

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

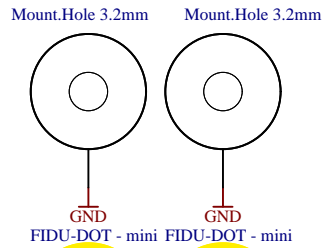
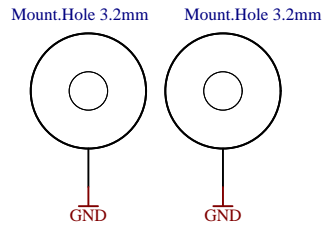
U\_PWR1  
PWR1.SchDoc  
U\_PWR2  
PWR2.SchDoc

U\_Clock  
Clock.SchDoc

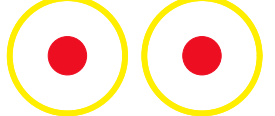
U\_B2B-Connectors  
B2B-Connectors.SchDoc

U\_B33  
B33.SchDoc

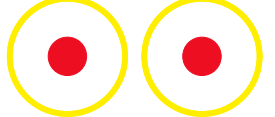
Serial  
Serialnumber 6,3 x 6.3mm



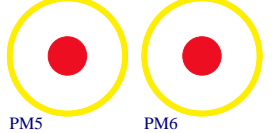
FIDU-DOT - mini FIDU-DOT - mini



PM1 FIDU-DOT - mini PM2 FIDU-DOT - mini

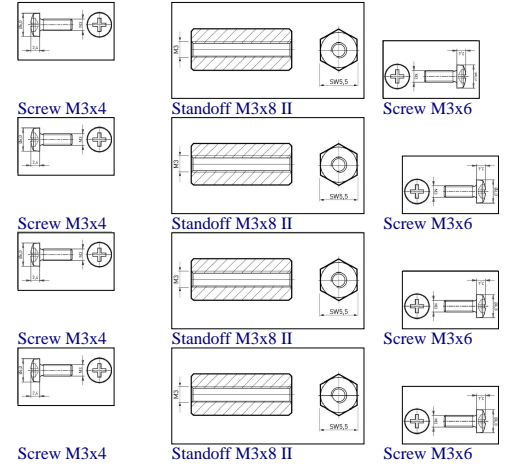


PM3 FIDU-DOT - mini PM4 FIDU-DOT - mini



PM5 PM6

Top of Board



Assembly variant	A2C-1-A
Created by	VT
Modified by	VT
Modified at	2017-01-23
SVN Revision	12616

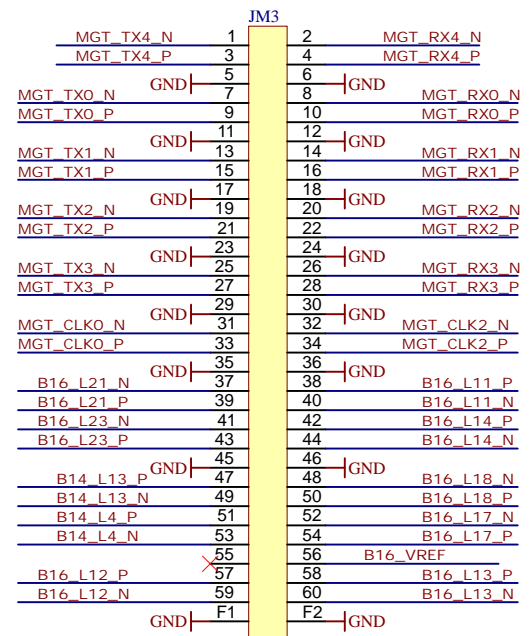
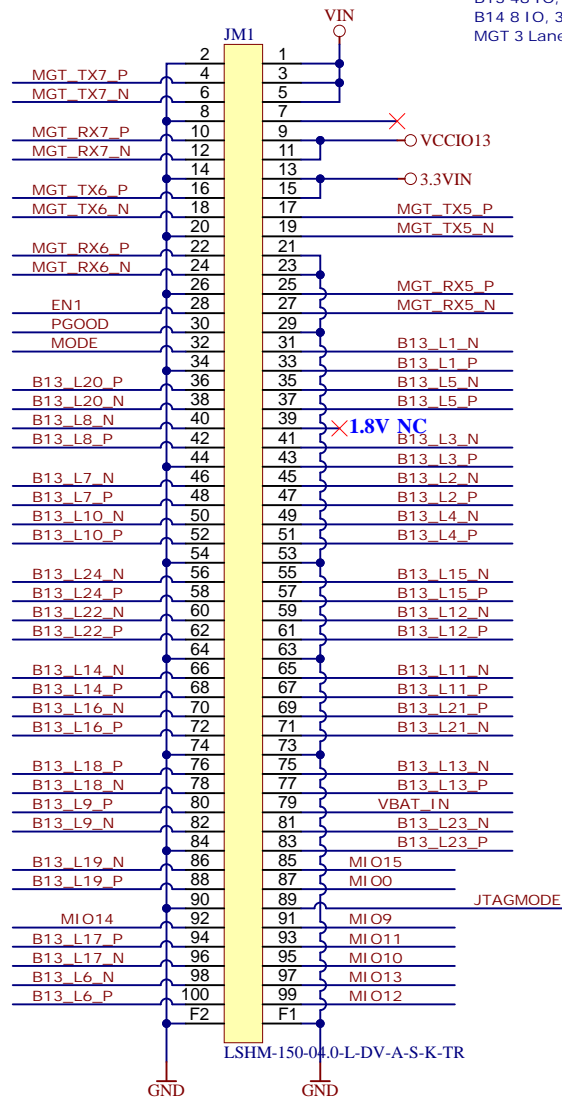


Title: TE0741		
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Filename: TE0741.SchDoc		

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

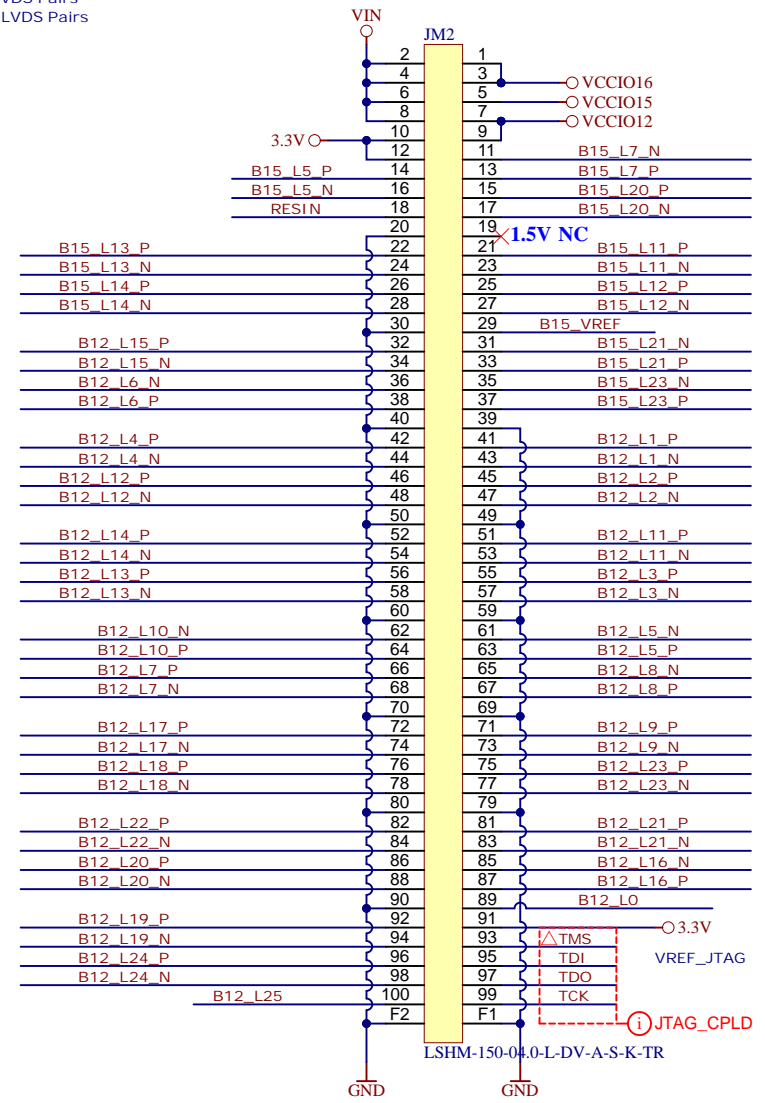
B15 18 IO, 9 LVDS Pairs  
 B12 48 IO, 24 LVDS Pairs  
 B12 2 IO



LSHM-130-04.0-L-DV-A-S-K-TR

**TE0720 Compatibility**  
 MIO0 8 pins => 8 IO B14  
 USB D+,D-, vbusen,otg\_id => 4 IO B14  
 SGMII => MGT  
 MIO1(SDCARD) => MGT  
 ETH MDI => 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



LSHM-150-04.0-L-DV-A-S-K-TR

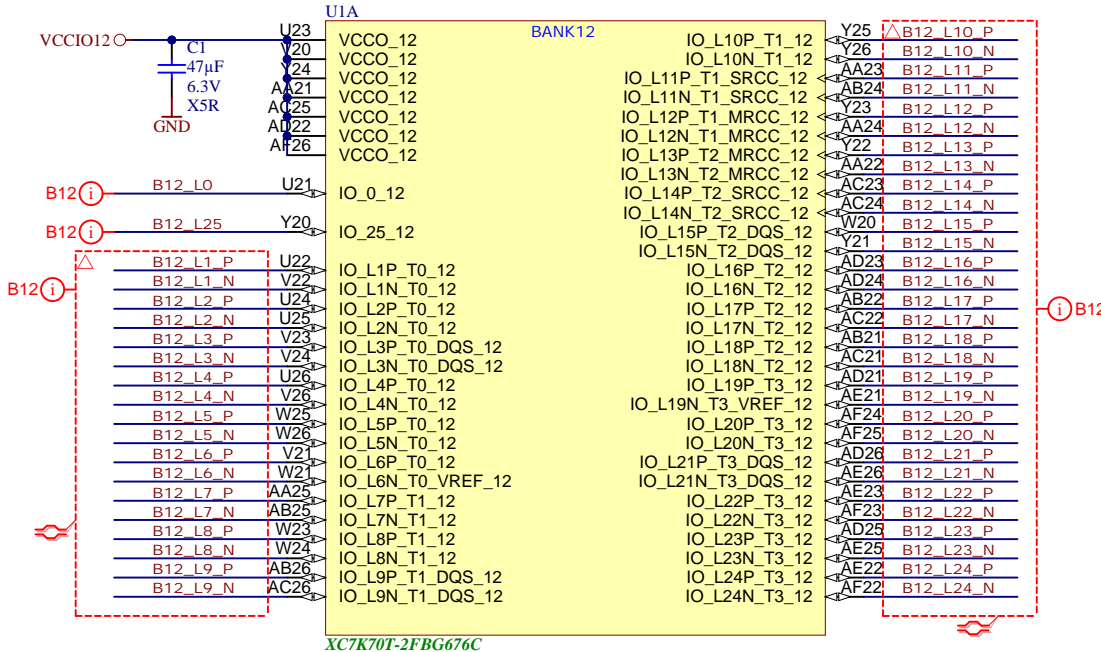


Title: <b>TE0741</b>		
A4	Number: <b>TE0741 A2C-1-A</b>	Rev. <b>04</b>
Date: <b>2016-10-25</b>	Copyright: <b>2013 Trenz Electronic GmbH</b>	Page <b>2</b> of <b>17</b>
Filename: <b>B2B-Connectors.SchDoc</b>		

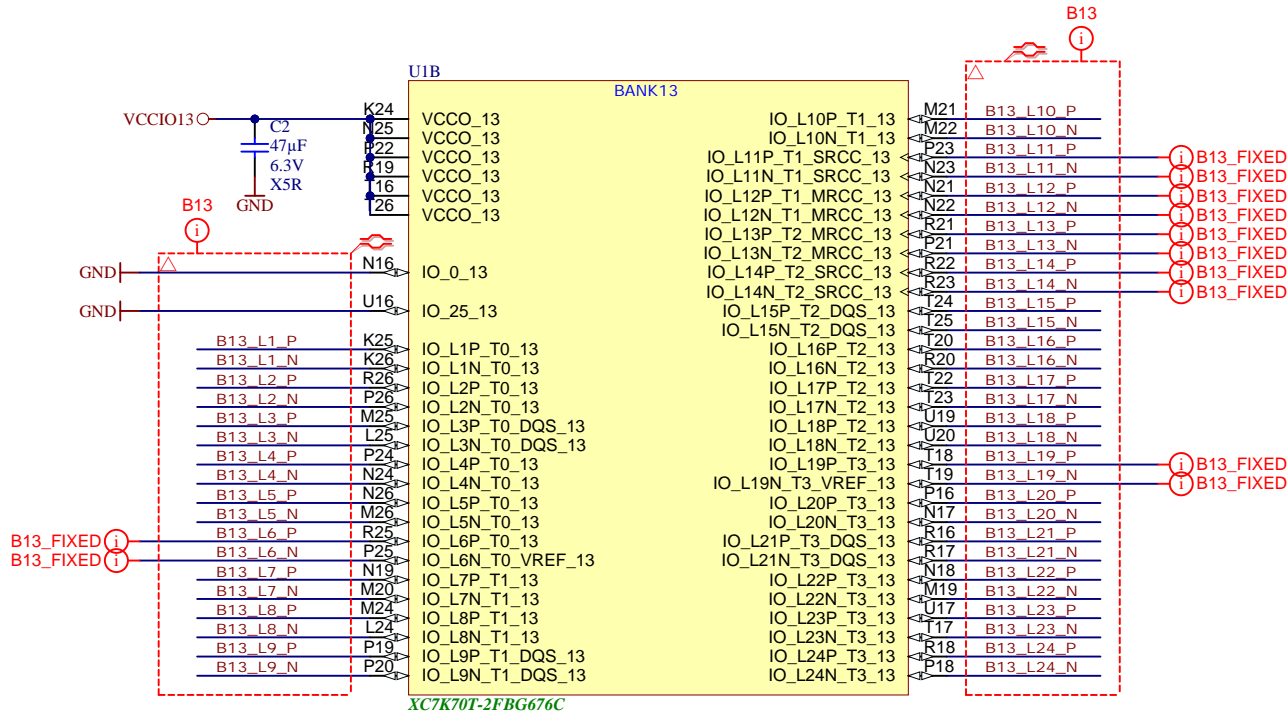
B12\_FIXED ⓘ ▲

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!**



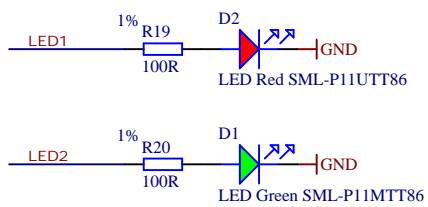
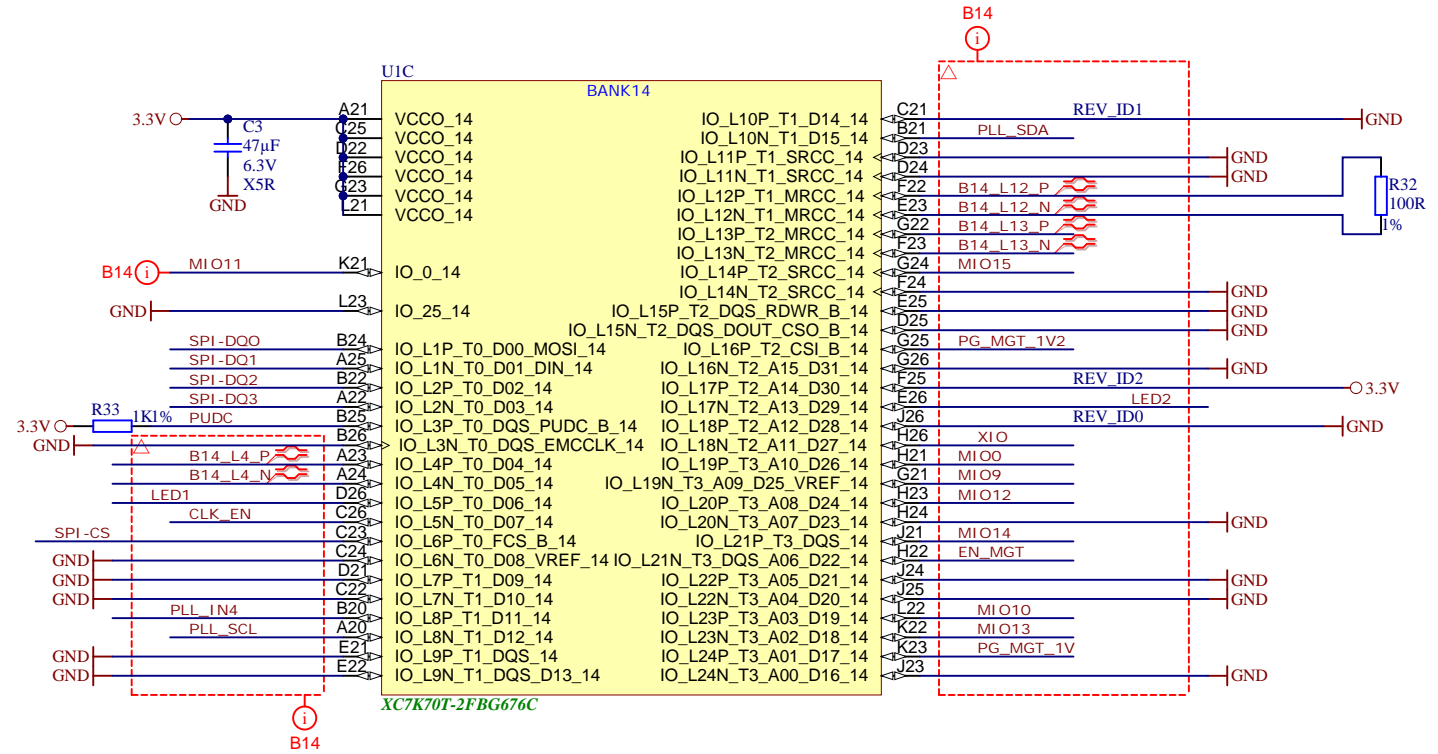
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	Date: 2016-10-25	Rev. 04
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Filename: B12.SchDoc		Copyright: 2013 Trenz Electronic GmbH



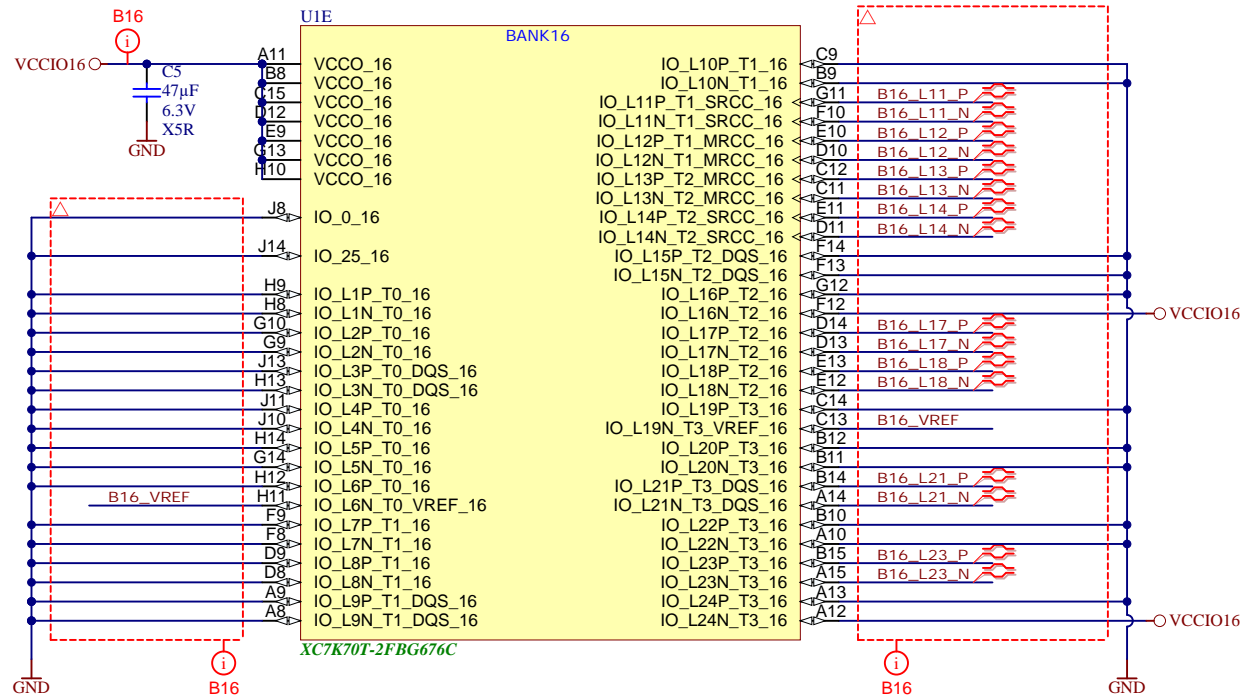
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	A4	Number: <b>TE0741 A2C-1-A</b>	Rev. <b>04</b>
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	Filename: <b>B13.SchDoc</b>		


Revision PCB Board:

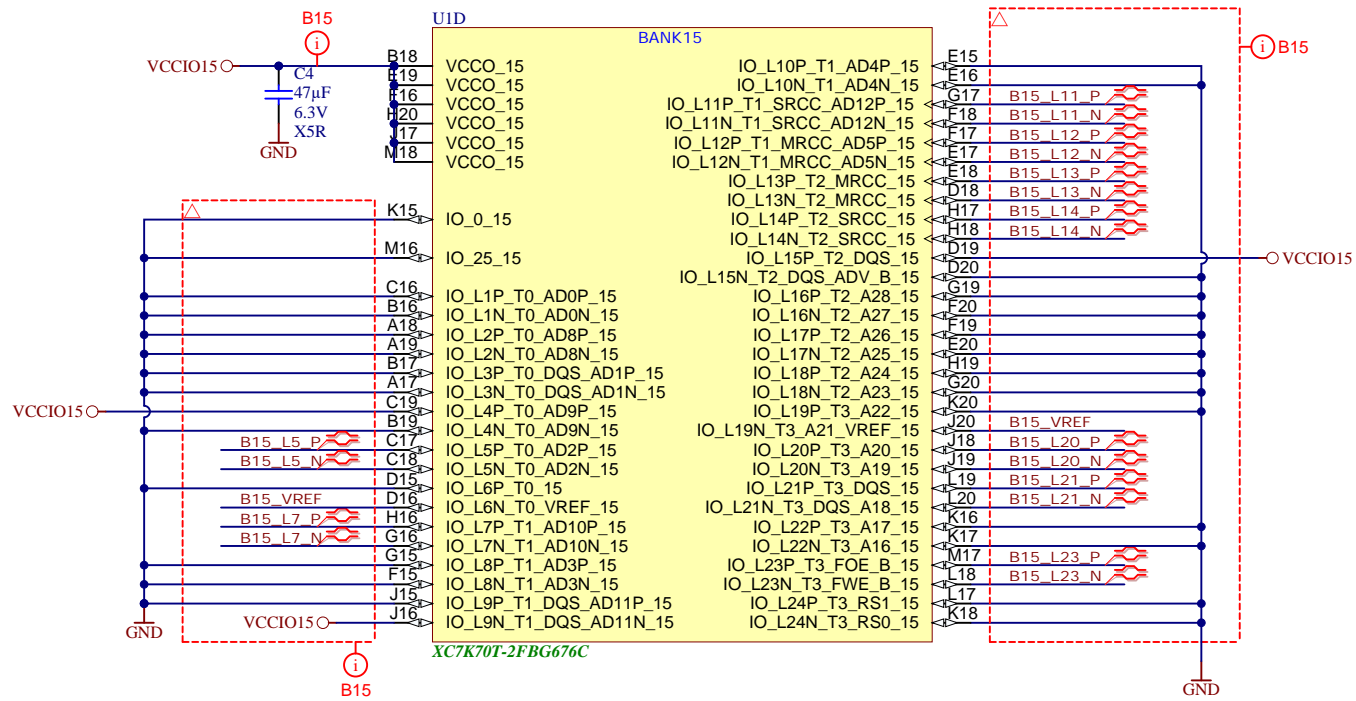
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REV_ID0	0	1	0	1	0
REV_ID1	0	0	1	1	0
REV_ID2	0	0	0	0	1




Title: <b>TE0741</b>		
A4	Number: <b>TE0741 A2C-1-A</b>	Rev. <b>04</b>
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Filename: <b>B14.SchDoc</b>		



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	A4	Number: TE0741 A2C-1-A	Rev. 04
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	Filename: B16.SchDoc		



	Title: TE0741		
	A4	Number: TE0741 A2C-1-A	Rev. 04
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	Filename: B15.SchDoc		

1

2

3

4

A

A

B

B

C

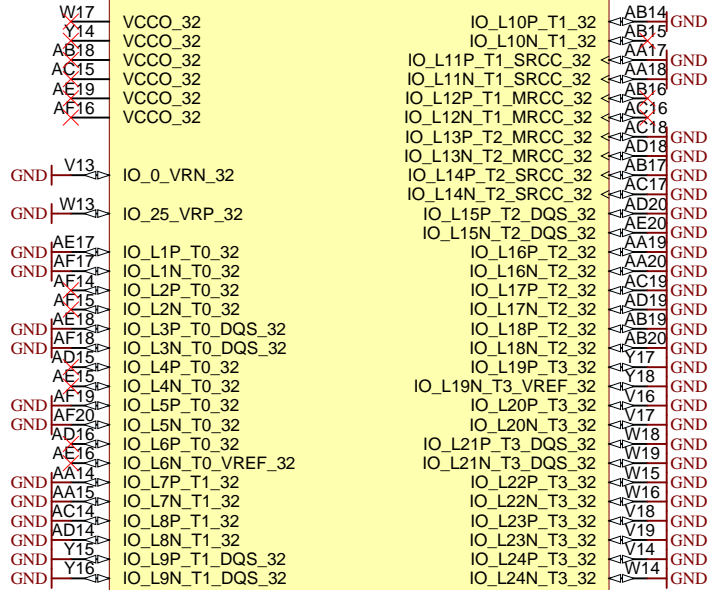
C

D

D

UIF

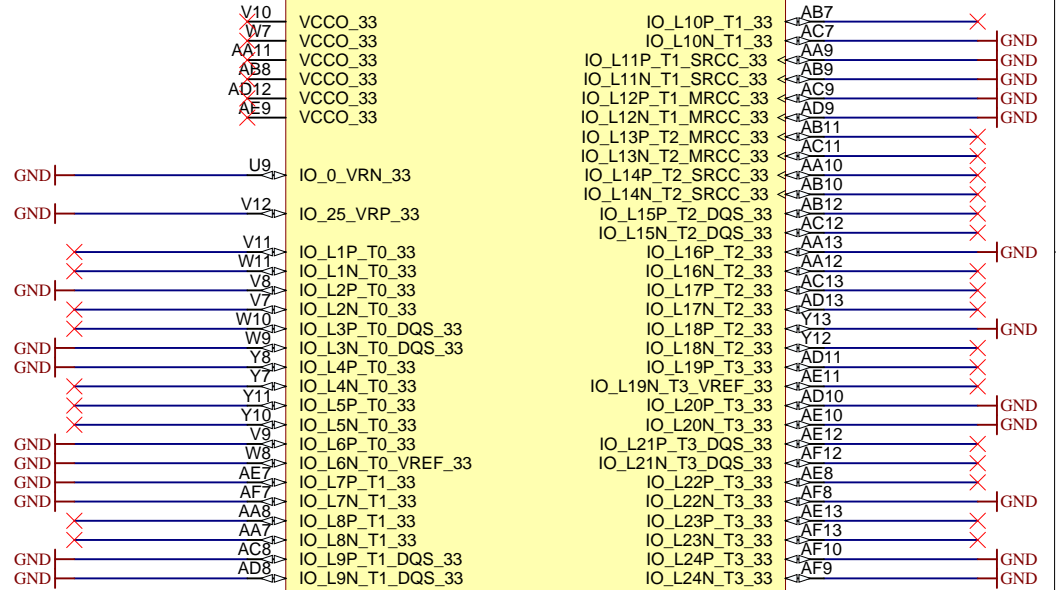
BANK32



XC7K70T-2FBG676C

UIG

BANK33



XC7K70T-2FBG676C



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Filename: B33.SchDoc		

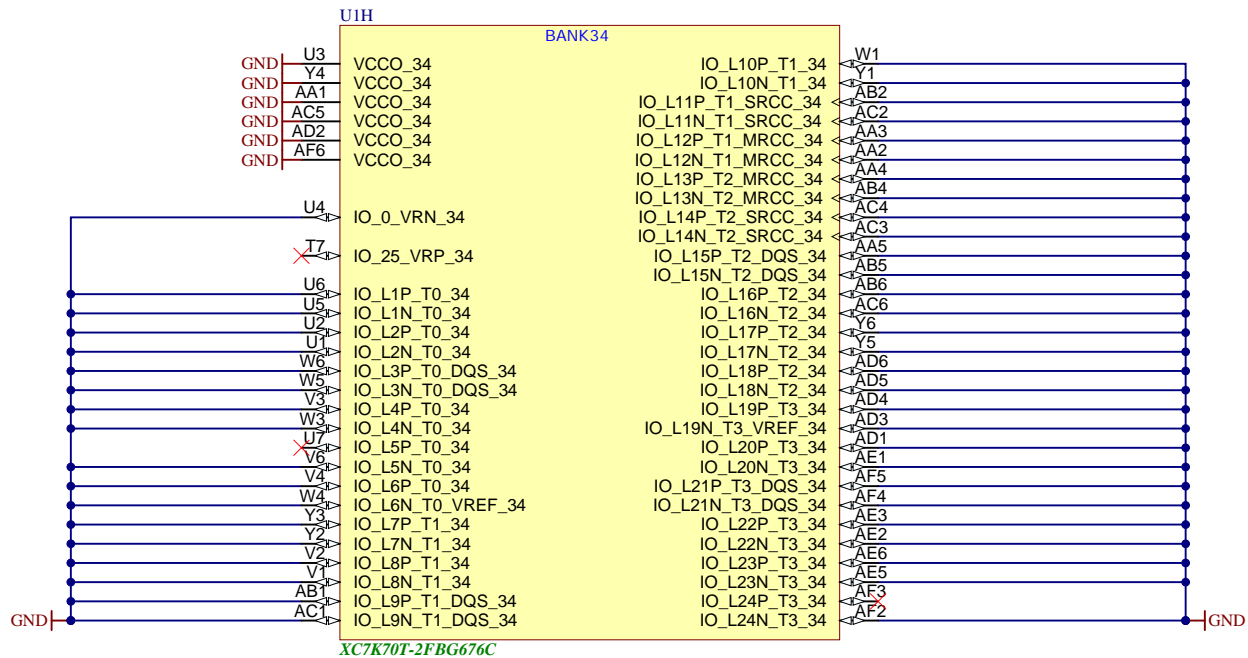
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2

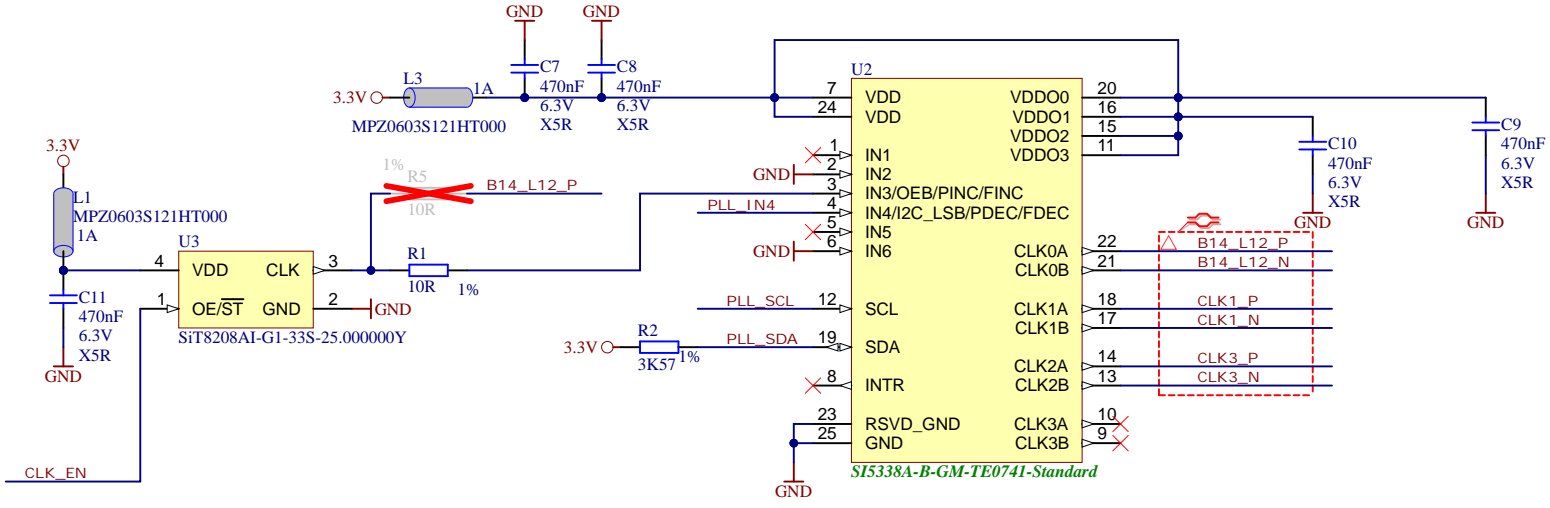
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4

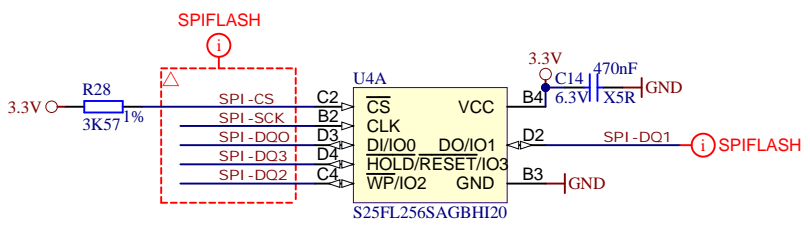
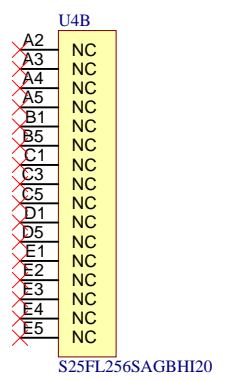
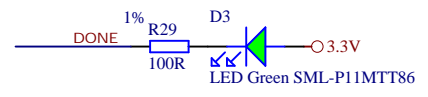
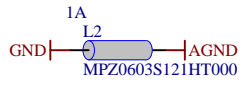
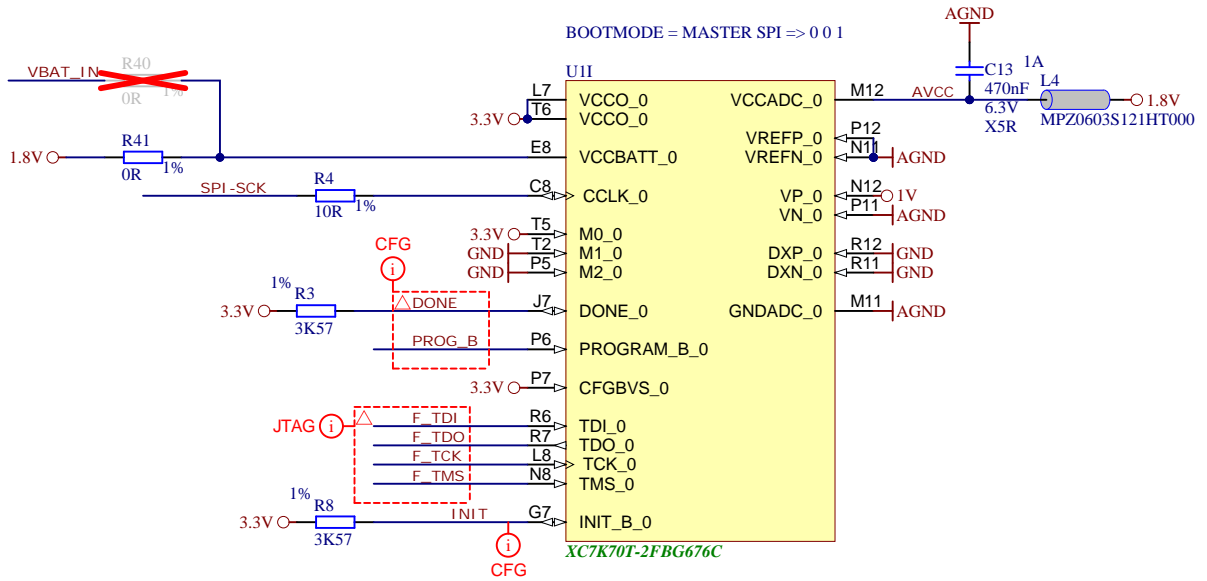




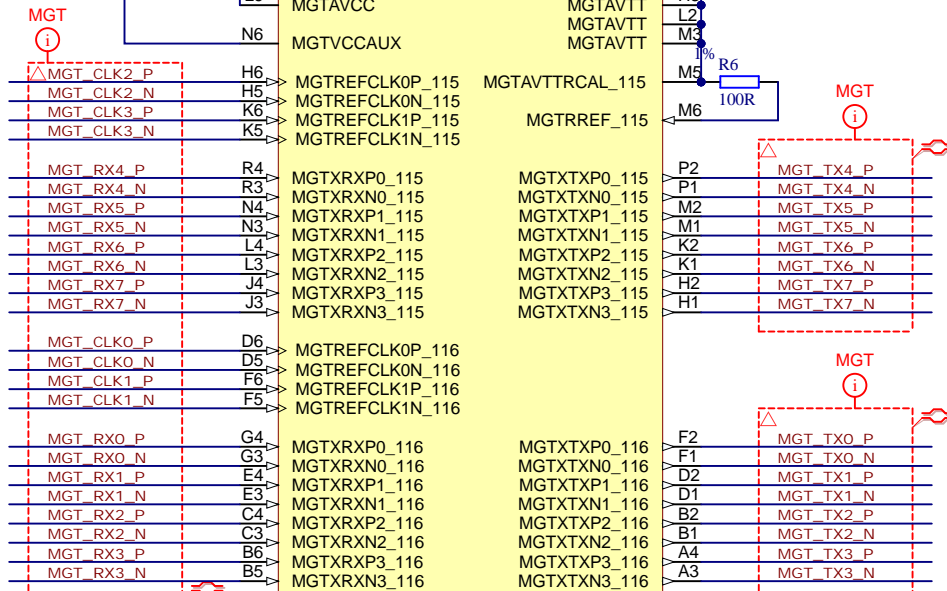
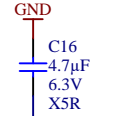
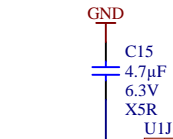
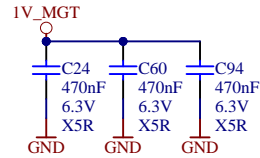
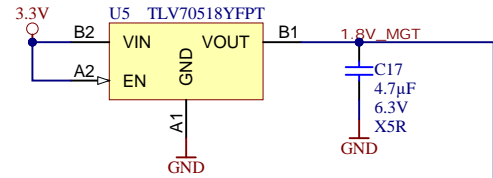
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	Date: <b>2016-10-25</b>	Copyright: <b>2013 Trenz Electronic GmbH</b>	Page <b>9</b> of <b>17</b>
	Filename: <b>B34.SchDoc</b>		



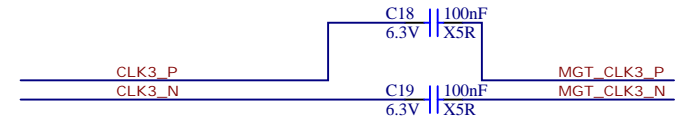
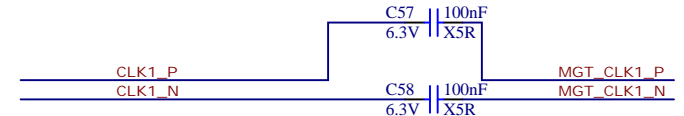
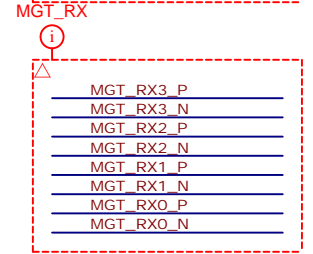
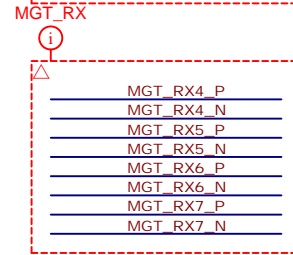
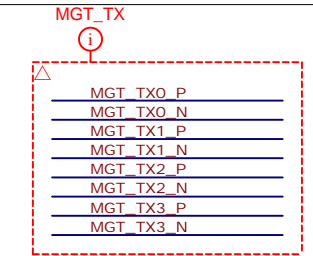
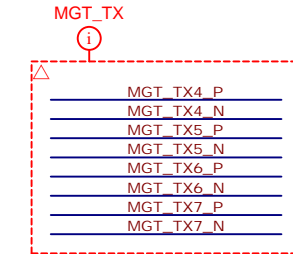
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	Date: <b>2016-10-25</b>	Copyright: <b>2013 Trenz Electronic GmbH</b>	Page <b>10</b> of <b>17</b>
	Filename: <b>Clock.SchDoc</b>		



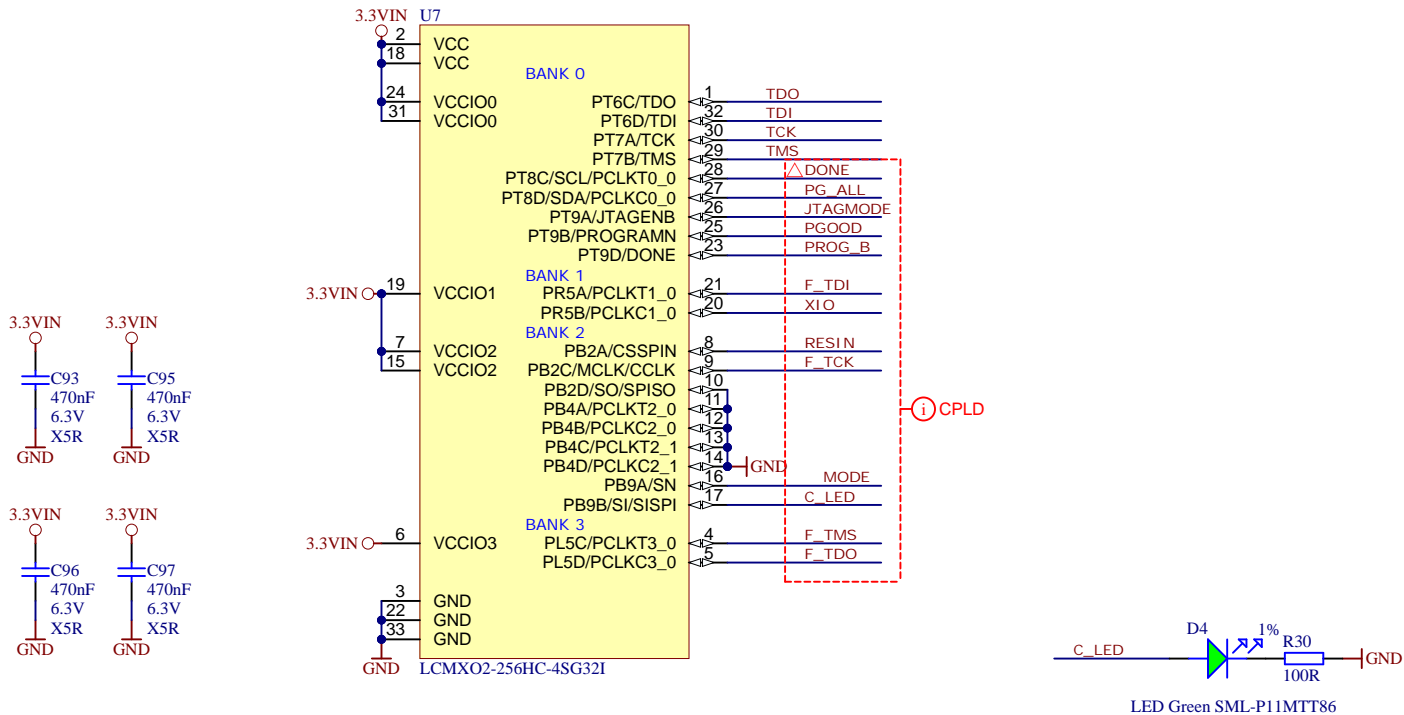

Title: TE0741		
A4	Number: TE0741 A2C-1-A	Rev. 04
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Filename: FPGA-CFG.SchDoc		



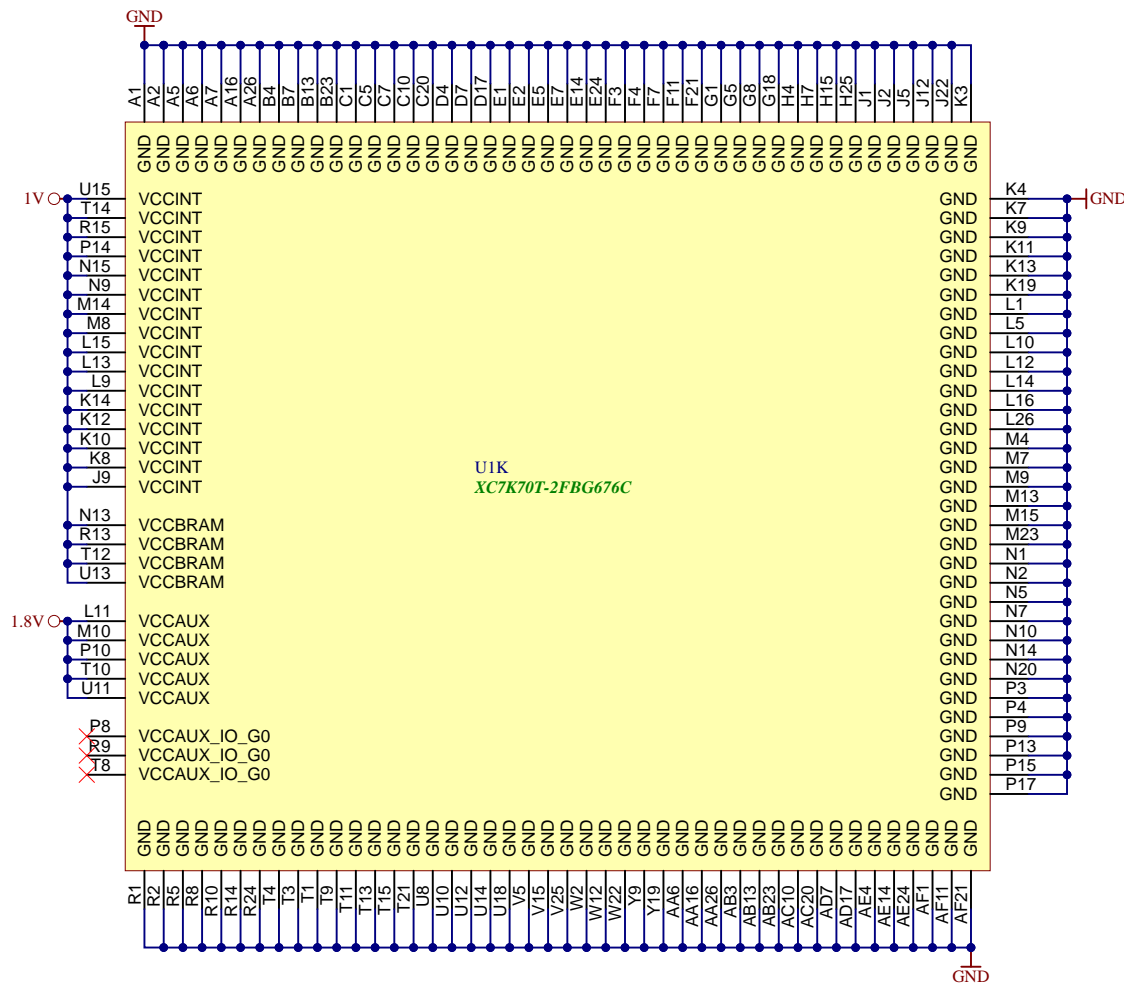
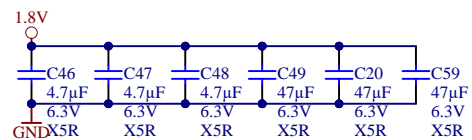
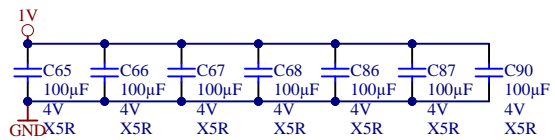
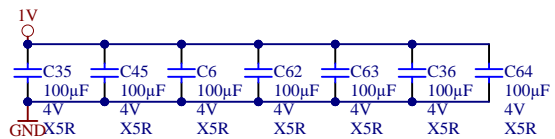
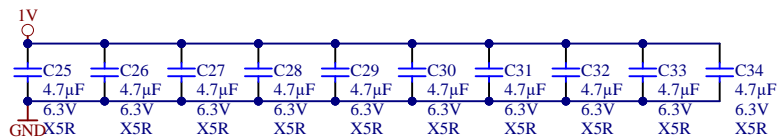
XC7K70T-2FBG676C



Title: TE0741		
A4	Number: TE0741 A2C-1-A	Rev. 04
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Filename: FPGA-MGT.SchDoc		

Title: <b>TE0741</b>		
A4	Number: <b>TE0741 A2C-1-A</b>	Rev. <b>04</b>
Date: <b>2016-10-25</b>	Copyright: <b>2013 Trenz Electronic GmbH</b>	Page <b>13</b> of <b>17</b>
Filename: <b>FPGA-MISC.SchDoc</b>		



Title: TE0741		
A4	Number: TE0741 A2C-1-A	Rev. 04
Date: 2016-10-25	Copyright: 2013 Trenz Electronic GmbH	Page 14 of 17
Filename: FPGA-PWR.SchDoc		

A

B

C

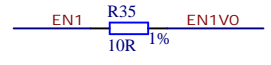
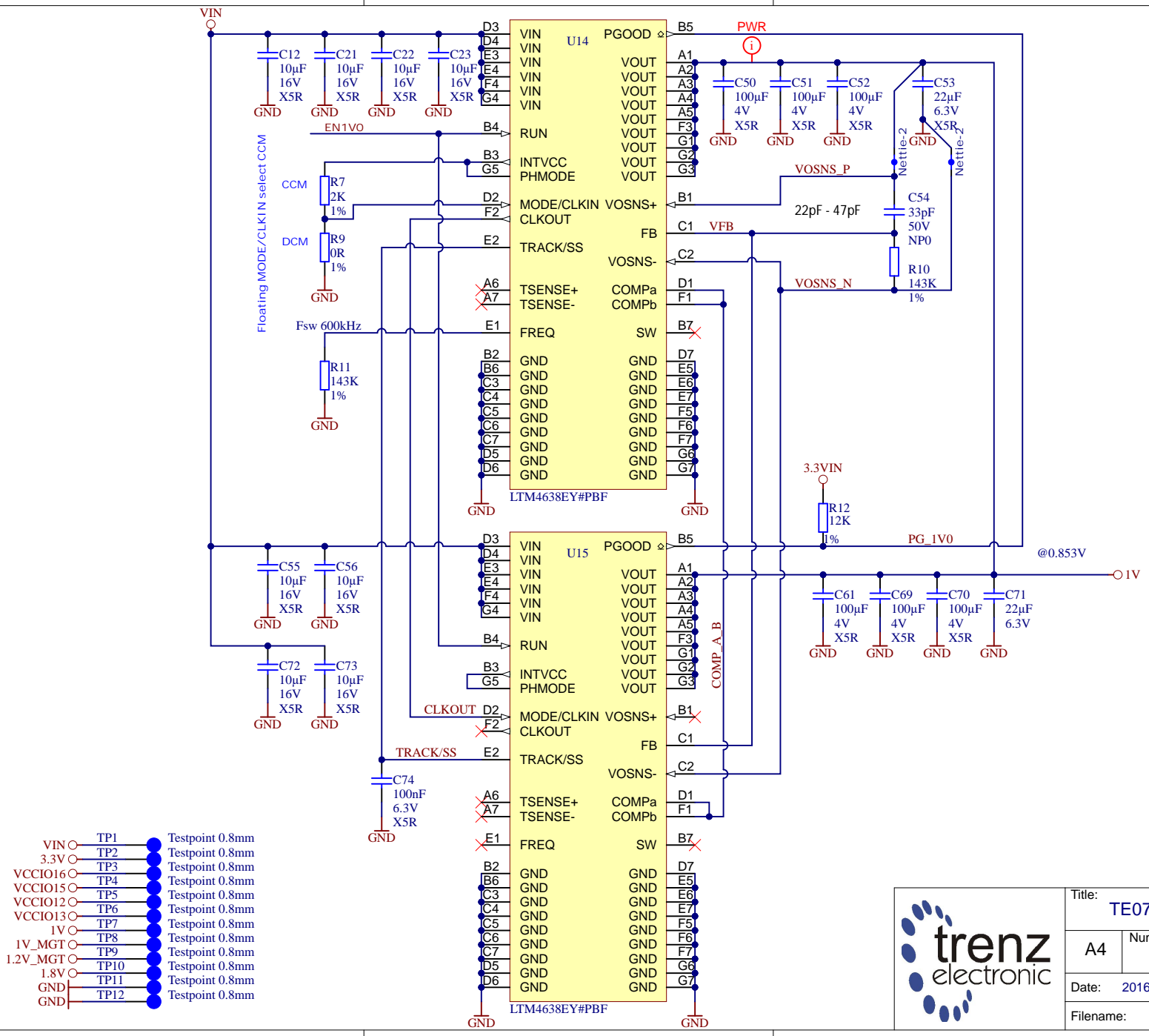
D

A

B

C

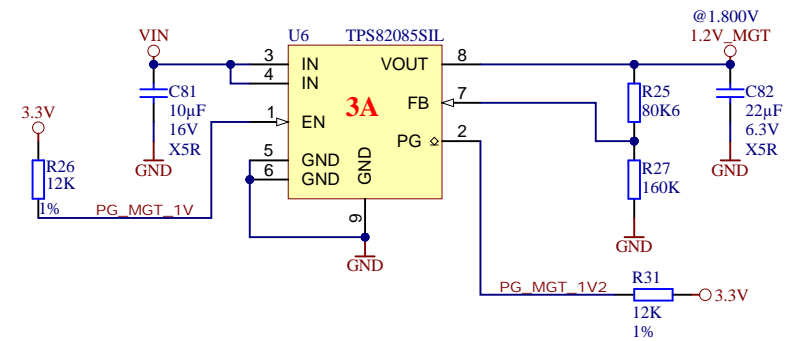
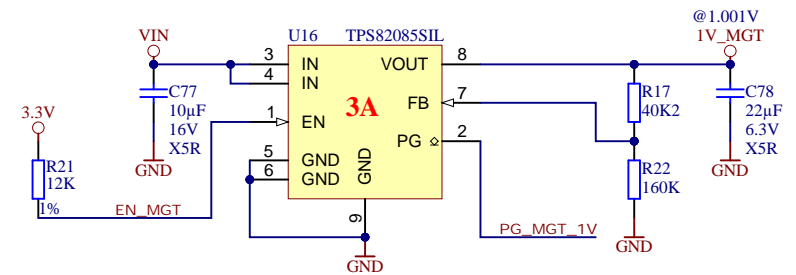
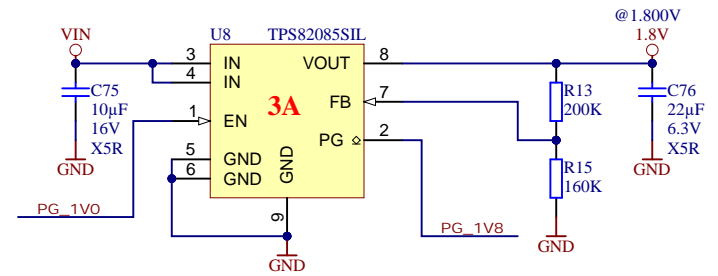
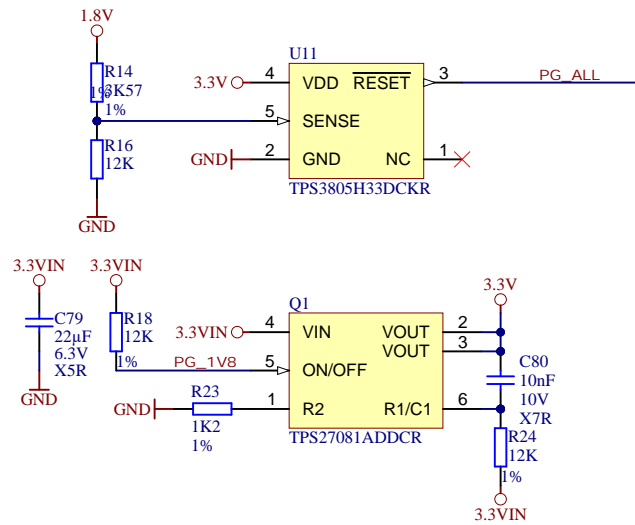
D



- VIN ○ TP1 ● Testpoint 0.8mm
- 3.3V ○ TP2 ● Testpoint 0.8mm
- VCCIO16 ○ TP3 ● Testpoint 0.8mm
- VCCIO15 ○ TP4 ● Testpoint 0.8mm
- VCCIO12 ○ TP5 ● Testpoint 0.8mm
- VCCIO13 ○ TP6 ● Testpoint 0.8mm
- 1V ○ TP7 ● Testpoint 0.8mm
- 1V\_MGT ○ TP8 ● Testpoint 0.8mm
- 1.2V\_MGT ○ TP9 ● Testpoint 0.8mm
- 1.8V ○ TP10 ● Testpoint 0.8mm
- GND ○ TP11 ● Testpoint 0.8mm
- GND ○ TP12 ● Testpoint 0.8mm



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Filename: PWR1.SchDoc		



Title: TE0741		
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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

Changes REV03 to REV04 (VT:10.2021):

- 1) replaced all DCDC (reason: not recommended use Enpirion DCDC)
- 2) remove Traceability Pad (reason: EOL)
- 3) added additional resistor for VBAT (reason: possibility using external VBAT from Carrier Board)
- 4) full upd LIB components
- 5) optimization PCB routing

A

A

B


B

C

C

D

D

		Title: TE0741 - Changes list	
		A4	Number: TE0741 A2C-1-A
Date: 2016-10-25		Copyright: Trenz Electronic GmbH	
Filename: Revision_Changes.SchDoc		Page 17 of 17	

1

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