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- U_B12
B12.SchDoc
- U_B13
B13.SchDoc
- U_B14
B14.SchDoc
- U_B15
B15.SchDoc
- U_B16
B16.SchDoc
- U_B34
B34.SchDoc

- U_FPGA-MGT
FPGA-MGT.SchDoc
- U_FPGA-CFG
FPGA-CFG.SchDoc
- U_FPGA-MISC
FPGA-MISC.SchDoc
- U_FPGA-PWR
FPGA-PWR.SchDoc

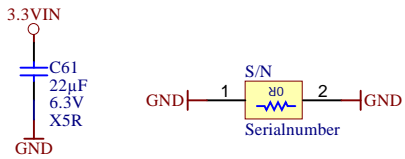
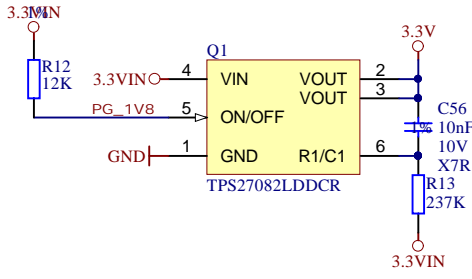
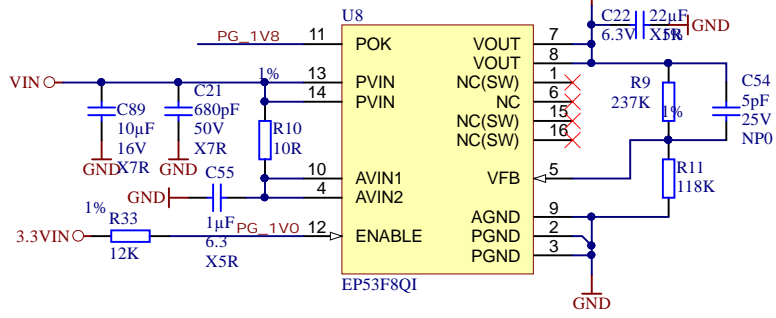
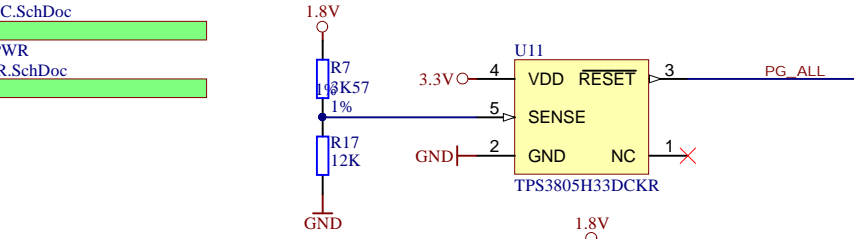
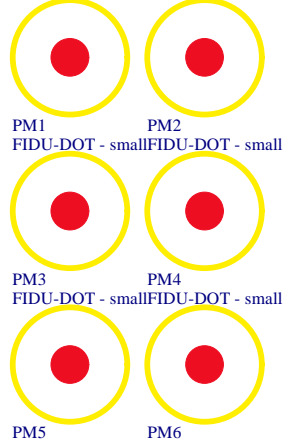
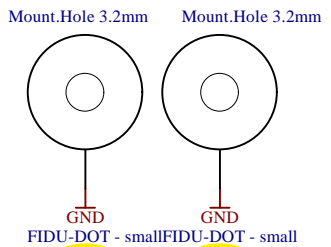
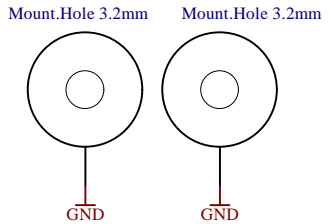
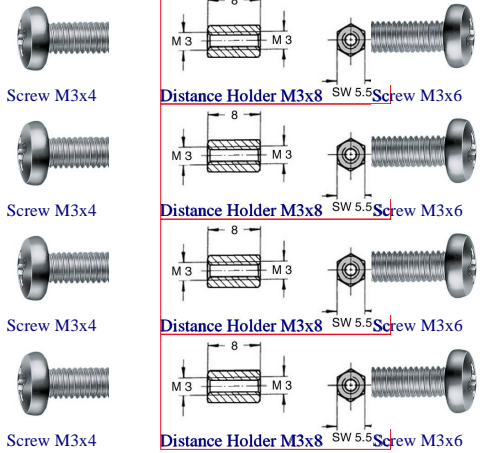
- U_PWR1
PWR1.SchDoc
- U_PWR2
PWR2.SchDoc

- U_Clock
Clock.SchDoc

- U_B2B-Connectors
B2B-Connectors.SchDoc

- U_B33
B33.SchDoc

Top of Board



Serial
Serial
Serialnumber 6,3 x 6,3mm

Assembly variant	B3E-1-AF
Created by	VY
Modified by	VY
Modified at	2019-05-12
SVN Revision	5578



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Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH
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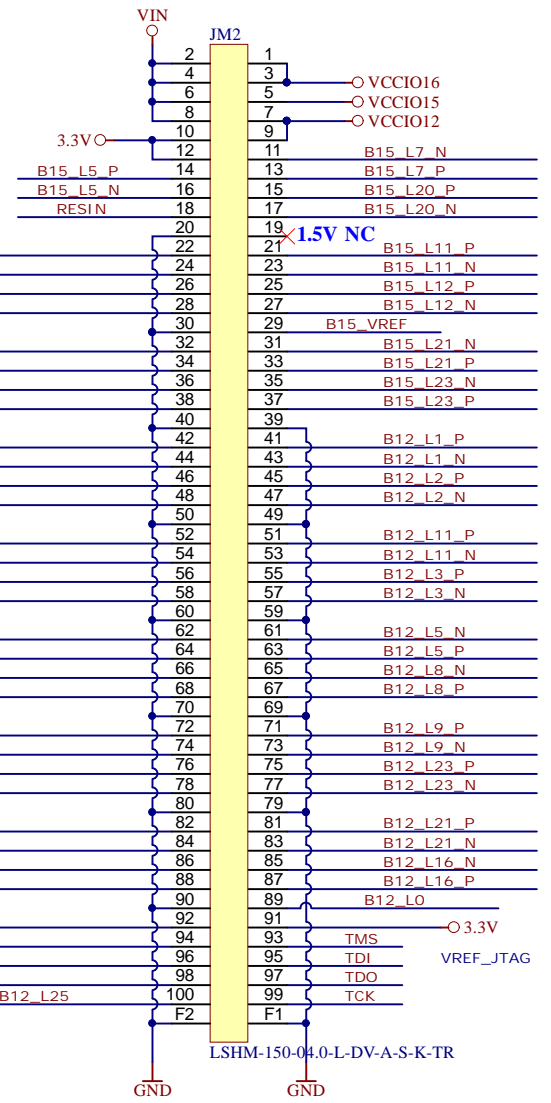
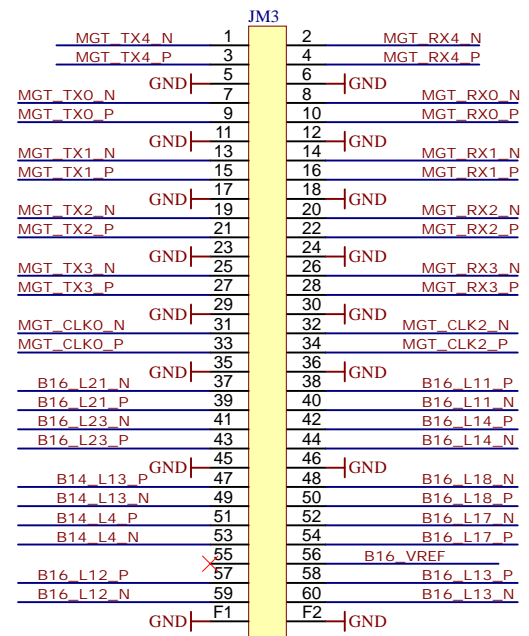
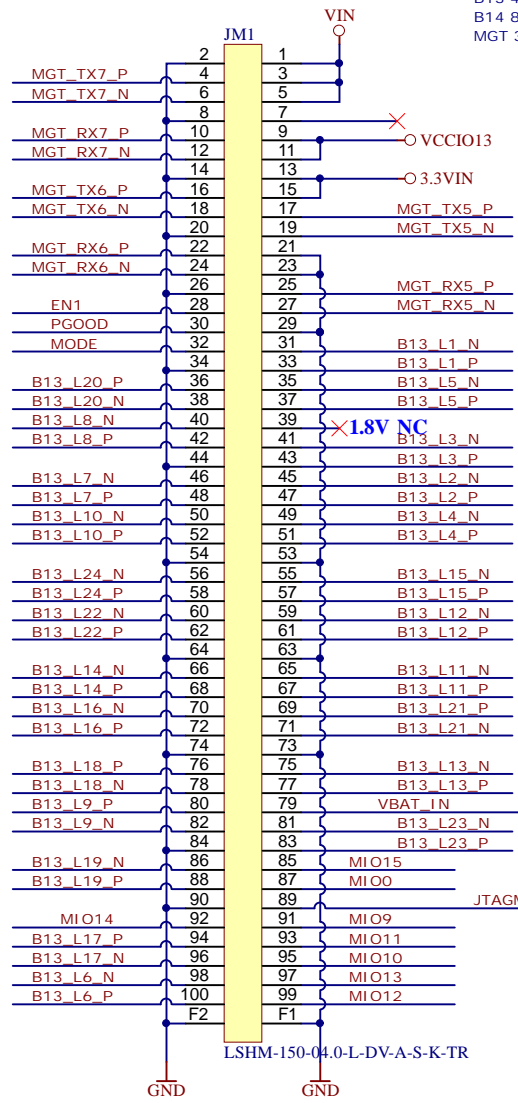
3

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B13 48 IO, 24 LVDS Pairs
 B14 8 IO, 3.3V
 MGT 3 Lanes

B16 16 IO, 8 LVDS Pairs
 MGT 4 + 1 Lanes
 B14 4 IO, 3.3V

B15 18 IO, 9 LVDS Pairs
 B12 48 IO, 24 LVDS Pairs
 B12 2 IO



TE0720 Compatibility

MIO0 8 pins => 8 IO B14
 USB D+,D-, vbusen,otg_id => 4 IO B14
 SGMII => MGT
 MIO1(SDCARD) => MGT
 ETH MD1 => MGT
 B34 => B16, MGT
 B35 => B13
 B13 => B12
 B33 => B15

Clock Capable I/O
 All pins named
 Bxx_11_X
 Bxx_12_X
 Bxx_13_X
 Bxx_14_X
 Are Clock Capable I/O's



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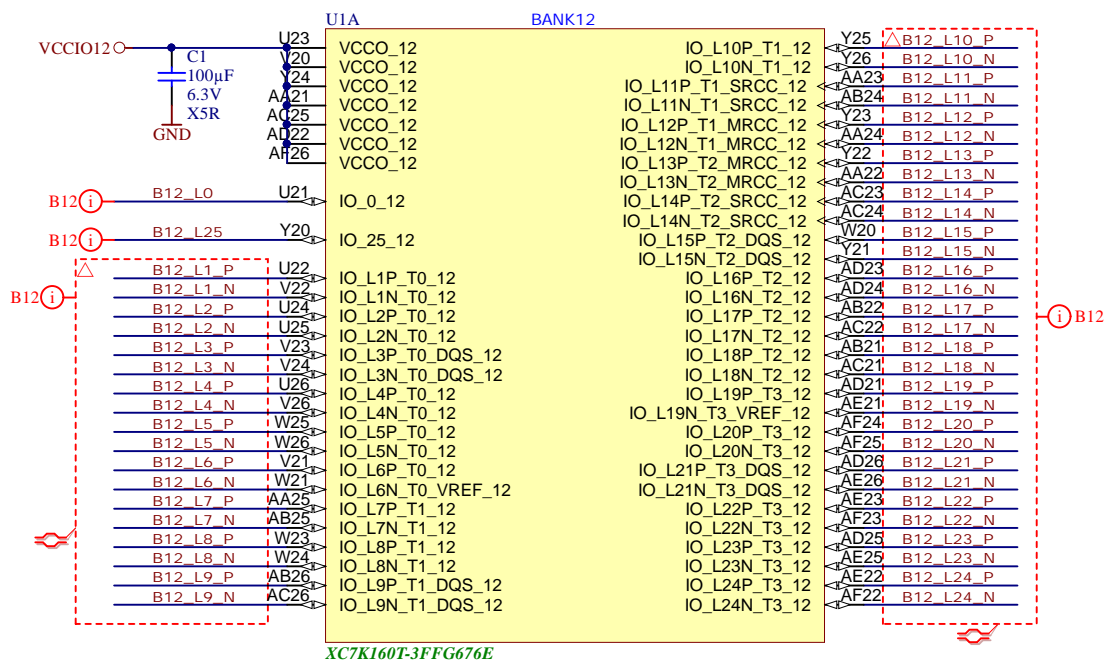
4

B12_FIXED (i) △

- B12_L11_P
- B12_L11_N
- B12_L12_P
- B12_L12_N
- B12_L13_P
- B12_L13_N
- B12_L14_P
- B12_L14_N

- B12_L19_P
- B12_L19_N
- B12_L6_P
- B12_L6_N

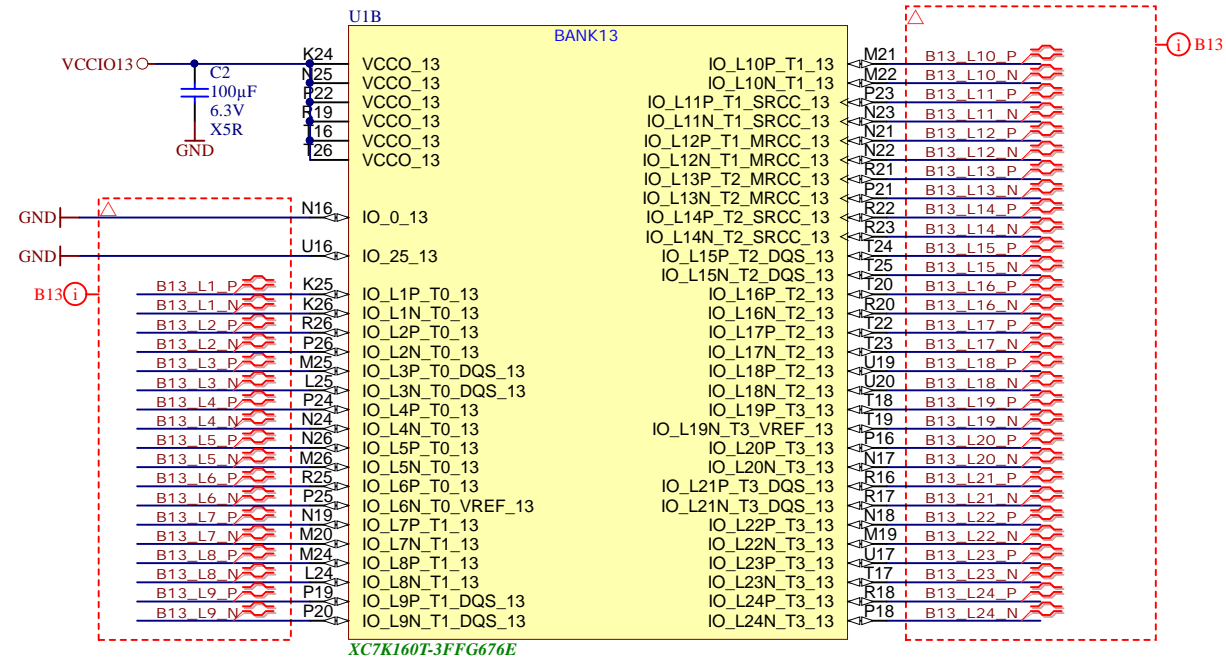
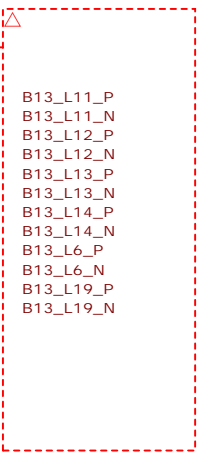
K70T version does not have this bank!



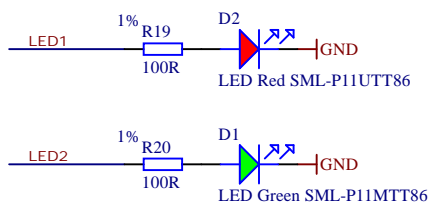
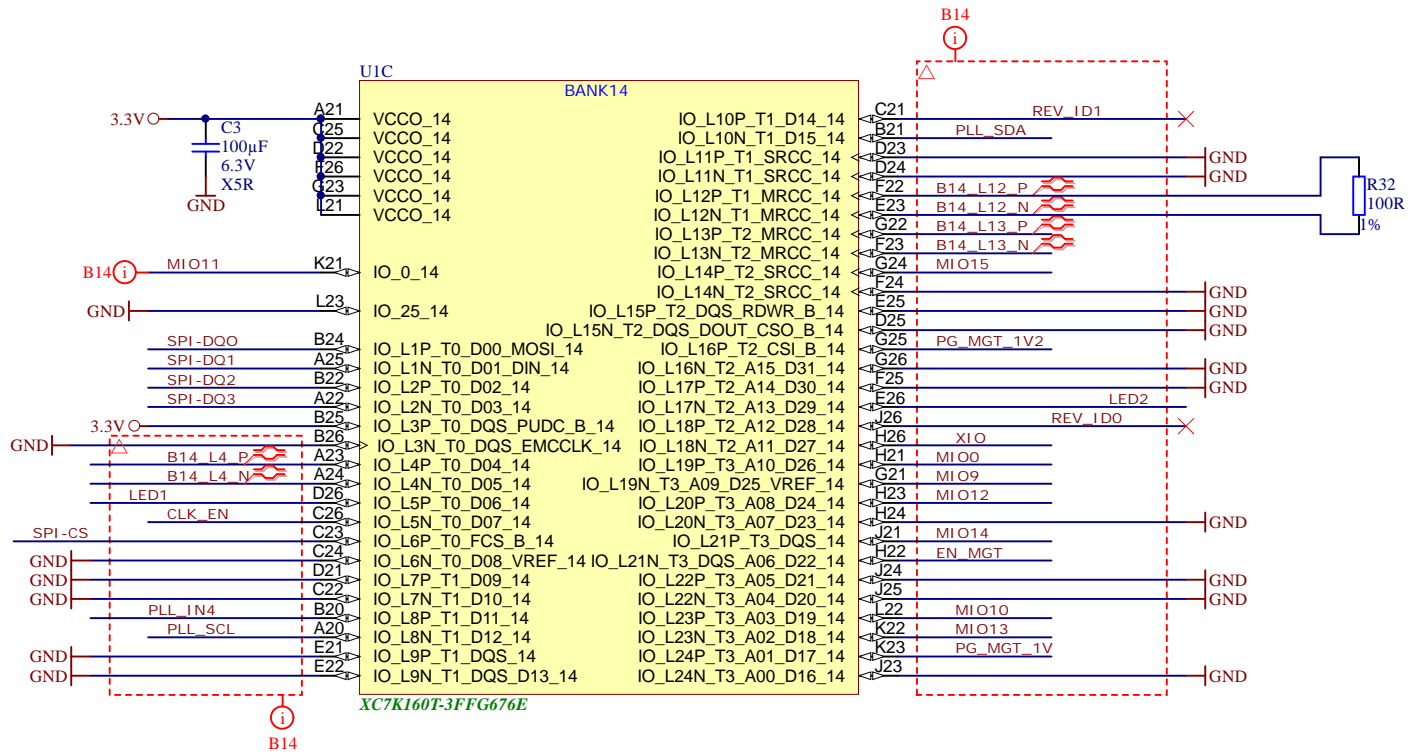
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	Title: TE0741		
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	Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH	Page3 of 17
	Filename: B12.SchDoc		

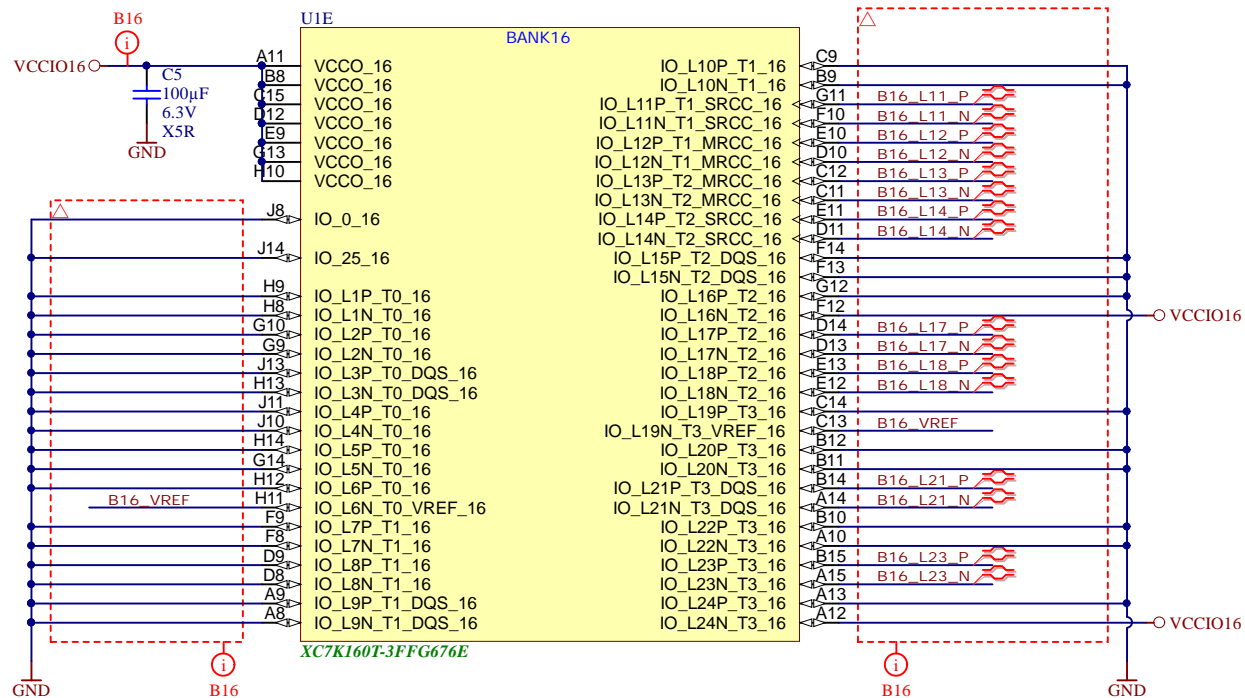
B13_FIXED (i)



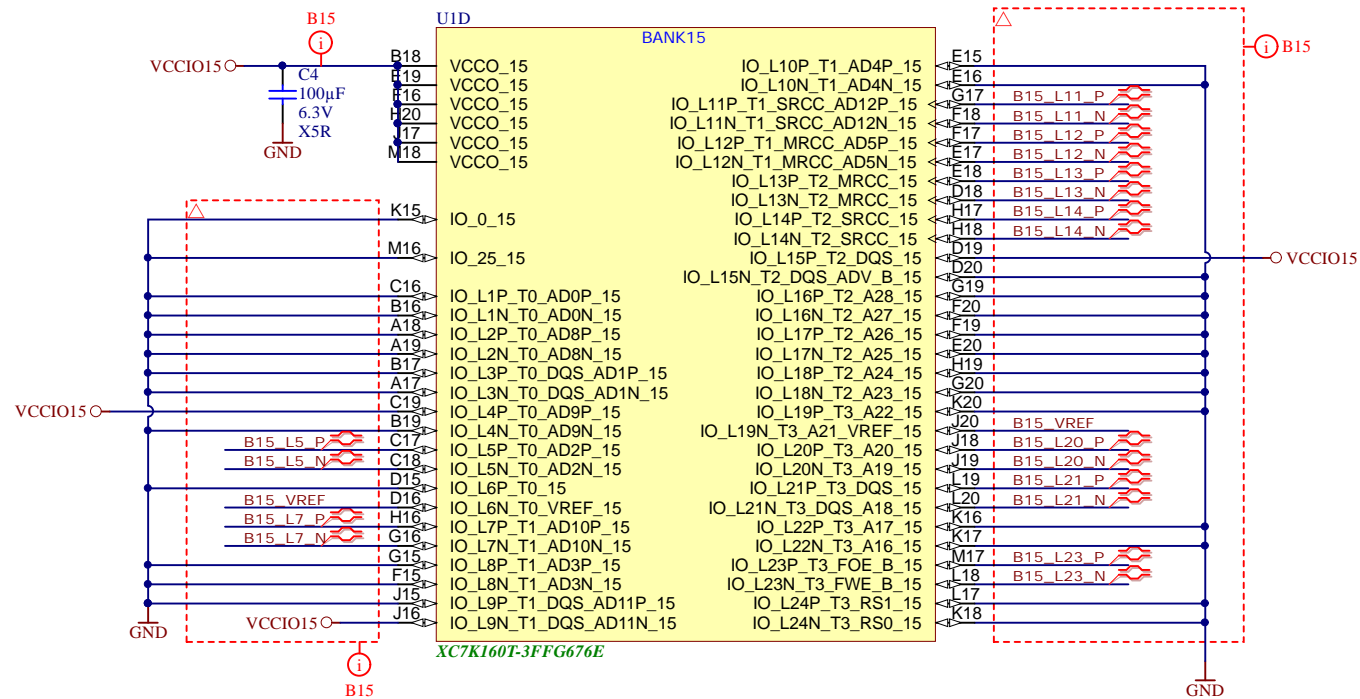

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	Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH	Page 4 of 17
	Filename: B13.SchDoc		



		Title: TE0741	
		A4	Number: TE0741 B3E-1-AF
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Filename: B14.SchDoc			



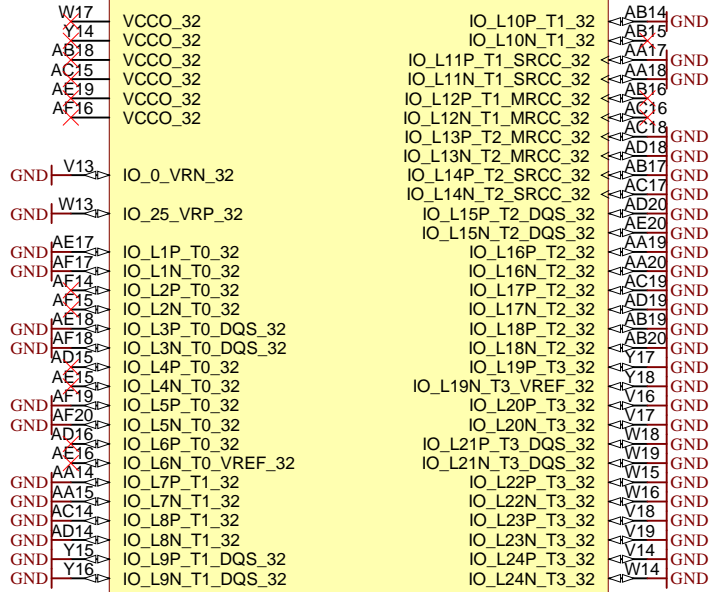
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A4	Number: TE0741 B3E-1-AF	Rev. 03
Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH	Page 6 of 17
Filename: B16.SchDoc		

Title: TE0741		
A4	Number: TE0741 B3E-1-AF	Rev. 03
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Filename: B15.SchDoc		

UIF

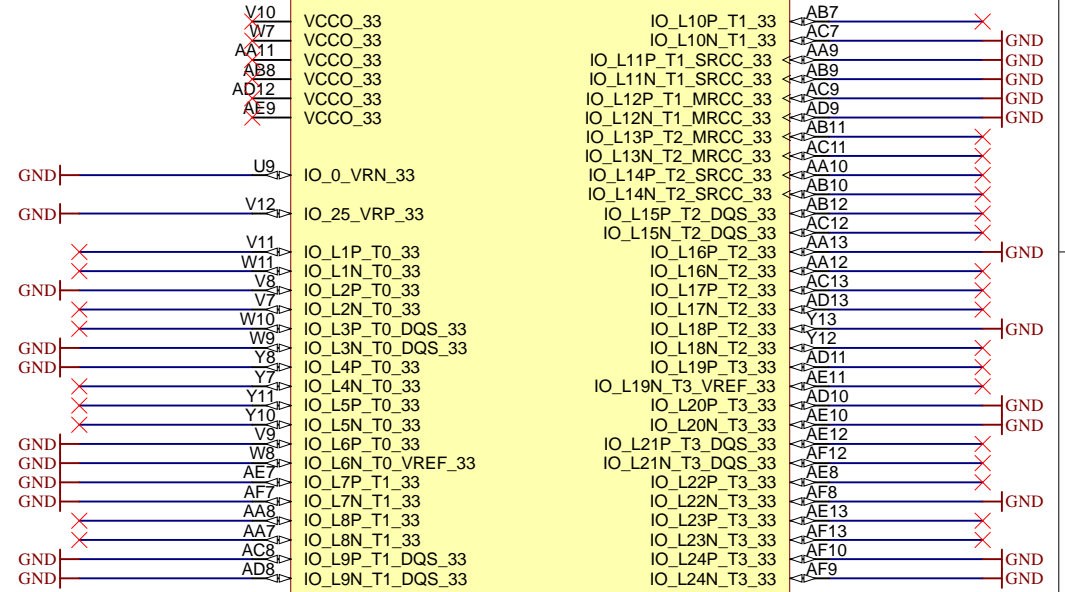
BANK32



XC7K160T-3FFG676E

UIG

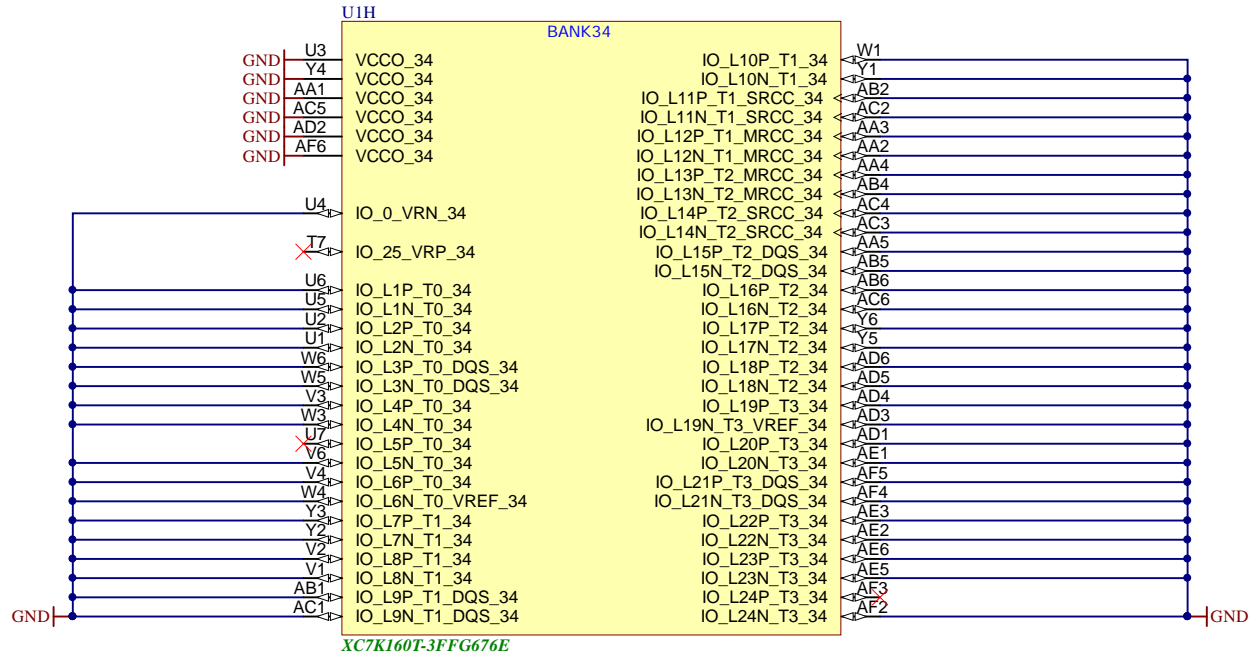

BANK33



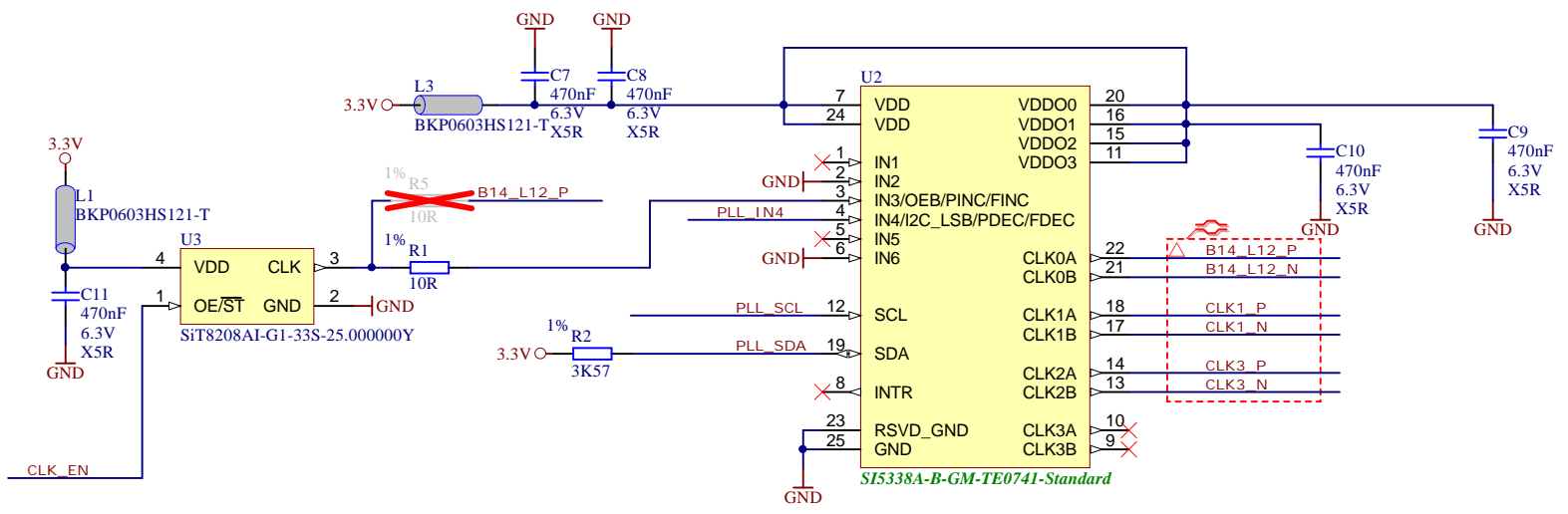
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Filename: B33.SchDoc		

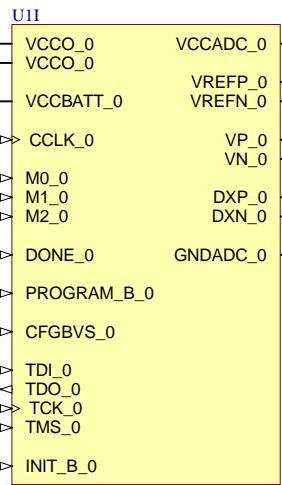



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Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH	Page 9 of 17
Filename: B34.SchDoc		

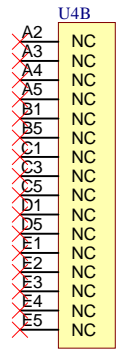
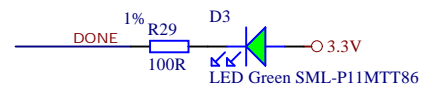
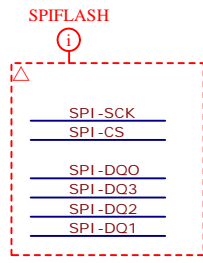
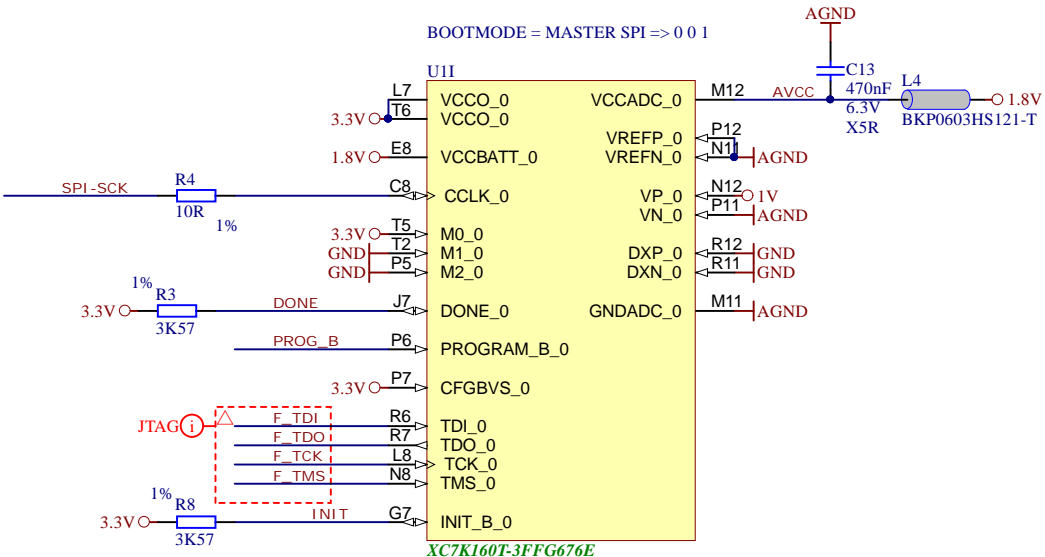


		Title: TE0741	
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Date: 2016-10-25		Copyright: 2013 Trenz Electronic GmbH	
Filename: Clock.SchDoc		Page 10 of 17	

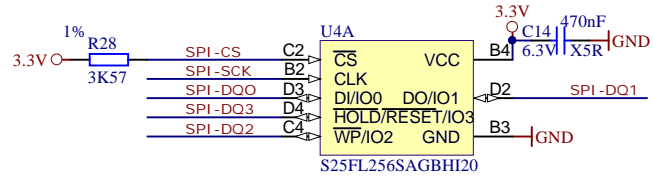
BOOTMODE = MASTER SPI => 0 0 1



XC7K160T-3FFG676E



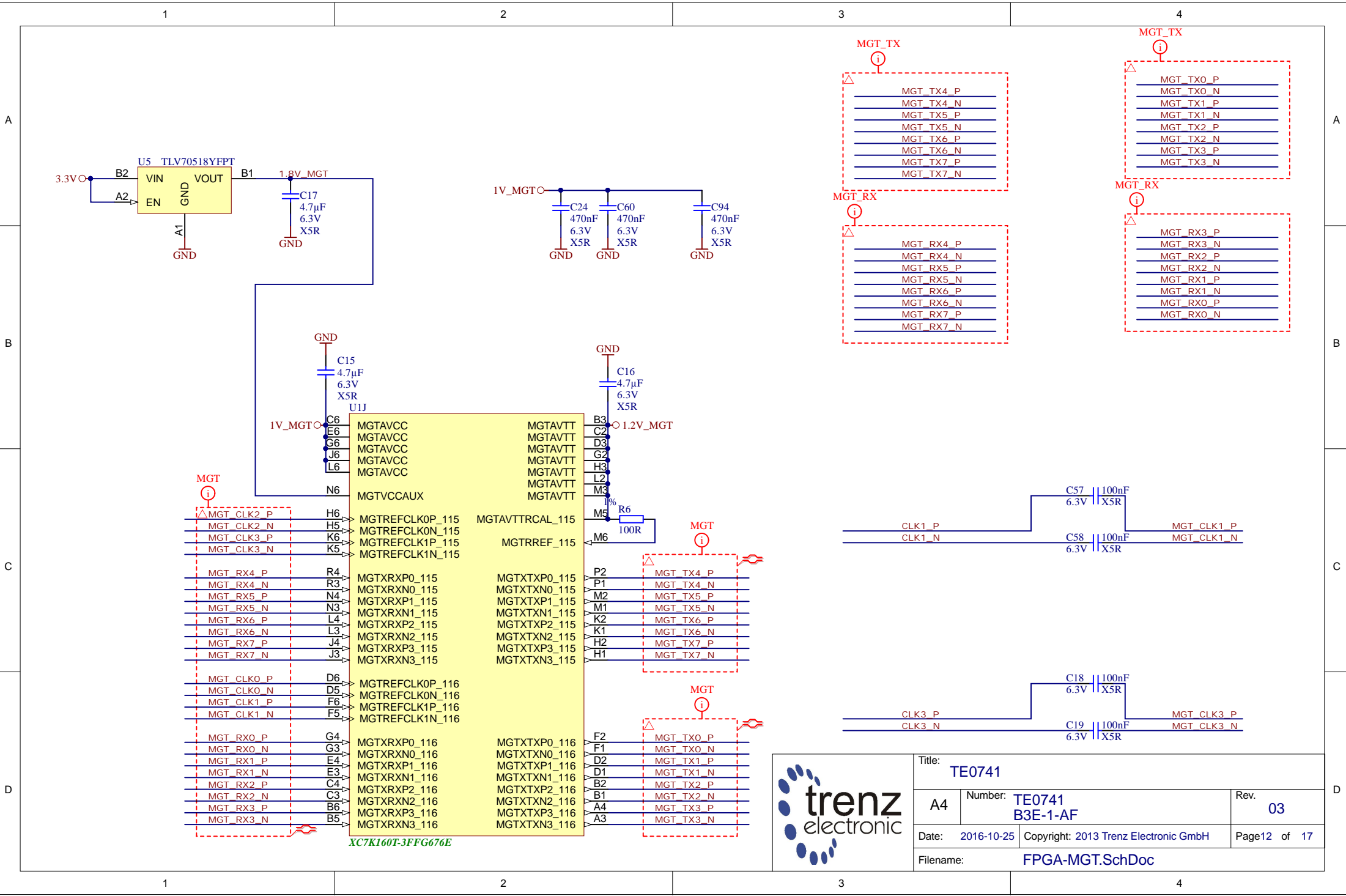
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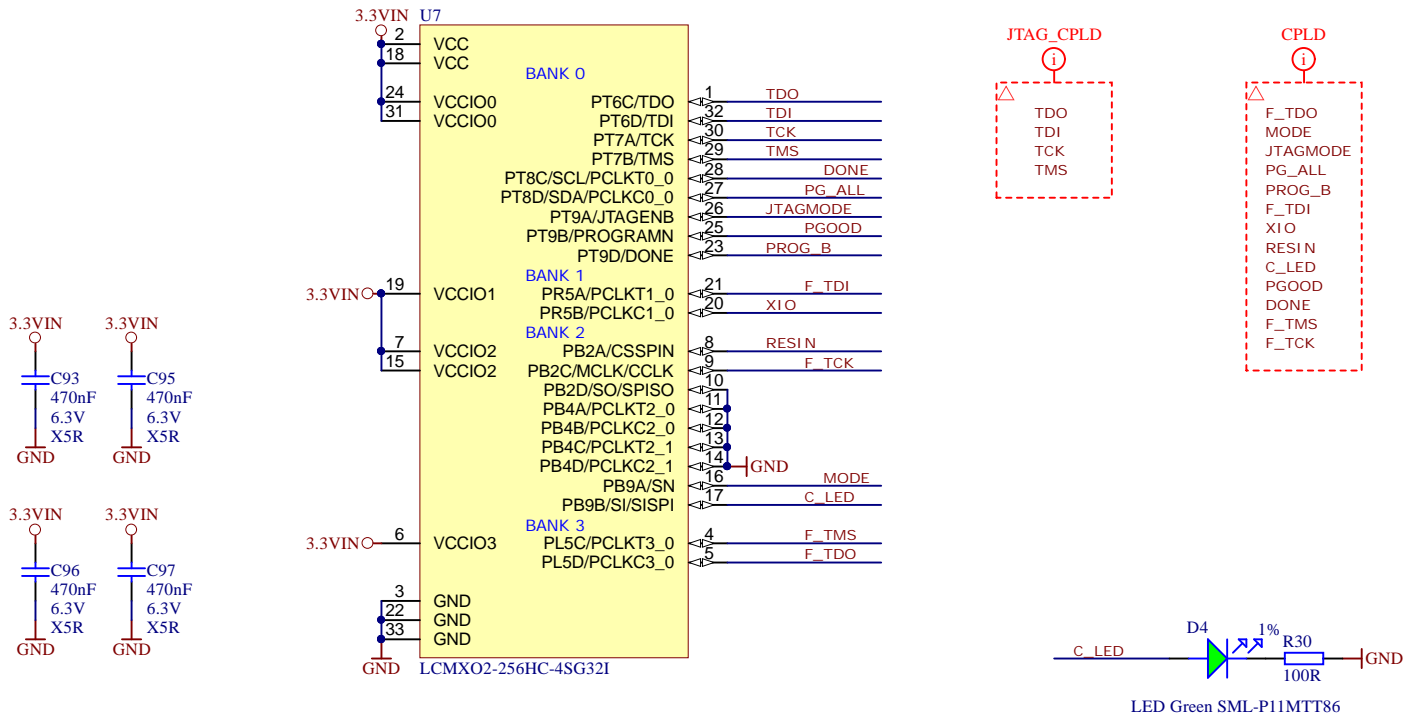
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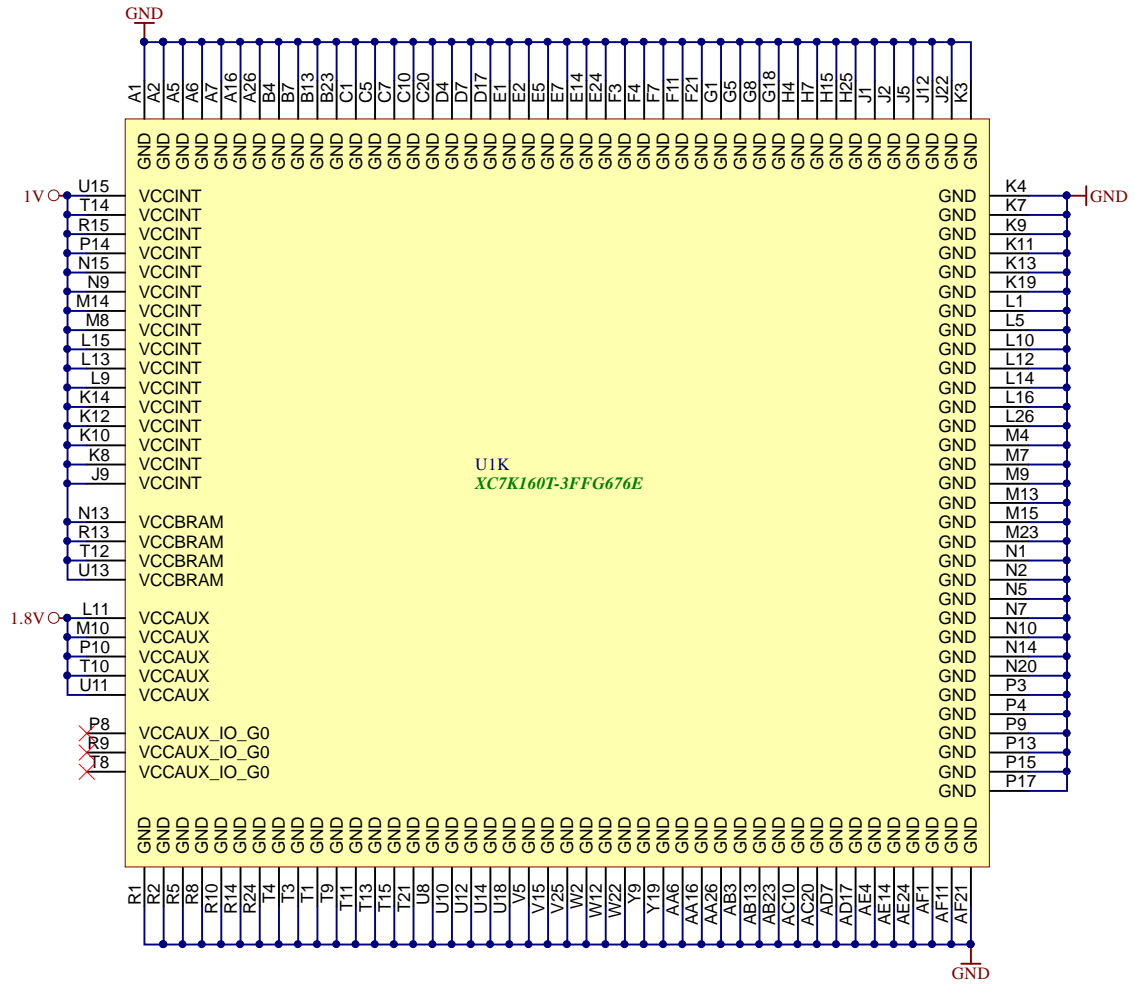
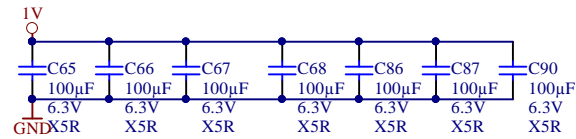
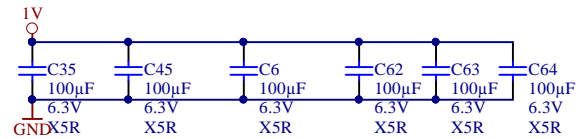
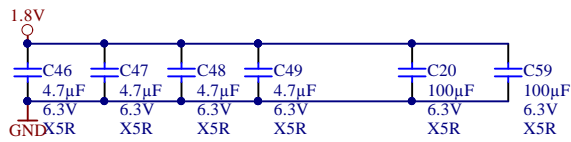
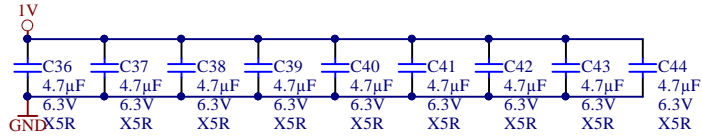
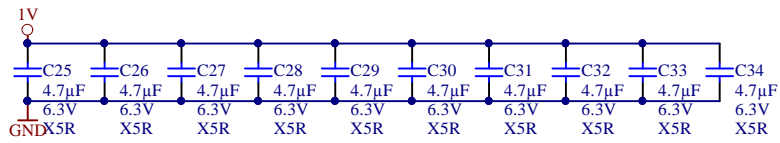
Title: TE0741		
A4	Number: TE0741 B3E-1-AF	Rev. 03
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Filename: FPGA-CFG.SchDoc		



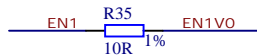
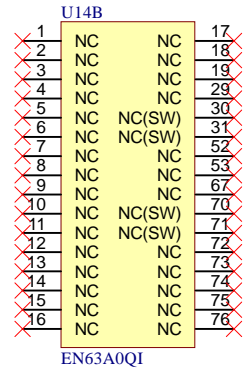
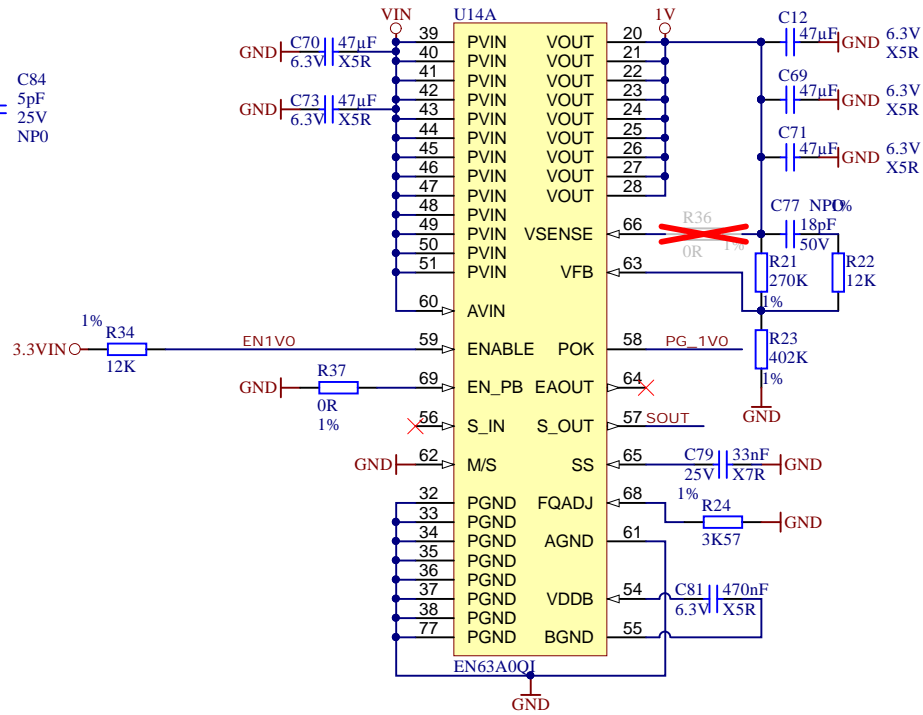
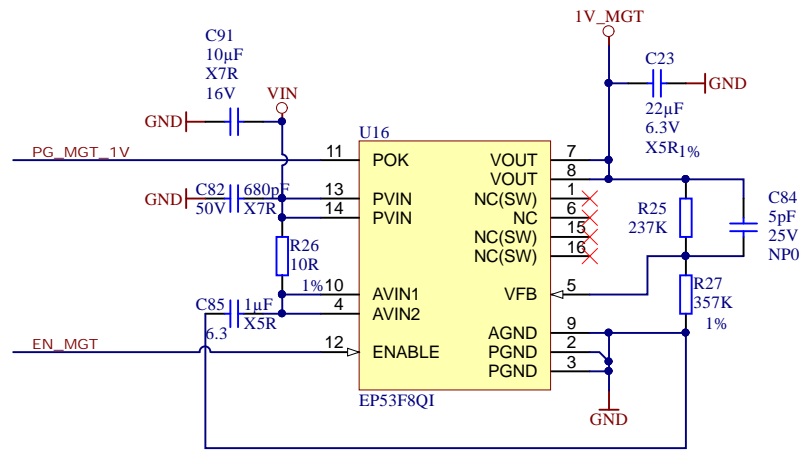
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A4	Number: TE0741 B3E-1-AF	Page 12 of 17
Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH	
Filename: FPGA-MGT.SchDoc		



		Title: TE0741	
		A4	Number: TE0741 B3E-1-AF
Date: 2016-10-25		Copyright: 2013 Trenz Electronic GmbH	
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Filename: FPGA-MISC.SchDoc			



Title: TE0741		
A4	Number: TE0741 B3E-1-AF	Rev. 03
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Filename: FPGA-PWR.SchDoc		



A Not mount if baseboard EN1 circuit cause problems

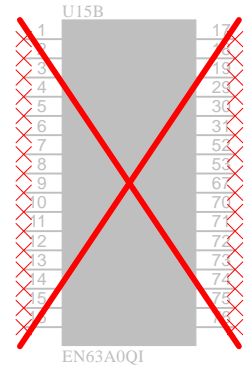
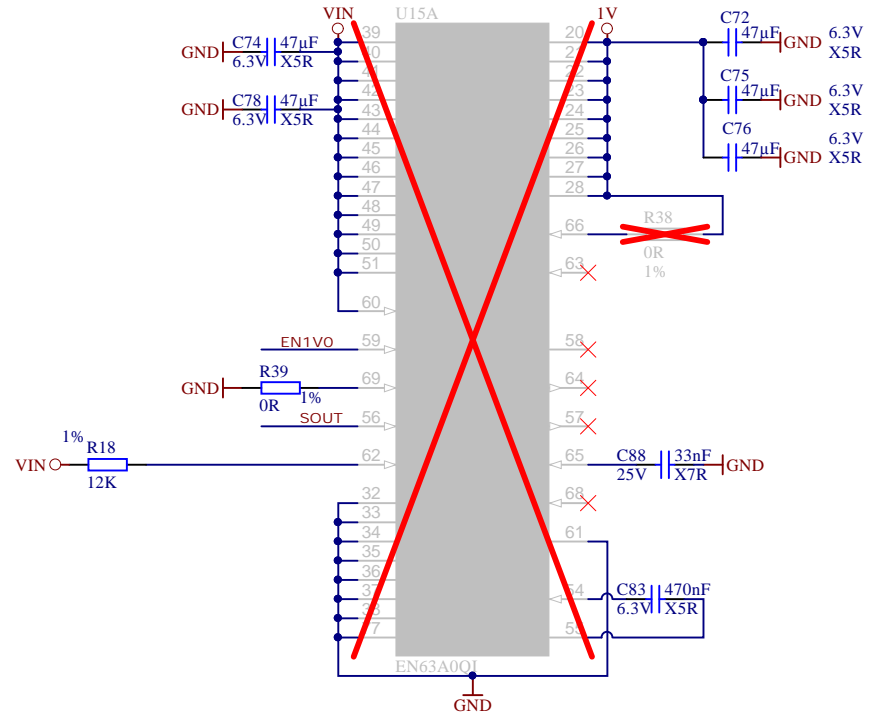
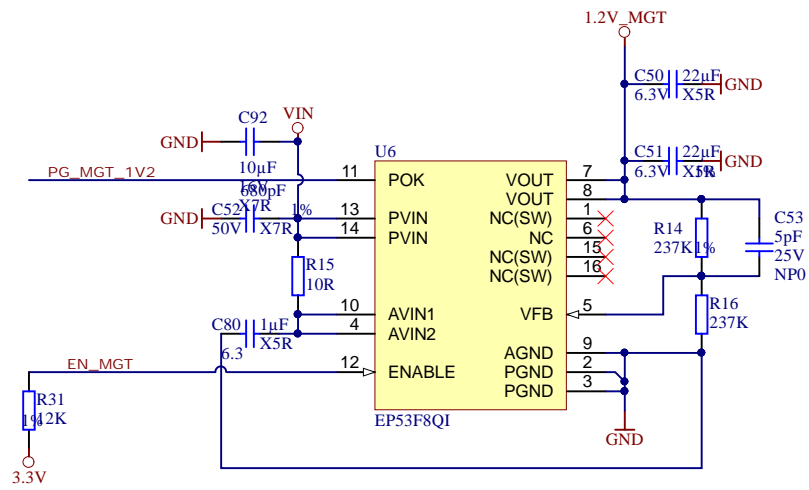
Pre-bias feature is not available for parallel operations

R36 R37 MODE EN63A0QI

OK X | enable pre-bias start-up (available when U14 or U15 as DNP)
 X OK | disable pre-bias start-up



Title: TE0741		
A4	Number: TE0741 B3E-1-AF	Rev. 03
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Filename: PWR1.SchDoc		



Pre-bias feature is not available for parallel operations

R38	R39	MODE	EN63A0QI
OK	X		enable pre-bias start-up (available when U14 or U15 as DNP)
X	OK		disable pre-bias start-up

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	Filename: PWR2.SchDoc		

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CHANGES REV02 to REV03

- 1) fixed connection DCDC for parallel operations
- 2) update Razorbeam Connectors, full update lib
- 3) added serial number (traceability pad)
- 4) changed ferrite beads L1..L4 size 0402 on BKP0603HS121-T
- 5) added thermal vias to mounting holes

A

A

B


B

C

C

D

D

	Title: TE0741 - Changes list		
	A4	Number: TE0741 B3E-1-AF	Rev. 03
	Date: 2016-10-25	Copyright: Trenz Electronic GmbH	Page 17 of 17
	Filename: Revision_Changes.SchDoc		

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