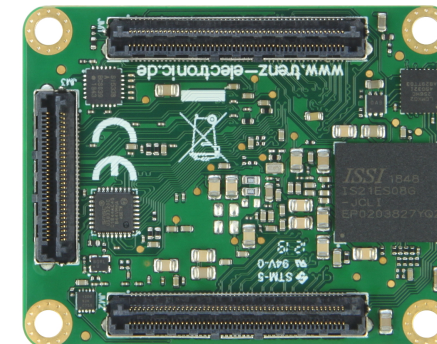




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Project is protected under copyright and we strongly and strictly prohibit the reverse engineering or recreation, even if the design is just adapted or modified. TE0821 is protected under such right and in case of plagiarism we will have to do anything necessary in order to protect our assets.

Schematics and other handouts serve for informational purposes only!

	Title: TE0821 - Legal Notices		
	A4	Number: TE0821 3BE51MA	Rev. 02
	Date: 02.12.2024	Copyright: Trenz Electronic GmbH	Page 1 of 25
	Filename: Legal Notices Modules.SchDoc		

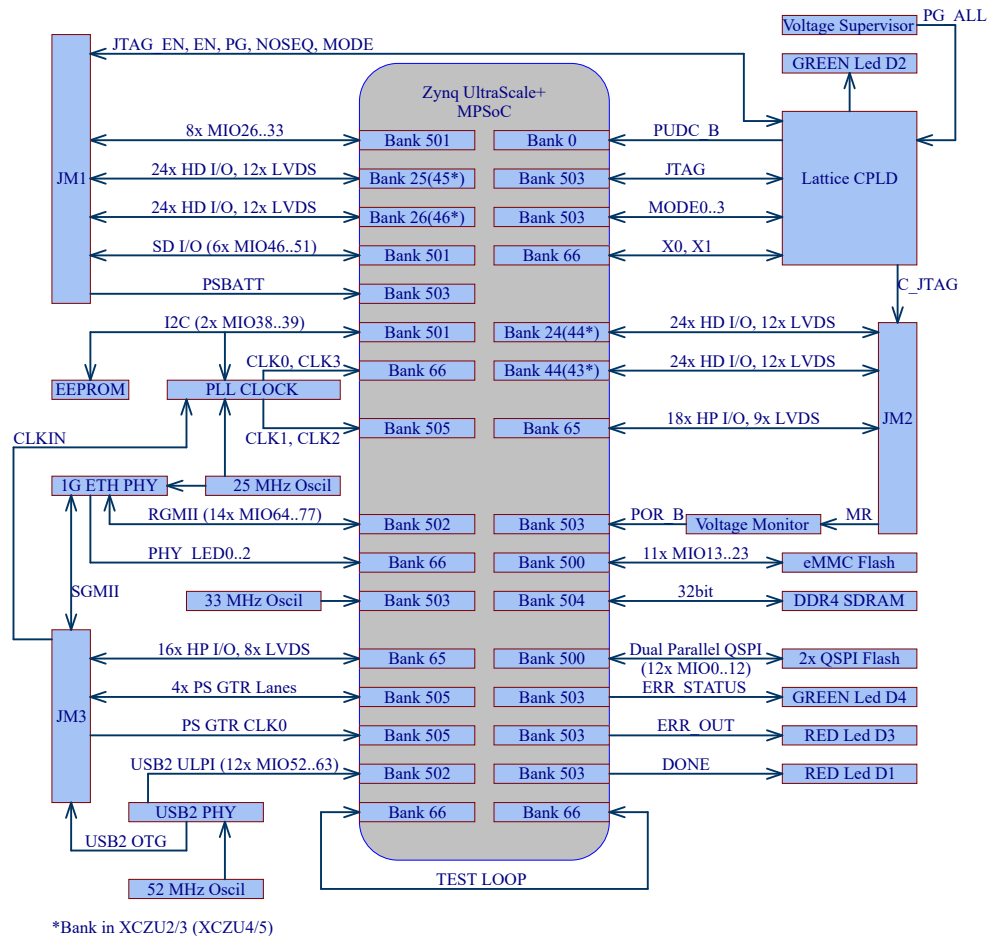
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A



- U_B64
B64.SchDoc
- U_ZU_POWER
ZU_POWER.SchDoc
- U_ZU_PS_POWER
ZU_PS_POWER.SchDoc
- U_POWER
POWER.SchDoc
- U_POWER_1
POWER_1.SchDoc
- U_DDR4-RAM_2
DDR4-RAM_2.SchDoc

Table of I2C devices and addresses

Designator	I2C Address	Description
U25	0x50	I2C MAC EEPROM
U10	0x70	QUAD CLOCK GEN



Title: TE0821 - System Overview		
A4	Number: TE0821 3BE51MA	Rev. 02
Date: 02.12.2024	Copyright: Trenz Electronic GmbH	Page 3 of 25
Filename: TE0821-Overview.SchDoc		

Serial
Serialnumber 6,3 x 6.3mm

CE
CE Logo on Top Overlay

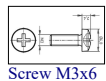
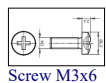
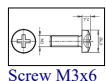
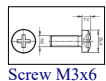
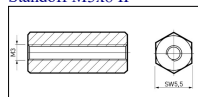
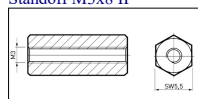
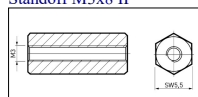
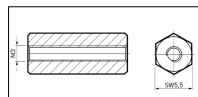
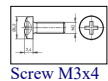
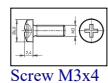
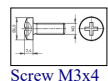
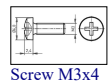
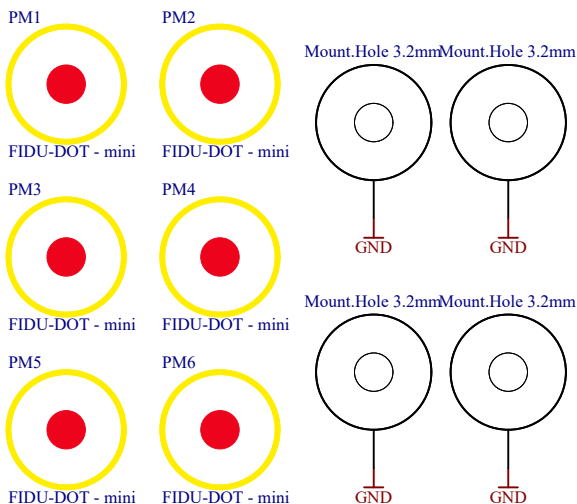
CE-TOPOVERLAY

UKCA
UKCA Logo on Top Overlay

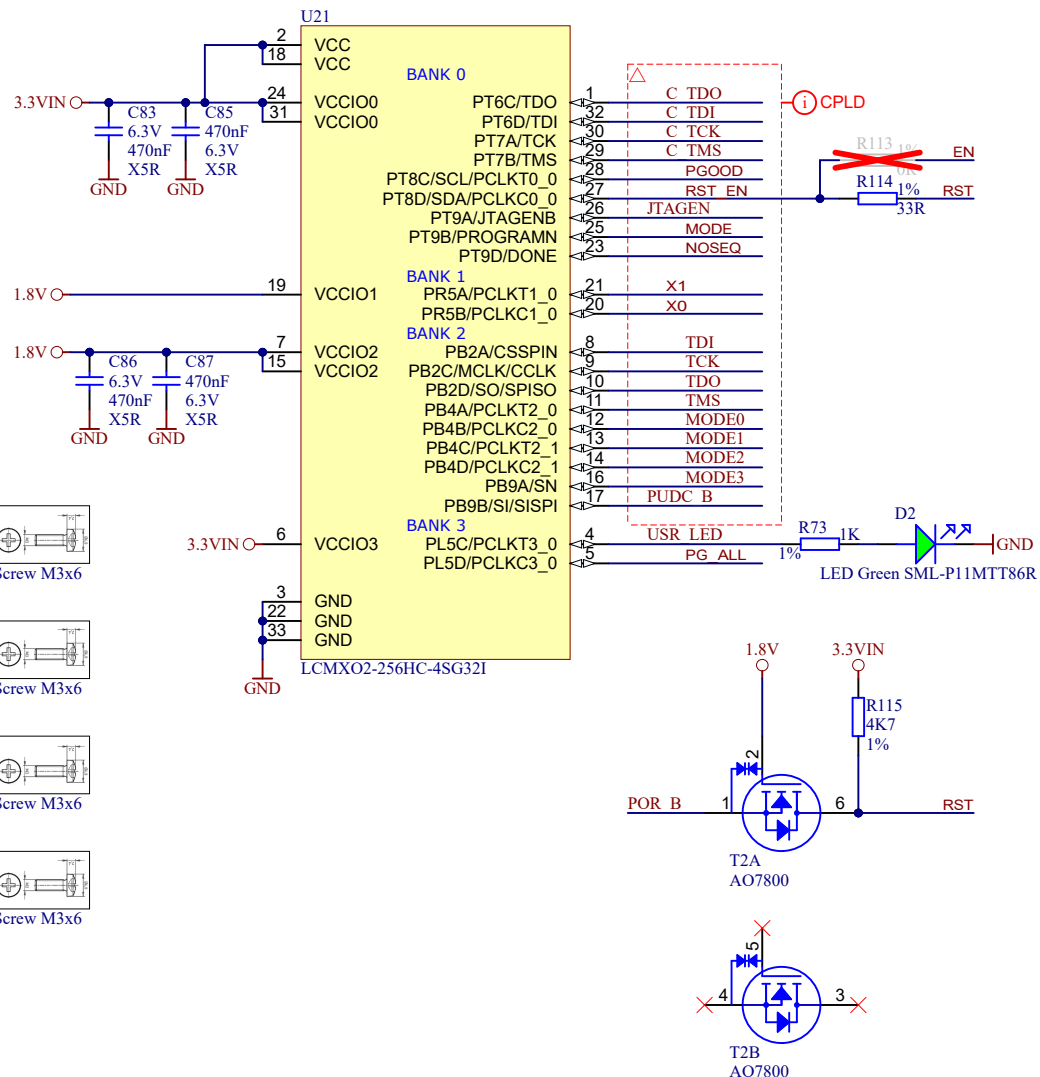
UKCA-TOPOVERLAY

RoHS
RoHS Logo on Top Overlay

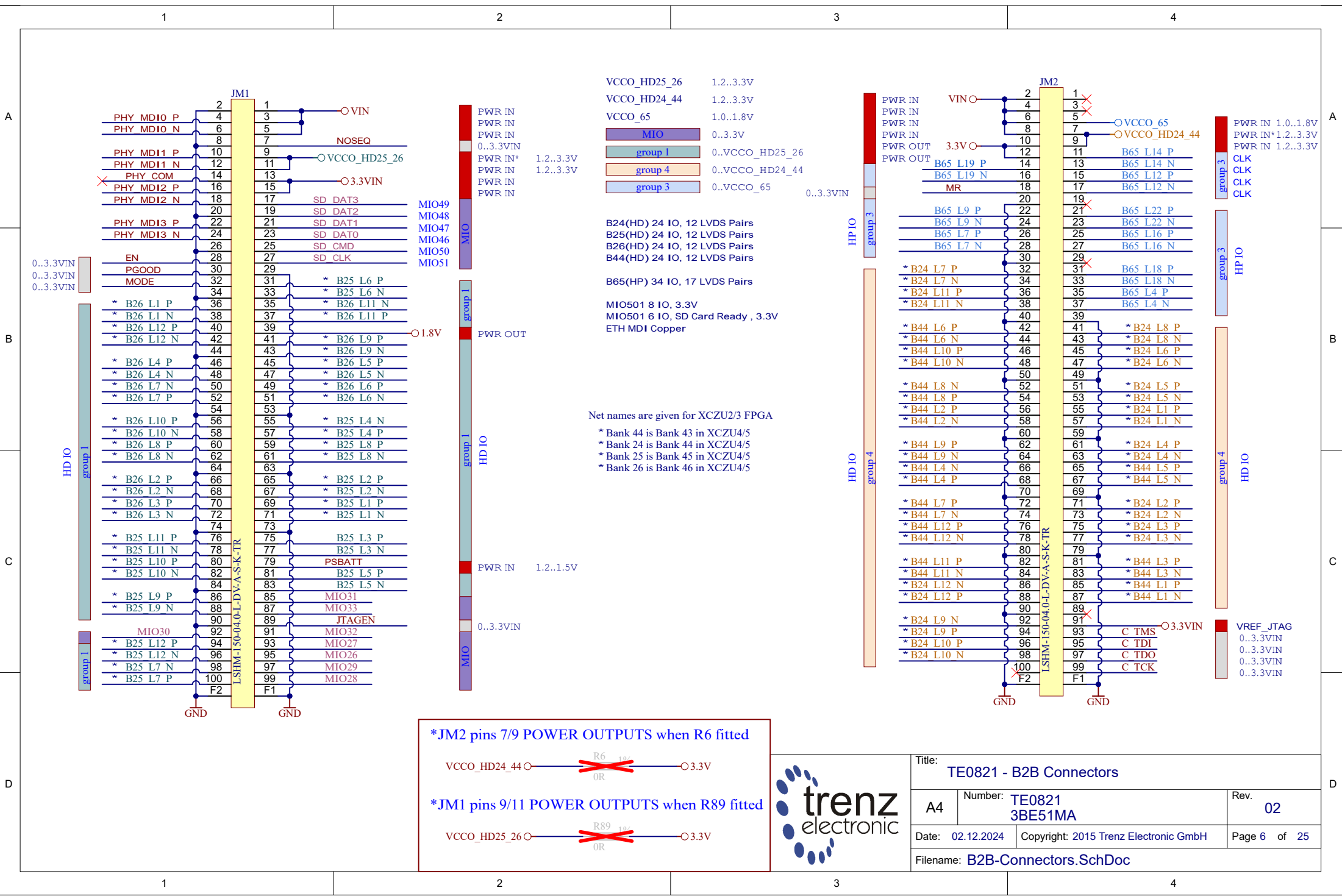
RoHS-TOPOVERLAY



Special notes:



Title: TE0821		Rev. 02	
A4	Number: TE0821 3BE51MA	Page 5 of 25	
Date: 02.12.2024	Copyright: Trenz Electronic GmbH		Filename: TE0821.SchDoc



***JM2 pins 7/9 POWER OUTPUTS when R6 fitted**

VCCO_HD24_44 $\xrightarrow{R6 \ 18\Omega}$ 0.3.3V

***JM1 pins 9/11 POWER OUTPUTS when R89 fitted**

VCCO_HD25_26 $\xrightarrow{R89 \ 18\Omega}$ 0.3.3V



Title: TE0821 - B2B Connectors			
A4	Number: TE0821 3BE51MA		Rev. 02
Date: 02.12.2024	Copyright: 2015 Trenz Electronic GmbH		Page 6 of 25
Filename: B2B-Connectors.SchDoc			

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B

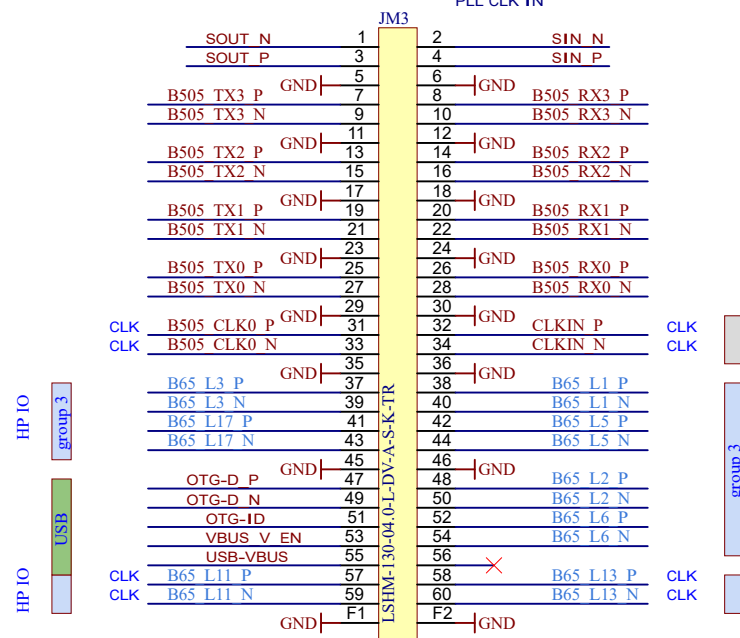
C

C

D

D

USB OTG
ETH SGMII
PS_GTR 4 Lanes
PS_GTR CLK IN
PLL CLK IN



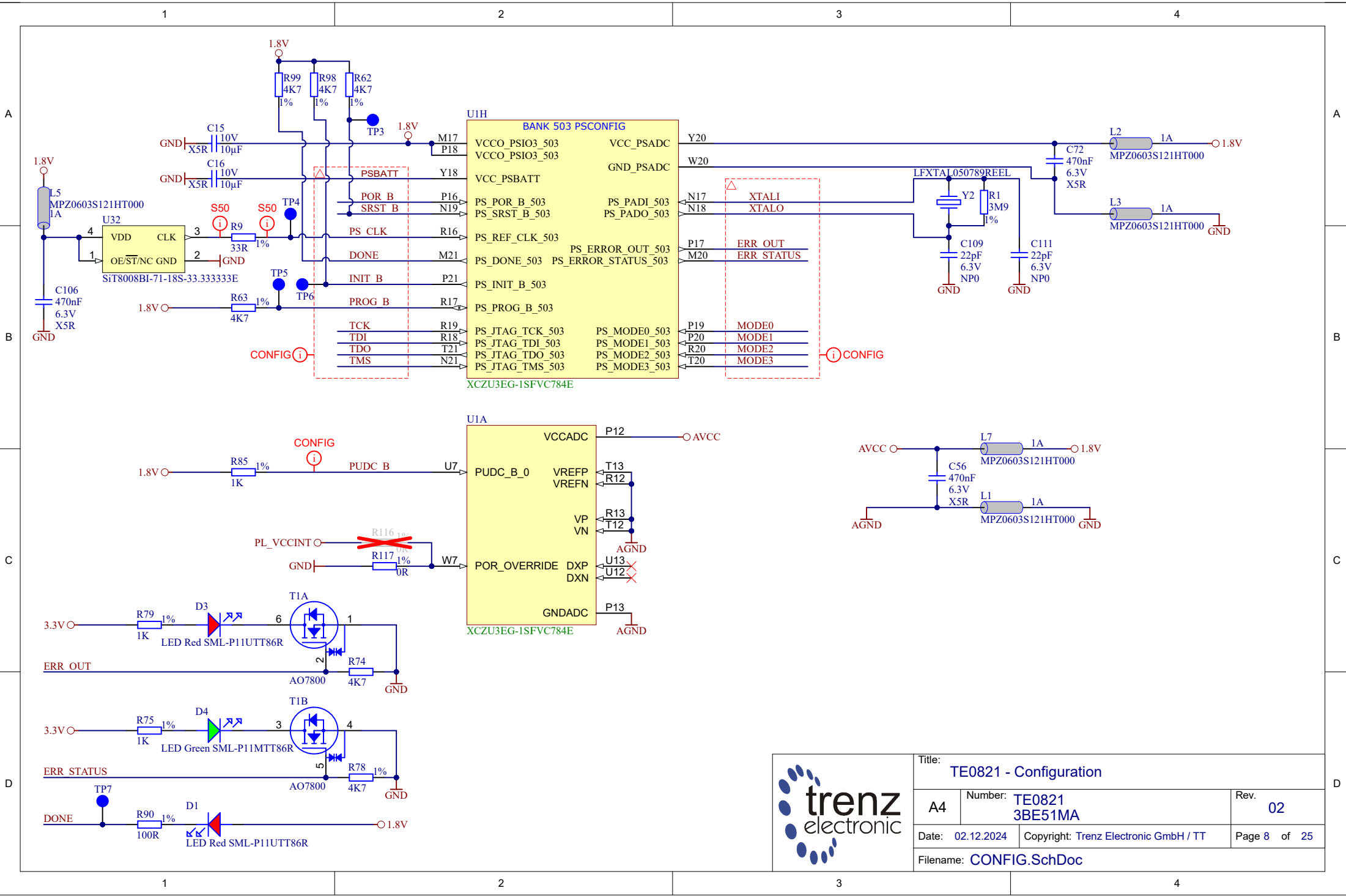
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Date: 02.12.2024	Copyright: 2015 Trenz Electronic GmbH	Page 7 of 25
Filename: B2B-Connectors_2.SchDoc		

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Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	
Filename: CONFIG.SchDoc		

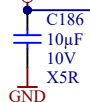
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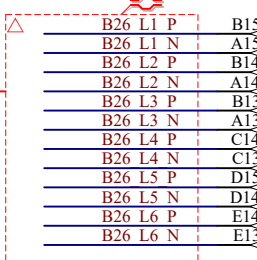
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VCCO_HD25_26



U1C

BANK 26 HD (ZU4/5 BANK 46 HD)

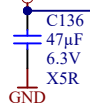
VCCO_26
VCCO_26

IO_L1P_AD11P_26
IO_L1N_AD11N_26
IO_L2P_AD10P_26
IO_L2N_AD10N_26
IO_L3P_AD9P_26
IO_L3N_AD9N_26
IO_L4P_AD8P_26
IO_L4N_AD8N_26
IO_L5P_HDGC_AD7P_26
IO_L5N_HDGC_AD7N_26
IO_L6P_HDGC_AD6P_26
IO_L6N_HDGC_AD6N_26

IO_L7P_HDGC_AD5P_26
IO_L7N_HDGC_AD5N_26
IO_L8P_HDGC_AD4P_26
IO_L8N_HDGC_AD4N_26
IO_L9P_AD3P_26
IO_L9N_AD3N_26
IO_L10P_AD2P_26
IO_L10N_AD2N_26
IO_L11P_AD1P_26
IO_L11N_AD1N_26
IO_L12P_AD0P_26
IO_L12N_AD0N_26

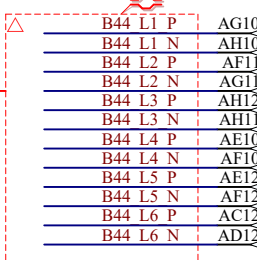
B26 L7 P
B26 L7 N
B26 L8 P
B26 L8 N
B26 L9 P
B26 L9 N
B26 L10 P
B26 L10 N
B26 L11 P
B26 L11 N
B26 L12 P
B26 L12 N

VCCO_HD24_44



U1C

BANK 44 HD (ZU4/5 BANK 43 HD)

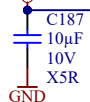
VCCO_44
VCCO_44

IO_L1P_AD11P_44
IO_L1N_AD11N_44
IO_L2P_AD10P_44
IO_L2N_AD10N_44
IO_L3P_AD9P_44
IO_L3N_AD9N_44
IO_L4P_AD8P_44
IO_L4N_AD8N_44
IO_L5P_HDGC_AD7P_44
IO_L5N_HDGC_AD7N_44
IO_L6P_HDGC_AD6P_44
IO_L6N_HDGC_AD6N_44

IO_L7P_HDGC_AD5P_44
IO_L7N_HDGC_AD5N_44
IO_L8P_HDGC_AD4P_44
IO_L8N_HDGC_AD4N_44
IO_L9P_AD3P_44
IO_L9N_AD3N_44
IO_L10P_AD2P_44
IO_L10N_AD2N_44
IO_L11P_AD1P_44
IO_L11N_AD1N_44
IO_L12P_AD0P_44
IO_L12N_AD0N_44

B44 L7 P
B44 L7 N
B44 L8 P
B44 L8 N
B44 L9 P
B44 L9 N
B44 L10 P
B44 L10 N
B44 L11 P
B44 L11 N
B44 L12 P
B44 L12 N

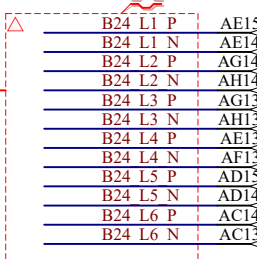
VCCO_HD24_44



U1B

XCZU3EG-1SFVC784E

BANK 24 HD (ZU4/5 BANK 44 HD)

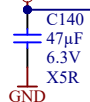
VCCO_24
VCCO_24

IO_L1P_AD15P_24
IO_L1N_AD15N_24
IO_L2P_AD14P_24
IO_L2N_AD14N_24
IO_L3P_AD13P_24
IO_L3N_AD13N_24
IO_L4P_AD12P_24
IO_L4N_AD12N_24
IO_L5P_HDGC_24
IO_L5N_HDGC_24
IO_L6P_HDGC_24
IO_L6N_HDGC_24

IO_L7P_HDGC_24
IO_L7N_HDGC_24
IO_L8P_HDGC_24
IO_L8N_HDGC_24
IO_L9P_AD11P_24
IO_L9N_AD11N_24
IO_L10P_AD10P_24
IO_L10N_AD10N_24
IO_L11P_AD9P_24
IO_L11N_AD9N_24
IO_L12P_AD8P_24
IO_L12N_AD8N_24

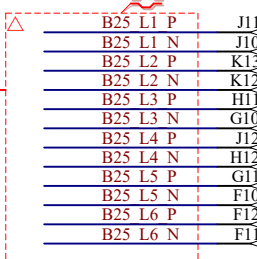
B24 L7 P
B24 L7 N
B24 L8 P
B24 L8 N
B24 L9 P
B24 L9 N
B24 L10 P
B24 L10 N
B24 L11 P
B24 L11 N
B24 L12 P
B24 L12 N

VCCO_HD25_26



U1C

BANK 25 HD (ZU4/5 BANK 45 HD)

VCCO_25
VCCO_25

IO_L1P_AD15P_25
IO_L1N_AD15N_25
IO_L2P_AD14P_25
IO_L2N_AD14N_25
IO_L3P_AD13P_25
IO_L3N_AD13N_25
IO_L4P_AD12P_25
IO_L4N_AD12N_25
IO_L5P_HDGC_25
IO_L5N_HDGC_25
IO_L6P_HDGC_25
IO_L6N_HDGC_25

IO_L7P_HDGC_25
IO_L7N_HDGC_25
IO_L8P_HDGC_25
IO_L8N_HDGC_25
IO_L9P_AD11P_25
IO_L9N_AD11N_25
IO_L10P_AD10P_25
IO_L10N_AD10N_25
IO_L11P_AD9P_25
IO_L11N_AD9N_25
IO_L12P_AD8P_25
IO_L12N_AD8N_25

B25 L7 P
B25 L7 N
B25 L8 P
B25 L8 N
B25 L9 P
B25 L9 N
B25 L10 P
B25 L10 N
B25 L11 P
B25 L11 N
B25 L12 P
B25 L12 N

XCZU3EG-1SFVC784E



Title:

TE0821 - HD Banks

A4

Number:

TE0821
3BE51MA

Rev.

02

Date: 02.12.2024

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Page 9 of 25

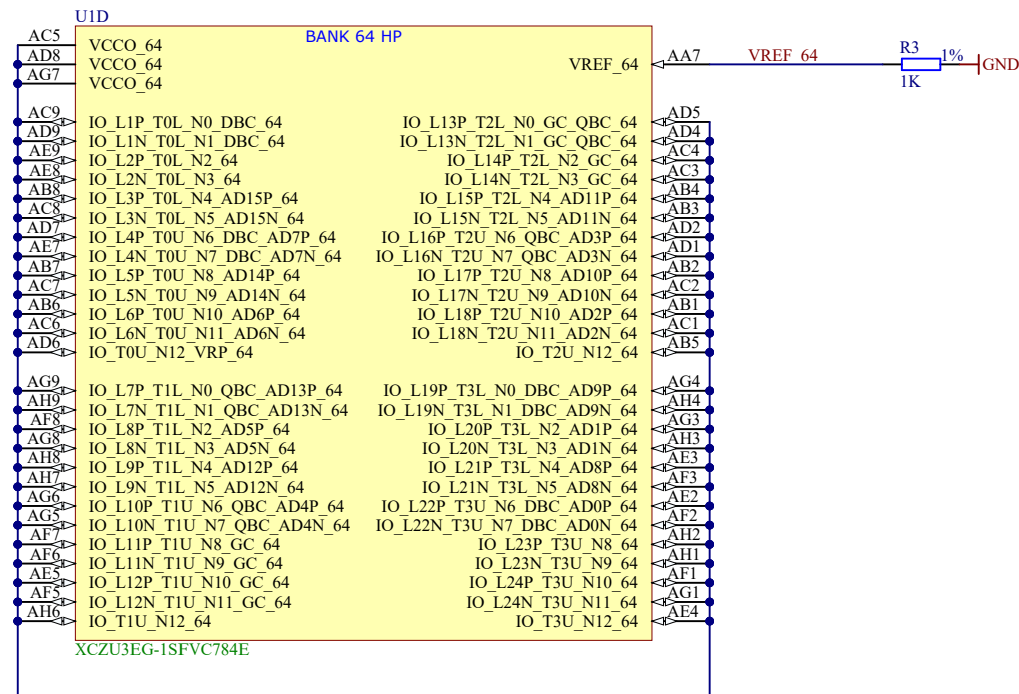
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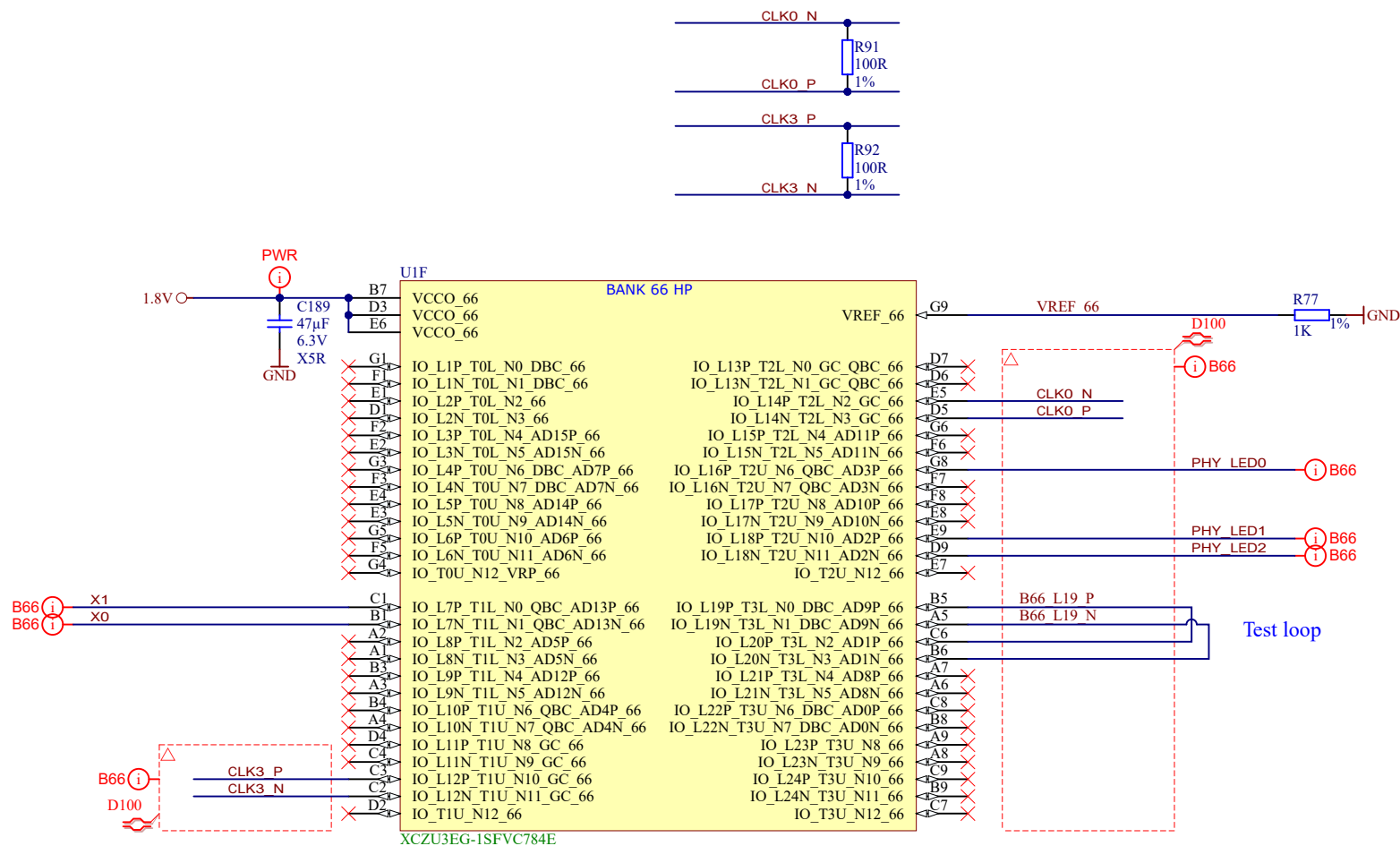
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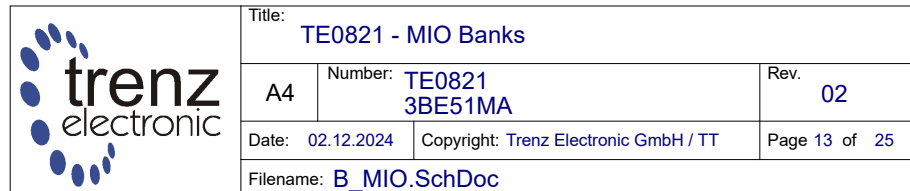
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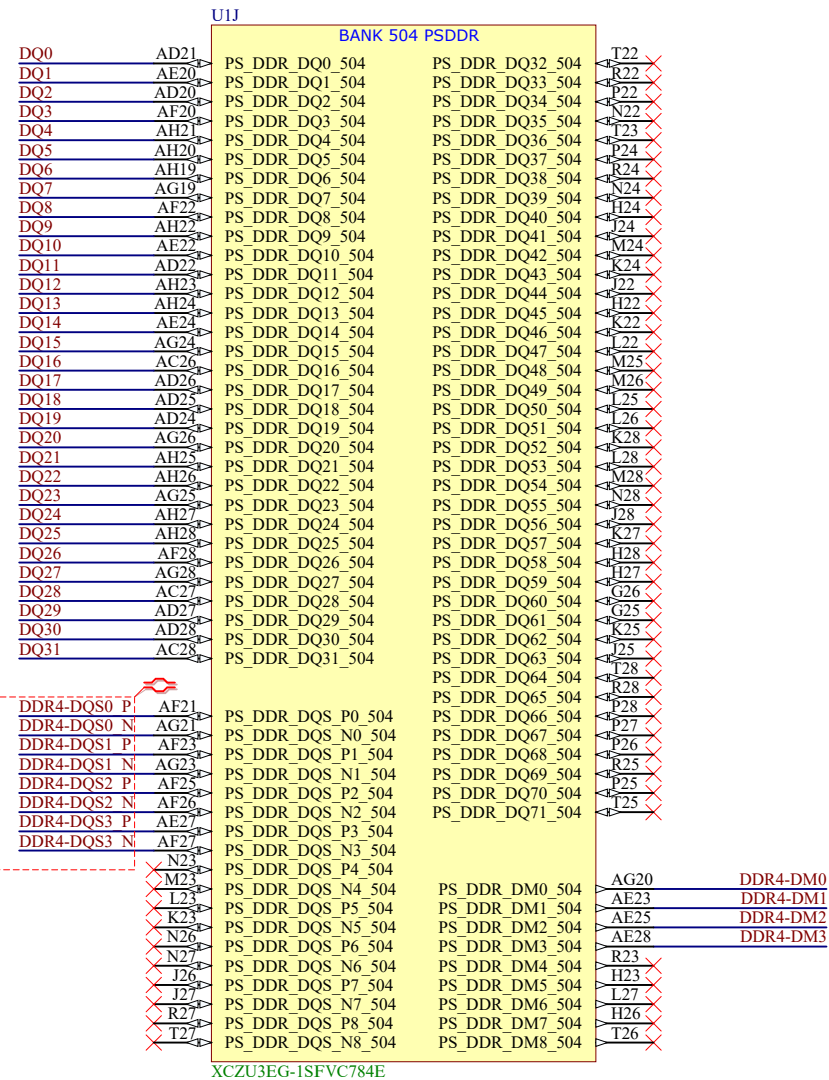
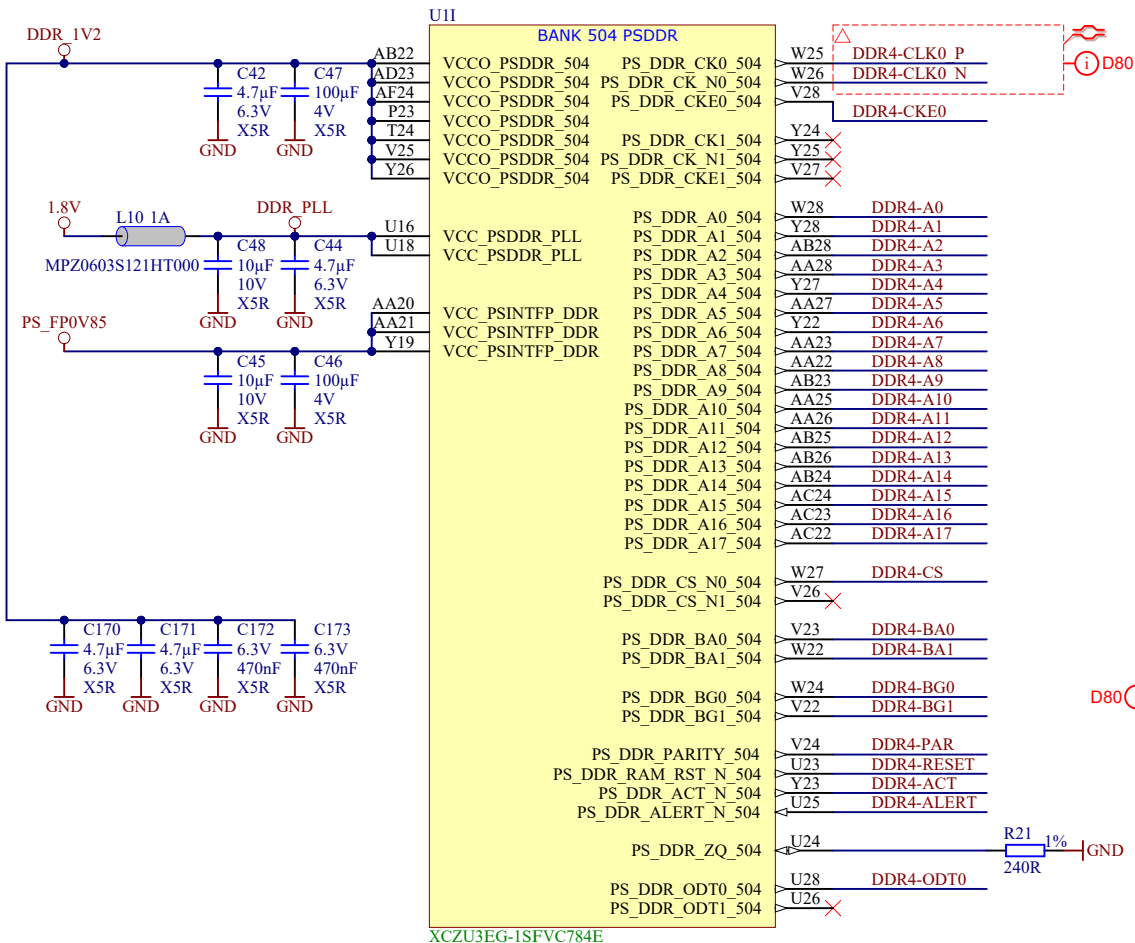


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Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	Page 10 of 25
Filename: B64.SchDoc		

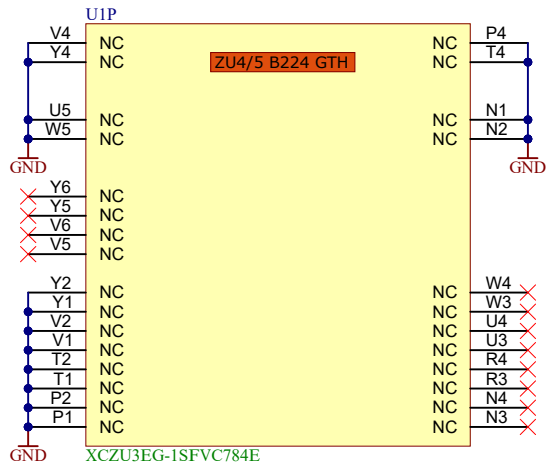
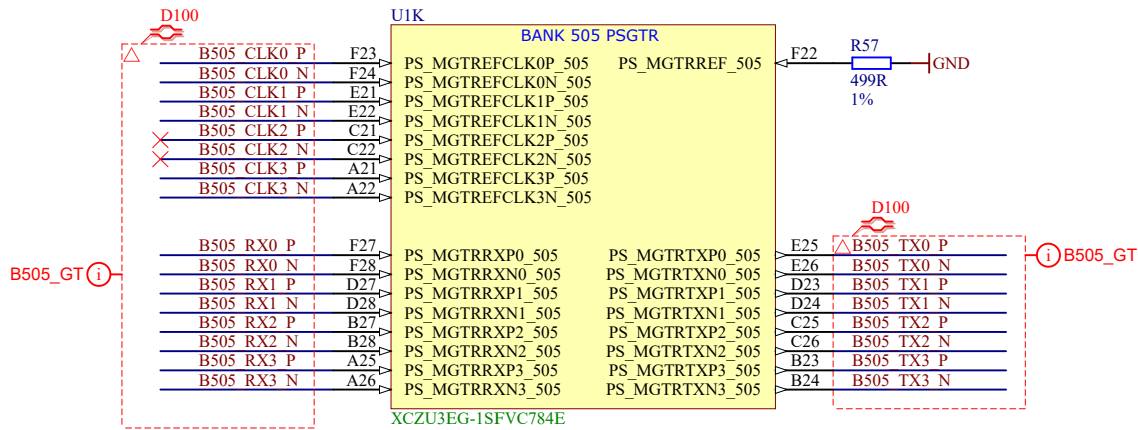


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Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	Page 12 of 25
Filename: B66.SchDoc		





Title: TE0821 - PS DDR		
A4	Number: TE0821 3BE51MA	Rev. 02
Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	Page 14 of 25
Filename: PS_DDR.SchDoc		



		Title: TE0821 - PS MGT	
		A4 Number: TE0821 3BE51MA	Rev. 02
Date: 02.12.2024		Copyright: Trenz Electronic GmbH / TT	
Filename: B_PS_GT.SchDoc		Page 15 of 25	

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A

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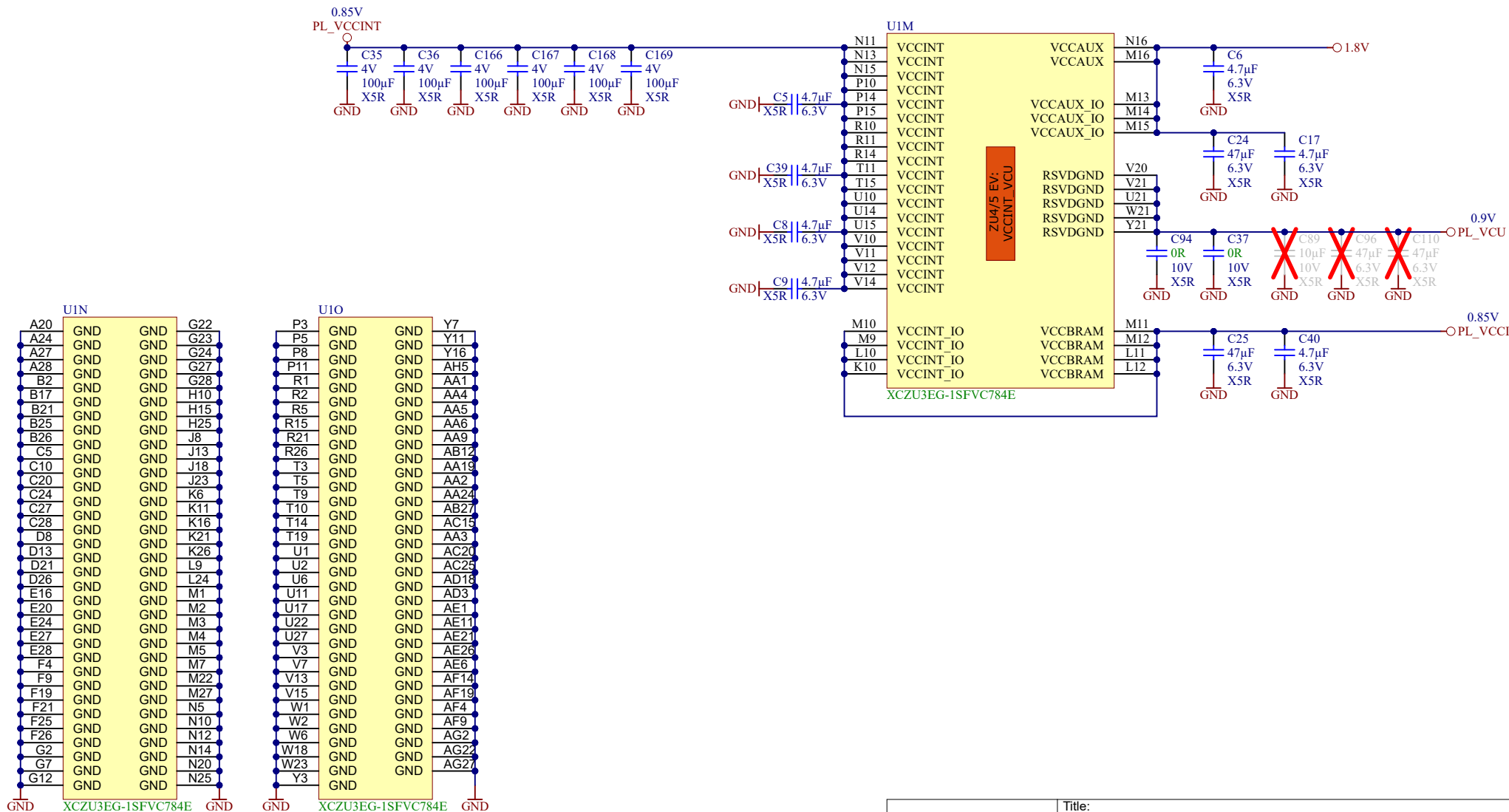
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C

C

D

D

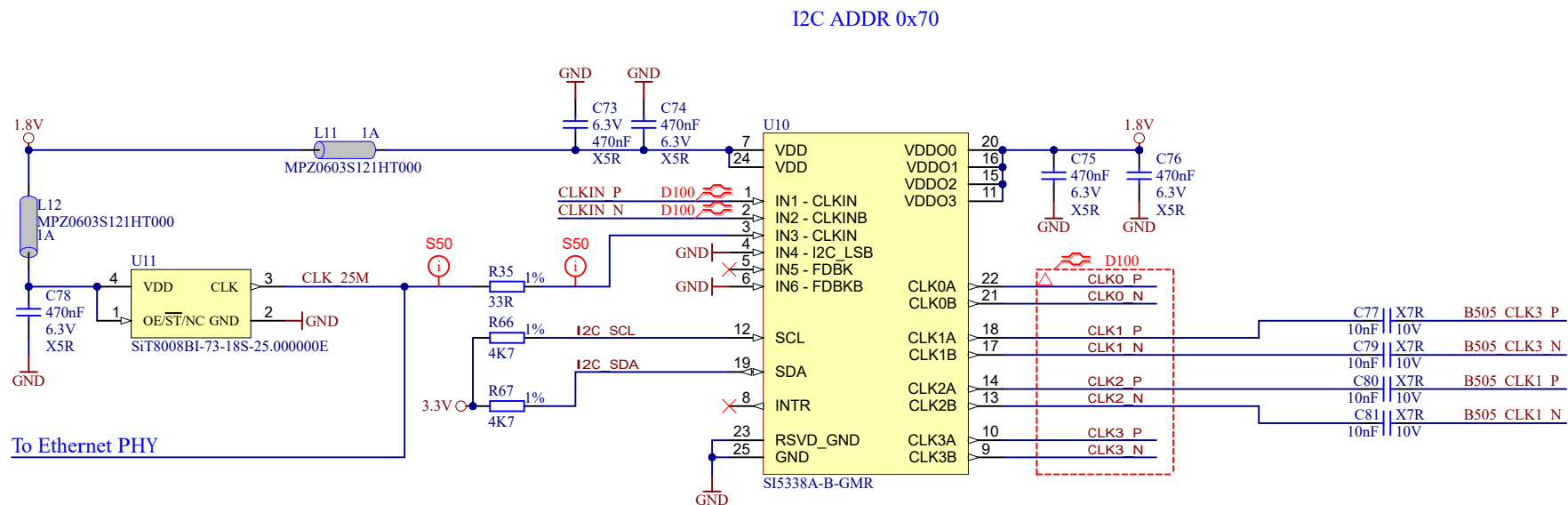


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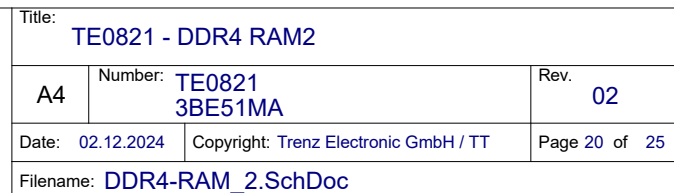
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Date: 02.12.2024		Copyright: 2015 Trenz Electronic GmbH	
Filename: CLK.SchDoc		Page 18 of 25	



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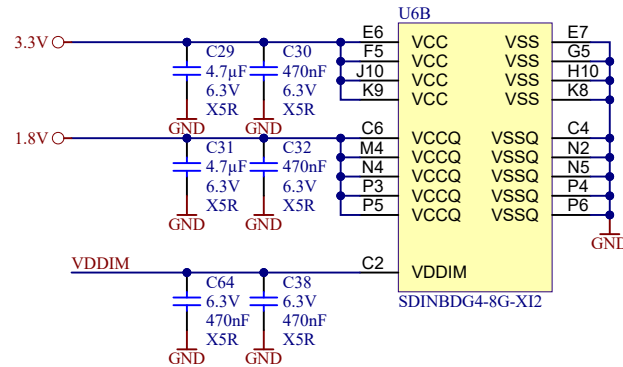
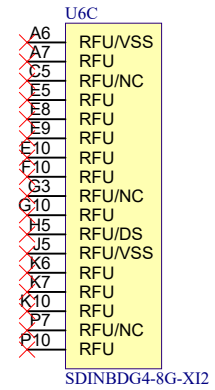
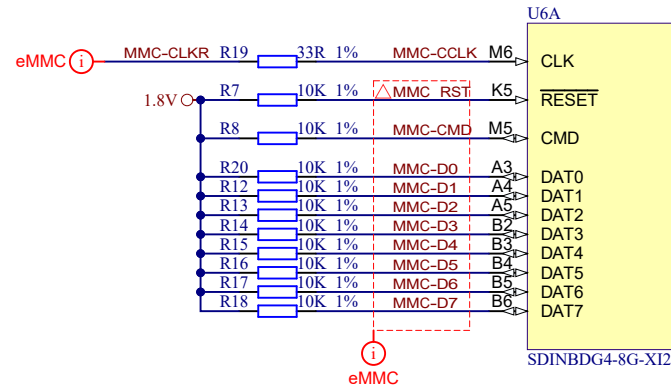
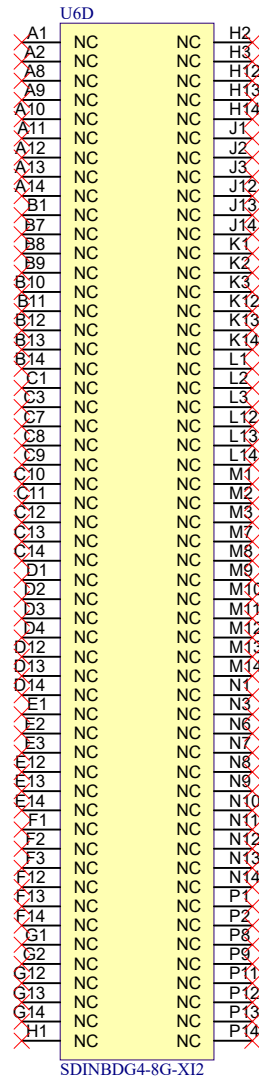
D

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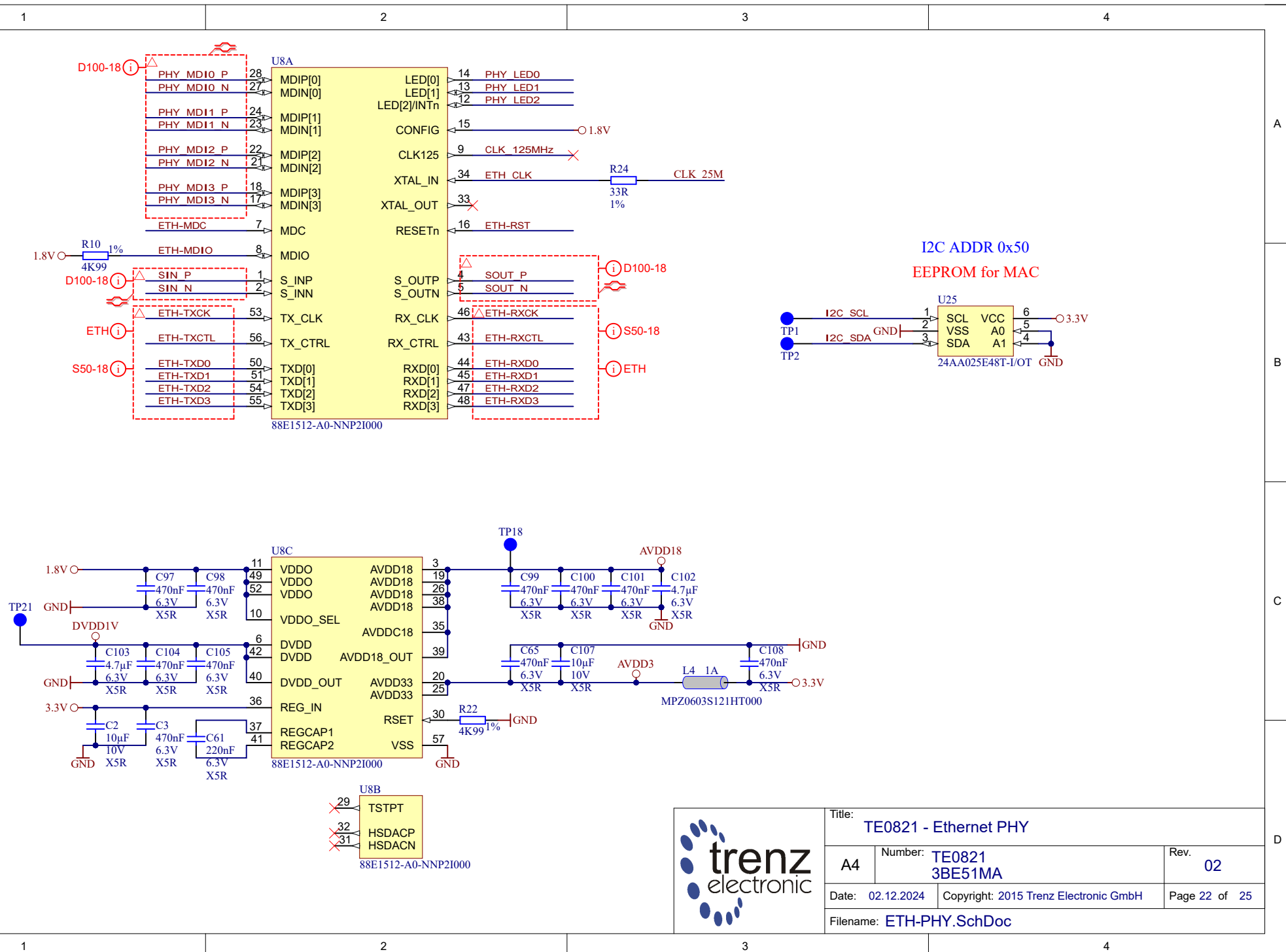
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Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	Page 21 of 25
Filename: eMMC.SchDoc		

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A

A

B

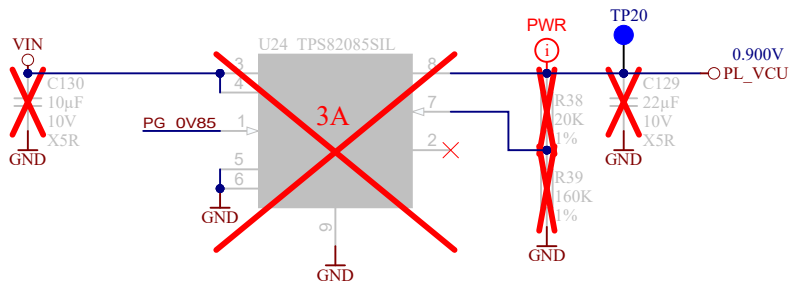
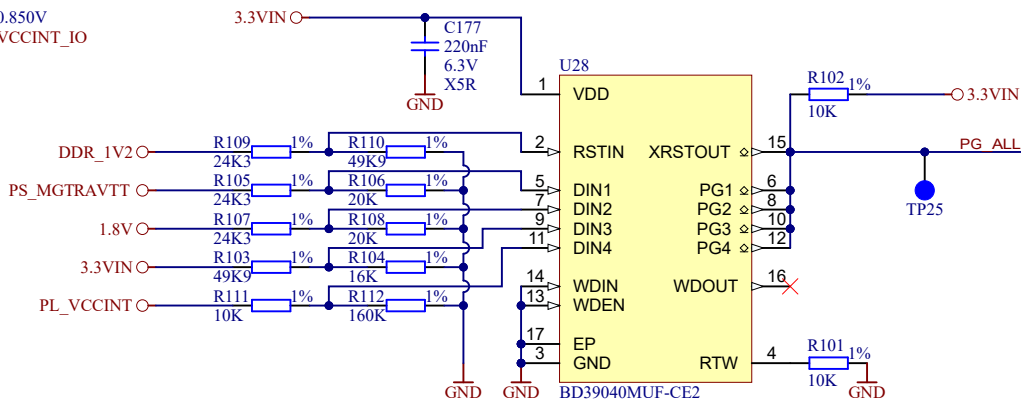
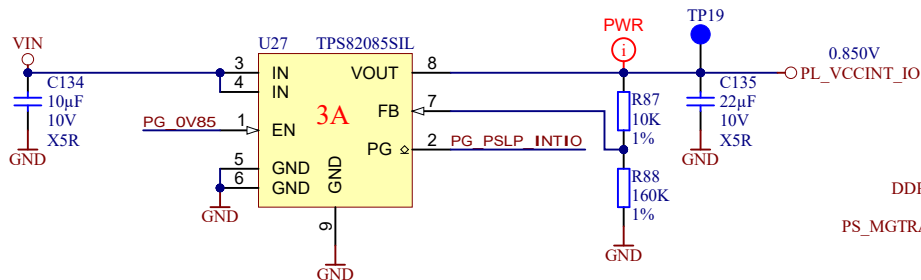
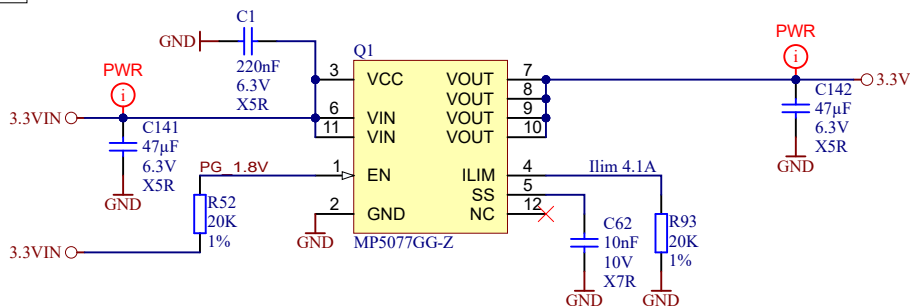
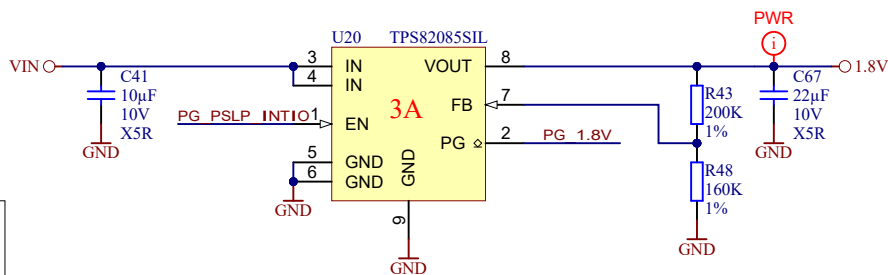
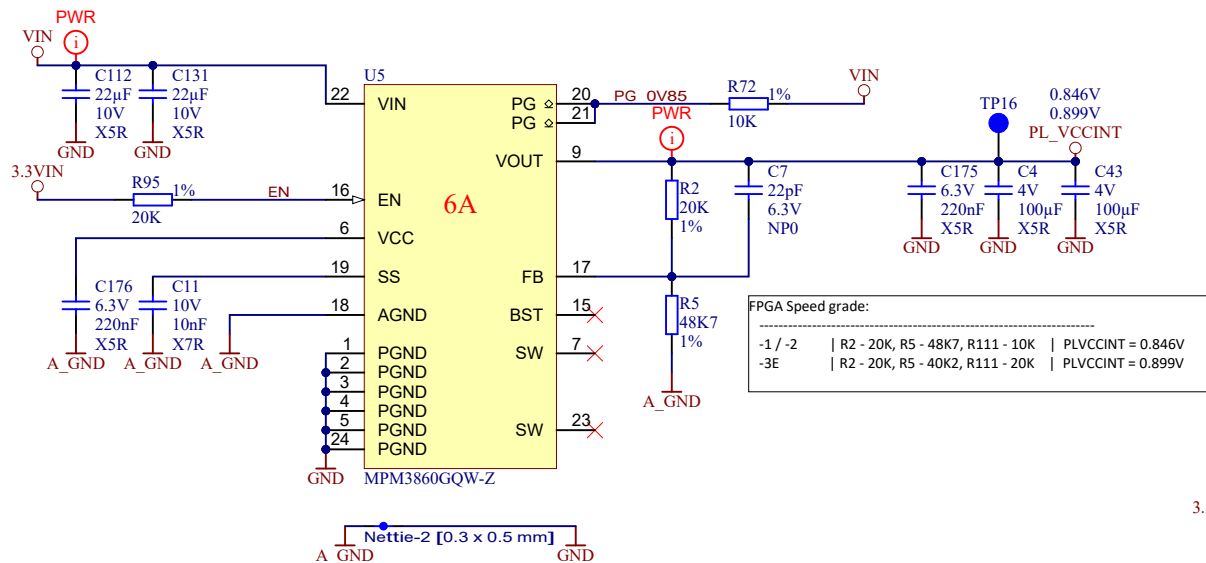
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D



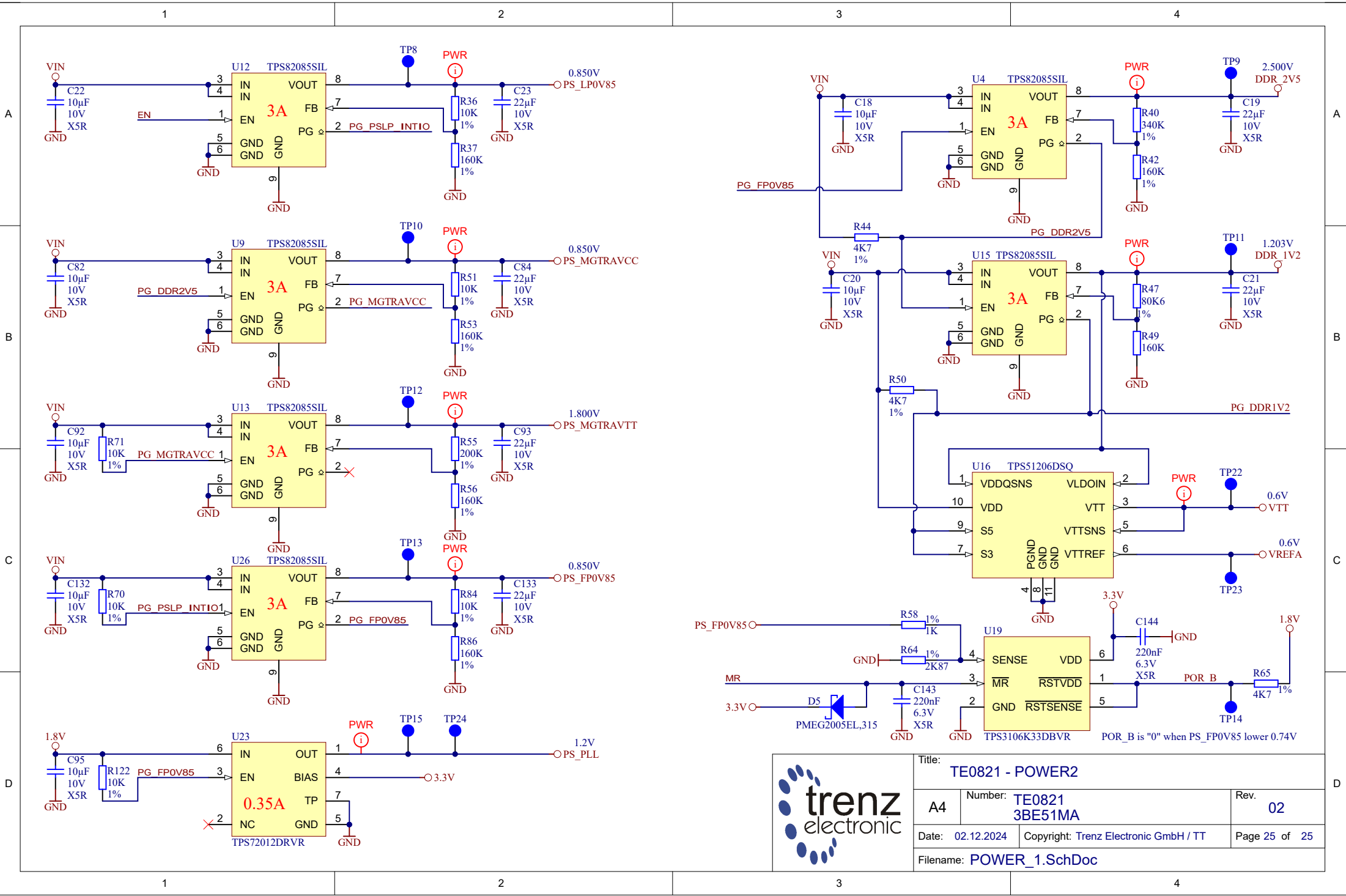
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A4	Number: TE0821 3BE51MA	Rev. 02
Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	Page 24 of 25
Filename: POWER.SchDoc		

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Title: TE0821 - POWER2		
A4	Number: TE0821 3BE51MA	Rev. 02
Date: 02.12.2024	Copyright: Trenz Electronic GmbH / TT	Page 25 of 25
Filename: POWER_1.SchDoc		