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J2.SchDoc

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J3.SchDoc

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J4.SchDoc

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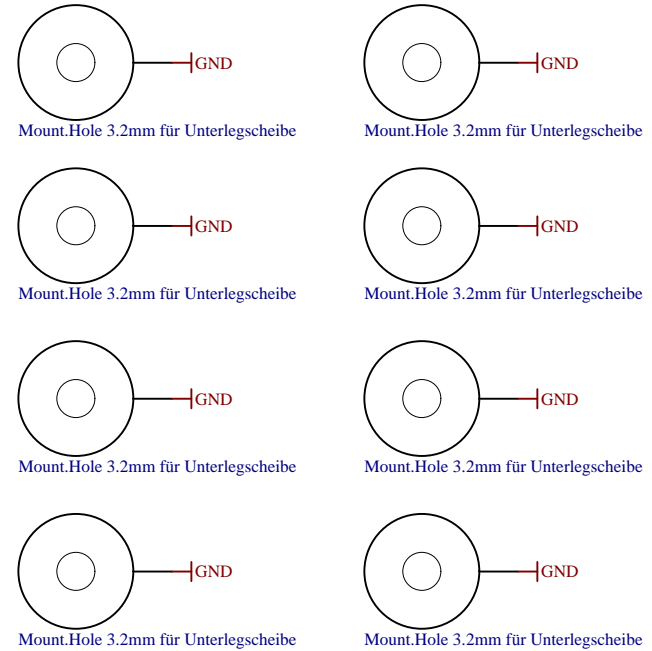
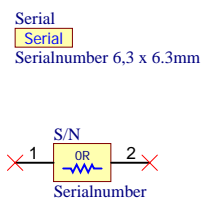
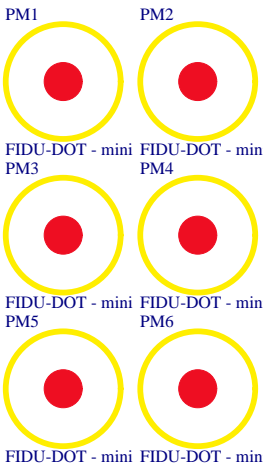
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U_POWER_2
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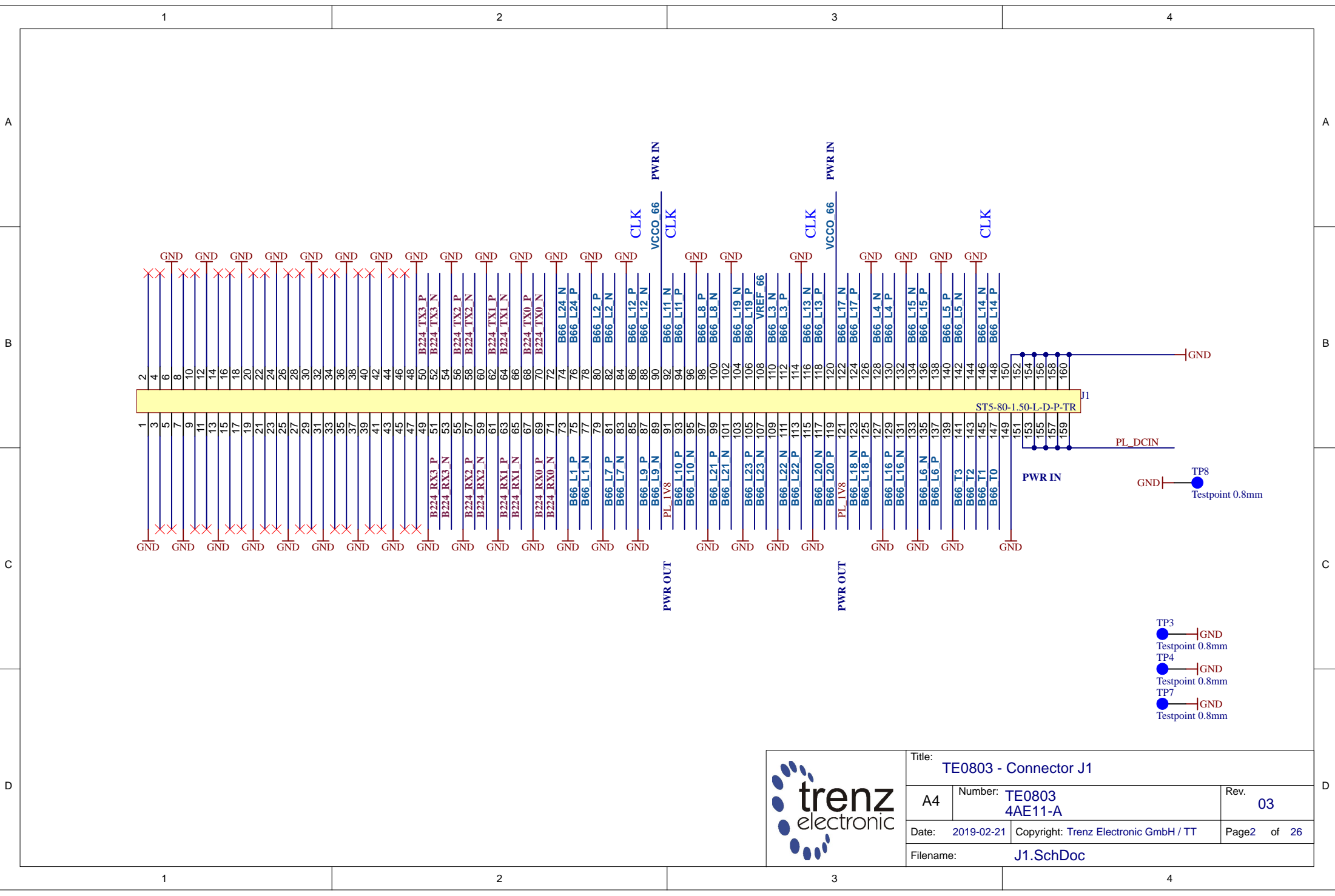
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A4	Number: TE0803 4AE11-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page1 of 26
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Title: TE0803 - Connector J1		
A4	Number: TE0803 4AE11-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page2 of 26
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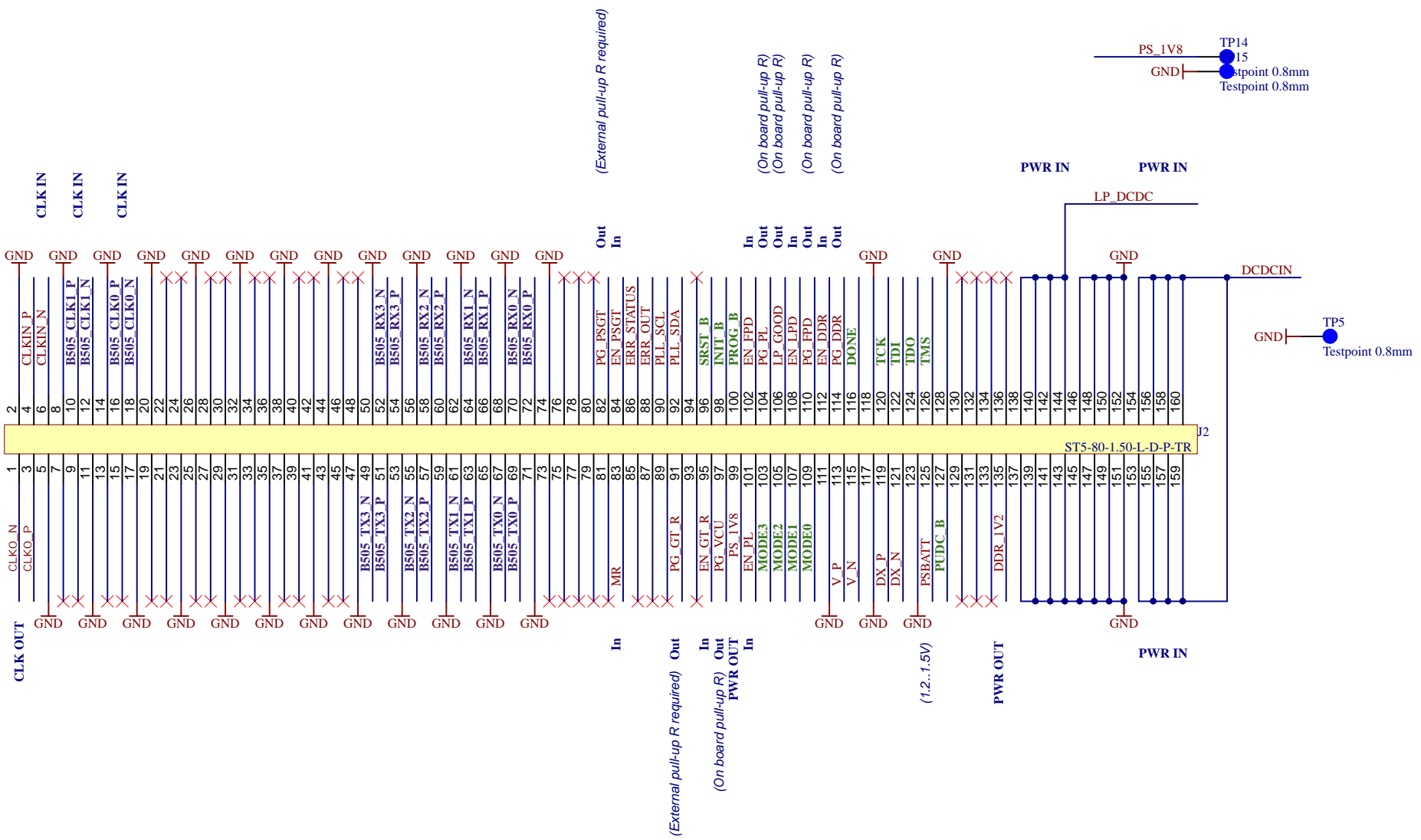
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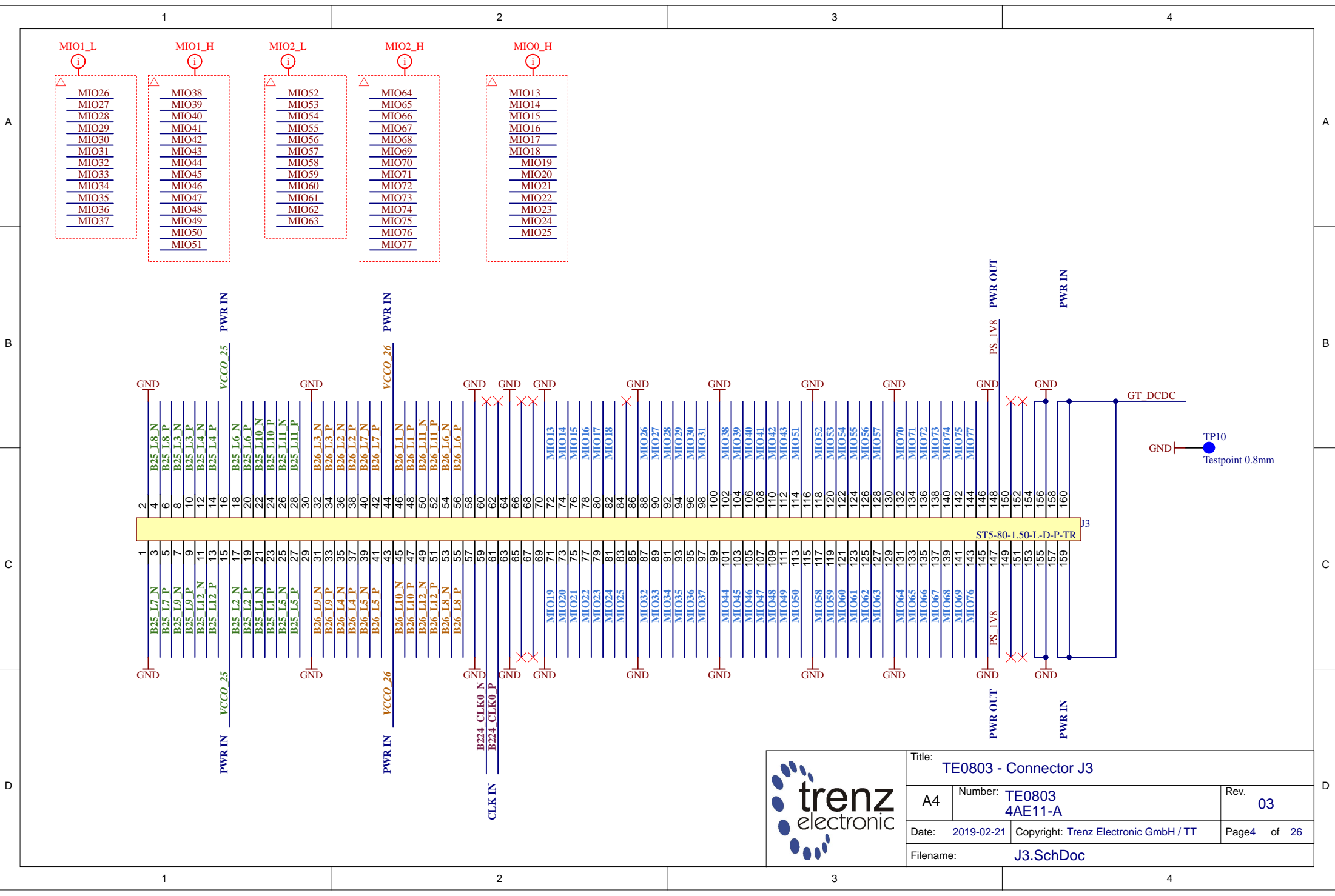
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			A4	Number: TE0803 4AE11-A
Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT		Page3 of 26
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			Title: TE0803 - Connector J3	
			A4	Number: TE0803 4AE11-A
Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT		Page4 of 26
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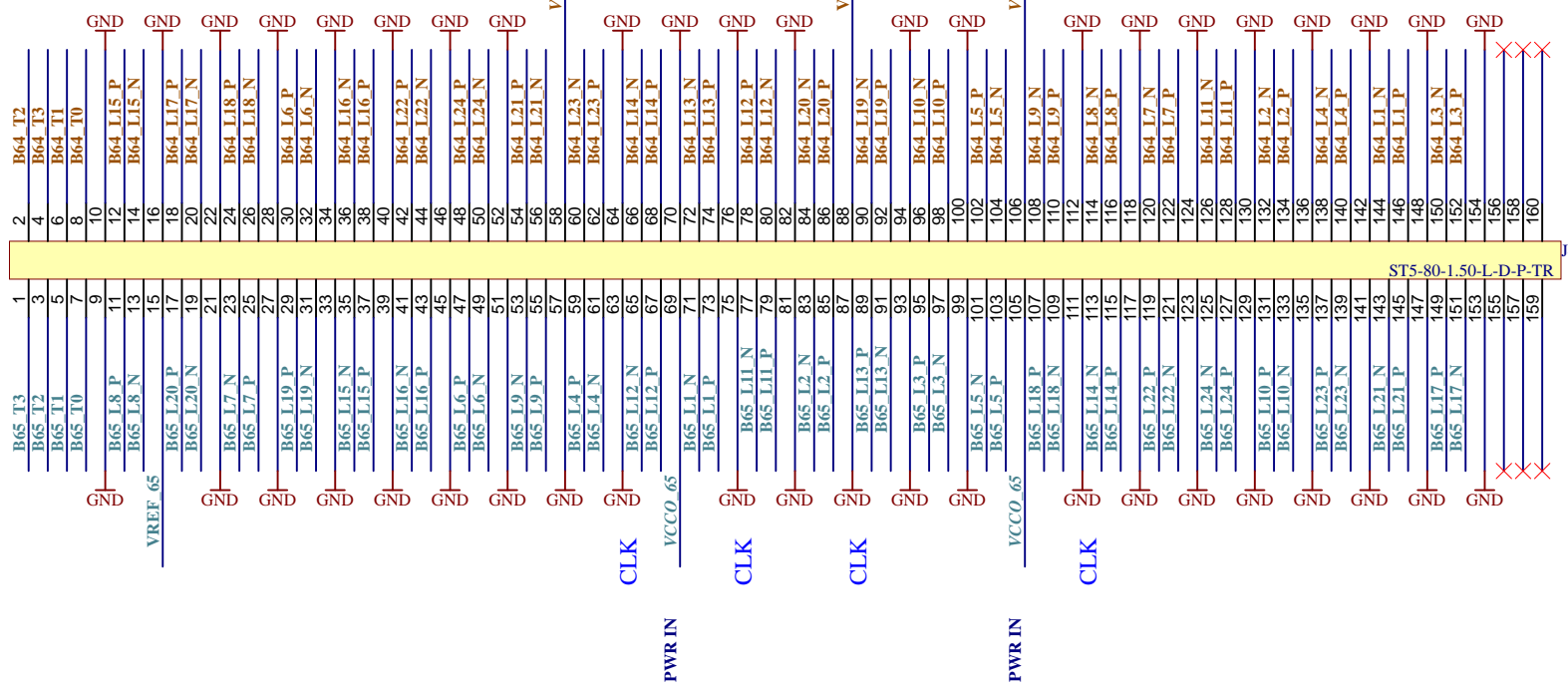
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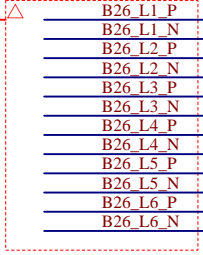
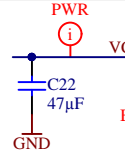
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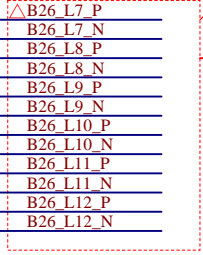
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page5 of 26
Filename: J4.SchDoc		



U1C XCZU4CG-1SFVC784E

BANK 46 HD (ZU2/3 BANK 26 HD)

VCCO_46	F14	IO_L1P_AD11P_46	IO_L7P_HDGC_AD5P_46	G13	B26 L7 P
VCCO_46	C15	IO_L1N_AD11N_46	IO_L7N_HDGC_AD5N_46	F13	B26 L7 N
		IO_L2P_AD10P_46	IO_L8P_HDGC_AD4P_46	F15	B26 L8 P
		IO_L2N_AD10N_46	IO_L8N_HDGC_AD4N_46	E15	B26 L8 N
		IO_L3P_AD9P_46	IO_L9P_AD3P_46	G15	B26 L9 P
		IO_L3N_AD9N_46	IO_L9N_AD3N_46	G14	B26 L9 N
		IO_L4P_AD8P_46	IO_L10P_AD2P_46	H14	B26 L10 P
		IO_L4N_AD8N_46	IO_L10N_AD2N_46	H13	B26 L10 N
		IO_L5P_HDGC_AD7P_46	IO_L11P_AD1P_46	K14	B26 L11 P
		IO_L5N_HDGC_AD7N_46	IO_L11N_AD1N_46	J14	B26 L11 N
		IO_L6P_HDGC_AD6P_46	IO_L12P_AD0P_46	L14	B26 L12 P
		IO_L6N_HDGC_AD6N_46	IO_L12N_AD0N_46	L13	B26 L12 N



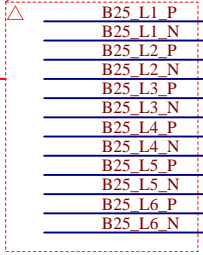
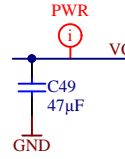
BANK 43 HD (ZU2/3 BANK 44 HD)

VCCO_43	AC10	IO_L1P_AD11P_43	IO_L7P_HDGC_AD5P_43	AD11	
VCCO_43	AG12	IO_L1N_AD11N_43	IO_L7N_HDGC_AD5N_43	AD10	
		IO_L2P_AD10P_43	IO_L8P_HDGC_AD4P_43	AB11	
		IO_L2N_AD10N_43	IO_L8N_HDGC_AD4N_43	AC11	
		IO_L3P_AD9P_43	IO_L9P_AD3P_43	AA11	
		IO_L3N_AD9N_43	IO_L9N_AD3N_43	AA10	
		IO_L4P_AD8P_43	IO_L10P_AD2P_43	W10	
		IO_L4N_AD8N_43	IO_L10N_AD2N_43	Y10	
		IO_L5P_HDGC_AD7P_43	IO_L11P_AD1P_43	Y9	
		IO_L5N_HDGC_AD7N_43	IO_L11N_AD1N_43	AA8	
		IO_L6P_HDGC_AD6P_43	IO_L12P_AD0P_43	AB10	
		IO_L6N_HDGC_AD6N_43	IO_L12N_AD0N_43	AB9	

U1B

BANK 44 HD (ZU2/3 BANK 24 HD)

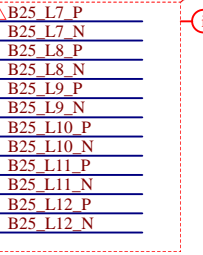
VCCO_44	AA14	IO_L1P_AD15P_44	IO_L7P_HDGC_44	AA13	
VCCO_44	AD13	IO_L1N_AD15N_44	IO_L7N_HDGC_44	AB13	
		IO_L2P_AD14P_44	IO_L8P_HDGC_44	AB15	
		IO_L2N_AD14N_44	IO_L8N_HDGC_44	AB14	
		IO_L3P_AD13P_44	IO_L9P_AD11P_44	W14	
		IO_L3N_AD13N_44	IO_L9N_AD11N_44	W13	
		IO_L4P_AD12P_44	IO_L10P_AD10P_44	Y14	
		IO_L4N_AD12N_44	IO_L10N_AD10N_44	Y13	
		IO_L5P_HDGC_44	IO_L11P_AD9P_44	W12	
		IO_L5N_HDGC_44	IO_L11N_AD9N_44	W11	
		IO_L6P_HDGC_44	IO_L12P_AD8P_44	Y12	
		IO_L6N_HDGC_44	IO_L12N_AD8N_44	AA12	



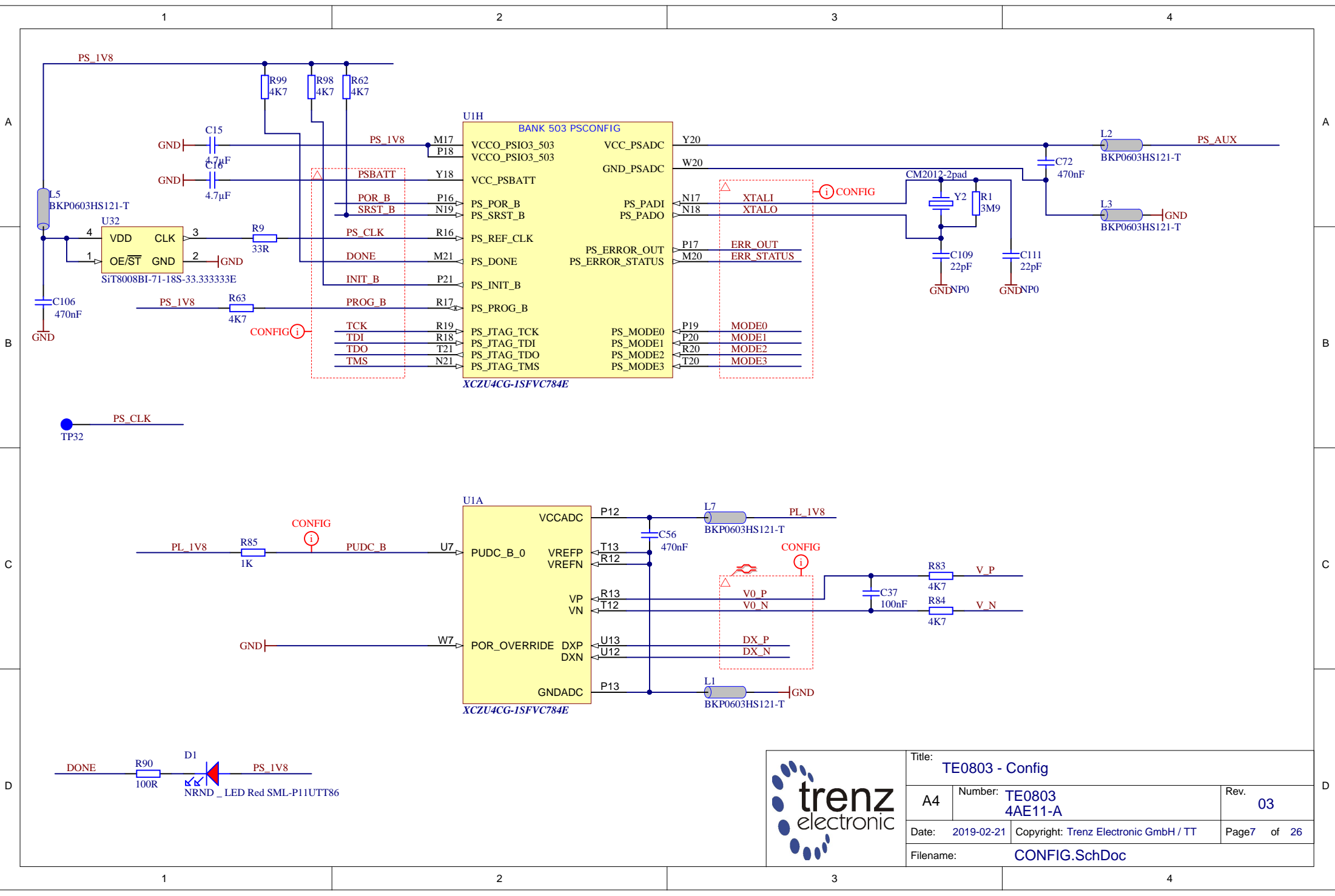
XCZU4CG-1SFVC784E

BANK 45 HD (ZU2/3 BANK 25 HD)

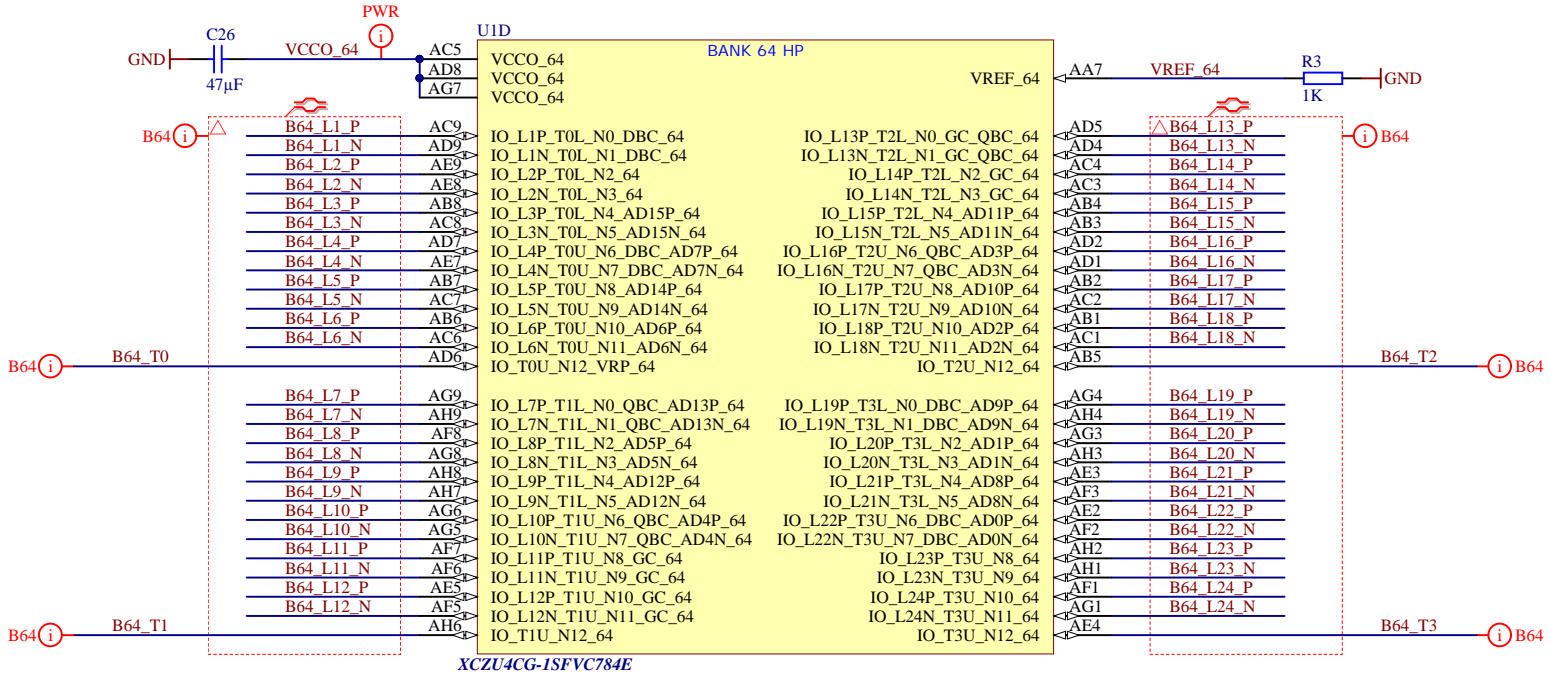
VCCO_45	B12	IO_L1P_AD15P_45	IO_L7P_HDGC_45	E10	B25 L7 P
VCCO_45	E11	IO_L1N_AD15N_45	IO_L7N_HDGC_45	D10	B25 L7 N
		IO_L2P_AD14P_45	IO_L8P_HDGC_45	E12	B25 L8 P
		IO_L2N_AD14N_45	IO_L8N_HDGC_45	D11	B25 L8 N
		IO_L3P_AD13P_45	IO_L9P_AD11P_45	C11	B25 L9 P
		IO_L3N_AD13N_45	IO_L9N_AD11N_45	B10	B25 L9 N
		IO_L4P_AD12P_45	IO_L10P_AD10P_45	B11	B25 L10 P
		IO_L4N_AD12N_45	IO_L10N_AD10N_45	A10	B25 L10 N
		IO_L5P_HDGC_45	IO_L11P_AD9P_45	A12	B25 L11 P
		IO_L5N_HDGC_45	IO_L11N_AD9N_45	A11	B25 L11 N
		IO_L6P_HDGC_45	IO_L12P_AD8P_45	D12	B25 L12 P
		IO_L6N_HDGC_45	IO_L12N_AD8N_45	C12	B25 L12 N



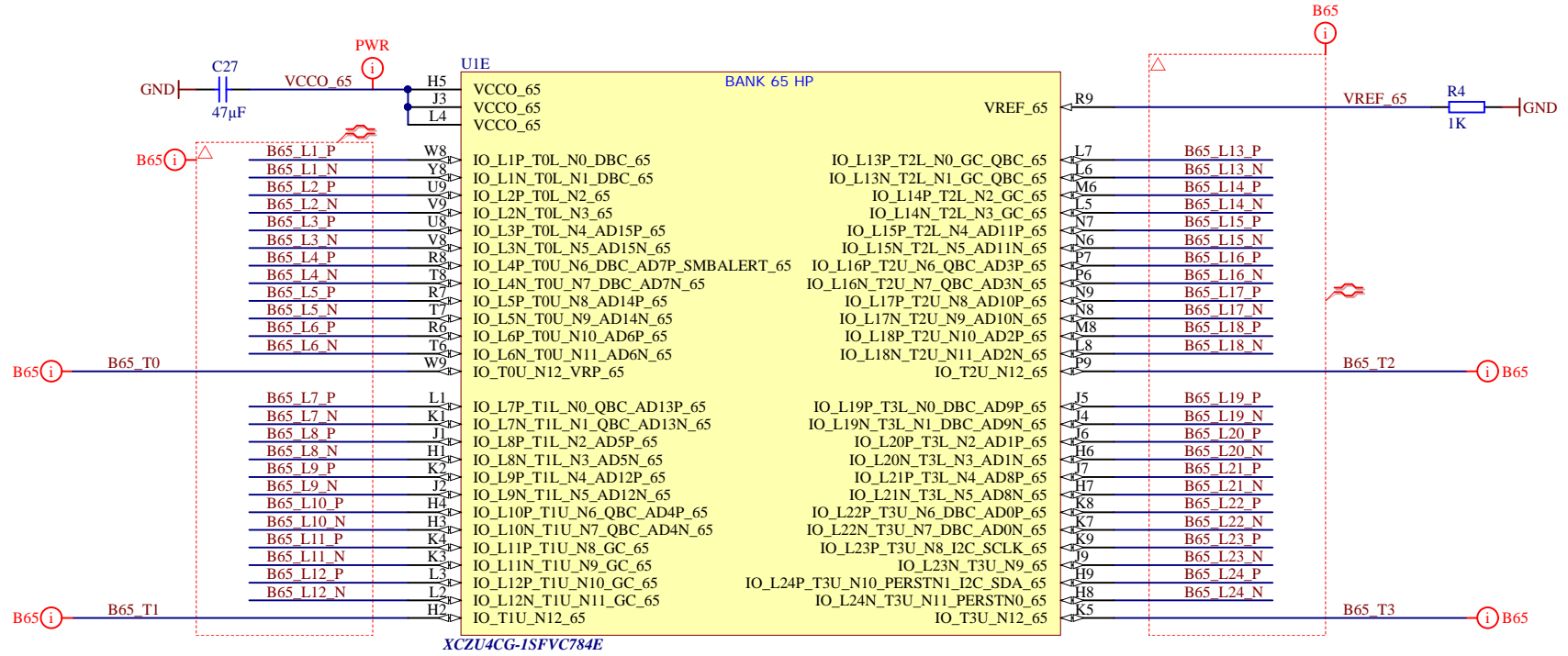
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 6 of 26
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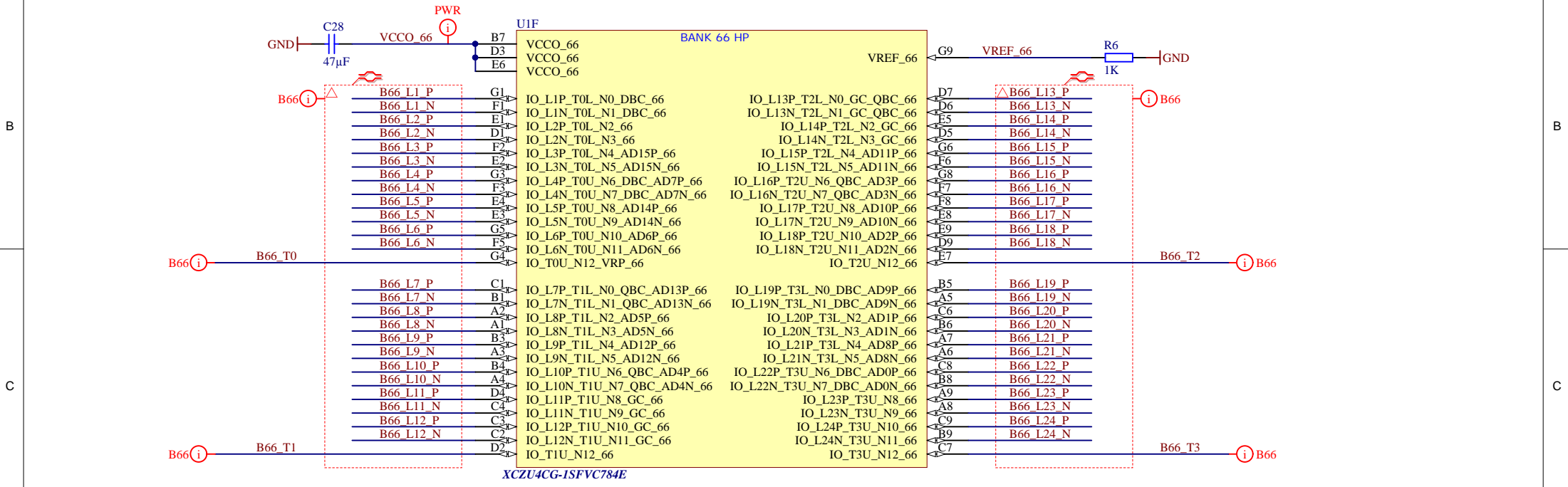
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 7 of 26
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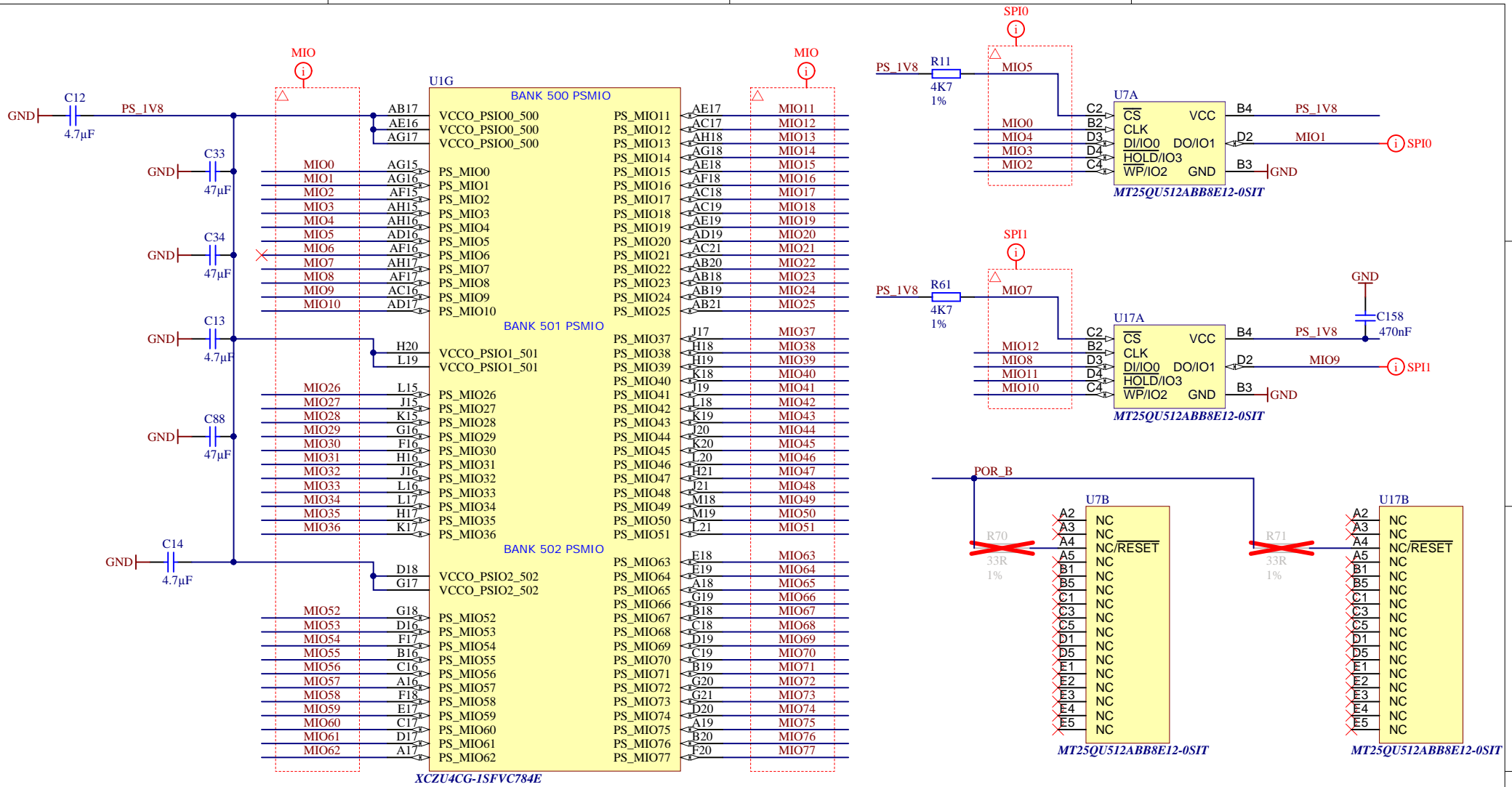
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 8 of 26
Filename: B64.SchDoc		




Title: TE0803 - B65		
A4	Number: TE0803 4AE11-A	Rev. 03
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Title: TE0803 - B66		
A4	Number: TE0803 4AE11-A	Rev. 03
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Filename: B66.SchDoc		



		Title: TE0803 - MIO Banks	
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Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT	
Filename: B_MIO.SchDoc		Page 11 of 26	

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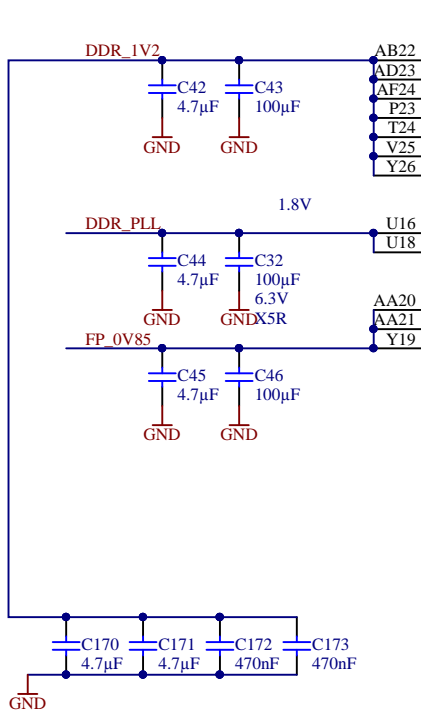
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U11		BANK 504 PSDDR			
VCCO_PSDDR_504	PS_DDR_CK0	W25	DDR4-CLK0 P	D80	
VCCO_PSDDR_504	PS_DDR_CK_N0	W26	DDR4-CLK0 N	D80	
VCCO_PSDDR_504	PS_DDR_CKE0	V28	DDR4-CKE0		
VCCO_PSDDR_504	PS_DDR_CK1	Y24			✗
VCCO_PSDDR_504	PS_DDR_CK_N1	Y25			✗
VCCO_PSDDR_504	PS_DDR_CKE1	V27			✗
VCC_PSDDR_PLL	PS_DDR_A0	W28	DDR4-A0		
VCC_PSDDR_PLL	PS_DDR_A1	Y28	DDR4-A1		
VCC_PSDDR_PLL	PS_DDR_A2	AB28	DDR4-A2		
VCC_PSDDR_PLL	PS_DDR_A3	AA28	DDR4-A3		
VCC_PSDDR_PLL	PS_DDR_A4	Y27	DDR4-A4		
VCC_PSINTRF_DDR	PS_DDR_A5	AA27	DDR4-A5		
VCC_PSINTRF_DDR	PS_DDR_A6	Y22	DDR4-A6		
VCC_PSINTRF_DDR	PS_DDR_A7	AA23	DDR4-A7		
VCC_PSINTRF_DDR	PS_DDR_A8	AA22	DDR4-A8		
VCC_PSINTRF_DDR	PS_DDR_A9	AB23	DDR4-A9		
VCC_PSINTRF_DDR	PS_DDR_A10	AA25	DDR4-A10		
VCC_PSINTRF_DDR	PS_DDR_A11	AA26	DDR4-A11		
VCC_PSINTRF_DDR	PS_DDR_A12	AB25	DDR4-A12		
VCC_PSINTRF_DDR	PS_DDR_A13	AB26	DDR4-A13		
VCC_PSINTRF_DDR	PS_DDR_A14	AB24	DDR4-A14		
VCC_PSINTRF_DDR	PS_DDR_A15	AC24	DDR4-A15		
VCC_PSINTRF_DDR	PS_DDR_A16	AC23	DDR4-A16		
VCC_PSINTRF_DDR	PS_DDR_A17	AC22	DDR4-A17		
PS_DDR_CS_N0	PS_DDR_CS_N1	W27	DDR4-CS		
PS_DDR_CS_N0	PS_DDR_CS_N1	V26			✗
PS_DDR_BA0	PS_DDR_BA1	V23	DDR4-BA0		
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PS_DDR_BG0	PS_DDR_BG1	W24	DDR4-BG0		
PS_DDR_BG0	PS_DDR_BG1	V22	DDR4-BG1		
PS_DDR_PARITY	PS_DDR_RAM_RST_N	Y24	DDR4-PAR		
PS_DDR_ACT_N	PS_DDR_ACT_N	U23	DDR4-RESET		
PS_DDR_ALERT_N	PS_DDR_ALERT_N	Y23	DDR4-ACT		
PS_DDR_ALERT_N	PS_DDR_ALERT_N	U25	DDR4-ALERT		
PS_DDR_ZQ	PS_DDR_ZQ	U24		R2 240R	GND
PS_DDR_ODT0	PS_DDR_ODT1	U28	DDR4-ODT0		
PS_DDR_ODT0	PS_DDR_ODT1	U26			✗

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U1J		BANK 504 PSDDR			
DQ0	AD21	PS_DDR_DQ0	PS_DDR_DQ32	T22	DQ32
DQ1	AE20	PS_DDR_DQ1	PS_DDR_DQ33	R22	DQ33
DQ2	AD20	PS_DDR_DQ2	PS_DDR_DQ34	P22	DQ34
DQ3	AF20	PS_DDR_DQ3	PS_DDR_DQ35	N22	DQ35
DQ4	AH21	PS_DDR_DQ4	PS_DDR_DQ36	T23	DQ36
DQ5	AH20	PS_DDR_DQ5	PS_DDR_DQ37	P24	DQ37
DQ6	AH19	PS_DDR_DQ6	PS_DDR_DQ38	R24	DQ38
DQ7	AG19	PS_DDR_DQ7	PS_DDR_DQ39	N24	DQ39
DQ8	AF22	PS_DDR_DQ8	PS_DDR_DQ40	H24	DQ40
DQ9	AH22	PS_DDR_DQ9	PS_DDR_DQ41	J24	DQ41
DQ10	AE22	PS_DDR_DQ10	PS_DDR_DQ42	M24	DQ42
DQ11	AD22	PS_DDR_DQ11	PS_DDR_DQ43	K24	DQ43
DQ12	AH23	PS_DDR_DQ12	PS_DDR_DQ44	J22	DQ44
DQ13	AH24	PS_DDR_DQ13	PS_DDR_DQ45	H22	DQ45
DQ14	AE24	PS_DDR_DQ14	PS_DDR_DQ46	K22	DQ46
DQ15	AG24	PS_DDR_DQ15	PS_DDR_DQ47	J22	DQ47
DQ16	AC26	PS_DDR_DQ16	PS_DDR_DQ48	M25	DQ48
DQ17	AD26	PS_DDR_DQ17	PS_DDR_DQ49	M26	DQ49
DQ18	AD25	PS_DDR_DQ18	PS_DDR_DQ50	L25	DQ50
DQ19	AD24	PS_DDR_DQ19	PS_DDR_DQ51	L26	DQ51
DQ20	AG26	PS_DDR_DQ20	PS_DDR_DQ52	K28	DQ52
DQ21	AH25	PS_DDR_DQ21	PS_DDR_DQ53	L28	DQ53
DQ22	AH26	PS_DDR_DQ22	PS_DDR_DQ54	M28	DQ54
DQ23	AG25	PS_DDR_DQ23	PS_DDR_DQ55	N28	DQ55
DQ24	AH27	PS_DDR_DQ24	PS_DDR_DQ56	J28	DQ56
DQ25	AH28	PS_DDR_DQ25	PS_DDR_DQ57	K27	DQ57
DQ26	AF28	PS_DDR_DQ26	PS_DDR_DQ58	H28	DQ58
DQ27	AG28	PS_DDR_DQ27	PS_DDR_DQ59	H27	DQ59
DQ28	AC27	PS_DDR_DQ28	PS_DDR_DQ60	G26	DQ60
DQ29	AD27	PS_DDR_DQ29	PS_DDR_DQ61	G25	DQ61
DQ30	AD28	PS_DDR_DQ30	PS_DDR_DQ62	K25	DQ62
DQ31	AC28	PS_DDR_DQ31	PS_DDR_DQ63	J25	DQ63
DDR4-DQS0 P	AF21	PS_DDR_DQS_P0	PS_DDR_DQ64	T28	
DDR4-DQS0 N	AG21	PS_DDR_DQS_N0	PS_DDR_DQ65	R28	
DDR4-DQS1 P	AF23	PS_DDR_DQS_P1	PS_DDR_DQ66	P28	
DDR4-DQS1 N	AG23	PS_DDR_DQS_N1	PS_DDR_DQ67	P27	
DDR4-DQS2 P	AF25	PS_DDR_DQS_P2	PS_DDR_DQ68	R25	
DDR4-DQS2 N	AF26	PS_DDR_DQS_N2	PS_DDR_DQ69	R25	
DDR4-DQS3 P	AE27	PS_DDR_DQS_P3	PS_DDR_DQ70	T25	
DDR4-DQS3 N	AF27	PS_DDR_DQS_N3	PS_DDR_DQ71	T25	
DDR4-DQS4 P	N23	PS_DDR_DQS_P4	PS_DDR_DM0	AG20	DDR4-DM0
DDR4-DQS4 N	M23	PS_DDR_DQS_N4	PS_DDR_DM1	AE23	DDR4-DM1
DDR4-DQS5 P	L23	PS_DDR_DQS_P5	PS_DDR_DM2	AE25	DDR4-DM2
DDR4-DQS5 N	K23	PS_DDR_DQS_N5	PS_DDR_DM3	AE28	DDR4-DM3
DDR4-DQS6 P	N26	PS_DDR_DQS_P6	PS_DDR_DM4	R23	DDR4-DM4
DDR4-DQS6 N	N27	PS_DDR_DQS_N6	PS_DDR_DM5	H23	DDR4-DM5
DDR4-DQS7 P	J26	PS_DDR_DQS_P7	PS_DDR_DM6	L27	DDR4-DM6
DDR4-DQS7 N	J27	PS_DDR_DQS_N7	PS_DDR_DM7	H26	DDR4-DM7
	R27	PS_DDR_DQS_P8	PS_DDR_DM8	T26	
	T27	PS_DDR_DQS_N8			

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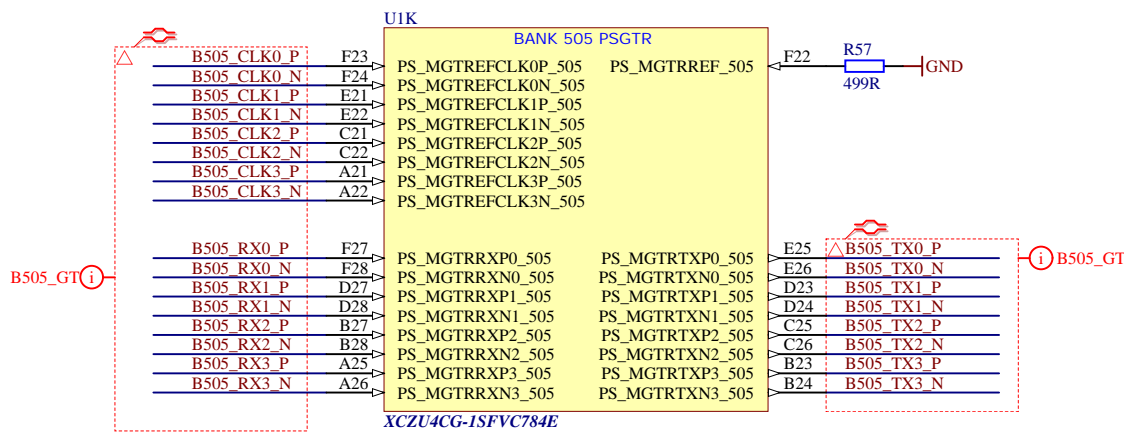
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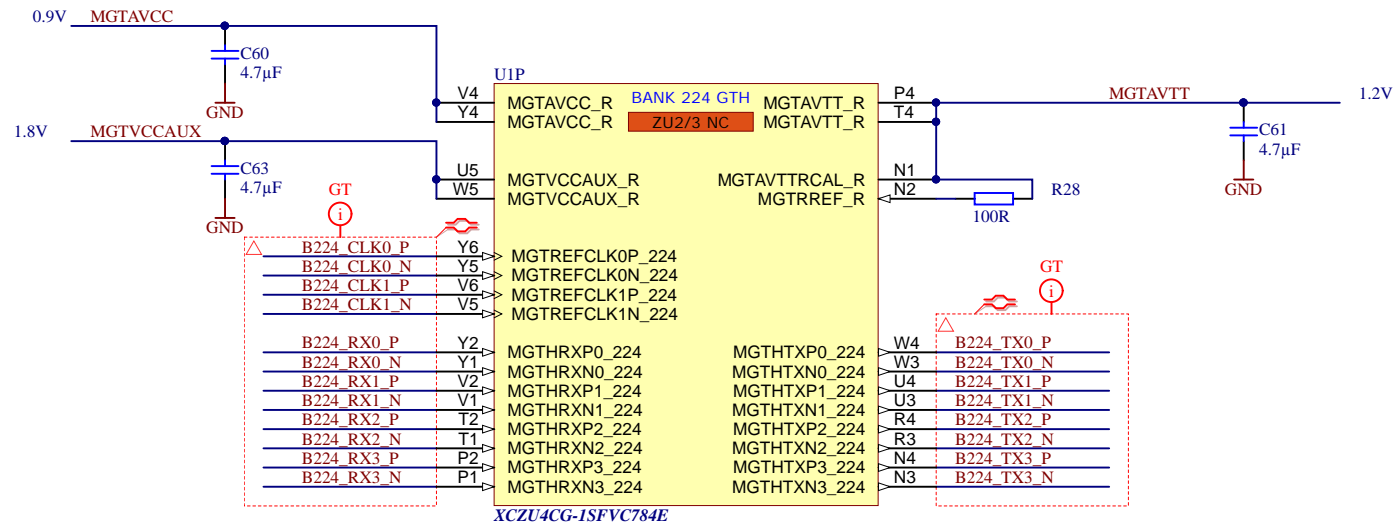
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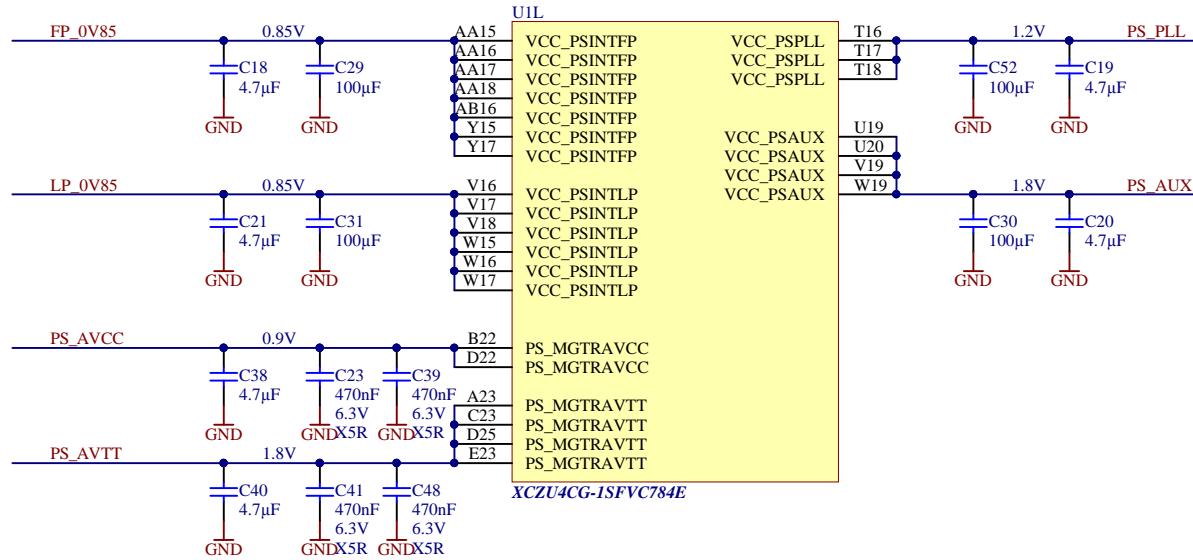
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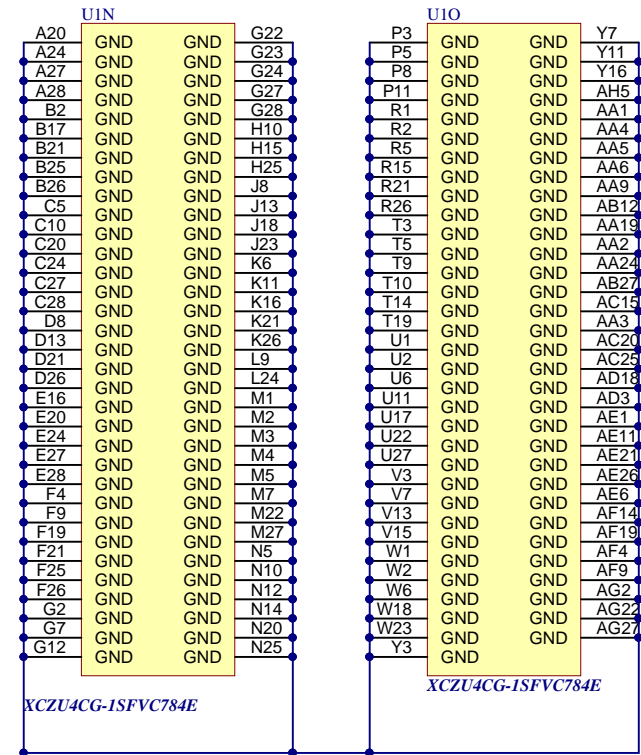
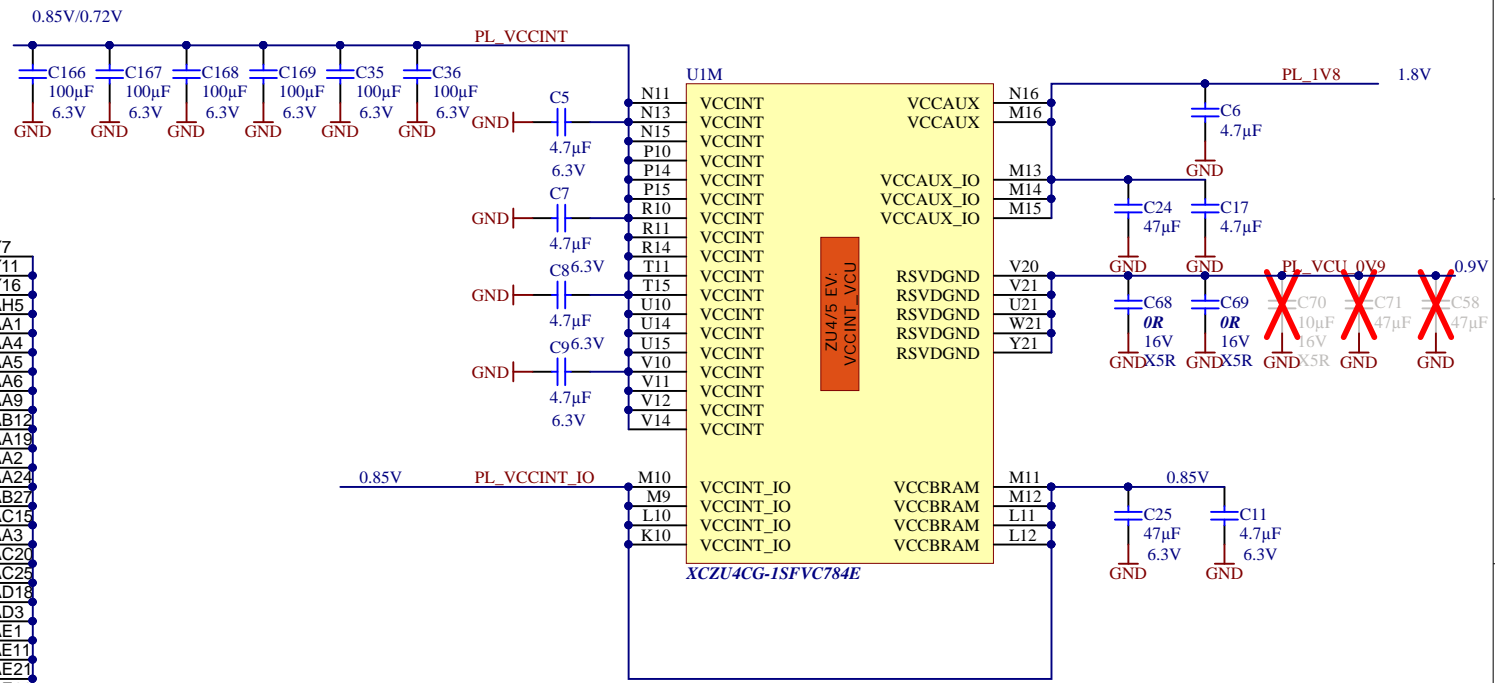
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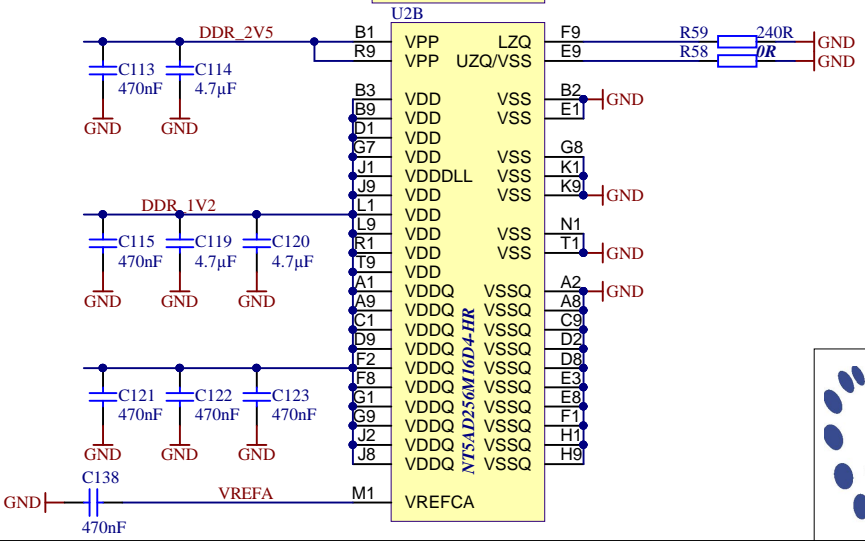
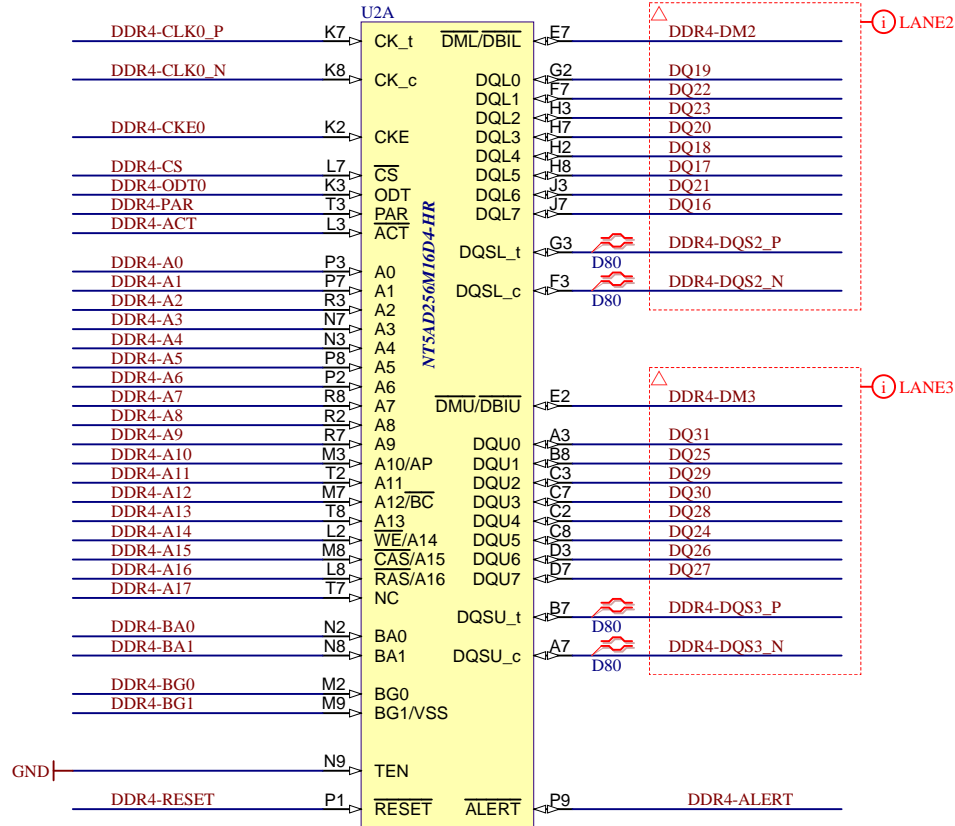
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	A4	Number: TE0803 4AE11-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 14 of 26
	Filename: B_GT.SchDoc		



	Title: TE0803 - ZU_PS_POWER		
	A4	Number: TE0803 4AE11-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 15 of 26
	Filename: ZU_PS_POWER.SchDoc		



		Title: TE0803 - ZU_POWER	
		A4	Number: TE0803 4AE11-A
Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT	
Filename: ZU_POWER.SchDoc		Page 16 of 26	



Title: TE0803 - DDR4_1_RAM		
A4	Number: TE0803 4AE11-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 17 of 26
Filename: DDR4-RAM.SchDoc		

A

A

B

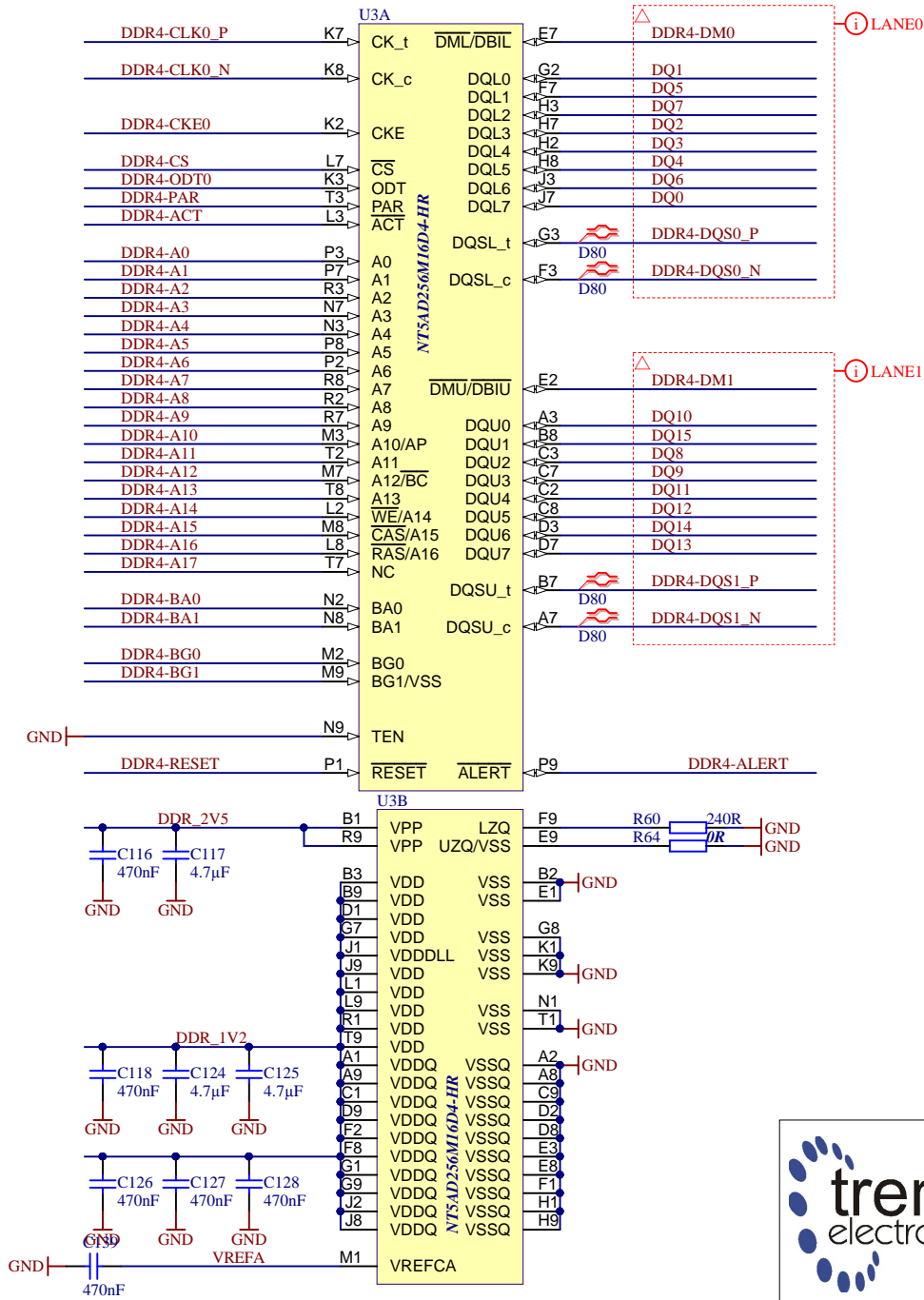

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C

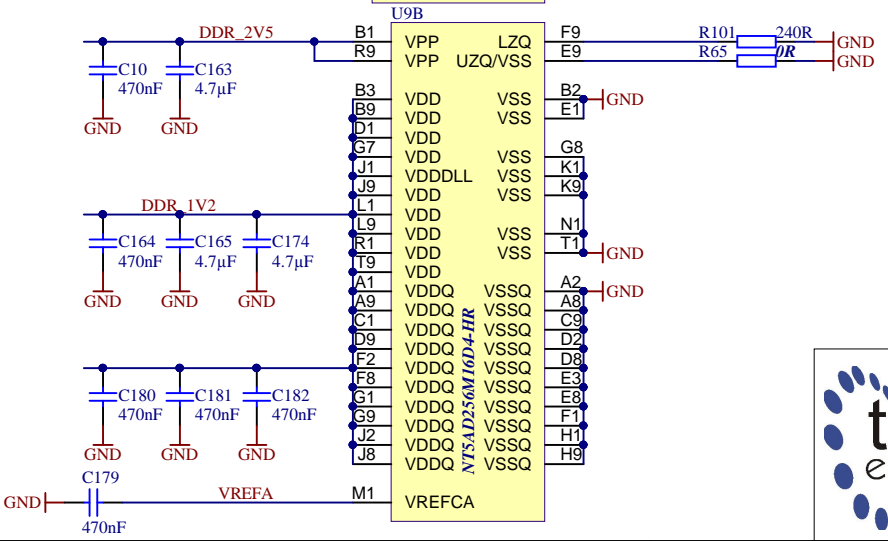
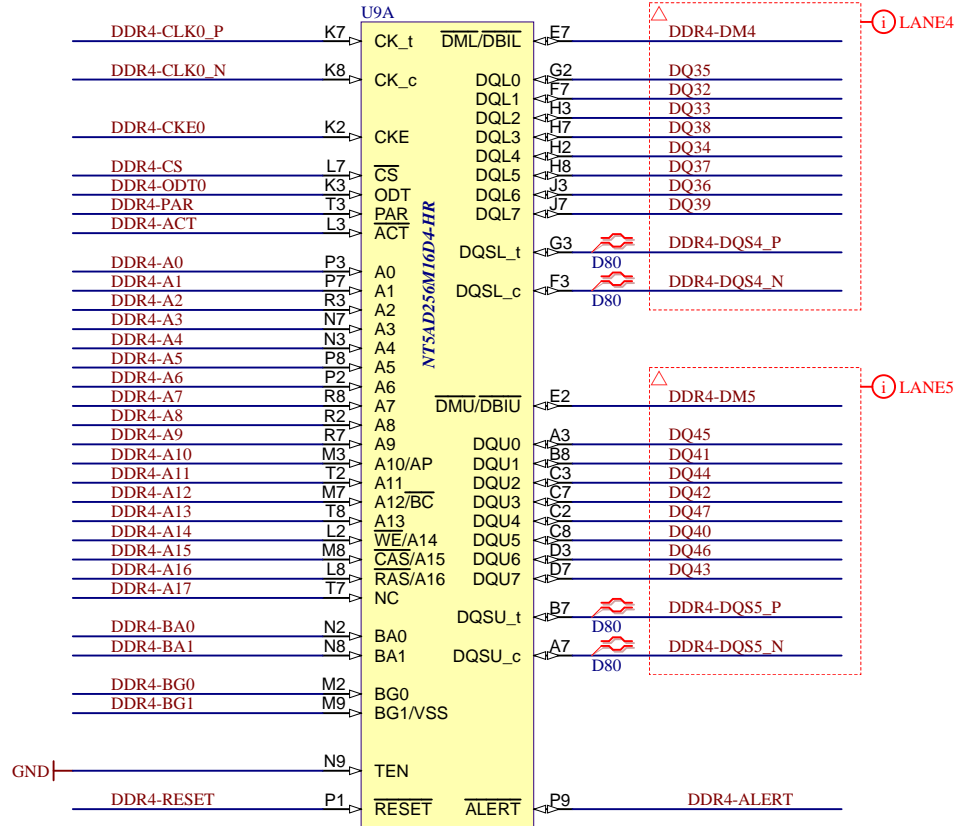
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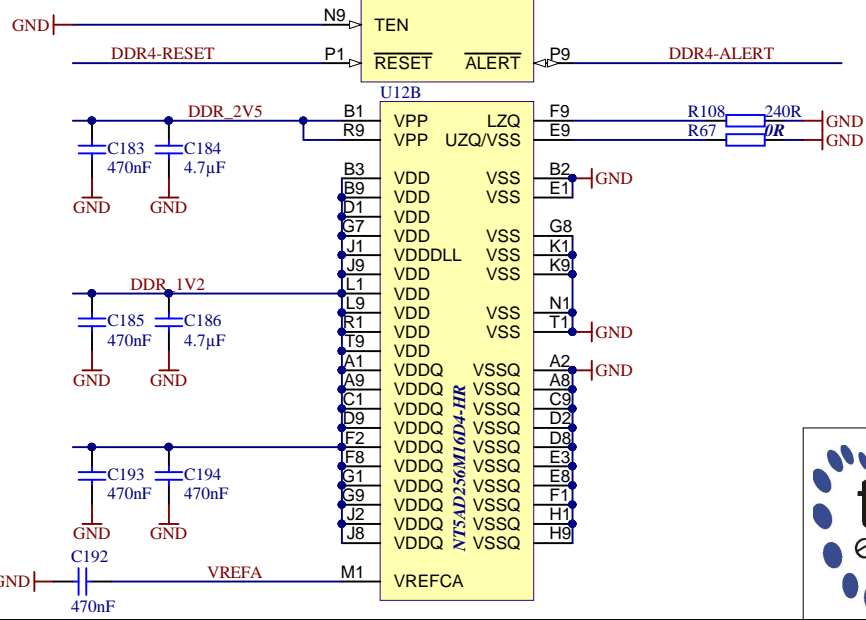
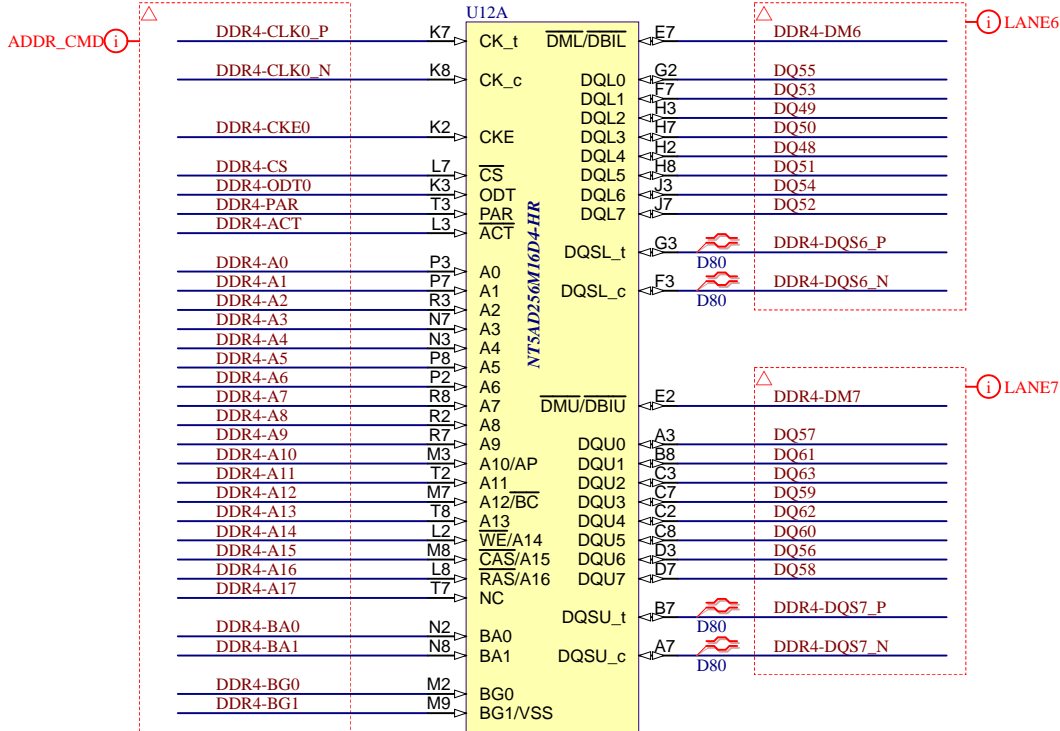
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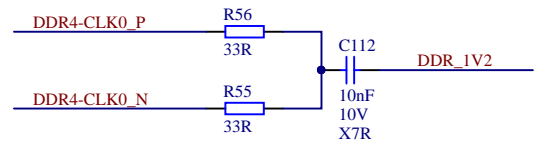
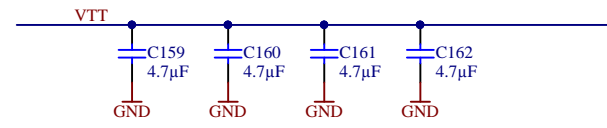
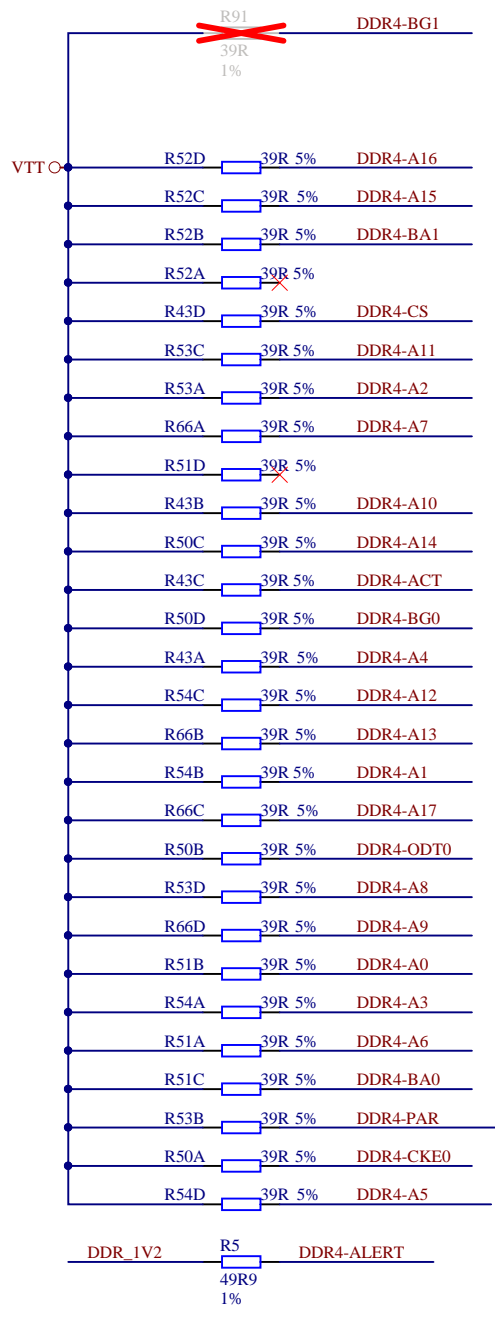
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 18 of 26
Filename: DDR4-RAM_2.SchDoc		



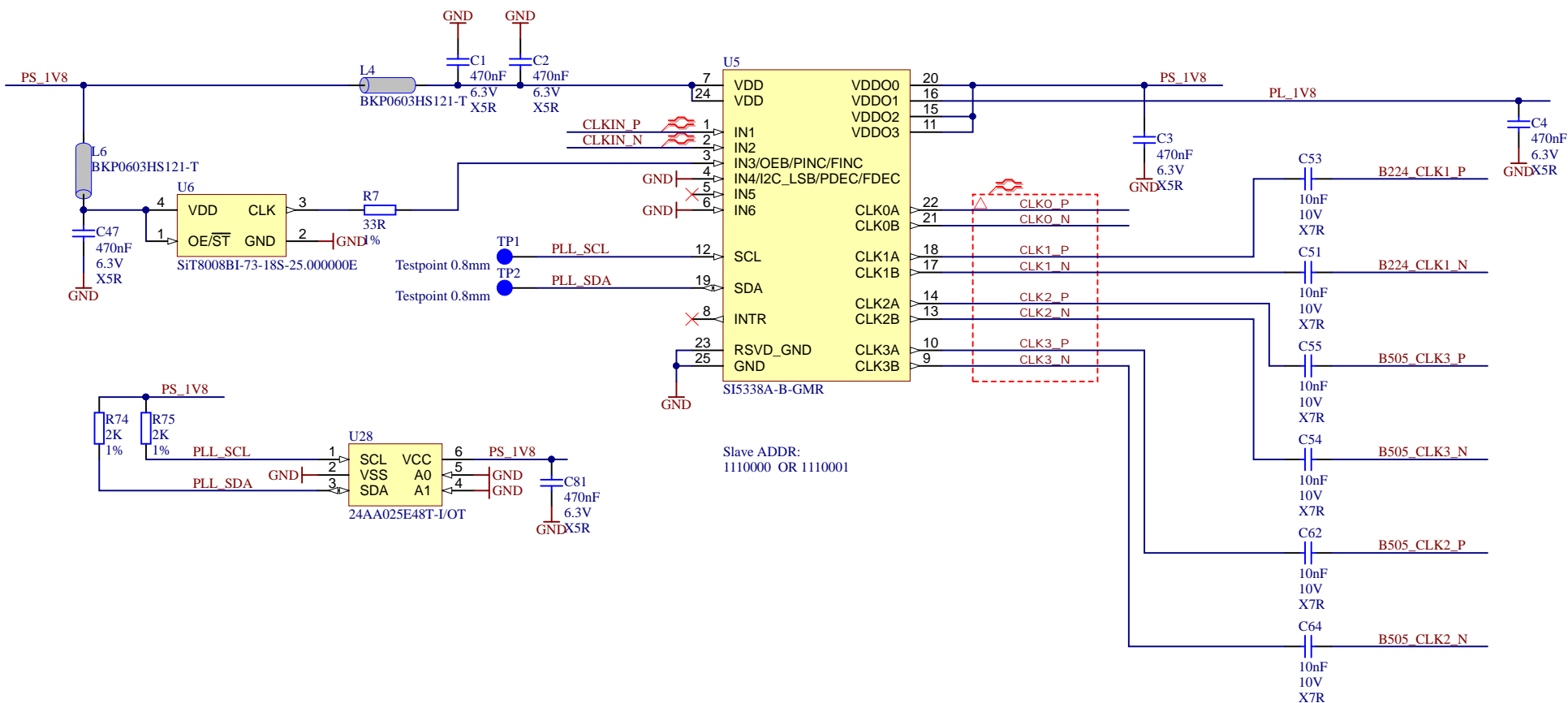
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 19 of 26
Filename: DDR4-RAM_3.SchDoc		




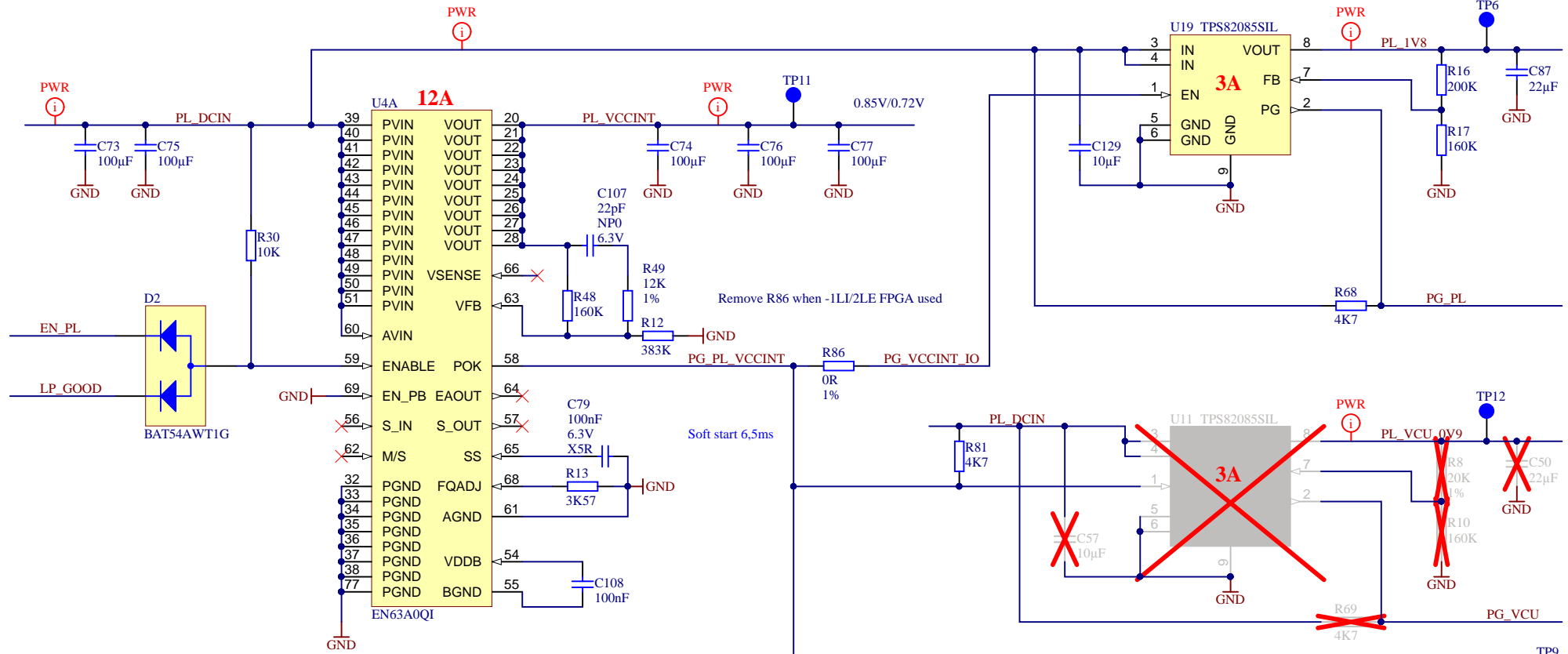
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 20 of 26
Filename: DDR4-RAM_4.SchDoc		



Title: TE0803 - DDR4_TERM		
A4	Number: TE0803 4AE11-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page21 of 26
Filename: DDR4-TERM.SchDoc		



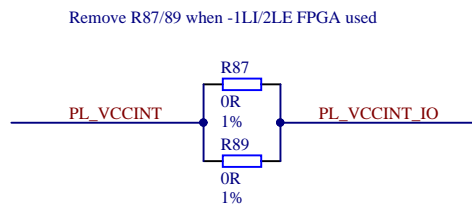
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Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT		Page 22 of 26
Filename: Clock.SchDoc				



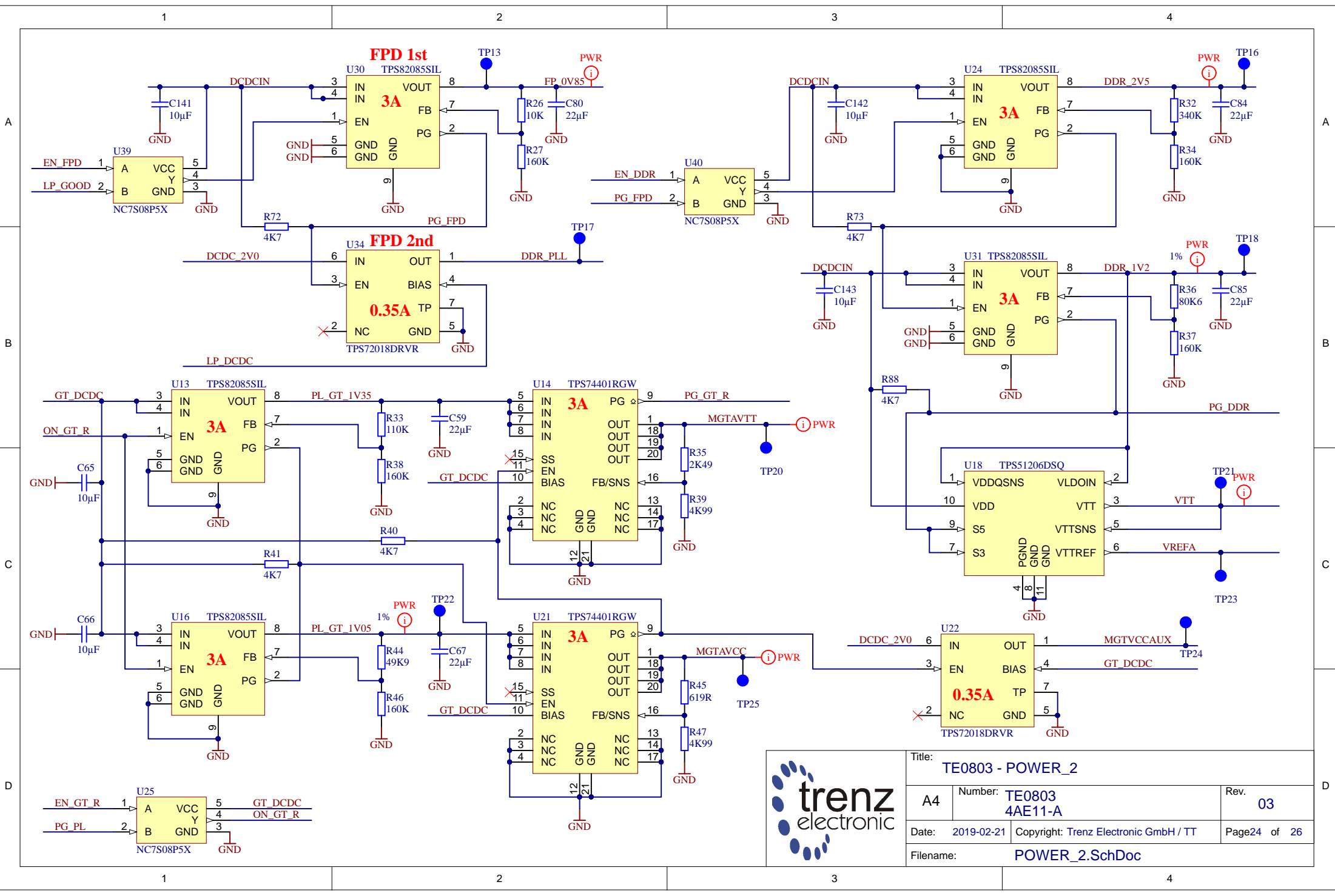
U4B

1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC	30
6	NC	NC(SW)	31
7	NC	NC(SW)	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC	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

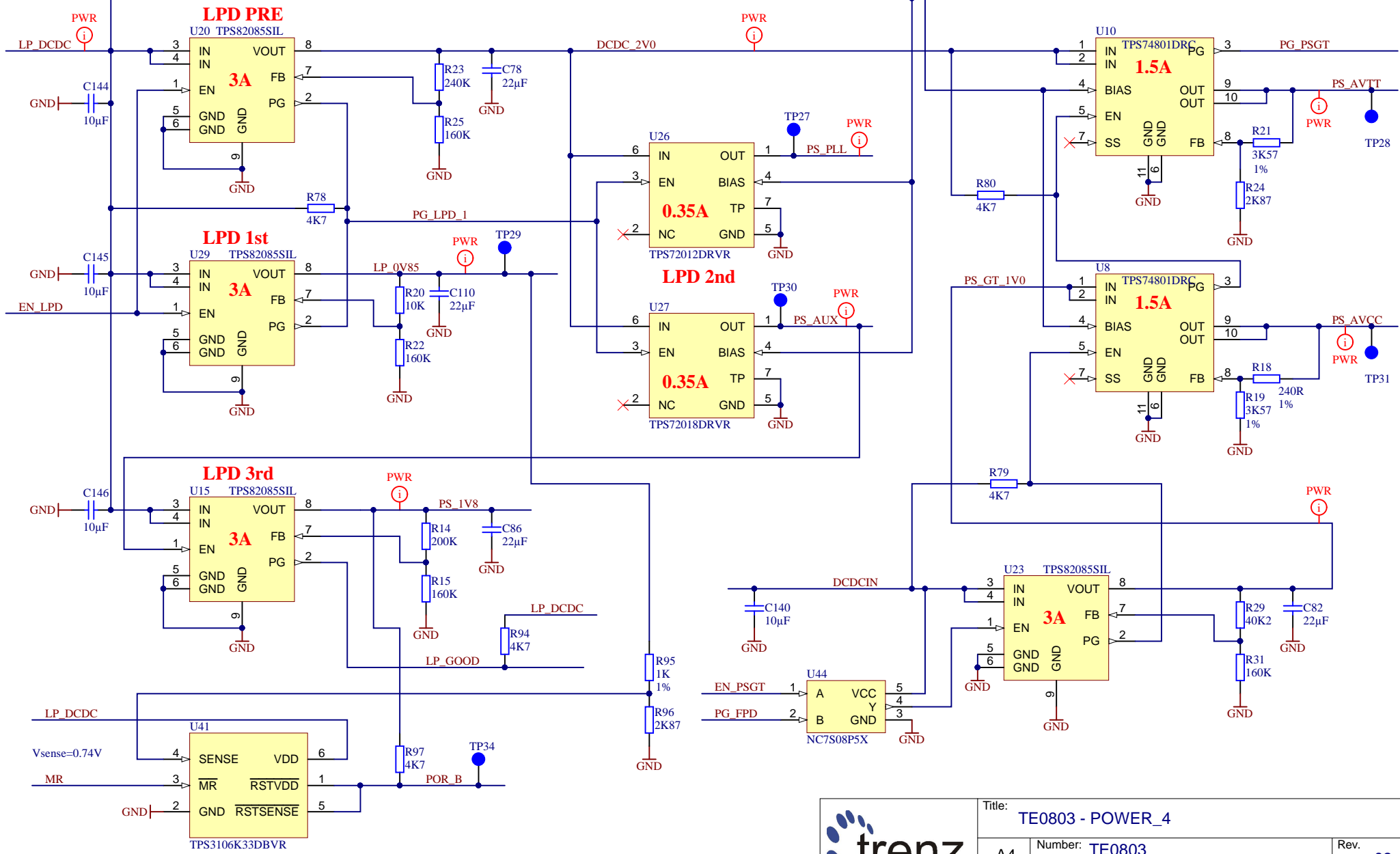
EN63A0QI



Title: TE0803 - POWER		
A4	Number: TE0803 4AE11-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 23 of 26
Filename: POWER.SchDoc		



Title: TE0803 - POWER_2		
A4	Number: TE0803 4AE11-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page24 of 26
Filename: POWER_2.SchDoc		



Title: TE0803 - POWER_4		
A4	Number: TE0803 4AE11-A	Rev. 03
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Filename: POWER_4.SchDoc		

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CHANGES REV01a (20.11.2017):

- 1) VCU voltage set to 0.9V, R20 changed to 40K , PL_VCU_1V0 renamed to PL_VCU_0V9.

CHANGES REV02 (20.06.2018):

- 1) Added LDO to DDR_PLL
- 2) All differential pairs wath length matched with tollerance 0.1mm (excluding package delays)
- 3) Added MAC EEPROM U28
- 4) VPS_MGTRAVCC set to 0.85V
- 5) Added pull-up resistors R68,R69

CHANGES REV03 (21.02.2019):

- 1) Added support of DDP DDR4
- 2) Added support of Low power FPGA (-L1/L2).
- 3) Revised testpoints
- 4) Revised J1-J4 connectors net label style

A

A

B


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D

		Title: TE0803 - Changes list		
		A4	Number: TE0803 4AE11-A	Rev. 03
		Date: 2019-02-21	Copyright: Trenz Electronic GmbH	Page26 of 26
		Filename: Revision_Changes.SchDoc		

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