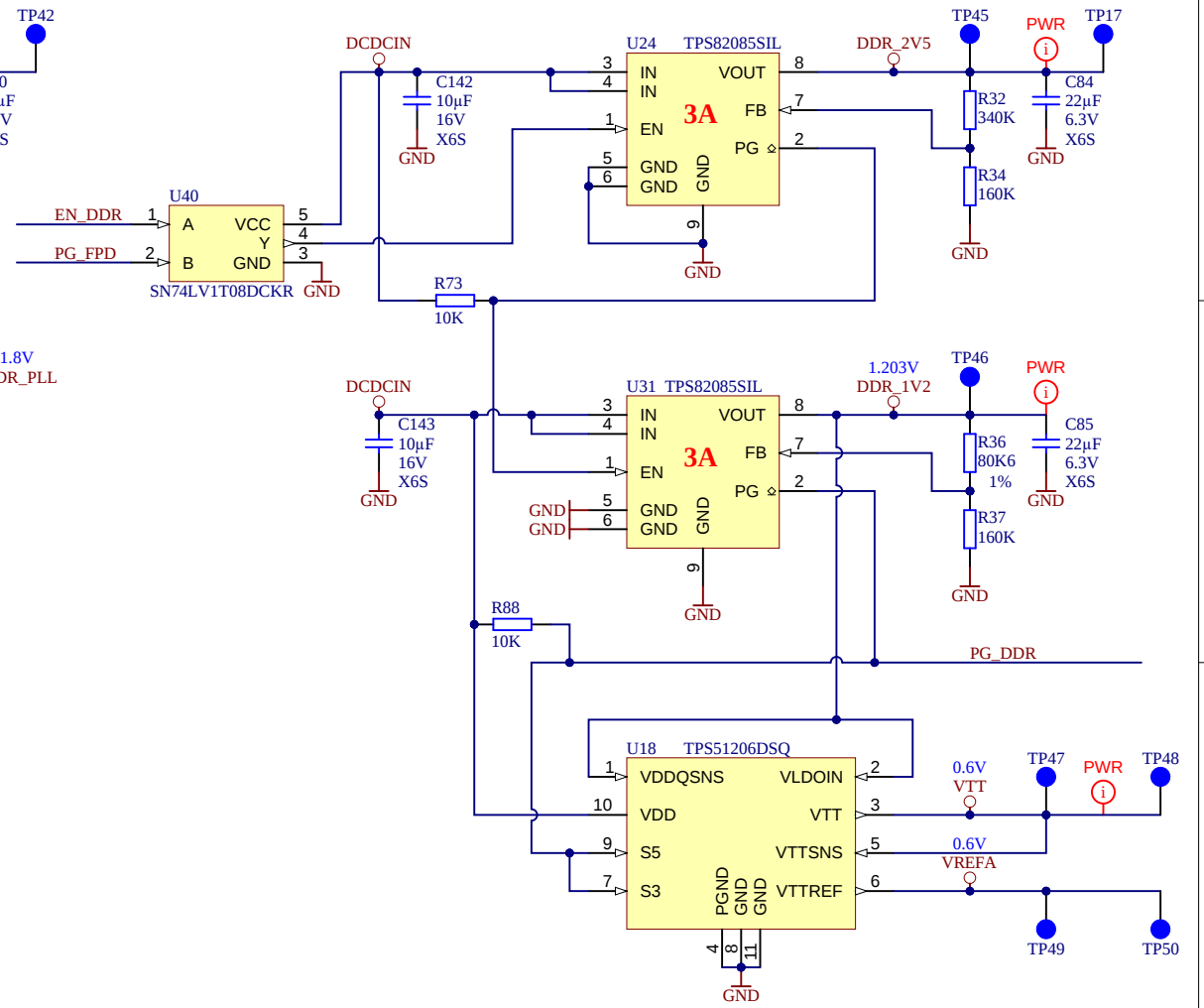
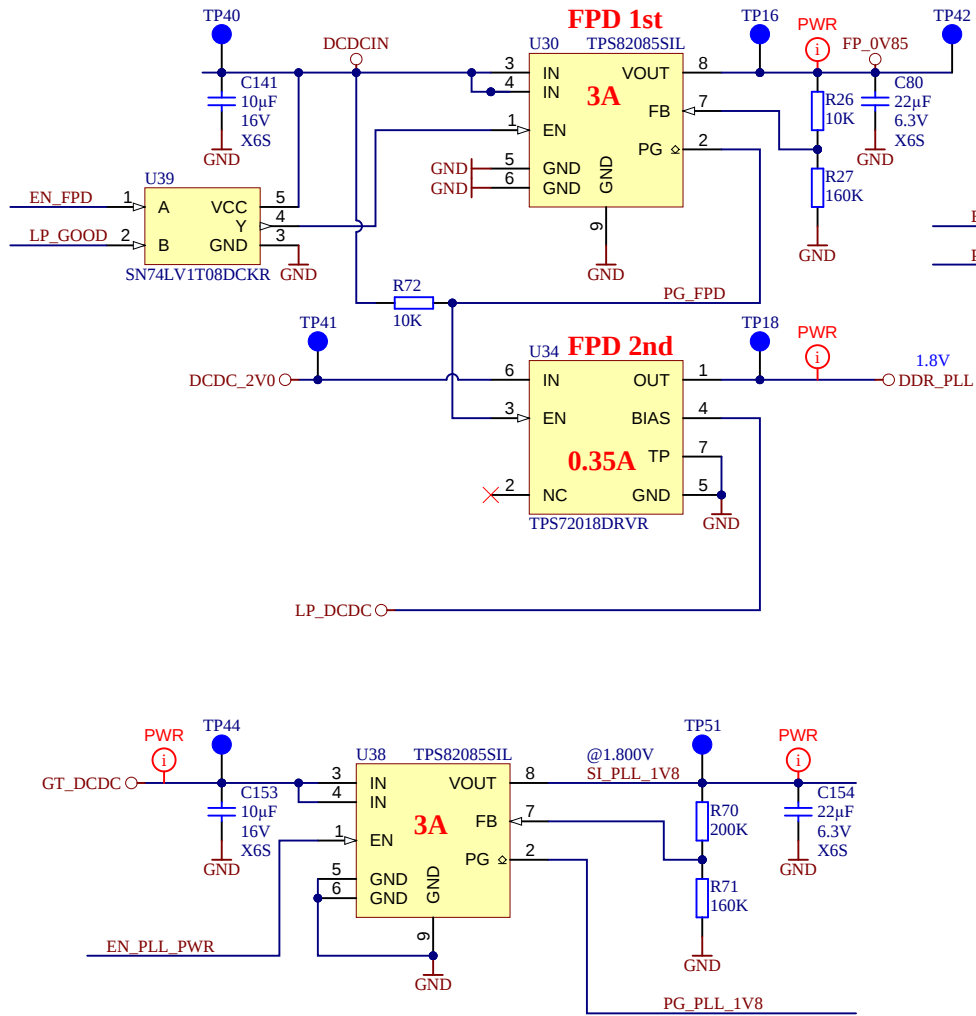


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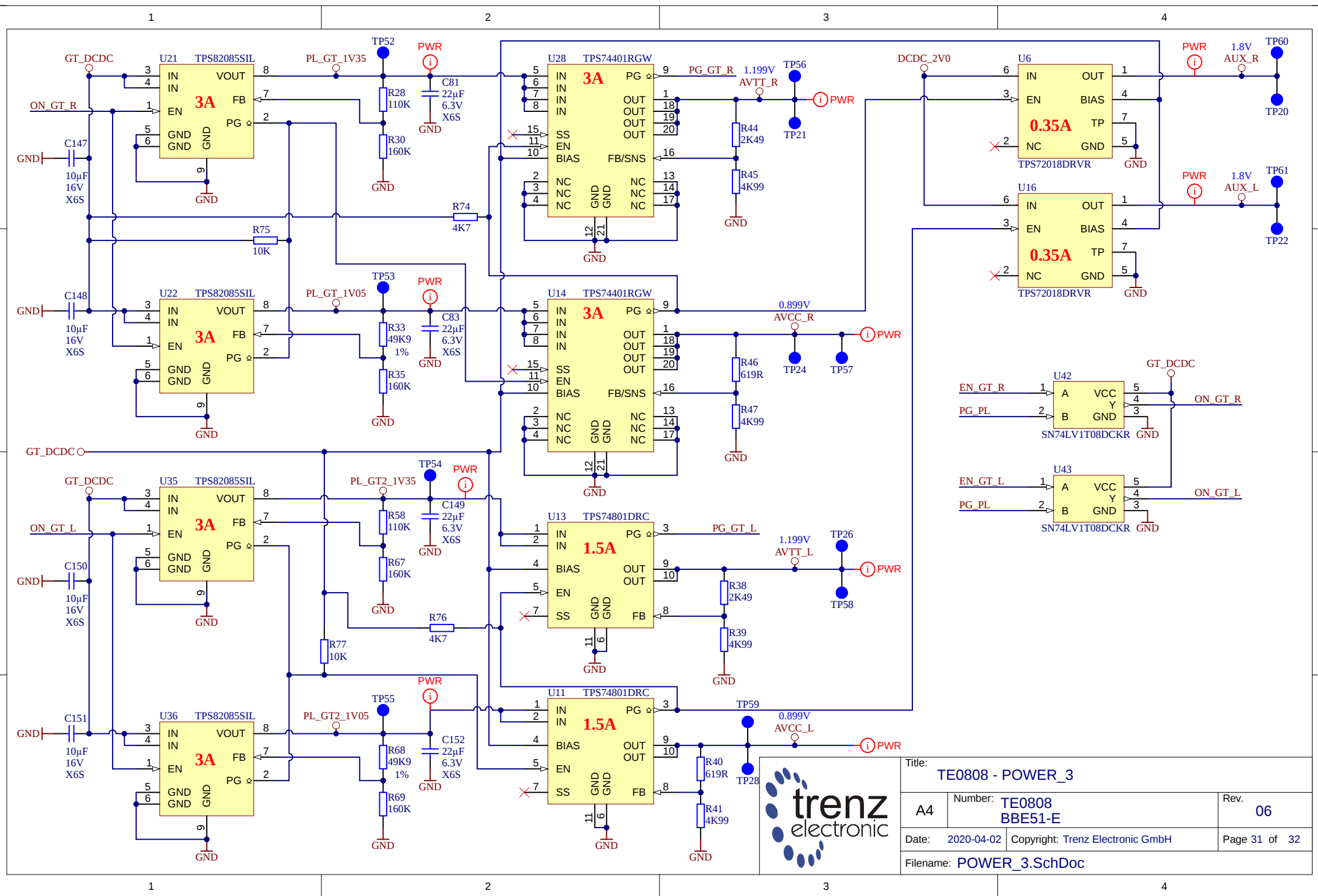
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		A4 Number: TE0808 BBE51-E	Rev. 06
Date: 1/6/2026		Copyright: Trenz Electronic GmbH	
Filename: TPM.SchDoc		Page 28 of 32	



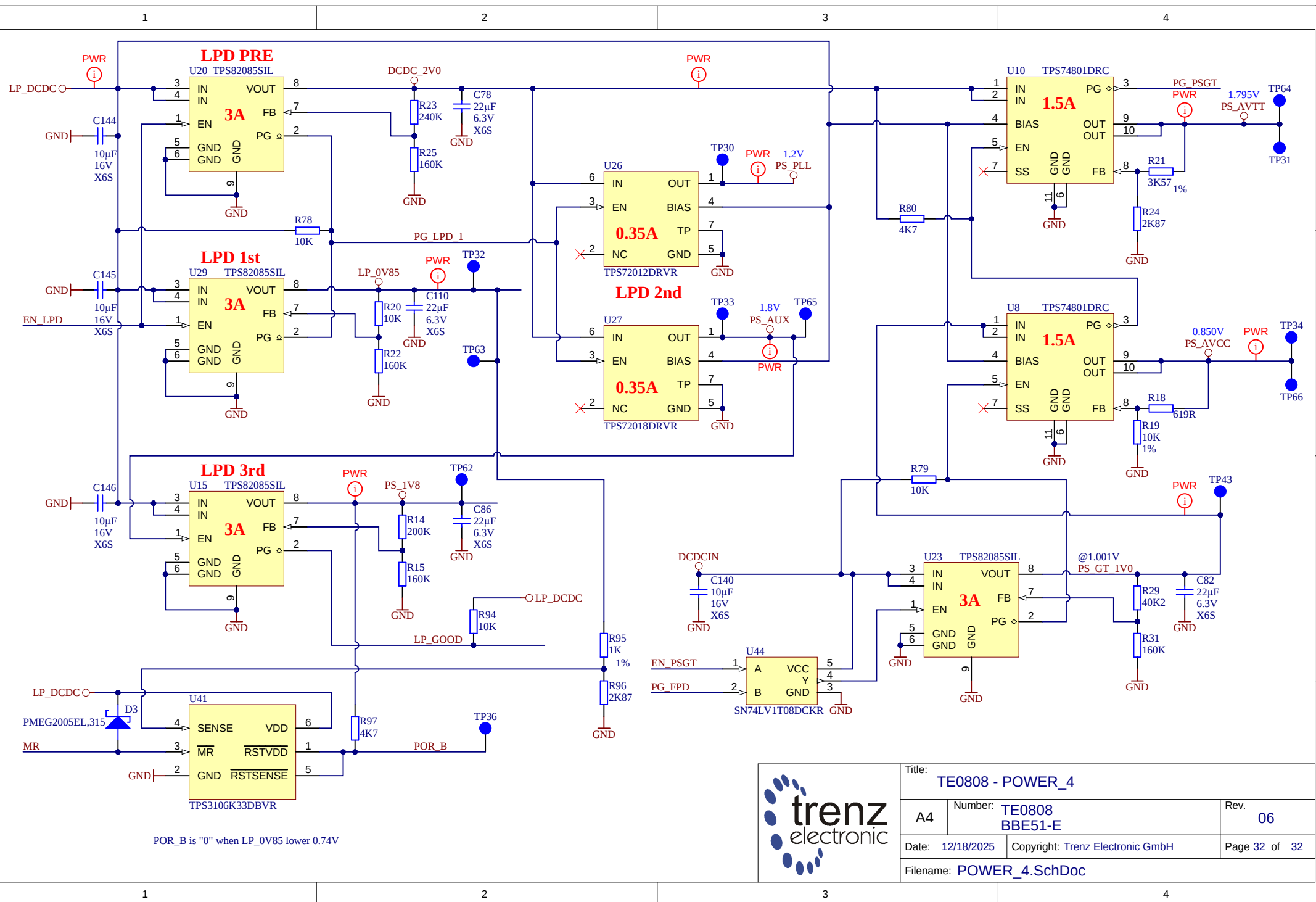
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A4	Number: TE0808 BBE51-E	Rev. 06
Date: 1/7/2026	Copyright: Trenz Electronic GmbH	Page 29 of 32
Filename: POWER.SchDoc		



Title: TE0808 - POWER_2		
A4	Number: TE0808 BBE51-E	Rev. 06
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Title: TE0808 - POWER_3		
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POR_B is "0" when LP_0V85 lower 0.74V



Title: TE0808 - POWER_4			
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Filename: POWER_4.SchDoc			