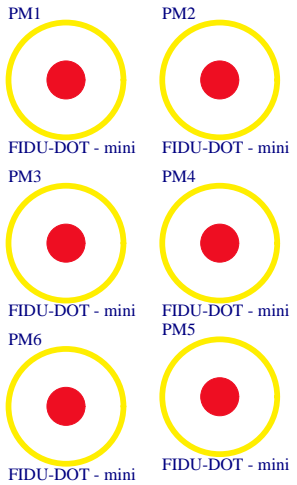
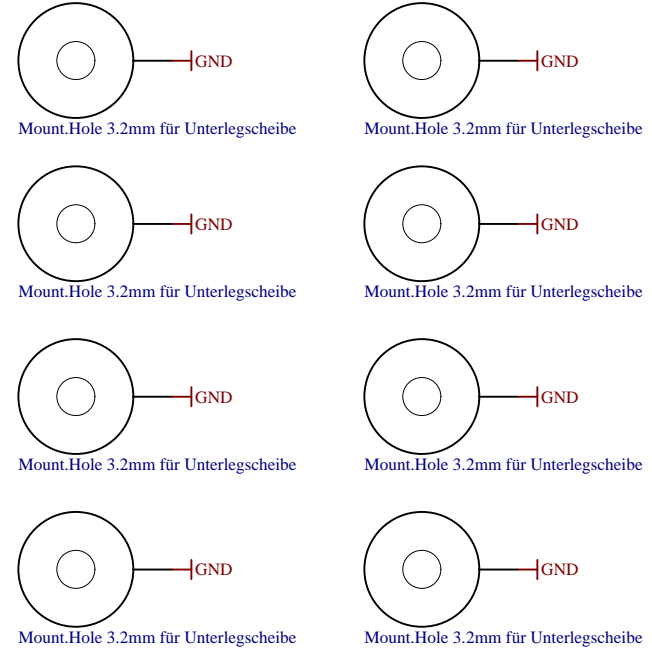


U_J1 J1.SchDoc	U_B_PS_GT B_PS_GT.SchDoc	U_DDR4-TERM DDR4-TERM.SchDoc
U_J2 J2.SchDoc	U_PS_DDR PS_DDR.SchDoc	U_ZU_POWER ZU_POWER.SchDoc
U_J3 J3.SchDoc	U_B_MIO B_MIO.SchDoc	U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_J4 J4.SchDoc	U_B_HD B_HD.SchDoc	U_POWER POWER.SchDoc
U_DDR4-TERM DDR4-TERM.SchDoc	U_Clock Clock.SchDoc	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	



LOGO1
TE Logo PRINT Layer
LOGO PRINT

Serial
Serialnummer 6,3 x 6.3mm

Assembly variant	7DI21-C
Created by	VY
Modified by	VY
Modified at	2019-08-01
SVN Revision	



Title: TE0807		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page1 of 28
Filename: TE0807.SchDoc		

A

B

C

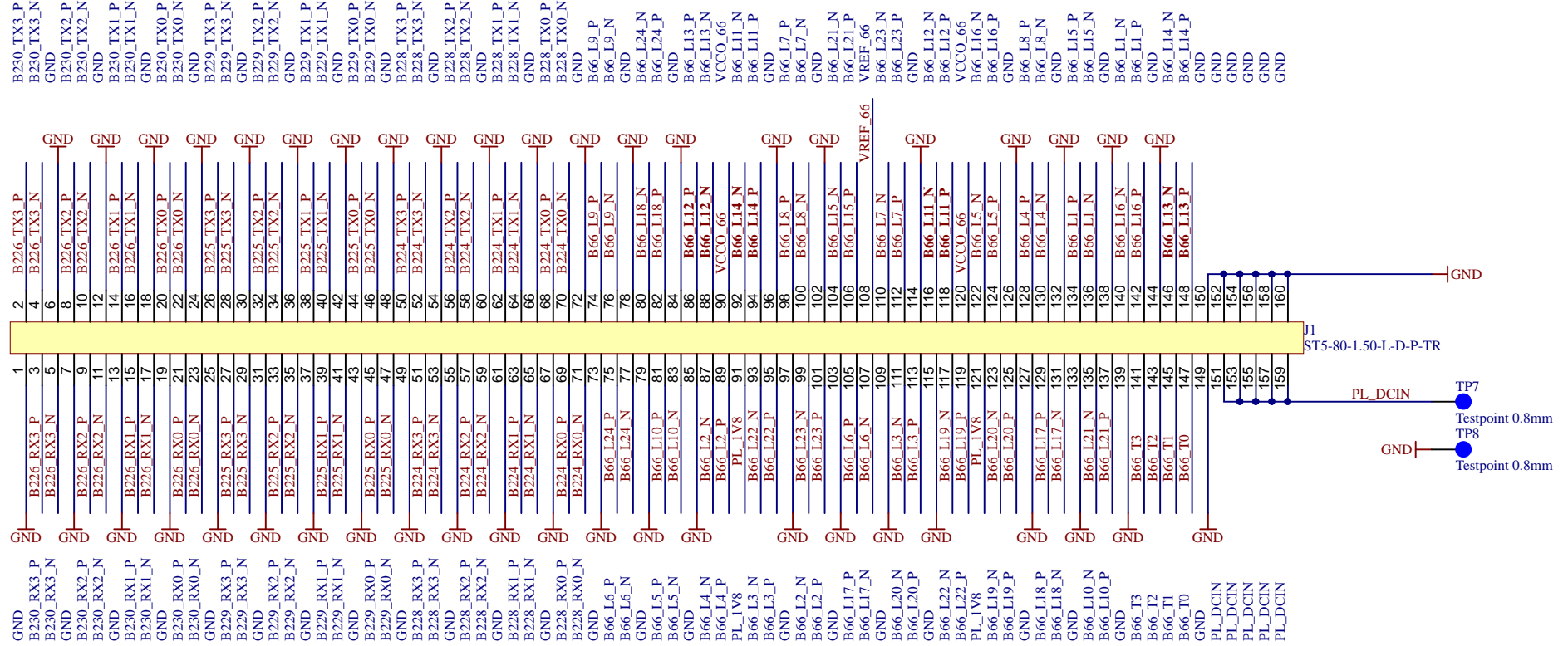

D

1

2

3

4

Title: TE0807 - Connector J1		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page2 of 28
Filename: J1.SchDoc		

1

2

3

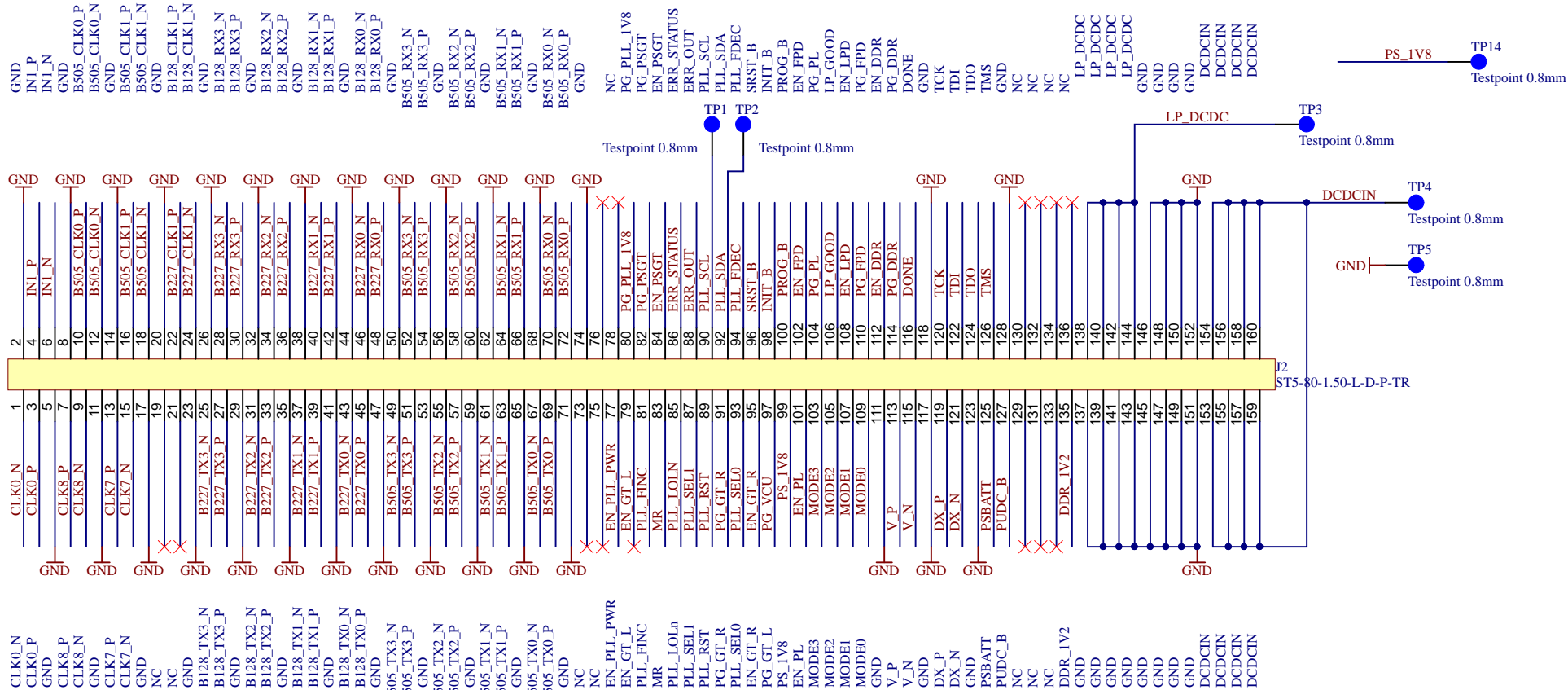
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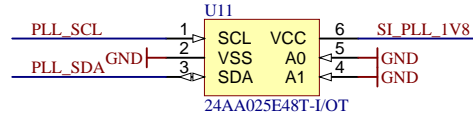
B

C

D



EEPROM for MAC



Slave address: 101000x



Title: TE0807 - Connector J2		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page3 of 28
Filename: J2.SchDoc		

A

B

C

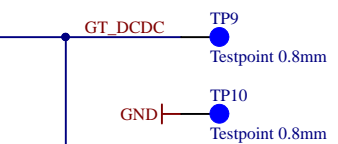
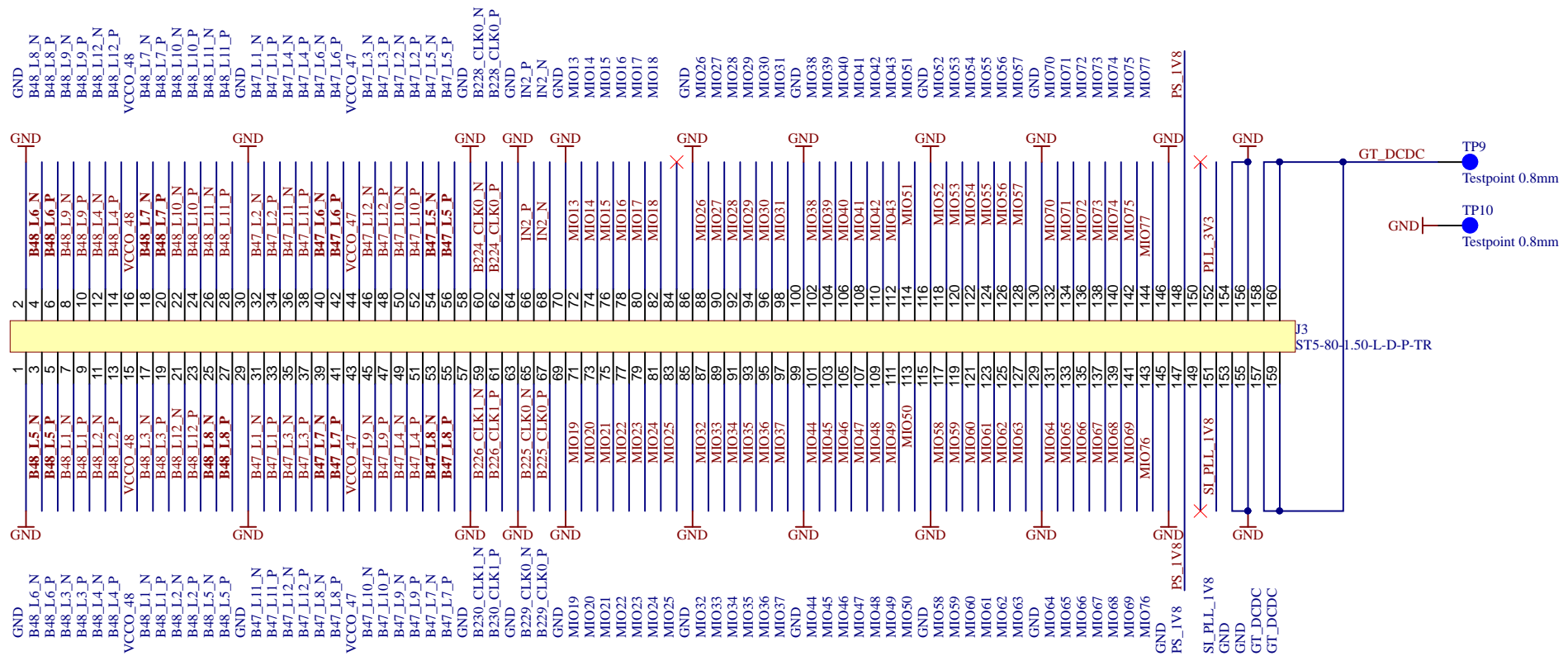
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1

2

3

4



			Title: TE0807 - Connector J3	
			A4	Number: TE0807 7DI21-C
Date: 2018-07-09		Copyright: Trenz Electronic GmbH / TT		Page4 of 28
Filename: J3.SchDoc				

1

2

3

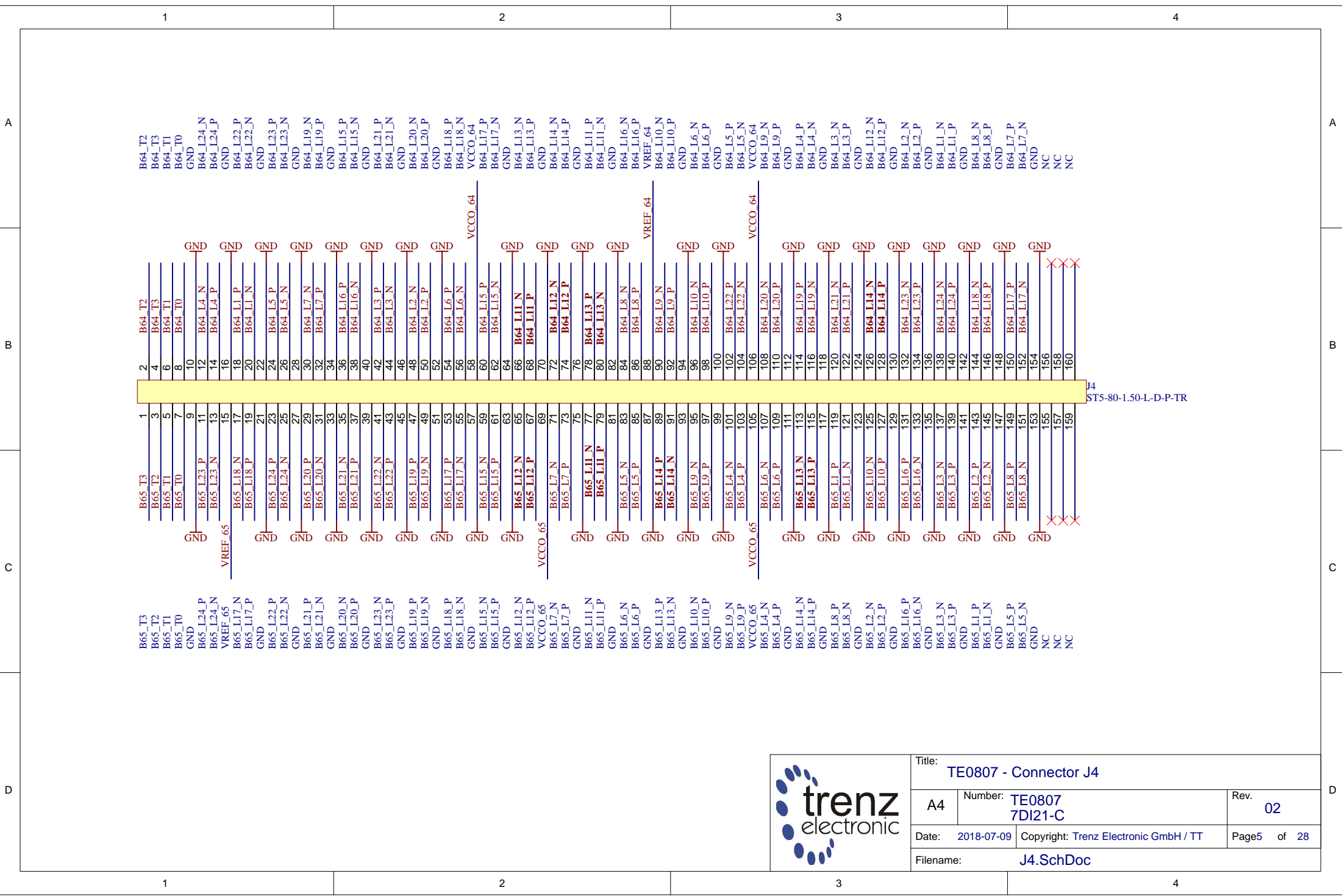
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A

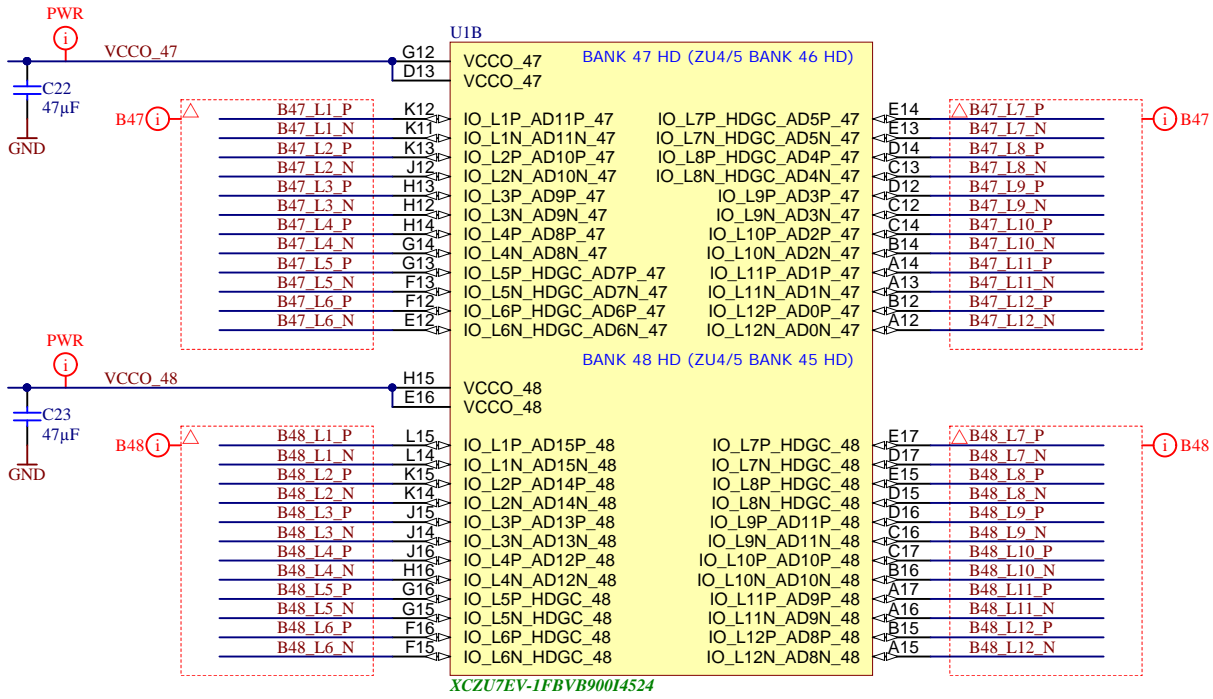
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C

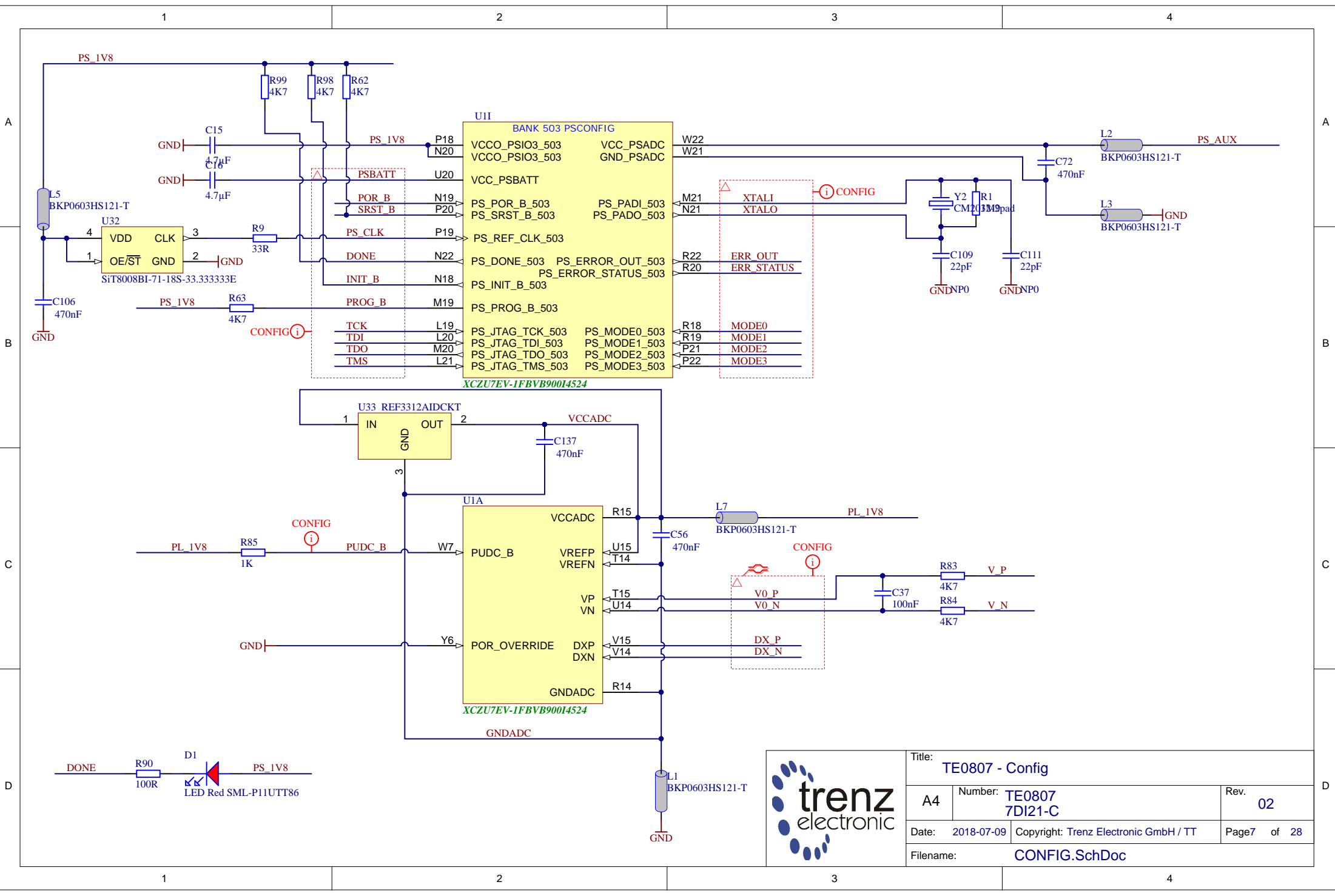
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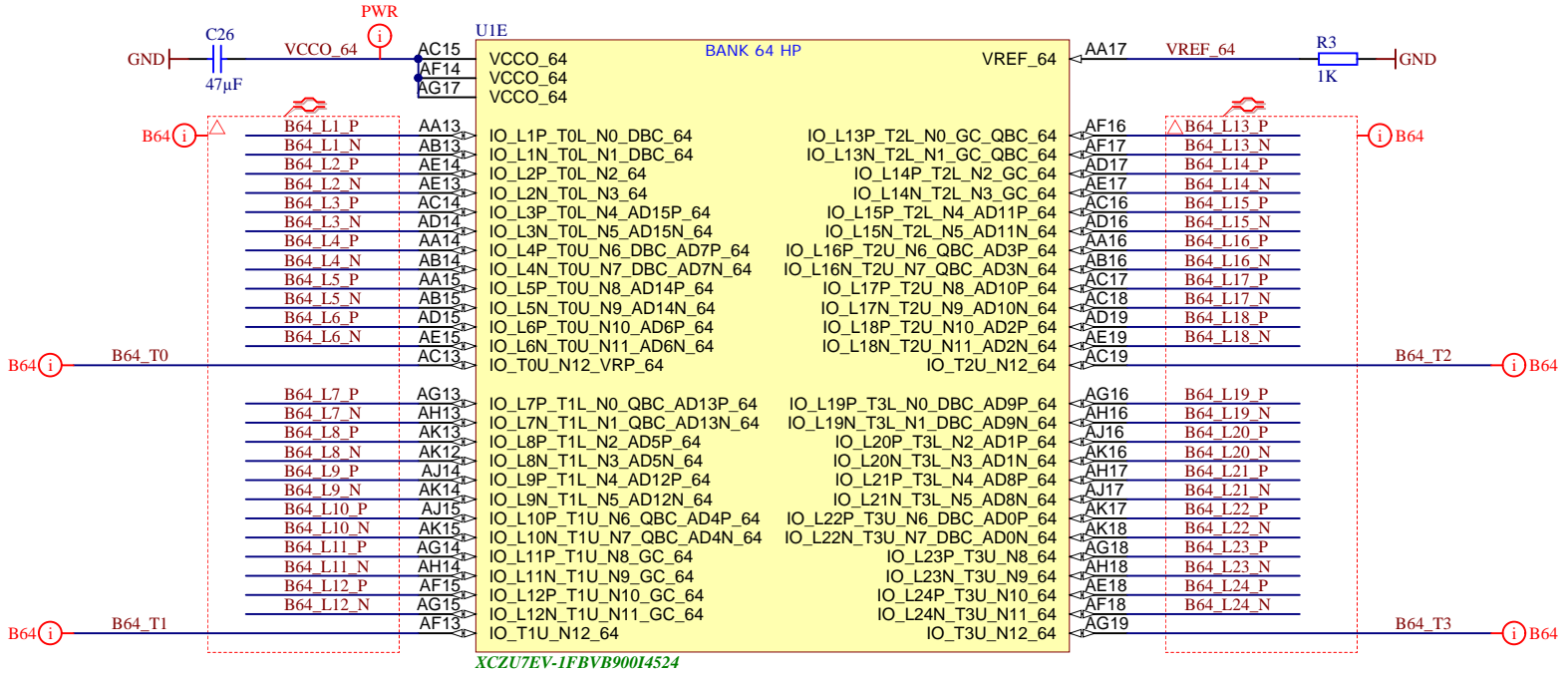
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Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page5 of 28
Filename: J4.SchDoc		



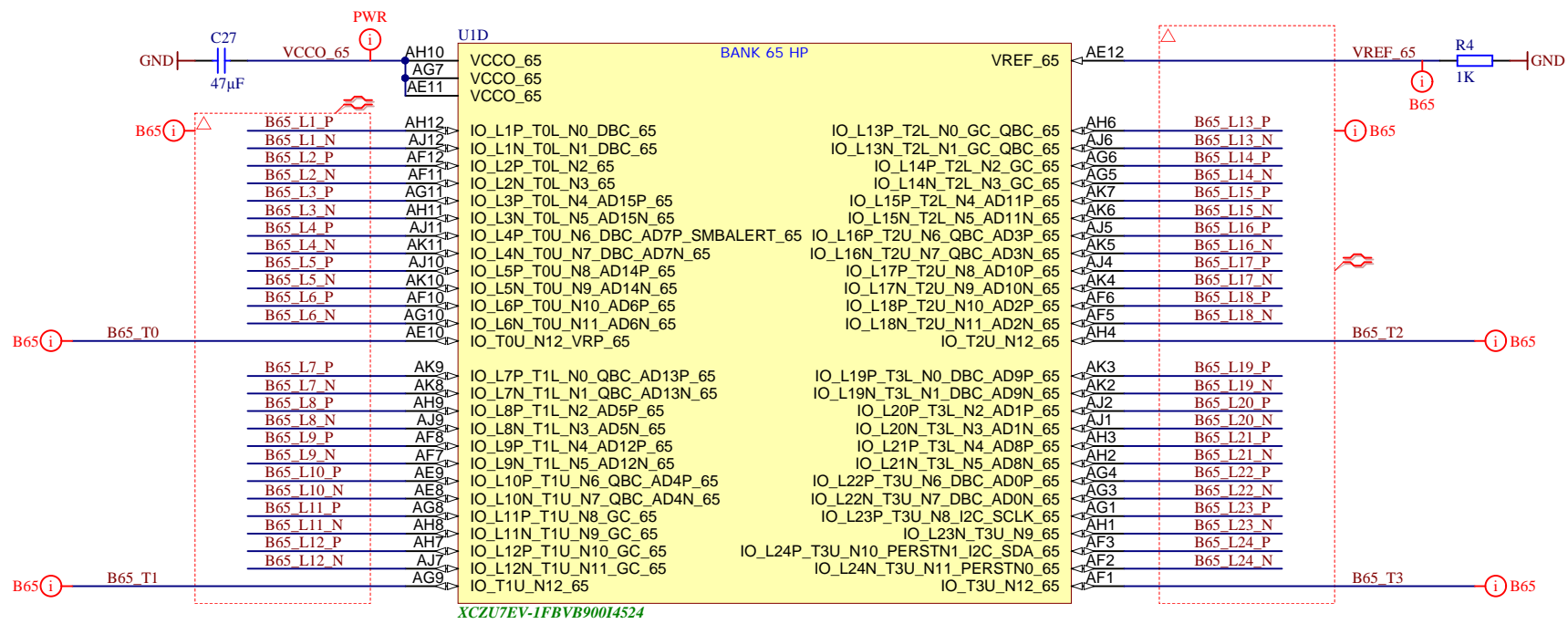
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Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page6 of 28
Filename: B_HD.SchDoc		



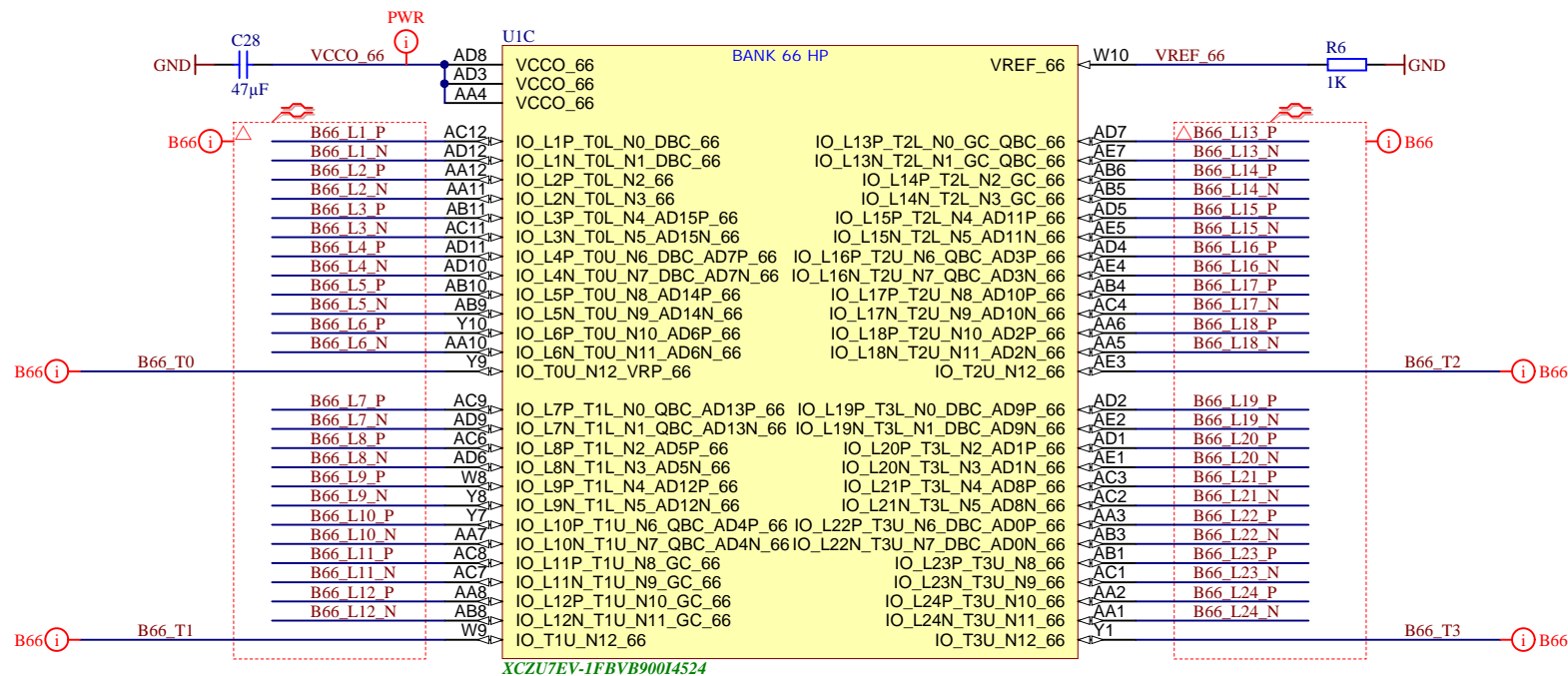
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A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 7 of 28
Filename: CONFIG.SchDoc		



Title: TE0807 - B64		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page8 of 28
Filename: B64.SchDoc		



Title: TE0807 - B65		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 9 of 28
Filename: B65.SchDoc		



Title: TE0807 - B66		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 10 of 28
Filename: B66.SchDoc		

A

B

C

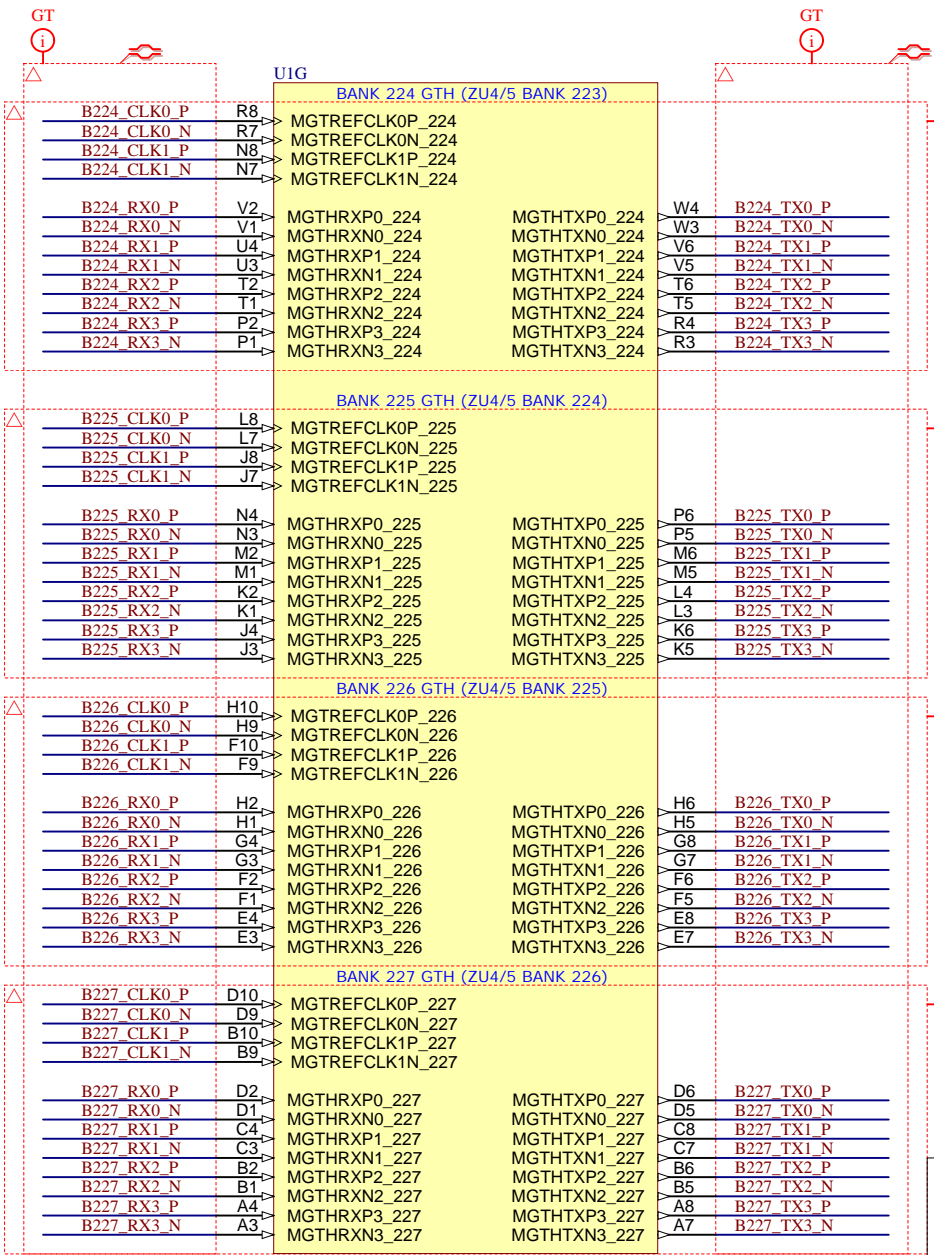
D

A

B

C

D



228

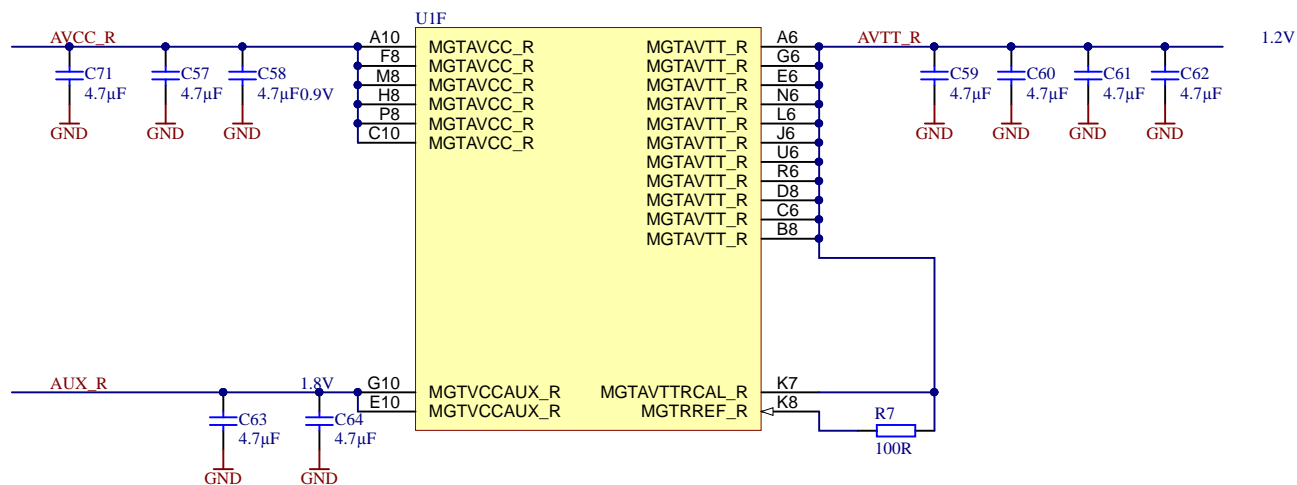
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230


XCZU7EV-1FBVB900I4524

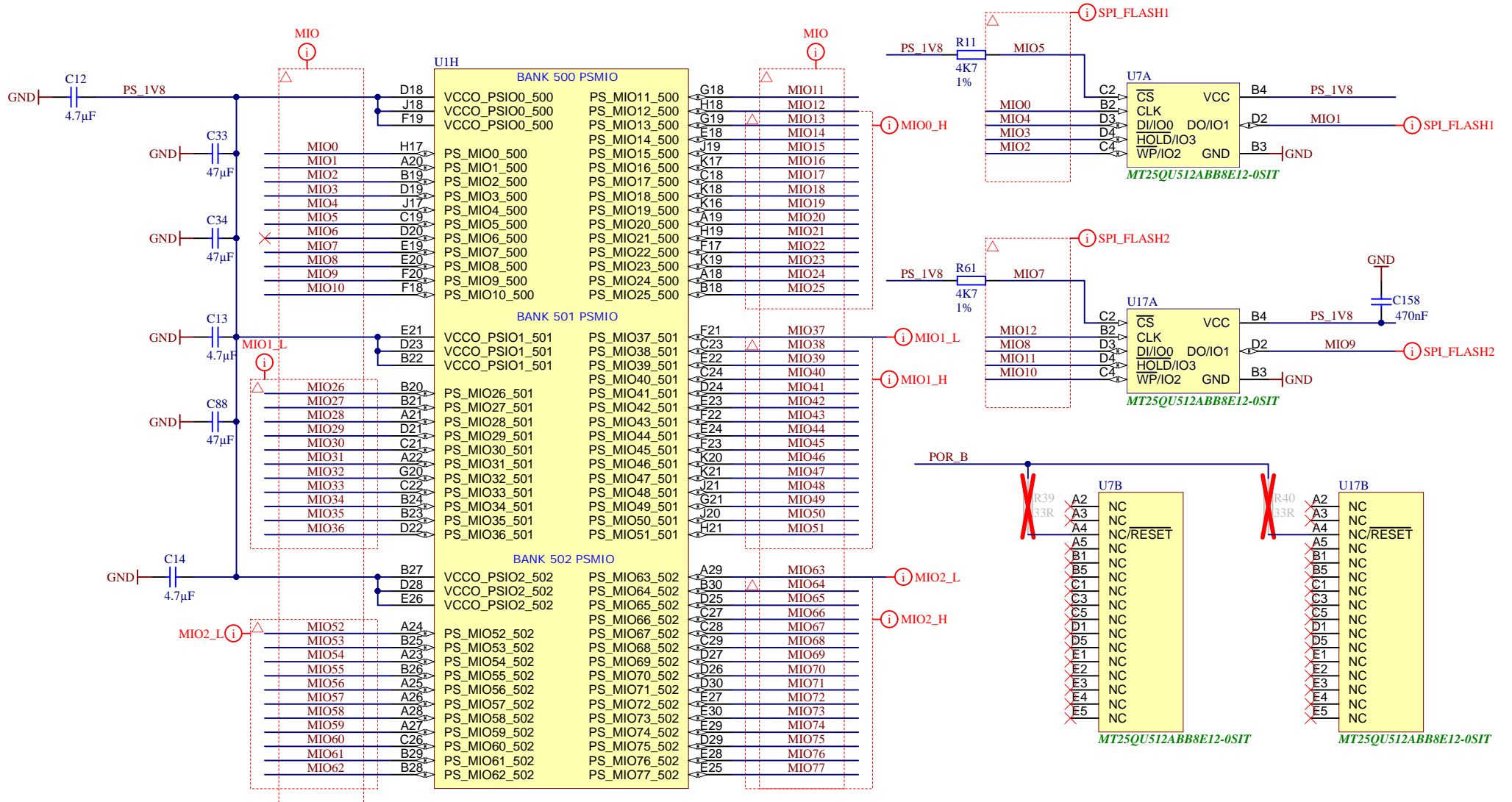


Title: TE0807 - GTH_Banks		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 11 of 28
Filename: B_GT.SchDoc		



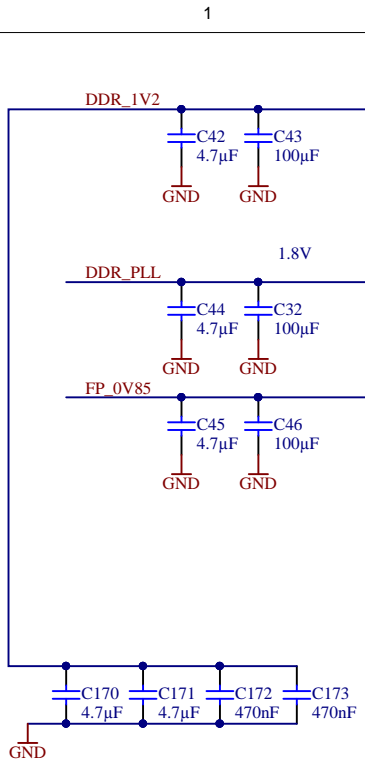
XCZU7EV-1FBVB90014524

				Title: TE0807 - GTH_PWR	
A4		Number: TE0807 7DI21-C		Rev. 02	
Date: 2018-07-09		Copyright: Trenz Electronic GmbH / TT		Page 12 of 28	
Filename: B_GT_2.SchDoc					



XCZU7EV-1FBVB900I4524

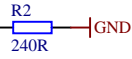
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	A4	Number: TE0807 7DI21-C	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page13 of 28
	Filename: B_MIO.SchDoc		



UIJ BANK 504 PSDDR		
AG27	VCCO_PSDDR_504	PS_DDR_CK0_504
AE26	VCCO_PSDDR_504	PS_DDR_CK_N0_504
AD28	VCCO_PSDDR_504	PS_DDR_CKE0_504
AC25	VCCO_PSDDR_504	
AB27	VCCO_PSDDR_504	PS_DDR_CK1_504
AA24	VCCO_PSDDR_504	PS_DDR_CK_N1_504
AK26	VCCO_PSDDR_504	PS_DDR_CKE1_504
U19	VCC_PSDDR_PLL	PS_DDR_A0_504
U18	VCC_PSDDR_PLL	PS_DDR_A1_504
	VCC_PSDDR_PLL	PS_DDR_A2_504
		PS_DDR_A3_504
		PS_DDR_A4_504
Y22	VCC_PSINTFP_DDR	PS_DDR_A5_504
AA21	VCC_PSINTFP_DDR	PS_DDR_A6_504
AA22	VCC_PSINTFP_DDR	PS_DDR_A7_504
		PS_DDR_A8_504
		PS_DDR_A9_504
		PS_DDR_A10_504
		PS_DDR_A11_504
		PS_DDR_A12_504
		PS_DDR_A13_504
		PS_DDR_A14_504
		PS_DDR_A15_504
		PS_DDR_A16_504
		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

XCZU7EV-1FBVB90014524

AE30	DDR4-CLK0_P
AF30	DDR4-CLK0_N
AC30	DDR4-CKE0
AF28	
AG28	
AB28	
AH30	DDR4-A0
AG30	DDR4-A1
AK29	DDR4-A2
AJ30	DDR4-A3
AK28	DDR4-A4
AK27	DDR4-A5
AF27	DDR4-A6
AE27	DDR4-A7
AF26	DDR4-A8
AG26	DDR4-A9
AE29	DDR4-A10
AE28	DDR4-A11
AH29	DDR4-A12
AH28	DDR4-A13
AG29	DDR4-A14
AJ29	DDR4-A15
AH27	DDR4-A16
AJ27	DDR4-A17
AD30	DDR4-CS
AD29	
AD27	DDR4-BA0
AC26	DDR4-BA1
AC28	DDR4-BG0
AC27	
AB26	DDR4-PAR
AB25	DDR4-RESET
AD26	DDR4-ACT
AB24	DDR4-ALERT
AB23	
AB30	DDR4-ODT0
AC29	

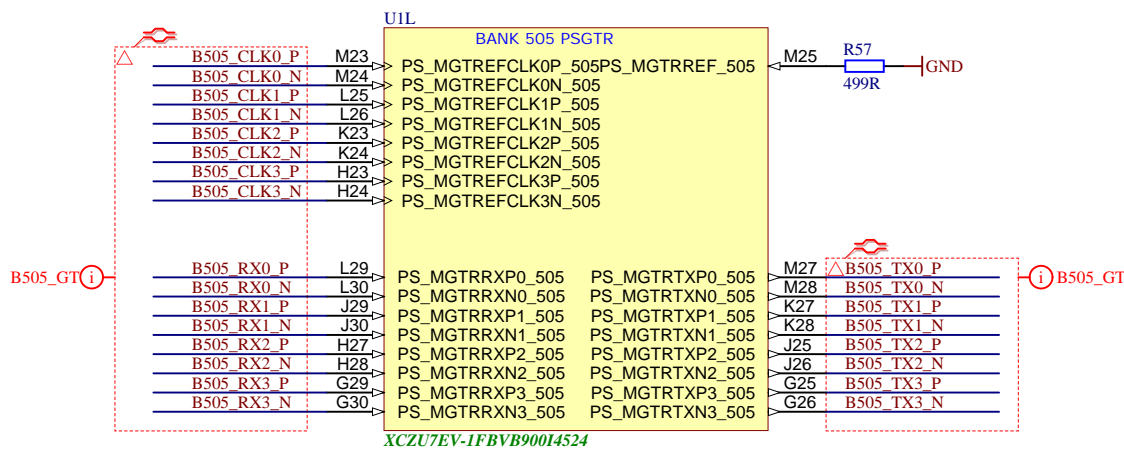


UIK BANK 504 PSDDR		
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DQ1	AH21	PS_DDR_DQ32_504
DQ2	AJ22	PS_DDR_DQ1_504
DQ3	AK22	PS_DDR_DQ33_504
DQ4	AK20	PS_DDR_DQ2_504
DQ5	AJ19	PS_DDR_DQ3_504
DQ6	AK19	PS_DDR_DQ35_504
DQ7	AH19	PS_DDR_DQ4_504
DQ8	AH23	PS_DDR_DQ36_504
DQ9	AK23	PS_DDR_DQ37_504
DQ10	AG24	PS_DDR_DQ5_504
DQ11	AK24	PS_DDR_DQ38_504
DQ12	AJ26	PS_DDR_DQ6_504
DQ13	AK25	PS_DDR_DQ39_504
DQ14	AG25	PS_DDR_DQ7_504
DQ15	AH26	PS_DDR_DQ8_504
DQ16	AD22	PS_DDR_DQ9_504
DQ17	AE22	PS_DDR_DQ10_504
DQ18	AF22	PS_DDR_DQ41_504
DQ19	AG21	PS_DDR_DQ42_504
DQ20	AD20	PS_DDR_DQ11_504
DQ21	AF20	PS_DDR_DQ43_504
DQ22	AE20	PS_DDR_DQ12_504
DQ23	AG20	PS_DDR_DQ44_504
DQ24	AG23	PS_DDR_DQ13_504
DQ25	AF23	PS_DDR_DQ45_504
DQ26	AF25	PS_DDR_DQ14_504
DQ27	AE23	PS_DDR_DQ46_504
DQ28	AC22	PS_DDR_DQ15_504
DQ29	AC23	PS_DDR_DQ47_504
DQ30	AD25	PS_DDR_DQ16_504
DQ31	AC24	PS_DDR_DQ48_504
		PS_DDR_DQ17_504
		PS_DDR_DQ49_504
		PS_DDR_DQ18_504
		PS_DDR_DQ50_504
		PS_DDR_DQ19_504
		PS_DDR_DQ51_504
		PS_DDR_DQ20_504
		PS_DDR_DQ52_504
		PS_DDR_DQ21_504
		PS_DDR_DQ53_504
		PS_DDR_DQ22_504
		PS_DDR_DQ54_504
		PS_DDR_DQ23_504
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		PS_DDR_DQ56_504
		PS_DDR_DQ25_504
		PS_DDR_DQ57_504
		PS_DDR_DQ26_504
		PS_DDR_DQ58_504
		PS_DDR_DQ27_504
		PS_DDR_DQ59_504
		PS_DDR_DQ28_504
		PS_DDR_DQ60_504
		PS_DDR_DQ29_504
		PS_DDR_DQ61_504
		PS_DDR_DQ30_504
		PS_DDR_DQ62_504
		PS_DDR_DQ31_504
		PS_DDR_DQ63_504
		PS_DDR_DQ64_504
		PS_DDR_DQ65_504
DDR4-DQS0_P	AJ21	PS_DDR_DQS_P0_504
DDR4-DQS0_N	AK21	PS_DDR_DQS_N0_504
DDR4-DQS1_P	AH24	PS_DDR_DQS_P1_504
DDR4-DQS1_N	AJ24	PS_DDR_DQS_N1_504
DDR4-DQS2_P	AC21	PS_DDR_DQS_P2_504
DDR4-DQS2_N	AD21	PS_DDR_DQS_N2_504
DDR4-DQS3_P	AD24	PS_DDR_DQS_P3_504
DDR4-DQS3_N	AE24	PS_DDR_DQS_N3_504
DDR4-DQS4_P	W24	PS_DDR_DQS_P4_504
DDR4-DQS4_N	W25	PS_DDR_DQS_N4_504
DDR4-DQS5_P	P25	PS_DDR_DQS_P5_504
DDR4-DQS5_N	R25	PS_DDR_DQS_N5_504
DDR4-DQS6_P	U29	PS_DDR_DQS_P6_504
DDR4-DQS6_N	V29	PS_DDR_DQS_N6_504
DDR4-DQS7_P	R28	PS_DDR_DQS_P7_504
DDR4-DQS7_N	R29	PS_DDR_DQS_N7_504
	Y28	PS_DDR_DQS_P8_504
	AA28	PS_DDR_DQS_N8_504
		PS_DDR_DQ66_504
		PS_DDR_DQ67_504
		PS_DDR_DQ68_504
		PS_DDR_DQ69_504
		PS_DDR_DQ70_504
		PS_DDR_DQ71_504
		PS_DDR_DM0_504
		PS_DDR_DM1_504
		PS_DDR_DM2_504
		PS_DDR_DM3_504
		PS_DDR_DM4_504
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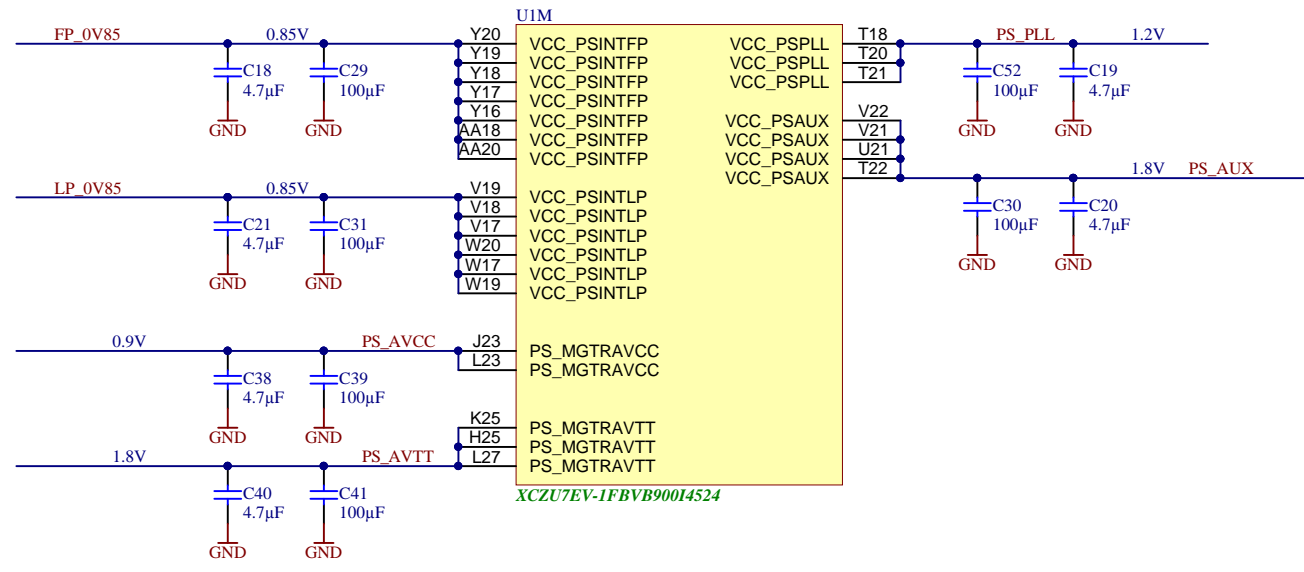
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Title: TE0807 - PS_DDR		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 14 of 28
Filename: PS_DDR.SchDoc		




	Title: TE0807 - PS_GT		
	A4	Number: TE0807 7DI21-C	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 15 of 28
	Filename: B_PS_GT.SchDoc		

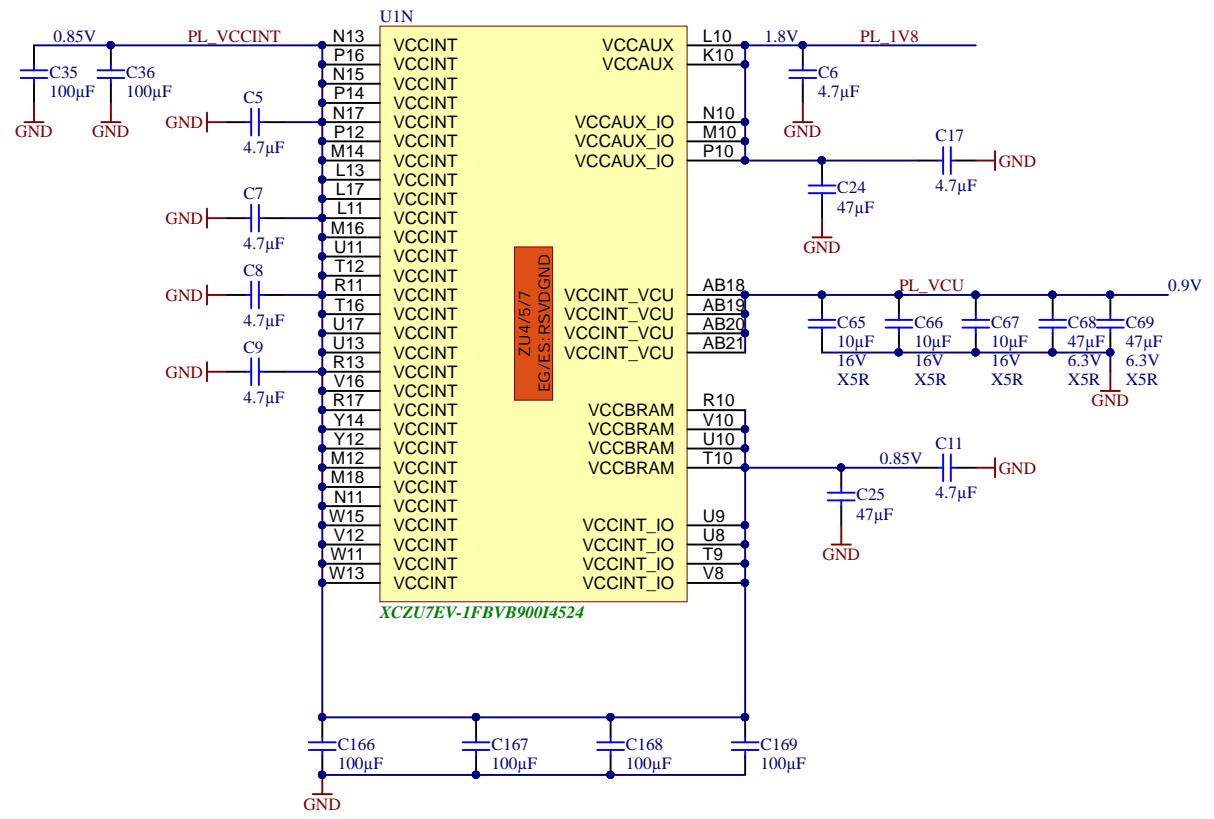
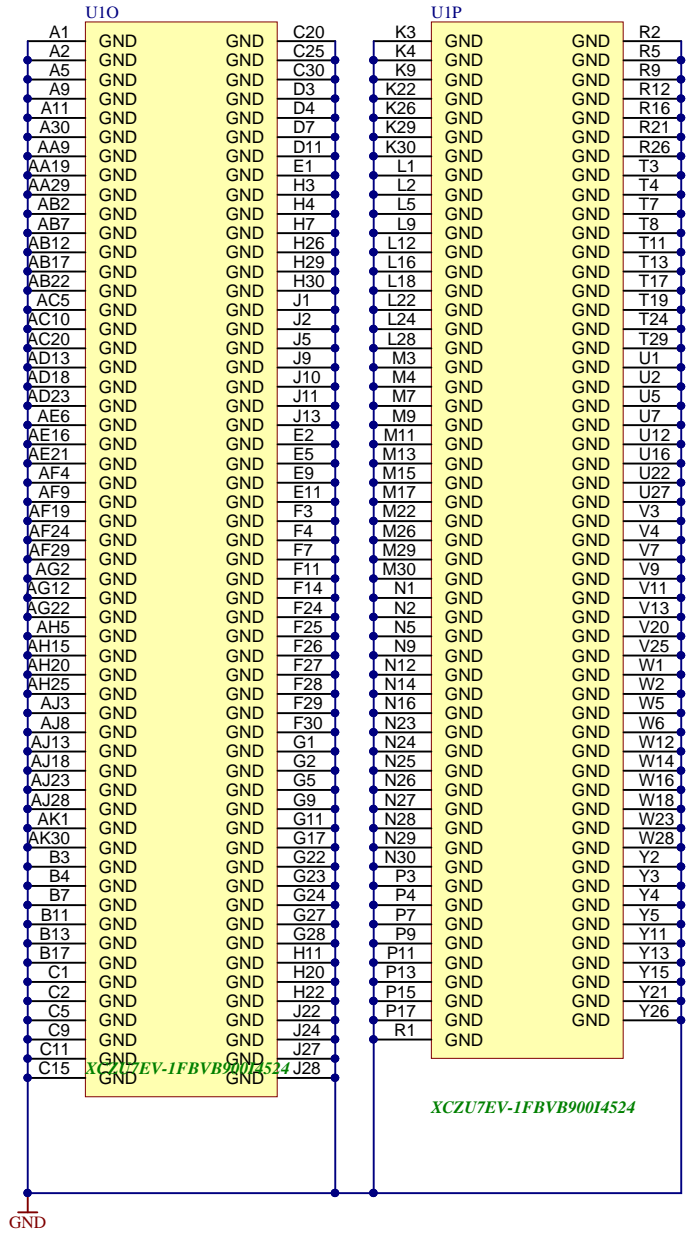


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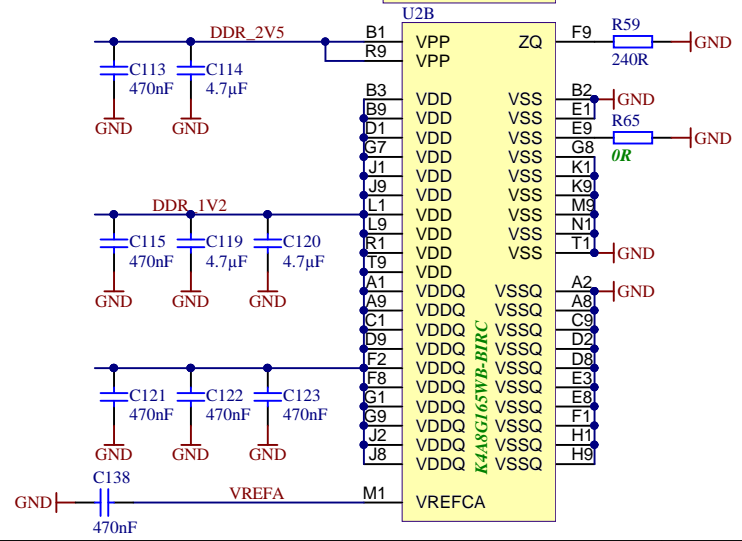
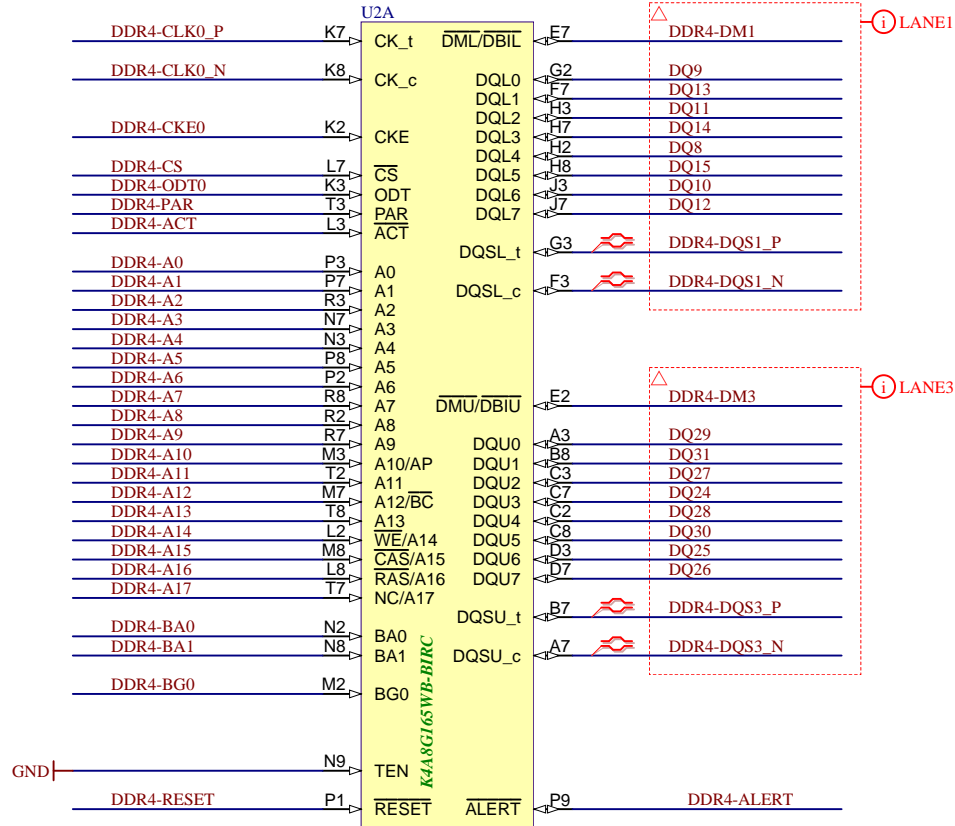

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VCC_PSINTFP	VCC_PSPLL
VCC_PSINTFP	VCC_PSPLL
VCC_PSINTFP	VCC_PSPLL
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VCC_PSINTFP	VCC_PSAUX
VCC_PSINTFP	VCC_PSAUX
VCC_PSINTFP	VCC_PSAUX
VCC_PSINTLP	VCC_PSPLL
VCC_PSINTLP	VCC_PSPLL
VCC_PSINTLP	VCC_PSPLL
VCC_PSINTLP	VCC_PSAUX
VCC_PSINTLP	VCC_PSAUX
VCC_PSINTLP	VCC_PSAUX
VCC_PSINTLP	VCC_PSAUX
PS_MGTRAVCC	
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PS_MGTRAVTT	
PS_MGTRAVTT	
PS_MGTRAVTT	

XCZU7EV-1FBVB900I4524

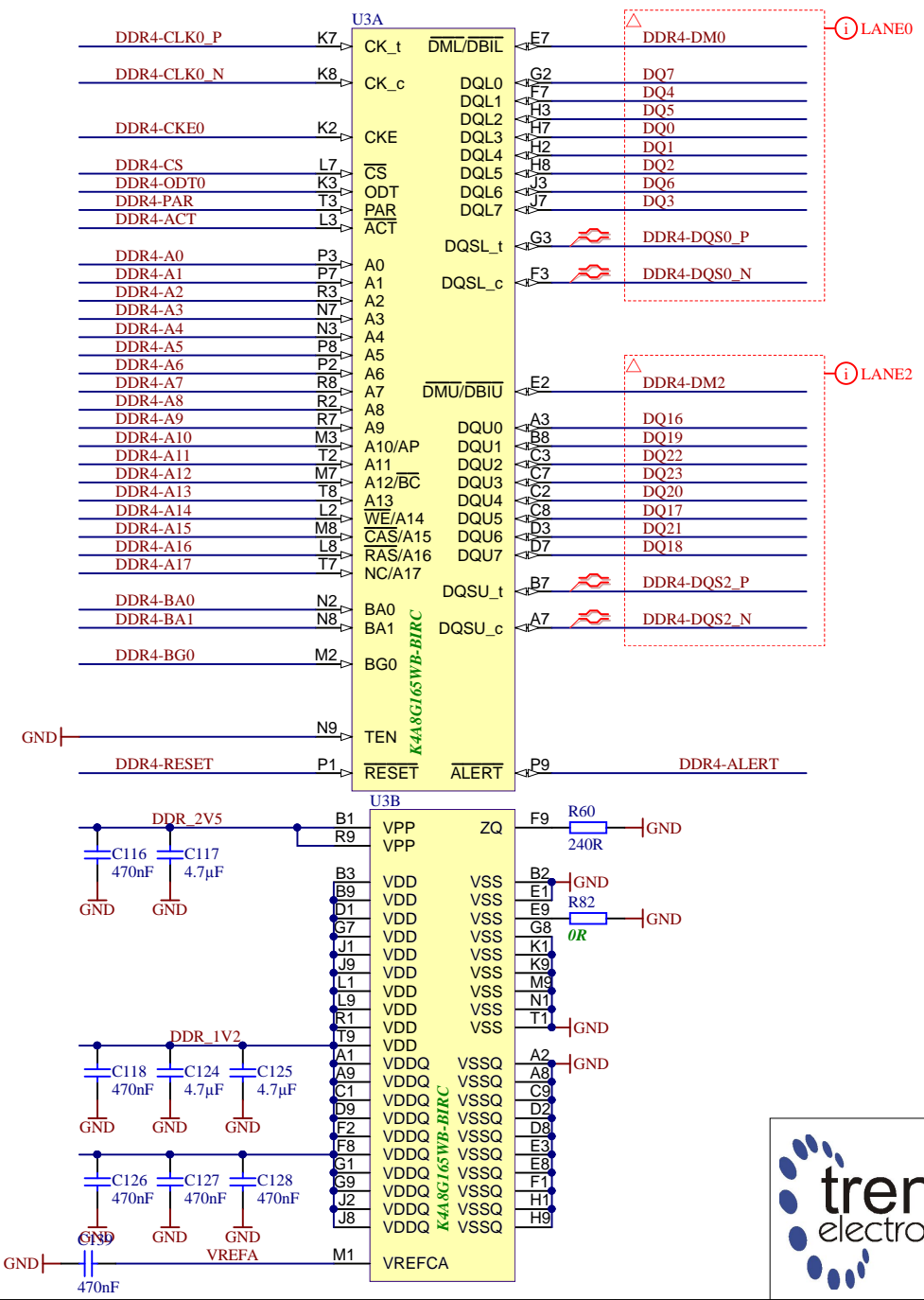
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	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 16 of 28
	Filename: ZU_PS_POWER.SchDoc		



Title: TE0807 - ZU_POWER		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 17 of 28
Filename: ZU_POWER.SchDoc		

Title: TE0807 - DDR4_1_RAM		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 18 of 28
Filename: DDR4-RAM.SchDoc		



Title: TE0807 - DDR4_2_RAM		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 19 of 28
Filename: DDR4-RAM_2.SchDoc		

A

A

B

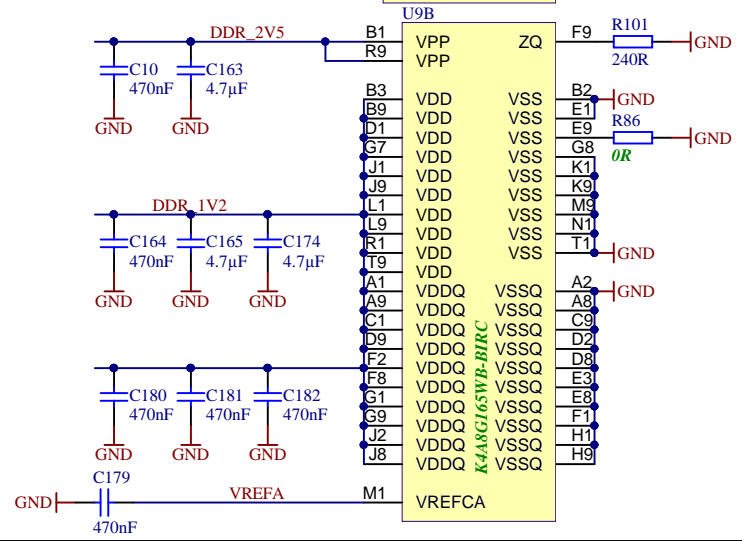
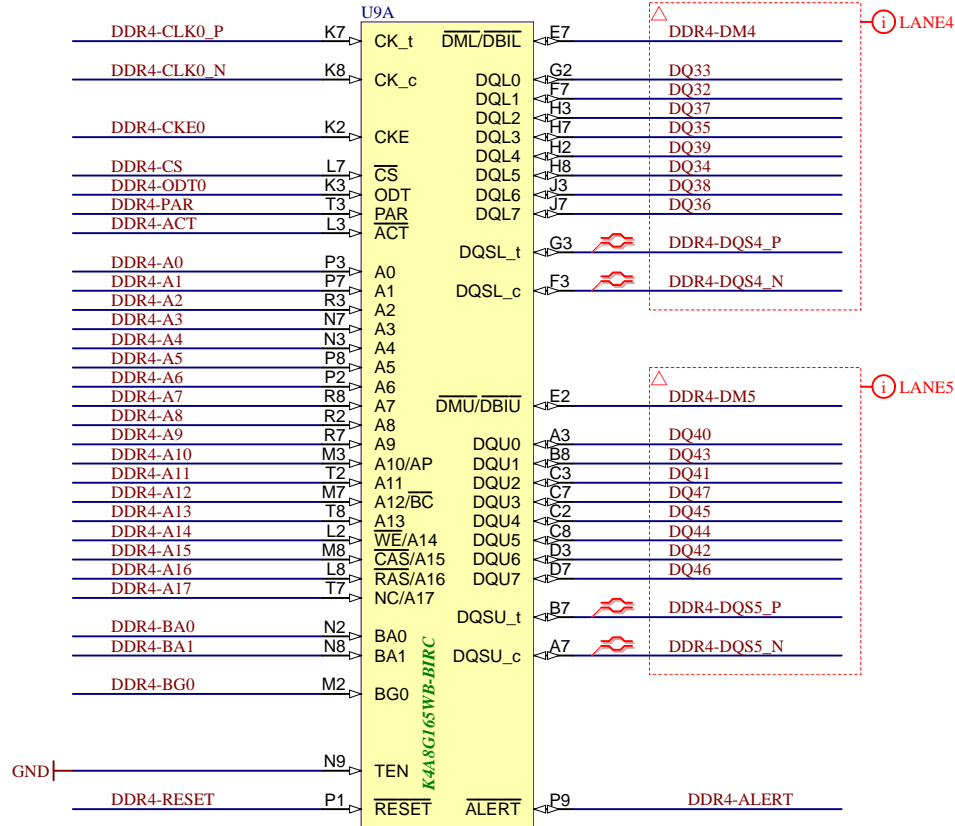

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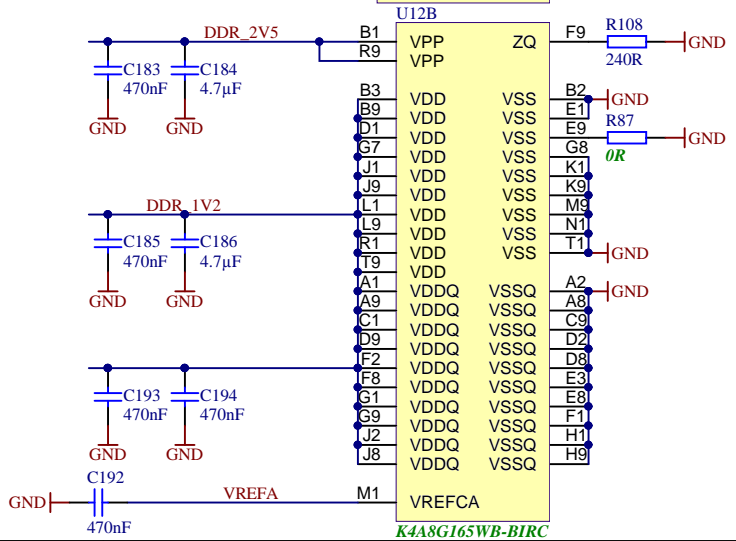
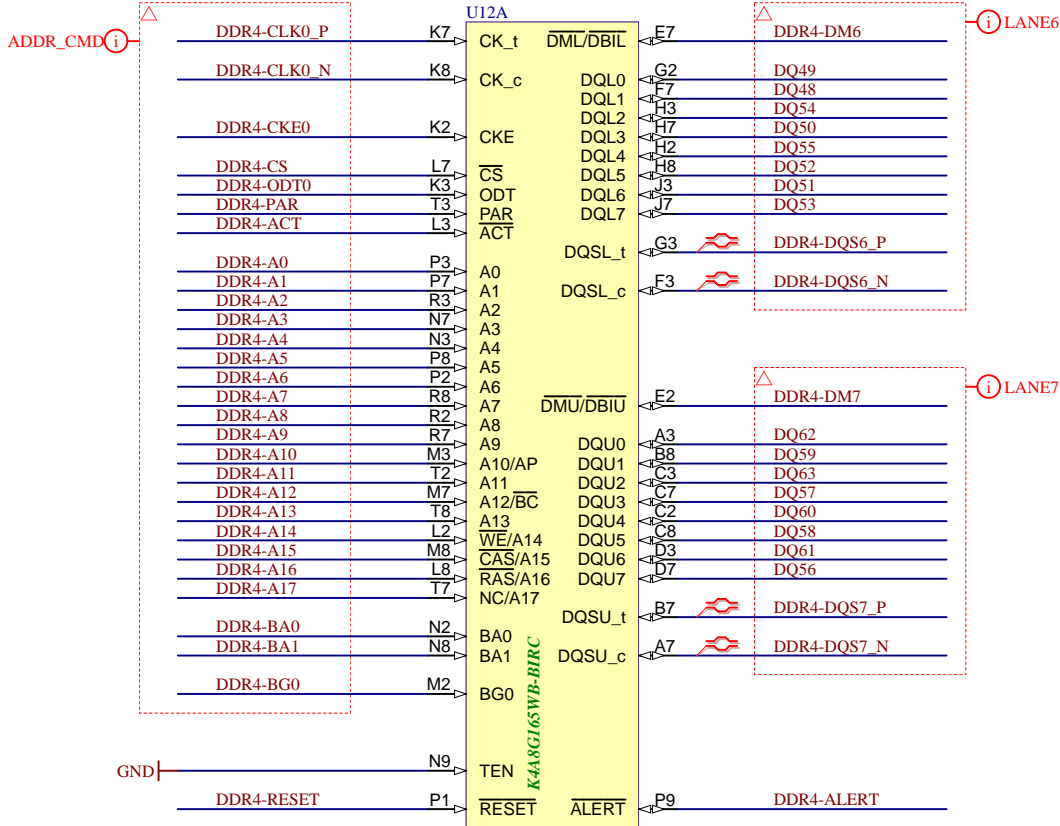
C

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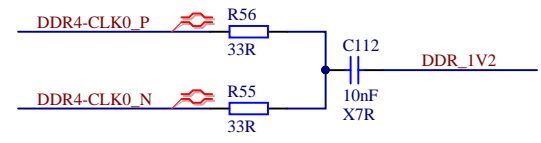
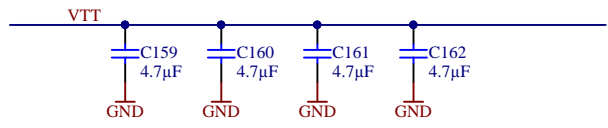
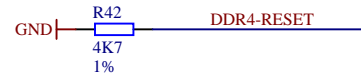
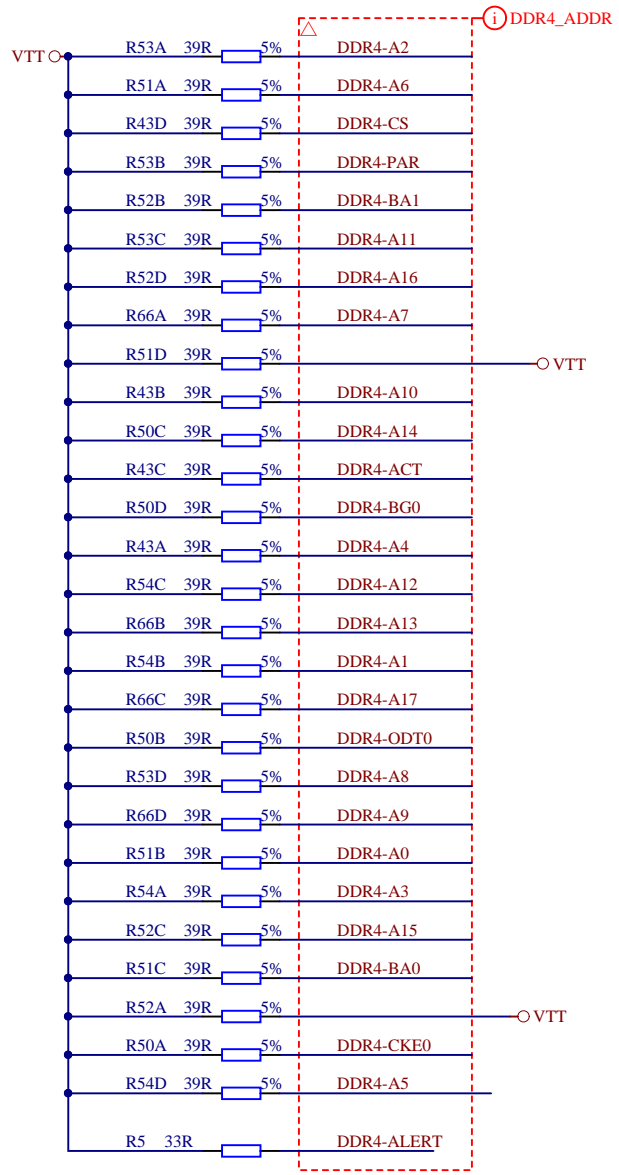
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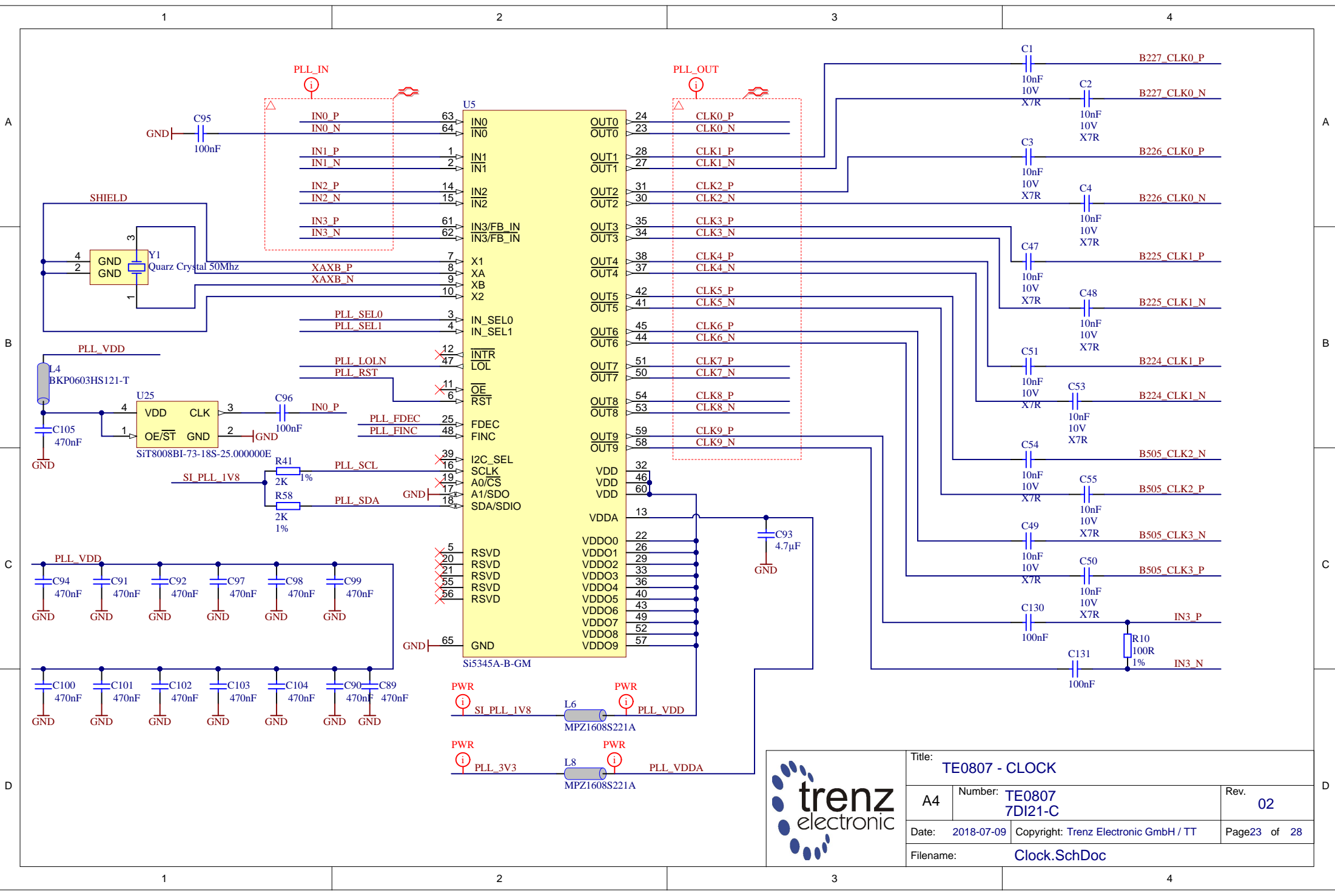
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A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page20 of 28
Filename: DDR4-RAM_3.SchDoc		



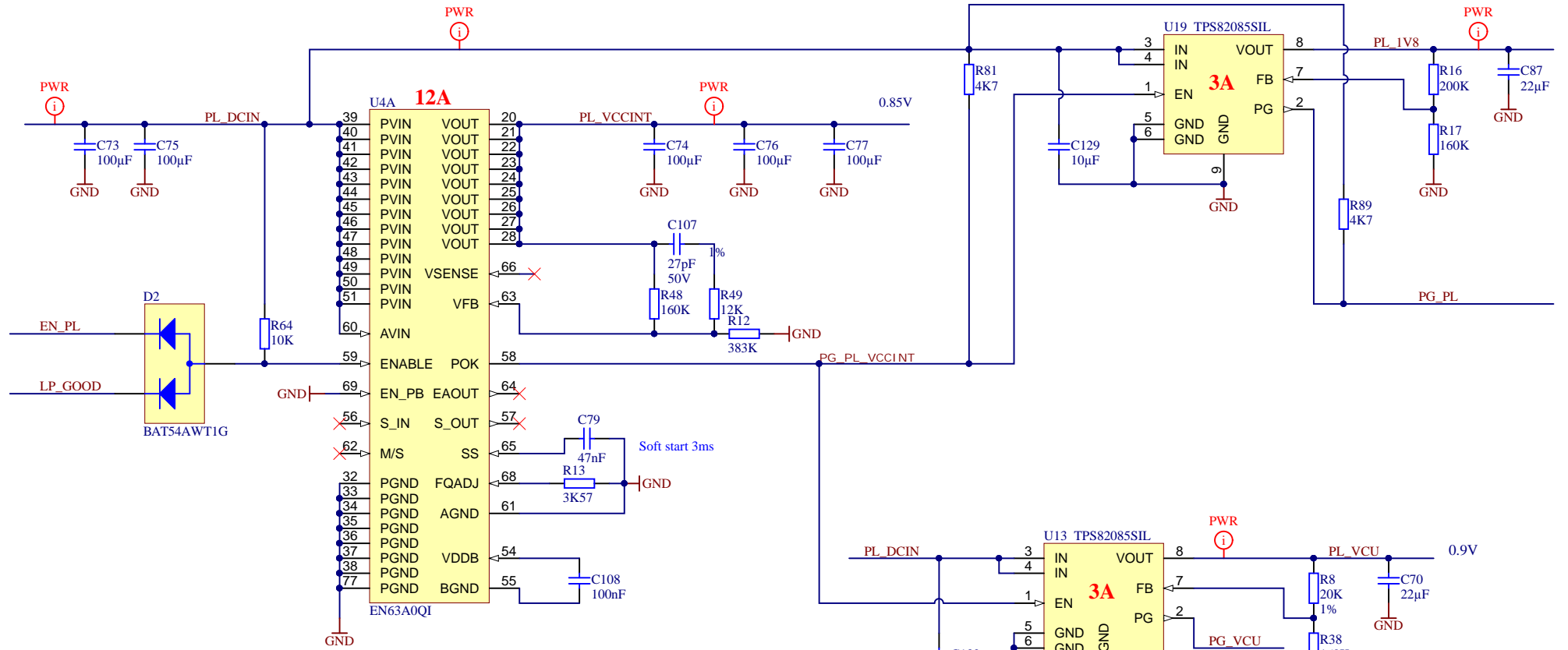
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A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page21 of 28
Filename: DDR4-RAM_4.SchDoc		



Title: TE0807 - DDR4_TERM		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page22 of 28
Filename: DDR4-TERM.SchDoc		



Title: TE0807 - CLOCK		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 23 of 28
Filename: Clock.SchDoc		




U4A EN63A0QI

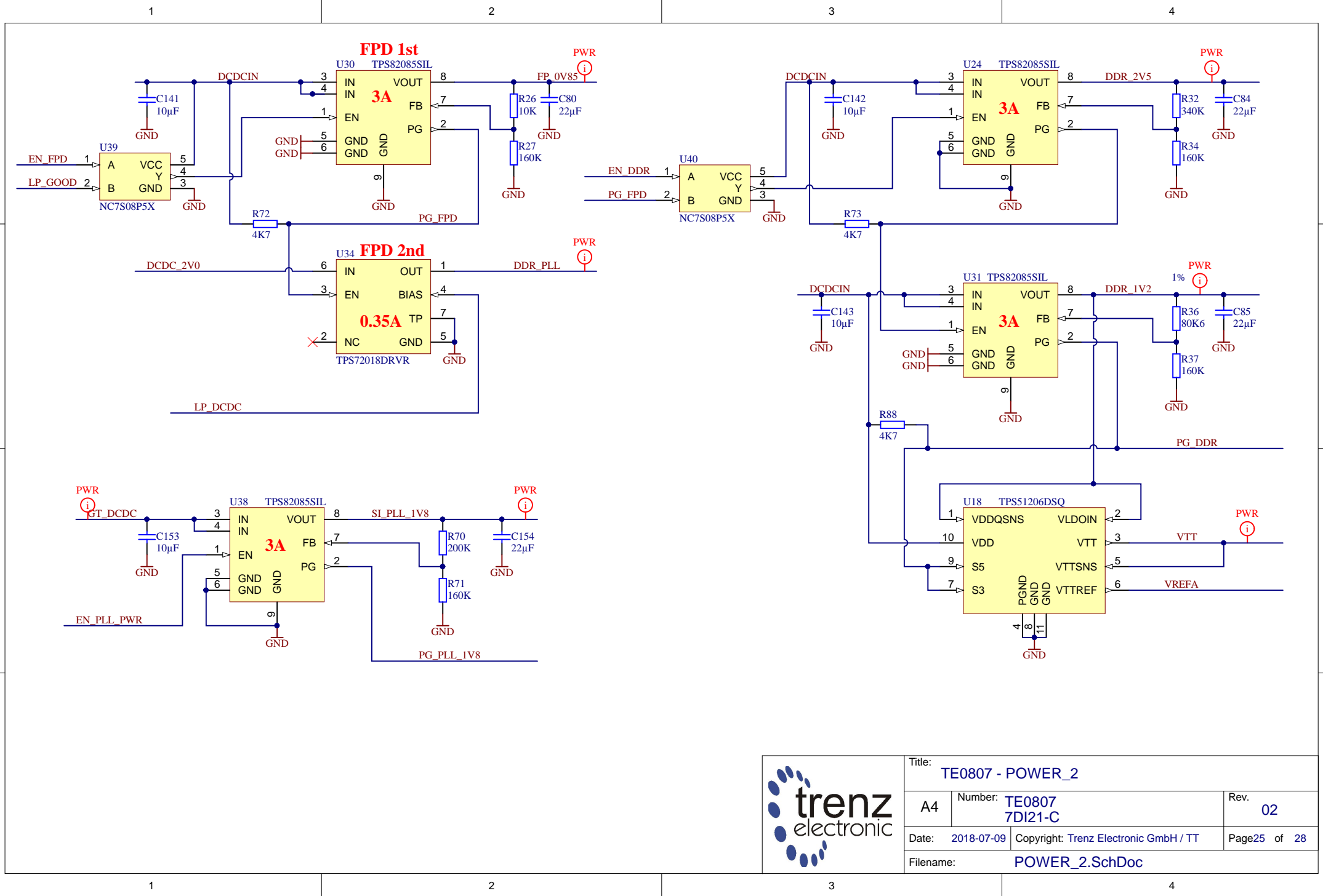
39	PVIN	VOUT	20
40	PVIN	VOUT	21
41	PVIN	VOUT	22
42	PVIN	VOUT	23
43	PVIN	VOUT	24
44	PVIN	VOUT	25
45	PVIN	VOUT	26
46	PVIN	VOUT	27
47	PVIN	VOUT	28
48	PVIN	VOUT	
49	PVIN	VSENSE	66
50	PVIN	VSENSE	
51	PVIN	VFB	63
60	AVIN		
59	ENABLE	POK	58
69	EN_PB	EAOUT	64
56	S_IN	S_OUT	57
62	M/S	SS	65
32	PGND	FQADJ	68
33	PGND		
34	PGND	AGND	61
35	PGND		
36	PGND		
37	PGND	VDDB	54
38	PGND		
77	PGND	BGND	55


U4B EN63A0QI

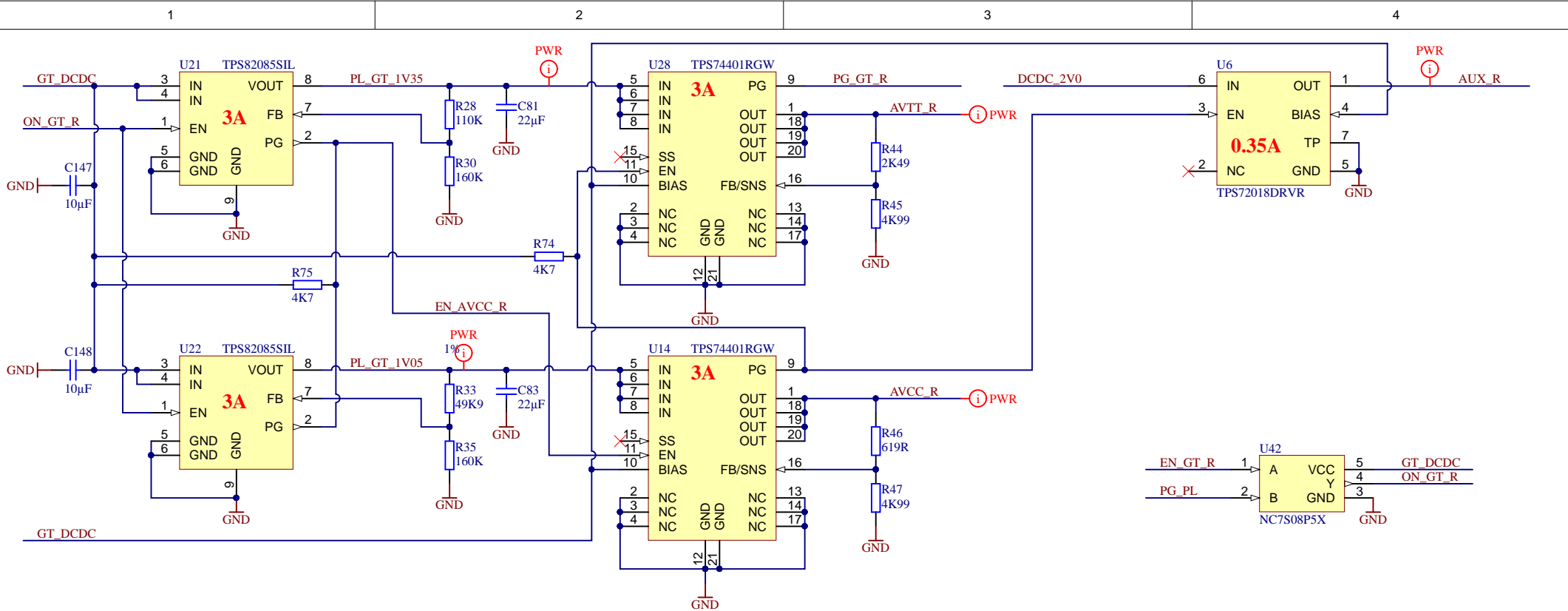
1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC(SW)	30
6	NC	NC(SW)	31
7	NC	NC	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC(SW)	70
11	NC	NC(SW)	71
12	NC	NC(SW)	72
13	NC	NC	73
14	NC	NC	74
15	NC	NC	75
16	NC	NC	76



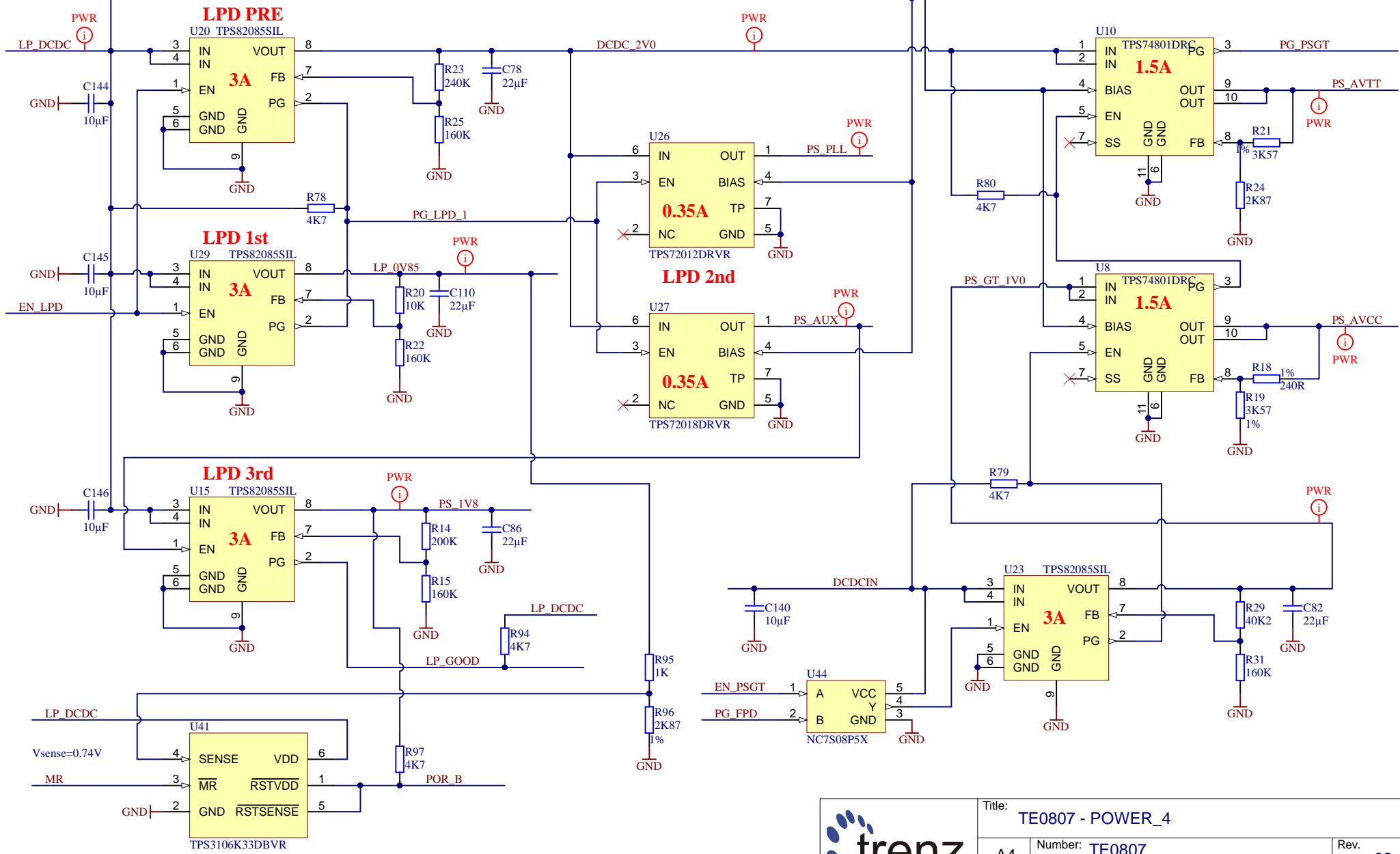
Title: TE0807 - POWER		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page24 of 28
Filename: POWER.SchDoc		



		Title: TE0807 - POWER_2	
		A4	Number: TE0807 7DI21-C
Date: 2018-07-09		Copyright: Trenz Electronic GmbH / TT	
Filename: POWER_2.SchDoc		Page 25 of 28	



Title: TE0807 - POWER_3		
A4	Number: TE0807 7DI21-C	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page26 of 28
Filename: POWER_3.SchDoc		



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

A

A

B


B

C

C

D

D

	Title: TE0807 - Changes list		
	A4	Number: TE0807 7DI21-C	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH	Page 28 of 28
	Filename: Revision_Changes.SchDoc		

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