U_J1
J1.SchDoc

U_J2
J2.SchDoc

U_J3
J3.SchDoc

U_J4
J4.SchDoc

U_DDR4-TERM
DDR4-TERM.SchDoc

U_B64
B64.SchDoc

U_B65
B65.SchDoc

U_B66
B66.SchDoc

U_B_GT
B_GT.SchDoc

U_B_PS_GT
B_PS_GT.SchDoc

U_PS_DDR
PS_DDR.SchDoc

U_B_MIO
B_MIO.SchDoc

U_B_HD
B_HD.SchDoc

U_Clock
Clock.SchDoc

U_CONFIG
CONFIG.SchDoc

U_DDR4-RAM
DDR4-RAM.SchDoc

U_DDR4-RAM_2
DDR4-RAM_2.SchDoc

U_DDR4-RAM_3
DDR4-RAM_3.SchDoc

U_DDR4-RAM_4
DDR4-RAM_4.SchDoc

U_DDR4-TERM
DDR4-TERM.SchDoc

U_ZU_POWER
ZU_POWER.SchDoc

U_ZU_PS_POWER
ZU_PS_POWER.SchDoc

U_POWER
POWER.SchDoc

U_POWER_2
POWER_2.SchDoc

U_POWER_4
POWER_4.SchDoc

U_REV_CH
Revision_Changes.SchDoc

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

GND Mount.Hole 3.2mm für Unterlegscheibe

PM1 FIDU-DOT - mini

PM2 FIDU-DOT - mini

PM3 FIDU-DOT - mini

PM4 FIDU-DOT - mini

PM5 FIDU-DOT - mini

PM6 FIDU-DOT - mini

LOGO1
TE Logo PRINT Layer
LOGO PRINT

Serial
Serial
Serialnumber 6,3 x 6.3mm

S/N
1 0R 2
Serialnumber

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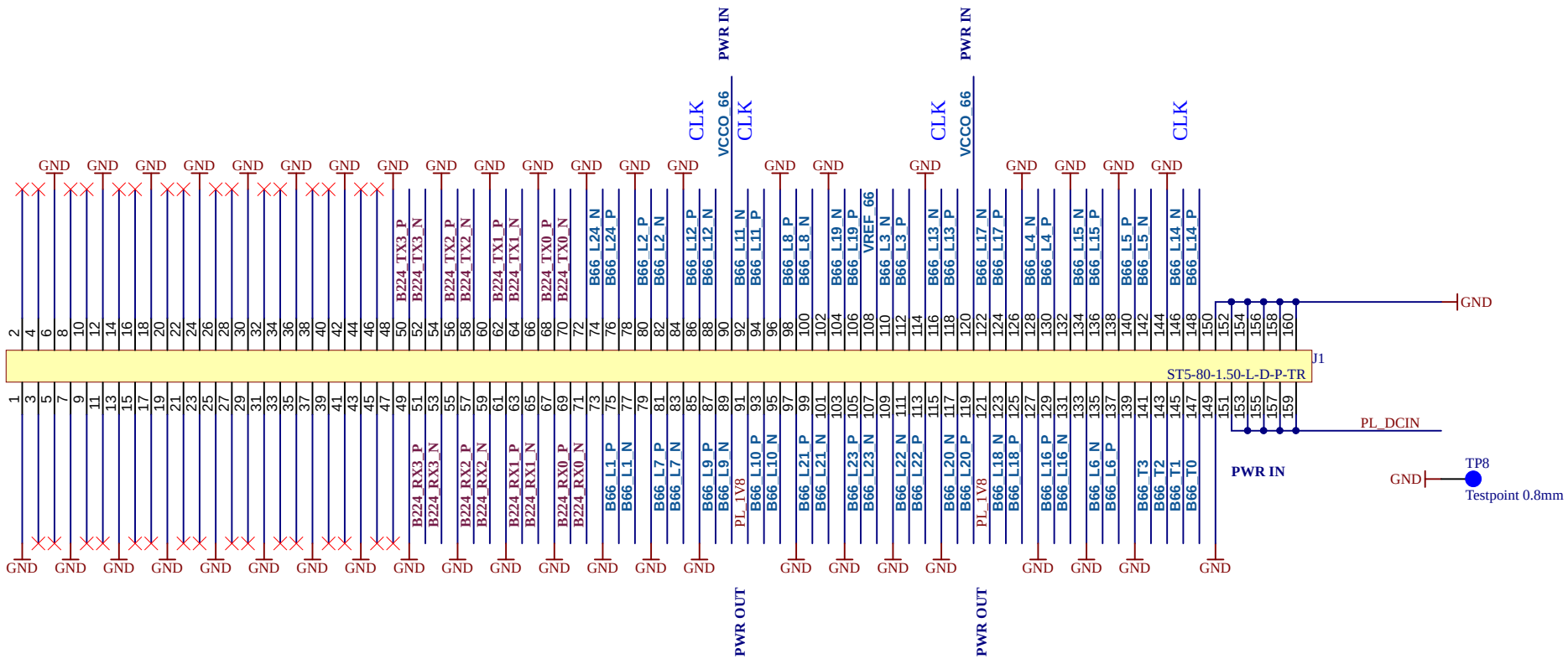
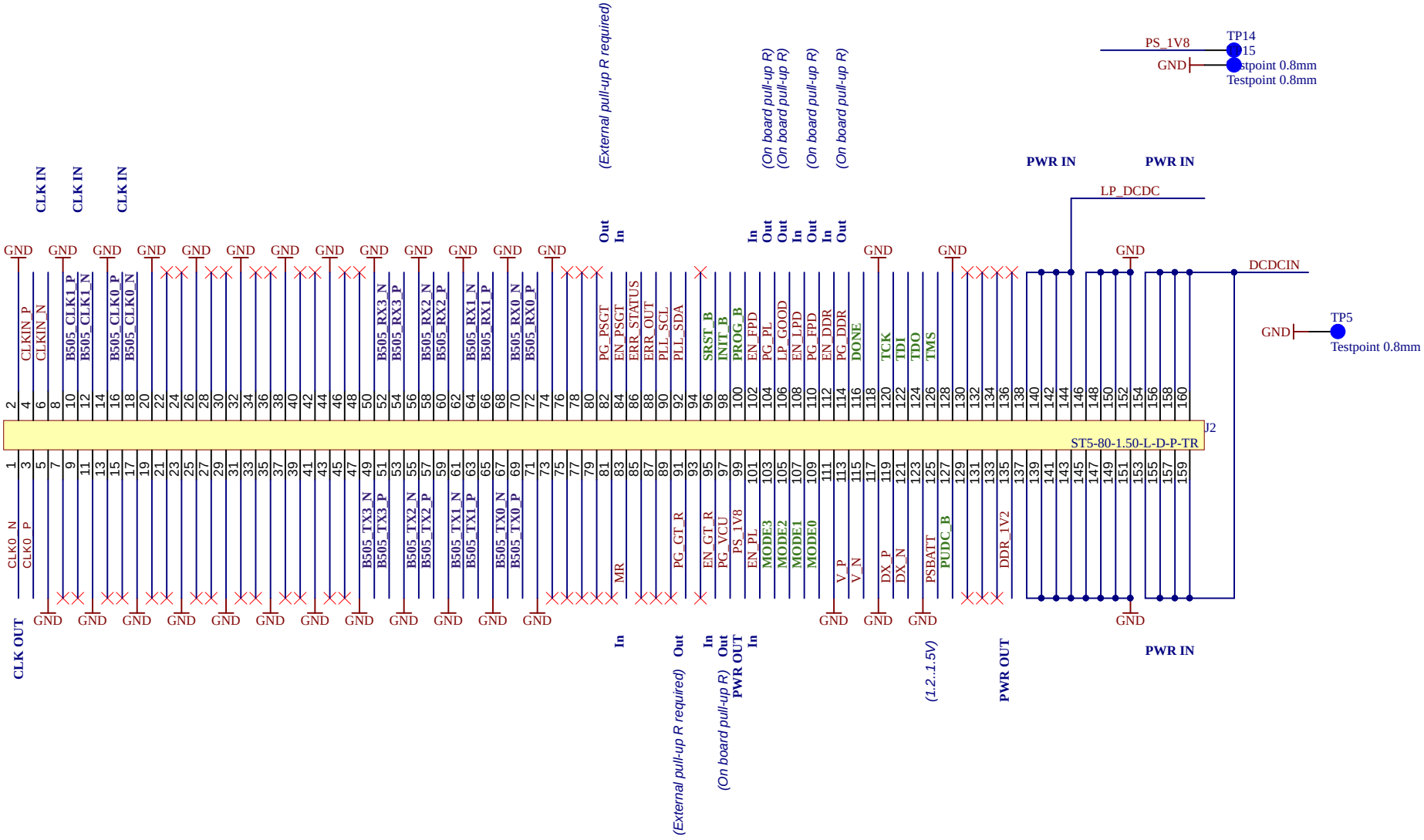
Title: TE0803			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page1 of 26
Filename: TE0803.SchDoc			

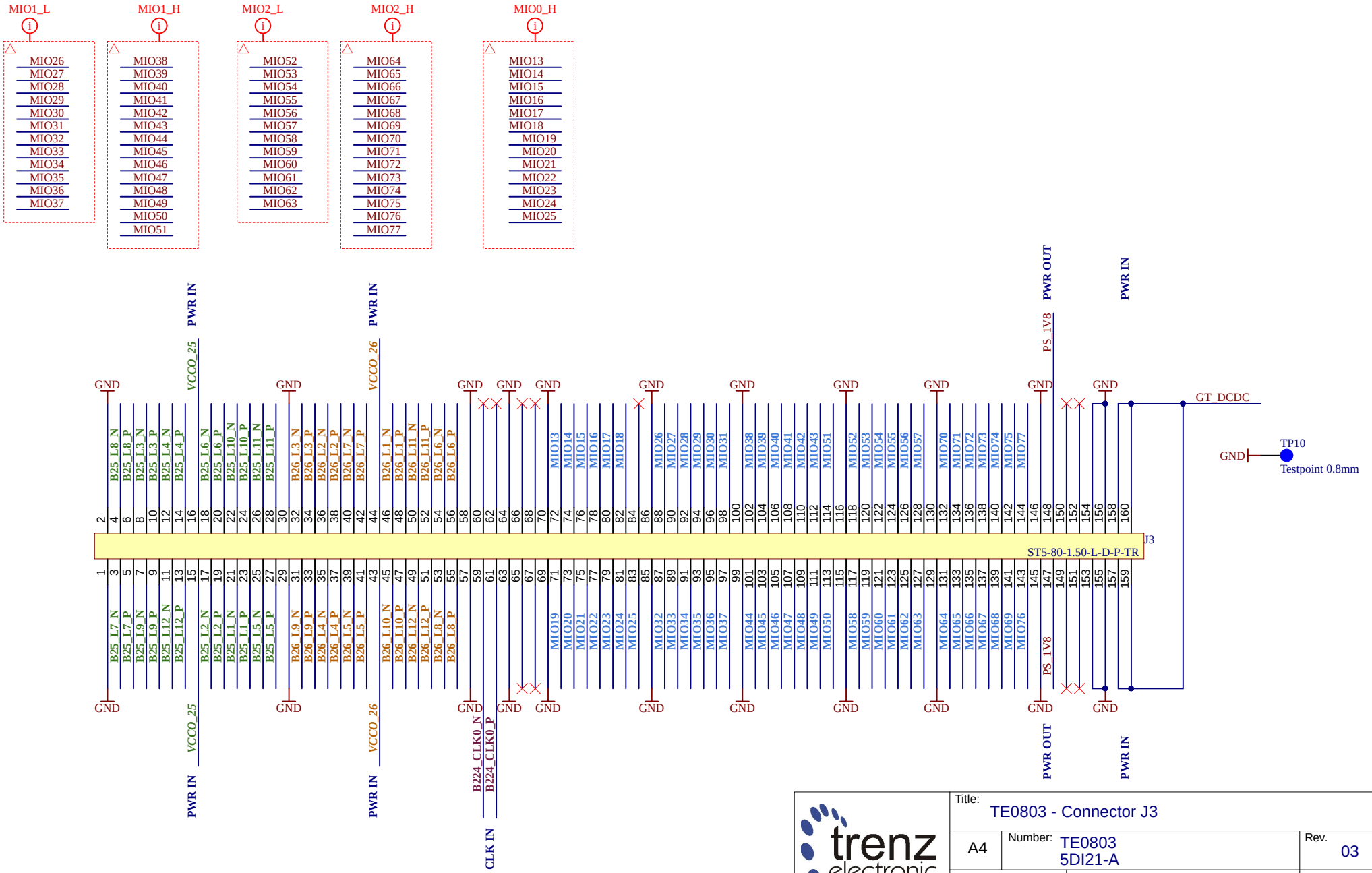


Title: TE0803 - Connector J1			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page2 of 26
Filename: J1.SchDoc			



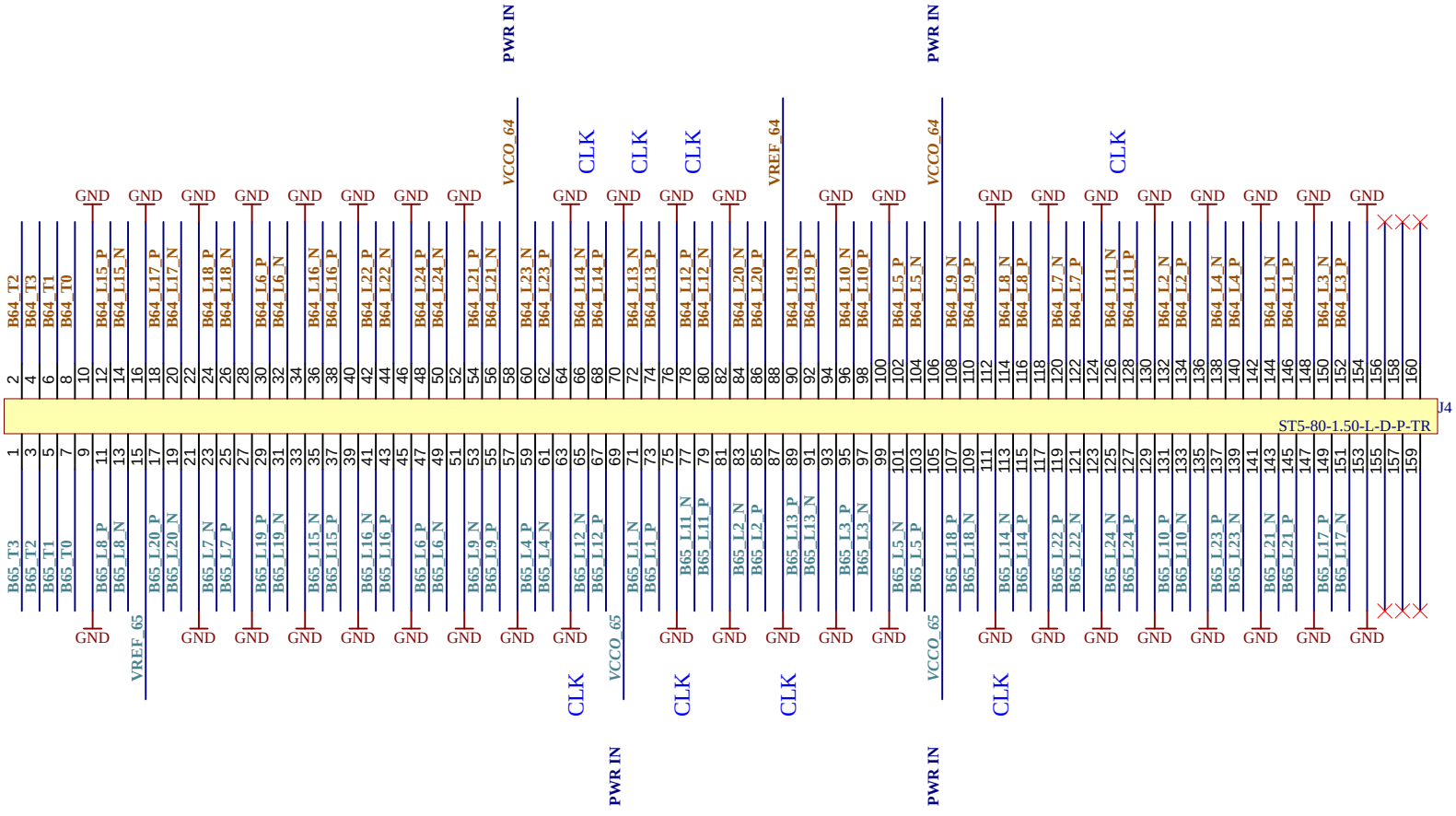
trenz electronic

Title: TE0803 - Connector J2			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page3 of 26
Filename: J2.SchDoc			

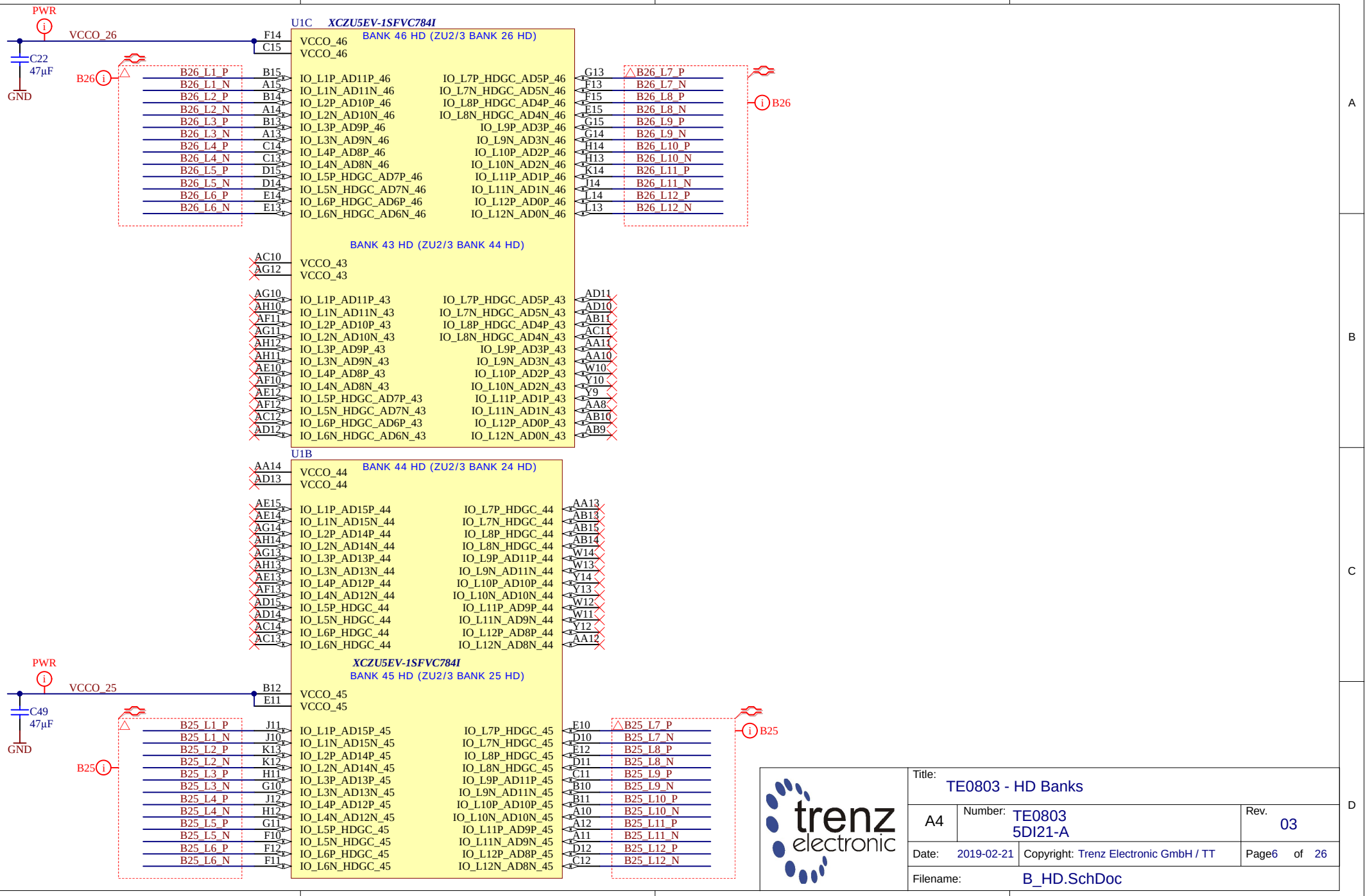


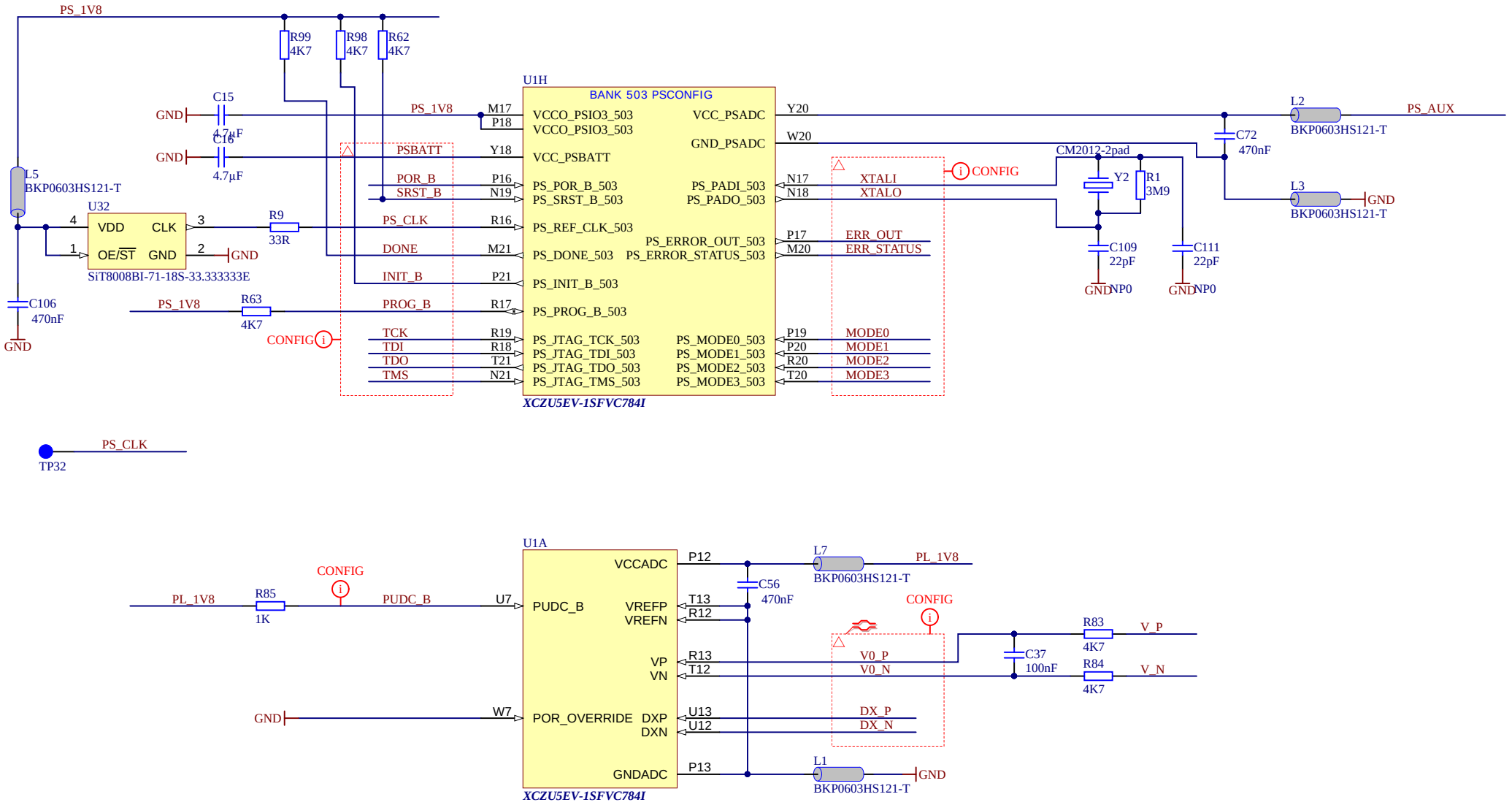
trenz electronic

Title: TE0803 - Connector J3			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page4 of 26
Filename: J3.SchDoc			



trenz electronic	Title: TE0803 - Connector J4		
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page5 of 26
Filename: J4.SchDoc			


PWR
VCCO_26
C22
47µF
GND
U1C
XCZU5EV-1SFVC784I
BANK 46 HD (ZU2/3 BANK 26 HD)
VCCO_46
VCCO_46
IO_L1P_AD11P_46
IO_L1N_AD11N_46
IO_L2P_AD10P_46
IO_L2N_AD10N_46
IO_L3P_AD9P_46
IO_L3N_AD9N_46
IO_L4P_AD8P_46
IO_L4N_AD8N_46
IO_L5P_HDGC_AD7P_46
IO_L5N_HDGC_AD7N_46
IO_L6P_HDGC_AD6P_46
IO_L6N_HDGC_AD6N_46
IO_L7P_HDGC_AD5P_46
IO_L7N_HDGC_AD5N_46
IO_L8P_HDGC_AD4P_46
IO_L8N_HDGC_AD4N_46
IO_L9P_AD3P_46
IO_L9N_AD3N_46
IO_L10P_AD2P_46
IO_L10N_AD2N_46
IO_L11P_AD1P_46
IO_L11N_AD1N_46
IO_L12P_AD0P_46
IO_L12N_AD0N_46
B26_L1_P
B26_L1_N
B26_L2_P
B26_L2_N
B26_L3_P
B26_L3_N
B26_L4_P
B26_L4_N
B26_L5_P
B26_L5_N
B26_L6_P
B26_L6_N
B26_L7_P
B26_L7_N
B26_L8_P
B26_L8_N
B26_L9_P
B26_L9_N
B26_L10_P
B26_L10_N
B26_L11_P
B26_L11_N
B26_L12_P
B26_L12_N
B26
BANK 43 HD (ZU2/3 BANK 44 HD)
VCCO_43
VCCO_43
IO_L1P_AD11P_43
IO_L1N_AD11N_43
IO_L2P_AD10P_43
IO_L2N_AD10N_43
IO_L3P_AD9P_43
IO_L3N_AD9N_43
IO_L4P_AD8P_43
IO_L4N_AD8N_43
IO_L5P_HDGC_AD7P_43
IO_L5N_HDGC_AD7N_43
IO_L6P_HDGC_AD6P_43
IO_L6N_HDGC_AD6N_43
IO_L7P_HDGC_AD5P_43
IO_L7N_HDGC_AD5N_43
IO_L8P_HDGC_AD4P_43
IO_L8N_HDGC_AD4N_43
IO_L9P_AD3P_43
IO_L9N_AD3N_43
IO_L10P_AD2P_43
IO_L10N_AD2N_43
IO_L11P_AD1P_43
IO_L11N_AD1N_43
IO_L12P_AD0P_43
IO_L12N_AD0N_43
U1B
BANK 44 HD (ZU2/3 BANK 24 HD)
VCCO_44
VCCO_44
IO_L1P_AD15P_44
IO_L1N_AD15N_44
IO_L2P_AD14P_44
IO_L2N_AD14N_44
IO_L3P_AD13P_44
IO_L3N_AD13N_44
IO_L4P_AD12P_44
IO_L4N_AD12N_44
IO_L5P_HDGC_44
IO_L5N_HDGC_44
IO_L6P_HDGC_44
IO_L6N_HDGC_44
IO_L7P_HDGC_44
IO_L7N_HDGC_44
IO_L8P_HDGC_44
IO_L8N_HDGC_44
IO_L9P_AD11P_44
IO_L9N_AD11N_44
IO_L10P_AD10P_44
IO_L10N_AD10N_44
IO_L11P_AD9P_44
IO_L11N_AD9N_44
IO_L12P_AD8P_44
IO_L12N_AD8N_44
XCZU5EV-1SFVC784I
BANK 45 HD (ZU2/3 BANK 25 HD)
VCCO_45
VCCO_45
IO_L1P_AD15P_45
IO_L1N_AD15N_45
IO_L2P_AD14P_45
IO_L2N_AD14N_45
IO_L3P_AD13P_45
IO_L3N_AD13N_45
IO_L4P_AD12P_45
IO_L4N_AD12N_45
IO_L5P_HDGC_45
IO_L5N_HDGC_45
IO_L6P_HDGC_45
IO_L6N_HDGC_45
IO_L7P_HDGC_45
IO_L7N_HDGC_45
IO_L8P_HDGC_45
IO_L8N_HDGC_45
IO_L9P_AD11P_45
IO_L9N_AD11N_45
IO_L10P_AD10P_45
IO_L10N_AD10N_45
IO_L11P_AD9P_45
IO_L11N_AD9N_45
IO_L12P_AD8P_45
IO_L12N_AD8N_45
PWR
VCCO_25
C49
47µF
GND
B25_L1_P
B25_L1_N
B25_L2_P
B25_L2_N
B25_L3_P
B25_L3_N
B25_L4_P
B25_L4_N
B25_L5_P
B25_L5_N
B25_L6_P
B25_L6_N
B25_L7_P
B25_L7_N
B25_L8_P
B25_L8_N
B25_L9_P
B25_L9_N
B25_L10_P
B25_L10_N
B25_L11_P
B25_L11_N
B25_L12_P
B25_L12_N
B25
trenz electronic
Title: TE0803 - HD Banks
A4
Number: TE0803 5DI21-A
Rev. 03
Date: 2019-02-21
Copyright: Trenz Electronic GmbH / TT
Page6 of 26
Filename: B_HD.SchDoc



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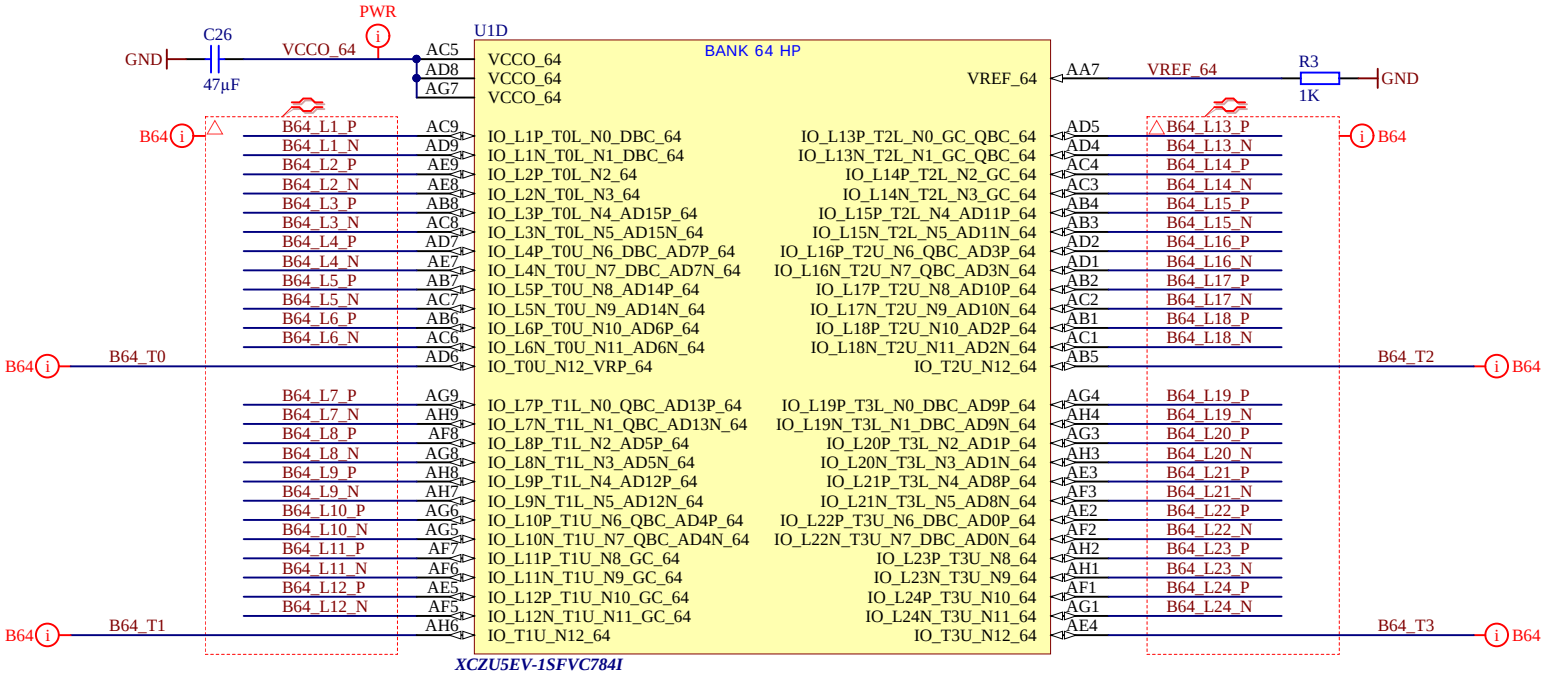
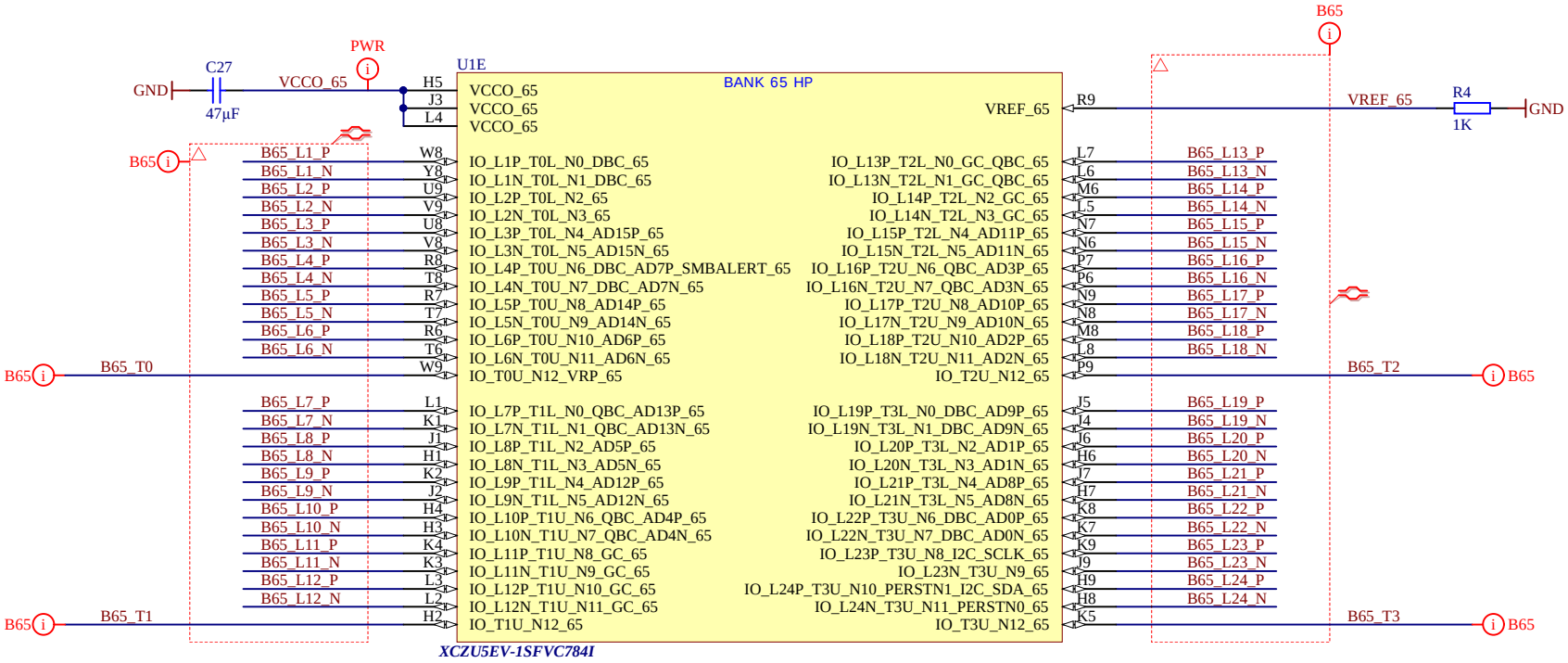
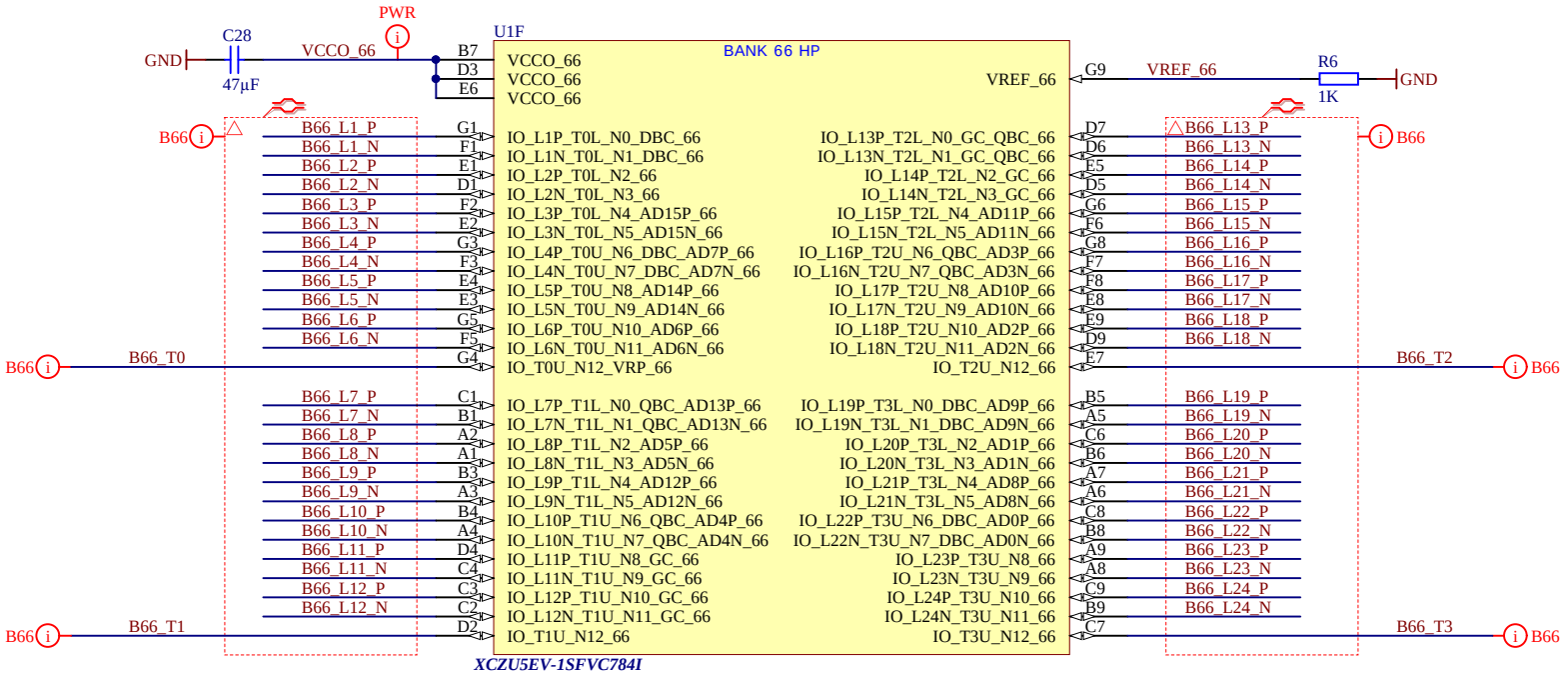
Title: TE0803 - Config			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page7 of 26
Filename: CONFIG.SchDoc			



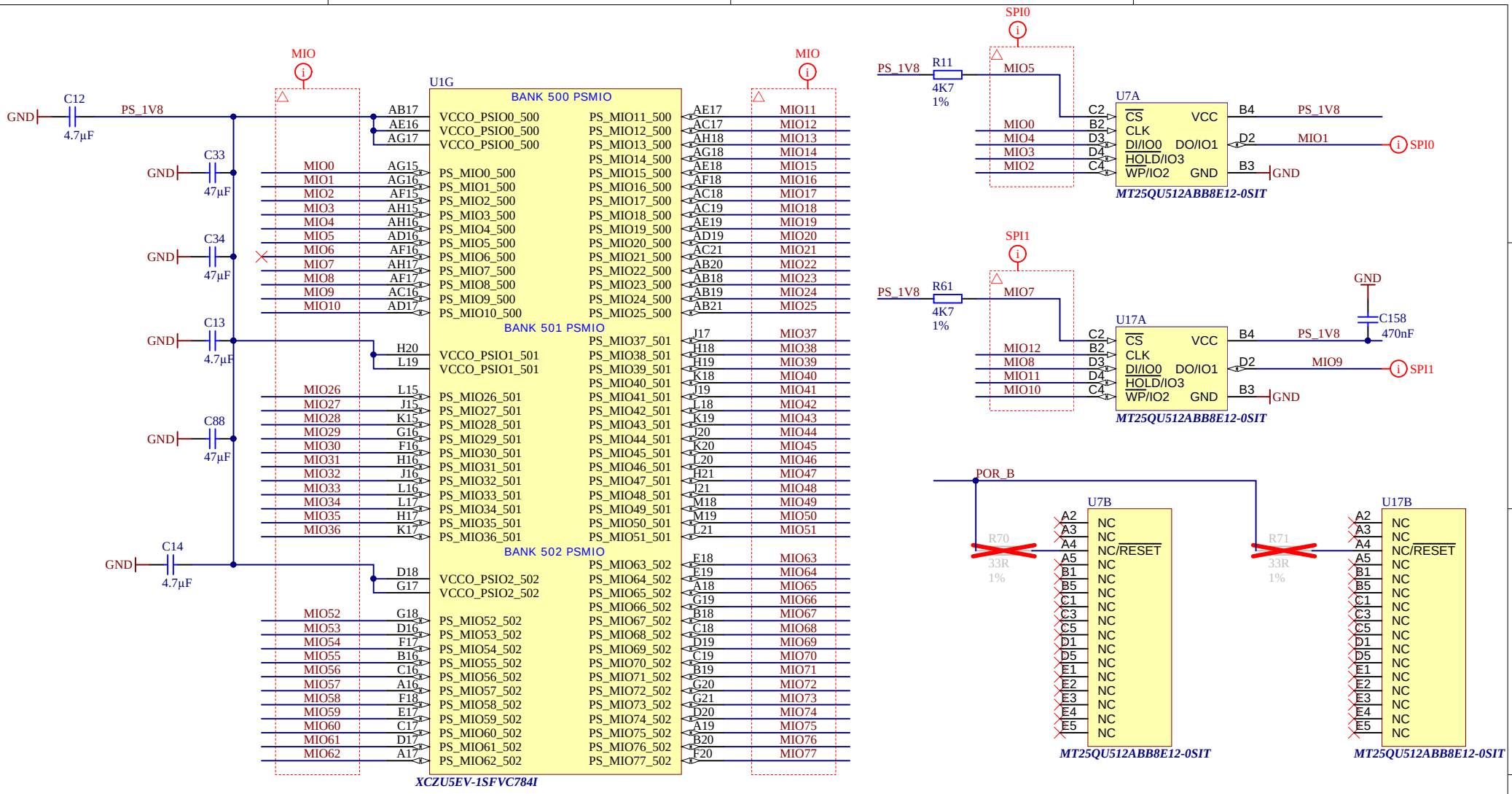
	Title: TE0803 - B64		
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page 8 of 26
Filename: B64.SchDoc			



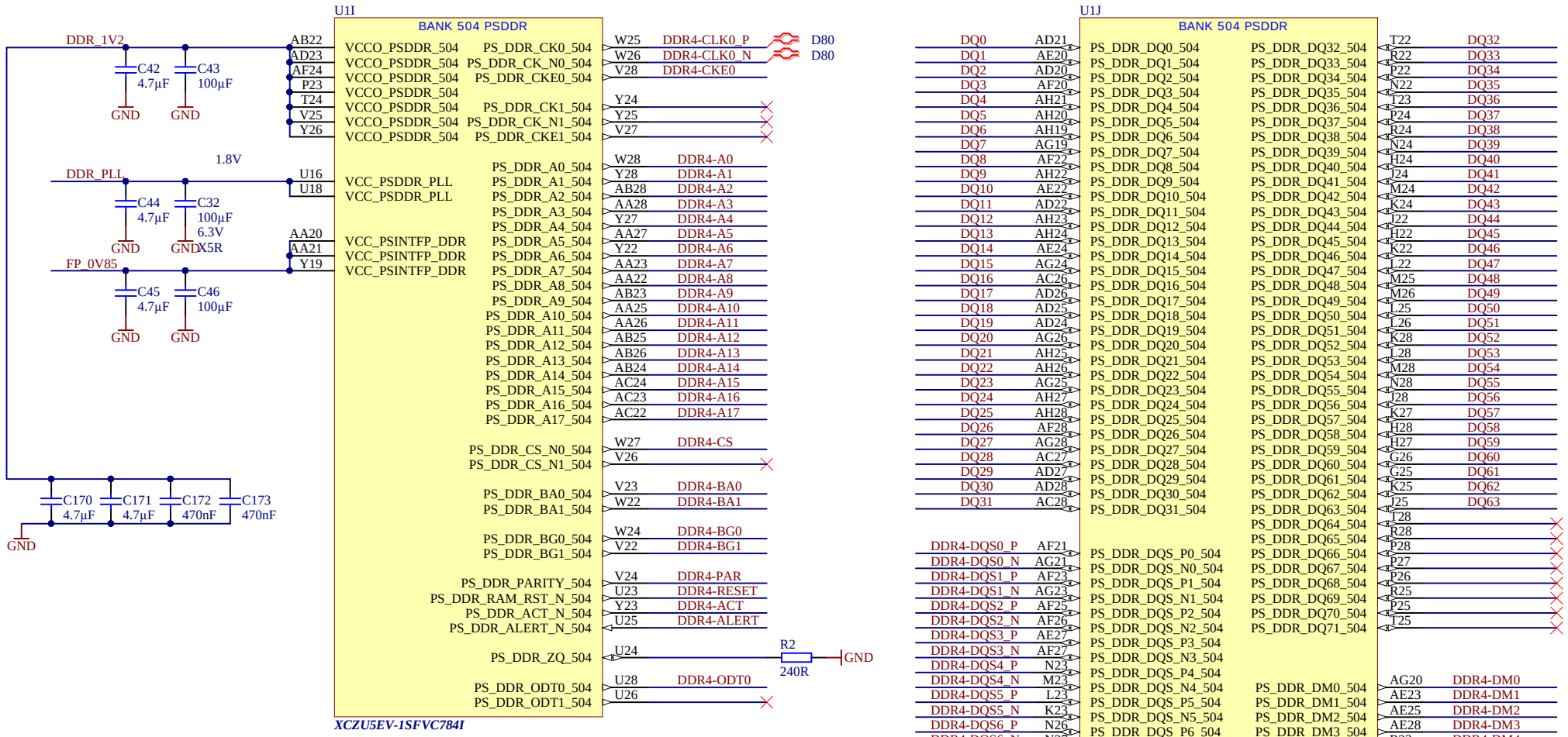
Title: TE0803 - B65			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page9 of 26
Filename: B65.SchDoc			



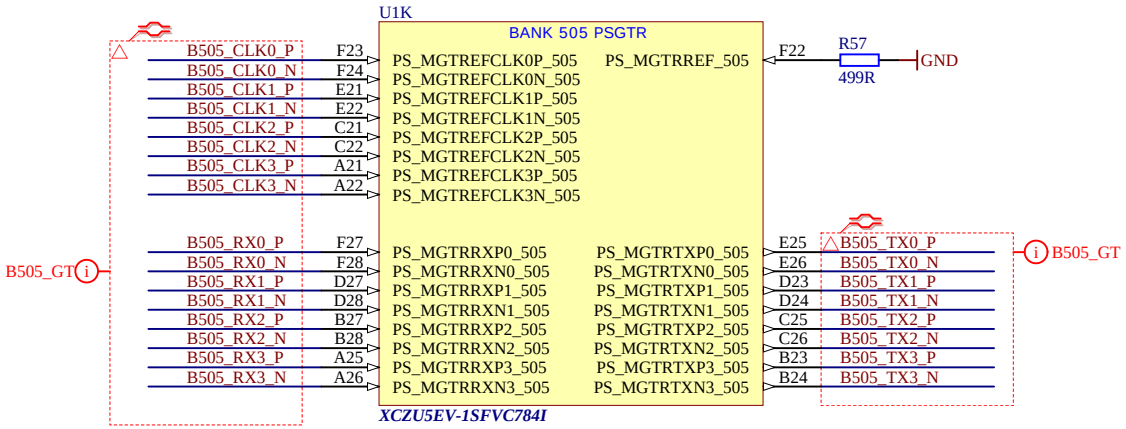
trenz electronic	Title: TE0803 - B66		
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page10 of 26
Filename: B66.SchDoc			



Title: TE0803 - MIO Banks			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page11 of 26
Filename: B_MIO.SchDoc			

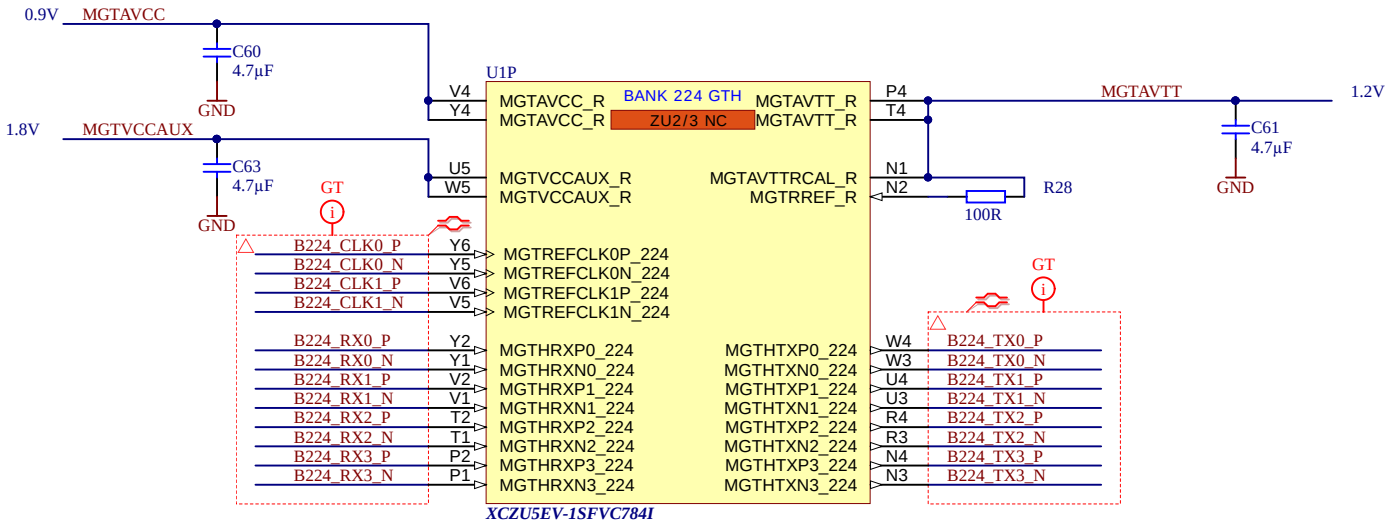


trenz electronic	Title: TE0803 - PS_DDR		
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page12 of 26
Filename: PS_DDR.SchDoc			



trenz electronic

Title: TE0803 - PS_GT		
A4	Number: TE0803 5DI21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page13 of 26
Filename: B_PS_GT.SchDoc		



trenz electronic	Title: TE0803 - B224GTH		
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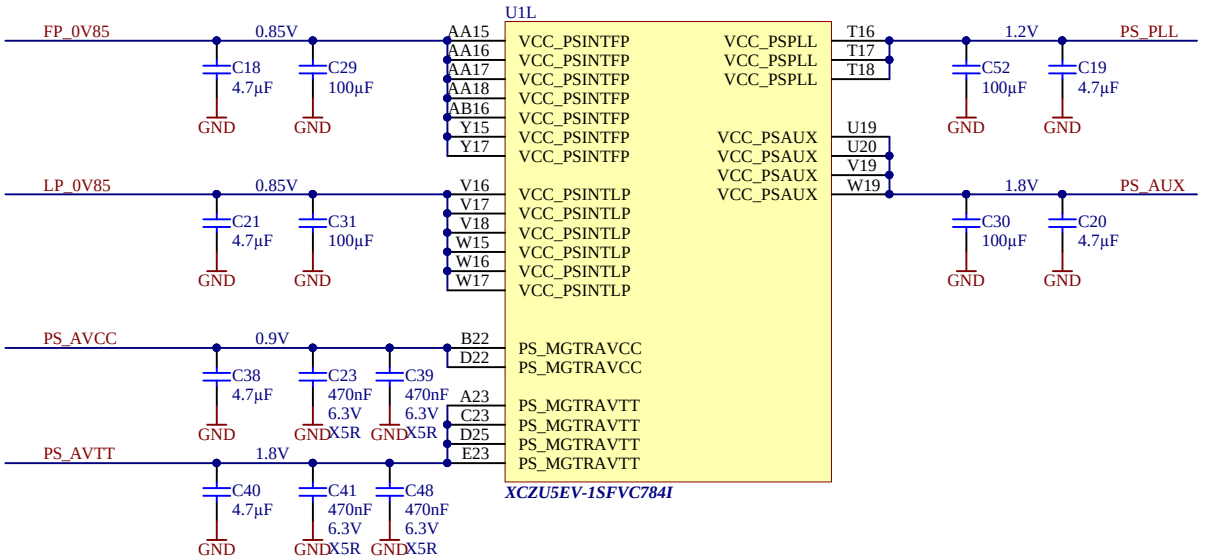
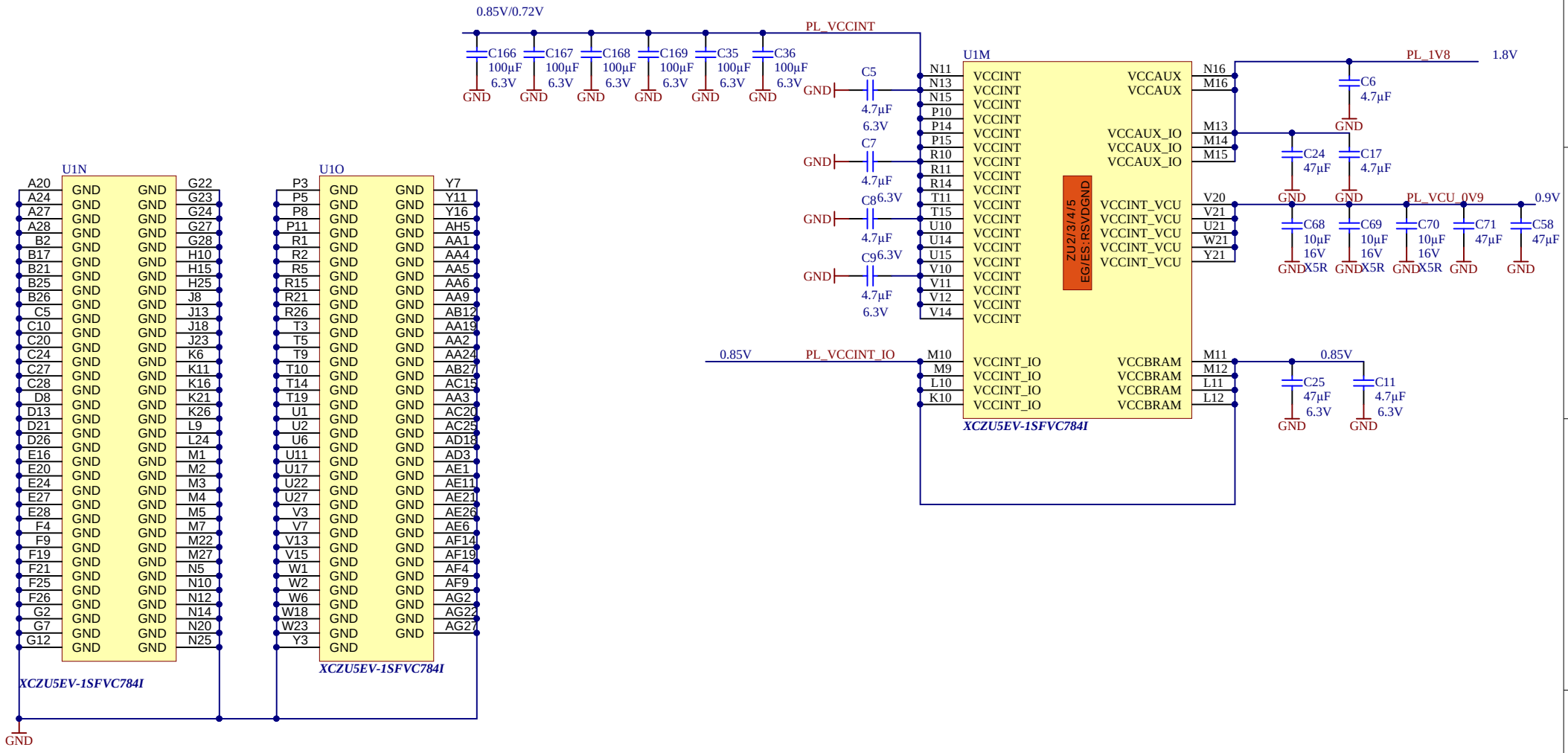
	Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page14 of 26
	Filename: B_GT.SchDoc		



trenz electronic	Title: TE0803 - ZU_PS_POWER		
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page15 of 26
Filename: ZU_PS_POWER.SchDoc			



Title: TE0803 - ZU_POWER			
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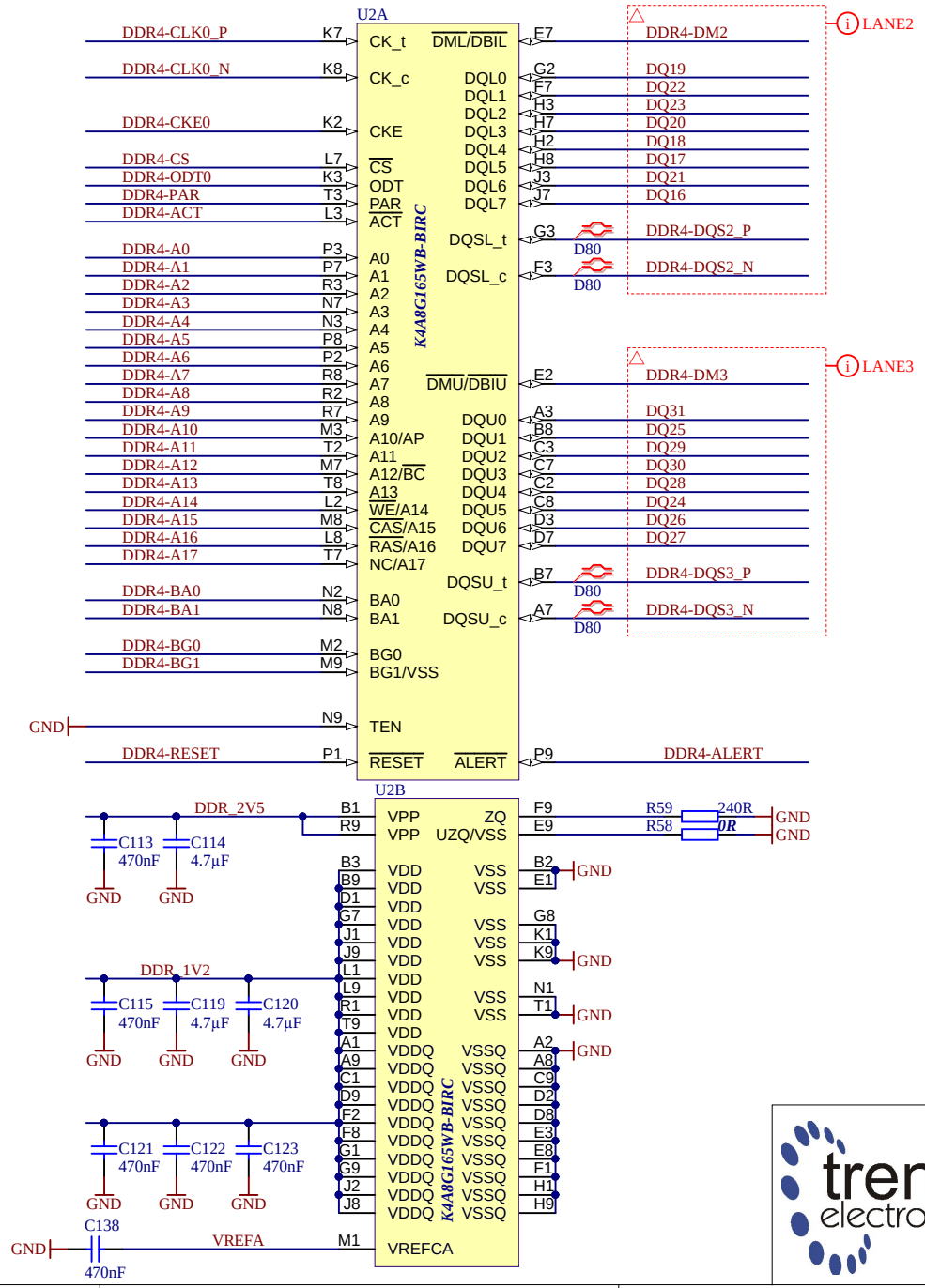
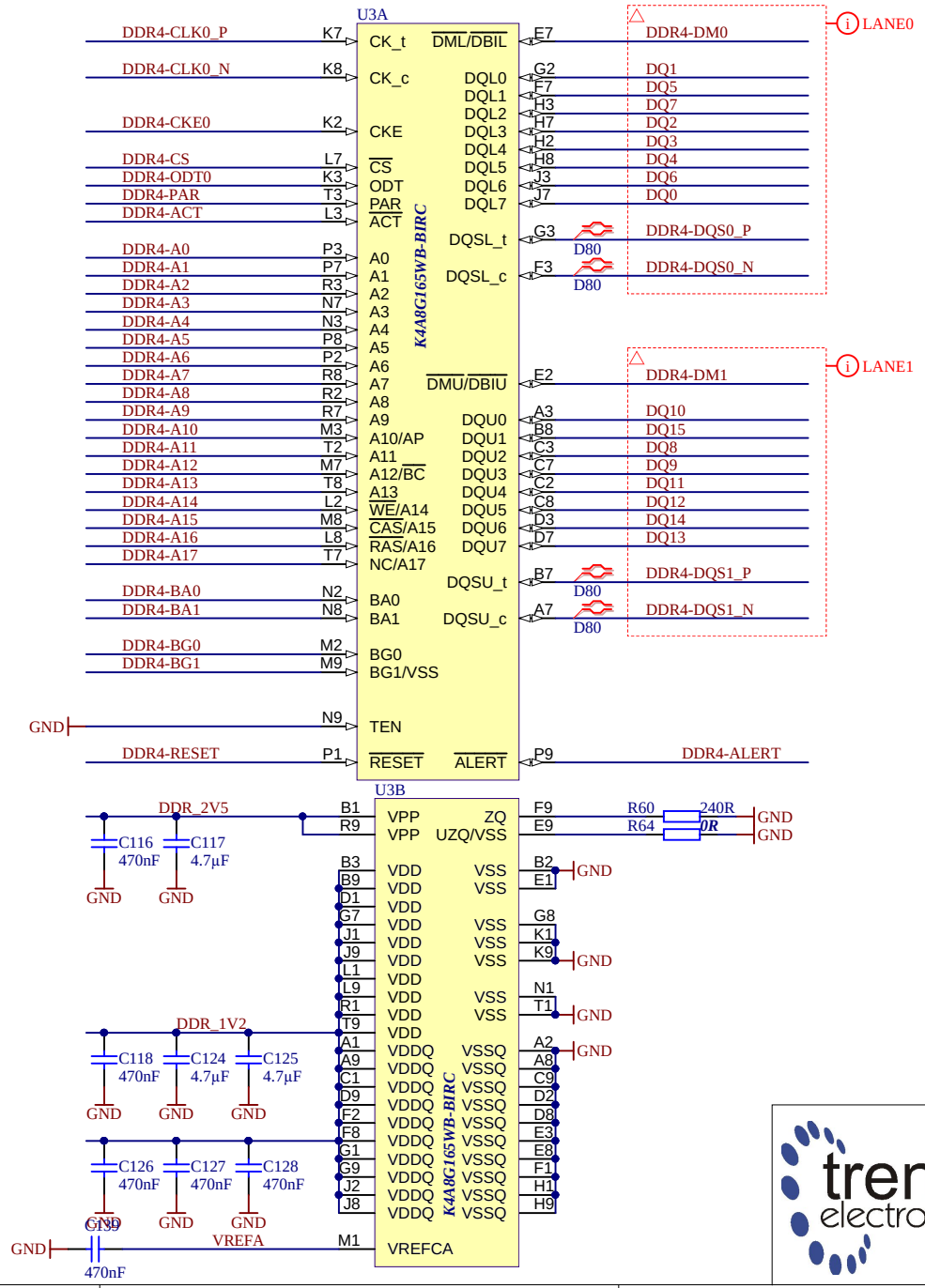
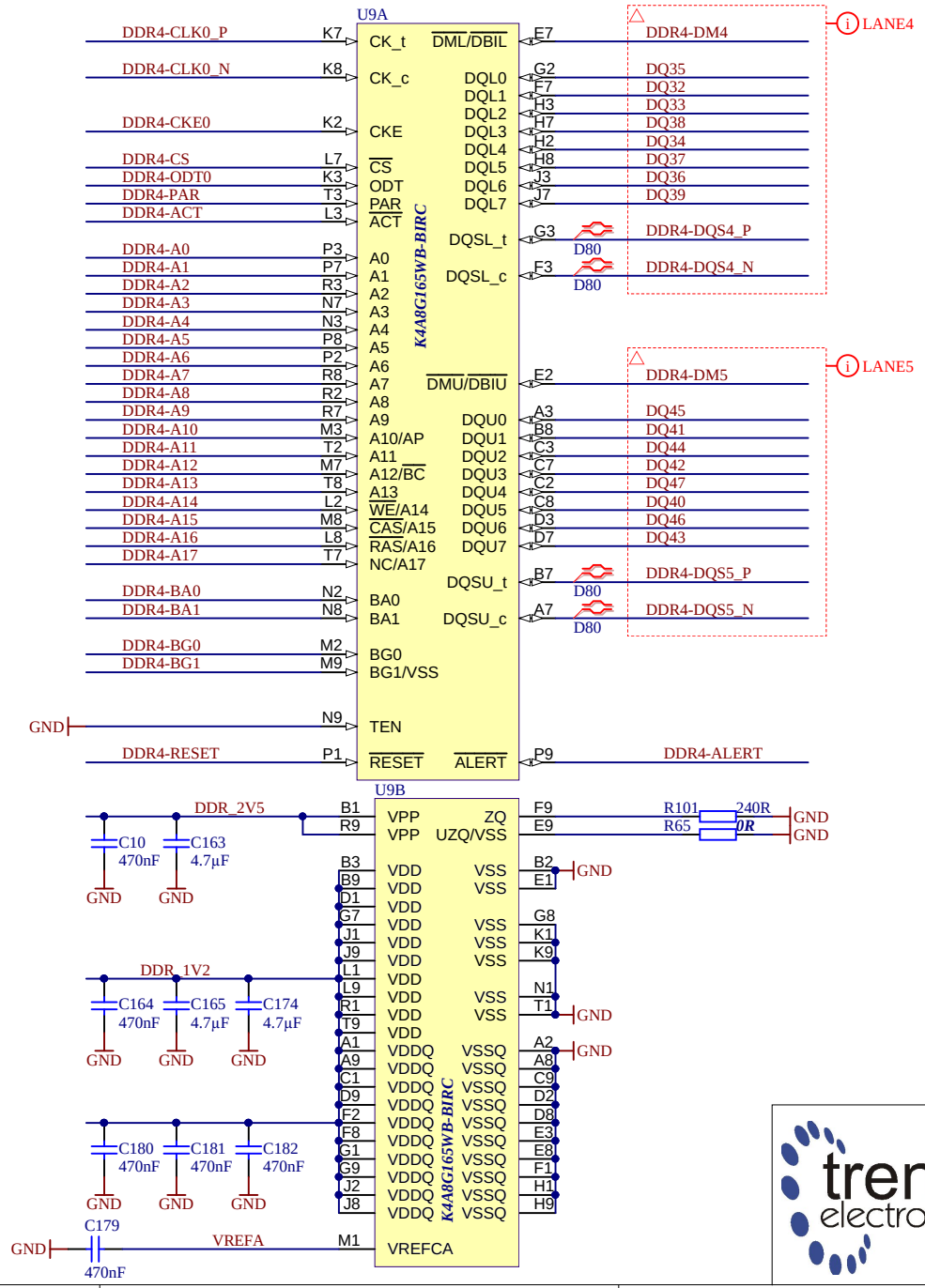
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page16 of 26
Filename: ZU_POWER.SchDoc			



Title: TE0803 - DDR4_1_RAM			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page17 of 26
Filename: DDR4-RAM.SchDoc			



	Title: TE0803 - DDR4_2_RAM		
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page18 of 26
Filename: DDR4-RAM_2.SchDoc			



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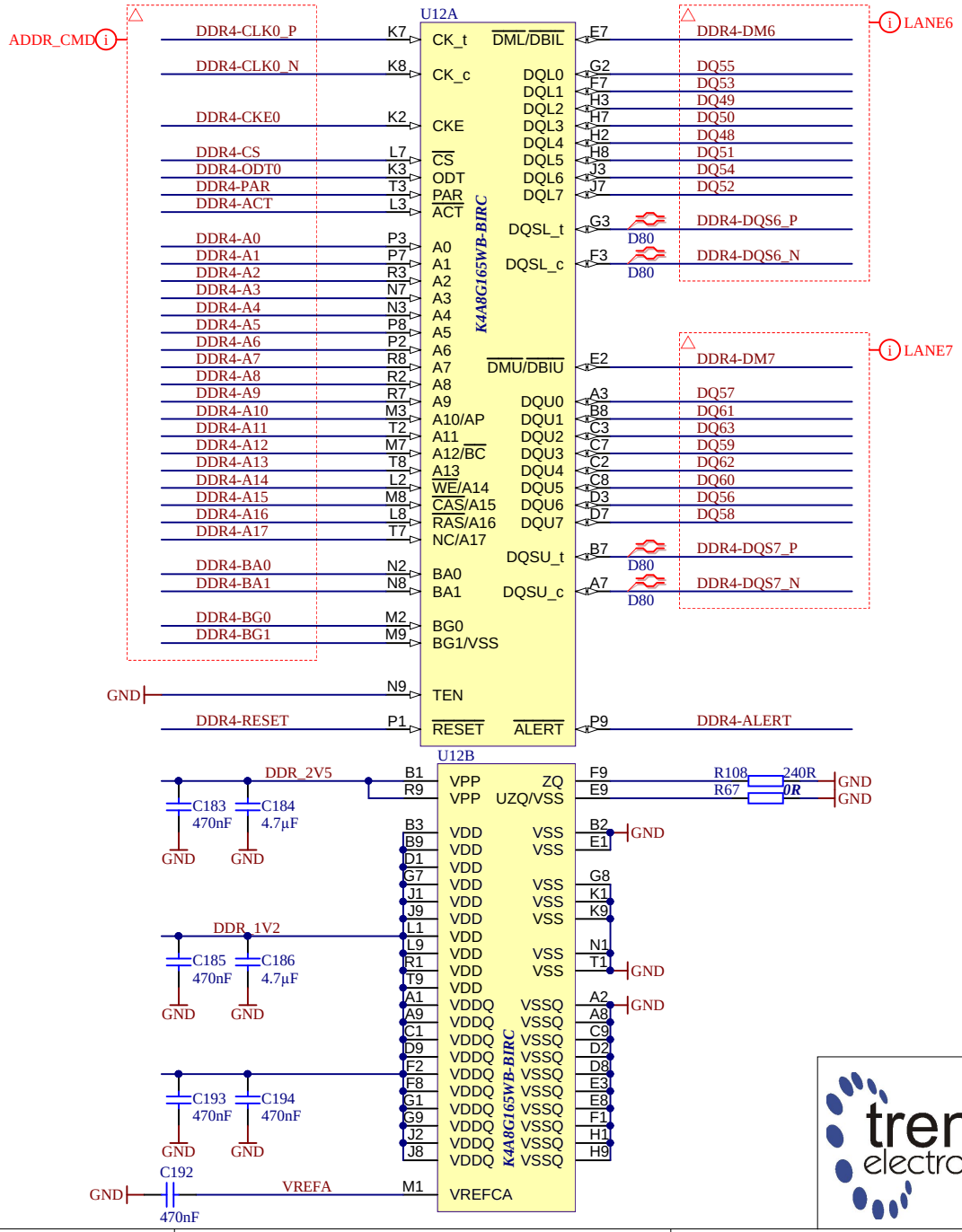
Title: TE0803 - DDR4_3_RAM			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page19 of 26
Filename: DDR4-RAM_3.SchDoc			



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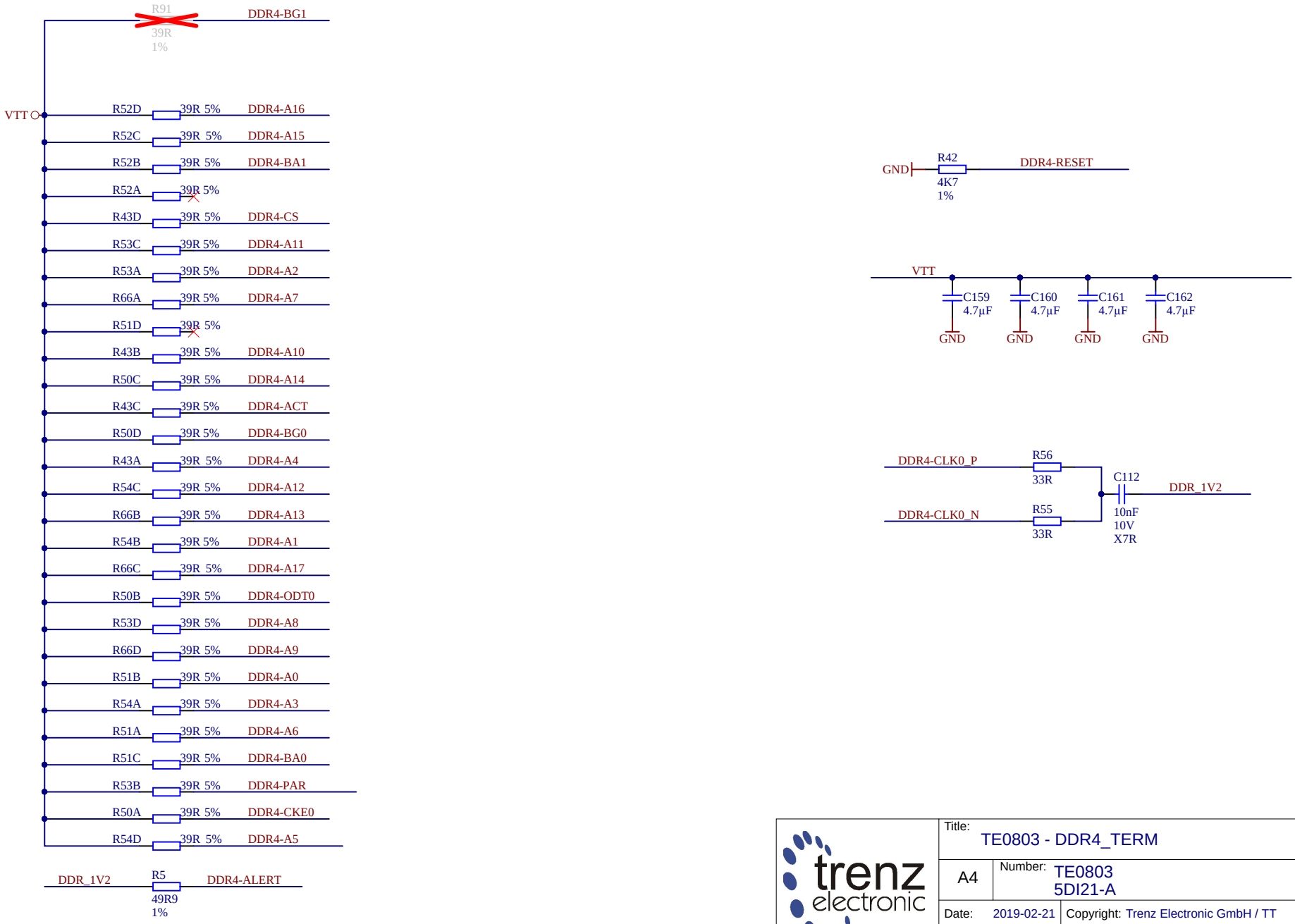
Title: TE0803 - DDR4_4_RAM			
A4	Number: TE0803 5DI21-A		Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page20 of 26
Filename: DDR4-RAM_4.SchDoc			



Title: TE0803 - DDR4_TERM			
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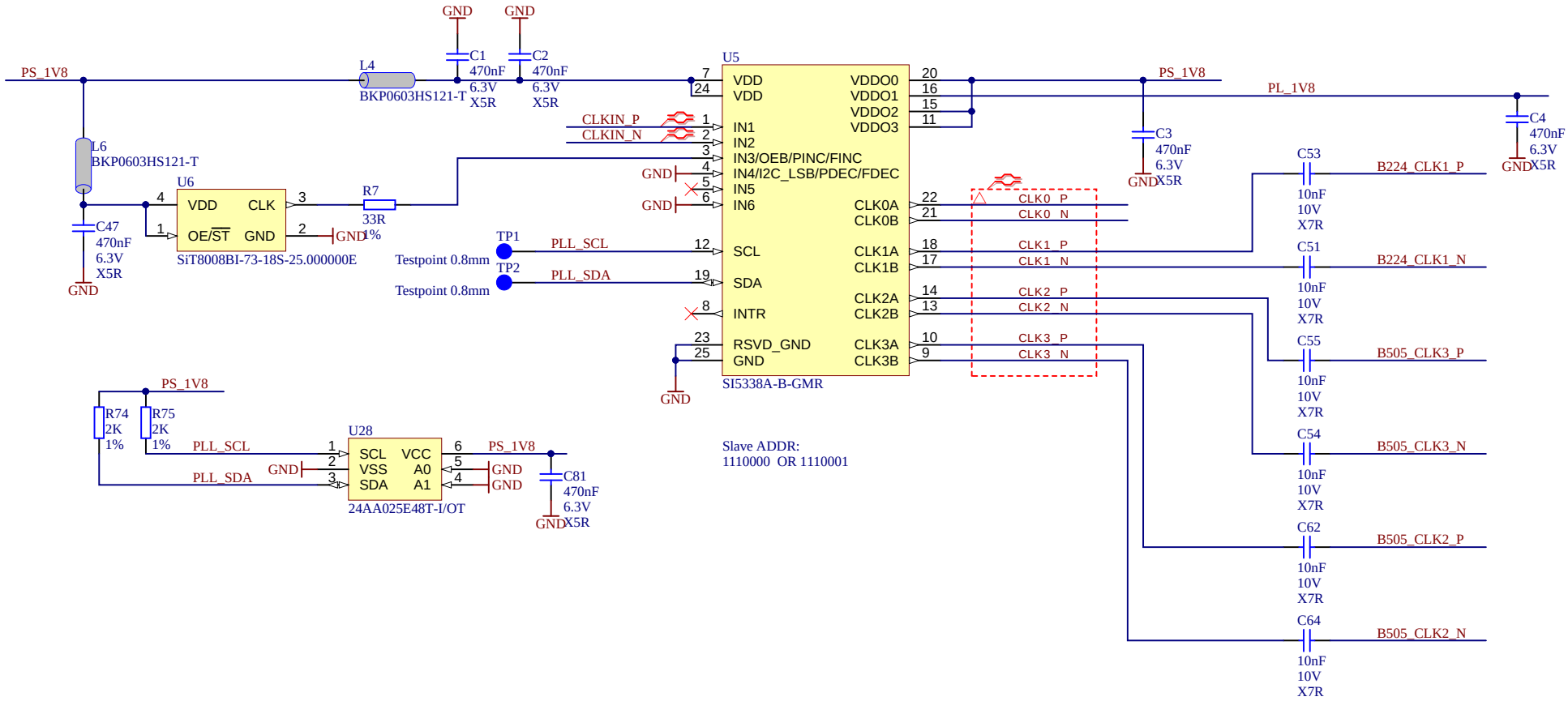
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page21 of 26
Filename: DDR4-TERM.SchDoc			



trenz electronic	Title: TE0803 - CLOCK		
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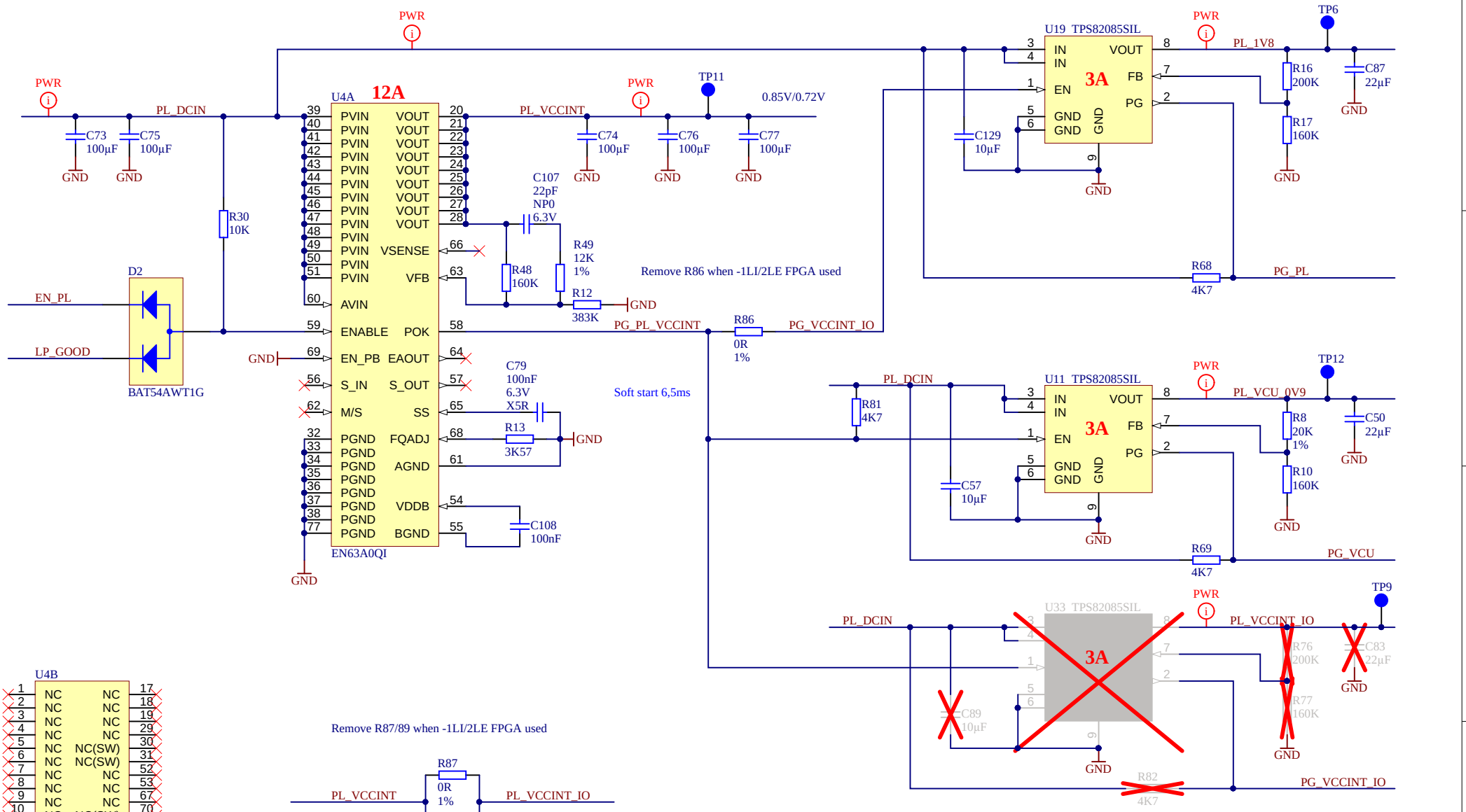
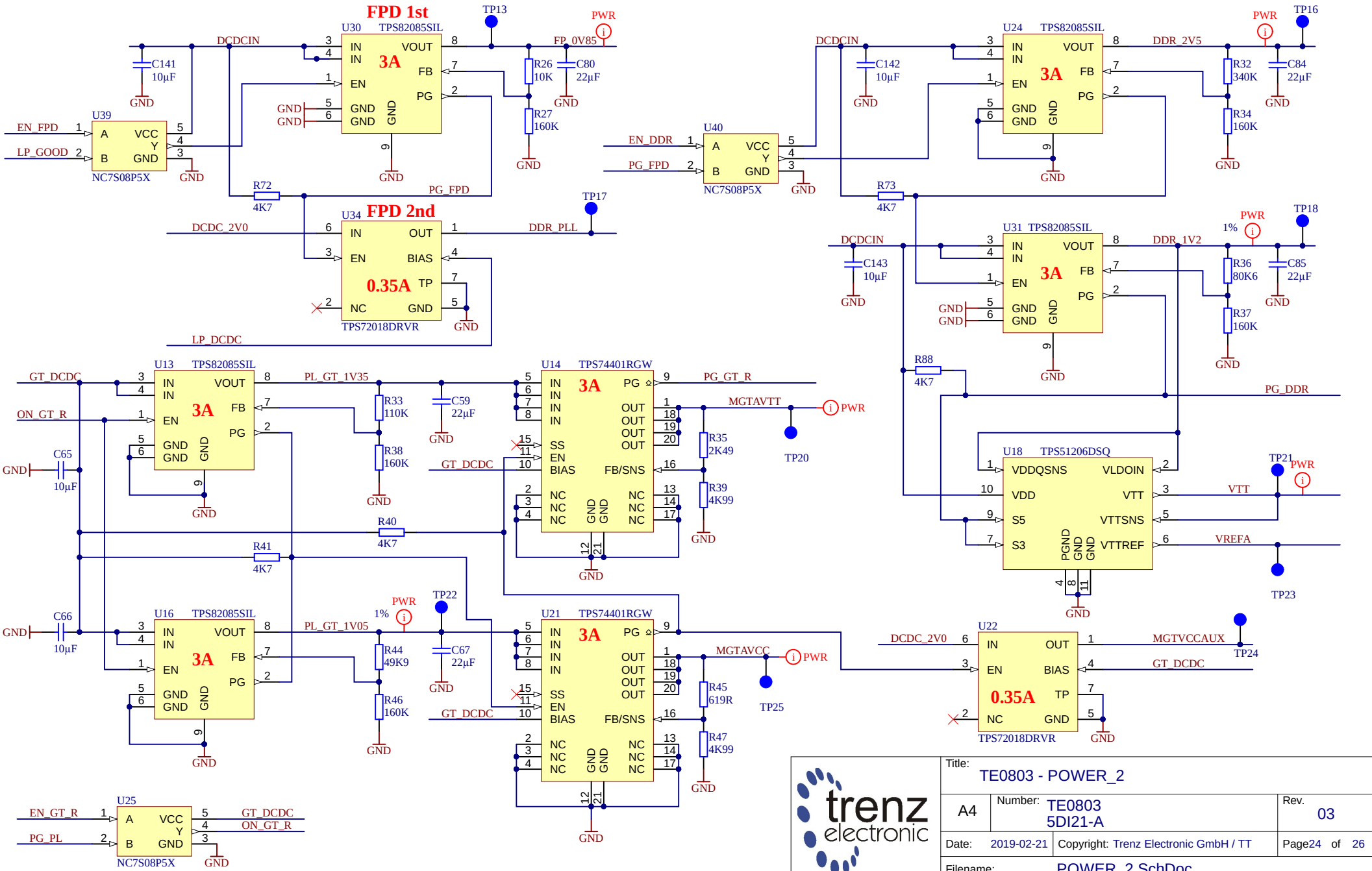
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page22 of 26
Filename: Clock.SchDoc			



Title: TE0803 - POWER		
A4	Number: TE0803 5DI21-A	Rev. 03
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT	Page23 of 26
Filename: POWER.SchDoc		



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Title:	TE0803 - POWER_2		
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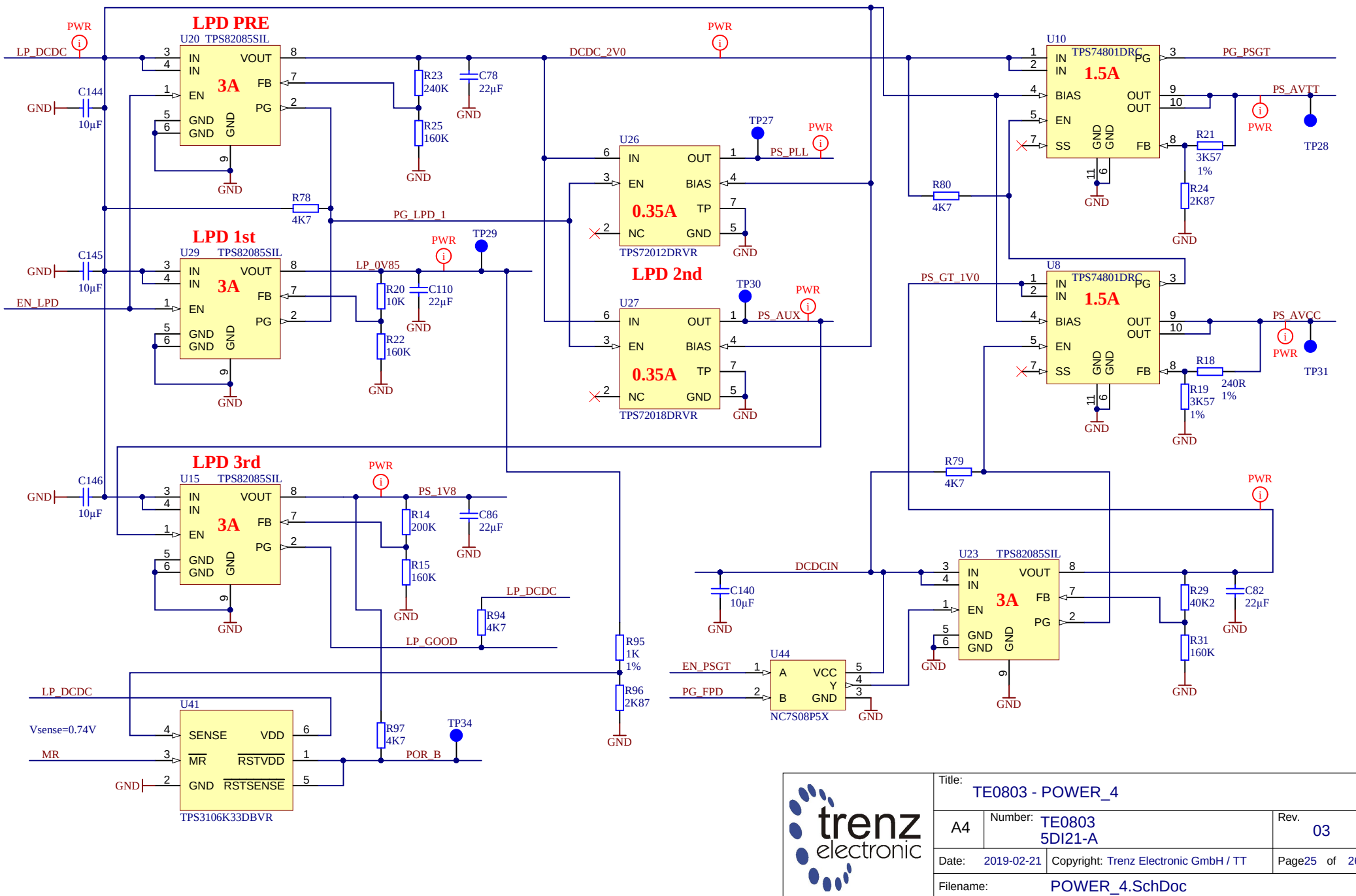
Date: 2019-02-21	Copyright: Trenz Electronic GmbH / TT		Page24 of 26
Filename:	POWER_2.SchDoc		


LPD PRE
U20 TPS82085SIL
LP_DCDC
PWR
C144
10µF
GND
R23
240K
C78
22µF
R25
160K
DCDC_2V0
R78
4K7
PG_LPD_1
LPD 1st
U29 TPS82085SIL
C145
10µF
EN_LPD
LP_0V85
R20
10K
C110
22µF
R22
160K
TP29
U26
TPS72012DRVR
0.35A
PS_PLL
TP27
LPD 2nd
U27
TPS72018DRVR
PS_AUX
TP30
LPD 3rd
U15 TPS82085SIL
C146
10µF
PS_1V8
R14
200K
C86
22µF
R15
160K
LP_DCDC
R94
4K7
LP_GOOD
R95
1K
1%
R96
2K87
U41
TPS3106K33DBVR
Vsense=0.74V
MR
R97
4K7
POR_B
TP34
U10
TPS74801DRC
1.5A
PG_PSGT
PS_AVTT
TP28
R21
3K57
1%
R24
2K87
R80
4K7
U8
PS_GT_1V0
PS_AVCC
TP31
R18
240R
1%
R19
3K57
1%
R79
4K7
U23 TPS82085SIL
DCDCIN
C140
10µF
R29
40K2
C82
22µF
R31
160K
U44
NC7S08P5X
EN_PSGT
PG_FPD
Title: TE0803 - POWER_4
A4
Number: TE0803 5DI21-A
Rev. 03
Date: 2019-02-21
Copyright: Trenz Electronic GmbH / TT
Page25 of 26
Filename: POWER_4.SchDoc

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):
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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):
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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

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