


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

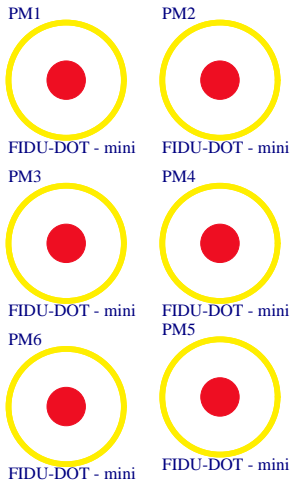
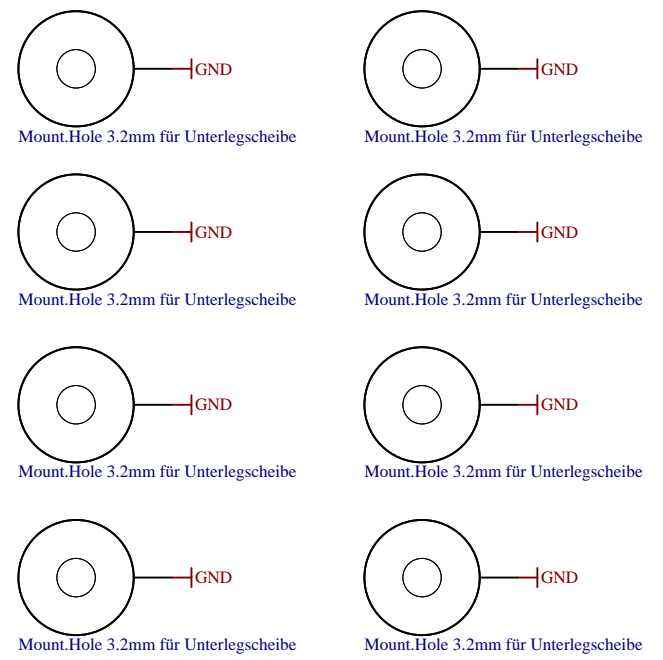
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Schematics and other handouts serve for informational purposes only!

	Title: TE0807 - Legal Notices		
	A4	Number: TE0807 4AI81-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 1 of 29
	Filename: Legal Notices Modules.SchDoc		

U_J1 J1.SchDoc	U_B_PS_GT B_PS_GT.SchDoc	U_DDR4-TERM DDR4-TERM.SchDoc
U_J2 J2.SchDoc	U_PS_DDR PS_DDR.SchDoc	U_ZU_POWER ZU_POWER.SchDoc
U_J3 J3.SchDoc	U_B_MIO B_MIO.SchDoc	U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_J4 J4.SchDoc	U_B_HD B_HD.SchDoc	U_POWER POWER.SchDoc
U_DDR4-TERM DDR4-TERM.SchDoc	U_Clock Clock.SchDoc	U_POWER_2 POWER_2.SchDoc
U_B64 B64.SchDoc	U_CONFIG CONFIG.SchDoc	U_POWER_3 POWER_3.SchDoc
U_B65 B65.SchDoc	U_DDR4-RAM DDR4-RAM.SchDoc	U_POWER_4 POWER_4.SchDoc
U_B66 B66.SchDoc	U_DDR4-RAM_2 DDR4-RAM_2.SchDoc	
U_B_GT B_GT.SchDoc	U_DDR4-RAM_3 DDR4-RAM_3.SchDoc	
U_B_GT_2 B_GT_2.SchDoc	U_DDR4-RAM_4 DDR4-RAM_4.SchDoc	

Special notes:

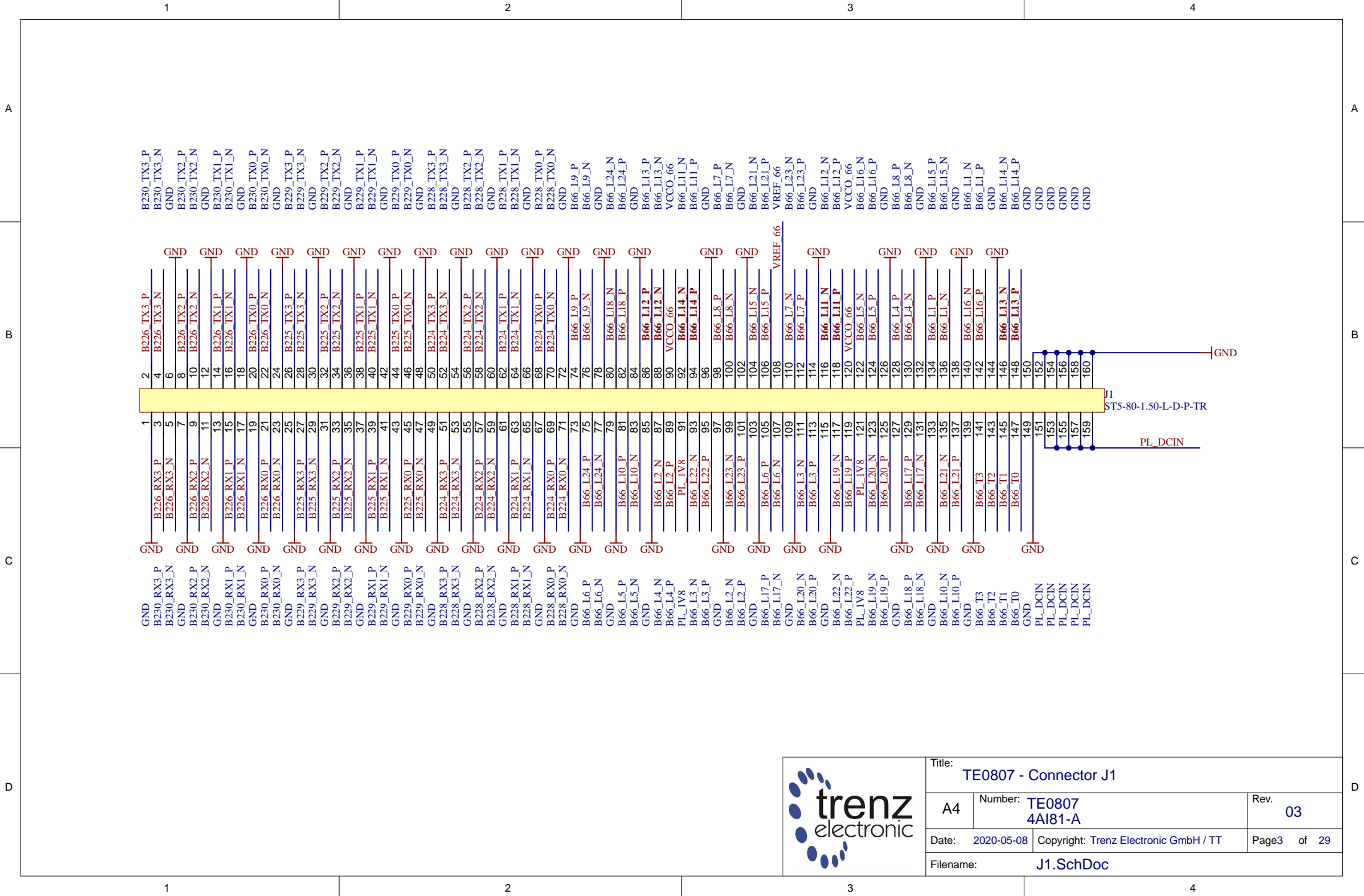


LOGO1
TE Logo PRINT Layer
LOGO PRINT

Serial
Serialnummer 6,3 x 6.3mm

Assembly variant	4AI81-A
Created by	ED
Modified by	ED
Modified at	2022-07-25
SVN Revision	9876

	Title: TE0807	
	A4	Number: TE0807 4AI81-A
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT
	Rev. 03	Page2 of 29
Filename: TE0807.SchDoc		



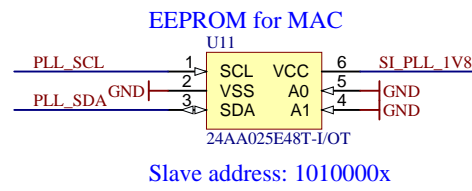
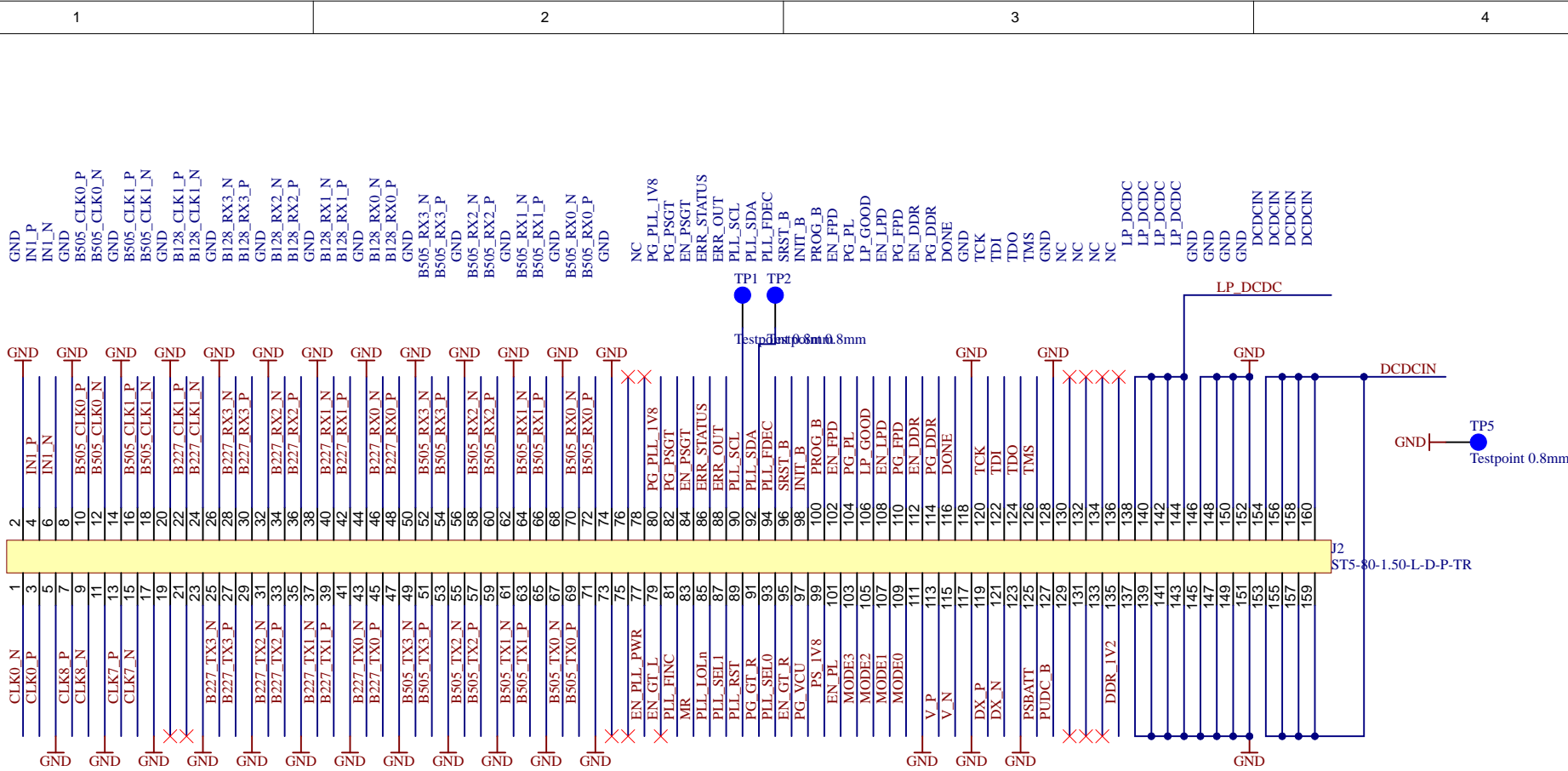
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT		Page 3 of 29
Filename: J1.SchDoc			

1

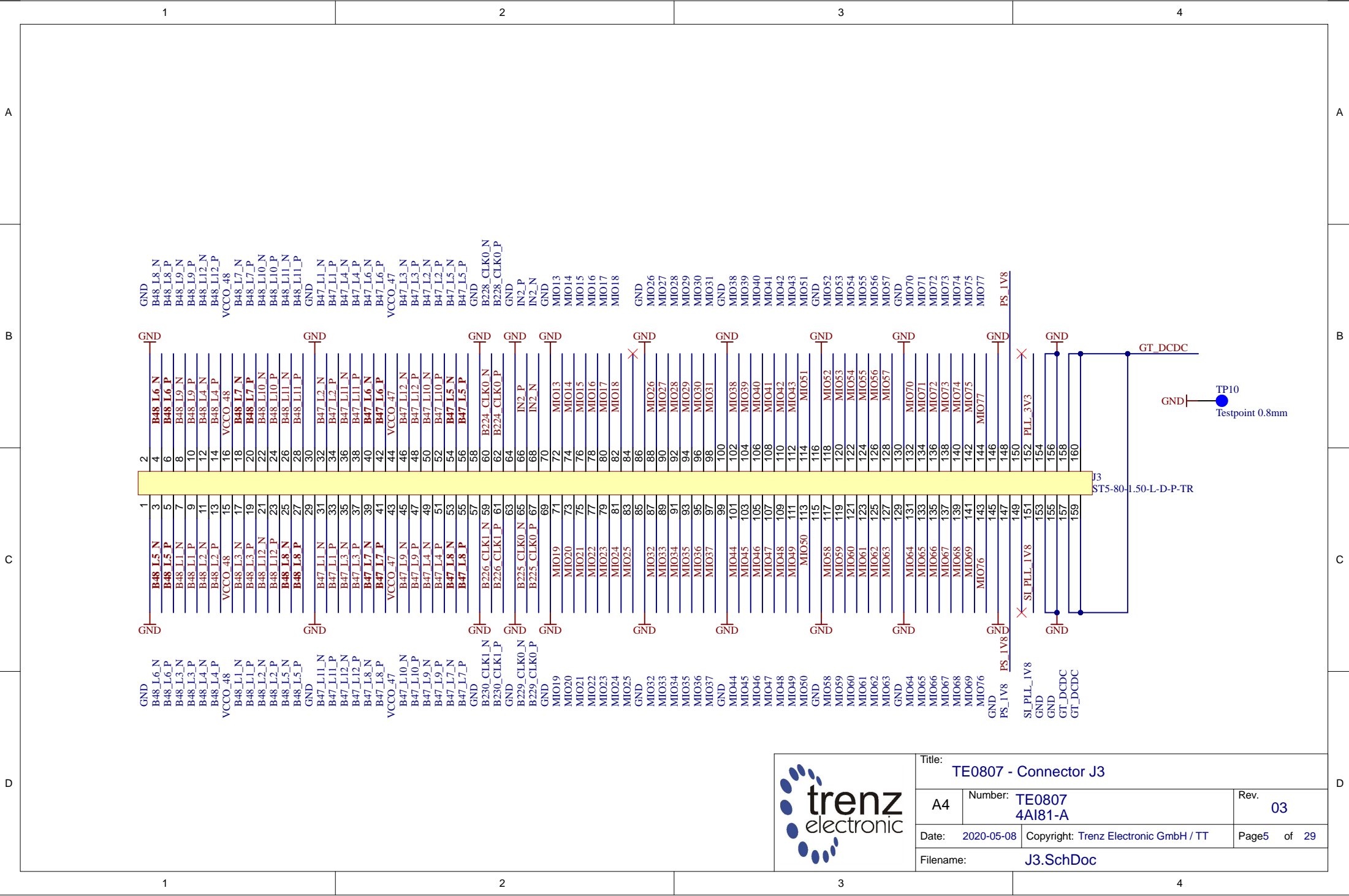
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4



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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 4 of 29
Filename: J2.SchDoc		



			Title: TE0807 - Connector J3	
			A4	Number: TE0807 4AI81-A
Date: 2020-05-08		Copyright: Trenz Electronic GmbH / TT		Page5 of 29
Filename: J3.SchDoc				

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A

A

B

B

C

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D

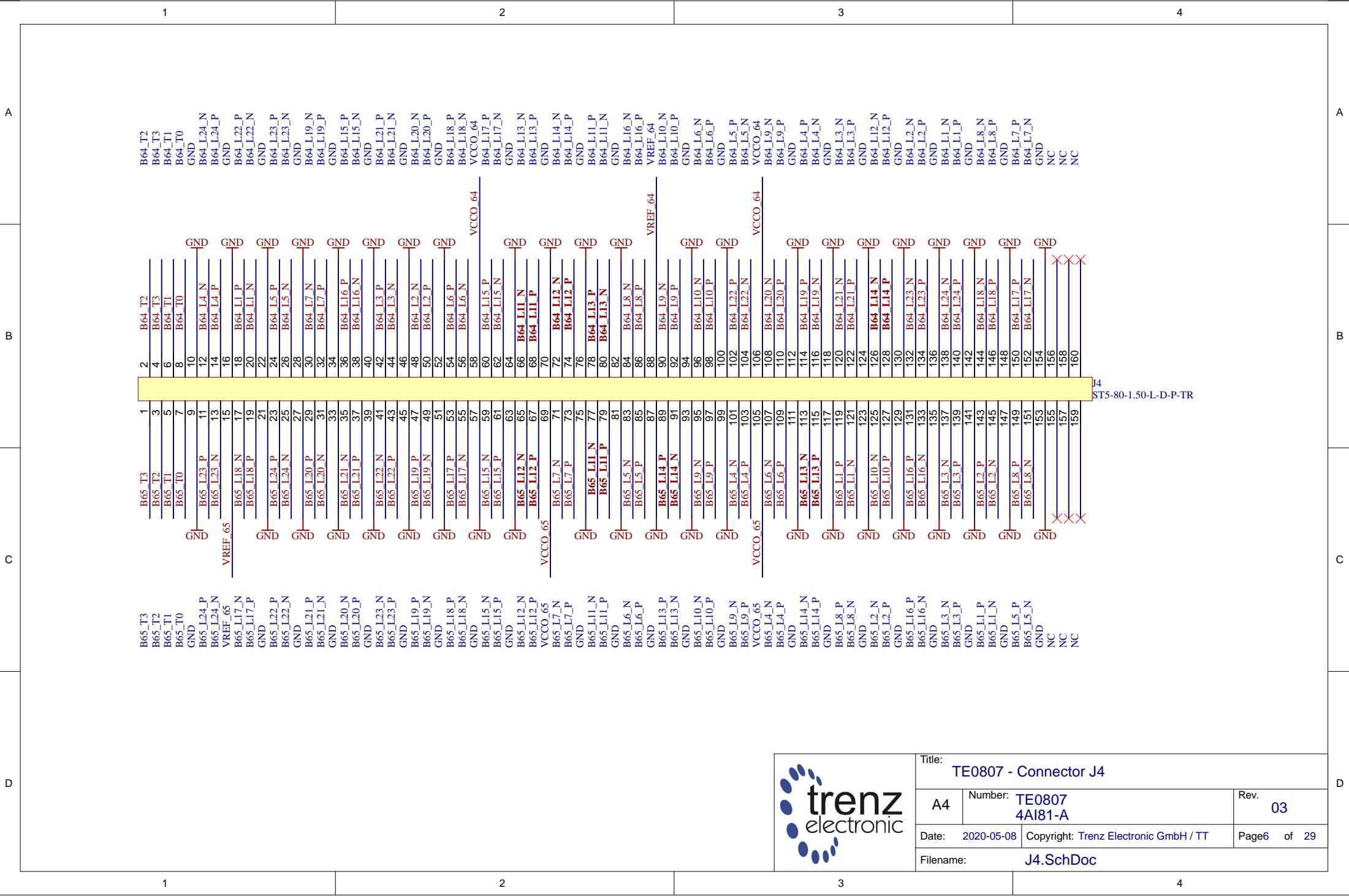
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- GND
- B48_L6_N
- B48_L6_P
- B48_L3_N
- B48_L3_P
- B48_L9_N
- B48_L9_P
- B48_L4_N
- B48_L4_P
- VCCO_48
- B48_L7_N
- B48_L7_P
- B48_L10_N
- B48_L10_P
- B48_L5_N
- B48_L5_P
- GND
- B47_L11_N
- B47_L11_P
- B47_L12_N
- B47_L12_P
- B47_L8_N
- B47_L8_P
- VCCO_47
- B47_L10_N
- B47_L10_P
- B47_L9_N
- B47_L9_P
- B47_L4_N
- B47_L4_P
- B47_L7_N
- B47_L7_P
- GND
- B230_CLK1_N
- B230_CLK1_P
- B226_CLK1_P
- B225_CLK0_N
- B225_CLK0_P
- GND
- MIO19
- MIO20
- MIO21
- MIO22
- MIO23
- MIO24
- MIO25
- GND
- MIO32
- MIO33
- MIO34
- MIO35
- MIO36
- MIO37
- GND
- MIO44
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- MIO63
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- MIO65
- MIO66
- MIO67
- MIO68
- MIO69
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- GND
- PS_IV8
- SI_PLL_IV8
- GND
- GT_DCDC
- GT_DCDC
- GND
- PS_IV8

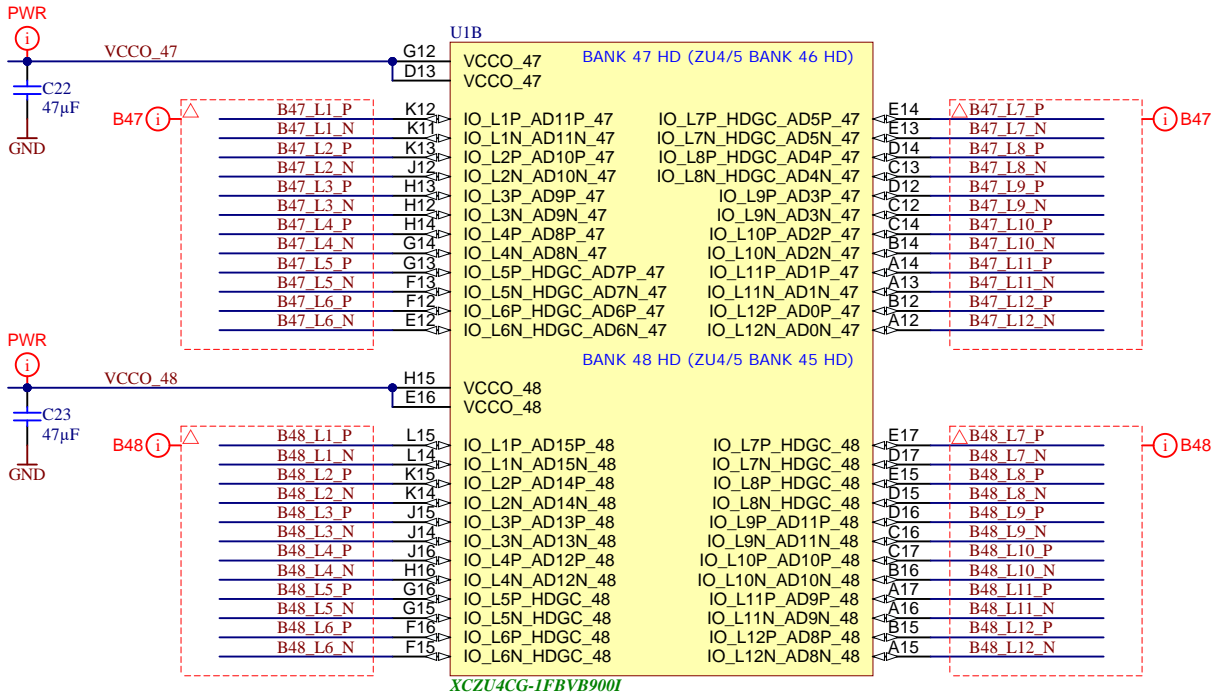
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J3 ST5-80-1.50-L-D-P-TR

TP10
Testpoint 0.8mm



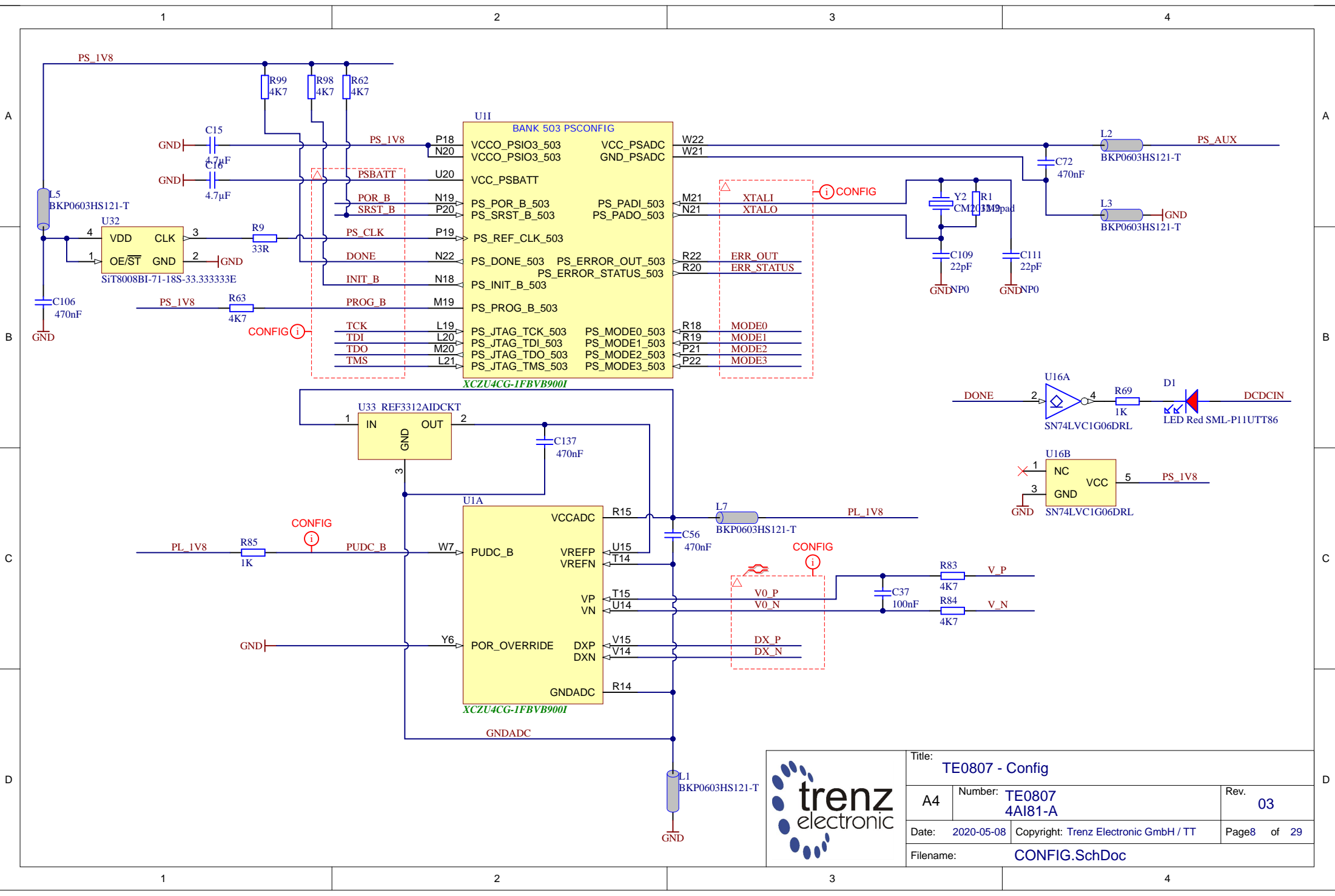
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page6 of 29	
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XCZU4CG-1FBV9001

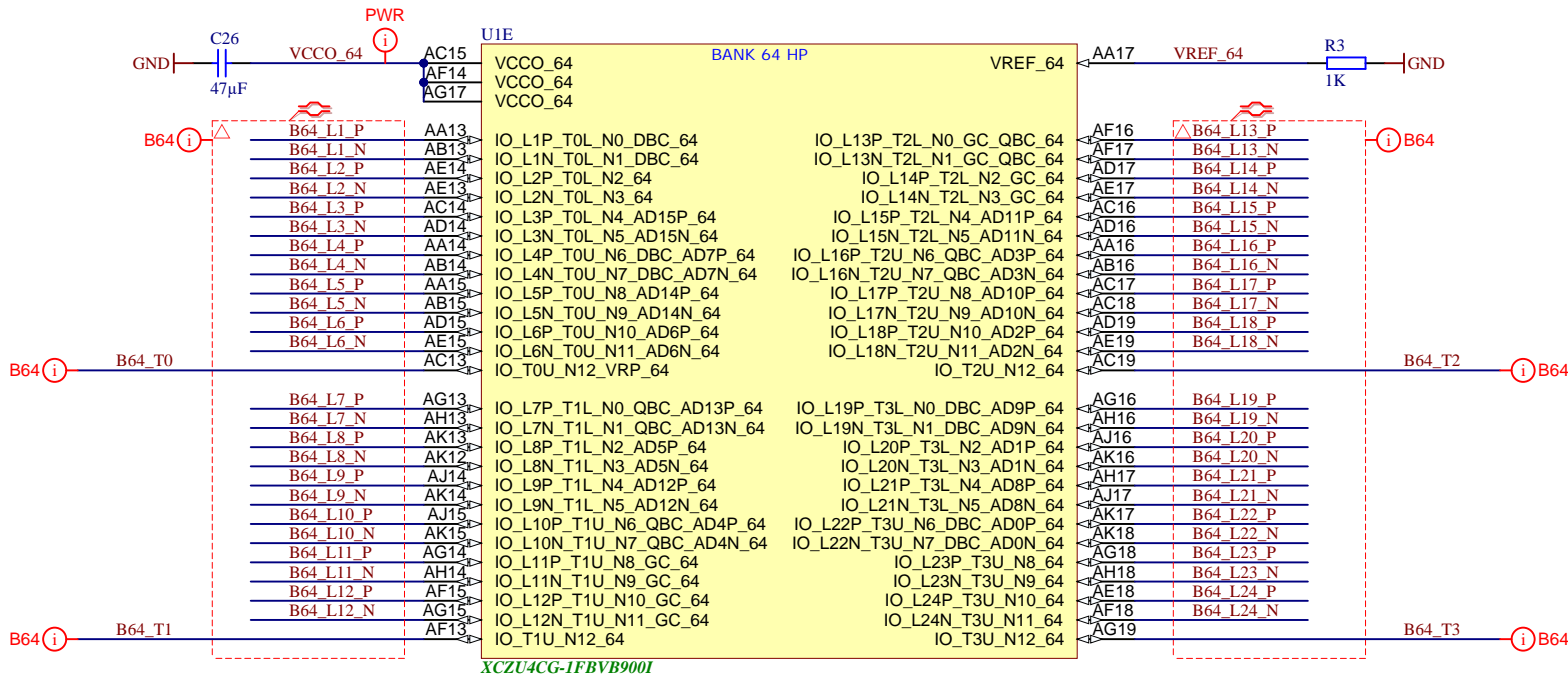



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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 7 of 29
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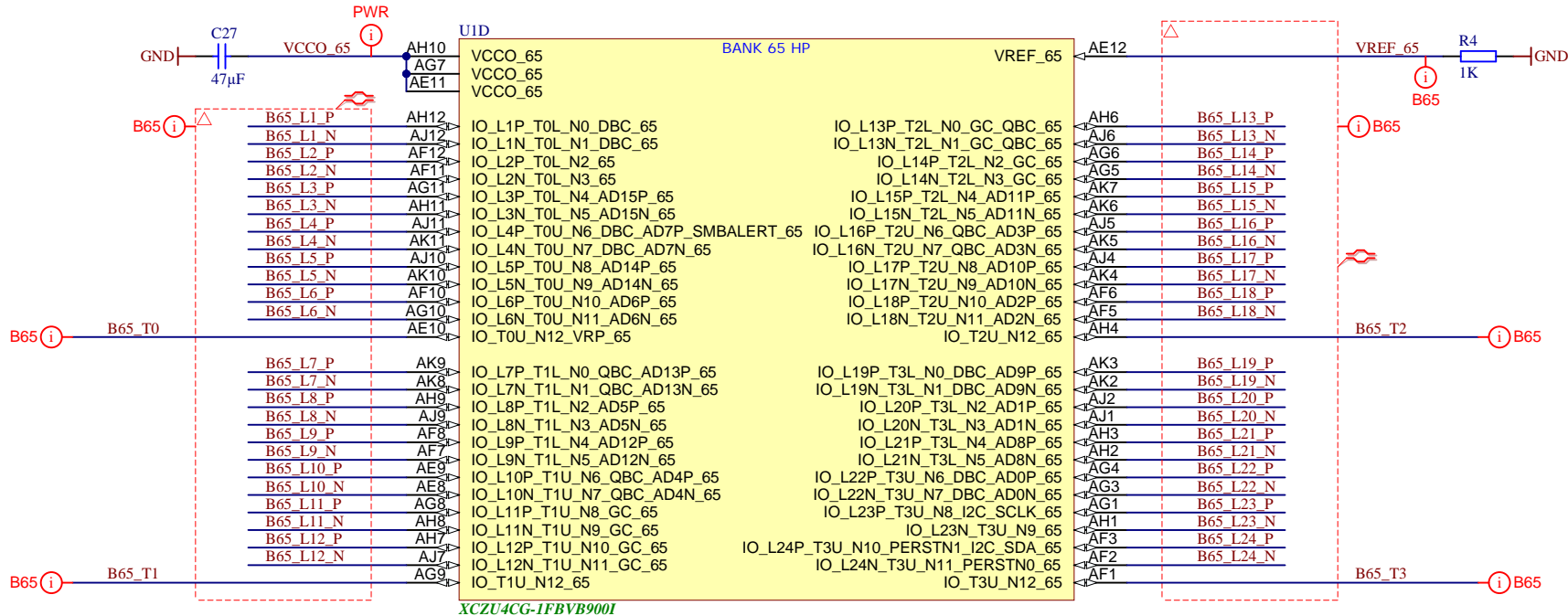


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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 8 of 29
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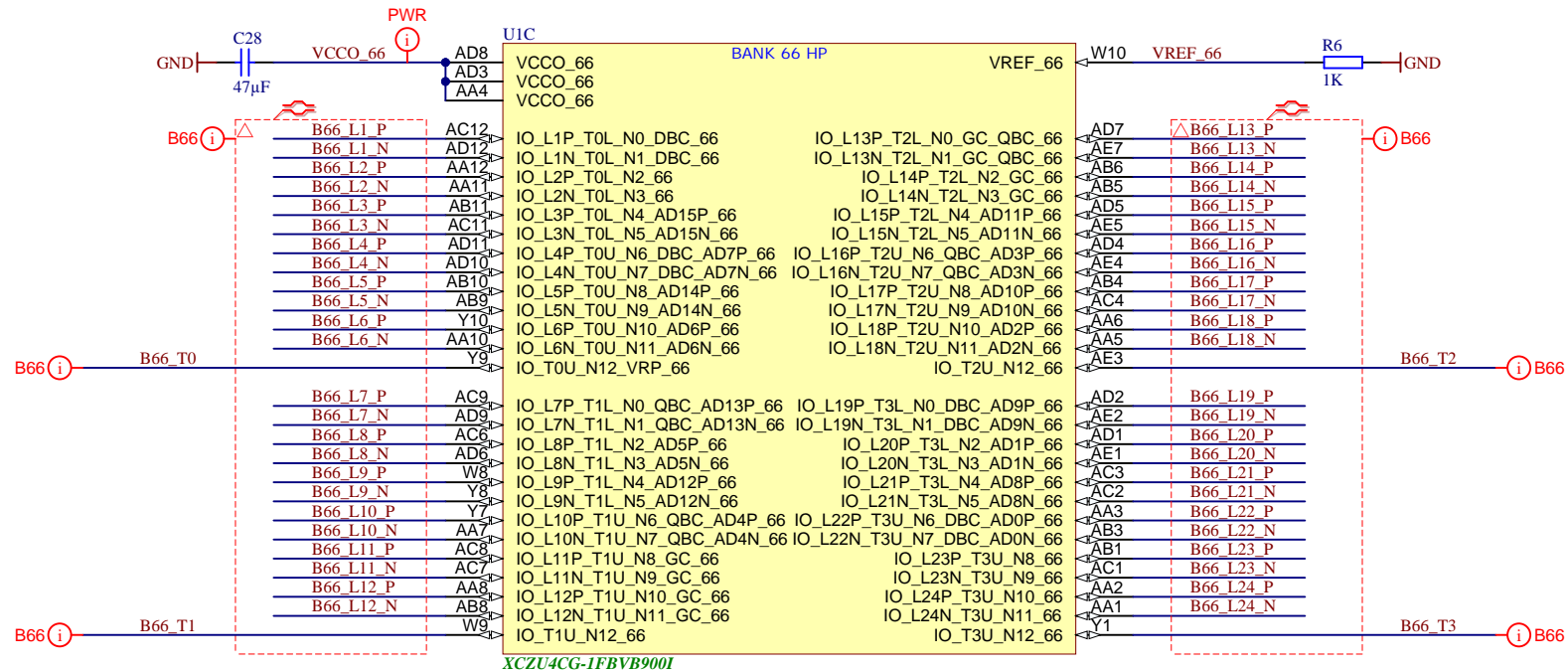






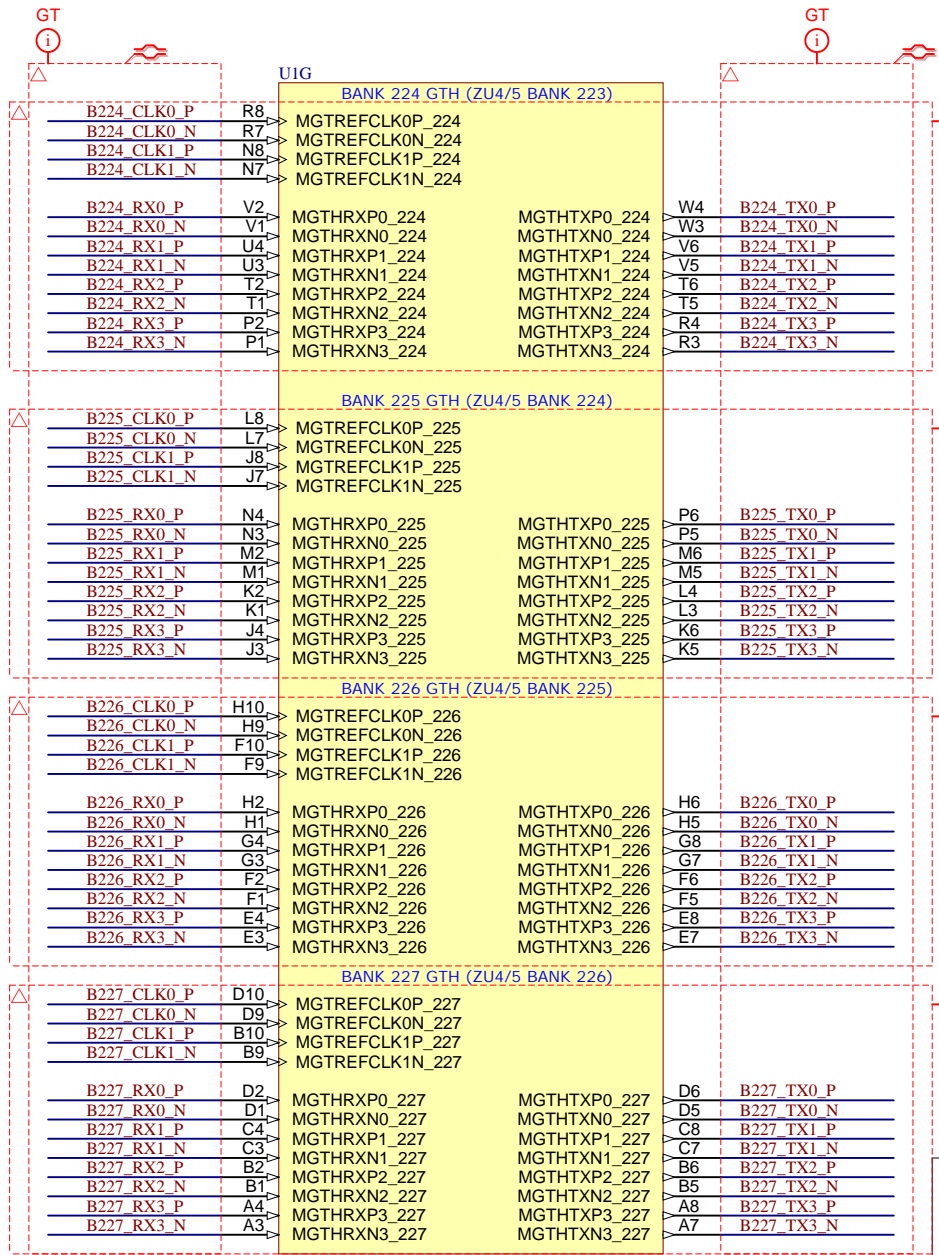
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Filename: B64.SchDoc		



Title: TE0807 - B65		
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 10 of 29
Filename: B65.SchDoc		



	Title: TE0807 - B66		
	A4	Number: TE0807 4AI81-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 11 of 29
	Filename: B66.SchDoc		



Title: TE0807 - GTH_Banks		
A4	Number: TE0807 4A181-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 12 of 29
Filename: B_GT.SchDoc		

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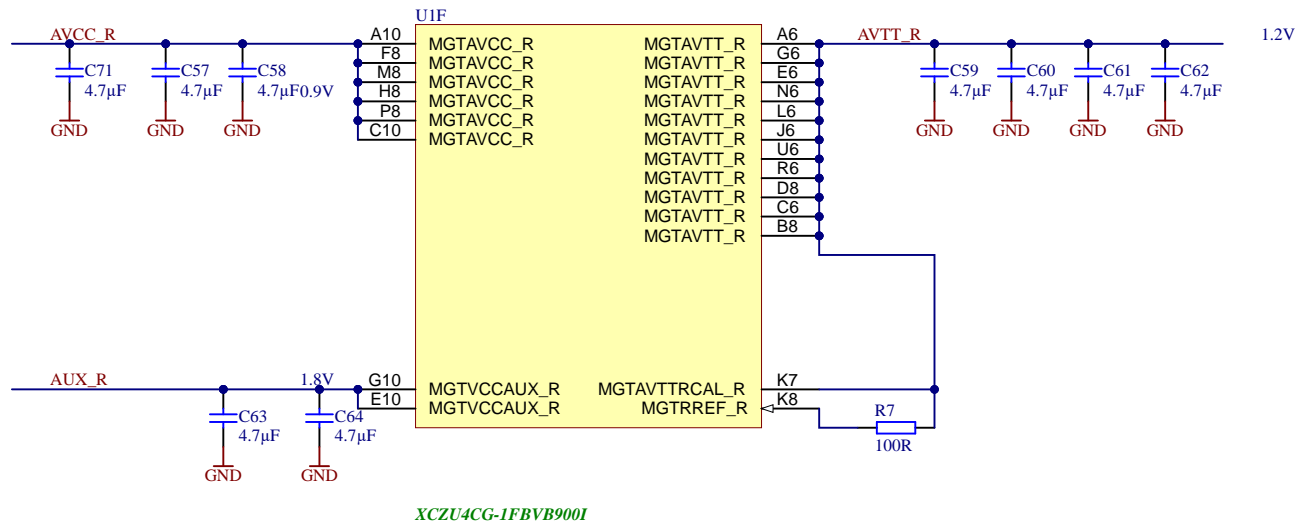
B

C

C

D

D



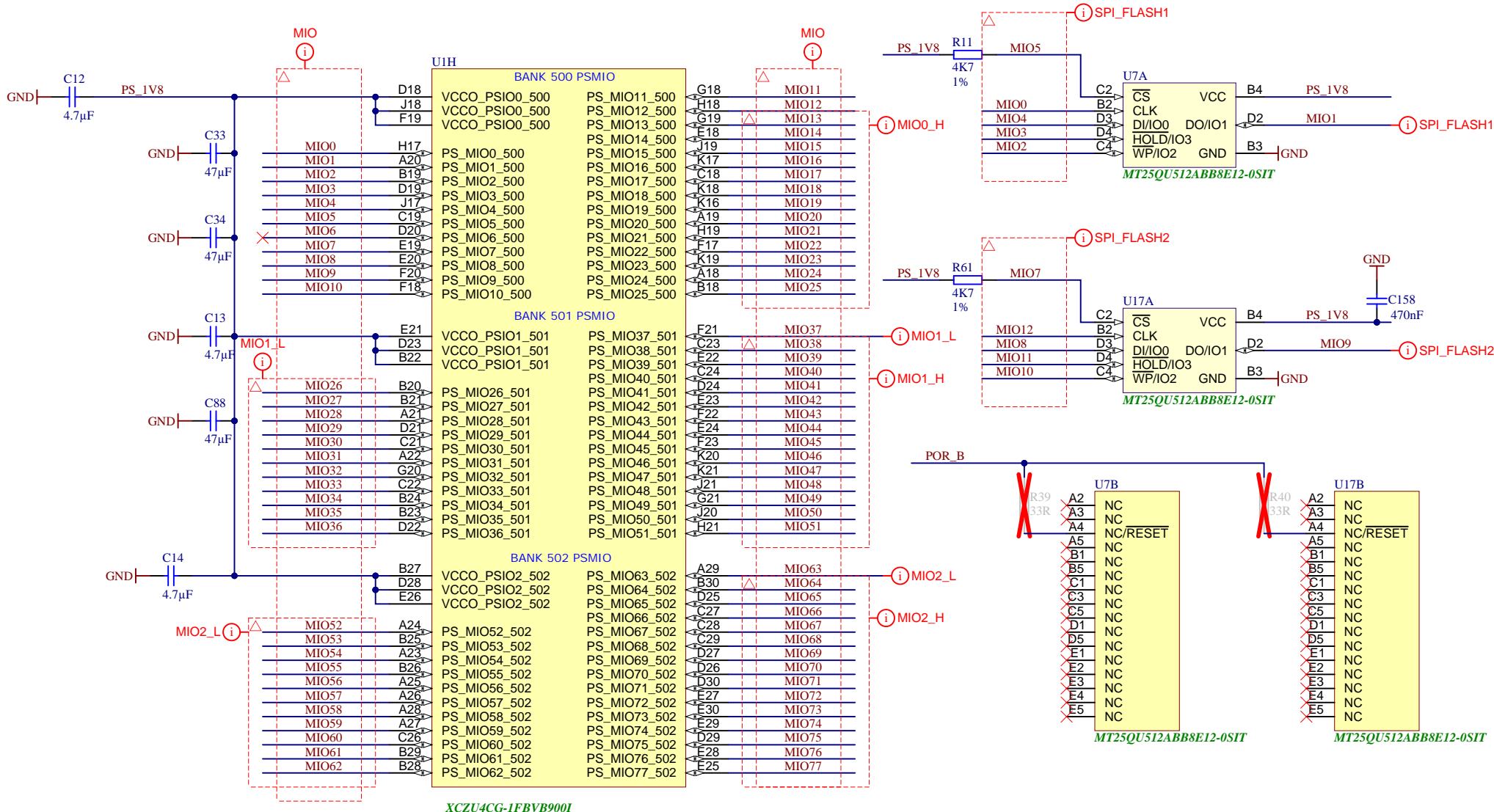
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	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 13 of 29
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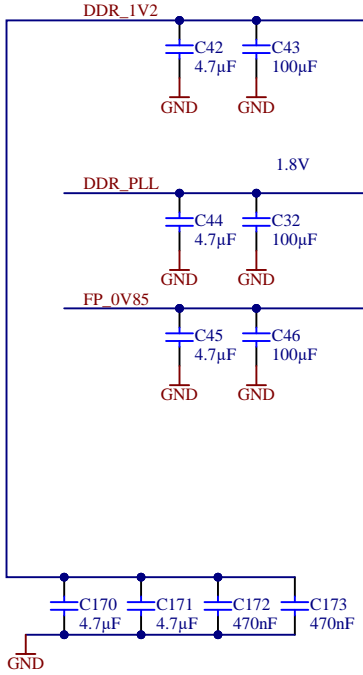
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XCZU4CG-1FBVB9001

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	A4	Number: TE0807 4A181-A
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT
	Filename: B_MIO.SchDoc	Page 14 of 29

Rev. 03



UIJ	
BANK 504 PSDDR	
VCCO_PSDDR_504	PS_DDR_CK0_504
VCCO_PSDDR_504	PS_DDR_CK_N0_504
VCCO_PSDDR_504	PS_DDR_CKE0_504
VCCO_PSDDR_504	PS_DDR_CK1_504
VCCO_PSDDR_504	PS_DDR_CK_N1_504
VCCO_PSDDR_504	PS_DDR_CKE1_504
VCC_PSDDR_PLL	PS_DDR_A0_504
VCC_PSDDR_PLL	PS_DDR_A1_504
VCC_PSDDR_PLL	PS_DDR_A2_504
VCC_PSDDR_PLL	PS_DDR_A3_504
VCC_PSDDR_PLL	PS_DDR_A4_504
VCC_PSDDR_PLL	PS_DDR_A5_504
VCC_PSDDR_PLL	PS_DDR_A6_504
VCC_PSDDR_PLL	PS_DDR_A7_504
VCC_PSDDR_PLL	PS_DDR_A8_504
VCC_PSDDR_PLL	PS_DDR_A9_504
VCC_PSDDR_PLL	PS_DDR_A10_504
VCC_PSDDR_PLL	PS_DDR_A11_504
VCC_PSDDR_PLL	PS_DDR_A12_504
VCC_PSDDR_PLL	PS_DDR_A13_504
VCC_PSDDR_PLL	PS_DDR_A14_504
VCC_PSDDR_PLL	PS_DDR_A15_504
VCC_PSDDR_PLL	PS_DDR_A16_504
VCC_PSDDR_PLL	PS_DDR_A17_504
	PS_DDR_CS_N0_504
	PS_DDR_CS_N1_504
	PS_DDR_BA0_504
	PS_DDR_BA1_504
	PS_DDR_BG0_504
	PS_DDR_BG1_504
	PS_DDR_PARITY_504
	PS_DDR_RAM_RST_N_504
	PS_DDR_ACT_N_504
	PS_DDR_ALERT_N_504
	PS_DDR_ZQ_504
	PS_DDR_ODT0_504
	PS_DDR_ODT1_504

XCZU4CG-1FBVB900I

UIK	
BANK 504 PSDDR	
AE30	DDR4-CLK0_P
AF30	DDR4-CLK0_N
AC30	DDR4-CKE0
AF28	DDR4-A0
AG28	DDR4-A1
AB28	DDR4-A2
AH30	DDR4-A3
AG30	DDR4-A4
AK29	DDR4-A5
AJ30	DDR4-A6
AK28	DDR4-A7
AK27	DDR4-A8
AF27	DDR4-A9
AE27	DDR4-A10
AF26	DDR4-A11
AG26	DDR4-A12
AE29	DDR4-A13
AE28	DDR4-A14
AH29	DDR4-A15
AG29	DDR4-A16
AJ29	DDR4-A17
AH27	DDR4-A18
AJ27	DDR4-A19
AD30	DDR4-CS
AD29	DDR4-BA0
AD27	DDR4-BA1
AC26	DDR4-BG0
AC28	DDR4-BG1
AC27	DDR4-PAR
AB26	DDR4-RESET
AB25	DDR4-ACT
AD26	DDR4-ALERT
AB24	DDR4-ALERT
AB23	DDR4-ZQ
AB30	DDR4-ODT0
AC29	DDR4-ODT1

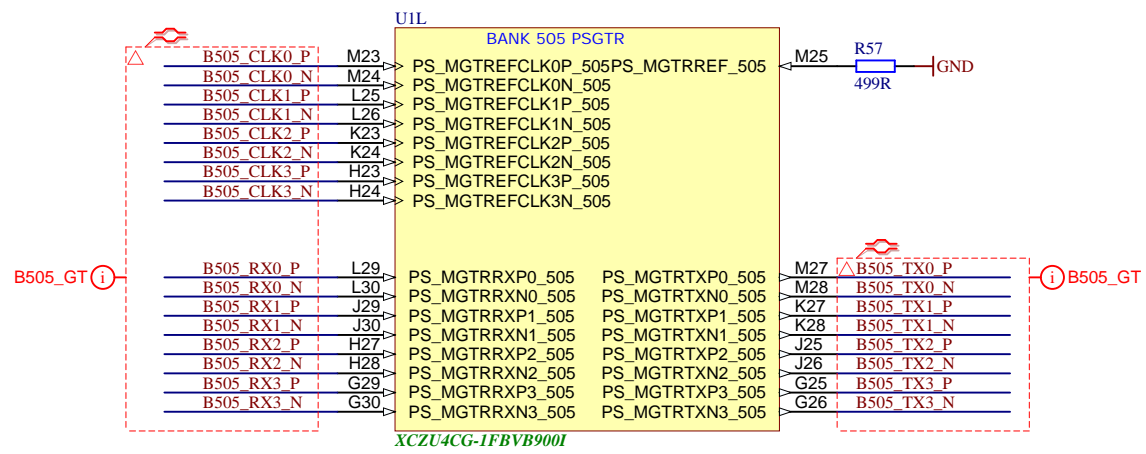



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DQ4	PS_DDR_DQ4_504
DQ5	PS_DDR_DQ5_504
DQ6	PS_DDR_DQ6_504
DQ7	PS_DDR_DQ7_504
DQ8	PS_DDR_DQ8_504
DQ9	PS_DDR_DQ9_504
DQ10	PS_DDR_DQ10_504
DQ11	PS_DDR_DQ11_504
DQ12	PS_DDR_DQ12_504
DQ13	PS_DDR_DQ13_504
DQ14	PS_DDR_DQ14_504
DQ15	PS_DDR_DQ15_504
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DQ17	PS_DDR_DQ17_504
DQ18	PS_DDR_DQ18_504
DQ19	PS_DDR_DQ19_504
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DQ21	PS_DDR_DQ21_504
DQ22	PS_DDR_DQ22_504
DQ23	PS_DDR_DQ23_504
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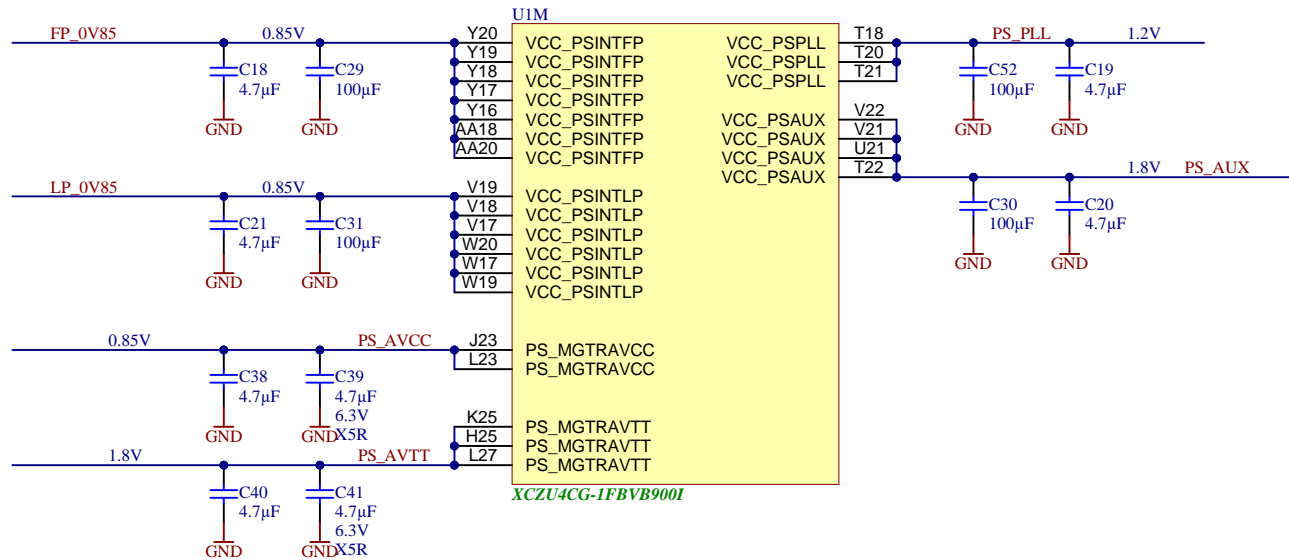
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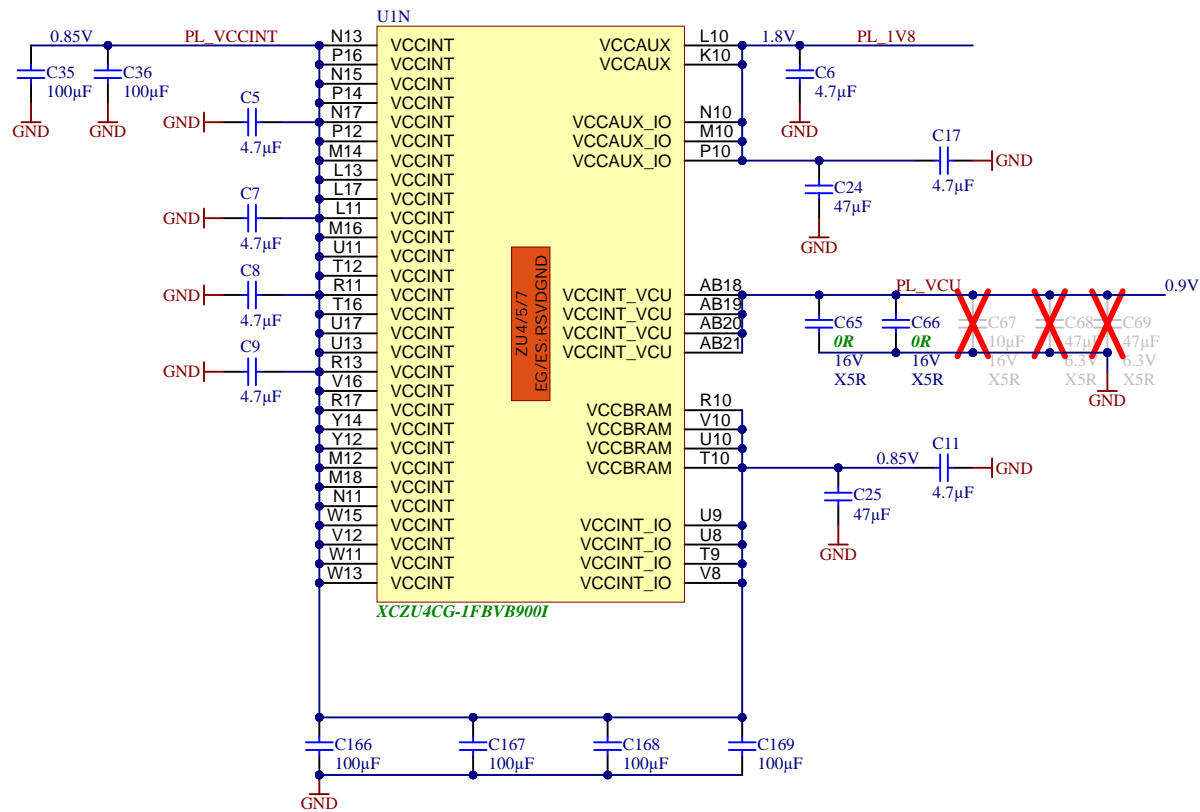
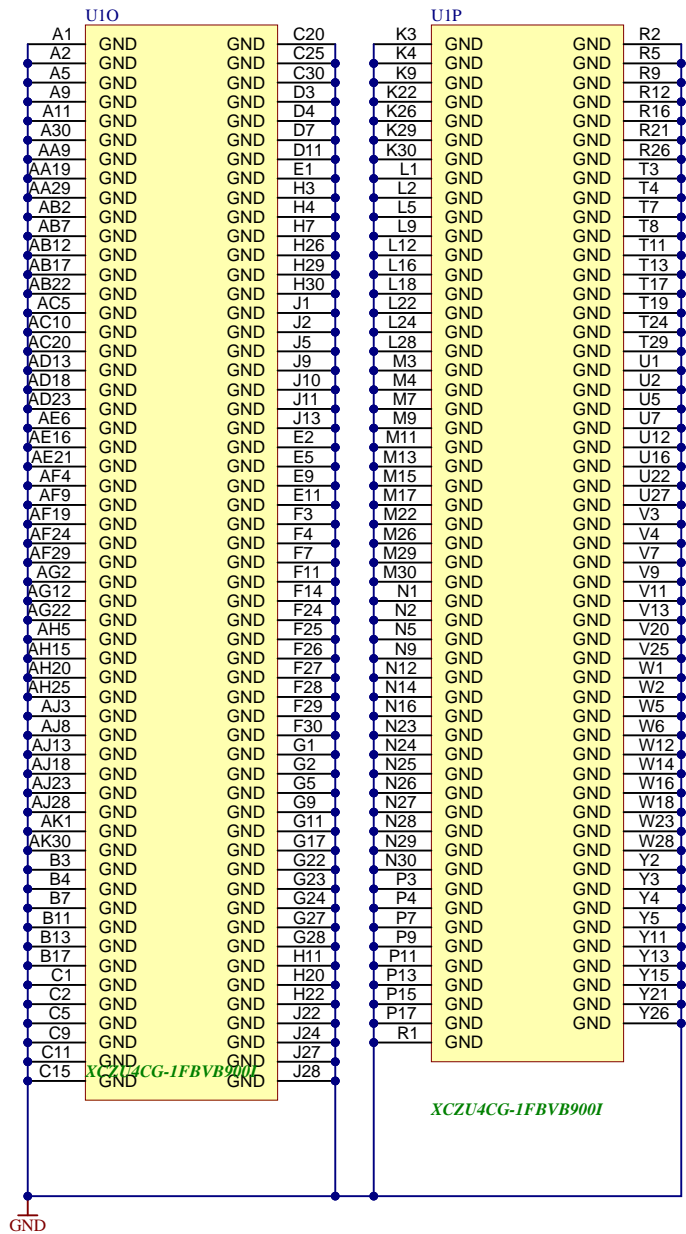
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 15 of 29
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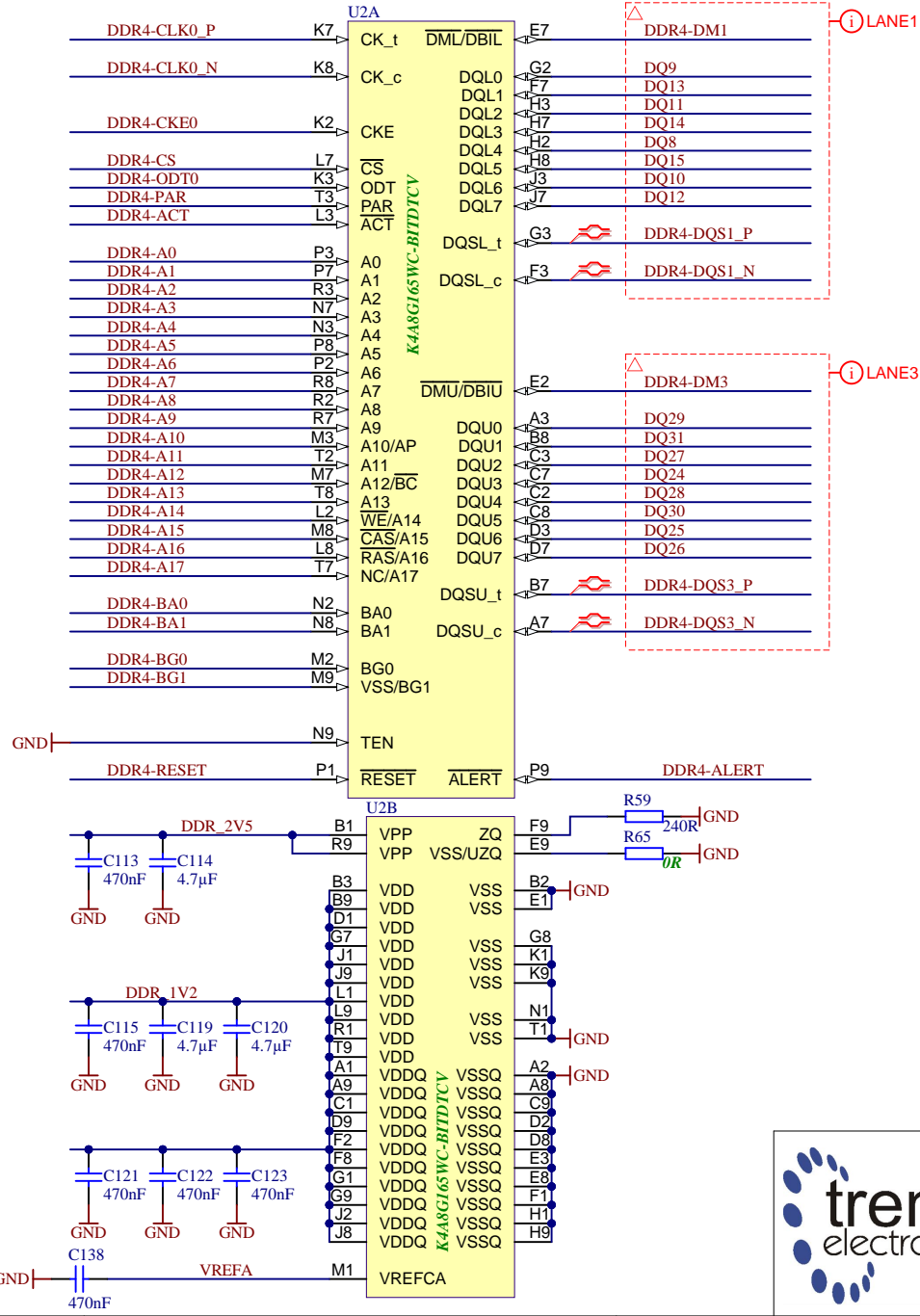
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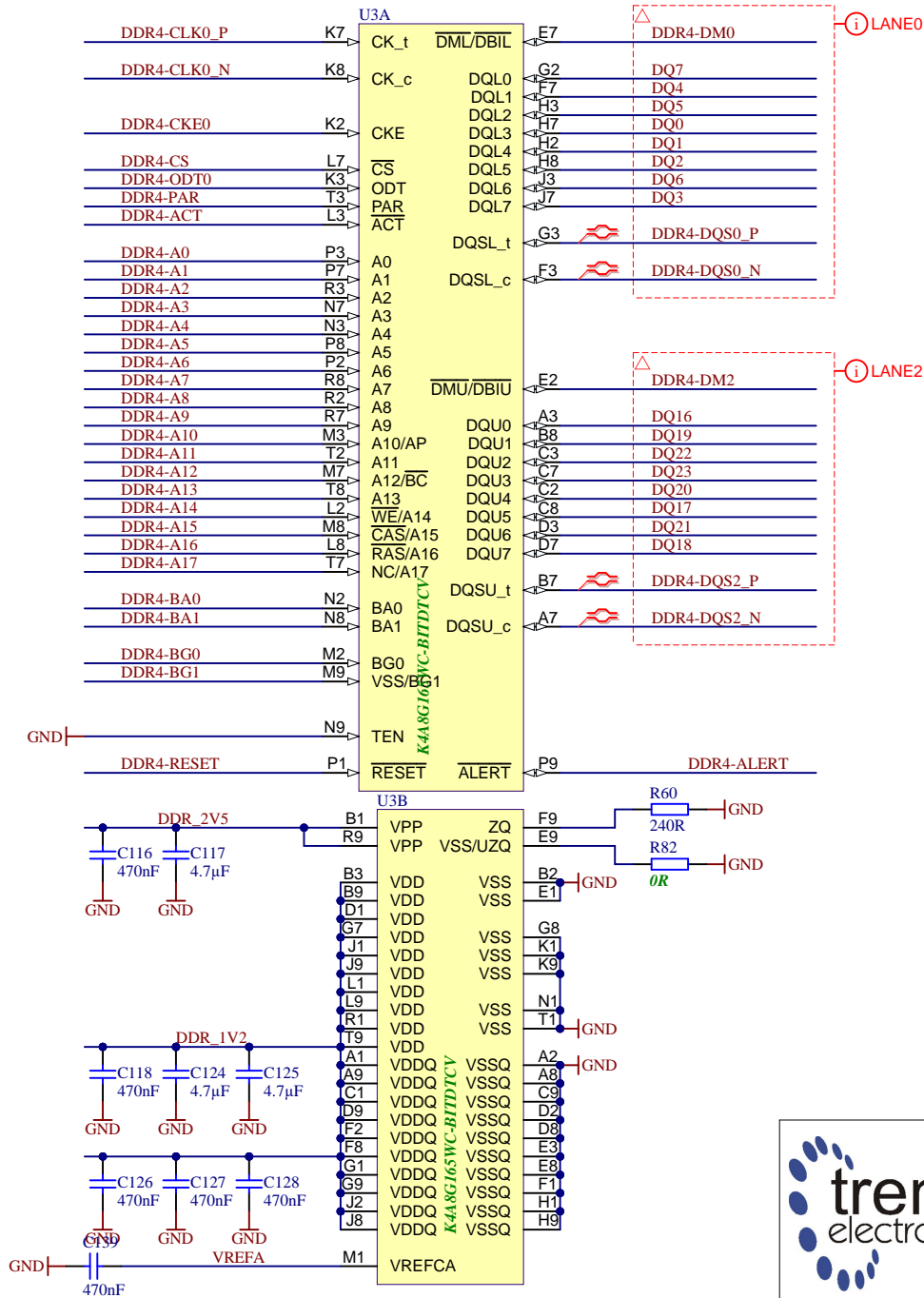

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Date: 2020-05-08		Page 17 of 29	
Filename: ZU_PS_POWER.SchDoc			



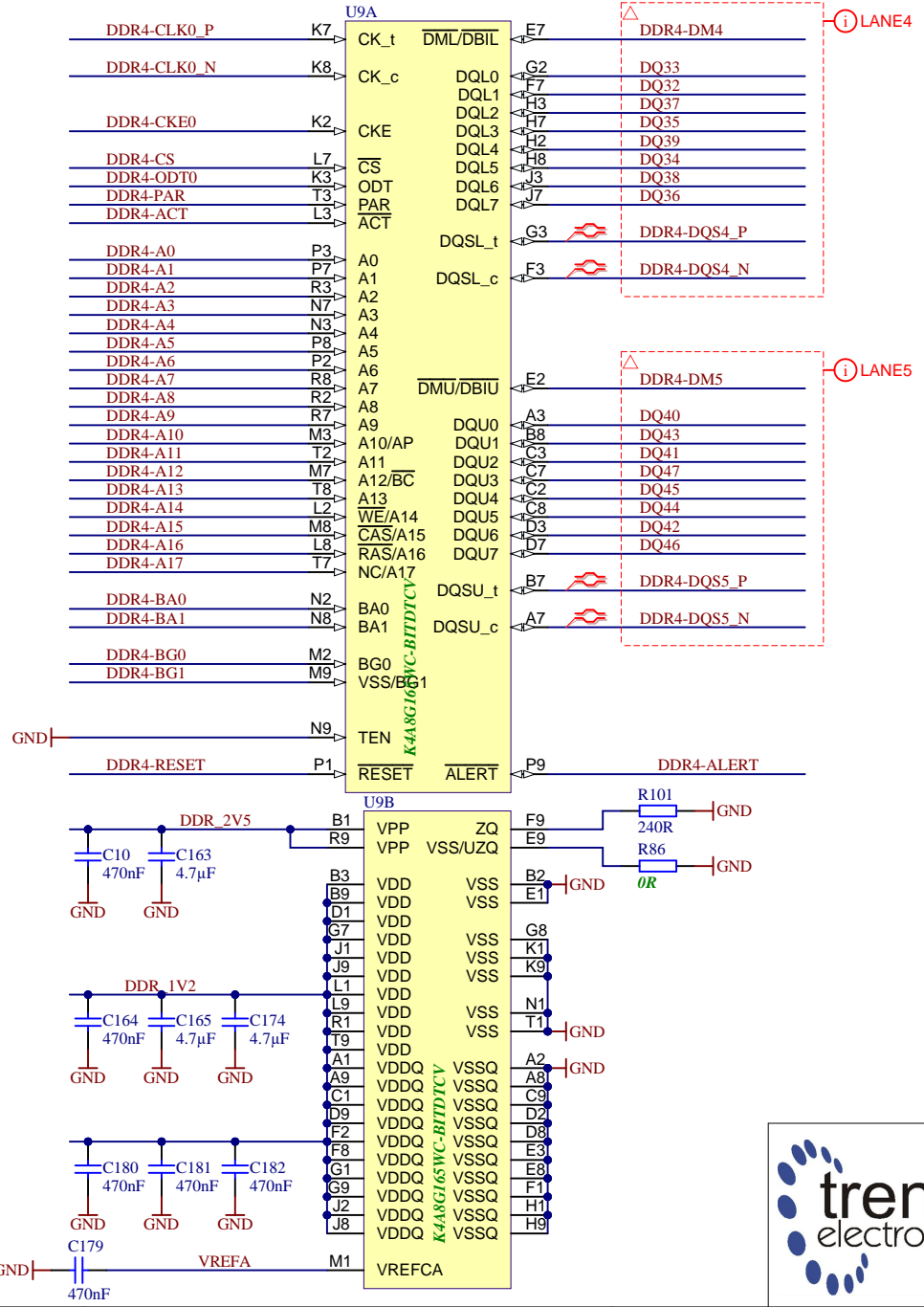
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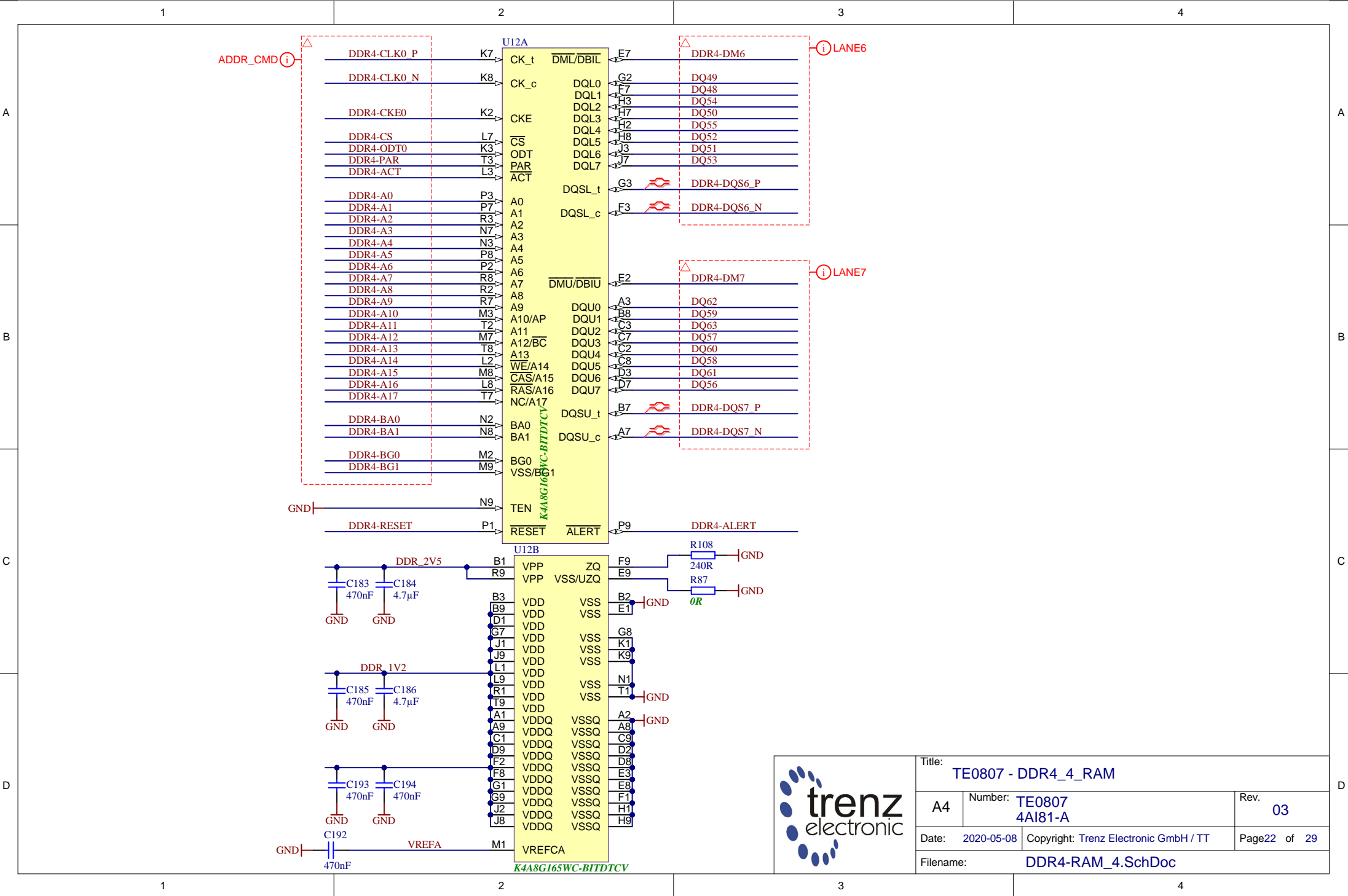
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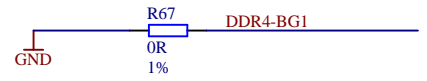
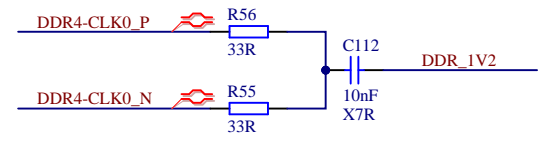
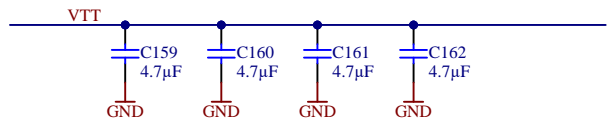
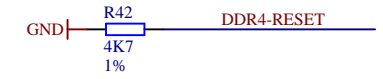
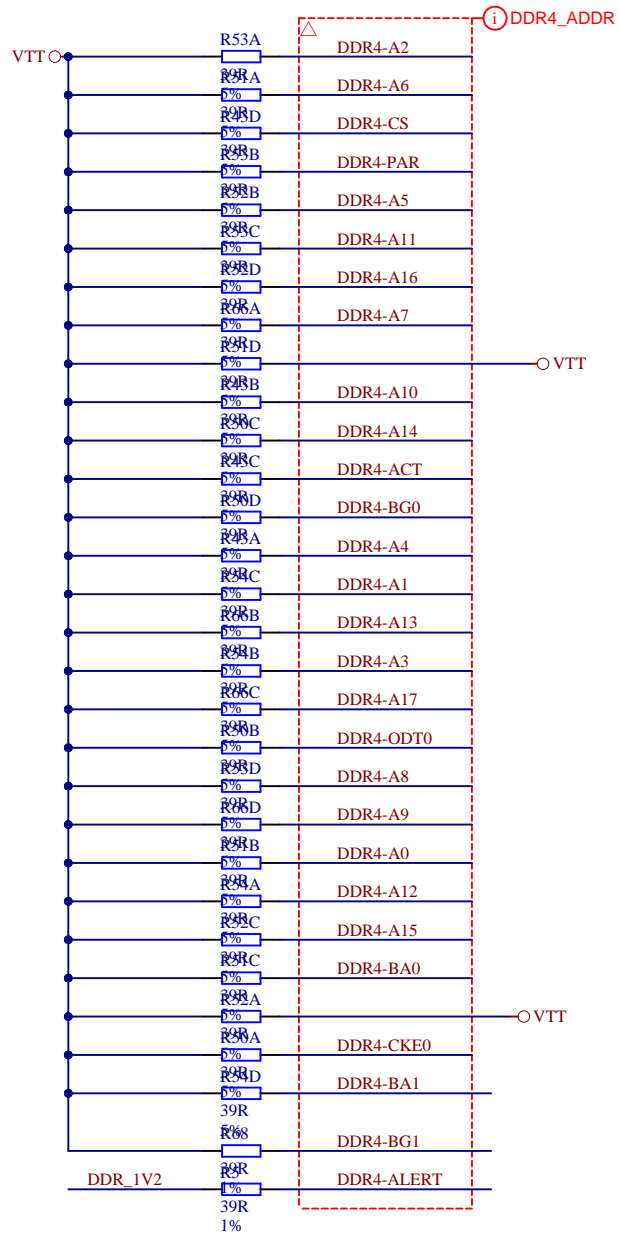
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page20 of 29
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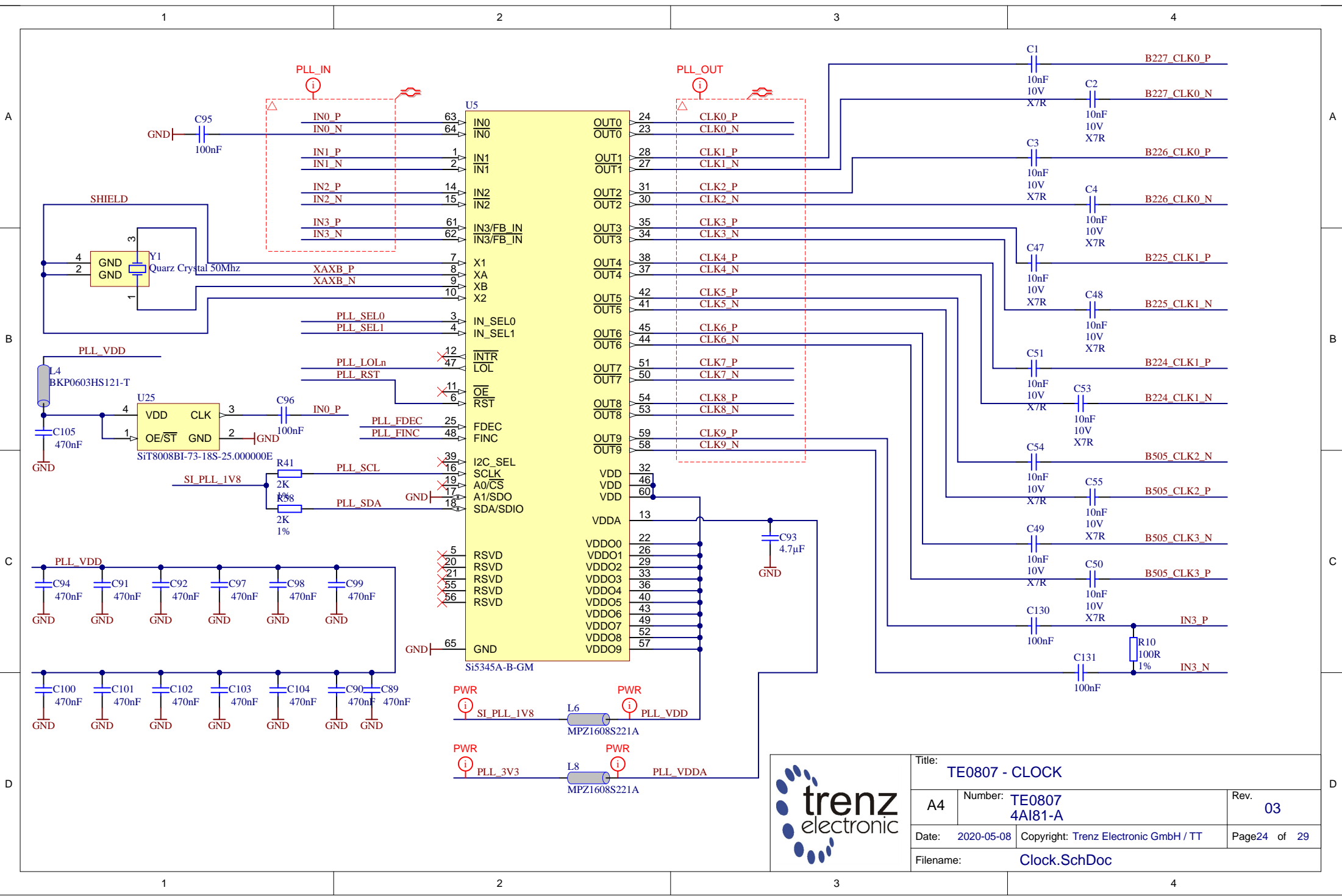
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 21 of 29
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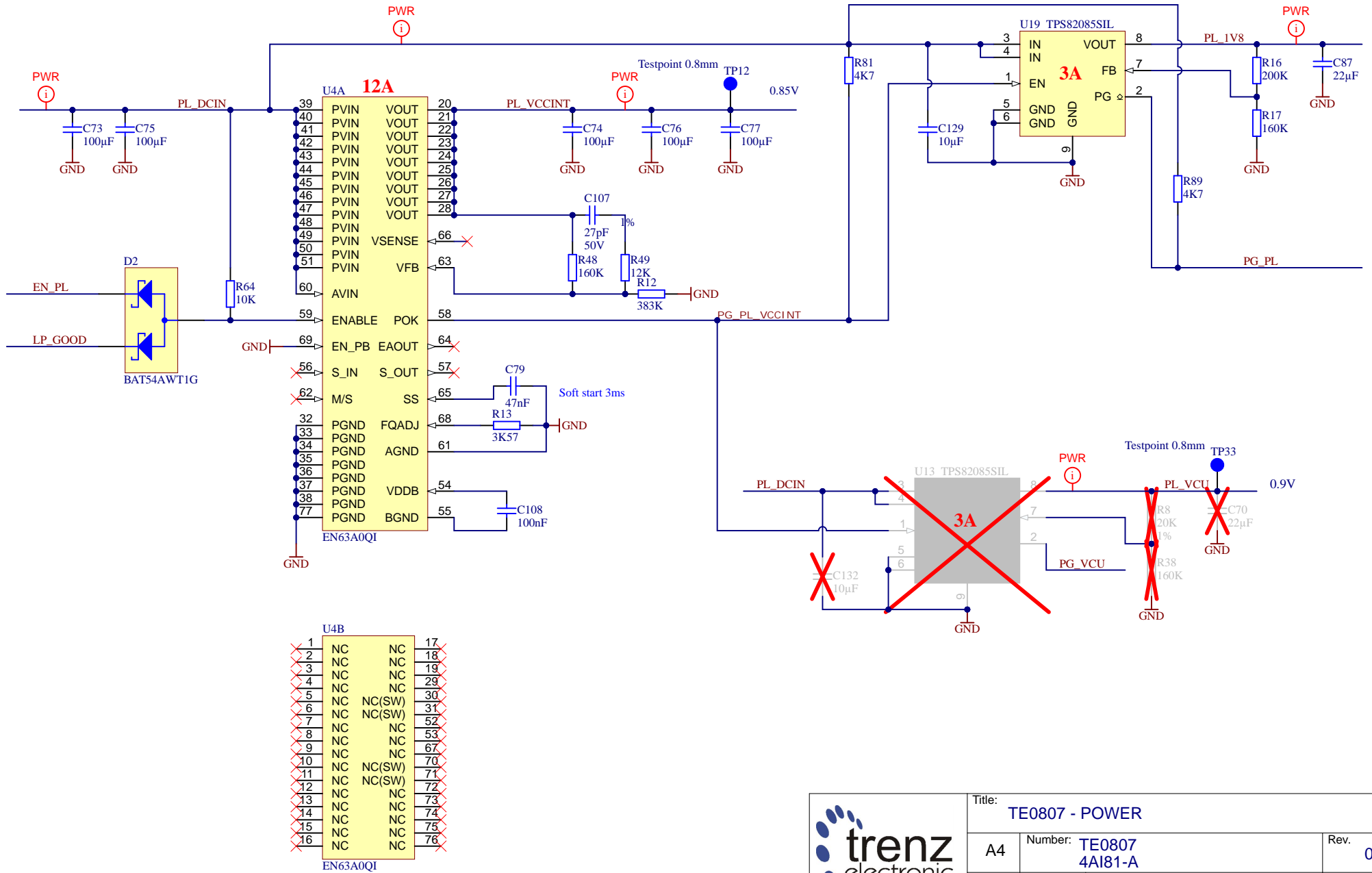
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page22 of 29
Filename: DDR4-RAM_4.SchDoc		




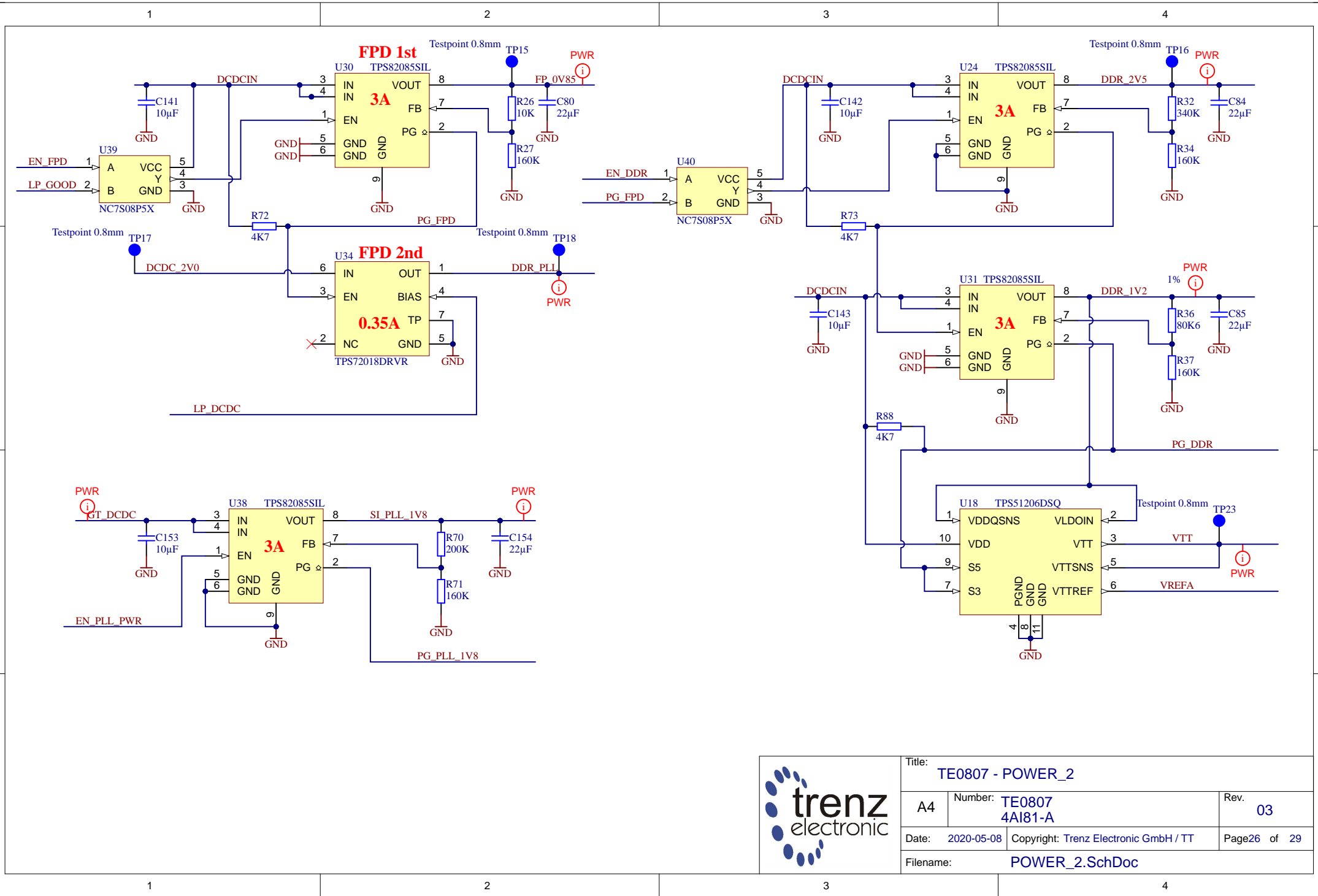
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A4	Number: TE0807 4A181-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page23 of 29
Filename: DDR4-TERM.SchDoc		




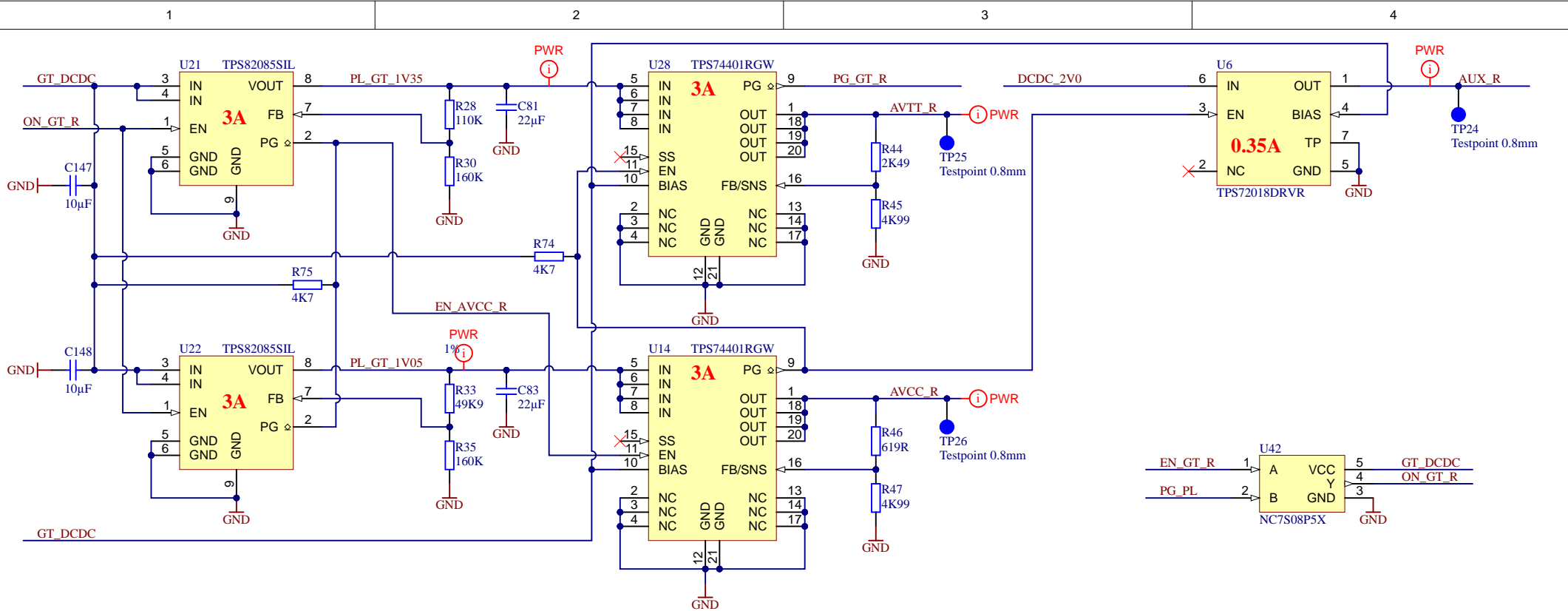
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page24 of 29
Filename: Clock.SchDoc		



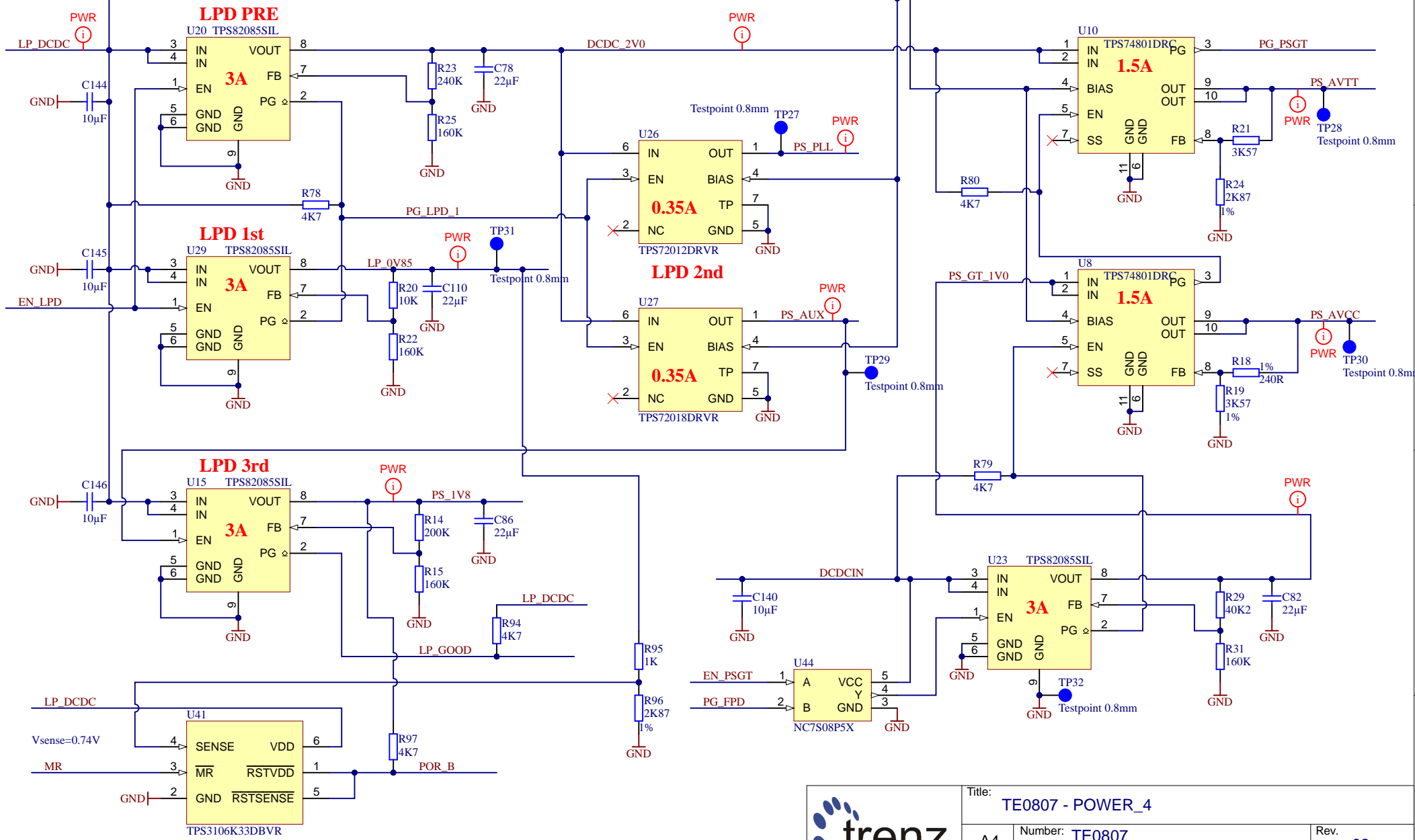
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	A4	Number: TE0807 4A181-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	
	Page 25 of 29		
Filename: POWER.SchDoc			



		Title: TE0807 - POWER_2	
		A4	Number: TE0807 4AI81-A
Date: 2020-05-08		Copyright: Trenz Electronic GmbH / TT	
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Filename: POWER_2.SchDoc			



	Title: TE0807 - POWER_3		
	A4	Number: TE0807 4AI81-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 27 of 29
	Filename: POWER_3.SchDoc		



Title: TE0807 - POWER_4		
A4	Number: TE0807 4A181-A	Rev. 03
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CHANGES REV01 to REV02

- 1) Added EEPROM (U11,24AA025E48T-I/OT)
- 2) Added optional resistors R39/R40 for QSPI flash (do not populated)
- 3) Fixed VCU connection (added additional DCDC and capacitors), recommendation from Xilinx
- 4) Changed obsolete DDR4 chips (NT5AD256M16B2-GN -> K4A8G165WB-BIRC)
- 5) Added net "PG_VCU" to J2 (pin97)
- 6) full update lib

CHANGES REV02 to REV03 (06.2020)

- VT: 1) Fixed ADC connection
- 2) Fixed DDR4 connection (support B-die DDR4 chips)
- 3) Fixed DDR4 connection (alert_n pin connection)
- 4) Added U16
- 4) Added testpoints
- 5) Full update LIB

	Title: TE0807 - Changes list		
	A4	Number: TE0807 4A181-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH	Page 29 of 29
	Filename: Revision_Changes.SchDoc		