

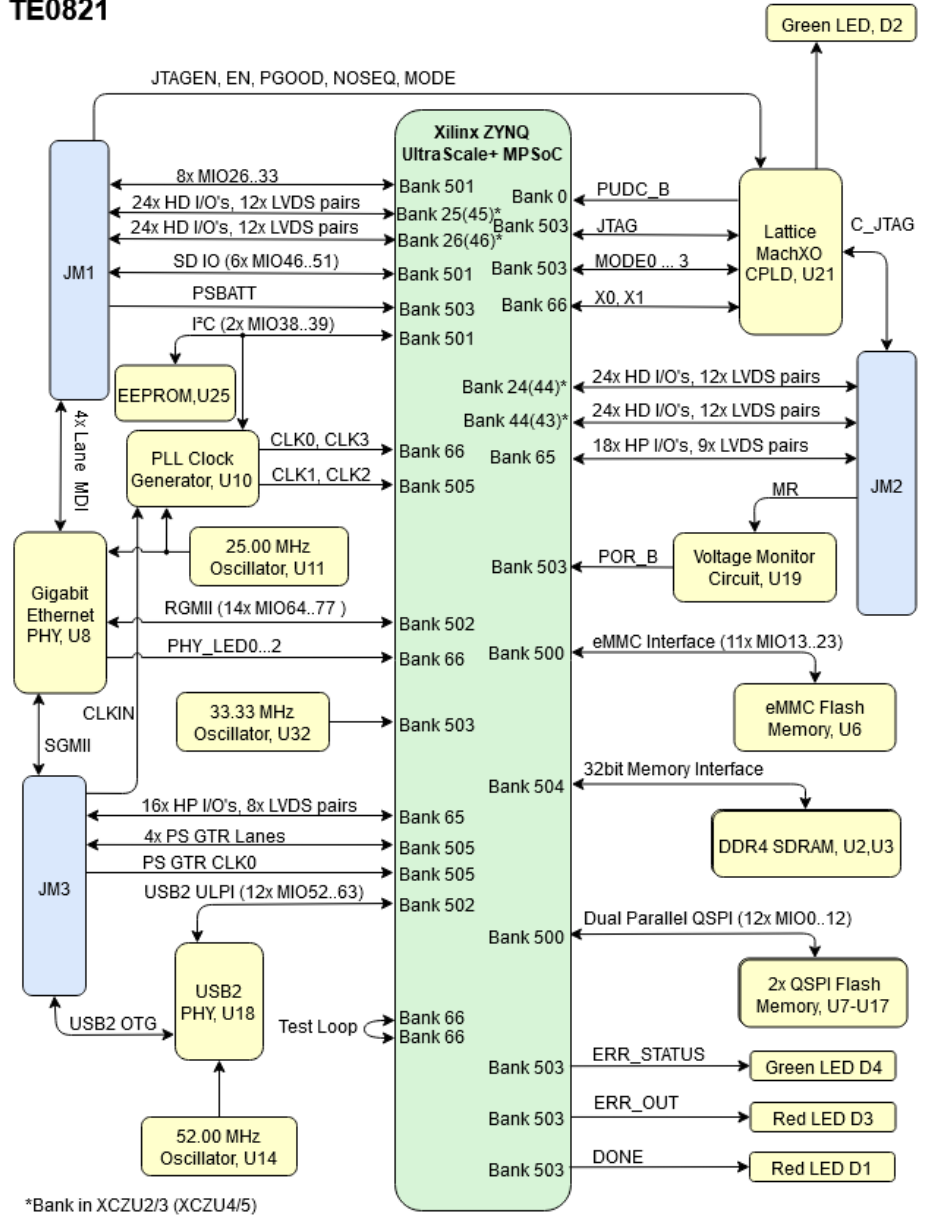
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Schematics and other handouts serve for informational purposes only!

	Title: <b>Module TE0821</b>		
	A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
	Date: <b>14.08.2020</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>1</b> of <b>24</b>
	Filename: <b>Legal Notices Modules.SchDoc</b>		

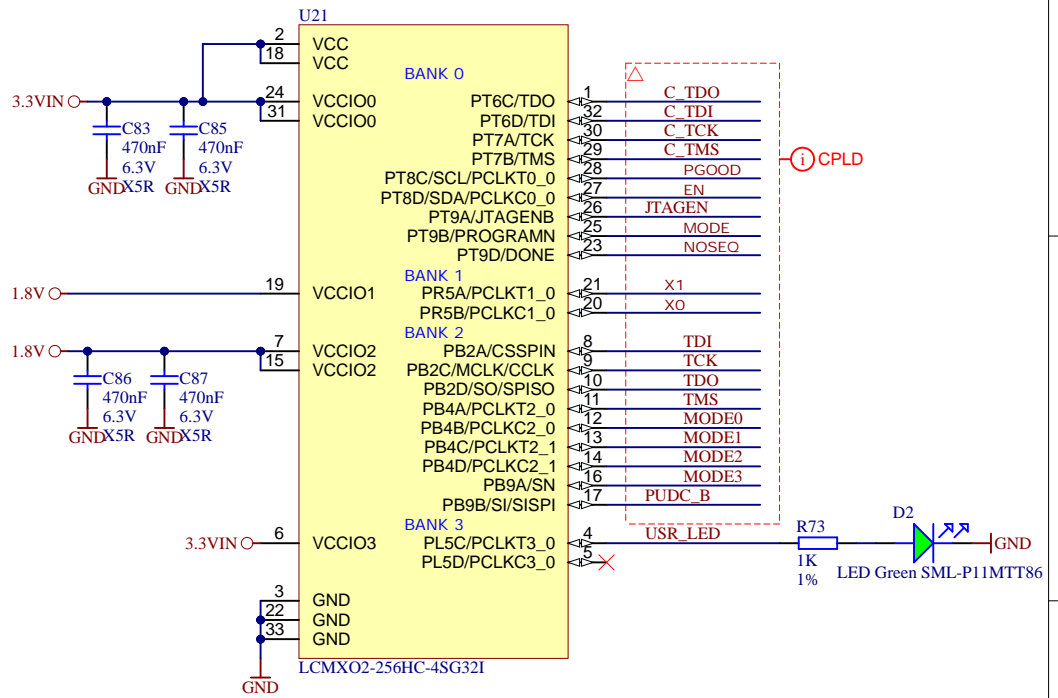
**TE0821**



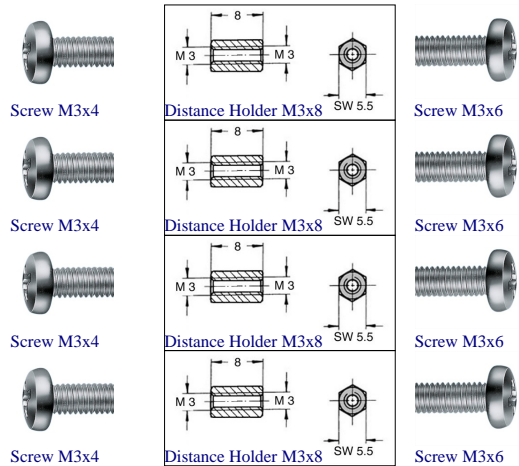
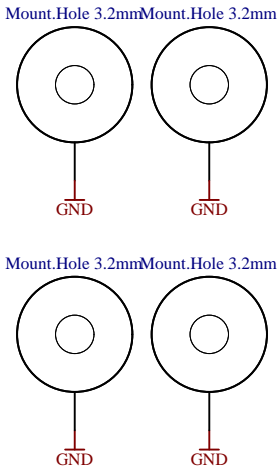
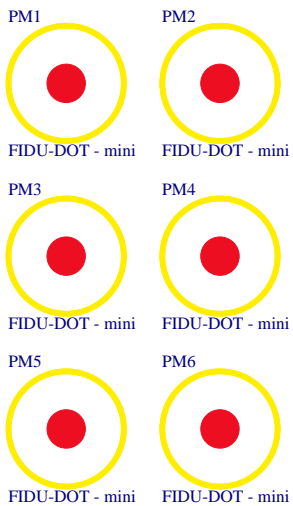
		Title: <b>Module TE0821 - System Overview</b>	
		A4	Number: <b>TE0821 2AE21MA</b> Date: 18.01.2022
Filename: <b>TE0821-Overview.SchDoc</b>			

U_USB-PHY USB-PHY.SchDoc
U_ETH-PHY ETH-PHY.SchDoc
U_B_HD B_HD.SchDoc
U_B64 B64.SchDoc
U_B65 B65.SchDoc
U_B66 B66.SchDoc
U_CONFIG CONFIG.SchDoc
U_B_MIO B_MIO.SchDoc
U_B_PS_GT B_PS_GT.SchDoc
U_CLK CLK.SchDoc
U_Overview TE0821-Overview.SchDoc
U_LN Legal Notices Modules.SchDoc

U_B2B-Connectors B2B-Connectors.SchDoc
U_B2B-Connectors_2 B2B-Connectors_2.SchDoc
U_eMMC eMMC.SchDoc
U_PS_DDR PS_DDR.SchDoc
U_ZU_POWER ZU_POWER.SchDoc
U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_DDR4-RAM_2 DDR4-RAM_2.SchDoc
U_DDR4-RAM DDR4-RAM.SchDoc
U_POWER POWER.SchDoc
U_POWER_1 POWER_1.SchDoc
U_Revision_changes Revision Changes.SchDoc



Serial  
Serialnumber  
Serialnumber 6,3 x 6,3mm

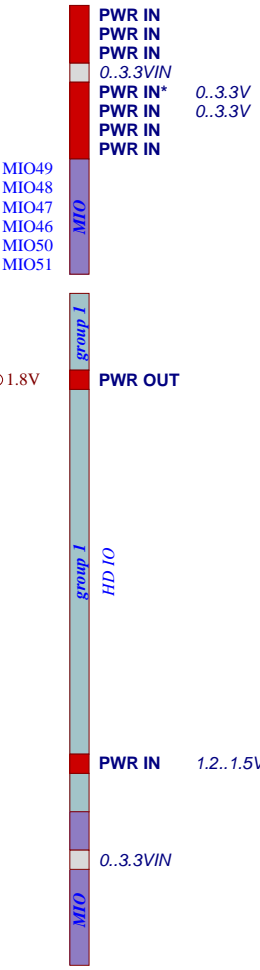
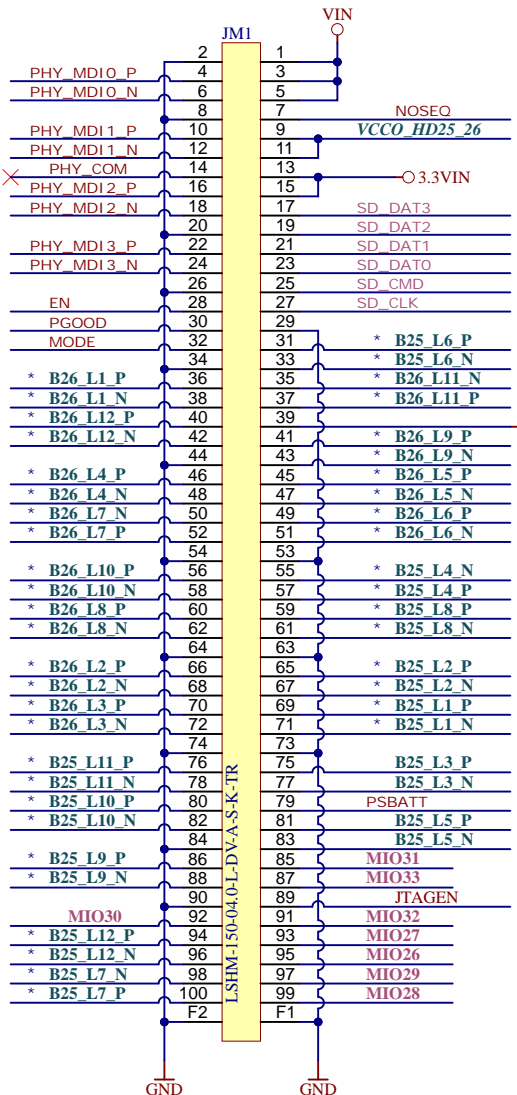


Special notes:

*Component RC0201FR-0710KL removed*



Title: <b>Module TE0821</b>		
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Filename: <b>TE0821.SchDoc</b>		

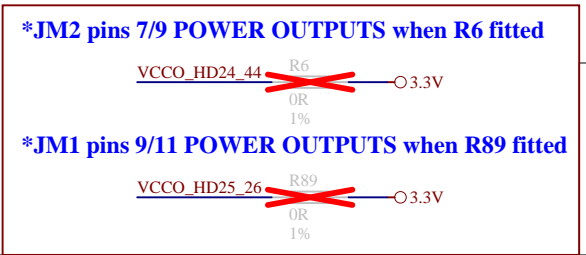
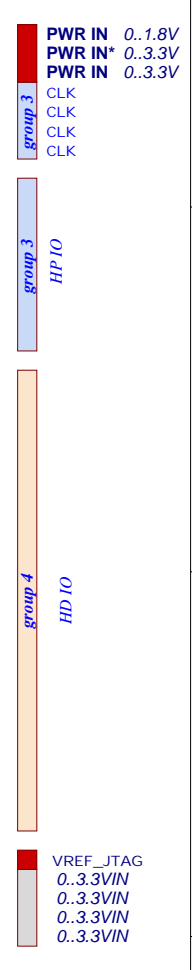
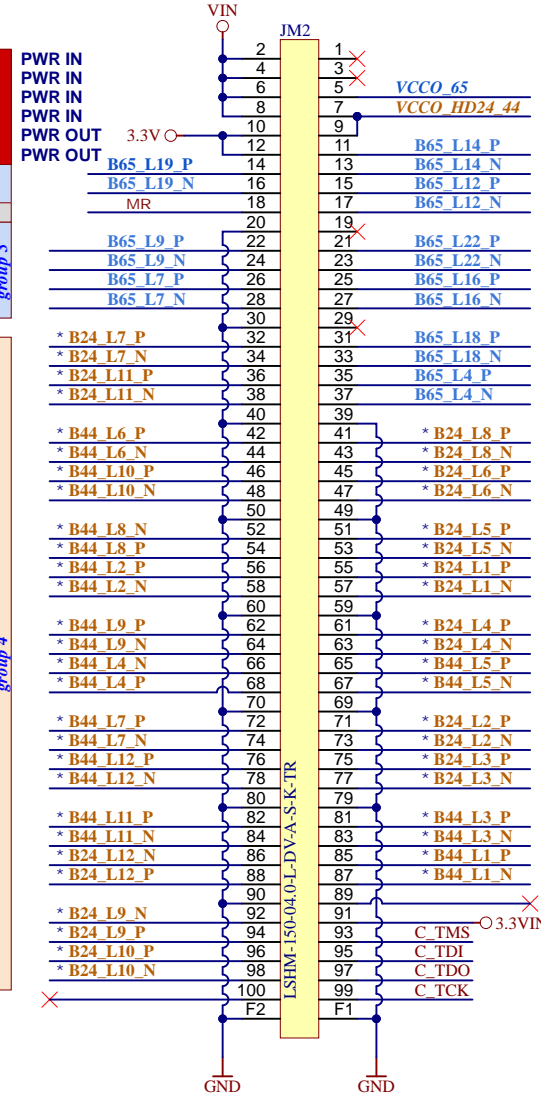


VCCO\_HD25\_26 0..3.3V  
 VCCO\_HD24\_44 0..3.3V  
 VCCO\_65 0..1.8V  
 MIO 0..3.3V  
 group 1 0..VCCO\_HD25\_26  
 group 4 0..VCCO\_HD24\_44  
 group 3 0..VCCO\_65

B24(HD) 24 IO, 12 LVDS Pairs  
 B25(HD) 24 IO, 12 LVDS Pairs  
 B26(HD) 24 IO, 12 LVDS Pairs  
 B44(HD) 24 IO, 12 LVDS Pairs  
 B65(HP) 34 IO, 17 LVDS Pairs

MIO501 8 IO, 3.3V  
 MIO501 6 IO, SD Card Ready, 3.3V  
 ETH MDI Copper

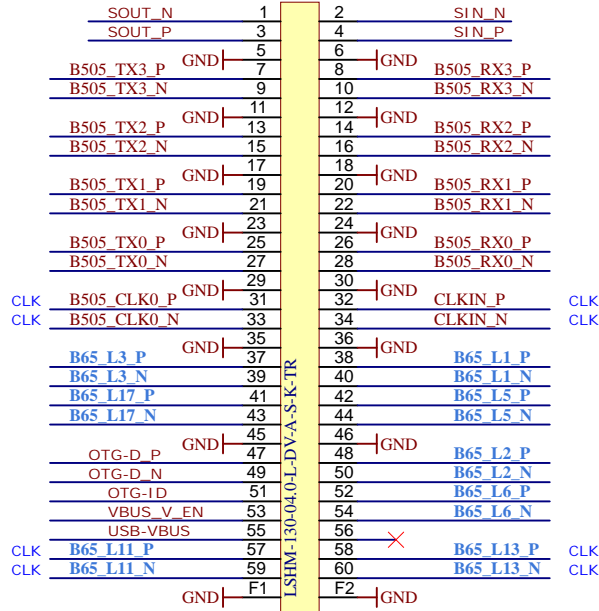
Net names are given for XCZU2/3 FPGA  
 \* Bank 44 is Bank 43 in XCZU4/5  
 \* Bank 24 is Bank 44 in XCZU4/5  
 \* Bank 25 is Bank 45 in XCZU4/5  
 \* Bank 26 is Bank 46 in XCZU4/5



Title: Module TE0821 - B2B Connectors		
A4	Number: TE0821 2AE21MA	Rev. 01
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Filename: B2B-Connectors.SchDoc		

USB OTG  
 ETH SGMII  
 PS\_GTR 4 Lanes  
 PS\_GTR CLK IN  
 PLL CLK IN

JM3



HP IO  
 group 3  
 USB  
 HP IO

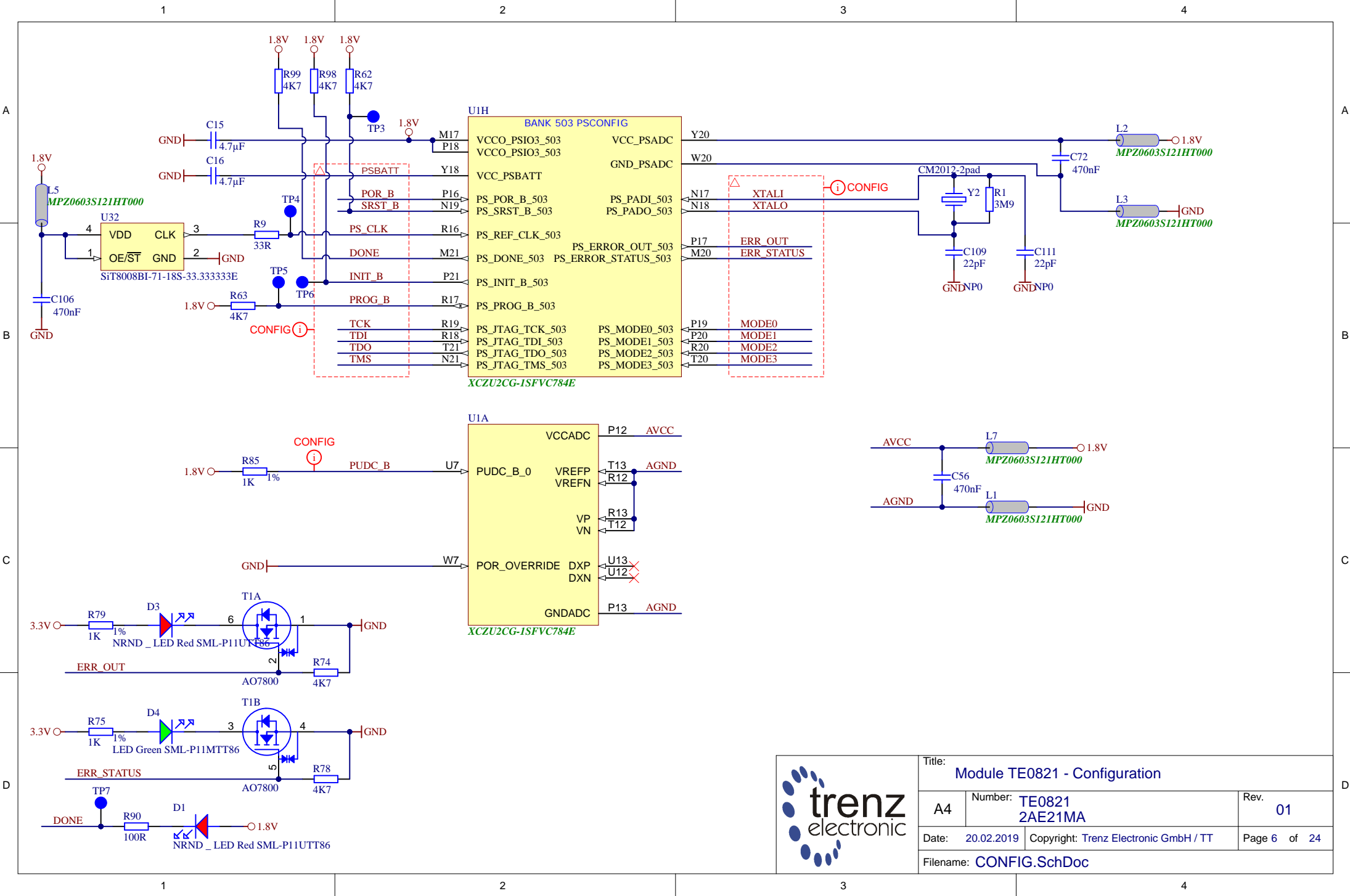
group 3  
 group 3  
 group 3

X

X



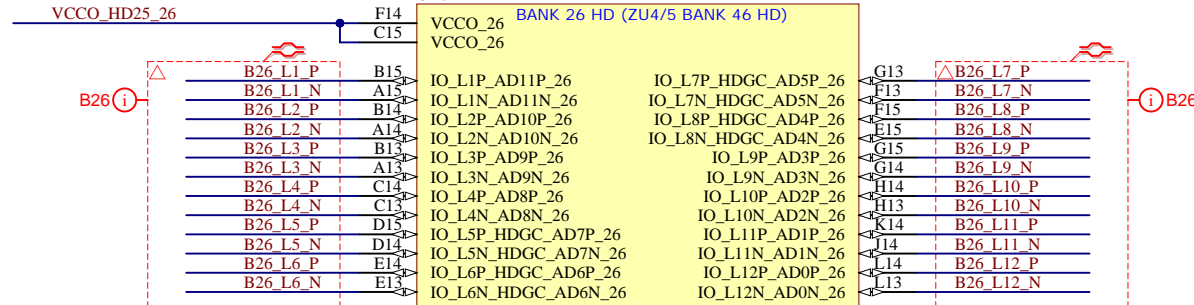
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A4	Number: TE0821 2AE21MA	Rev. 01
Date: 20.02.2019	Copyright: 2015 Trenz Electronic GmbH	Page 5 of 24
Filename: B2B-Connectors_2.SchDoc		



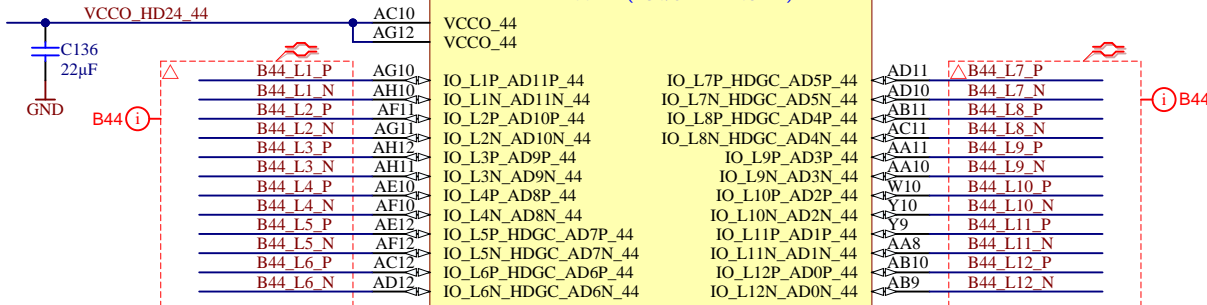
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A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
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Filename: <b>CONFIG.SchDoc</b>		



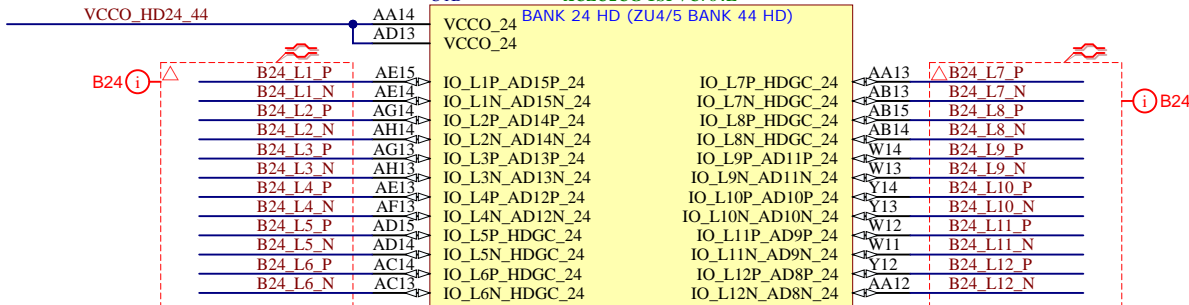
UIC



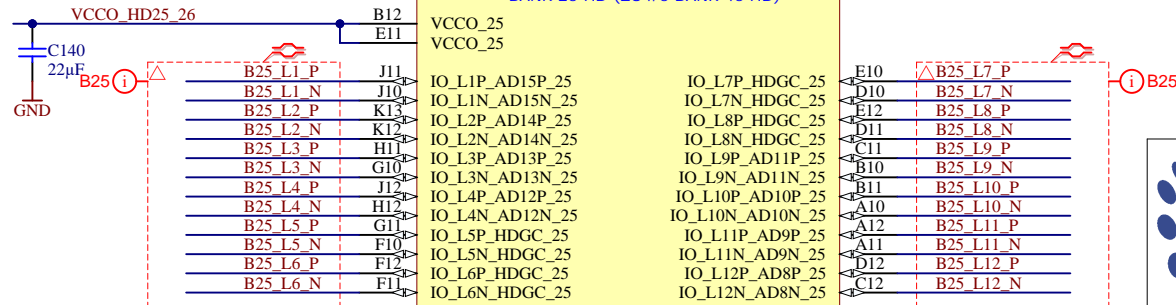
BANK 44 HD (ZU4/5 BANK 43 HD)



UIB XCZU2CG-1SFVC784E



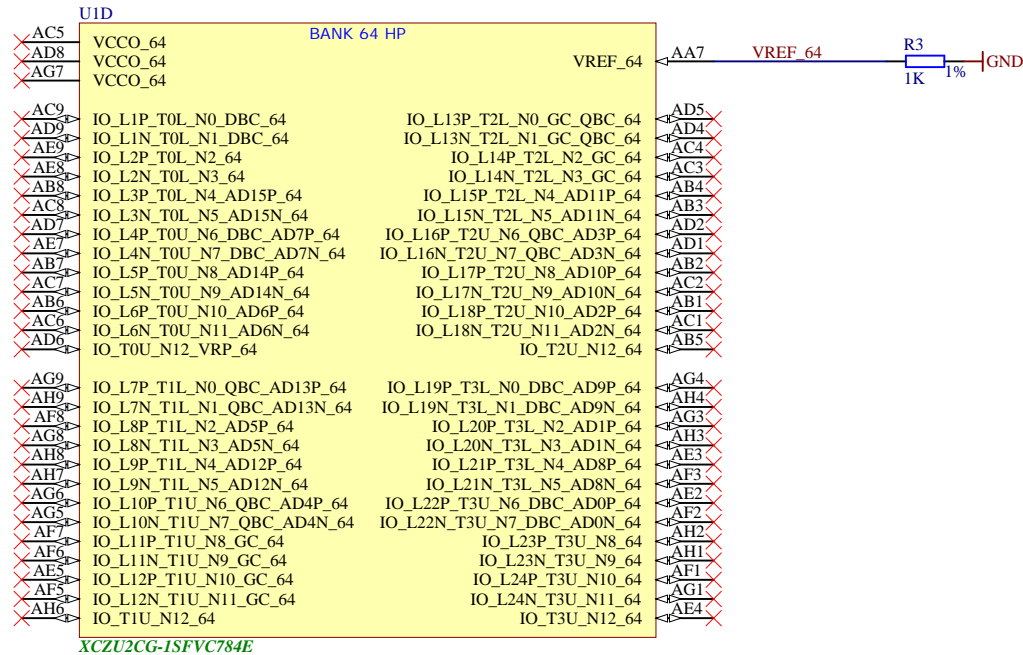
BANK 25 HD (ZU4/5 BANK 45 HD)



XCZU2CG-1SFVC784E



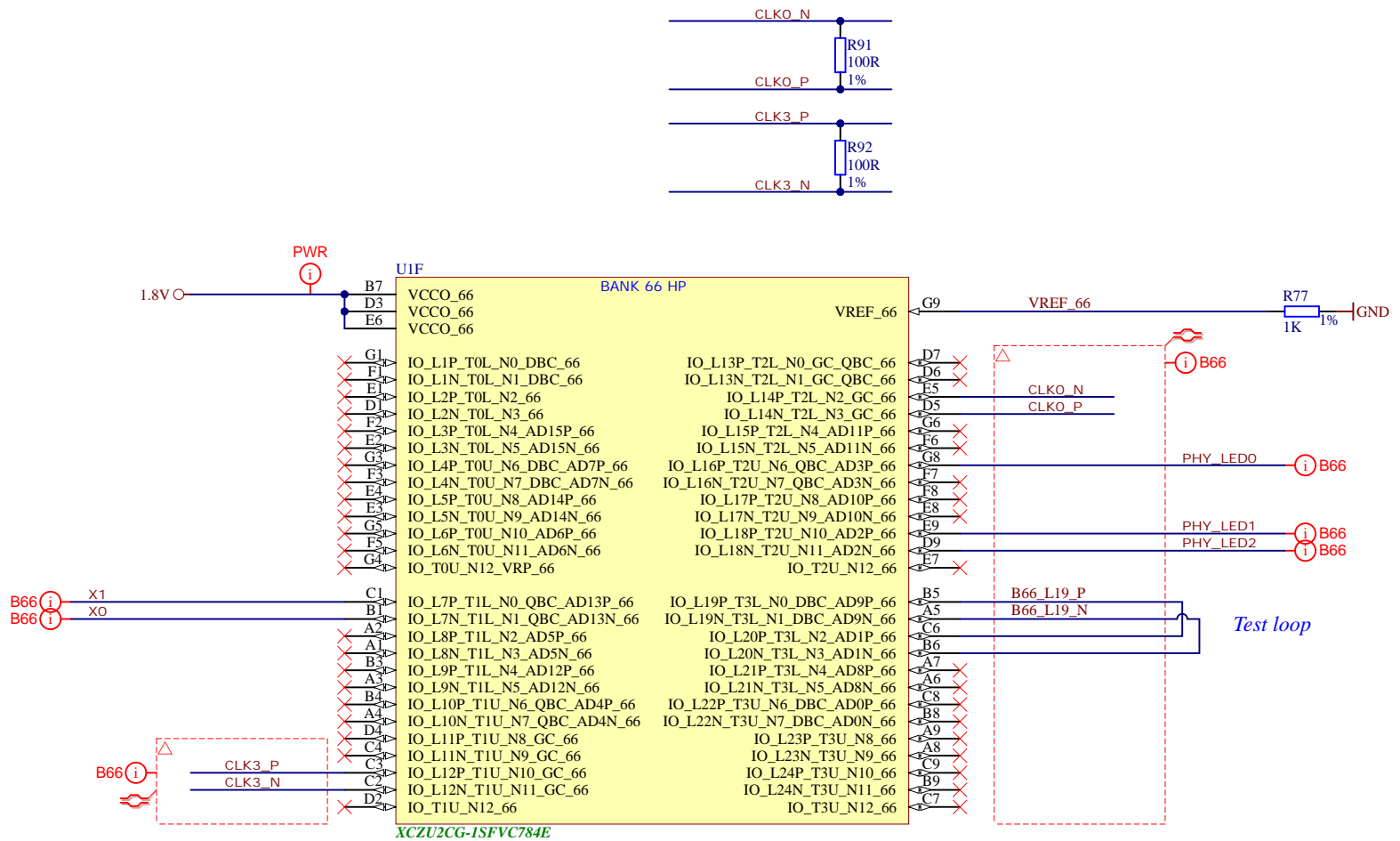
Title: <b>Module TE0821 - HD Banks</b>		
A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
Date: <b>20.02.2019</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>7</b> of <b>24</b>
Filename: <b>B_HD.SchDoc</b>		



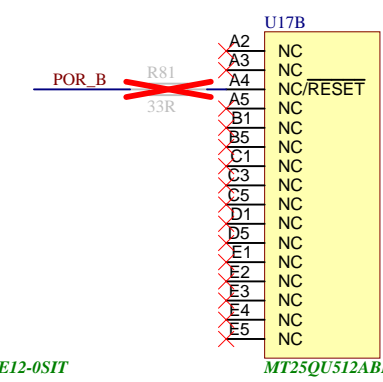
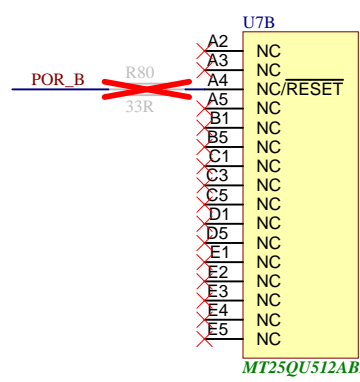
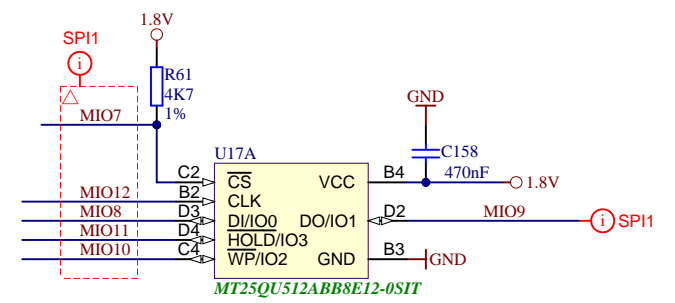
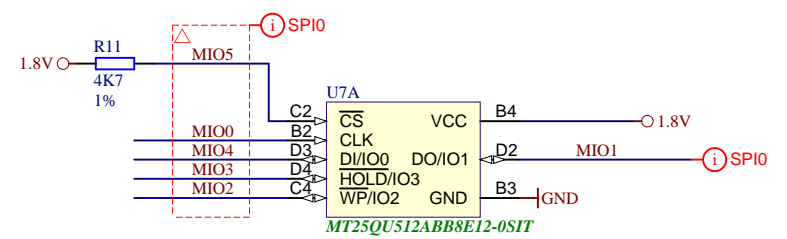
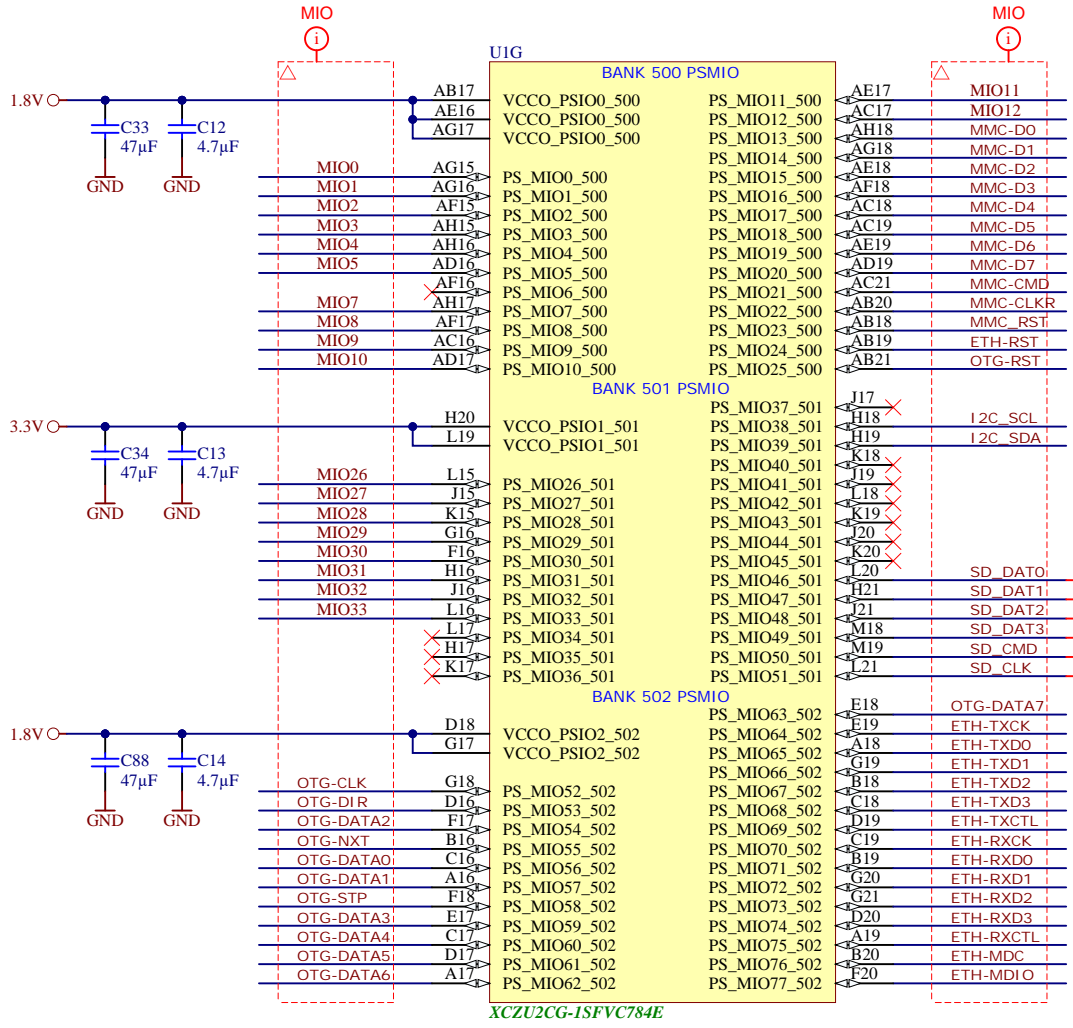
Title: <b>Module TE0821 - B64</b>		
A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
Date: <b>20.02.2019</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>8</b> of <b>24</b>
Filename: <b>B64.SchDoc</b>		







Title: <b>Module TE0821 - B66</b>		
A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
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Filename: <b>B66.SchDoc</b>		



		Title: <b>Module TE0821 - MIO Banks</b>	
		A4	Number: <b>TE0821 2AE21MA</b> Date: 20.02.2019 Filename: <b>B_MIO.SchDoc</b>



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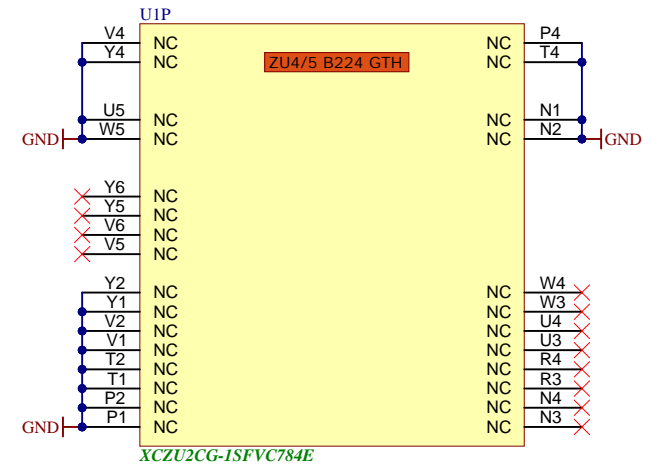
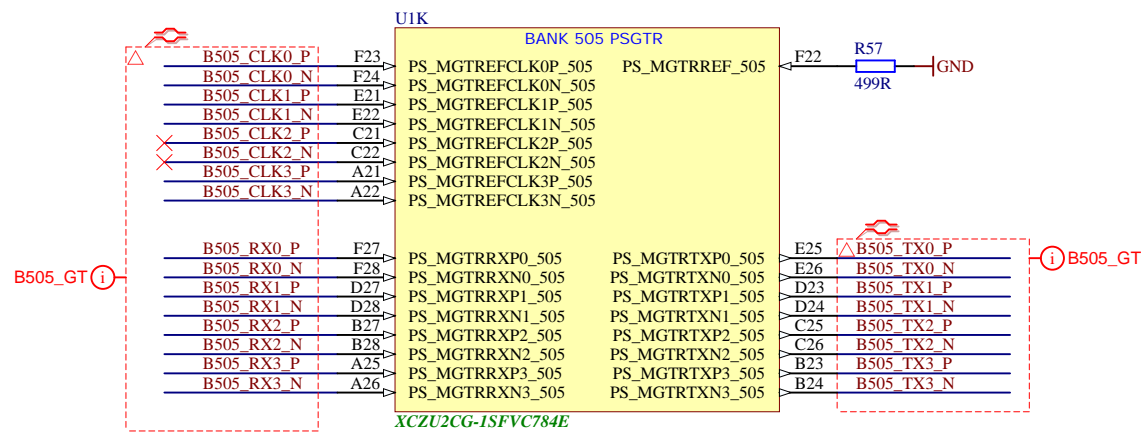

B

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D

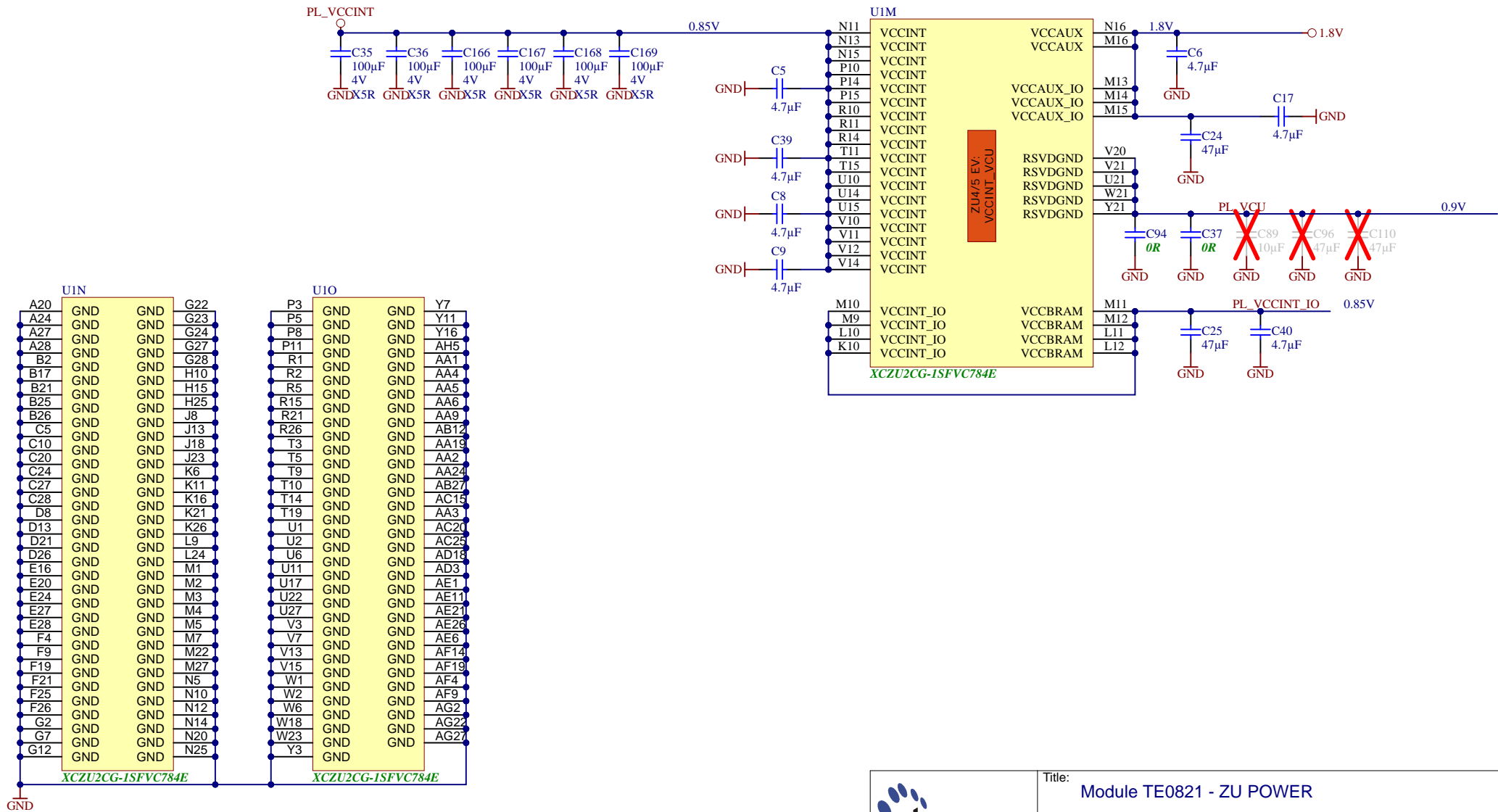
Title: <b>Module TE0821 - PS MGT</b>		
A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
Date: <b>20.02.2019</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>13</b> of <b>24</b>
Filename: <b>B_PS_GT.SchDoc</b>		

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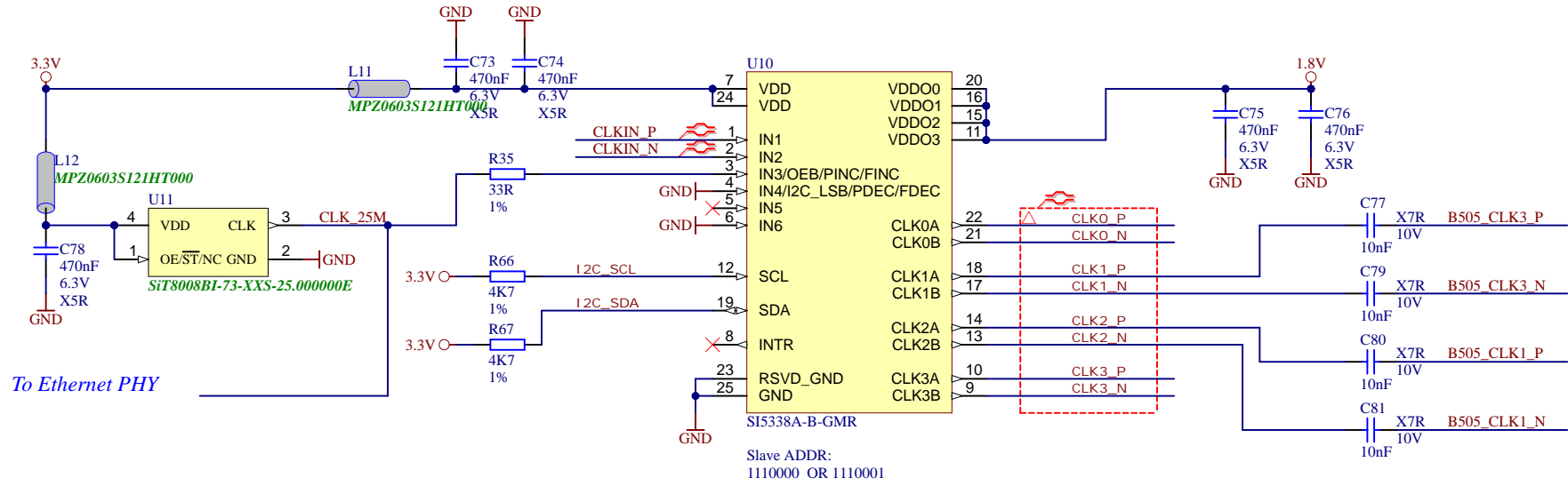
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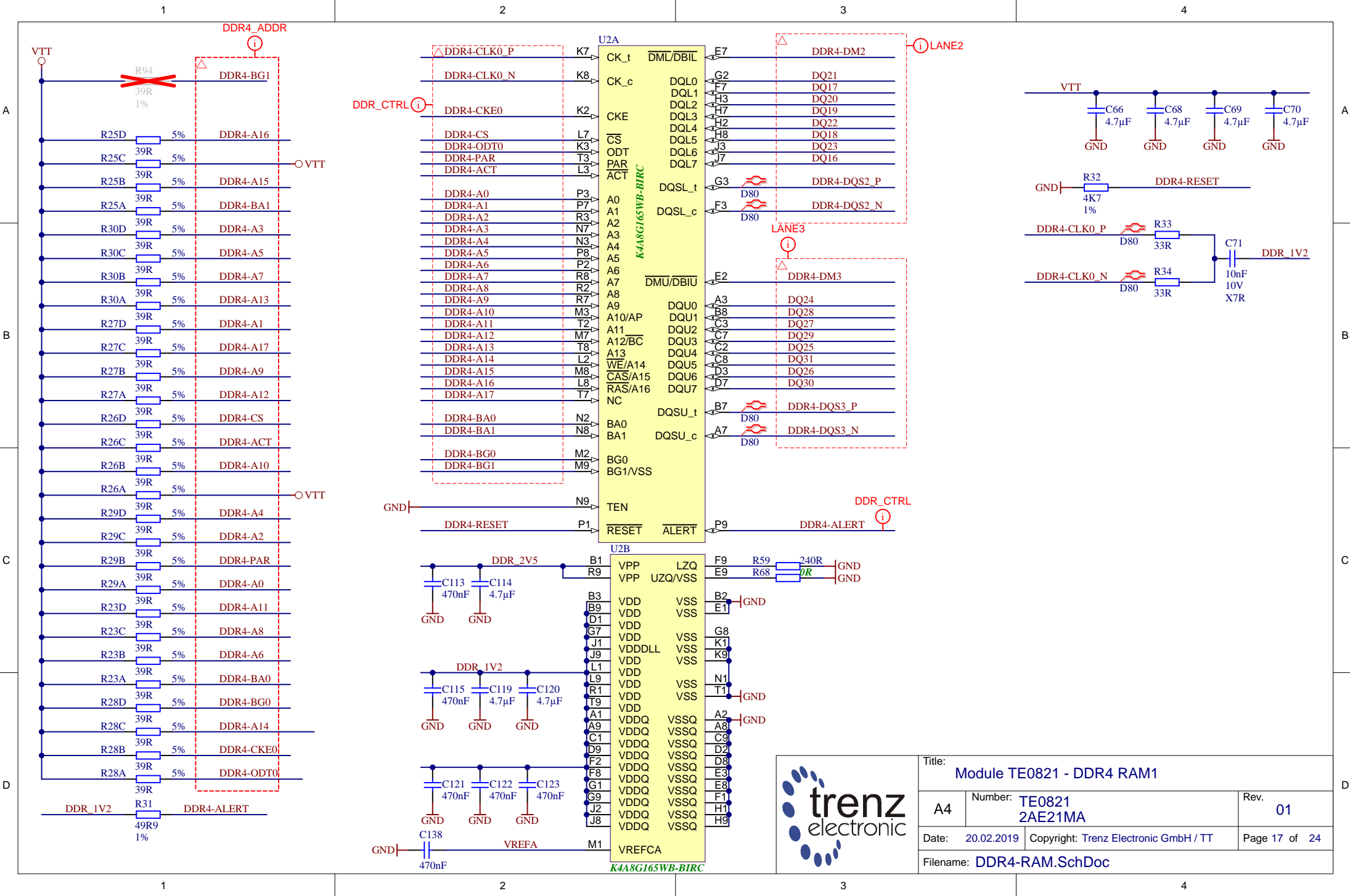
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A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
Date: <b>20.02.2019</b>	Copyright: Trenz Electronic GmbH / TT	
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Filename: <b>ZU_POWER.SchDoc</b>		



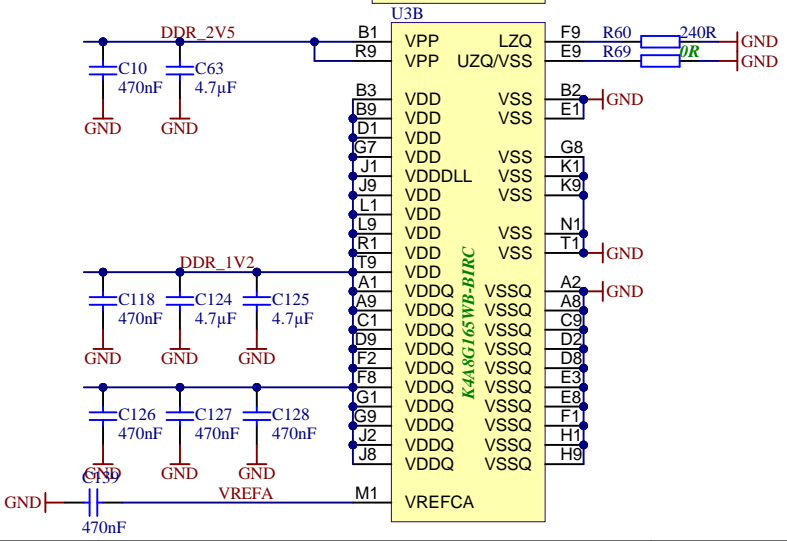
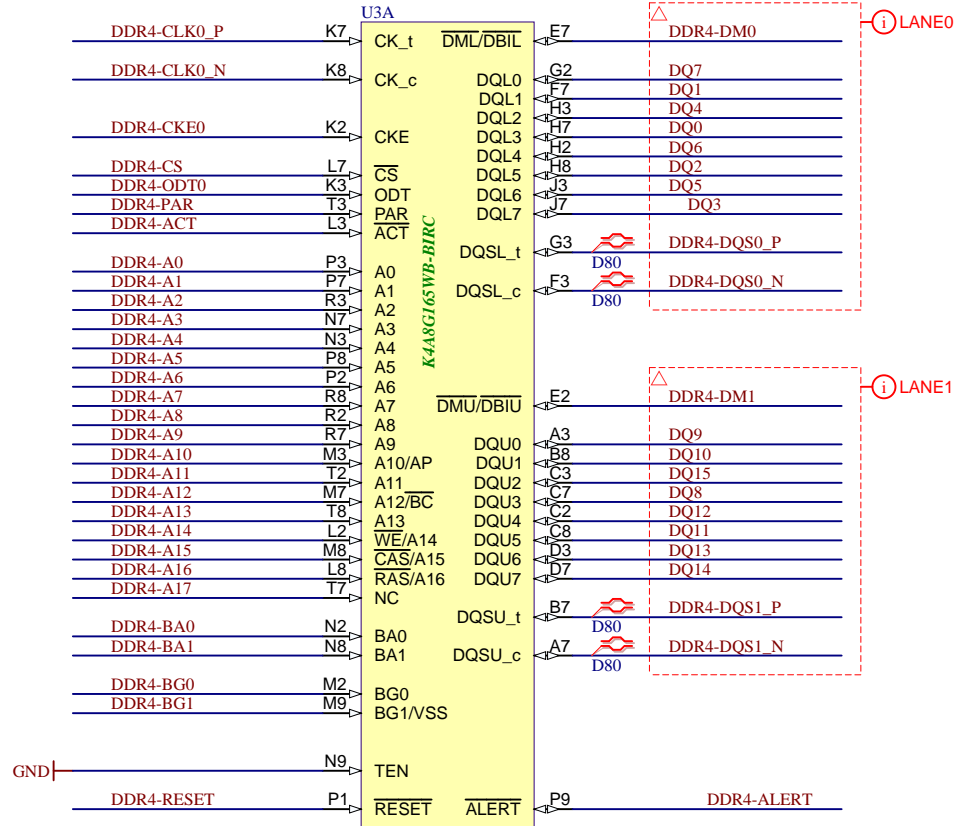




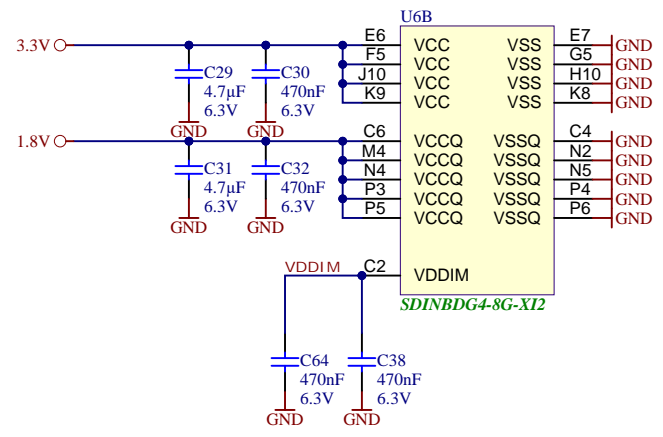
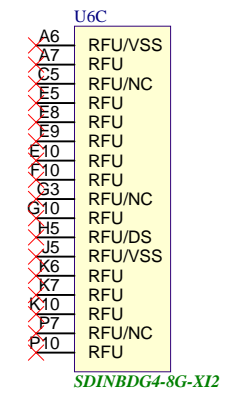
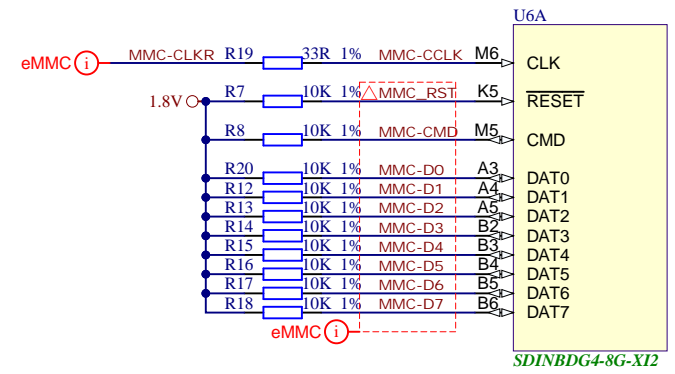
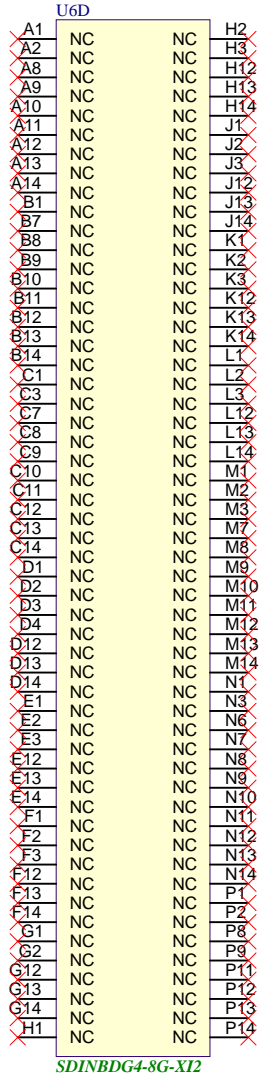

		Title: Module TE0821 - CLK	
		A4	Number: TE0821 2AE21MA
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Filename: CLK.SchDoc		Page 16 of 24	



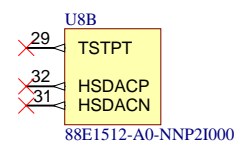
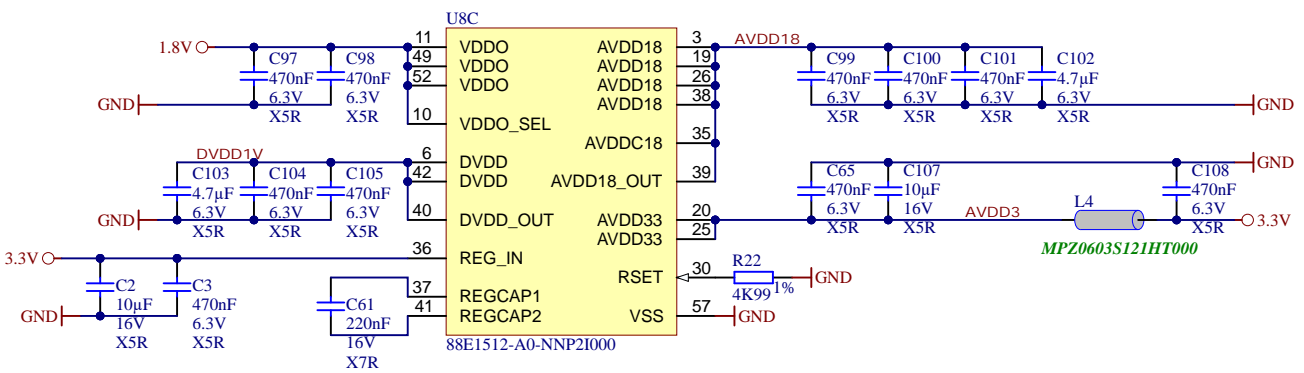
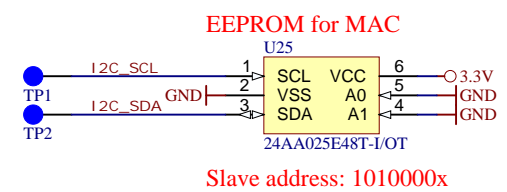
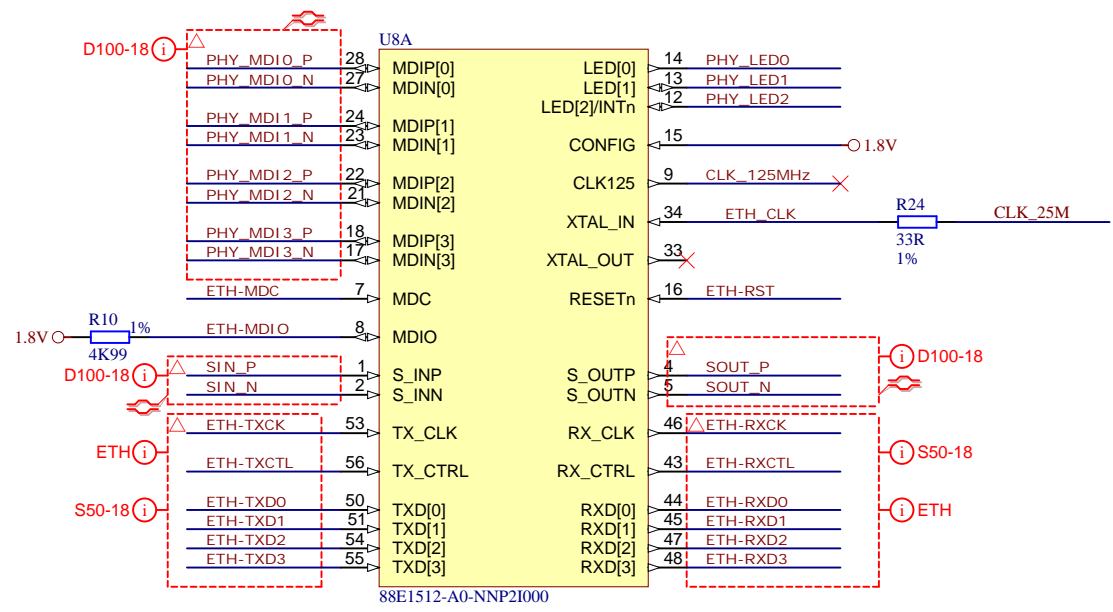
Title: <b>Module TE0821 - DDR4 RAM1</b>		
A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
Date: <b>20.02.2019</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>17</b> of <b>24</b>
Filename: <b>DDR4-RAM.SchDoc</b>		



Title: Module TE0821 - DDR4 RAM2		
A4	Number: TE0821 2AE21MA	Rev. 01
Date: 20.02.2019	Copyright: Trenz Electronic GmbH / TT	Page 18 of 24
Filename: DDR4-RAM_2.SchDoc		

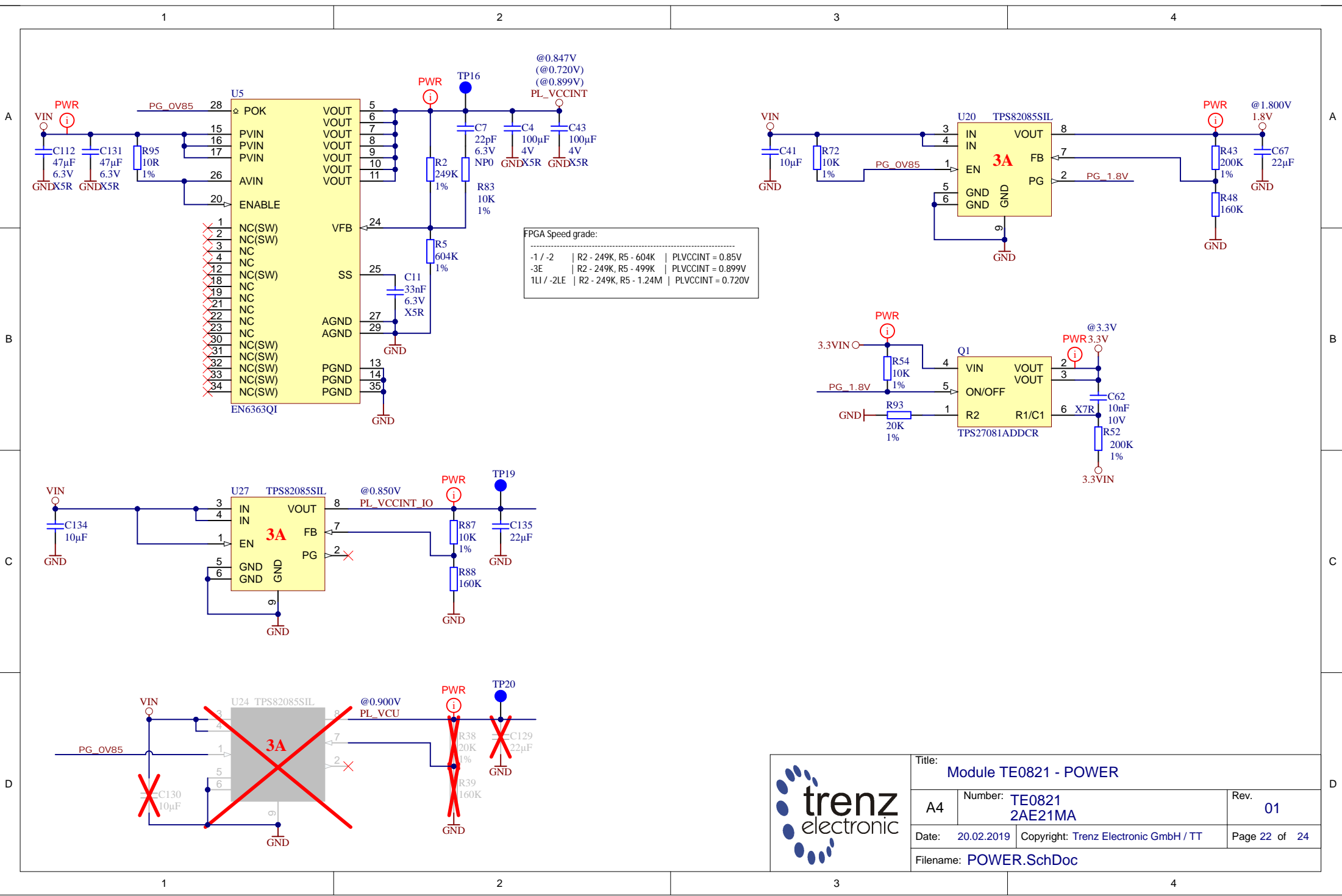

Title: Module TE0821 - eMMC		
A4	Number: TE0821 2AE21MA	Rev. 01
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Filename: eMMC.SchDoc		



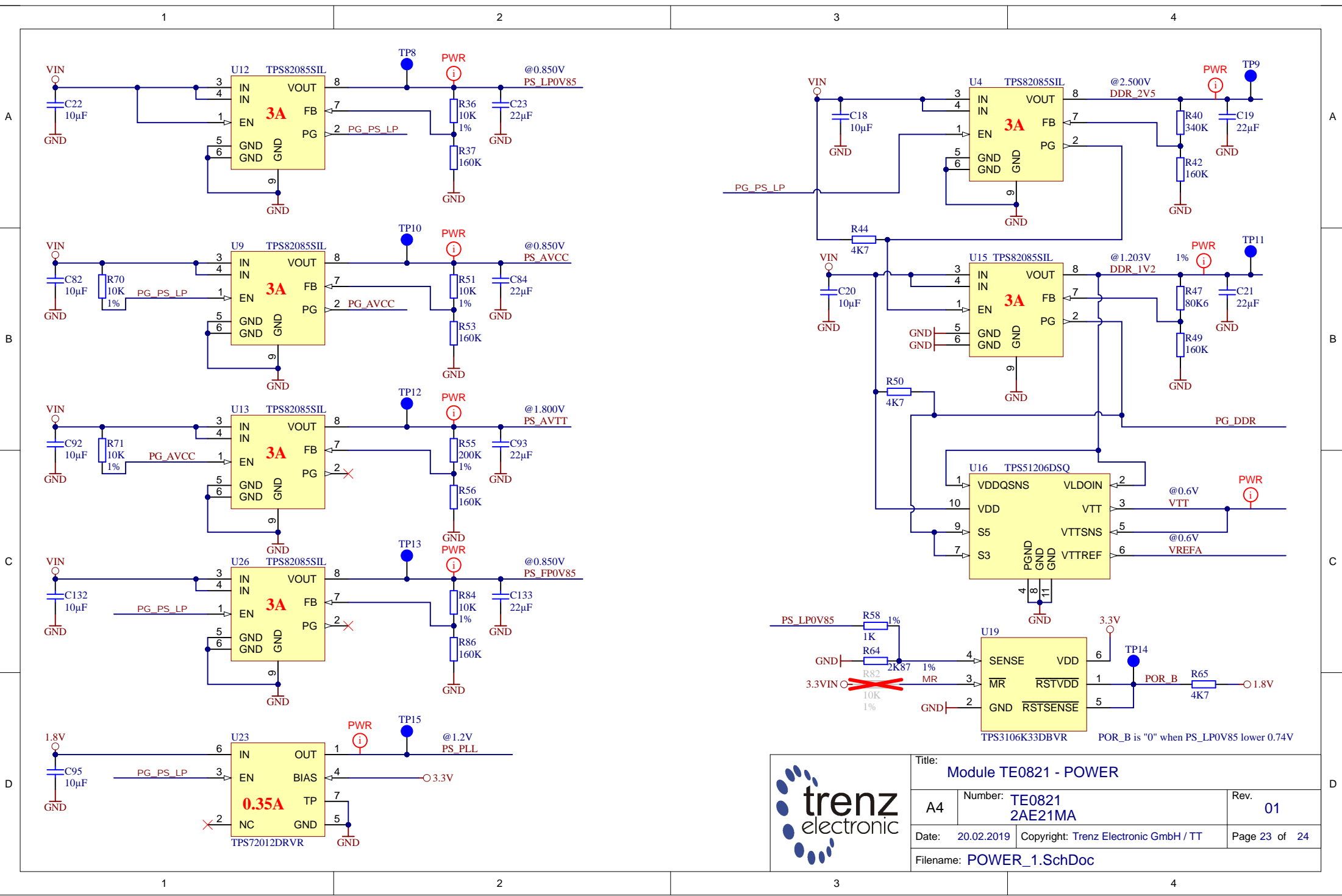
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A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
Date: <b>20.02.2019</b>	Copyright: <b>2015 Trenz Electronic GmbH</b>	Page <b>20</b> of <b>24</b>
Filename: <b>ETH-PHY.SchDoc</b>		





Title: <b>Module TE0821 - POWER</b>		
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Filename: <b>POWER.SchDoc</b>		



Title: <b>Module TE0821 - POWER</b>		
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Filename: <b>POWER_1.SchDoc</b>		

POR\_B is "0" when PS\_LP0V85 lower 0.74V

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Revision 01a (01.07.2020):

1. VY: R38 value was changed to 20K (was: 40K2) to set VCU 0.9V

Revision 01b (29.10.2020):

1. VY: Updated Block diagram

(07.02.2024):  
2. OT: R82 set to not fitted

A

A

B


B

C

C

D

D

	Title: <b>Module TE0821 - Revision Changes</b>		
	A4	Number: <b>TE0821 2AE21MA</b>	Rev. <b>01</b>
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	Filename: <b>Revision Changes.SchDoc</b>		

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