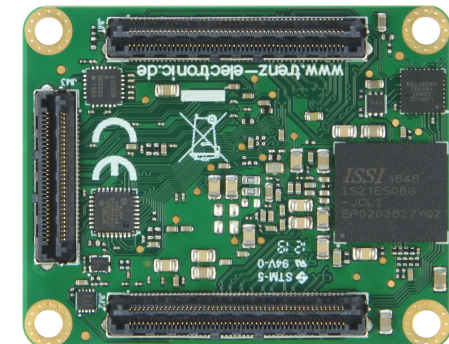




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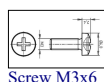
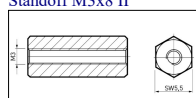
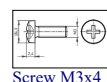
Schematics and other handouts serve for informational purposes only!

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	Date: 28-May-24	Copyright: Trenz Electronic GmbH	Page 1 of 25
	Filename: Legal Notices Modules.SchDoc		

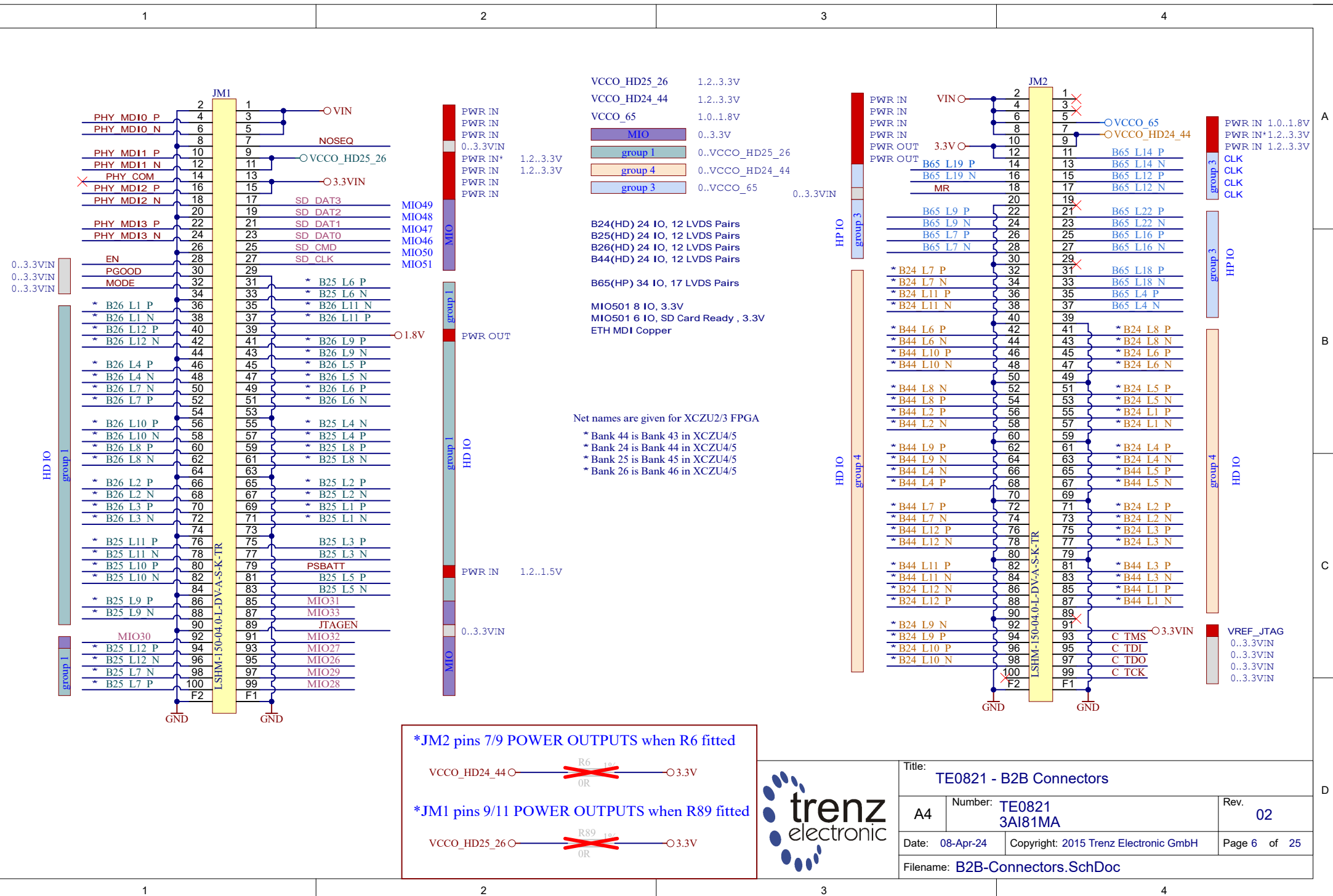
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A	REV		Description				A
	-01		Initial revision				
	-01A		1) R38 value was changed to 20K (was: 40K2) to set VCU 0.9V		VY		
	-01B		1) Updated Block diagram		VY		
B	-02		1) Q1 was changed from TPS27081ADDCR to MP5077GG-Z 2) R82 was removed 3) C143 and C144 were added 4) Signal trace lengths were changed. PCB routing was improved 5) D5 was added 6) Pins N9 (TEN) of U2A and U3A were connected together 7) R100 was added 8) U5 was changed from EN6363Q1 to MPM3860GQW-Z 9) U28 was added 10) Net "PG_ALL" was connected to pin 5 of CPLD U21 11) T2A and R113 - R115 were added (R113 DNP by default) 12) Net "RST_EN" was connected to pin 27 of CPLD U21 13) Net EN was connected to pin 16 of U5 and pin 1 of U12 14) R116 and R117 were added (R116 DNP by default) 15) All unconnected pins for Bank64 U1D were connected together 16) TP17 , TP18 , TP21 , TP22 were added. Some testpoints were moved 17) C178 was added 18) R118 - R121 were added 19) C179 - C185 were added 20) C136 , C140 were changed from 22u to 47u 21) C186 , C187 , C188 , C189 were added 22) C15 , C16 were changed from 4.7u to 10u 23) C48 was changed from 16V to 10V, C45 was changed from 4.7u to 10u 24) C49 , C52 , C53 , C57 were changed from 4.7u to 10u 25) C2 was changed from 16V to 10V 26) C37 , C41 , C89 , C94 , C107 , C130 , C134 were changed from 16V 0603 to 10V 0402 27) FPGA speedgrade table was changed on page "POWER.SchDoc" 28) C24 , C25 , C96 , C110 were changed from 0805 to 0603 29) C19 , C21 , C23 , C67 , C84 , C93 , C129 , C133 , C135 were changed from 6.3V to 10V 30) C61 was changed from 16V 0402 to 6.3V 0201 31) Power Diagram page was added, System Overview was updated 32) Nets were renamed: "PS_AVCC" -> PS_MGTRAVCC , "PG_AVCC" -> PG_MGTRAVCC "OTG-RCLK" -> OTG-REFCLK , "PS_AVTT" -> PS_MGTRAVTT , "PG_DDR" -> PG_DDR1V2 33) Connection for pin "SENSE" of U19 was changed from net PS_LP0V85 to net PS_FP0V85 34) Net PG_0V85 was connected to pin 1 (EN) of U27 35) Net "PG_PS_LP" was renamed to PG_PSLP_INTIO and connected with pin 2 (PG) of U27 , pin 1 (EN) of U20 (instead net PG_0V85) 36) Net PG_FP0V85 was created and connected to pin 2 (PG) of U26 , pin 3 (EN) of U23 (instead net "PG_PS_LP") and pin 1 (EN) of U4 (instead net "PG_PS_LP") 37) Net PG_DDR2V5 was created, pin 2 (PG) of U4 was connected to pin 1 (EN) of U9 (instead net "PG_PS_LP") 38) R70 was unconnected from pin 1 of U9 and connected to pin 1 of U26 39) R122 was added 40) U11 was changed from SiT8008BI-73-XXS-25.000000E to SIT8008BI-73-18S-25.000000E 41) VDD for U10 and U11 was changed from 3.3V to 1.8V		MT		B
C							C
D							D
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		Title: TE0821 - Revision Changes		
		A4	Number: TE0821 3AI81MA	Rev. 02
		Date: 30-Sep-24	Copyright: Trenz Electronic GmbH	Page 2 of 25
		Filename: Revision Changes.SchDoc		

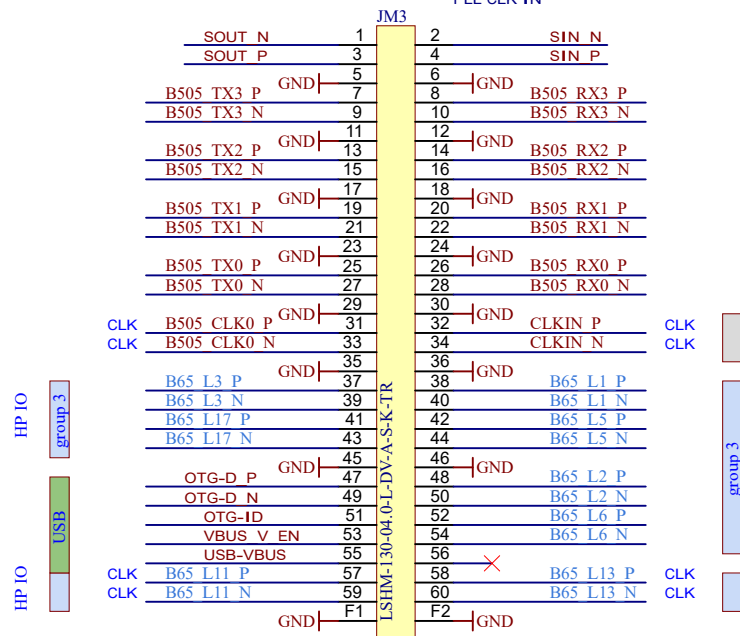
RoHS-TOPOVERLAY



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



Title: TE0821 - B2B Connectors			
A4	Number: TE0821 3AI81MA		Rev. 02
Date: 16-May-24		Copyright: 2015 Trenz Electronic GmbH	Page 7 of 25
Filename: B2B-Connectors_2.SchDoc			

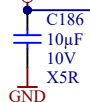
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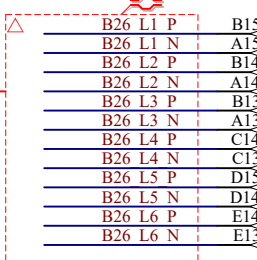
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VCCO_HD25_26



U1C

BANK 26 HD (ZU4/5 BANK 46 HD)

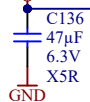
VCCO_26
VCCO_26

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

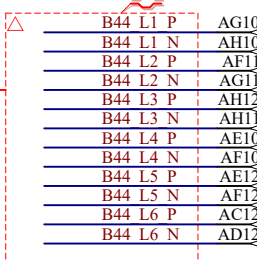
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B26 L7 N
B26 L8 P
B26 L8 N
B26 L9 P
B26 L9 N
B26 L10 P
B26 L10 N
B26 L11 P
B26 L11 N
B26 L12 P
B26 L12 N

VCCO_HD24_44



U1B

BANK 44 HD (ZU4/5 BANK 43 HD)

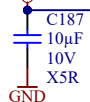
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VCCO_44

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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

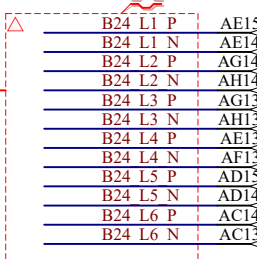
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U1B

XCZU3CG-1SFVC784I

BANK 24 HD (ZU4/5 BANK 44 HD)

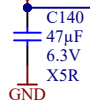
VCCO_24
VCCO_24

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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
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IO_L11N_AD9N_24
IO_L12P_AD8P_24
IO_L12N_AD8N_24

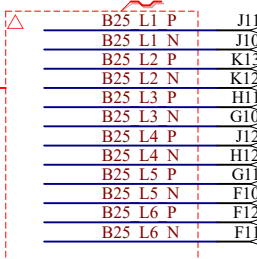
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B24 L7 N
B24 L8 P
B24 L8 N
B24 L9 P
B24 L9 N
B24 L10 P
B24 L10 N
B24 L11 P
B24 L11 N
B24 L12 P
B24 L12 N

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

XCZU3CG-1SFVC784I



Title:

TE0821 - HD Banks

A4

Number:

TE0821
3AI81MA

Rev.

02

Date: 16-May-24

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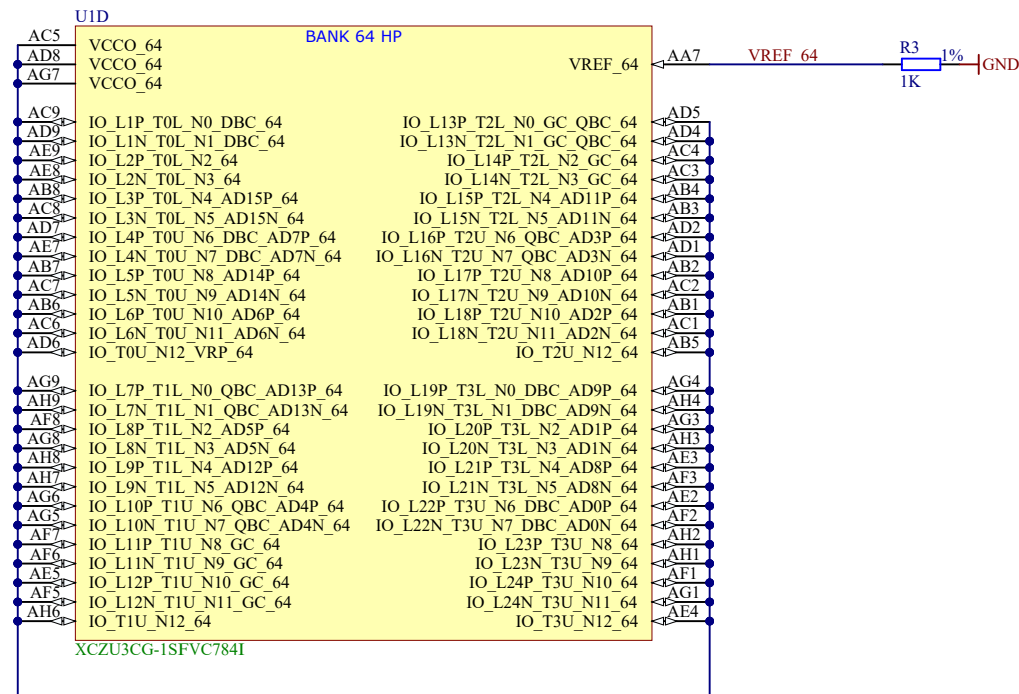
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Date: 08-Apr-24	Copyright: Trenz Electronic GmbH / TT	Page 10 of 25
Filename: B64.SchDoc		

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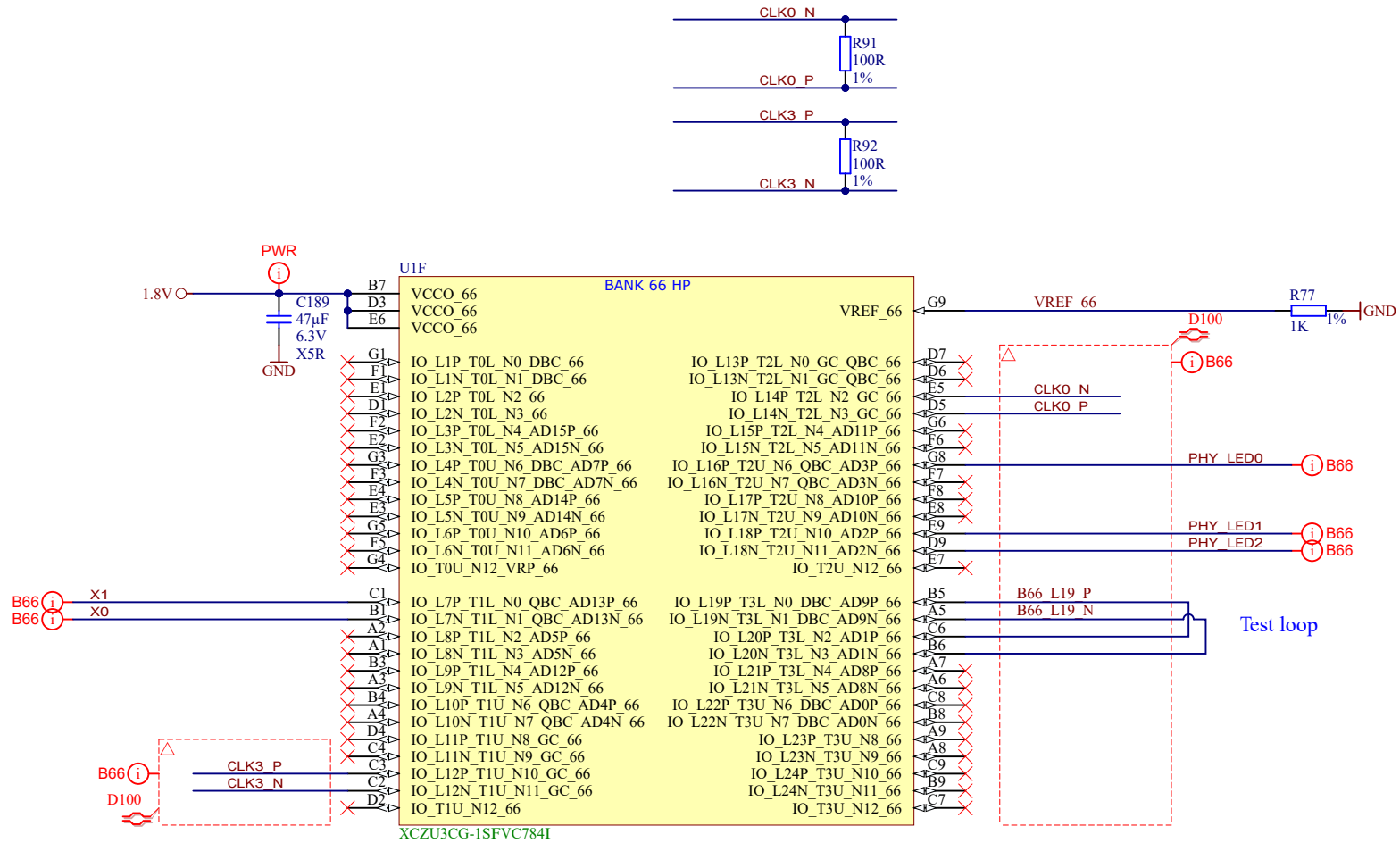
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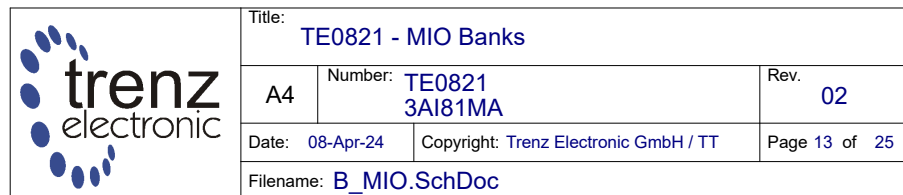
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Date: 16-May-24	Copyright: Trenz Electronic GmbH / TT	Page 12 of 25
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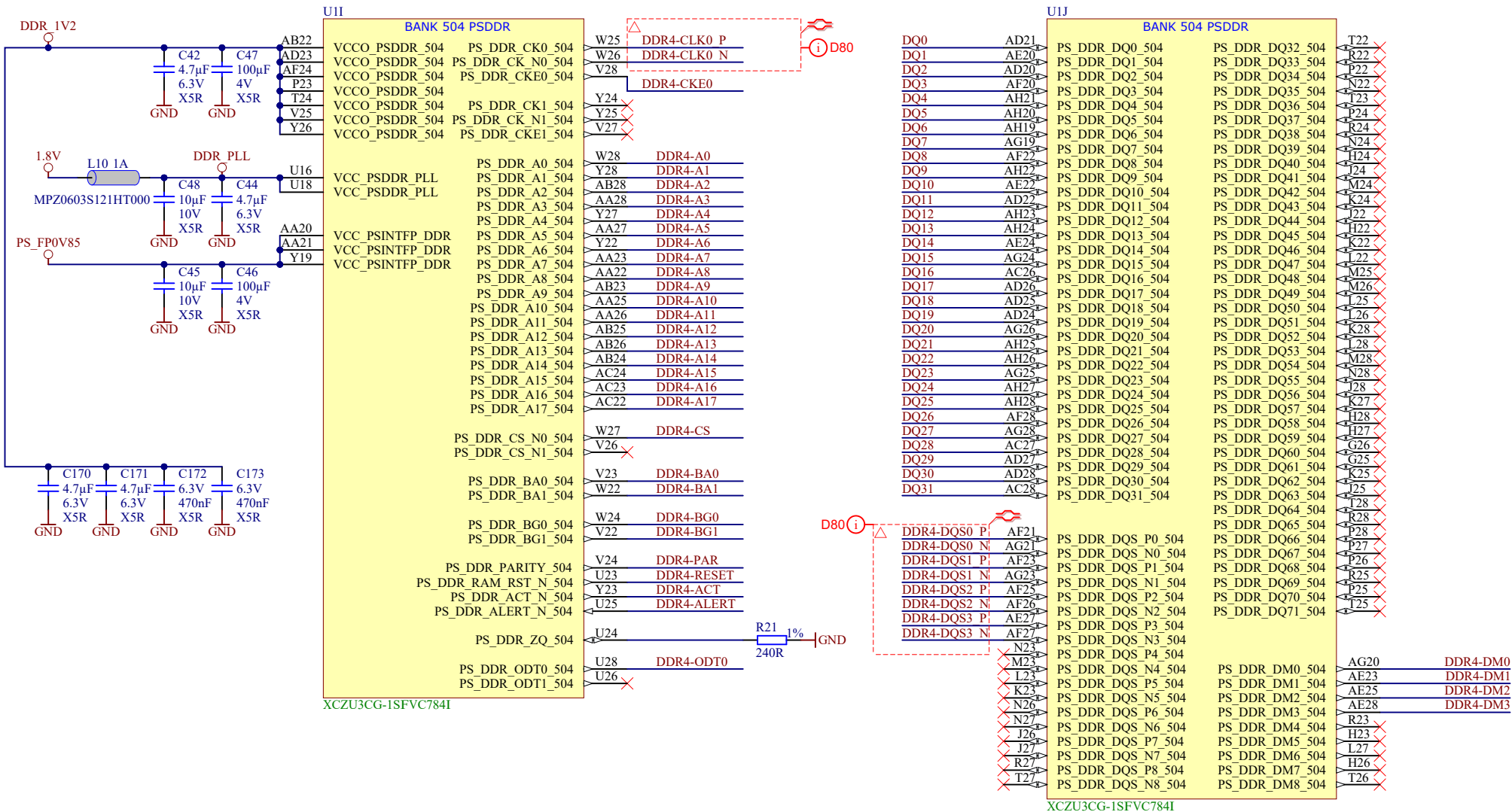
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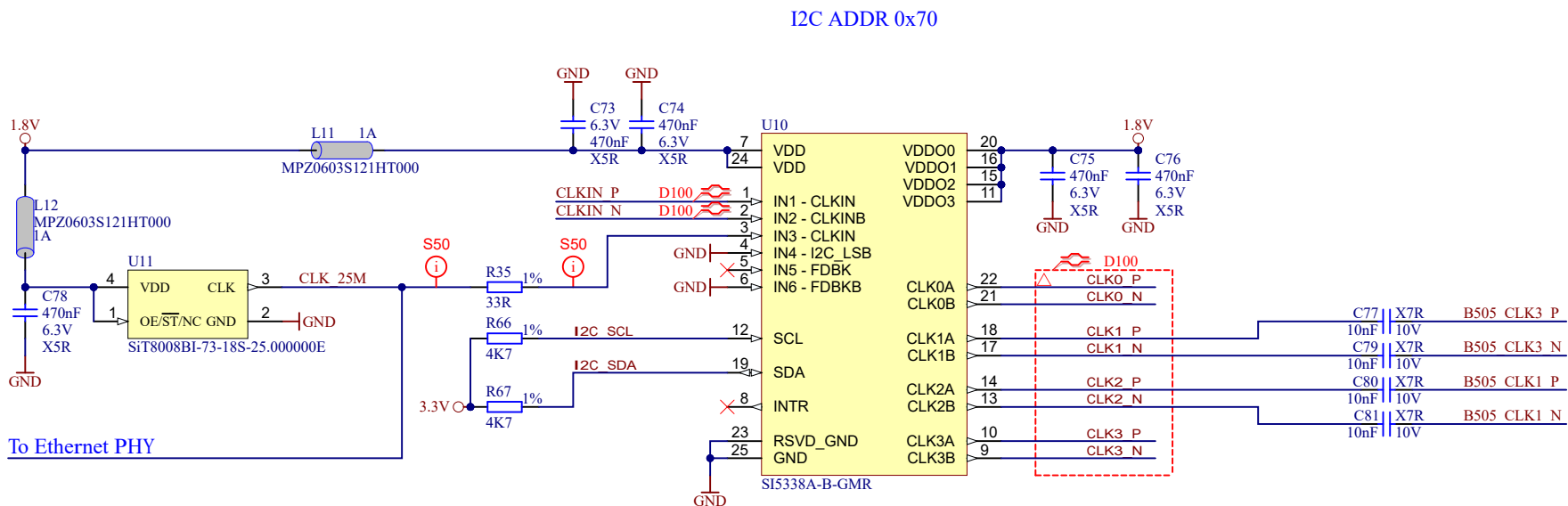
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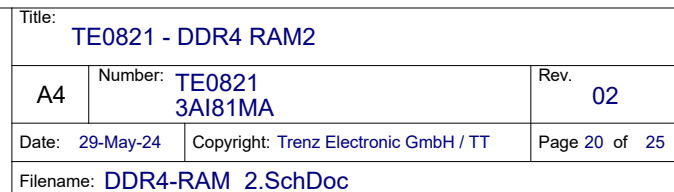




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	Date: 08-Apr-24	Copyright: Trenz Electronic GmbH / TT	Page 14 of 25
Filename: PS_DDR.SchDoc			



		Title: TE0821 - CLK	
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Filename: CLK.SchDoc		Page 18 of 25	
		Rev. 02	



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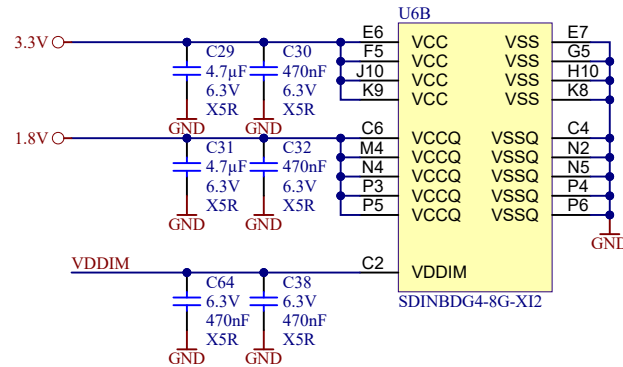
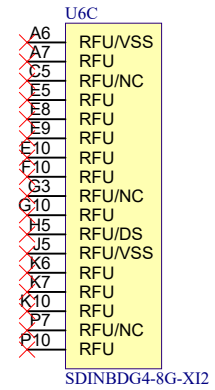
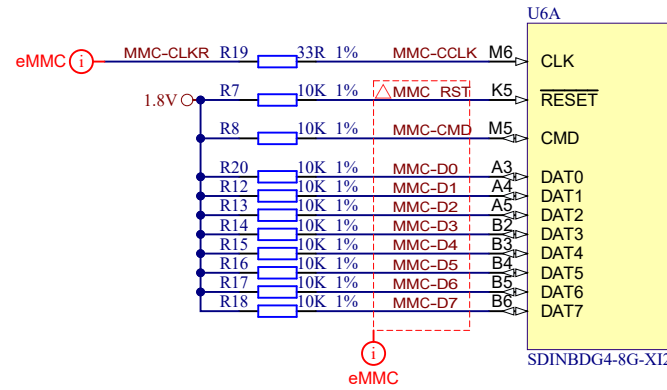
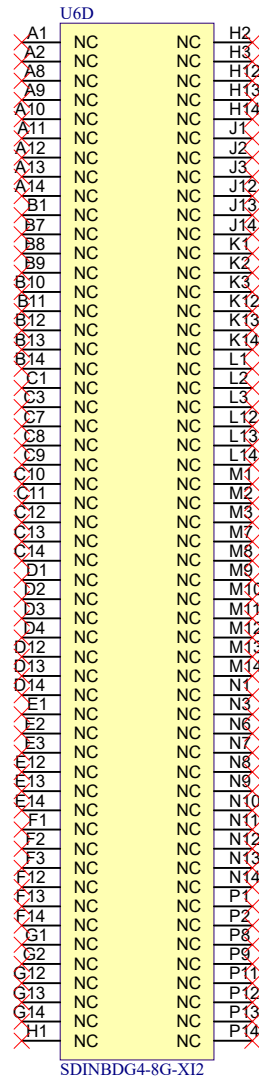
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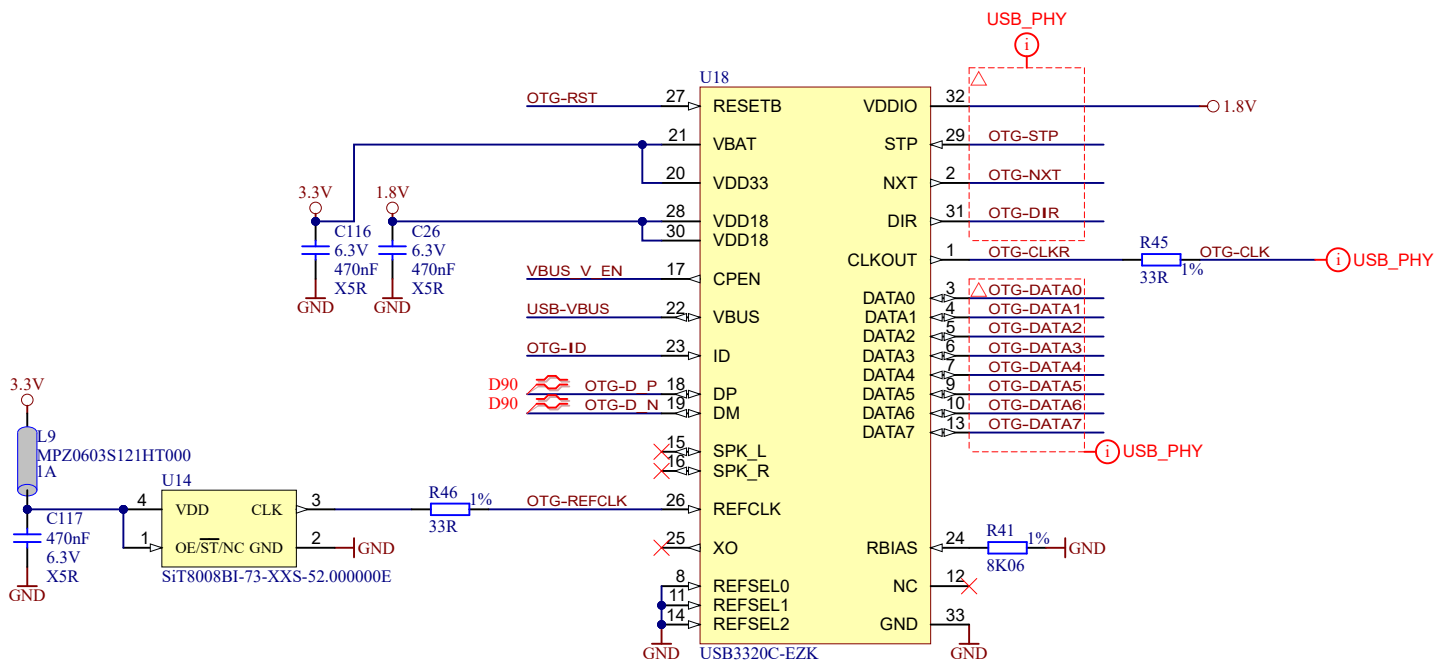
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Date: 15-Apr-24	Copyright: Trenz Electronic GmbH / TT	Page 21 of 25
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	Date: 16-May-24	Copyright: 2015 Trenz Electronic GmbH	Page 23 of 25
	Filename: USB-PHY.SchDoc		

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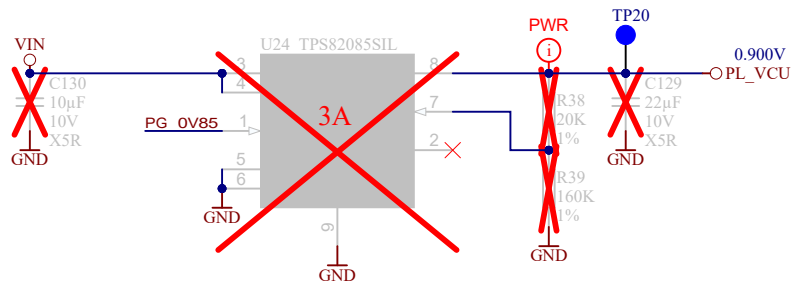
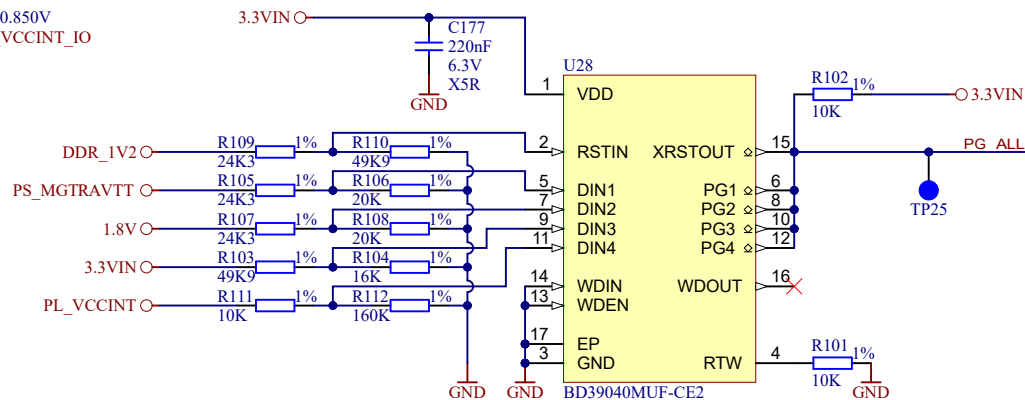
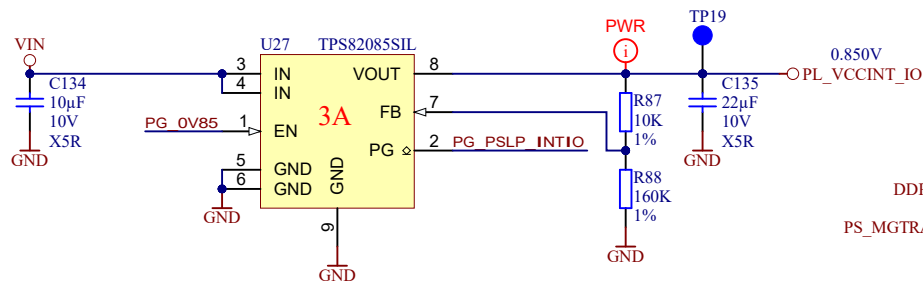
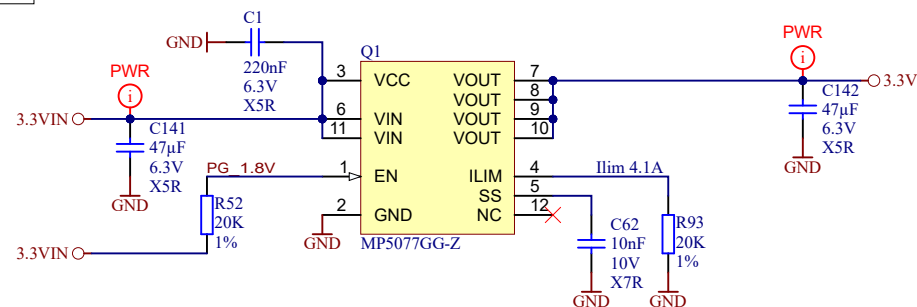
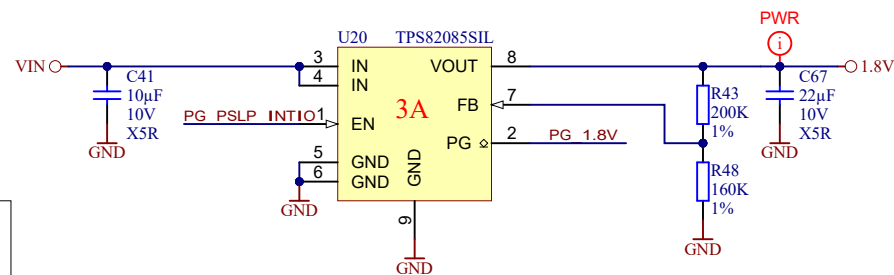
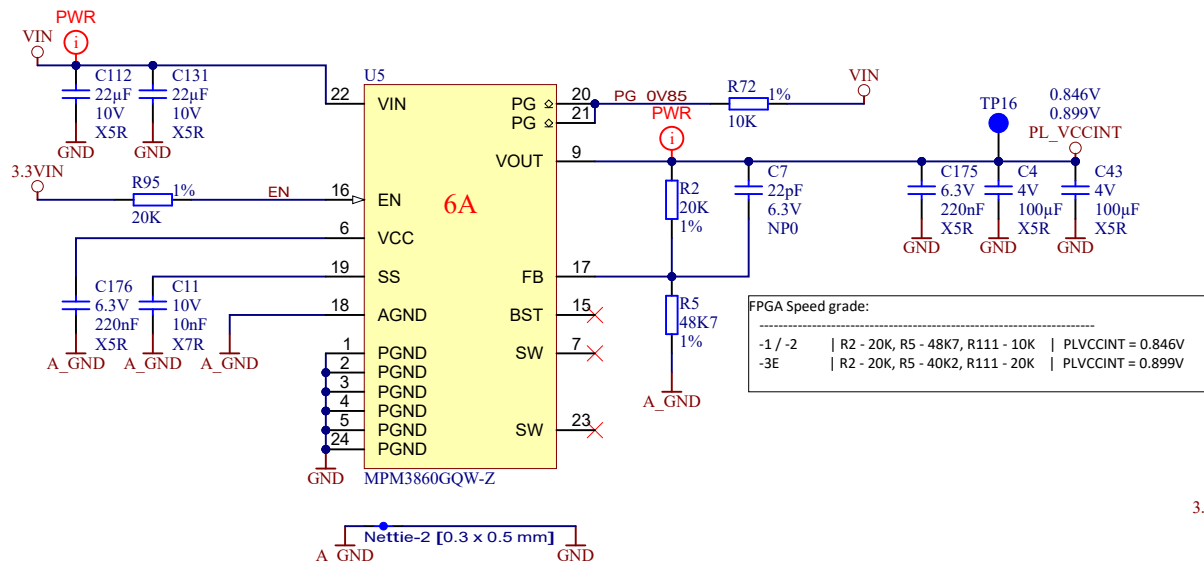
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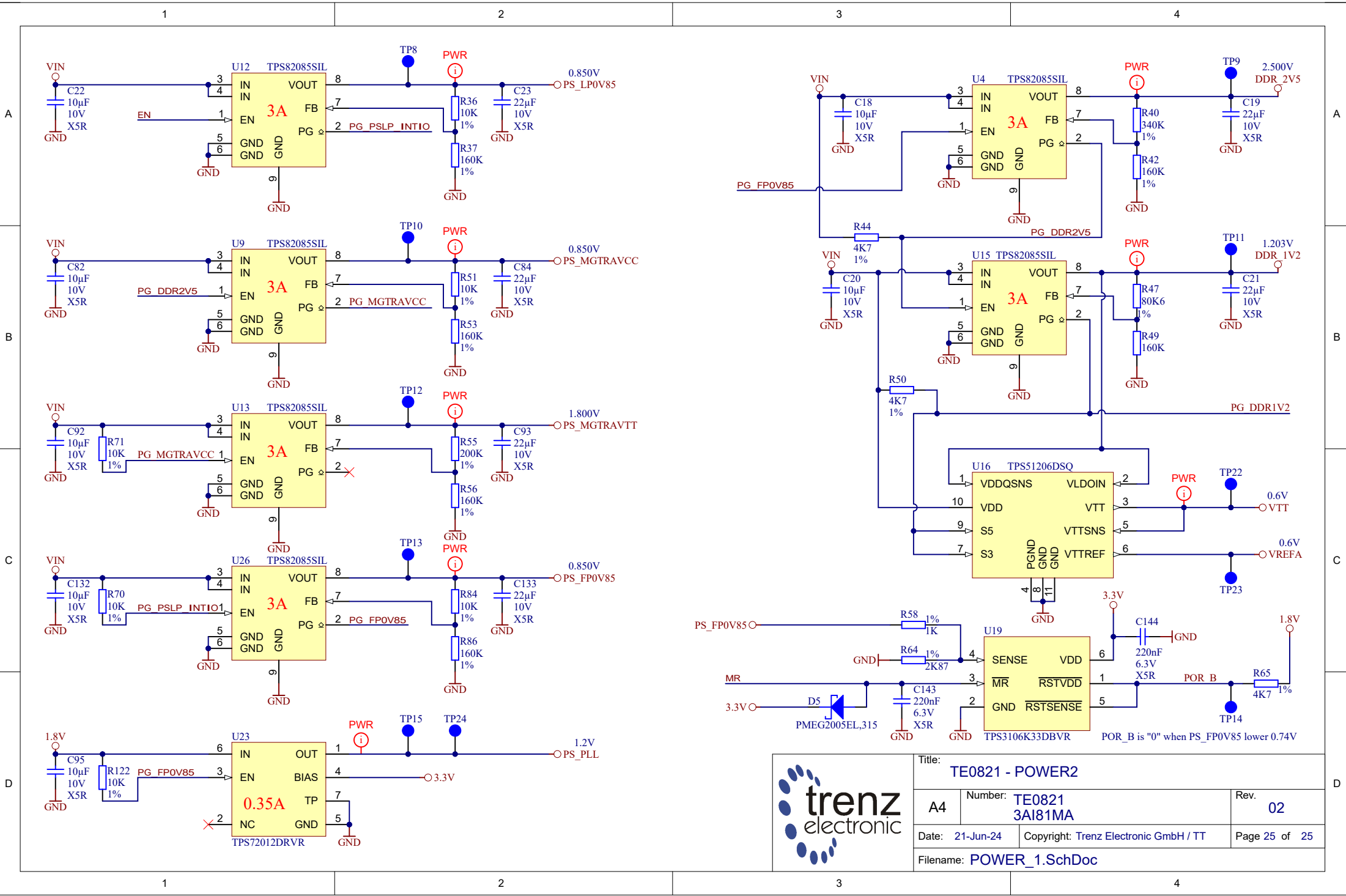
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Date: 28-May-24	Copyright: Trenz Electronic GmbH / TT	Page 24 of 25
Filename: POWER.SchDoc		

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Filename: POWER_1.SchDoc		