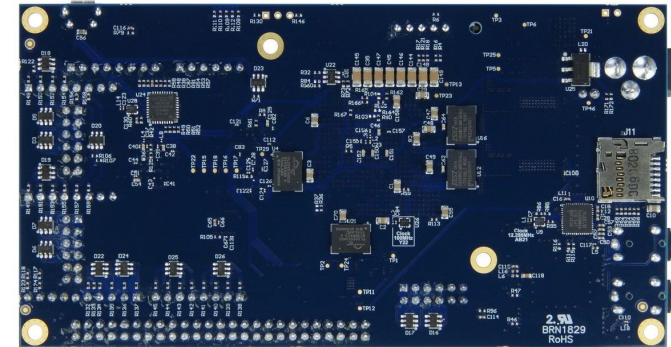
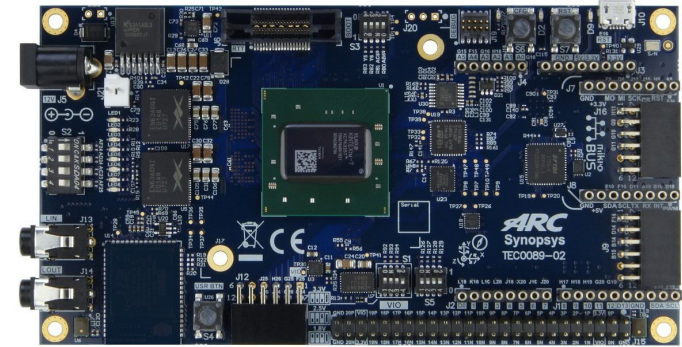



Photo Shows
Similar Product

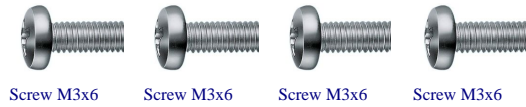
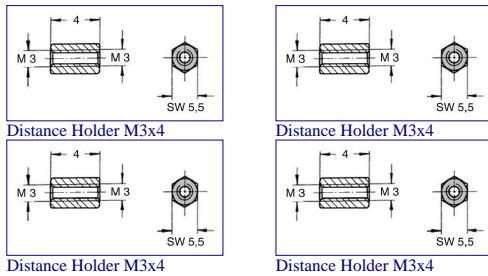
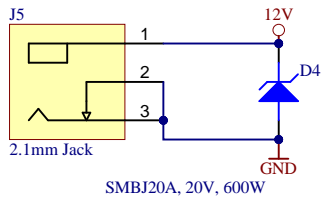


Regarding the usage of our schematics and alike documentation for Trenz module TEC0089.

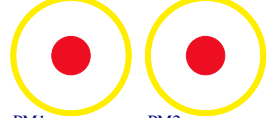
Project is protected under copyright and we strongly and strictly prohibit the reverse engineering or recreation, even if the design is just adapted or modified. TEC0089 is protected under such right and in case of plagiarism we will have to do anything necessary in order to protect our assets.

Schematics and other handouts serve for informational purposes only!

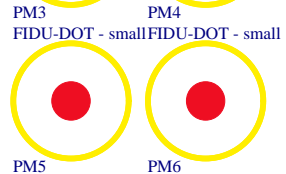
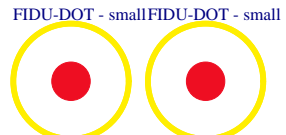
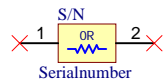
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	A4	Number: TEC0089 D2C-1-D	Rev. 02
	Date: 20.06.2018	Copyright: Trenz Electronic GmbH / TT	Page 0 of 25
	Filename: Legal Notices Modules.SchDoc		



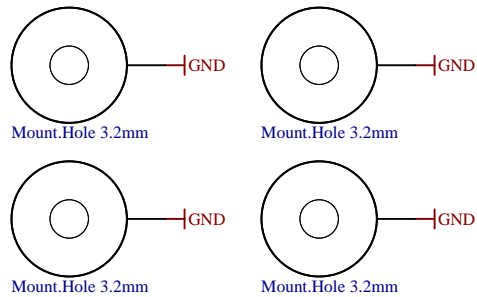
FIDU-DOT - small FIDU-DOT - small



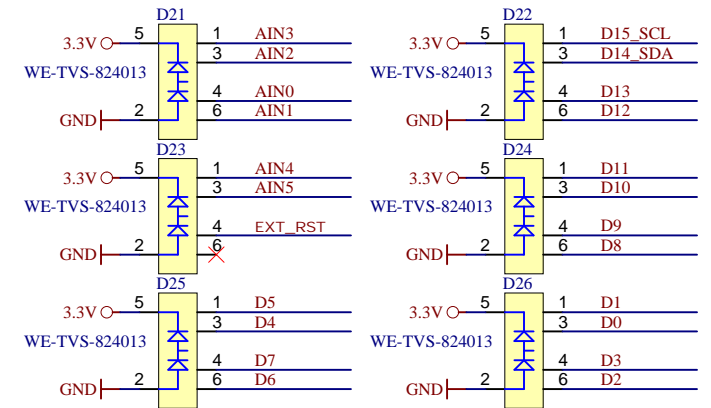
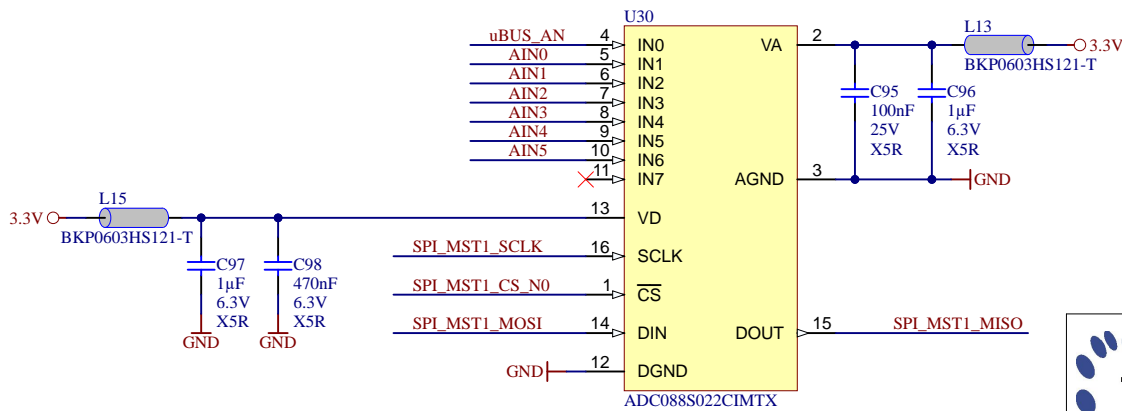
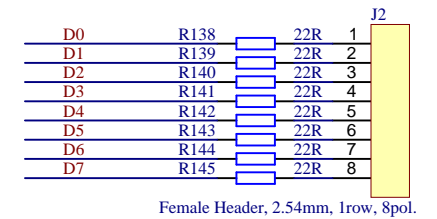
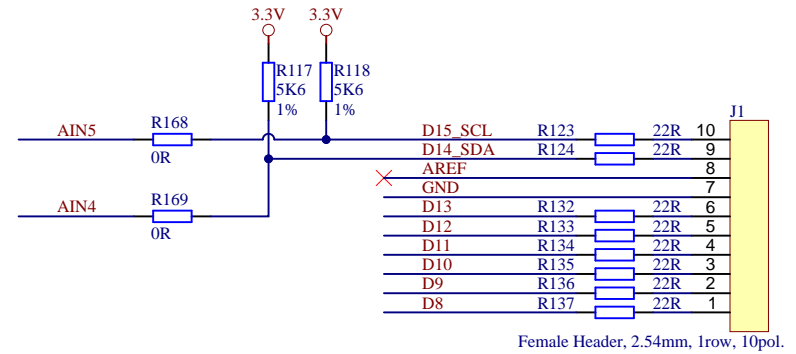
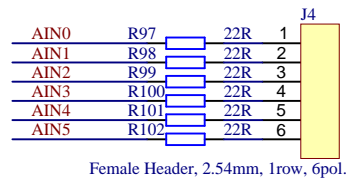
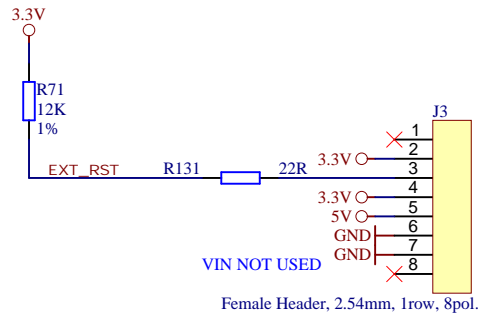
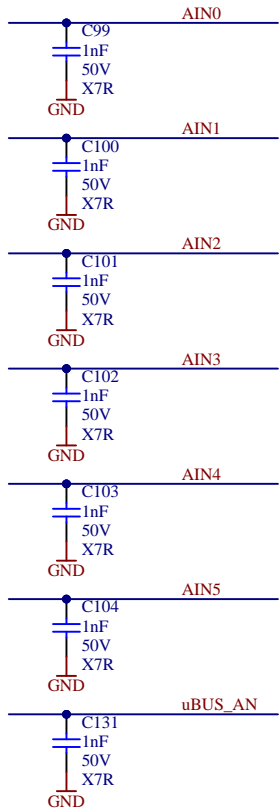
Serial
Serial
Serialnumber 6,3 x 6.3mm



LOGO1
TE Logo PRINT Layer
LOGO PRINT

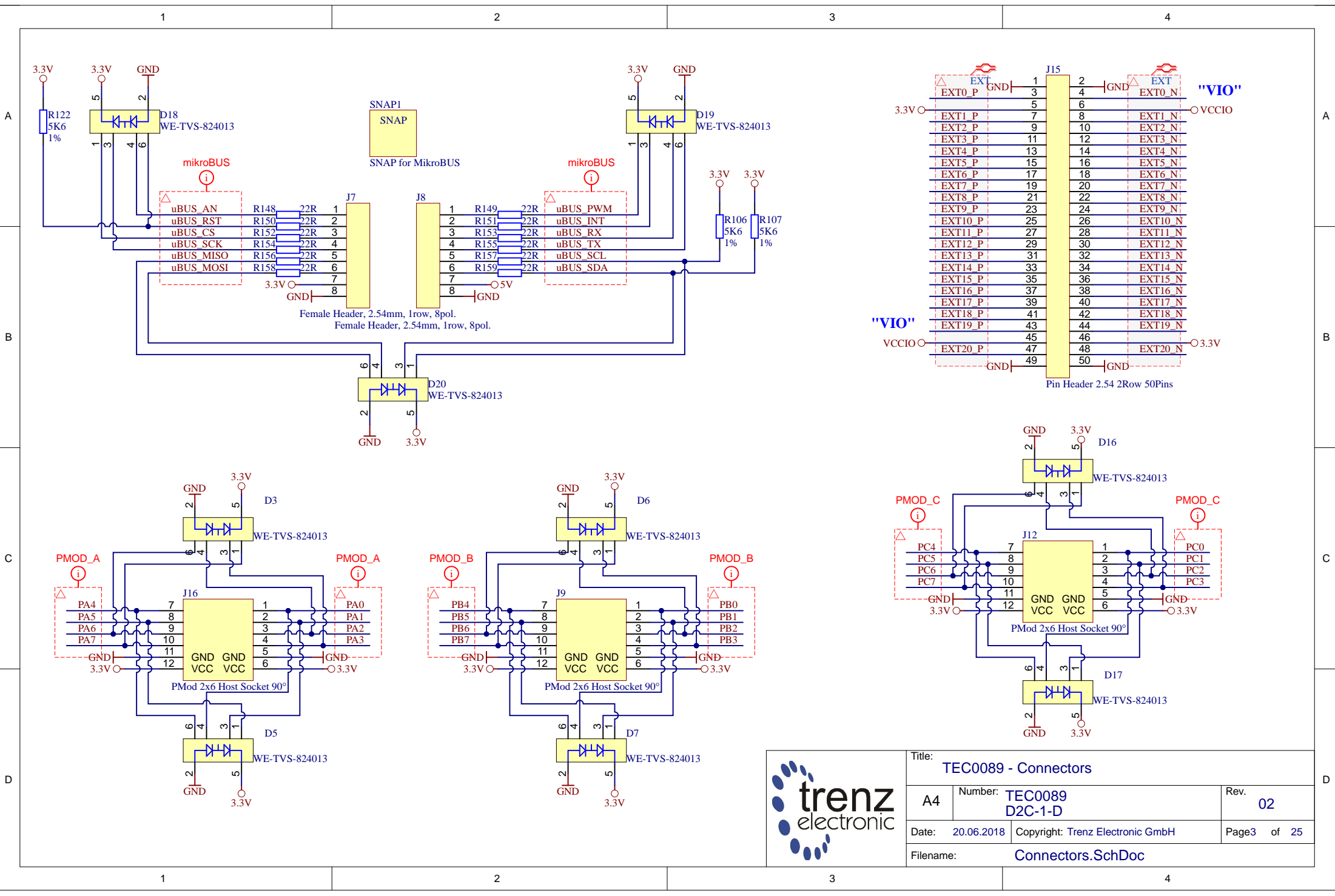


	Title: TEC0089	
	A4	Number: TEC0089 D2C-1-D
	Date: 20.06.2018	Copyright: Trenz Electronic GmbH
	Rev. 02	Page1 of 25
Filename: EMDK.SchDoc		



Title: **TEC0089 - Connectors**

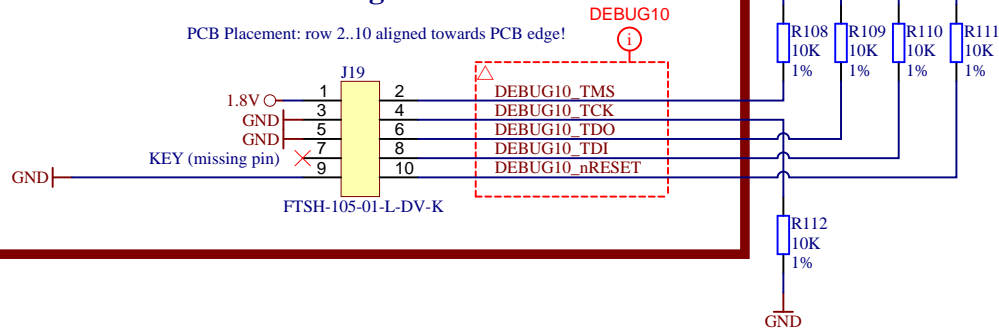
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 2 of 25
Filename: A-Headers.SchDoc		



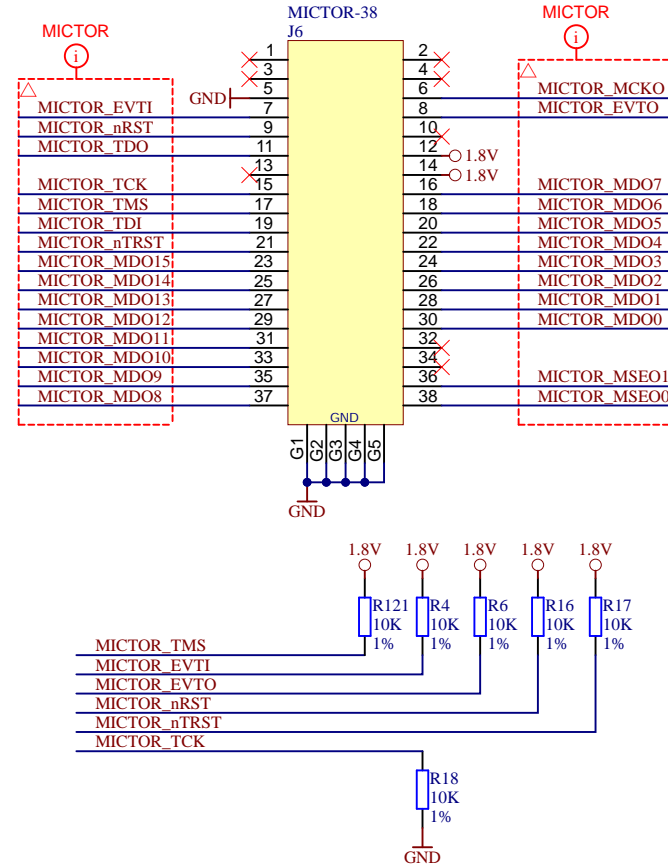
Title: TEC0089 - Connectors		
A4	Number: TEC0089 D2C-1-D	Rev. 02
Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 3 of 25
Filename: Connectors.SchDoc		

10 Pin Debug Connector

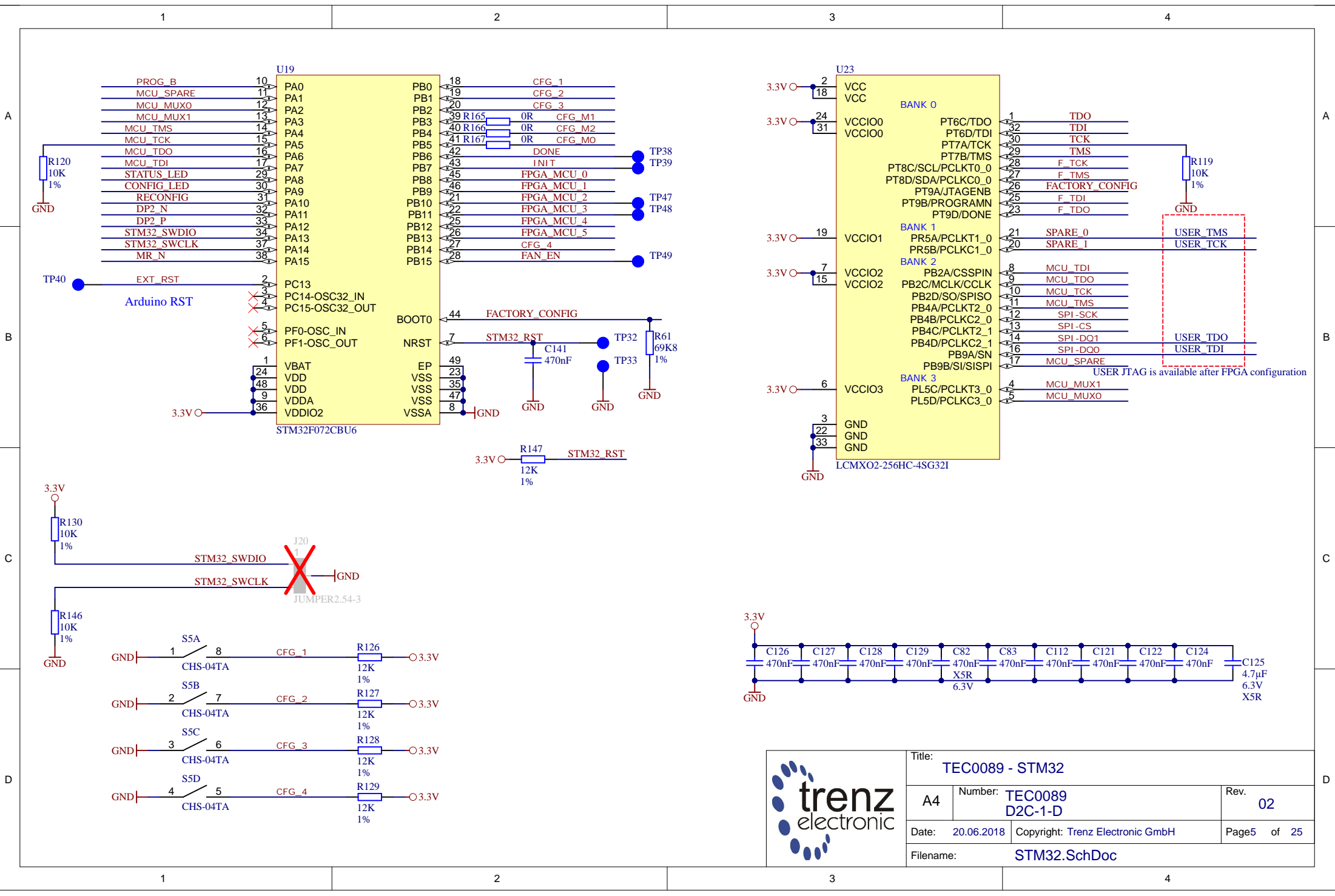
PCB Placement: row 2..10 aligned towards PCB edge!



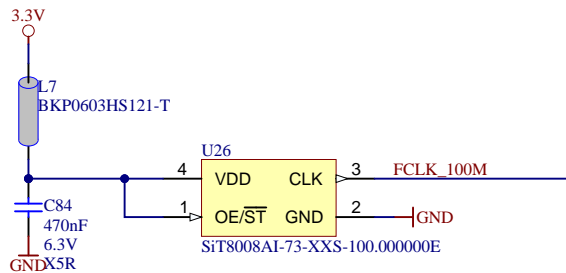
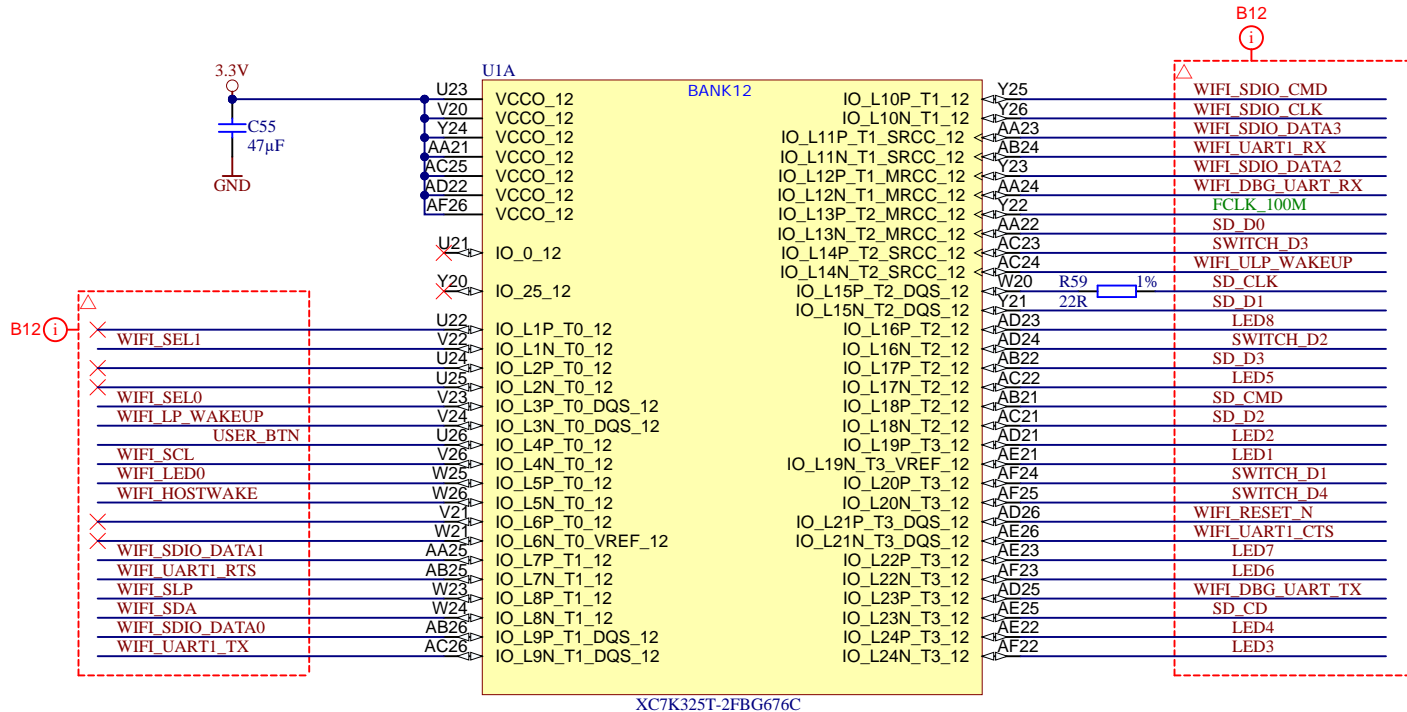
Mictor Debug Connector




Title: TEC0089 - Connectors		
A4	Number: TEC0089 D2C-1-D	Rev. 02
Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 4 of 25
Filename: Debug_Connectors.SchDoc		

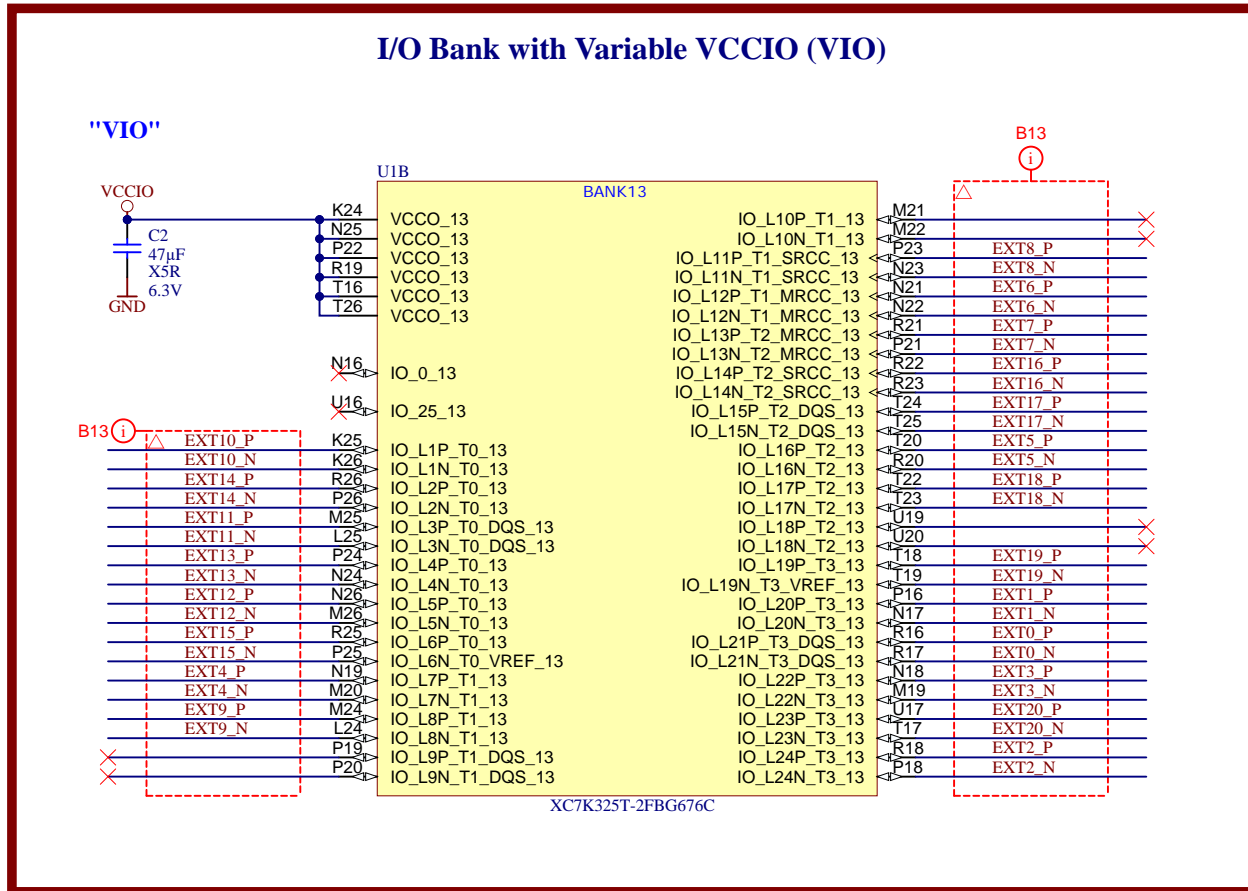


Title: TEC0089 - STM32		
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 5 of 25
Filename: STM32.SchDoc		

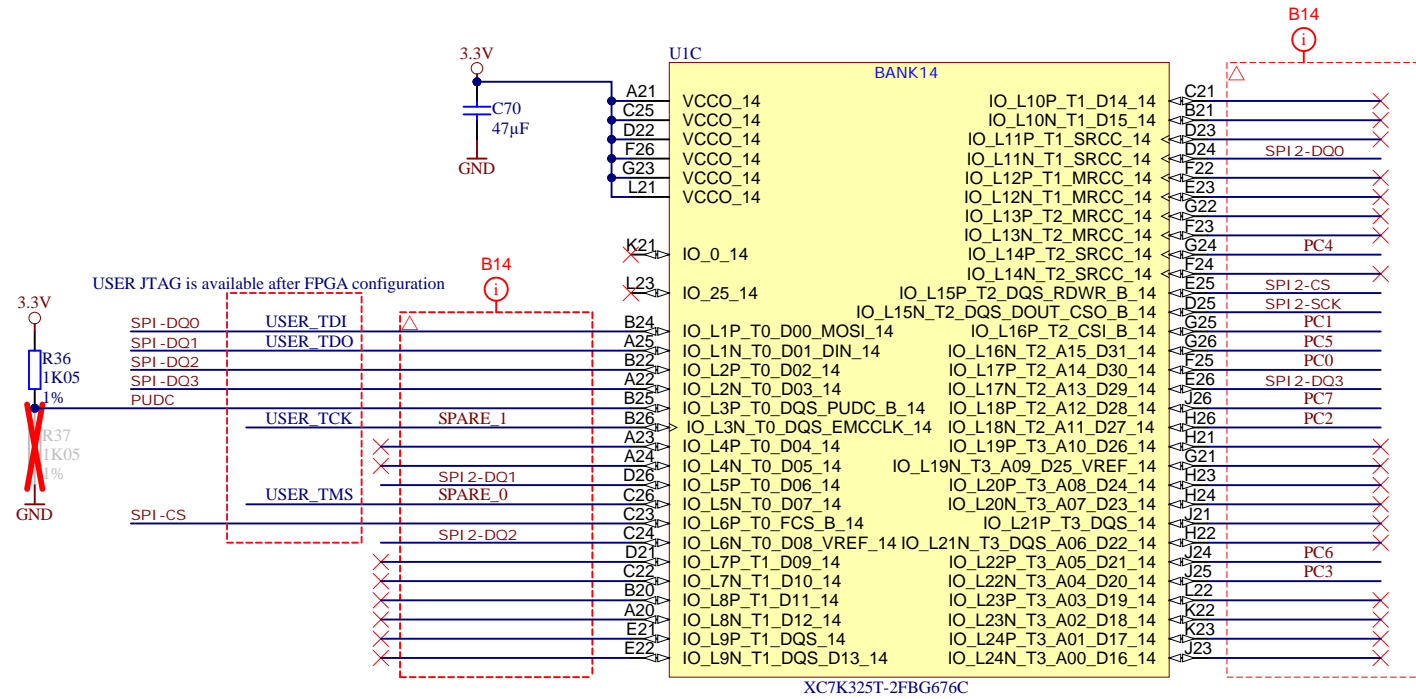


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Date: 20.06.2018		Copyright: Trenz Electronic GmbH		Page 6 of 25
Filename: B12.SchDoc				

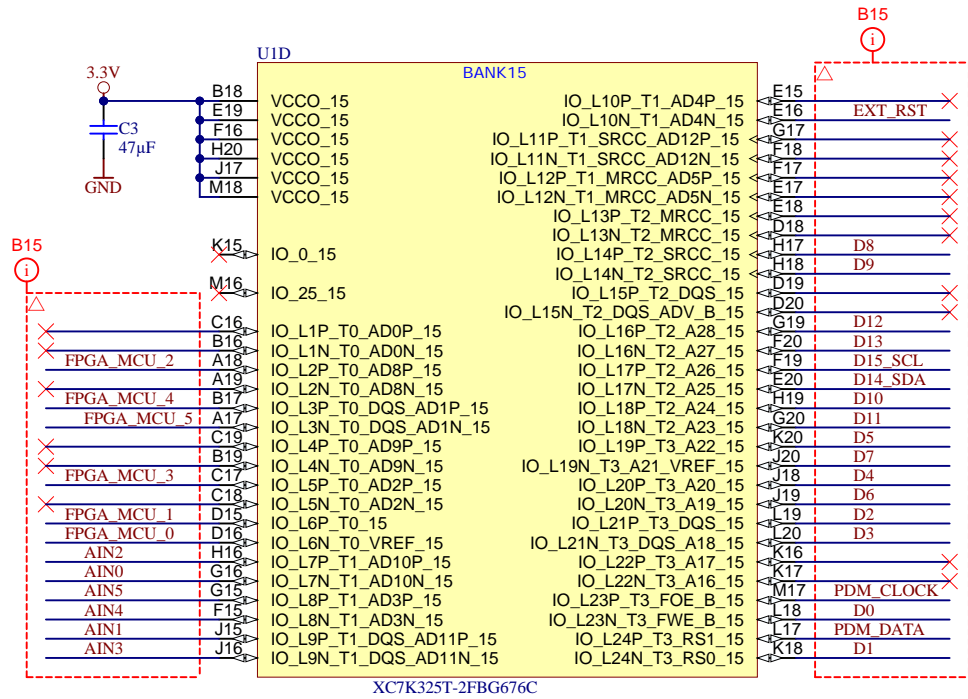
I/O Bank with Variable VCCIO (VIO)



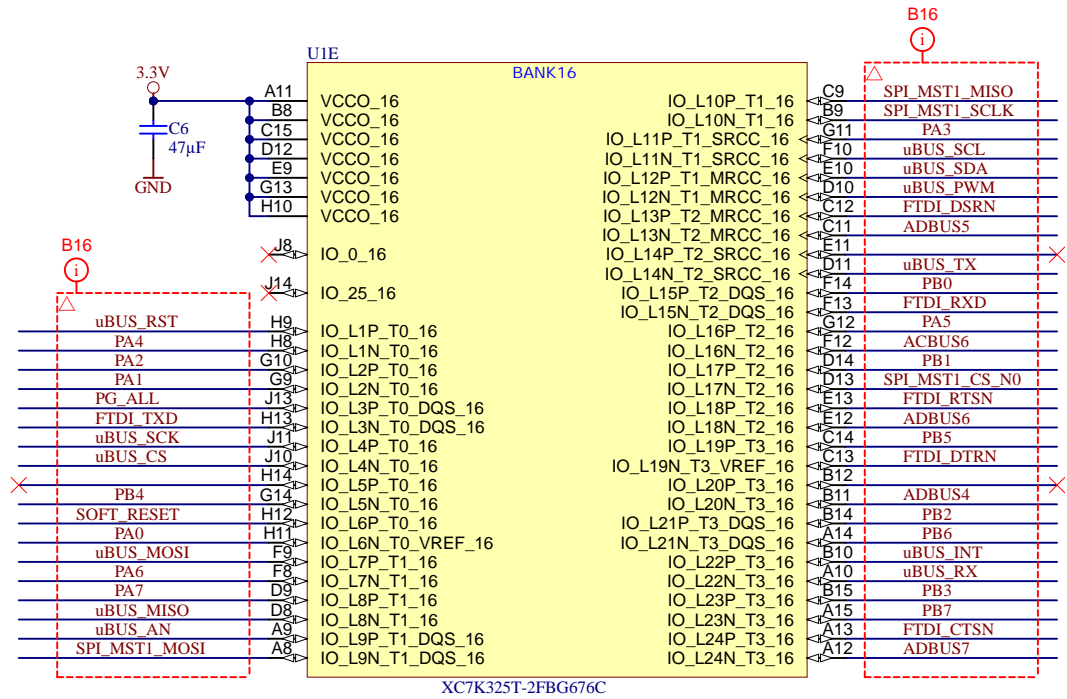
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 7 of 25
Filename: B13.SchDoc		



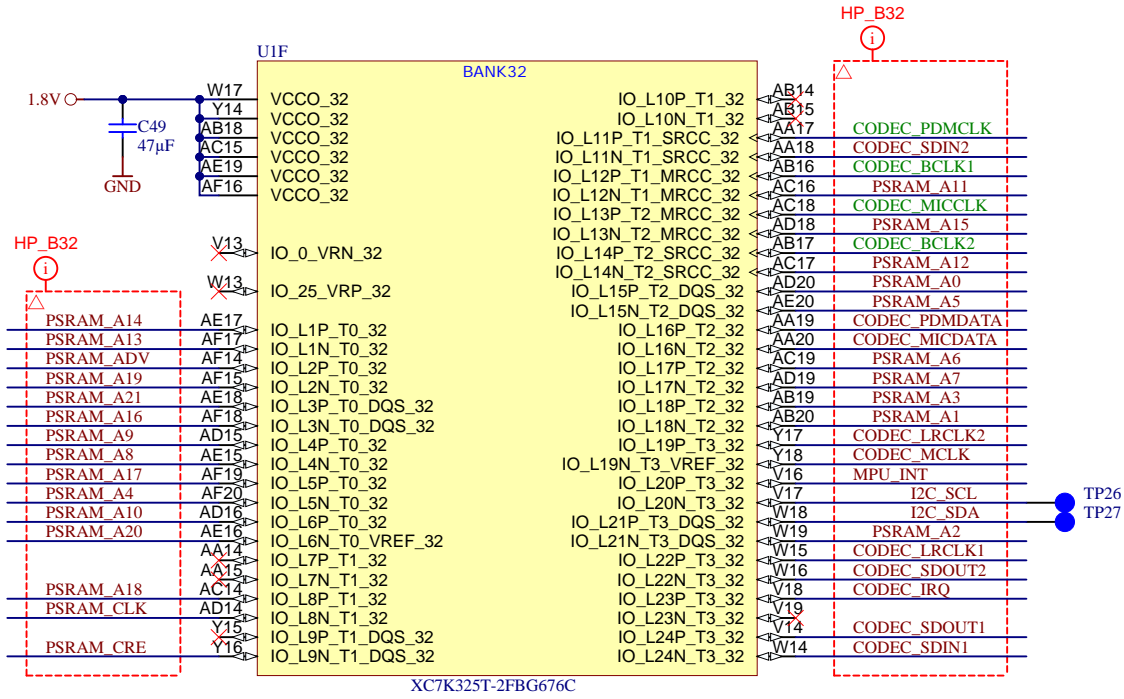
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 8 of 25
Filename: B14.SchDoc		




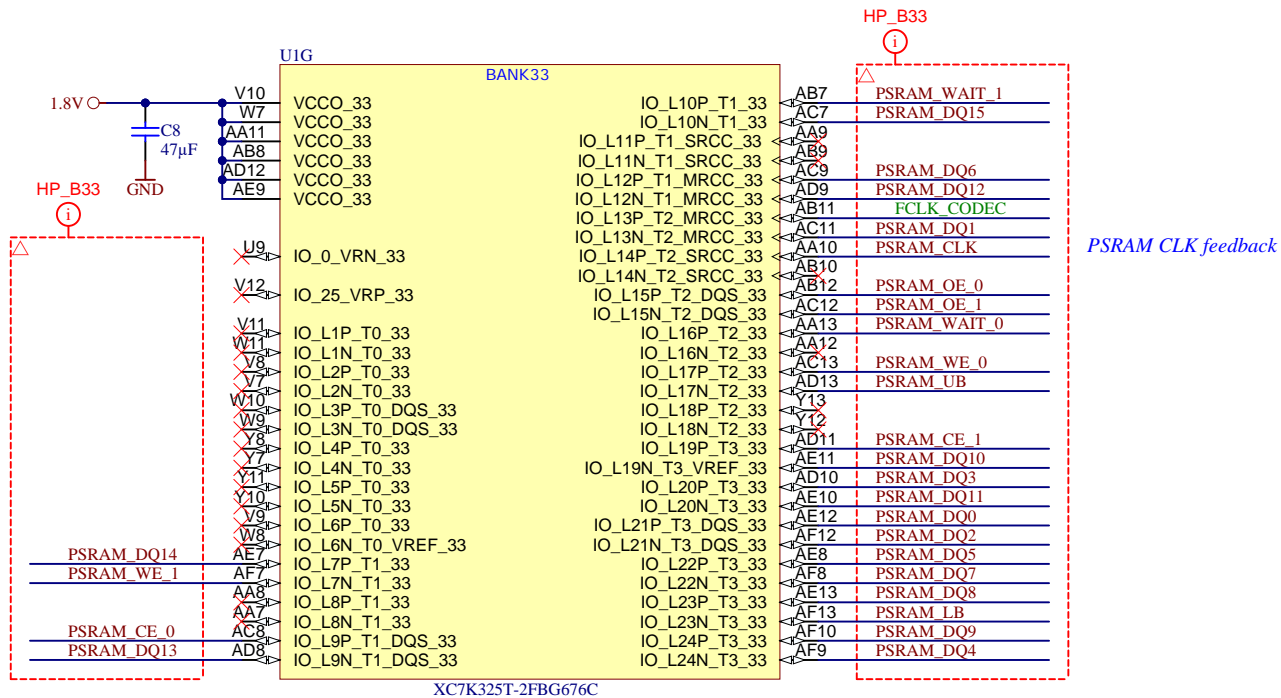
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	Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 9 of 25
	Filename: B15.SchDoc		



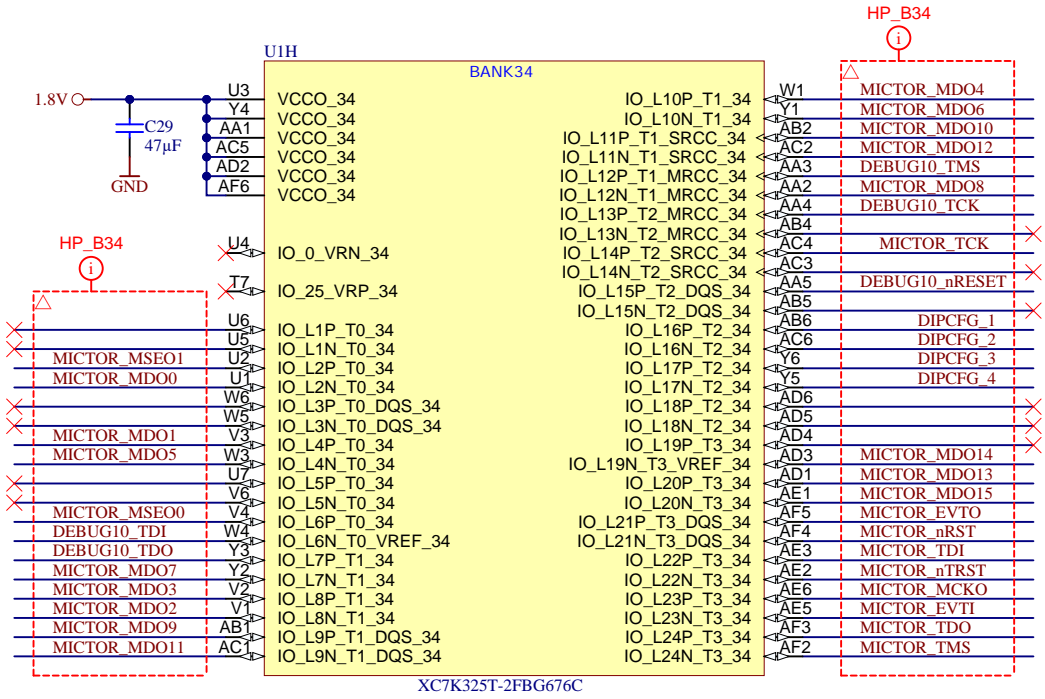
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	Date: 20.06.2018	Copyright: Trenz Electronic GmbH
	Filename: B16.SchDoc	



		Title: TEC0089 - B32	
		A4	Number: TEC0089 D2C-1-D
Date: 20.06.2018		Copyright: Trenz Electronic GmbH	
Filename: B32.SchDoc		Page 11 of 25	

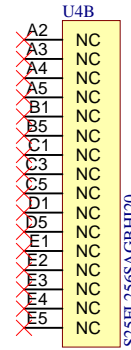
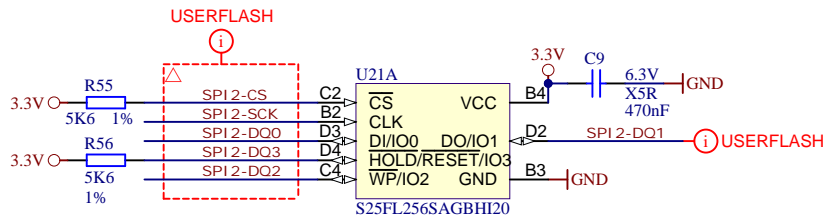
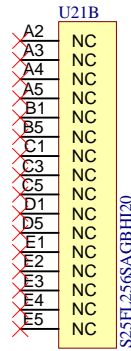
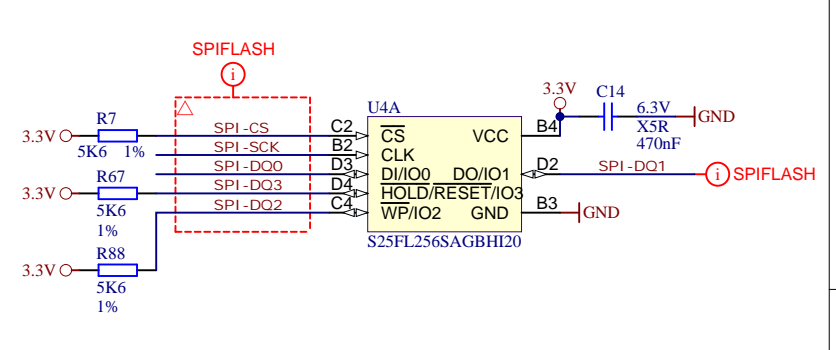
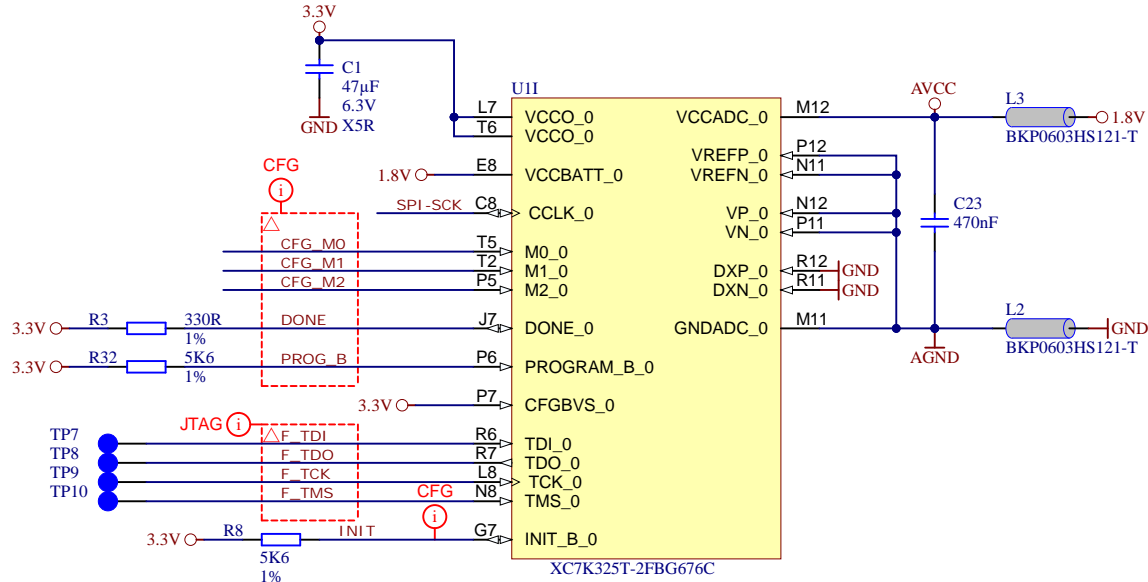
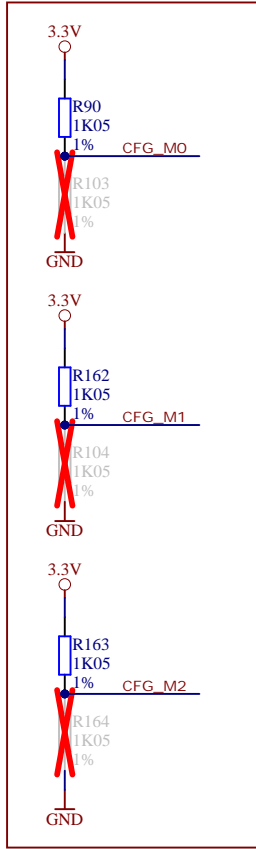


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	Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 12 of 25
	Filename: B33.SchDoc		

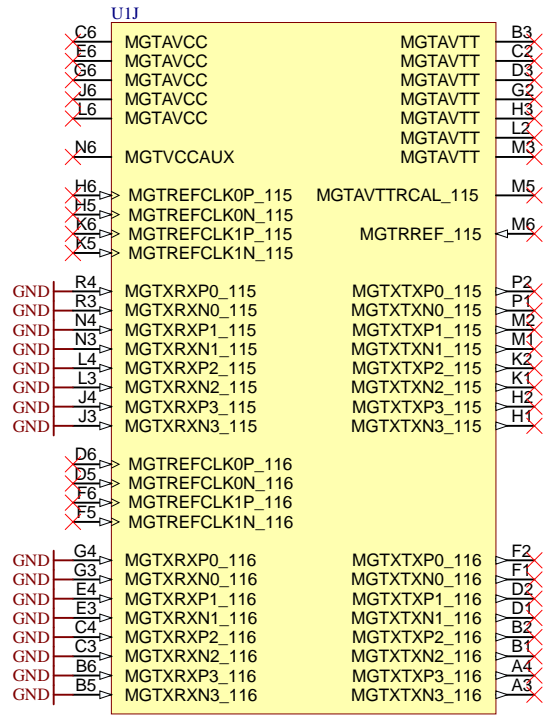


Title: TEC0089 - B34		
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 13 of 25
Filename: B34.SchDoc		


Slave Serial

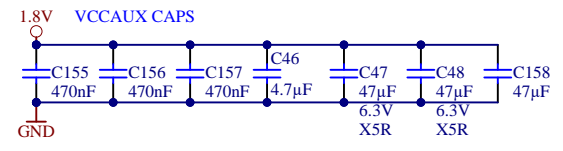
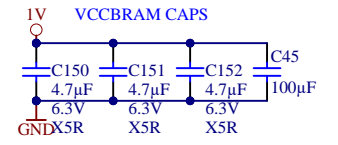
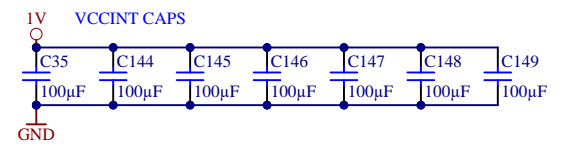
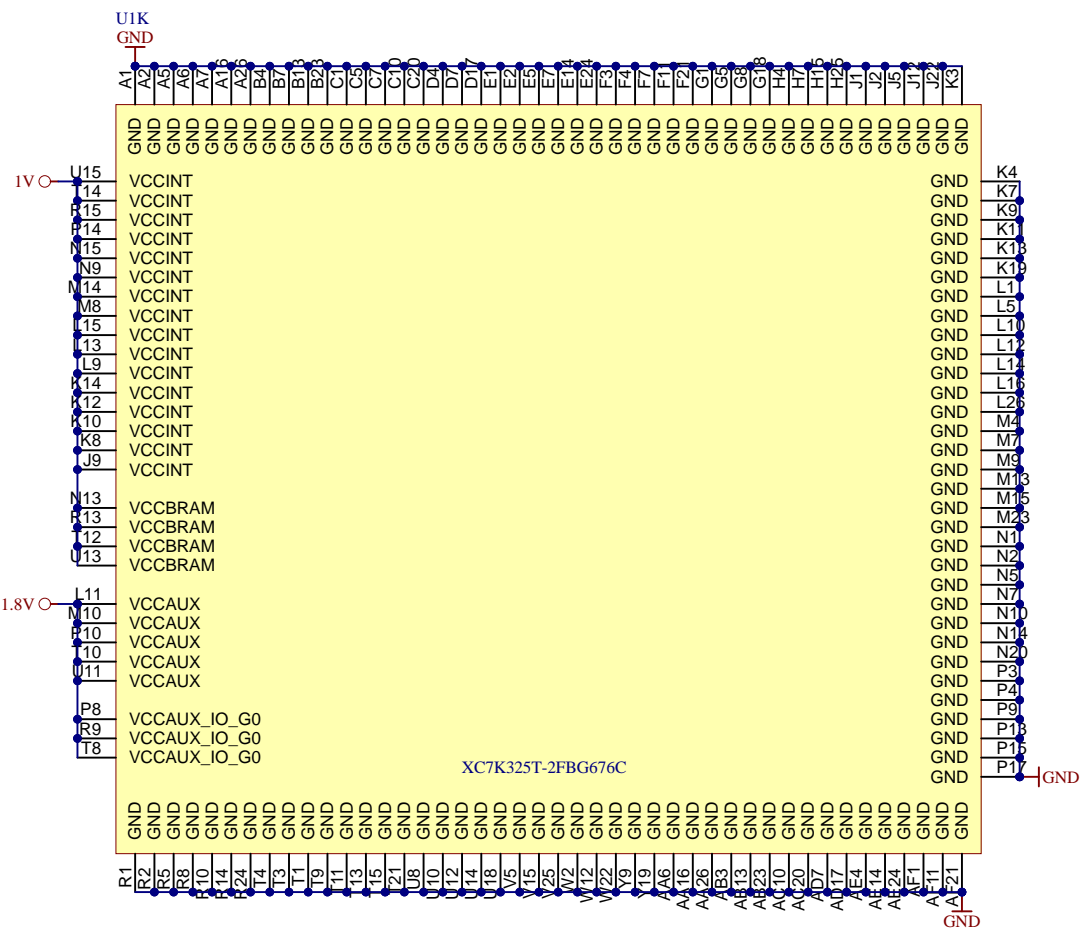


Title: TEC0089 - FPGA_CFG		
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 14 of 25
Filename: FPGA-CFG.SchDoc		

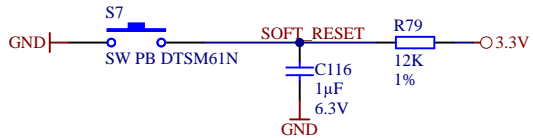
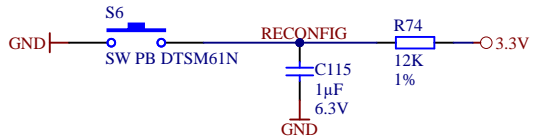
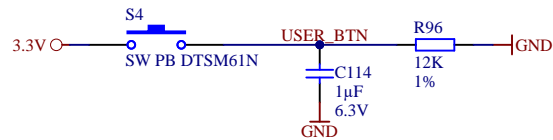
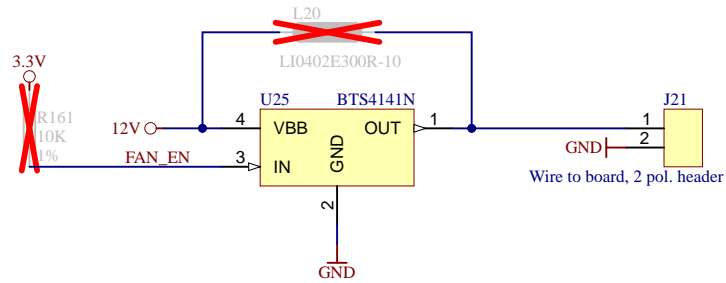
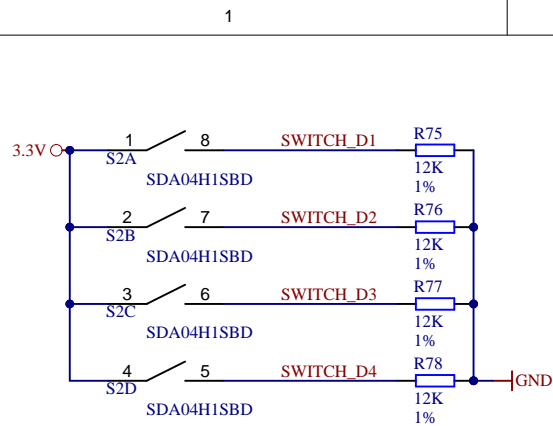


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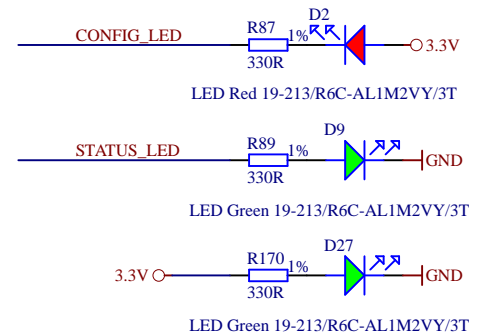
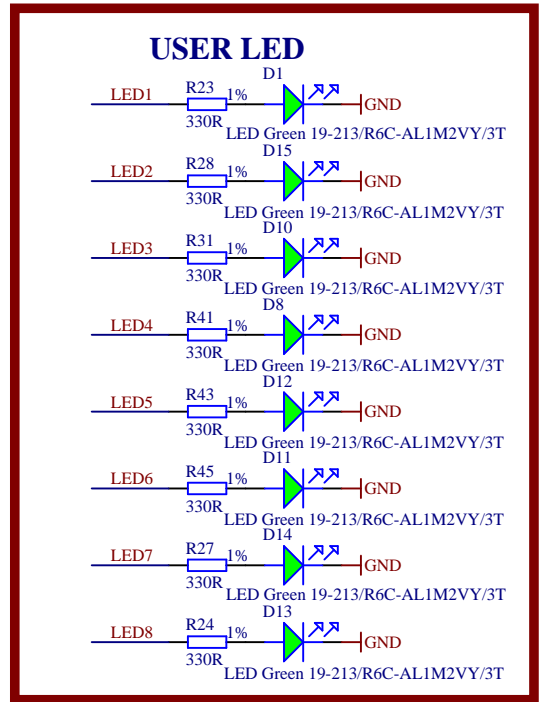
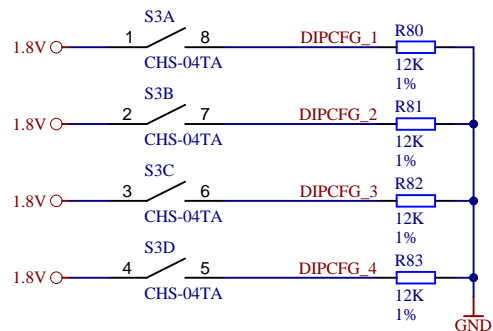
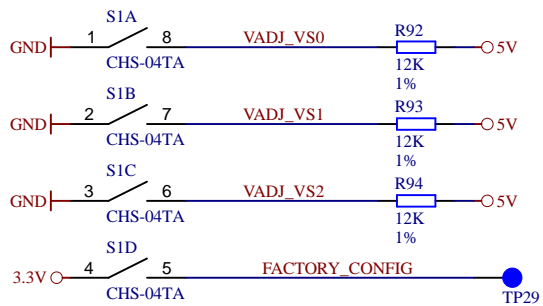
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	Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 15 of 25
	Filename: FPGA-MGT.SchDoc		



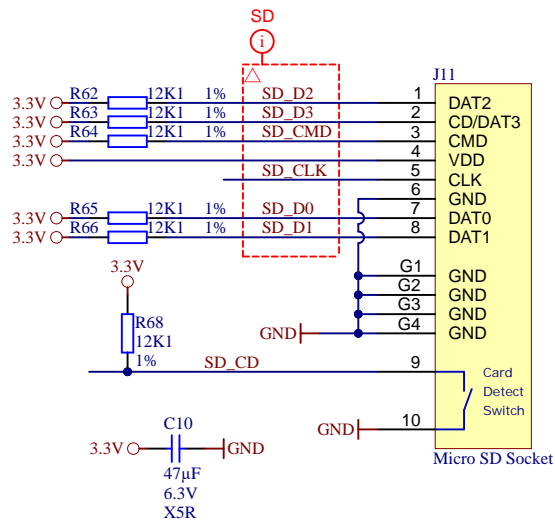
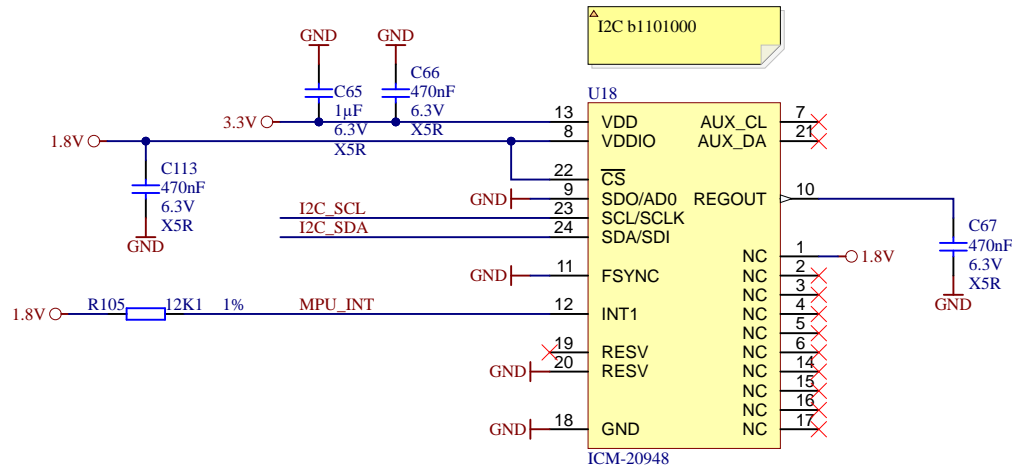
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A4	Number: TEC0089 D2C-1-D	Rev. 02
Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 16 of 25
Filename: FPGA-PWR.SchDoc		




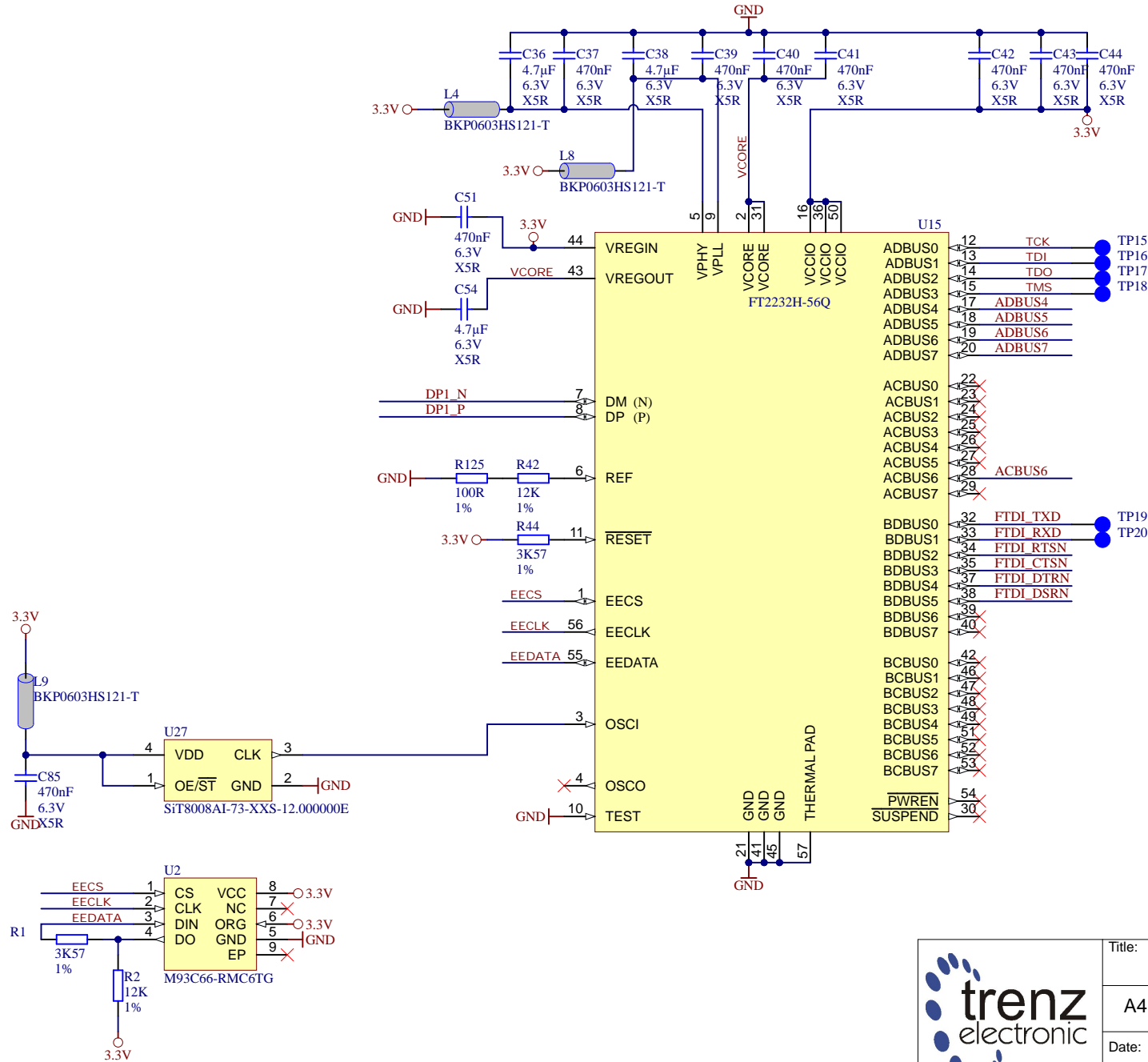
VIO Voltage Select




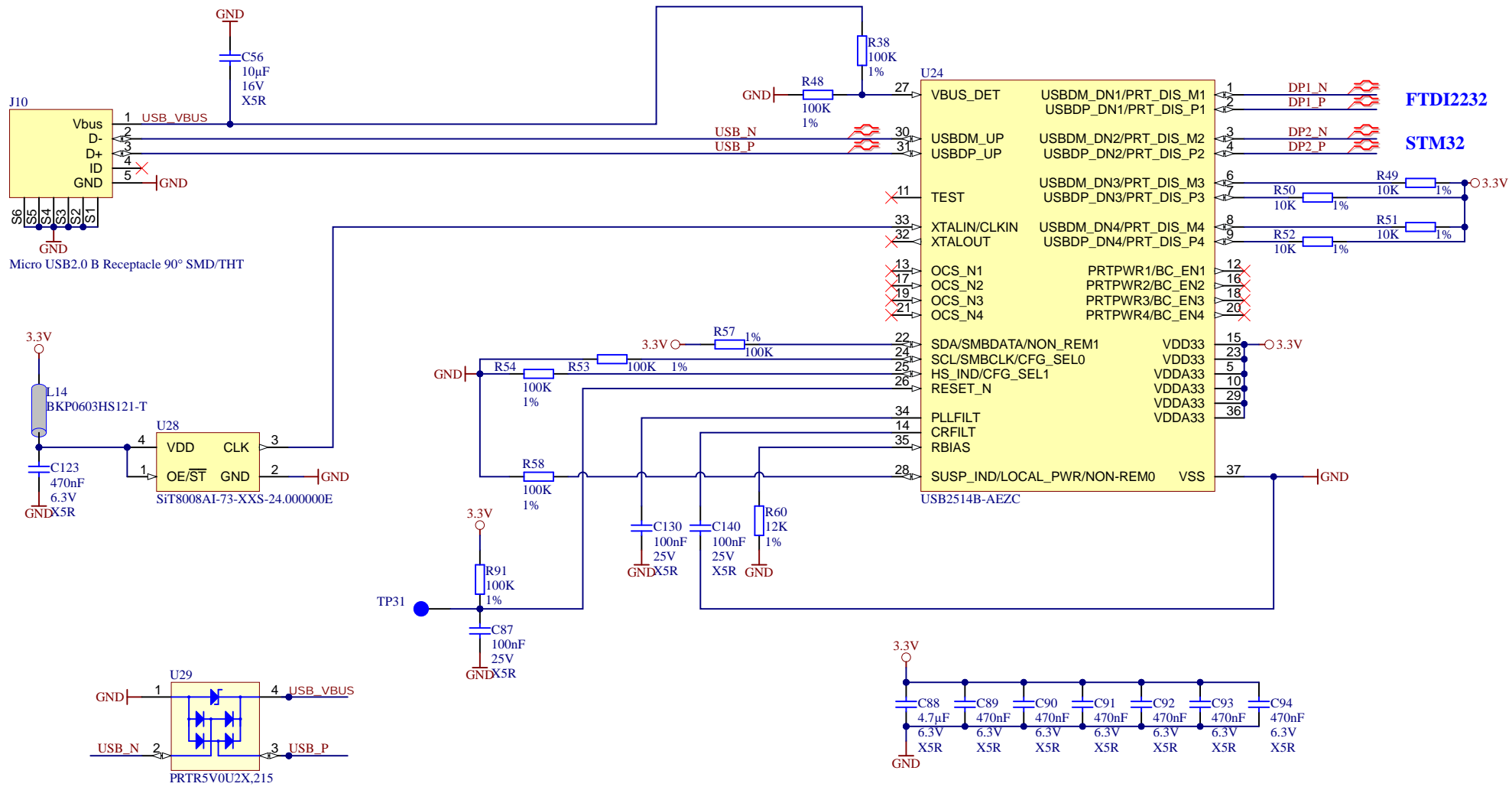
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Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 17 of 25
Filename: PB_LED.SchDoc		




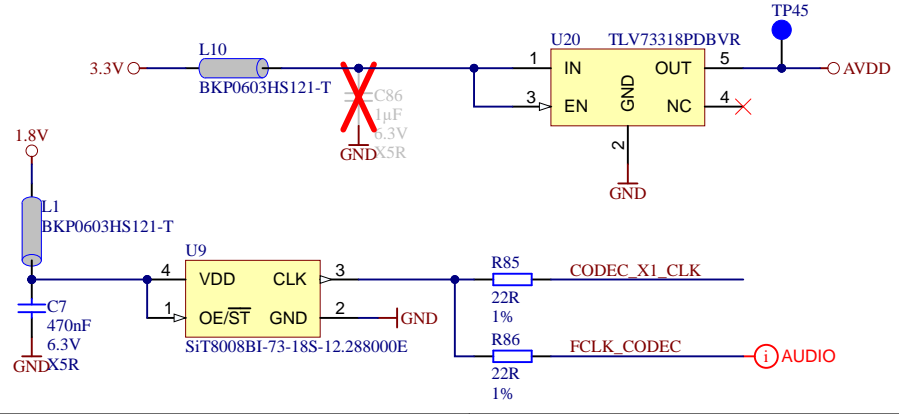
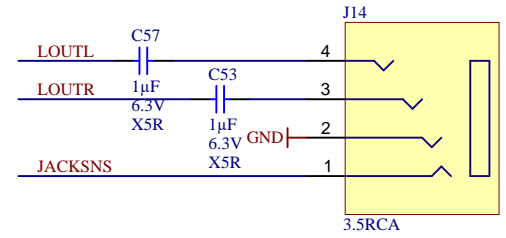
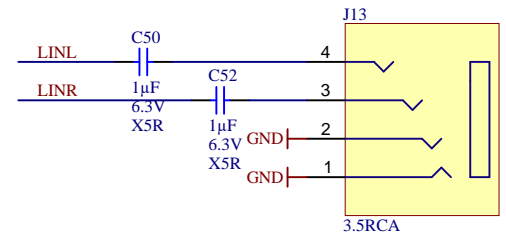
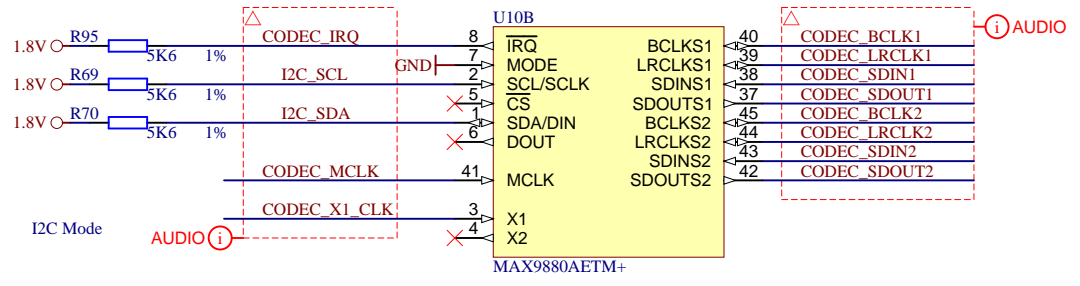
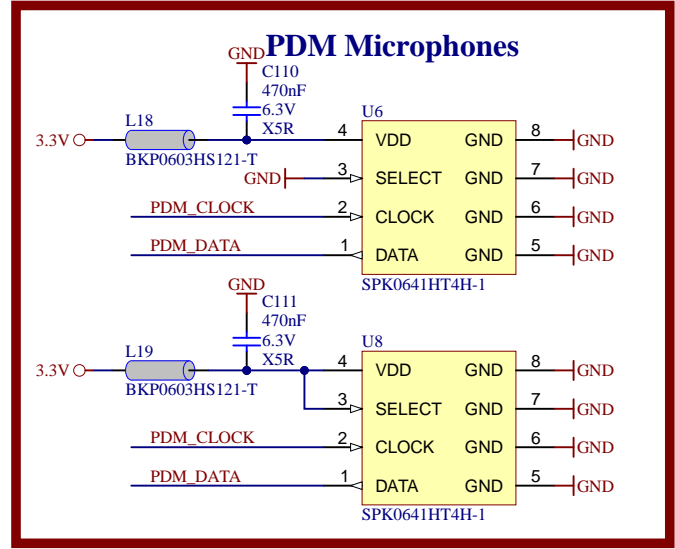
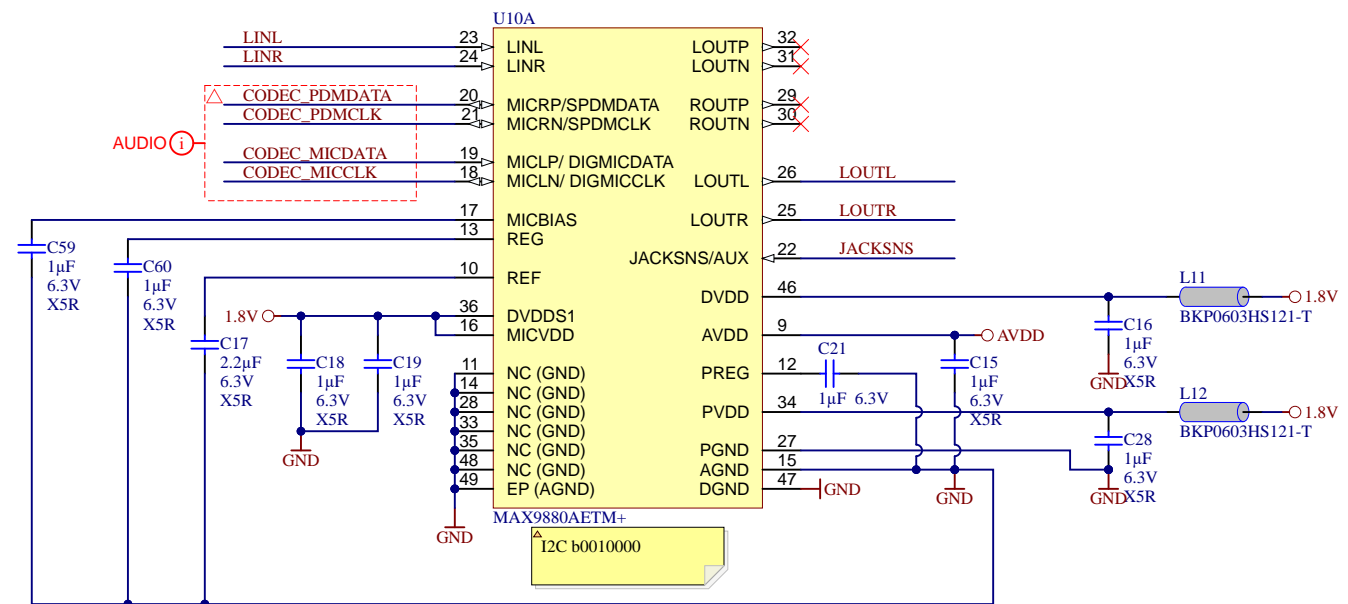
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	A4	Number: TEC0089 D2C-1-D	Rev. 02
	Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 18 of 25
	Filename: sd_sensor.SchDoc		



		Title: TEC0089 - FTDI	
		A4	Number: TEC0089 D2C-1-D
Date: 20.06.2018		Copyright: Trenz Electronic GmbH	
Filename: FTDI.SchDoc		Page 19 of 25	

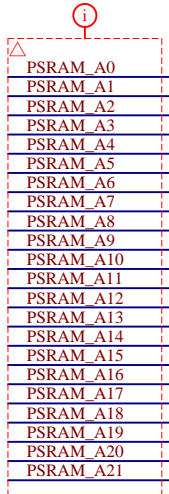


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			A4	Number: TEC0089 D2C-1-D
Date: 20.06.2018		Copyright: Trenz Electronic GmbH		Page 20 of 25
Filename: USB-HUB.SchDoc				

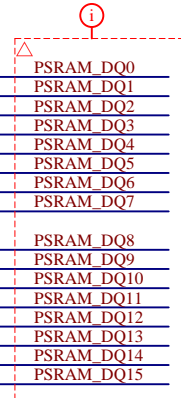


Title: TEC0089 - AUDIO		
A4	Number: TEC0089 D2C-1-D	Rev. 02
Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 21 of 25
Filename: Audio.SchDoc		

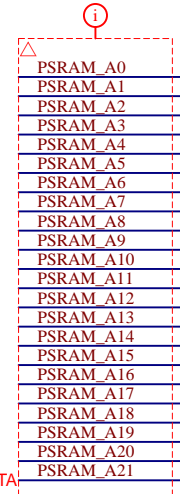
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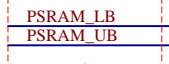
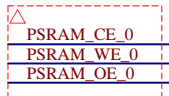
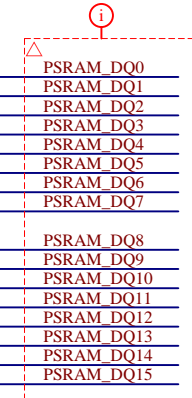
PSRAM_DATA



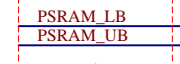
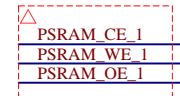
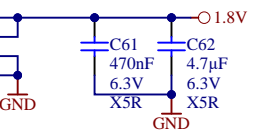
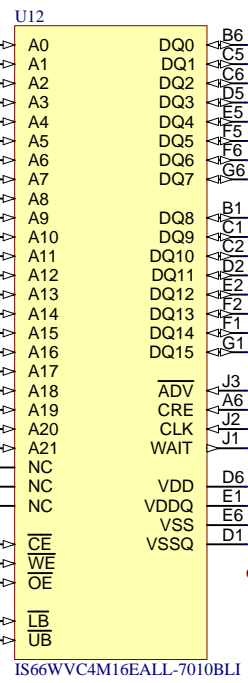
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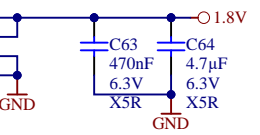
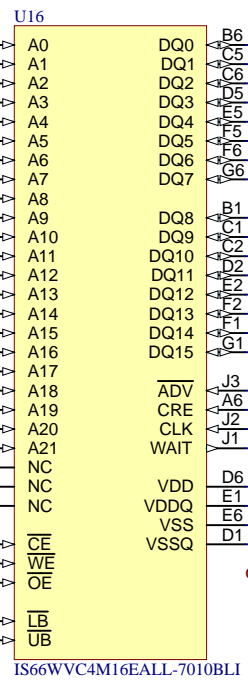
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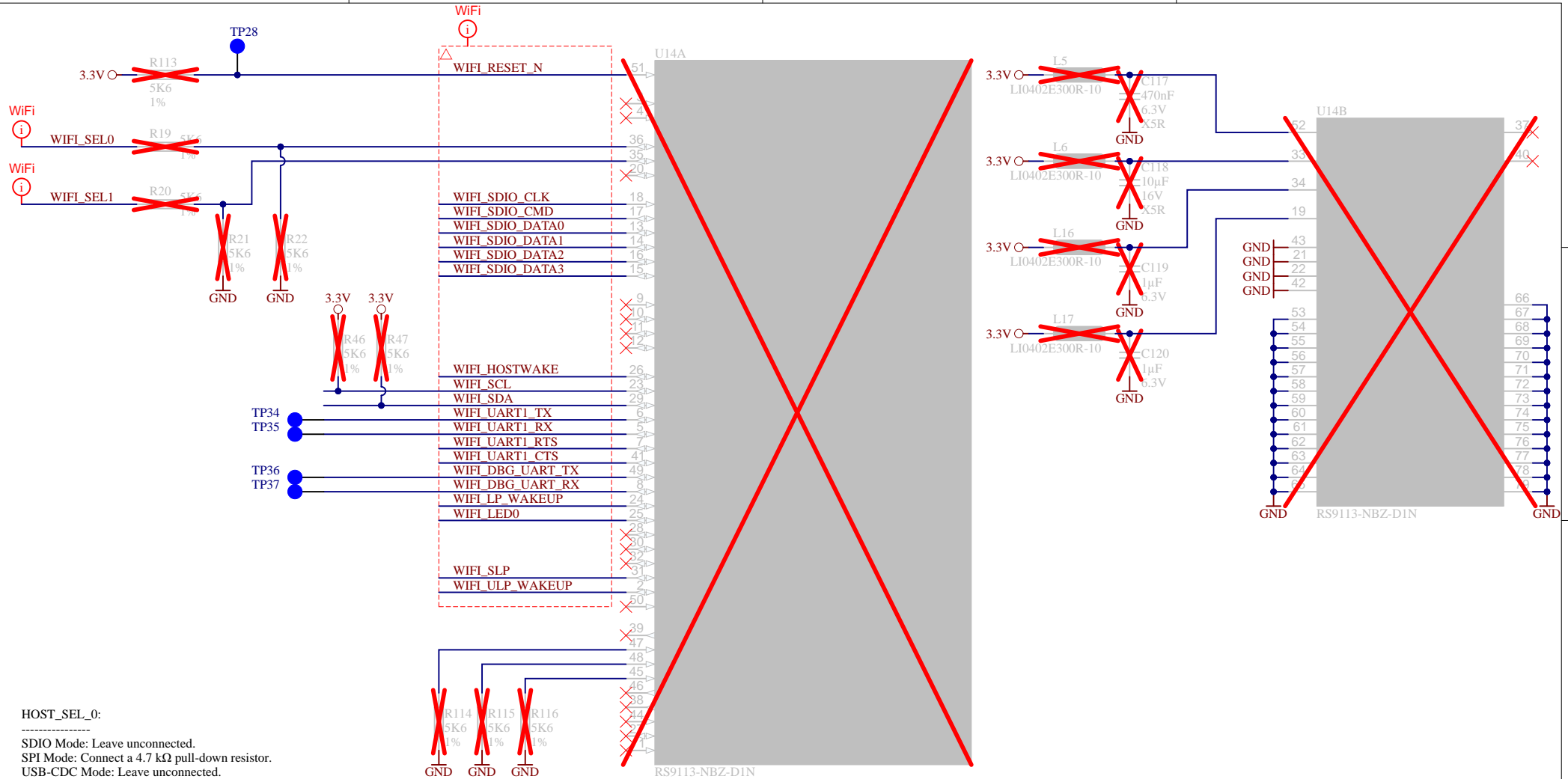
PSRAM_DATA



PSRAM_DATA



Title: TEC0089 - PSRAM		
A4	Number: TEC0089 D2C-1-D	Rev. 02
Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 22 of 25
Filename: PSRAM.SchDoc		




HOST_SEL_0:

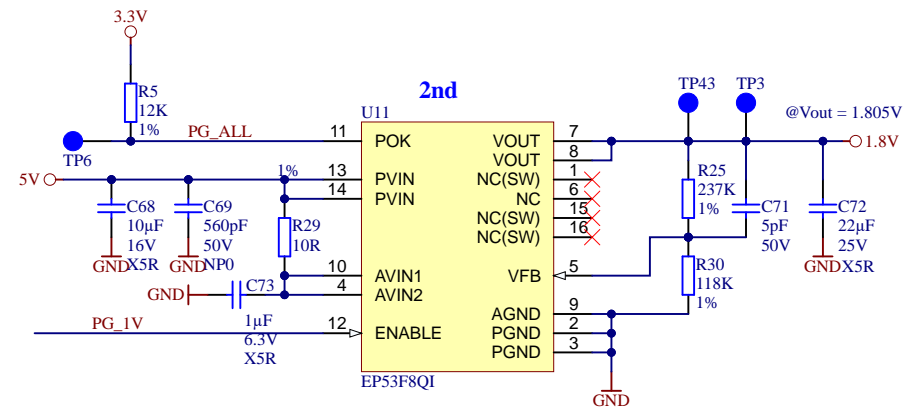
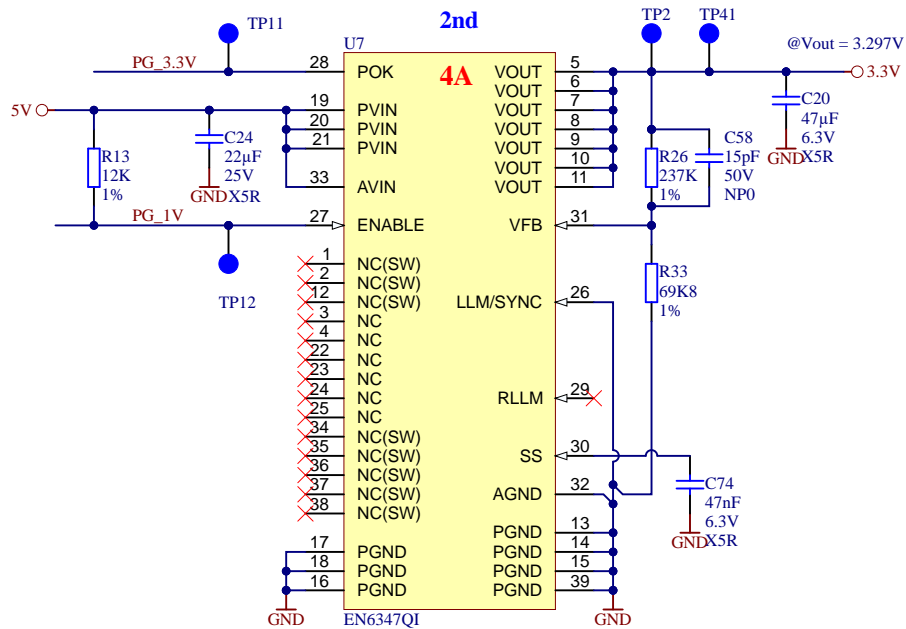
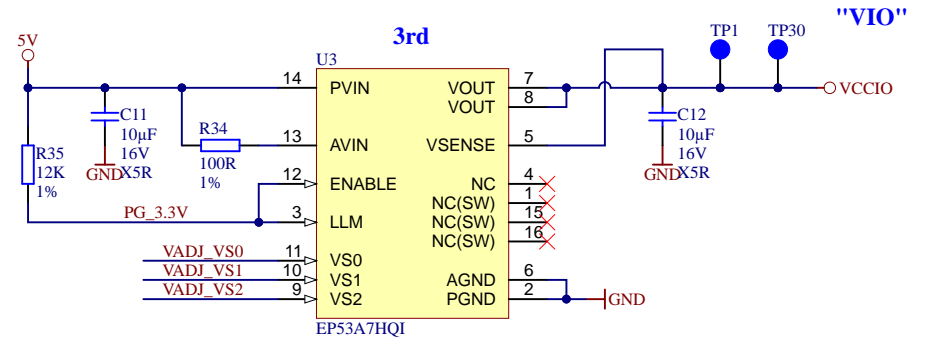
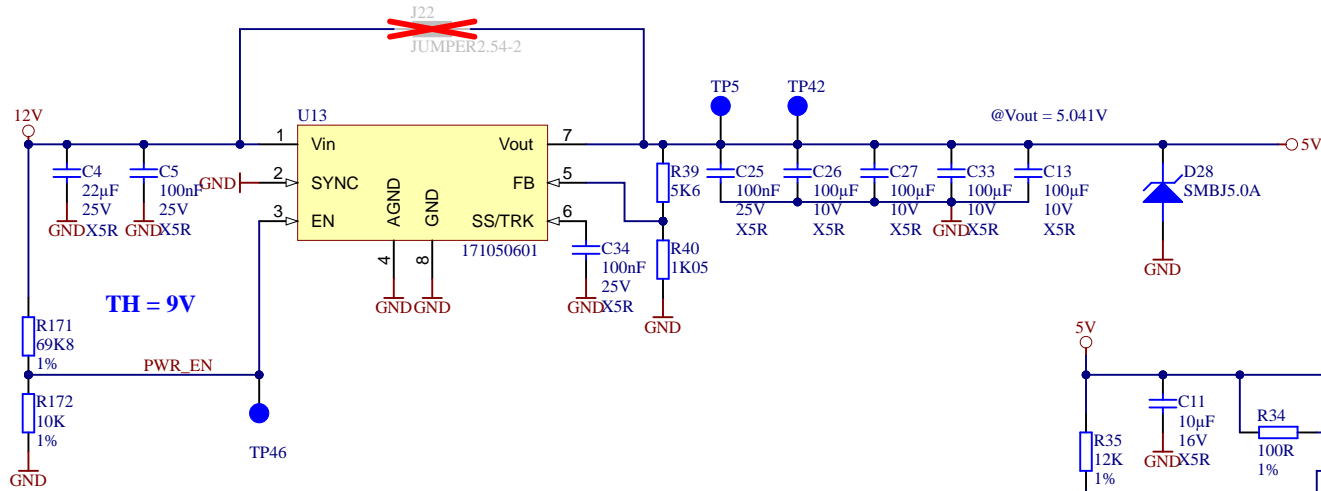
 SDIO Mode: Leave unconnected.
 SPI Mode: Connect a 4.7 kΩ pull-down resistor.
 USB-CDC Mode: Leave unconnected.
 UART Mode: Connect a 4.7 kΩ pull-down resistor.


HOST_SEL_1:

 SDIO Mode: Leave unconnected.
 SPI Mode: Leave unconnected.
 USB-CDC Mode: Connect a 4.7 kΩ pull-down resistor.
 UART Mode: Connect a 4.7 kΩ pull-down resistor.

			Title: TEC0089 - RS9113	
			A4	Number: TEC0089 D2C-1-D
Date: 20.06.2018		Copyright: Trenz Electronic GmbH		Page 23 of 25
Filename: RS9113.SchDoc				

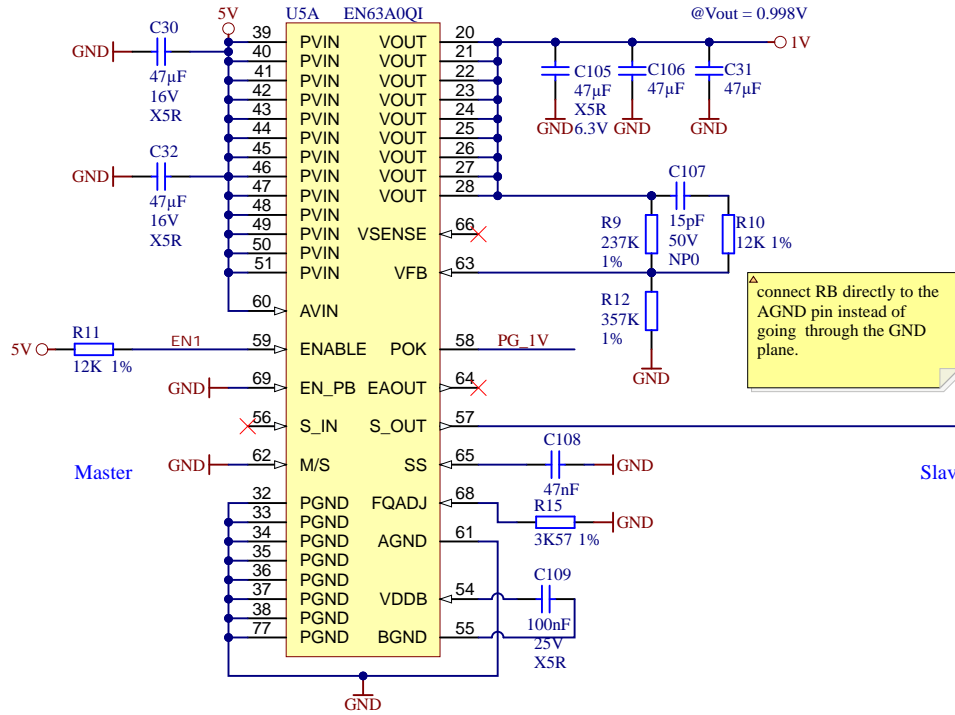
Use jumper J22 only with 5V power input



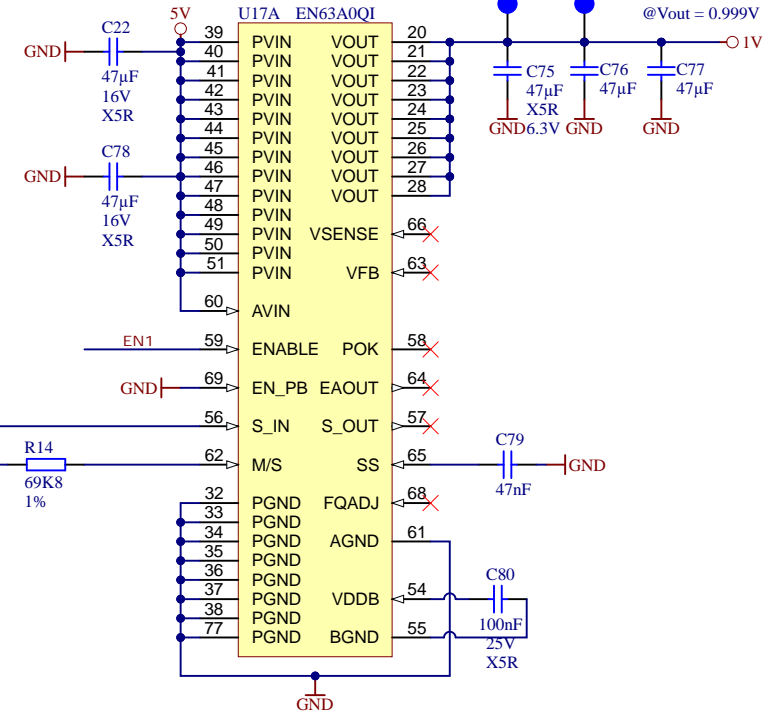
			Title: TEC0089 - PWR1	
			A4	Number: TEC0089 D2C-1-D
Date: 20.06.2018		Copyright: Trenz Electronic GmbH		Page 24 of 25
Filename: PWR1.SchDoc				

1st

1st



connect RB directly to the AGND pin instead of going through the GND plane.



USB

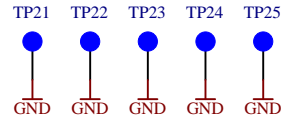
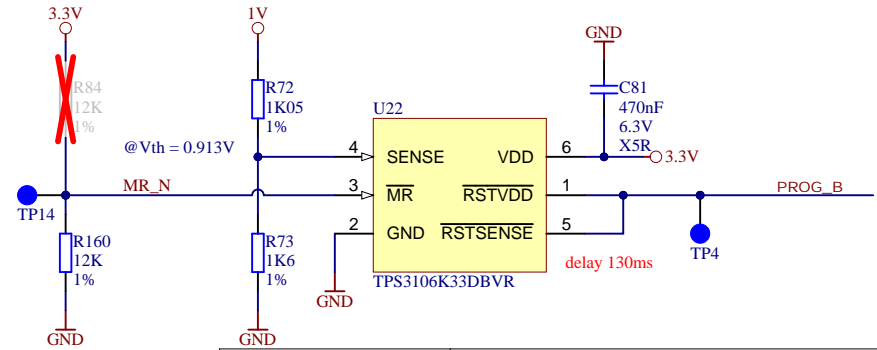
1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC	30
6	NC	NC(SW)	31
7	NC	NC(SW)	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC	70
11	NC	NC(SW)	71
12	NC	NC(SW)	72
13	NC	NC	73
14	NC	NC	74
15	NC	NC	75
16	NC	NC	76

EN63A0QI

U17B

1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC	30
6	NC	NC(SW)	31
7	NC	NC(SW)	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC	70
11	NC	NC(SW)	71
12	NC	NC(SW)	72
13	NC	NC	73
14	NC	NC	74
15	NC	NC	75
16	NC	NC	76

EN63A0QI



Title: TEC0089 - PWR1		
A4	Number: TEC0089 D2C-1-D	Rev. 02
Date: 20.06.2018	Copyright: Trenz Electronic GmbH	Page 25 of 25
Filename: PWR2.SchDoc		

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A

A

REV	Description	
-01	Initial revision	VY
-02		VY
-02A	1. Updated top silkscreen: - added Trenz Electronic logo, - compas logo changed to speedometer logo.	VY

B


B

C

C

D

D

		Title: Revision History	
		A4	Number: TEC0089 D2C-1-D
Date: 2019-10-02		Copyright: Trenz Electronic GmbH	
Drawn by:		Filename: Revision Changes.SchDoc	

1

2

3

4