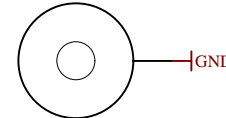
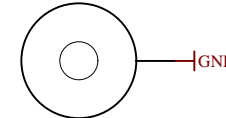


U_J1 J1.SchDoc	U_B_PS_GT B_PS_GT.SchDoc	U_DDR4-TERM DDR4-TERM.SchDoc
U_J2 J2.SchDoc	U_PS_DDR PS_DDR.SchDoc	U_ZU_POWER ZU_POWER.SchDoc
U_J3 J3.SchDoc	U_B_MIO B_MIO.SchDoc	U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_J4 J4.SchDoc	U_B_HD B_HD.SchDoc	U_POWER POWER.SchDoc
U_DDR4-TERM DDR4-TERM.SchDoc	U_Clock Clock.SchDoc	U_POWER_2 POWER_2.SchDoc
U_B64 B64.SchDoc	U_CONFIG CONFIG.SchDoc	
U_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_REV_CH Revision_Changes.SchDoc
U_B_GT B_GT.SchDoc	U_DDR4-RAM_3 DDR4-RAM_3.SchDoc	
	U_DDR4-RAM_4 DDR4-RAM_4.SchDoc	

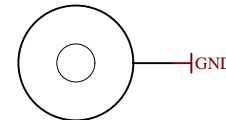
Special notes:



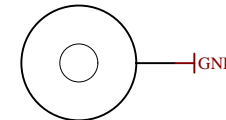
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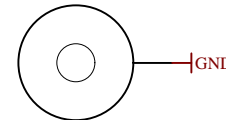
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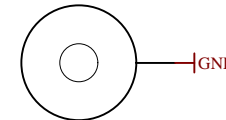
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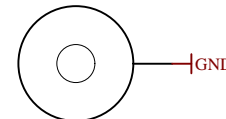
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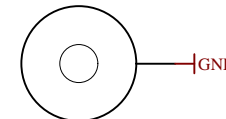
Mount.Hole 3.2mm für Unterlegscheibe



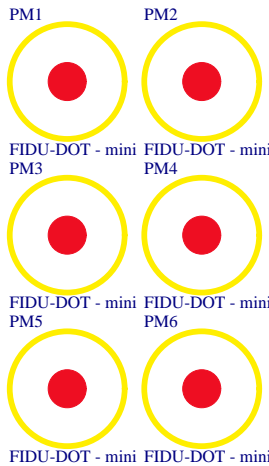
Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe

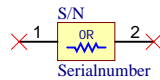


Mount.Hole 3.2mm für Unterlegscheibe



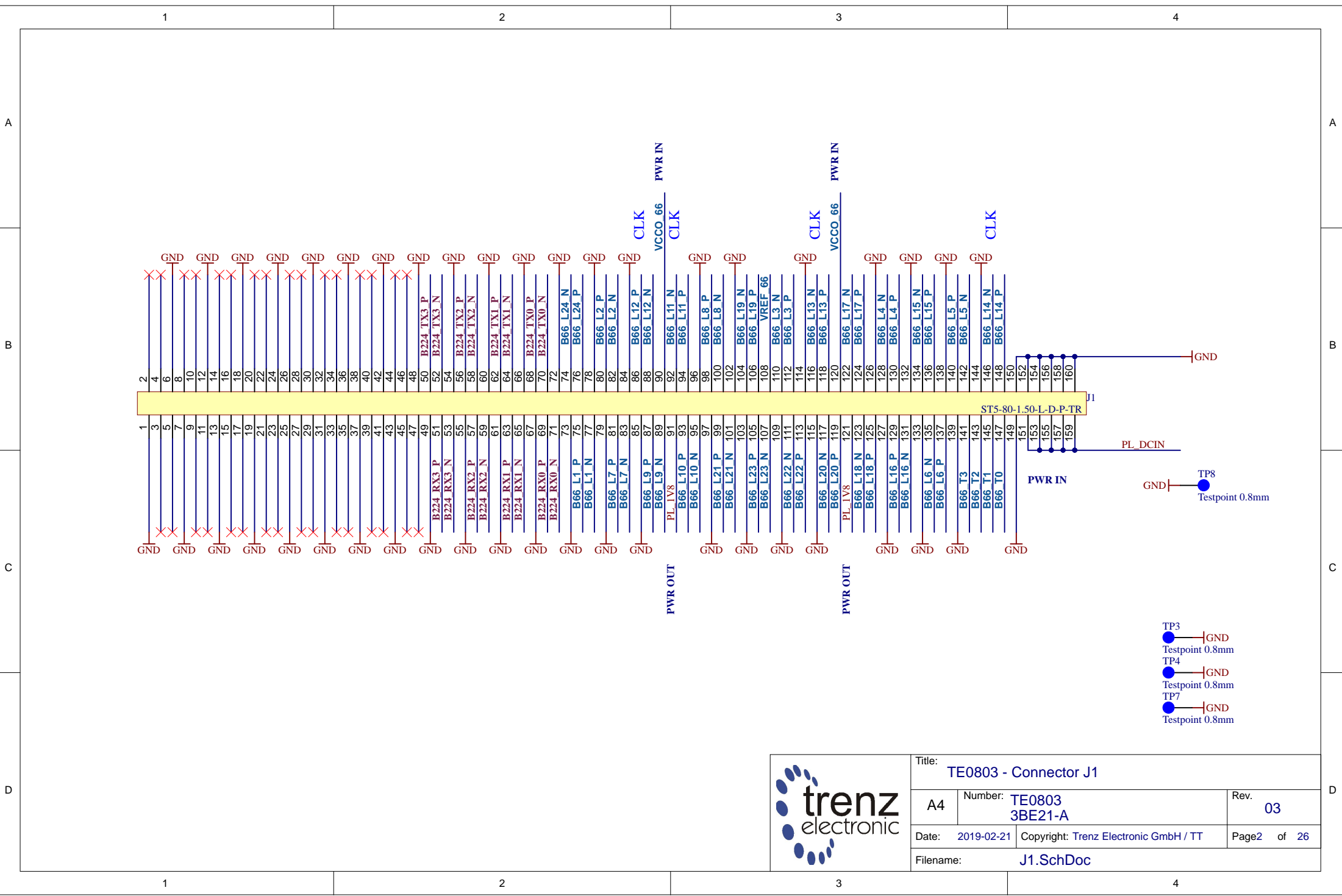
LOGO1
TE Logo PRINT Layer
LOGO PRINT

Serial
Serialnummer 6,3 x 6.3mm



Title: TE0803		
A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page1 of 26
Filename: TE0803.SchDoc		

Assembly variant	3BE21-A
Created by	VY
Modified by	VY
Modified at	2019-09-13
SVN Revision	8575



- TP3 GND Testpoint 0.8mm
- TP4 GND Testpoint 0.8mm
- TP7 GND Testpoint 0.8mm
- TP8 GND Testpoint 0.8mm

	Title: TE0803 - Connector J1	
	A4	Number: TE0803 3BE21-A
	Date: 2019-02-21	Rev. 03
	Copyright: Trenz Electronic GmbH / TT	
Date: 2019-02-21		Page2 of 26
Filename: J1.SchDoc		

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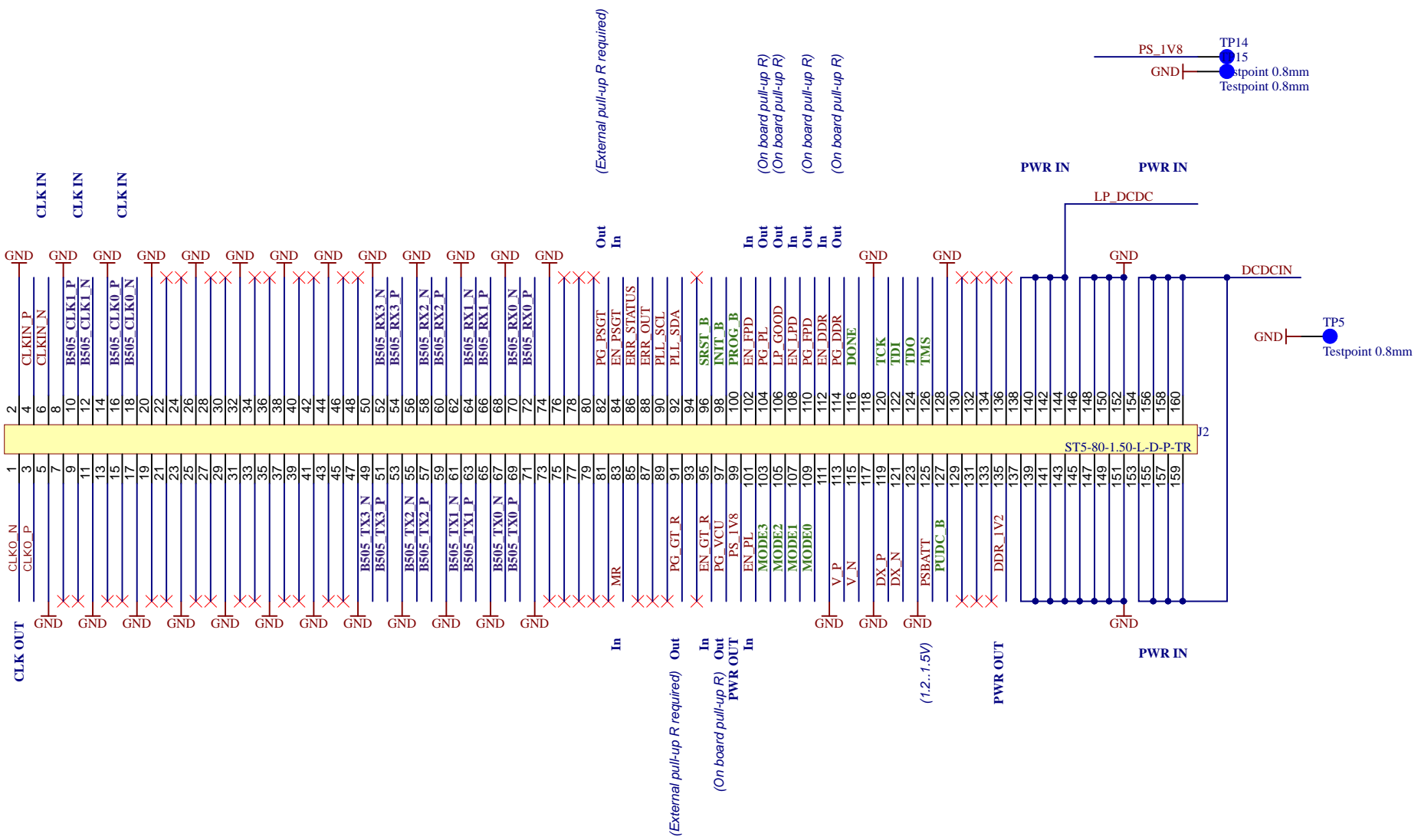
B


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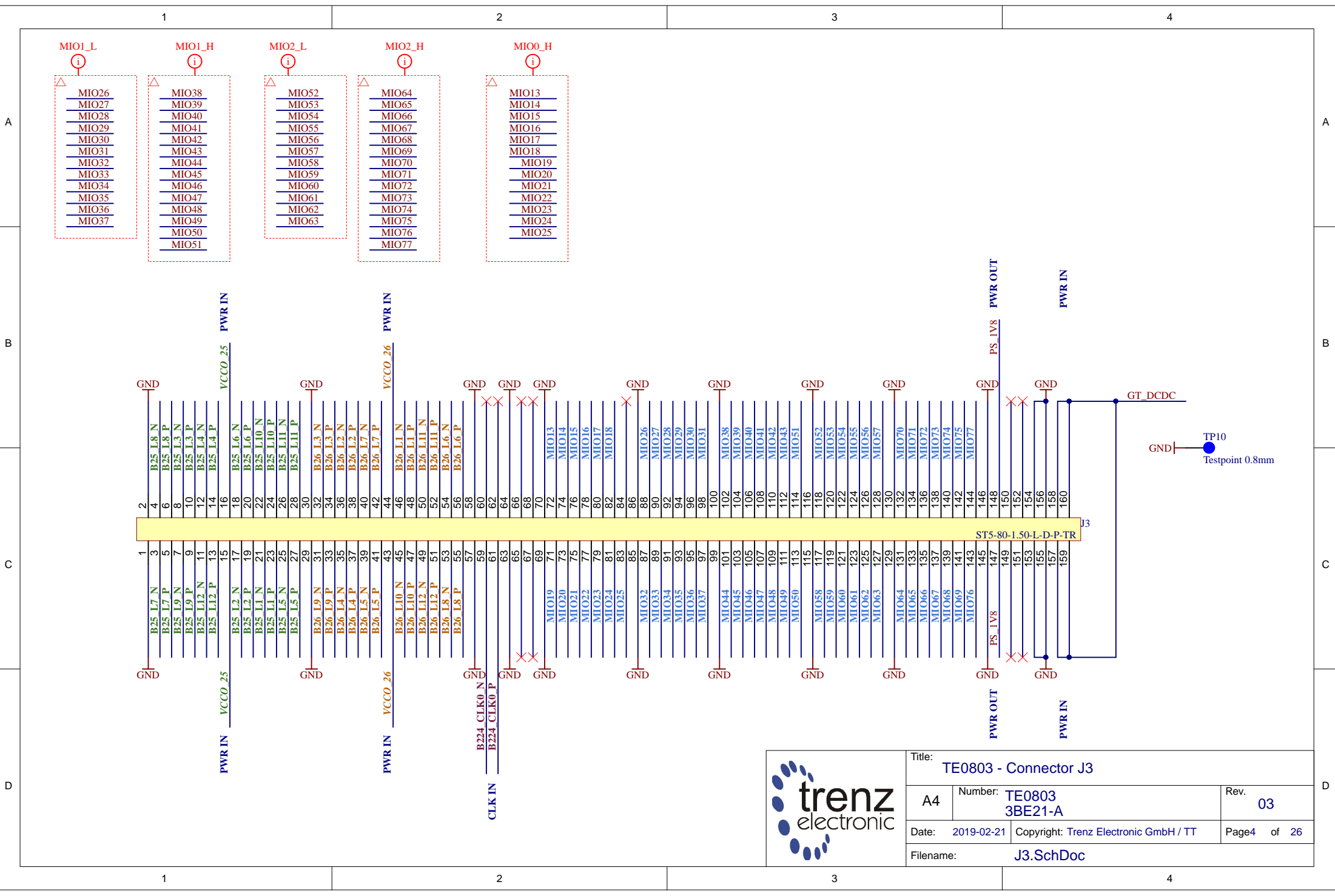
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			A4	Number: TE0803 3BE21-A
Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT		Page3 of 26
Filename: J2.SchDoc				

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- MIO1_L**
 - MIO26
 - MIO27
 - MIO28
 - MIO29
 - MIO30
 - MIO31
 - MIO32
 - MIO33
 - MIO34
 - MIO35
 - MIO36
 - MIO37
- MIO1_H**
 - MIO38
 - MIO39
 - MIO40
 - MIO41
 - MIO42
 - MIO43
 - MIO44
 - MIO45
 - MIO46
 - MIO47
 - MIO48
 - MIO49
 - MIO50
 - MIO51
- MIO2_L**
 - MIO52
 - MIO53
 - MIO54
 - MIO55
 - MIO56
 - MIO57
 - MIO58
 - MIO59
 - MIO60
 - MIO61
 - MIO62
 - MIO63
- MIO2_H**
 - MIO64
 - MIO65
 - MIO66
 - MIO67
 - MIO68
 - MIO69
 - MIO70
 - MIO71
 - MIO72
 - MIO73
 - MIO74
 - MIO75
 - MIO76
 - MIO77
- MIO0_H**
 - MIO13
 - MIO14
 - MIO15
 - MIO16
 - MIO17
 - MIO18
 - MIO19
 - MIO20
 - MIO21
 - MIO22
 - MIO23
 - MIO24
 - MIO25



Title: TE0803 - Connector J3		
A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page4 of 26
Filename: J3.SchDoc		

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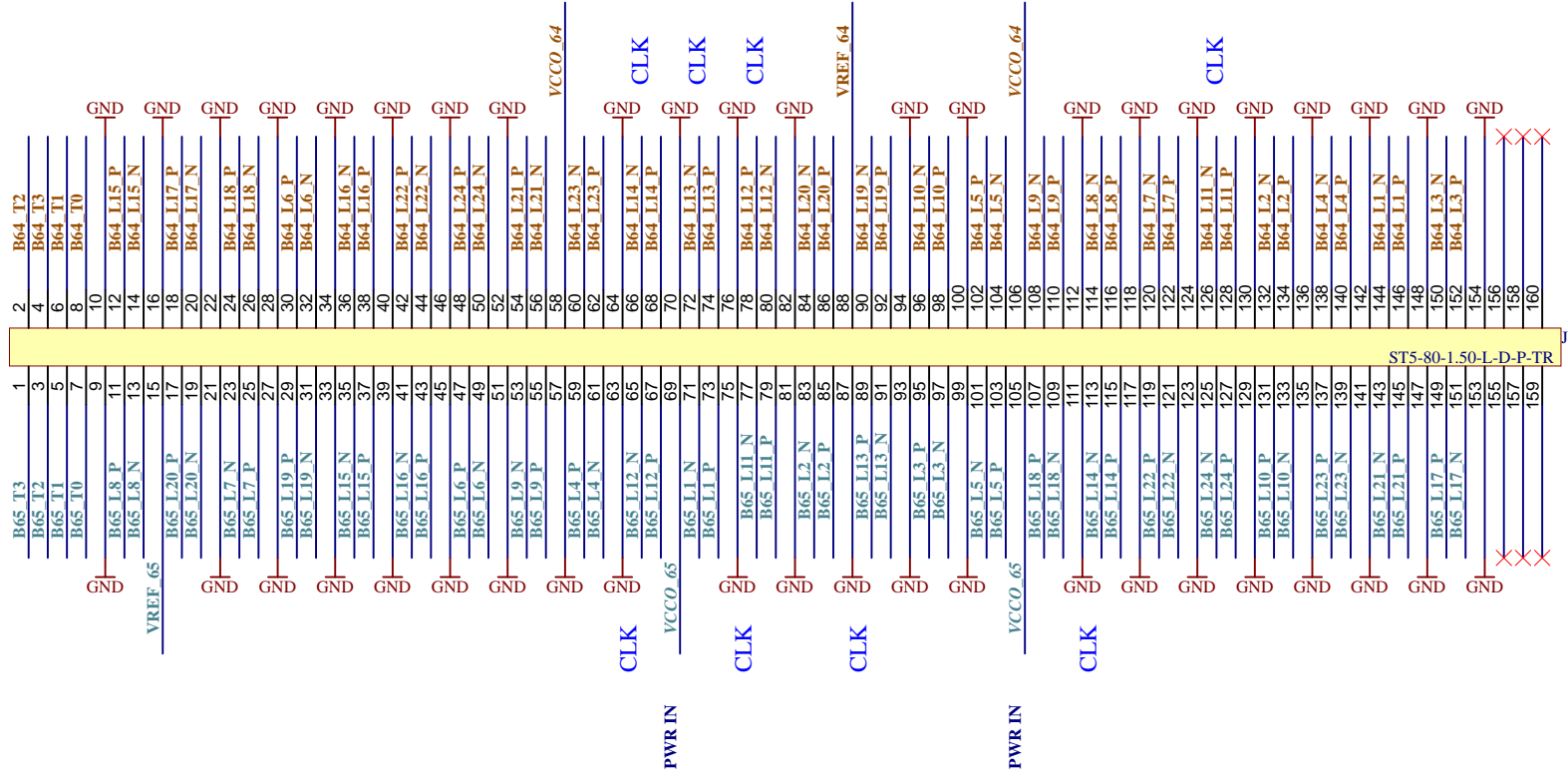
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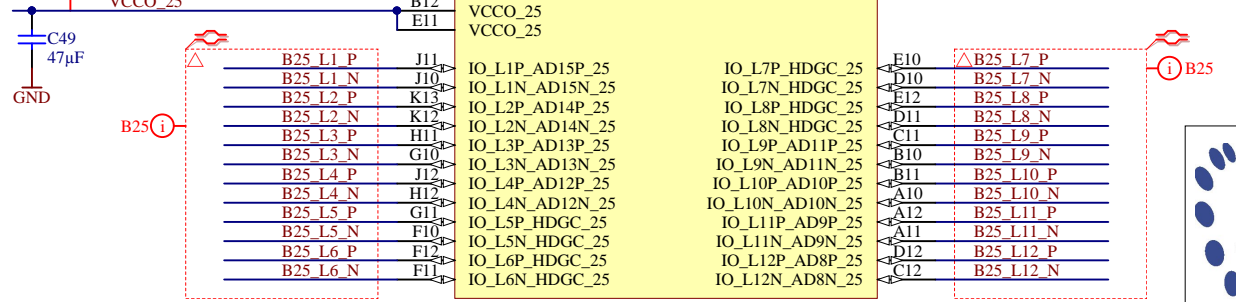
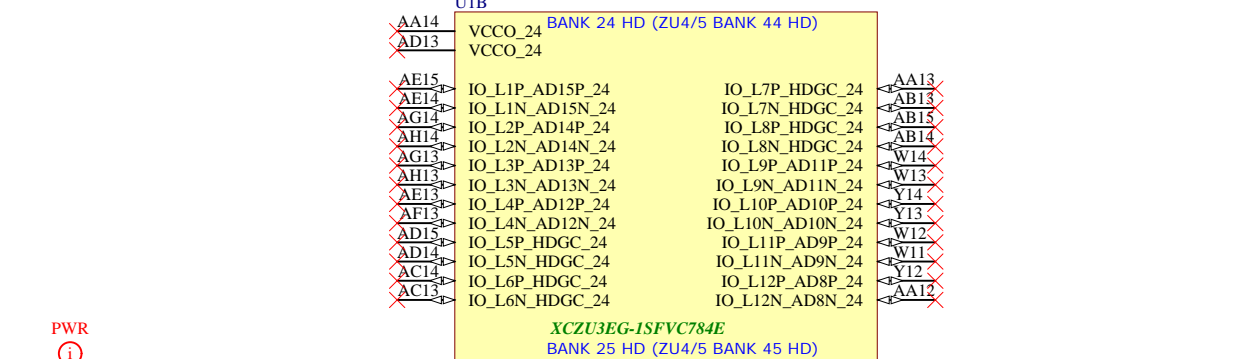
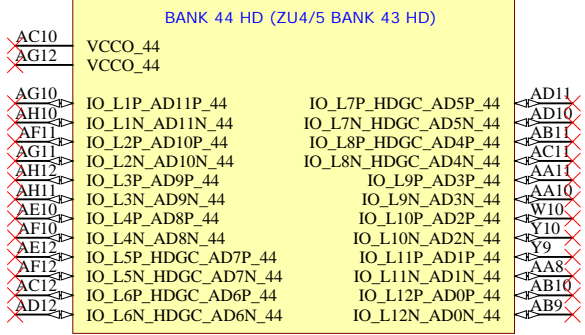
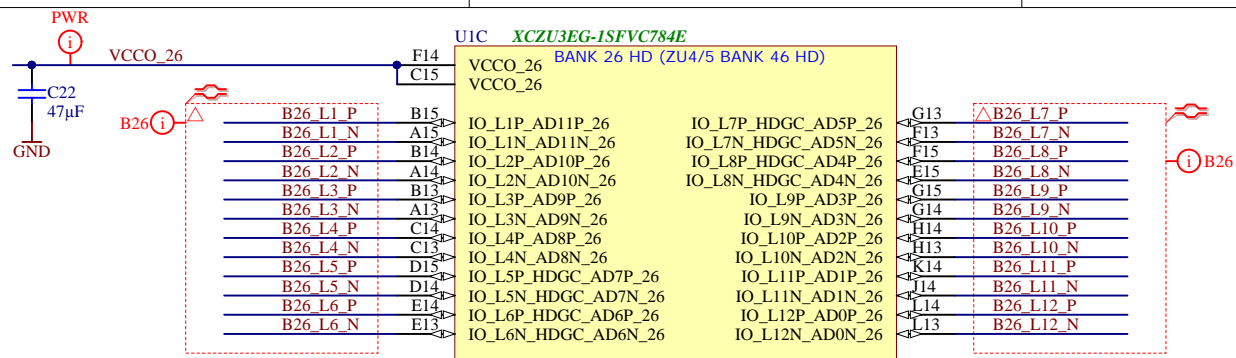
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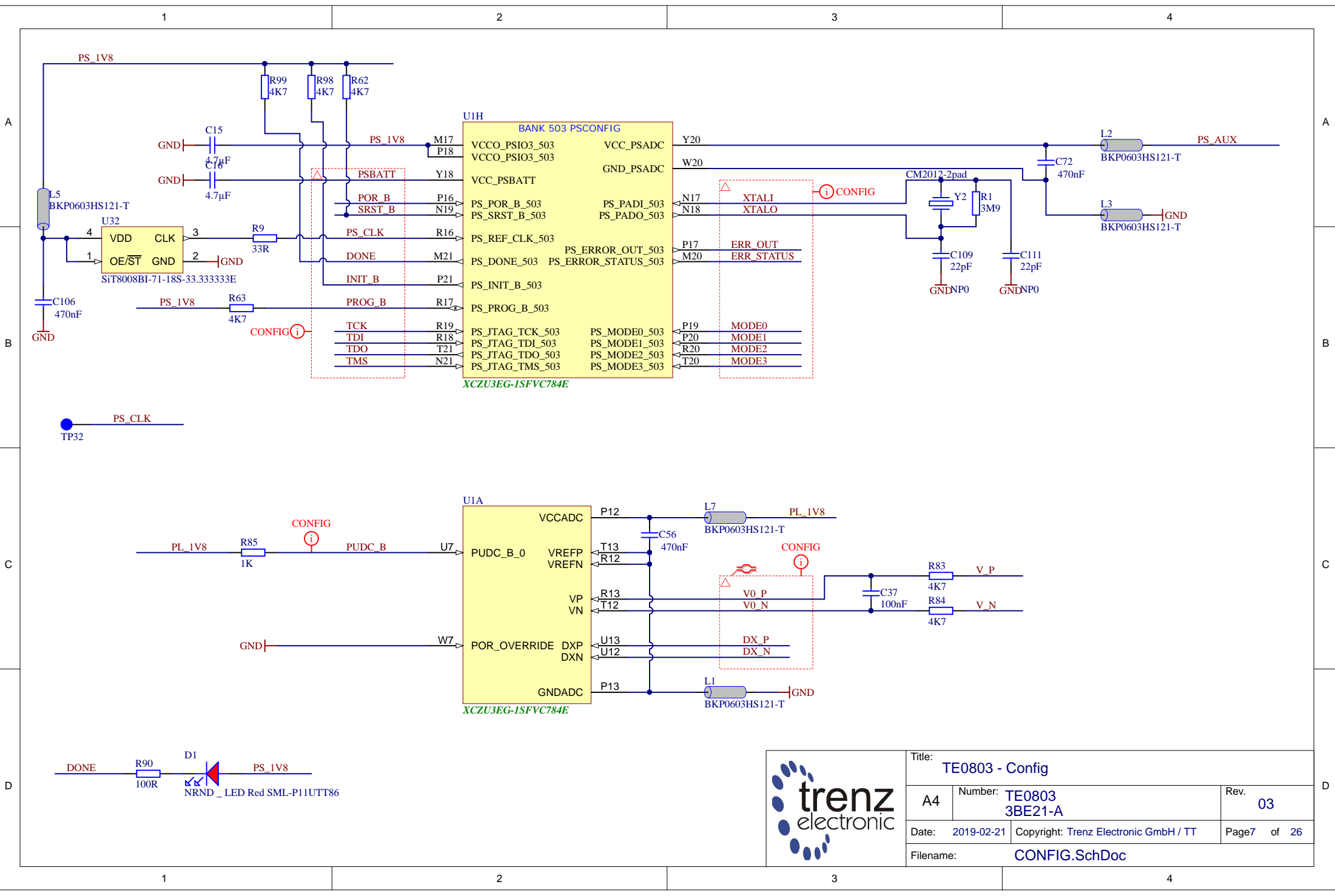
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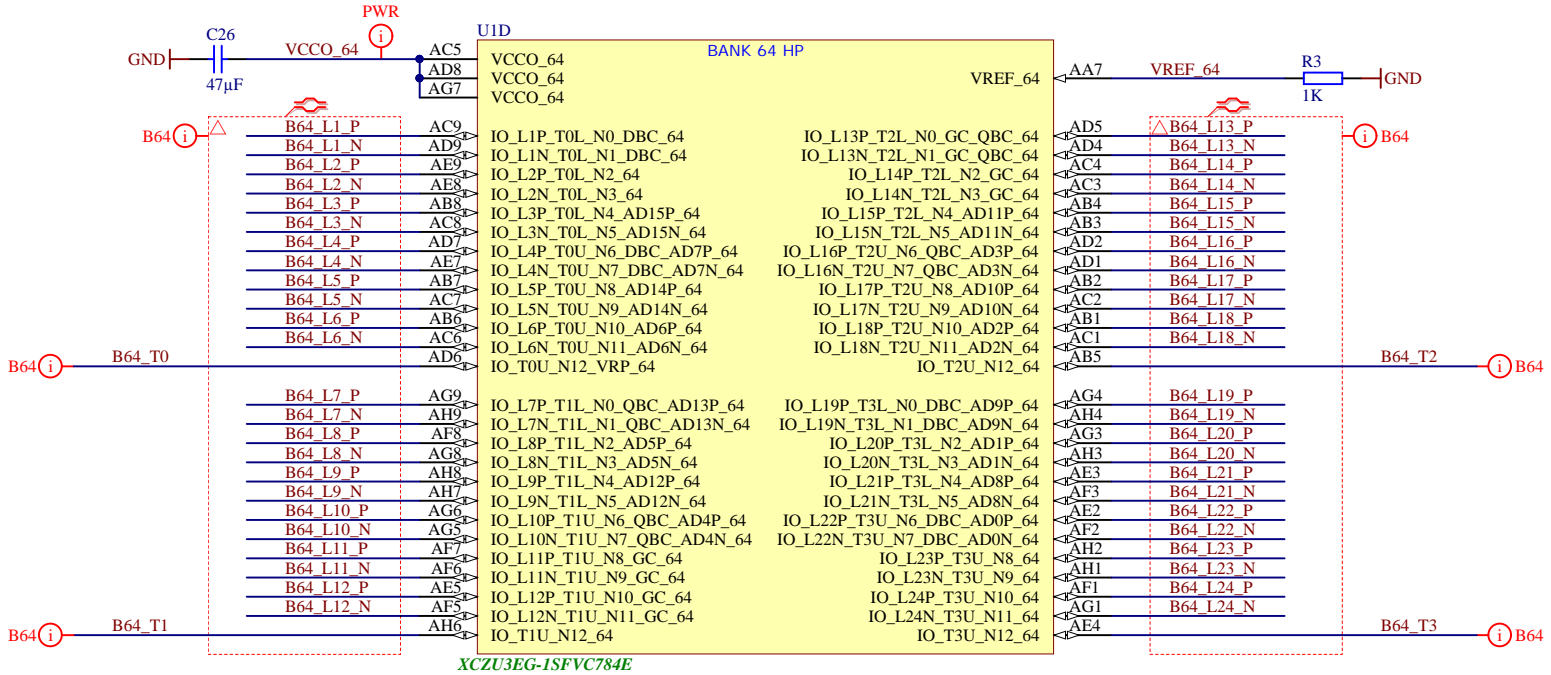
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page5 of 26
Filename: J4.SchDoc		



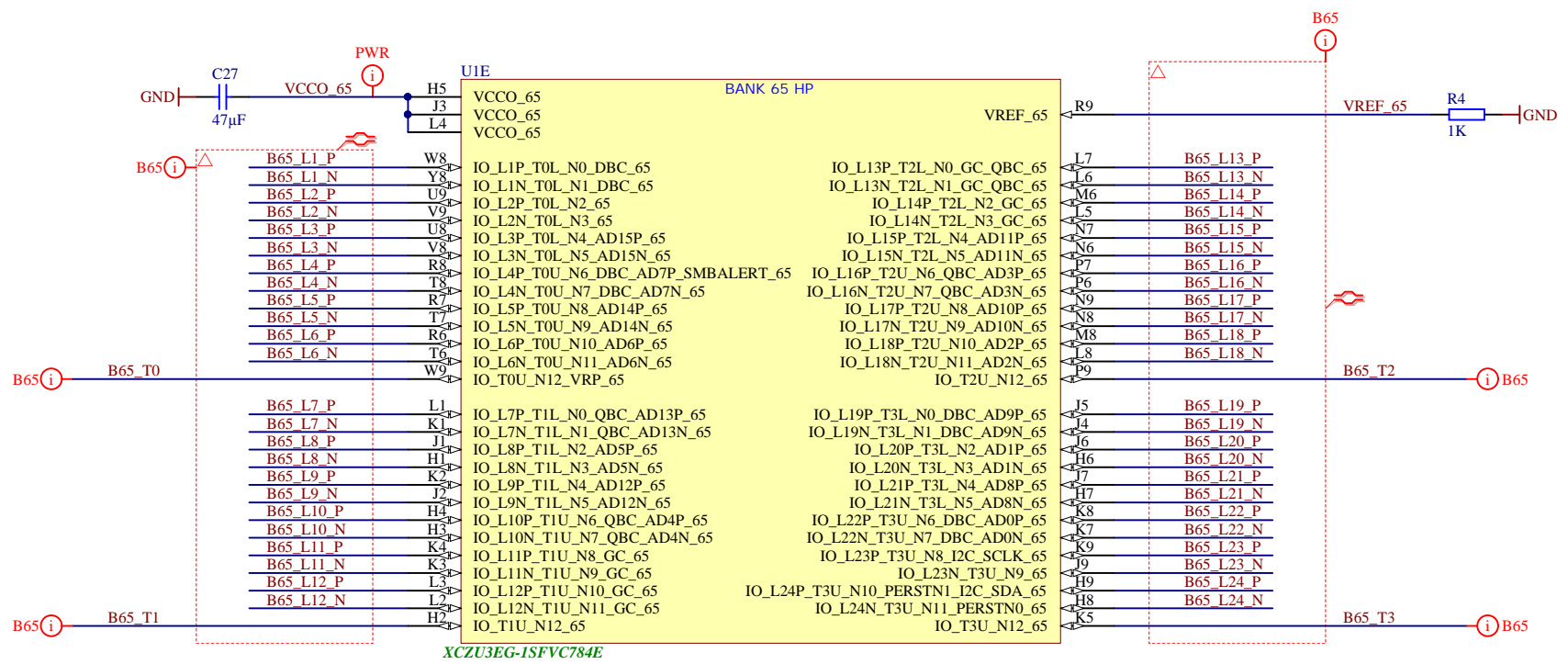
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page6 of 26
Filename: B_HD.SchDoc		



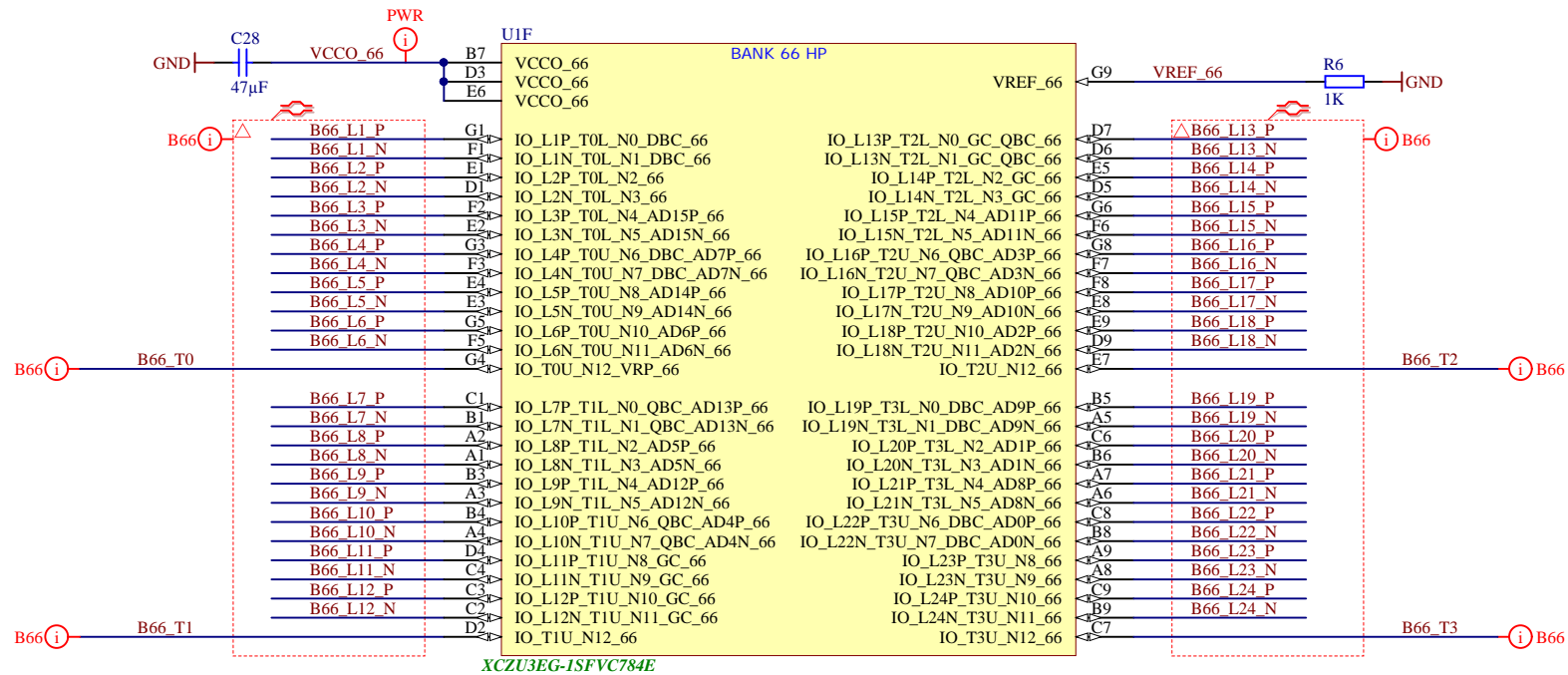
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A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 7 of 26
Filename: CONFIG.SchDoc		



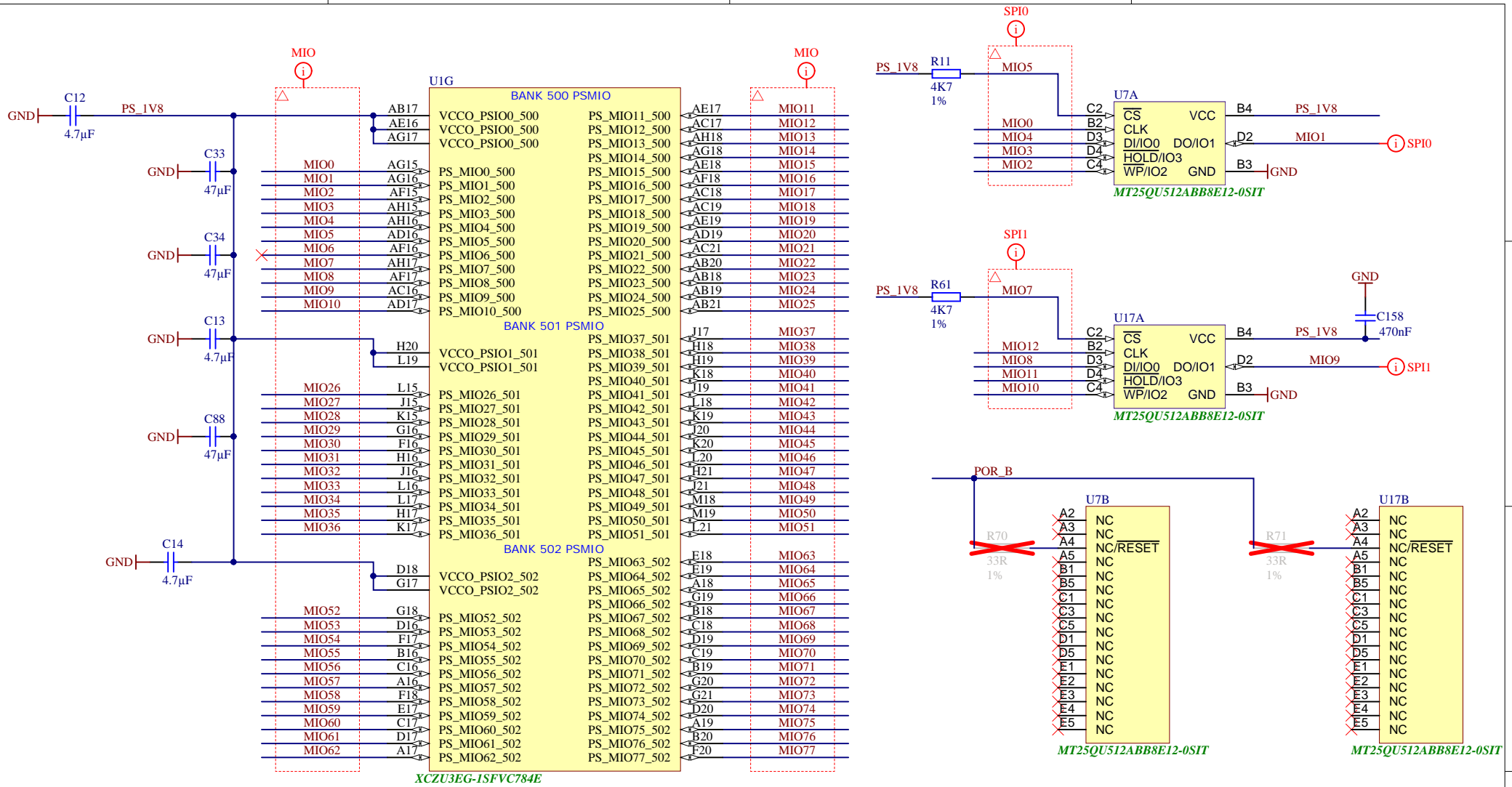
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Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 8 of 26
Filename: B64.SchDoc		



Title: TE0803 - B65		
A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page9 of 26
Filename: B65.SchDoc		



	Title: TE0803 - B66		
	A4	Number: TE0803 3BE21-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 10 of 26
	Filename: B66.SchDoc		



	Title: TE0803 - MIO Banks		
	A4	Number: TE0803 3BE21-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	
	Page 11 of 26	Page 11 of 26	
Filename: B_MIO.SchDoc			

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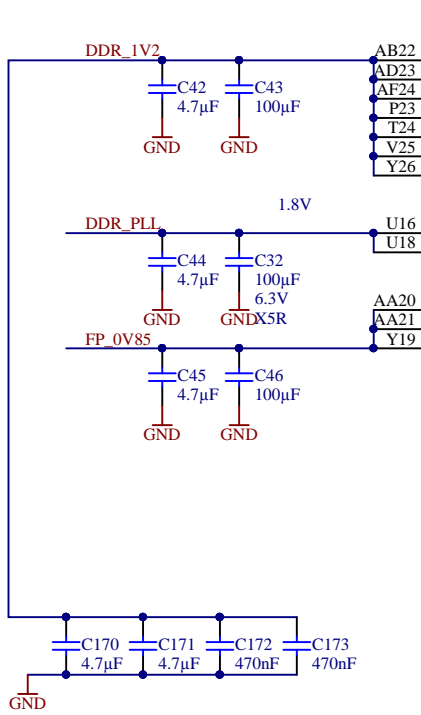
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U1I

BANK 504 PSDDR

VCCO_PSDDR_504	PS_DDR_CK0_504	W25	DDR4-CLK0 P	D80
VCCO_PSDDR_504	PS_DDR_CK_N0_504	W26	DDR4-CLK0 N	D80
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		W27	DDR4-CS	
PS_DDR_CS_N1_504		V26		×
PS_DDR_BA0_504		V23	DDR4-BA0	
PS_DDR_BA1_504		W22	DDR4-BA1	
PS_DDR_BG0_504		W24	DDR4-BG0	
PS_DDR_BG1_504		V22	DDR4-BG1	
PS_DDR_PARITY_504		V24	DDR4-PAR	
PS_DDR_RAM_RST_N_504		U23	DDR4-RESET	
PS_DDR_ACT_N_504		Y23	DDR4-ACT	
PS_DDR_ALERT_N_504		U25	DDR4-ALERT	
PS_DDR_ZQ_504		U24		
PS_DDR_ODT0_504		U28	DDR4-ODT0	
PS_DDR_ODT1_504		U26		×

XCZU3EG-1SFVC784E

U1J

BANK 504 PSDDR

DQ0	AD21	PS_DDR_DQ0_504	PS_DDR_DQ32_504	T22	DQ32
DQ1	AE20	PS_DDR_DQ1_504	PS_DDR_DQ33_504	R22	DQ33
DQ2	AD20	PS_DDR_DQ2_504	PS_DDR_DQ34_504	P22	DQ34
DQ3	AF20	PS_DDR_DQ3_504	PS_DDR_DQ35_504	N22	DQ35
DQ4	AH21	PS_DDR_DQ4_504	PS_DDR_DQ36_504	T23	DQ36
DQ5	AH20	PS_DDR_DQ5_504	PS_DDR_DQ37_504	P24	DQ37
DQ6	AH19	PS_DDR_DQ6_504	PS_DDR_DQ38_504	R24	DQ38
DQ7	AG19	PS_DDR_DQ7_504	PS_DDR_DQ39_504	N24	DQ39
DQ8	AF22	PS_DDR_DQ8_504	PS_DDR_DQ40_504	H24	DQ40
DQ9	AH22	PS_DDR_DQ9_504	PS_DDR_DQ41_504	J24	DQ41
DQ10	AE22	PS_DDR_DQ10_504	PS_DDR_DQ42_504	M24	DQ42
DQ11	AD22	PS_DDR_DQ11_504	PS_DDR_DQ43_504	K24	DQ43
DQ12	AH23	PS_DDR_DQ12_504	PS_DDR_DQ44_504	J22	DQ44
DQ13	AH24	PS_DDR_DQ13_504	PS_DDR_DQ45_504	H22	DQ45
DQ14	AE24	PS_DDR_DQ14_504	PS_DDR_DQ46_504	K22	DQ46
DQ15	AG24	PS_DDR_DQ15_504	PS_DDR_DQ47_504	J22	DQ47
DQ16	AC26	PS_DDR_DQ16_504	PS_DDR_DQ48_504	M25	DQ48
DQ17	AD26	PS_DDR_DQ17_504	PS_DDR_DQ49_504	M26	DQ49
DQ18	AD25	PS_DDR_DQ18_504	PS_DDR_DQ50_504	L25	DQ50
DQ19	AD24	PS_DDR_DQ19_504	PS_DDR_DQ51_504	L26	DQ51
DQ20	AG26	PS_DDR_DQ20_504	PS_DDR_DQ52_504	K28	DQ52
DQ21	AH25	PS_DDR_DQ21_504	PS_DDR_DQ53_504	L28	DQ53
DQ22	AH26	PS_DDR_DQ22_504	PS_DDR_DQ54_504	M28	DQ54
DQ23	AG25	PS_DDR_DQ23_504	PS_DDR_DQ55_504	N28	DQ55
DQ24	AH27	PS_DDR_DQ24_504	PS_DDR_DQ56_504	J28	DQ56
DQ25	AH28	PS_DDR_DQ25_504	PS_DDR_DQ57_504	K27	DQ57
DQ26	AF28	PS_DDR_DQ26_504	PS_DDR_DQ58_504	H28	DQ58
DQ27	AG28	PS_DDR_DQ27_504	PS_DDR_DQ59_504	H27	DQ59
DQ28	AC27	PS_DDR_DQ28_504	PS_DDR_DQ60_504	G26	DQ60
DQ29	AD27	PS_DDR_DQ29_504	PS_DDR_DQ61_504	G25	DQ61
DQ30	AD28	PS_DDR_DQ30_504	PS_DDR_DQ62_504	K25	DQ62
DQ31	AC28	PS_DDR_DQ31_504	PS_DDR_DQ63_504	J25	DQ63
DDR4-DQS0 P	AF21	PS_DDR_DQS_P0_504	PS_DDR_DQ64_504	T28	
DDR4-DQS0 N	AG21	PS_DDR_DQS_N0_504	PS_DDR_DQ65_504	R28	
DDR4-DQS1 P	AF23	PS_DDR_DQS_P1_504	PS_DDR_DQ66_504	P28	
DDR4-DQS1 N	AG23	PS_DDR_DQS_N1_504	PS_DDR_DQ67_504	P27	
DDR4-DQS2 P	AF25	PS_DDR_DQS_P2_504	PS_DDR_DQ68_504	P26	
DDR4-DQS2 N	AF26	PS_DDR_DQS_N2_504	PS_DDR_DQ69_504	R25	
DDR4-DQS3 P	AE27	PS_DDR_DQS_P3_504	PS_DDR_DQ70_504	P25	
DDR4-DQS3 N	AF27	PS_DDR_DQS_N3_504	PS_DDR_DQ71_504	T25	
DDR4-DQS4 P	N23	PS_DDR_DQS_P4_504			
DDR4-DQS4 N	M23	PS_DDR_DQS_N4_504	PS_DDR_DM0_504	AG20	DDR4-DM0
DDR4-DQS5 P	L23	PS_DDR_DQS_P5_504	PS_DDR_DM1_504	AE23	DDR4-DM1
DDR4-DQS5 N	K23	PS_DDR_DQS_N5_504	PS_DDR_DM2_504	AE25	DDR4-DM2
DDR4-DQS6 P	N26	PS_DDR_DQS_P6_504	PS_DDR_DM3_504	AE28	DDR4-DM3
DDR4-DQS6 N	N27	PS_DDR_DQS_N6_504	PS_DDR_DM4_504	R23	DDR4-DM4
DDR4-DQS7 P	J26	PS_DDR_DQS_P7_504	PS_DDR_DM5_504	H23	DDR4-DM5
DDR4-DQS7 N	J27	PS_DDR_DQS_N7_504	PS_DDR_DM6_504	L27	DDR4-DM6
	R27	PS_DDR_DQS_P8_504	PS_DDR_DM7_504	H26	DDR4-DM7
	T27	PS_DDR_DQS_N8_504	PS_DDR_DM8_504	T26	

XCZU3EG-1SFVC784E



Title: TE0803 - PS_DDR		
A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 12 of 26
Filename: PS_DDR.SchDoc		

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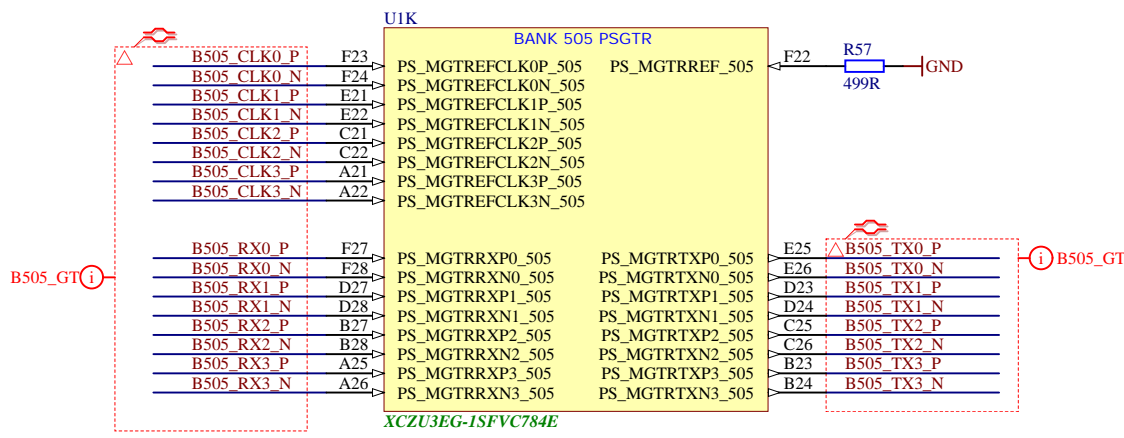
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	Title: TE0803 - PS_GT		
	A4	Number: TE0803 3BE21-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 13 of 26
	Filename: B_PS_GT.SchDoc		

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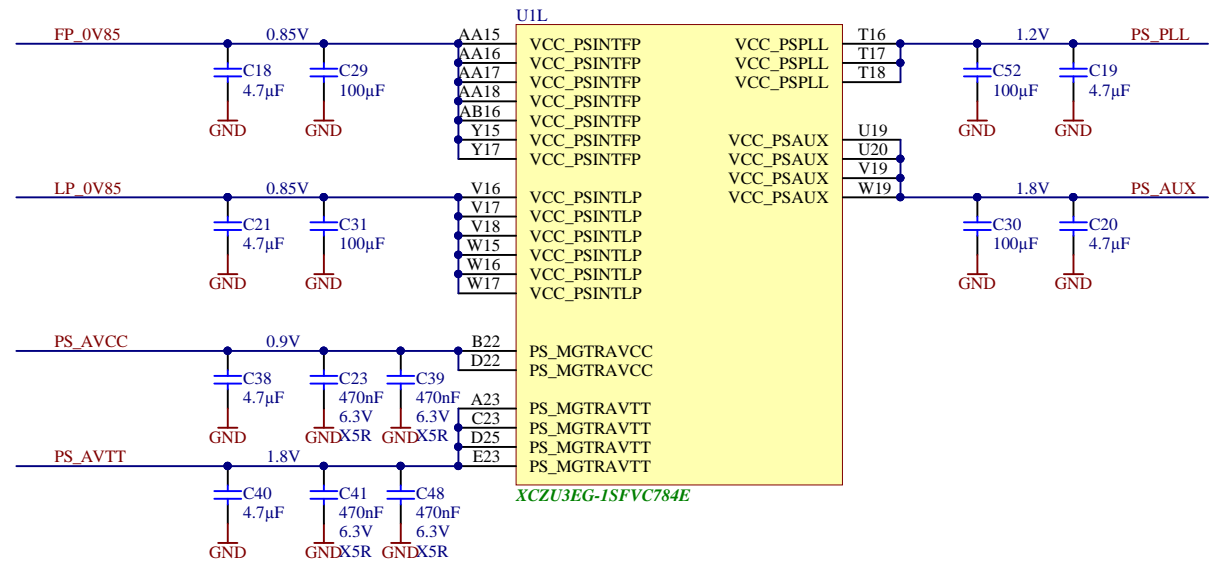
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	Title: TE0803 - ZU_PS_POWER		
	A4	Number: TE0803 3BE21-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page15 of 26
	Filename: ZU_PS_POWER.SchDoc		

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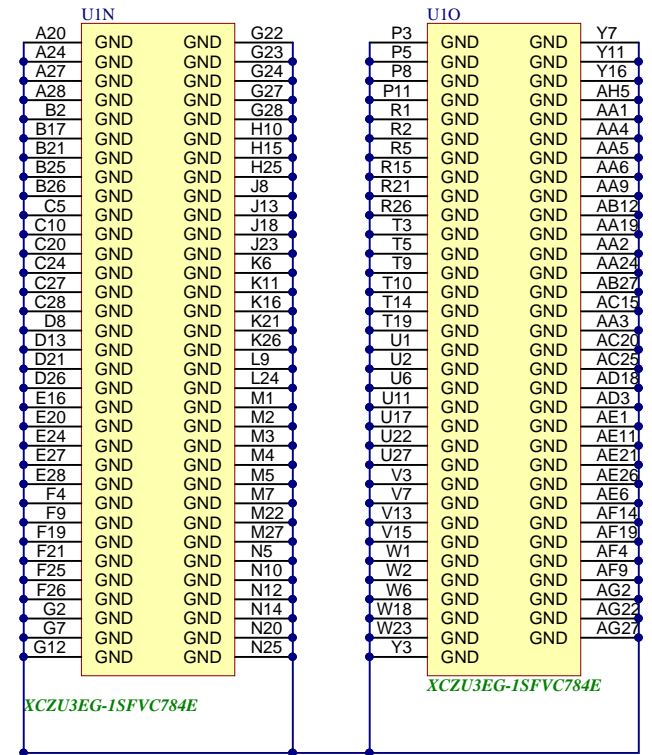
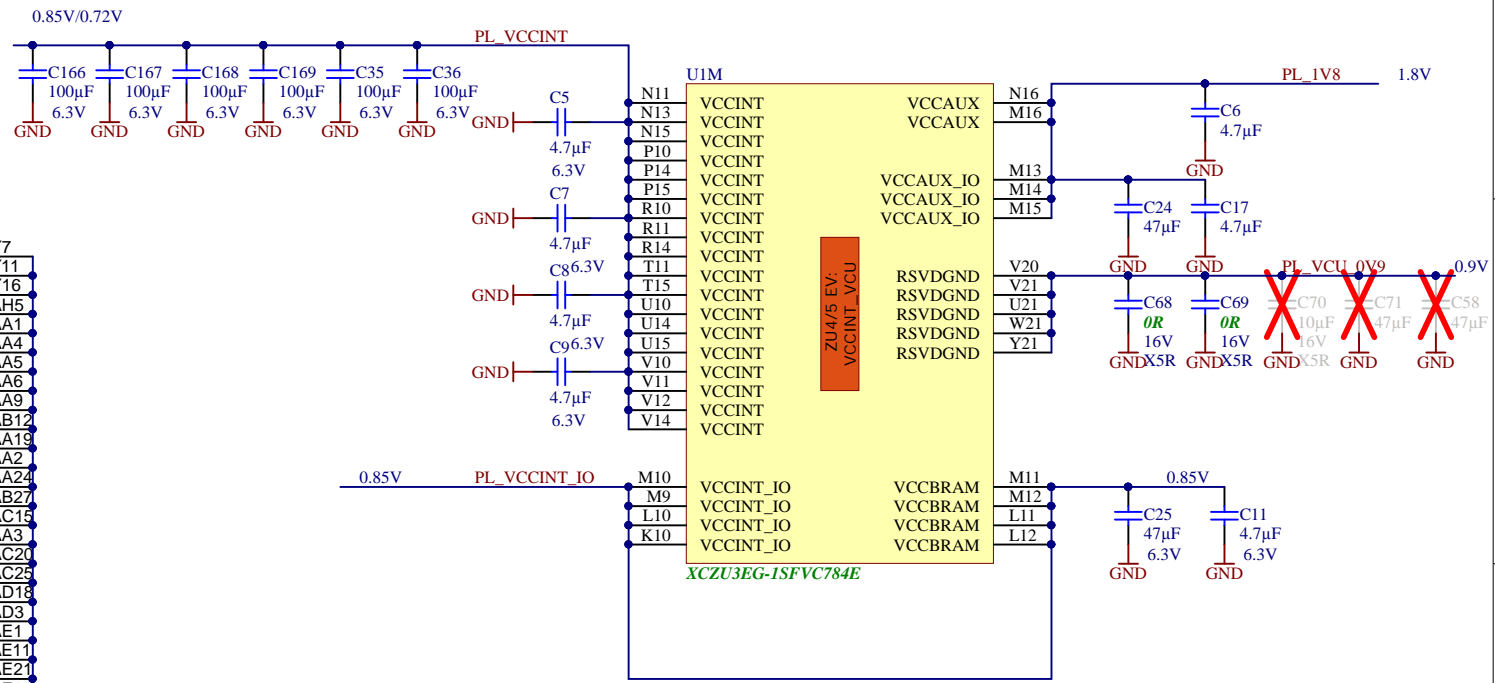
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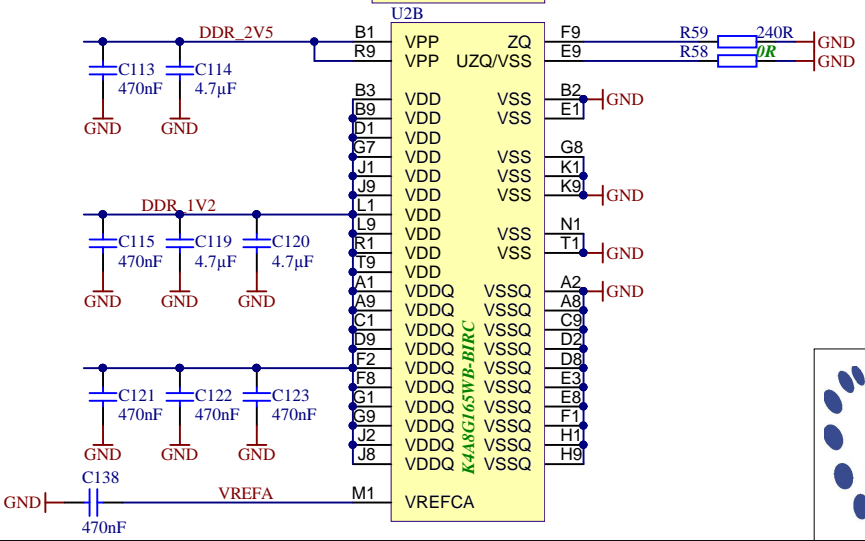
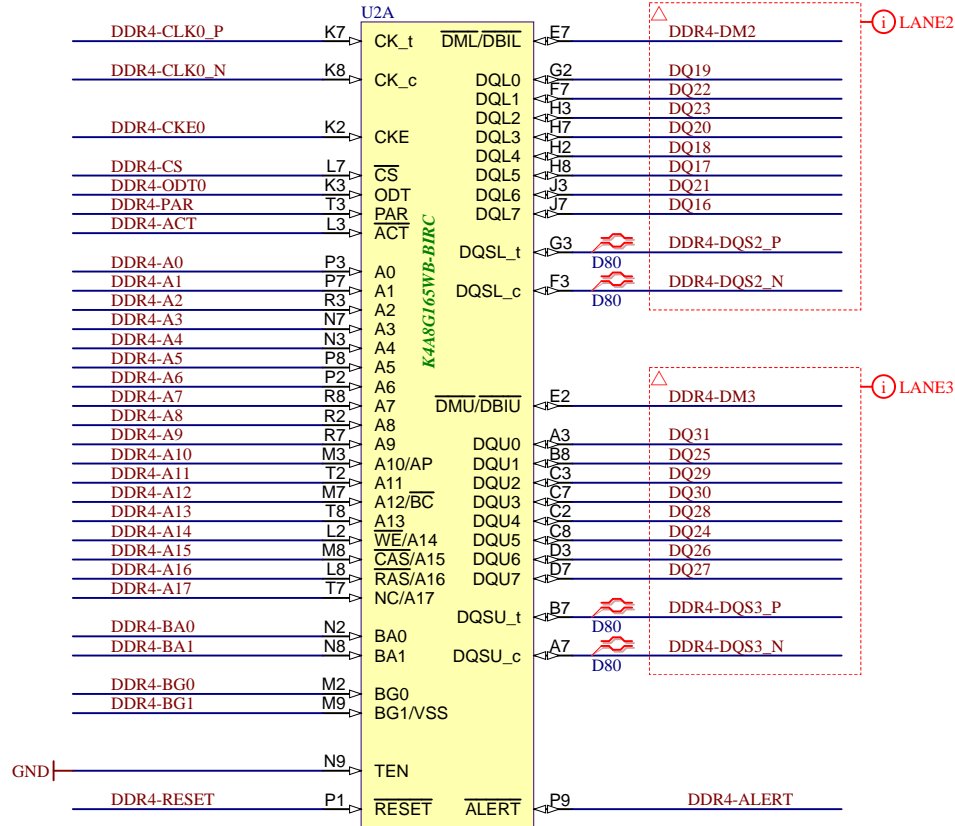
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	A4	Number: TE0803 3BE21-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 16 of 26
	Filename: ZU_POWER.SchDoc		

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Title: TE0803 - DDR4_1_RAM		
A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 17 of 26
Filename: DDR4-RAM.SchDoc		

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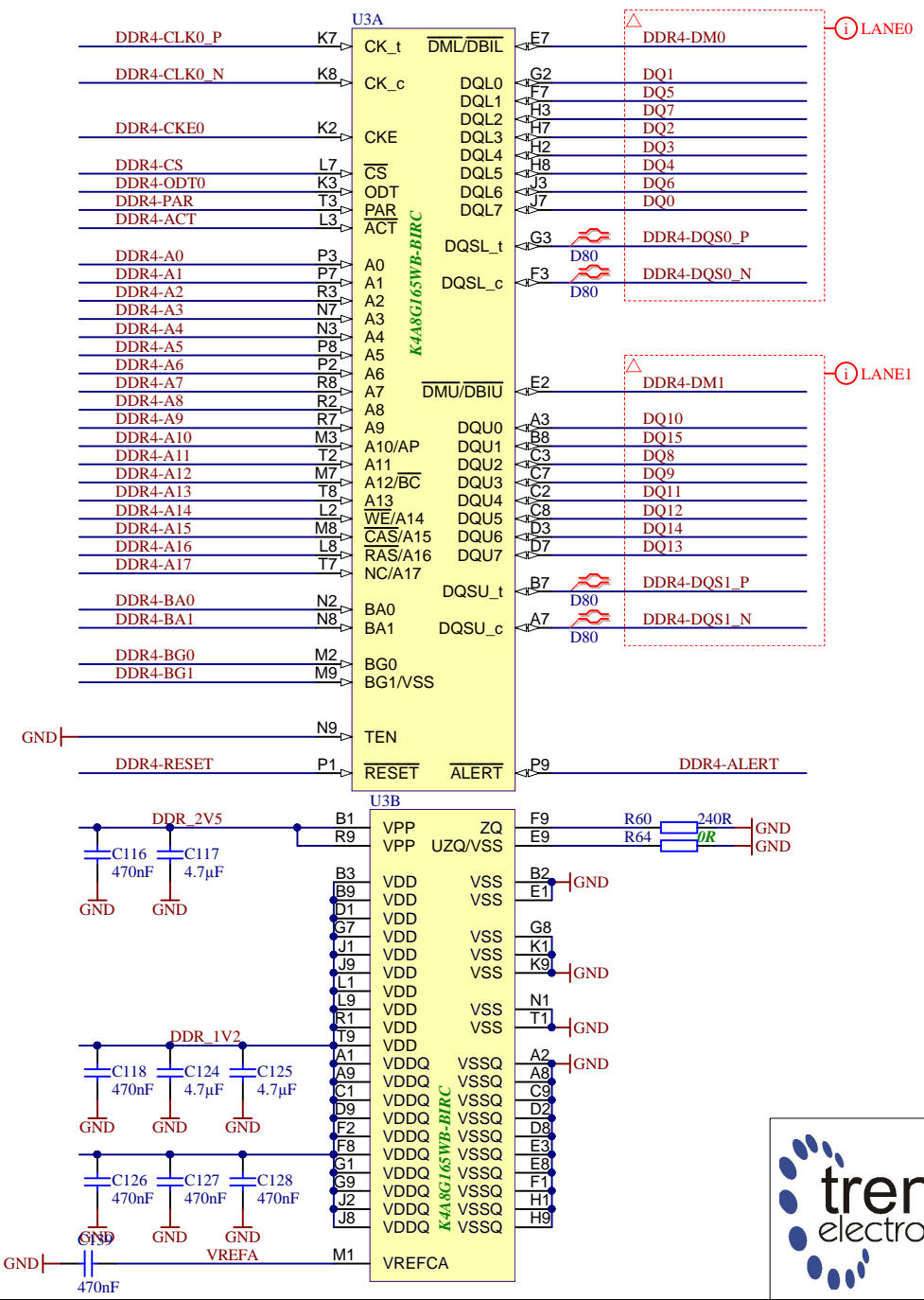
B


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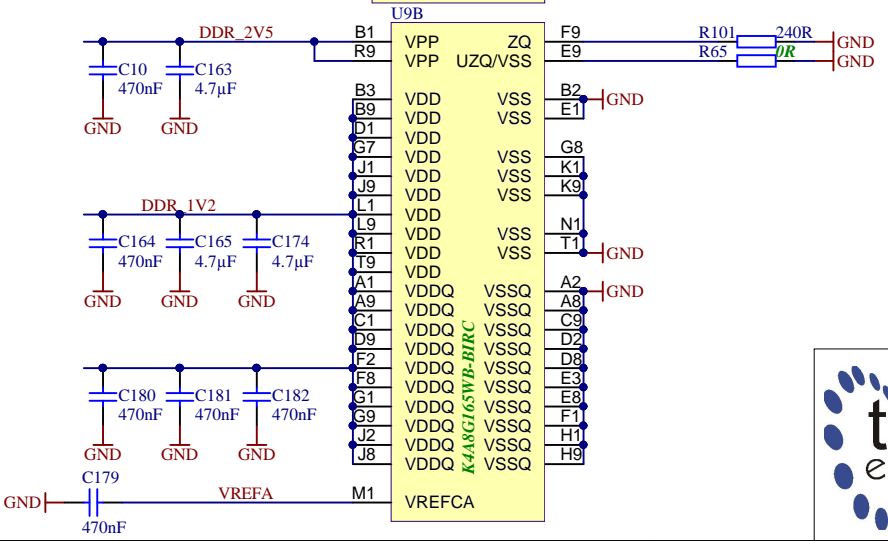
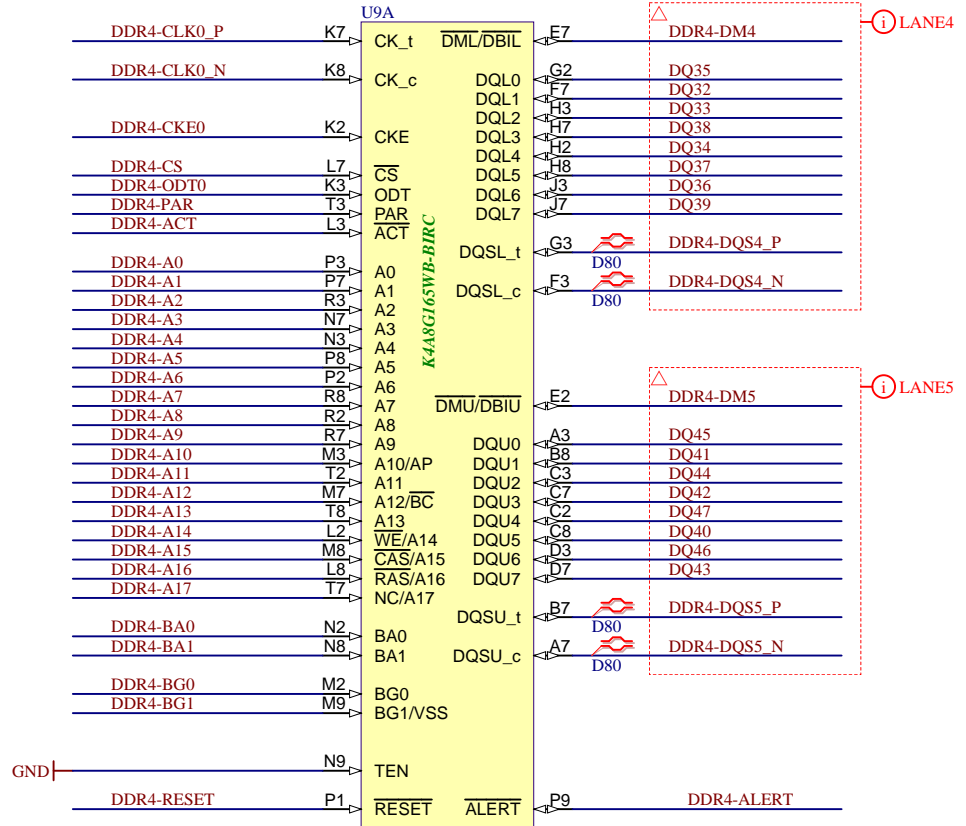
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			A4	Number: TE0803 3BE21-A
Date: 2019-02-21		Copyright: Trenz Electronic GmbH / TT		Page 18 of 26
Filename: DDR4-RAM_2.SchDoc				

1

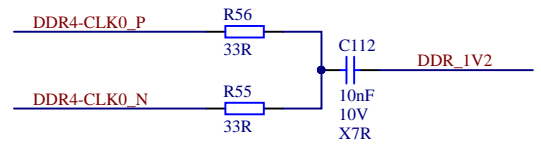
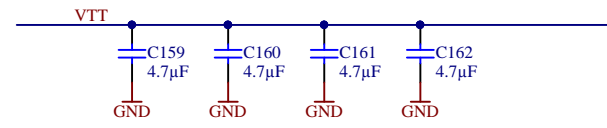
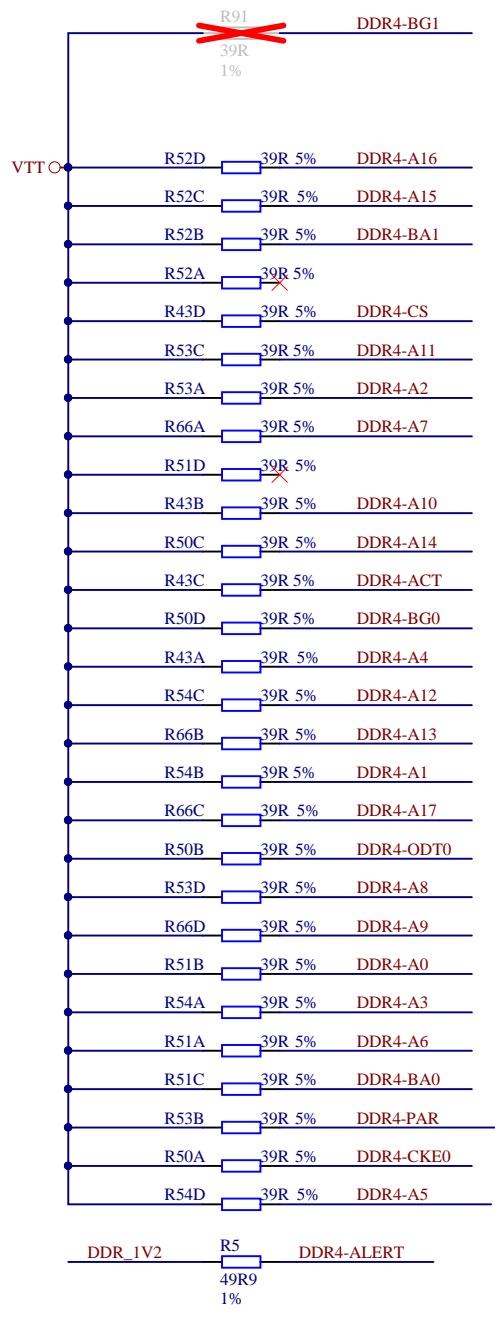
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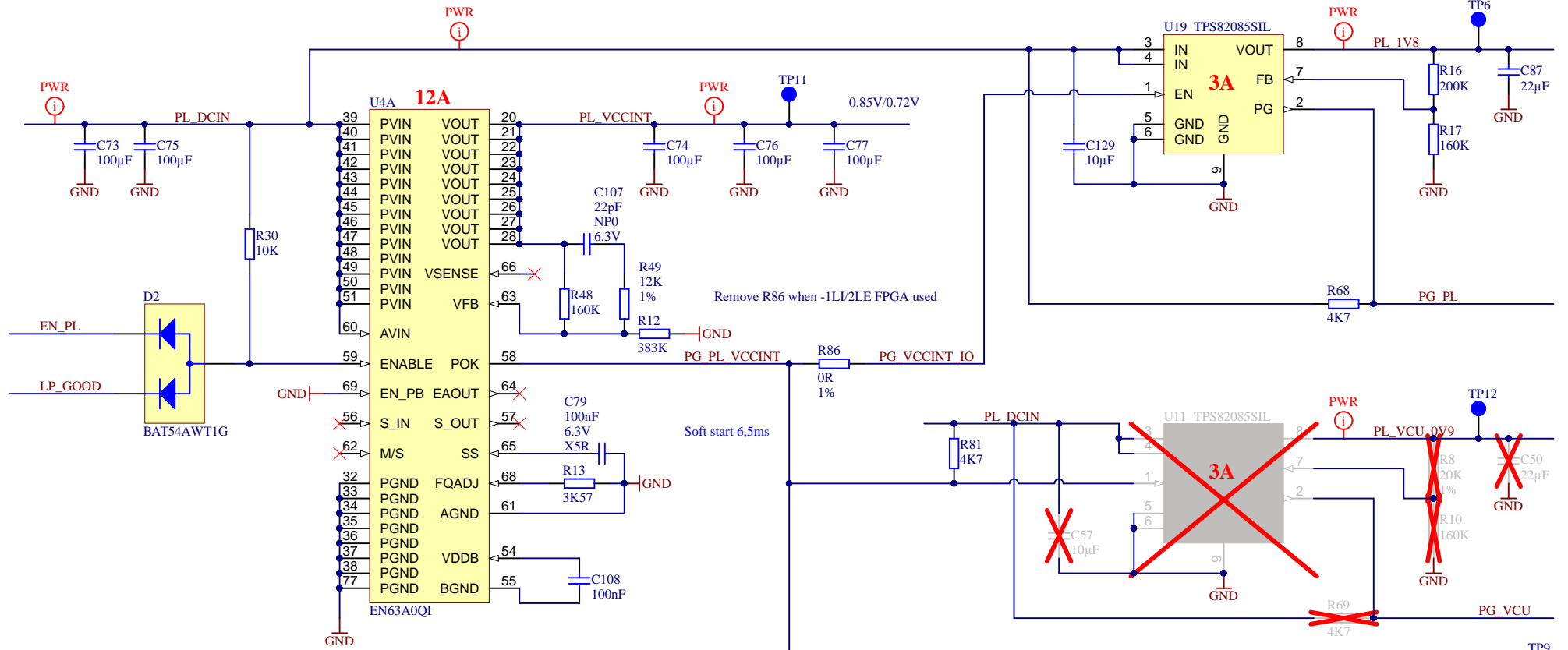
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A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 19 of 26
Filename: DDR4-RAM_3.SchDoc		



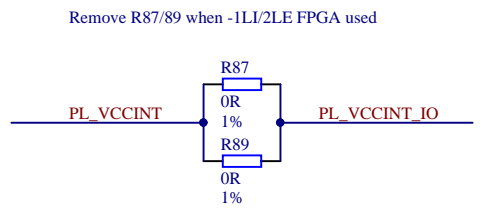
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A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 21 of 26
Filename: DDR4-TERM.SchDoc		



U4B

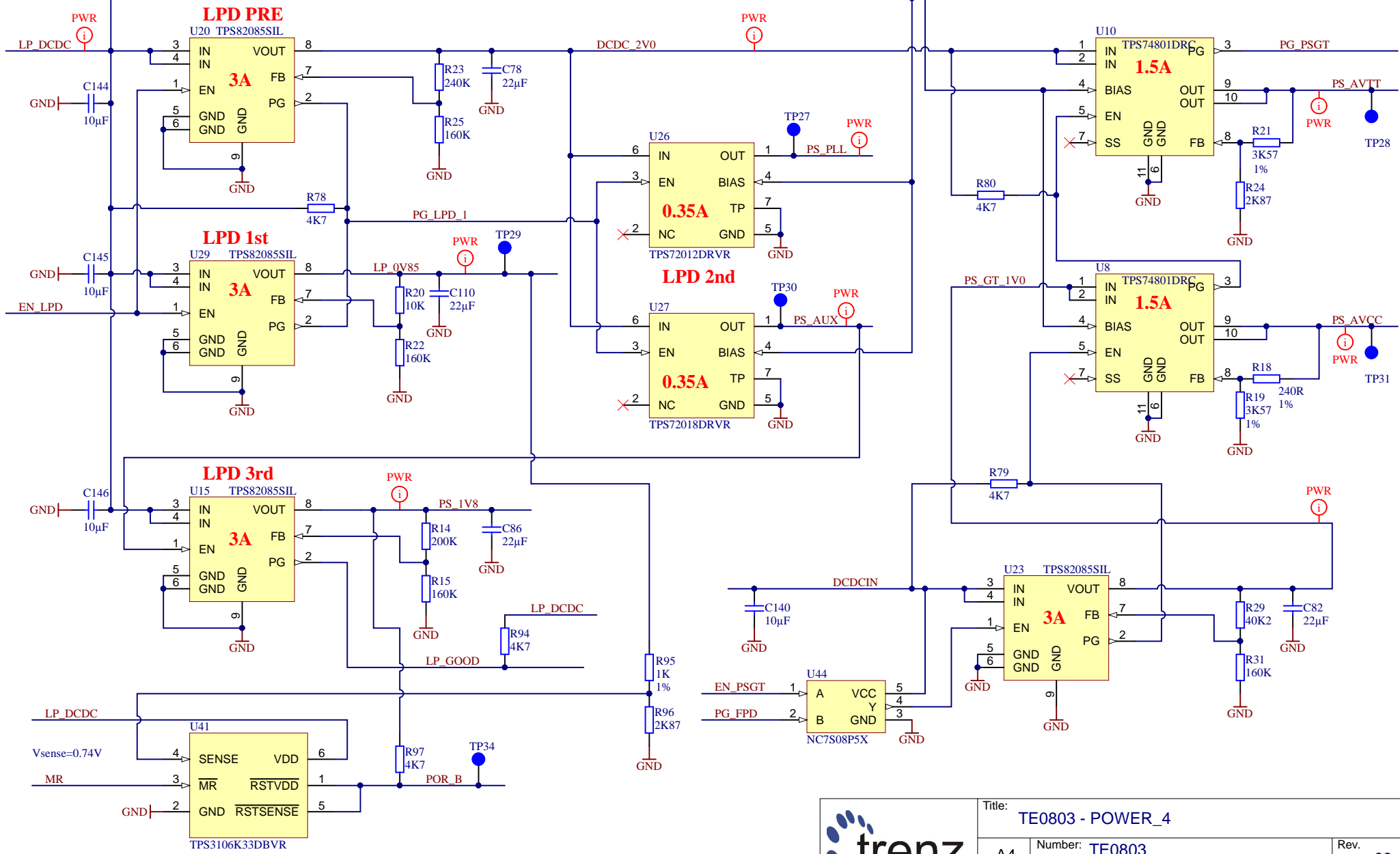
1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC	30
6	NC	NC(SW)	31
7	NC	NC(SW)	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC	70
11	NC	NC(SW)	71
12	NC	NC(SW)	72
13	NC	NC	73
14	NC	NC	74
15	NC	NC	75
16	NC	NC	76

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Title: **TE0803 - POWER**

A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	
Filename: POWER.SchDoc	Page 23 of 26	



Title: TE0803 - POWER_4		
A4	Number: TE0803 3BE21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page 25 of 26
Filename: POWER_4.SchDoc		

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4

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


B

C

C

D

D

	Title: TE0803 - Changes list		
	A4	Number: TE0803 3BE21-A	Rev. 03
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH	Page26 of 26
	Filename: Revision_Changes.SchDoc		

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4