

1

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D

LOGO1
TE Logo PRINT Layer

LOGO PRINT

POWER

SC1

SC2

U_ClocksOverview

U_Legal Notices Modules

U_PowerOverview

U_Reset-InterruptsOverview

U_Revision_Changes

ETH-PHY

eMMC

USBPHY

XCZU

PS

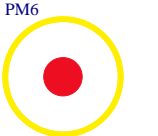
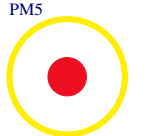
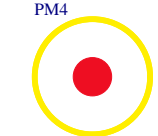
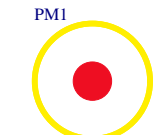
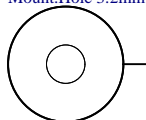
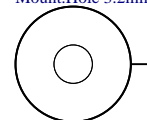
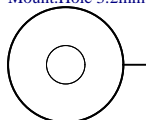
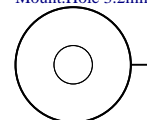
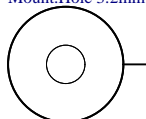
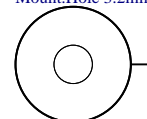
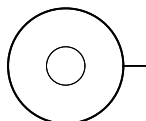
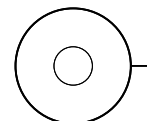
DDR4-PS

MISC

B2B_Connectors

PL

DDR4-PL



Special notes:

~~Serial1~~
Serialnummer 6,3 x 6,3mm

Serial2
Serialnummer 6,3 x 6,3mm
AD only



Title: TE0865 Main		
A4	Number: 1 DGE23MA	Rev. 02
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Filename: TE0865.schdoc		

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A

A

XCZU_Config



XCZU_88_89_90_91_93_94_HD



XCZU_500_501_502_MIO



XCZU_POWER



B

B

XCZU_64_65_HP



XCZU_128_129_130_131_MGT



XCZU_504_PSDDR



XCZU_GND



C

C

XCZU_66_67_HP



XCZU_224_225_226_227_MGT



XCZU_505_MGT



XCZU_68_69_HP



XCZU_228_229_230_231_MGT




D

D

XCZU_70_71_HP



			Title: TE0865 – XCZU	
			A4	Number: 2 DGE23MA
Date: 11.10.2021		Copyright: Trenz Electronic GmbH		Page 2 of 51
Filename: XCZU.schdoc				

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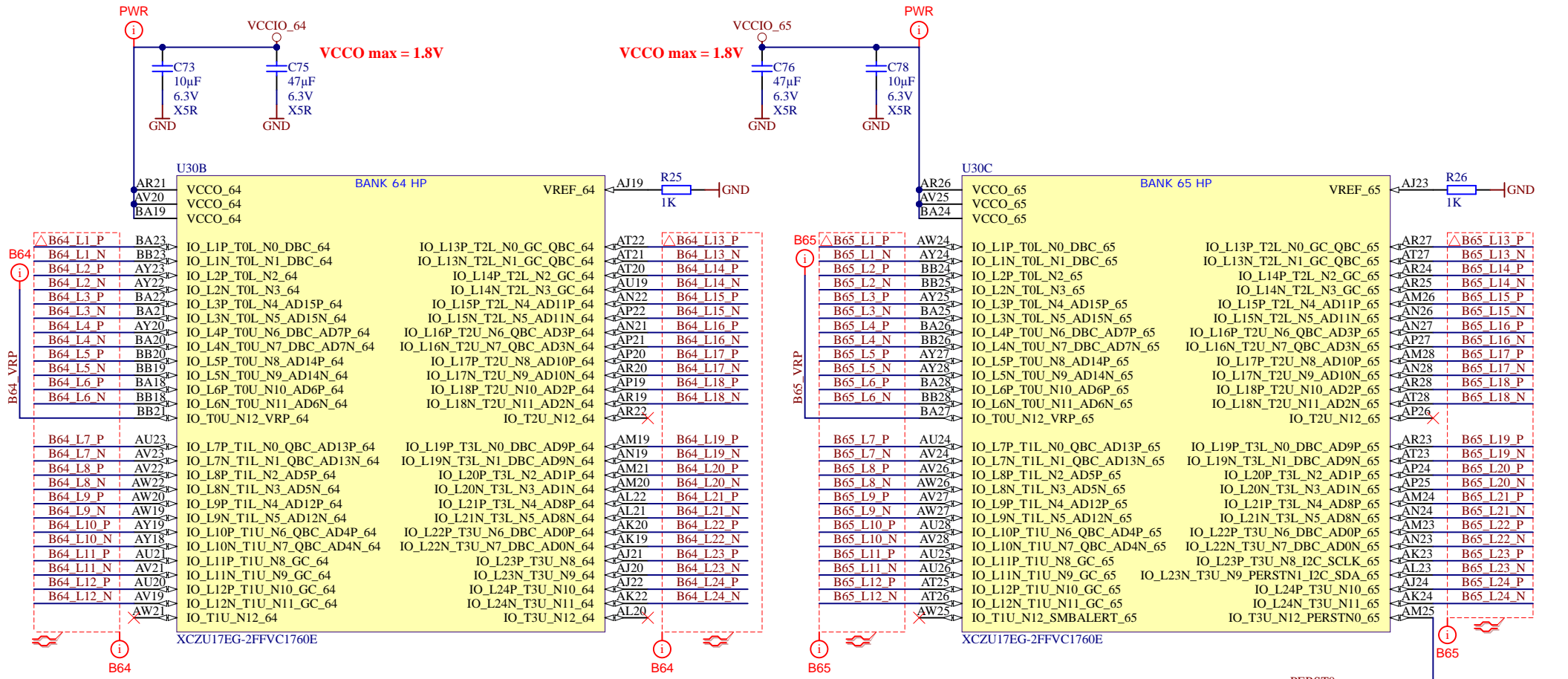
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Title: TE0865 – XCZU_64_65_HP		
A4	Number: 3 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 3 of 51
Filename: XCZU_64_65_HP.schdoc		

A

A

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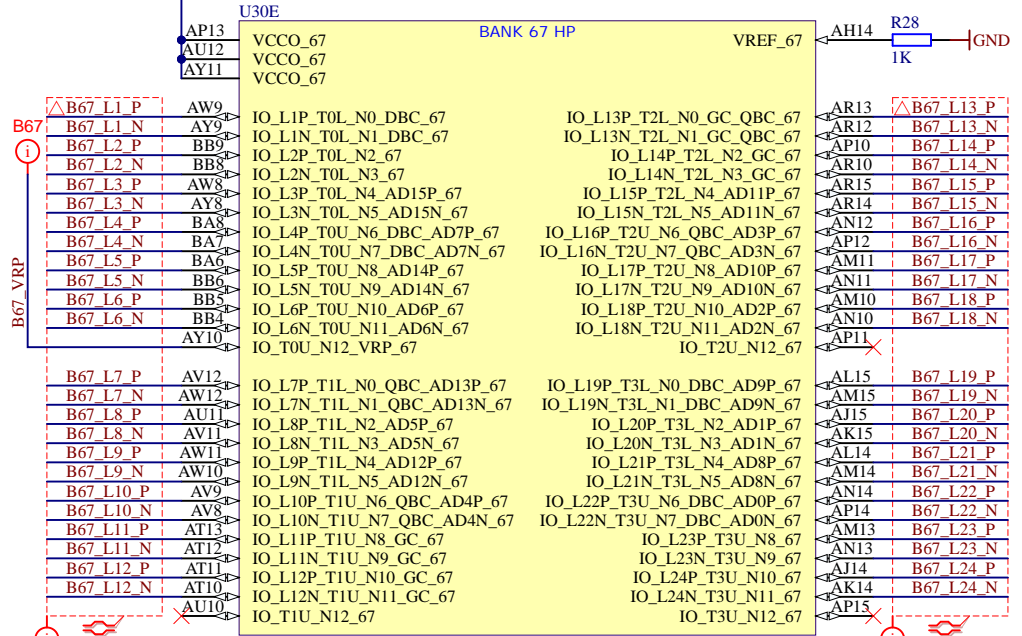
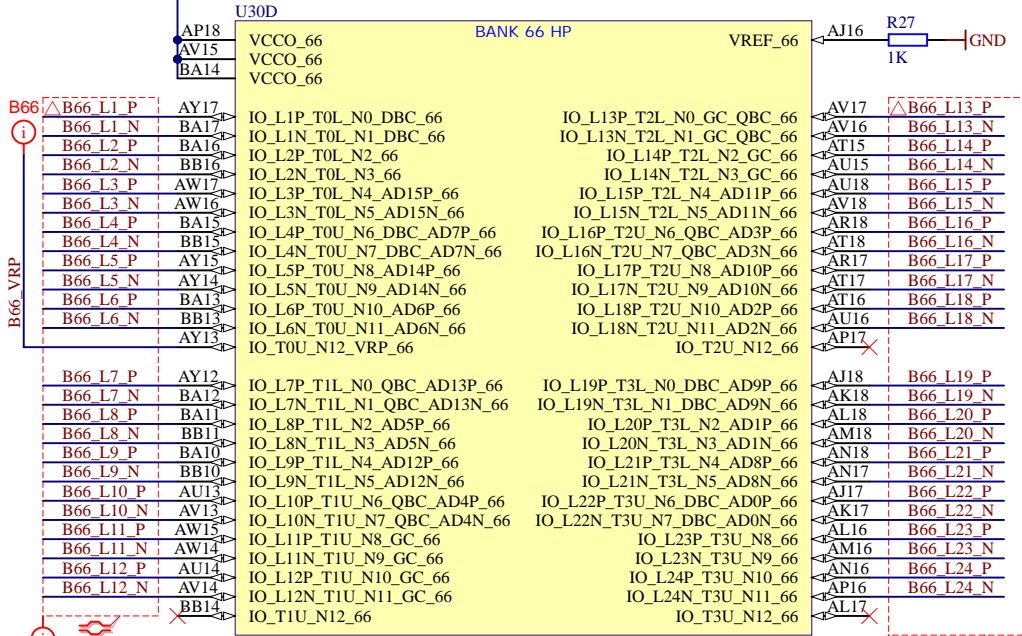
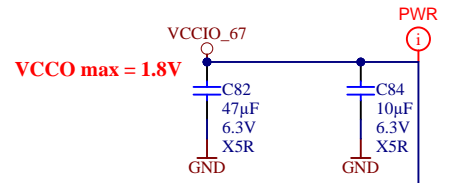
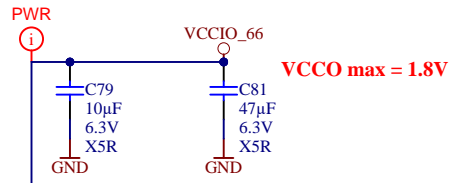
B

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B66

B66

B67

B67



Title: TE0865 – XZCU_66_67_HP

A4	Number: 4 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 4 of 51
Filename: XZCU_66_67_HP.schdoc		

A

A

B

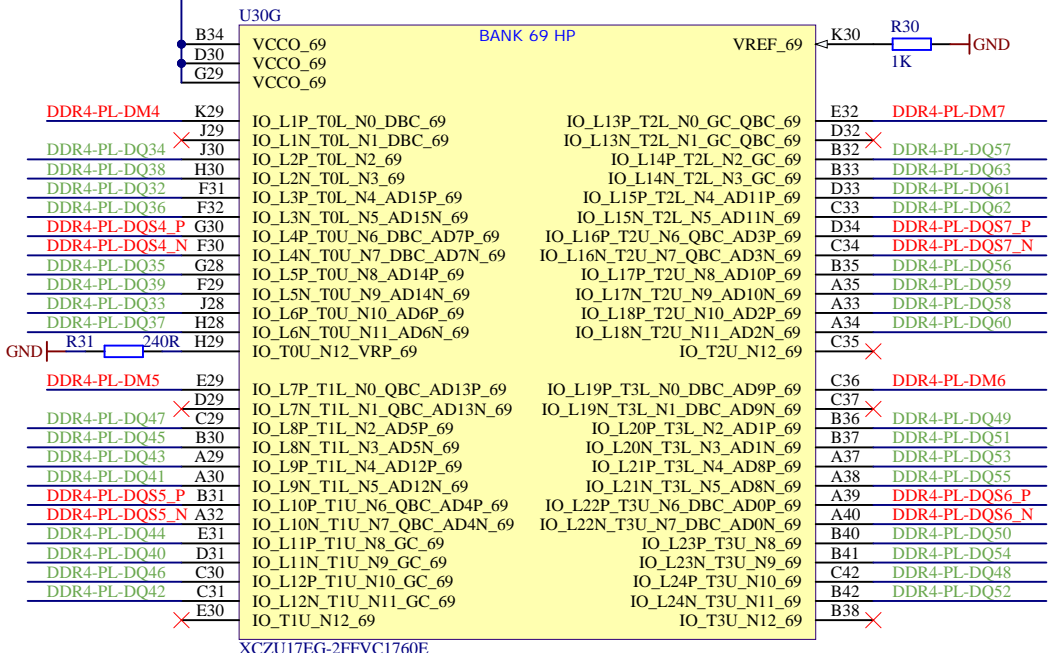
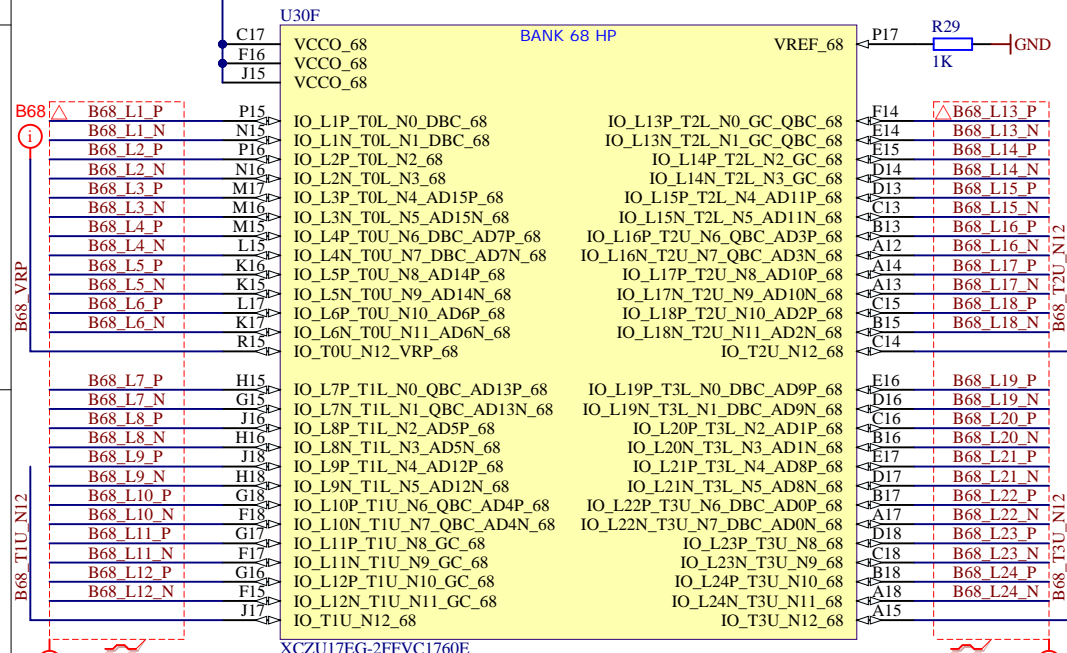
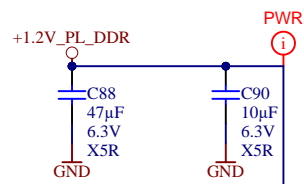
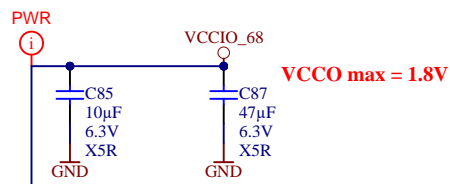
B

C

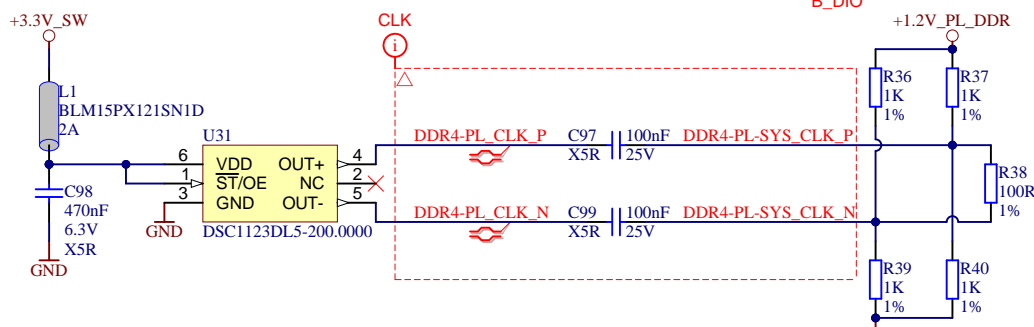
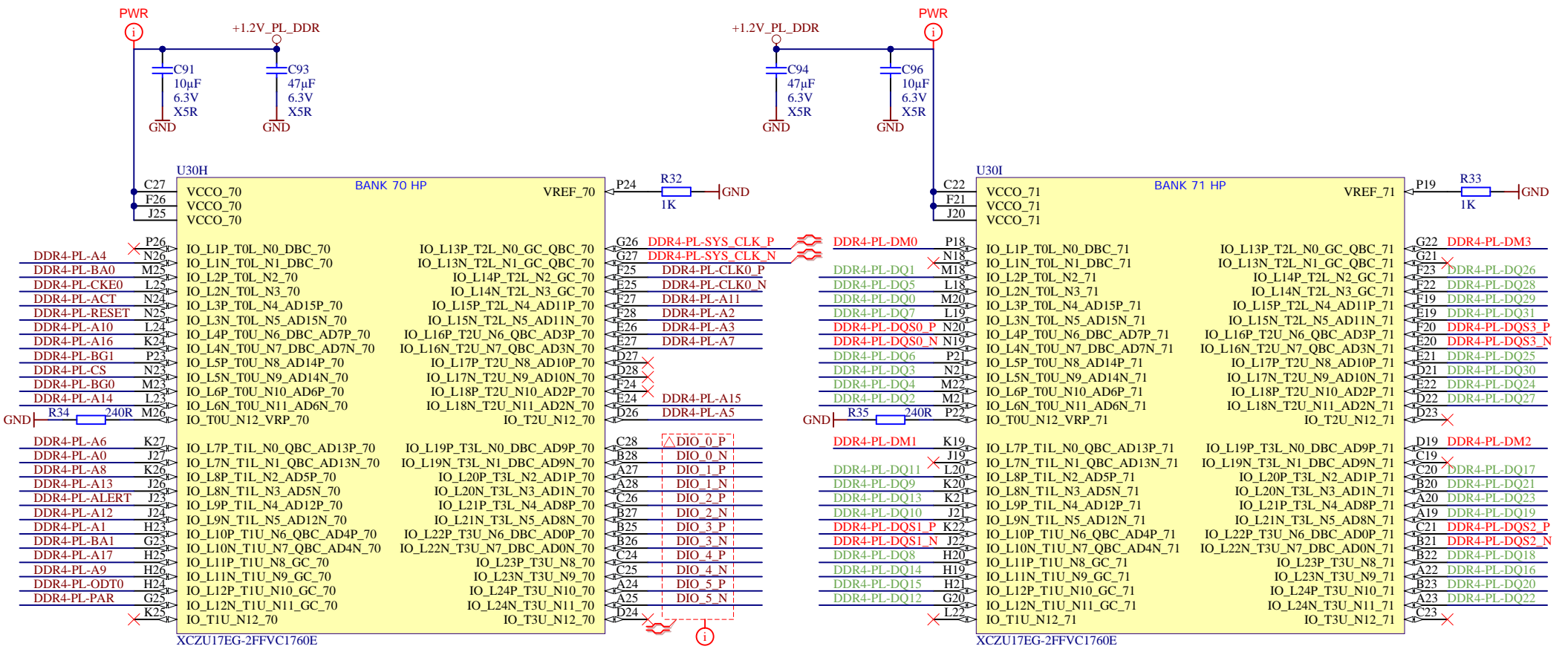
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D

D

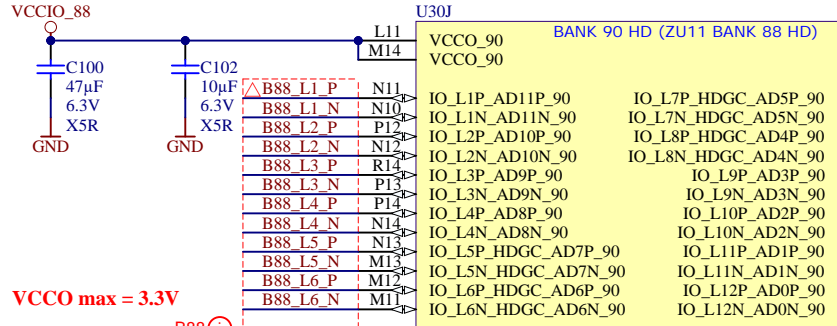


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Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 5 of 51
Filename: XCZU_68_69_HP.schdoc		

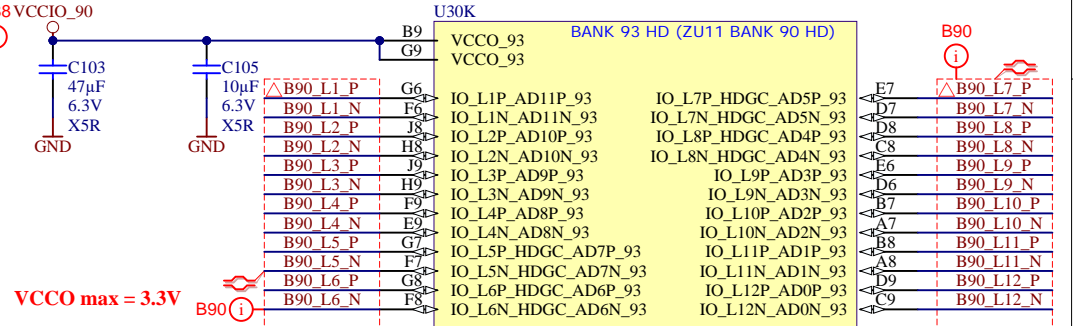


Title: TE0865 – XCZU_70_71_HP		
A4	Number: 6 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 6 of 51
Filename: XCZU_70_71_HP.schdoc		

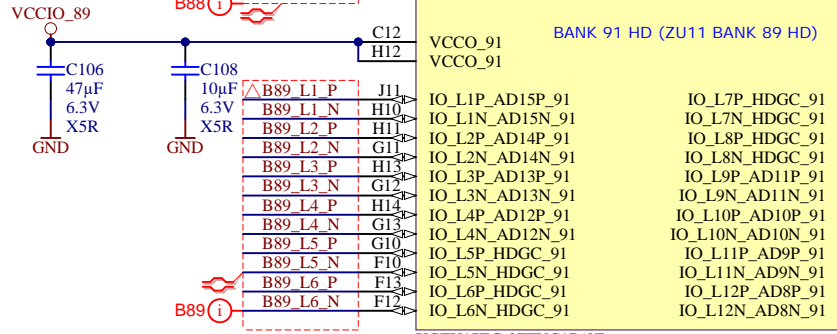
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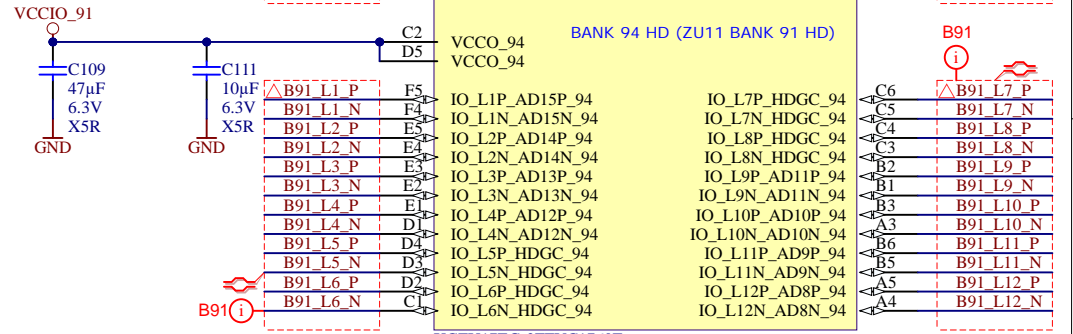
VCCO max = 3.3V



VCCO max = 3.3V



VCCO max = 3.3V

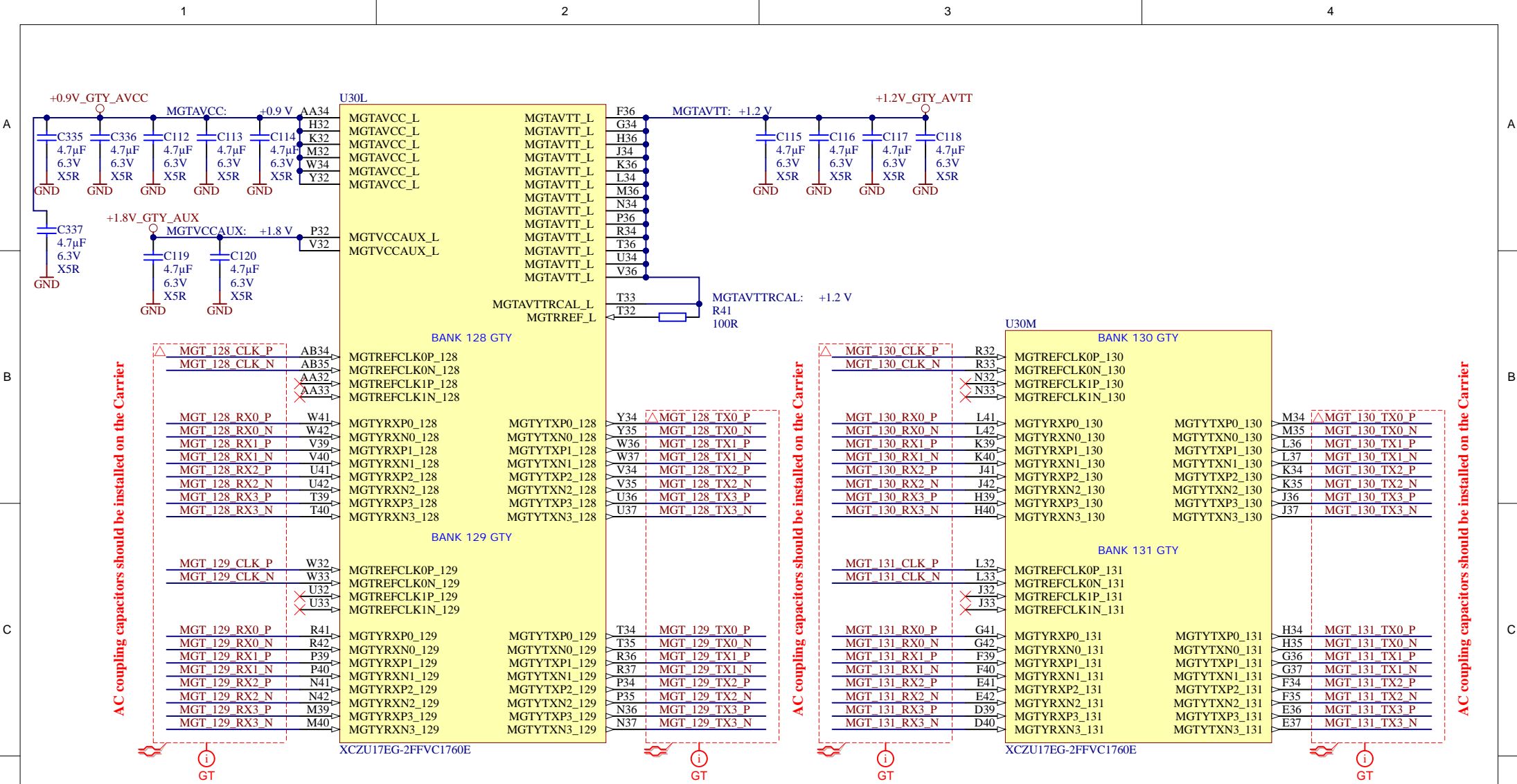


XCZU17EG-2FFVC1760E

XCZU17EG-2FFVC1760E




Title: TE0865 - XCZU_88_89_90_91_93_94_HD		
A4	Number: 7 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 7 of 51
Filename: XCZU_88_89_90_91_93_94_HD.schdoc		



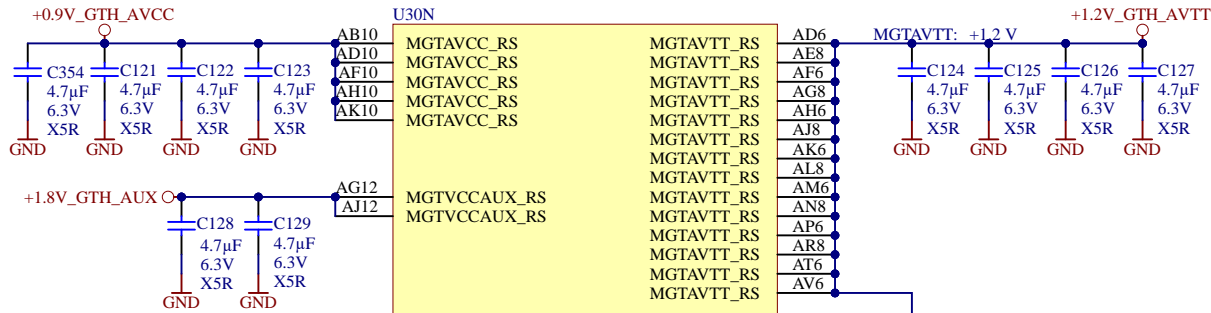
AC coupling capacitors should be installed on the Carrier

AC coupling capacitors should be installed on the Carrier

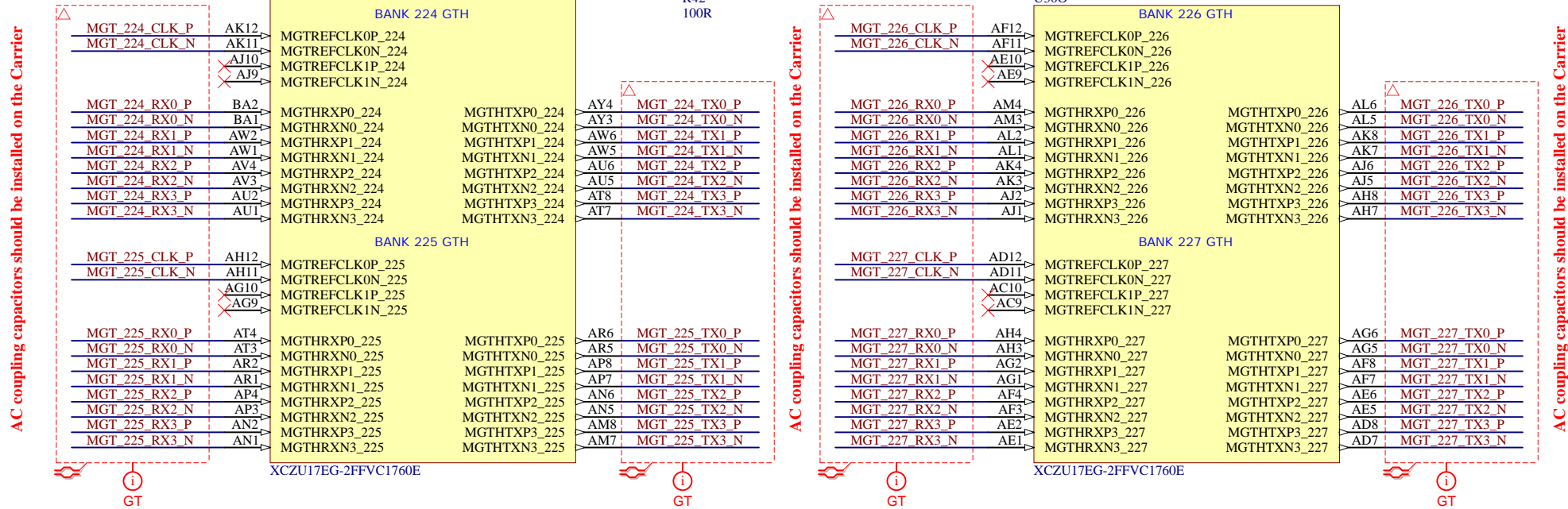
AC coupling capacitors should be installed on the Carrier

			Title: TE0865 – XCZU_128_129_130_131_MGT	
			A4	Number: 8 DGE23MA
Date: 11.10.2021		Copyright: Trenz Electronic GmbH		Page 8 of 51
Filename: XCZU_128_129_130_131_MGT.schdoc				

A




B



C

D

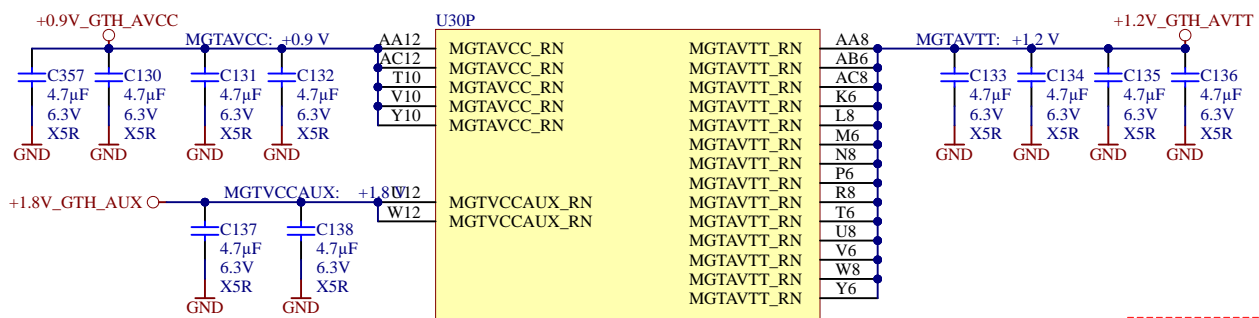


Title: TE0865 – XCZU_224_225_226_227_MGT

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Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 9 of 51
Filename: XCZU_224_225_226_227_MGT.schdoc		

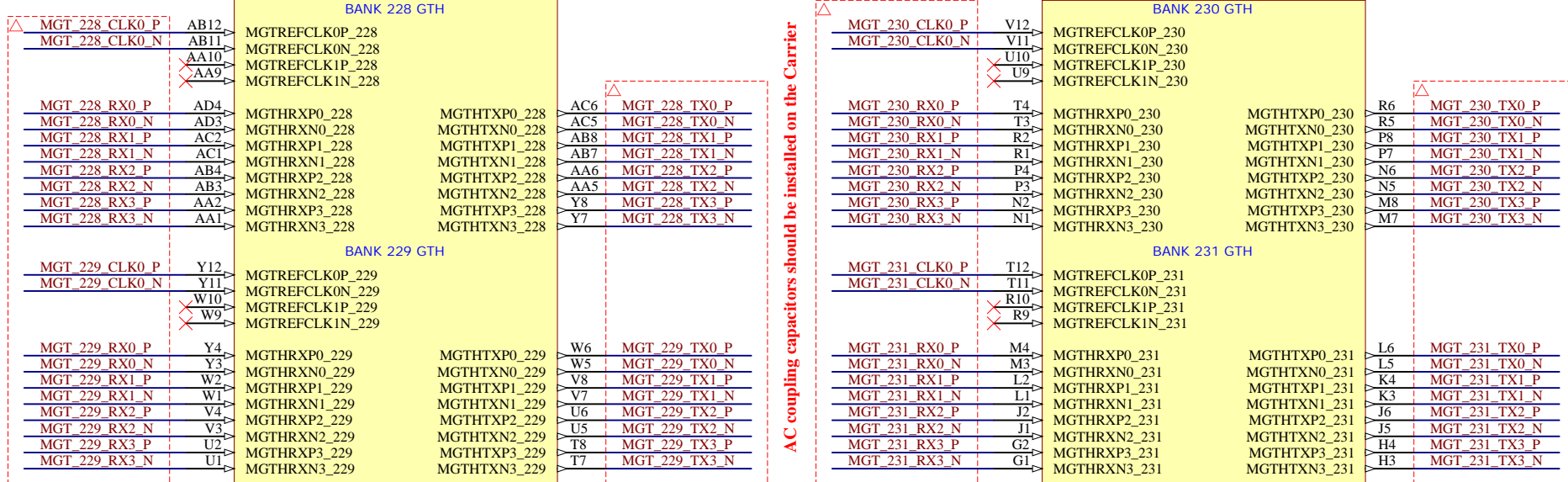
A

A



B

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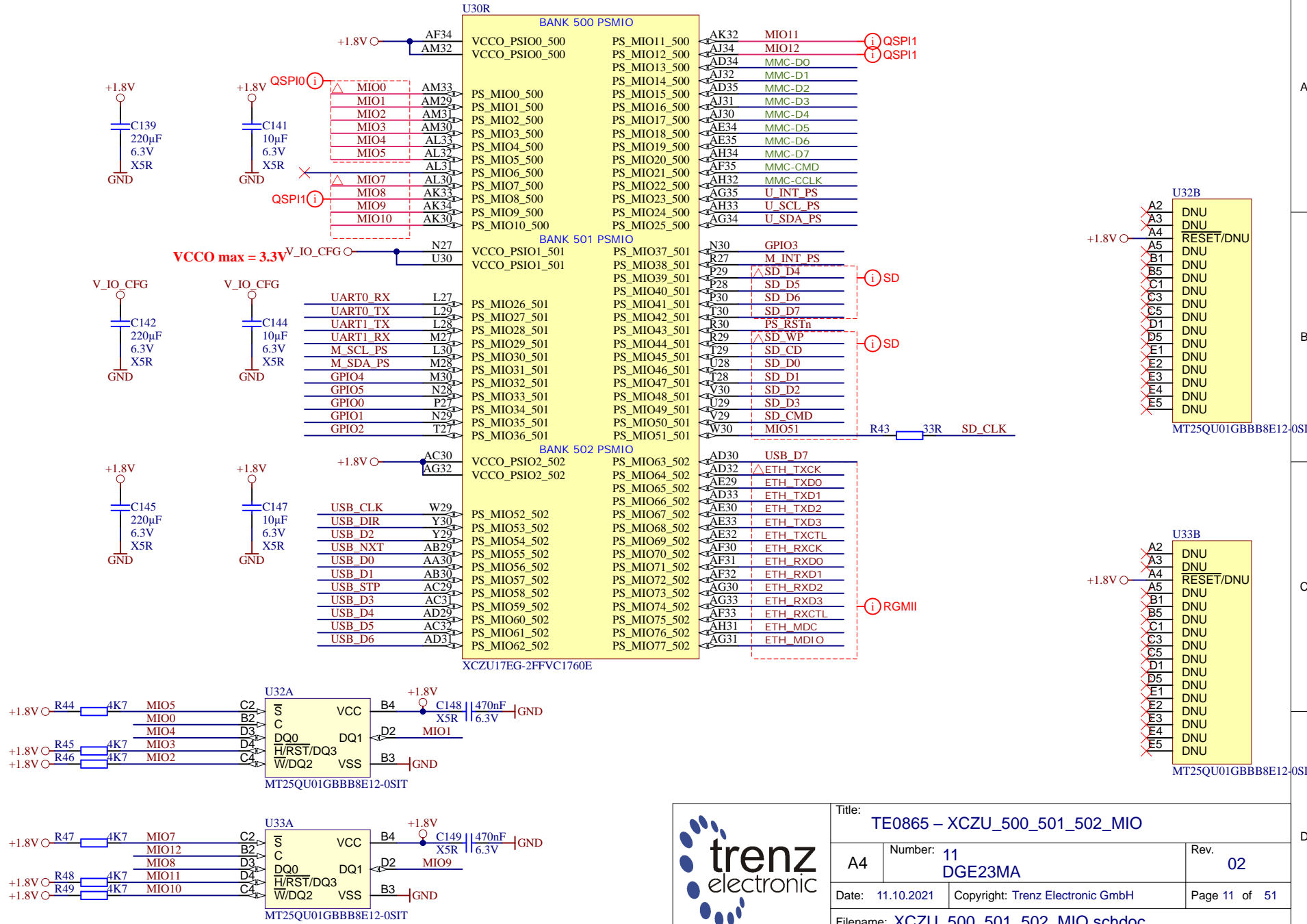
C

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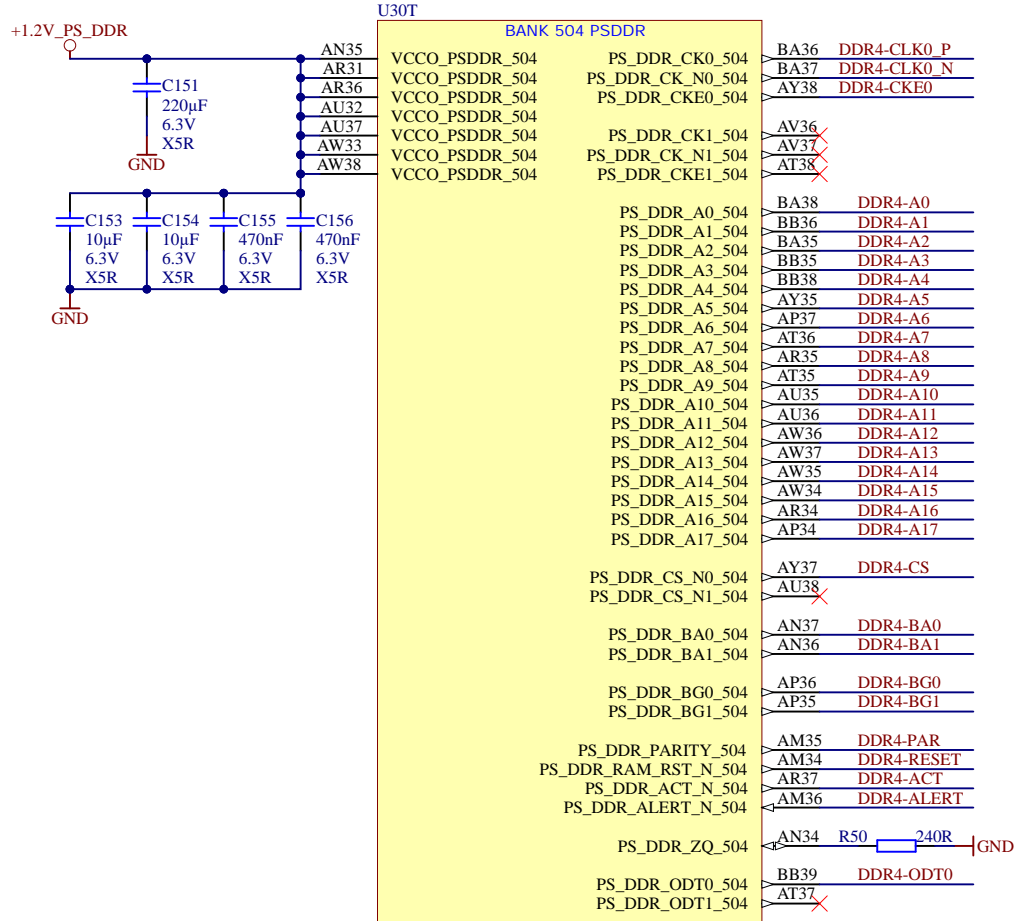
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trenz electronic

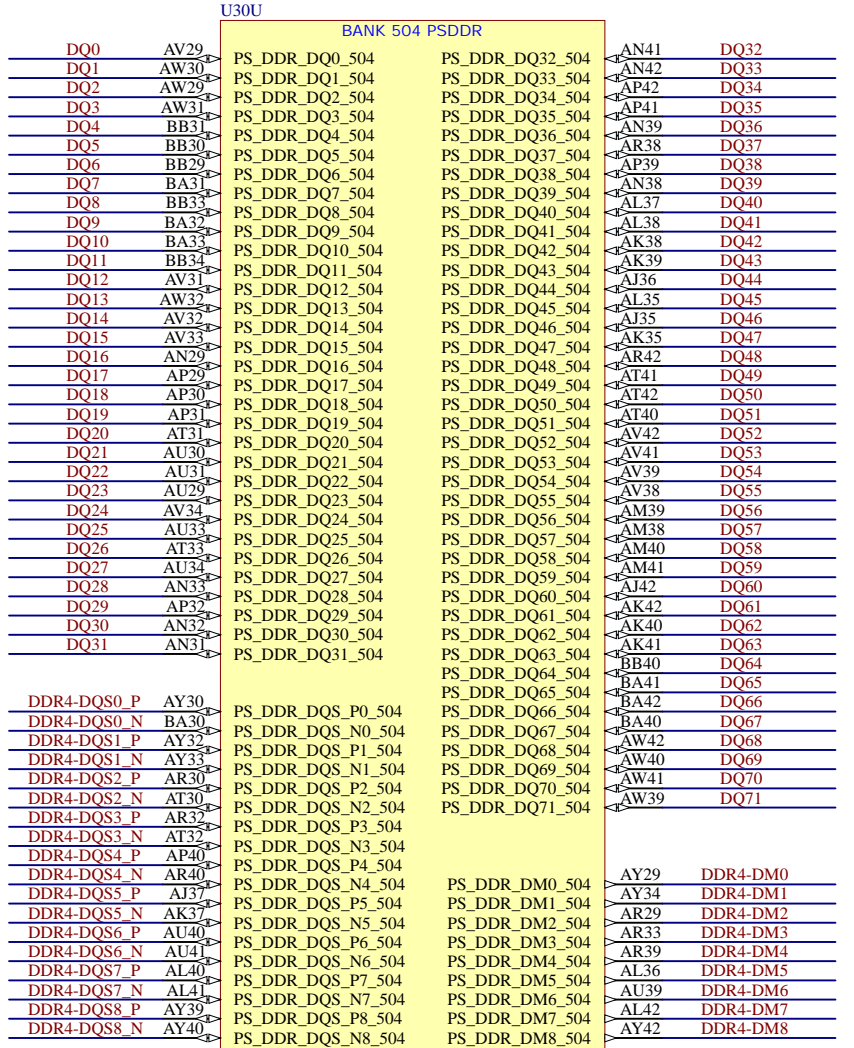
Title: TE0865 – XCZU_228_229_230_231_MGT		
A4	Number: 10 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 10 of 51
Filename: XCZU_228_229_230_231_MGT.schdoc		



Title: TE0865 - XCZU_500_501_502_MIO			
A4	Number: 11 DGE23MA	Rev. 02	
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Filename: XCZU_500_501_502_MIO.schdoc			



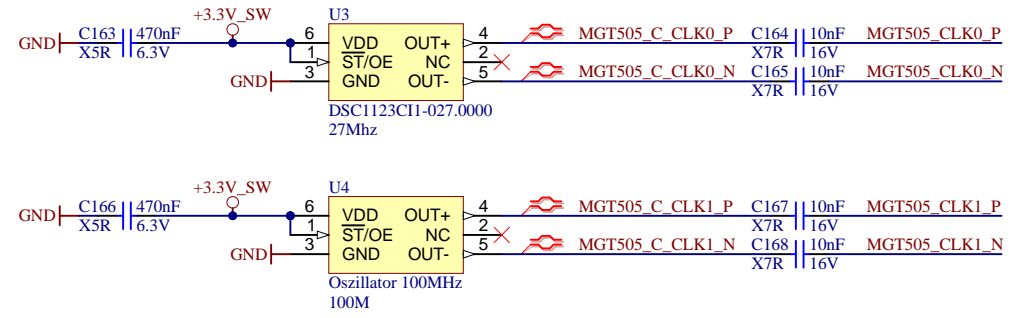
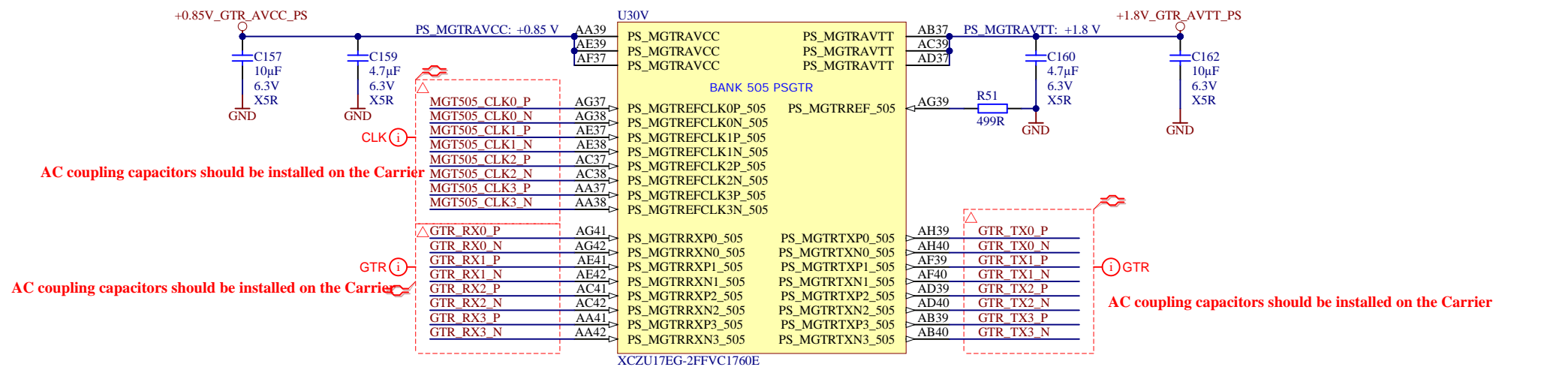
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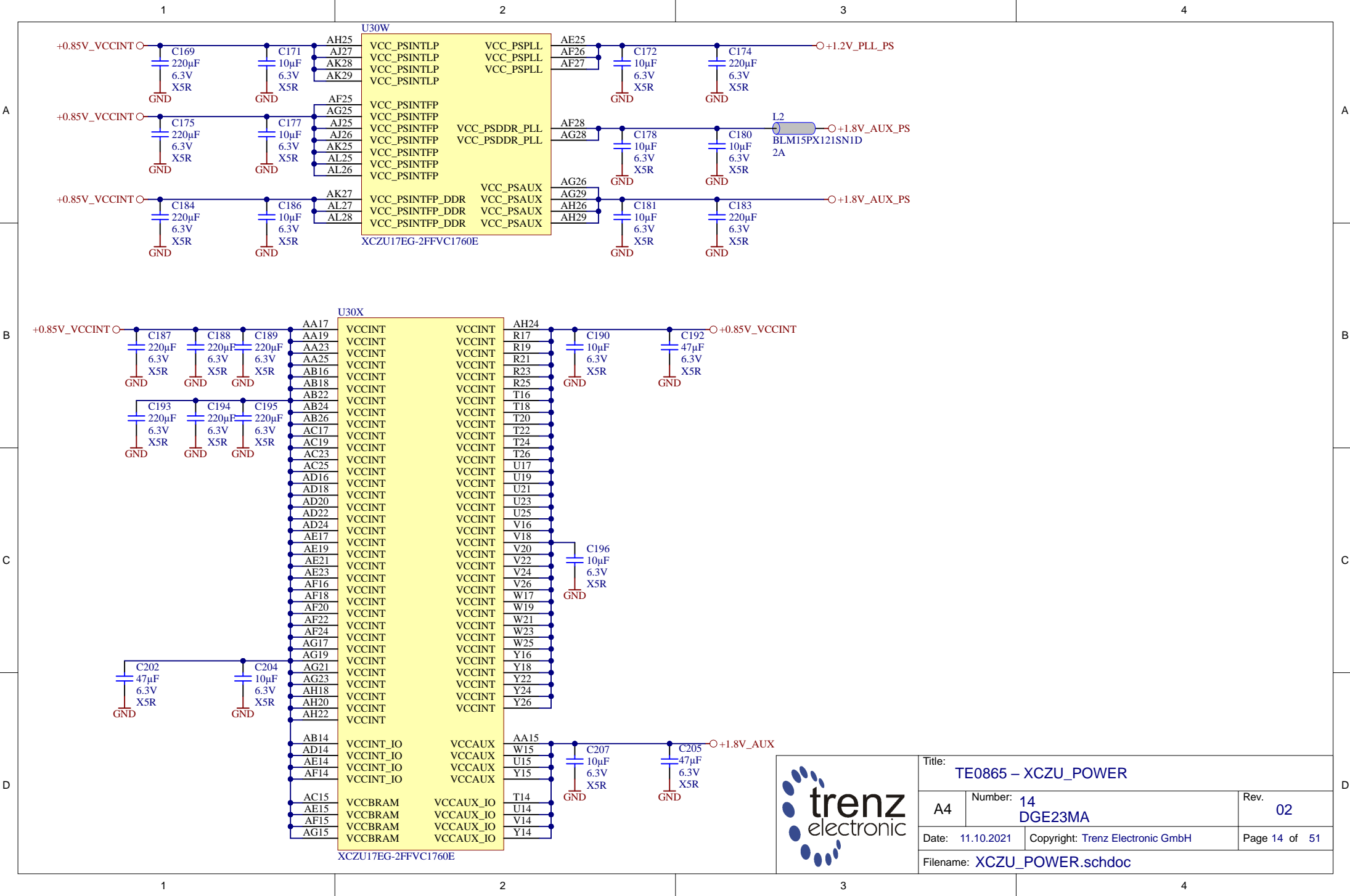
XCZU17EG-2FFVC1760E



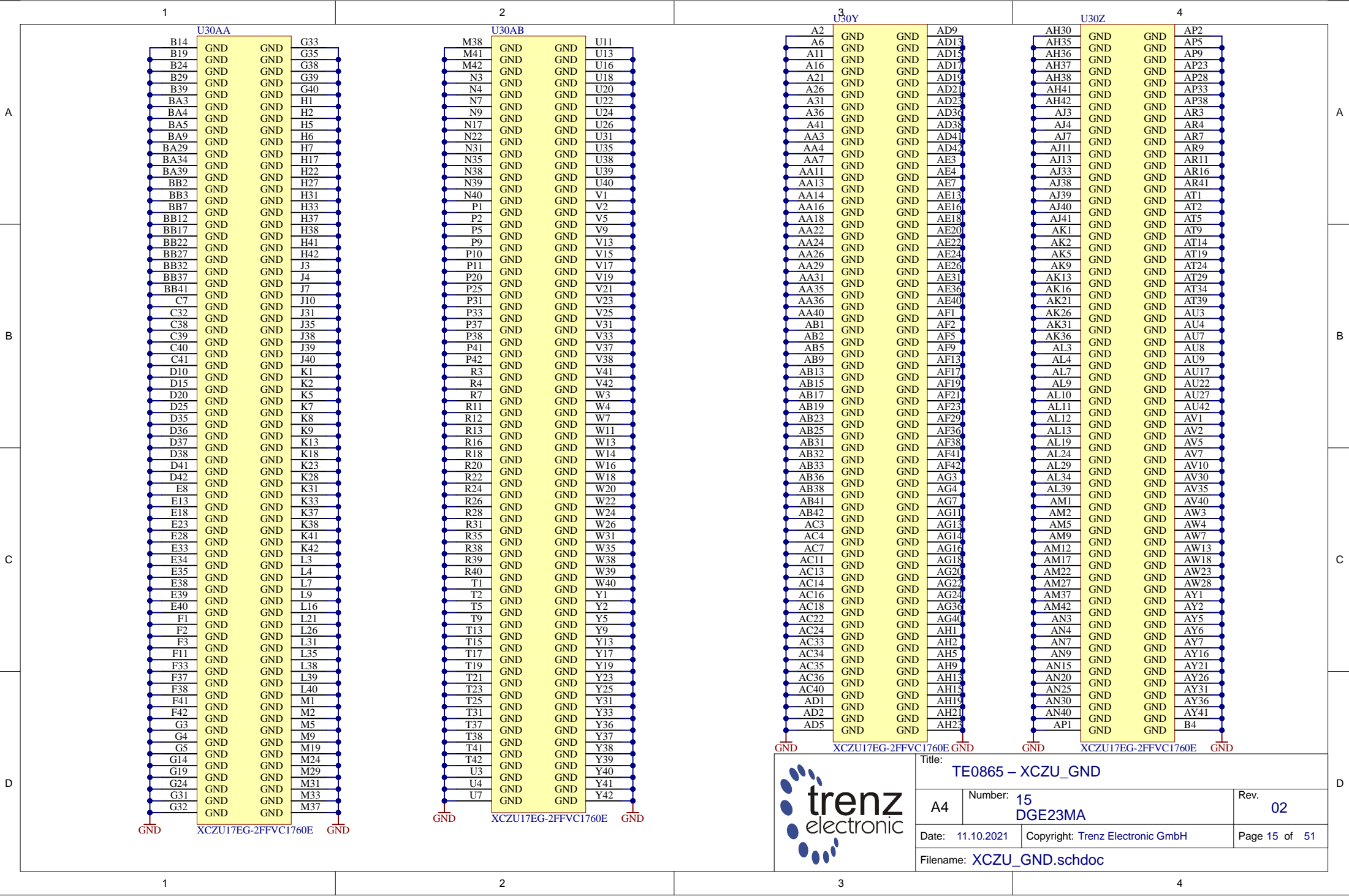
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A4	Number: 12 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 12 of 51
Filename: XCZU_504_PSDDR.schdoc		



Title: TE0865 – XZU_505_MGT		
A4	Number: 13 DGE23MA	Rev. 02
Date: 27.12.2022	Copyright: Trenz Electronic GmbH	Page 13 of 51
Filename: XZU_505_MGT.schdoc		



Title: TE0865 – XCZU_POWER		
A4	Number: 14 DGE23MA	Rev. 02
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Filename: XCZU_POWER.schdoc		



A

A

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D

1

2

3
U30Y

4
U30Z

U30AA

U30AB

A2

AH30

AP2

B14 GND GND G33
 B19 GND GND G35
 B24 GND GND G38
 B29 GND GND G39
 B39 GND GND G40
 BA3 GND GND H1
 BA4 GND GND H2
 BA5 GND GND H5
 BA9 GND GND H6
 BA29 GND GND H7
 BA34 GND GND H17
 BA39 GND GND H22
 BB2 GND GND H27
 BB3 GND GND H31
 BB7 GND GND H33
 BB12 GND GND H37
 BB17 GND GND H38
 BB22 GND GND H41
 BB27 GND GND H42
 BB32 GND GND J3
 BB37 GND GND J4
 BB41 GND GND J7
 C7 GND GND J10
 C32 GND GND J31
 C38 GND GND J35
 C39 GND GND J38
 C40 GND GND J39
 C41 GND GND J40
 D10 GND GND K1
 D15 GND GND K2
 D20 GND GND K5
 D25 GND GND K7
 D35 GND GND K8
 D36 GND GND K9
 D37 GND GND K13
 D38 GND GND K18
 D41 GND GND K23
 D42 GND GND K28
 E8 GND GND K31
 E13 GND GND K33
 E18 GND GND K37
 E23 GND GND K38
 E28 GND GND K41
 E33 GND GND K42
 E34 GND GND L3
 E35 GND GND L4
 E38 GND GND L7
 E39 GND GND L9
 E40 GND GND L16
 F1 GND GND L21
 F2 GND GND L26
 F3 GND GND L31
 F11 GND GND L35
 F33 GND GND L38
 F37 GND GND L39
 F38 GND GND L40
 F41 GND GND M1
 F42 GND GND M2
 G3 GND GND M5
 G4 GND GND M9
 G5 GND GND M19
 G14 GND GND M24
 G19 GND GND M29
 G24 GND GND M31
 G31 GND GND M33
 G32 GND GND M37

M38 GND GND U11
 M41 GND GND U13
 M42 GND GND U16
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 N4 GND GND U20
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 P11 GND GND V17
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 R4 GND GND V42
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 R13 GND GND W11
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 R18 GND GND W14
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 T37 GND GND Y36
 T38 GND GND Y37
 T41 GND GND Y38
 T42 GND GND Y39
 U3 GND GND Y40
 U4 GND GND Y41
 U7 GND GND Y42

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 A11 GND GND AD13
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 AD5 GND GND AH19
 GND GND AH21
 GND GND AH23

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 AH36 GND GND AP5
 AH37 GND GND AP9
 AH38 GND GND AP23
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 AH42 GND GND AP33
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 AJ4 GND GND AR3
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 AJ41 GND GND AT2
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 AK2 GND GND AT9
 AK5 GND GND AT14
 AK9 GND GND AT19
 AK13 GND GND AT24
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 AK26 GND GND AT39
 AK31 GND GND AU3
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 AL7 GND GND AU9
 AL9 GND GND AU17
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 AL11 GND GND AU27
 AL12 GND GND AU42
 AL13 GND GND AV1
 AL19 GND GND AV2
 AL24 GND GND AV5
 AL29 GND GND AV7
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 AN40 GND GND AY36
 API GND GND AY41
 GND GND B4

GND XCZU17EG-2FFVC1760E GND

GND XCZU17EG-2FFVC1760E GND

GND XCZU17EG-2FFVC1760E GND

GND XCZU17EG-2FFVC1760E GND

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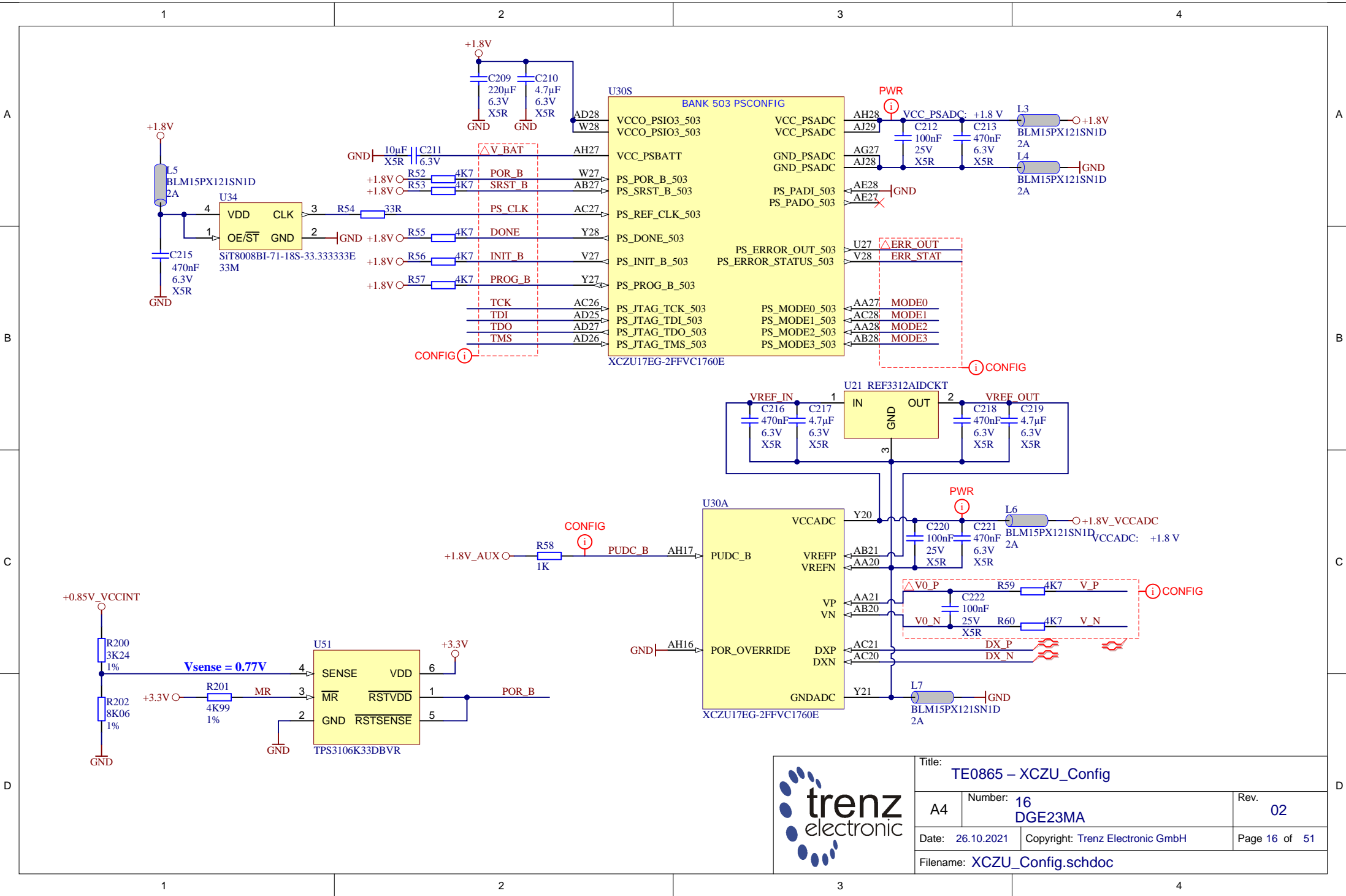
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			Title: TE0865 – XZU_Config	
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Date: 26.10.2021		Copyright: Trenz Electronic GmbH		Rev. 02
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Filename: XZU_Config.schdoc				

1

2

3

4

A

A

B

B

C

C

D

D

DDR4-PS-RAM_1


DDR4-PS-RAM_2

DDR4-PS-RAM_3

DDR4-PS-RAM_4

DDR4-PS-RAM_5

DDR4-PS-TERM

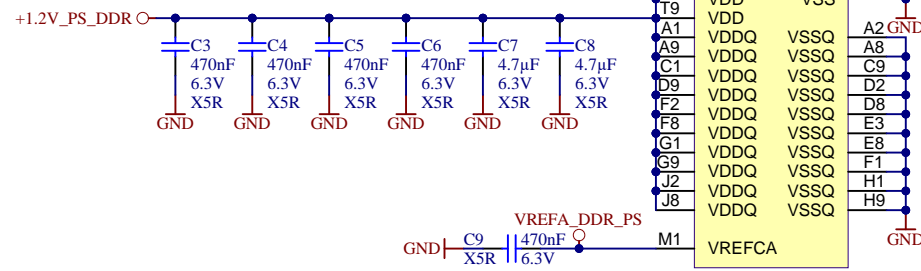
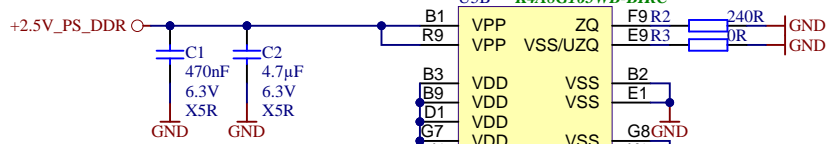
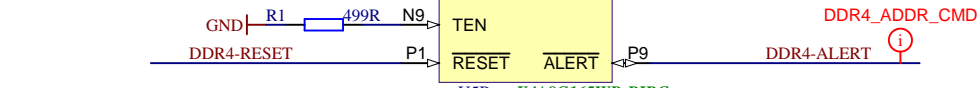
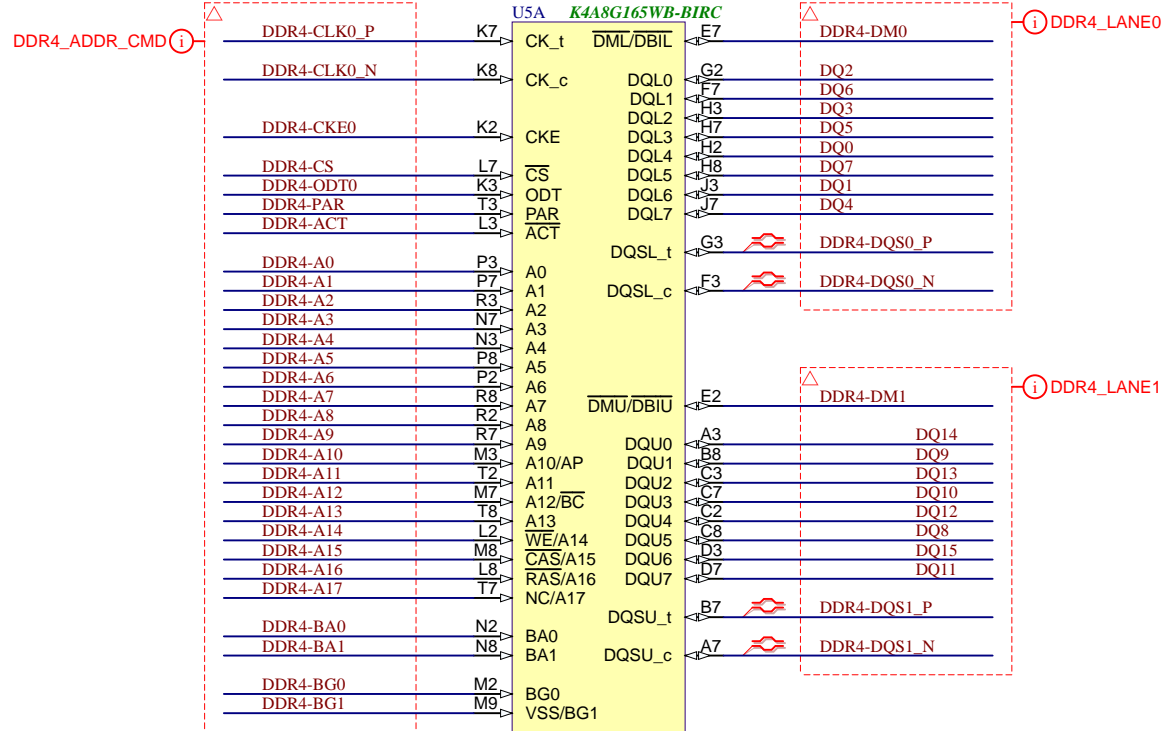
	Title: TE0865 – DDR4-PS		
	A4	Number: 17 DGE23MA	Rev. 02
	Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 17 of 51
	Filename: DDR4-PS.SchDoc		

1

2

3

4



Title: TE0865 – DDR4-PS-RAM_1		
A4	Number: 18 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 18 of 51
Filename: DDR4-RAM_1.SchDoc		

1

2

3

4

A

A

B

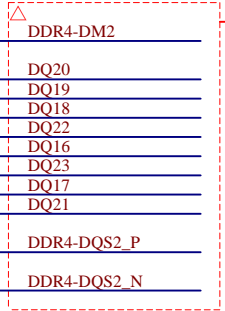
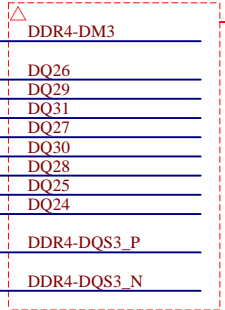
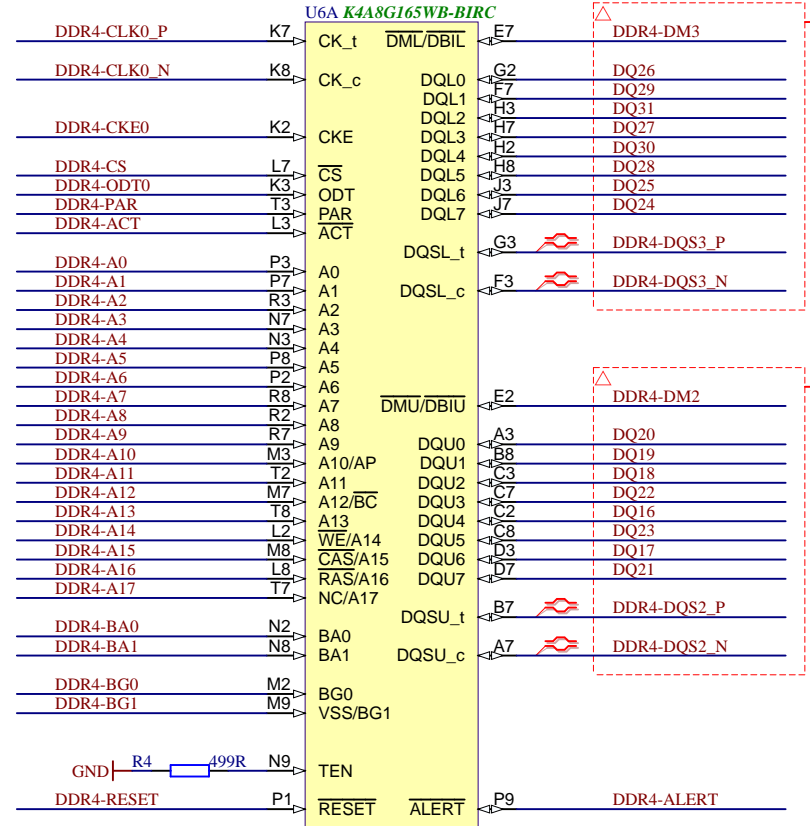
B

C

C

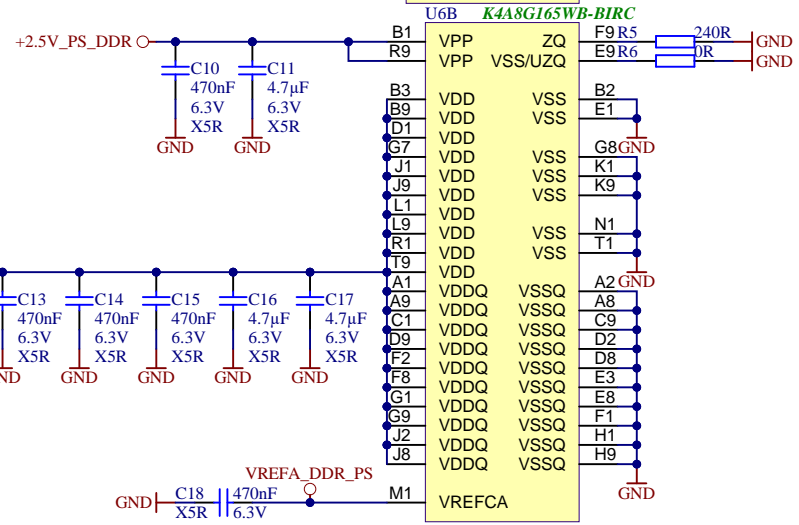
D

D



DDR4_LANE3

DDR4_LANE2



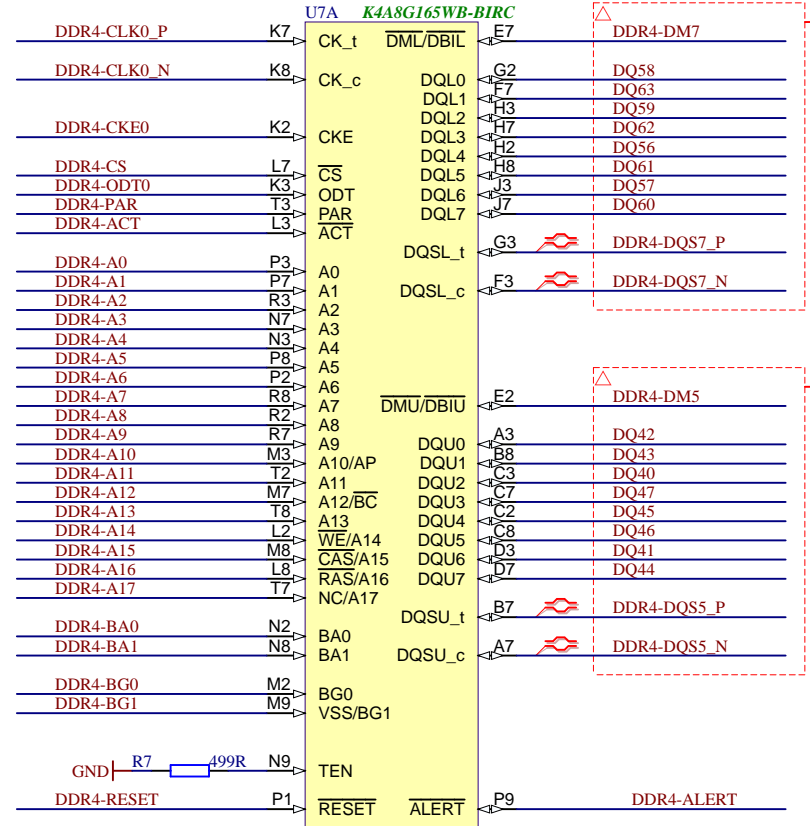
Title: TE0865 – DDR4-PS-RAM_2		
A4	Number: 19 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 19 of 51
Filename: DDR4-RAM_2.SchDoc		

1

2

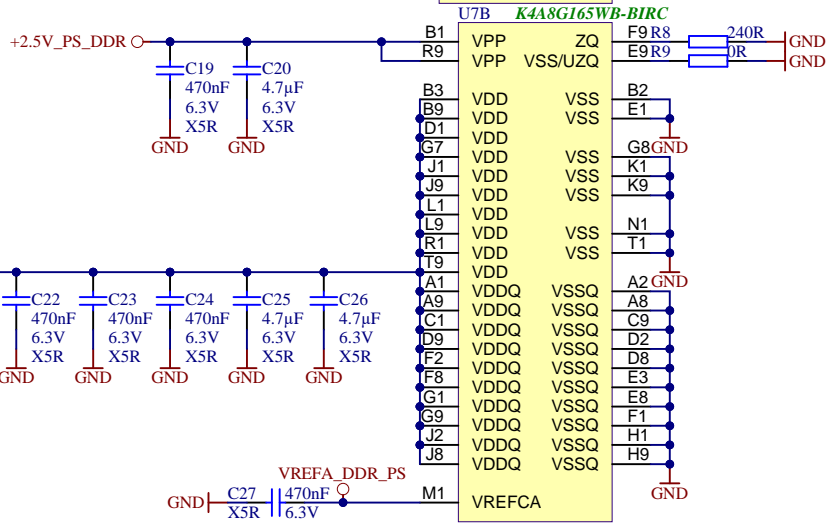
3

4

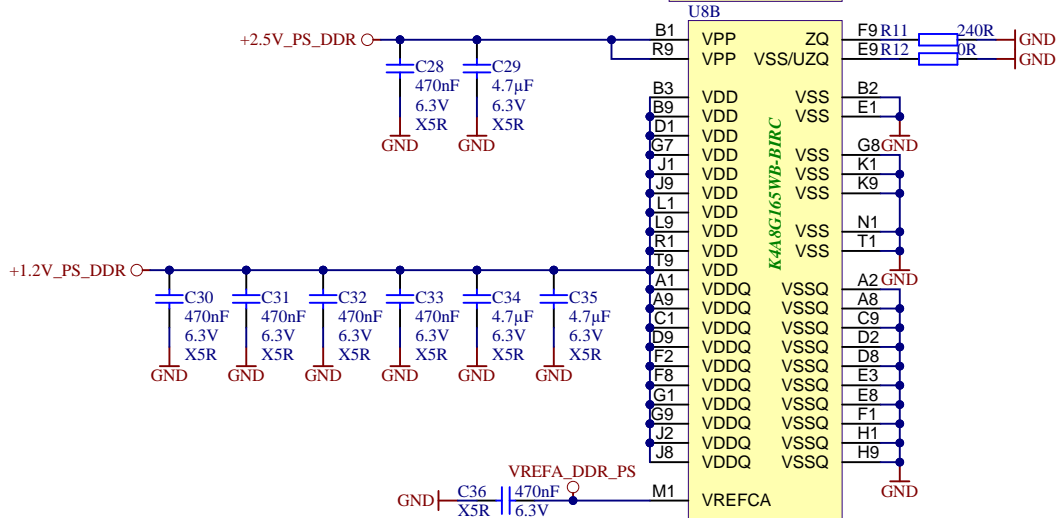
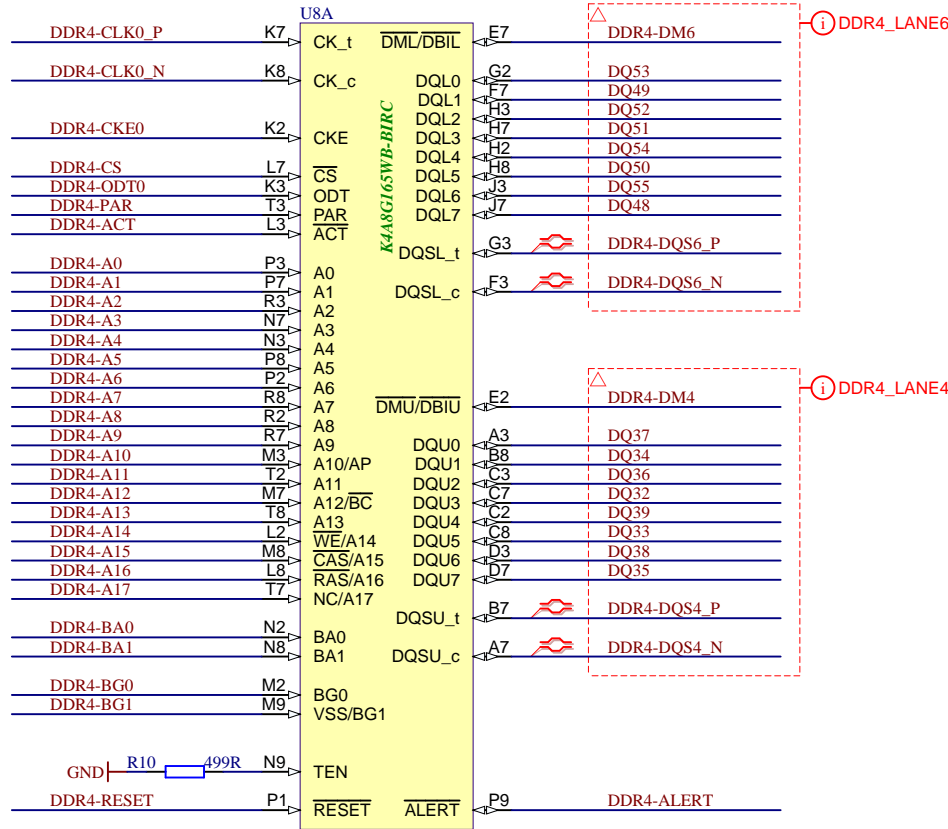


DDR4_LANE7

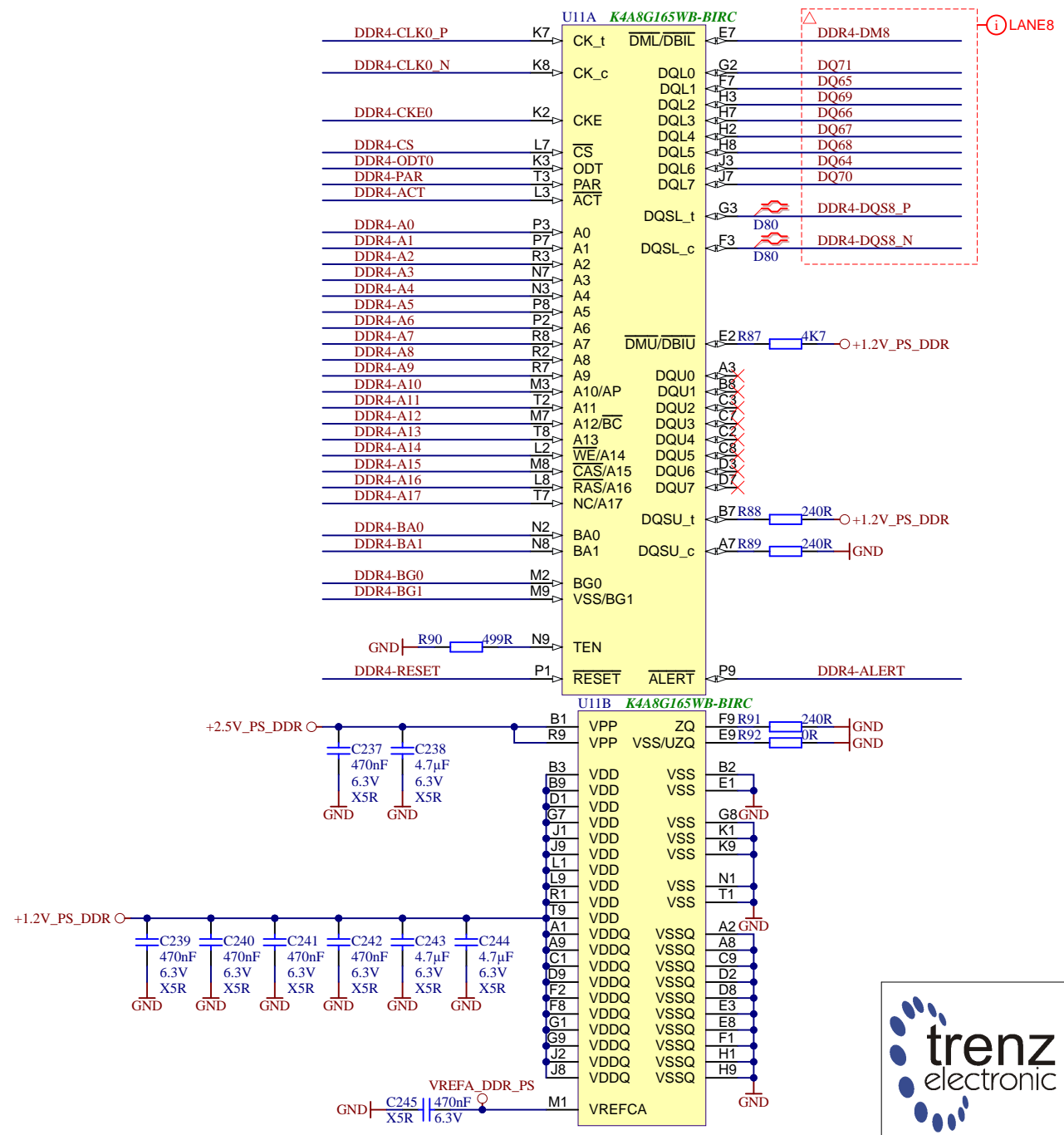
DDR4_LANE5



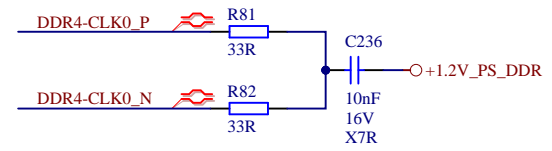
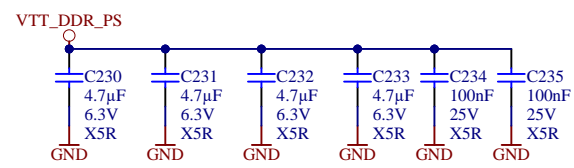
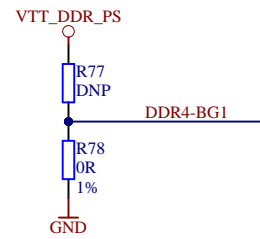
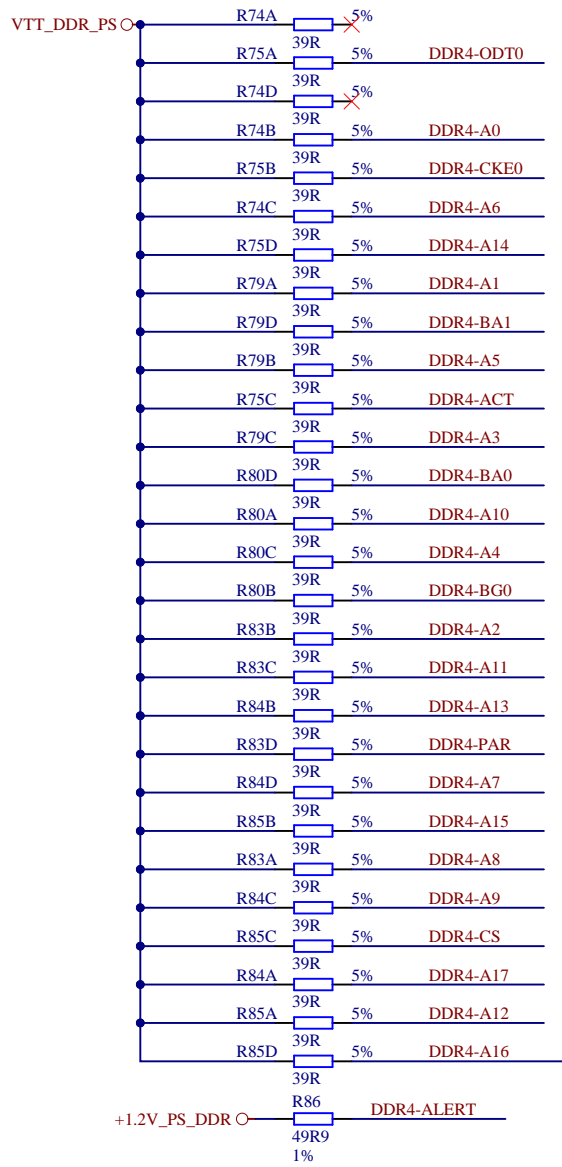
Title: TE0865 – DDR4-PS-RAM_3		
A4	Number: 20 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 20 of 51
Filename: DDR4-RAM_3.SchDoc		



Title: TE0865 – DDR4-PS-RAM_4		
A4	Number: 21 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 21 of 51
Filename: DDR4-RAM_4.SchDoc		



Title: TE0865 – DDR4-PS-RAM_5		
A4	Number: 22 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 22 of 51
Filename: DDR4-RAM_5.SchDoc		



Title: TE0865 – DDR4-PS-TERM		
A4	Number: 23 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 23 of 51
Filename: DDR4-TERM.SchDoc		

1

2

3

4

A

A

B

B

C

C

D

D


DDR4-PL-RAM_1

DDR4-PL-RAM_2

DDR4-PL-RAM_3

DDR4-PL-RAM_4

DDR4-PL-TERM

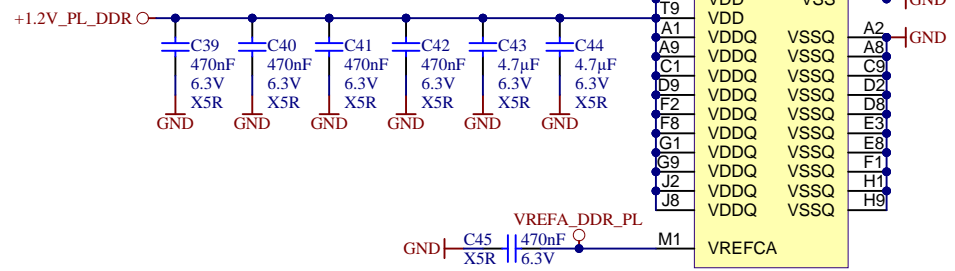
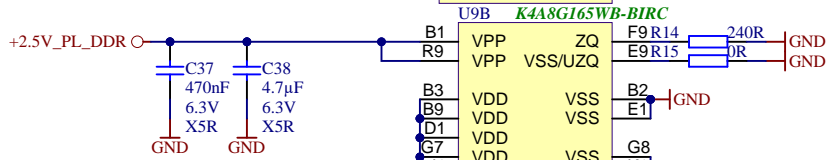
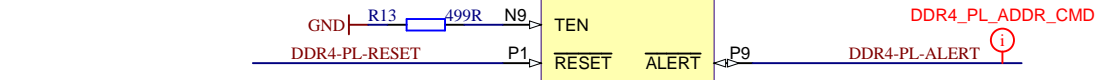
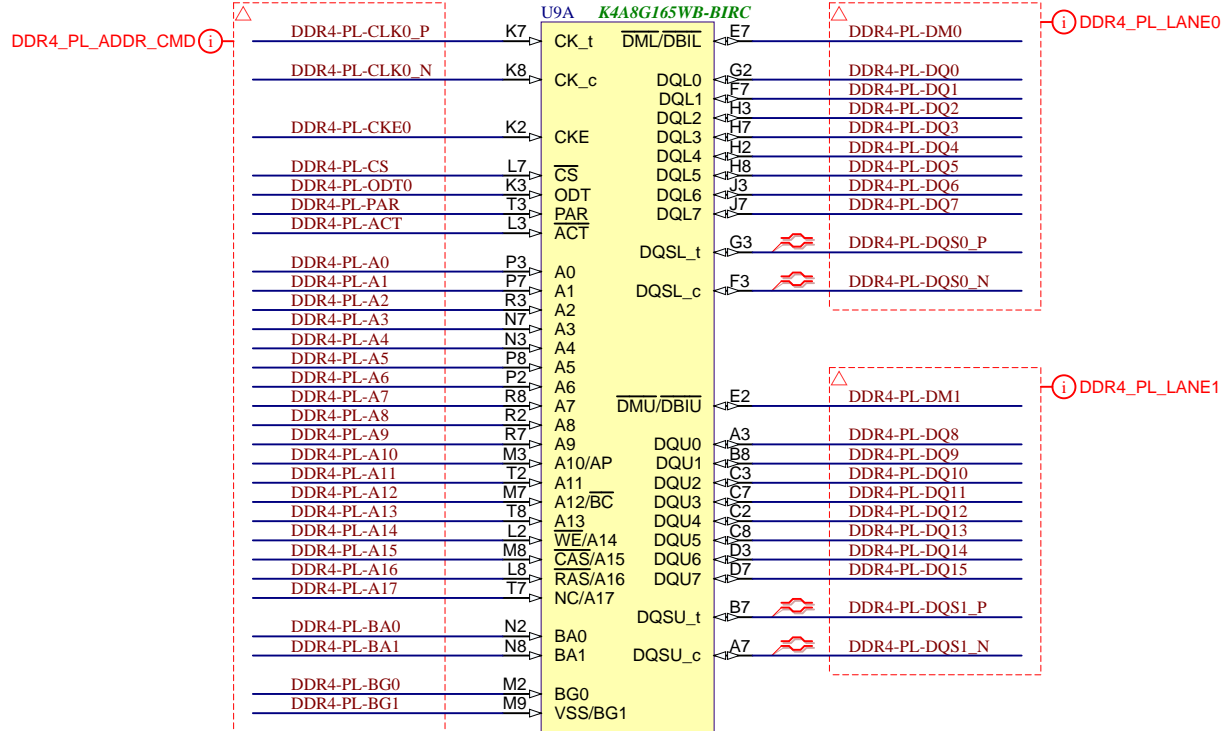
	Title: TE0865 – DDR4-PL		
	A4	Number: 24 DGE23MA	Rev. 02
	Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 24 of 51
	Filename: DDR4-PL.SchDoc		

1

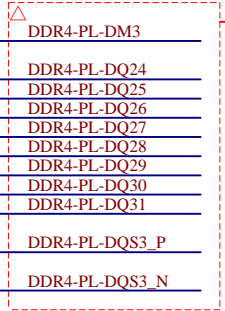
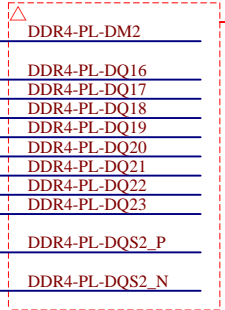
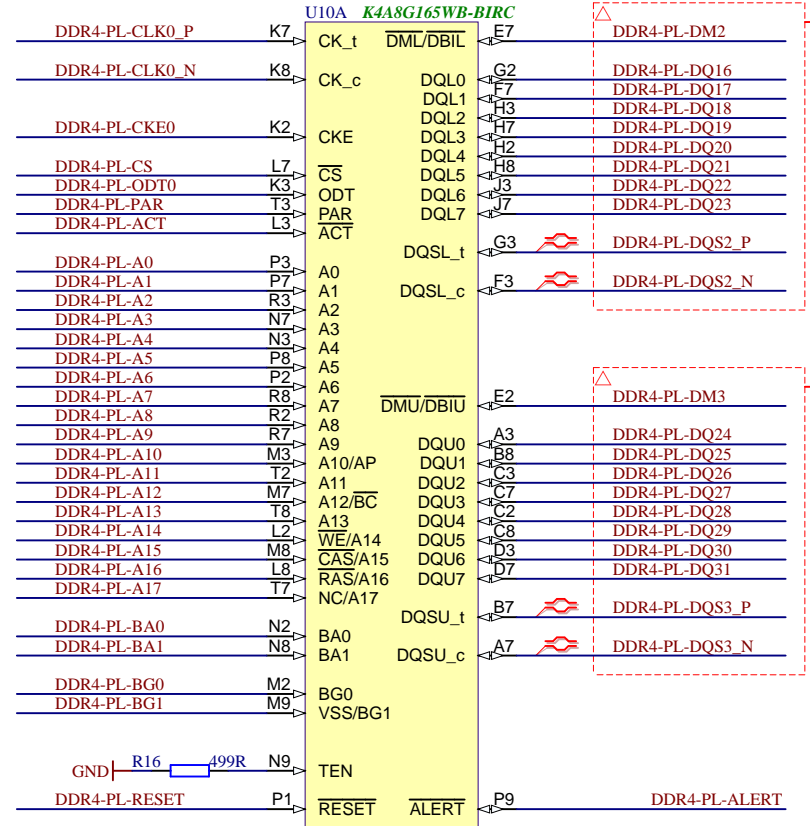
2

3

4

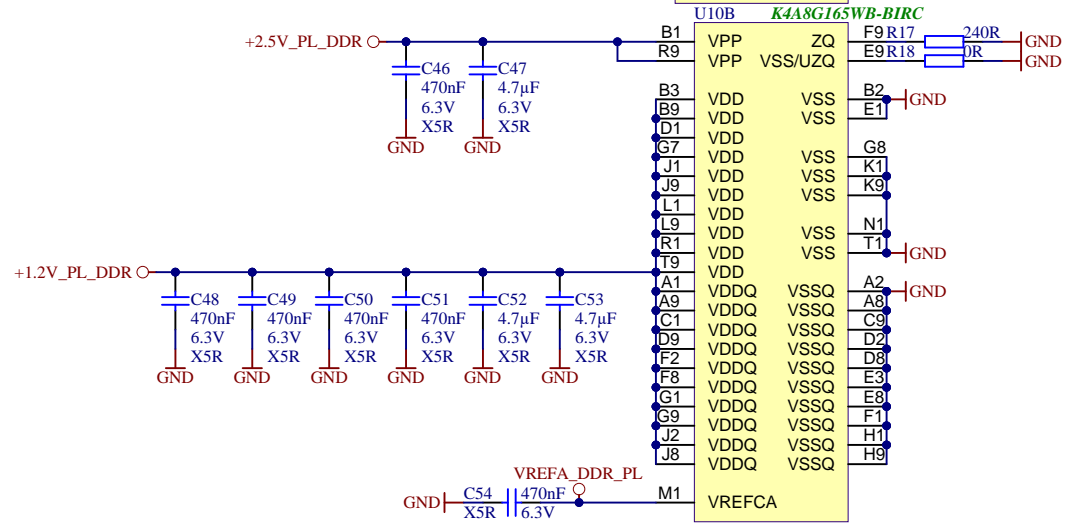


Title: TE0865 – DDR4-PL-RAM_1		
A4	Number: 25 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 25 of 51
Filename: DDR4-PL-RAM_1.SchDoc		

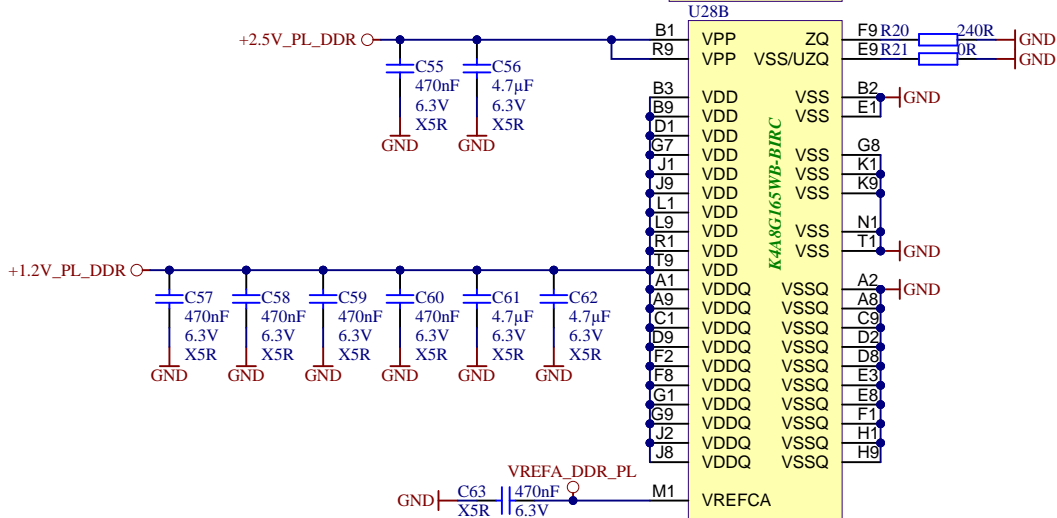
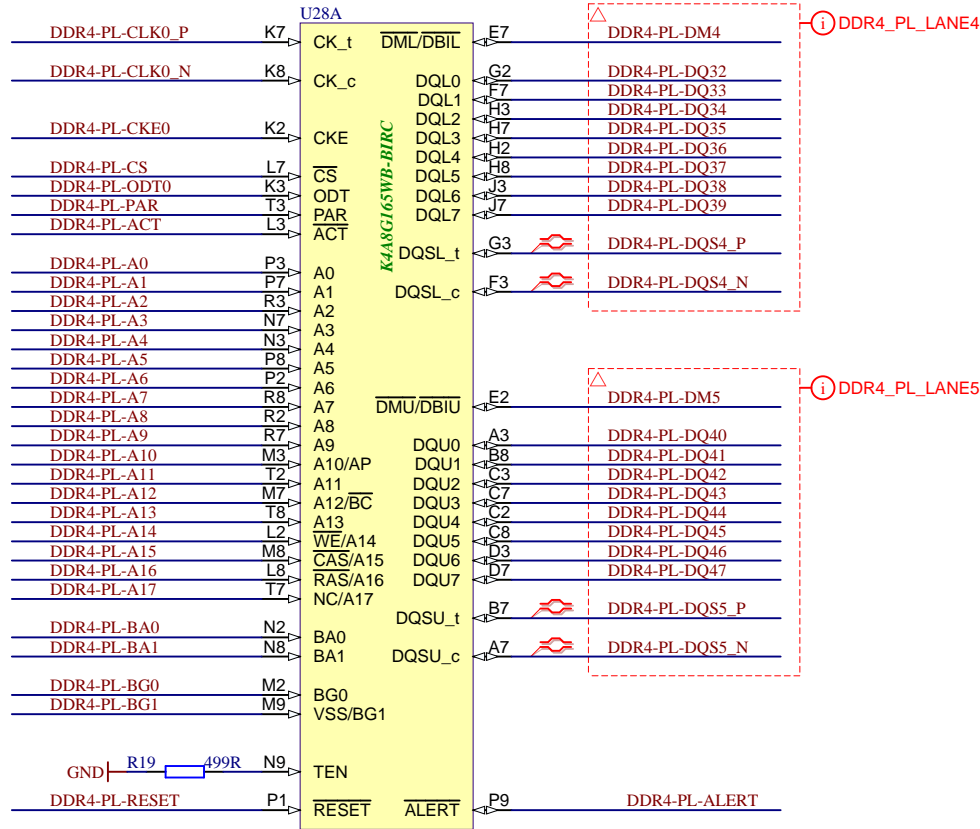


DDR4_PL_LANE2

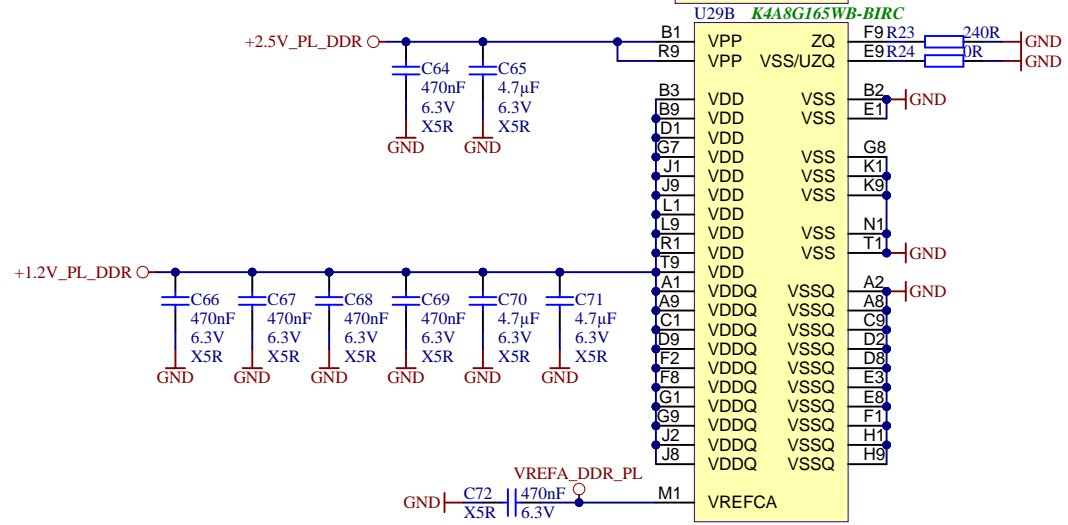
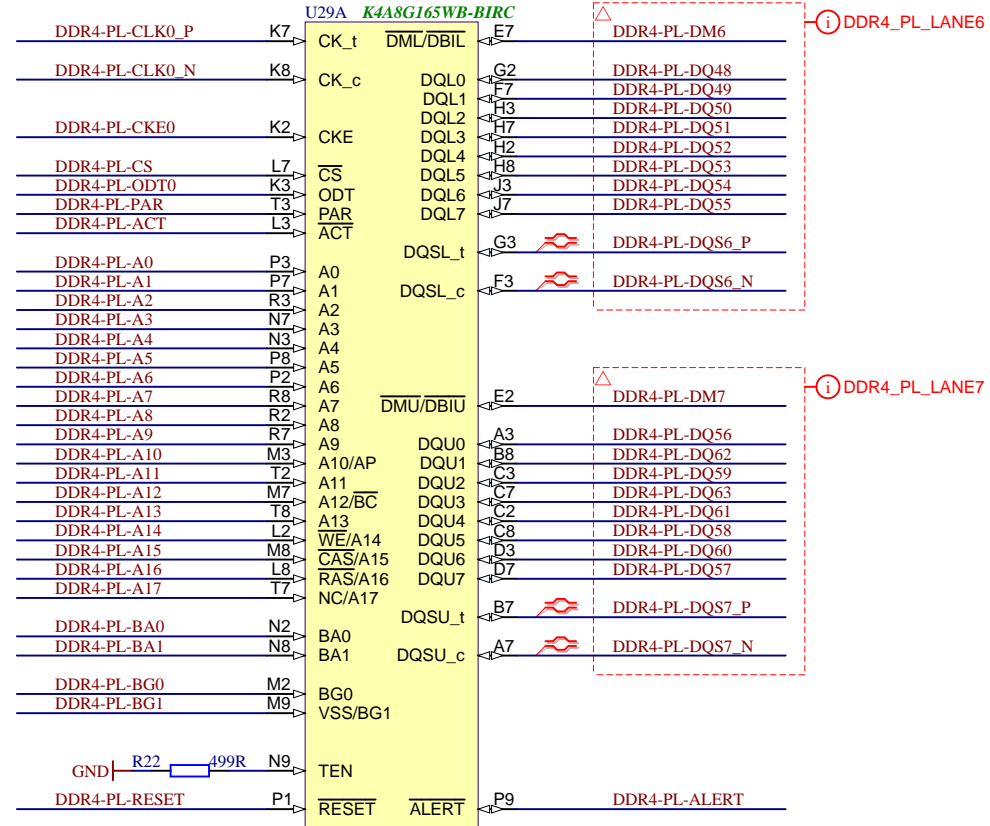
DDR4_PL_LANE3



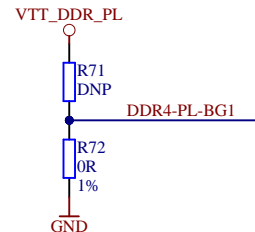
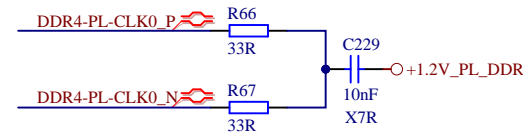
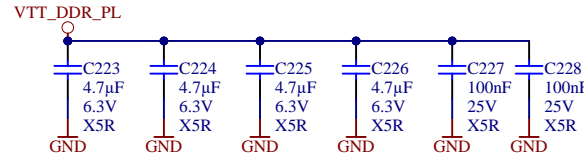
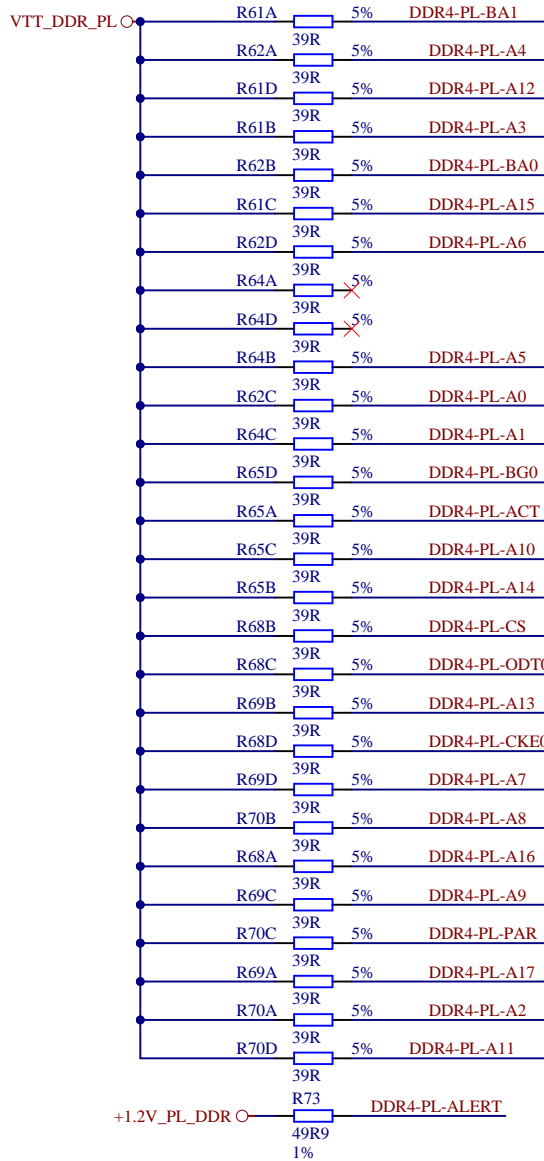
Title: TE0865 – DDR4-PL-RAM_2		
A4	Number: 26 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 26 of 51
Filename: DDR4-PL-RAM_2.SchDoc		



Title: TE0865 – DDR4-PL-RAM_3		
A4	Number: 27 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 27 of 51
Filename: DDR4-PL-RAM_3.SchDoc		



Title: TE0865 - DDR4-PL-RAM_4		
A4	Number: 28 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 28 of 51
Filename: DDR4-PL-RAM_4.SchDoc		



Title: TE0865 – DDR4-PL-TERM		
A4	Number: 29 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 29 of 51
Filename: DDR4-PL-TERM.SchDoc		

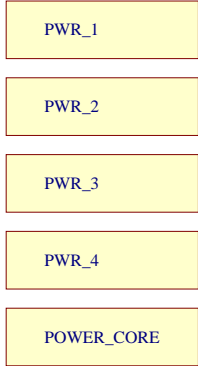
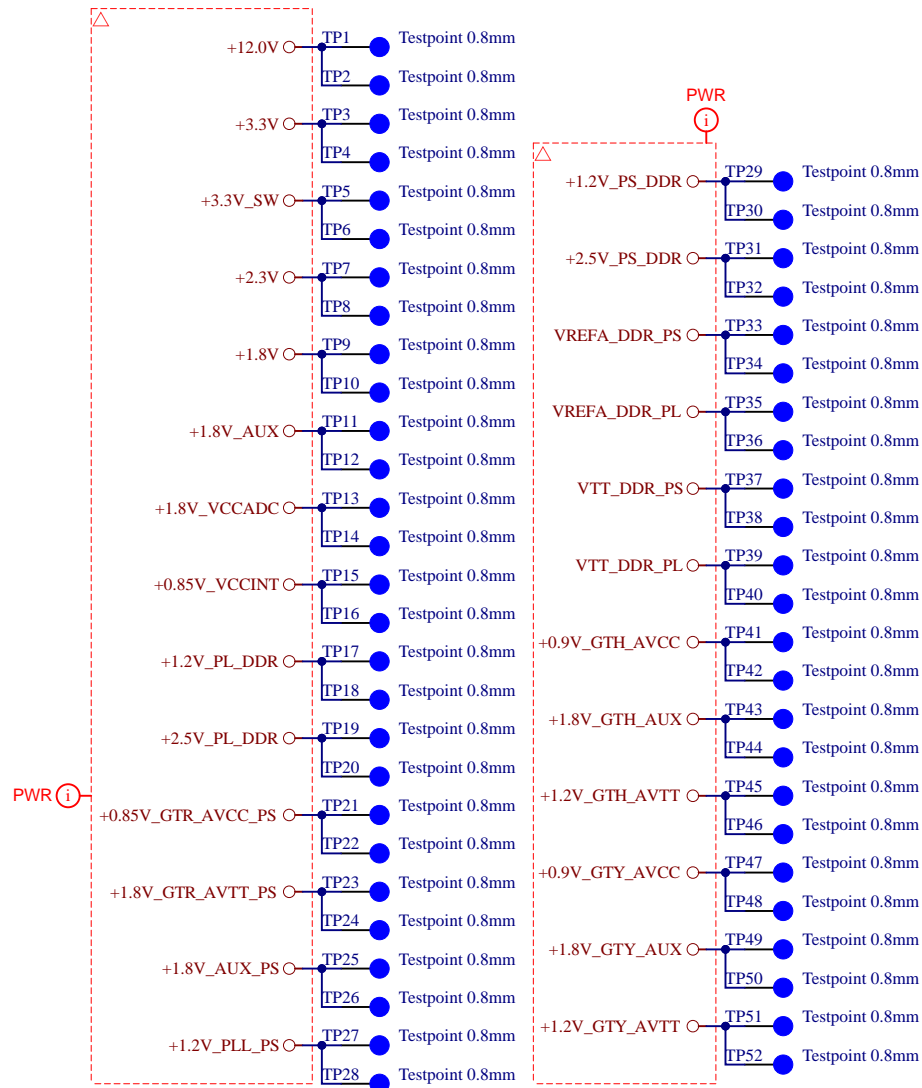
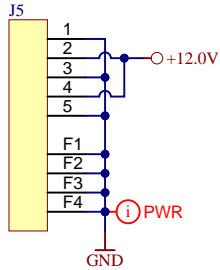
1

2

3

4

UMPT-05-01.5-G-VT-SM-WT-K



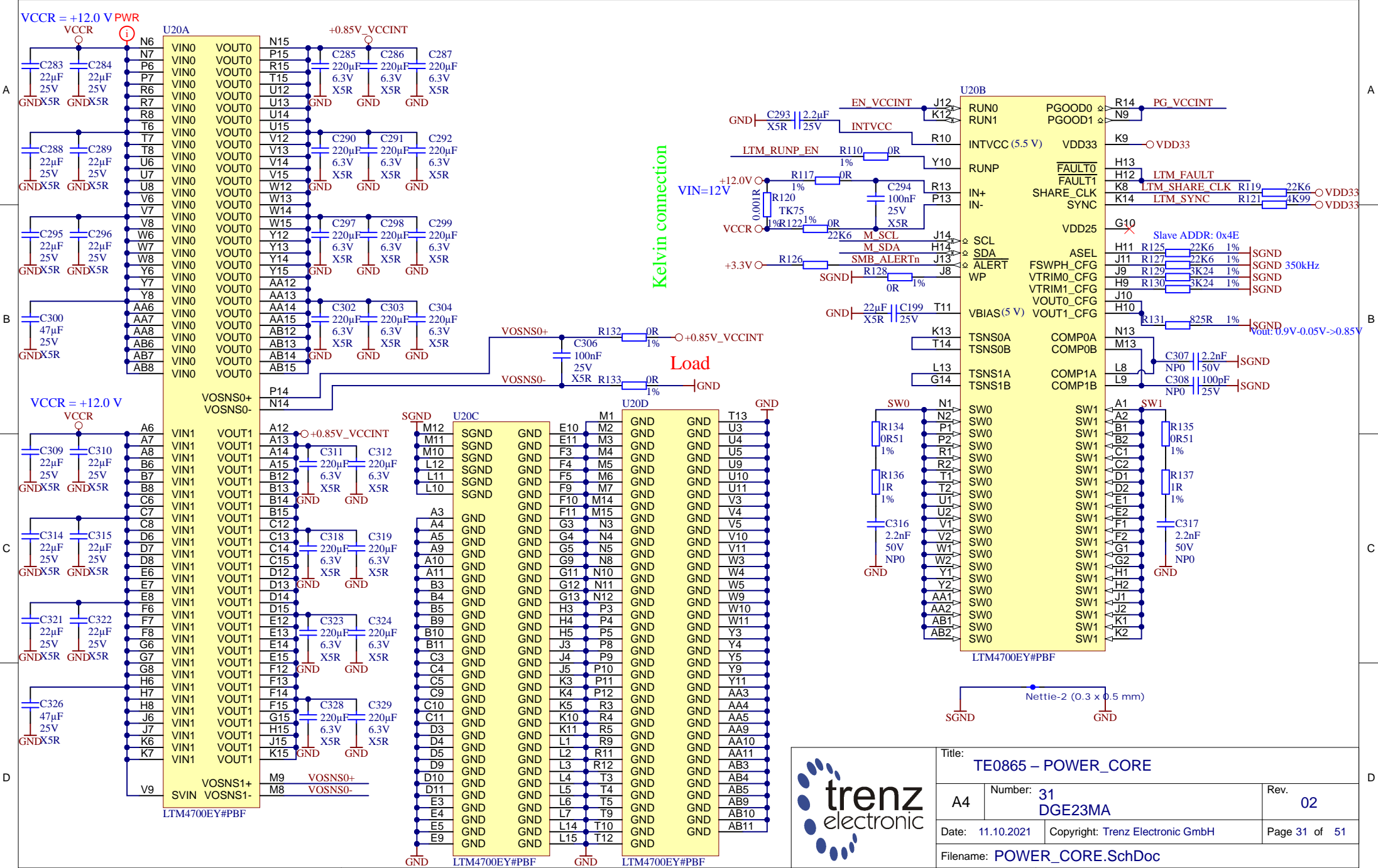
Title: TE0865 – POWER		
A4	Number: 30 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 30 of 51
Filename: POWER.SchDoc		

1

2

3

4



Kelvin connection

VIN=12V

Load



Title: TE0865 - POWER_CORE		
A4	Number: 31 DGE23MA	Rev: 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 31 of 51
Filename: POWER_CORE.SchDoc		

1

2

3

4

A

A

DDR PS

DDR PL

B

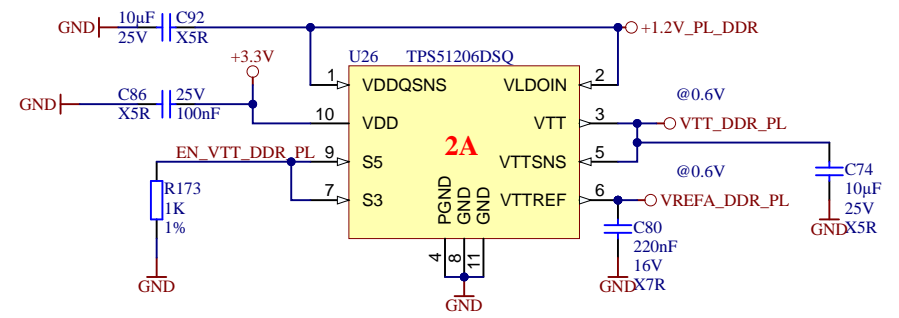
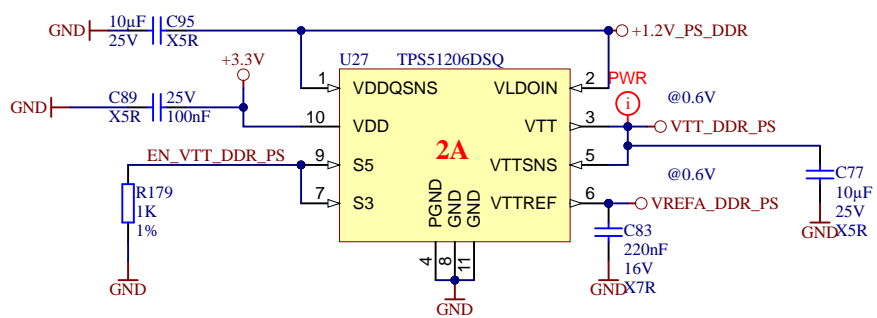
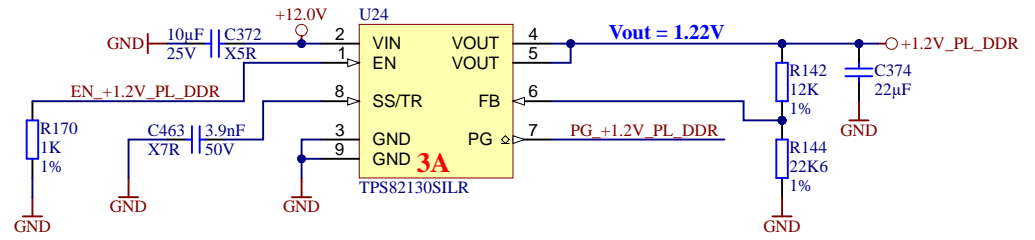
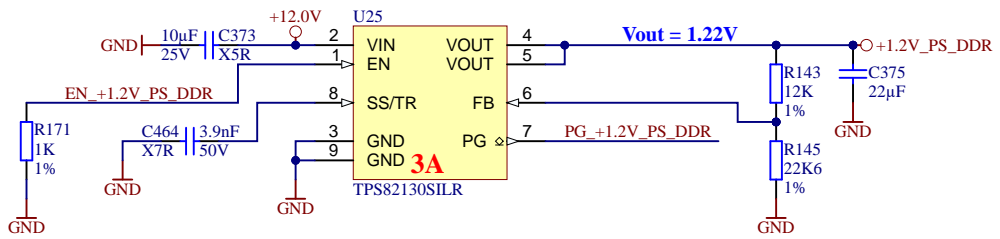
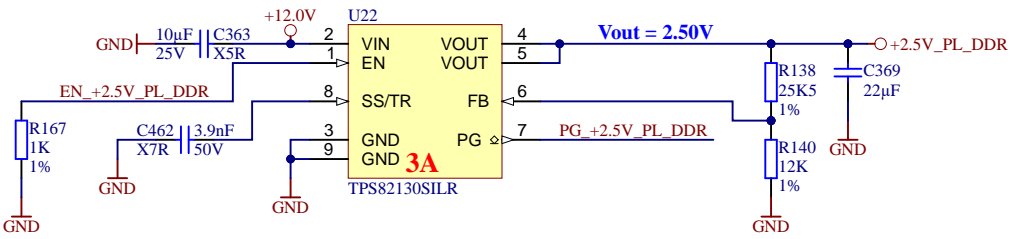
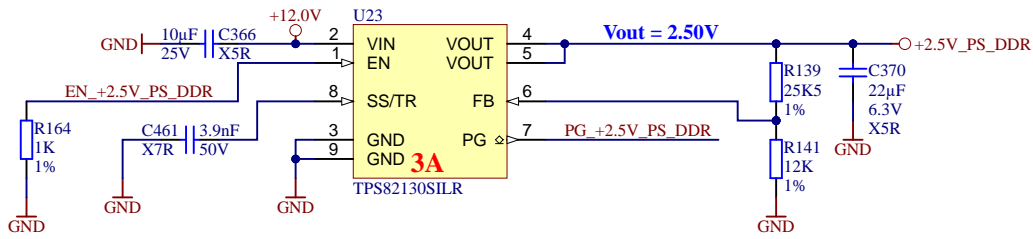
B

C

C

D

D



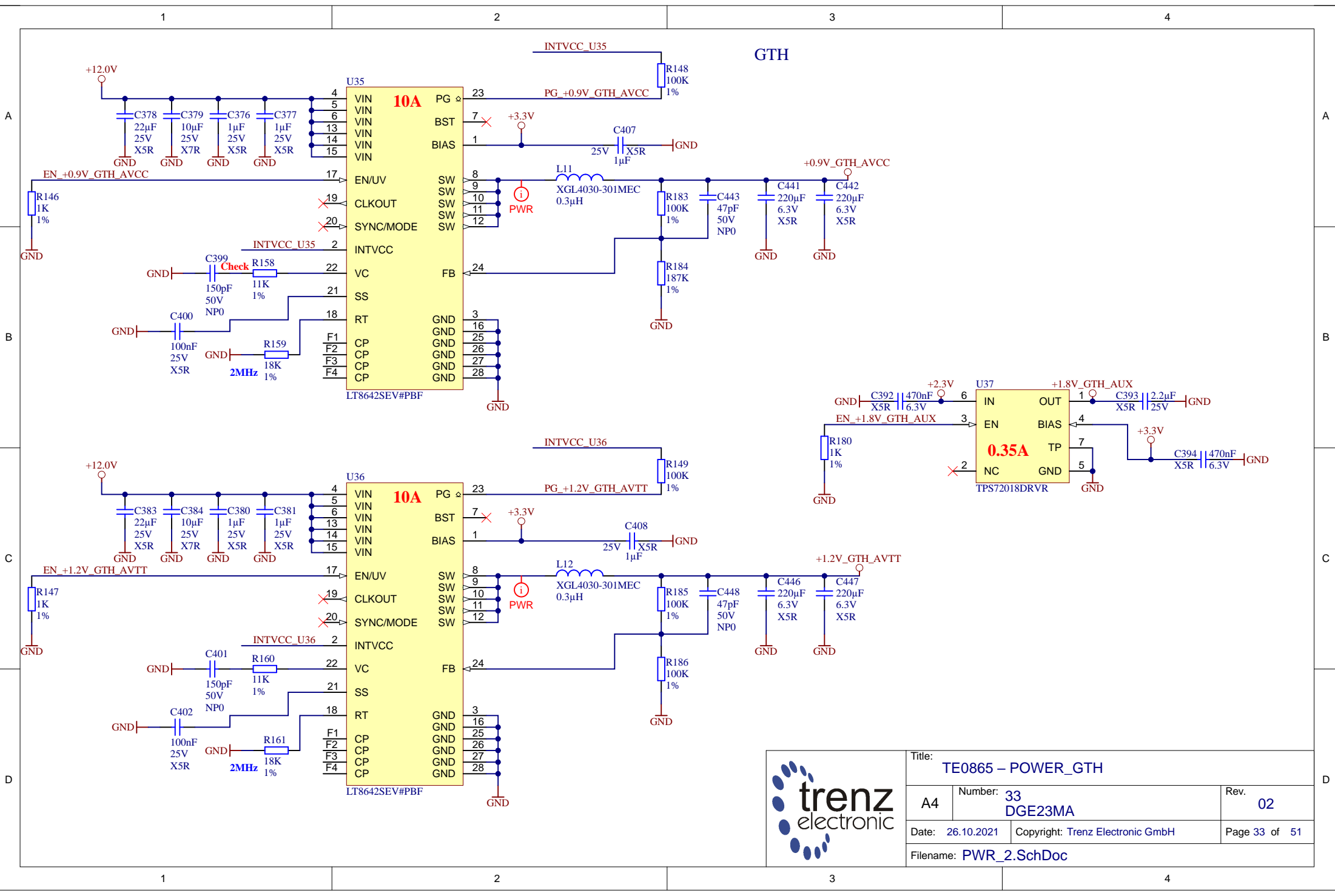
Title: TE0865 – POWER_DDRs		
A4	Number: 32 DGE23MA	Rev. 02
Date: 26.10.2021	Copyright: Trenz Electronic GmbH	Page 32 of 51
Filename: PWR_1.SchDoc		


1

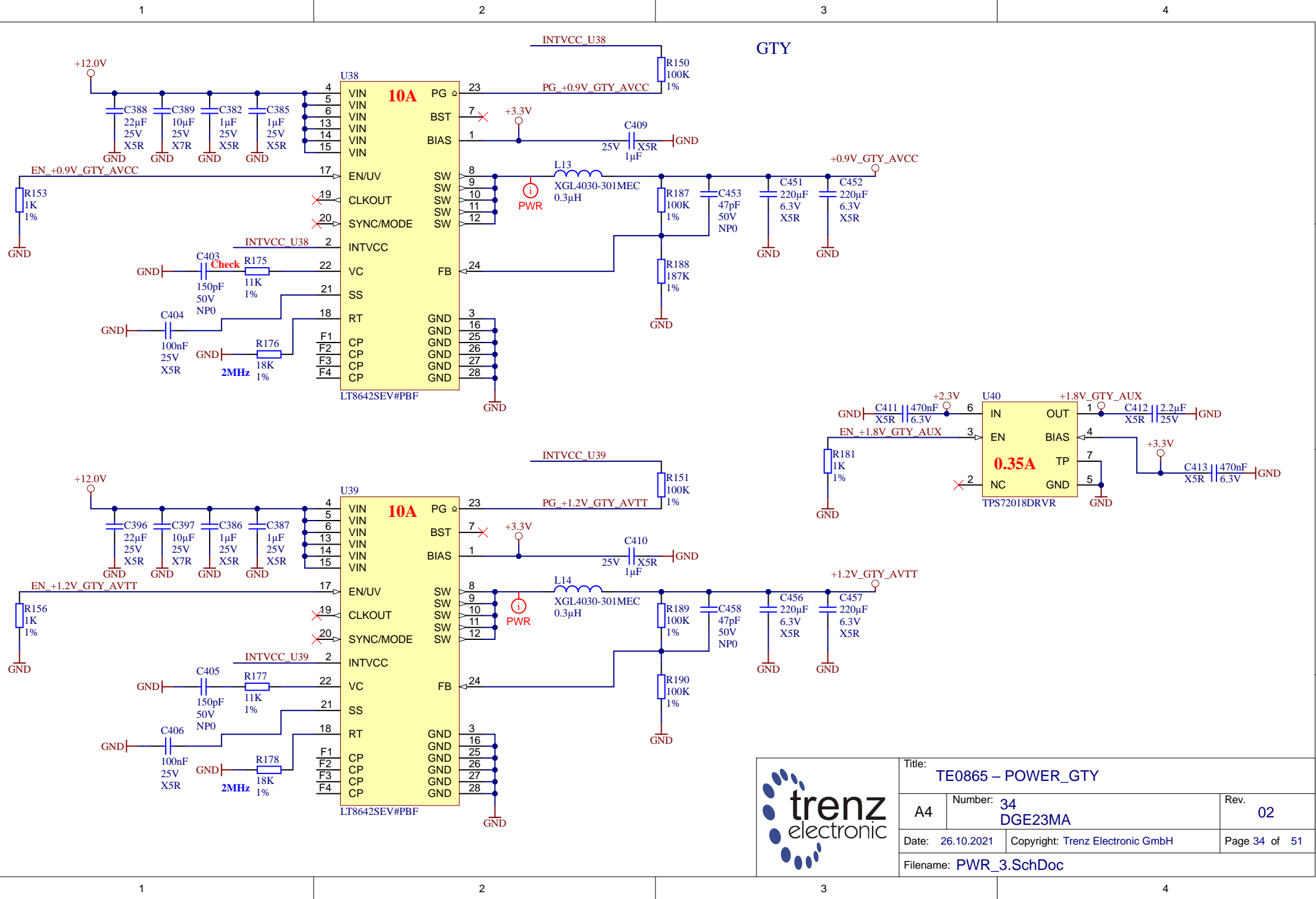
2

3

4



			Title: TE0865 – POWER_GTH	
			A4	Number: 33 DGE23MA
Date: 26.10.2021		Copyright: Trenz Electronic GmbH		Page 33 of 51
Filename: PWR_2.SchDoc				



Title: TE0865 – POWER_GTY		
A4	Number: 34 DGE23MA	Rev. 02
Date: 26.10.2021	Copyright: Trenz Electronic GmbH	Page 34 of 51
Filename: PWR_3.SchDoc		

1

2

3

4

A

A

B

B

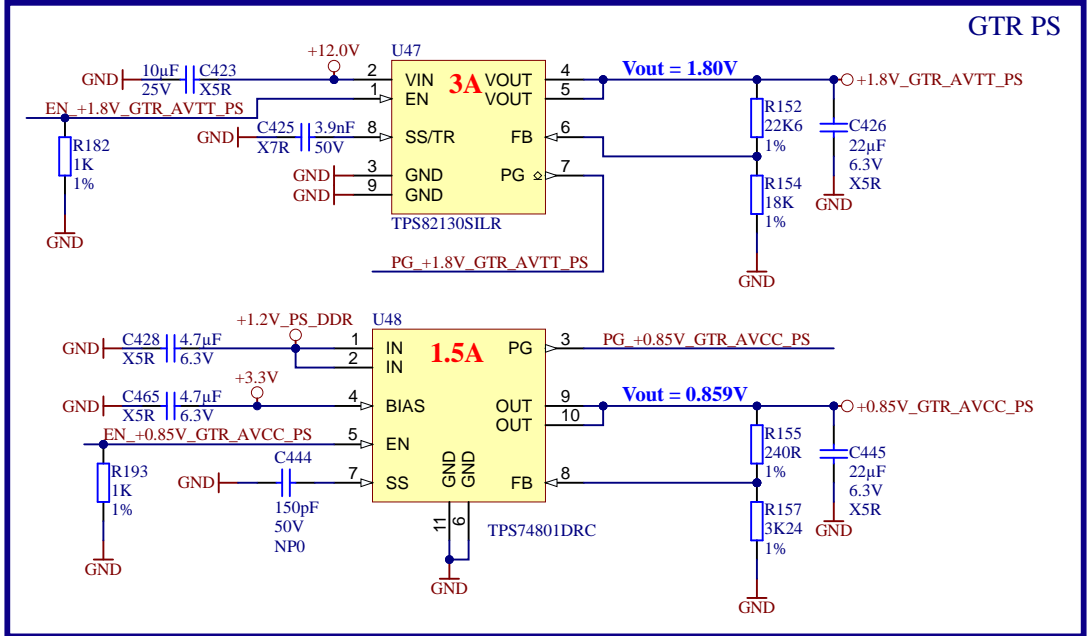
C

C

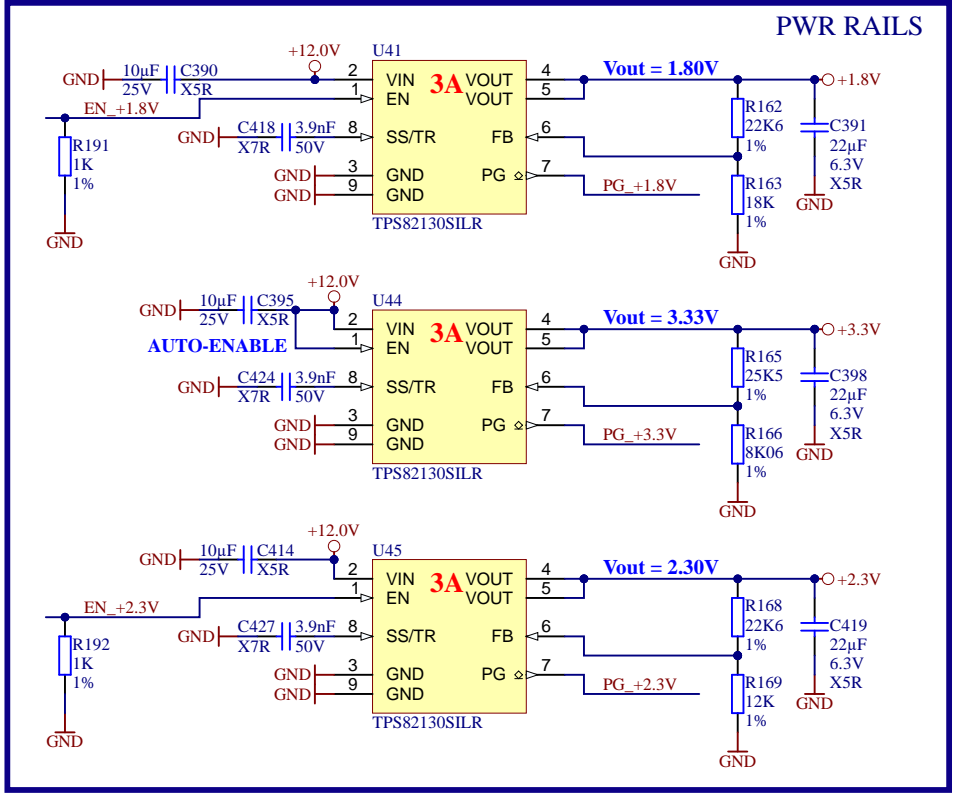
D

D

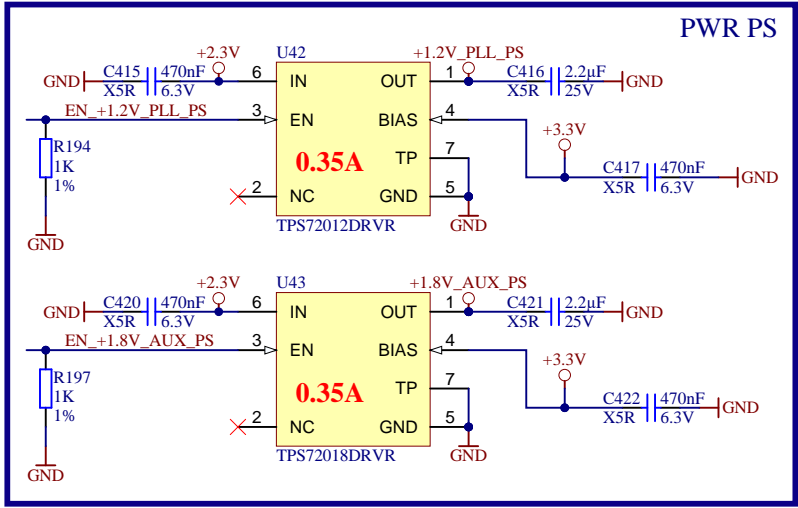
GTR PS



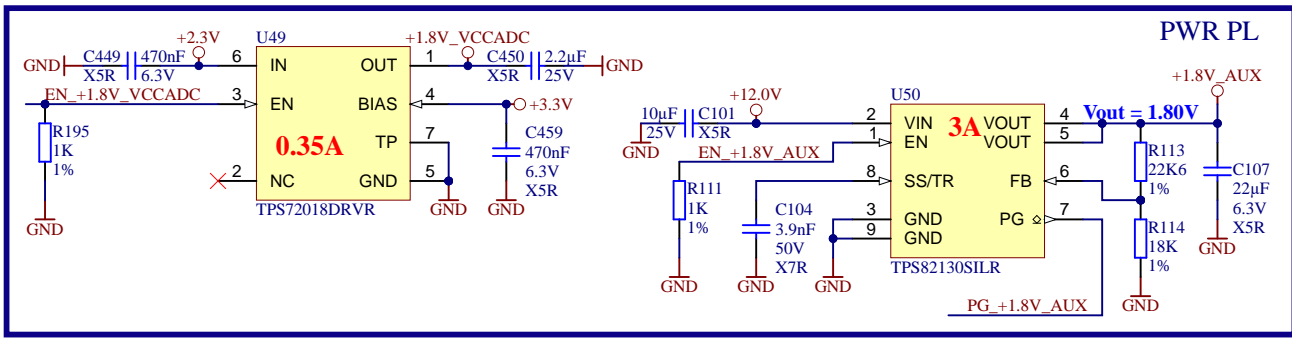
PWR RAILS



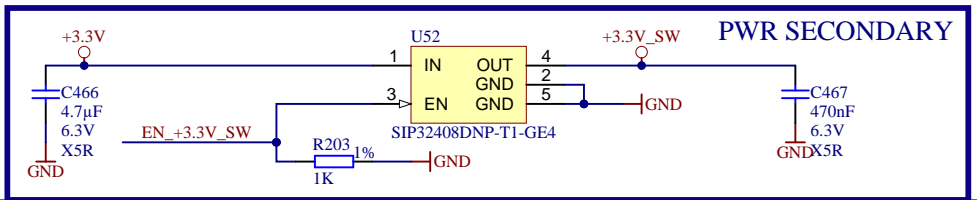
PWR PS



PWR PL



PWR SECONDARY



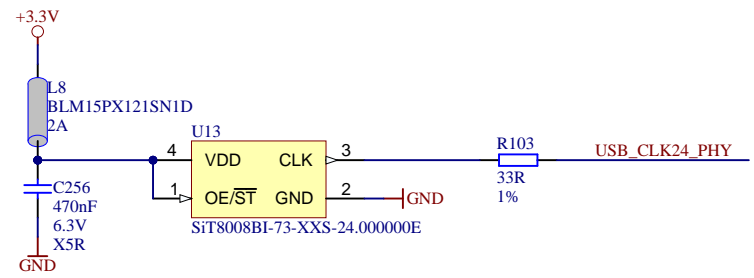
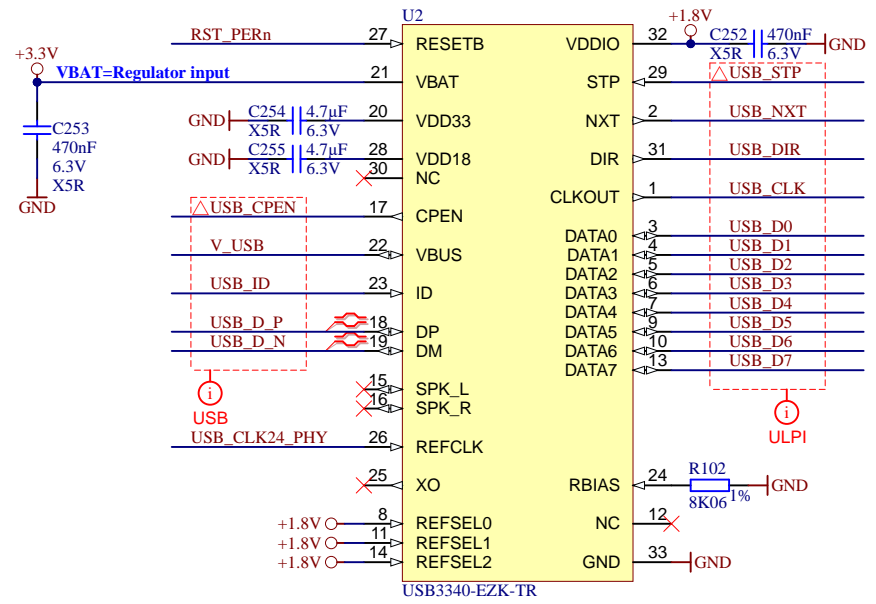
Title: TE0865 – POWER_RAILS_PS-PL			
A4	Number: 35	Rev. 02	
Date: 26.10.2021		Copyright: Trenz Electronic GmbH	Page 35 of 51
Filename: PWR_4.SchDoc			

1

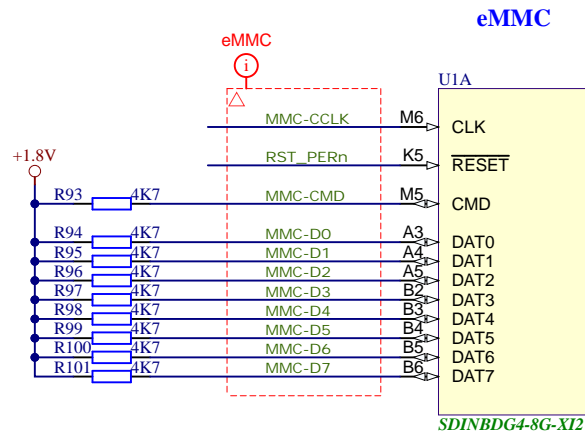
2

3

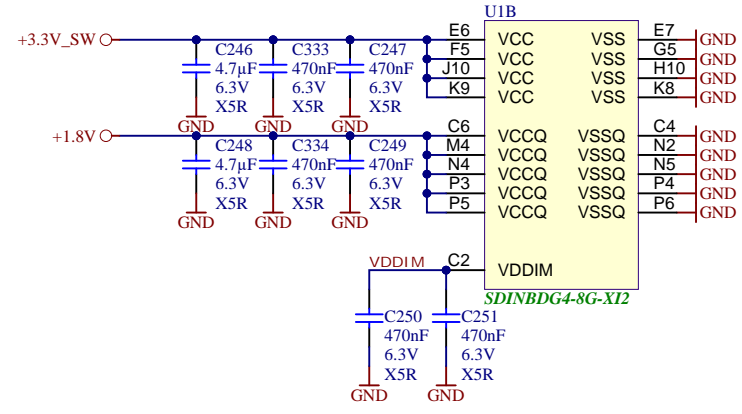
4



Title: TE0865 – USBPHY		
A4	Number: 36 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 36 of 51
Filename: USBPHY.SchDoc		



SDINBDG4-8G-X12



SDINBDG4-8G-X12

UID			
A1	NC	NC	H2
A2	NC	NC	H3
A8	NC	NC	H10
A9	NC	NC	H13
A10	NC	NC	H14
A11	NC	NC	J1
A12	NC	NC	J2
A13	NC	NC	J3
A14	NC	NC	J12
B1	NC	NC	J13
B7	NC	NC	J14
B8	NC	NC	K1
B9	NC	NC	K2
B10	NC	NC	K3
B11	NC	NC	K12
B12	NC	NC	K13
B13	NC	NC	K14
B14	NC	NC	L1
C1	NC	NC	L2
C3	NC	NC	L3
C7	NC	NC	L12
C8	NC	NC	L13
C9	NC	NC	L14
C10	NC	NC	M1
C11	NC	NC	M2
C12	NC	NC	M3
C13	NC	NC	M7
C14	NC	NC	M8
D1	NC	NC	M9
D2	NC	NC	M10
D3	NC	NC	M11
D4	NC	NC	M12
D12	NC	NC	M13
D13	NC	NC	M14
D14	NC	NC	N1
E1	NC	NC	N3
E2	NC	NC	N6
E3	NC	NC	N7
E12	NC	NC	N8
E13	NC	NC	N9
E14	NC	NC	N10
F1	NC	NC	N11
F2	NC	NC	N12
F3	NC	NC	N13
F12	NC	NC	N14
F13	NC	NC	P1
F14	NC	NC	P2
G1	NC	NC	P8
G2	NC	NC	P9
G12	NC	NC	P11
G13	NC	NC	P12
G14	NC	NC	P13
H1	NC	NC	P14

SDINBDG4-8G-X12

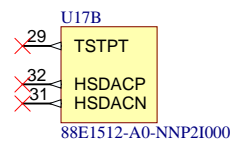
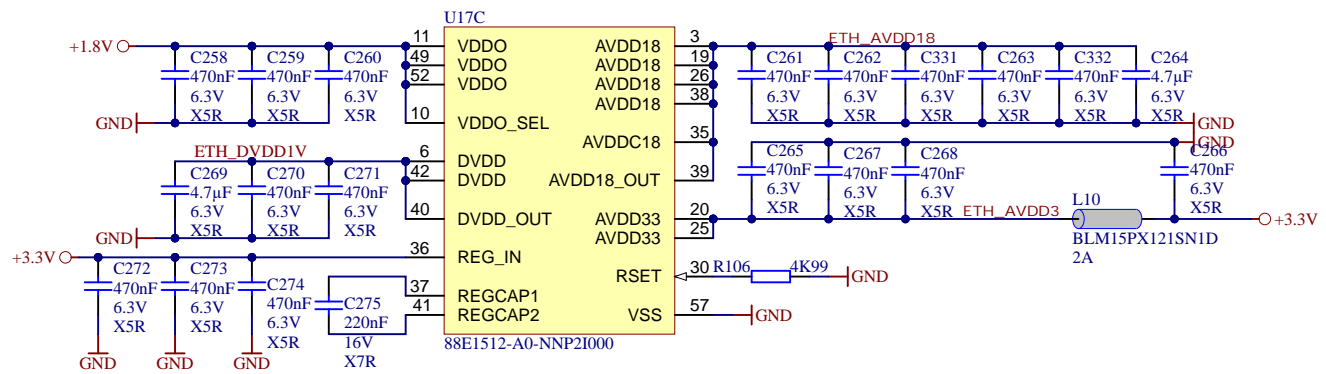
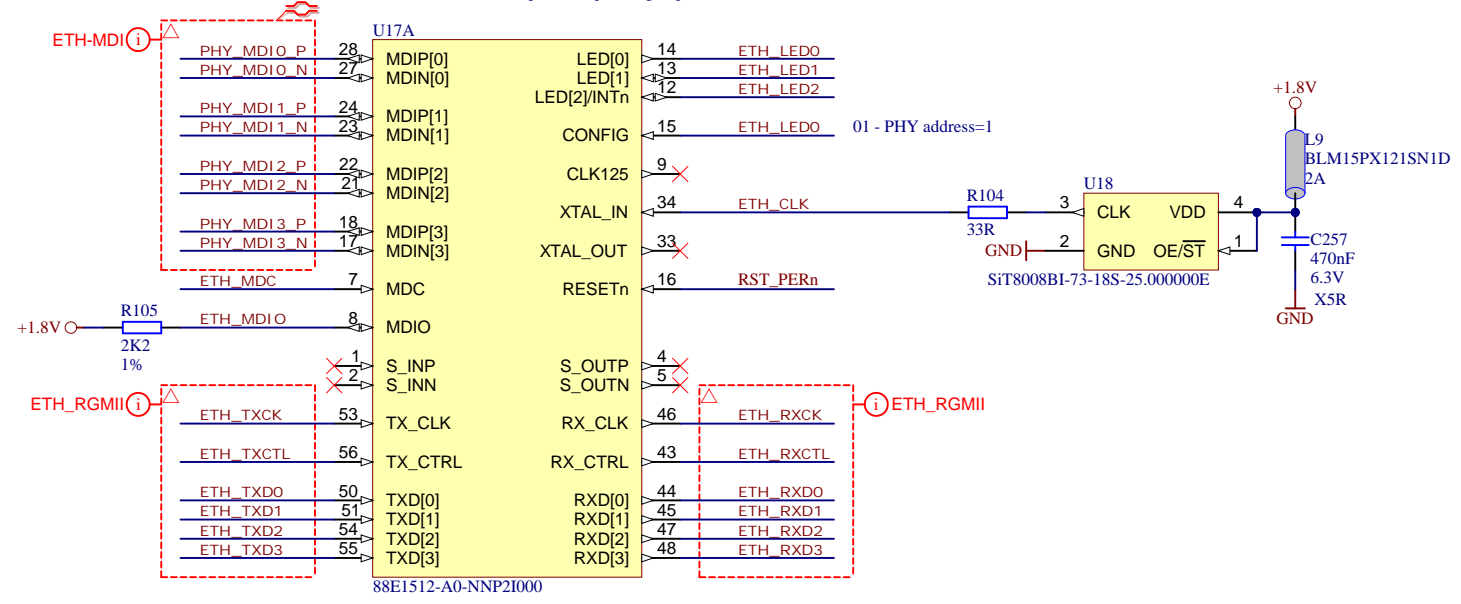

UIC	
GND	A6 RFU/VSS
A7	RFU
H3	RFU/NC
C5	RFU/NC
E5	RFU
E8	RFU
E9	RFU
E10	RFU
F10	RFU
G3	RFU
G10	RFU/NC
K3	RFU
H5	RFU/DS
J5	RFU/VSS
GND	K6 RFU
K7	RFU
K10	RFU
P7	RFU/NC
P10	RFU

SDINBDG4-8G-X12



Title: TE0865 – eMMC		
A4	Number: 37 DGE23MA	Rev. 02
Date: 29.10.2021	Copyright: Trenz Electronic GmbH	Page 37 of 51
Filename: eMMC.SchDoc		

no power sequencing requirement!

Title: TE0865 – ETH-PHY

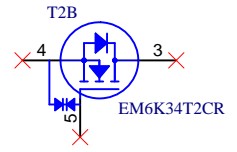
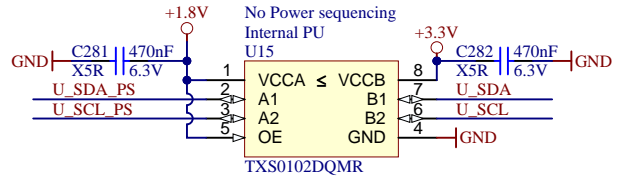
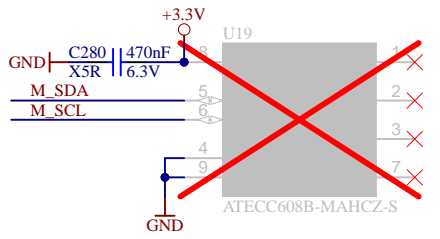
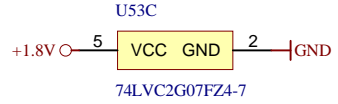
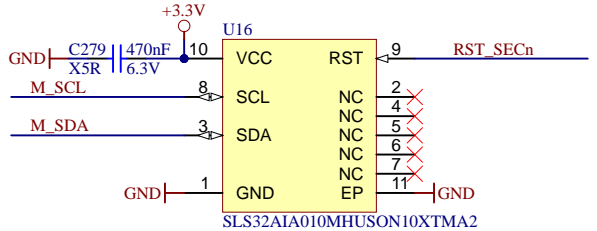
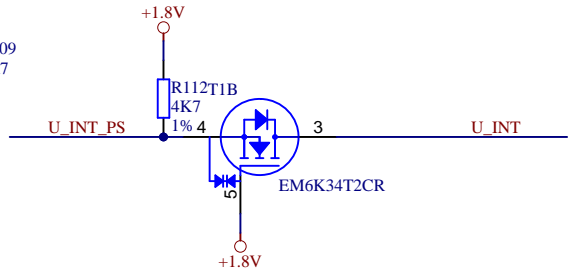
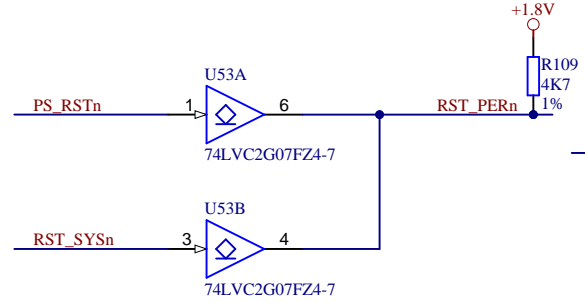
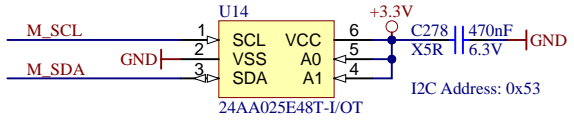
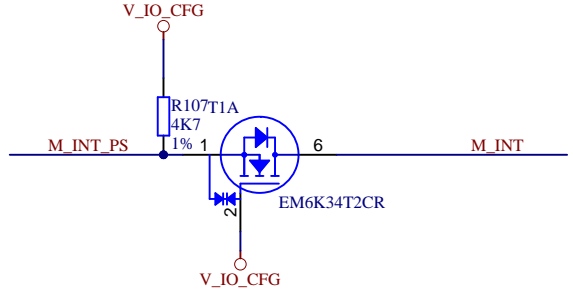
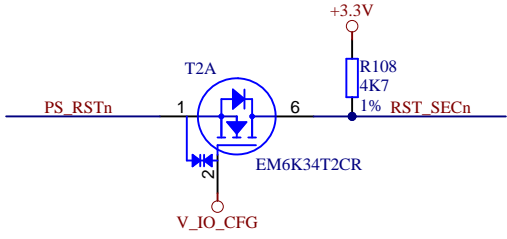
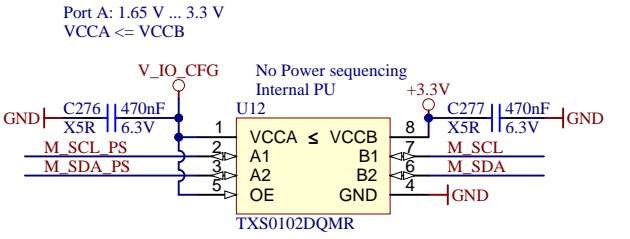
A4	Number: 38 DGE23MA	Rev. 02
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Filename: ETH-PHY.SchDoc		

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Title: TE0865 – MISC		
A4	Number: 39 DGE23MA	Rev. 02
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Filename: MISC.SchDoc		

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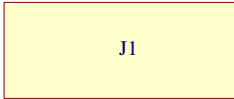
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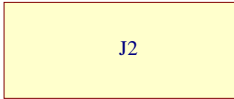
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J1

B

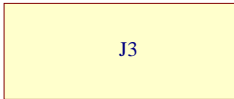
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J2

C

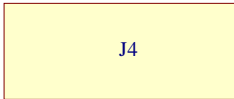
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J3

D

D



J4

	Title: TE0865 – B2B_CONNECTORS		
	A4	Number: 40 DGE23MA	Rev. 02
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ADM6-60-01.5-L-4-2 J1A

ADM6-60-01.5-L-4-2 J1B

GND	B67_L10_P	A1	B1	B67_L8_P	
	B67_L10_N	A2	B2	B67_L8_N	
	B67_L9_P	A3	B3	B67_L19_P	
	B67_L9_N	A4	B4	B67_L19_N	
	B67_L9_N	A5	B5		
GND	B67_L6_N	A6	B6	B67_L3_P	GND
	B67_L6_P	A7	B7	B67_L3_N	
	B67_L5_P	A8	B8	B67_L2_N	
	B67_L5_N	A9	B9	B67_L2_P	
	B67_L5_N	A10	B10		
GND	B67_L1_P	A11	B11	B67_L4_N	GND
	B67_L1_N	A12	B12	B67_L4_P	
	B67_L7_P	A13	B13	B67_L21_P	
	B67_L7_N	A14	B14	B67_L21_N	
	B67_L7_N	A15	B15		
GND	B66_L8_P	A16	B16	B66_L9_P	GND
	B66_L8_N	A17	B17	B66_L9_N	
	B66_L7_P	A18	B18	B66_L24_P	
	B66_L7_N	A19	B19	B66_L24_N	
	B66_L7_N	A20	B20		
GND	B66_L6_P	A21	B21	B66_L10_P	GND
	B66_L6_N	A22	B22	B66_L10_N	
	B66_L12_P	A23	B23	B66_L18_P	
	B66_L12_N	A24	B24	B66_L18_N	
	B66_L12_N	A25	B25		
GND	B66_L4_P	A26	B26	B66_L5_N	GND
	B66_L4_N	A27	B27	B66_L5_P	
	B66_L2_P	A28	B28	B66_L16_P	
	B66_L2_N	A29	B29	B66_L16_N	
	B66_L2_N	A30	B30		
GND	B64_L18_P	A31	B31	B64_L6_P	GND
	B64_L18_N	A32	B32	B64_L6_N	
	B64_L17_P	A33	B33	B64_L12_P	
	B64_L17_N	A34	B34	B64_L12_N	
	B64_L17_N	A35	B35		
GND	B64_L16_P	A36	B36	B64_L4_P	GND
	B64_L16_N	A37	B37	B64_L4_N	
	B64_L11_P	A38	B38	B64_L15_P	
	B64_L11_N	A39	B39	B64_L15_N	
	B64_L11_N	A40	B40		
GND	B64_L8_N	A41	B41	B64_L13_N	GND
	B64_L8_P	A42	B42	B64_L13_P	
	B64_L7_P	A43	B43	B64_L1_N	
	B64_L7_N	A44	B44	B64_L1_P	
	B64_L7_N	A45	B45		
GND	B65_L4_N	A46	B46	B65_L3_N	GND
	B65_L4_P	A47	B47	B65_L3_P	
	B65_L1_N	A48	B48	B65_L2_P	
	B65_L1_P	A49	B49	B65_L2_N	
	B65_L1_P	A50	B50		
GND	B65_L5_P	A51	B51	B65_L6_P	GND
	B65_L5_N	A52	B52	B65_L6_N	
	B65_L7_N	A53	B53	B65_L15_N	
	B65_L7_P	A54	B54	B65_L15_P	
	B65_L7_P	A55	B55		
GND	B65_L9_N	A56	B56	B65_L8_N	GND
	B65_L9_P	A57	B57	B65_L8_P	
	B65_L11_P	A58	B58	B65_L10_N	
	B65_L11_N	A59	B59	B65_L10_P	
	B65_L11_N	A60	B60		

GND	B67_L17_P	C1	D1	B67_L24_P	
	B67_L17_N	C2	D2	B67_L24_N	
	B67_L18_P	C3	D3	B67_L20_P	
	B67_L18_N	C4	D4	B67_L20_N	
	B67_L18_N	C5	D5		
GND	B67_L23_P	C6	D6	B67_L16_P	GND
	B67_L23_N	C7	D7	B67_L16_N	
	B67_L13_N	C8	D8	B67_L14_P	
	B67_L13_P	C9	D9	B67_L14_N	
	B67_VRP	C10	D10		
	B67_L22_P	C11	D11	B67_L12_N	○ VCCIO_67
	B67_L22_N	C12	D12	B67_L12_P	
	B67_L15_N	C13	D13	B67_L11_N	
	B67_L15_P	C14	D14	B67_L11_P	
	B67_L15_P	C15	D15		
GND	B66_L20_P	C16	D16	B66_L23_P	GND
	B66_L20_N	C17	D17	B66_L23_N	
	B66_L14_P	C18	D18	B66_L22_P	
	B66_L14_N	C19	D19	B66_L22_N	
	B66_VRP	C20	D20		
	B66_L21_N	C21	D21	B66_L11_N	○ VCCIO_66
	B66_L21_P	C22	D22	B66_L11_P	
	B66_L13_N	C23	D23	B66_L17_P	
	B66_L13_P	C24	D24	B66_L17_N	
	B66_L13_P	C25	D25		
GND	B66_L15_P	C26	D26	B66_L3_N	GND
	B66_L15_N	C27	D27	B66_L3_P	
	B66_L19_P	C28	D28	B66_L1_N	
	B66_L19_N	C29	D29	B66_L1_P	
	B66_L19_N	C30	D30		
GND	B64_L14_P	C31	D31	B64_L10_N	GND
	B64_L14_N	C32	D32	B64_L10_P	
	B64_L5_N	C33	D33	B64_L19_N	
	B64_L5_P	C34	D34	B64_L19_P	
	B64_VRP	C35	D35		
	B64_L9_N	C36	D36	B64_L22_N	○ VCCIO_64
	B64_L9_P	C37	D37	B64_L22_P	
	B64_L23_N	C38	D38	B64_L20_N	
	B64_L23_P	C39	D39	B64_L20_P	
	B64_L23_P	C40	D40		
GND	B64_L3_N	C41	D41	B64_L21_N	GND
	B64_L3_P	C42	D42	B64_L21_P	
	B64_L2_N	C43	D43	B64_L24_N	
	B64_L2_P	C44	D44	B64_L24_P	
	B64_L2_P	C45	D45		
GND	B65_L23_N	C46	D46	B65_L19_N	○ VCCIO_65
	B65_L23_P	C47	D47	B65_L19_P	
	B65_L21_N	C48	D48	B65_L20_P	
	B65_L21_P	C49	D49	B65_L20_N	
	B65_VRP	C50	D50		
GND	B65_L12_P	C51	D51	B65_L14_P	GND
	B65_L12_N	C52	D52	B65_L14_N	
	B65_L24_N	C53	D53	B65_L22_N	
	B65_L24_P	C54	D54	B65_L22_P	
	B65_L24_P	C55	D55	PERSTO	
	B65_L17_P	C56	D56	B65_L13_P	
GND	B65_L17_N	C57	D57	B65_L13_N	GND
	B65_L18_N	C58	D58	B65_L16_N	
	B65_L18_P	C59	D59	B65_L16_P	
	B65_L18_P	C60	D60		



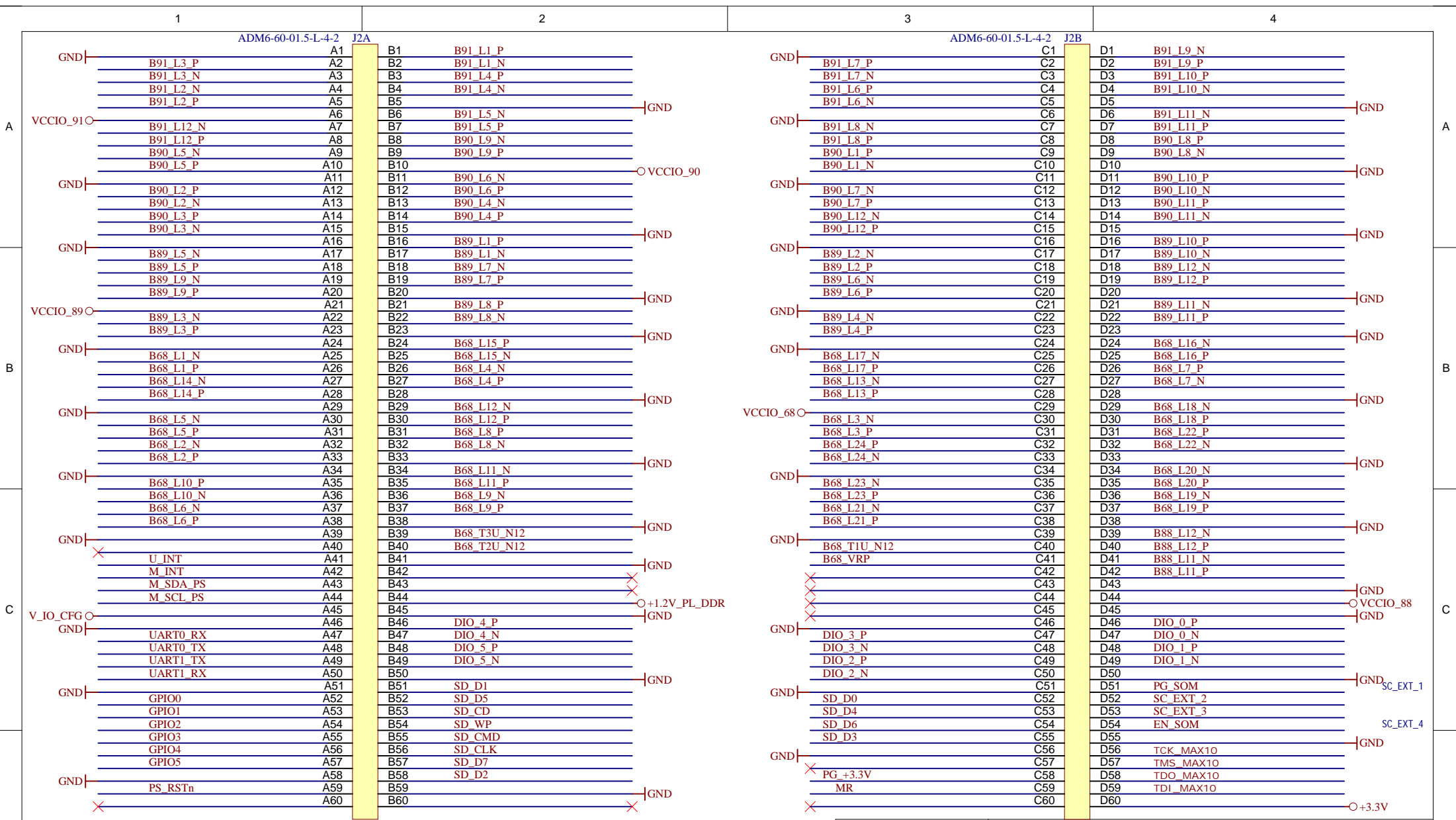
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A4	Number: 41 DGE23MA	Rev. 02
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Title: TE0865 – J2_CONNECTOR		
A4	Number: 42 DGE23MA	Rev. 02
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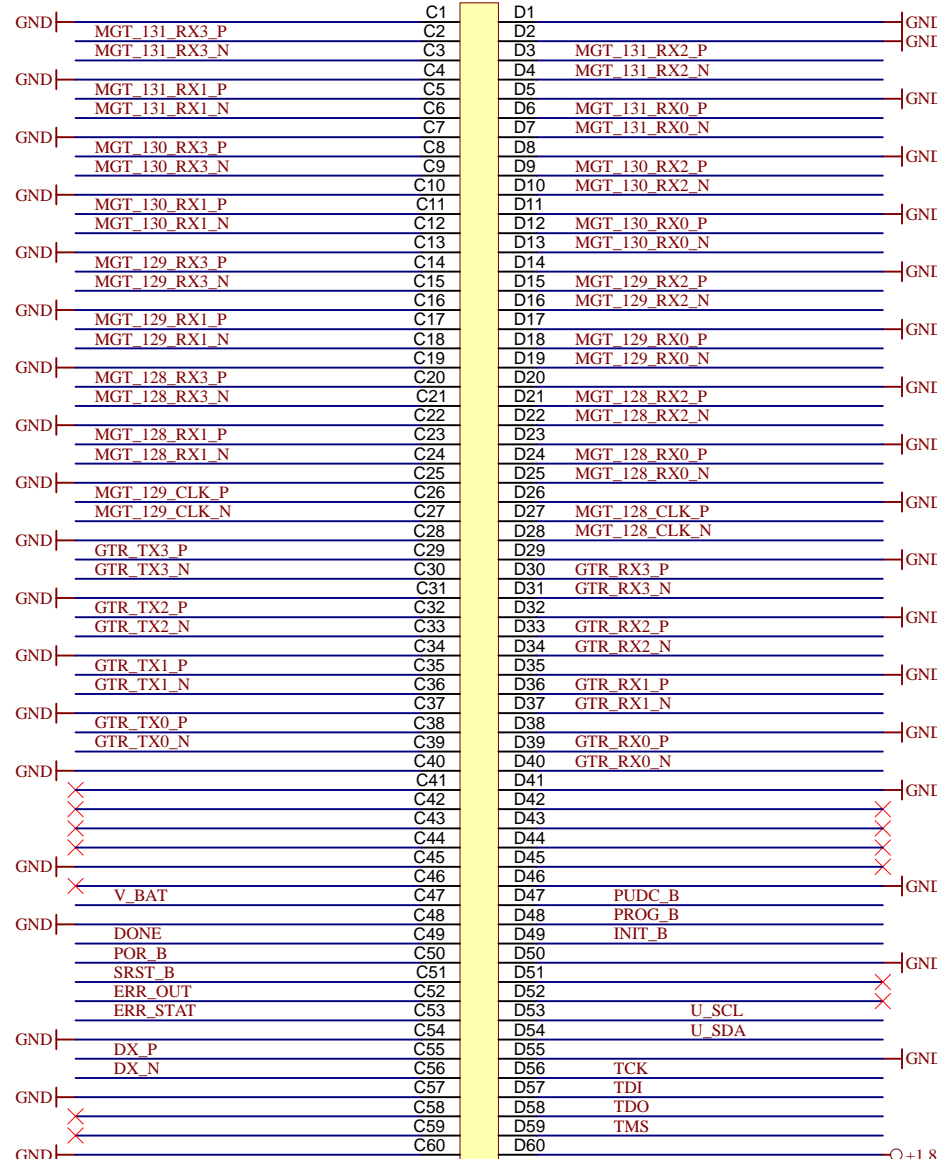
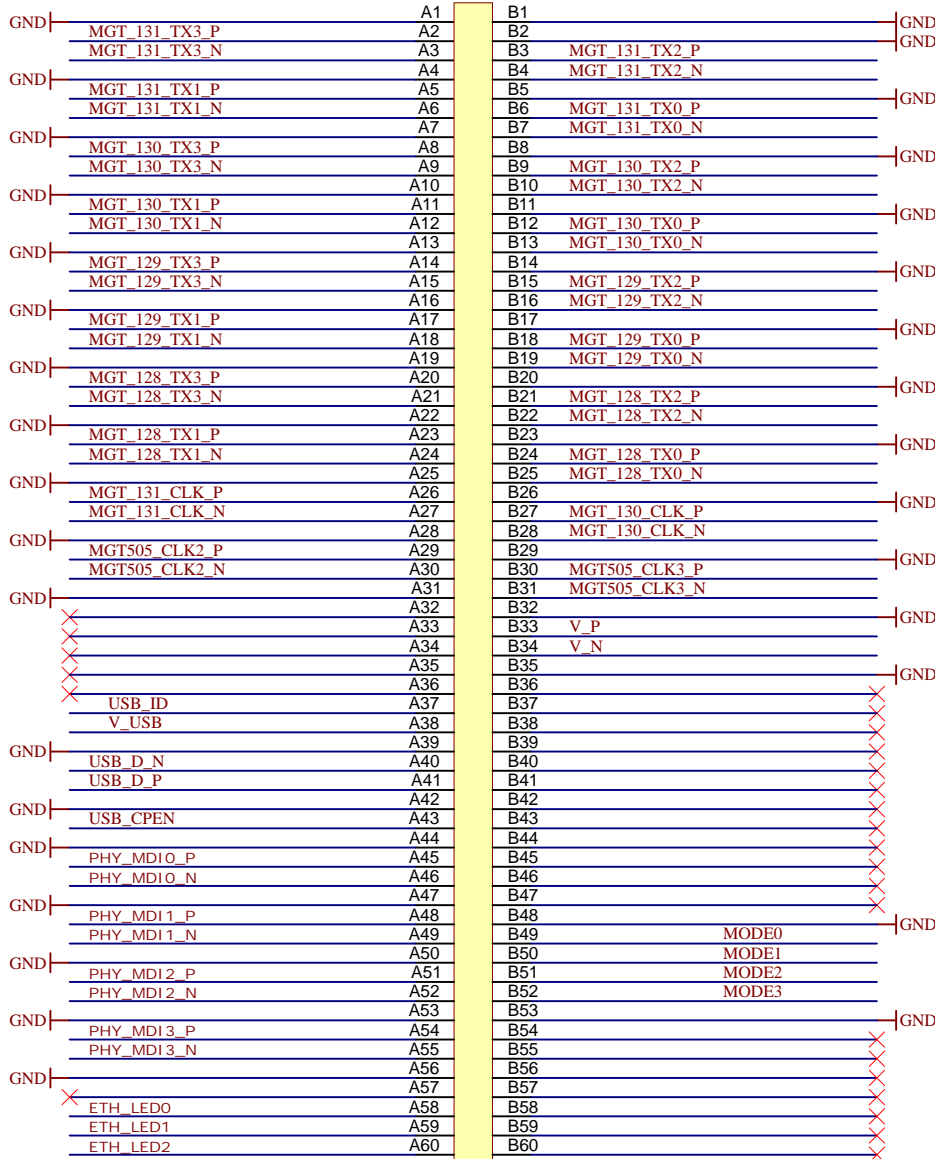
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ADM6-60-01.5-L-4-2 J3A

ADM6-60-01.5-L-4-2 J3B



Title: TE0865 – J3_CONNECTOR		
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ADM6-60-01.5-L-4-2 J4A

ADM6-60-01.5-L-4-2 J4B

B88_L6_N	A1	B1	
B88_L6_P	A2	B2	B88_L1_N
B88_L5_N	A3	B3	B88_L1_P
B88_L5_P	A4	B4	B88_L3_P
B88_L2_N	A5	B5	B88_L3_N
B88_L2_P	A6	B6	
GND	A7	B7	MGT_230_CLK0_P
MGT_231_CLK0_P	A8	B8	MGT_230_CLK0_N
MGT_231_CLK0_N	A9	B9	
GND	A10	B10	MGT_231_RX2_P
MGT_231_RX3_P	A11	B11	MGT_231_RX2_N
MGT_231_RX3_N	A12	B12	
GND	A13	B13	MGT_231_RX0_P
MGT_231_RX1_P	A14	B14	MGT_231_RX0_N
MGT_231_RX1_N	A15	B15	
GND	A16	B16	MGT_230_RX2_P
MGT_230_RX3_P	A17	B17	MGT_230_RX2_N
MGT_230_RX3_N	A18	B18	
GND	A19	B19	MGT_230_RX0_P
MGT_230_RX1_P	A20	B20	MGT_230_RX0_N
MGT_230_RX1_N	A21	B21	
GND	A22	B22	MGT_229_RX2_P
MGT_229_RX3_P	A23	B23	MGT_229_RX2_N
MGT_229_RX3_N	A24	B24	
GND	A25	B25	MGT_229_RX0_P
MGT_229_RX1_P	A26	B26	MGT_229_RX0_N
MGT_229_RX1_N	A27	B27	
GND	A28	B28	MGT_228_RX2_P
MGT_228_RX3_P	A29	B29	MGT_228_RX2_N
MGT_228_RX3_N	A30	B30	
GND	A31	B31	MGT_228_RX0_P
MGT_228_RX1_P	A32	B32	MGT_228_RX0_N
MGT_228_RX1_N	A33	B33	
GND	A34	B34	MGT_227_RX2_P
MGT_227_RX3_P	A35	B35	MGT_227_RX2_N
MGT_227_RX3_N	A36	B36	
GND	A37	B37	MGT_227_RX0_P
MGT_227_RX1_P	A38	B38	MGT_227_RX0_N
MGT_227_RX1_N	A39	B39	
GND	A40	B40	MGT_226_RX2_P
MGT_226_RX3_P	A41	B41	MGT_226_RX2_N
MGT_226_RX3_N	A42	B42	
GND	A43	B43	MGT_226_RX0_P
MGT_226_RX1_P	A44	B44	MGT_226_RX0_N
MGT_226_RX1_N	A45	B45	
GND	A46	B46	MGT_225_RX2_P
MGT_225_RX3_P	A47	B47	MGT_225_RX2_N
MGT_225_RX3_N	A48	B48	
GND	A49	B49	MGT_225_RX0_P
MGT_225_RX1_P	A50	B50	MGT_225_RX0_N
MGT_225_RX1_N	A51	B51	
GND	A52	B52	MGT_224_RX2_P
MGT_224_RX3_P	A53	B53	MGT_224_RX2_N
MGT_224_RX3_N	A54	B54	
GND	A55	B55	MGT_224_RX0_P
MGT_224_RX1_P	A56	B56	MGT_224_RX0_N
MGT_224_RX1_N	A57	B57	
GND	A58	B58	MGT_225_CLK_P
MGT_224_CLK_P	A59	B59	MGT_225_CLK_N
MGT_224_CLK_N	A60	B60	

B88_L7_N	C1	D1	
B88_L7_P	C2	D2	B88_L10_P
B88_L9_N	C3	D3	B88_L10_N
B88_L9_P	C4	D4	B88_L4_N
B88_L8_P	C5	D5	B88_L4_P
B88_L8_N	C6	D6	
GND	C7	D7	MGT_228_CLK0_P
MGT_229_CLK0_P	C8	D8	MGT_228_CLK0_N
MGT_229_CLK0_N	C9	D9	
GND	C10	D10	MGT_231_TX3_P
MGT_231_TX2_P	C11	D11	MGT_231_TX3_N
MGT_231_TX2_N	C12	D12	
GND	C13	D13	MGT_231_TX1_P
MGT_231_TX0_P	C14	D14	MGT_231_TX1_N
MGT_231_TX0_N	C15	D15	
GND	C16	D16	MGT_230_TX3_P
MGT_230_TX2_P	C17	D17	MGT_230_TX3_N
MGT_230_TX2_N	C18	D18	
GND	C19	D19	MGT_230_TX1_P
MGT_230_TX0_P	C20	D20	MGT_230_TX1_N
MGT_230_TX0_N	C21	D21	
GND	C22	D22	MGT_229_TX3_P
MGT_229_TX2_P	C23	D23	MGT_229_TX3_N
MGT_229_TX2_N	C24	D24	
GND	C25	D25	MGT_229_TX1_P
MGT_229_TX0_P	C26	D26	MGT_229_TX1_N
MGT_229_TX0_N	C27	D27	
GND	C28	D28	MGT_228_TX3_P
MGT_228_TX2_P	C29	D29	MGT_228_TX3_N
MGT_228_TX2_N	C30	D30	
GND	C31	D31	MGT_228_TX1_P
MGT_228_TX0_P	C32	D32	MGT_228_TX1_N
MGT_228_TX0_N	C33	D33	
GND	C34	D34	MGT_227_TX3_P
MGT_227_TX2_P	C35	D35	MGT_227_TX3_N
MGT_227_TX2_N	C36	D36	
GND	C37	D37	MGT_227_TX1_P
MGT_227_TX0_P	C38	D38	MGT_227_TX1_N
MGT_227_TX0_N	C39	D39	
GND	C40	D40	MGT_226_TX3_P
MGT_226_TX2_P	C41	D41	MGT_226_TX3_N
MGT_226_TX2_N	C42	D42	
GND	C43	D43	MGT_226_TX1_P
MGT_226_TX0_P	C44	D44	MGT_226_TX1_N
MGT_226_TX0_N	C45	D45	
GND	C46	D46	MGT_225_TX3_P
MGT_225_TX2_P	C47	D47	MGT_225_TX3_N
MGT_225_TX2_N	C48	D48	
GND	C49	D49	MGT_225_TX1_P
MGT_225_TX0_P	C50	D50	MGT_225_TX1_N
MGT_225_TX0_N	C51	D51	
GND	C52	D52	MGT_224_TX3_P
MGT_224_TX2_P	C53	D53	MGT_224_TX3_N
MGT_224_TX2_N	C54	D54	
GND	C55	D55	MGT_224_TX1_P
MGT_224_TX0_P	C56	D56	MGT_224_TX1_N
MGT_224_TX0_N	C57	D57	
GND	C58	D58	MGT_227_CLK_P
MGT_226_CLK_P	C59	D59	MGT_227_CLK_N
MGT_226_CLK_N	C60	D60	



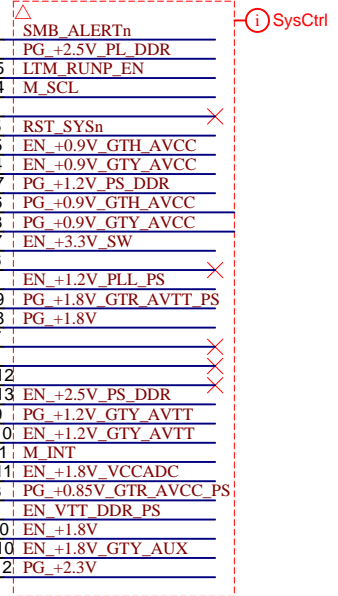
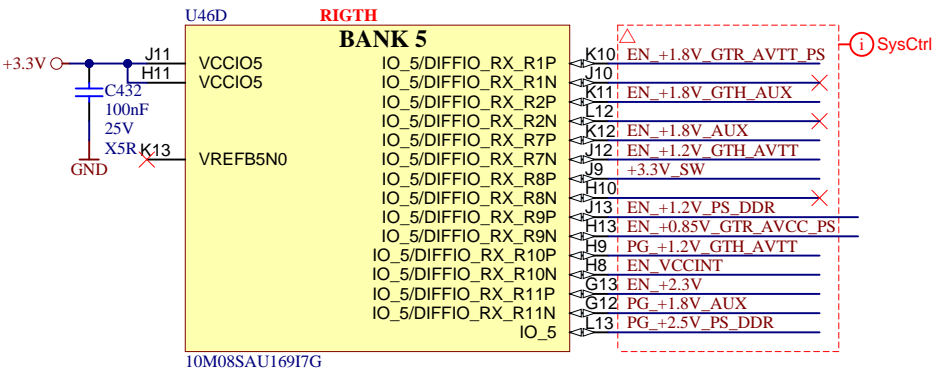
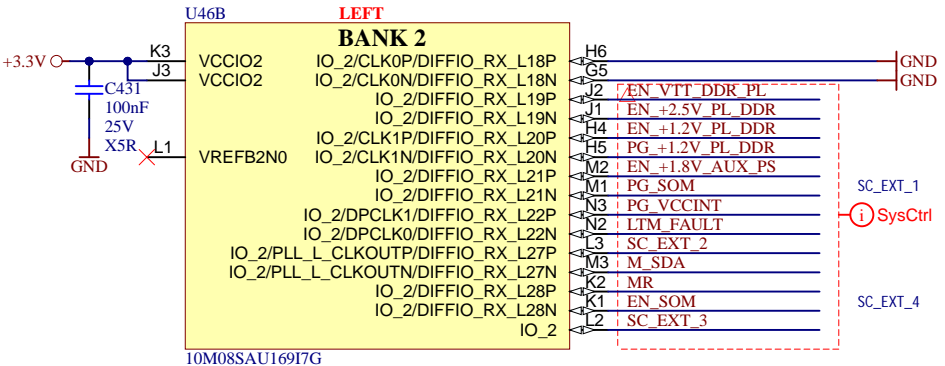
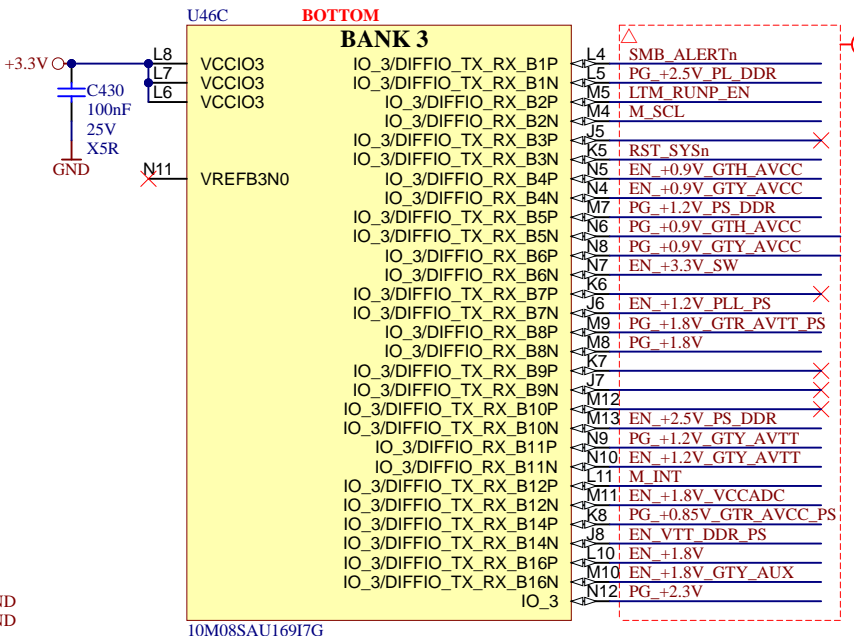
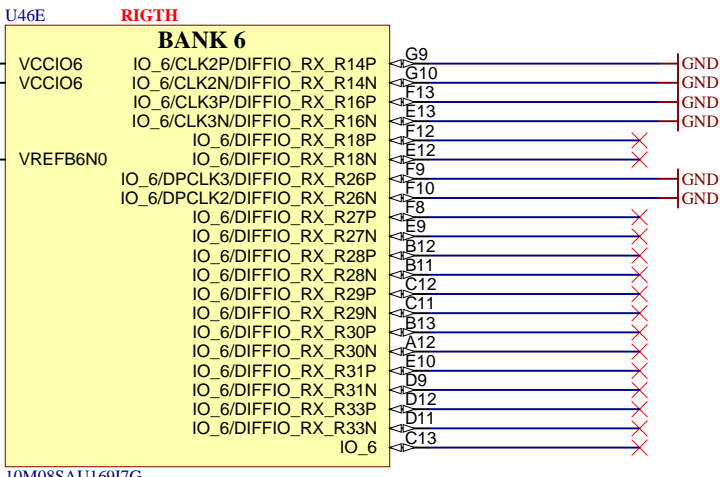
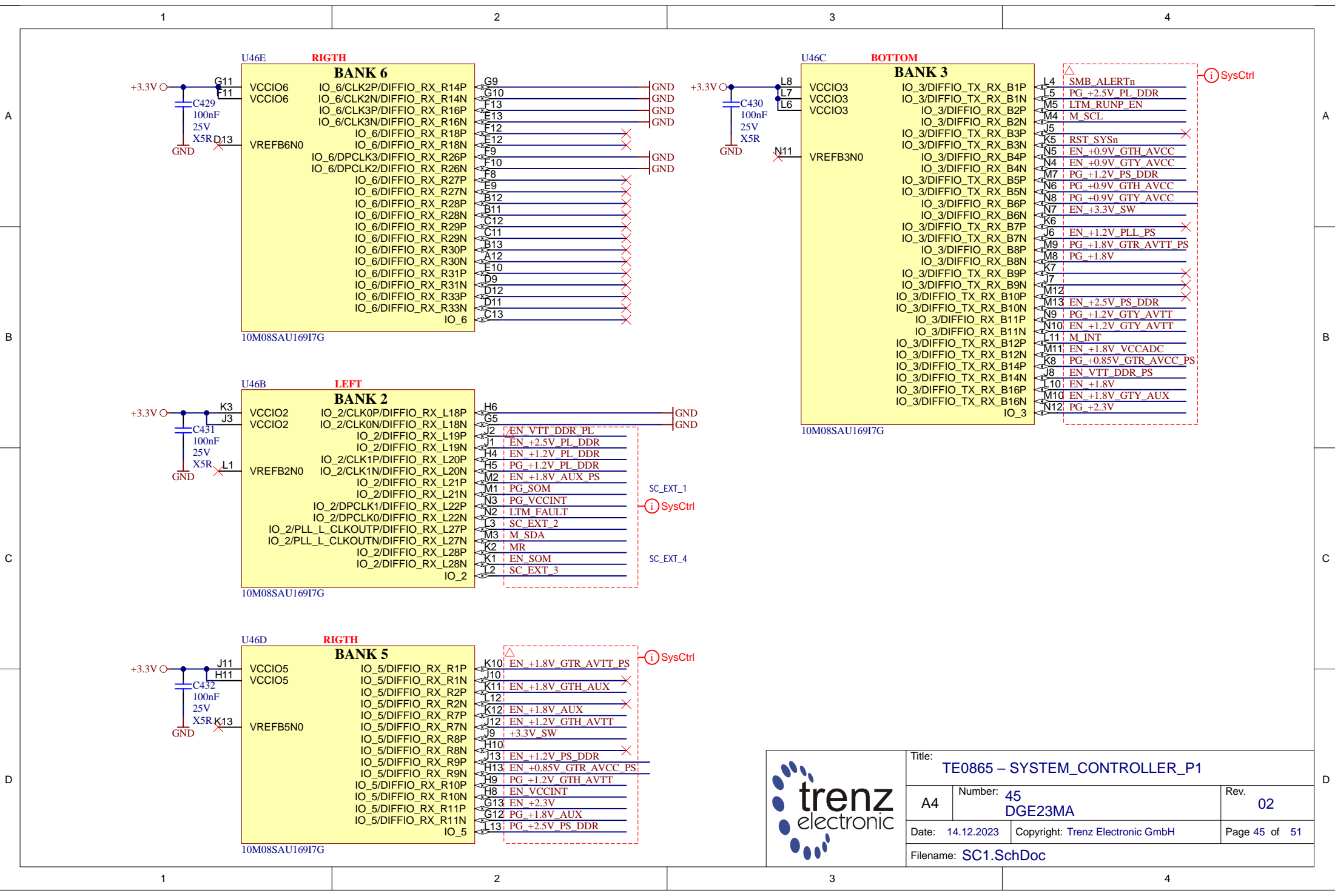
Title: TE0865 – J4_CONNECTOR		
A4	Number: 44 DGE23MA	Rev. 02
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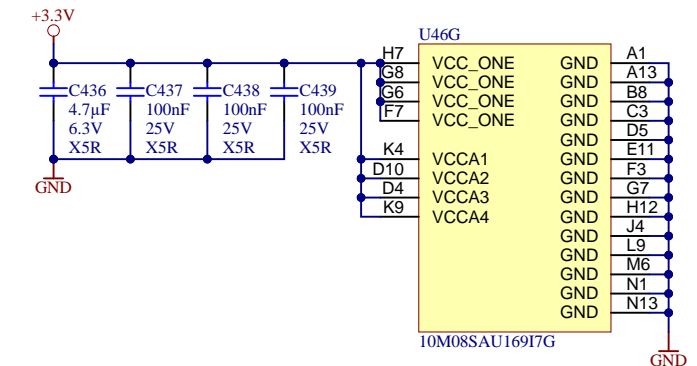
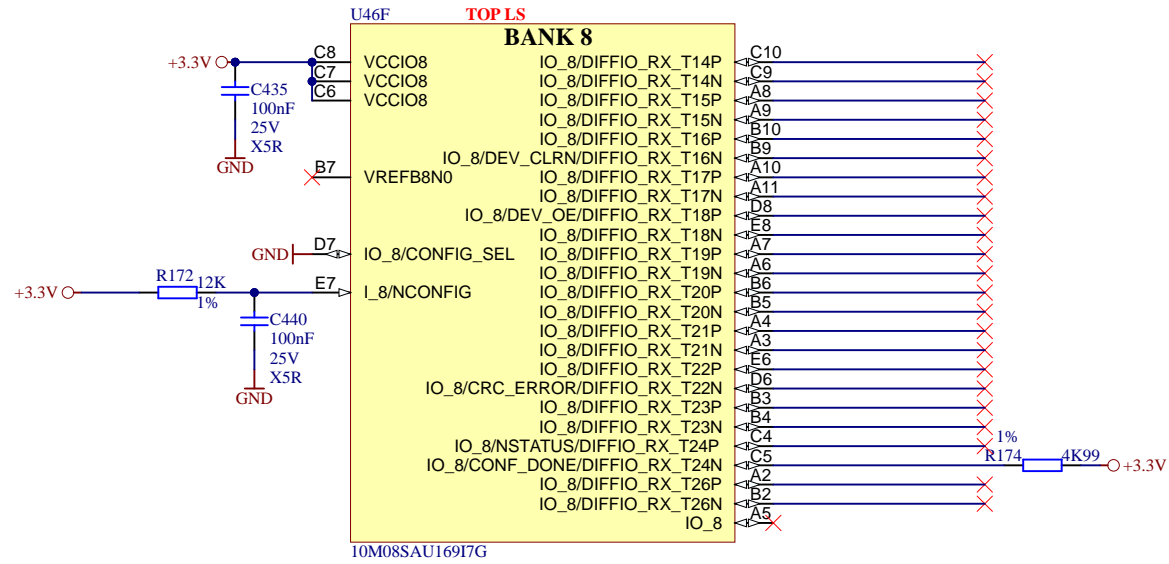
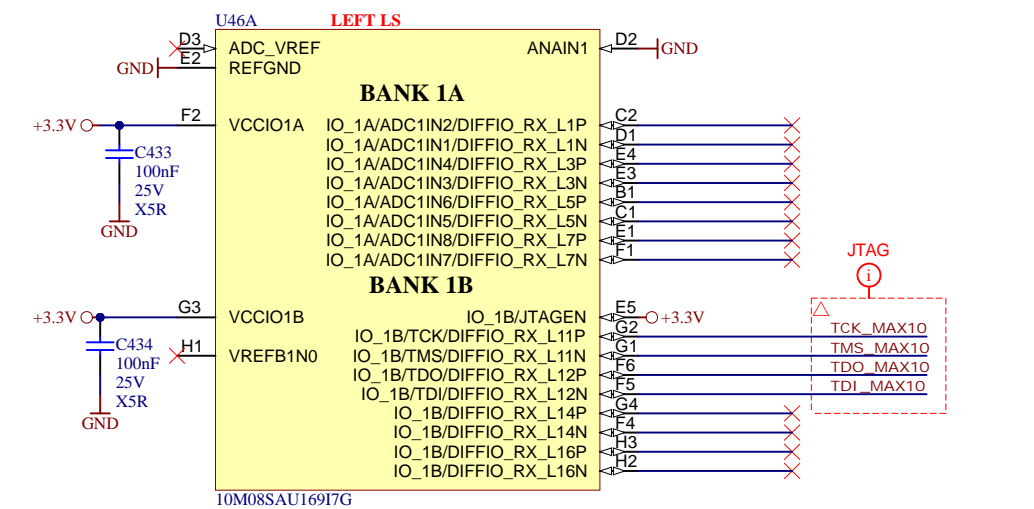
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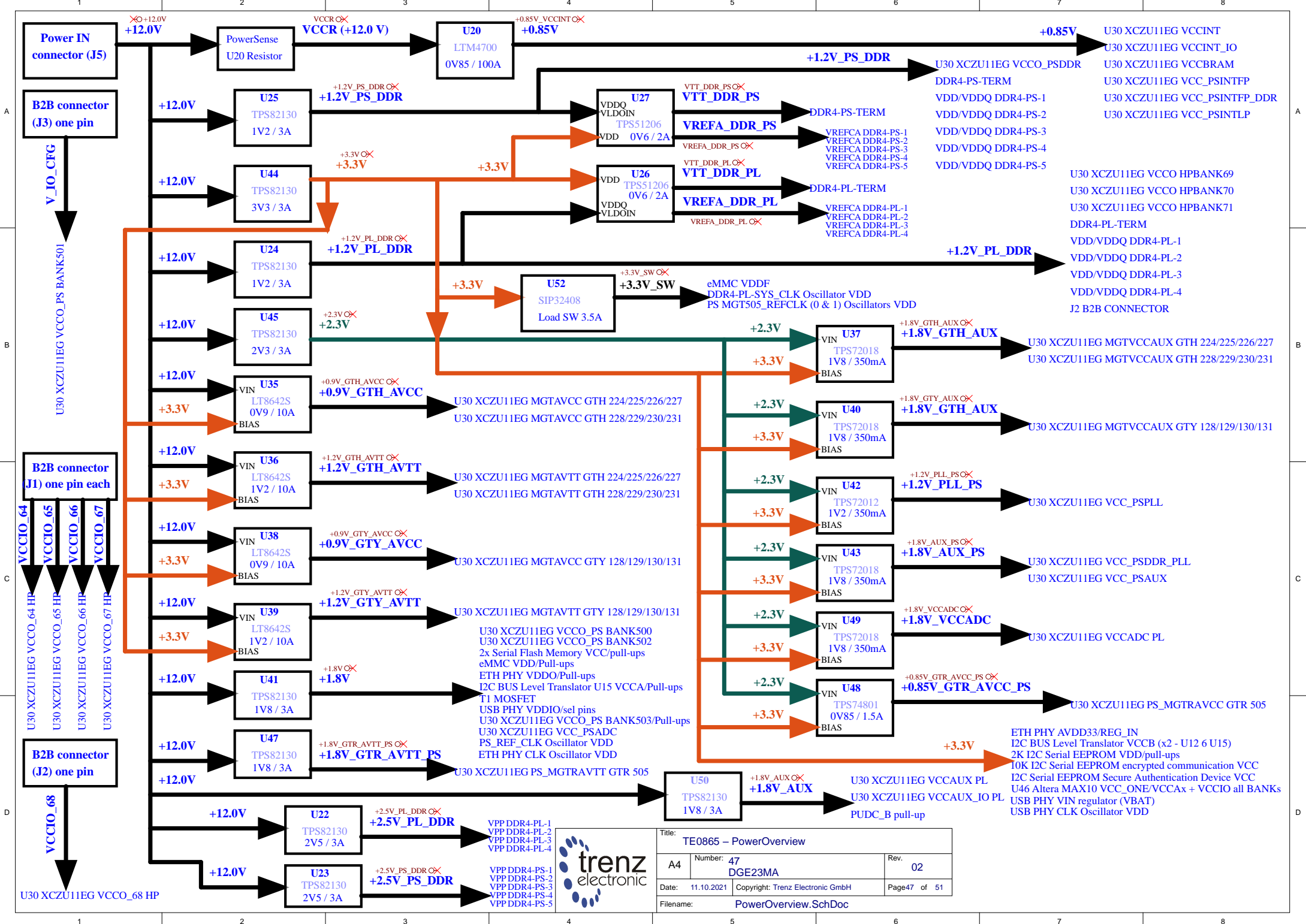
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Title: TE0865 – SYSTEM_CONTROLLER_P1

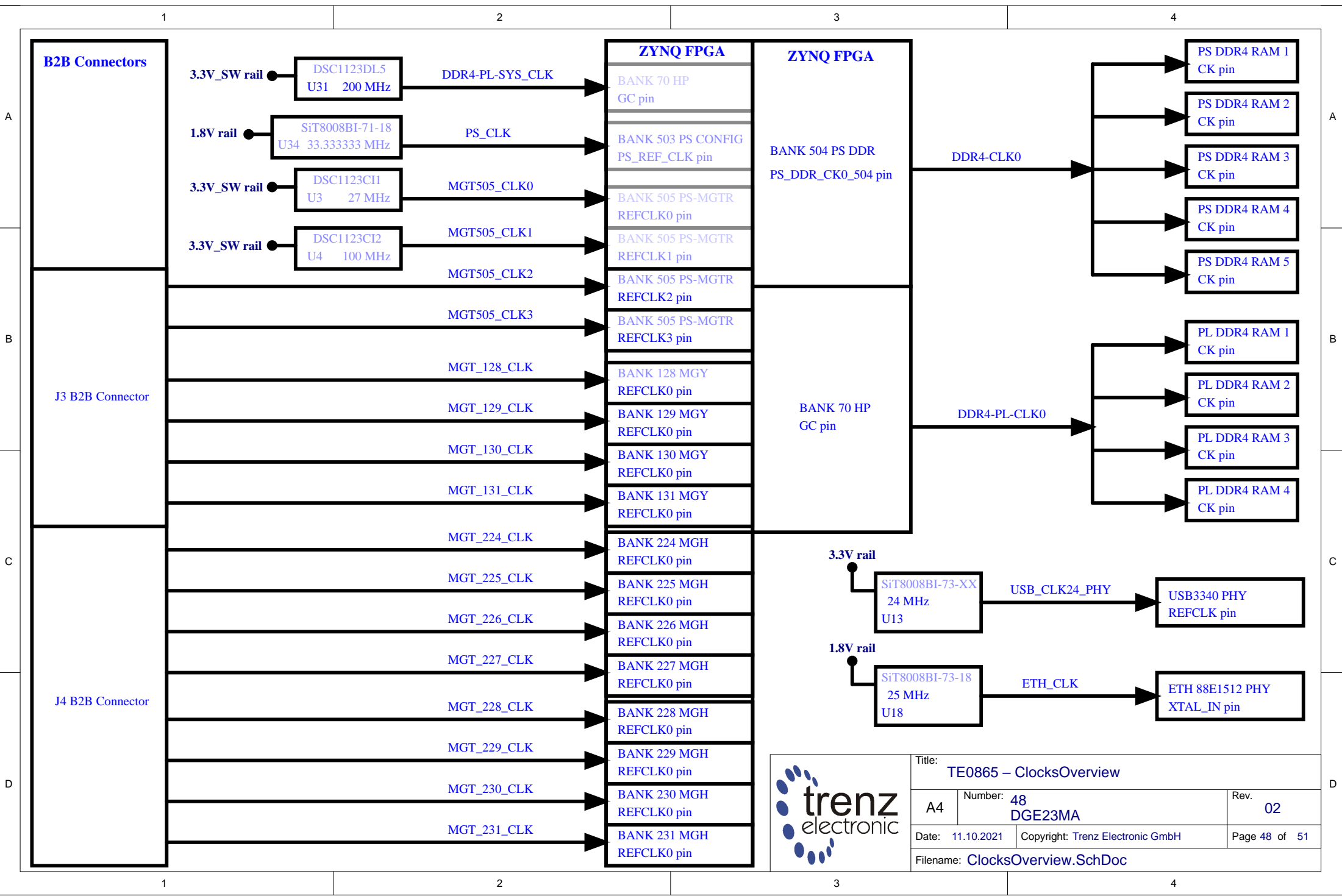
A4	Number: 45 DGE23MA	Rev. 02
Date: 14.12.2023	Copyright: Trenz Electronic GmbH	Page 45 of 51
Filename: SC1.SchDoc		



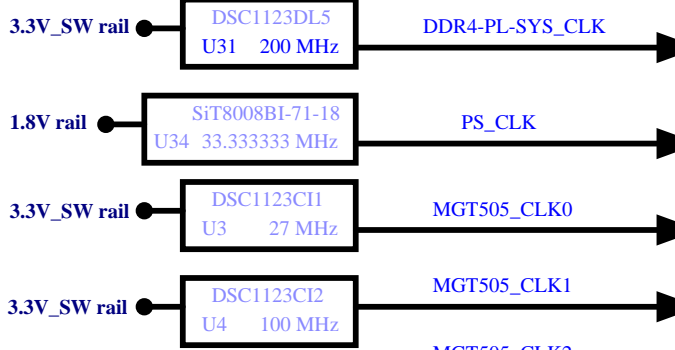
		Title: TE0865 – SYSTEM_CONTROLLER_P2	
		A4	Number: 46 DGE23MA
Date: 26.10.2021		Copyright: Trenz Electronic GmbH	
Filename: SC2.SchDoc		Page 46 of 51	



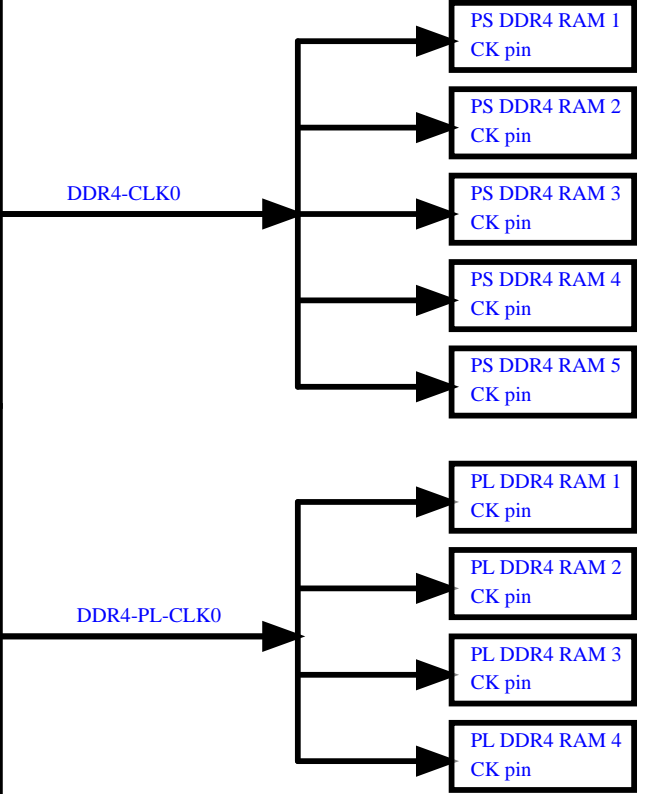
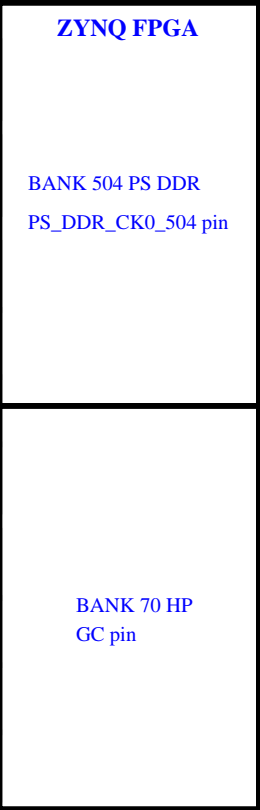
Title: TE0865 – PowerOverview		
A4	Number: 47 DGE23MA	Rev. 02
Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 47 of 51
Filename: PowerOverview.SchDoc		



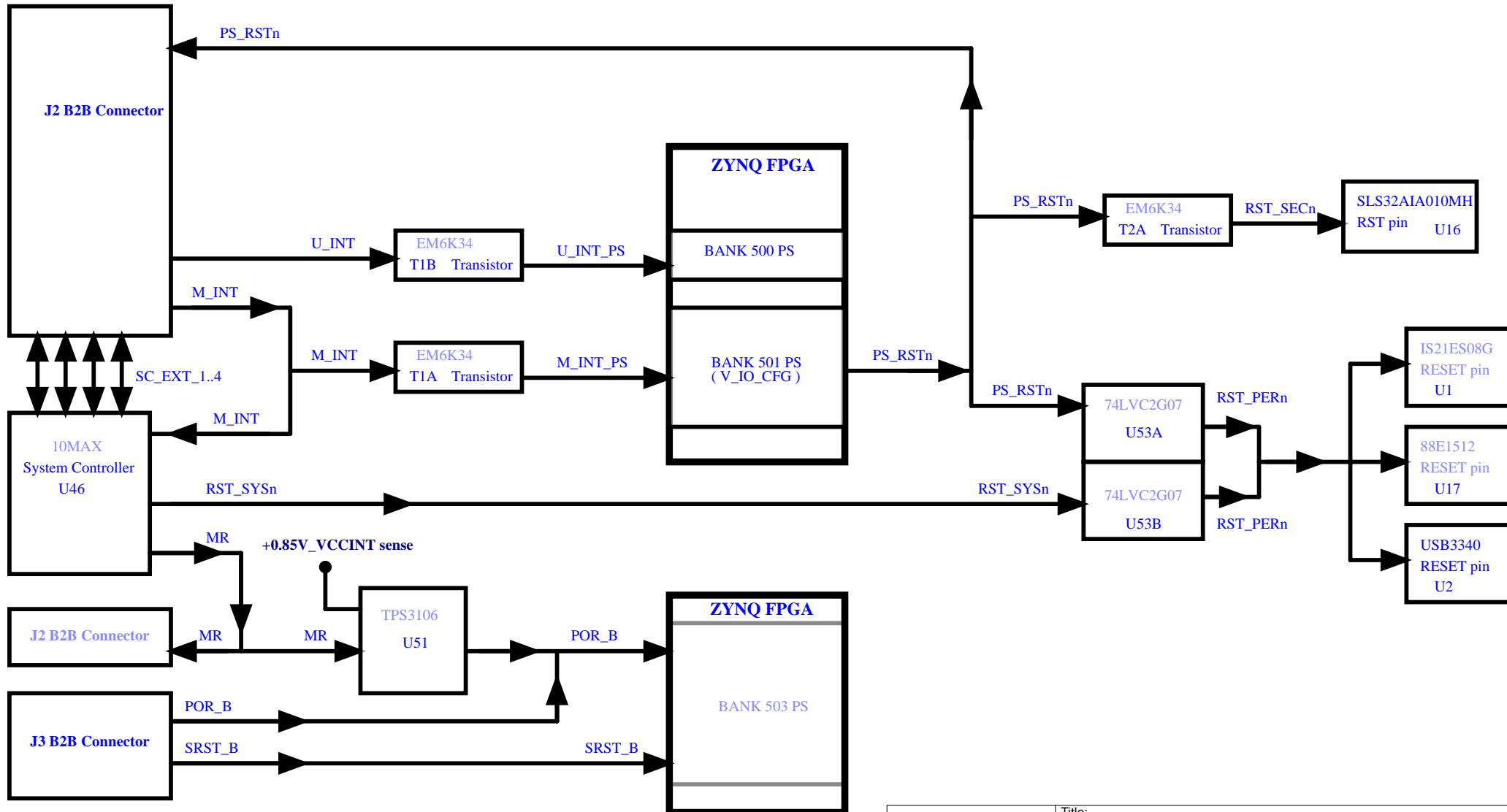
B2B Connectors

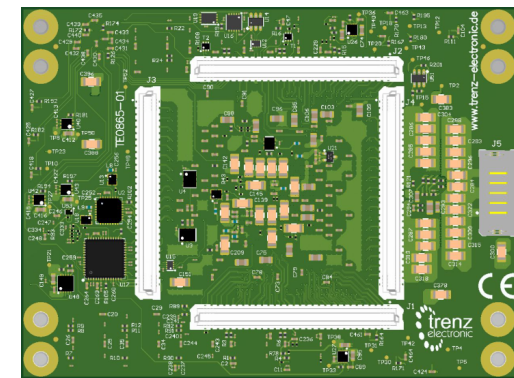
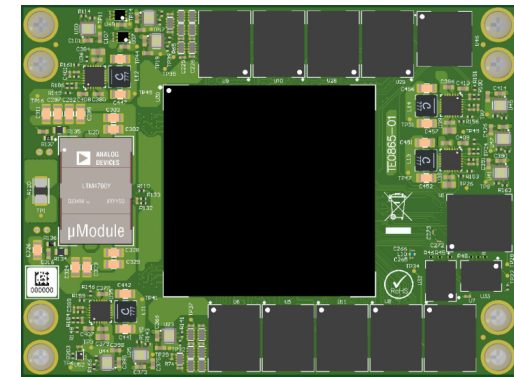
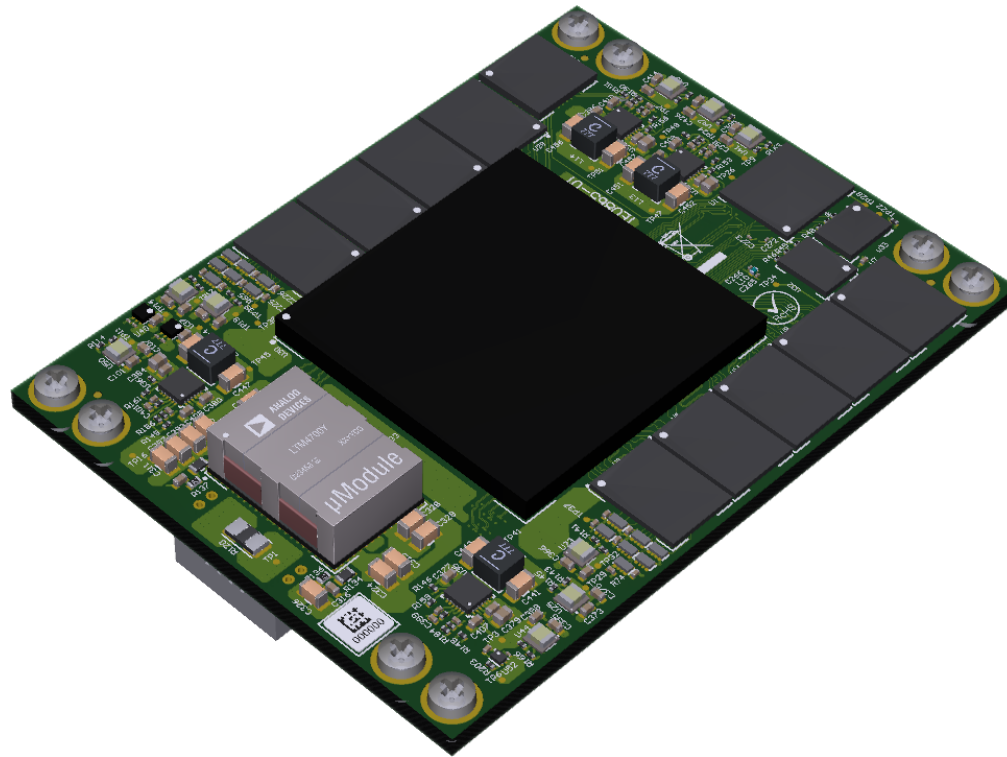


ZYNQ FPGA	
BANK 70 HP	GC pin
BANK 503 PS CONFIG	PS_REF_CLK pin
BANK 505 PS-MGTR	REFCLK0 pin
BANK 505 PS-MGTR	REFCLK1 pin
BANK 505 PS-MGTR	REFCLK2 pin
BANK 505 PS-MGTR	REFCLK3 pin
BANK 128 MGY	REFCLK0 pin
BANK 129 MGY	REFCLK0 pin
BANK 130 MGY	REFCLK0 pin
BANK 131 MGY	REFCLK0 pin
BANK 224 MGH	REFCLK0 pin
BANK 225 MGH	REFCLK0 pin
BANK 226 MGH	REFCLK0 pin
BANK 227 MGH	REFCLK0 pin
BANK 228 MGH	REFCLK0 pin
BANK 229 MGH	REFCLK0 pin
BANK 230 MGH	REFCLK0 pin
BANK 231 MGH	REFCLK0 pin



Title: TE0865 – ClocksOverview		
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Date: 11.10.2021	Copyright: Trenz Electronic GmbH	Page 48 of 51
Filename: ClocksOverview.SchDoc		







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Schematics and other handouts serve for informational purposes only!

	Title: TE0865 - Legal Notices		
	A4	Number: 50 DGE23MA	Rev. 02
	Date: 11.10.2021	Copyright: Trenz Electronic GmbH / TT	Page 50 of 51
	Filename: Legal Notices Modules.SchDoc		

REV	Description	
-01	Initial revision	AL, GH
-02	1. PCB: Improved PCB trace to simplify production with increased reliability	VY
-02a	1. SCH: all pull down resistors on DCDC enable inputs changed to 1K	VY
-02b	1. SCH: signals renaming: - SC_EXT_1 to PG_SOM; - SC_EXT_4 to EN_SOM.	VY

	Title: TE0865 – Revision_Changes		
	A4	Number: 51 DGE23MA	Rev. 02
	Date: 26.02.2024	Copyright: Trenz Electronic GmbH	Page 51 of 51
	Filename: Revision_Changes.SchDoc		