

Image is for illustrative purposes only

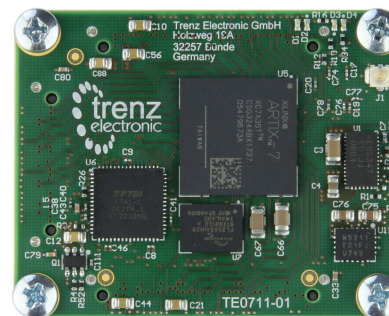


Image is for illustrative purposes only

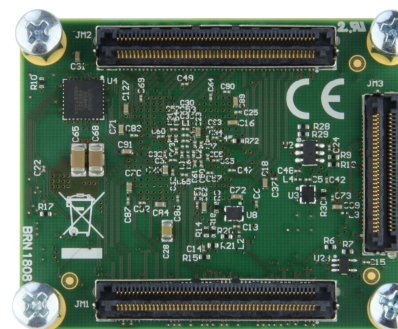



Image is for illustrative purposes only

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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. TE0711 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: TE0711 - Legal Notices Modules		
	A4	Number: TE0711 72C-1-A	Rev. 02
	Date: 25-Jul-23	Copyright: Trenz Electronic GmbH	Page 1 of 15
	Filename: Legal_Notices.SchDoc		

1

2

3

4

A

A

B

B


C

C

D

D

REV	Description	
-01	Initial revision	
-02	1) Pages "Legal_Notices.SchDoc", "Revision_Changes.SchDoc", "Overview.SchDoc" and "Power_Diagram.SchDoc" were added 2) Signal groups tables and colors were added on page "B2B_Connector.SchDoc" 3) L1 - L6 were replaced from BKP0603HS121-T to MPZ0603S121HT000 4) All SCH and PCB components were updated 5) Fiducials were updated 6) Serial number was updated 7) D5 was added 8) U1 was updated from EN6347QI to MPM3860GQW-Z 9) Q1 was updated from TPS27082LDDCR to MP5077GG-Z 10) U11 was updated from EN5311QI to MPM3834CGPA 11) U23 was updated from TPS3805H33DCKR to STM6710LWB6F 12) R25 pullup was added 13) TP1 - TP19 were added 14) UKCA and CE logos were added 15) Fiducials on top and bottom were moved to same positions 16) R15 was changed from 2.2k to 470R 17) R22 was added 18) PCB net lengths were changed to improve routing	MT

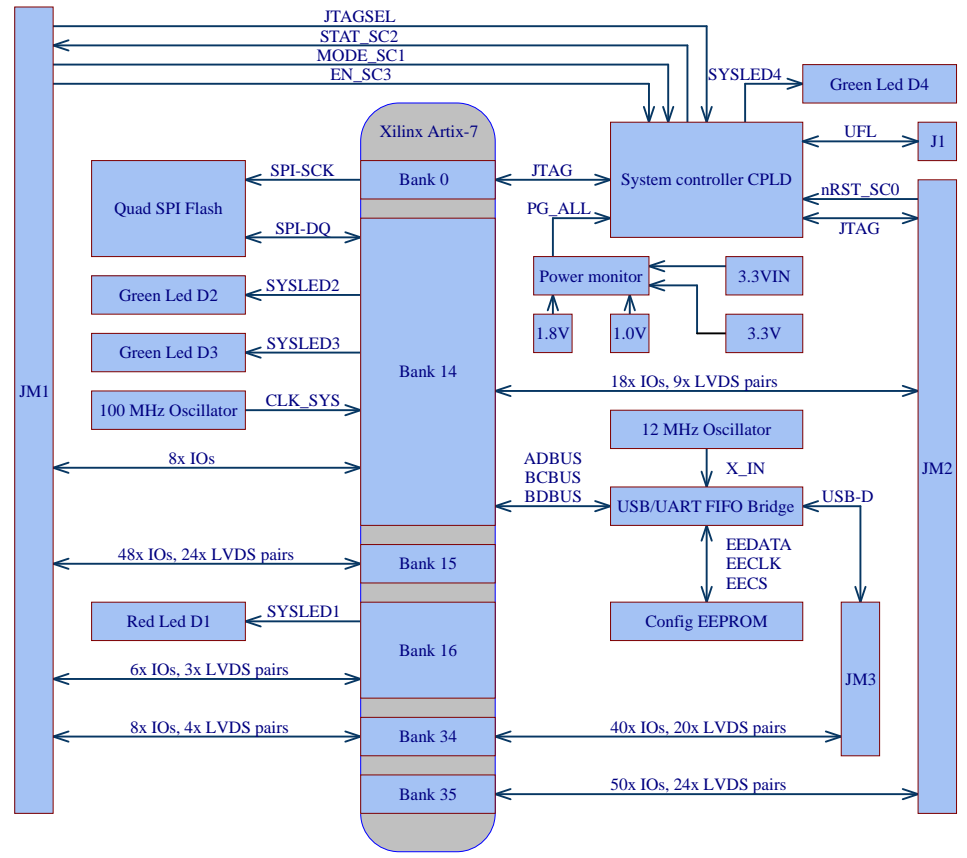
	Title: TE0711 - Changes list		
	A4	Number: TE0711 72C-1-A	Rev. 02
	Date: 04-Sep-23	Copyright: Trenz Electronic GmbH	Page 2 of 15
	Filename: Revision_Changes.SchDoc		


1

2

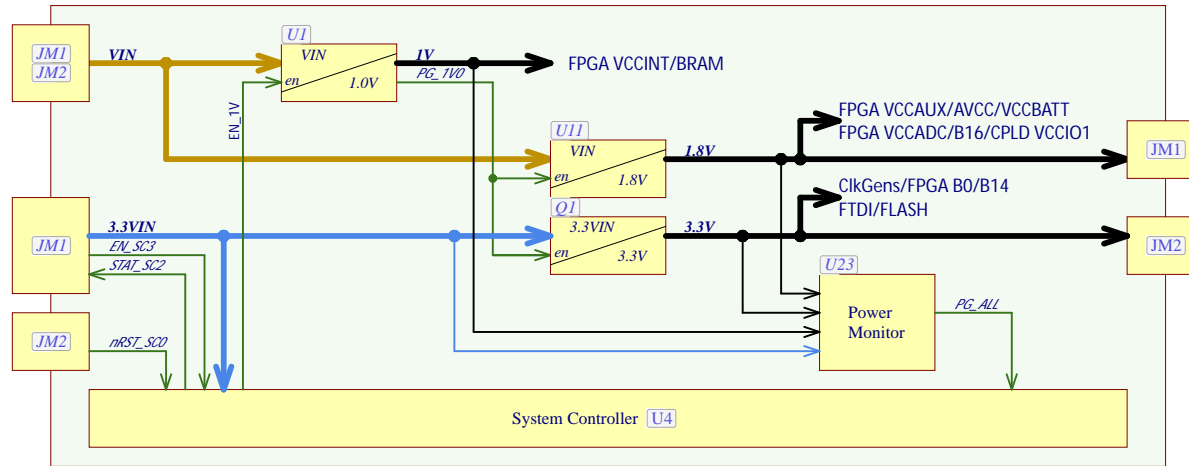
3

4



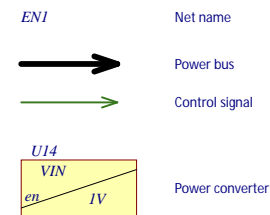
		Title: TE0711 - System Overview	
		A4	Number: TE0711 72C-1-A
Date: 23-Aug-23		Copyright: Trenz Electronic GmbH	
Date: 23-Aug-23		Page 3 of 15	
Filename: Overview.SchDoc			

Power-on sequencing:



Supported Voltage Ranges:

Power Rail	Direction	Range	Tolerance	Description	Note
VIN	IN	3.3 - 5.0V	+/-5%	Micromodule Power	-
3.3VIN	IN	3.3V	+/-5%	Micromodule Power	-
VCCIO15	IN	1.2 - 3.3V	+/-3%	HR IO Bank15	-
VCCIO34	IN	1.2 - 3.3V	+/-3%	HR IO Bank34	-
VCCIO35	IN	1.2 - 3.3V	+/-3%	HR IO Bank35	-
3.3V	OUT	3.3V	+/-5%	Power for Carrier	-
1.8V	OUT	1.8V	+/-3%	Power for Carrier	-



Title: TE0711 - Power Diagram		
A4	Number: TE0711 72C-1-A	Rev. 02
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U_FPGA_PWR_MISC
FPGA_PWR_MISC.SchDoc

U_FPGA_CFG
FPGA_CFG.SchDoc

U_B14_B16
B14_B16.SchDoc

U_B15
B15.SchDoc

U_B34
B34.SchDoc

U_B35
B35.SchDoc

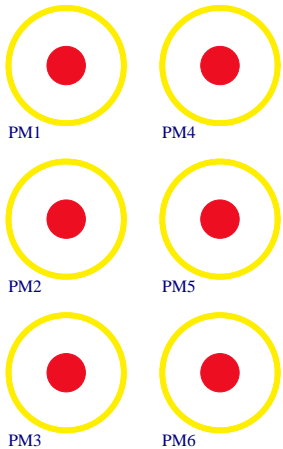
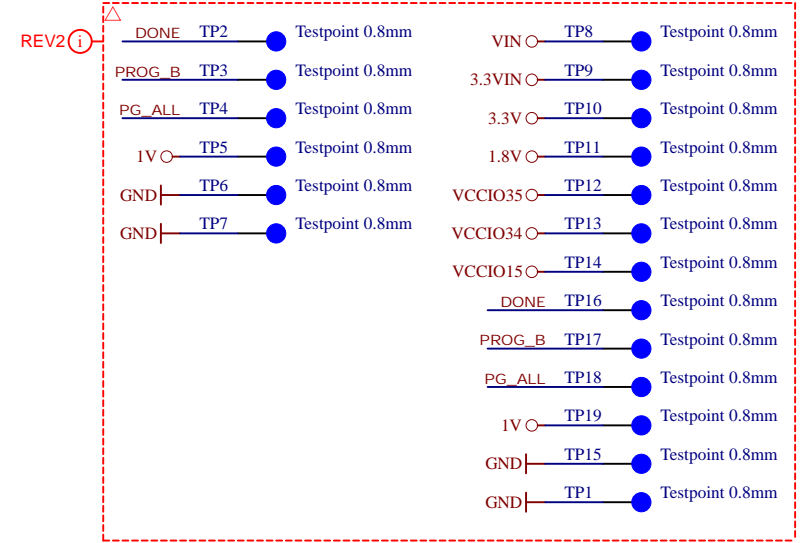
U_SystemController
SystemController.SchDoc

U_FTDI
FTDI.SchDoc

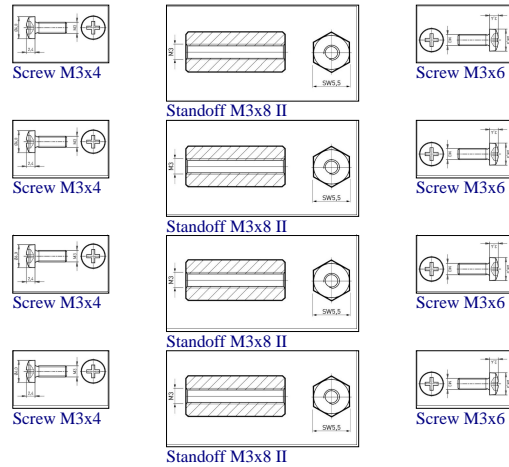
U_POWER
POWER.SchDoc

U_B2B_Connector
B2B_Connector.SchDoc

Special notes:



Top of Board



Serial
Serialnumber 6,3 x 6.3mm

LOGO1
TE Logo PRINT Layer

LOGO PRINT

UKCA1
UKCA Logo on Top Overlay

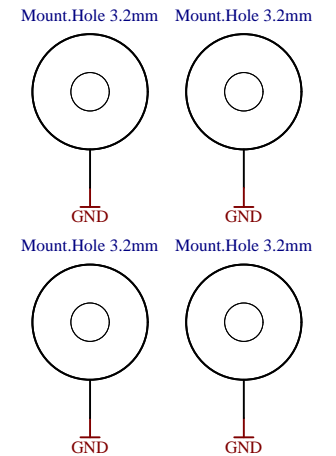
UKCA-TOPOVERLAY

CE1
CE Logo on Top Overlay

CE-TOPOVERLAY



Title: TE0711		
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B14: 8 Pins: 8 Single ended; 3.3V Fixed VCCIO
 B15: 48 Pins: 24 Differential; variable VCCIO
 B16: 6 Pins: 3 Differential; 1.8V Fixed VCCIO
 B34: 8 Pins: 4 Differential; variable VCCIO

B34: 40 Pins: 20 Differential; variable VCCIO
 USB Device

B14: 18 Pins: 9 Differential; 3.3V Fixed VCCIO
 B35: 50 Pins: 24 Differential; variable VCCIO
 JTAG: 3.3V Levels

A

B

C

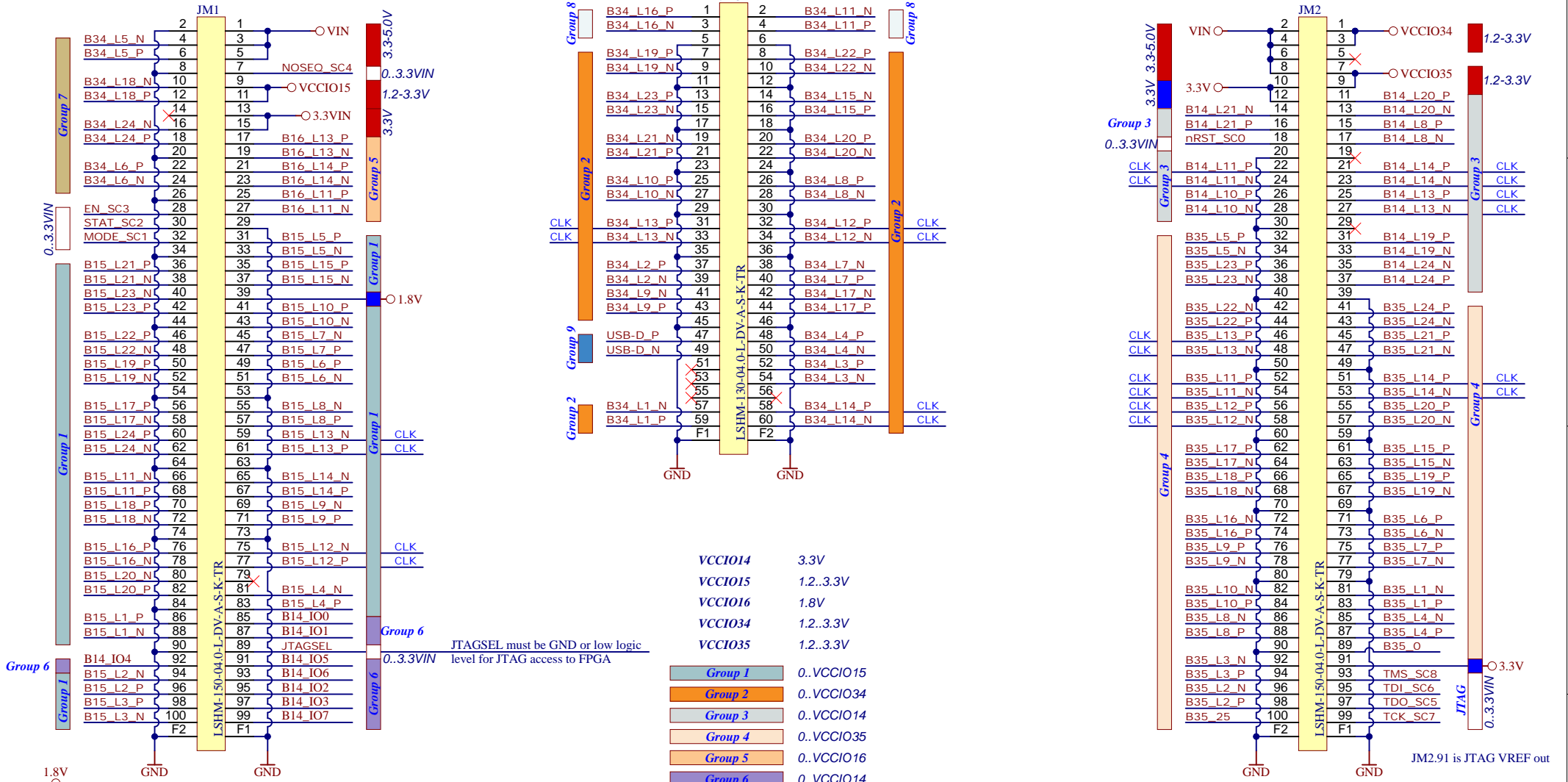
D

A

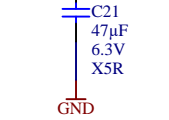
B

C

D



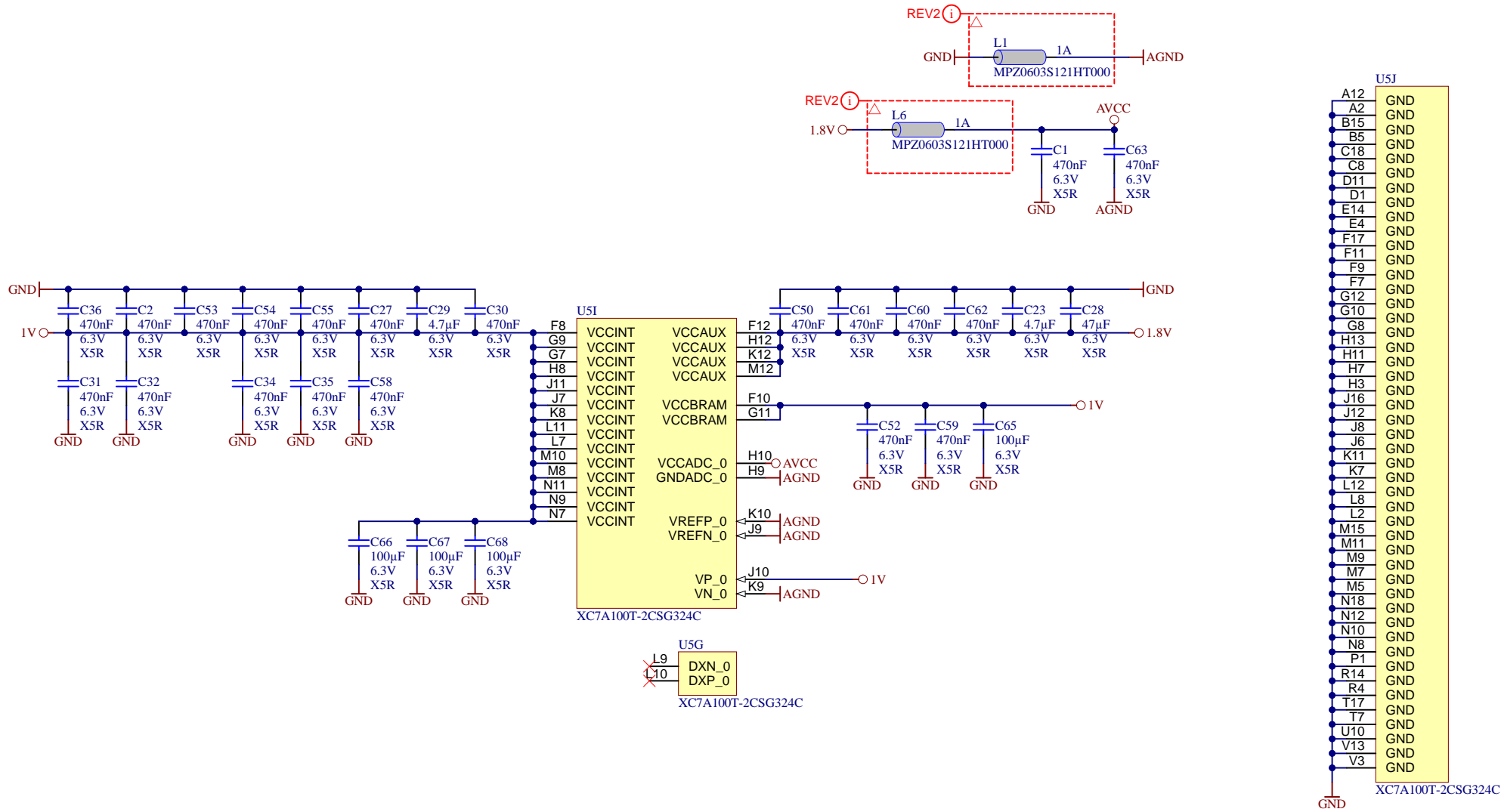
- VCCIO14 3.3V
- VCCIO15 1.2..3.3V
- VCCIO16 1.8V
- VCCIO34 1.2..3.3V
- VCCIO35 1.2..3.3V
- Group 1 0..VCCIO15
- Group 2 0..VCCIO34
- Group 3 0..VCCIO14
- Group 4 0..VCCIO35
- Group 5 0..VCCIO16
- Group 6 0..VCCIO14
- Group 7 0..VCCIO34
- Group 8 0..VCCIO34
- Group 9 USB_OTG
- Special PWR_in
- PWR_out



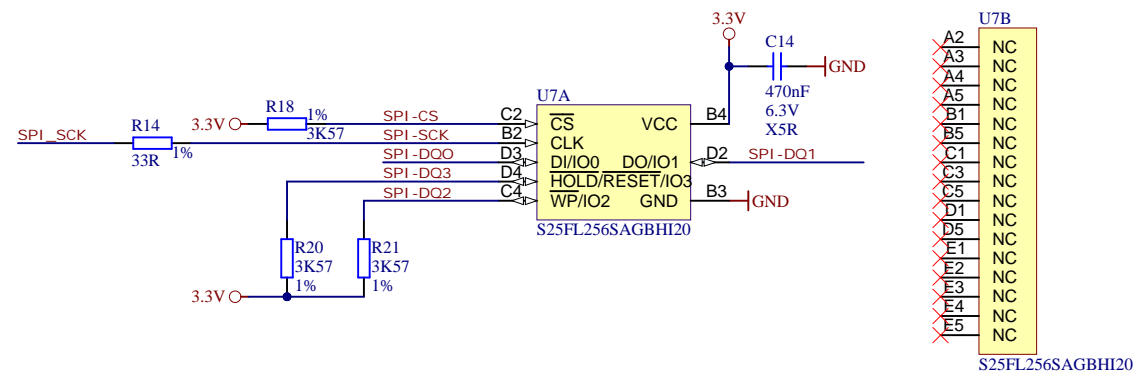
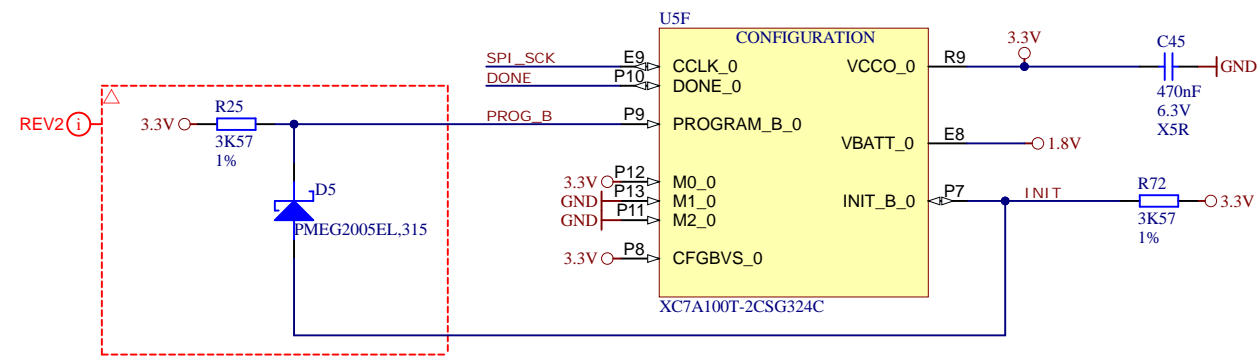
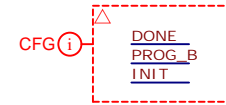
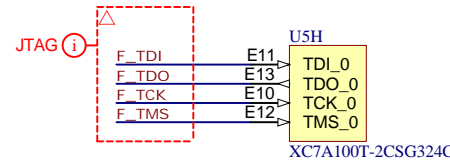
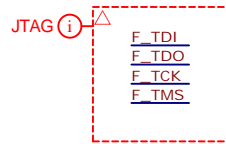
Some information about Trenz modules compatibility and differences [here](#)



Title: TE0711 - B2B-Connectors		
A4	Number: TE0711 72C-1-A	Rev. 02
Date: 23-Aug-23	Copyright: Trenz Electronic GmbH / TT	Page 6 of 15
Filename: B2B_Connector.SchDoc		

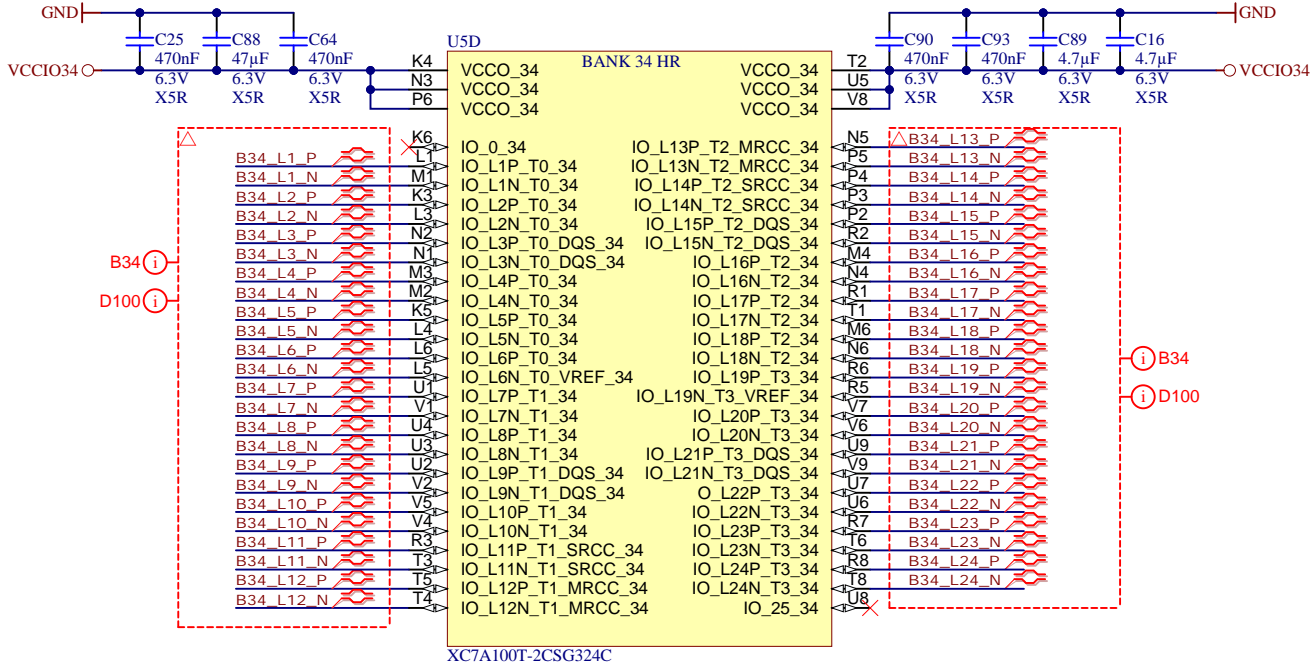



Title: TE0711 - FPGA PWR		
A4	Number: TE0711 72C-1-A	Rev. 02
Date: 27-Jul-23	Copyright: Trenz Electronic GmbH / TT	Page 7 of 15
Filename: FPGA_PWR_MISC.SchDoc		

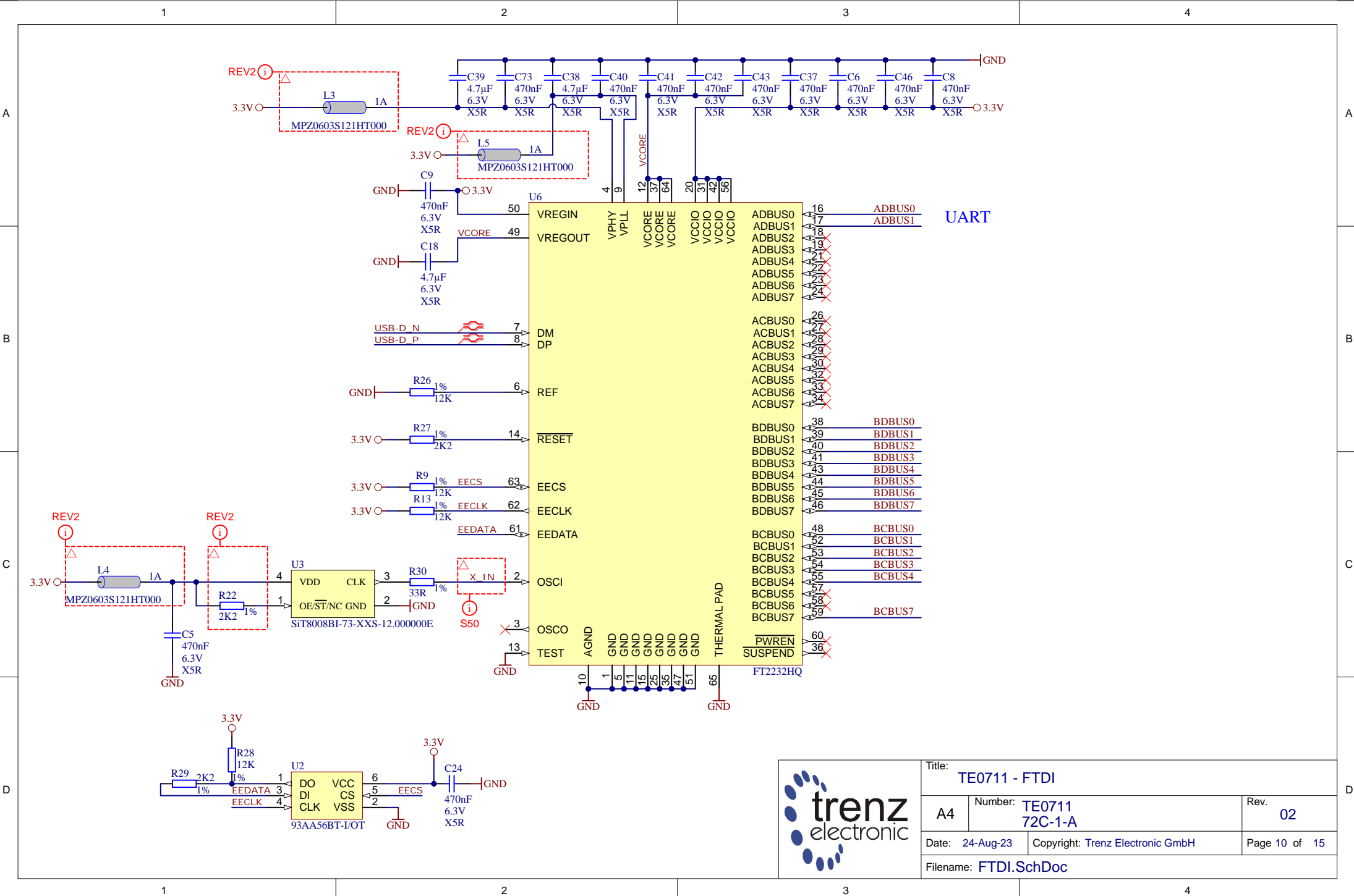


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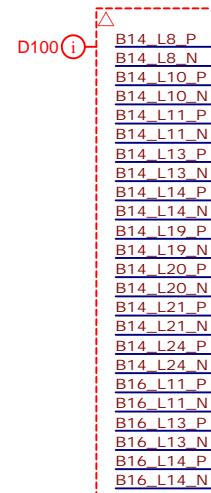
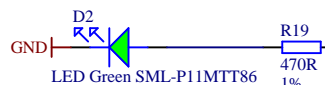
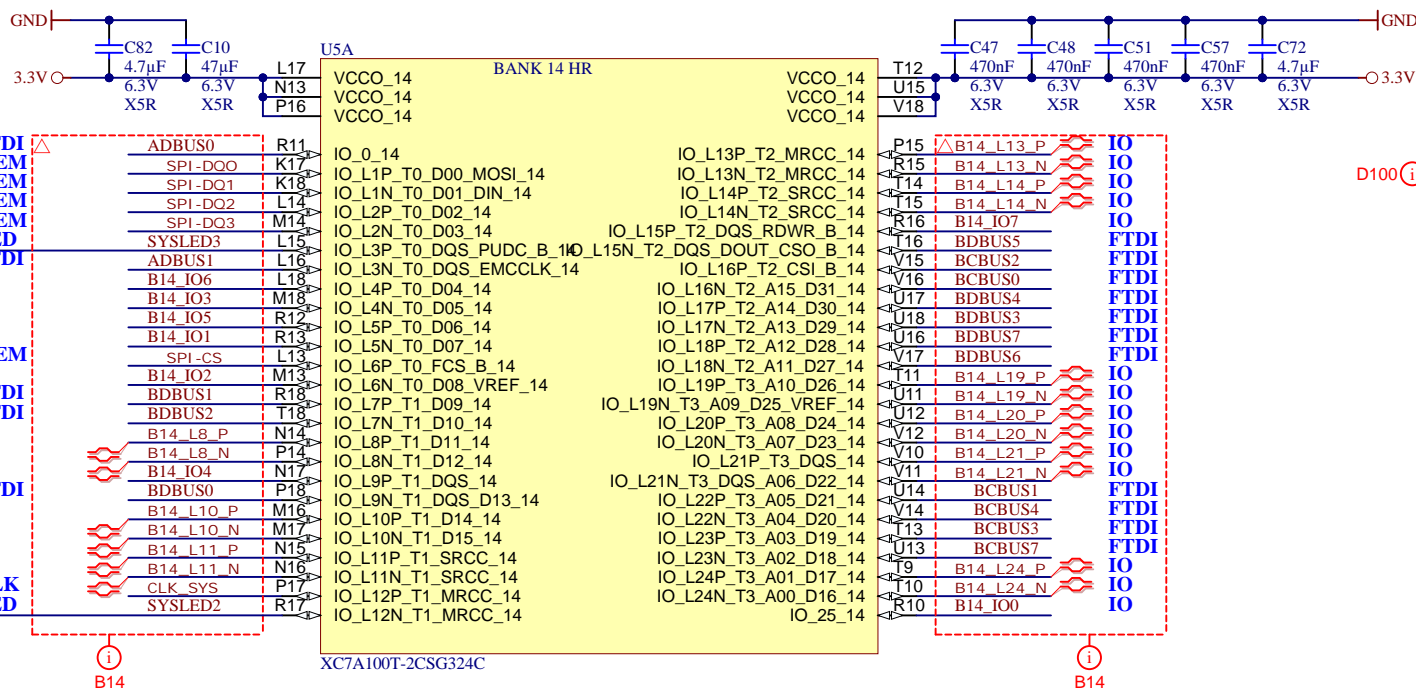
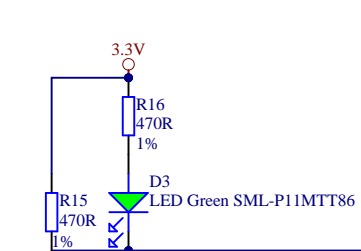
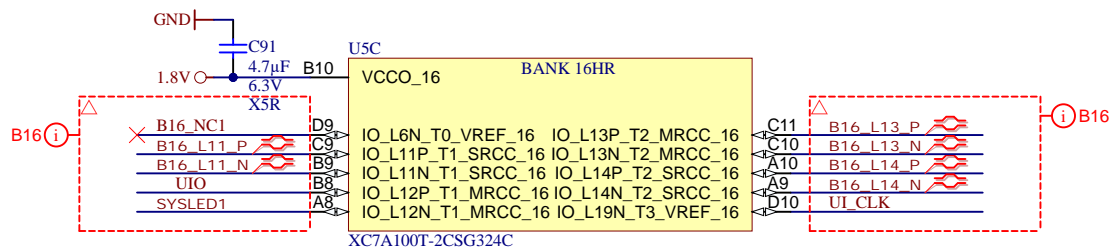
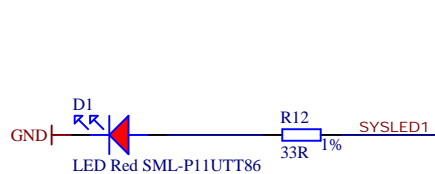
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Date: 28-Jul-23	Copyright: Trenz Electronic GmbH / TT	Page 8 of 15
Filename: FPGA_CFG.SchDoc		



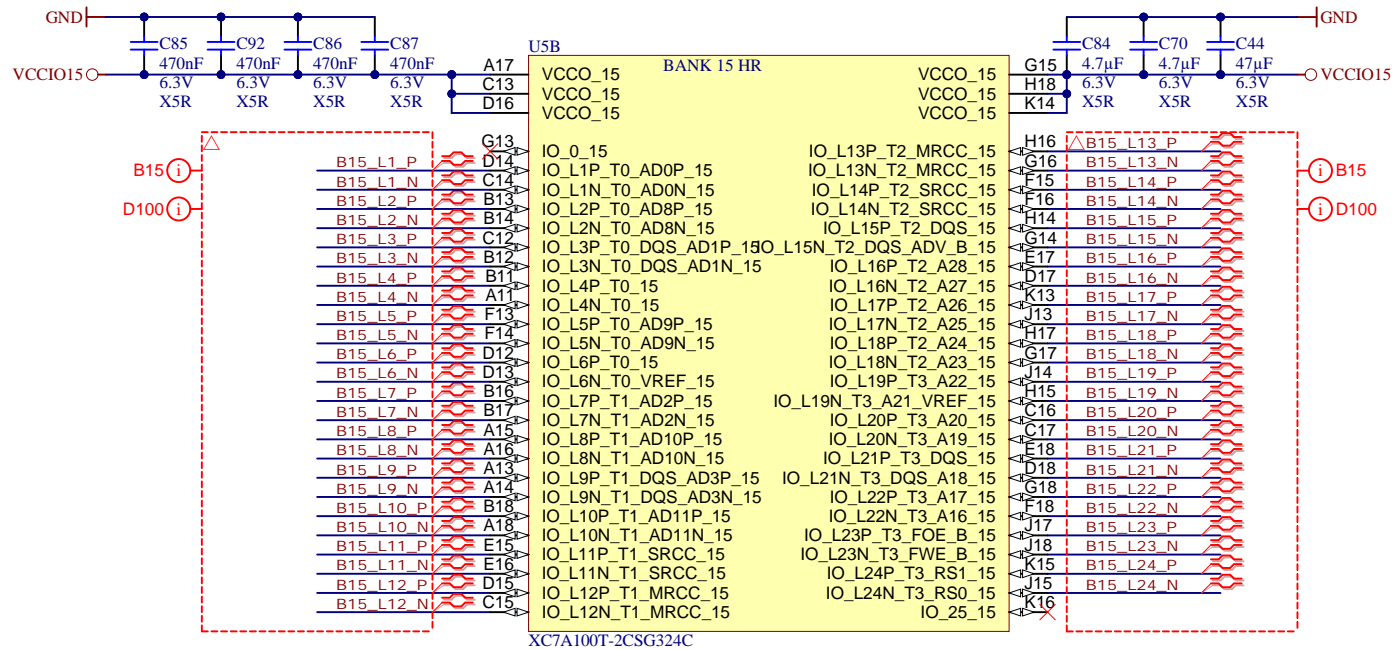
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Date: 24-Aug-23		Copyright: Trenz Electronic GmbH / TT	
Filename: B34.SchDoc			



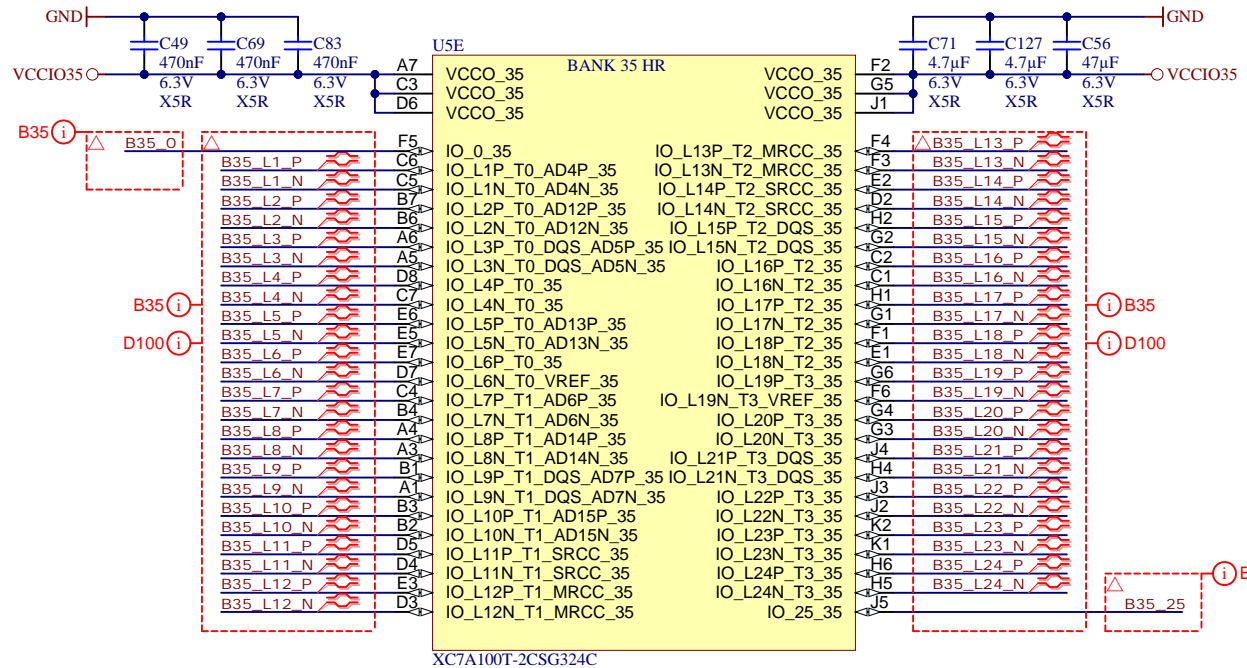

Title: TE0711 - FTDI		
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Filename: FTDI.SchDoc		



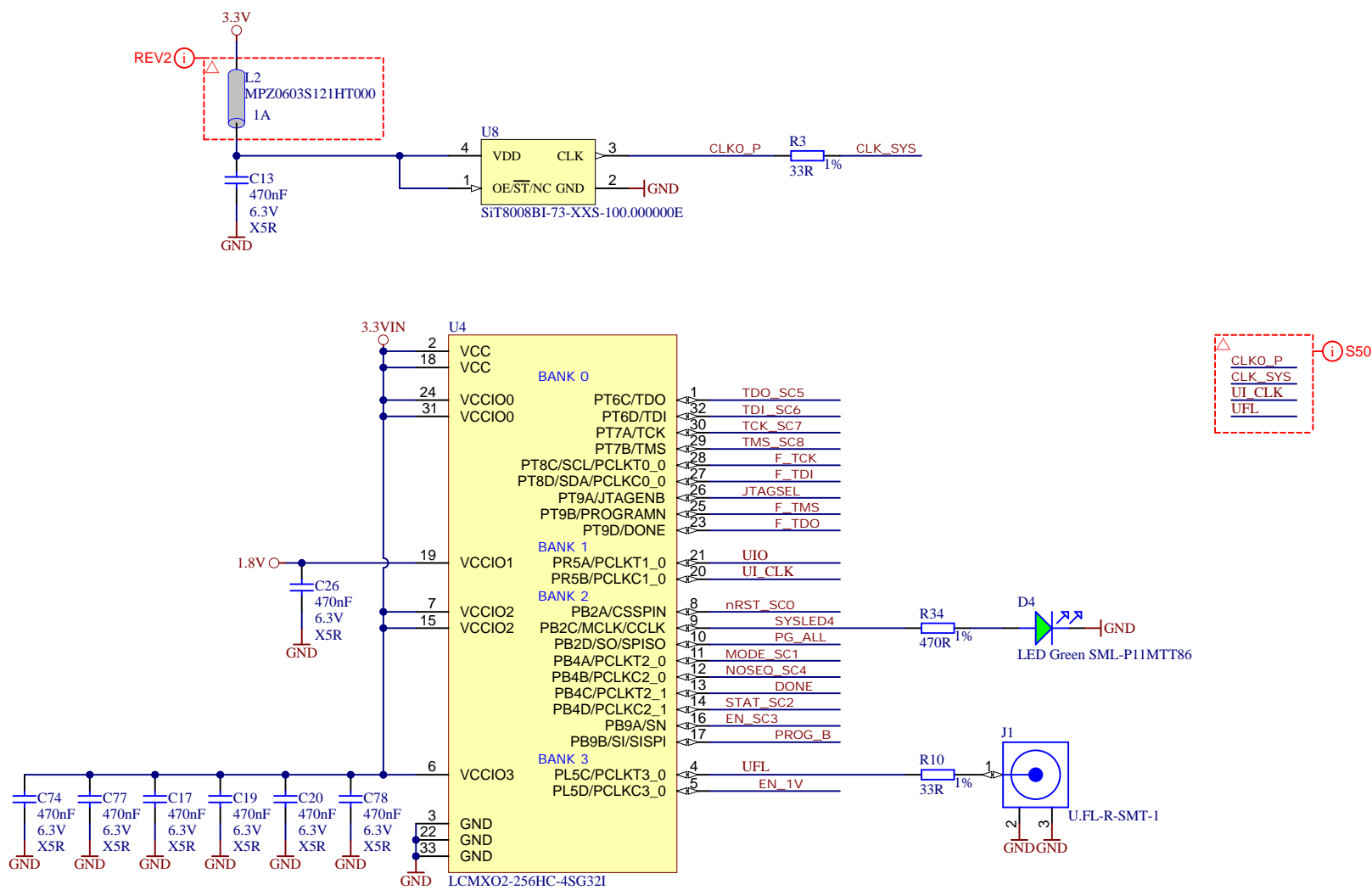
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A4	Number: TE0711 72C-1-A	Rev. 02
Date: 24-Aug-23	Copyright: Trenz Electronic GmbH / TT	Page 11 of 15
Filename: B14_B16.SchDoc		




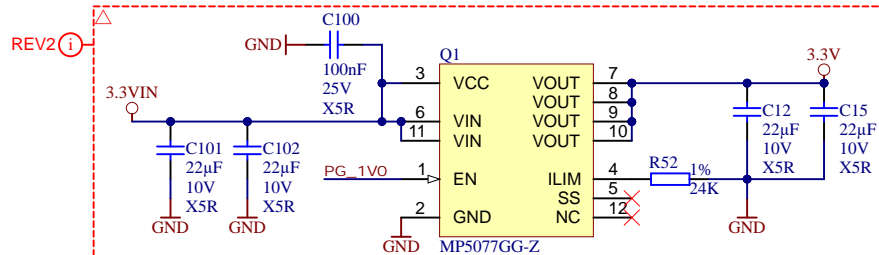
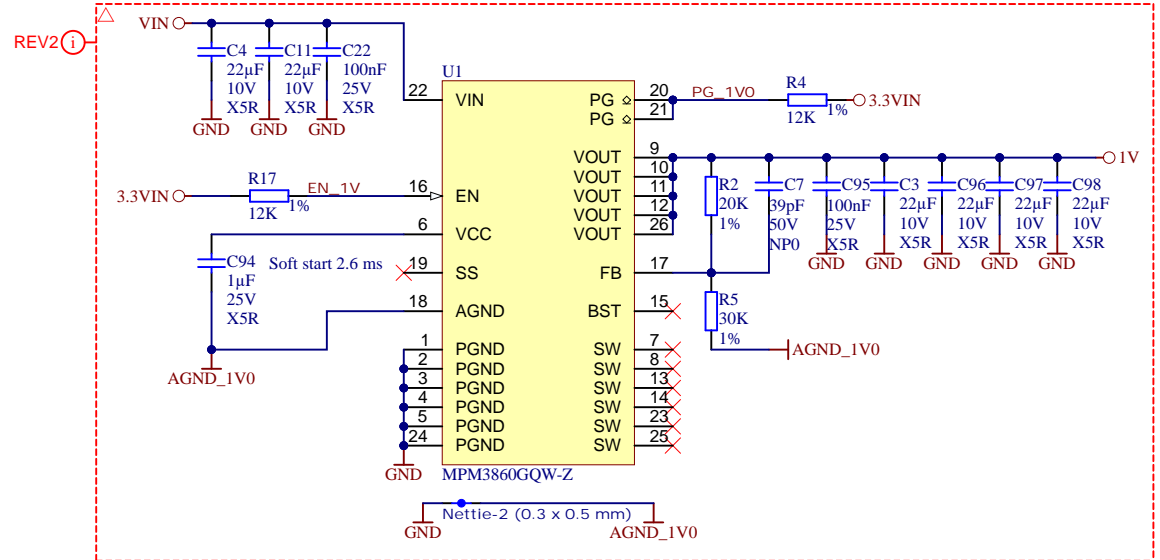
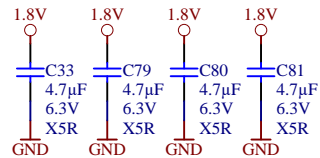
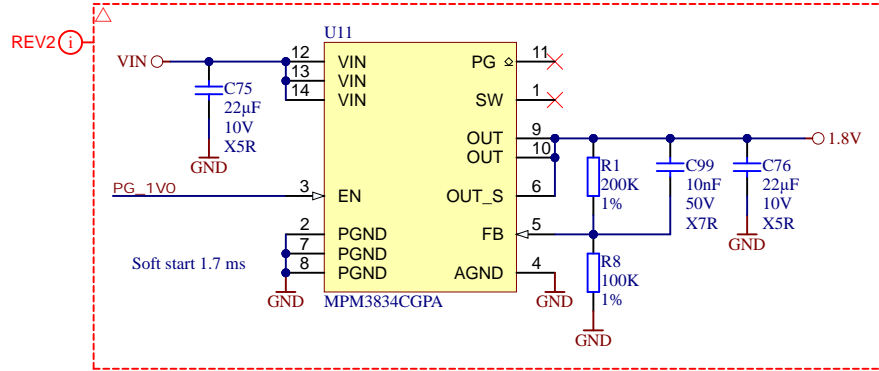
Title: TE0711 - FPGA B15		
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Date: 23-Aug-23	Copyright: Trenz Electronic GmbH / TT	Page 12 of 15
Filename: B15.SchDoc		

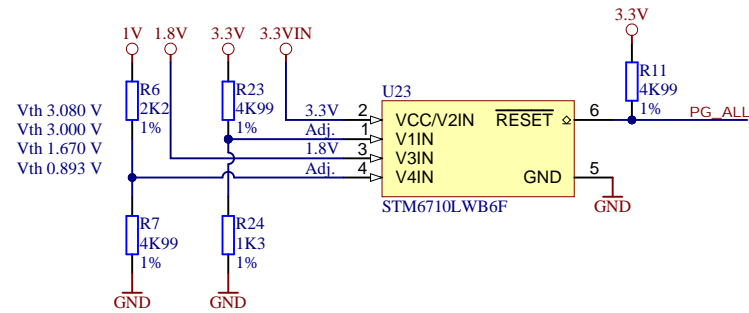
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A4	Number: TE0711 72C-1-A	Rev. 02
Date: 24-Aug-23	Copyright: Trenz Electronic GmbH / TT	Page 13 of 15
Filename: B35.SchDoc		



		Title: TE0711 - System Controller	
		A4	Number: TE0711 72C-1-A
Date: 24-Aug-23		Copyright: Trenz Electronic GmbH	
Filename: SystemController.SchDoc		Page 14 of 15	



Soft start is minimum possible
Ilim set to 3.4A



Title: TE0711 - POWER		
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Filename: POWER.SchDoc		