


Regarding the usage of our schematics and alike documentation for Trenz module AM0010.

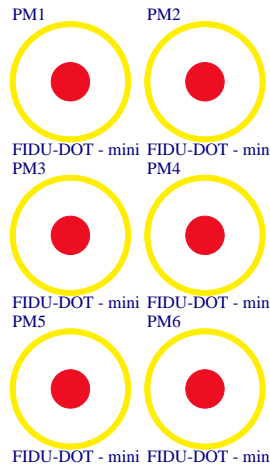
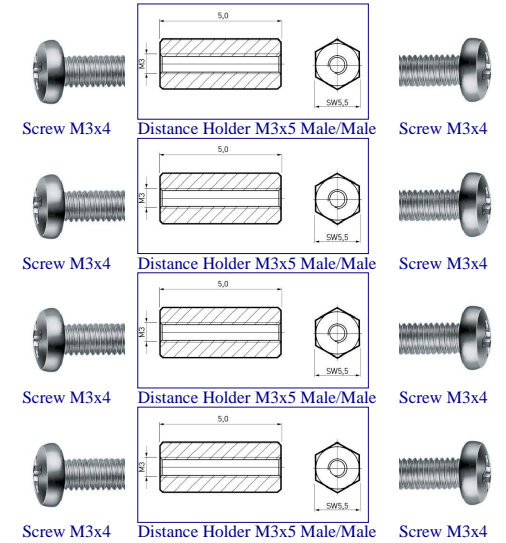
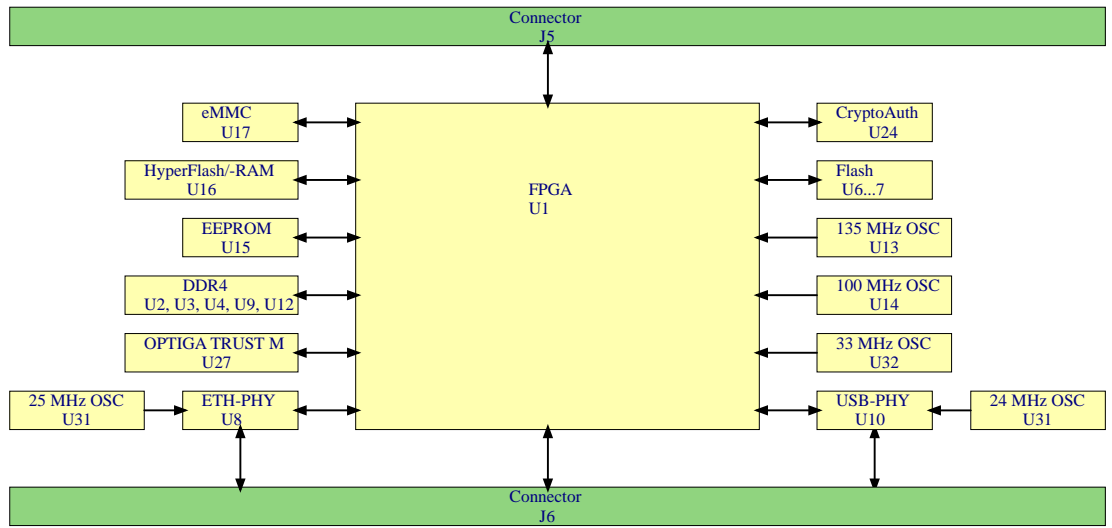
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Schematics and other handouts serve for informational purposes only!

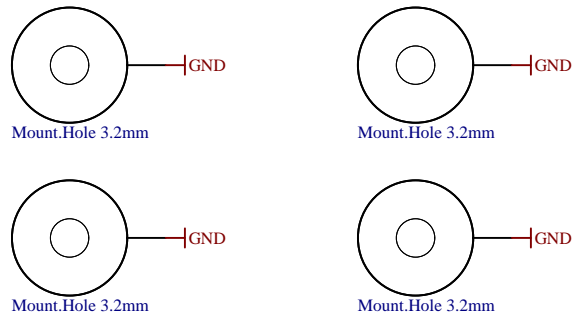
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	A4	Number: Legal Notices Modules 4DE21MA	Rev. 01
	Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 1 of 30
	Filename: Legal Notices Modules.SchDoc		

Special notes:

- U_B2B_Connector_1
B2B_Connector_1.SchDoc
- U_B2B_Connector_2
B2B_Connector_2.SchDoc
- U_MPSoC
MPSoC.SchDoc
- U_DDR4-RAM
DDR4-RAM.SchDoc
- U_DDR4-RAM_2
DDR4-RAM_2.SchDoc
- U_DDR4-RAM_3
DDR4-RAM_3.SchDoc
- U_DDR4-RAM_4
DDR4-RAM_4.SchDoc
- U_DDR4-RAM_5
DDR4-RAM_5.SchDoc
- U_DDR4-CAPS
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- U_DDR4-TERM
DDR4-TERM.SchDoc
- U_ETHPHY
ETHPHY.SchDoc
- U_USBPHY
USBPHY.SchDoc
- U_eMMC
eMMC.SchDoc
- U_MISC
MISC.SchDoc
- U_POWER_1
POWER_1.SchDoc
- U_POWER_2
POWER_2.SchDoc
- U_REV_CH
Revision_Changes.SchDoc
- U_Legal_Notices_Modules
Legal_Notices_Modules.SchDoc



Serial
Serialnumber 6,3 x 6.3mm



Title: AM0010		
A4	Number: AM0010 4DE21MA	Rev. 01
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Filename: AM0010.SchDoc		

Assembly variant	4DE21MA
Created by	ED
Modified by	ED
Modified at	02.07.21
SVN Revision	457

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A

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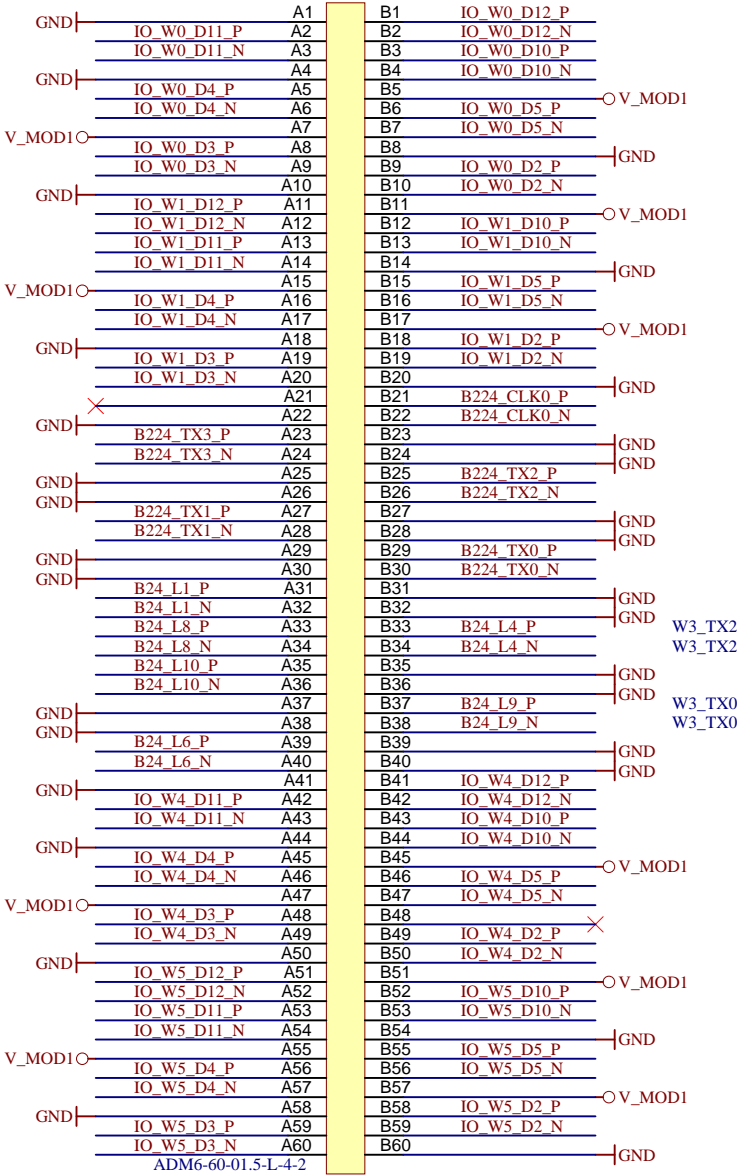
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D

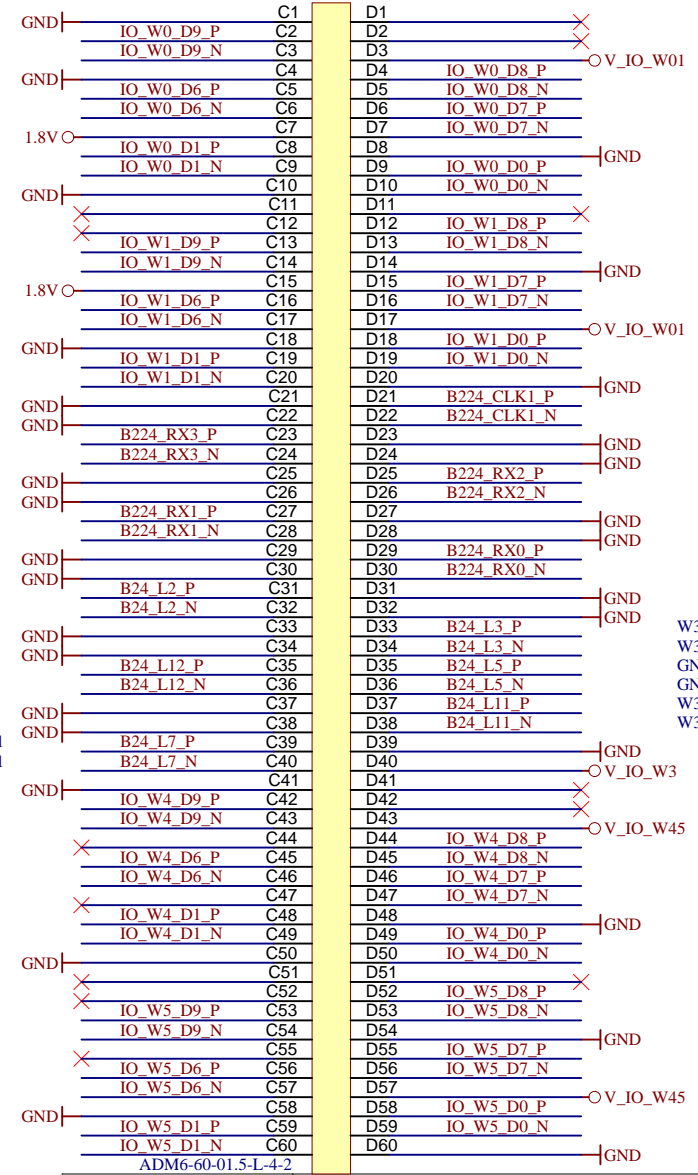
Connector W

J5A


J5B



ADM6-60-01.5-L-4-2



ADM6-60-01.5-L-4-2



Title: **AM0010 – B2B_Connector_1**

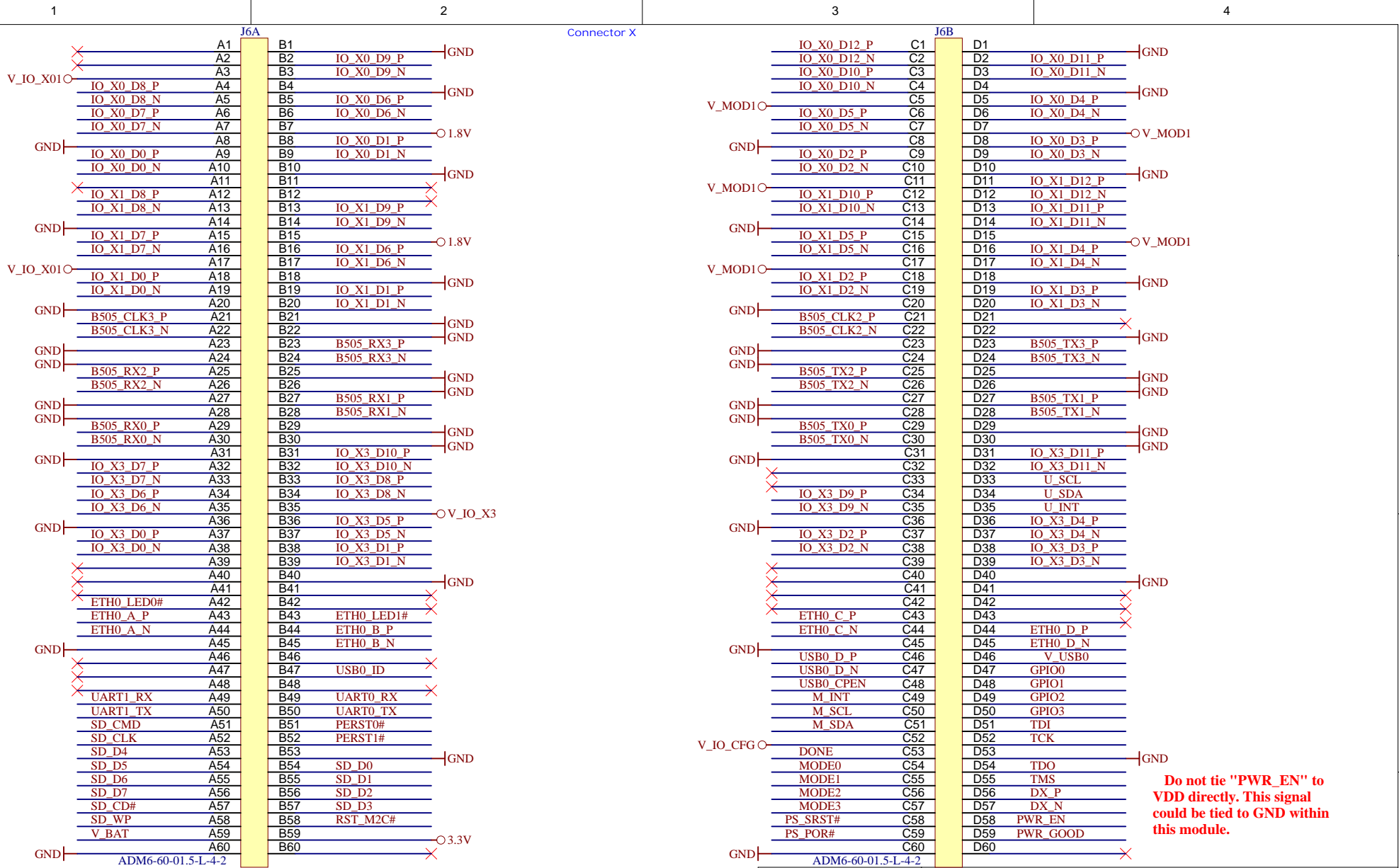
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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 3 of 30
Filename: B2B_Connector_1.SchDoc		

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Do not tie "PWR_EN" to VDD directly. This signal could be tied to GND within this module.



Title: AM0010 – B2B_Connector_2		
A4	Number: B2B_Connector_2 4DE21MA	Rev. 01
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A

A

- U_B64
B64.SchDoc

- U_B65
B65.SchDoc

- U_B66
B66.SchDoc

- U_B_HD
B_HD.SchDoc

- U_B_MIO
B_MIO.SchDoc

- U_PS_DDR
PS_DDR.SchDoc

- U_B_PS_GT
B_PS_GT.SchDoc

- U_B_GT
B_GT.SchDoc

- U_CONFIG
CONFIG.SchDoc

- U_ZU_POWER
ZU_POWER.SchDoc

- U_ZU_PS_POWER
ZU_PS_POWER.SchDoc


B


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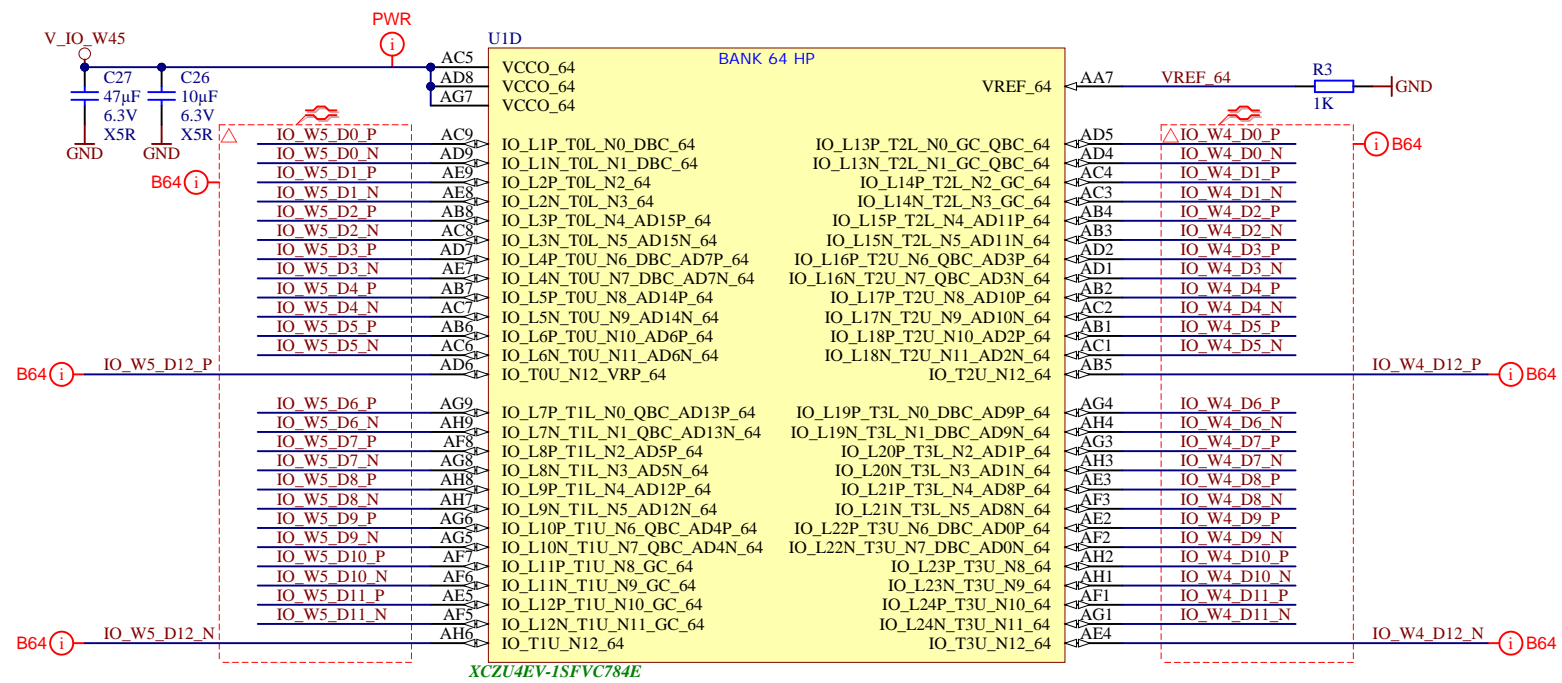
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	Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 5 of 30
	Filename: MPSoC.SchDoc		

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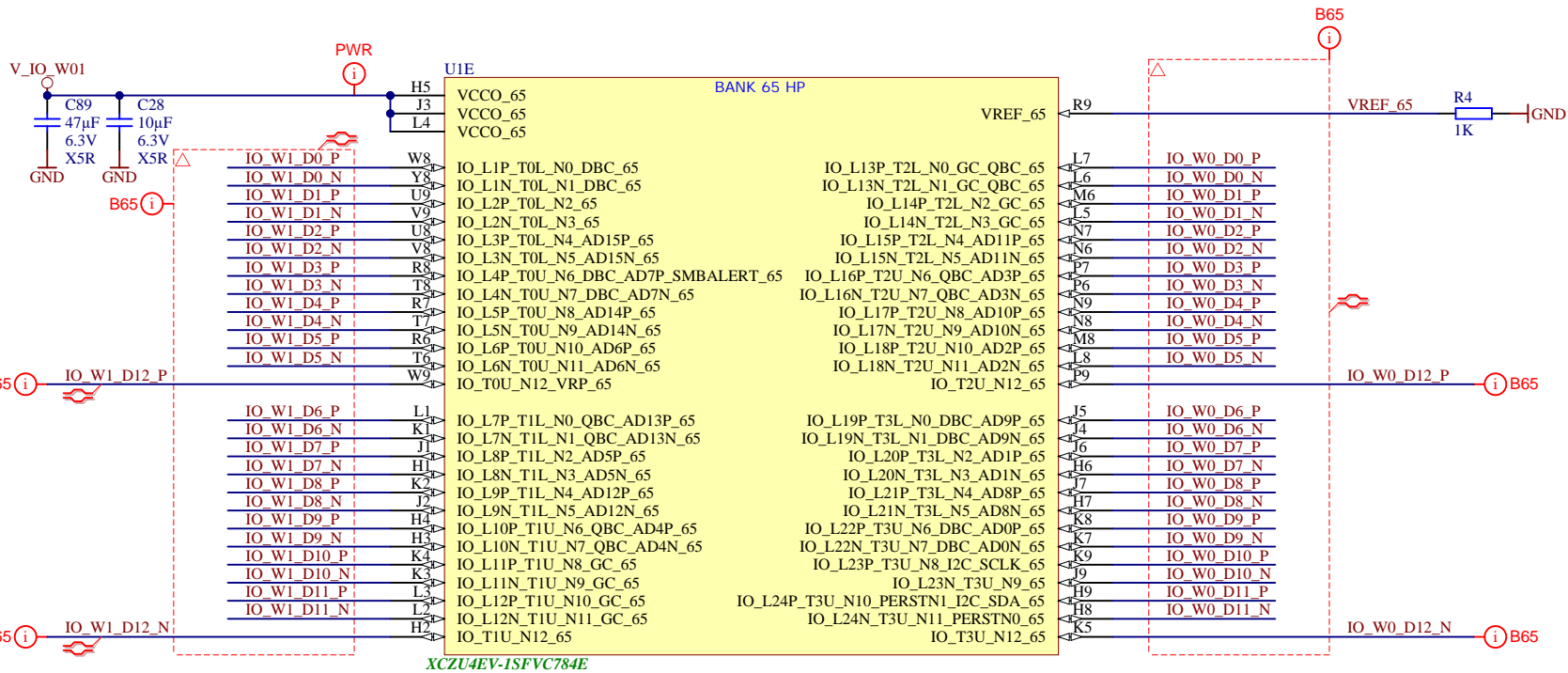
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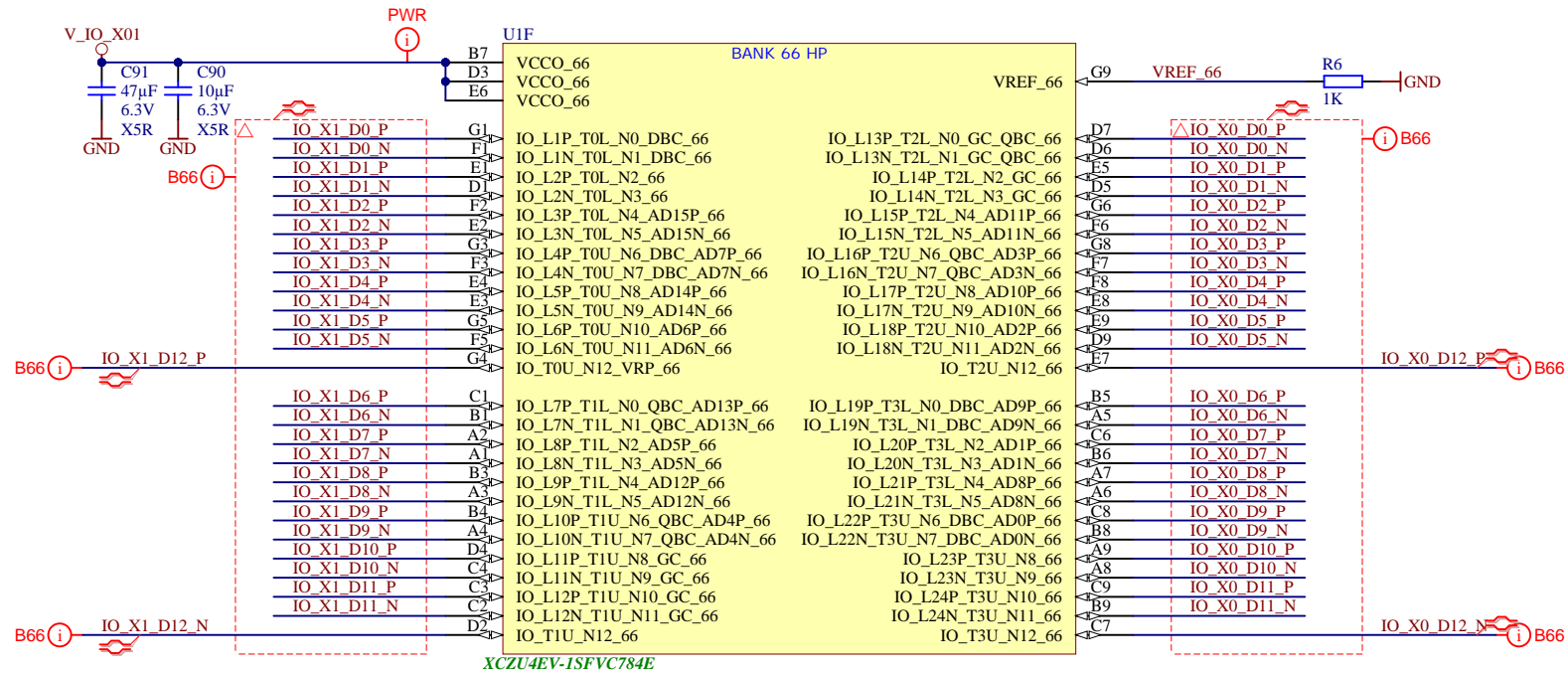
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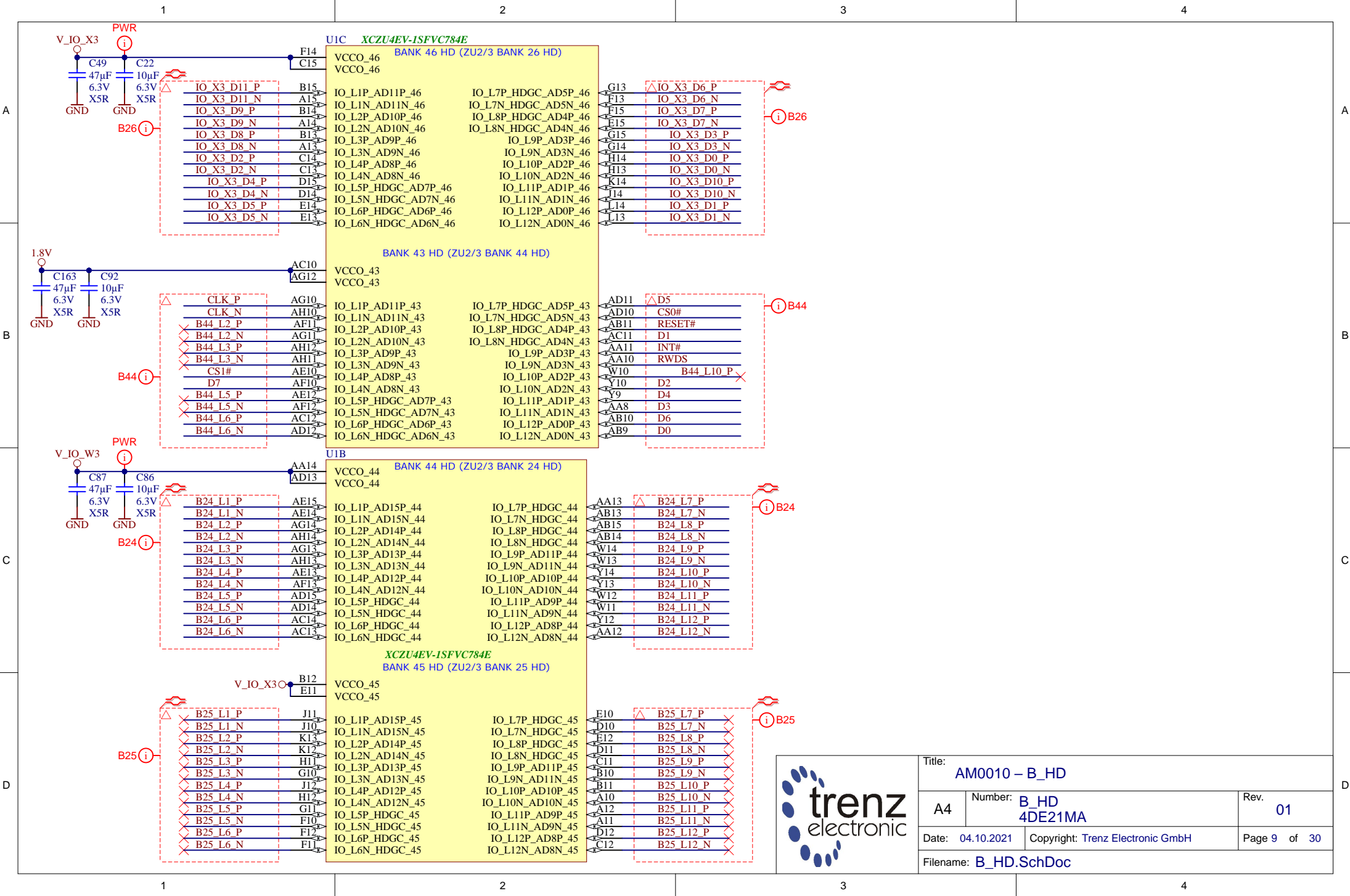
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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 6 of 30
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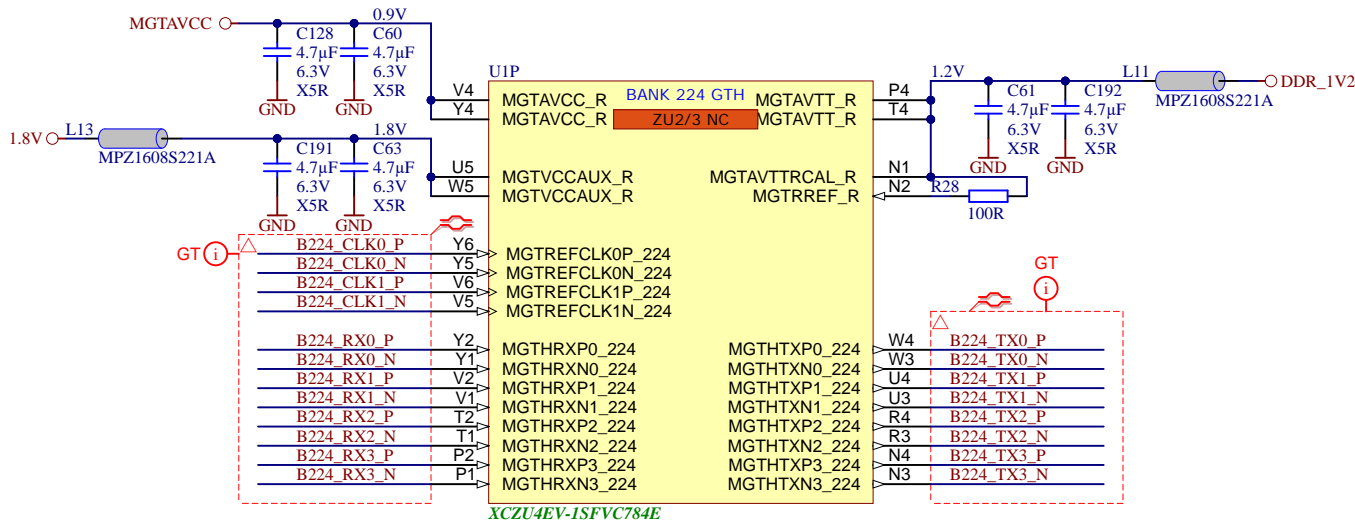
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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 7 of 30
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Title: AM0010 – B66		
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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 8 of 30
Filename: B66.SchDoc		



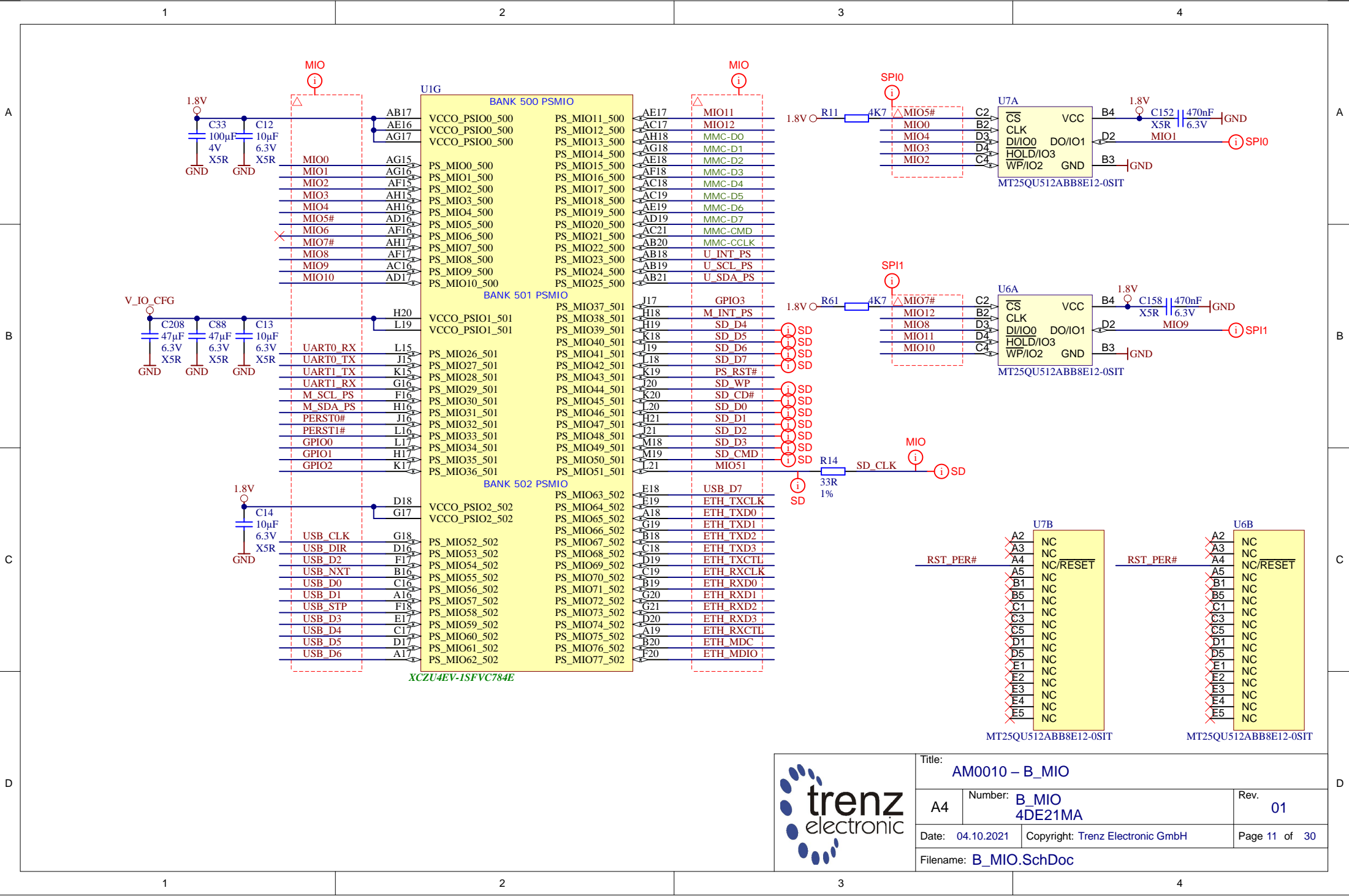
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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 9 of 30
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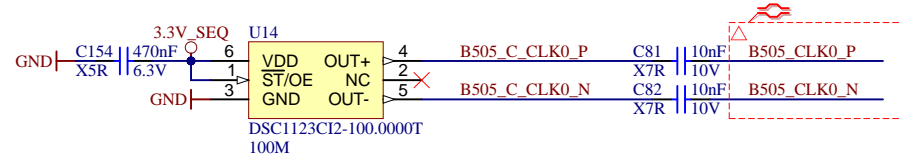
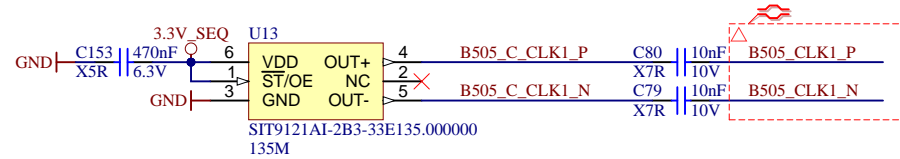
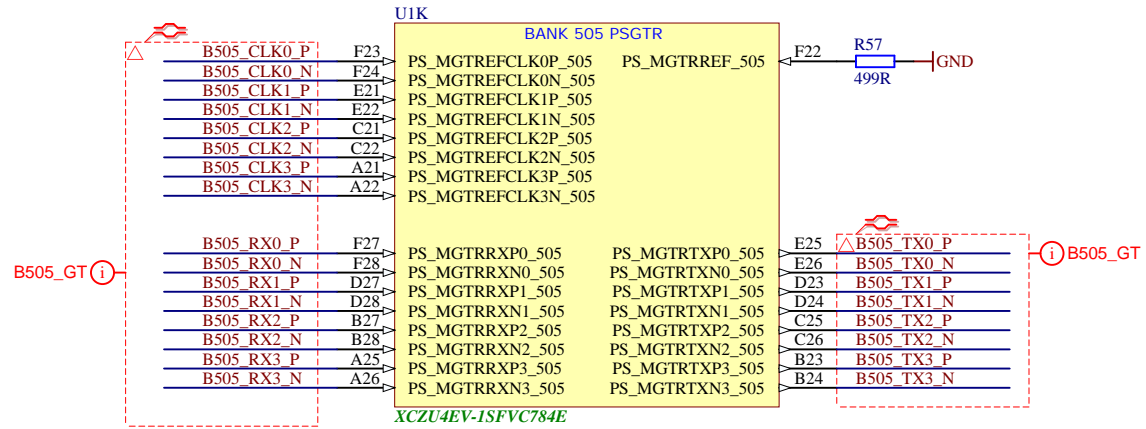


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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 10 of 30
Filename: B_GT.SchDoc		

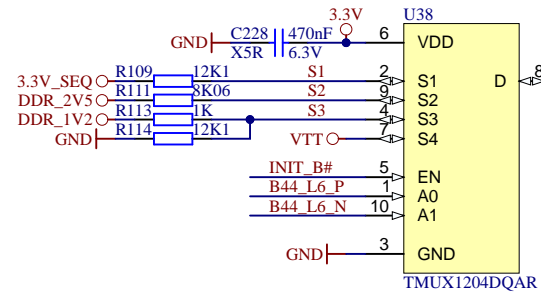
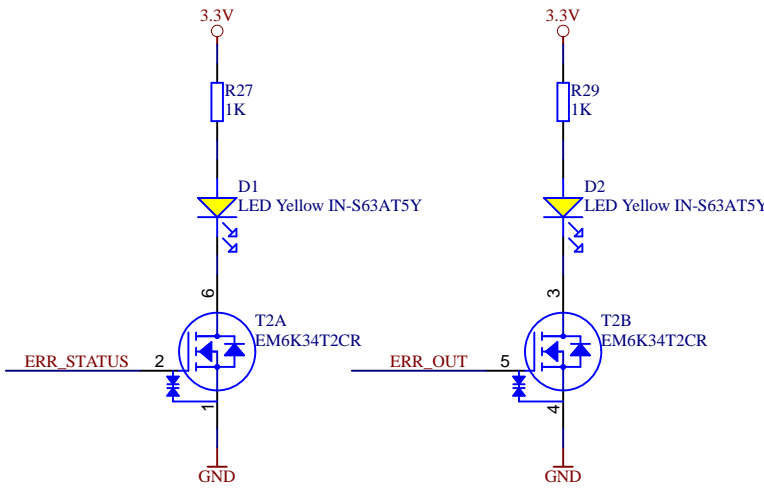
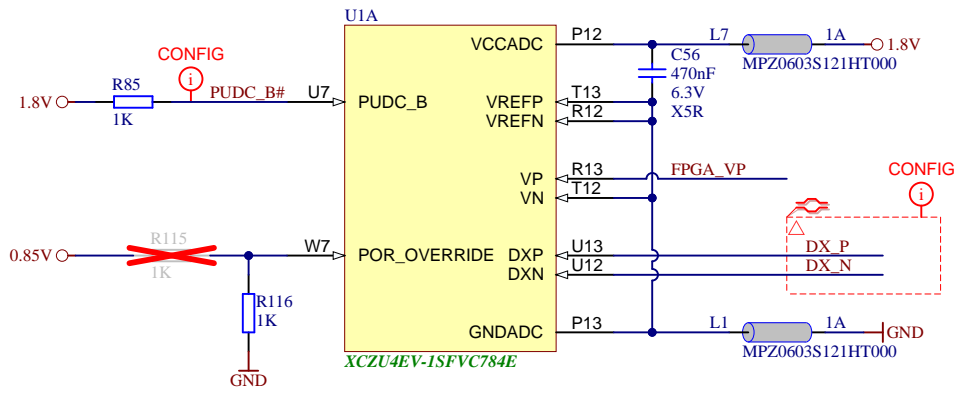
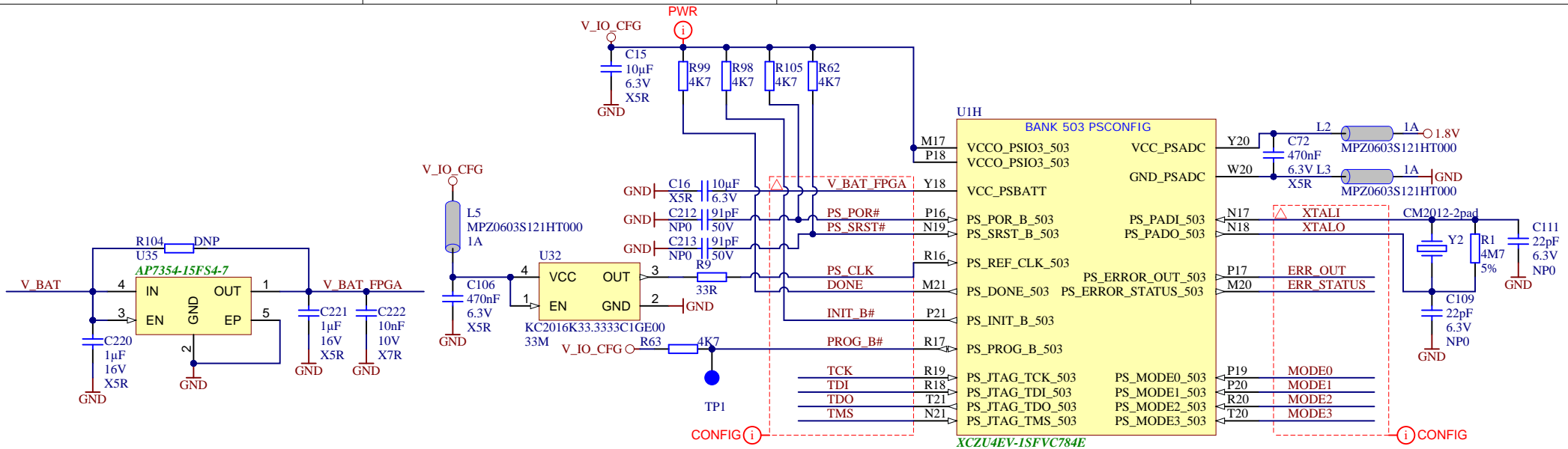


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Title: AM0010 - B_MIO		
A4	Number: B_MIO 4DE21MA	Rev. 01
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	Title: AM0010 - B_PS_GT	
	A4	Number: B_PS_GT 4DE21MA
	Date: 04.10.2021	Rev. 01
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Title: AM0010 – CONFIG		
A4	Number: CONFIG 4DE21MA	Rev. 01
Date: 20.10.2021	Copyright: Trenz Electronic GmbH	Page 13 of 30
Filename: CONFIG.SchDoc		

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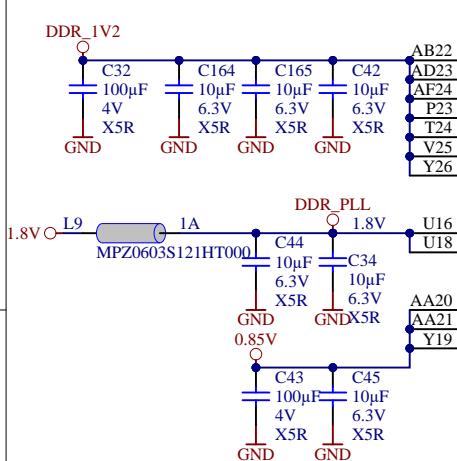
D

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U11		BANK 504 PSDDR	
VCCO_PSDDR_504	PS_DDR_CK0_504	W25	DDR4-CLK0_P
VCCO_PSDDR_504	PS_DDR_CK_N0_504	W26	DDR4-CLK0_N
VCCO_PSDDR_504	PS_DDR_CKE0_504	V28	DDR4-CKE0
VCCO_PSDDR_504	PS_DDR_CK1_504	Y24	
VCCO_PSDDR_504	PS_DDR_CK_N1_504	Y25	
VCCO_PSDDR_504	PS_DDR_CKE1_504	V27	
VCC_PSDDR_PLL	PS_DDR_A0_504	W28	DDR4-A0
VCC_PSDDR_PLL	PS_DDR_A1_504	Y28	DDR4-A1
VCC_PSDDR_PLL	PS_DDR_A2_504	AB28	DDR4-A2
VCC_PSDDR_PLL	PS_DDR_A3_504	AA28	DDR4-A3
VCC_PSDDR_PLL	PS_DDR_A4_504	Y27	DDR4-A4
VCC_PSINTFP_DDR	PS_DDR_A5_504	AA27	DDR4-A5
VCC_PSINTFP_DDR	PS_DDR_A6_504	Y22	DDR4-A6
VCC_PSINTFP_DDR	PS_DDR_A7_504	AA23	DDR4-A7
VCC_PSINTFP_DDR	PS_DDR_A8_504	AA22	DDR4-A8
VCC_PSINTFP_DDR	PS_DDR_A9_504	AB23	DDR4-A9
VCC_PSINTFP_DDR	PS_DDR_A10_504	AA25	DDR4-A10
VCC_PSINTFP_DDR	PS_DDR_A11_504	AA26	DDR4-A11
VCC_PSINTFP_DDR	PS_DDR_A12_504	AB25	DDR4-A12
VCC_PSINTFP_DDR	PS_DDR_A13_504	AB26	DDR4-A13
VCC_PSINTFP_DDR	PS_DDR_A14_504	AB24	DDR4-A14
VCC_PSINTFP_DDR	PS_DDR_A15_504	AC24	DDR4-A15
VCC_PSINTFP_DDR	PS_DDR_A16_504	AC23	DDR4-A16
VCC_PSINTFP_DDR	PS_DDR_A17_504	AC22	DDR4-A17
PS_DDR_CS_N0_504	PS_DDR_CS_N1_504	W27	DDR4-CS#
PS_DDR_CS_N0_504	PS_DDR_CS_N1_504	V26	
PS_DDR_BA0_504	PS_DDR_BA1_504	V23	DDR4-BA0
PS_DDR_BA0_504	PS_DDR_BA1_504	W22	DDR4-BA1
PS_DDR_BG0_504	PS_DDR_BG1_504	W24	DDR4-BG0
PS_DDR_BG0_504	PS_DDR_BG1_504	V22	DDR4-BG1
PS_DDR_PARITY_504	PS_DDR_RAM_RST_N_504	V24	DDR4-PAR
PS_DDR_ACT_N_504	PS_DDR_ALERT_N_504	U23	DDR4-RESET#
PS_DDR_ACT_N_504	PS_DDR_ALERT_N_504	Y23	DDR4-ACT#
PS_DDR_ACT_N_504	PS_DDR_ALERT_N_504	U25	DDR4-ALERT#
PS_DDR_ZQ_504	PS_DDR_ODT0_504	U24	DDR4-ZQ
PS_DDR_ODT0_504	PS_DDR_ODT1_504	U28	DDR4-ODT0
PS_DDR_ODT0_504	PS_DDR_ODT1_504	U26	

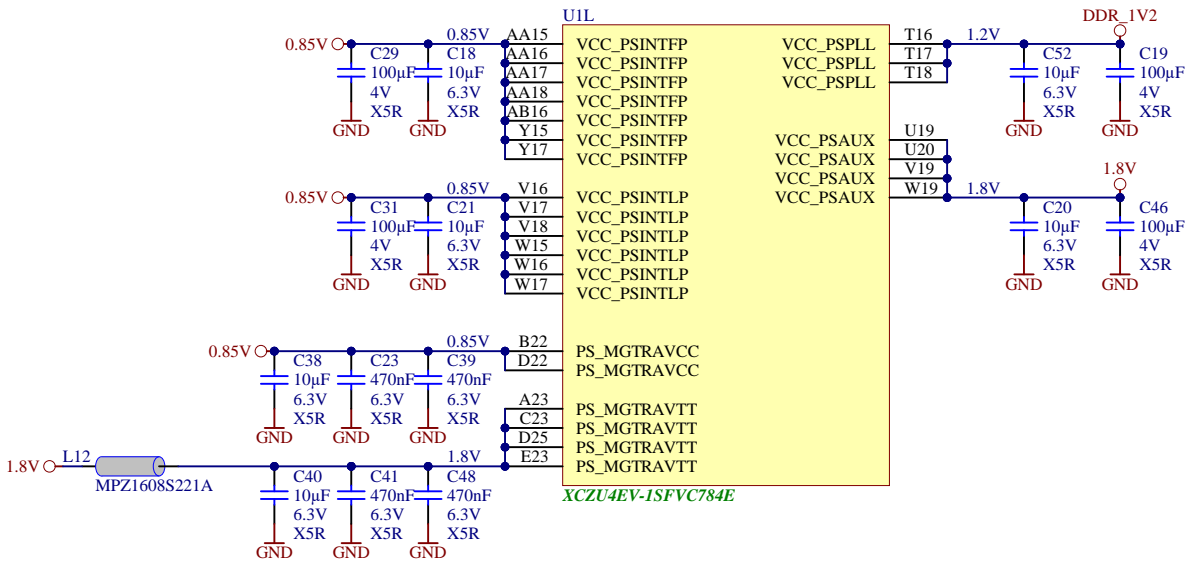
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U1J		BANK 504 PSDDR	
DQ0	AD21	PS_DDR_DQ0_504	PS_DDR_DQ32_504
DQ1	AE20	PS_DDR_DQ1_504	PS_DDR_DQ33_504
DQ2	AD20	PS_DDR_DQ2_504	PS_DDR_DQ34_504
DQ3	AF20	PS_DDR_DQ3_504	PS_DDR_DQ35_504
DQ4	AH21	PS_DDR_DQ4_504	PS_DDR_DQ36_504
DQ5	AH20	PS_DDR_DQ5_504	PS_DDR_DQ37_504
DQ6	AH19	PS_DDR_DQ6_504	PS_DDR_DQ38_504
DQ7	AG19	PS_DDR_DQ7_504	PS_DDR_DQ39_504
DQ8	AF22	PS_DDR_DQ8_504	PS_DDR_DQ40_504
DQ9	AH22	PS_DDR_DQ9_504	PS_DDR_DQ41_504
DQ10	AE22	PS_DDR_DQ10_504	PS_DDR_DQ42_504
DQ11	AD23	PS_DDR_DQ11_504	PS_DDR_DQ43_504
DQ12	AH23	PS_DDR_DQ12_504	PS_DDR_DQ44_504
DQ13	AH24	PS_DDR_DQ13_504	PS_DDR_DQ45_504
DQ14	AE24	PS_DDR_DQ14_504	PS_DDR_DQ46_504
DQ15	AG24	PS_DDR_DQ15_504	PS_DDR_DQ47_504
DQ16	AC26	PS_DDR_DQ16_504	PS_DDR_DQ48_504
DQ17	AD26	PS_DDR_DQ17_504	PS_DDR_DQ49_504
DQ18	AD25	PS_DDR_DQ18_504	PS_DDR_DQ50_504
DQ19	AD24	PS_DDR_DQ19_504	PS_DDR_DQ51_504
DQ20	AG26	PS_DDR_DQ20_504	PS_DDR_DQ52_504
DQ21	AH25	PS_DDR_DQ21_504	PS_DDR_DQ53_504
DQ22	AH26	PS_DDR_DQ22_504	PS_DDR_DQ54_504
DQ23	AG25	PS_DDR_DQ23_504	PS_DDR_DQ55_504
DQ24	AH27	PS_DDR_DQ24_504	PS_DDR_DQ56_504
DQ25	AH28	PS_DDR_DQ25_504	PS_DDR_DQ57_504
DQ26	AF28	PS_DDR_DQ26_504	PS_DDR_DQ58_504
DQ27	AG28	PS_DDR_DQ27_504	PS_DDR_DQ59_504
DQ28	AC27	PS_DDR_DQ28_504	PS_DDR_DQ60_504
DQ29	AD27	PS_DDR_DQ29_504	PS_DDR_DQ61_504
DQ30	AD28	PS_DDR_DQ30_504	PS_DDR_DQ62_504
DQ31	AC28	PS_DDR_DQ31_504	PS_DDR_DQ63_504
DDR4-DQS0_P	AF21	PS_DDR_DQS_P0_504	PS_DDR_DQ64_504
DDR4-DQS0_N	AG21	PS_DDR_DQS_N0_504	PS_DDR_DQ65_504
DDR4-DQS1_P	AF23	PS_DDR_DQS_P1_504	PS_DDR_DQ66_504
DDR4-DQS1_N	AG23	PS_DDR_DQS_N1_504	PS_DDR_DQ67_504
DDR4-DQS2_P	AF25	PS_DDR_DQS_P2_504	PS_DDR_DQ68_504
DDR4-DQS2_N	AF26	PS_DDR_DQS_N2_504	PS_DDR_DQ69_504
DDR4-DQS3_P	AE27	PS_DDR_DQS_P3_504	PS_DDR_DQ70_504
DDR4-DQS3_N	AF27	PS_DDR_DQS_N3_504	PS_DDR_DQ71_504
DDR4-DQS4_P	N23	PS_DDR_DQS_P4_504	PS_DDR_DM0_504
DDR4-DQS4_N	M23	PS_DDR_DQS_N4_504	PS_DDR_DM1_504
DDR4-DQS5_P	L23	PS_DDR_DQS_P5_504	PS_DDR_DM2_504
DDR4-DQS5_N	K23	PS_DDR_DQS_N5_504	PS_DDR_DM3_504
DDR4-DQS6_P	N26	PS_DDR_DQS_P6_504	PS_DDR_DM4_504
DDR4-DQS6_N	N27	PS_DDR_DQS_N6_504	PS_DDR_DM5_504
DDR4-DQS7_P	J26	PS_DDR_DQS_P7_504	PS_DDR_DM6_504
DDR4-DQS7_N	J27	PS_DDR_DQS_N7_504	PS_DDR_DM7_504
DDR4-DQS8_P	R27	PS_DDR_DQS_P8_504	PS_DDR_DM8_504
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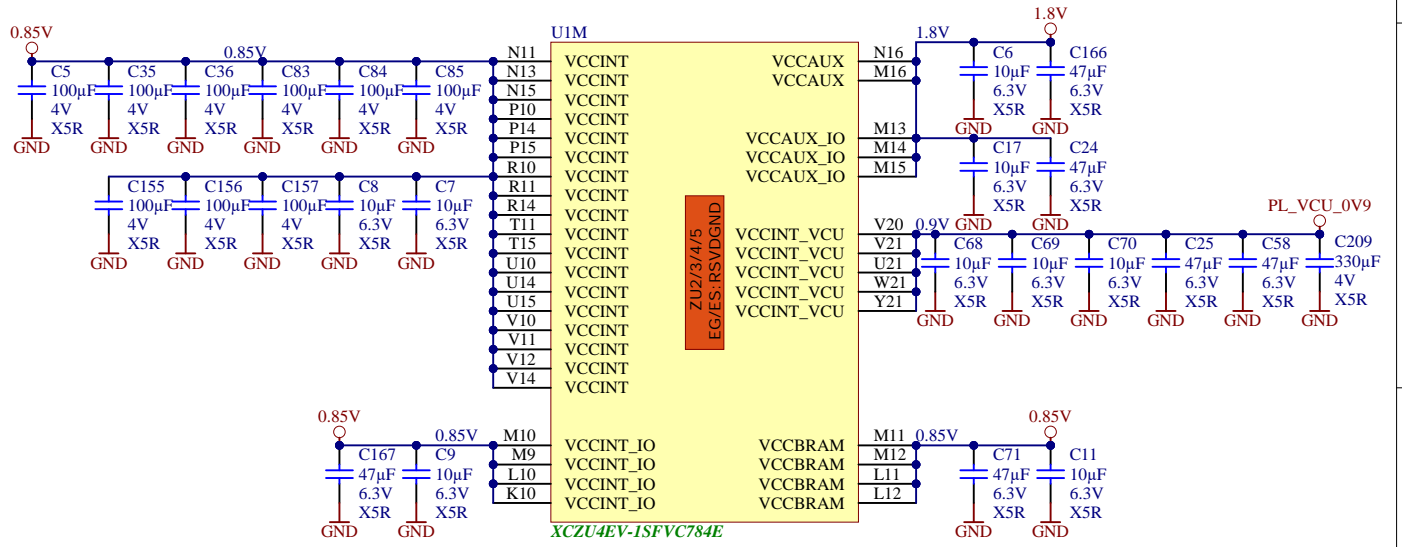
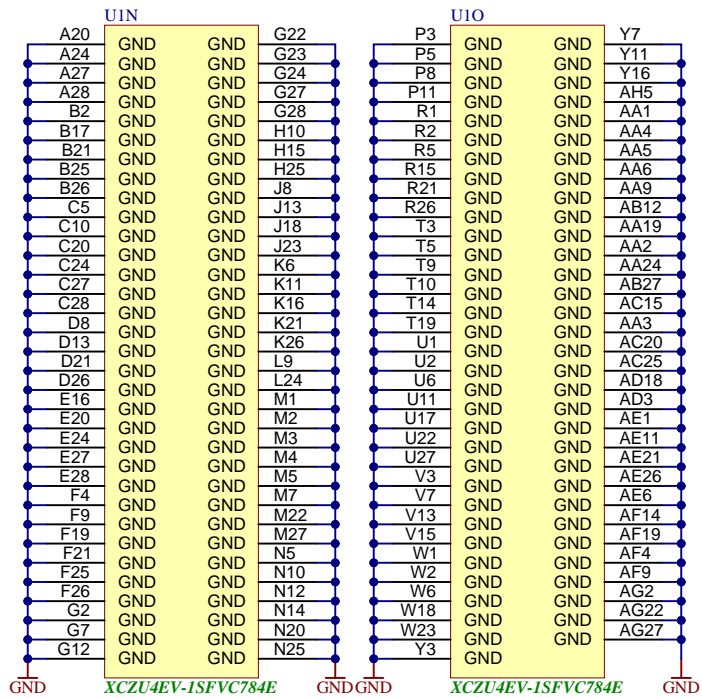
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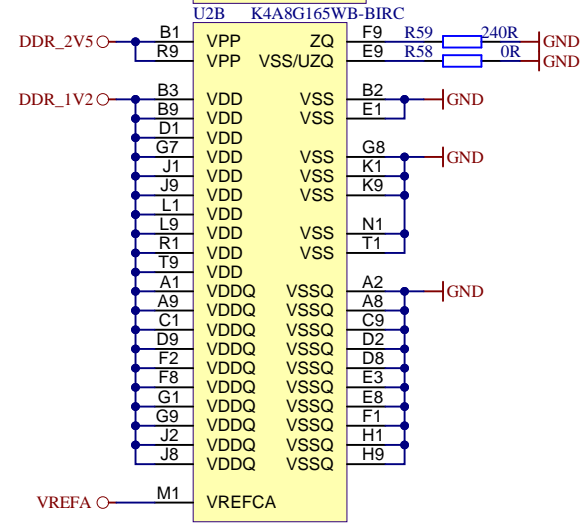
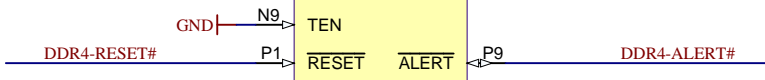
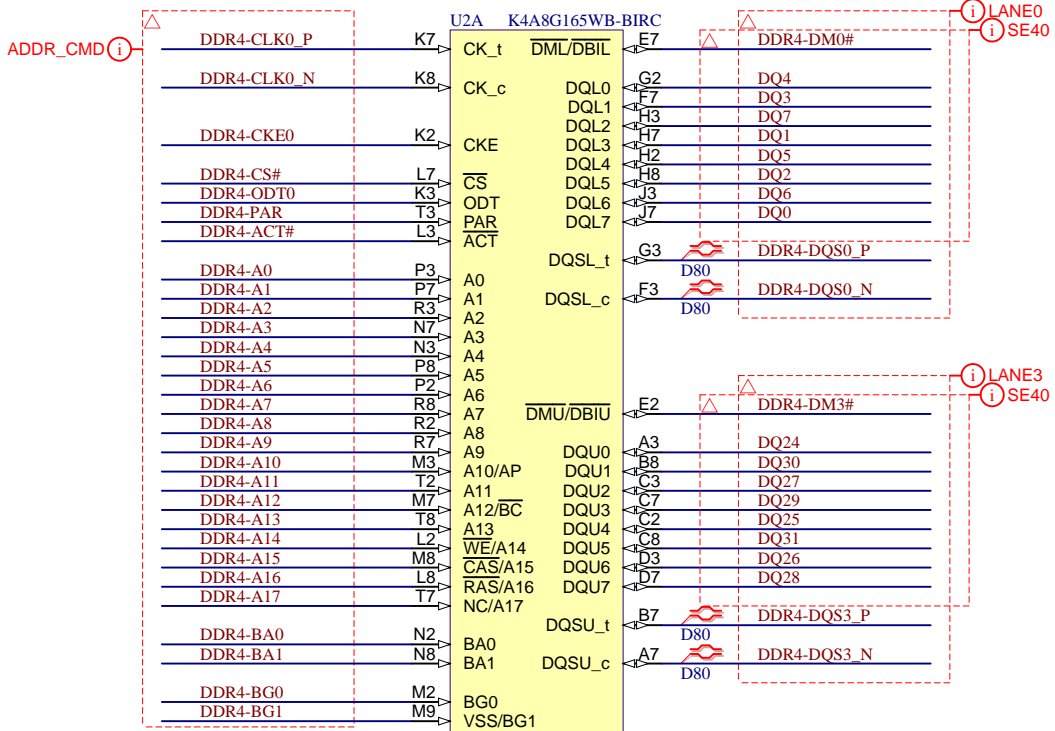
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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 14 of 30
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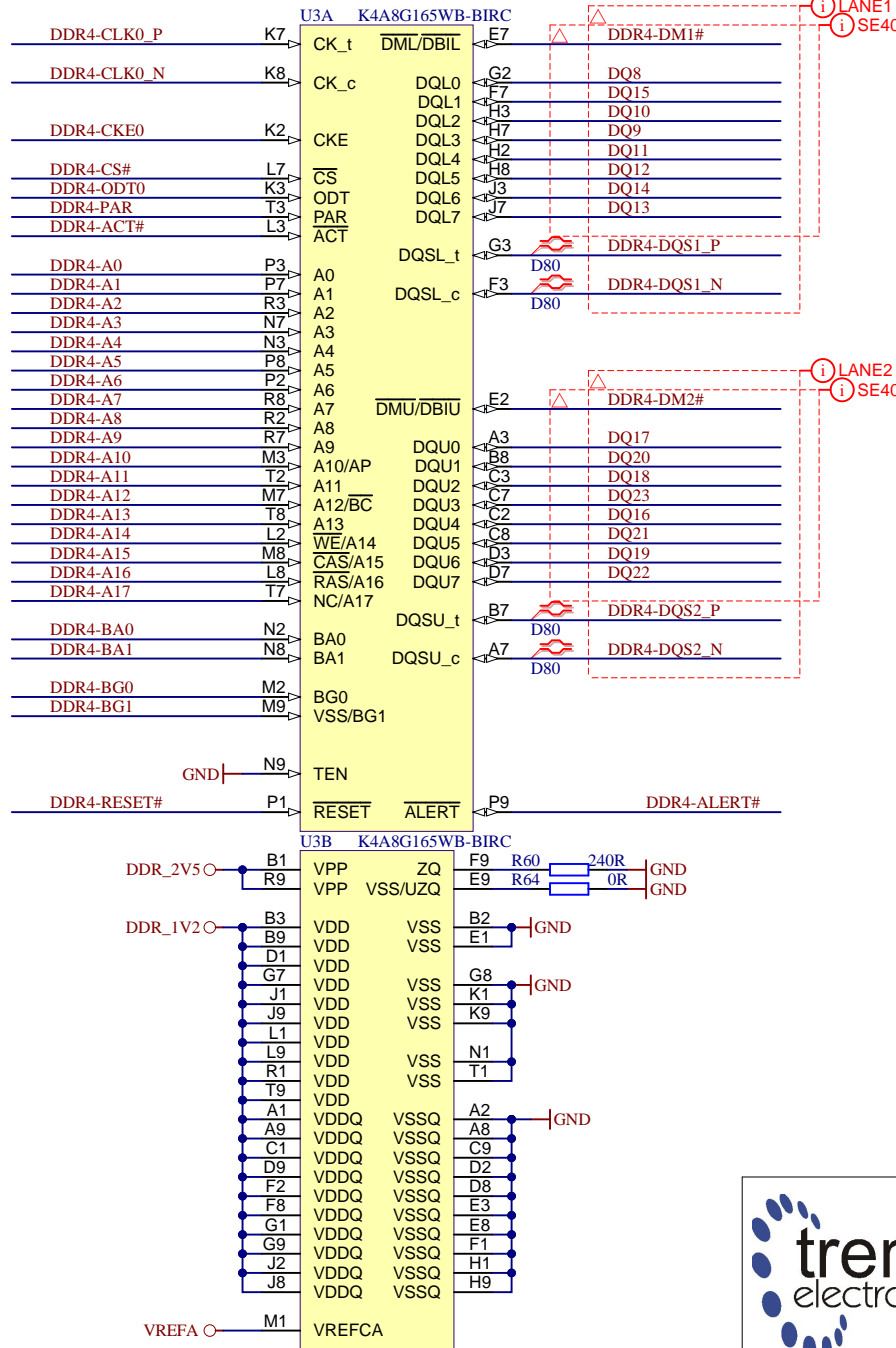

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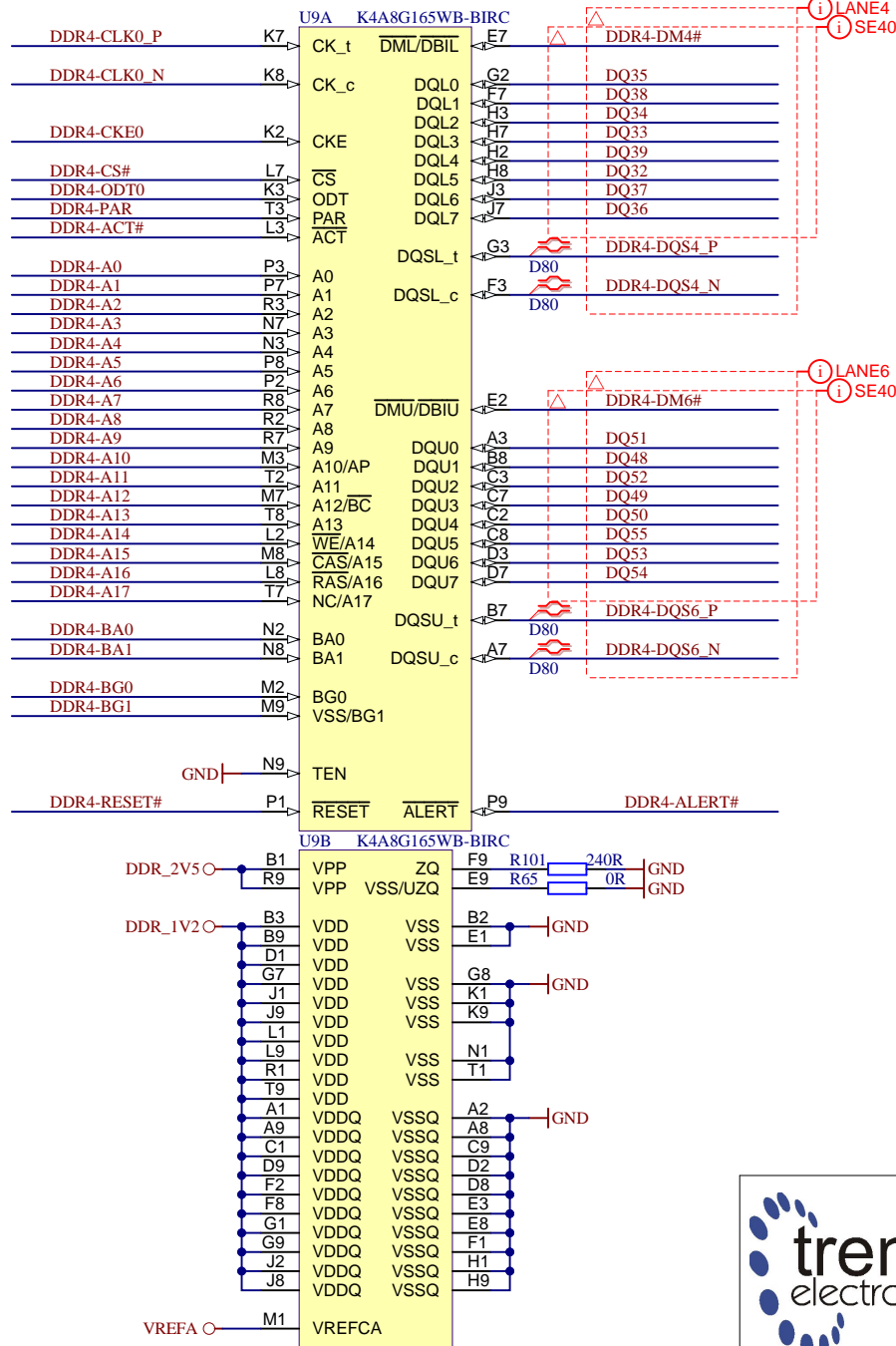

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		A4	Number: ZU_POWER 4DE21MA
Date: 04.10.2021		Copyright: Trenz Electronic GmbH	
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Title: AM0010 – DDR4-RAM		
A4	Number: DDR4-RAM 4DE21MA	Rev. 01
Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 17 of 30
Filename: DDR4-RAM.SchDoc		

Title: AM0010 – DDR4-RAM_2		
A4	Number: DDR4-RAM_2 4DE21MA	Rev. 01
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Title: AM0010 – DDR4-RAM_3		
A4	Number: DDR4-RAM_3 4DE21MA	Rev. 01
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Filename: DDR4-RAM_3.SchDoc		

A

A

B

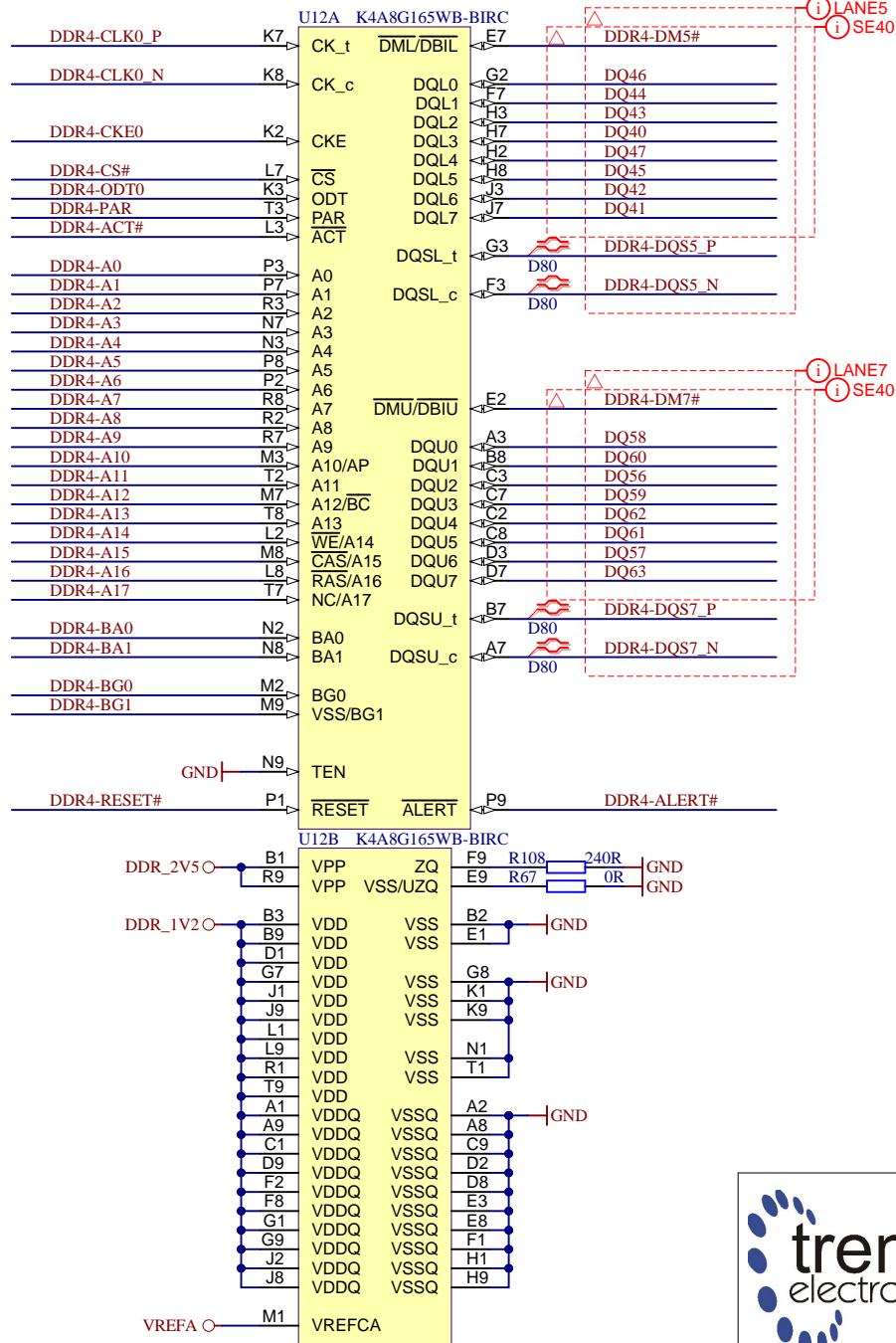

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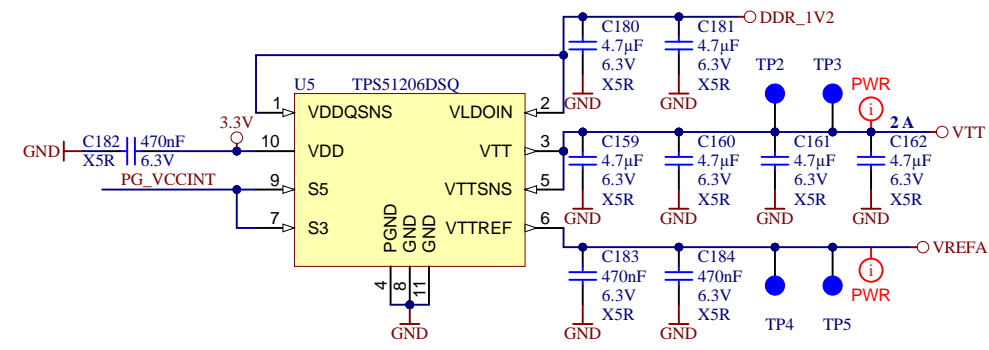
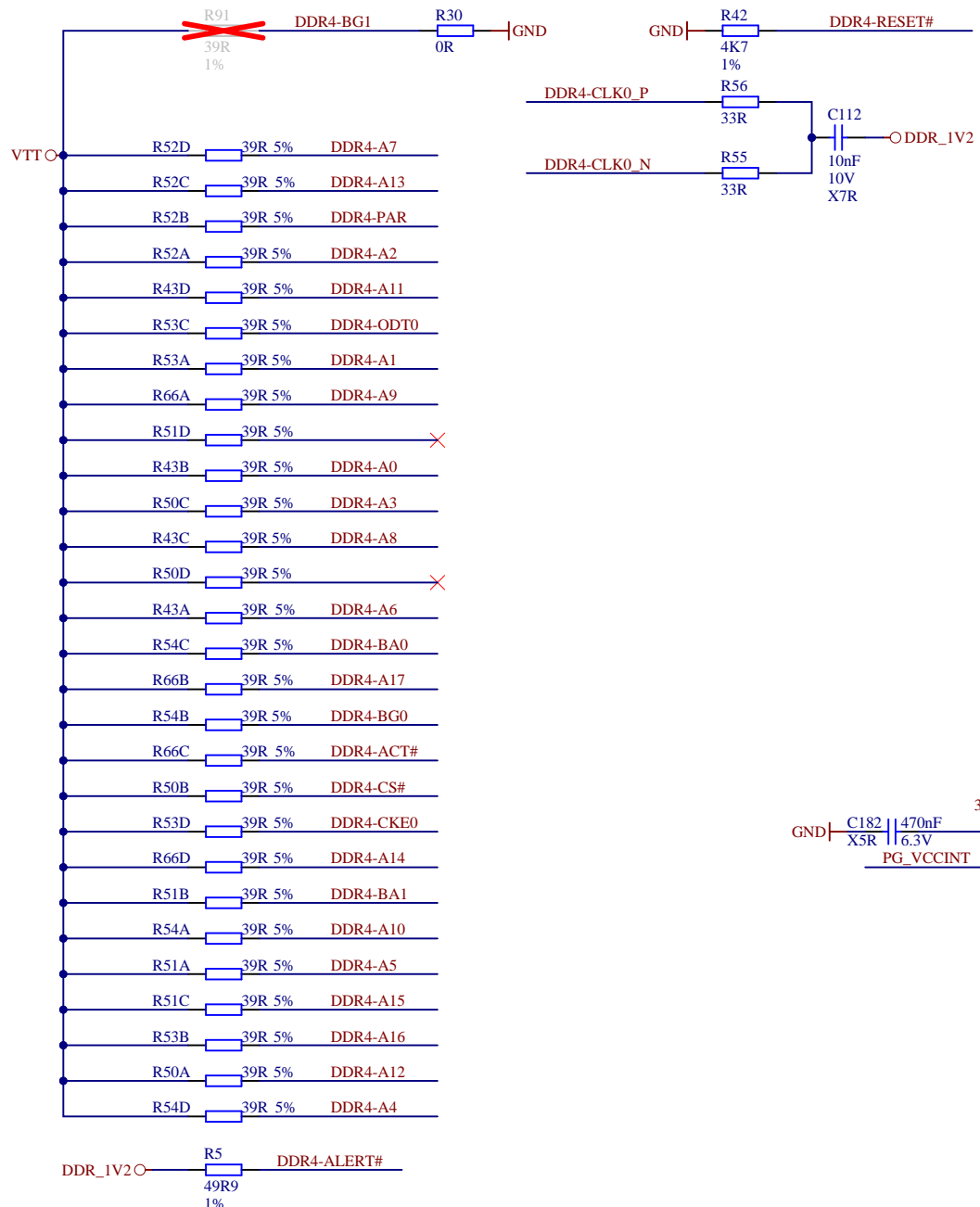
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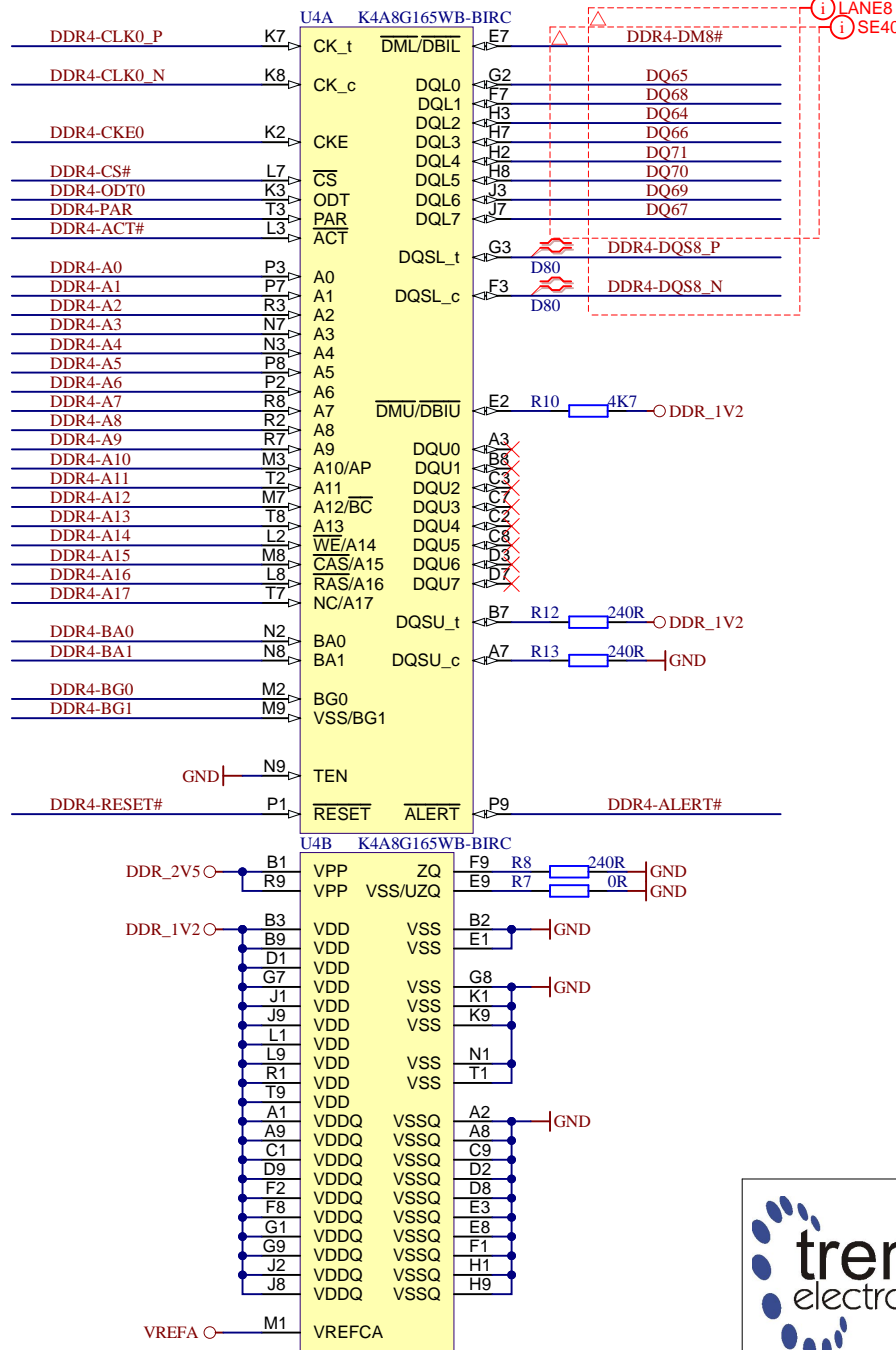

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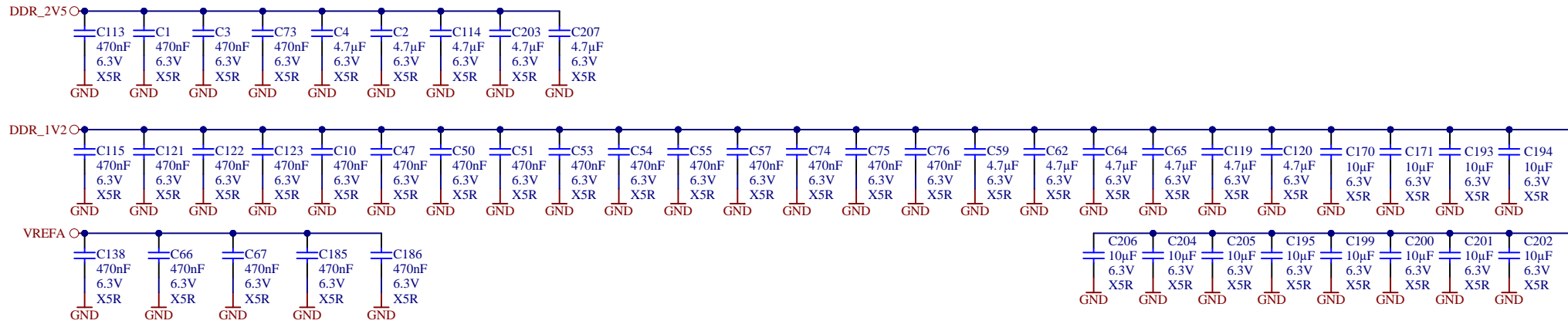
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A4	Number: DDR4-RAM_4 4DE21MA	Rev. 01
Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 20 of 30
Filename: DDR4-RAM_4.SchDoc		




Title: AM0010 – DDR4-TERM		
A4	Number: DDR4-TERM 4DE21MA	Rev. 01
Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 21 of 30
Filename: DDR4-TERM.SchDoc		

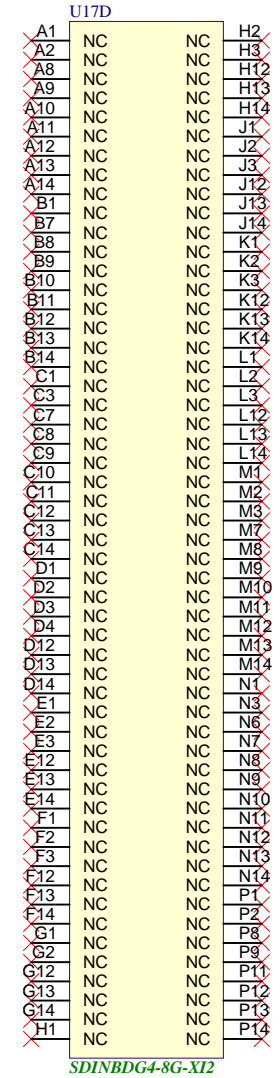
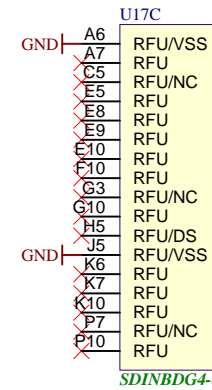
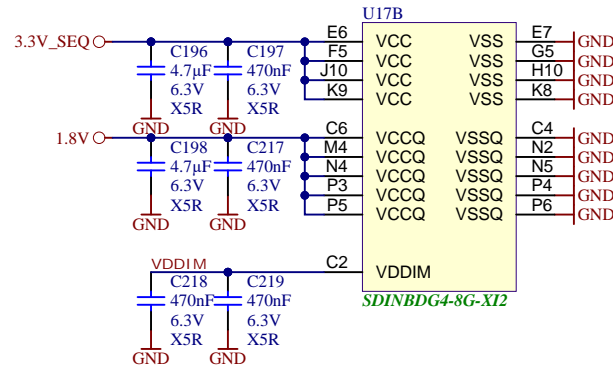
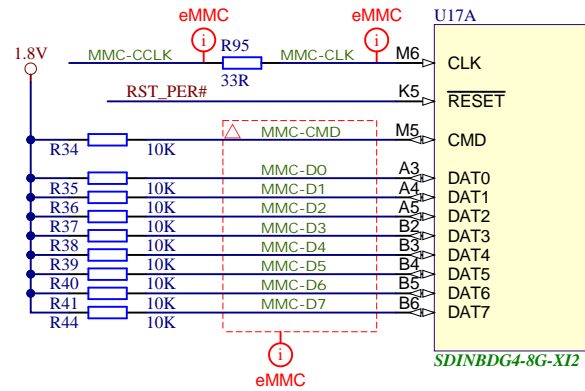



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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 22 of 30
Filename: DDR4-RAM_5.SchDoc		



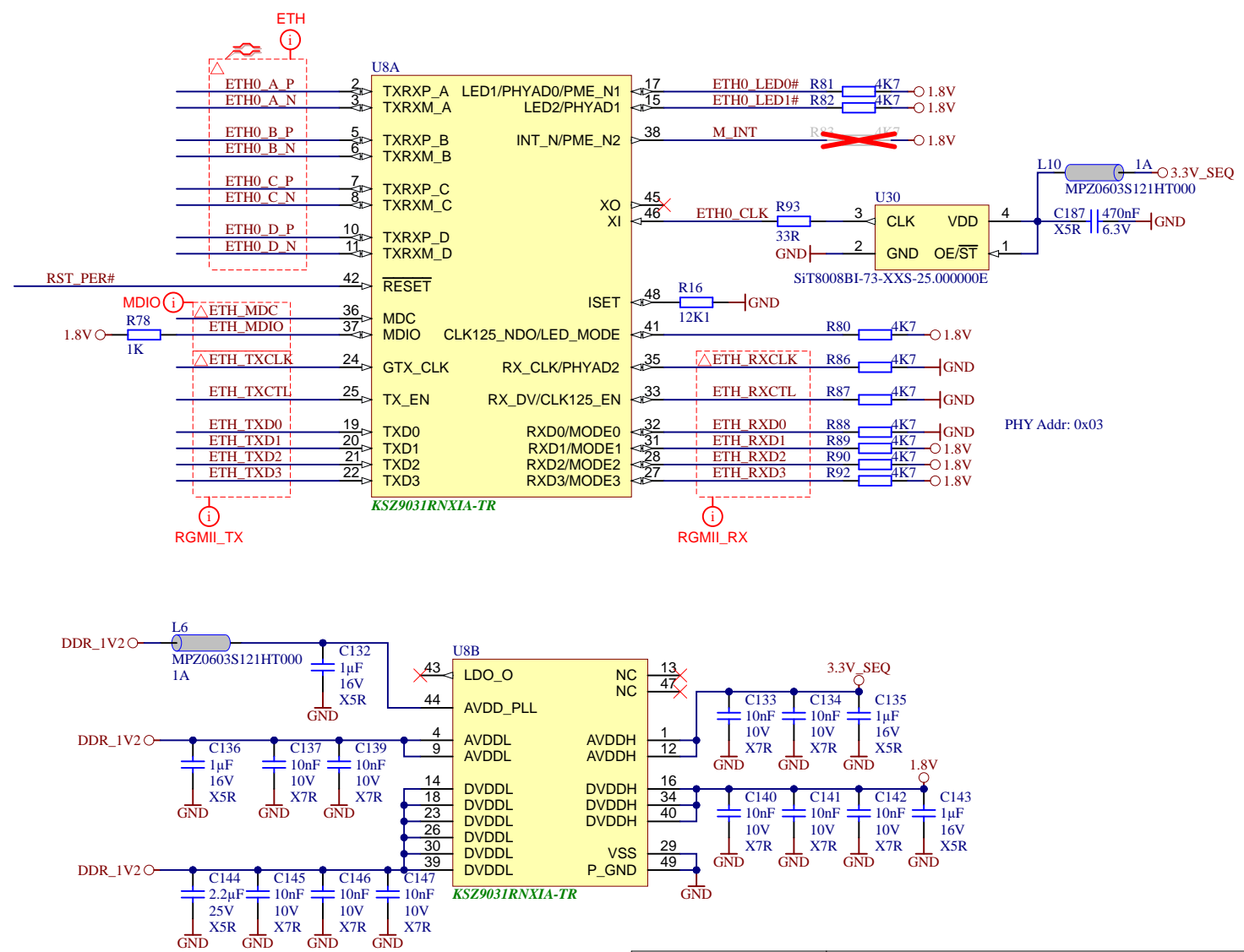
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Date: 04.10.2021		Copyright: Trenz Electronic GmbH	
Filename: DDR4-CAPS.SchDoc		Page 23 of 30	

8GB eMMC

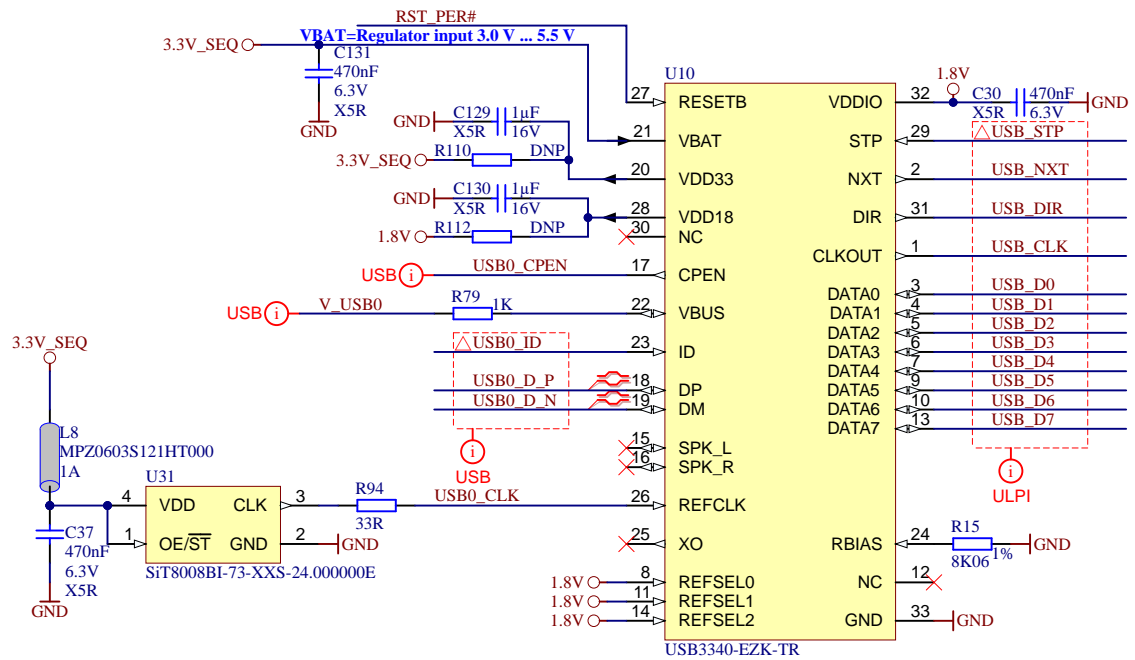


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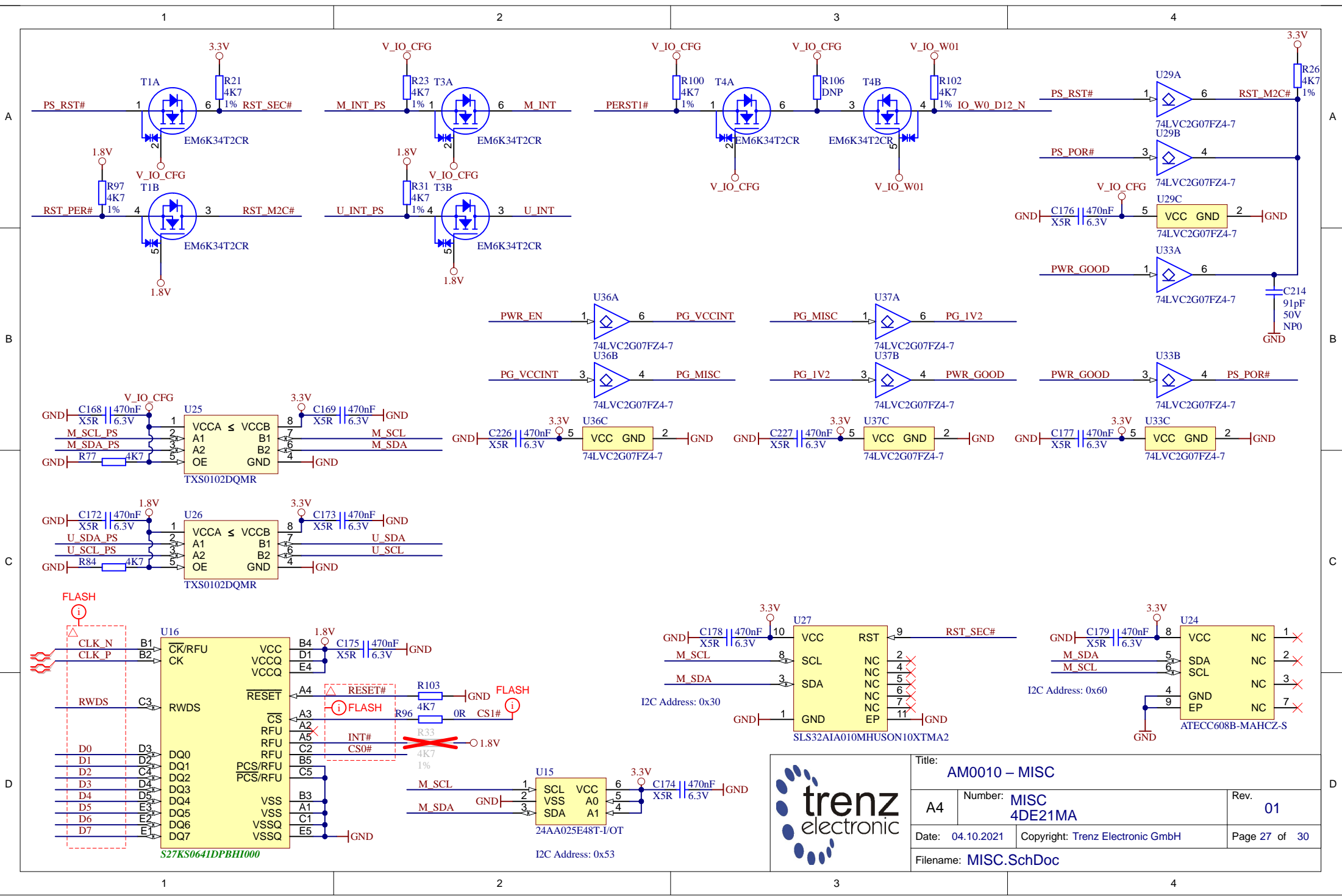
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	Title: AM0010 – ETHPHY	
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	Date: 04.10.2021	Copyright: Trenz Electronic GmbH
	Filename: ETHPHY.SchDoc	
	Rev. 01	Page 25 of 30

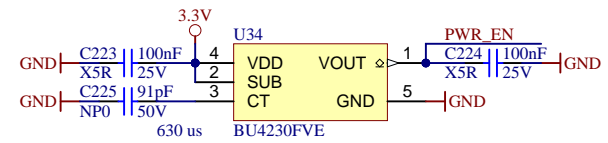
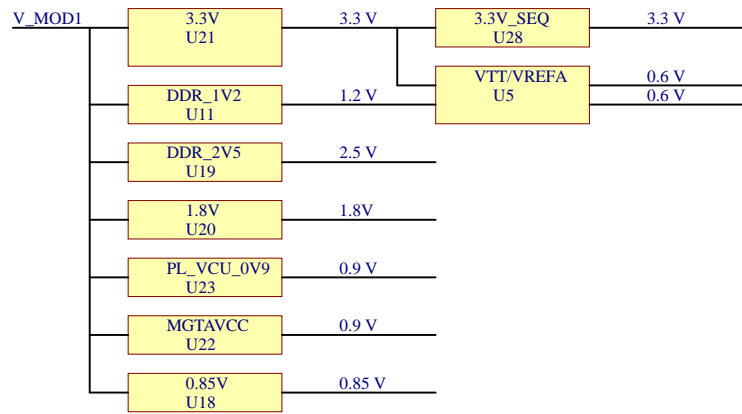


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	Filename: USBPHY.SchDoc	
	Rev. 01	Page 26 of 30

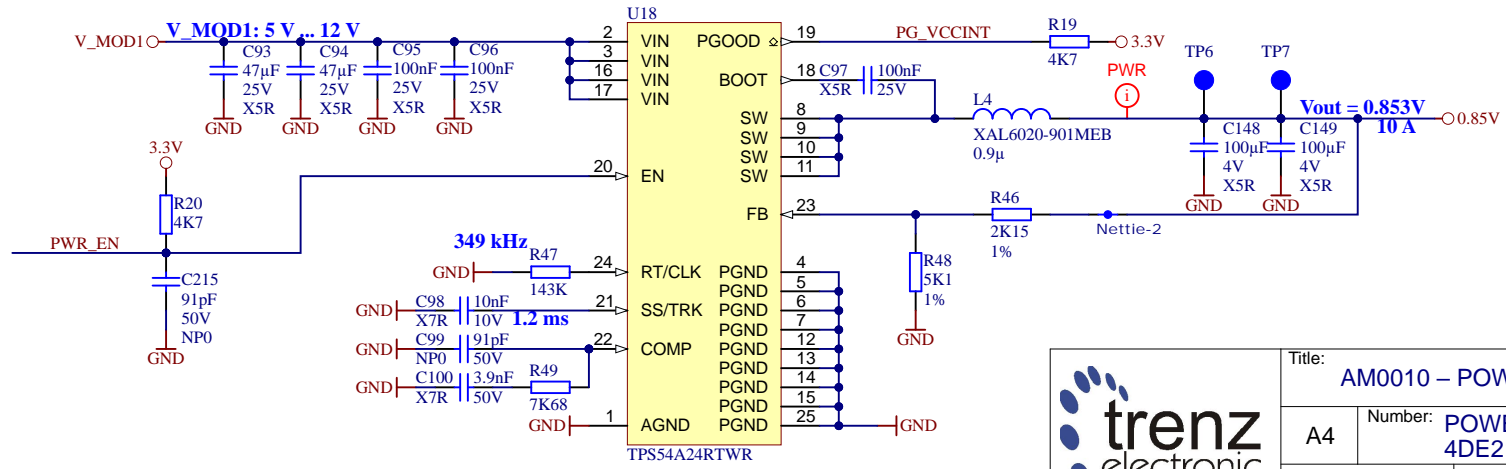
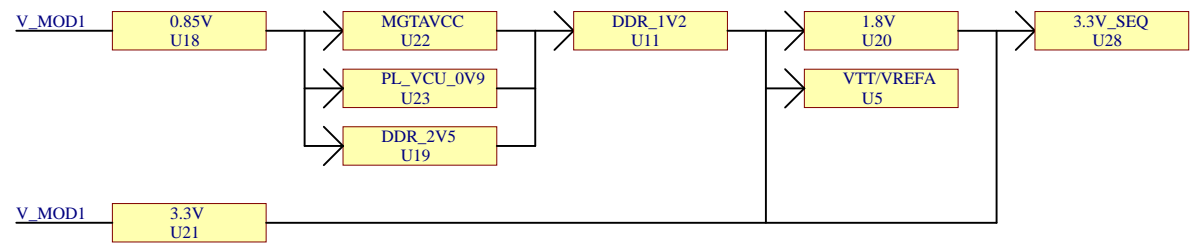


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Date: 04.10.2021	Copyright: Trenz Electronic GmbH	Page 27 of 30
Filename: MISC.SchDoc		

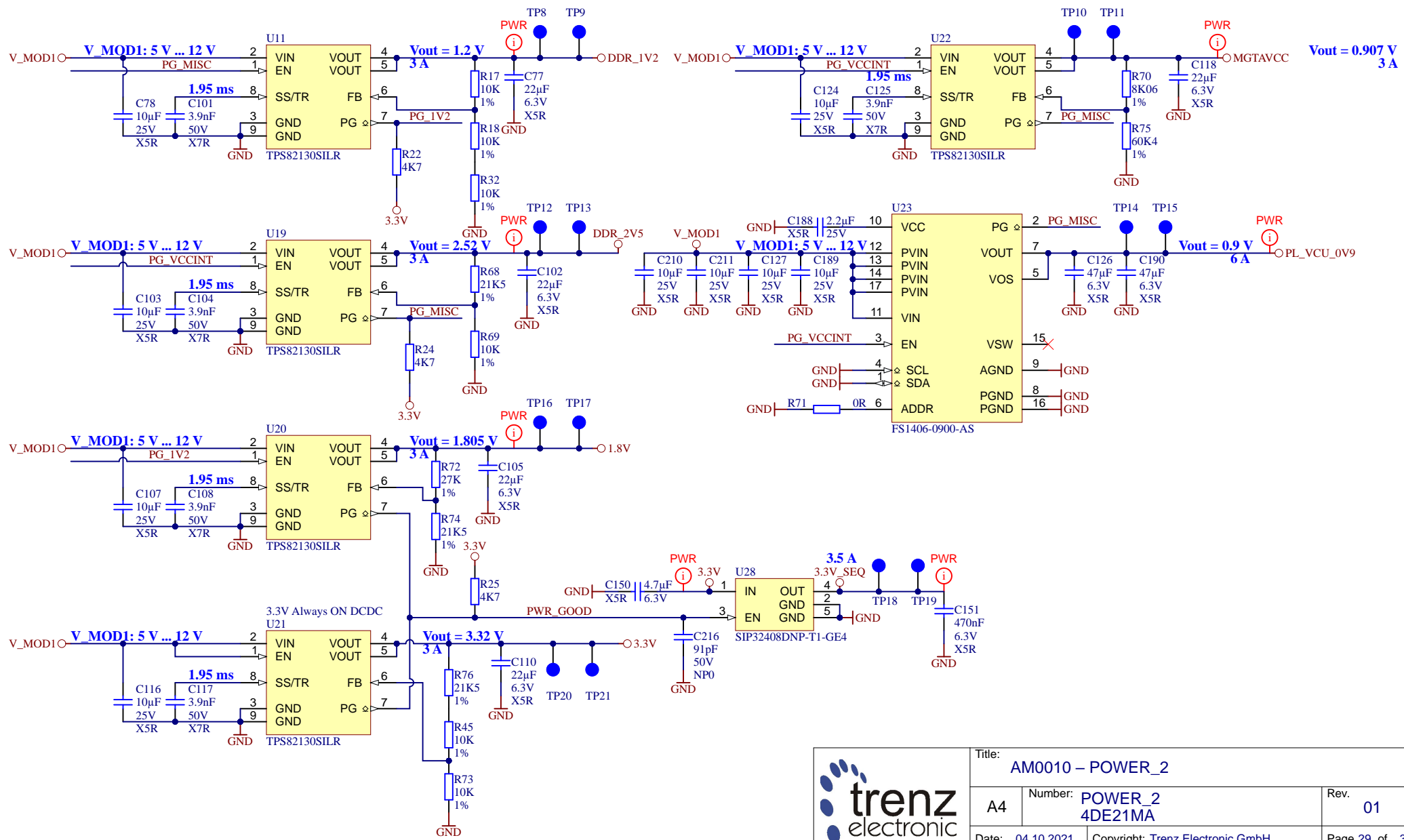
Power Supply Structure



Power Supply Sequencing



Title: AM0010 – POWER_1		
A4	Number: POWER_1 4DE21MA	Rev. 01
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Title: AM0010 - POWER_2		
A4	Number: POWER_2 4DE21MA	Rev. 01
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Filename: POWER_2.SchDoc		

1

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3

4

REV	Description	
-01	Initial revision	AL/ED

A

A

B


B

C

C

D

D

			Title: AM0010 – Revision_Changes			
			A4	Number: Revision_Changes 4DE21MA		Rev. 01
			Date: 04.10.2021	Copyright: Trenz Electronic GmbH		Page 30 of 30
			Filename: Revision_Changes.SchDoc			

1

2

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