

1

2

3

4

LOGO1

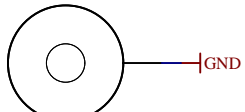
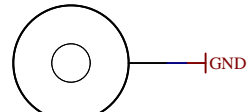
TE Logo PRINT Layer

LOGO PRINT

POWER

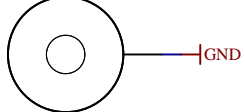
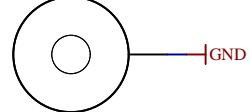
SC1

SC2



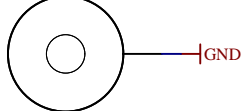
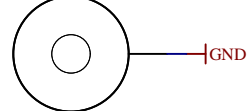
Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe



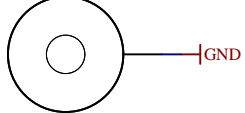
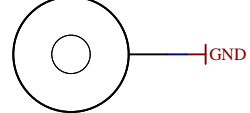
Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe



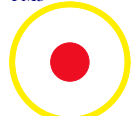
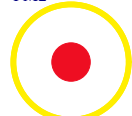
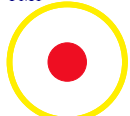
Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe

PM1

PM2

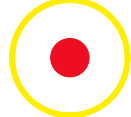
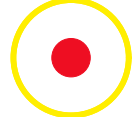
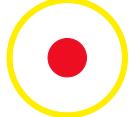
PM3



FIDU-DOT - mini PM4

FIDU-DOT - mini PM5

FIDU-DOT - mini PM6



FIDU-DOT - mini

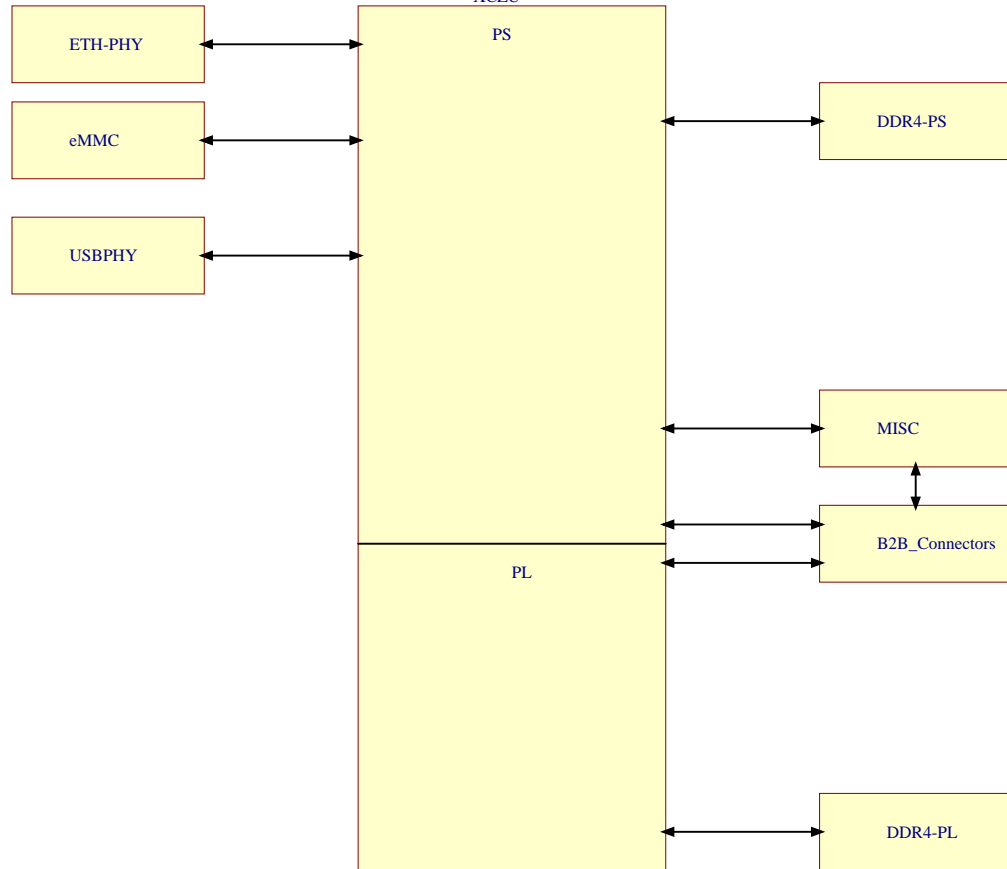
FIDU-DOT - mini

FIDU-DOT - mini

Serial1  
Serial  
Serialnumber 6,3 x 6,3mm

Special notes:

			Title: TE0865 Main		
			A4	Number: 1 FBE43FA	Rev. 01
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Filename: TE0865.schdoc					



1

2

3

4

A

A

B

B

C

C

D

D

1

2

3

4

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



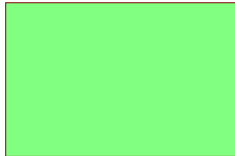
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XCZU\_505\_MGT



XCZU\_68\_69\_HP



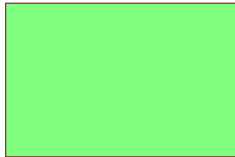
XCZU\_228\_229\_230\_231\_MGT




D

D

XCZU\_70\_71\_HP



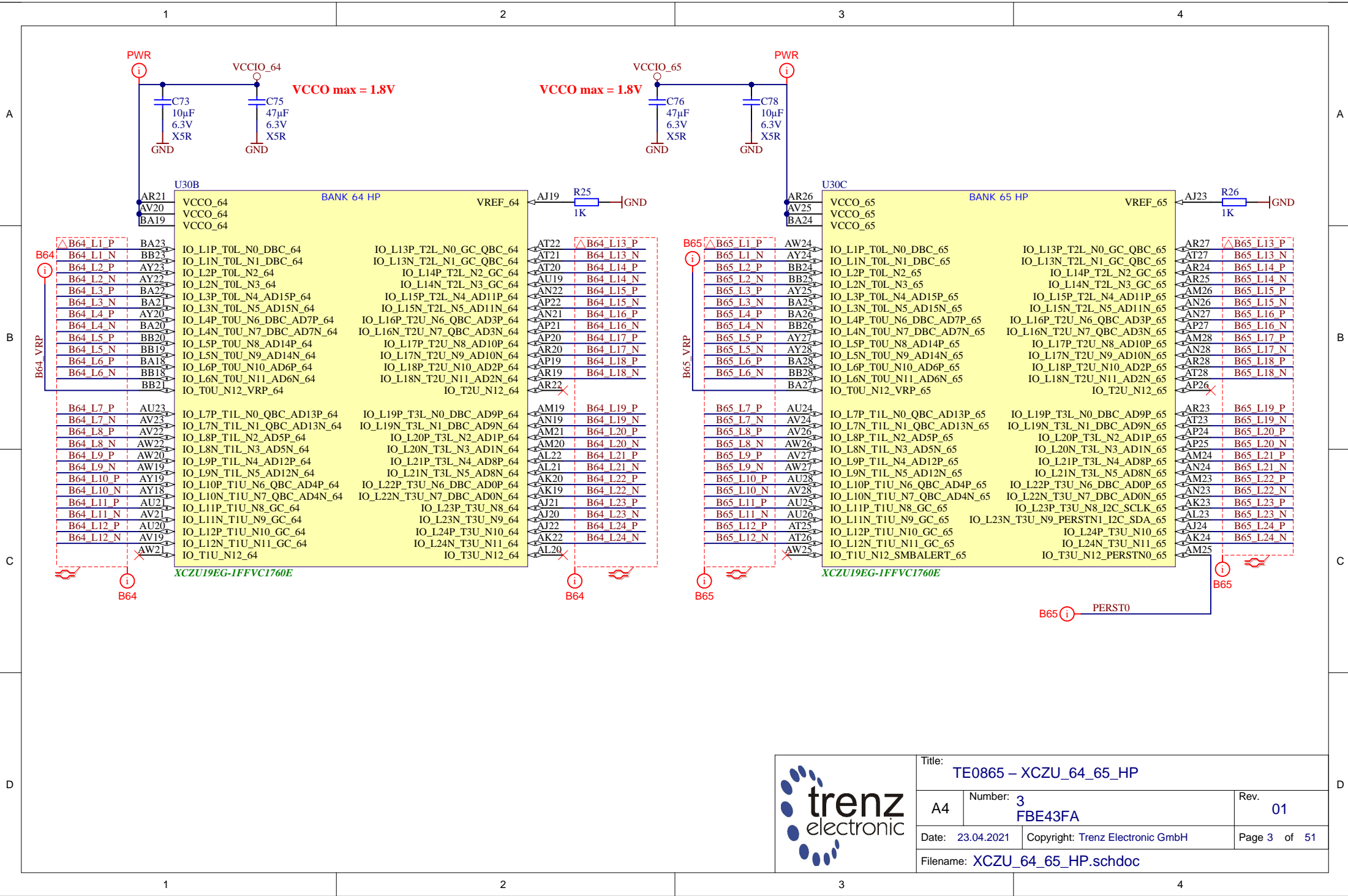
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		A4	Number: 2 FBE43FA
Date: 23.04.2021		Copyright: Trenz Electronic GmbH	
Filename: XCZU.schdoc		Page 2 of 51	

1

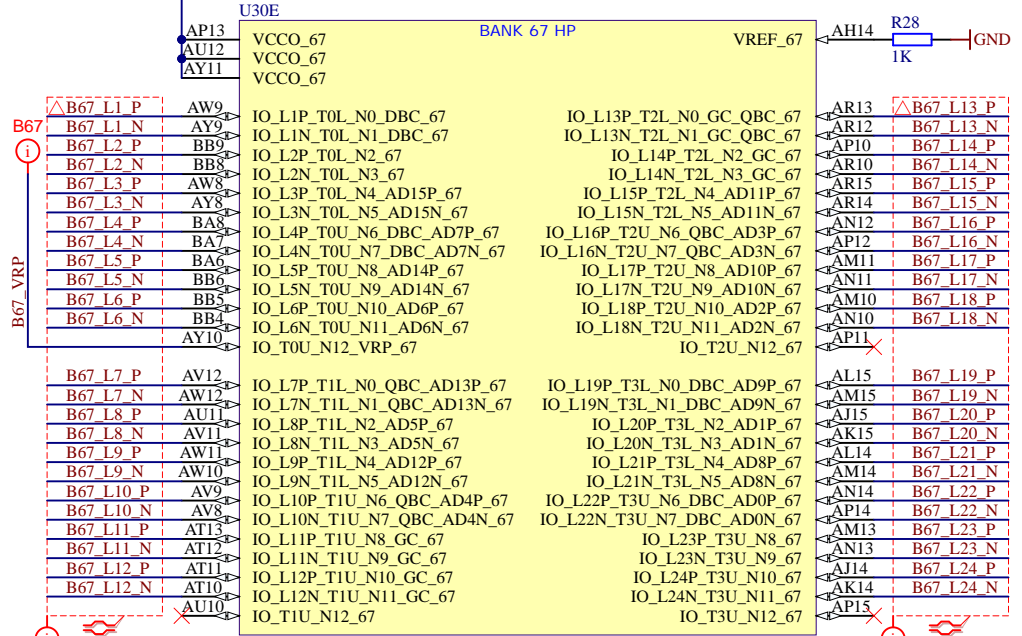
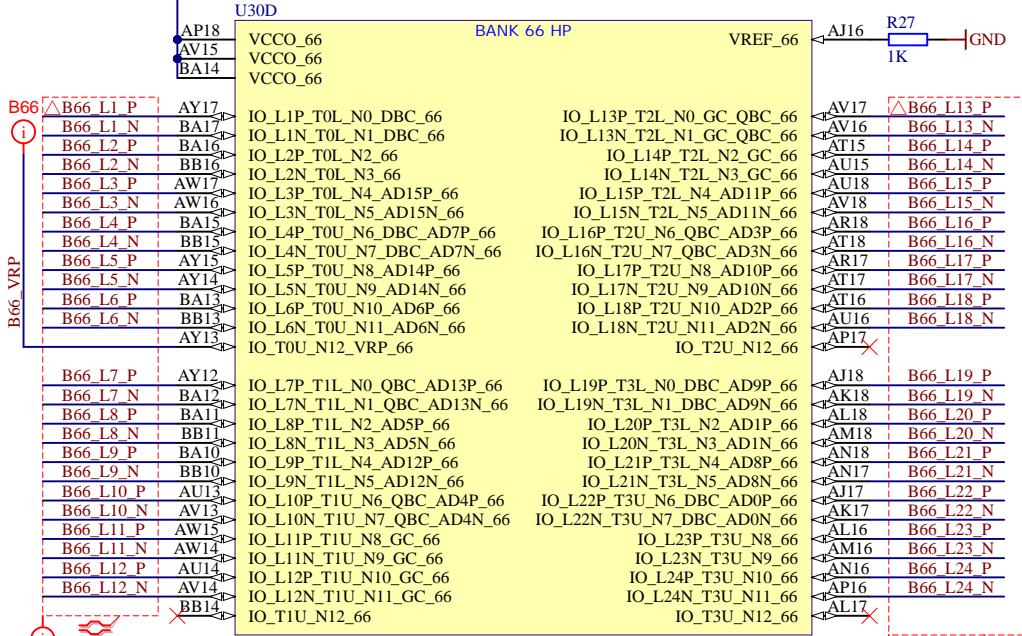
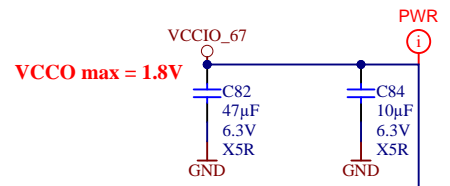
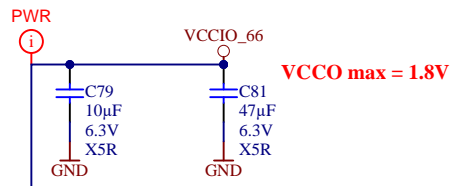
2

3

4



Title: TE0865 – XZU_64_65_HP		
A4	Number: 3 FBE43FA	Rev. 01
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Filename: XZU_64_65_HP.schdoc		



B66  
XCZU19EG-1FFVC1760E

B66

B67

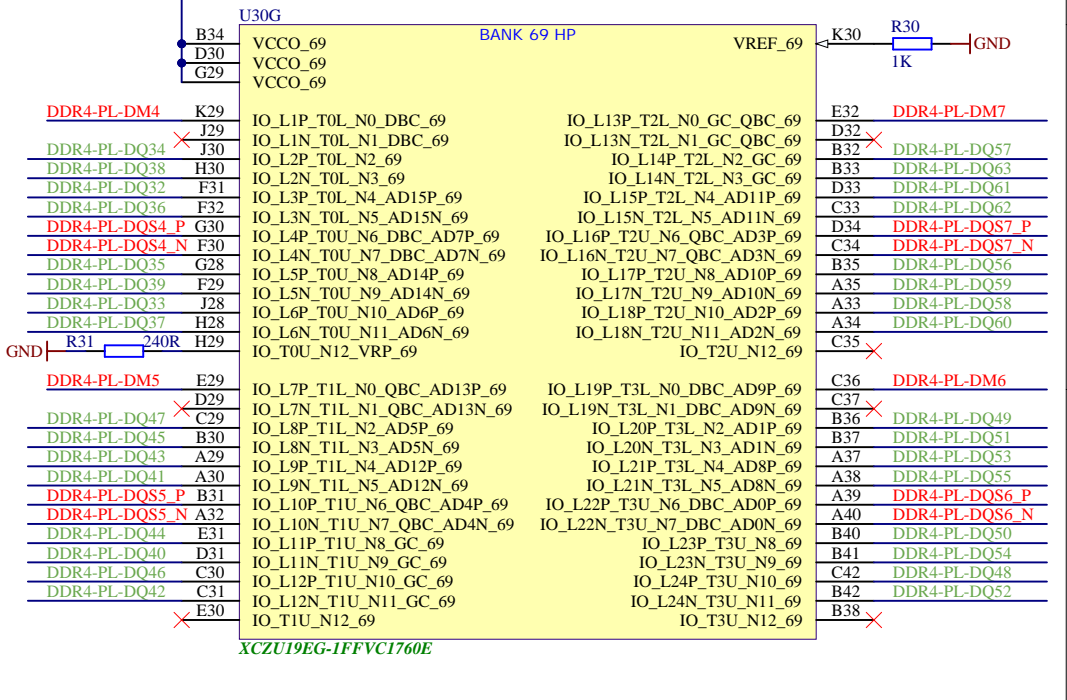
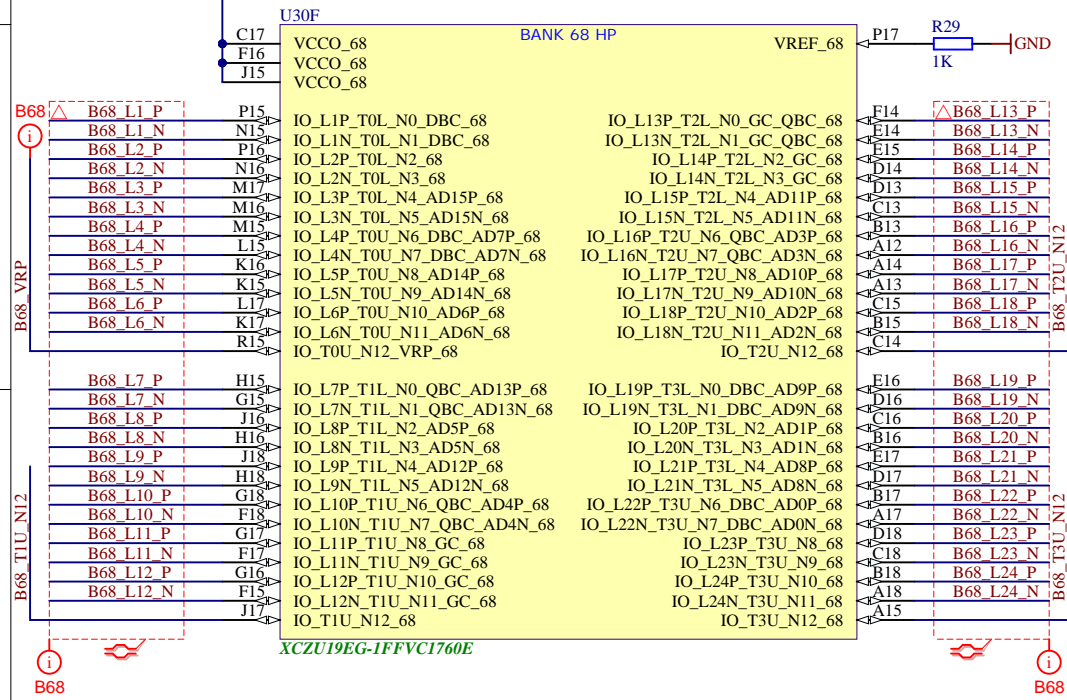
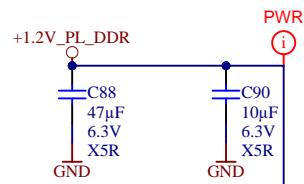
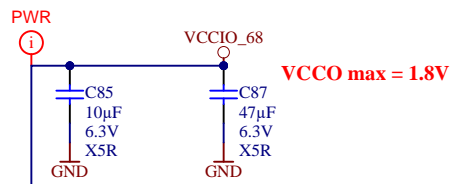
B67  
XCZU19EG-1FFVC1760E

B67

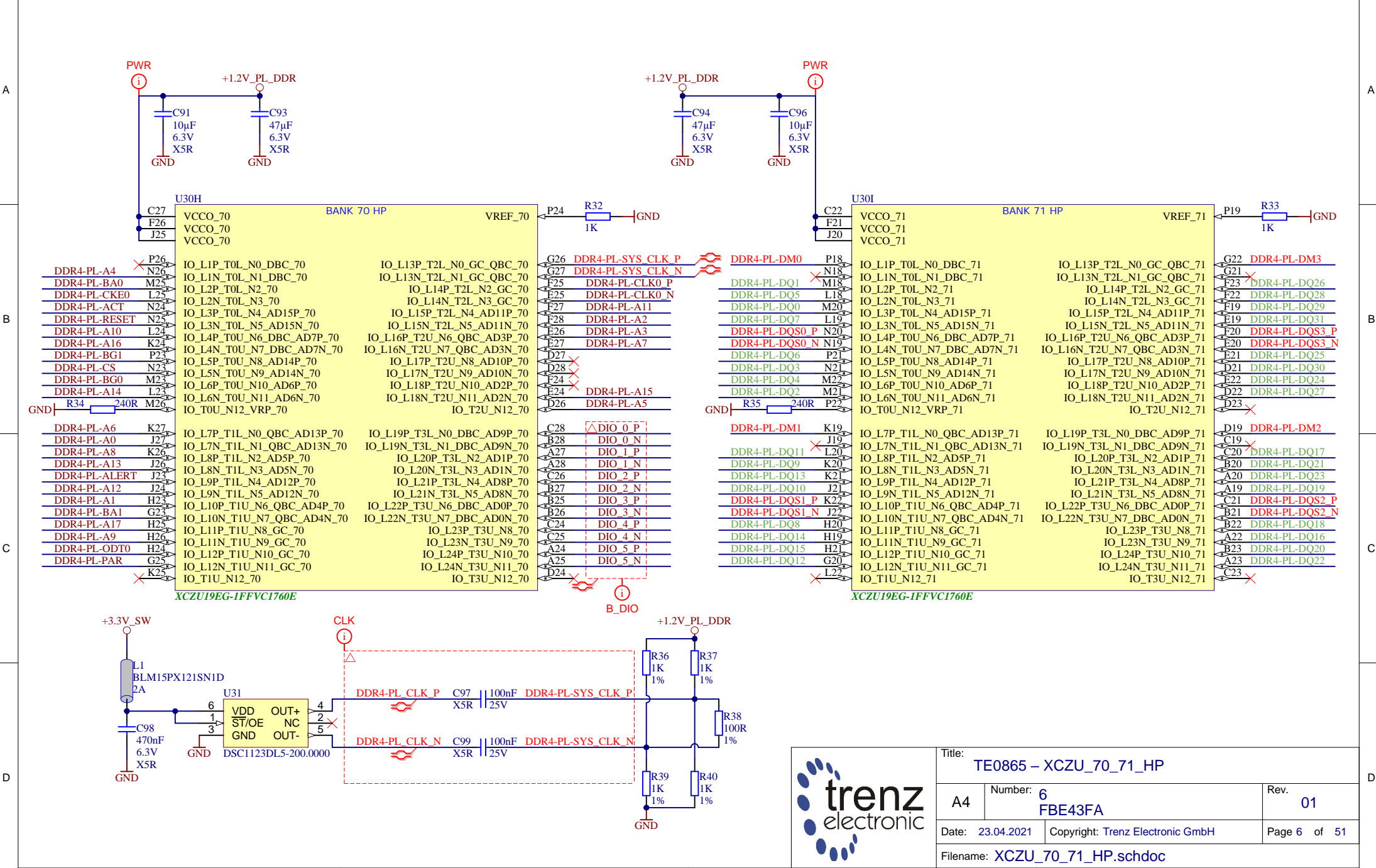


Title: TE0865 – XCZU_66_67_HP		
A4	Number: 4 FBE43FA	Rev. 01
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Filename: XCZU_66_67_HP.schdoc		





Title: TE0865 – XCZU_68_69_HP		
A4	Number: 5 FBE43FA	Rev. 01
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Title: TE0865 - XCZU\_70\_71\_HP  
 Number: 6 FBE43FA  
 Date: 23.04.2021  
 Copyright: Trenz Electronic GmbH  
 Page 6 of 51  
 Filename: XCZU\_70\_71\_HP.schdoc



A

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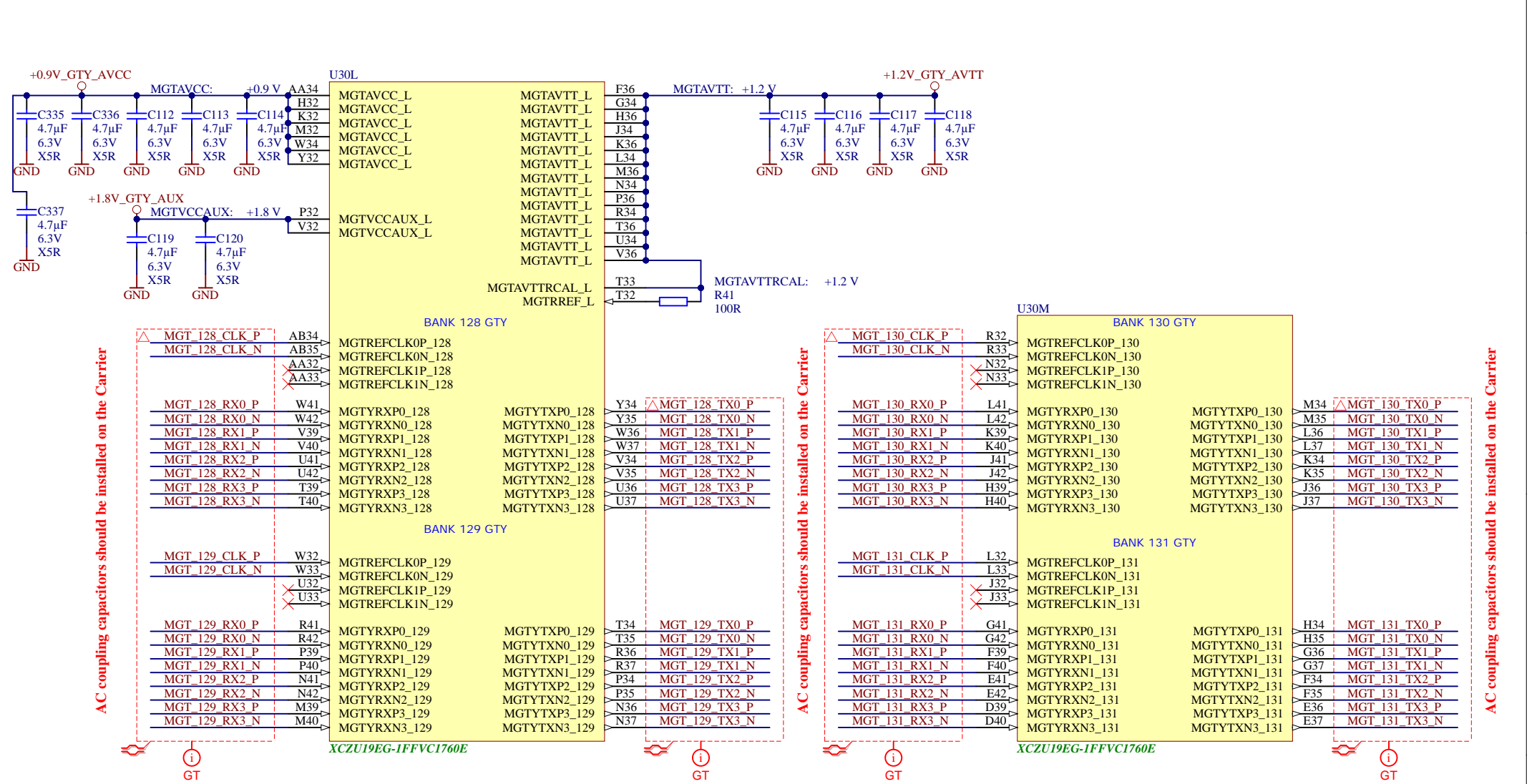
D

A

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D



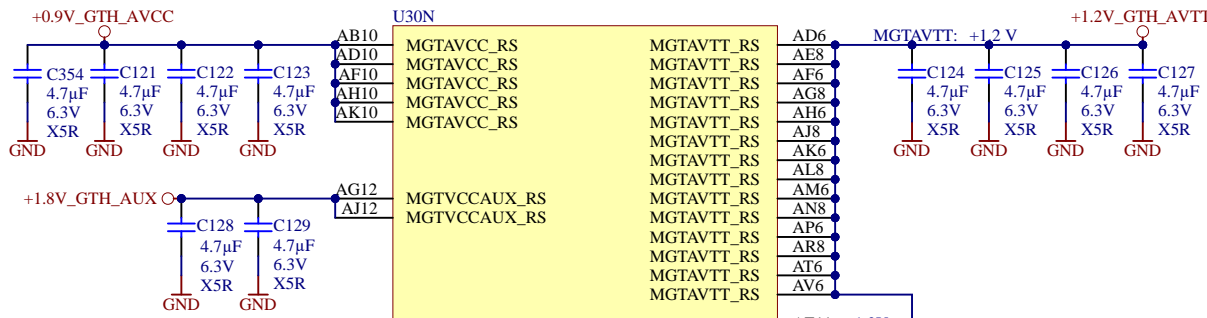
AC coupling capacitors should be installed on the Carrier

AC coupling capacitors should be installed on the Carrier

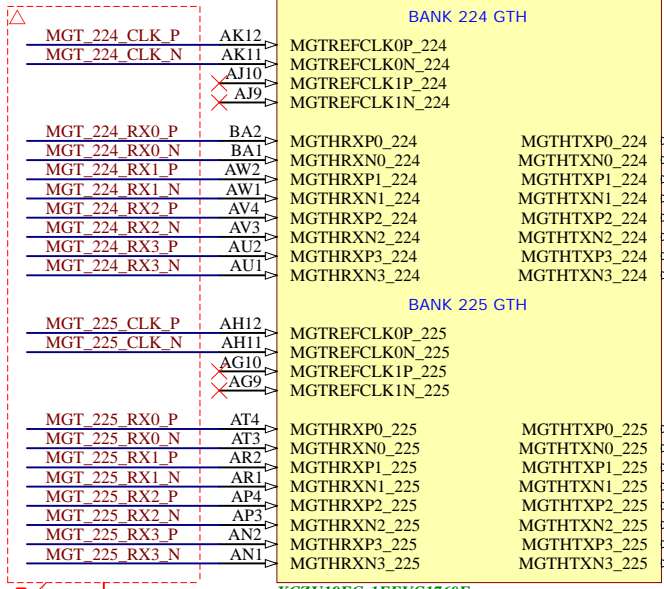
AC coupling capacitors should be installed on the Carrier



Title: TE0865 – XCZU_128_129_130_131_MGT		
A4	Number: 8 FBE43FA	Rev. 01
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Filename: XCZU_128_129_130_131_MGT.schdoc		



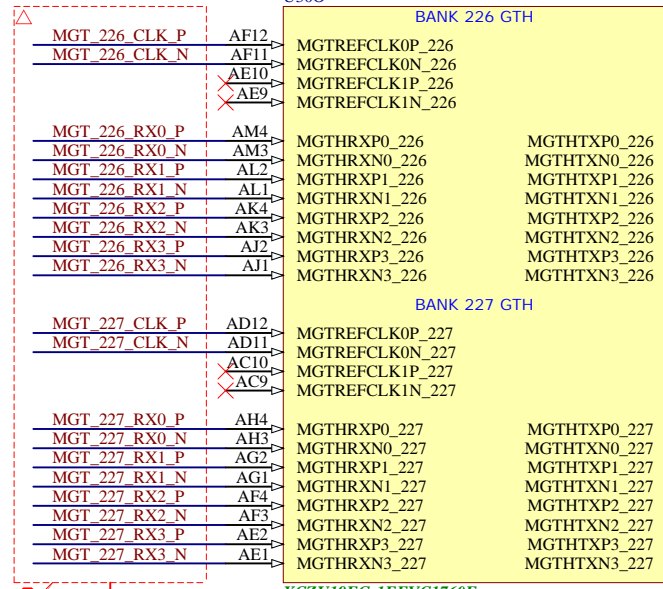
AC coupling capacitors should be installed on the Carrier



GT

GT

AC coupling capacitors should be installed on the Carrier



GT

GT

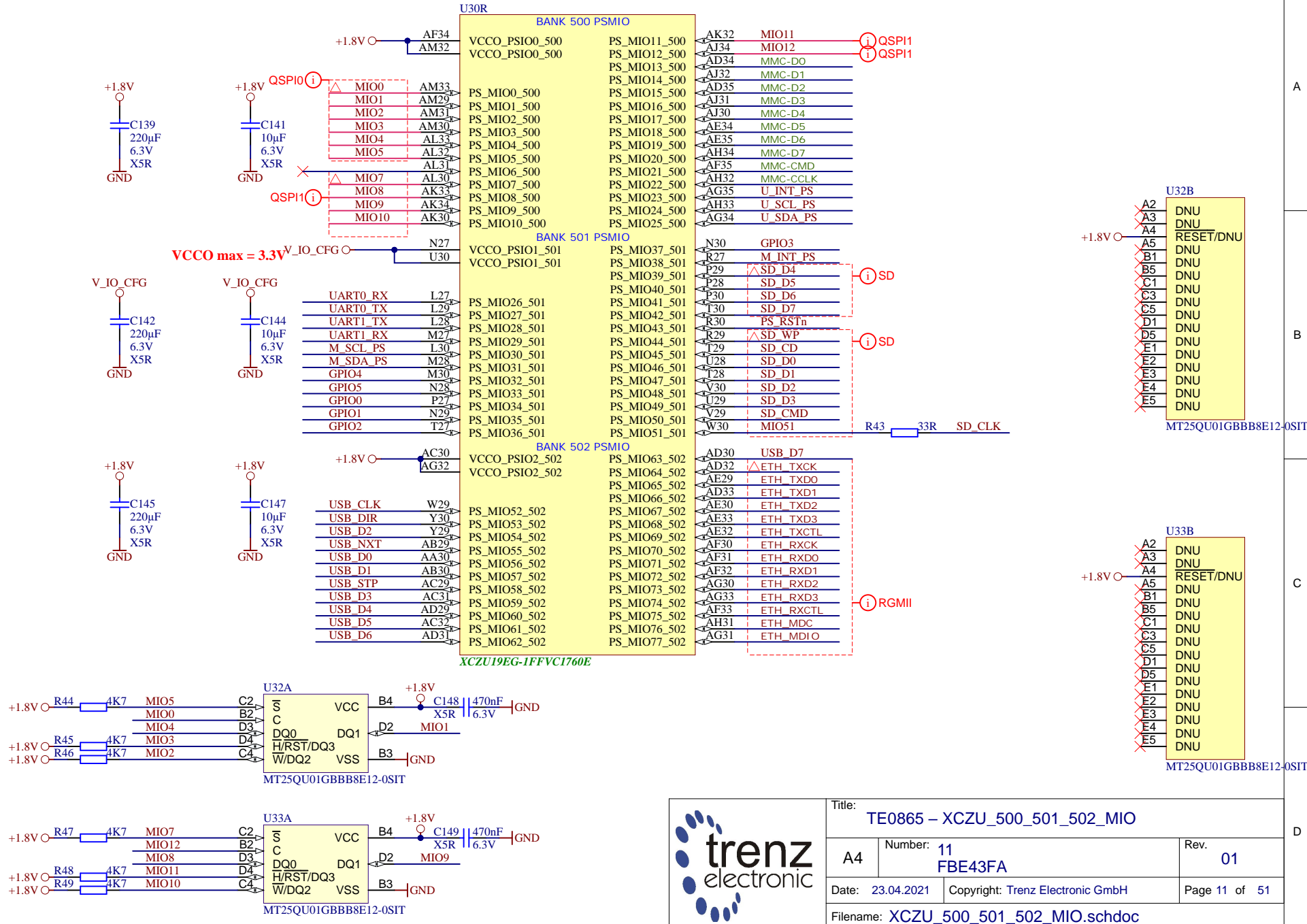
AC coupling capacitors should be installed on the Carrier



Title: TE0865 – XCZU_224_225_226_227_MGT		
A4	Number: 9 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 9 of 51
Filename: XCZU_224_225_226_227_MGT.schdoc		







Title: TE0865 - XCZU_500_501_502_MIO			
A4	Number: 11 FBE43FA	Rev. 01	
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Filename: XCZU_500_501_502_MIO.schdoc			

A

A

B

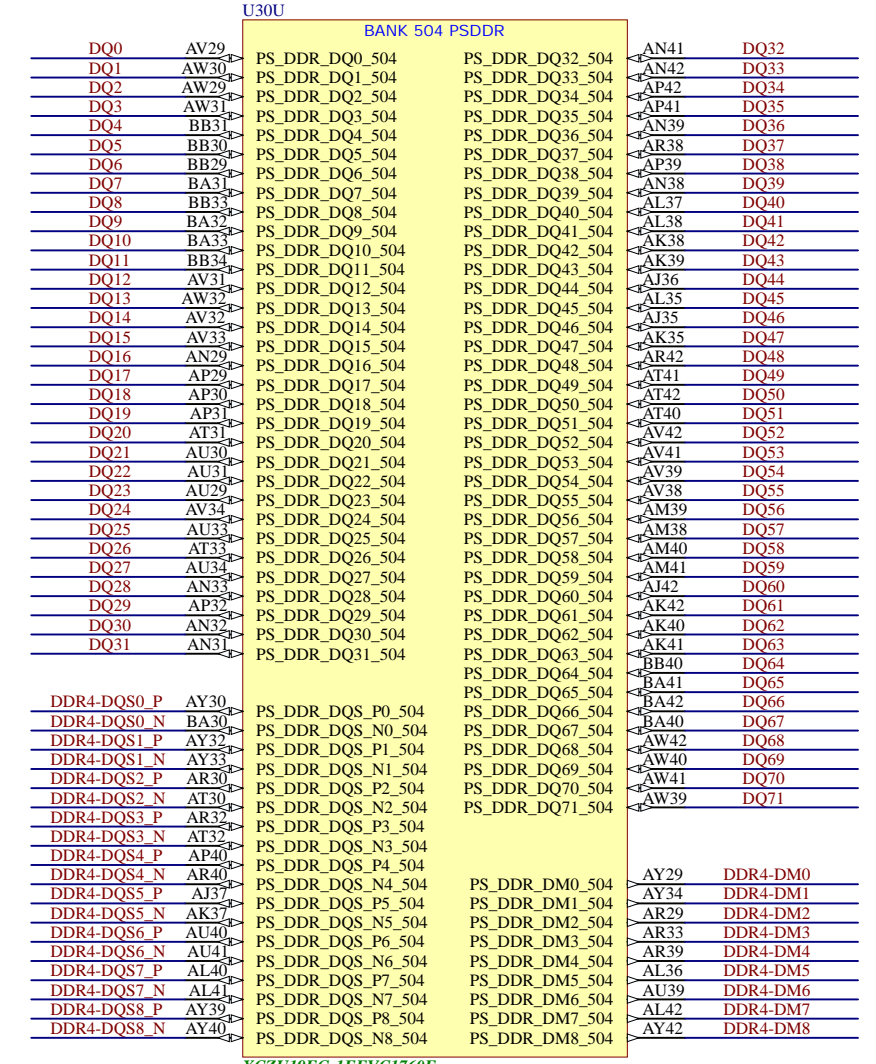
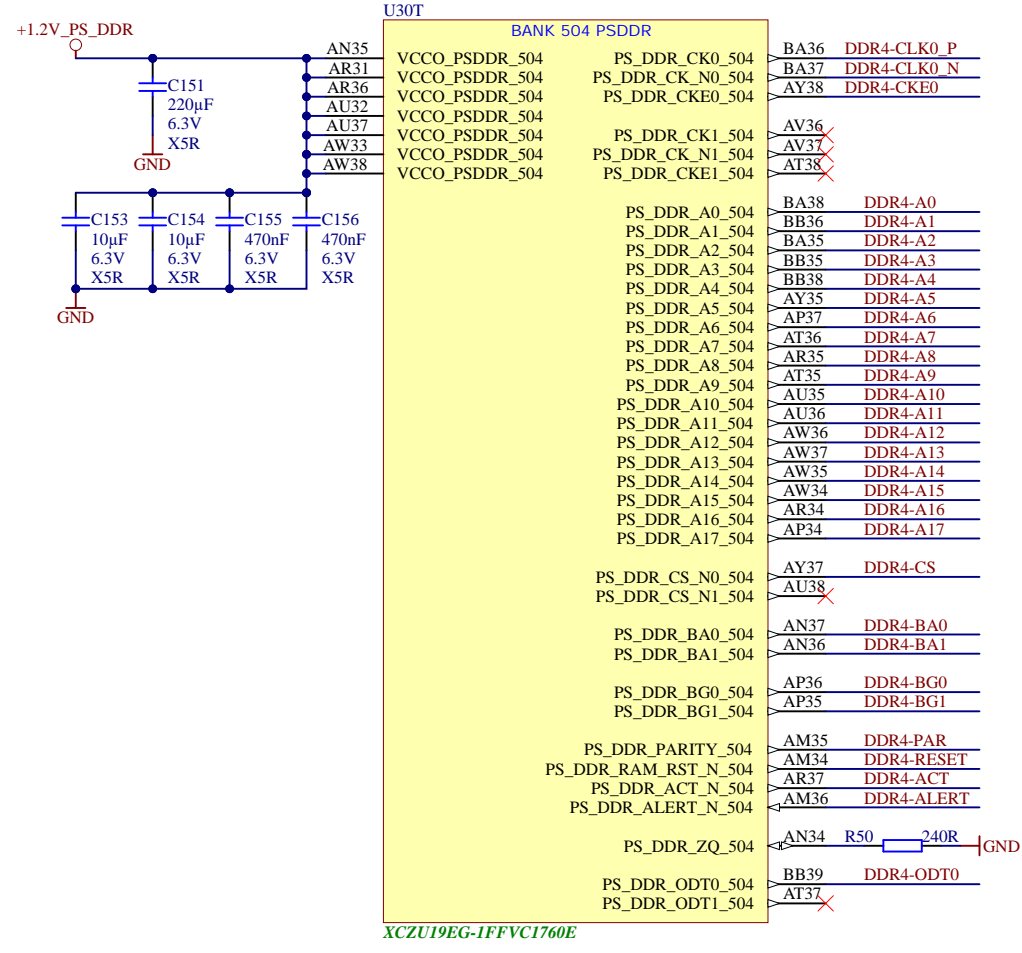

B

C

C

D

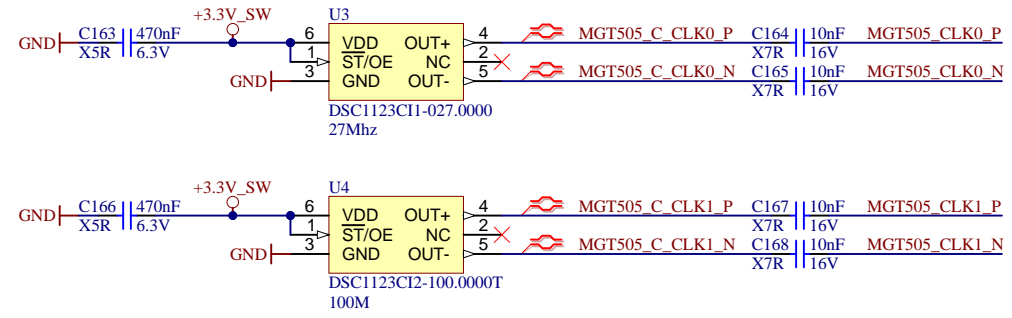
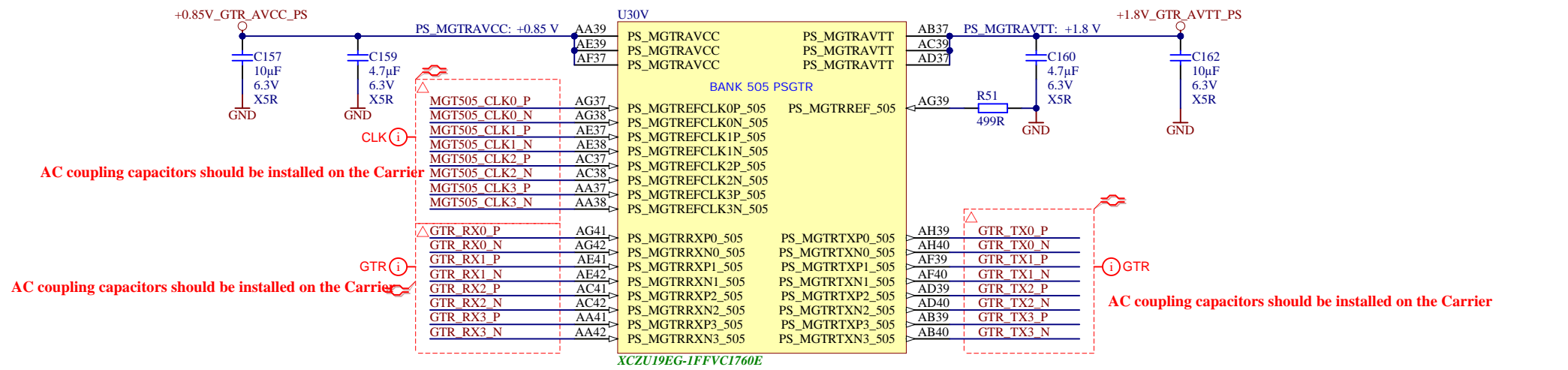
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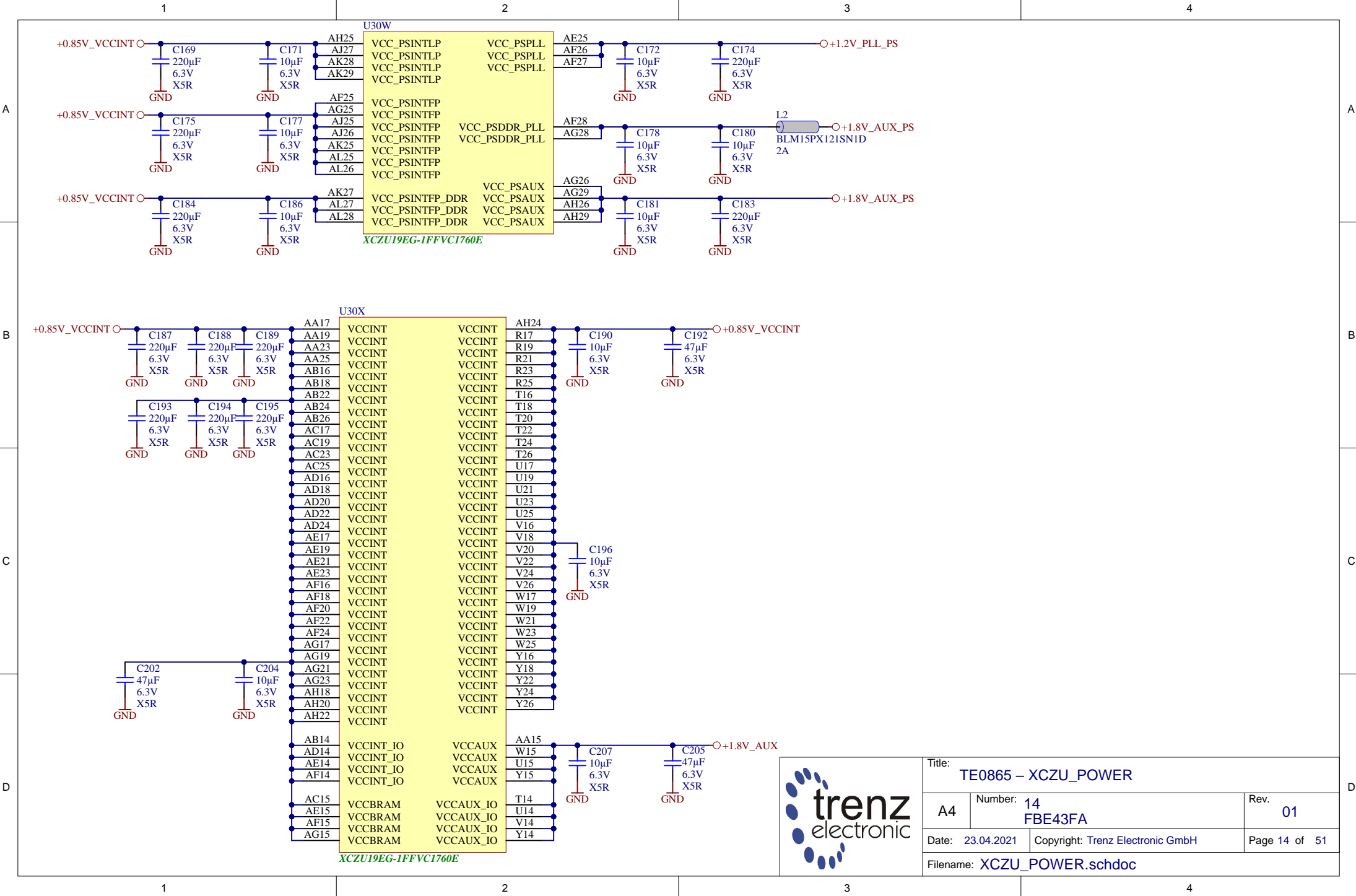
Title: **TE0865 – XCZU\_504\_PSDDR**

A4	Number: <b>12</b> <b>FBE43FA</b>	Rev. <b>01</b>
Date: <b>23.04.2021</b>	Copyright: <b>Trenz Electronic GmbH</b>	Page <b>12</b> of <b>51</b>
Filename: <b>XCZU_504_PSDDR.schdoc</b>		

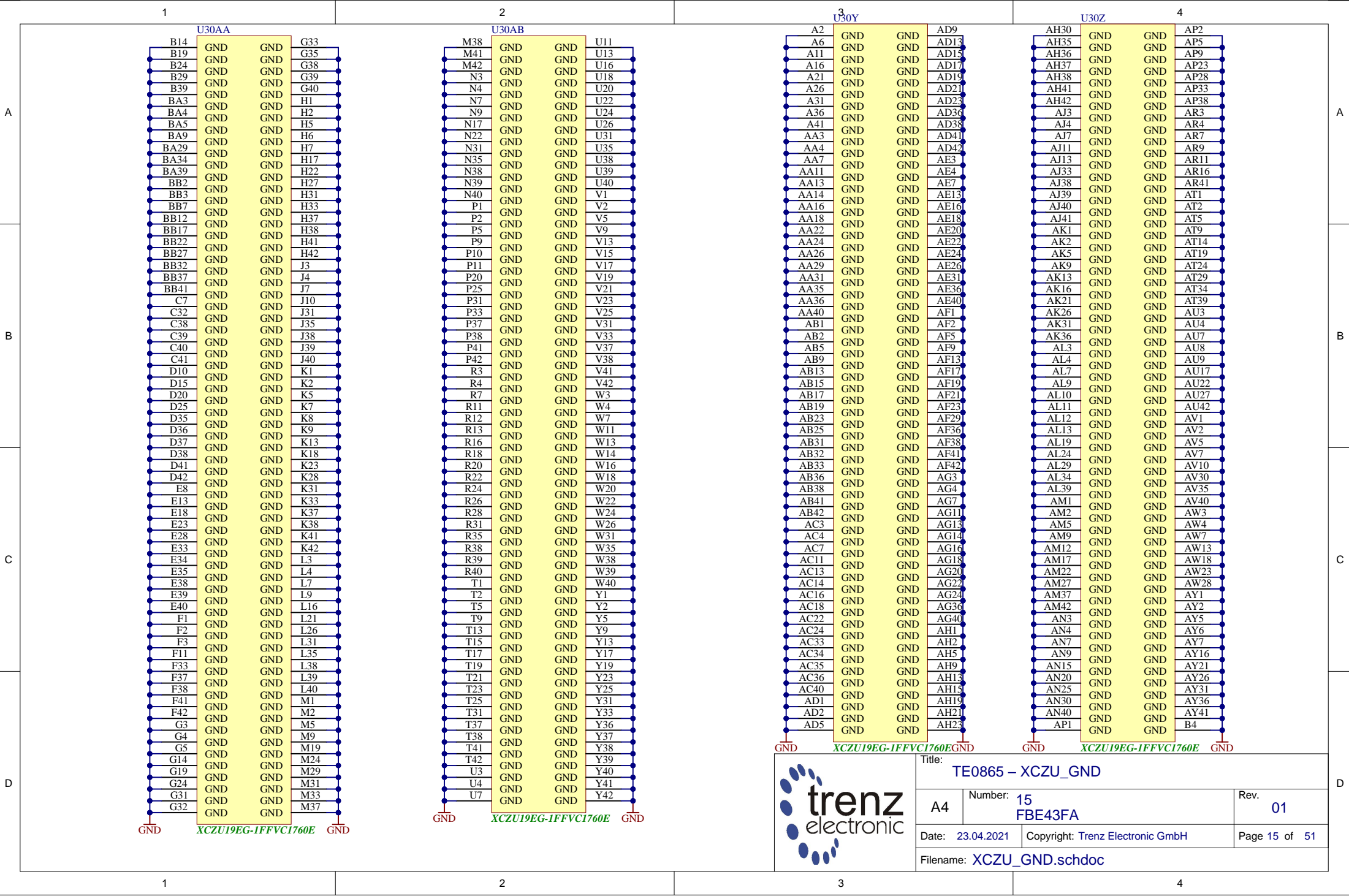




	Title: TE0865 – XCZU_505_MGT		
	A4	Number: 13 FBE43FA	Rev. 01
	Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 13 of 51
	Filename: XCZU_505_MGT.schdoc		



Title: TE0865 – XCZU_POWER		
A4	Number: 14 FBE43FA	Rev. 01
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Filename: XCZU_POWER.schdoc		



**1**

**U30AA**

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

GND XZU19EG-1FFVCI760E GND

**2**

**U30AB**

M38	GND	GND	U11
M41	GND	GND	U13
M42	GND	GND	U16
N3	GND	GND	U18
N4	GND	GND	U20
N7	GND	GND	U22
N9	GND	GND	U24
N17	GND	GND	U26
N22	GND	GND	U31
N31	GND	GND	U35
N35	GND	GND	U38
N38	GND	GND	U39
N39	GND	GND	U40
N40	GND	GND	V1
P1	GND	GND	V2
P2	GND	GND	V5
P5	GND	GND	V9
P9	GND	GND	V13
P10	GND	GND	V15
P11	GND	GND	V17
P20	GND	GND	V19
P25	GND	GND	V21
P31	GND	GND	V23
P33	GND	GND	V25
P37	GND	GND	V31
P38	GND	GND	V33
P41	GND	GND	V37
P42	GND	GND	V38
R3	GND	GND	V41
R4	GND	GND	V42
R7	GND	GND	W3
R11	GND	GND	W4
R12	GND	GND	W7
R13	GND	GND	W11
R16	GND	GND	W13
R18	GND	GND	W14
R20	GND	GND	W16
R22	GND	GND	W18
R24	GND	GND	W20
R26	GND	GND	W22
R28	GND	GND	W24
R31	GND	GND	W26
R35	GND	GND	W31
R38	GND	GND	W35
R39	GND	GND	W38
R40	GND	GND	W39
T1	GND	GND	W40
T2	GND	GND	Y1
T5	GND	GND	Y2
T9	GND	GND	Y5
T13	GND	GND	Y9
T15	GND	GND	Y13
T17	GND	GND	Y17
T19	GND	GND	Y19
T21	GND	GND	Y23
T23	GND	GND	Y25
T25	GND	GND	Y31
T31	GND	GND	Y33
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

GND XZU19EG-1FFVCI760E GND

**3**

**U30Y**

A2	GND	GND	AD9
A6	GND	GND	AD13
A11	GND	GND	AD15
A16	GND	GND	AD17
A21	GND	GND	AD19
A26	GND	GND	AD21
A31	GND	GND	AD23
A36	GND	GND	AD36
A41	GND	GND	AD38
AA3	GND	GND	AD41
AA4	GND	GND	AD42
AA7	GND	GND	AE3
AA11	GND	GND	AE4
AA13	GND	GND	AE7
AA14	GND	GND	AE13
AA16	GND	GND	AE16
AA18	GND	GND	AE18
AA22	GND	GND	AE20
AA24	GND	GND	AE22
AA26	GND	GND	AE24
AA29	GND	GND	AE26
AA31	GND	GND	AE31
AA35	GND	GND	AE36
AA36	GND	GND	AE40
AA40	GND	GND	AF1
AB1	GND	GND	AF2
AB2	GND	GND	AF5
AB5	GND	GND	AF9
AB9	GND	GND	AF13
AB13	GND	GND	AF17
AB15	GND	GND	AF19
AB17	GND	GND	AF21
AB19	GND	GND	AF23
AB23	GND	GND	AF29
AB25	GND	GND	AF36
AB31	GND	GND	AF38
AB32	GND	GND	AF41
AB33	GND	GND	AF42
AB36	GND	GND	AG3
AB38	GND	GND	AG4
AB41	GND	GND	AG7
AB42	GND	GND	AG11
AC3	GND	GND	AG13
AC4	GND	GND	AG14
AC7	GND	GND	AG16
AC11	GND	GND	AG18
AC13	GND	GND	AG20
AC14	GND	GND	AG22
AC16	GND	GND	AG24
AC18	GND	GND	AG36
AC22	GND	GND	AG40
AC24	GND	GND	AH1
AC33	GND	GND	AH2
AC34	GND	GND	AH5
AC35	GND	GND	AH9
AC36	GND	GND	AH13
AC40	GND	GND	AH15
AD1	GND	GND	AH19
AD2	GND	GND	AH21
AD5	GND	GND	AH23

GND XZU19EG-1FFVCI760E GND

**4**

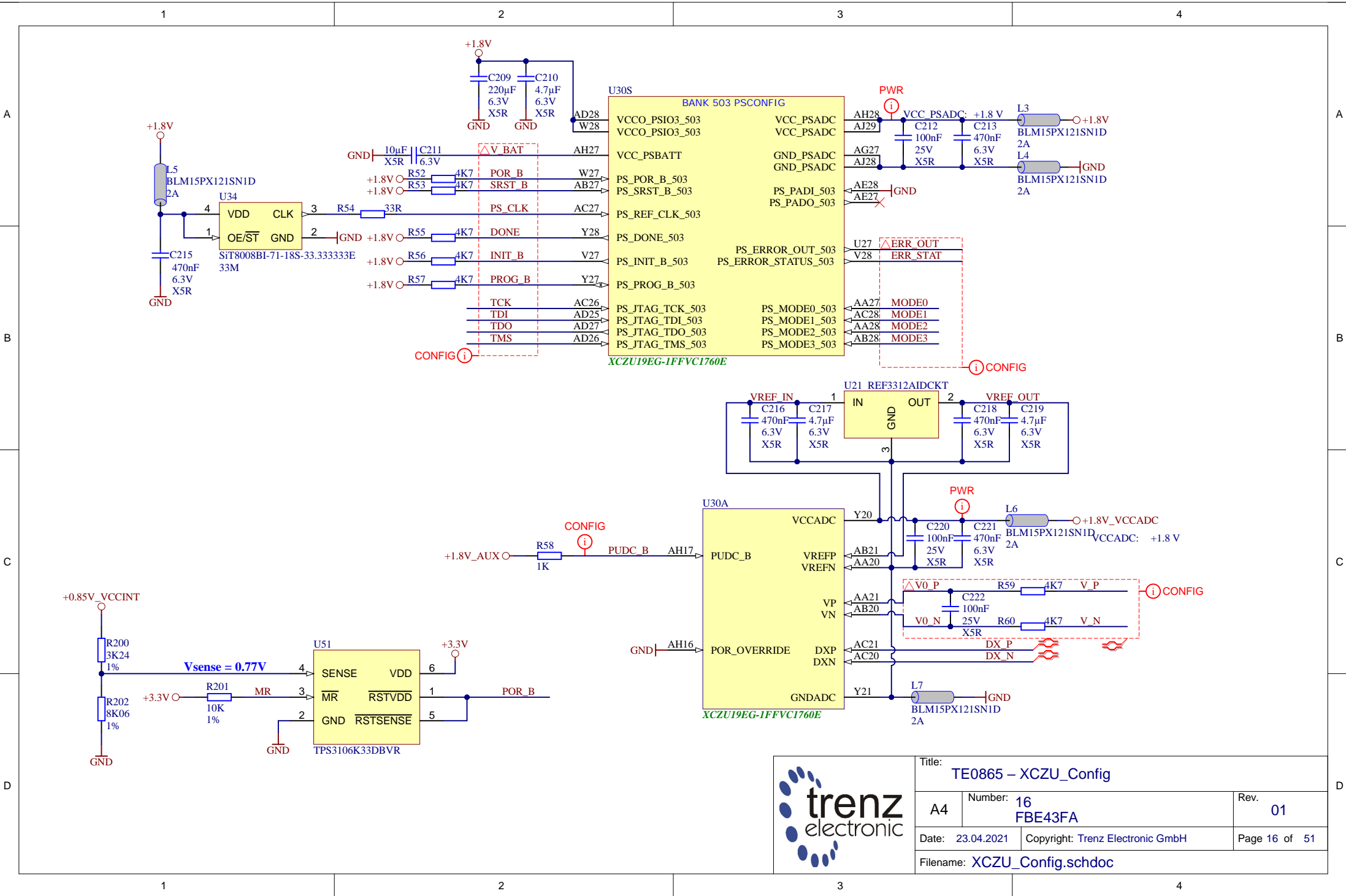
**U30Z**


AH30	GND	GND	AP2
AH35	GND	GND	AP5
AH36	GND	GND	AP9
AH37	GND	GND	AP23
AH38	GND	GND	AP28
AH41	GND	GND	AP33
AH42	GND	GND	AP38
AJ3	GND	GND	AR3
AJ4	GND	GND	AR4
AJ7	GND	GND	AR7
AJ11	GND	GND	AR9
AJ13	GND	GND	AR11
AJ33	GND	GND	AR16
AJ38	GND	GND	AR41
AJ39	GND	GND	AT1
AJ40	GND	GND	AT2
AJ41	GND	GND	AT5
AK1	GND	GND	AT9
AK2	GND	GND	AT14
AK5	GND	GND	AT19
AK9	GND	GND	AT24
AK13	GND	GND	AT29
AK16	GND	GND	AT34
AK21	GND	GND	AT39
AK26	GND	GND	AU3
AK31	GND	GND	AU4
AK36	GND	GND	AU7
AL3	GND	GND	AU8
AL4	GND	GND	AU9
AL7	GND	GND	AU17
AL9	GND	GND	AU22
AL10	GND	GND	AU27
AL11	GND	GND	AU42
AL12	GND	GND	AV1
AL13	GND	GND	AV2
AL19	GND	GND	AV5
AL24	GND	GND	AV7
AL29	GND	GND	AV10
AL34	GND	GND	AV30
AL39	GND	GND	AV35
AM1	GND	GND	AV40
AM2	GND	GND	AW3
AM5	GND	GND	AW4
AM9	GND	GND	AW7
AM12	GND	GND	AW13
AM17	GND	GND	AW18
AM22	GND	GND	AW23
AM27	GND	GND	AW28
AM37	GND	GND	AY1
AM42	GND	GND	AY2
AN3	GND	GND	AY5
AN4	GND	GND	AY6
AN7	GND	GND	AY7
AN9	GND	GND	AY16
AN15	GND	GND	AY21
AN20	GND	GND	AY26
AN25	GND	GND	AY31
AN30	GND	GND	AY36
AN40	GND	GND	AY41
API	GND	GND	B4

GND XZU19EG-1FFVCI760E GND



Title: TE0865 – XCZU_GND		
A4	Number: 15 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 15 of 51
Filename: XCZU_GND.schdoc		



			Title: TE0865 – XZU_Config	
			A4	Number: 16 FBE43FA
Date: 23.04.2021		Copyright: Trenz Electronic GmbH		Rev. 01
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

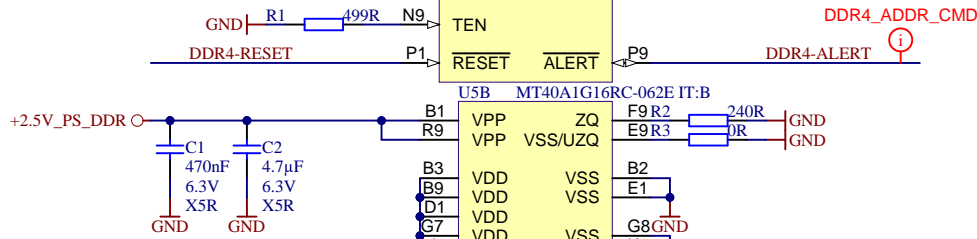
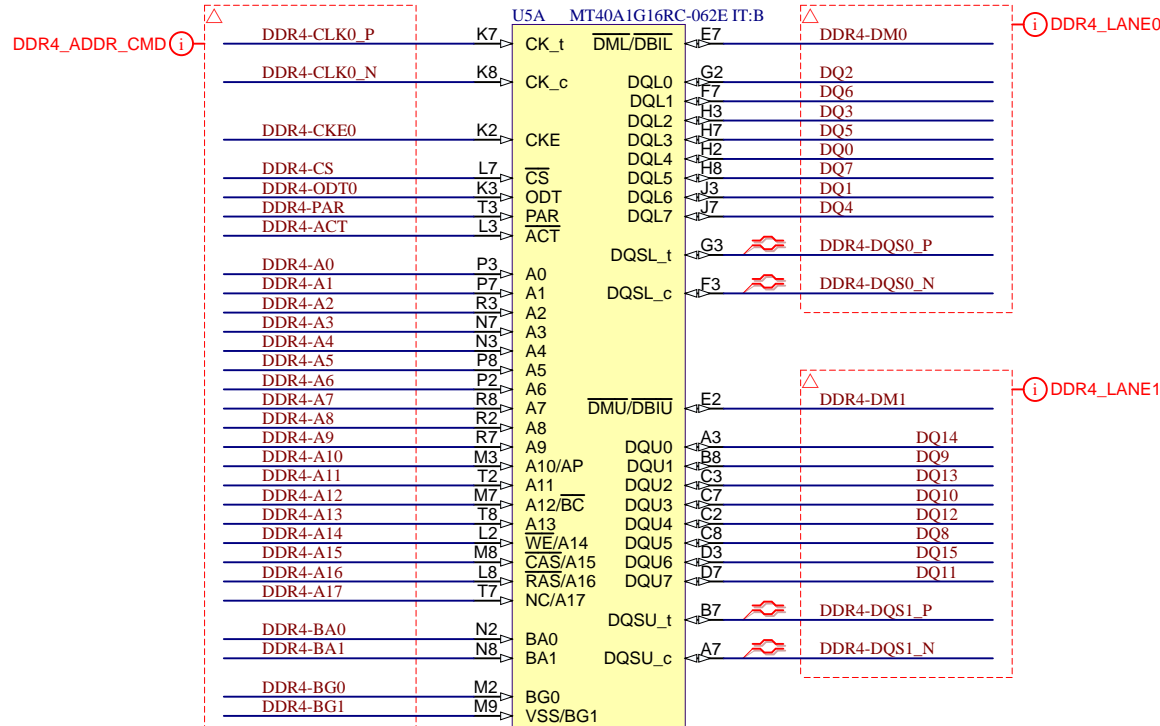
			Title: TE0865 – DDR4-PS		
			A4	Number: 17 FBE43FA	Rev. 01
Date: 23.04.2021		Copyright: Trenz Electronic GmbH		Page 17 of 51	
Filename: DDR4-PS.SchDoc					

1

2

3

4



Title: TE0865 - DDR4-PS-RAM_1		
A4	Number: 18 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 18 of 51
Filename: DDR4-RAM_1.SchDoc		

1

2

3

4

A

A

B

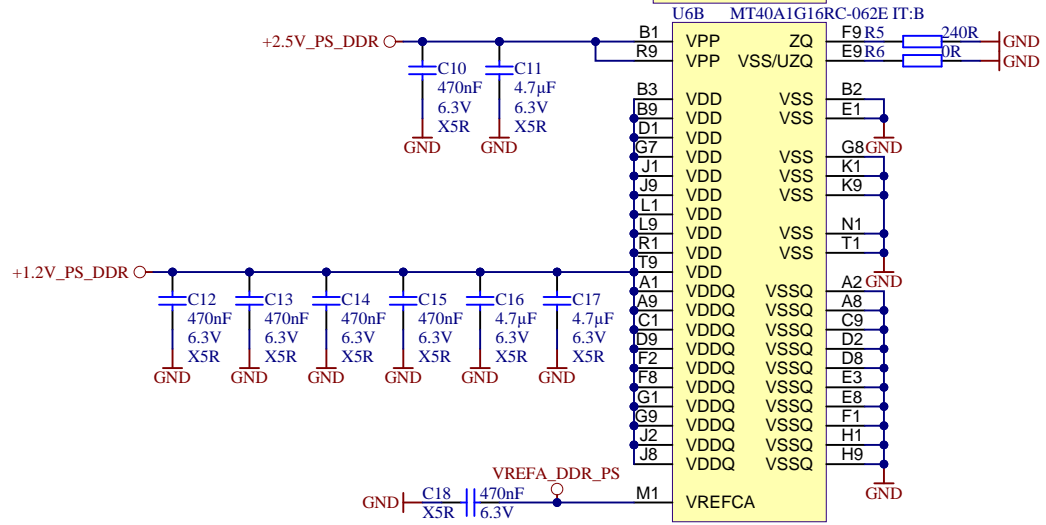
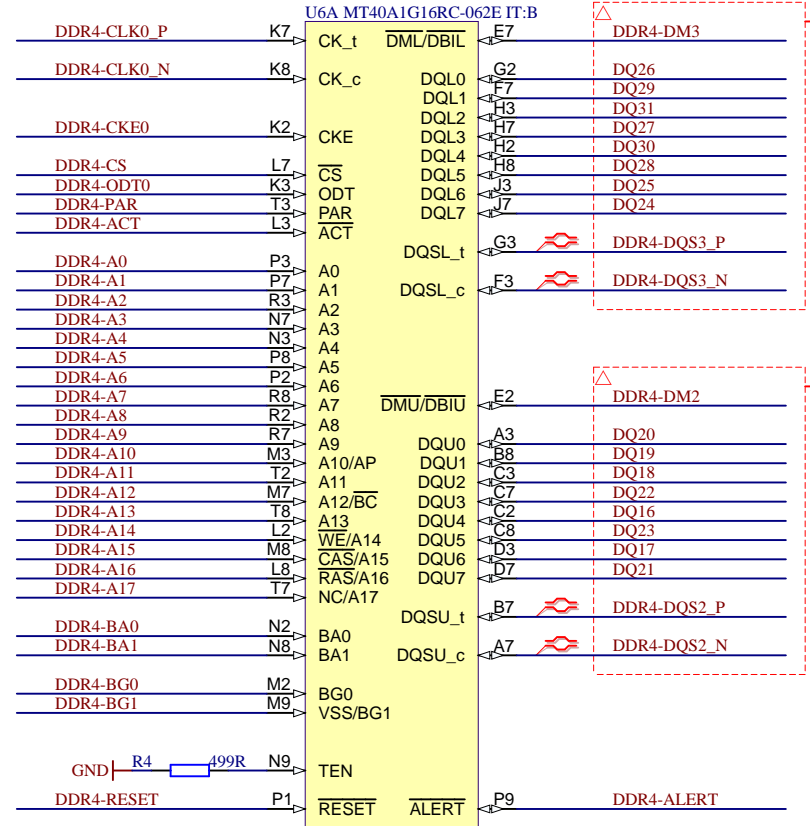
B

C

C

D

D



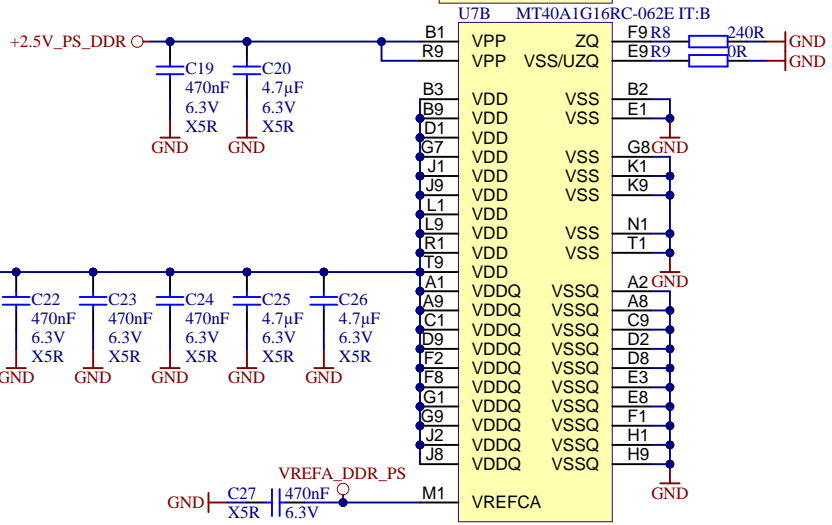
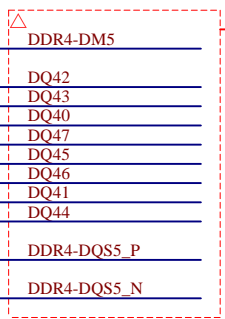
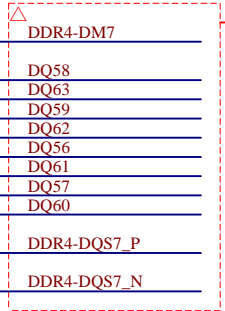
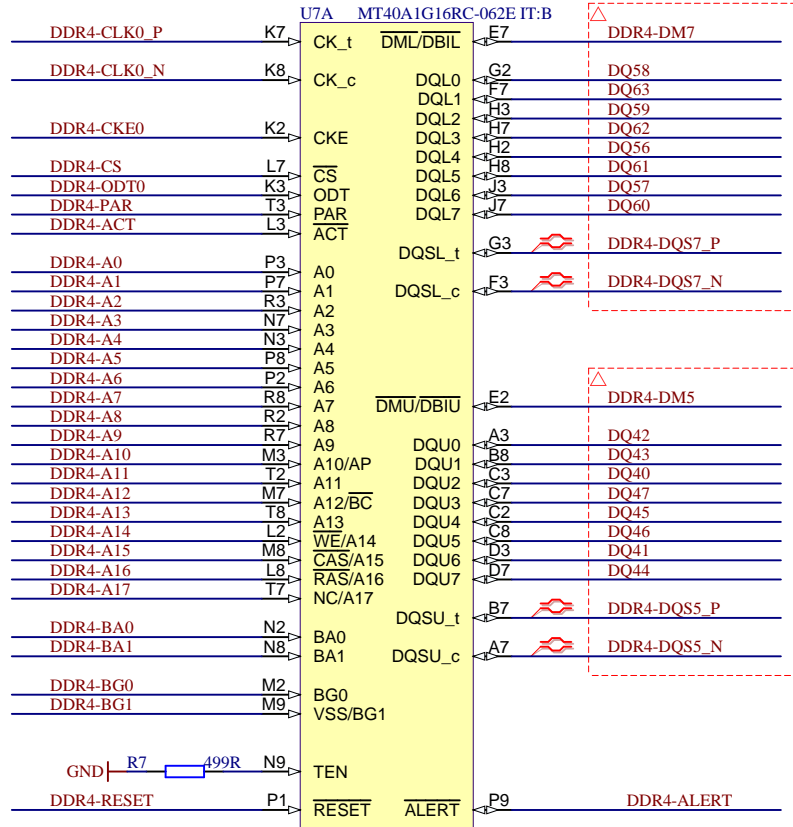
Title: TE0865 - DDR4-PS-RAM_2		
A4	Number: 19 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 19 of 51
Filename: DDR4-RAM_2.SchDoc		

1

2

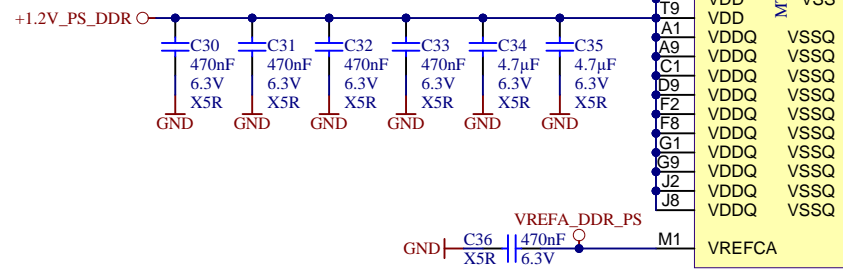
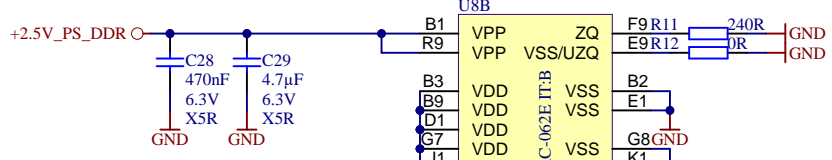
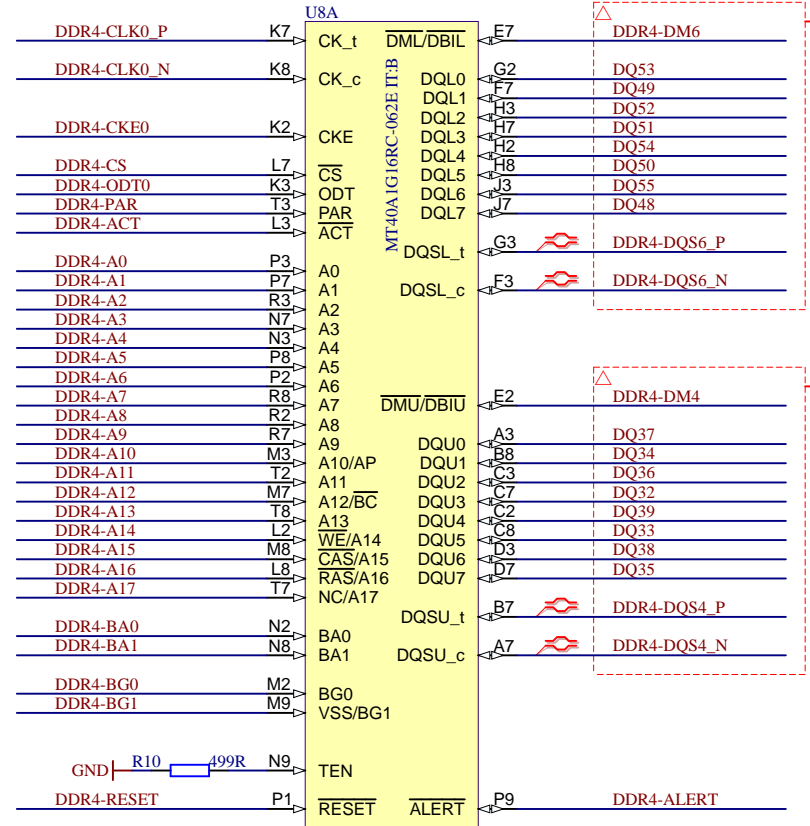
3

4

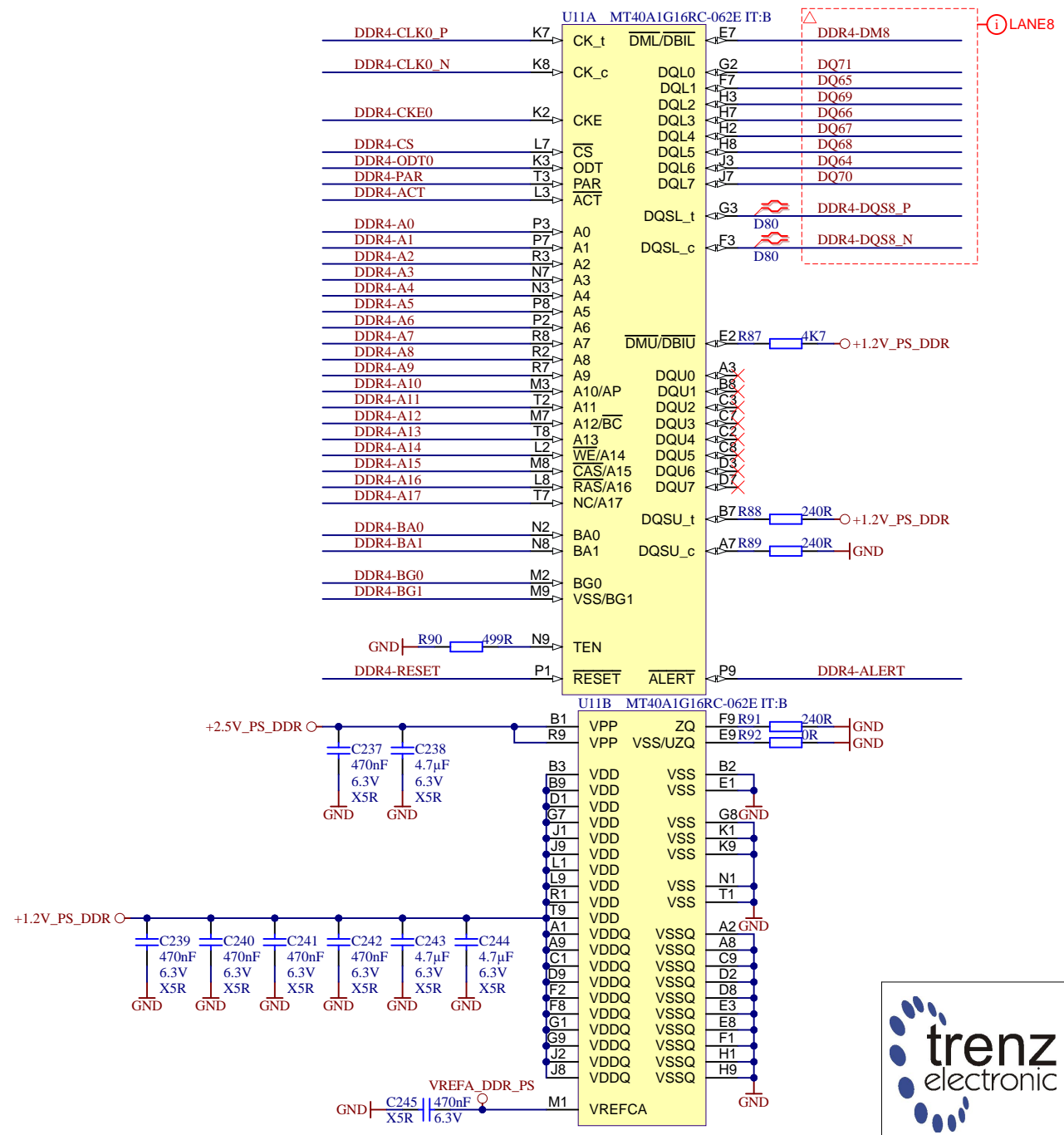


Title: TE0865 - DDR4-PS-RAM_3		
A4	Number: 20 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	
Filename: DDR4-RAM_3.SchDoc		Page 20 of 51

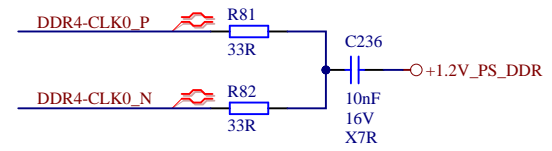
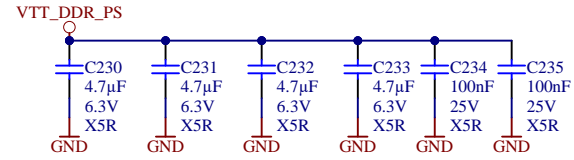
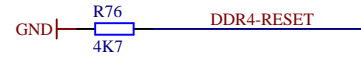
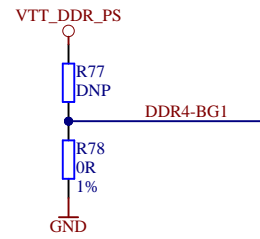
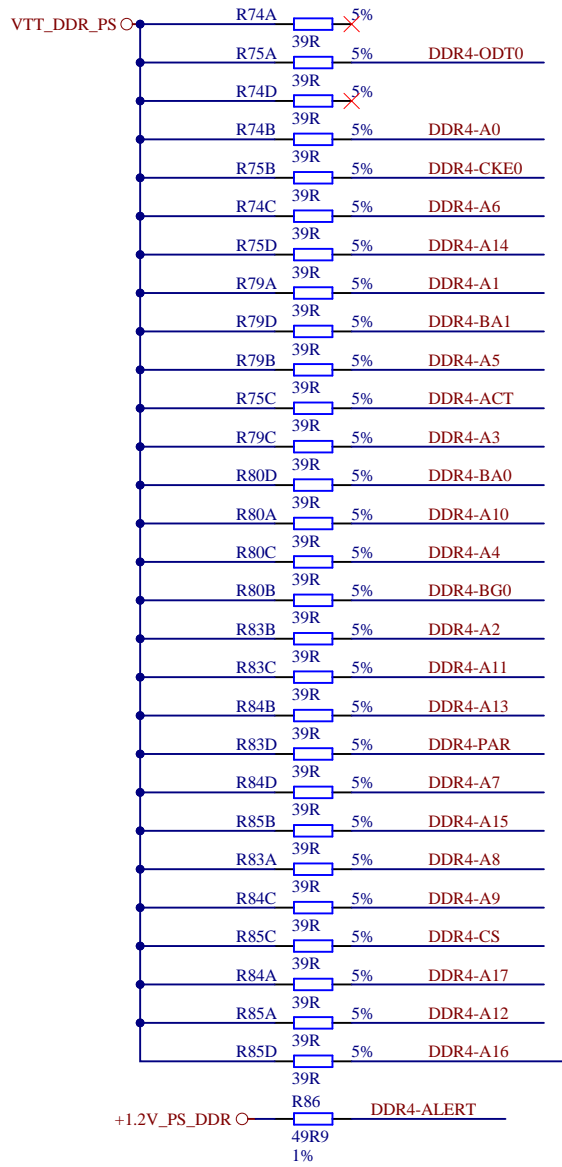





Title: TE0865 – DDR4-PS-RAM_4		
A4	Number: 21 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 21 of 51
Filename: DDR4-RAM_4.SchDoc		



Title: TE0865 – DDR4-PS-RAM_5		
A4	Number: 22 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 22 of 51
Filename: DDR4-RAM_5.SchDoc		

Title: TE0865 – DDR4-PS-TERM		
A4	Number: 23 FBE43FA	Rev. 01
Date: 23.04.2021	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

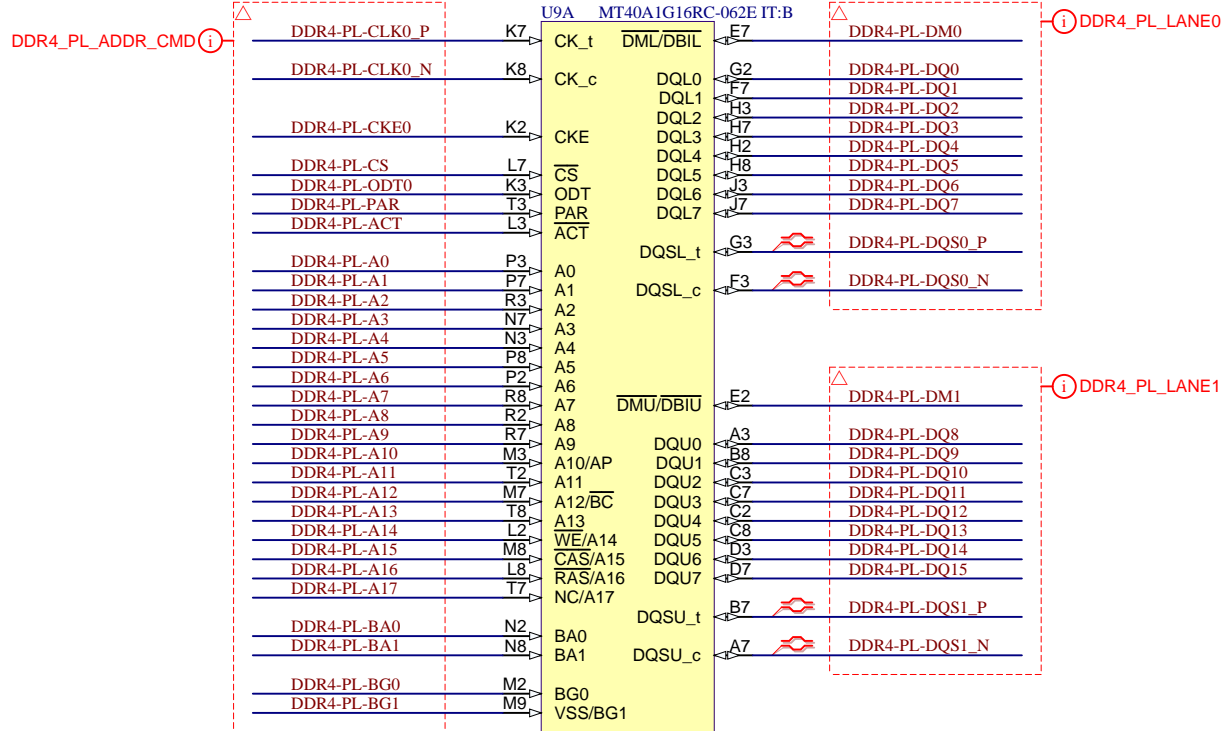
	Title: TE0865 – DDR4-PL		
	A4	Number: 24 FBE43FA	Rev. 01
	Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 24 of 51
	Filename: DDR4-PL.SchDoc		

1

2

3

4



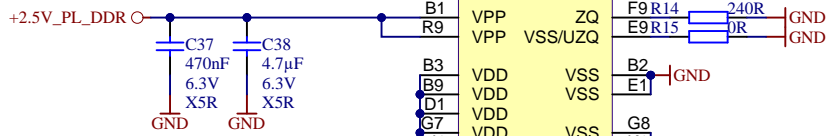
DDR4\_PL\_ADDR\_CMD

DDR4\_PL\_ALERT

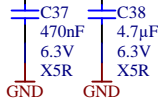
GND R13 499R N9

DDR4-PL-RESET P1

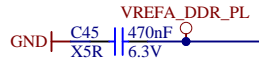
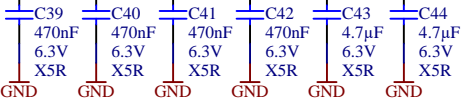
U9B MT40A1G16RC-062E IT:B



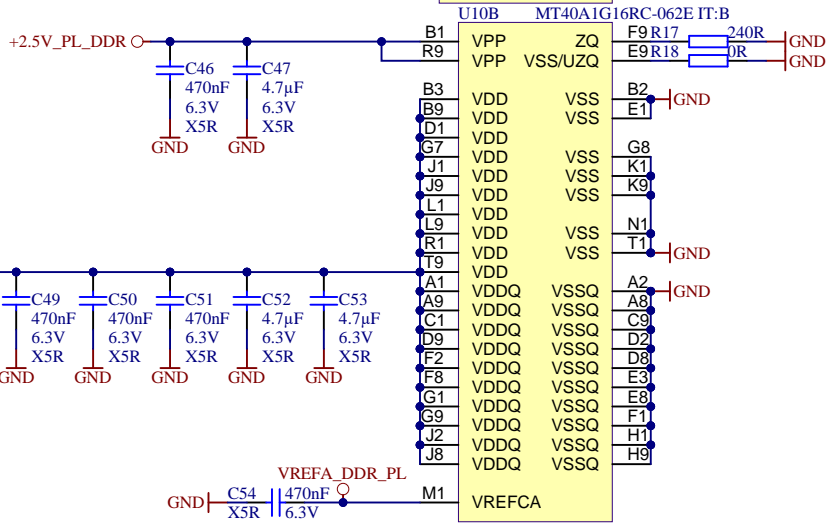
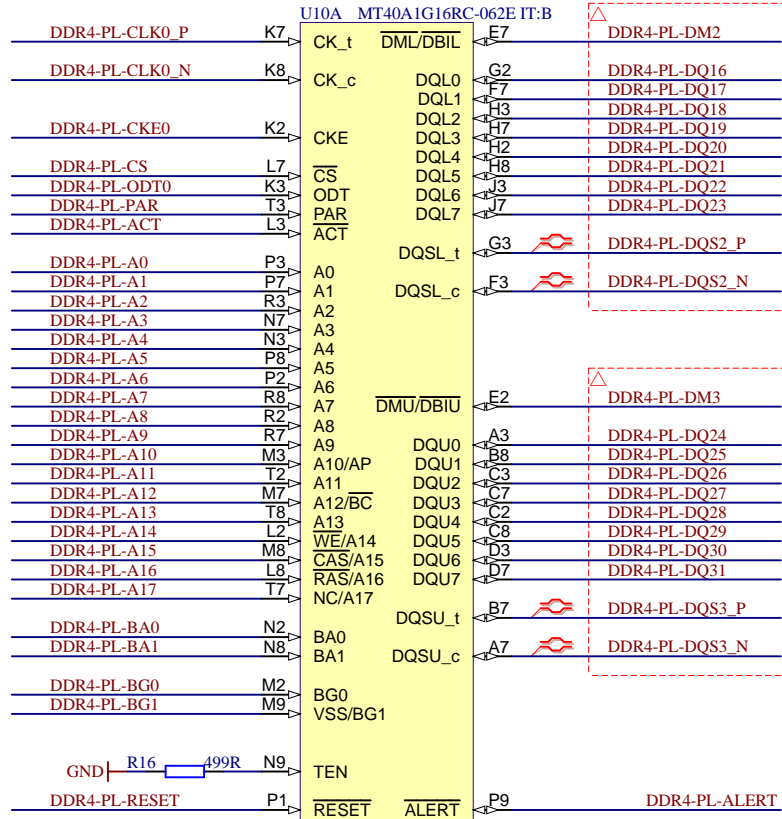
+2.5V\_PL\_DDR



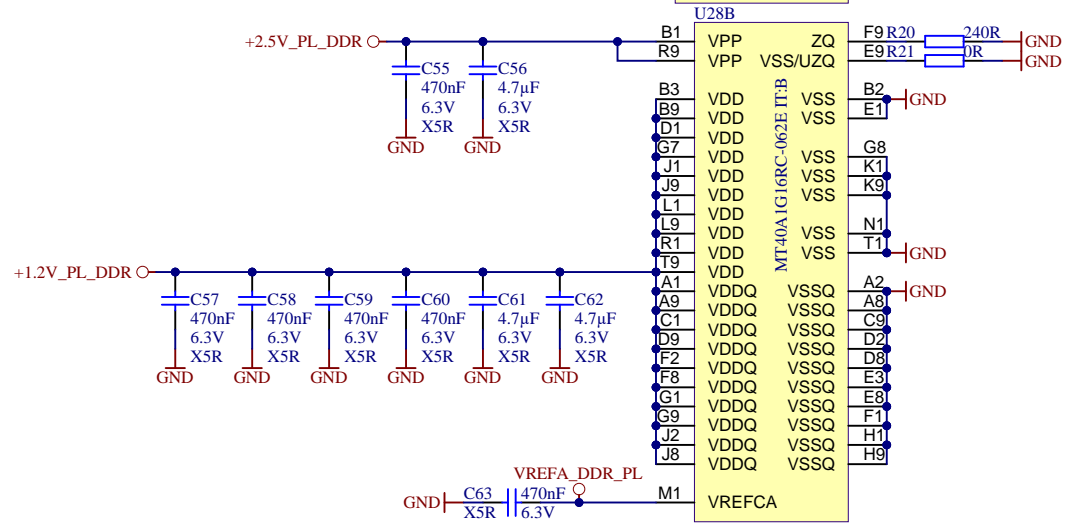
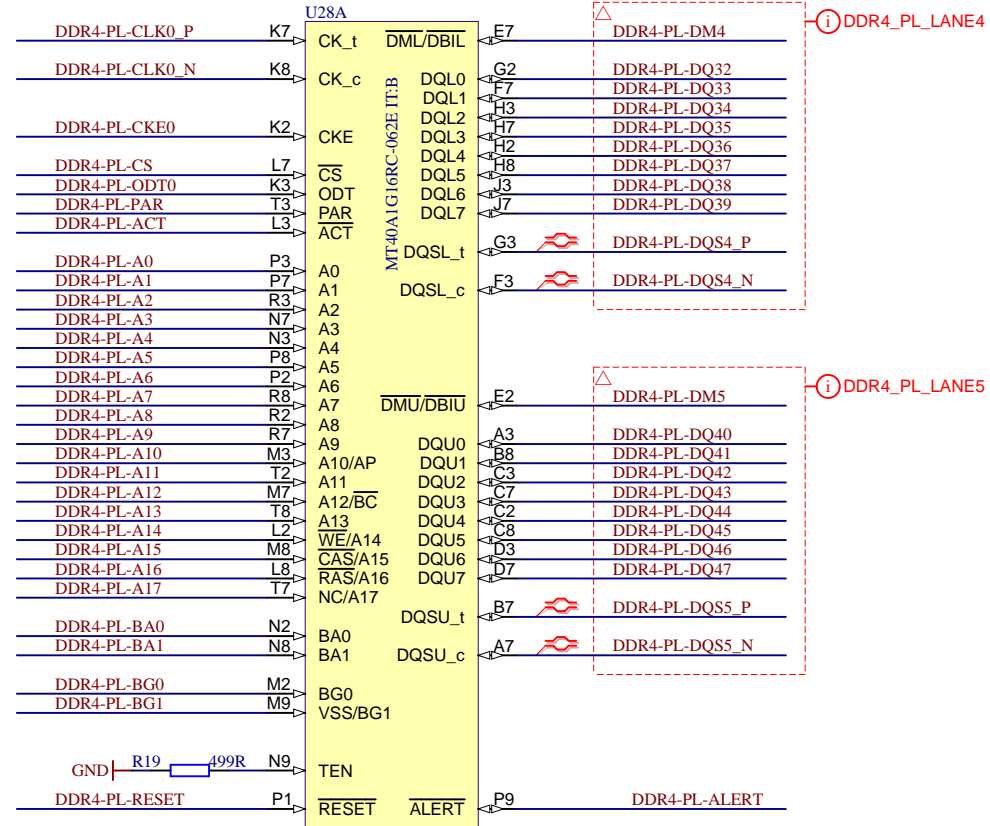
+1.2V\_PL\_DDR



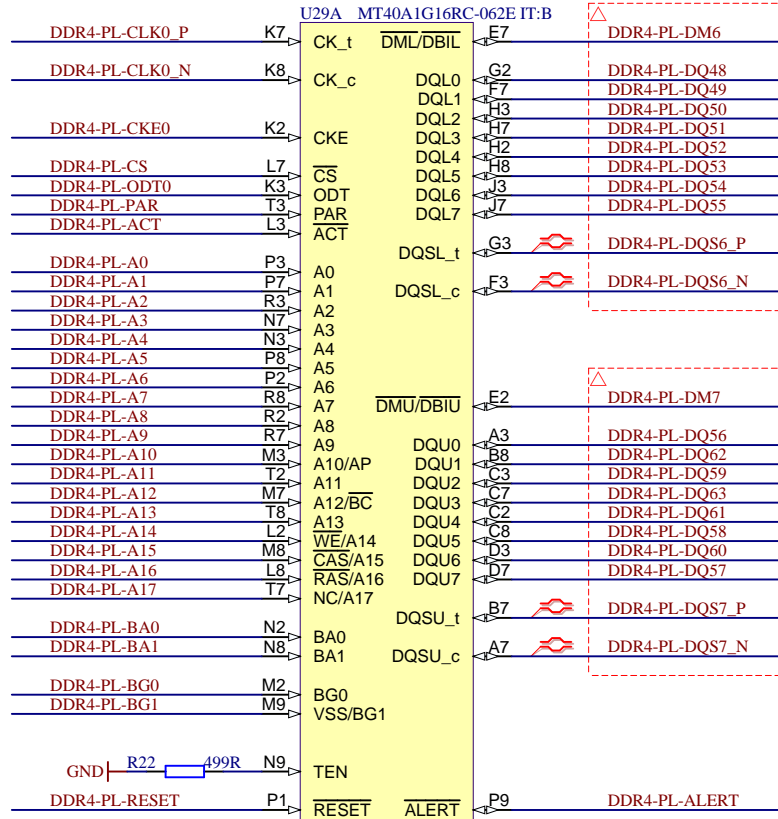
Title: TE0865 – DDR4-PL-RAM_1		
A4	Number: 25 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 25 of 51
Filename: DDR4-PL-RAM_1.SchDoc		



Title: TE0865 – DDR4-PL-RAM_2		
A4	Number: 26 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 26 of 51
Filename: DDR4-PL-RAM_2.SchDoc		

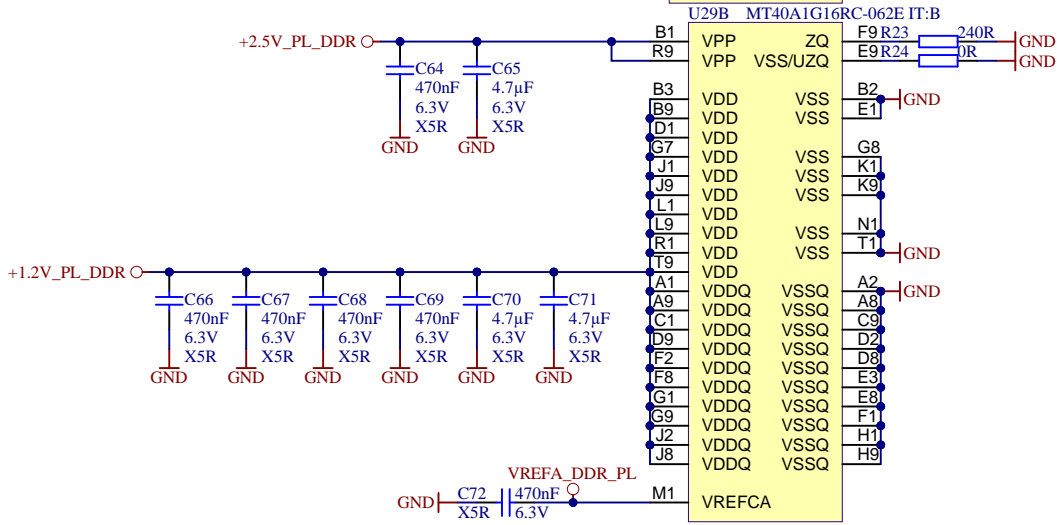


Title: TE0865 – DDR4-PL-RAM_3		
A4	Number: 27 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 27 of 51
Filename: DDR4-PL-RAM_3.SchDoc		



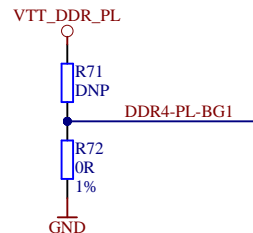
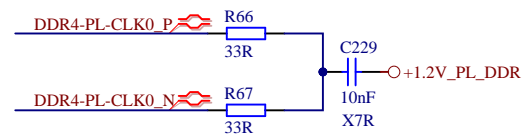
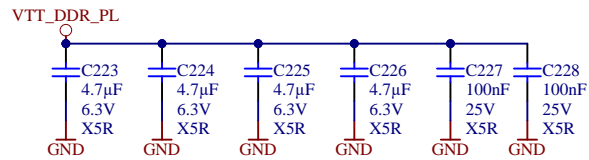
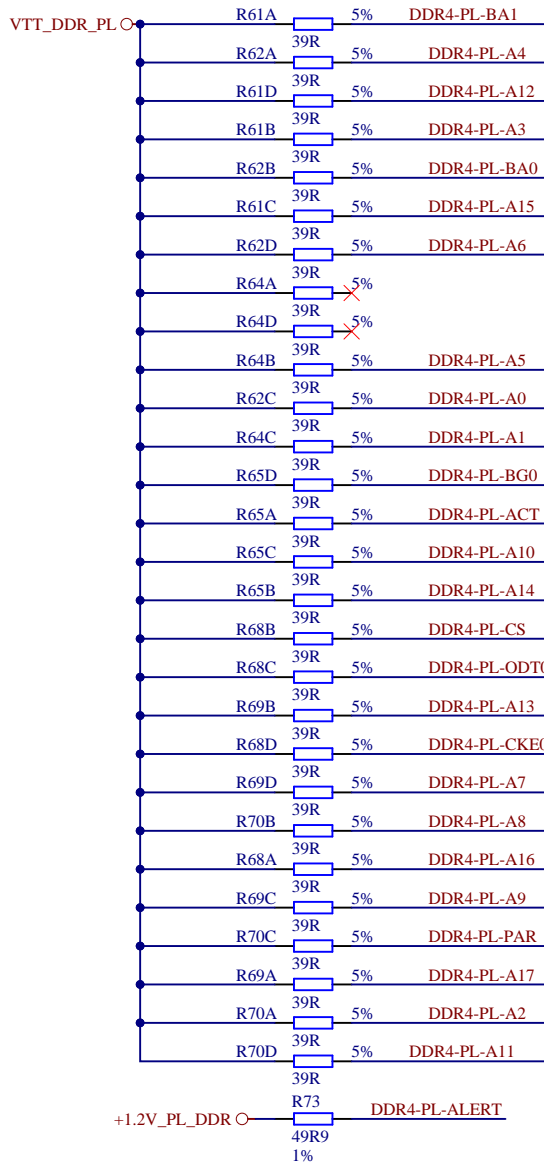
DDR4\_PL\_LANE6

DDR4\_PL\_LANE7



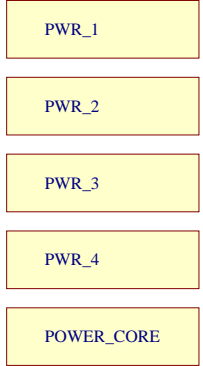
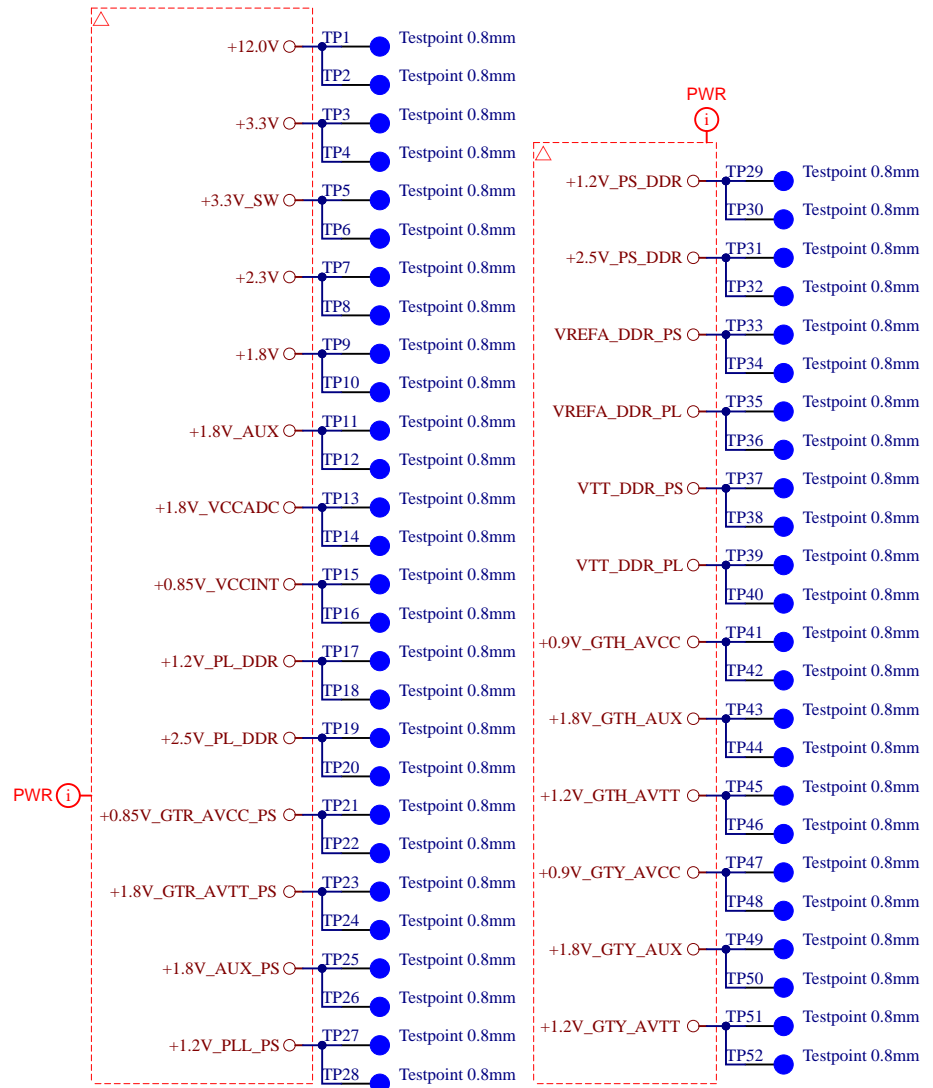
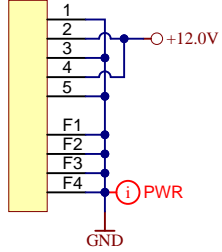
Title: TE0865 – DDR4-PL-RAM_4		
A4	Number: 28 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 28 of 51
Filename: DDR4-PL-RAM_4.SchDoc		





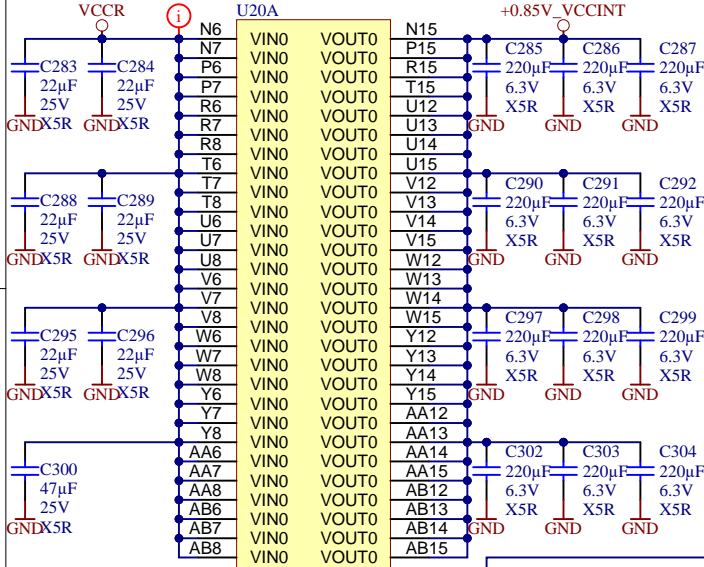
Title: TE0865 – DDR4-PL-TERM		
A4	Number: 29 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 29 of 51
Filename: DDR4-PL-TERM.SchDoc		

UMPT-05-01.5-G-VT-SM-WT-K  
J5



Title: TE0865 – POWER		
A4	Number: 30 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 30 of 51
Filename: POWER.SchDoc		

VCCR = +12.0 V PWR

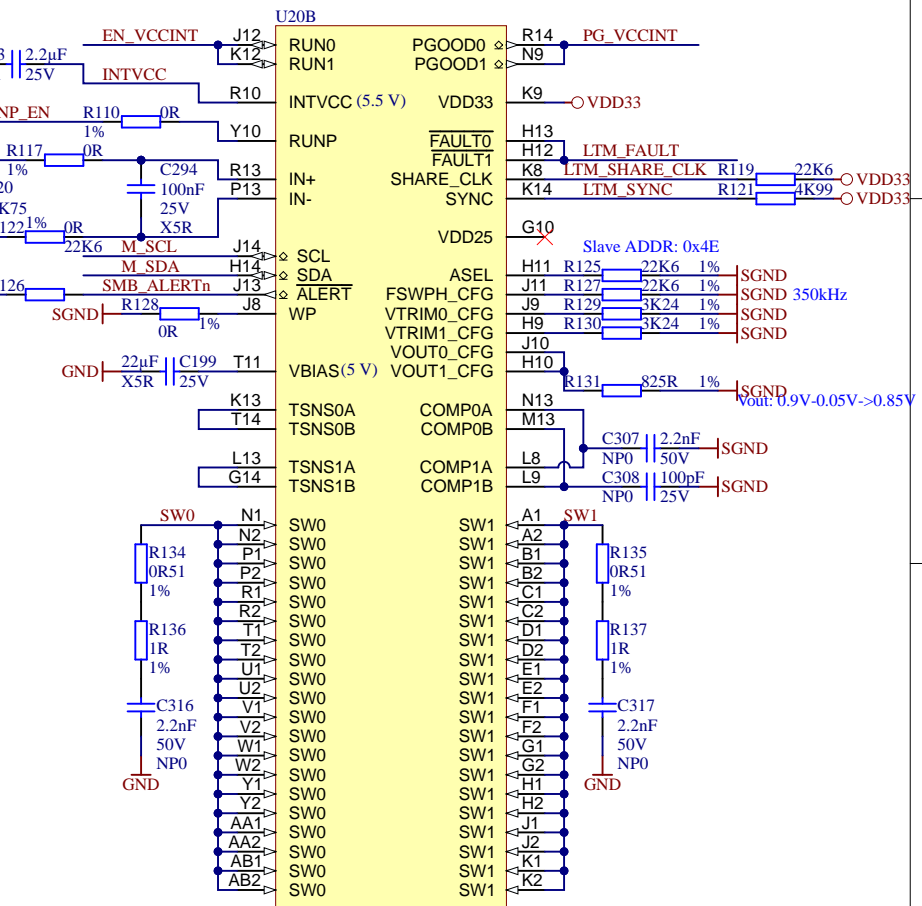
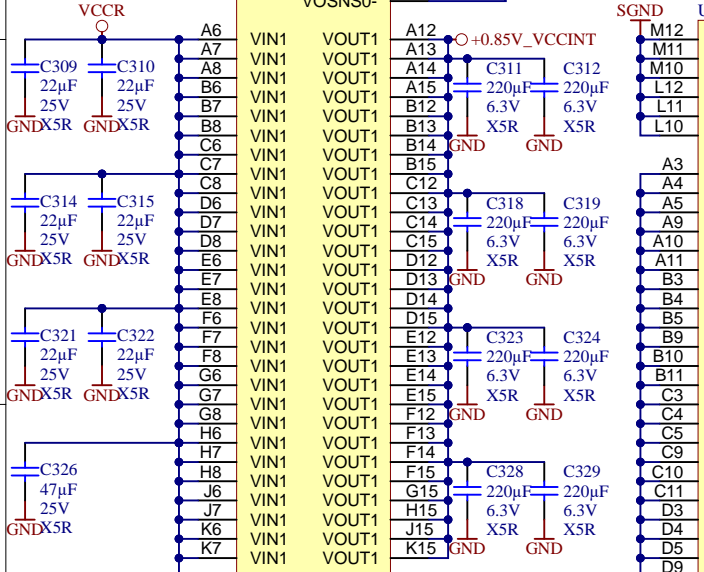


Kelvin connection

VIN=+12.0V

Load

VCCR = +12.0 V



Title: TE0865 - POWER\_CORE



A4		Number: 31 FBE43FA	Rev. 01
Date: 23.04.2021		Copyright: Trenz Electronic GmbH	Page 31 of 51
Filename: POWER_CORE.SchDoc			

1

2

3

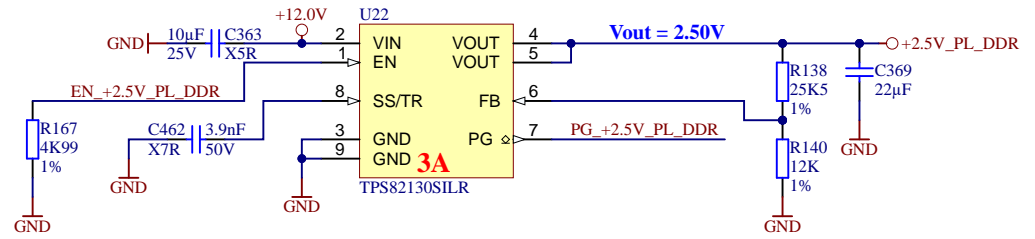
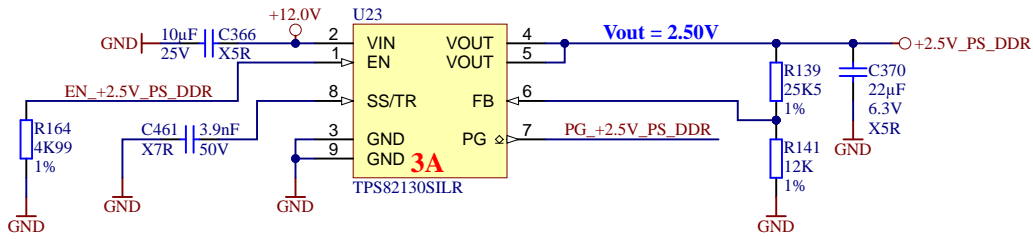
4

A

A

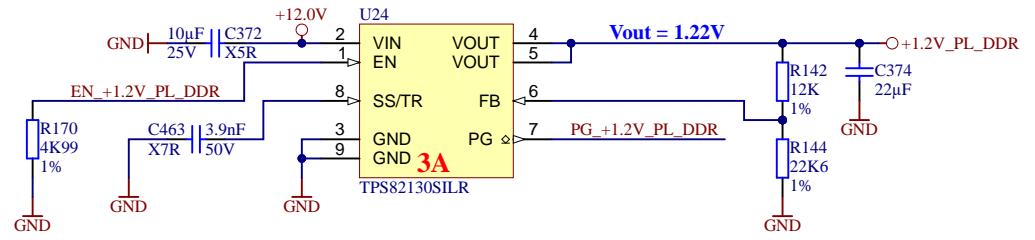
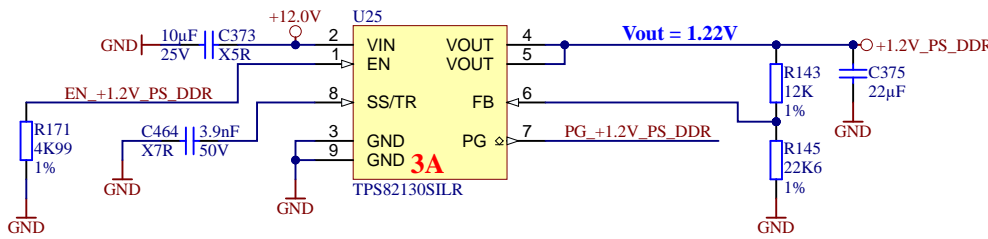
### DDR PS

### DDR PL



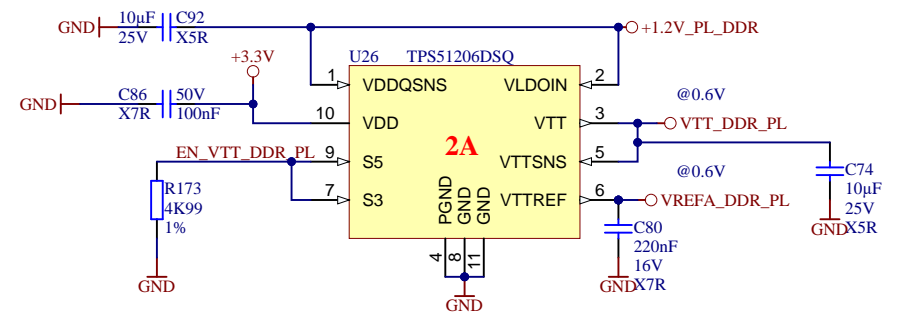
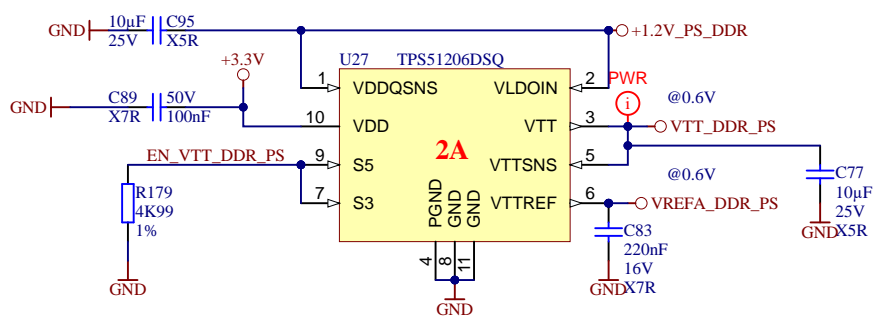
B

B



C

C



D

D



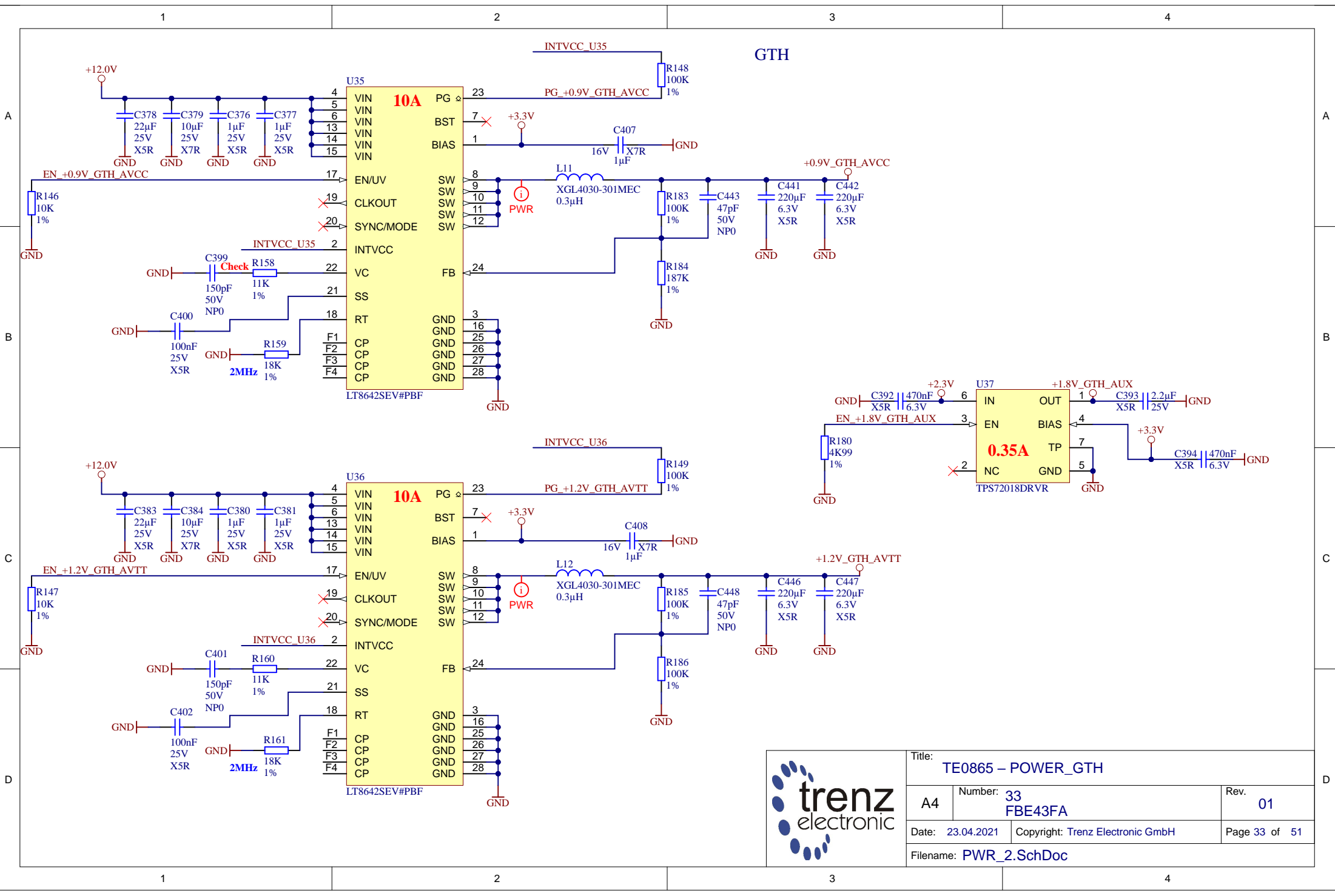
Title: TE0865 – POWER_DDRs		
A4	Number: 32 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 32 of 51
Filename: PWR_1.SchDoc		


1

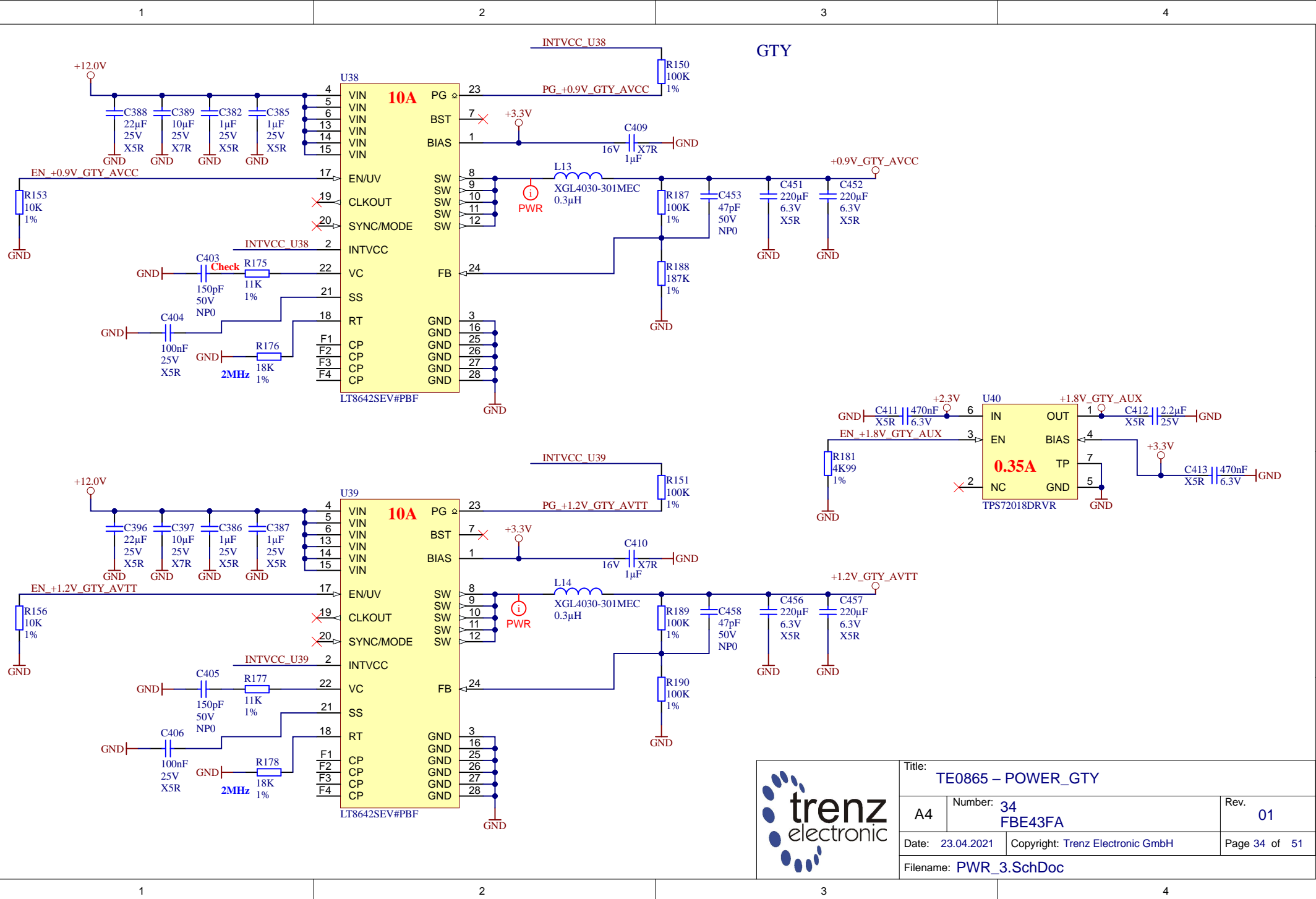
2


3

4



			Title: TE0865 – POWER_GTH	
			A4	Number: 33 FBE43FA
Date: 23.04.2021		Copyright: Trenz Electronic GmbH		Page 33 of 51
Filename: PWR_2.SchDoc				



			Title: TE0865 – POWER_GTY	
			A4	Number: 34 FBE43FA
Date: 23.04.2021		Copyright: Trenz Electronic GmbH		Page 34 of 51
Filename: PWR_3.SchDoc				

1

2

3

4

A

A

B

B

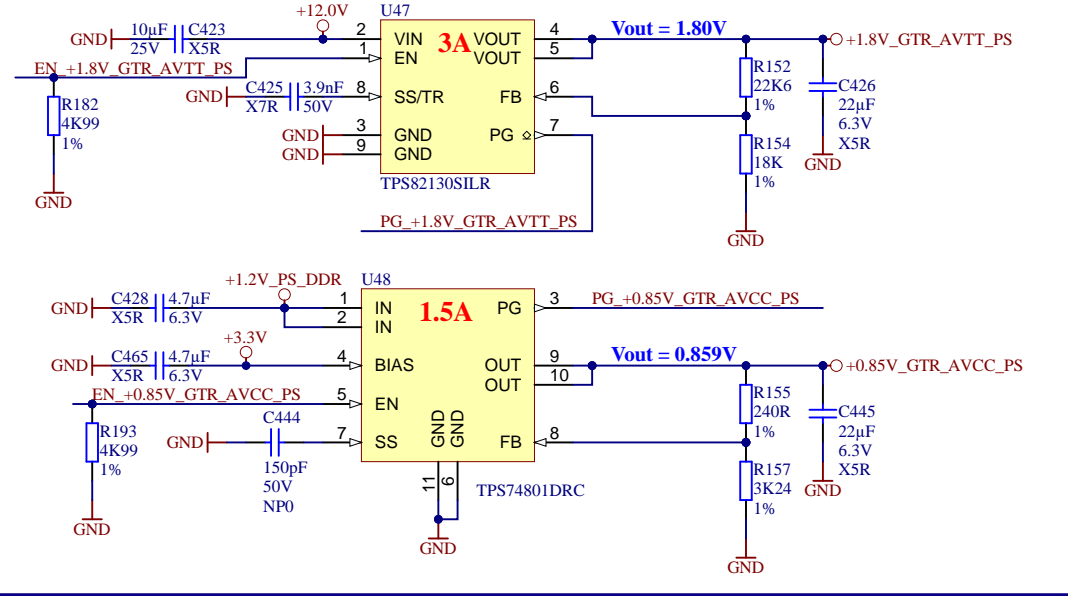
C

C

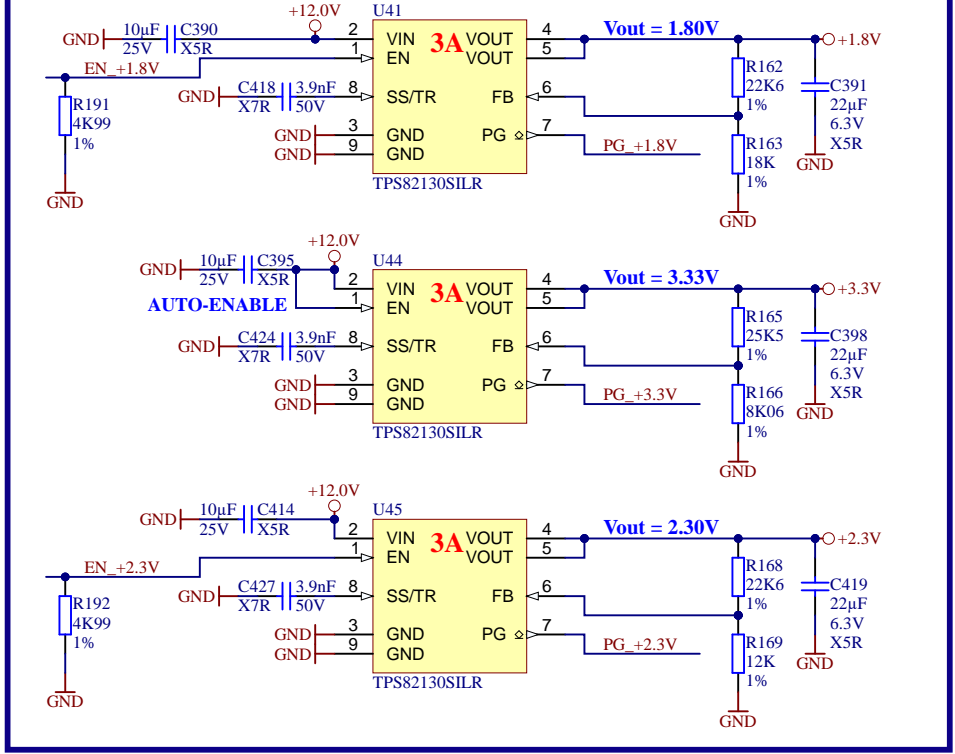
D

D

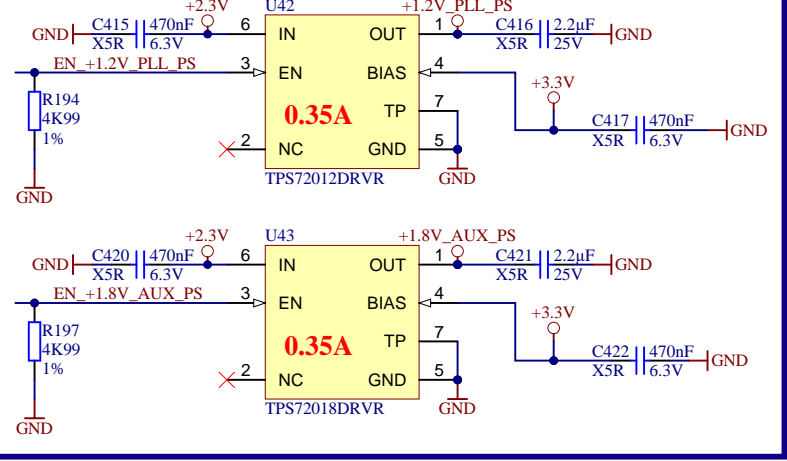
### GTR PS



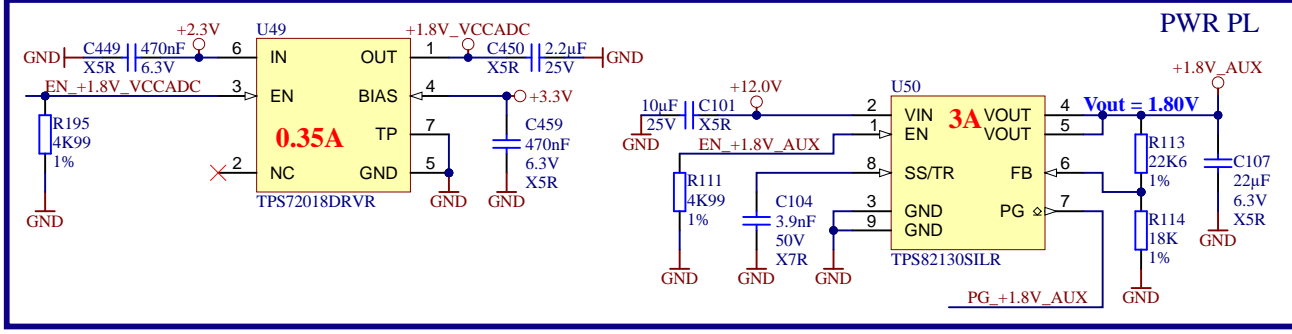
### PWR RAILS



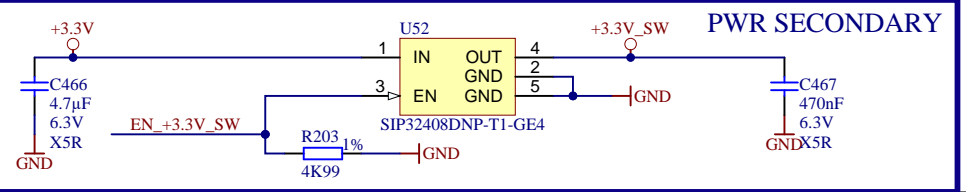
### PWR PS



### PWR PL



### PWR SECONDARY



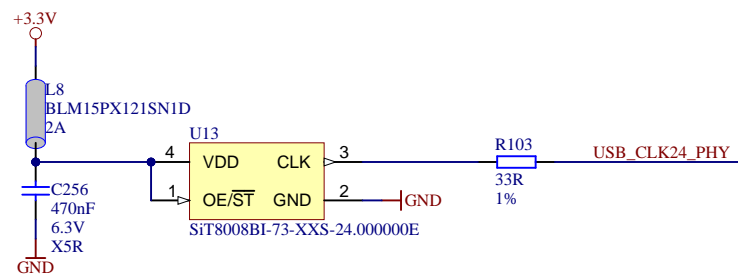
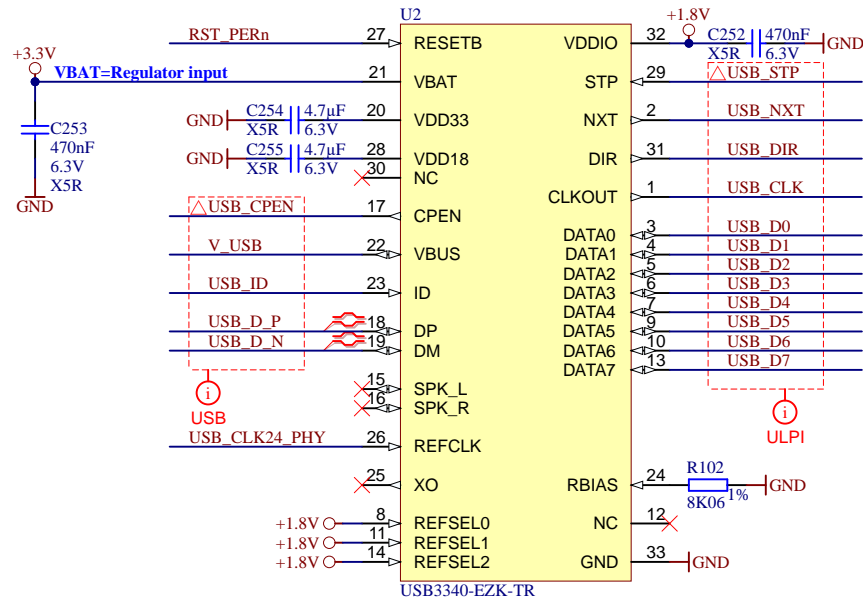
Title: TE0865 – POWER_RAILS_PS-PL		
A4	Number: 35 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 35 of 51
Filename: PWR_4.SchDoc		

1

2

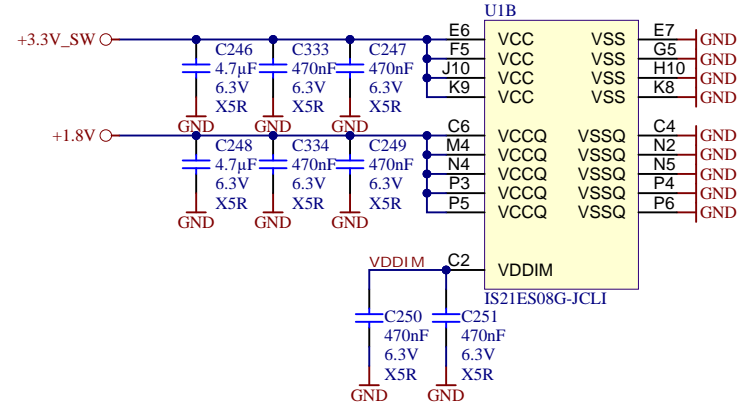
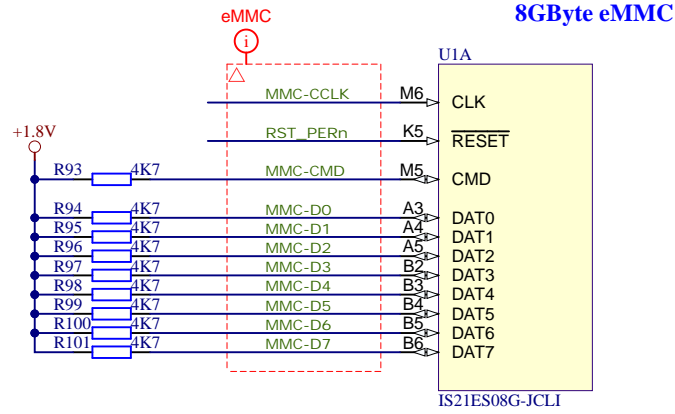
3

4



Title: TE0865 – USBPHY		
A4	Number: 36 FBE43FA	Rev. 01
Date: 23.04.2021	Copyright: Trenz Electronic GmbH	Page 36 of 51
Filename: USBPHY.SchDoc		





UID

A1	NC	NC	H2
A2	NC	NC	H3
A8	NC	NC	H12
A9	NC	NC	H13
A10	NC	NC	H14
A11	NC	NC	J1
A12	NC	NC	J2
A13	NC	NC	J3
A14	NC	NC	J12
A14	NC	NC	J13
B1	NC	NC	J14
B7	NC	NC	K1
B8	NC	NC	K2
B9	NC	NC	K3
B10	NC	NC	K12
B11	NC	NC	K13
B12	NC	NC	K14
B13	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

IS21ES08G-JCLI

UIC

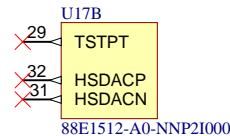
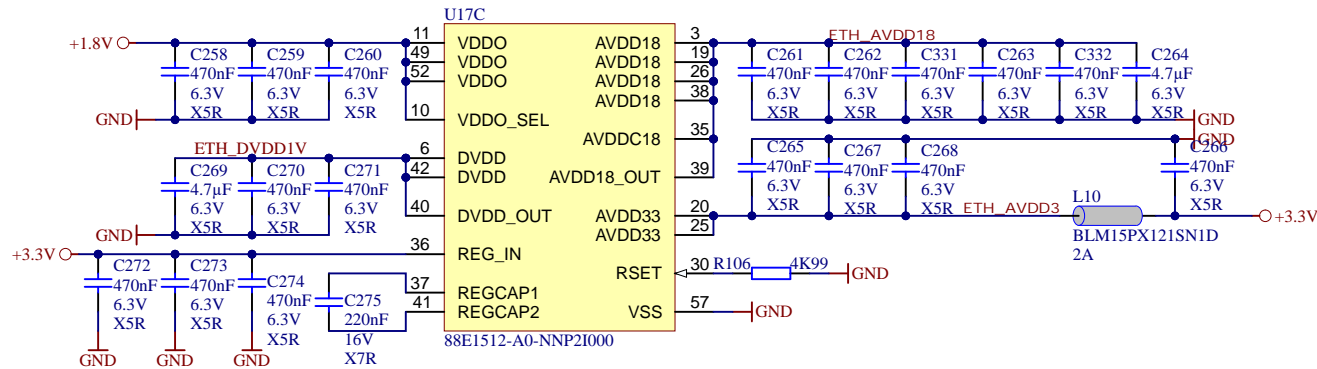
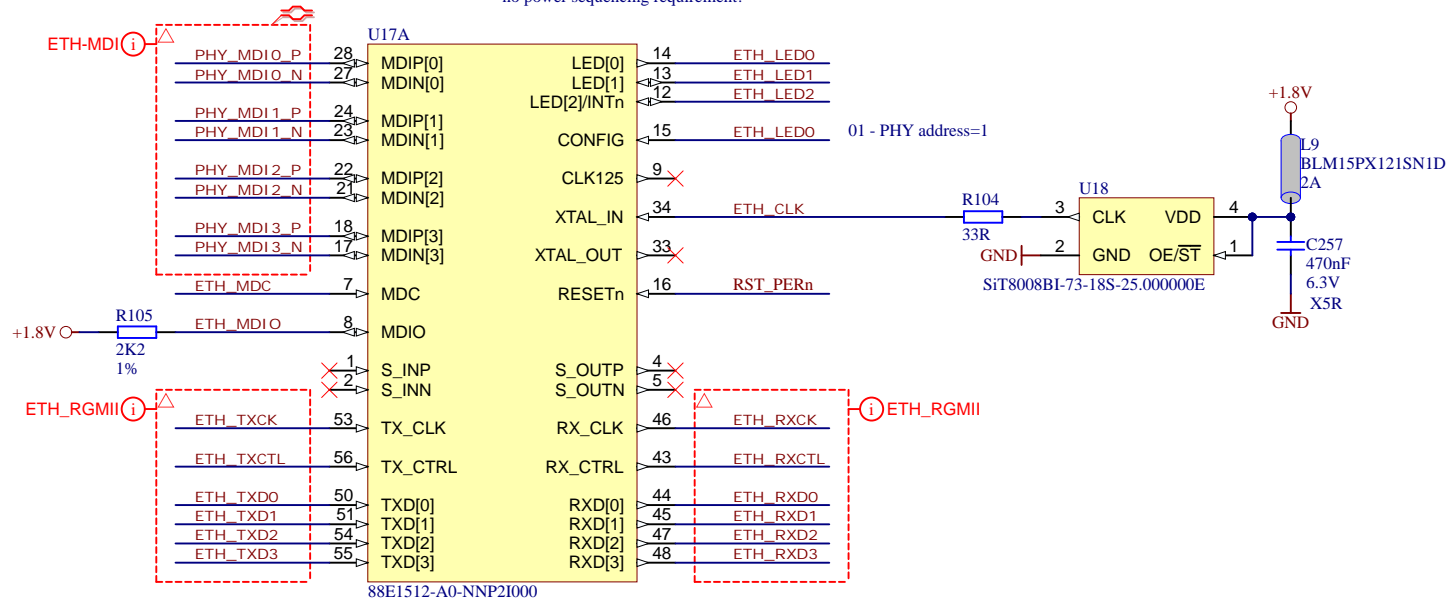
A6	RFU/VSS
A7	RFU
C5	RFU/NC
E5	RFU
E8	RFU
E9	RFU
J2	RFU
F10	RFU/NC
G3	RFU
G10	RFU/NC
H5	RFU/DS
J5	RFU/VSS
K6	RFU
K7	RFU
K10	RFU
P7	RFU/NC
P10	RFU

IS21ES08G-JCLI



Title: TE0865 – eMMC		
A4	Number: 37 FBE43FA	Rev. 01
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Filename: eMMC.SchDoc		

no power sequencing requirement!



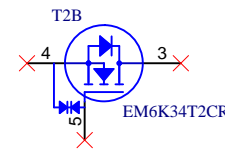
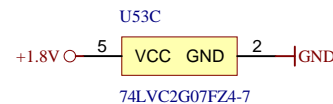
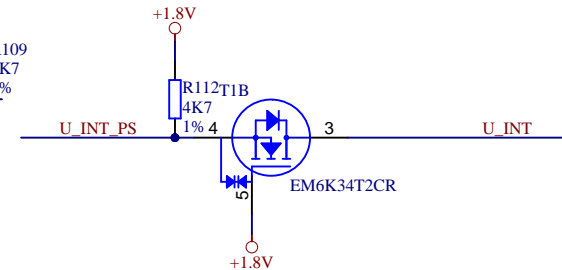
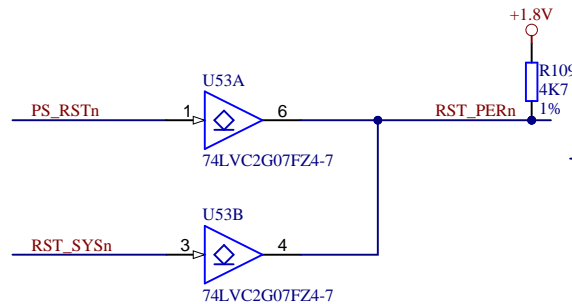
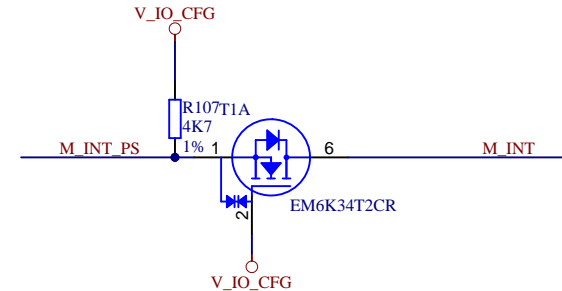
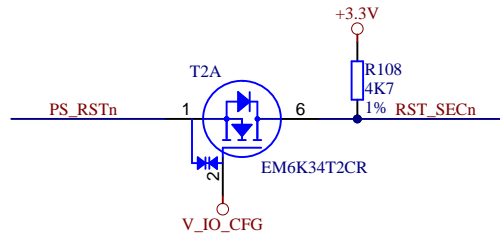
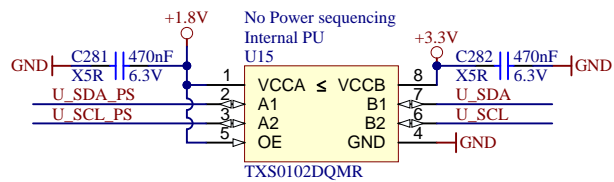
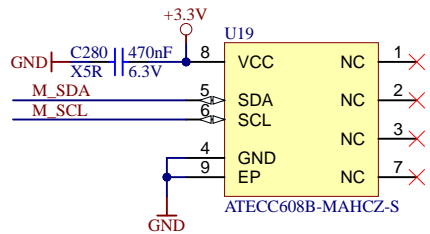
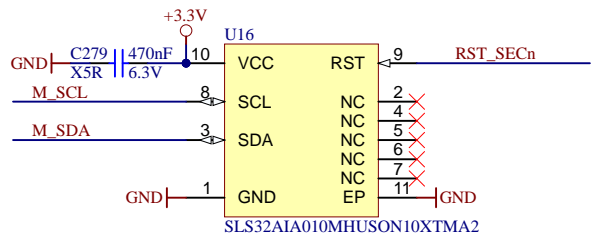
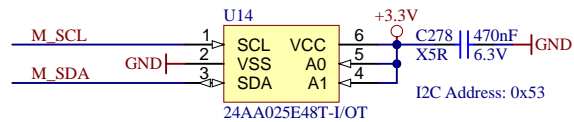
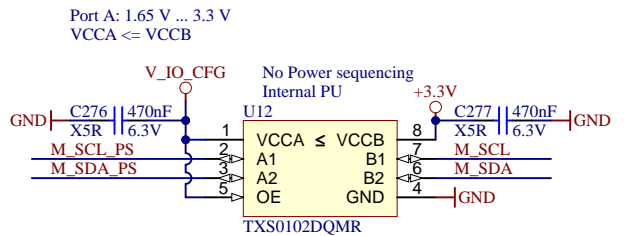
		Title: TE0865 – ETH-PHY	
		A4	Number: 38 FBE43FA
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Filename: ETH-PHY.SchDoc		Page 38 of 51	

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Title: TE0865 – MISC		
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A

A

J1

J2

J3

J4

B

B

C

C

D

D

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Title: TE0865 – B2B_CONNECTORS		
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ADM6-60-01.5-L-4-2 J1A

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

GND	A1	B1	B67 L8 P
B67 L10_P	A2	B2	B67 L8 N
B67 L10_N	A3	B3	B67 L19 P
B67 L9_P	A4	B4	B67 L19_N
B67 L9_N	A5	B5	
GND	A6	B6	B67 L3 P
B67 L6_N	A7	B7	B67 L3 N
B67 L6_P	A8	B8	B67 L2_N
B67 L5_P	A9	B9	B67 L2_P
B67 L5_N	A10	B10	
GND	A11	B11	B67 L4_N
B67 L1_P	A12	B12	B67 L4_P
B67 L1_N	A13	B13	B67 L21_P
B67 L7_P	A14	B14	B67 L21_N
B67 L7_N	A15	B15	
GND	A16	B16	B66 L9_P
B66 L8_P	A17	B17	B66 L9_N
B66 L8_N	A18	B18	B66 L24_P
B66 L7_P	A19	B19	B66 L24_N
B66 L7_N	A20	B20	
GND	A21	B21	B66 L10_P
B66 L6_P	A22	B22	B66 L10_N
B66 L6_N	A23	B23	B66 L18_P
B66 L12_P	A24	B24	B66 L18_N
B66 L12_N	A25	B25	
GND	A26	B26	B66 L5_N
B66 L4_P	A27	B27	B66 L5_P
B66 L4_N	A28	B28	B66 L16_P
B66 L2_P	A29	B29	B66 L16_N
B66 L2_N	A30	B30	
GND	A31	B31	B64 L6_P
B64 L18_P	A32	B32	B64 L6_N
B64 L18_N	A33	B33	B64 L12_P
B64 L17_P	A34	B34	B64 L12_N
B64 L17_N	A35	B35	
GND	A36	B36	B64 L4_P
B64 L16_P	A37	B37	B64 L4_N
B64 L16_N	A38	B38	B64 L15_P
B64 L11_P	A39	B39	B64 L15_N
B64 L11_N	A40	B40	
GND	A41	B41	B64 L13_N
B64 L8_N	A42	B42	B64 L13_P
B64 L8_P	A43	B43	B64 L1_N
B64 L7_P	A44	B44	B64 L1_P
B64 L7_N	A45	B45	
GND	A46	B46	B65 L3_N
B65 L4_N	A47	B47	B65 L3_P
B65 L4_P	A48	B48	B65 L2_P
B65 L1_N	A49	B49	B65 L2_N
B65 L1_P	A50	B50	
GND	A51	B51	B65 L6_P
B65 L5_P	A52	B52	B65 L6_N
B65 L5_N	A53	B53	B65 L15_N
B65 L7_N	A54	B54	B65 L15_P
B65 L7_P	A55	B55	
GND	A56	B56	B65 L8_N
B65 L9_N	A57	B57	B65 L8_P
B65 L9_P	A58	B58	B65 L10_N
B65 L11_P	A59	B59	B65 L10_P
B65 L11_N	A60	B60	

GND	C1	D1	B67 L24_P
B67 L17_P	C2	D2	B67 L24_N
B67 L17_N	C3	D3	B67 L20_P
B67 L18_P	C4	D4	B67 L20_N
B67 L18_N	C5	D5	
GND	C6	D6	B67 L16_P
B67 L23_P	C7	D7	B67 L16_N
B67 L23_N	C8	D8	B67 L14_P
B67 L13_N	C9	D9	B67 L14_N
B67 L13_P	C10	D10	
B67 VRP	C11	D11	B67 L12_N
B67 L22_P	C12	D12	B67 L12_P
B67 L22_N	C13	D13	B67 L11_N
B67 L15_N	C14	D14	B67 L11_P
B67 L15_P	C15	D15	
GND	C16	D16	B66 L23_P
B66 L20_P	C17	D17	B66 L23_N
B66 L20_N	C18	D18	B66 L22_P
B66 L14_P	C19	D19	B66 L22_N
B66 L14_N	C20	D20	
B66 VRP	C21	D21	B66 L11_N
B66 L21_N	C22	D22	B66 L11_P
B66 L21_P	C23	D23	B66 L17_P
B66 L13_N	C24	D24	B66 L17_N
B66 L13_P	C25	D25	
GND	C26	D26	B66 L3_N
B66 L15_P	C27	D27	B66 L3_P
B66 L15_N	C28	D28	B66 L1_N
B66 L19_P	C29	D29	B66 L1_P
B66 L19_N	C30	D30	
GND	C31	D31	B64 L10_N
B64 L14_P	C32	D32	B64 L10_P
B64 L14_N	C33	D33	B64 L19_N
B64 L5_N	C34	D34	B64 L19_P
B64 L5_P	C35	D35	
B64 VRP	C36	D36	B64 L22_N
B64 L9_N	C37	D37	B64 L22_P
B64 L9_P	C38	D38	B64 L20_N
B64 L23_N	C39	D39	B64 L20_P
B64 L23_P	C40	D40	
GND	C41	D41	B64 L21_N
B64 L3_N	C42	D42	B64 L21_P
B64 L3_P	C43	D43	B64 L24_N
B64 L2_N	C44	D44	B64 L24_P
B64 L2_P	C45	D45	
GND	C46	D46	B65 L19_N
B65 L23_N	C47	D47	B65 L19_P
B65 L23_P	C48	D48	B65 L20_P
B65 L21_N	C49	D49	B65 L20_N
B65 L21_P	C50	D50	
B65 VRP	C51	D51	B65 L14_P
B65 L12_P	C52	D52	B65 L14_N
B65 L12_N	C53	D53	B65 L22_N
B65 L24_N	C54	D54	B65 L22_P
B65 L24_P	C55	D55	PERSTO
GND	C56	D56	B65 L13_P
B65 L17_P	C57	D57	B65 L13_N
B65 L17_N	C58	D58	B65 L16_N
B65 L18_N	C59	D59	B65 L16_P
B65 L18_P	C60	D60	

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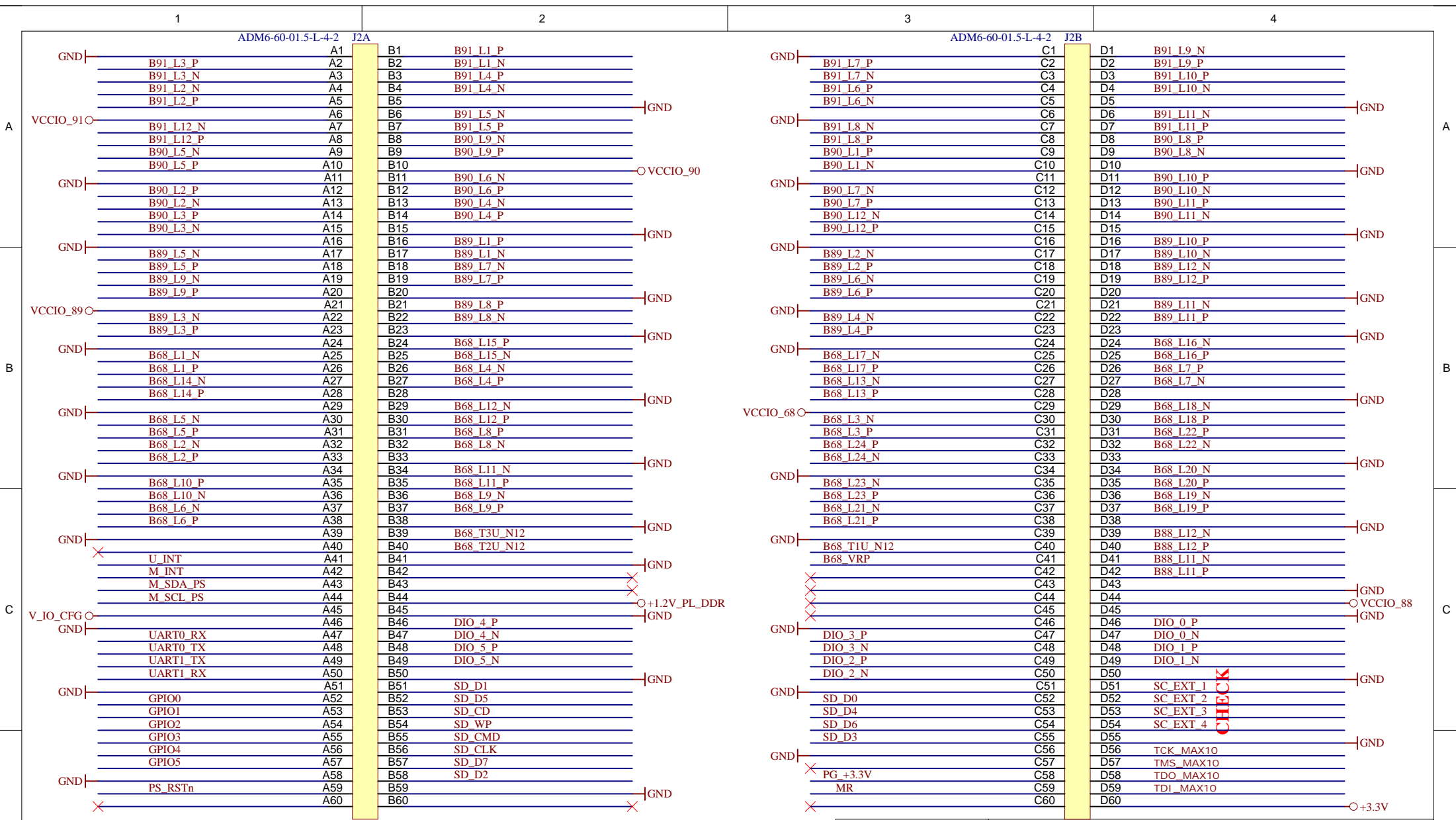
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Title: TE0865 – J1_CONNECTOR		
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ADM6-60-01.5-L-4-2 J4A

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

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

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



Title: TE0865 – J4_CONNECTOR		
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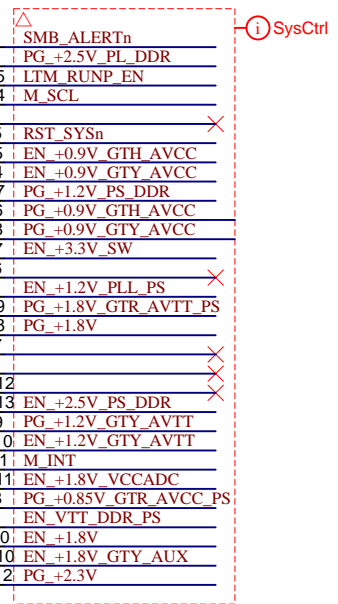
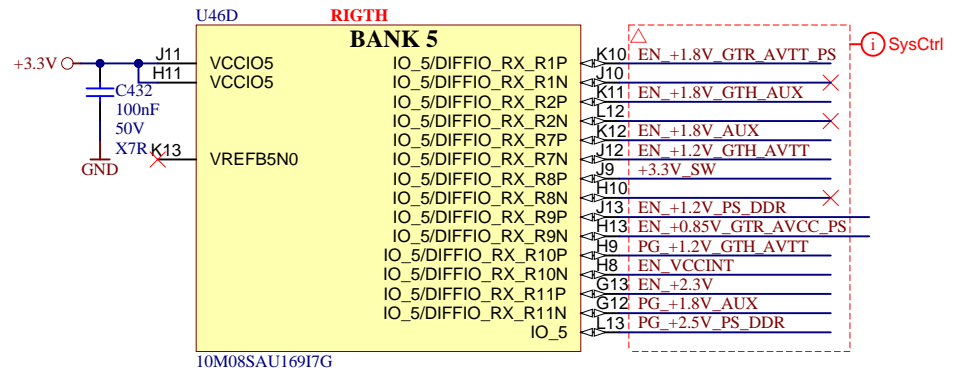
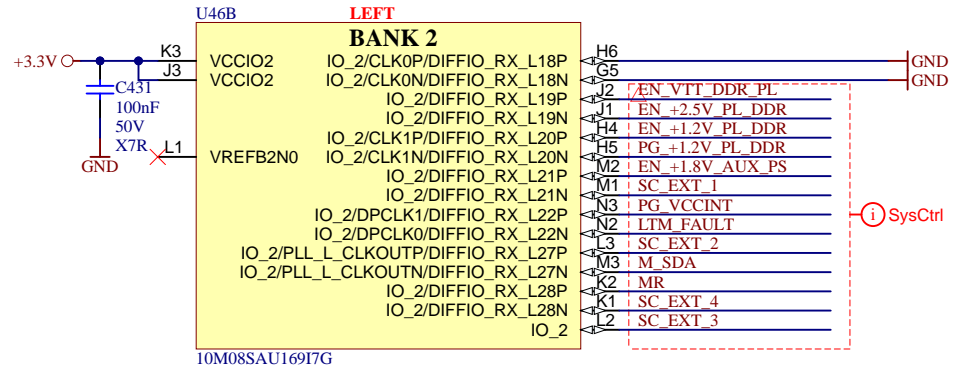
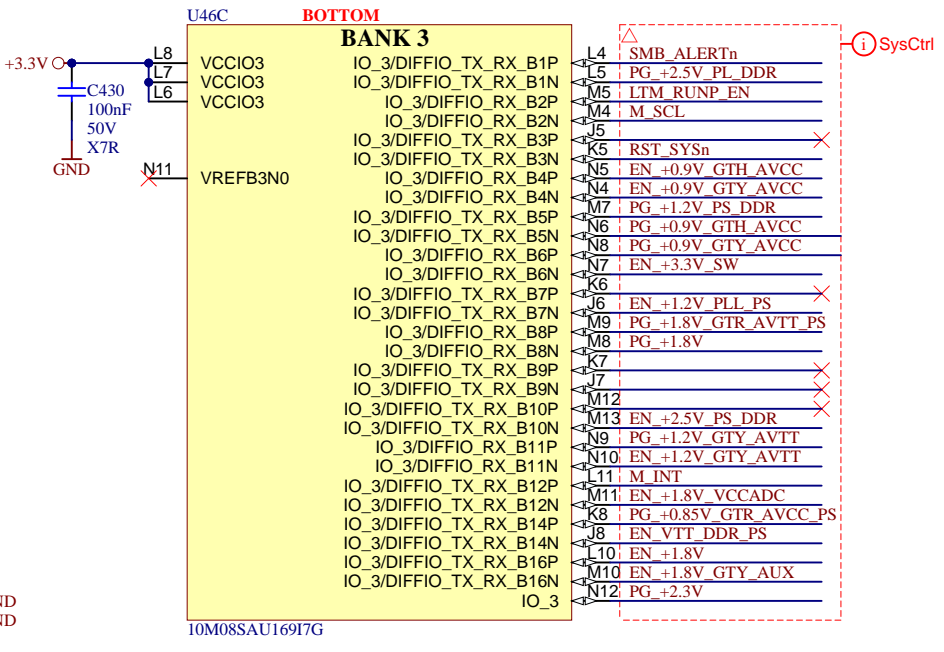
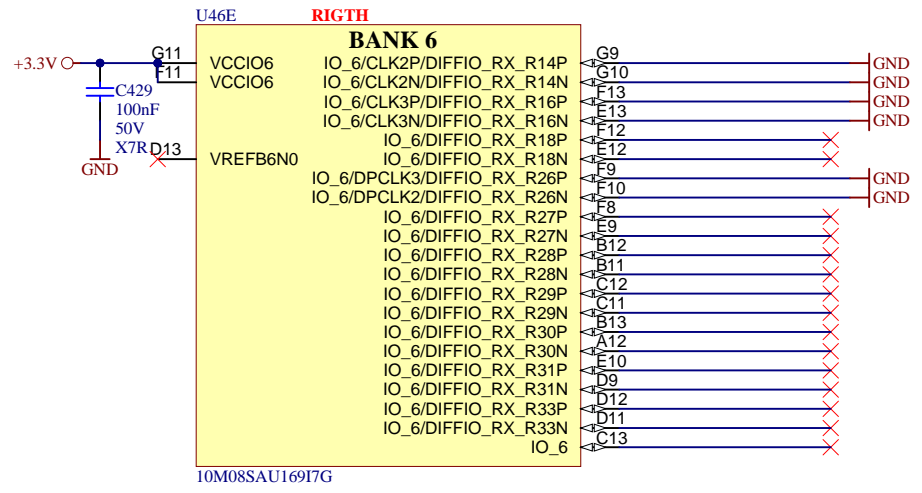
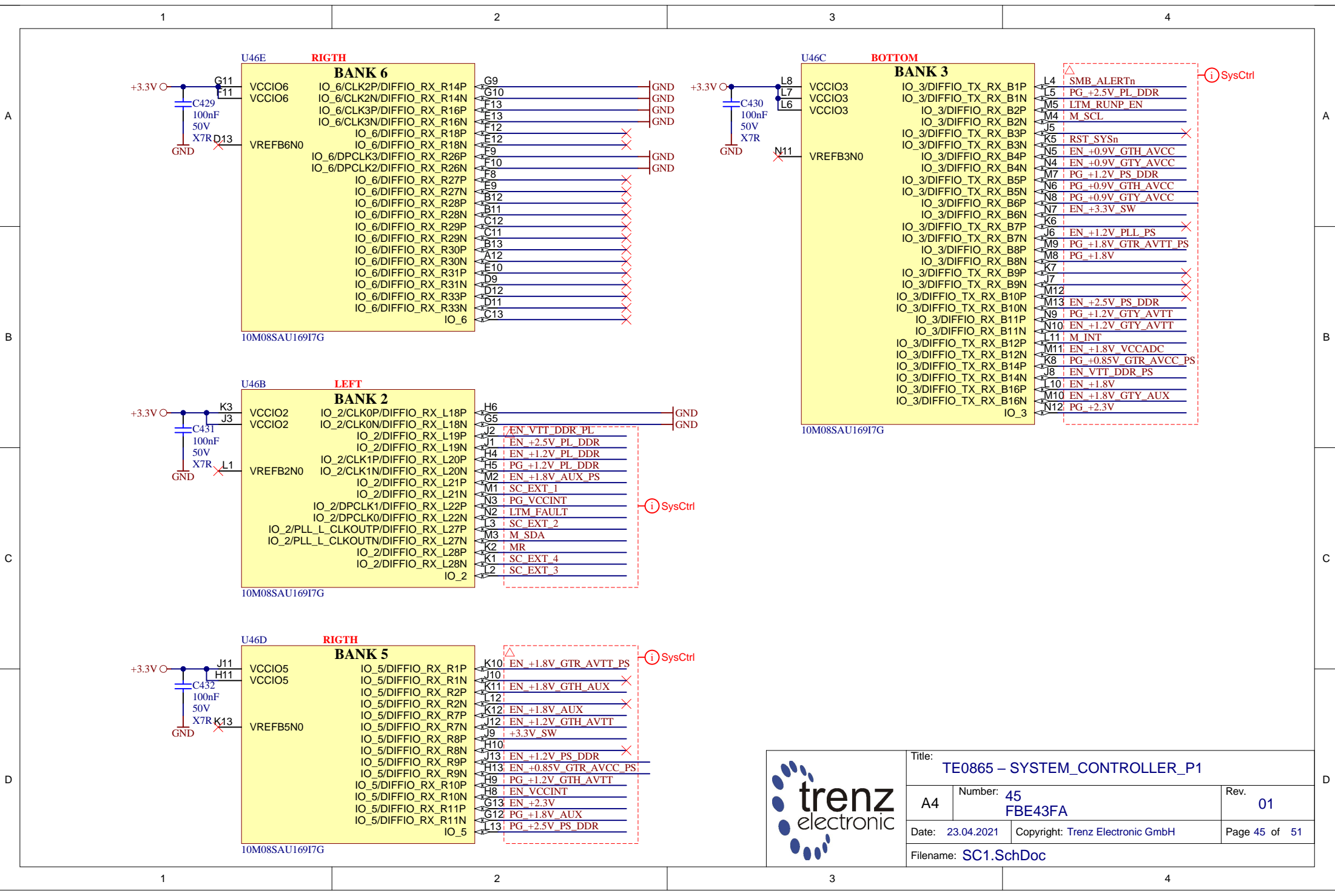
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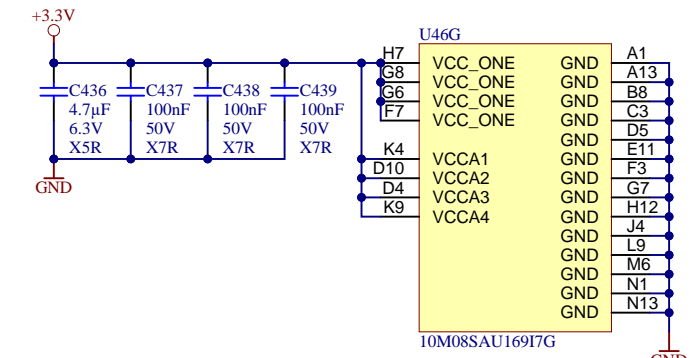
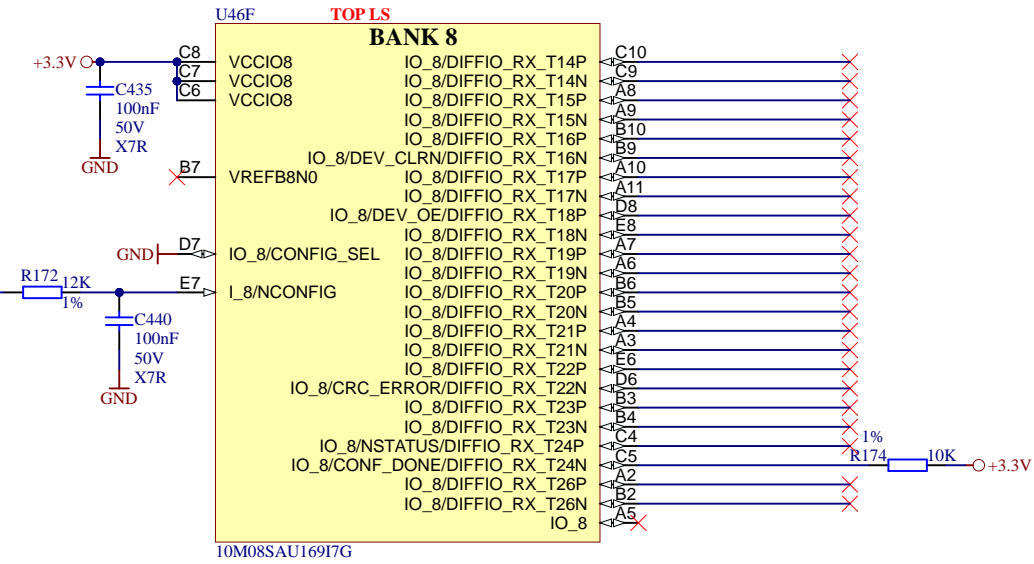
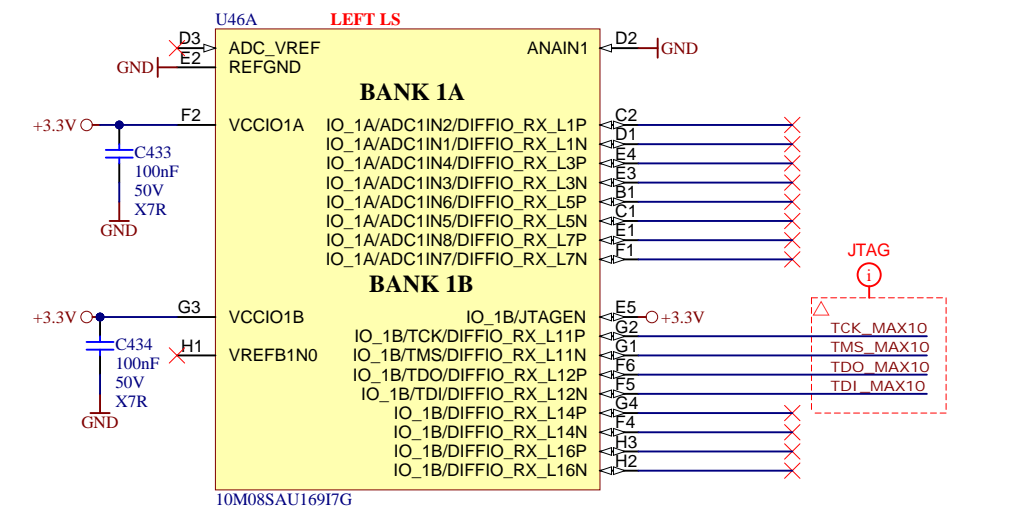




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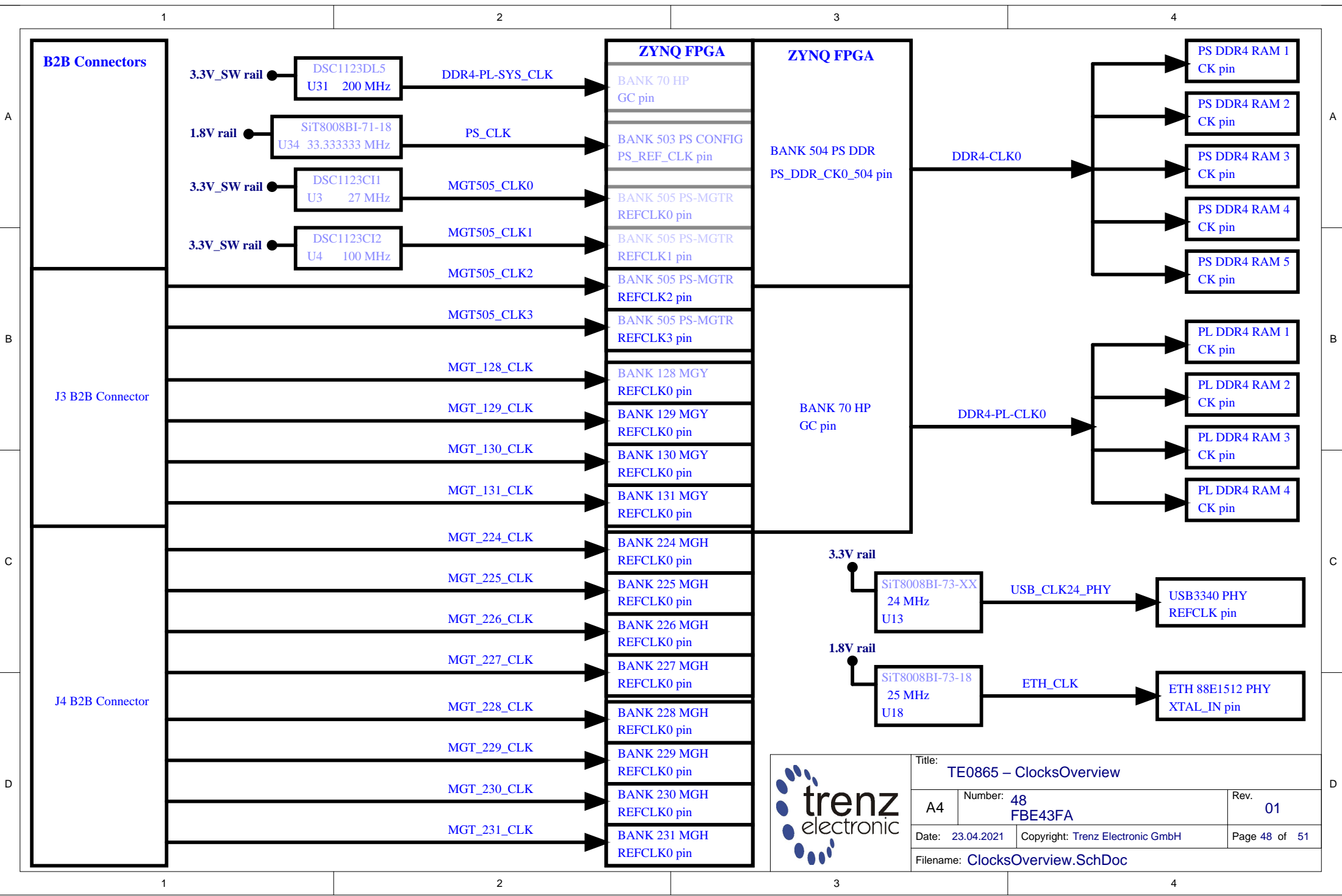
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A4	Number: 45 FBE43FA	Rev. 01
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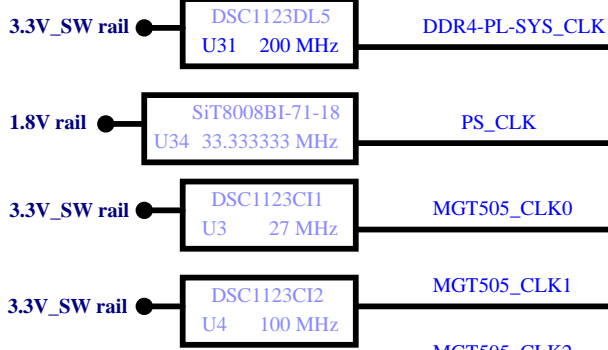


			Title: <b>TE0865 – SYSTEM_CONTROLLER_P2</b>	
			A4	Number: <b>46 FBE43FA</b>
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**B2B Connectors**



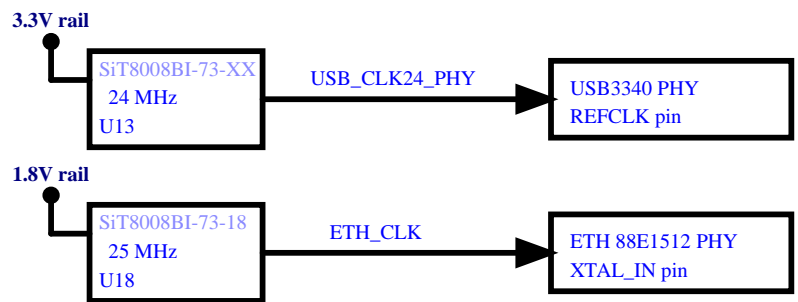
**ZYNQ FPGA**

- 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
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- BANK 230 MGH REFCLK0 pin
- BANK 231 MGH REFCLK0 pin

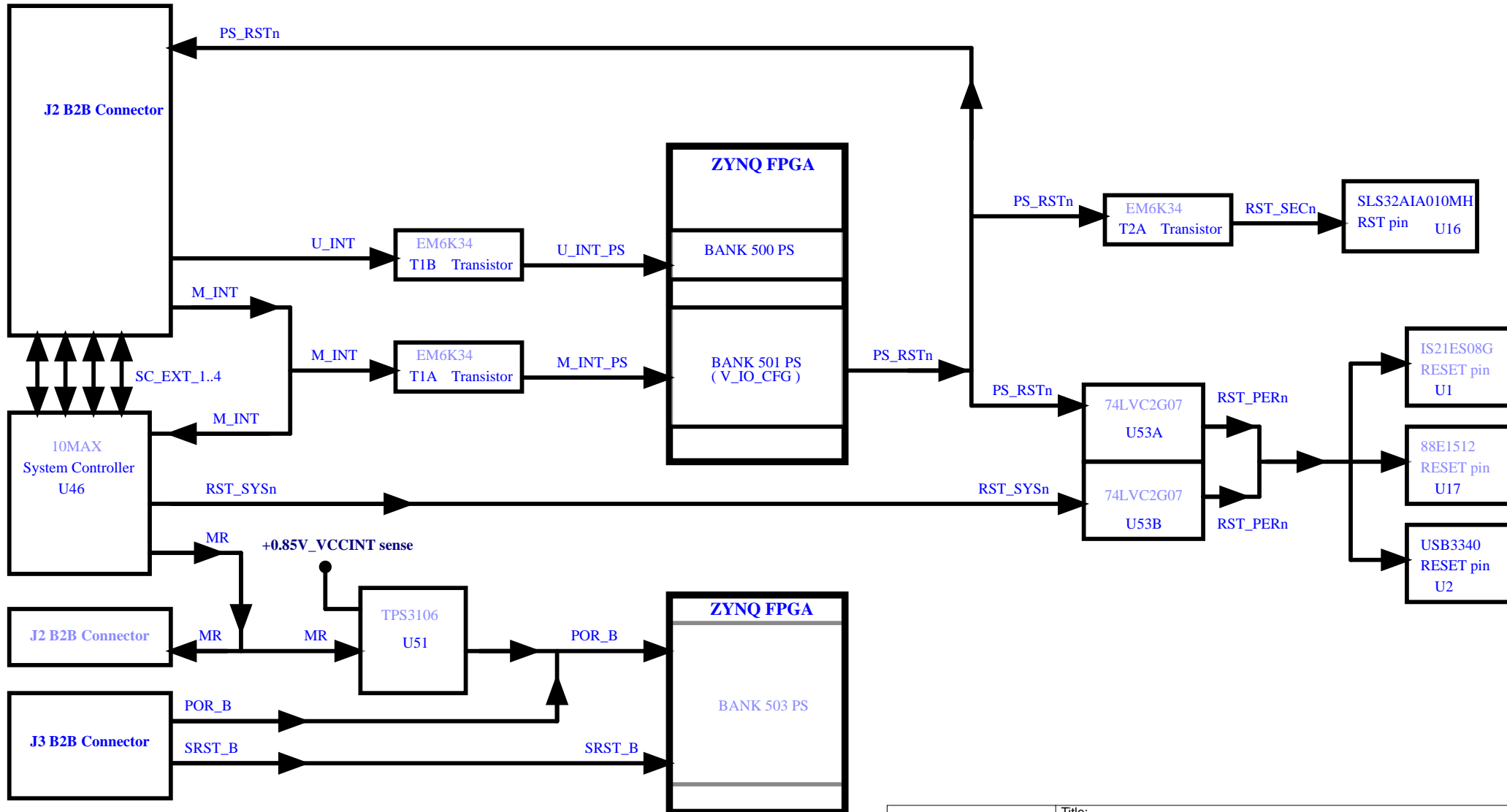
**ZYNQ FPGA**

- BANK 504 PS DDR PS\_DDR\_CK0\_504 pin
- BANK 70 HP GC pin

- PS DDR4 RAM 1 CK pin
- PS DDR4 RAM 2 CK pin
- PS DDR4 RAM 3 CK pin
- PS DDR4 RAM 4 CK pin
- PS DDR4 RAM 5 CK pin
- PL DDR4 RAM 1 CK pin
- PL DDR4 RAM 2 CK pin
- PL DDR4 RAM 3 CK pin
- PL DDR4 RAM 4 CK pin



Title: TE0865 – ClocksOverview		
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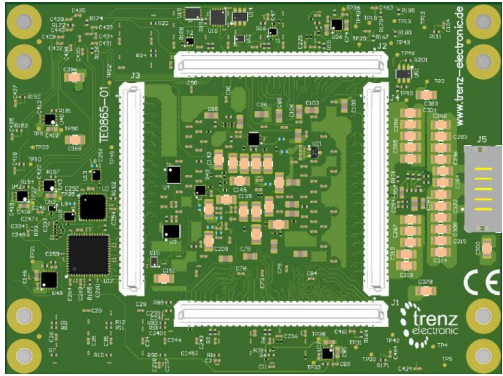
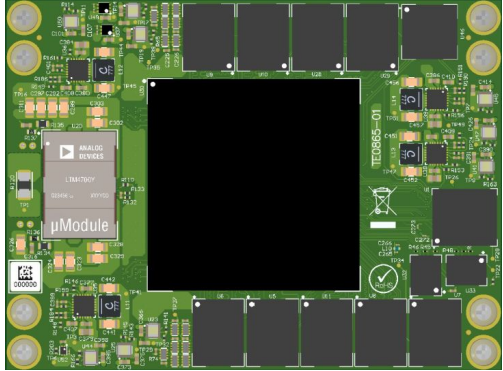
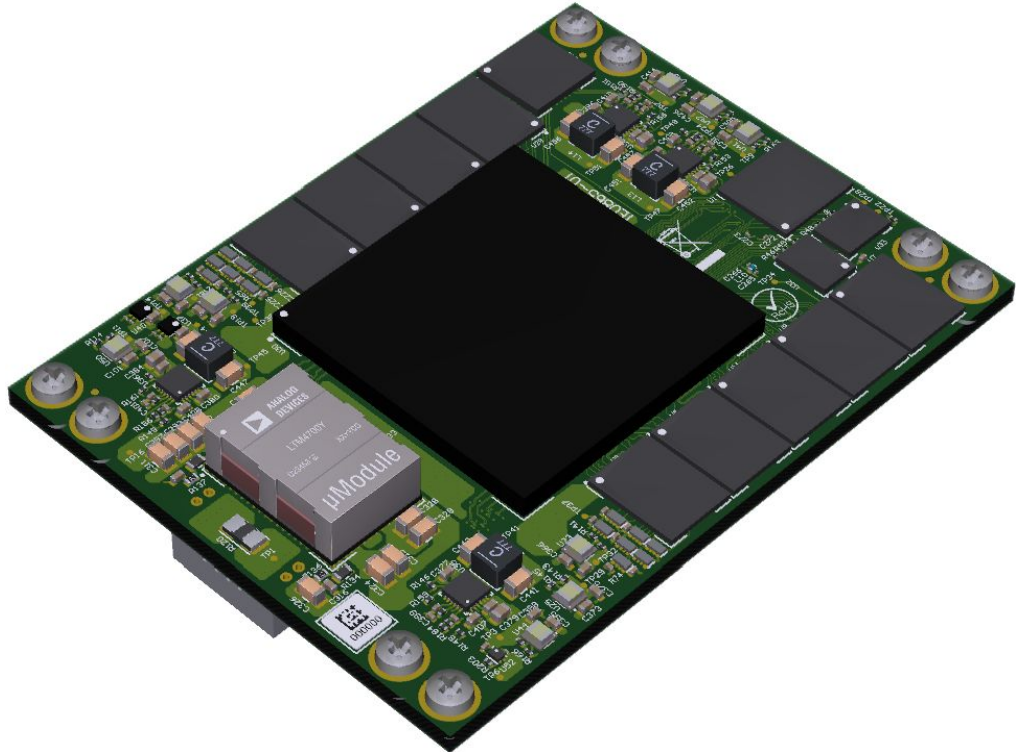
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Regarding the usage of our schematics and alike documentation for Trenz module TE0865.

Project is protected under copyright and we strongly and strictly prohibit the reverse engineering or recreation, even if the design is just adapted or modified. TE0865 is protected under such right and in case of plagiarism we will have to do anything necessary in order to protect our assets.

Schematics and other handouts serve for informational purposes only!

	Title: <b>TE0865 - Legal Notices</b>		
	A4	Number: <b>50 FBE43FA</b>	Rev. <b>01</b>
	Date: <b>23.04.2021</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>50</b> of <b>51</b>
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REV	Description	
-01	Initial revision	AL
-01a	1. Changed U46: 10M08SAU169C8G -> 10M08SAU169I7G	VY

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	Title: TE0865 – Revision_Changes		
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