


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

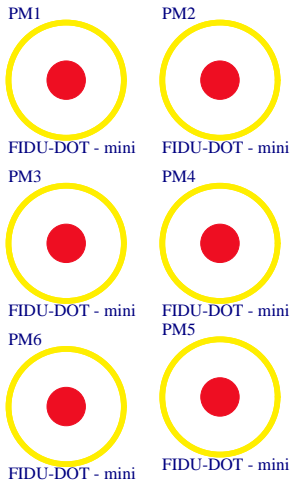
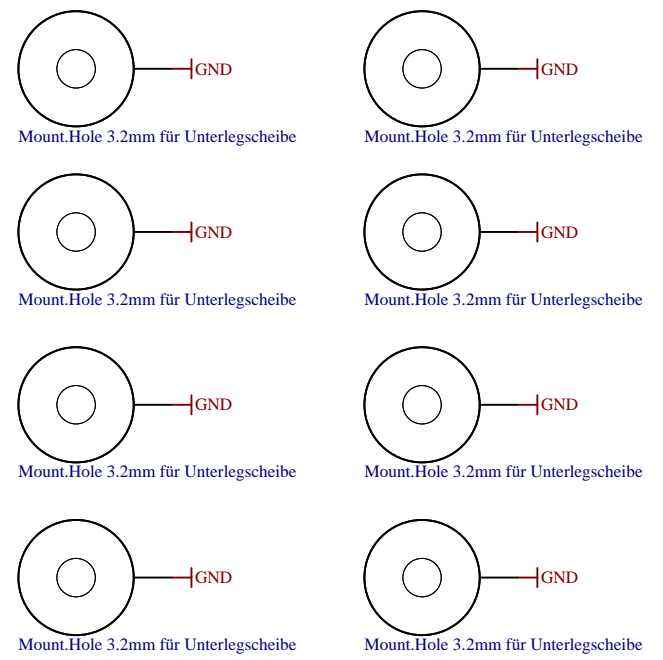
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Schematics and other handouts serve for informational purposes only!

	Title: TE0807 - Legal Notices		
	A4	Number: TE0807 7DI81-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	7DI81-A
Created by	ED
Modified by	ED
Modified at	2022-07-25
SVN Revision	

	Title: TE0807		
	A4	Number: TE0807 7DI81-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 2 of 29
	Filename: TE0807.SchDoc		

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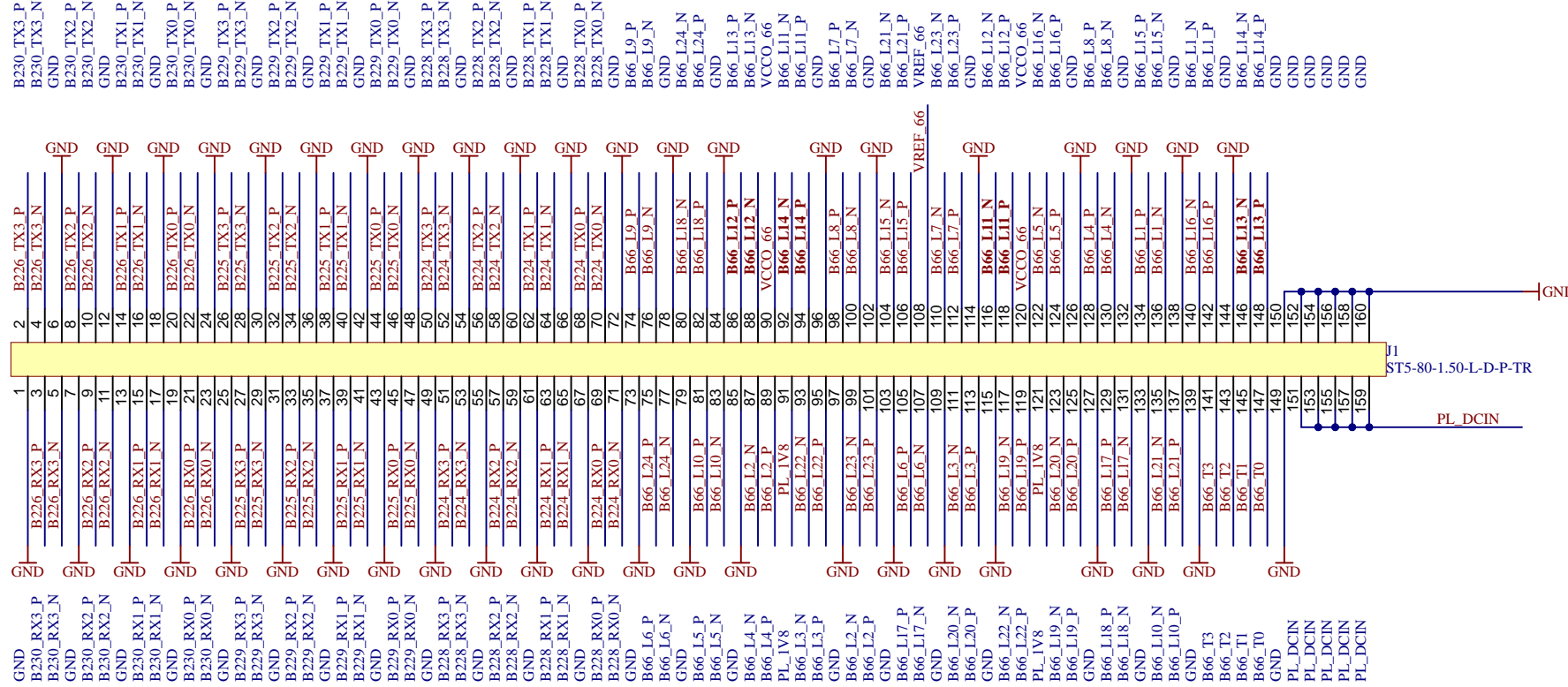

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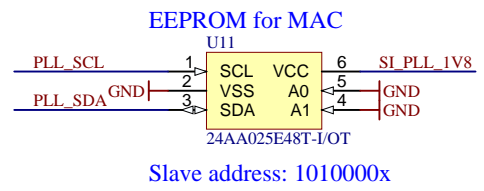
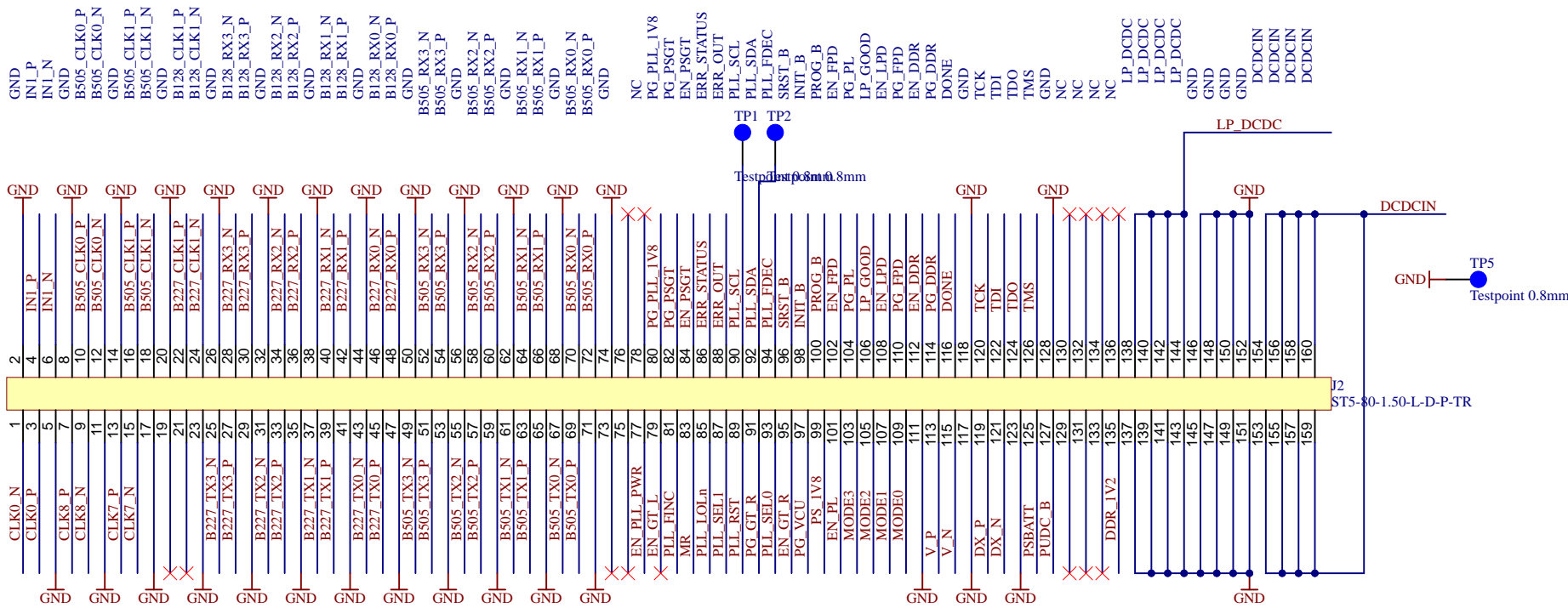
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A4	Number: TE0807 7DI81-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page3 of 29
Filename: J1.SchDoc		

1

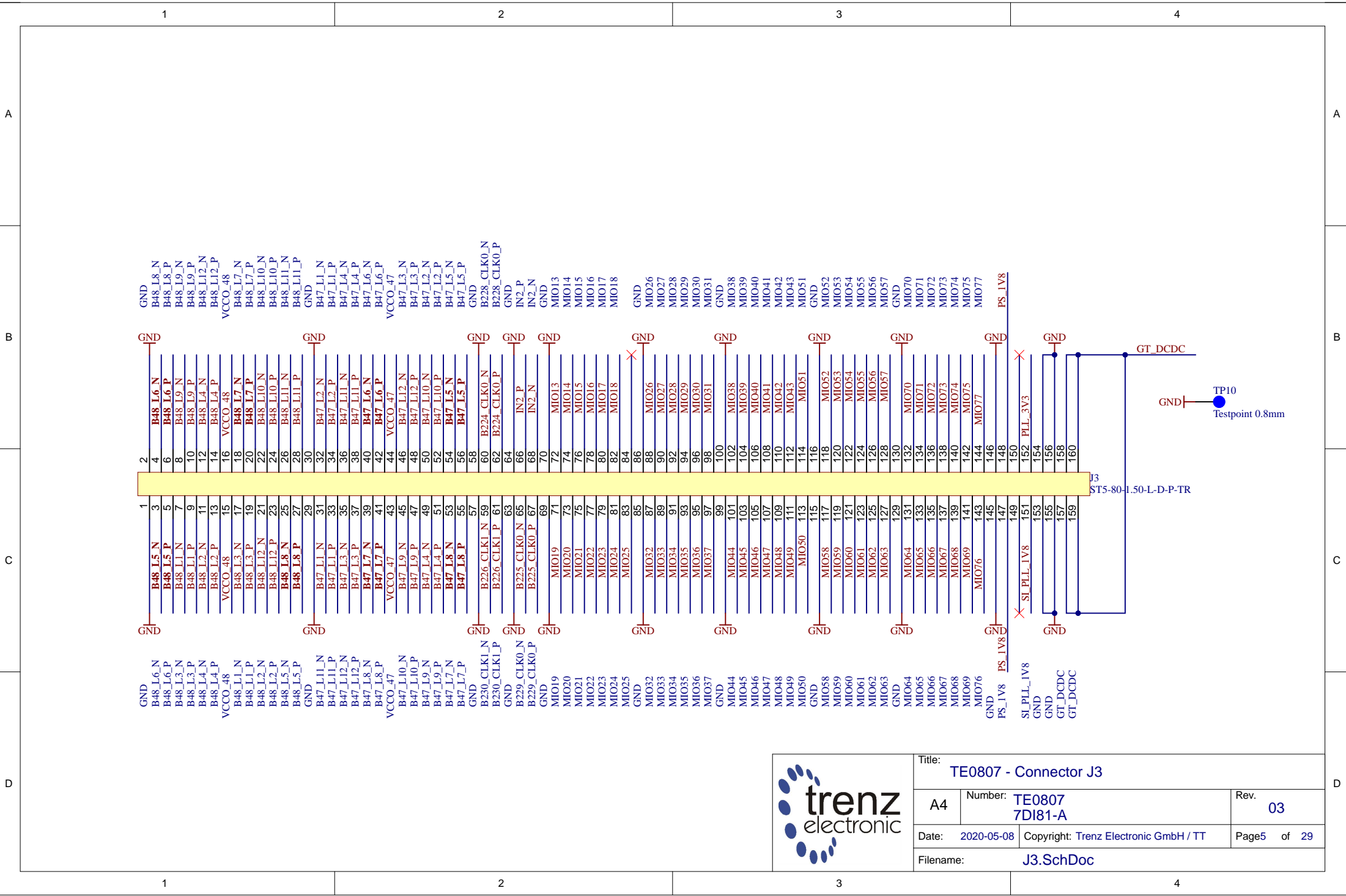
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Title: TE0807 - Connector J2		
A4	Number: TE0807 7DI81-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 4 of 29
Filename: J2.SchDoc		



			Title: TE0807 - Connector J3	
			A4	Number: TE0807 7DI81-A
Date: 2020-05-08		Copyright: Trenz Electronic GmbH / TT		Page5 of 29
Filename: J3.SchDoc				

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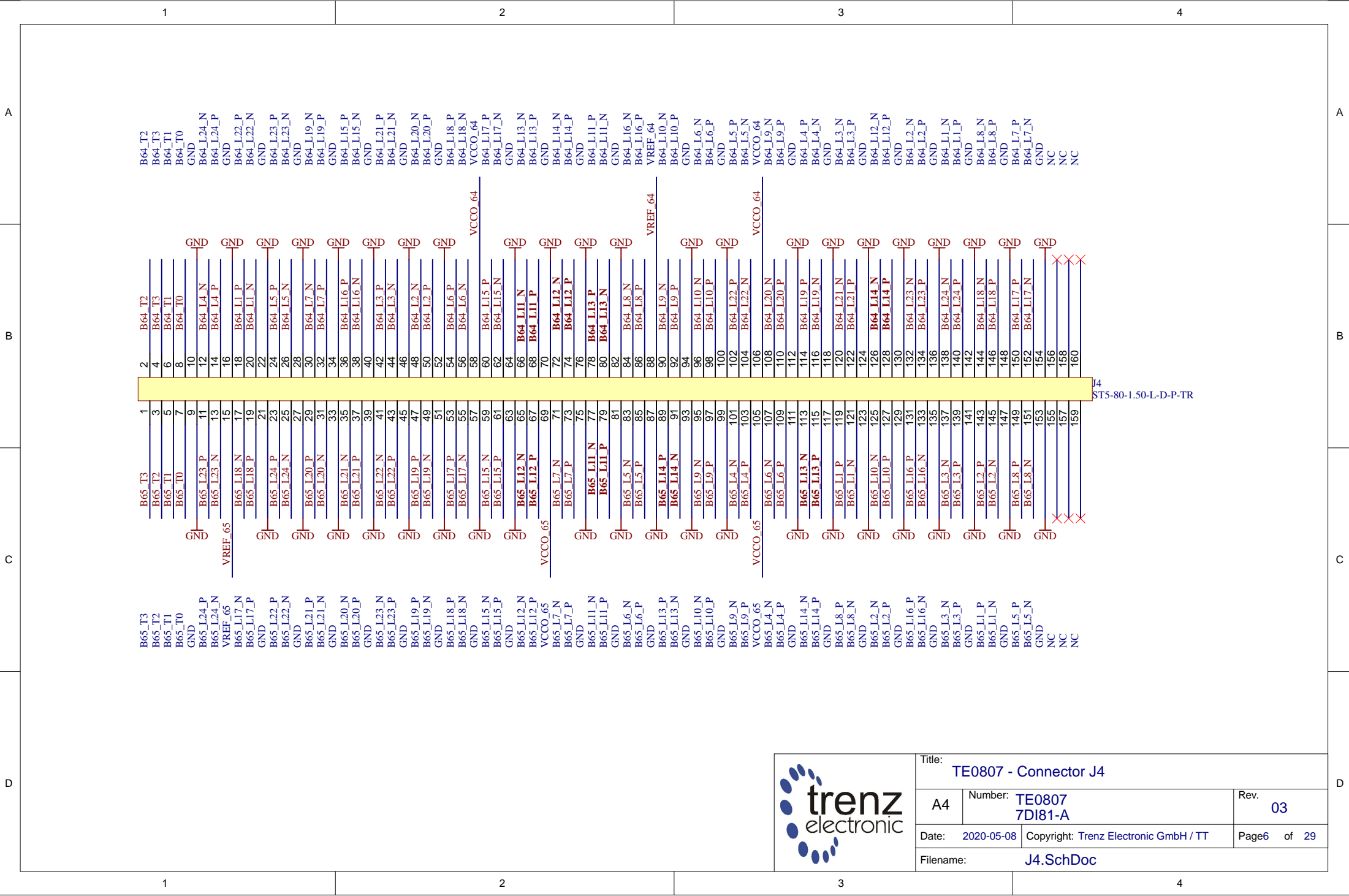
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 B48_L8_N B48_L8_P
 B48_L9_N B48_L9_P
 B48_L10_N B48_L10_P
 B48_L11_N B48_L11_P
 B48_L12_N B48_L12_P
 VCCO_48
 B48_L7_N B48_L7_P
 B48_L10_N B48_L10_P
 B48_L10_P B48_L10_N
 B48_L11_N B48_L11_P
 B48_L11_P B48_L11_N
 GND B47_L1_N B47_L1_P
 B47_L1_P B47_L1_N
 B47_L2_N B47_L2_P
 B47_L2_P B47_L2_N
 B47_L3_P B47_L3_N
 B47_L3_N B47_L3_P
 B47_L4_P B47_L4_N
 B47_L4_N B47_L4_P
 B47_L5_N B47_L5_P
 B47_L5_P B47_L5_N
 B47_L6_P B47_L6_N
 B47_L6_N B47_L6_P
 VCCO_47
 B228_CLK0_N B228_CLK0_P
 GND IN2_P IN2_P
 GND MIO13 MIO13
 MIO14 MIO14
 MIO15 MIO15
 MIO16 MIO16
 MIO17 MIO17
 MIO18 MIO18
 GND MIO26 MIO26
 MIO27 MIO27
 MIO28 MIO28
 MIO29 MIO29
 MIO30 MIO30
 MIO31 MIO31
 GND MIO38 MIO38
 MIO39 MIO39
 MIO40 MIO40
 MIO41 MIO41
 MIO42 MIO42
 MIO43 MIO43
 MIO51 MIO51
 GND MIO52 MIO52
 MIO53 MIO53
 MIO54 MIO54
 MIO55 MIO55
 MIO56 MIO56
 MIO57 MIO57
 GND MIO70 MIO70
 MIO71 MIO71
 MIO72 MIO72
 MIO73 MIO73
 MIO74 MIO74
 MIO75 MIO75
 MIO77 MIO77
 PS_IV8 PS_IV8
 GND
 SI_PLL_IV8
 GND
 GT_DCDC
 GT_DCDC
 TP10
 Testpoint 0.8mm
 J3
 ST5-80-1.50-L-D-P-TR

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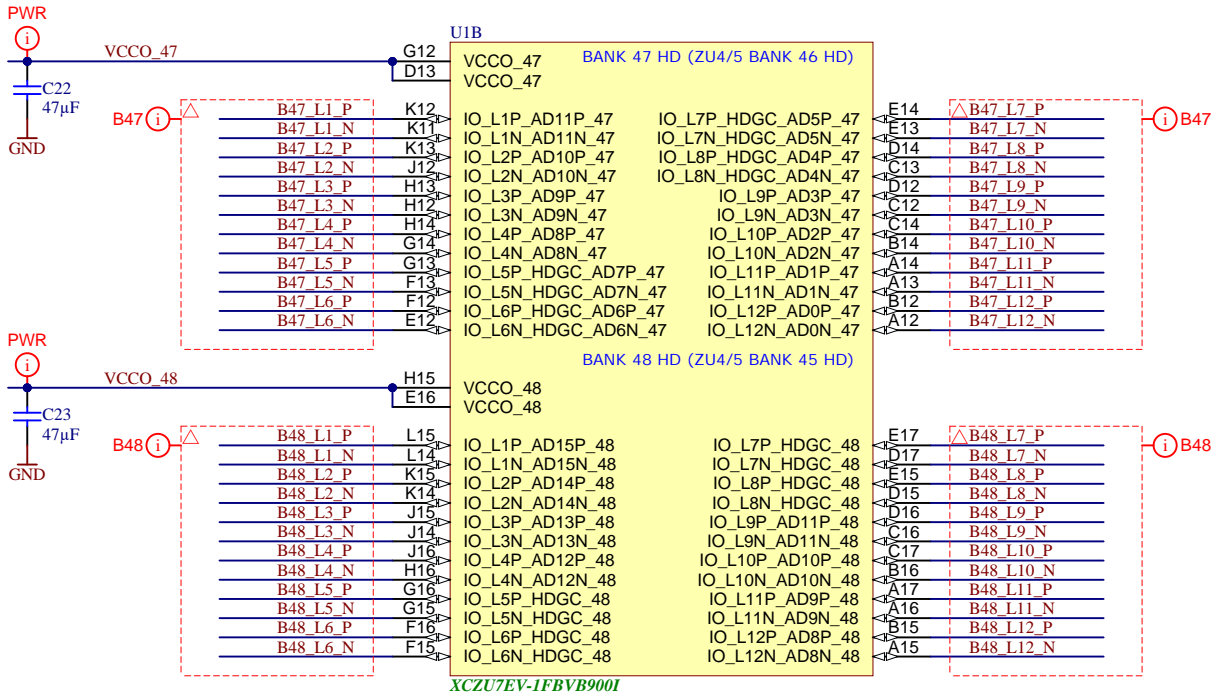
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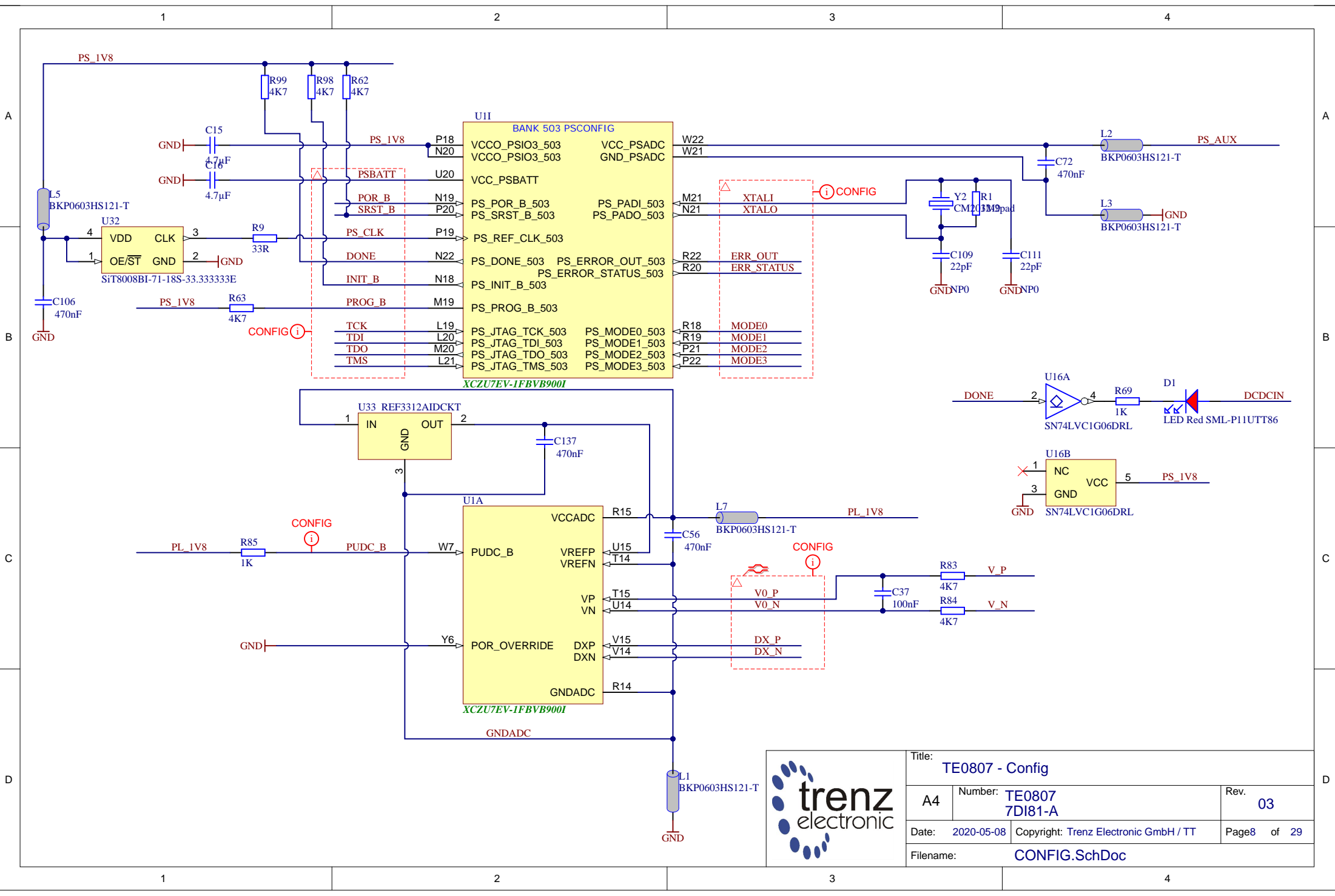
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page6 of 29
Filename: J4.SchDoc		

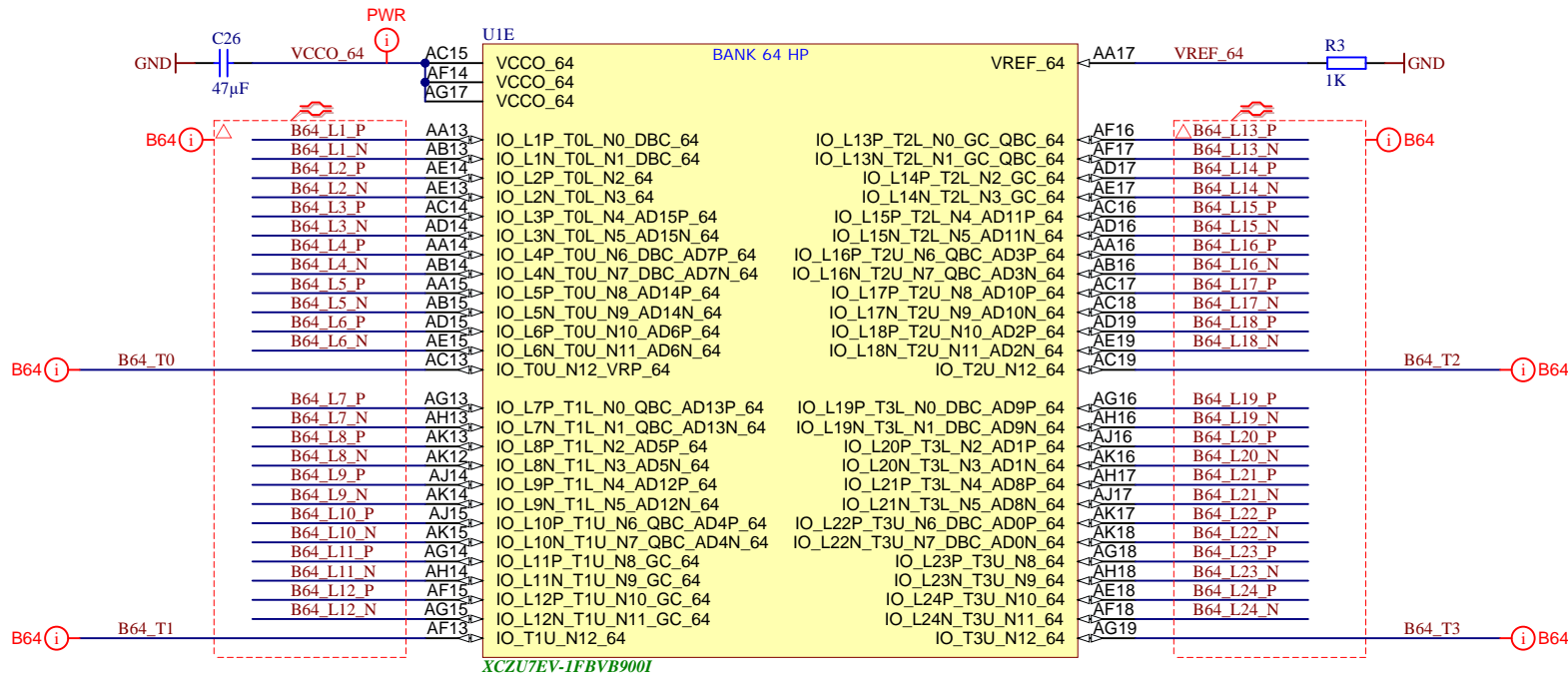


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	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 7 of 29
	Filename: B_HD.SchDoc		

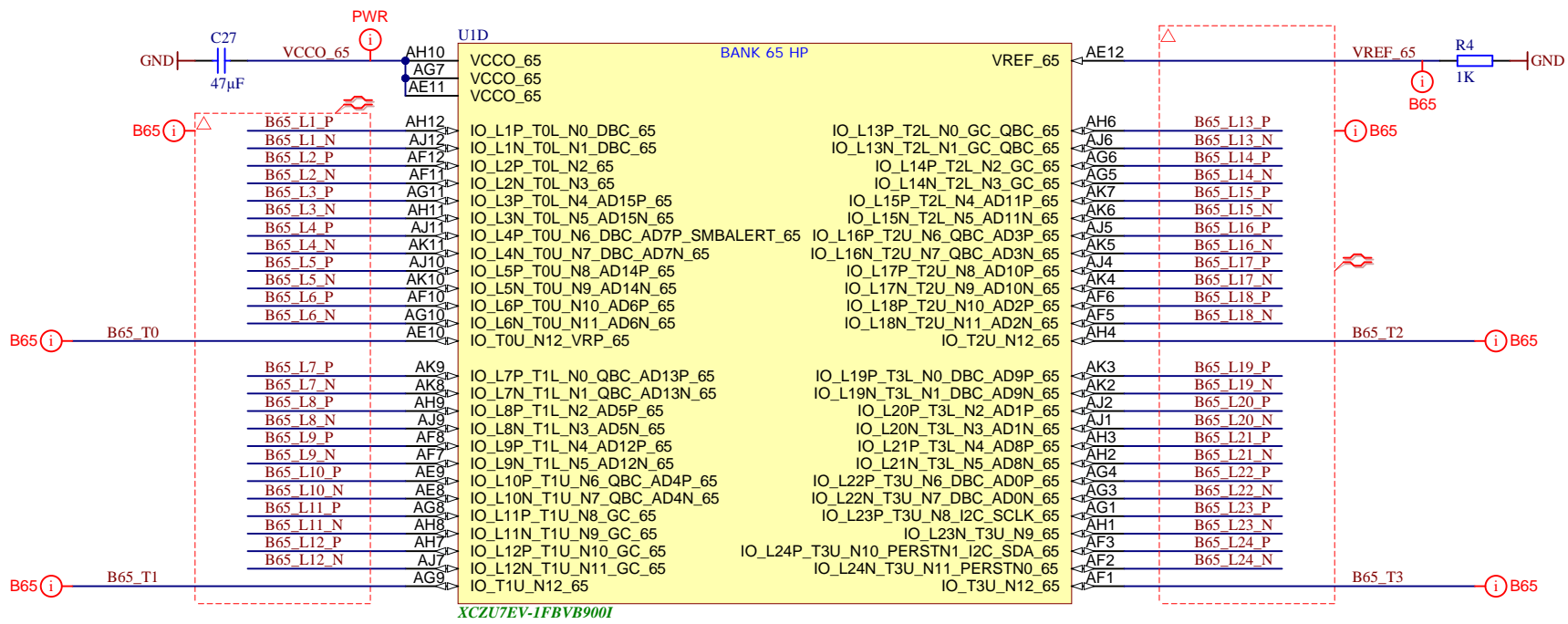


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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 8 of 29
Filename: CONFIG.SchDoc		

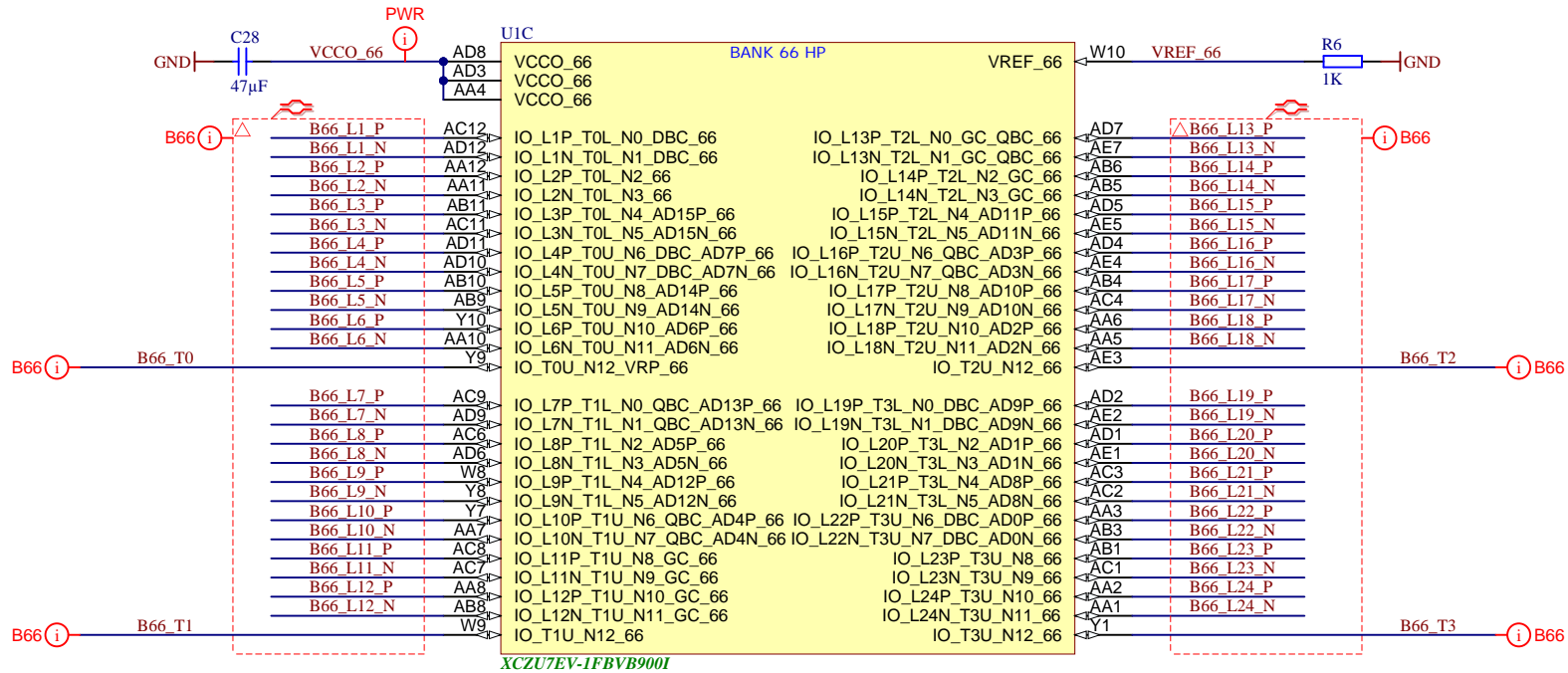





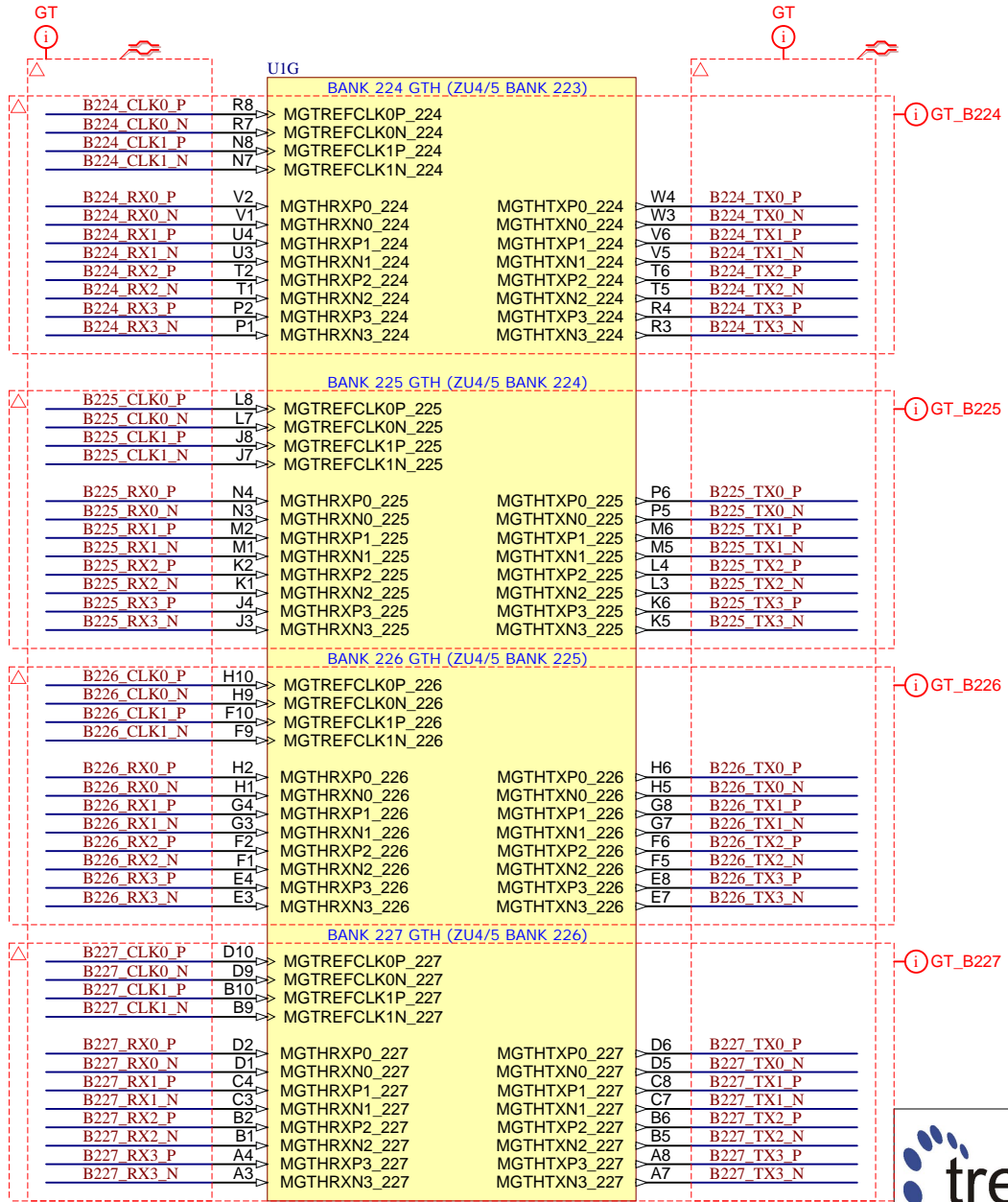
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page9 of 29
Filename: B64.SchDoc		



Title: TE0807 - B65		
A4	Number: TE0807 7DI81-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	
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Filename: B65.SchDoc		

Title: TE0807 - B66		
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 11 of 29
Filename: B66.SchDoc		



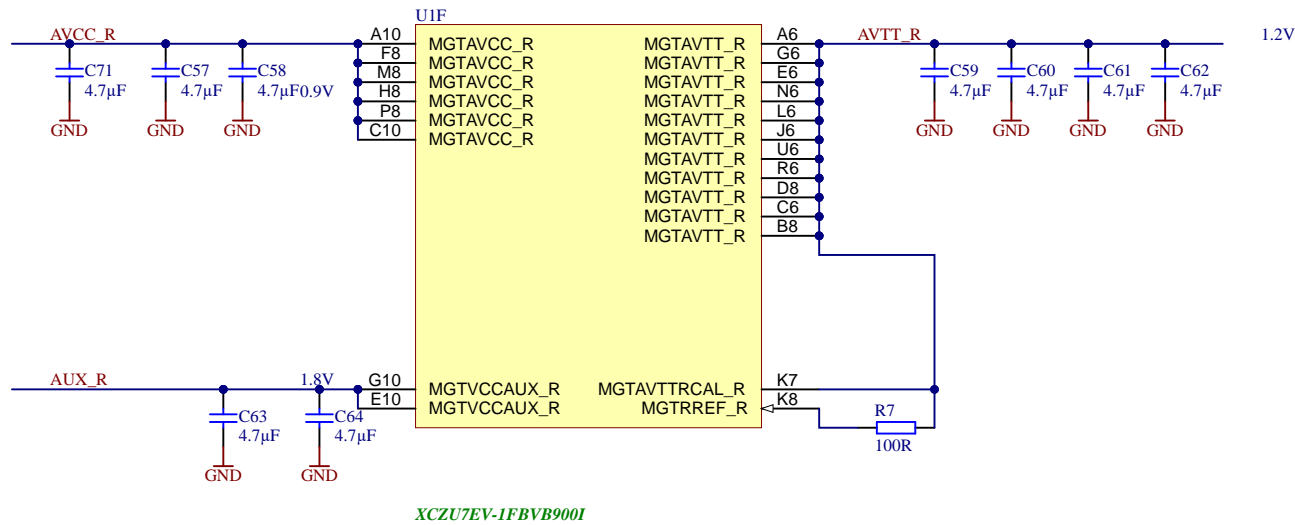
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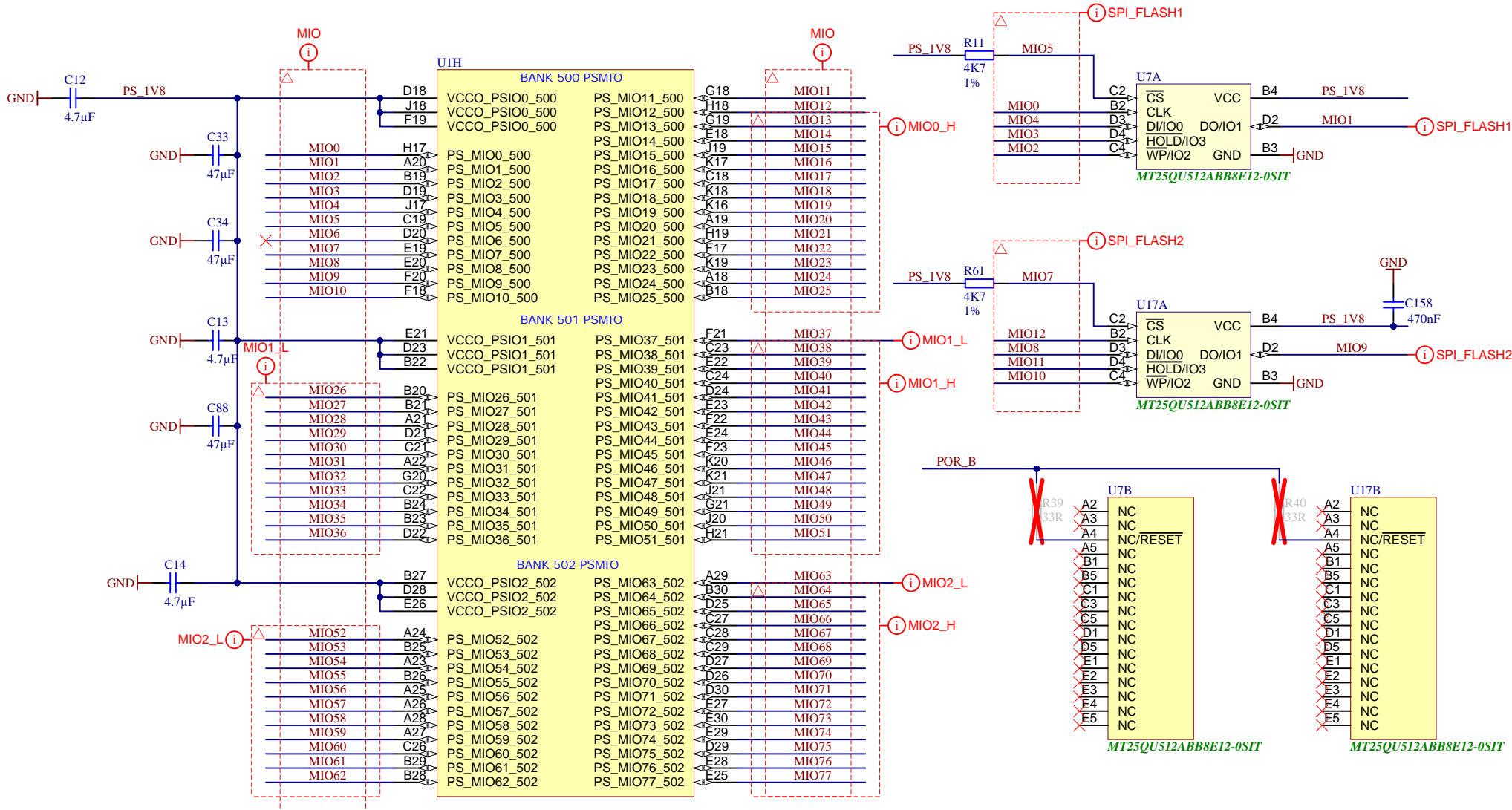
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Title: TE0807 - GTH_Banks		
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 12 of 29
Filename: B_GT.SchDoc		

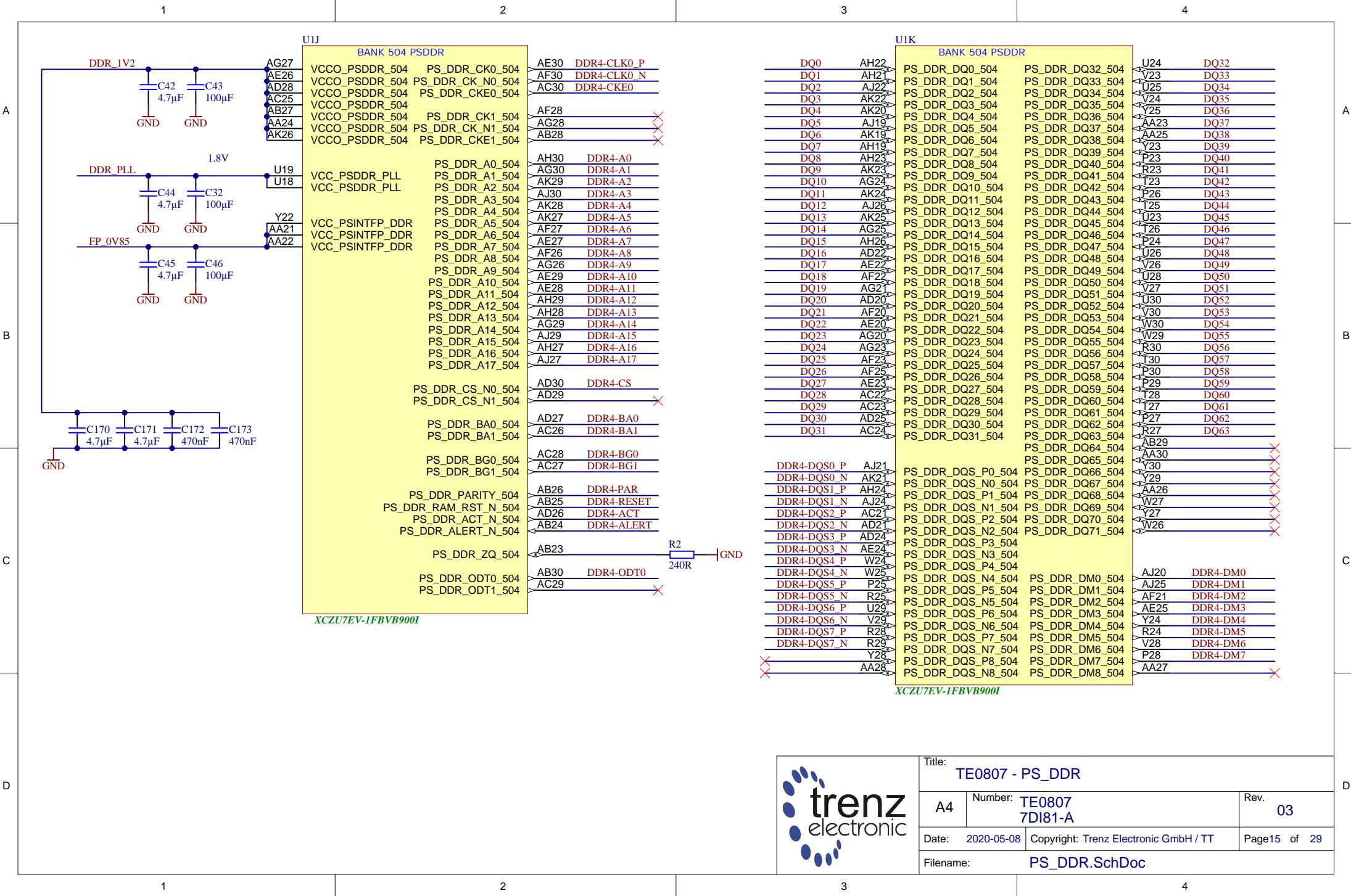


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	A4	Number: TE0807 7DI81-A	Rev. 03
	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	
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XCZU7EV-1FBVB9001

		Title: TE0807 - MIO Banks	
		A4	Number: TE0807 7DI81-A
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Filename: B_MIO.SchDoc		Page 14 of 29	



UIJ
BANK 504 PSDDR

VCCO_PSDDR_504	PS_DDR_CK0_504	AE30	DDR4-CLK0_P
VCCO_PSDDR_504	PS_DDR_CK_N0_504	AF30	DDR4-CLK0_N
VCCO_PSDDR_504	PS_DDR_CKE0_504	AC30	DDR4-CKE0
VCCO_PSDDR_504			
VCCO_PSDDR_504	PS_DDR_CK1_504	AF28	
VCCO_PSDDR_504	PS_DDR_CK_N1_504	AG28	
VCCO_PSDDR_504	PS_DDR_CKE1_504	AB28	
VCCO_PSDDR_504			
VCC_PSDDR_PLL	PS_DDR_A0_504	AH30	DDR4-A0
VCC_PSDDR_PLL	PS_DDR_A1_504	AG30	DDR4-A1
VCC_PSDDR_PLL	PS_DDR_A2_504	AK29	DDR4-A2
VCC_PSDDR_PLL	PS_DDR_A3_504	AJ30	DDR4-A3
VCC_PSDDR_PLL	PS_DDR_A4_504	AK28	DDR4-A4
VCC_PSDDR_PLL	PS_DDR_A5_504	AK27	DDR4-A5
VCC_PSDDR_PLL	PS_DDR_A6_504	AF27	DDR4-A6
VCC_PSDDR_PLL	PS_DDR_A7_504	AE27	DDR4-A7
VCC_PSDDR_PLL	PS_DDR_A8_504	AF26	DDR4-A8
VCC_PSDDR_PLL	PS_DDR_A9_504	AG26	DDR4-A9
VCC_PSDDR_PLL	PS_DDR_A10_504	AE29	DDR4-A10
VCC_PSDDR_PLL	PS_DDR_A11_504	AE28	DDR4-A11
VCC_PSDDR_PLL	PS_DDR_A12_504	AH29	DDR4-A12
VCC_PSDDR_PLL	PS_DDR_A13_504	AG29	DDR4-A14
VCC_PSDDR_PLL	PS_DDR_A14_504	AJ29	DDR4-A15
VCC_PSDDR_PLL	PS_DDR_A15_504	AH27	DDR4-A16
VCC_PSDDR_PLL	PS_DDR_A16_504	AJ27	DDR4-A17
VCC_PSDDR_PLL	PS_DDR_A17_504		
	PS_DDR_CS_N0_504	AD30	DDR4-CS
	PS_DDR_CS_N1_504	AD29	
	PS_DDR_BA0_504	AD27	DDR4-BA0
	PS_DDR_BA1_504	AC26	DDR4-BA1
	PS_DDR_BG0_504	AC28	DDR4-BG0
	PS_DDR_BG1_504	AC27	DDR4-BG1
	PS_DDR_PARITY_504	AB26	DDR4-PAR
	PS_DDR_RAM_RST_N_504	AB25	DDR4-RESET
	PS_DDR_ACT_N_504	AD26	DDR4-ACT
	PS_DDR_ALERT_N_504	AB24	DDR4-ALERT
	PS_DDR_ZQ_504	AB23	
	PS_DDR_ODT0_504	AB30	DDR4-ODT0
	PS_DDR_ODT1_504	AC29	

XCZU7EV-1FBVB9001

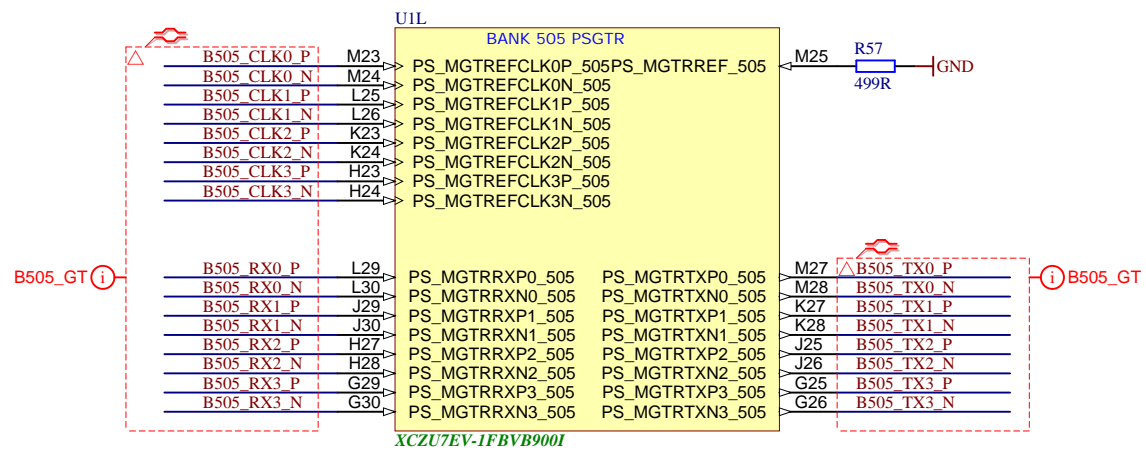
UIK
BANK 504 PSDDR


DQ0	AH22	PS_DDR_DQ0_504	PS_DDR_DQ32_504	U24	DQ32
DQ1	AH21	PS_DDR_DQ1_504	PS_DDR_DQ33_504	V23	DQ33
DQ2	AJ22	PS_DDR_DQ2_504	PS_DDR_DQ34_504	U25	DQ34
DQ3	AK22	PS_DDR_DQ3_504	PS_DDR_DQ35_504	V24	DQ35
DQ4	AK20	PS_DDR_DQ4_504	PS_DDR_DQ36_504	Y25	DQ36
DQ5	AJ19	PS_DDR_DQ5_504	PS_DDR_DQ37_504	AA23	DQ37
DQ6	AK19	PS_DDR_DQ6_504	PS_DDR_DQ38_504	AA25	DQ38
DQ7	AH19	PS_DDR_DQ7_504	PS_DDR_DQ39_504	Y23	DQ39
DQ8	AH23	PS_DDR_DQ8_504	PS_DDR_DQ40_504	P23	DQ40
DQ9	AK23	PS_DDR_DQ9_504	PS_DDR_DQ41_504	R23	DQ41
DQ10	AG24	PS_DDR_DQ10_504	PS_DDR_DQ42_504	T23	DQ42
DQ11	AJ24	PS_DDR_DQ11_504	PS_DDR_DQ43_504	P26	DQ43
DQ12	AK26	PS_DDR_DQ12_504	PS_DDR_DQ44_504	T25	DQ44
DQ13	AK25	PS_DDR_DQ13_504	PS_DDR_DQ45_504	U23	DQ45
DQ14	AG25	PS_DDR_DQ14_504	PS_DDR_DQ46_504	T26	DQ46
DQ15	AH26	PS_DDR_DQ15_504	PS_DDR_DQ47_504	P24	DQ47
DQ16	AD22	PS_DDR_DQ16_504	PS_DDR_DQ48_504	U26	DQ48
DQ17	AE22	PS_DDR_DQ17_504	PS_DDR_DQ49_504	U26	DQ49
DQ18	AF22	PS_DDR_DQ18_504	PS_DDR_DQ50_504	U28	DQ50
DQ19	AG21	PS_DDR_DQ19_504	PS_DDR_DQ51_504	V27	DQ51
DQ20	AD20	PS_DDR_DQ20_504	PS_DDR_DQ52_504	U30	DQ52
DQ21	AF20	PS_DDR_DQ21_504	PS_DDR_DQ53_504	V30	DQ53
DQ22	AE20	PS_DDR_DQ22_504	PS_DDR_DQ54_504	W30	DQ54
DQ23	AG20	PS_DDR_DQ23_504	PS_DDR_DQ55_504	W29	DQ55
DQ24	AG23	PS_DDR_DQ24_504	PS_DDR_DQ56_504	R30	DQ56
DQ25	AF23	PS_DDR_DQ25_504	PS_DDR_DQ57_504	T30	DQ57
DQ26	AF25	PS_DDR_DQ26_504	PS_DDR_DQ58_504	P30	DQ58
DQ27	AE25	PS_DDR_DQ27_504	PS_DDR_DQ59_504	P29	DQ59
DQ28	AC22	PS_DDR_DQ28_504	PS_DDR_DQ60_504	T28	DQ60
DQ29	AC23	PS_DDR_DQ29_504	PS_DDR_DQ61_504	T27	DQ61
DQ30	AD25	PS_DDR_DQ30_504	PS_DDR_DQ62_504	P27	DQ62
DQ31	AC24	PS_DDR_DQ31_504	PS_DDR_DQ63_504	R27	DQ63
			PS_DDR_DQ64_504	AB29	
			PS_DDR_DQ65_504	AA30	
			PS_DDR_DQ66_504	Y30	
			PS_DDR_DQ67_504	Y29	
			PS_DDR_DQ68_504	AA26	
			PS_DDR_DQ69_504	W27	
			PS_DDR_DQ70_504	Y27	
			PS_DDR_DQ71_504	W26	
			PS_DDR_DQ8_504		
			PS_DDR_DM0_504	AJ20	DDR4-DM0
			PS_DDR_DM1_504	AJ25	DDR4-DM1
			PS_DDR_DM2_504	AF21	DDR4-DM2
			PS_DDR_DM3_504	AE25	DDR4-DM3
			PS_DDR_DM4_504	Y24	DDR4-DM4
			PS_DDR_DM5_504	R24	DDR4-DM5
			PS_DDR_DM6_504	V28	DDR4-DM6
			PS_DDR_DM7_504	P28	DDR4-DM7
			PS_DDR_DM8_504	AA27	

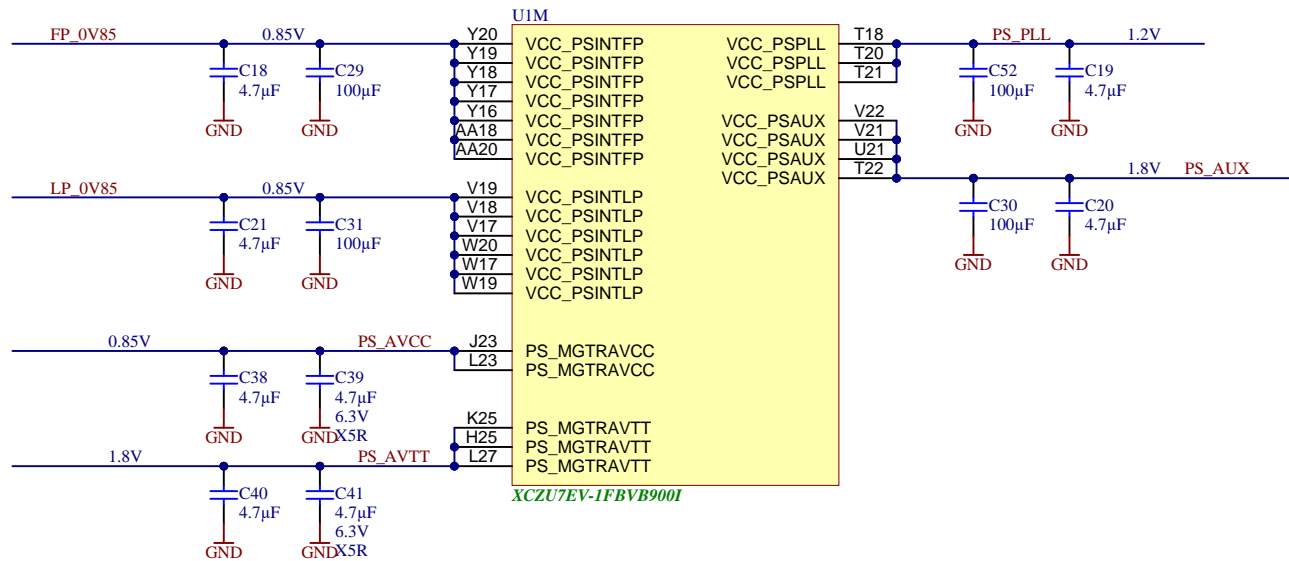
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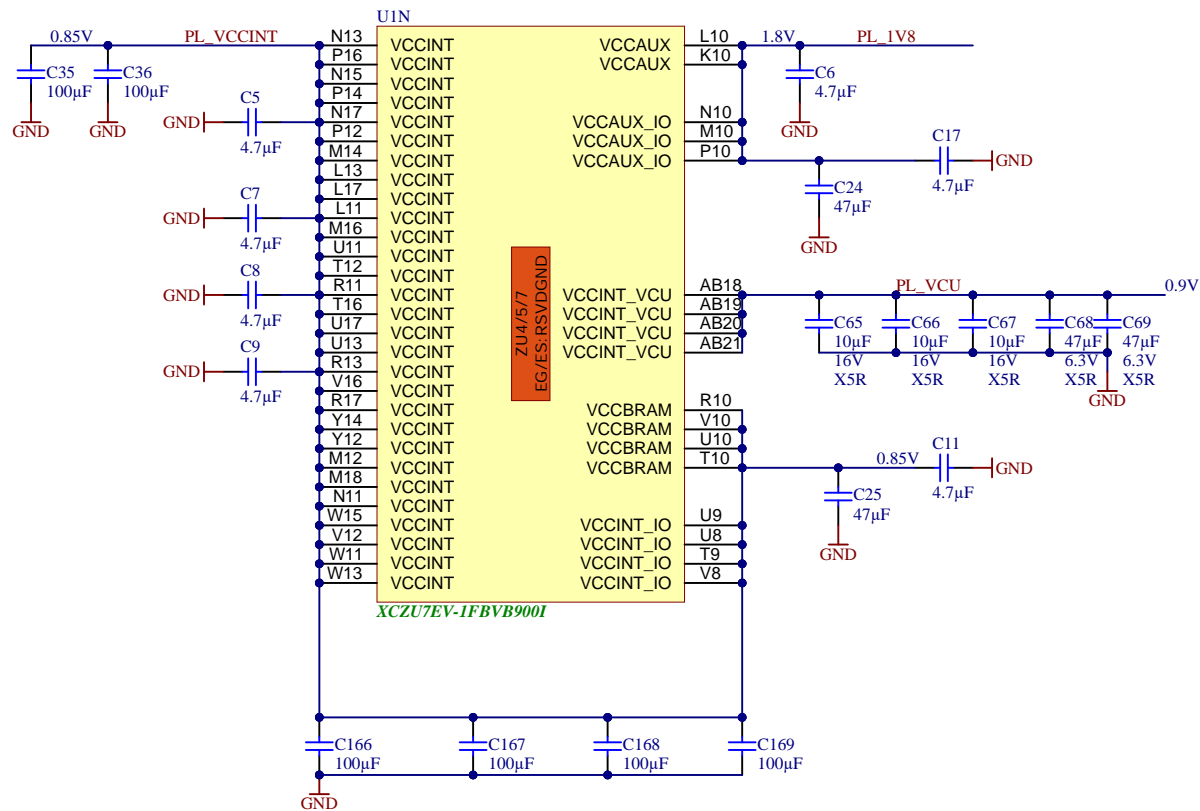
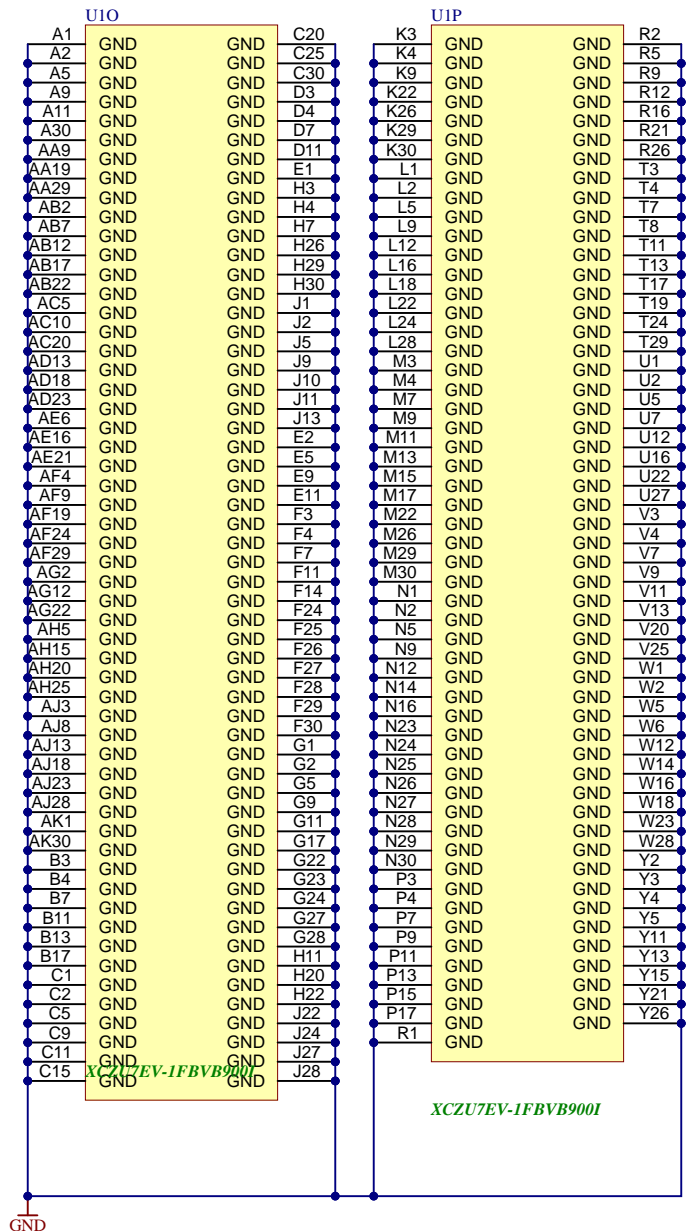
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	
Filename: PS_DDR.SchDoc	Page 15 of 29	



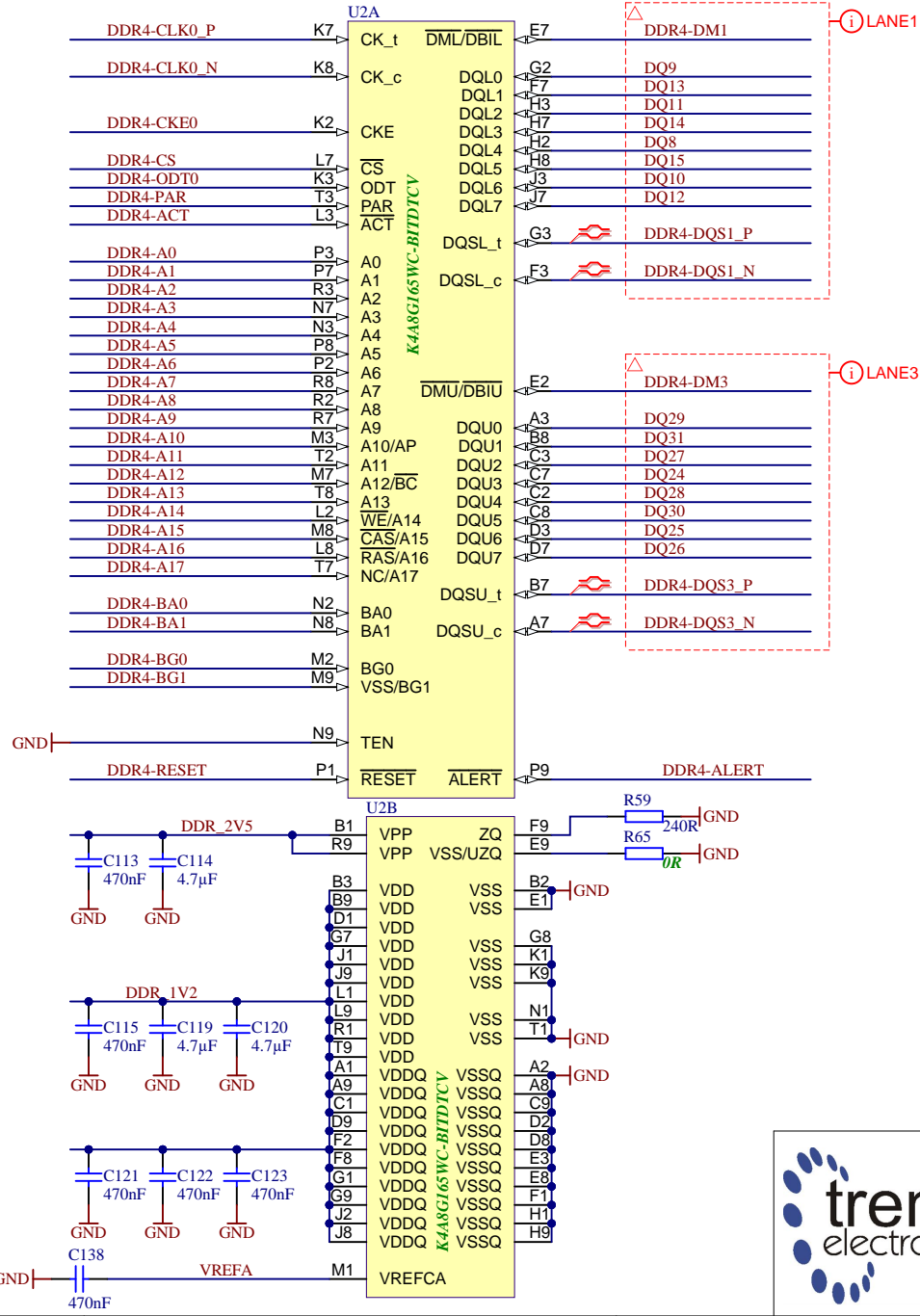
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	Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 16 of 29
	Filename: B_PS_GT.SchDoc		



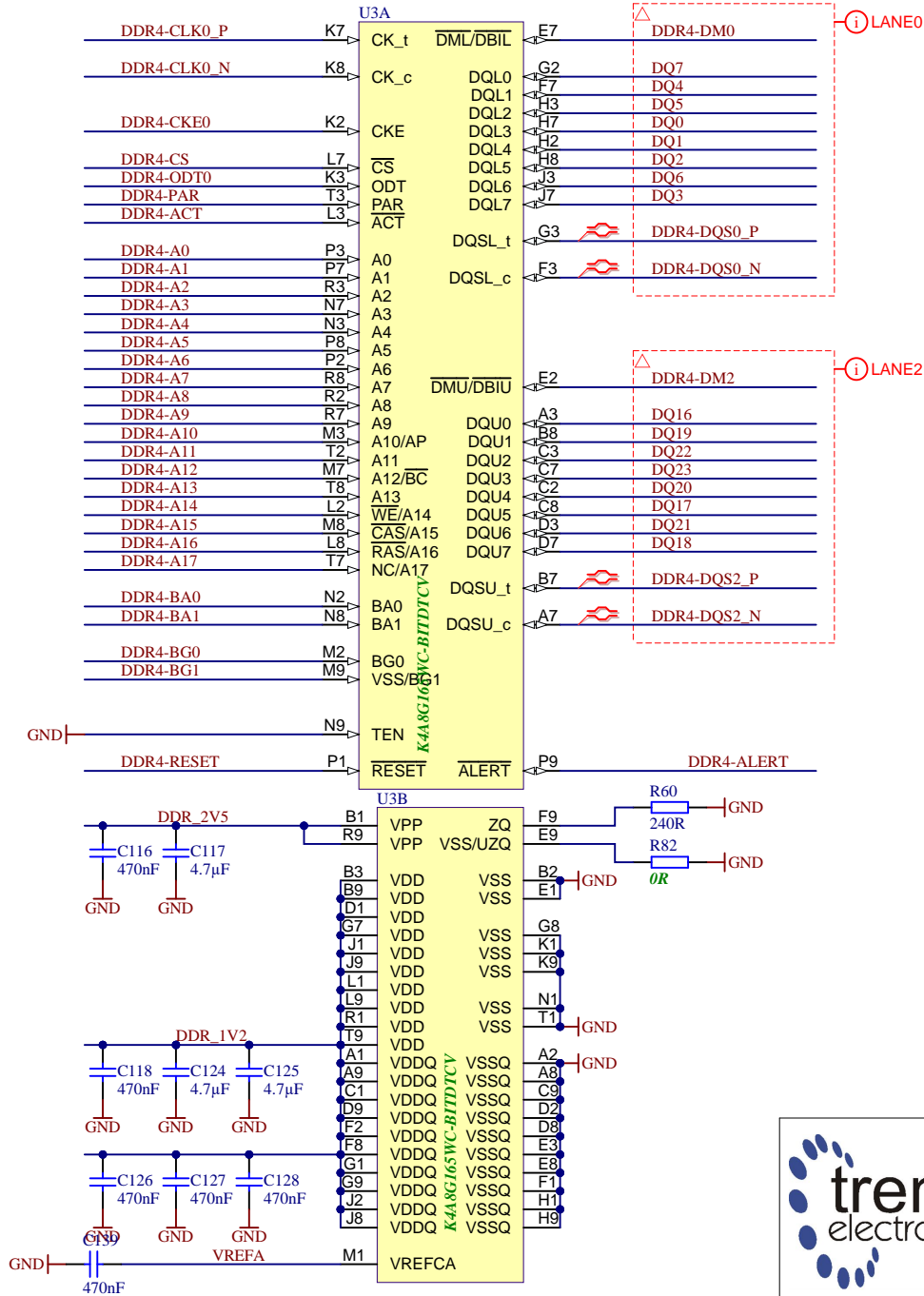
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Date: 2020-05-08		Copyright: Trenz Electronic GmbH / TT	
Filename: ZU_PS_POWER.SchDoc		Page 17 of 29	




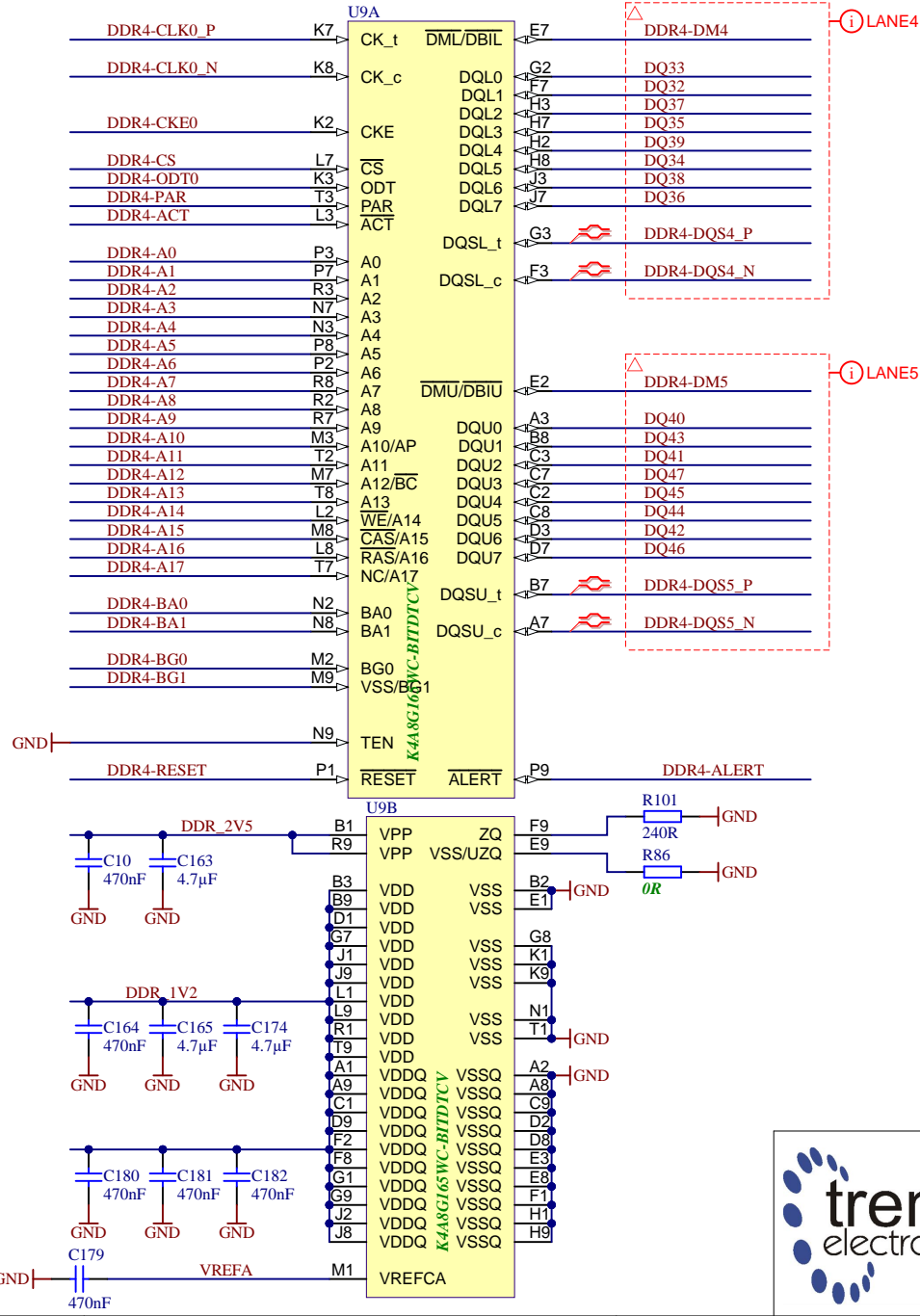
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Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page18 of 29
Filename: ZU_POWER.SchDoc		



Title: TE0807 - DDR4_1_RAM		
A4	Number: TE0807 7DI81-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 19 of 29
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			A4	Number: TE0807 7DI81-A
Date: 2020-05-08		Copyright: Trenz Electronic GmbH / TT		Page20 of 29
Filename: DDR4-RAM_2.SchDoc				



Title: TE0807 - DDR4_3_RAM		
A4	Number: TE0807 7DI81-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 21 of 29
Filename: DDR4-RAM_3.SchDoc		

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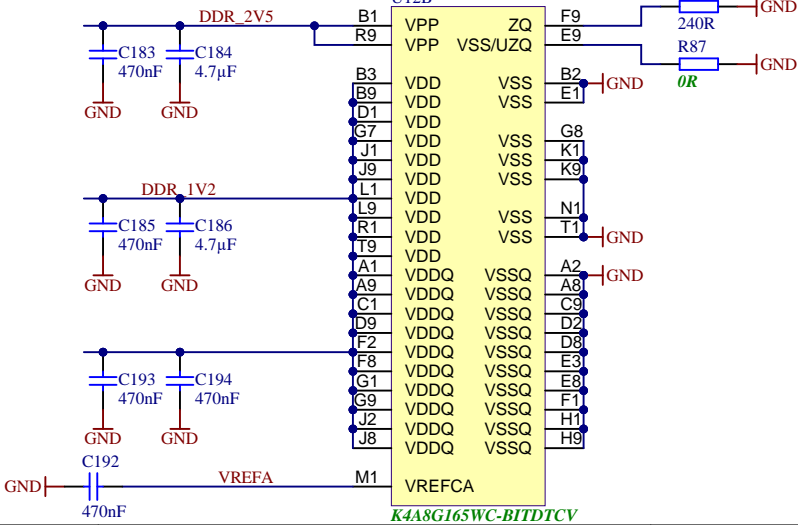
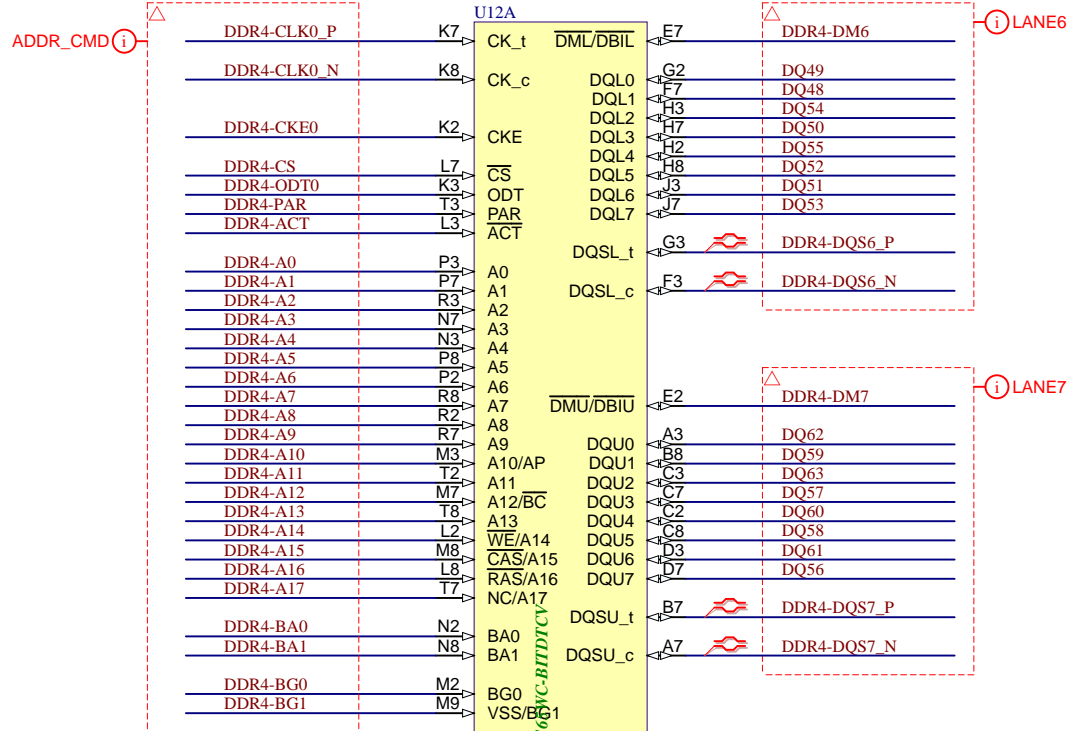
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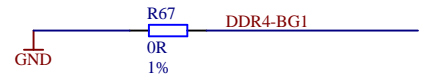
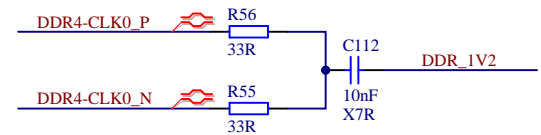
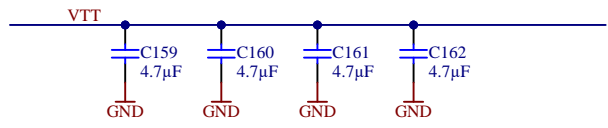
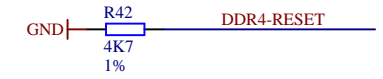
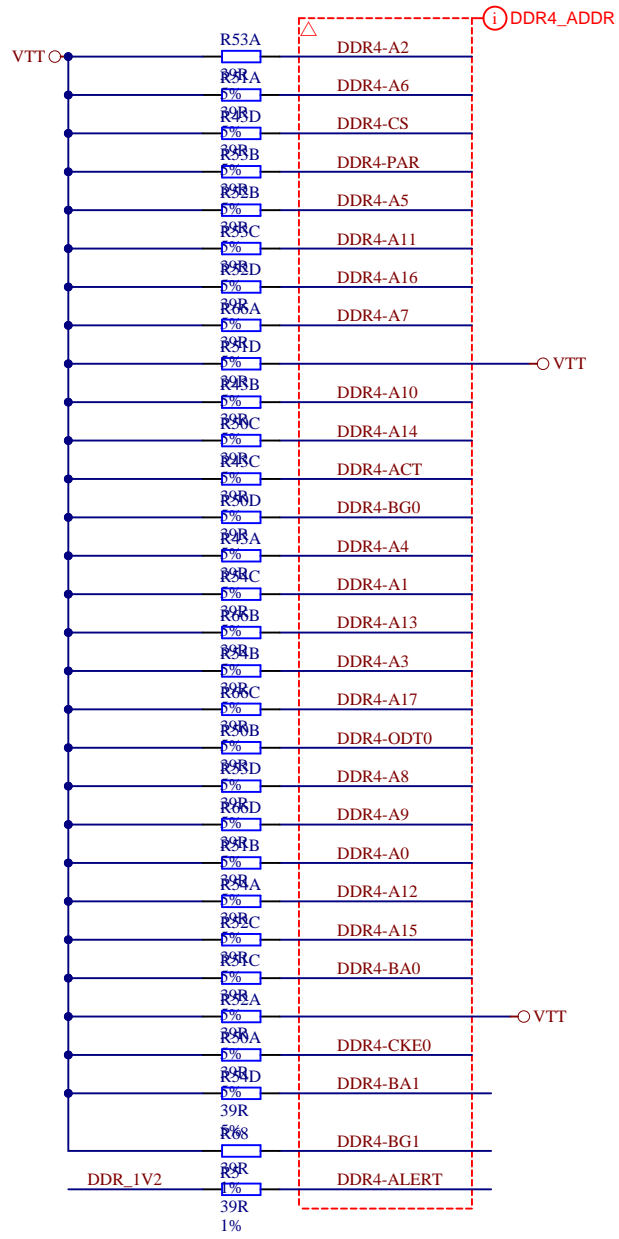
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A4	Number: TE0807 7DI81-A	Rev. 03
Date: 2020-05-08	Copyright: Trenz Electronic GmbH / TT	Page 22 of 29
Filename: DDR4-RAM_4.SchDoc		

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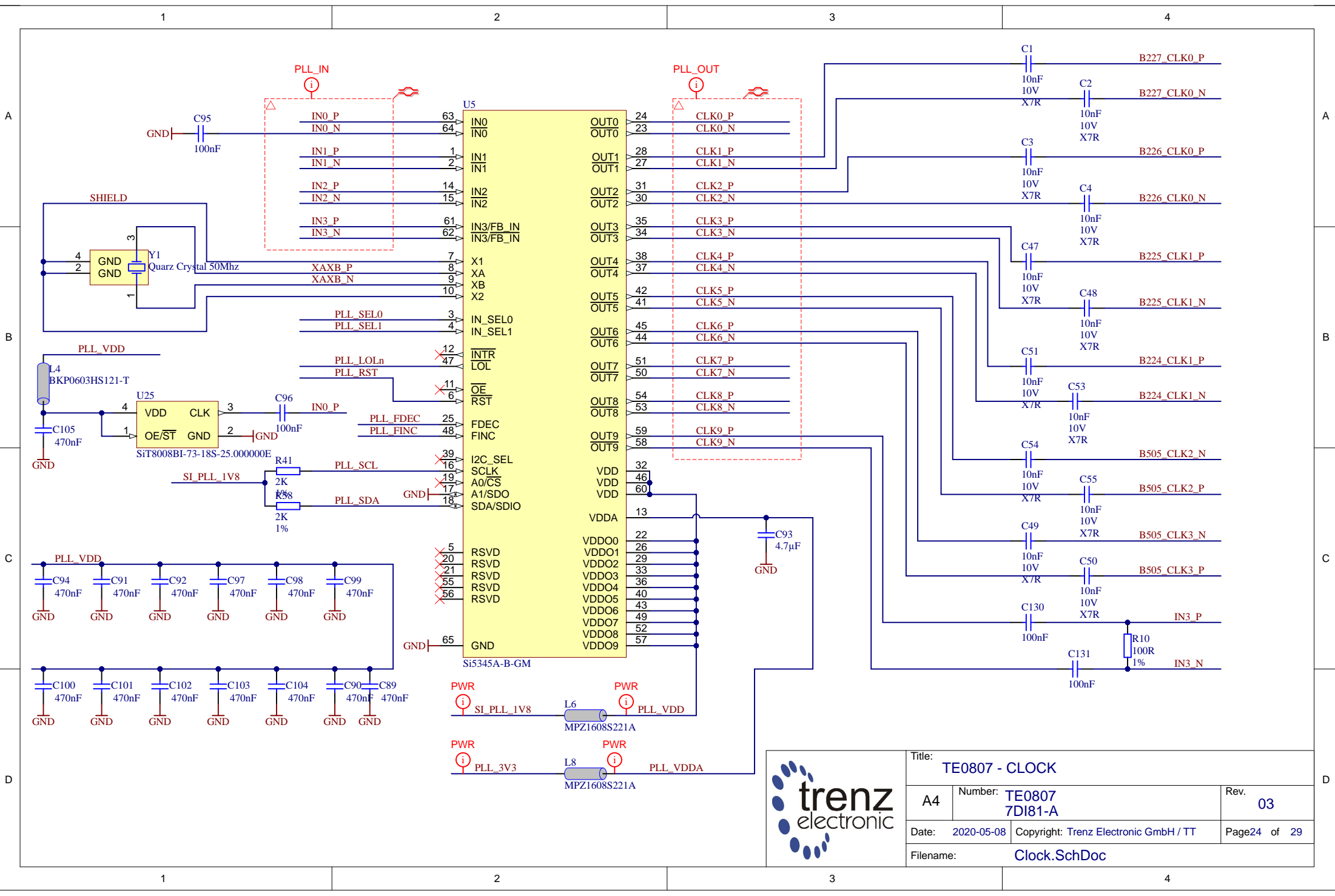
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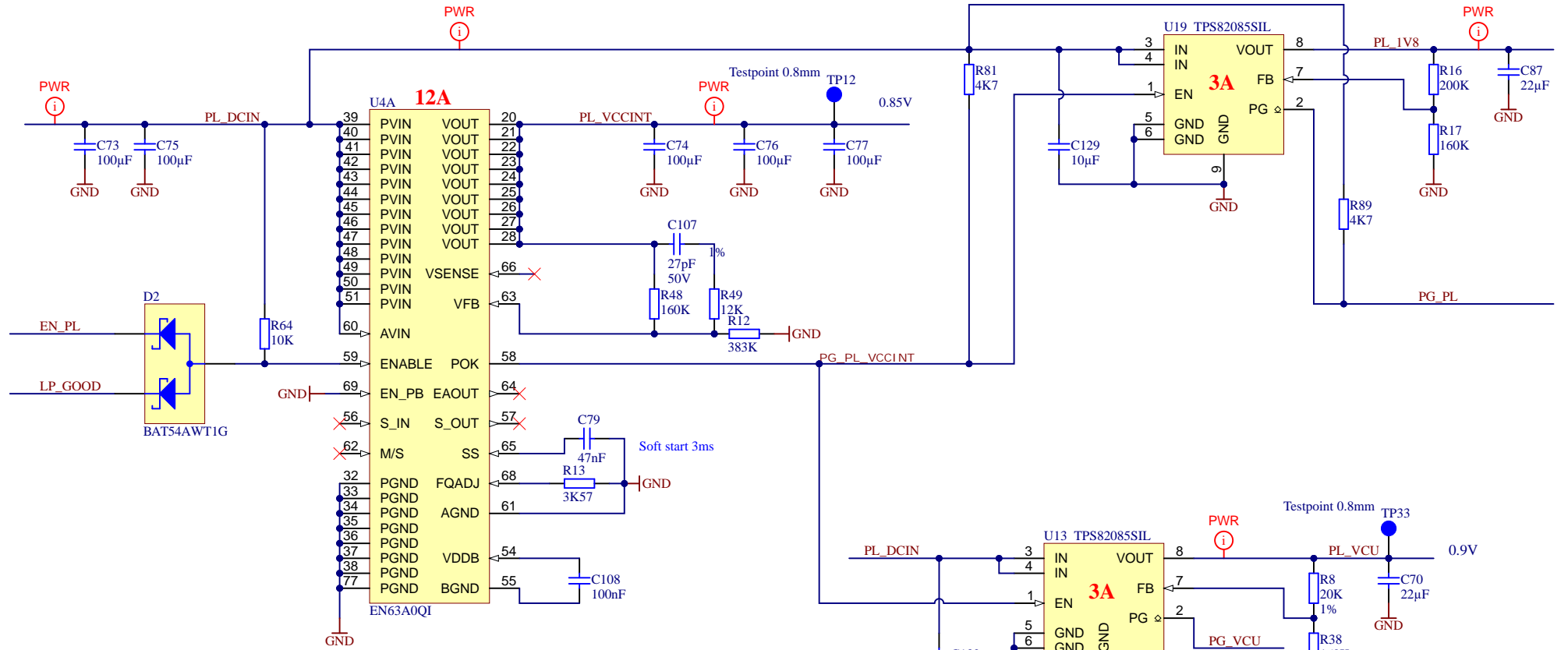
4



Title: TE0807 - DDR4_TERM		
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Title: TE0807 - CLOCK		
A4	Number: TE0807 7DI81-A	Rev. 03
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Filename: Clock.SchDoc		



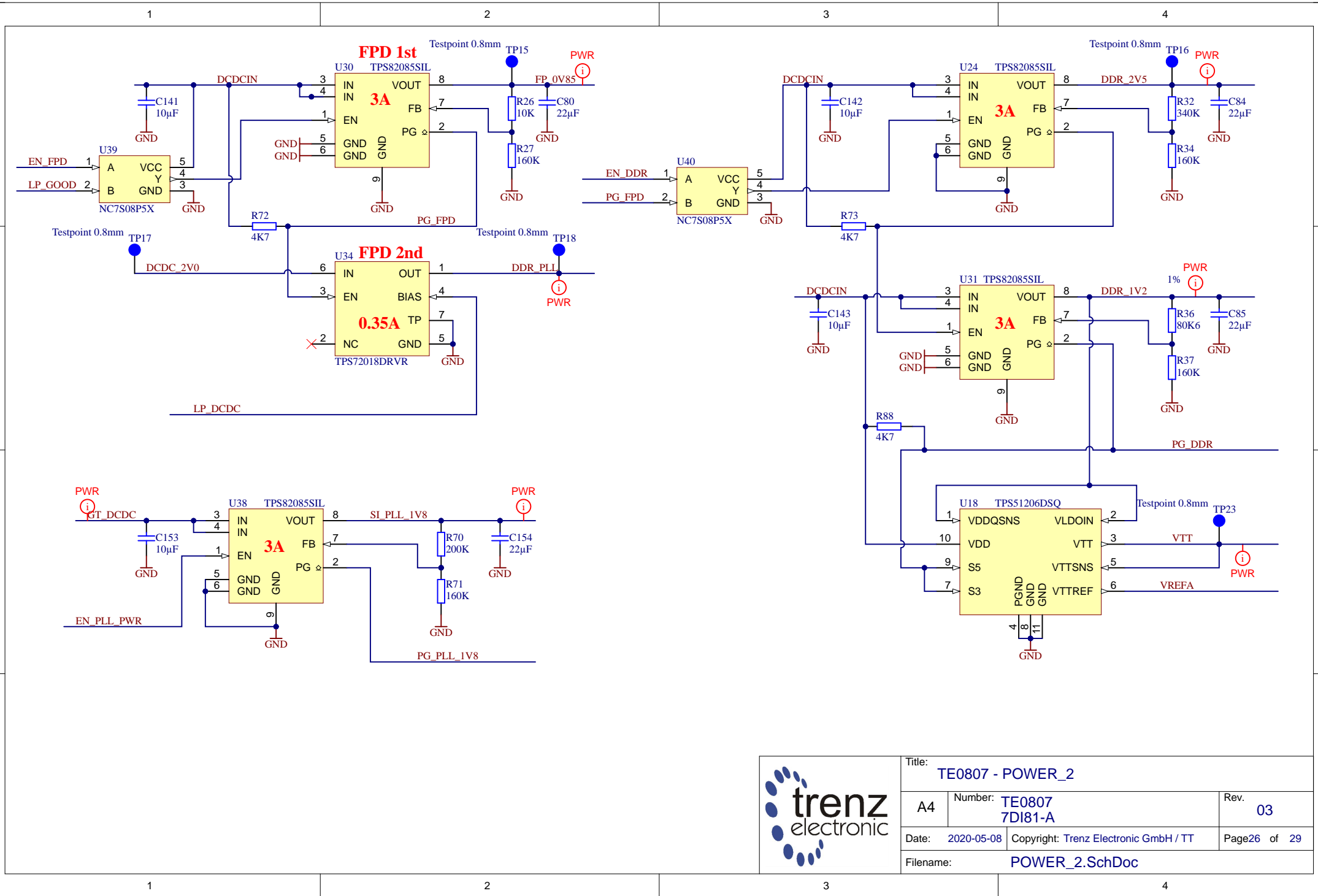
U4B


1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC(SW)	30
6	NC	NC(SW)	31
7	NC	NC	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC(SW)	70
11	NC	NC(SW)	71
12	NC	NC(SW)	72
13	NC	NC	73
14	NC	NC	74
15	NC	NC	75
16	NC	NC	76

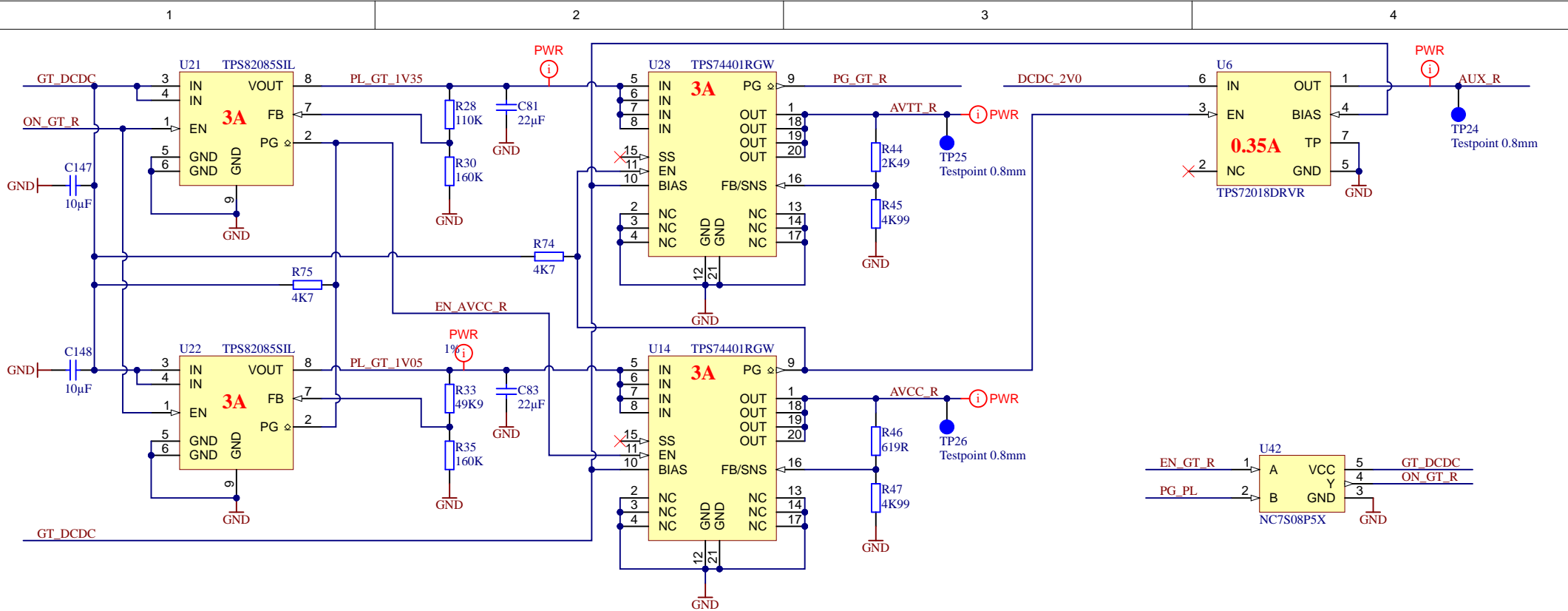
EN63A0QI



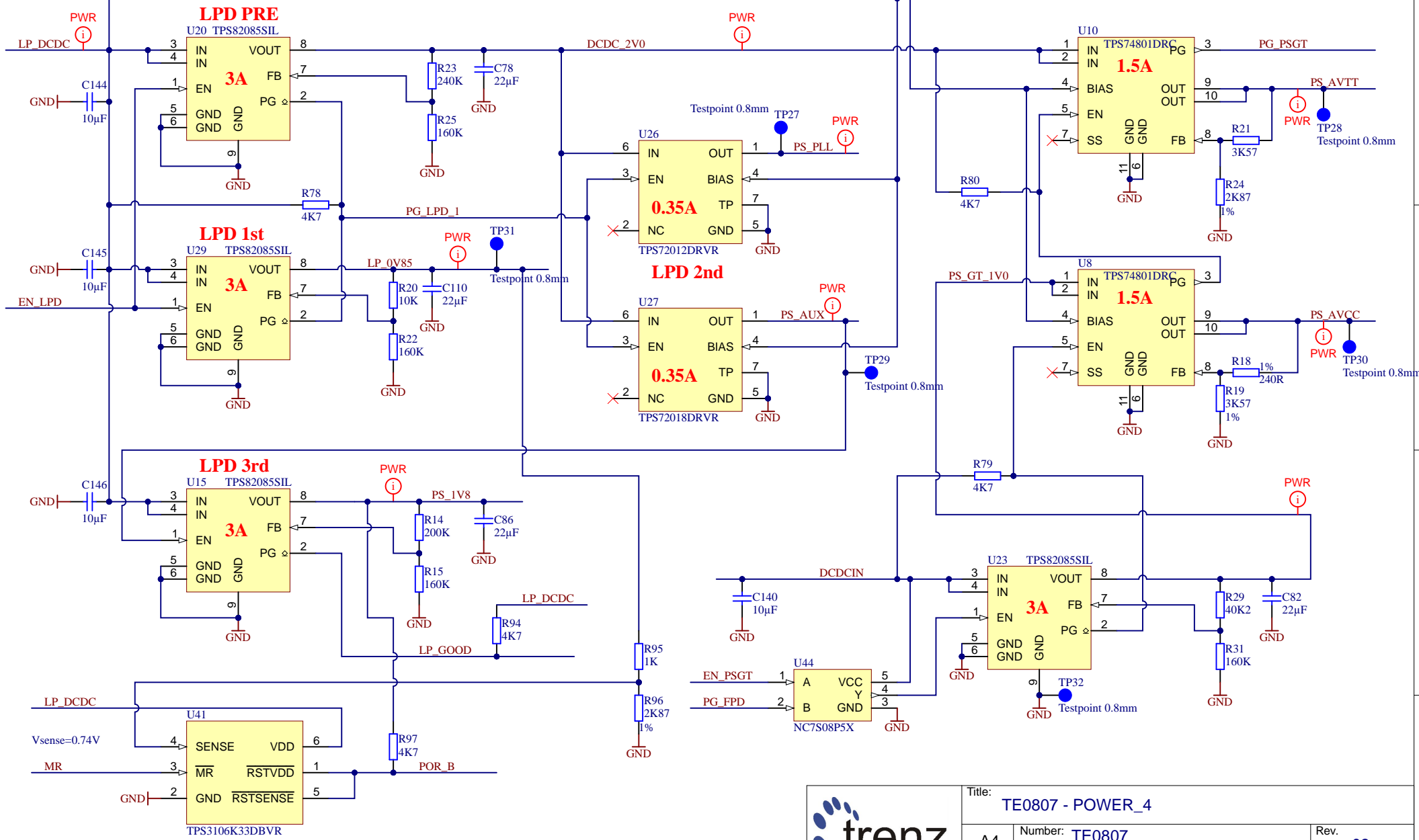
Title: TE0807 - POWER		
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		Title: TE0807 - POWER_2	
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	Title: TE0807 - POWER_3		
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Title: TE0807 - POWER_4		
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CHANGES 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		
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