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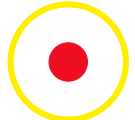





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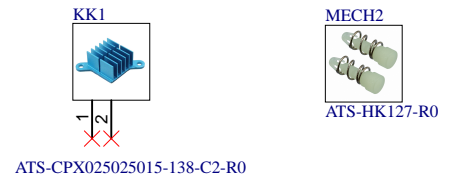
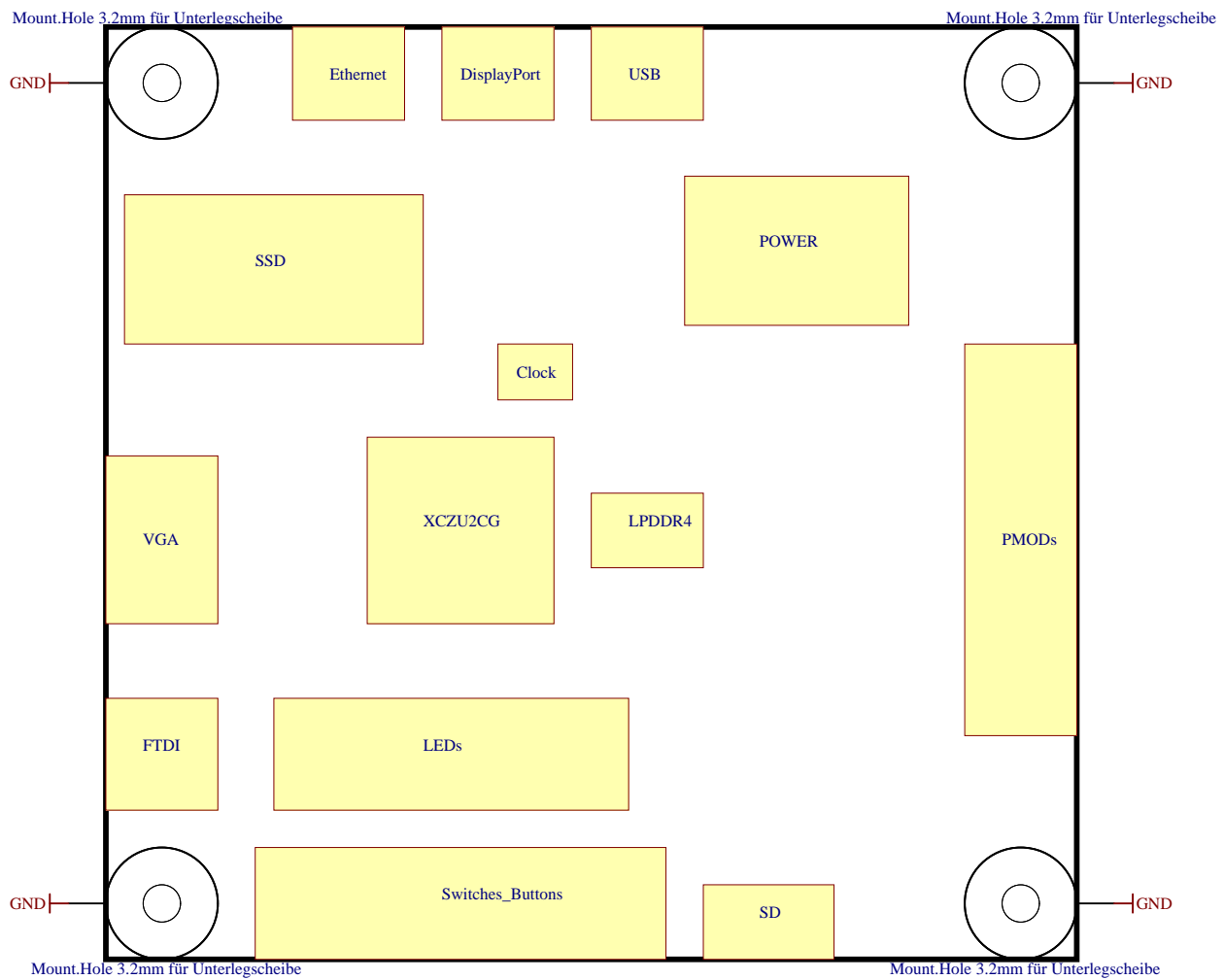
A

B

C

D

- PM1

FIDU-DOT - small
- PM2

FIDU-DOT - small
- PM3

FIDU-DOT - small
- PM4

FIDU-DOT - small
- PM6

FIDU-DOT - small
- PM5

FIDU-DOT - small



Assembly variant	1BEV2-A
Created by	ED
Modified by	ED
Modified at	2023-06-22
SVN Revision	Unknown revision

Serial1
Serial
Serialnumber 6,3 x 6,3mm

LOGO1
TE Logo PRINT Layer
LOGO PRINT

MISC1
Digilent Serialnumber
Digilent_SN



Title: TE0802		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 1 of 25
Drawn by: IG	Filename: TE0802.schdoc	

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A

B

C

D

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A

A

B

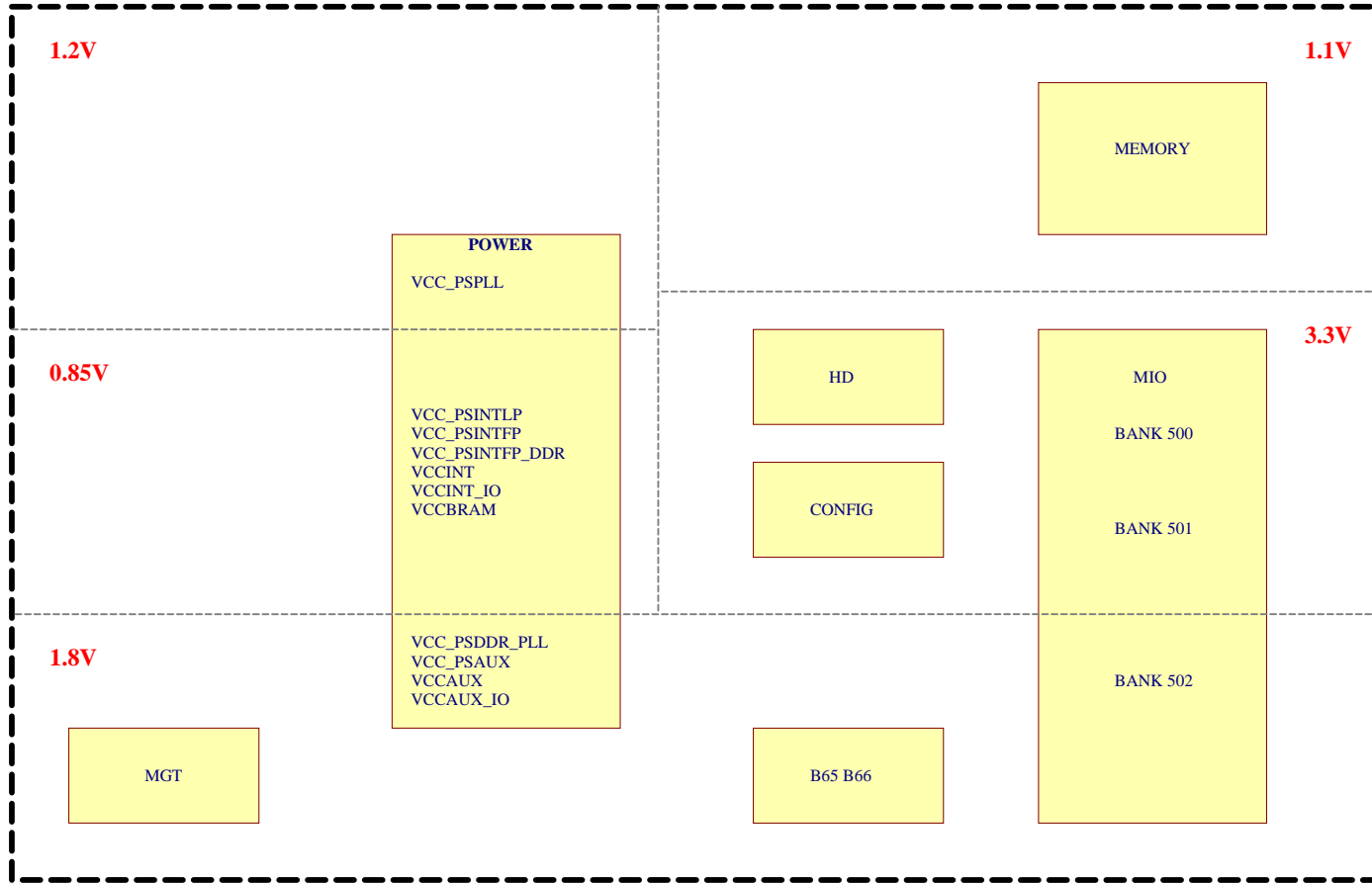
B


C

C

D

D



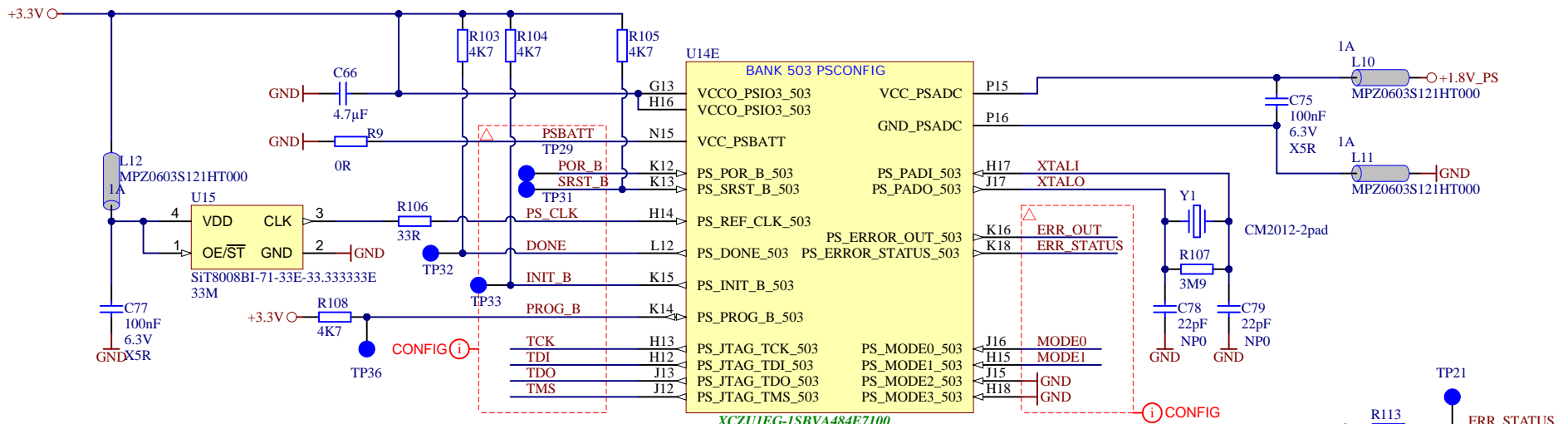
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		A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH	
Page 2 of 25		Filename: XCU2CG.SchDoc	
Drawn by: IG			

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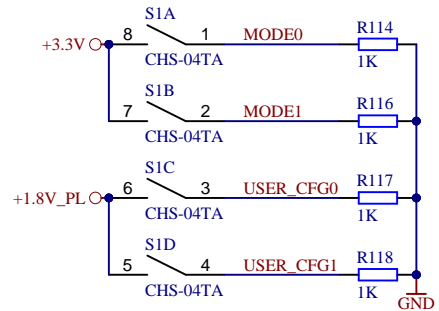
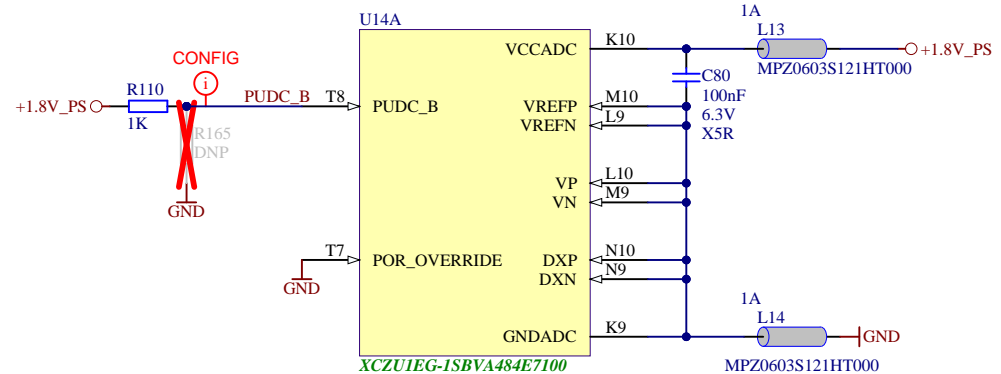
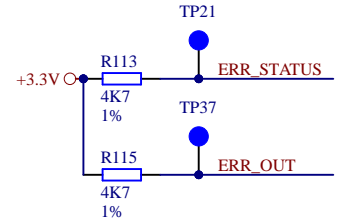


TP23 PSBATT
Testpoint 0.9mm THT

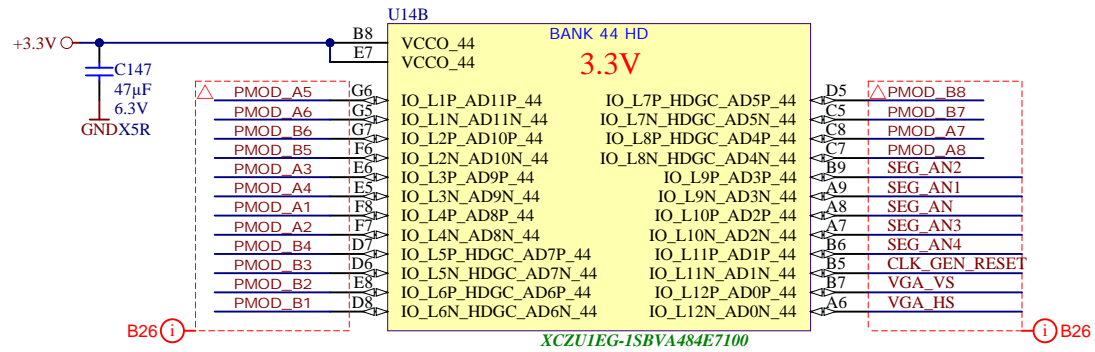
TP24
Testpoint 0.8mm THT

GND
Testpoint 0.8mm THT

	MODE [1:0]
JTAG	00
QSPI(24b)	01
QSPI(32b)	10
SD0(2.0)	11



Title: XCZU2CG_Config		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 3 of 25
Drawn by: IG	Filename: XCZU2CG_Config.SchDoc	



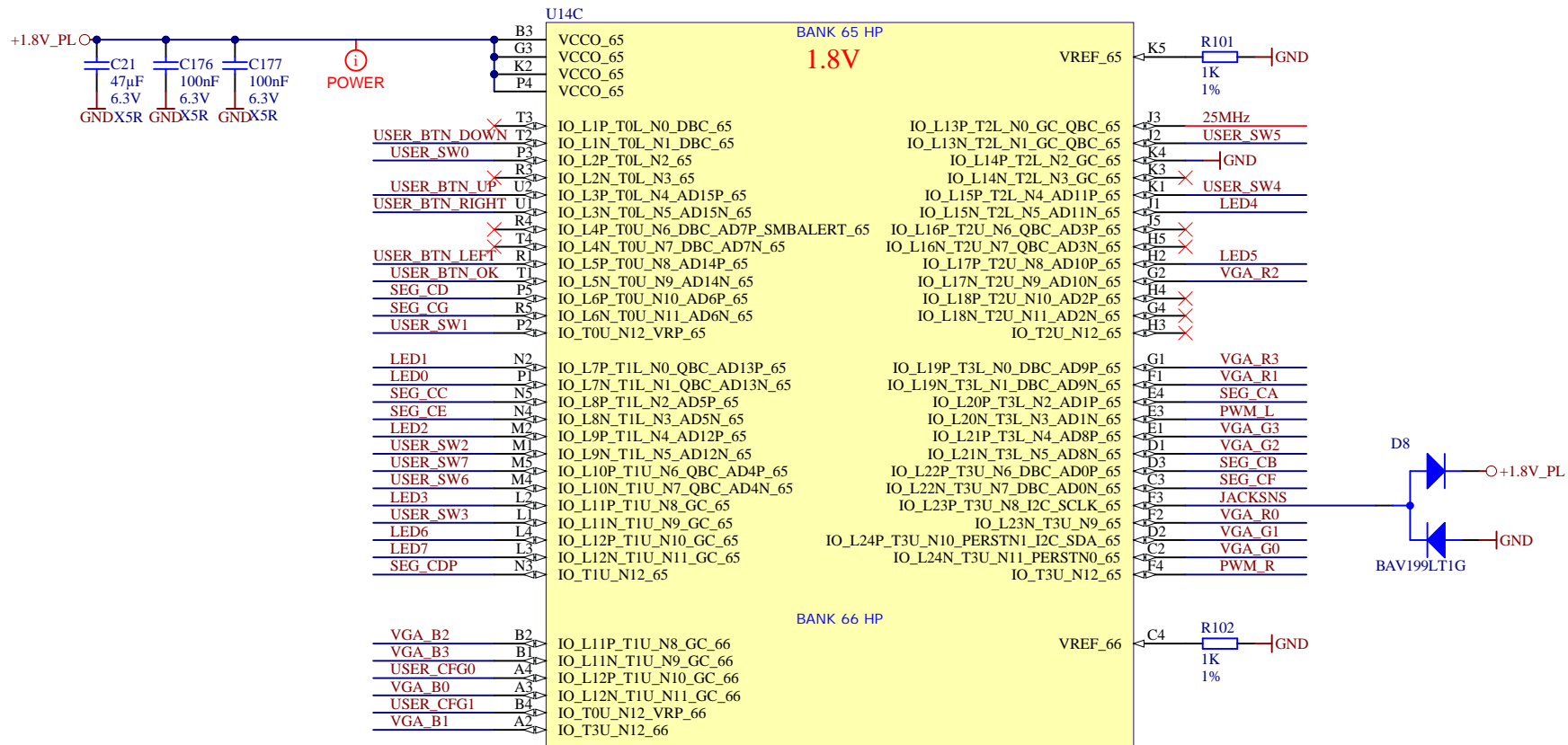
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	A4	Number: TE0802-02 1BEV2-A	Rev. 02
	Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 4 of 25
	Drawn by: IG	Filename: XCZU2CG_HD.SchDoc	

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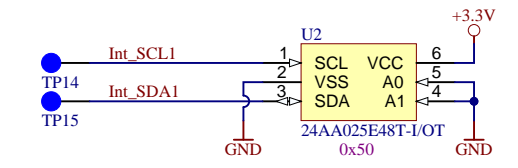
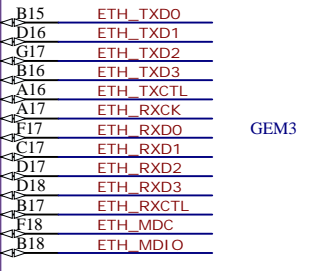
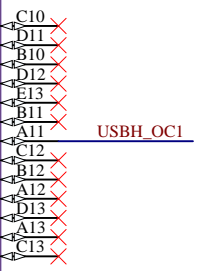
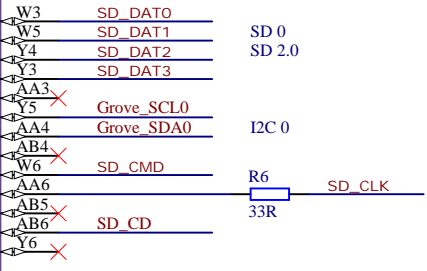
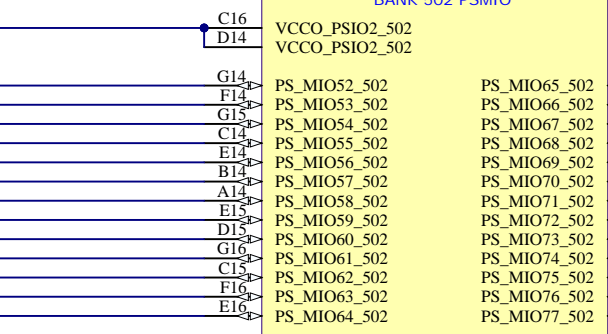
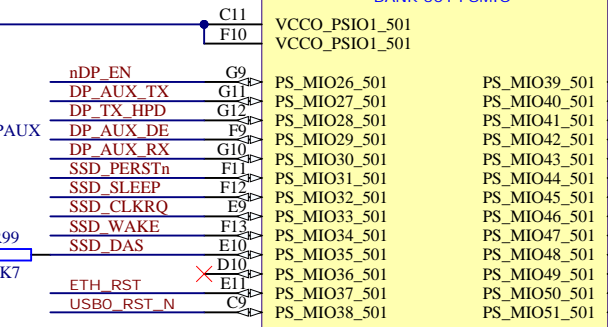
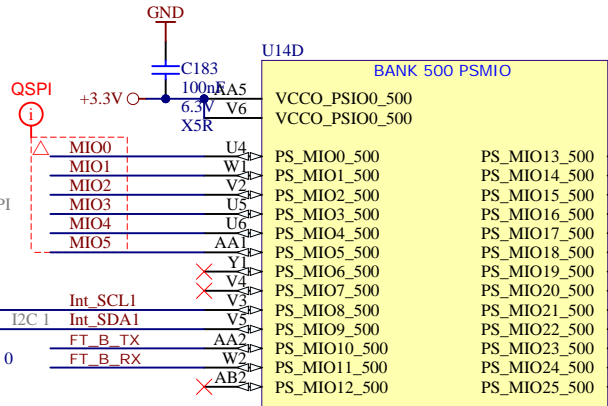
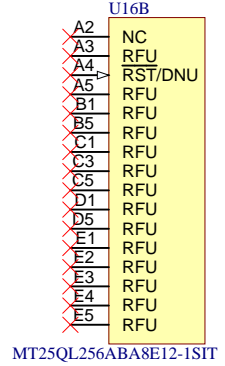
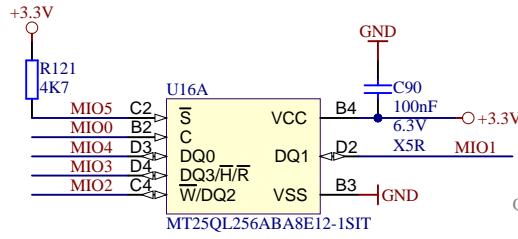
Title: XCZU2CG_B65_B66		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 5 of 25
Drawn by: IG	Filename: XCZU2CG_B65_B66.SchDoc	

1

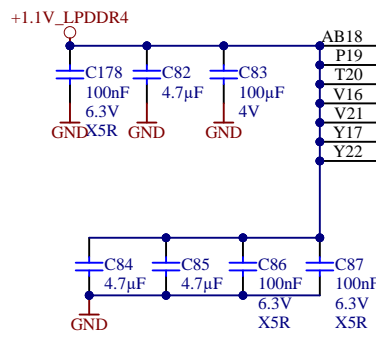
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		Title: XCZU2CG_MIO	
		A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH	
Page 6 of 25		Page 6 of 25	
Drawn by: IG		Filename: XCZU2CG_MIO.SchDoc	



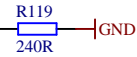
U14F
BANK 504 PSDDR
XCZU1EG-1SBVA484E7100

V20	LPDDR4_CKA_P
W20	LPDDR4_CKA_N
U22	LPDDR4_CKE0
V18	LPDDR4_CKB_P
V19	LPDDR4_CKB_N
U21	LPDDR4_CKE1
AA22	LPDDR4_CAA0
AB20	LPDDR4_CAA1
AB17	LPDDR4_CAA2
AB19	LPDDR4_CAA3
AB21	LPDDR4_CAA4
AB16	LPDDR4_CAA5
Y20	X
Y19	X
W17	X
Y18	X
Y21	LPDDR4_CAB0
AA21	LPDDR4_CAB1
AA18	LPDDR4_CAB2
AA19	LPDDR4_CAB3
AA17	LPDDR4_CAB4
AA16	LPDDR4_CAB5
Y16	X
W16	X
V22	LPDDR4_CS0_N
U20	LPDDR4_CS1_N
U17	X
V17	X
U16	X
W18	X
U19	X
T18	LPDDR4_RST
U15	X
T21	X
T19	LPDDR4_ZQ
W22	X
W21	X

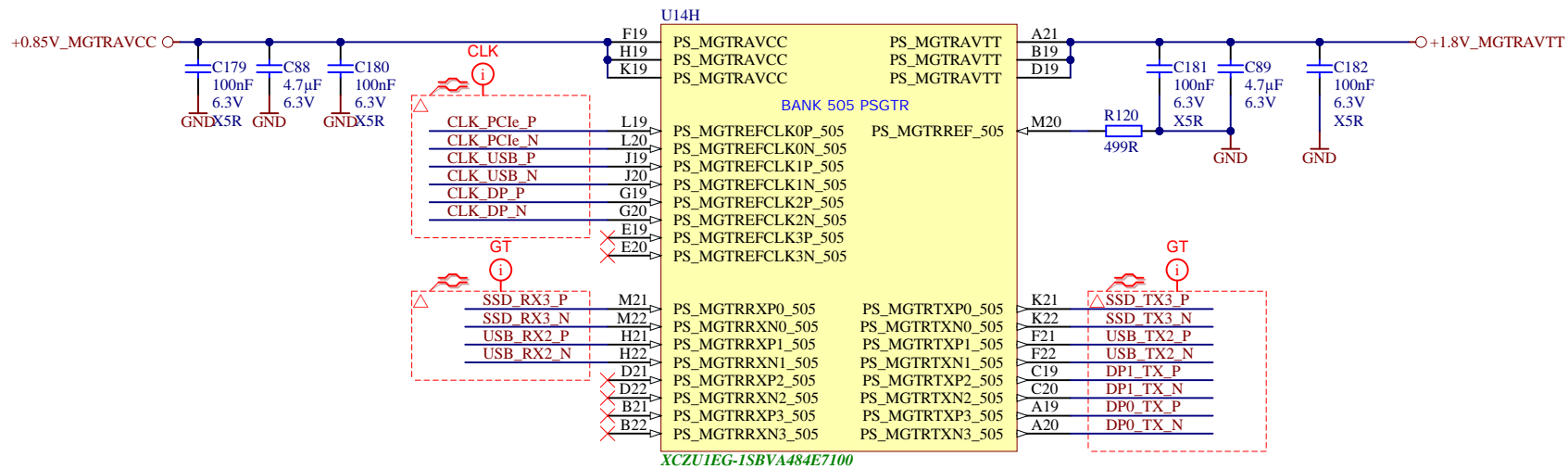
U14G
BANK 504 PSDDR
XCZU1EG-1SBVA484E7100

LPDDR4_DQ0	AB11	PS_DDR_DQ0_504	PS_DDR_DQ20_504	U7	LPDDR4_DQ20
LPDDR4_DQ1	Y10	PS_DDR_DQ1_504	PS_DDR_DQ21_504	P9	LPDDR4_DQ21
LPDDR4_DQ2	AB10	PS_DDR_DQ2_504	PS_DDR_DQ22_504	U10	LPDDR4_DQ22
LPDDR4_DQ3	W10	PS_DDR_DQ3_504	PS_DDR_DQ23_504	T10	LPDDR4_DQ23
LPDDR4_DQ4	AA8	PS_DDR_DQ4_504	PS_DDR_DQ24_504	U11	LPDDR4_DQ24
LPDDR4_DQ5	Y8	PS_DDR_DQ5_504	PS_DDR_DQ25_504	U12	LPDDR4_DQ25
LPDDR4_DQ6	AB7	PS_DDR_DQ6_504	PS_DDR_DQ26_504	W12	LPDDR4_DQ26
LPDDR4_DQ7	AA7	PS_DDR_DQ7_504	PS_DDR_DQ27_504	W11	LPDDR4_DQ27
LPDDR4_DQ8	AA1	PS_DDR_DQ8_504	PS_DDR_DQ28_504	V14	LPDDR4_DQ28
LPDDR4_DQ9	Y1	PS_DDR_DQ9_504	PS_DDR_DQ29_504	U14	LPDDR4_DQ29
LPDDR4_DQ10	AA12	PS_DDR_DQ10_504	PS_DDR_DQ30_504	W15	LPDDR4_DQ30
LPDDR4_DQ11	AB12	PS_DDR_DQ11_504	PS_DDR_DQ31_504	V15	LPDDR4_DQ31
LPDDR4_DQ12	Y14	PS_DDR_DQ12_504	PS_DDR_DQ64_504	T22	X
LPDDR4_DQ13	AA14	PS_DDR_DQ13_504	PS_DDR_DQ65_504	P22	X
LPDDR4_DQ14	Y15	PS_DDR_DQ14_504	PS_DDR_DQ66_504	R21	X
LPDDR4_DQ15	AB15	PS_DDR_DQ15_504	PS_DDR_DQ67_504	P21	X
LPDDR4_DQ16	W8	PS_DDR_DQ16_504	PS_DDR_DQ68_504	R18	X
LPDDR4_DQ17	W7	PS_DDR_DQ17_504	PS_DDR_DQ69_504	P18	X
LPDDR4_DQ18	V7	PS_DDR_DQ18_504	PS_DDR_DQ70_504	N18	X
LPDDR4_DQ19	V10	PS_DDR_DQ19_504	PS_DDR_DQ71_504	N19	X
LPDDR4_DQSA0_P	Y9	PS_DDR_DQS_P0_504			
LPDDR4_DQSA0_N	AA9	PS_DDR_DQS_N0_504			
LPDDR4_DQSA1_P	Y13	PS_DDR_DQS_P1_504			
LPDDR4_DQSA1_N	AA13	PS_DDR_DQS_N1_504			
LPDDR4_DQSB0_P	V9	PS_DDR_DQS_P2_504			
LPDDR4_DQSB0_N	V8	PS_DDR_DQS_N2_504	PS_DDR_DM0_504	AB9	LPDDR4_DMA0
LPDDR4_DQSB1_P	V12	PS_DDR_DQS_P3_504	PS_DDR_DM1_504	AB14	LPDDR4_DMA1
LPDDR4_DQSB1_N	V13	PS_DDR_DQS_N3_504	PS_DDR_DM2_504	U9	LPDDR4_DMB0
	P20	PS_DDR_DQS_P8_504	PS_DDR_DM3_504	W13	LPDDR4_DMB1
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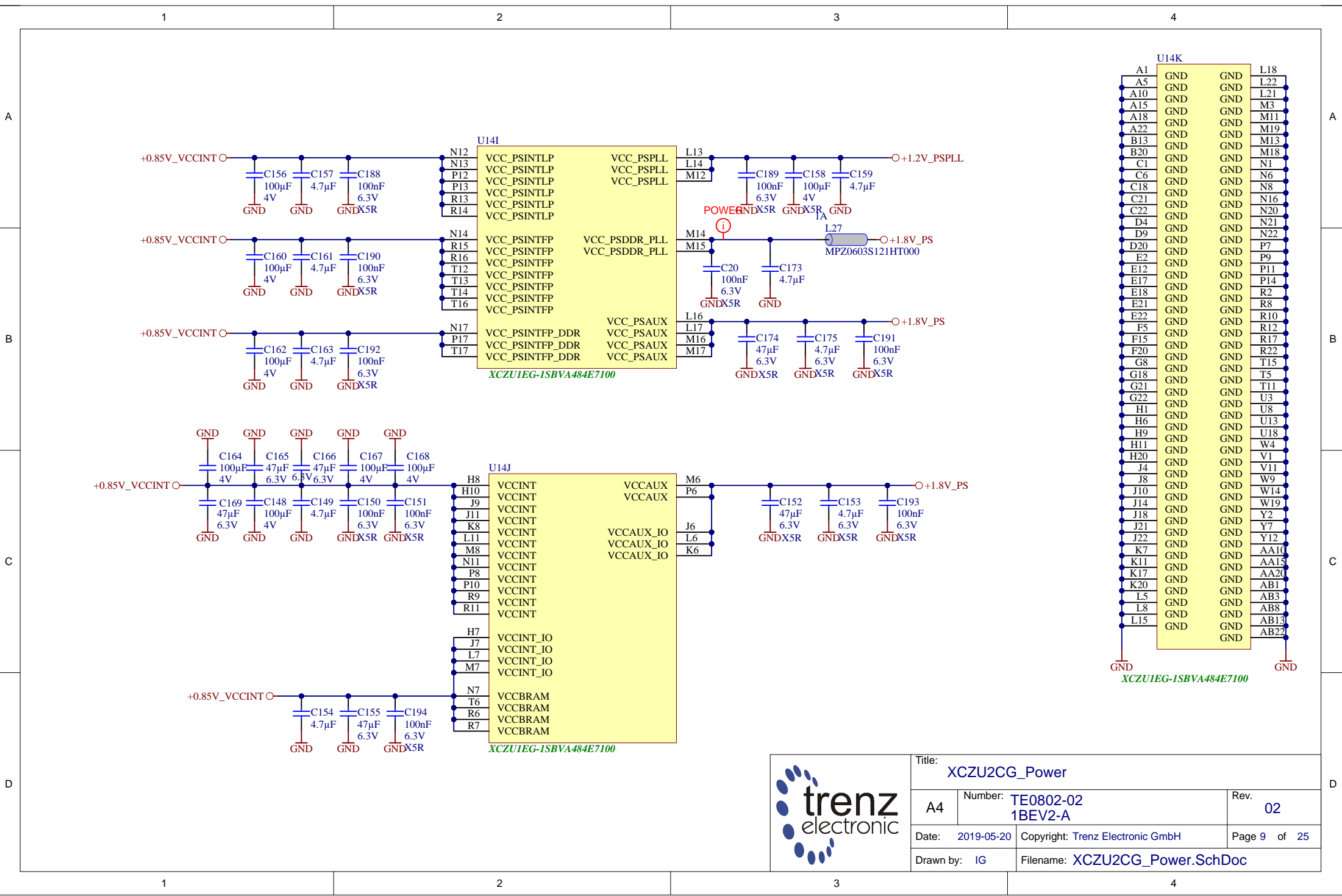
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	Title: XCZU2CG_Memory		
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	Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 7 of 25
	Drawn by: IG	Filename: XCZU2CG_Memory.SchDoc	



	Title: XCZU2CG_MGT		
	A4	Number: TE0802-02 1BEV2-A	Rev. 02
	Date: 2019-05-20	Copyright: Trenz Electronic GmbH	
	Drawn by: IG	Filename: XCZU2CG_MGT.SchDoc	

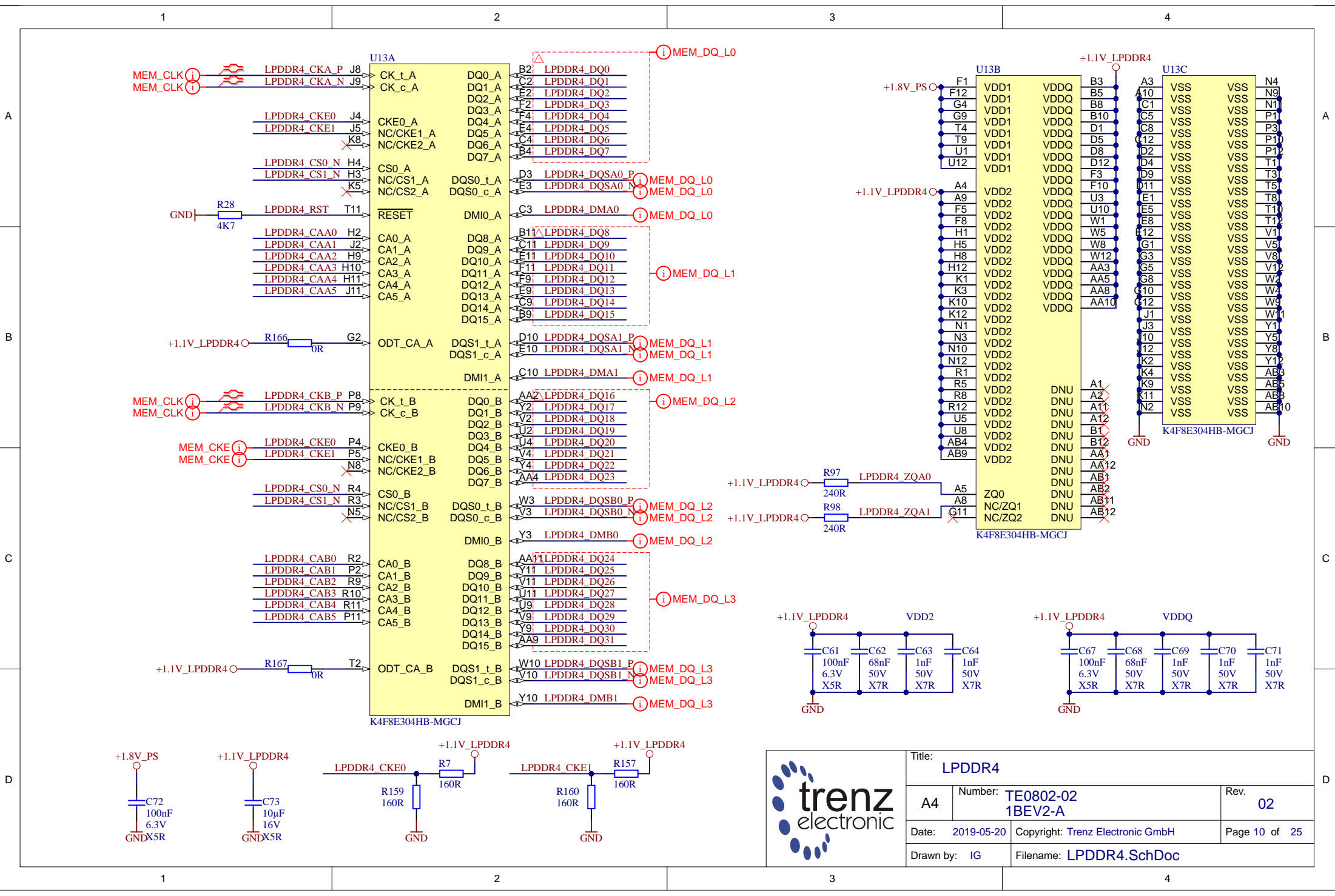



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			A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH		Page 9 of 25
Drawn by: IG		Filename: XZU2CG_Power.SchDoc		

U14K

A1	GND	GND	L18
A5	GND	GND	L22
A10	GND	GND	L21
A15	GND	GND	M3
A18	GND	GND	M11
A22	GND	GND	M19
B13	GND	GND	M13
B20	GND	GND	M18
C1	GND	GND	N1
C6	GND	GND	N6
C18	GND	GND	N8
C21	GND	GND	N16
C22	GND	GND	N20
D4	GND	GND	N21
D9	GND	GND	N22
D20	GND	GND	P7
E2	GND	GND	P9
E12	GND	GND	P11
E17	GND	GND	P14
E18	GND	GND	R2
E21	GND	GND	R8
E22	GND	GND	R10
F5	GND	GND	R12
F15	GND	GND	R17
F20	GND	GND	R22
G8	GND	GND	T15
G18	GND	GND	T5
G21	GND	GND	T11
G22	GND	GND	U3
H1	GND	GND	U8
H6	GND	GND	U13
H9	GND	GND	U18
H11	GND	GND	W4
H20	GND	GND	V1
J4	GND	GND	V11
J8	GND	GND	W9
J10	GND	GND	W14
J14	GND	GND	W19
J18	GND	GND	Y2
J21	GND	GND	Y7
J22	GND	GND	Y12
K7	GND	GND	AA10
K11	GND	GND	AA15
K17	GND	GND	AA20
K20	GND	GND	AB1
L5	GND	GND	AB3
L8	GND	GND	AB8
L15	GND	GND	AB13
	GND	GND	AB22

XZU1EG-1SBVA484E7100



			Title: LPDDR4	
			A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH		Rev. 02
Drawn by: IG		Filename: LPDDR4.SchDoc		

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A

A

B

B

C

C

D

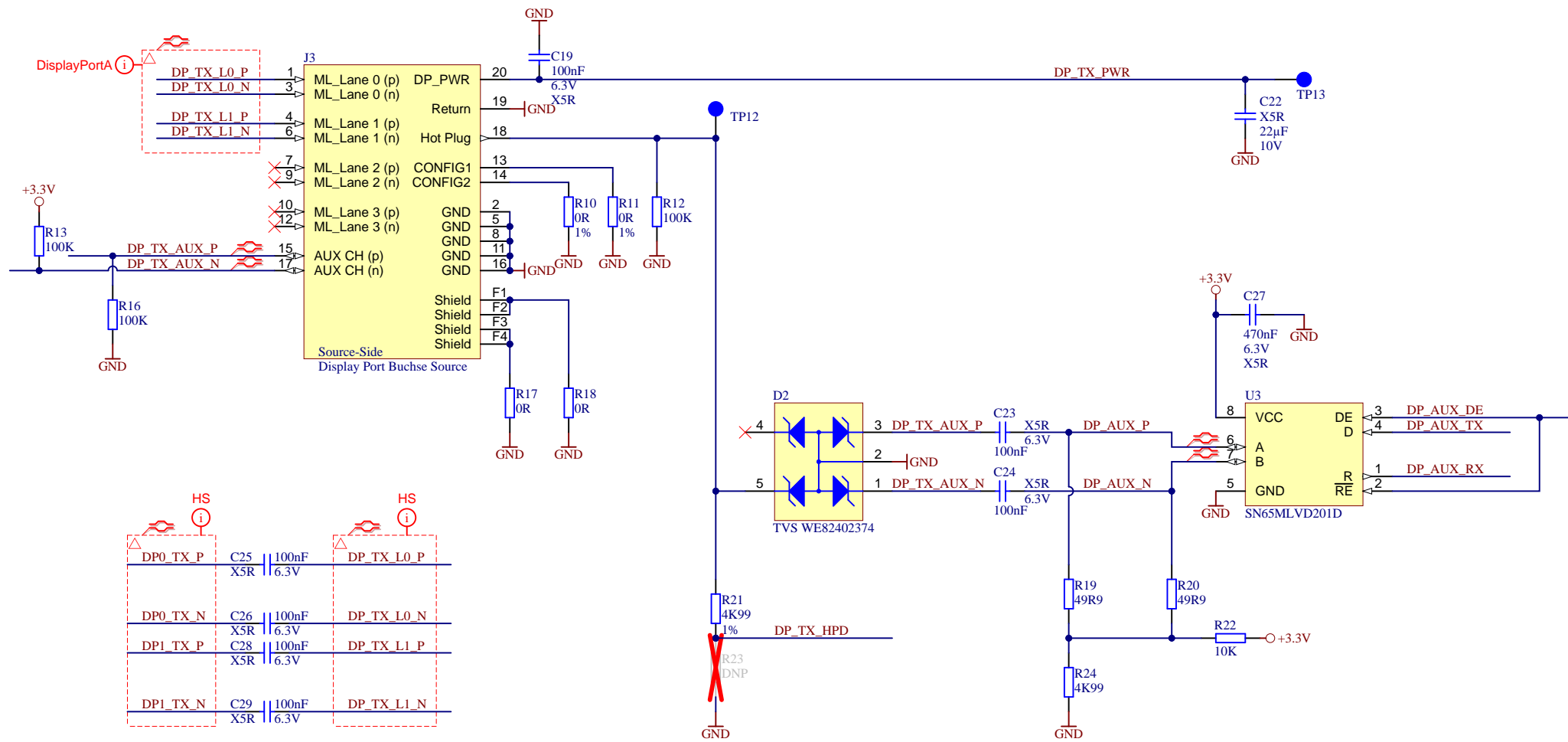
D


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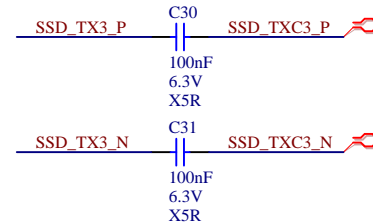
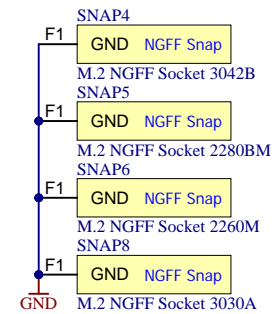
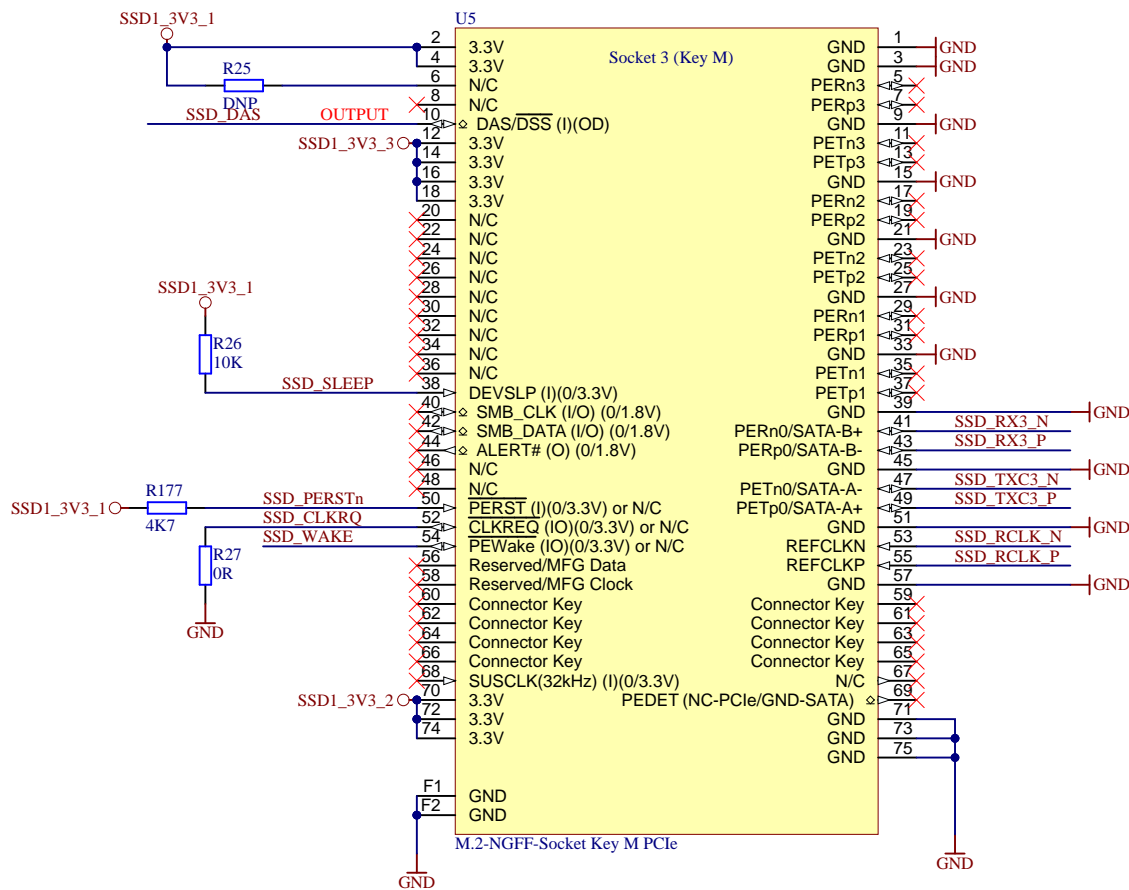
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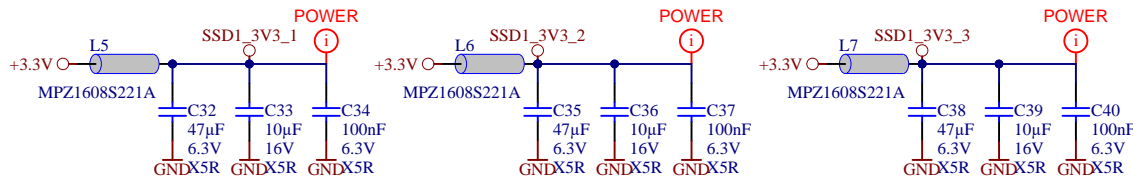



			Title: DisplayPort	
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Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 11 of 25		
Drawn by: IG	Filename: DisplayPort.schdoc			

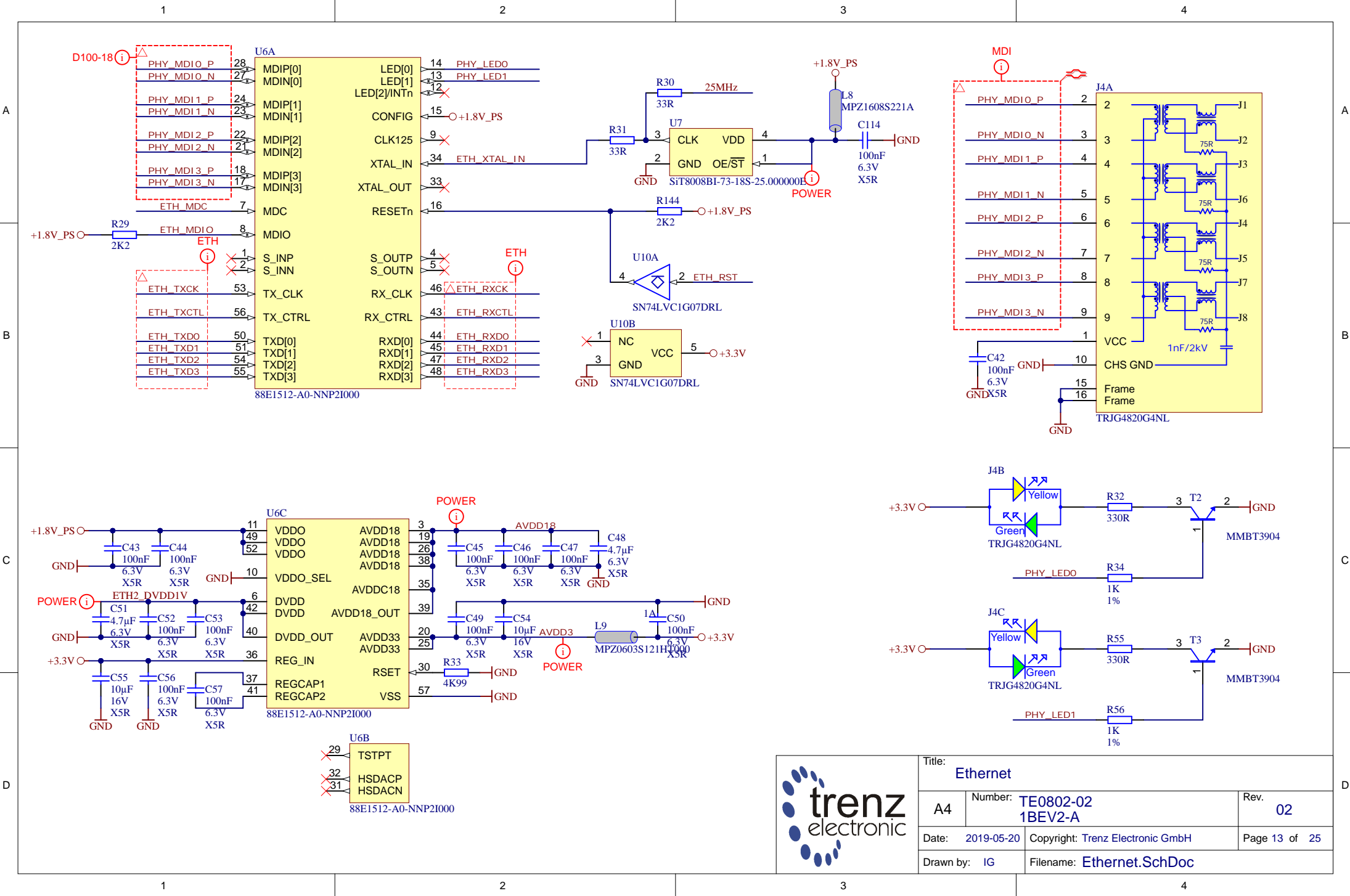



MECH1

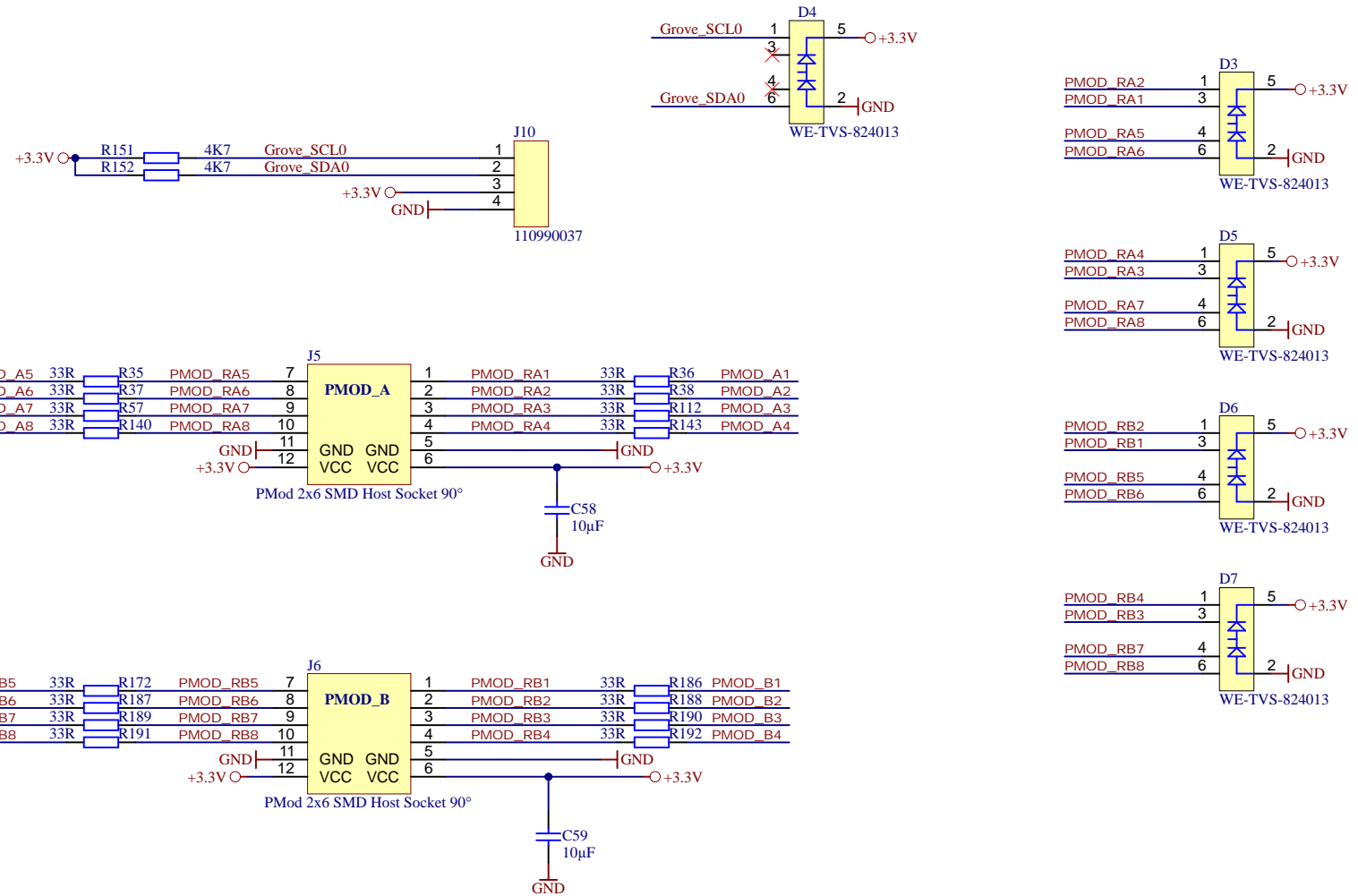
 M.2 NGFF SMD-Abstandsbolzen - M3 - 1.5mm





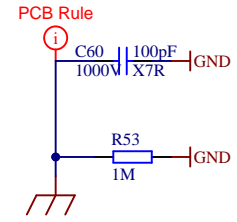
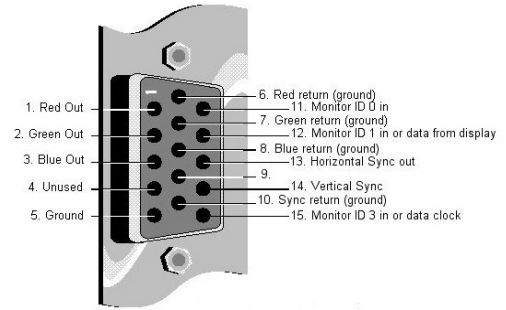
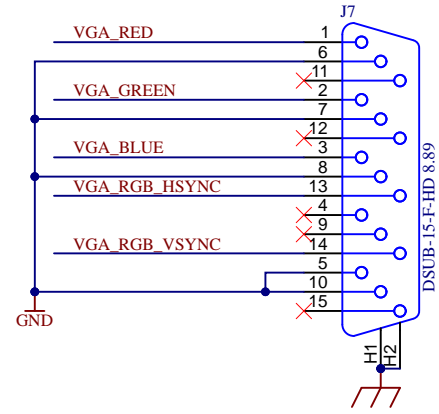
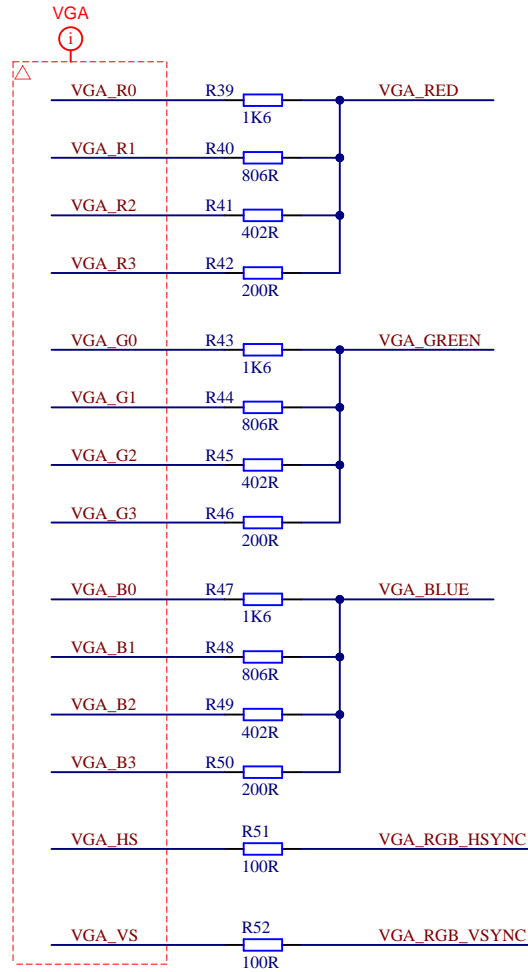
Title: SSD		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	
Page 12 of 25	Page 12 of 25	
Drawn by: IG	Filename: SSD.SchDoc	



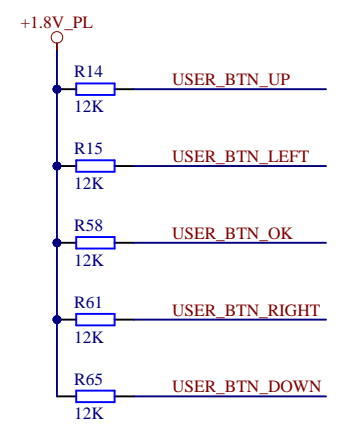
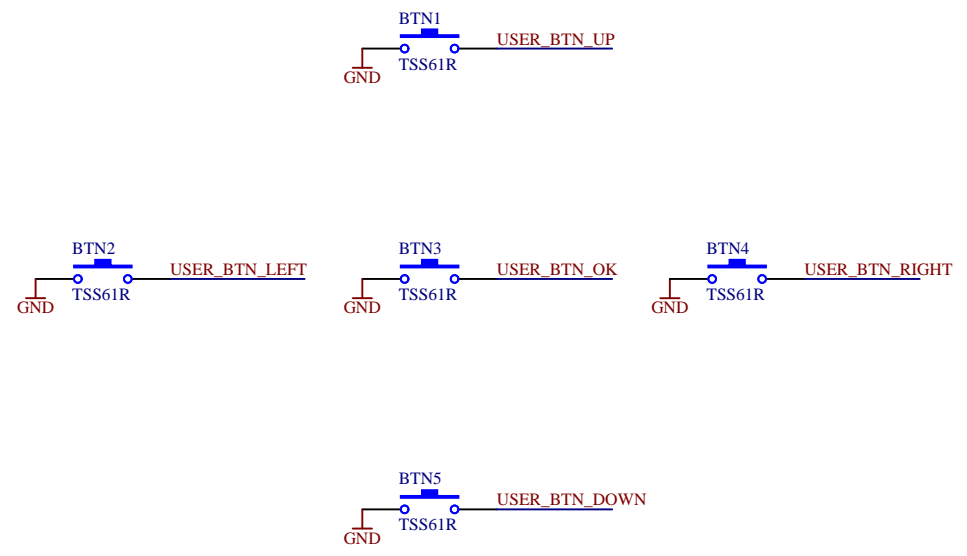
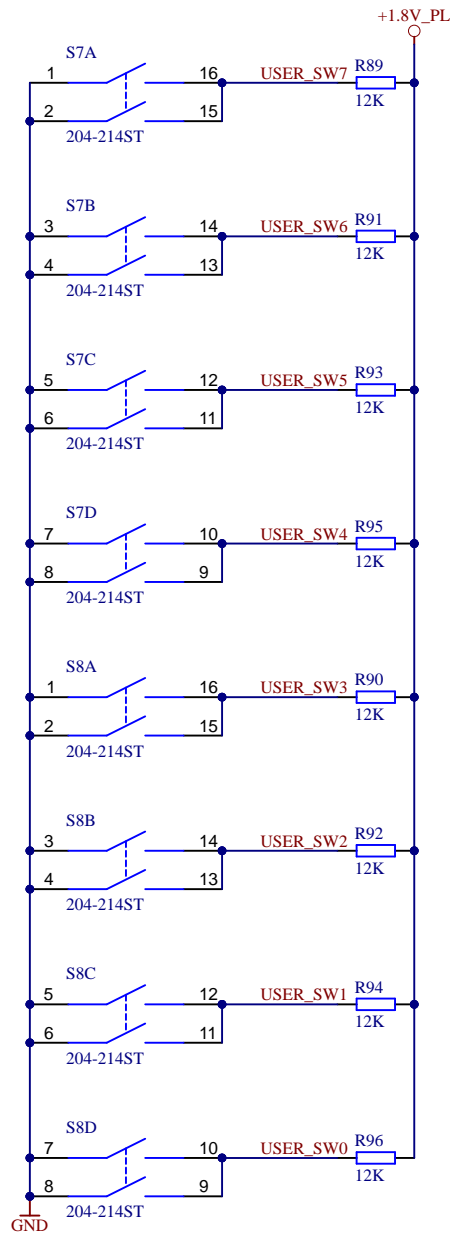
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			A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH		Page 13 of 25
Drawn by: IG		Filename: Ethernet.SchDoc		




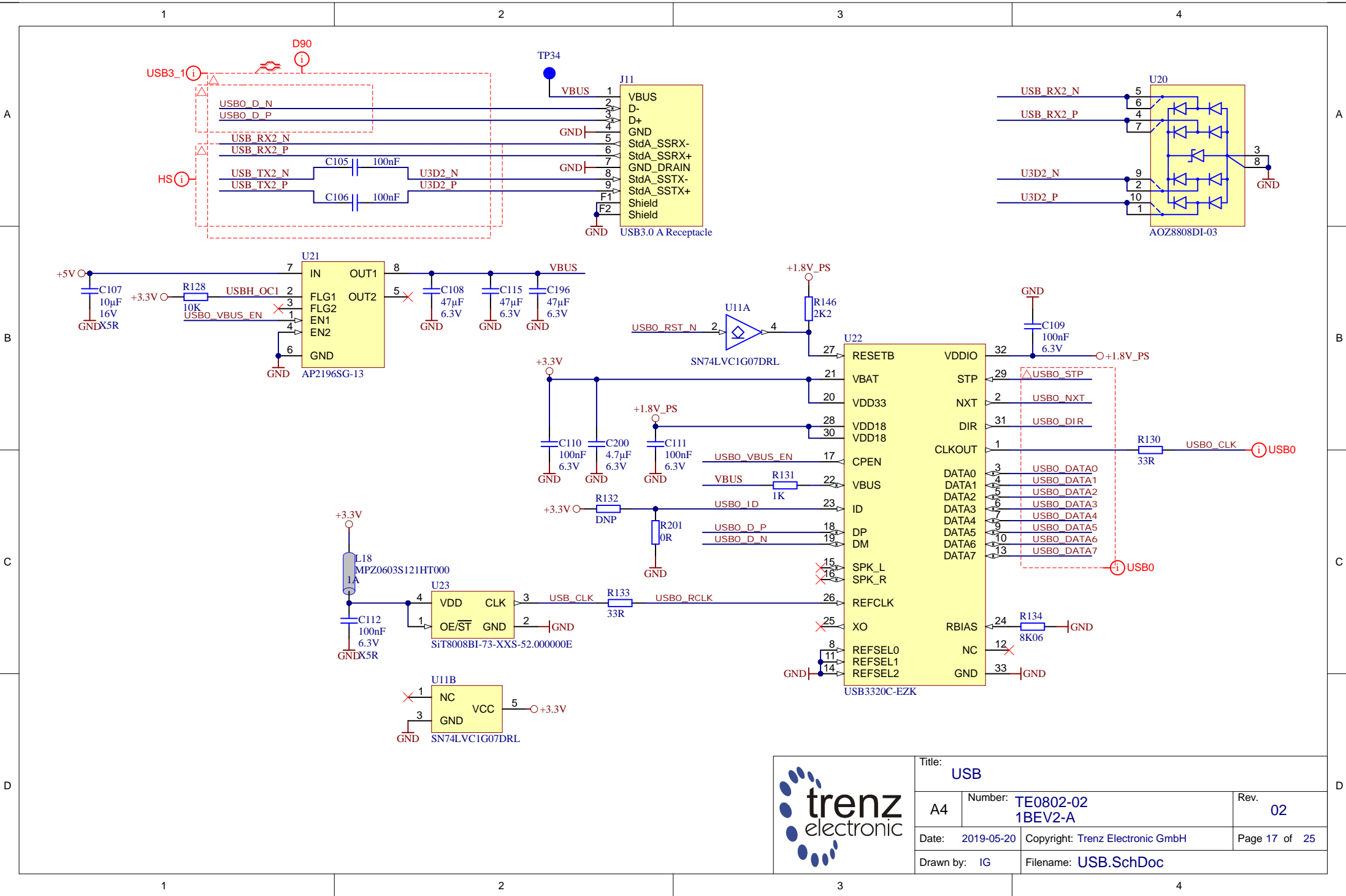
			Title: PMODs	
			A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH		Page 14 of 25
Drawn by: IG		Filename: PMODs.SchDoc		




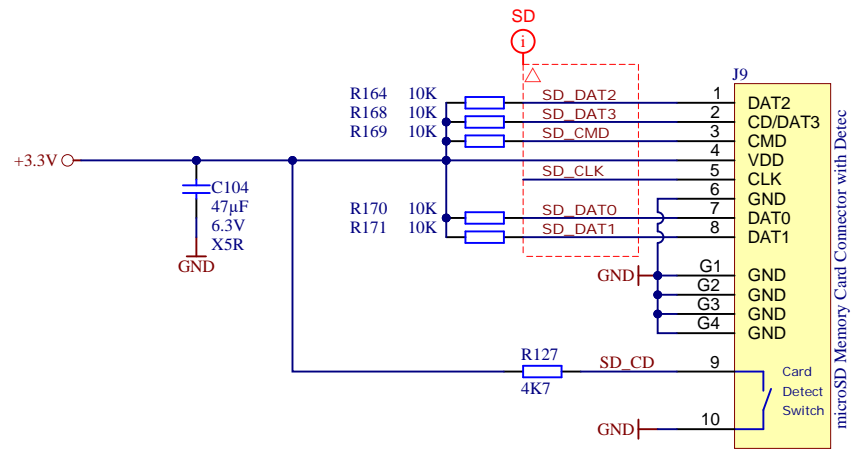
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A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 15 of 25
Drawn by: IG	Filename: VGA_OUT.SchDoc	




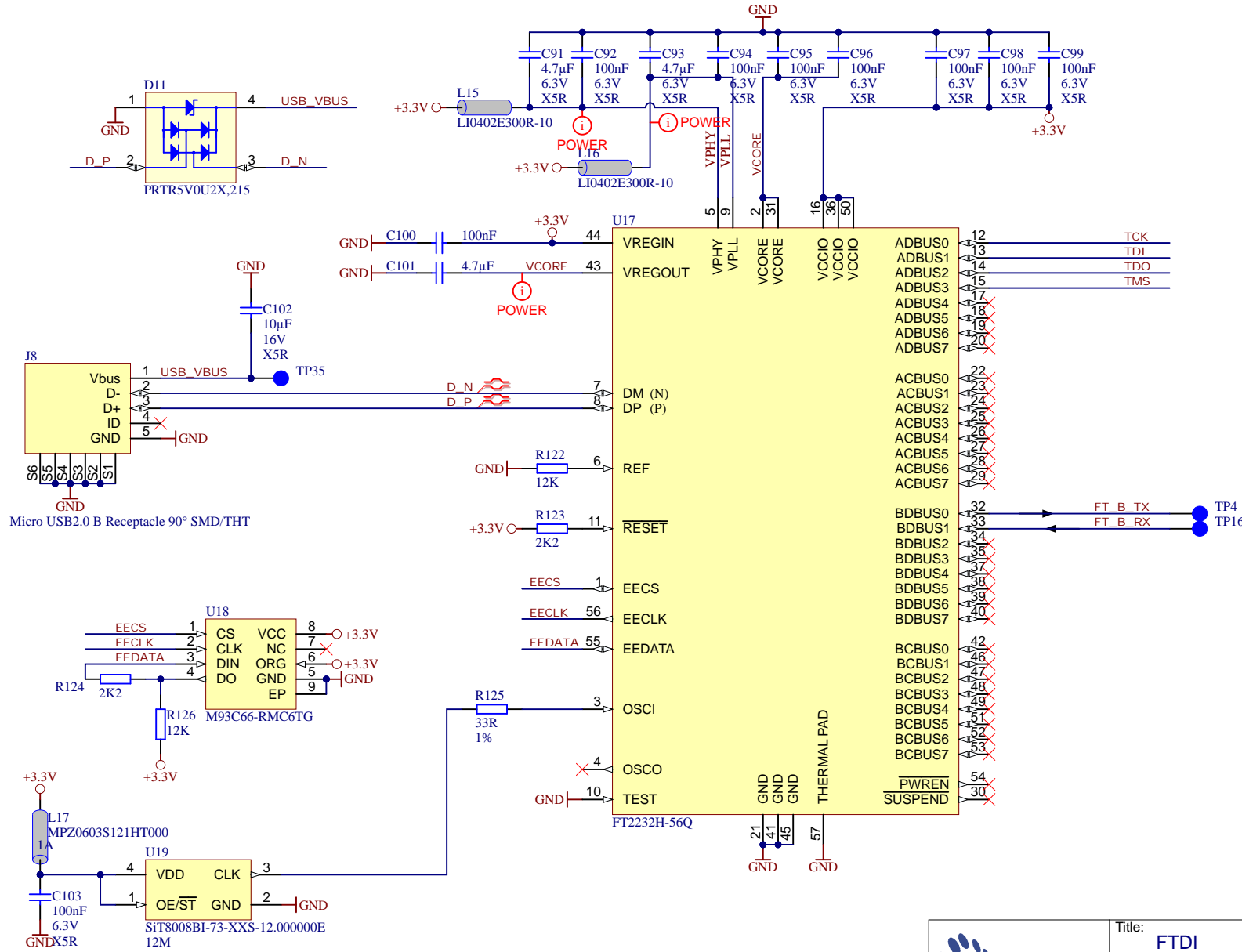
			Title: Switches_Buttons	
			A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH		Page 16 of 25
Drawn by: IG		Filename: Switches_Buttons.SchDoc		



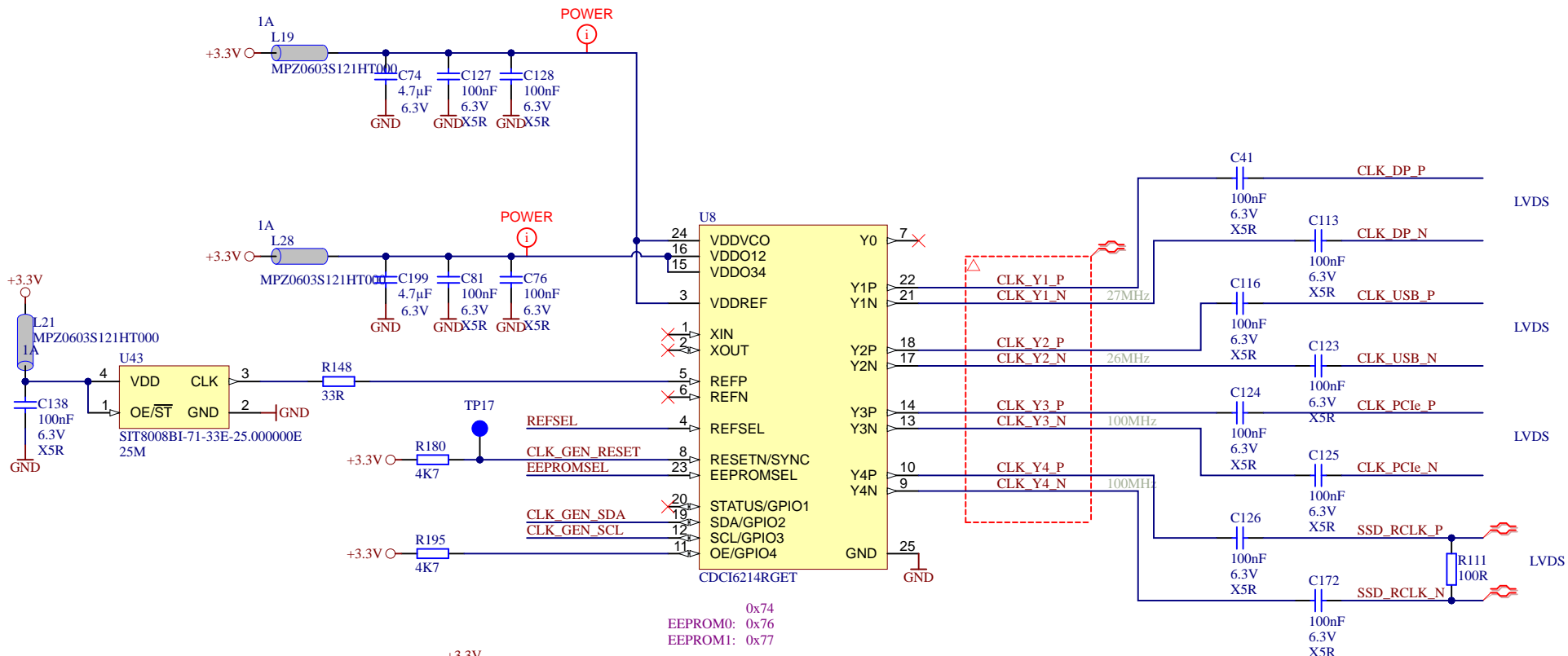
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			A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH		Page 17 of 25
Drawn by: IG		Filename: USB.SchDoc		



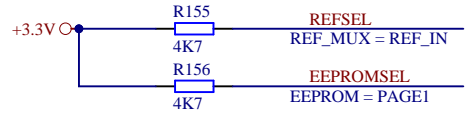
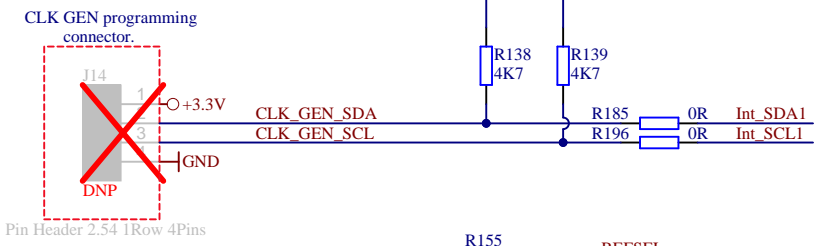
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	A4	Number: TE0802-02 1BEV2-A	Rev. 02
	Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 18 of 25
	Drawn by: IG	Filename: SD.SchDoc	



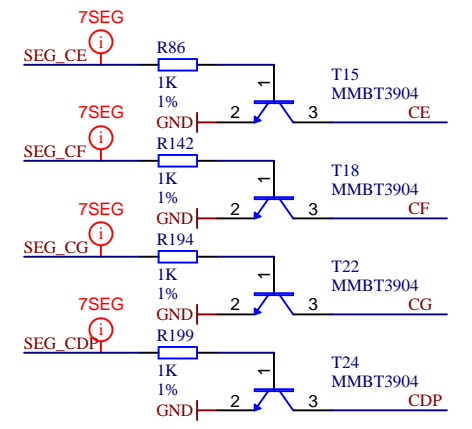
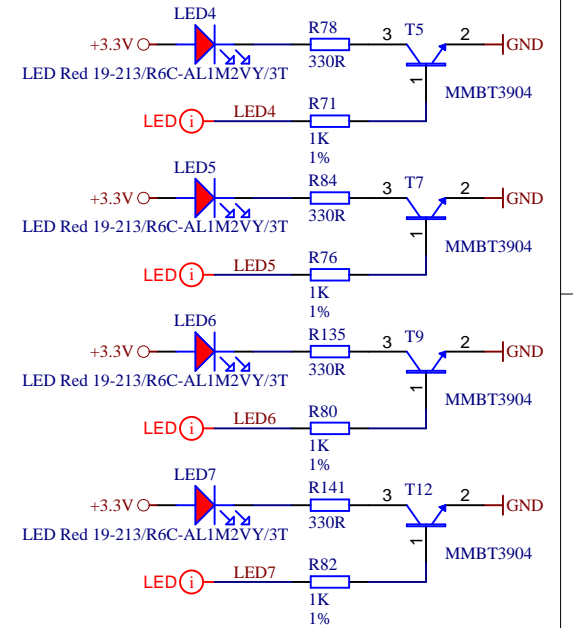
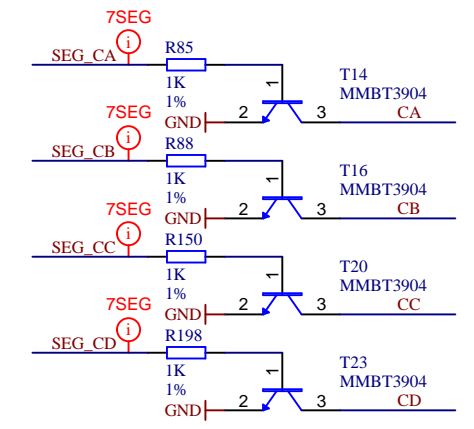
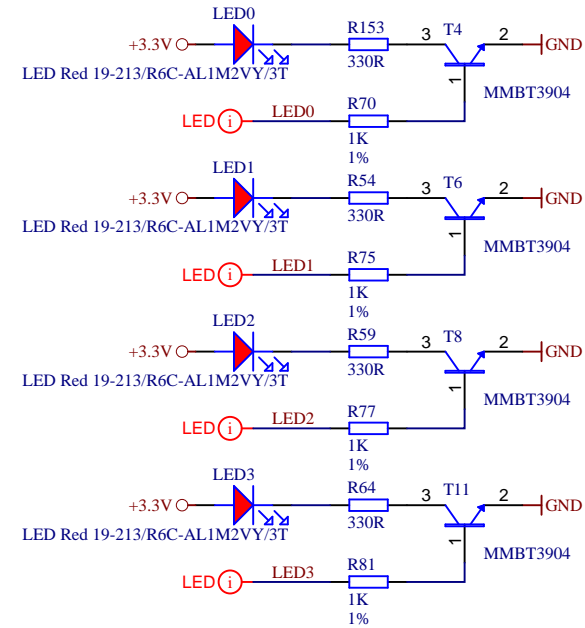
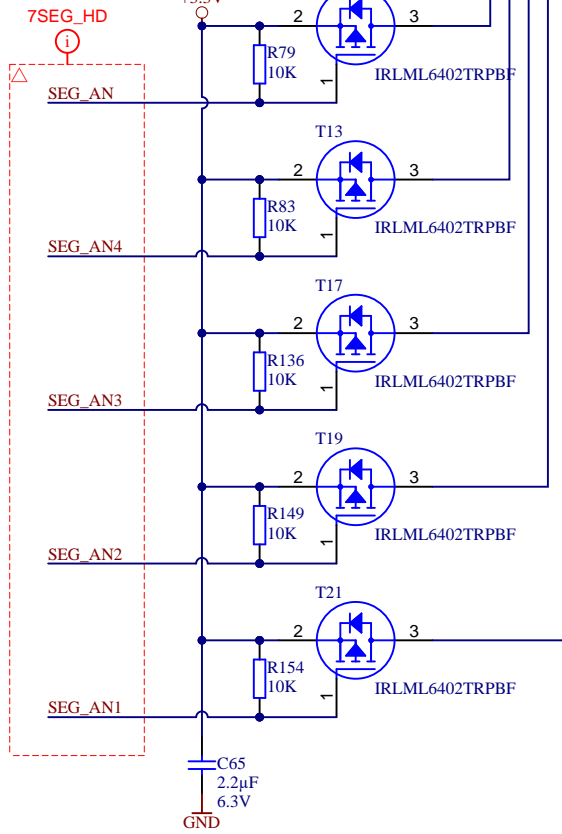
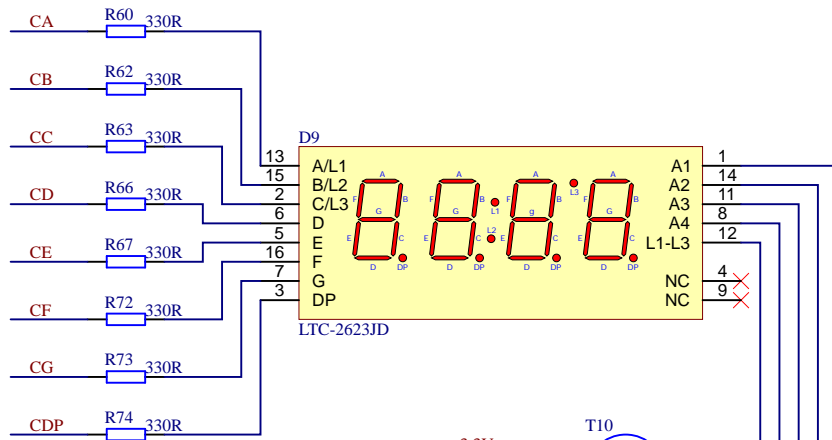
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A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	
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Drawn by: IG	Filename: FTDI.SchDoc	



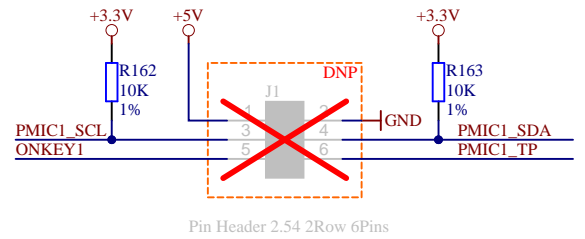
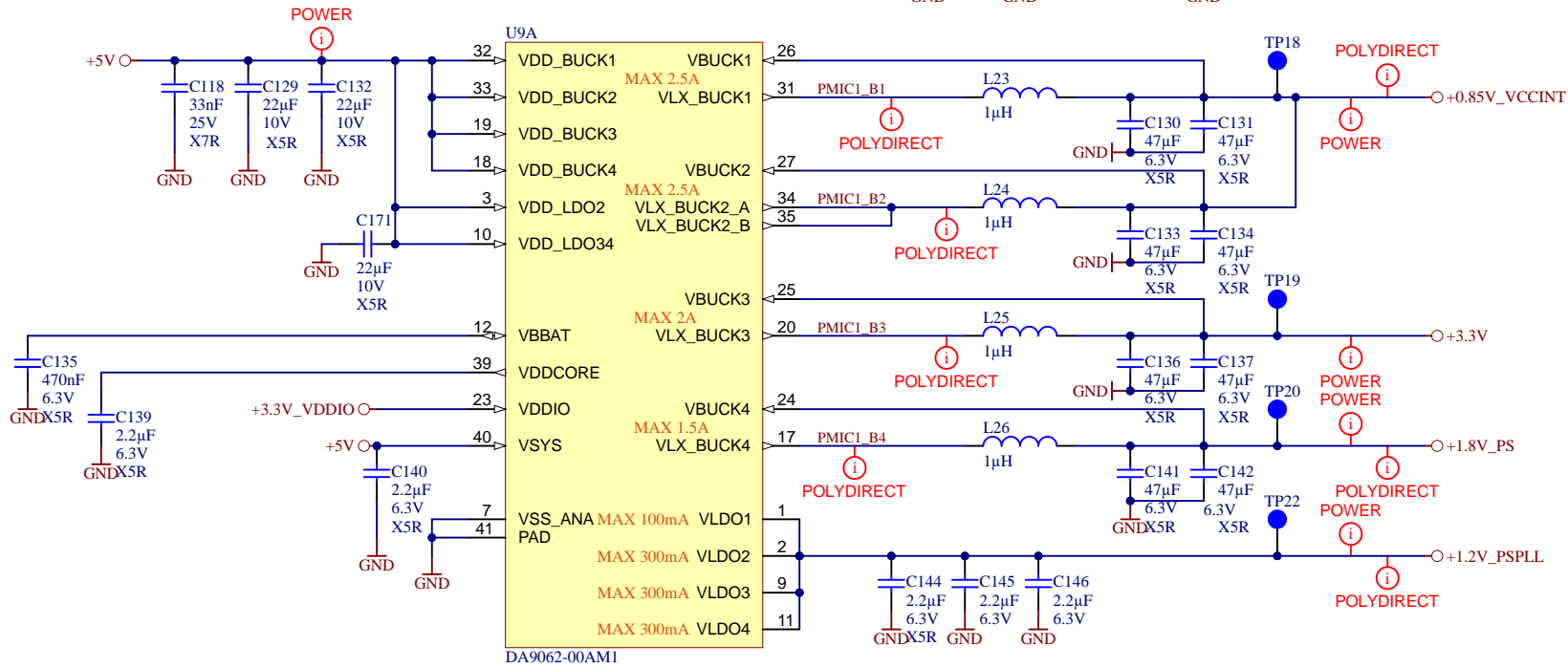
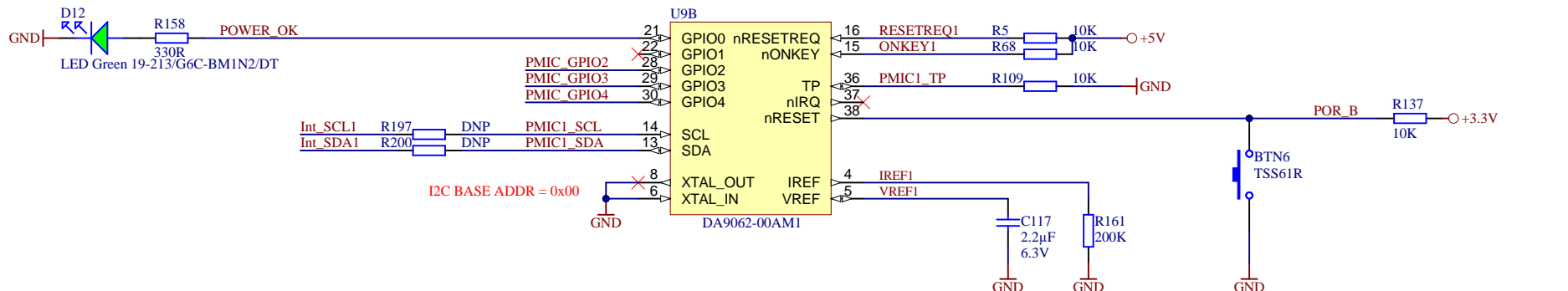
0x74
EEPROM0: 0x76
EEPROM1: 0x77



Title: Clock		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH / TT	Page 20 of 25
Drawn by: IG	Filename: Clock.SchDoc	



Title: LEDs		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH	Page 21 of 25
Drawn by: IG	Filename: LEDs.SchDoc	



Title: POWER1		
A4	Number: TE0802-02 1BEV2-A	Rev. 02
Date: 2019-05-20	Copyright: Trenz Electronic GmbH / TT	Page 23 of 25
Drawn by: IG	Filename: POWER1.SchDoc	

1

2

3

4

A

A

B

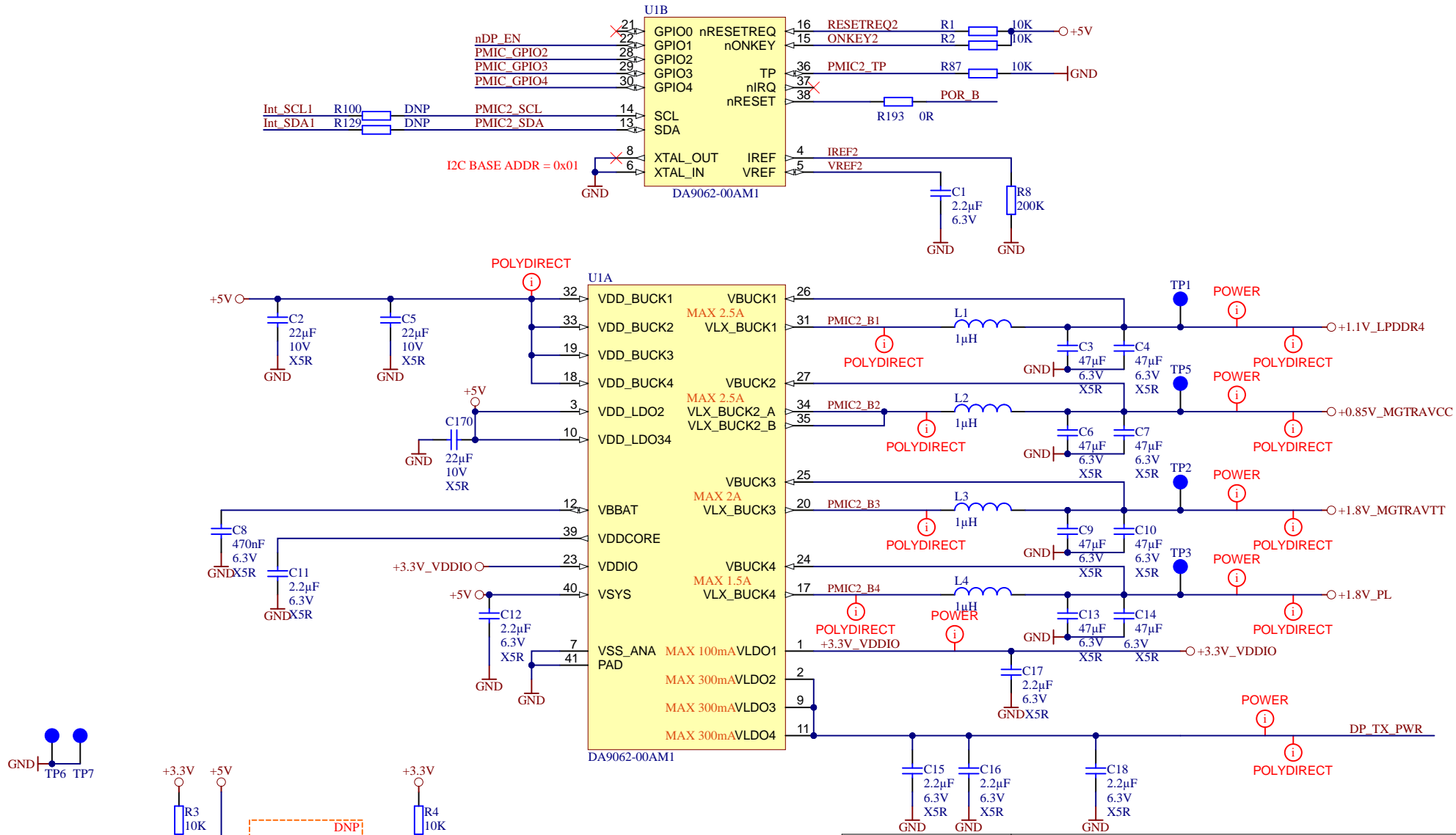
B

C

C

D

D



	Title: POWER2	
	A4	Number: TE0802-02 1BEV2-A
	Date: 2019-05-20	Copyright: Trenz Electronic GmbH / TT
	Drawn by: IG	Filename: POWER2.SchDoc
		Rev. 02
		Page 24 of 25


1

2

3

4

REV	Description	
-00	Initial revision	
-01	1. LED display has been moved from BANK 26 on BANK 65. 2. Added overvoltage protection on "Power" sheet; 3. Headphones moved on BANK 65; 4. Added buffers with OD output on USB0_RST and ETH_RST; 5. BOM has been corrected;	
-02	<p>1. Added suppressor 1SMA5.0AT3G on Power input. 2. Changed OV and UV protection range. 3. Changed VGA schematic. 4. USB page: VBUS resistor changed on 1K. 5. The revision has been renamed as TE0802-02-2AEV2-A. 6. Added Digilent SN MISC1. 7. Resistors R185 and R196 changed on 0 Ohms. 8. Resistor R23 changed on DNP. 9. S/N1 is removed. 10. LPDDR4 is changed.</p> <p>11. Changed microUSB connector. 105017-0001 -> 10118194-0001LF. 12. Changed MEMS Oszillator SiT8008AI-73-XXS-12.000000E -> SiT8008BI-73-XXS-12.000000E. 13. Changed MEMS Oszillator SiT8008AI-73-XXS-52.000000E -> SiT8008BI-73-XXS-52.000000E. 14. Changed Ferrits BKP0603HS121-T to MPZ0603S121HT000.</p> <p>15. Changed PMOD pinout according to Digilent Pmod Interface Type 1A Specification 15.1. on J5: - PMOD_A0 --> PMOD_A1; PMOD_A1 --> PMOD_A5; PMOD_A3 --> PMOD_A6; PMOD_A4 --> PMOD_A3; PMOD_A5 --> PMOD_A7; PMOD_A6 --> PMOD_A4; PMOD_A7 --> PMOD_A8; - PMOD_RA0 --> PMOD_RA1; PMOD_RA1 --> PMOD_RA5; PMOD_RA3 --> PMOD_RA6; PMOD_RA6; PMOD_RA4 --> PMOD_RA3; PMOD_RA5 --> PMOD_RA7; PMOD_RA6 --> PMOD_RA4; PMOD_RA7 --> PMOD_RA8.</p> <p>15.2. on J6: - PMOD_B2 --> PMOD_B5; PMOD_B3 --> PMOD_B2; PMOD_B4 --> PMOD_B6; PMOD_B5 --> PMOD_B3; PMOD_B6 --> PMOD_B7; PMOD_B7 --> PMOD_B4; - PMOD_RB2 --> PMOD_RB5; PMOD_RB3 --> PMOD_RB2; PMOD_RB4 --> PMOD_RB6; PMOD_RB5 --> PMOD_RB3; PMOD_RB6 --> PMOD_RB7; PMOD_RB7 --> PMOD_RB4.</p>	<p>2021-10-14</p> <p>2024-04-22</p>

		Title: Revision_Changes	
		A4	Number: TE0802-02 1BEV2-A
Date: 2019-05-20		Copyright: Trenz Electronic GmbH	
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Drawn by: IG		Filename: Revision_Changes.SchDoc	