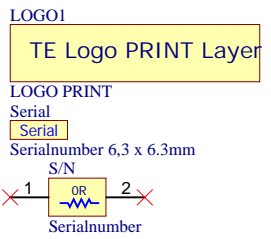
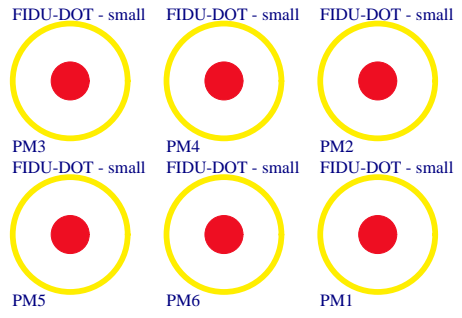
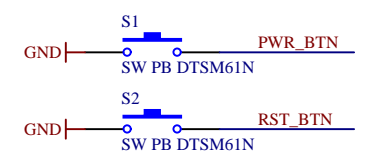
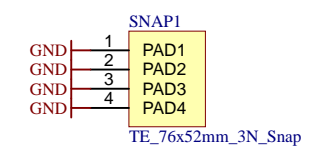
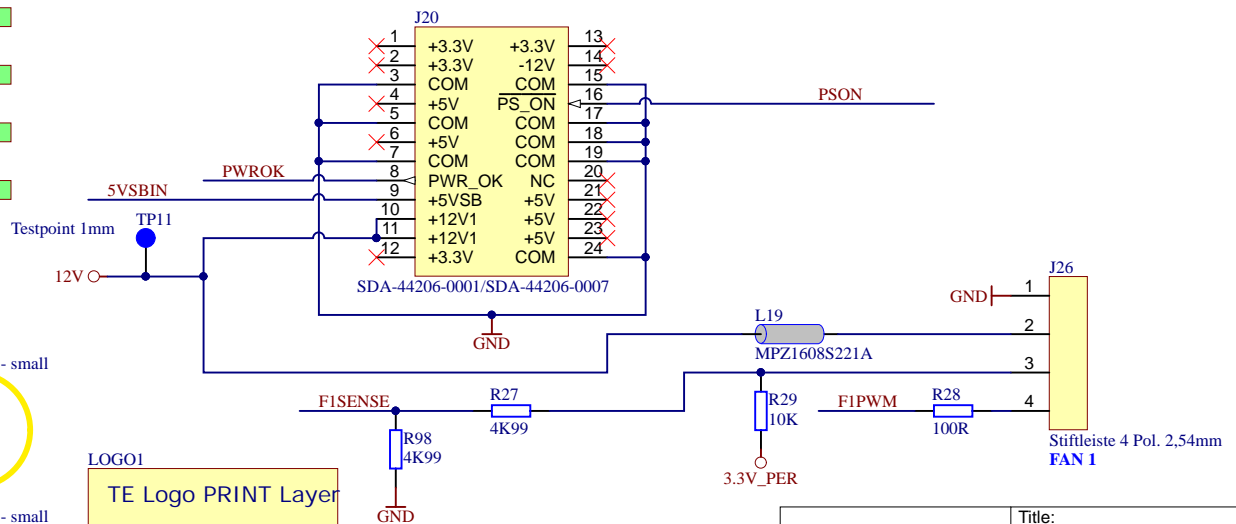
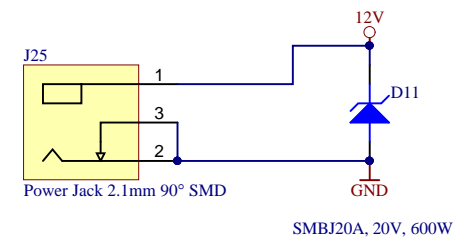
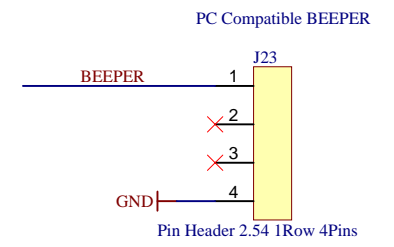
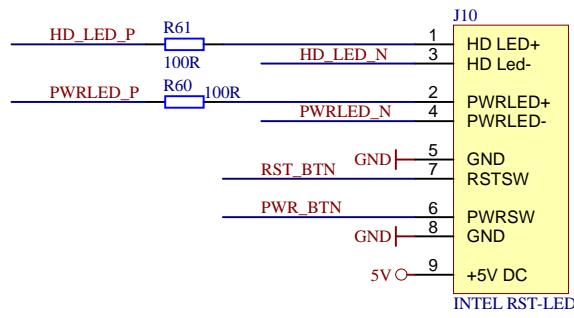


U_B2B B2B.schdoc	U_DP_PS DP_PS.schdoc
U_USB3-HUB USB3-HUB.SchDoc	U_SATA SATA.schdoc
U_PCIE PCIe.schdoc	U_USB-CONN USB-CONN.schdoc
U_SFP SFP.schdoc	U_USB USB.schdoc
U_SC SC.schdoc	U_USB-PHY USB-PHY.SchDoc
U_SC2 SC2.schdoc	U_ETH-PHY ETH-PHY.SchDoc
U_PMOD PMODE.schdoc	U_I2C_system I2C_system.schdoc
U_XMOD XMOD.schdoc	U_CLK CLK.schdoc
U_Power_1 Power_1.schdoc	U_CLK_MUX CLK_MUX.schdoc
U_Power_2 Power_2.schdoc	U_SD SD.schdoc
U_Power_3 Power_3.schdoc	U_EMMC eMMC.SchDoc
U_Power_4 Power_4.schdoc	U_FIREFLY FireFly.SchDoc
U_FMC FMC.SchDoc	U_MISC MISC.schdoc
U_FMC PWR FMC PWR.SchDoc	U_Audio Audio.SchDoc
U_FMC MISC FMC_MISC.SchDoc	U_BD BD.SchDoc

INTEL Reset/LED Pinout



Title: TEBF0808 - Mini-ITX Top Sheet		
A4	Number: TEBF0808 TEBF0808	Rev. 02
Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page1 of 35
Filename: TEBF0808.schdoc		

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U_J1
 J1.schdoc
 U_J2
 J2.schdoc
 U_J3
 J3.schdoc
 U_J4
 J4.schdoc

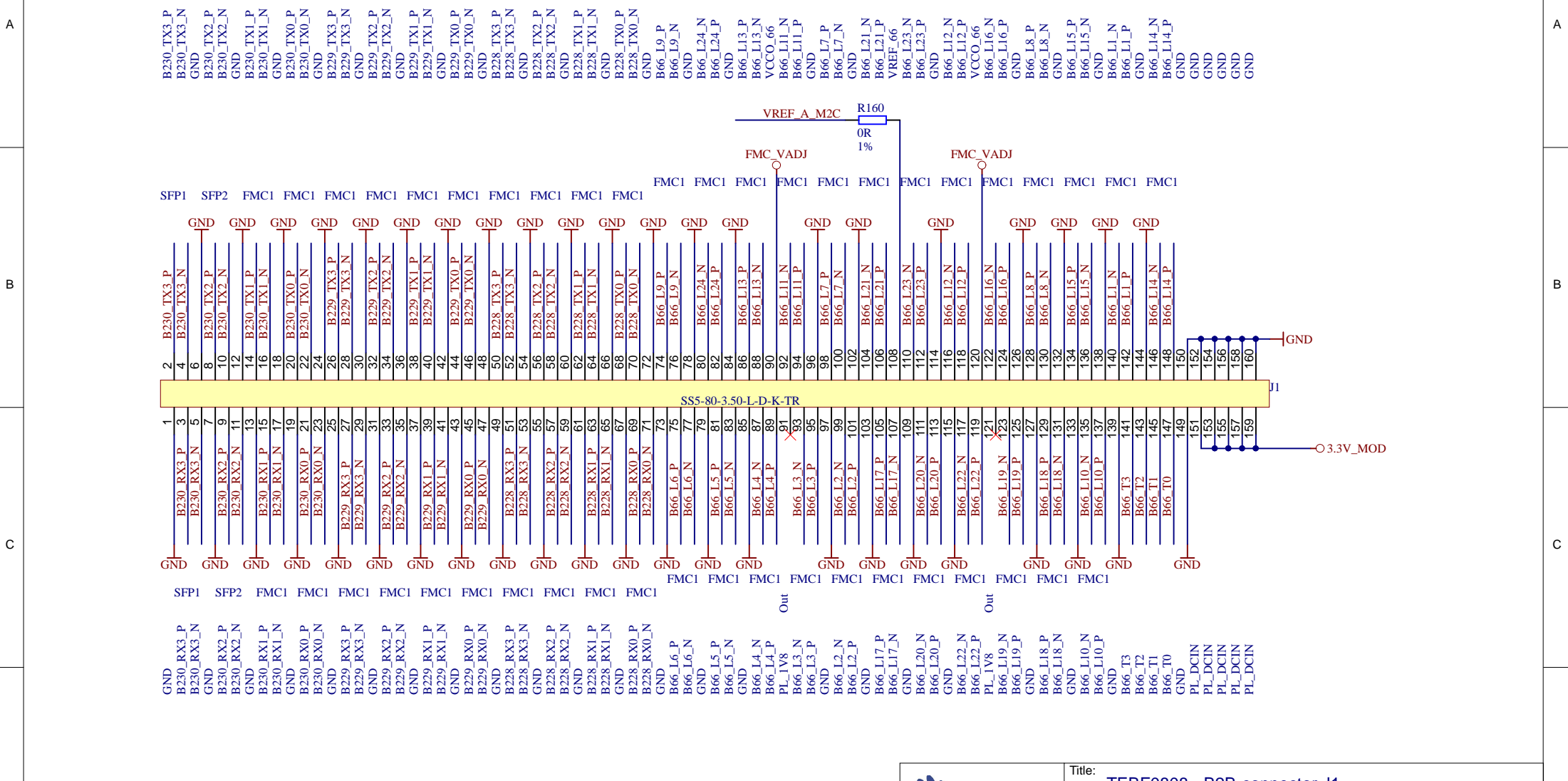
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	A4	Number: TEBF0808 TEBF0808	Rev. 02
	Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 2 of 35
	Filename: B2B.schdoc		

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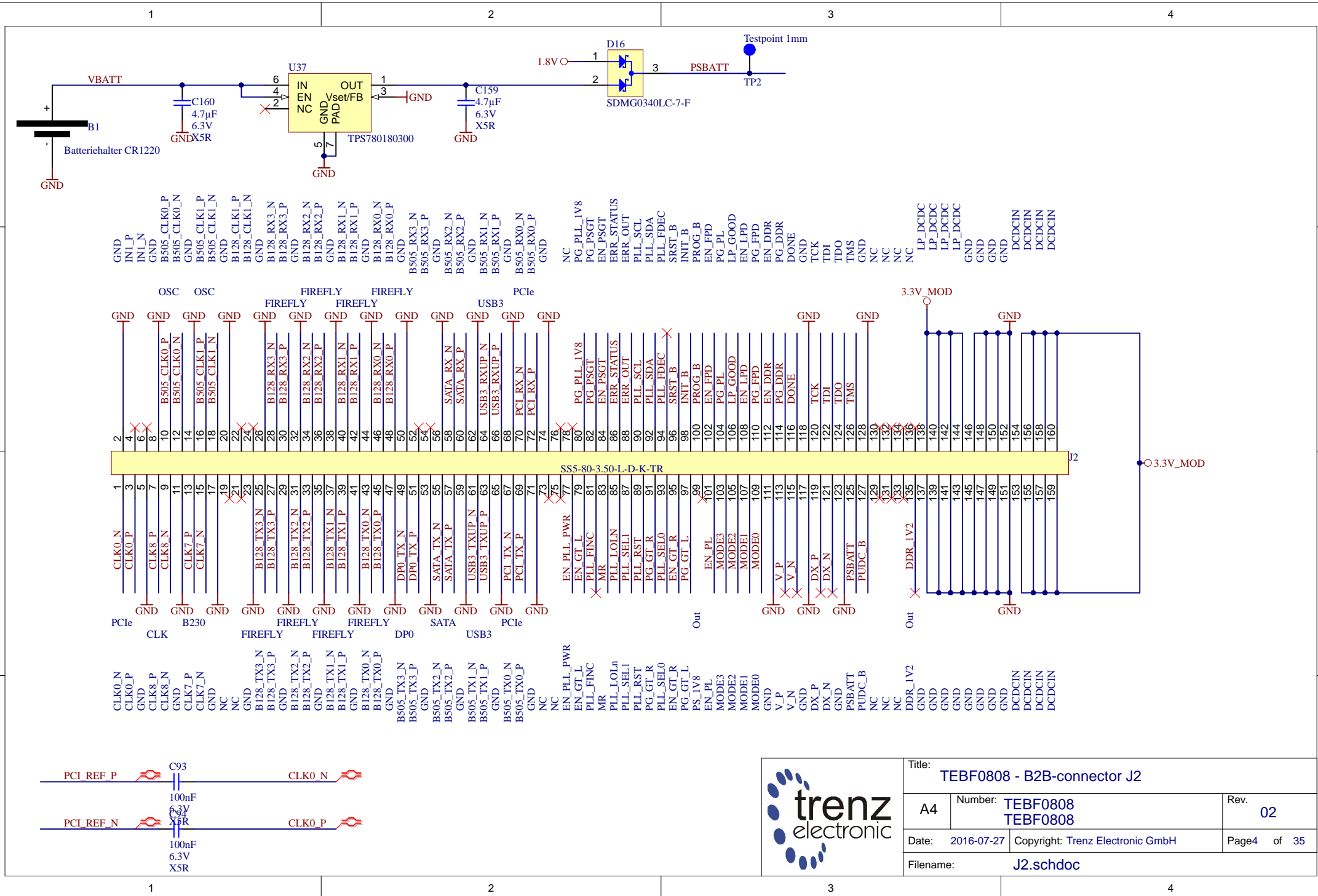
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Title: TEBF0808 - B2B-connector J1		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: J1.schdoc		



Title: TEBF0808 - B2B-connector J2		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: J2.schdoc		

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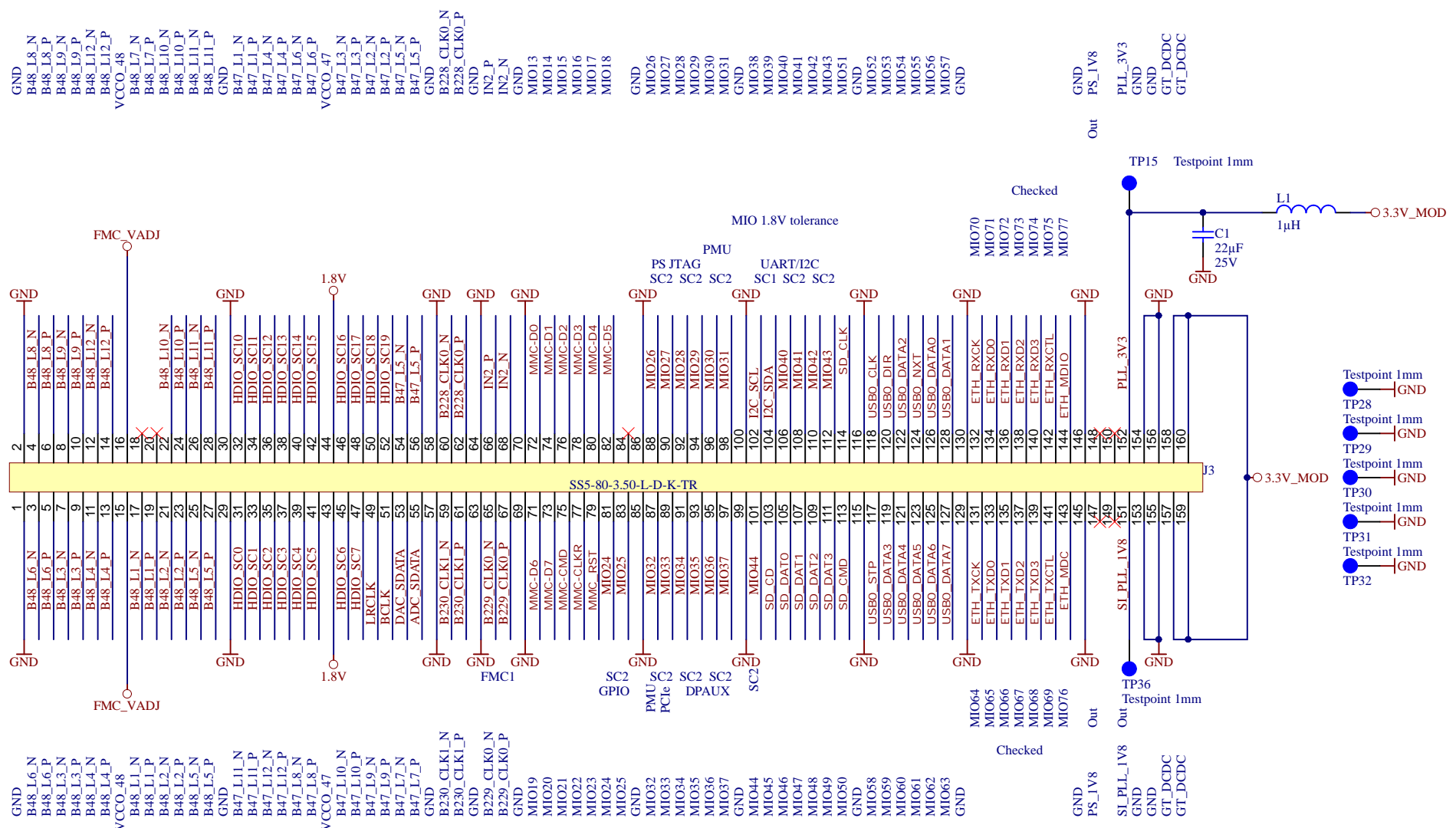
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Title: TEBF0808 - B2B-connector J3		
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Filename: J3.schdoc		

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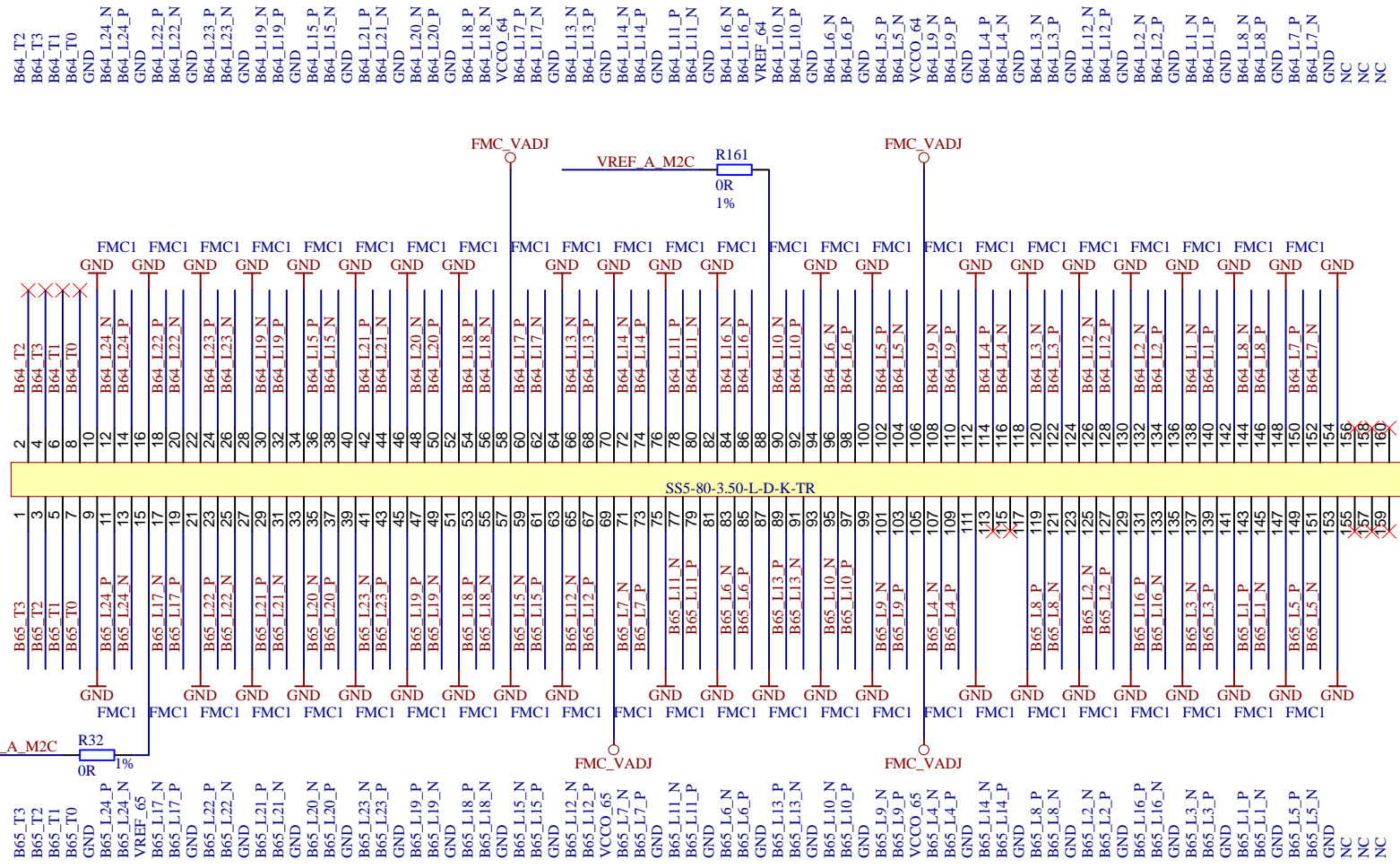
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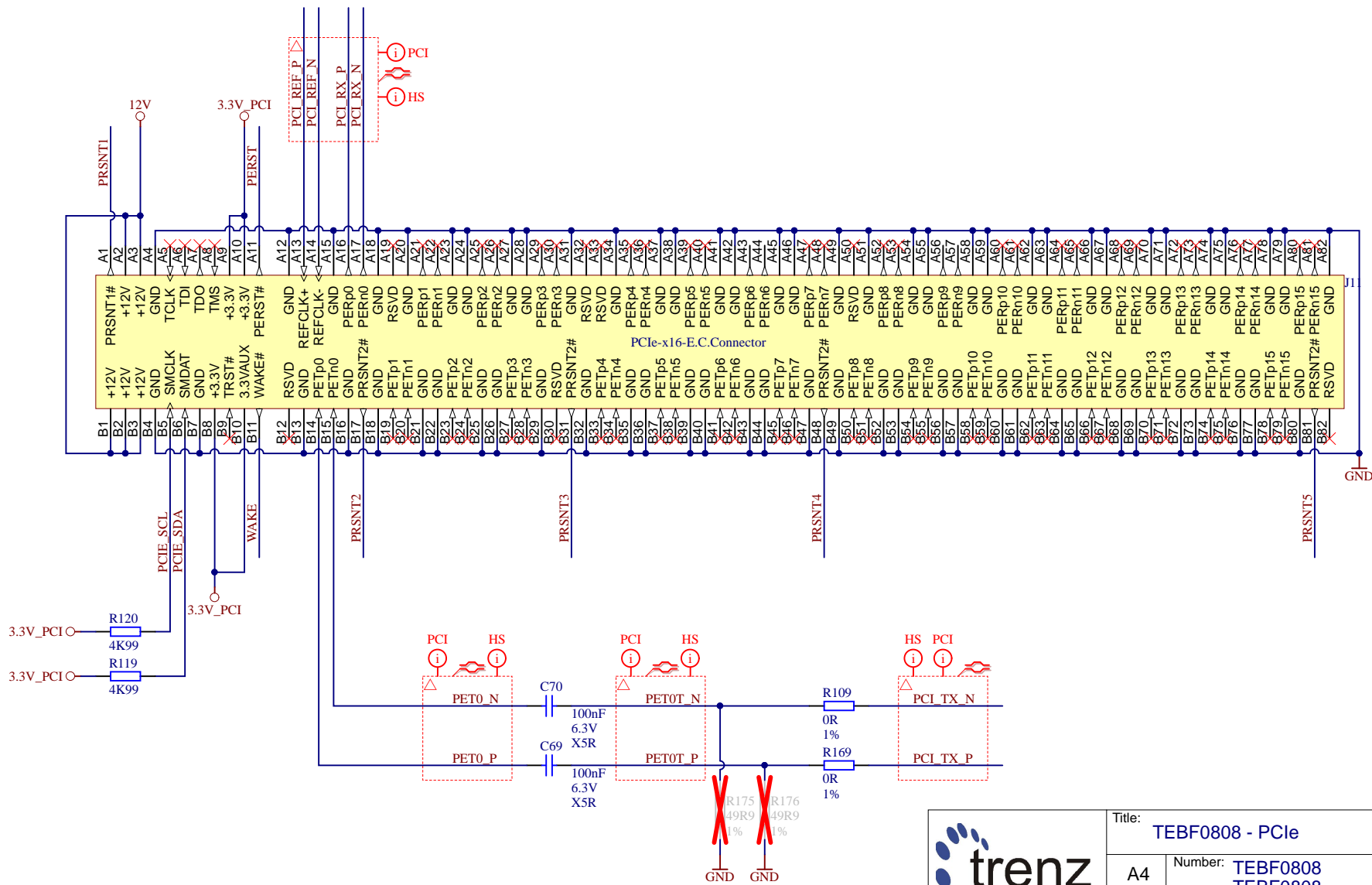
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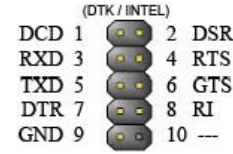
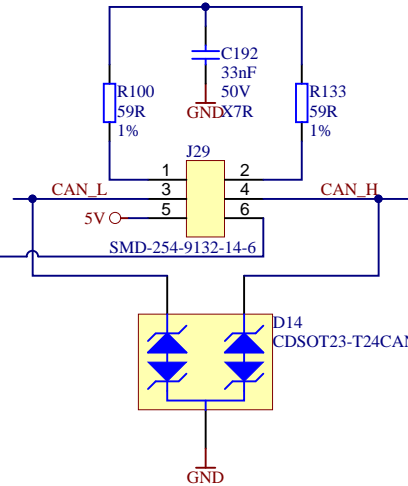
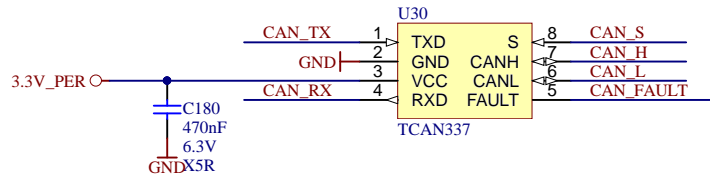
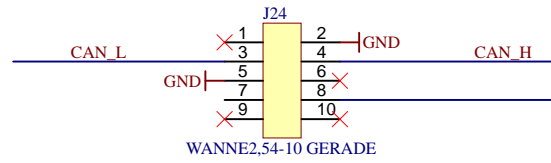
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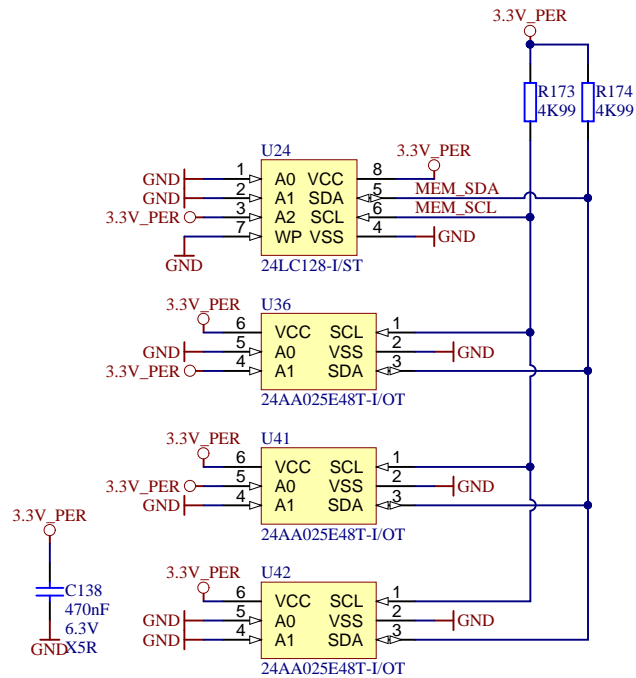
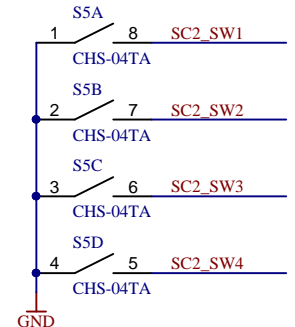
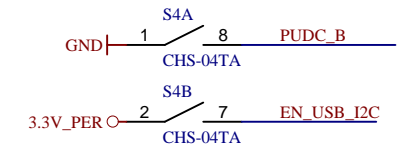
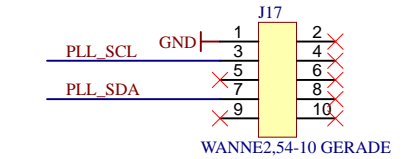
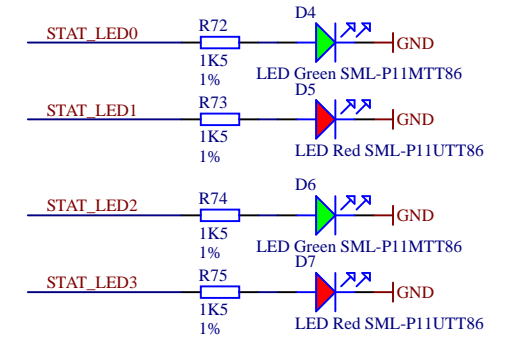
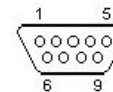
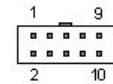
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Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 6 of 35
Filename: J4.schdoc		



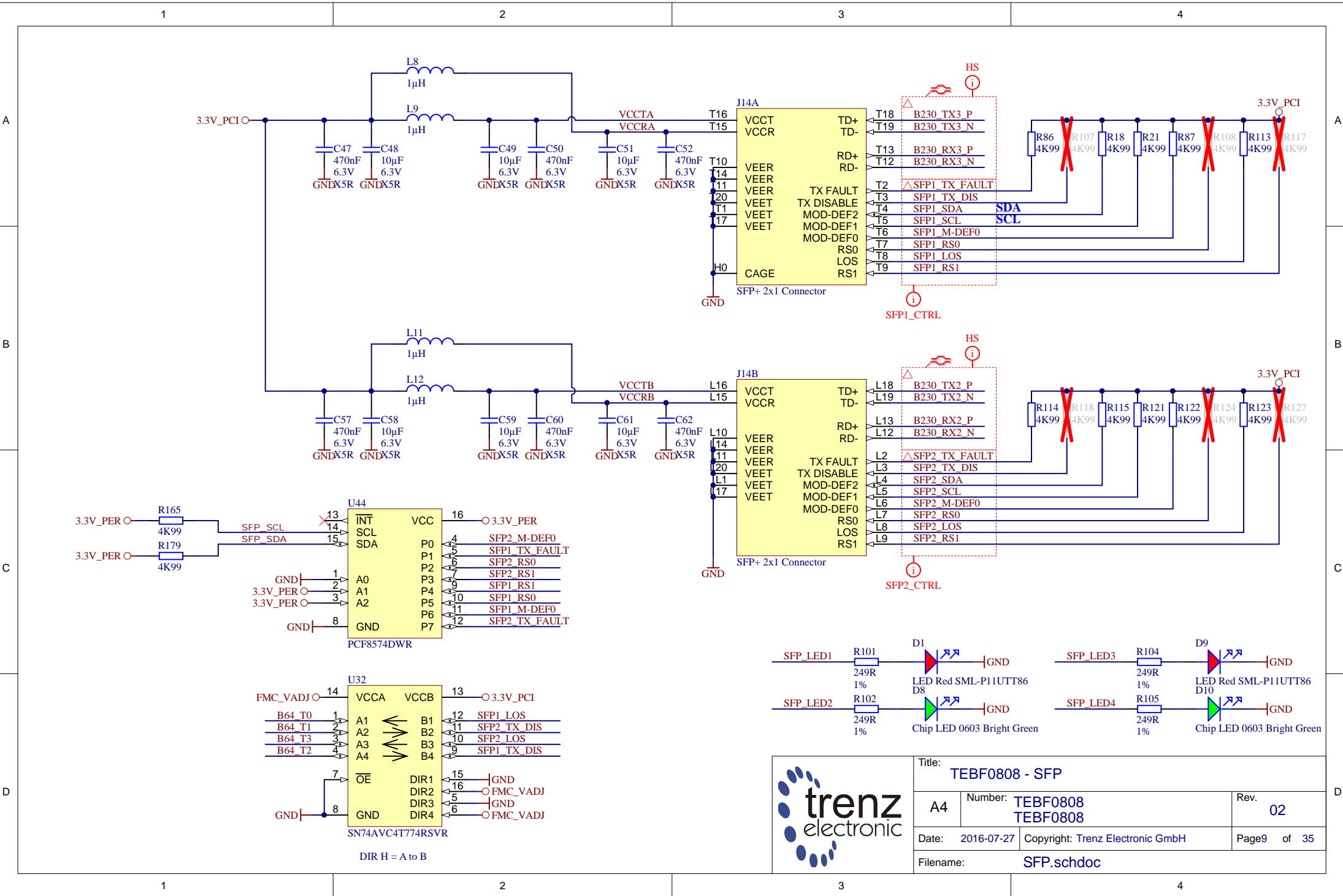
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A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: PCIe.schdoc		




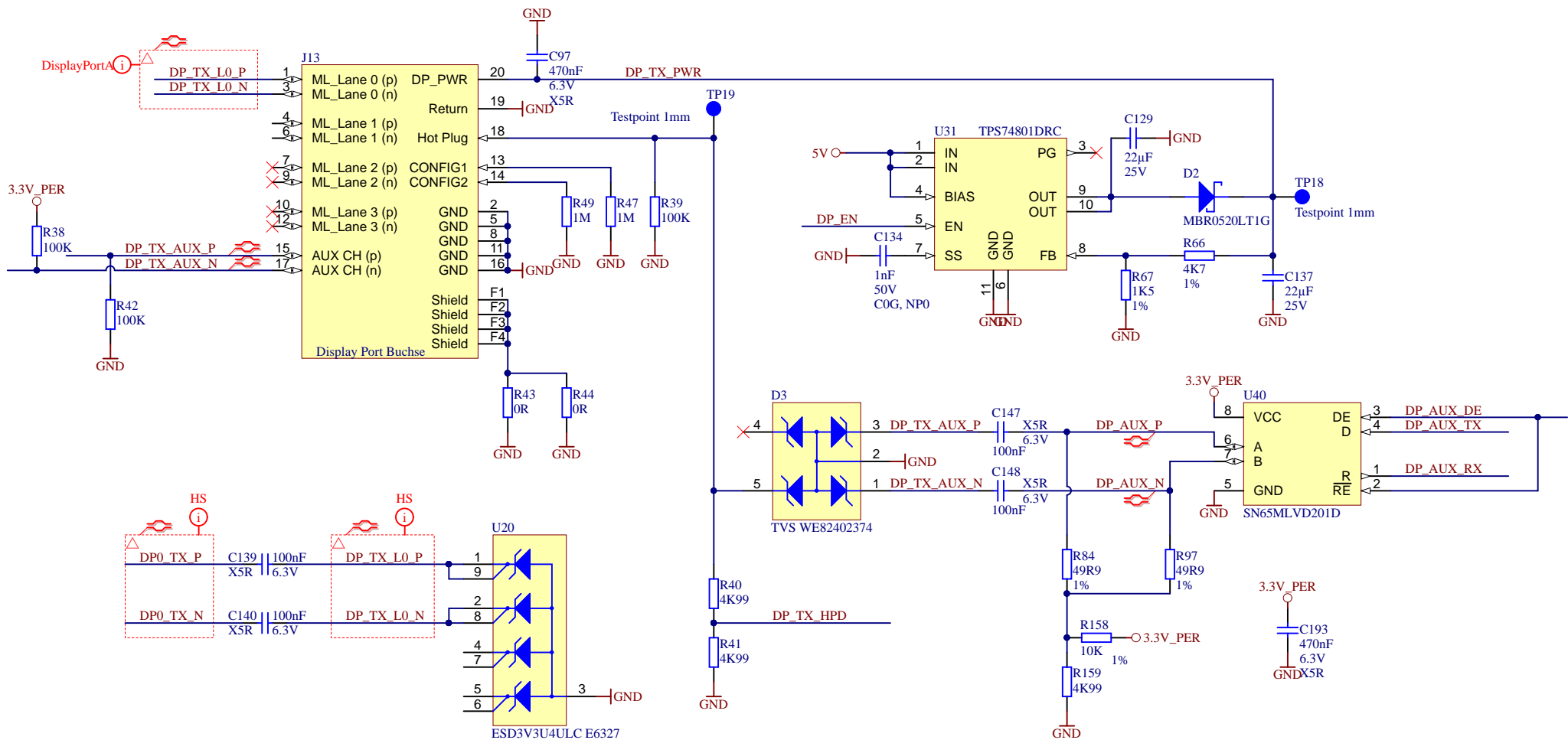
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- 2 - 3
- 3 - 5
- 4 - 7
- 5 - 9
- 6 - 2
- 7 - 4
- 8 - 6
- 9 - 8
- 10 --



Title: TEBF0808 - MISC		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: MISC.schdoc		



			Title: TEBF0808 - SFP	
			A4	Number: TEBF0808 TEBF0808
Date: 2016-07-27		Copyright: Trenz Electronic GmbH		Page9 of 35
Filename: SFP.schdoc				



Title: TEBF0808 - DisplayPort		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: DP_PS.schdoc		

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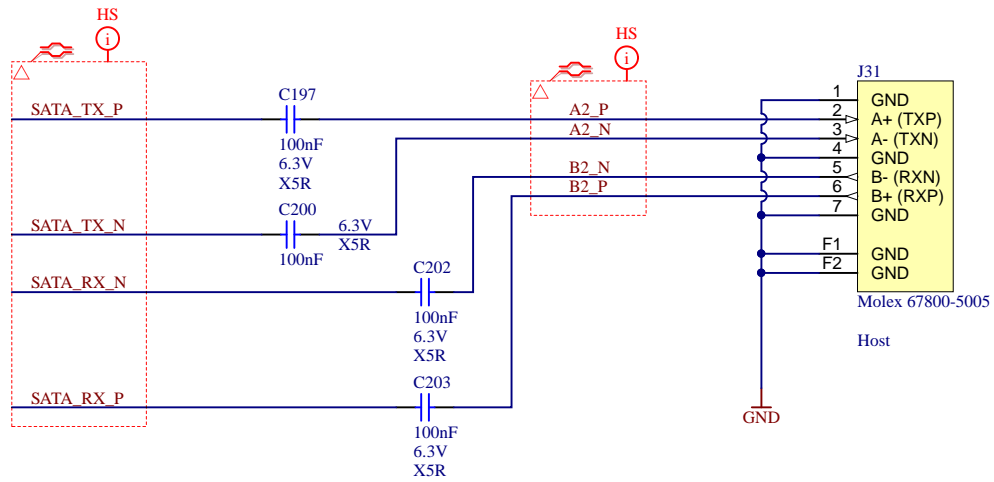
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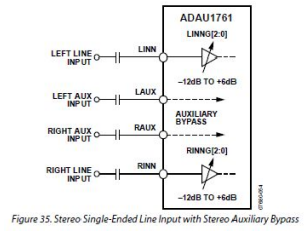
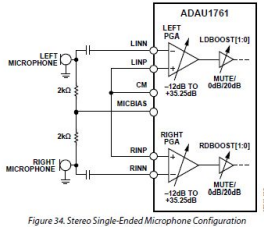
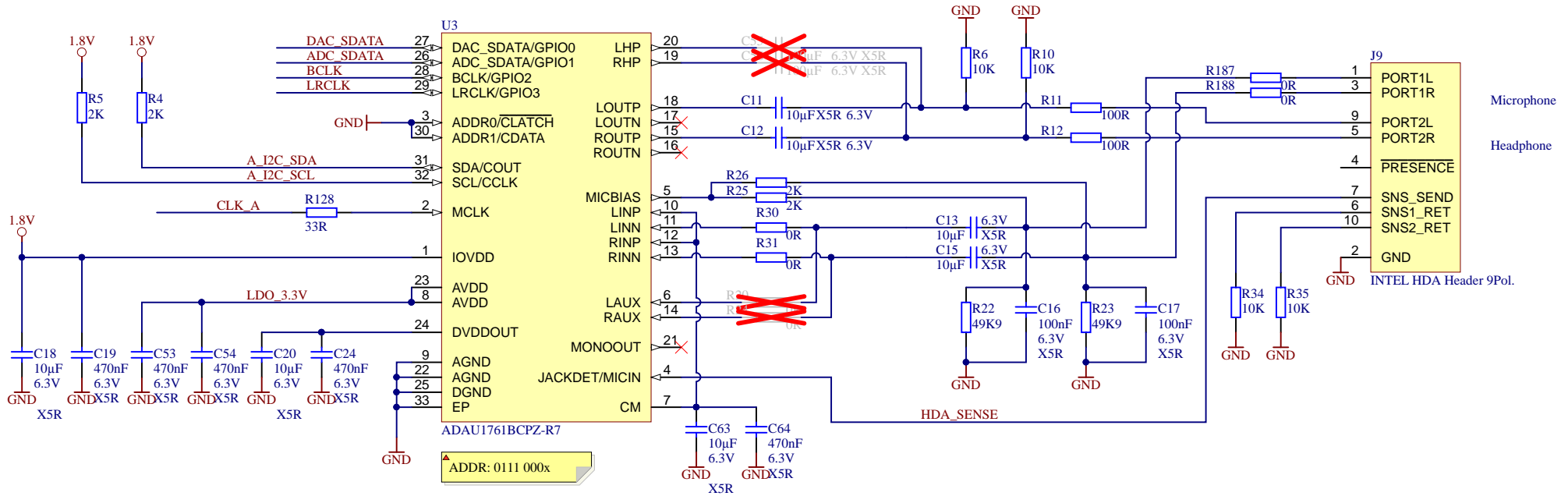
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	A4	Number: TEB0808 TEBF0808	Rev. 02
	Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 11 of 35
	Filename: SATA.schdoc		

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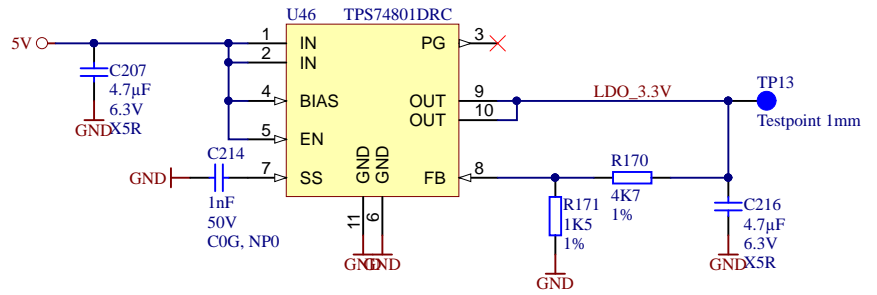
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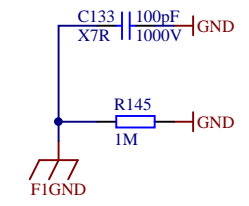
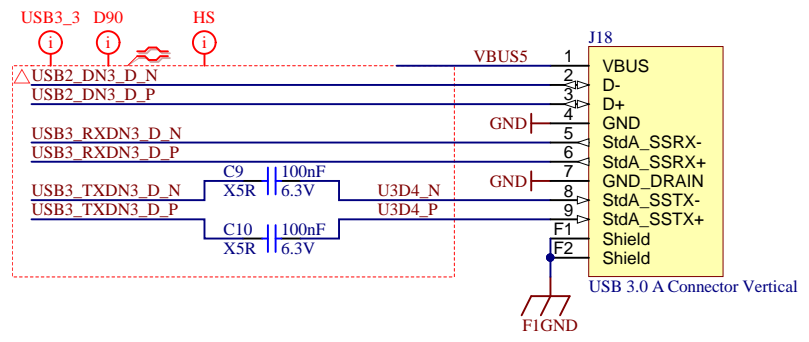
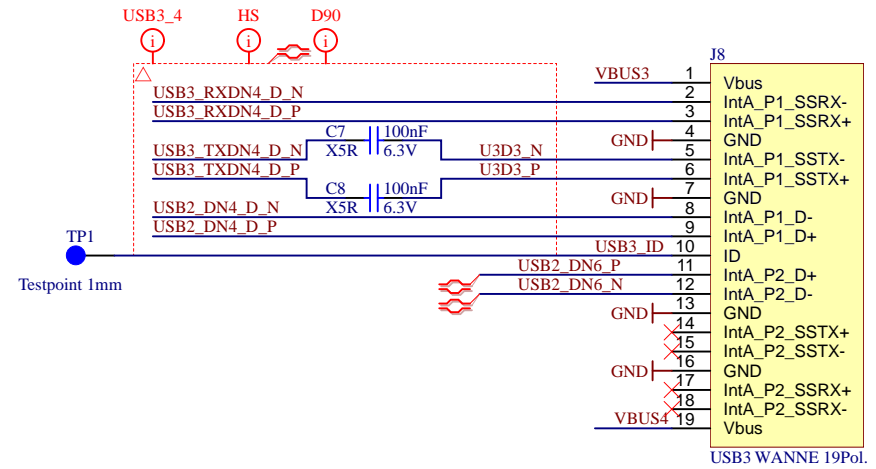
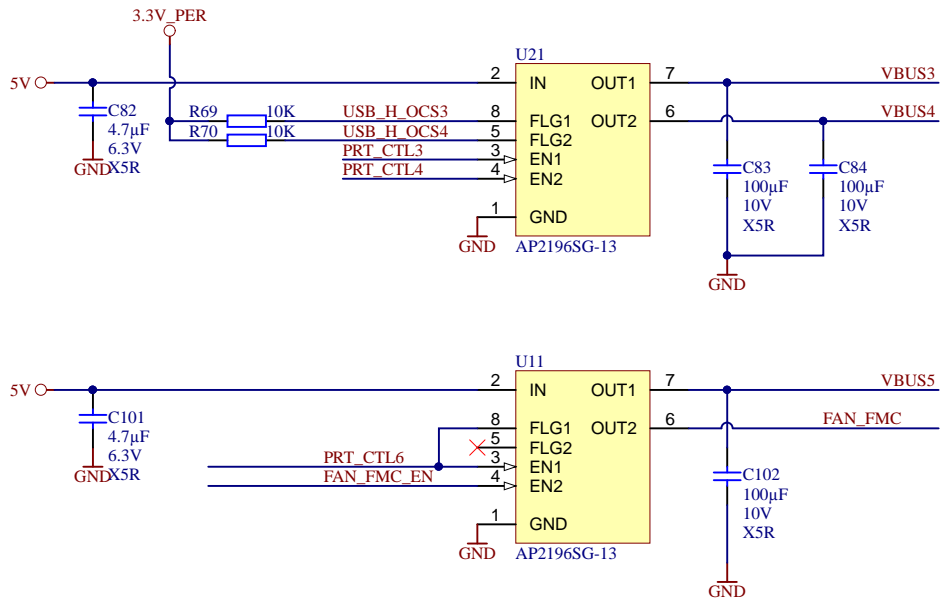


LAYOUT NOTES:
A copper layer equal in size to the exposed pad should be on all layers of the board, from top to bottom, and should connect somewhere to a dedicated copper board layer

LAYOUT NOTES:
Add FB to GND-AGND?



			Title: TEBF0808 - USB PHY	
A4	Number: TEBF0808 TEBF0808	Rev. 02		
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Filename: Audio.SchDoc				



	Title: TEBF0808 - USB Connectors	
	A4	Number: TEBF0808 TEBF0808
	Date: 2016-07-27	Copyright: Trenz Electronic GmbH
	Filename: USB-CONN.schdoc	Page 13 of 35

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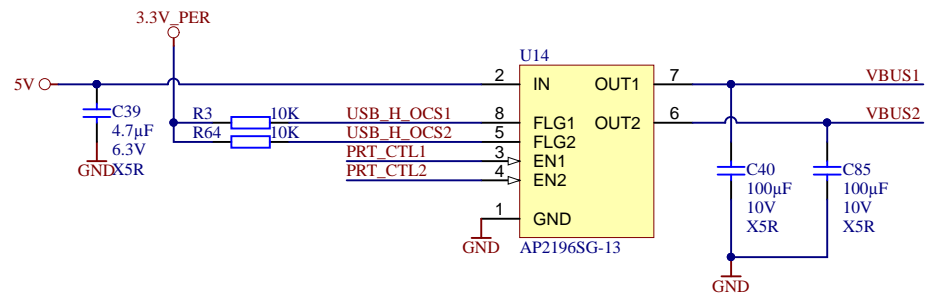
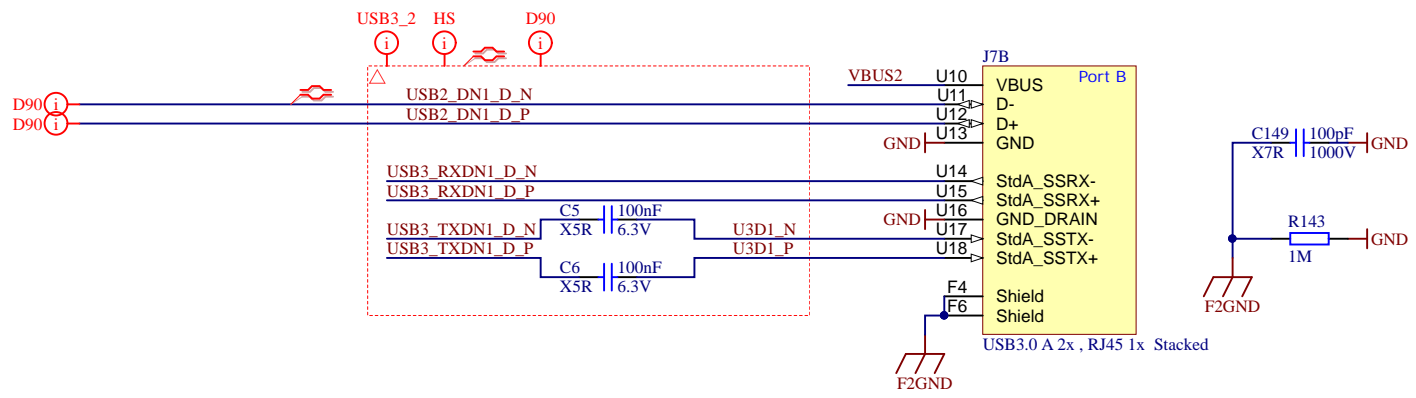
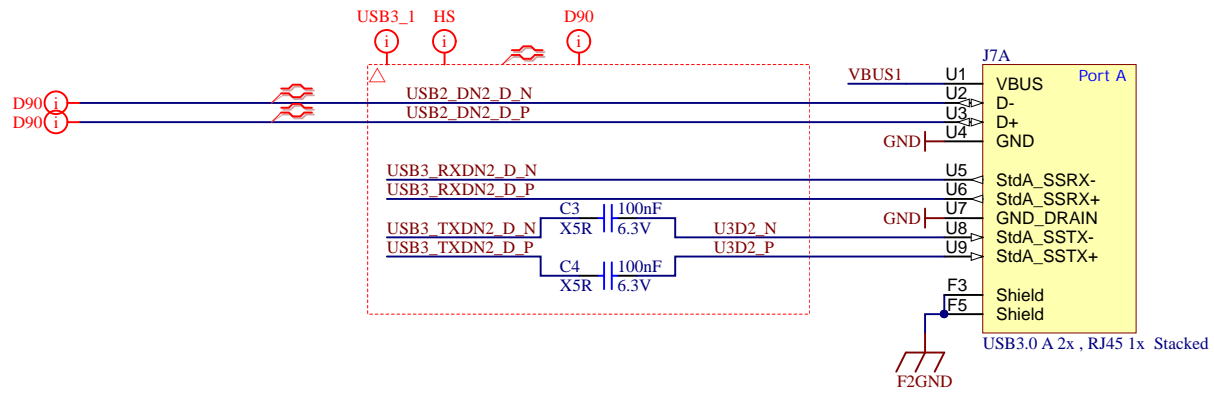
B

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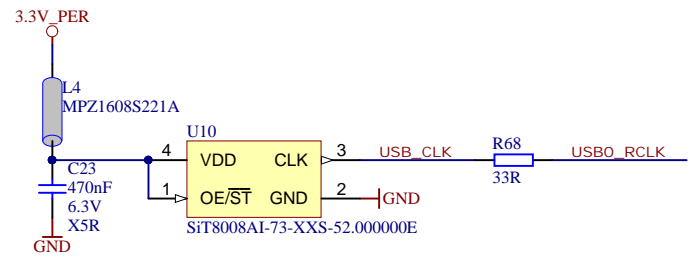
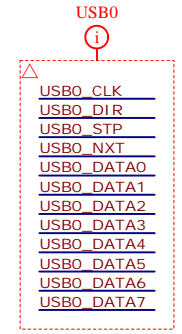
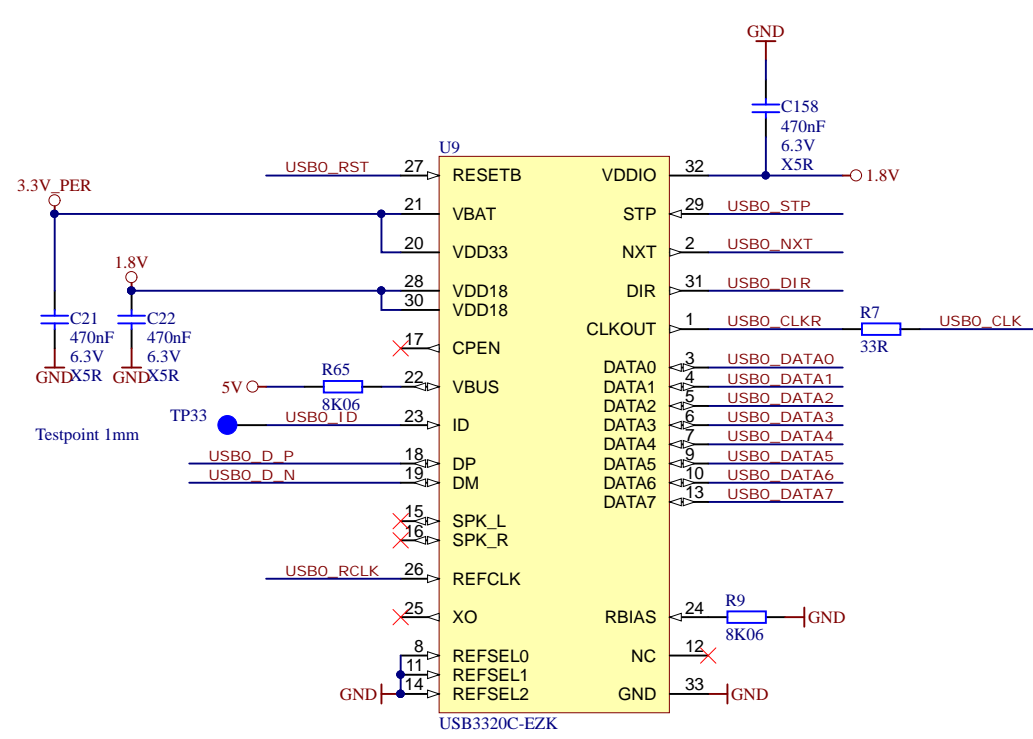
Title: TEBF0808 - USB		
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Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 14 of 35
Filename: USB.schdoc		

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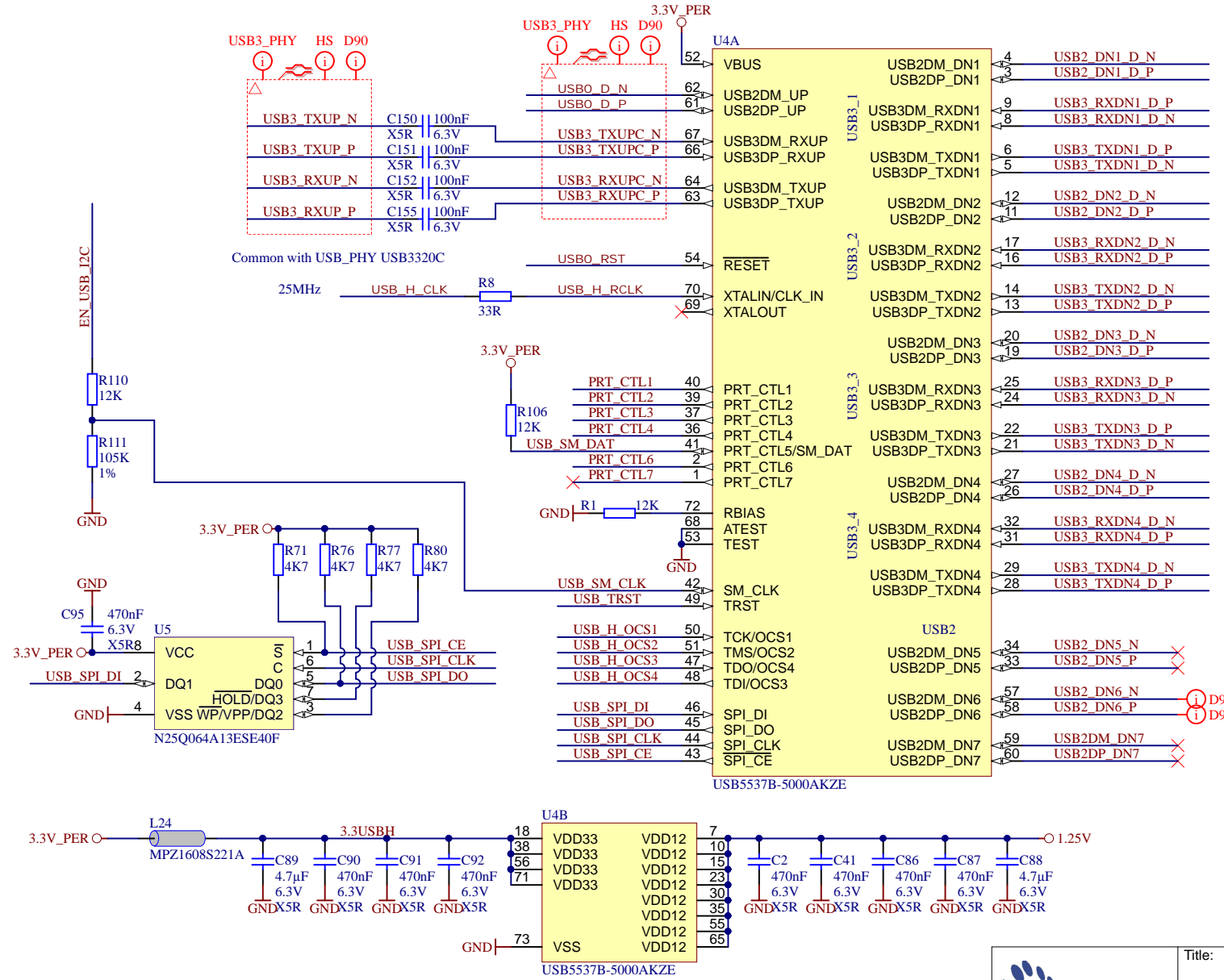
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Title: TEBF0808 - USB		
A4	Number: TEBF0808 TEBF0808	Rev. 02
Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 15 of 35
Filename: USB-PHY.SchDoc		

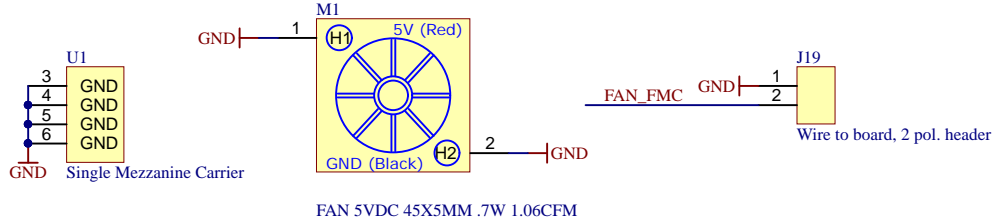
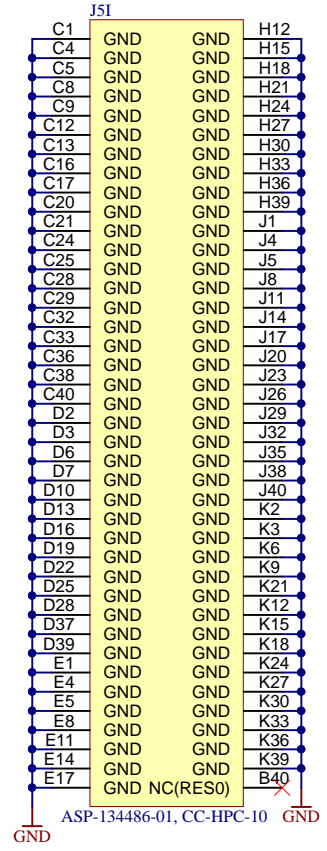
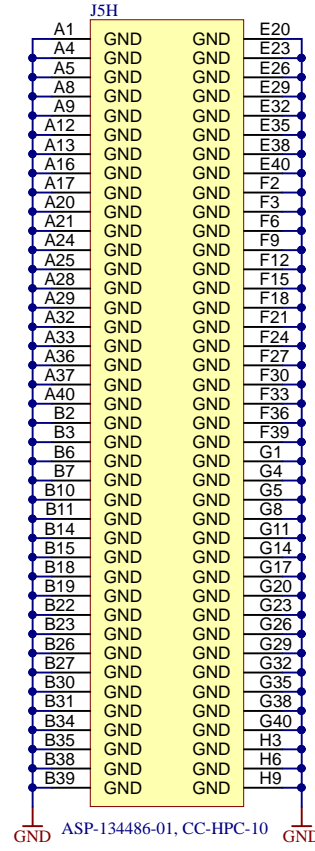
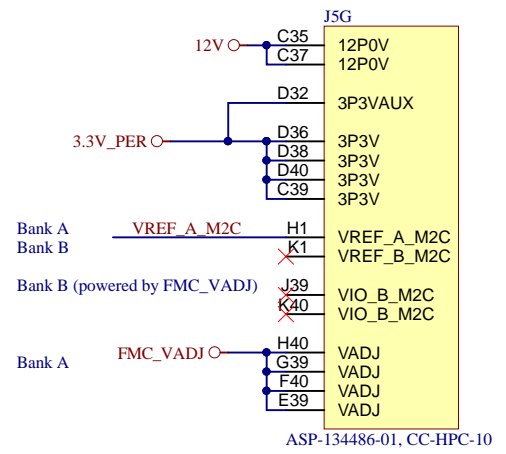


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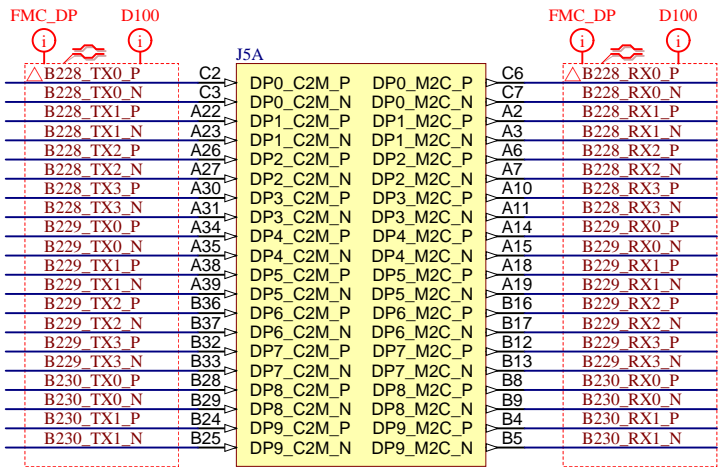


LAYOUT NOTES:
Each member of a High-Speed differential pair should be no more than 1.25 mm
Each member of a SuperSpeed differential pair should be no more than 0.13 mm

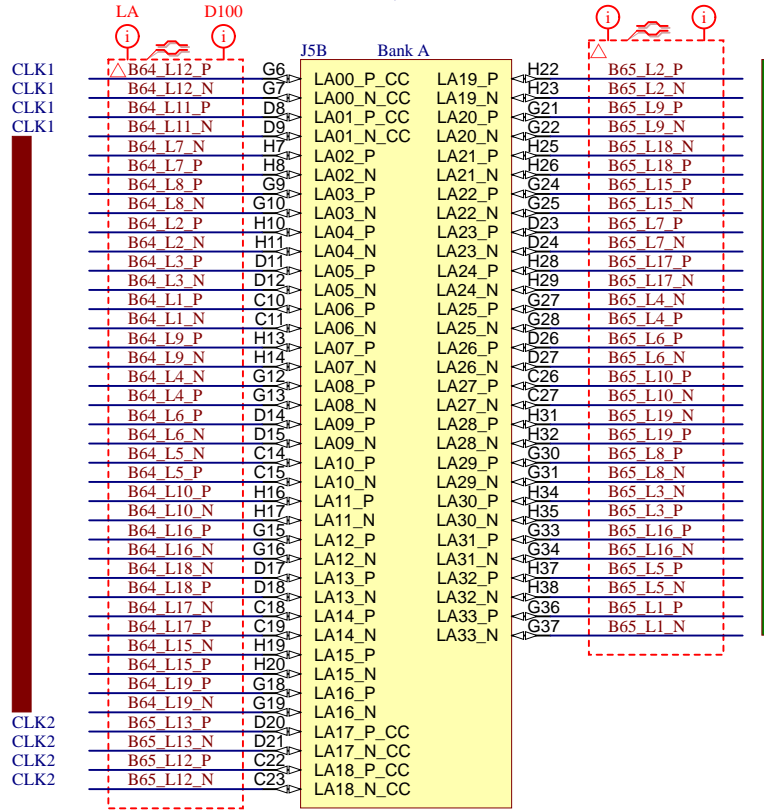
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Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 16 of 35
Filename: USB3-HUB.SchDoc		



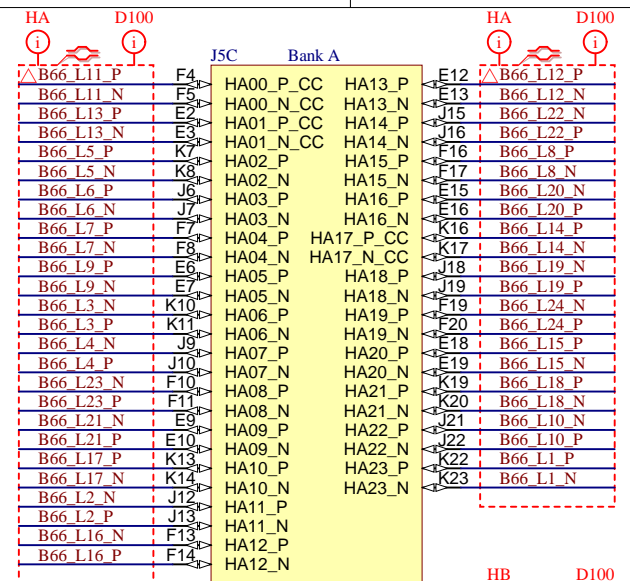
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A4	Number: TEBF0808 TEBF0808	Rev. 02
Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 17 of 35
Filename: FMC PWR.SchDoc		



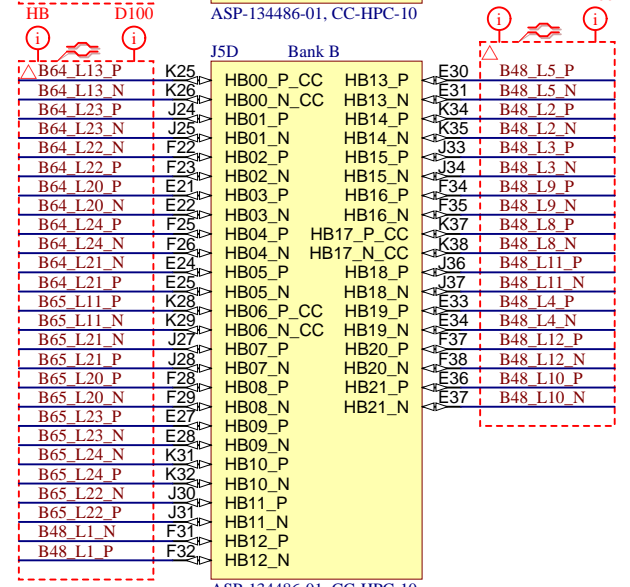
ASP-134486-01, CC-HPC-10



ASP-134486-01, CC-HPC-10



J5C Bank A

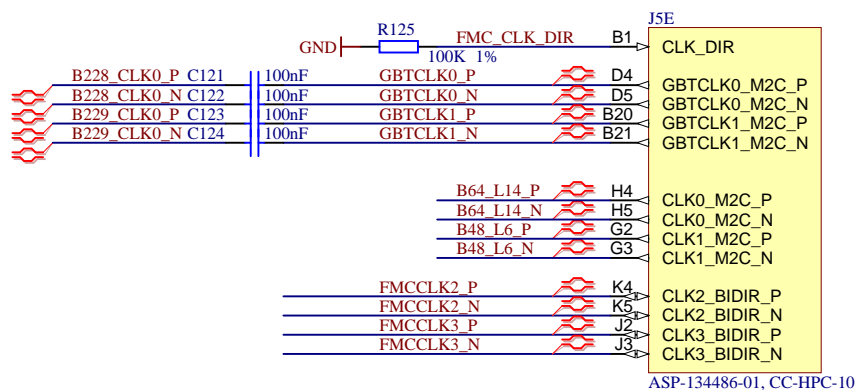
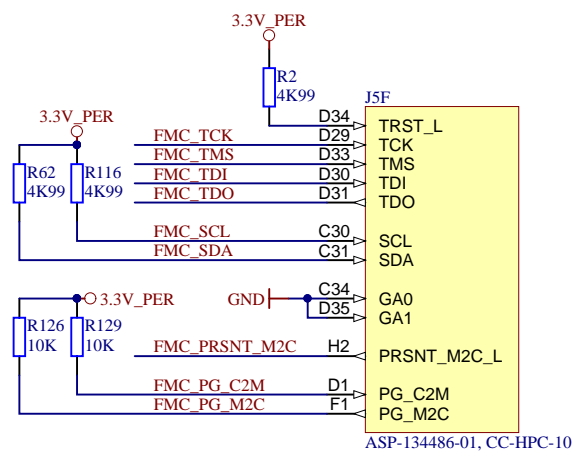


ASP-134486-01, CC-HPC-10

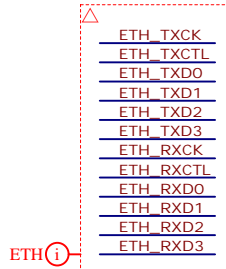
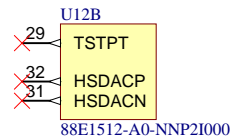
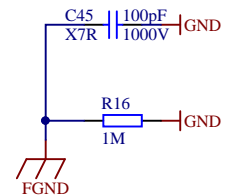
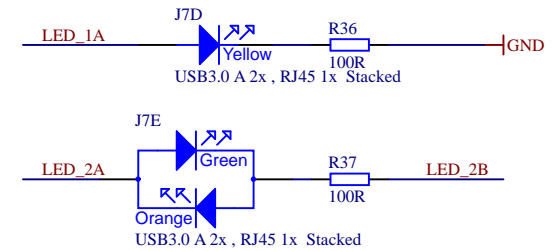
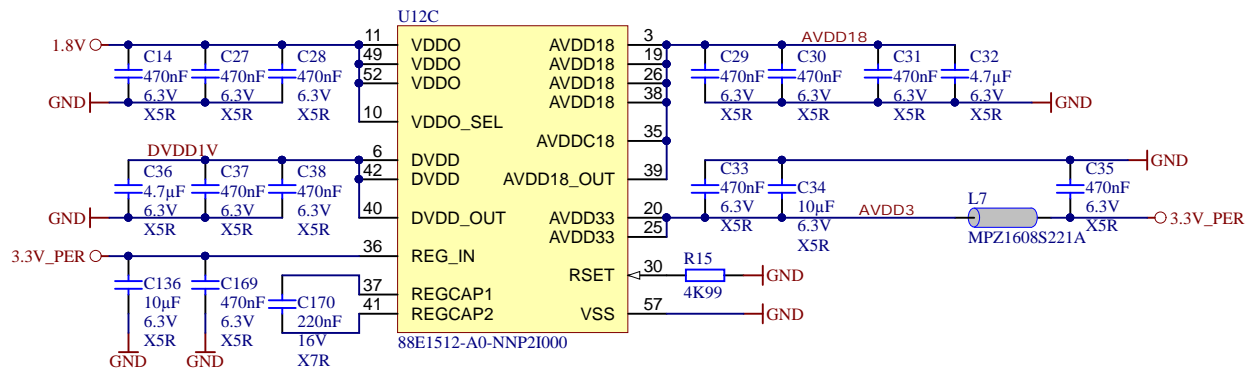
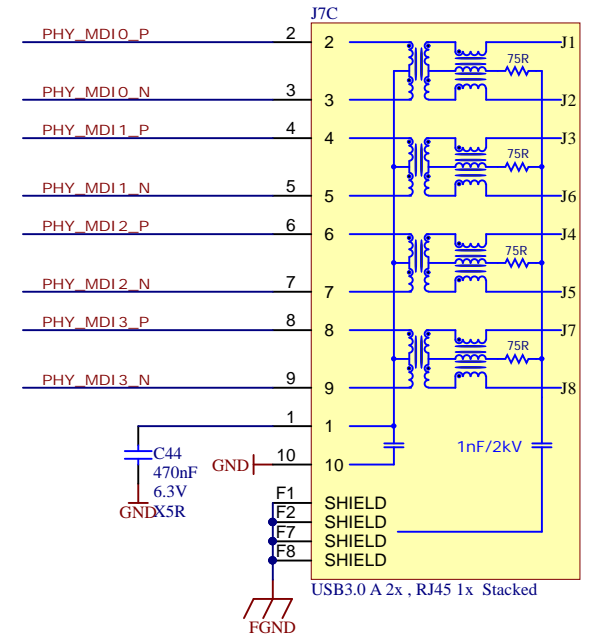
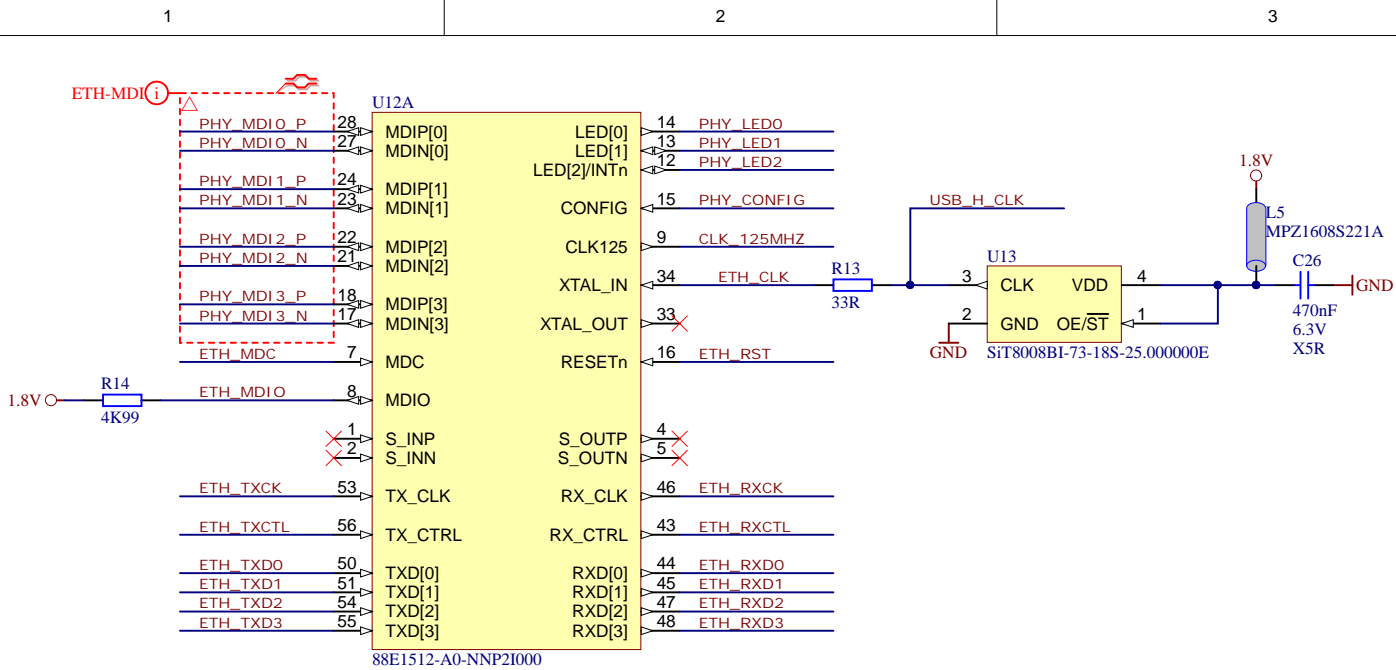
J5D Bank B



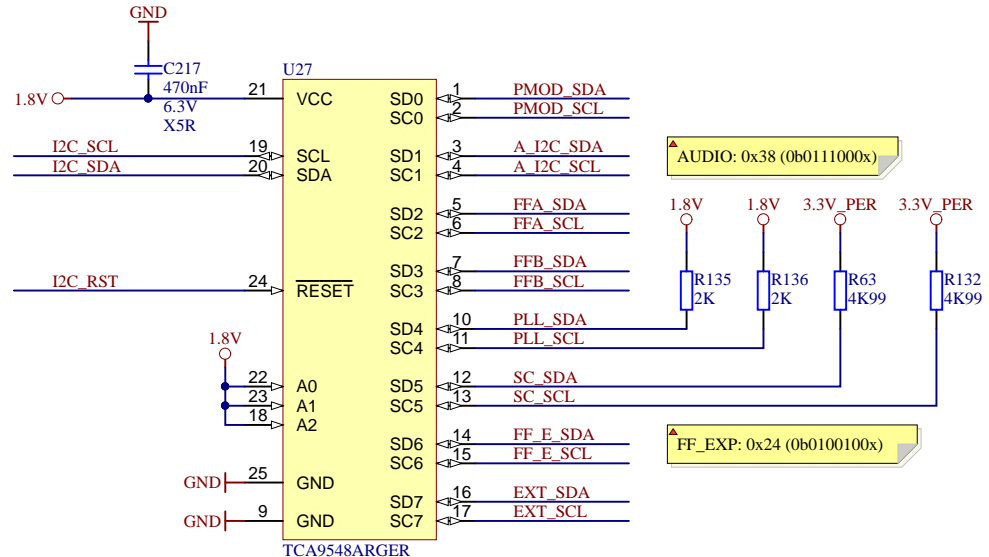
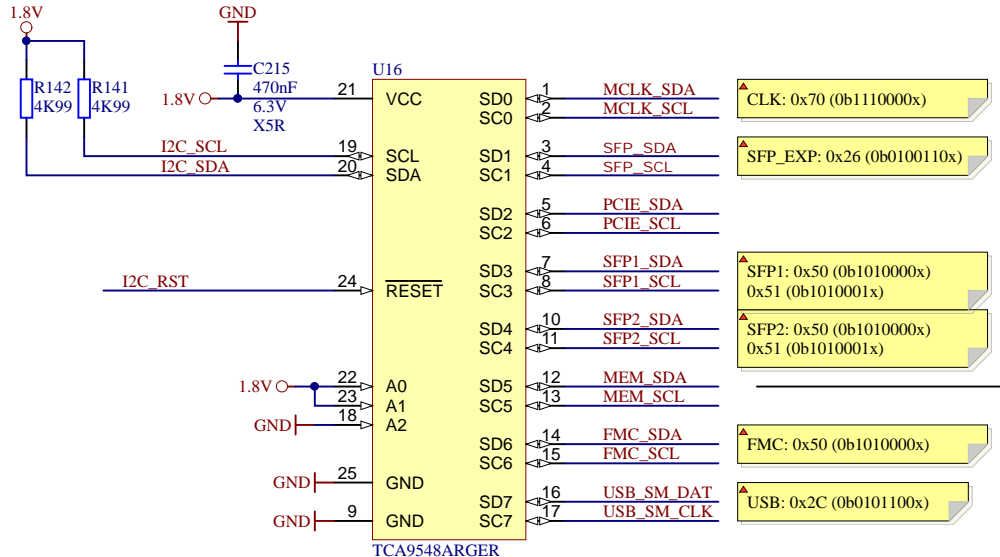
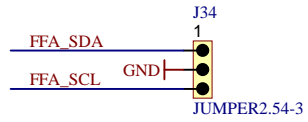
Title: TEBF0808 - FMC		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: FMC.SchDoc		



	Title: TEBF0808 - FMC		
	A4	Number: TEBF0808 TEBF0808	Rev. 02
	Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 19 of 35
	Filename: FMC_MISC.SchDoc		



		Title: TEBF0808 - ETHERNET	
		A4	Number: TEBF0808 TEBF0808
Date: 2016-07-27		Copyright: Trenz Electronic GmbH	
Filename: ETH-PHY.SchDoc		Page20 of 35	



▲ ADDR: 0x73 (0b1110011x)

▲ EEPROM: 0x50 (0b1010000x)

▲ EEPROM: 0x51 (0b1010001x)

▲ EEPROM: 0x52 (0b1010010x)

▲ EEPROM: 0x53 (0b1010100x)

▲ EXP: 0x27 (0b0100111x)

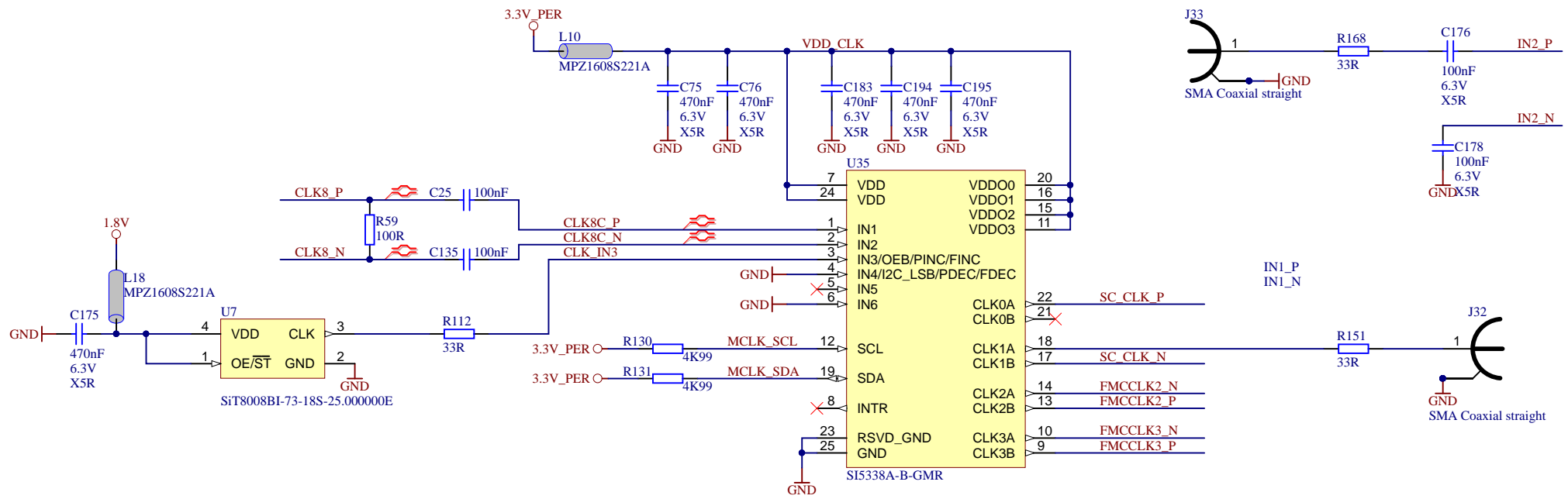
▲ ADDR: 0x77 (0b1101111x)


▲ AUDIO: 0x38 (0b0111000x)

▲ FF_EXP: 0x24 (0b0100100x)



Title: TEBF0808 - I2C System		
A4	Number: TEBF0808 TEBF0808	Rev. 02
Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 21 of 35
Filename: I2C_system.schdoc		



		Title: TEBF0808 - CLK	
		A4	Number: TEBF0808 TEBF0808
Date: 2016-07-27		Copyright: Trenz Electronic GmbH	
Filename: CLK.schdoc		Page22 of 35	

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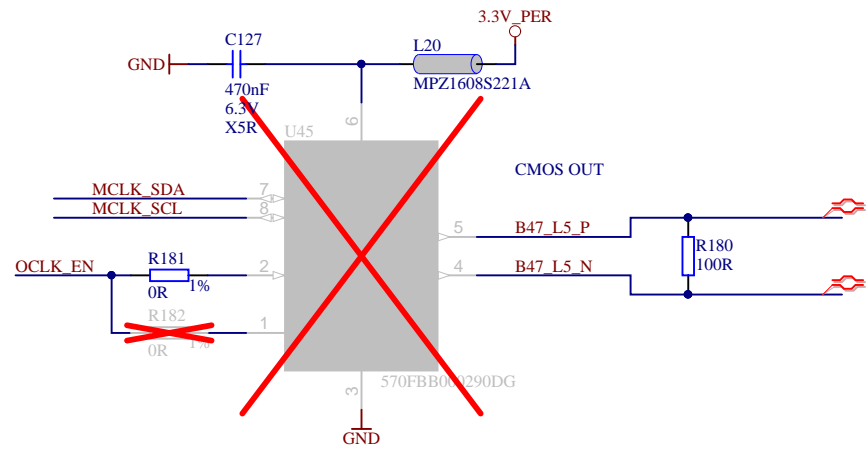
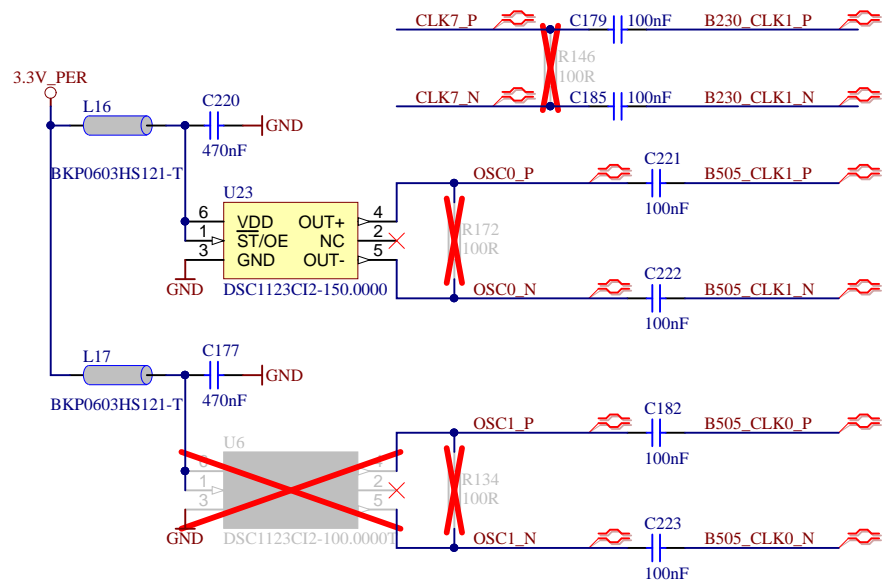
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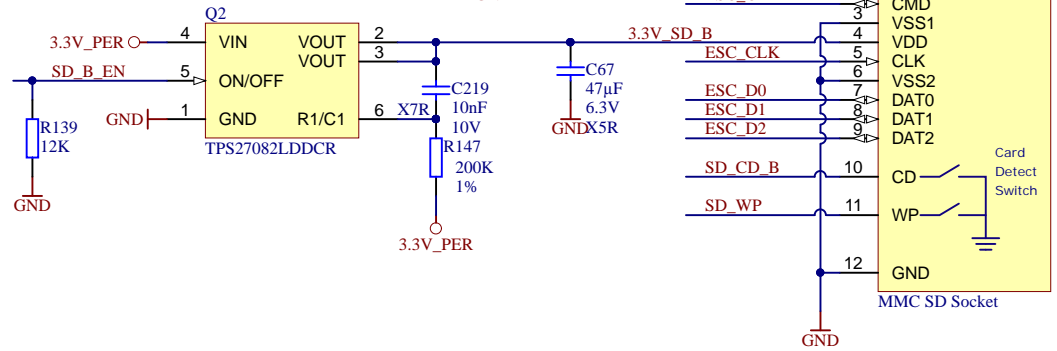
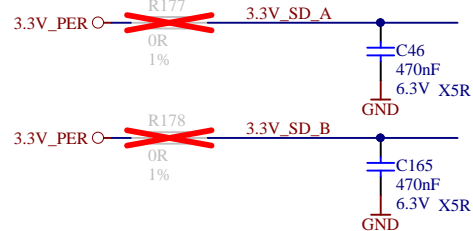
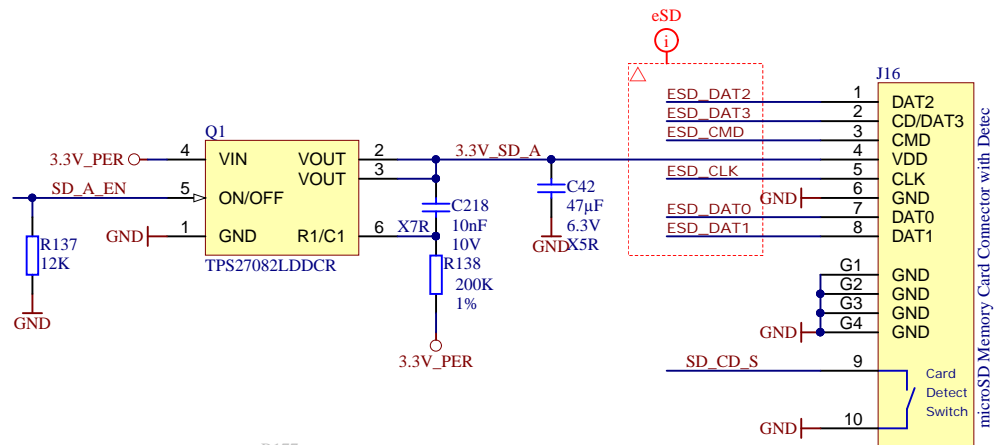
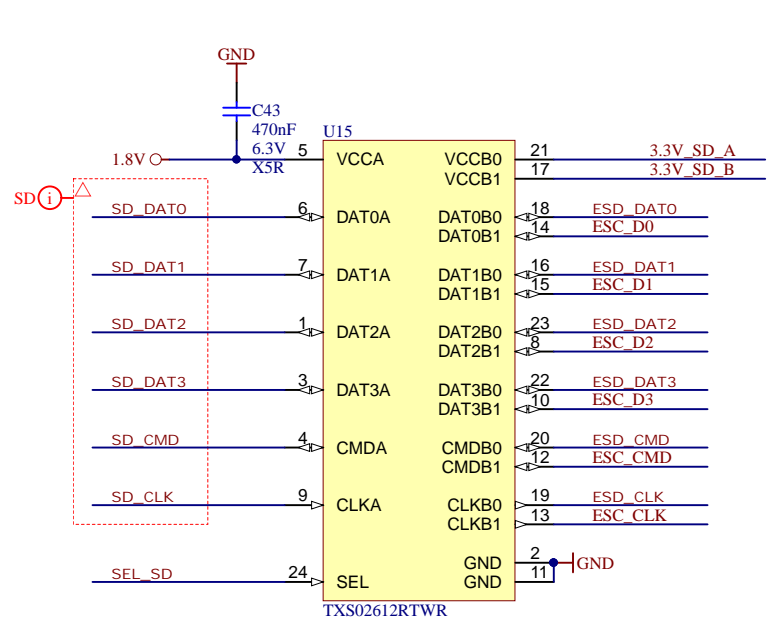
Title: TEBF0808 - CLK		
A4	Number: TEBF0808 TEBF0808	Rev. 02
Date: 2016-07-27	Copyright: Trenz Electronic GmbH	Page 23 of 35
Filename: CLK_MUX.schdoc		


1

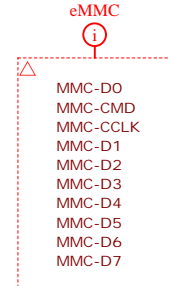
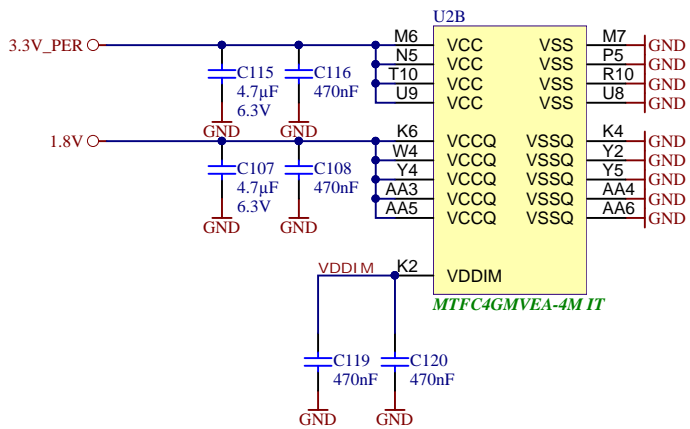
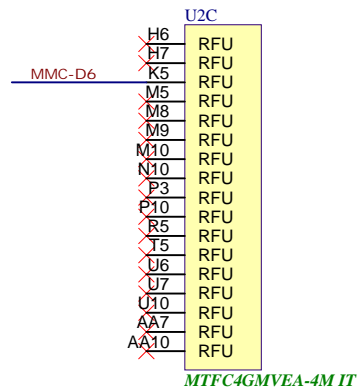
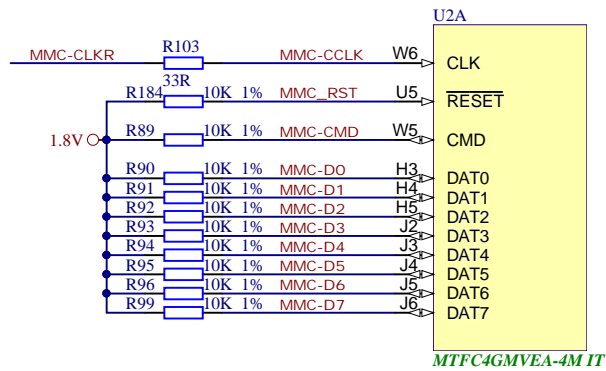
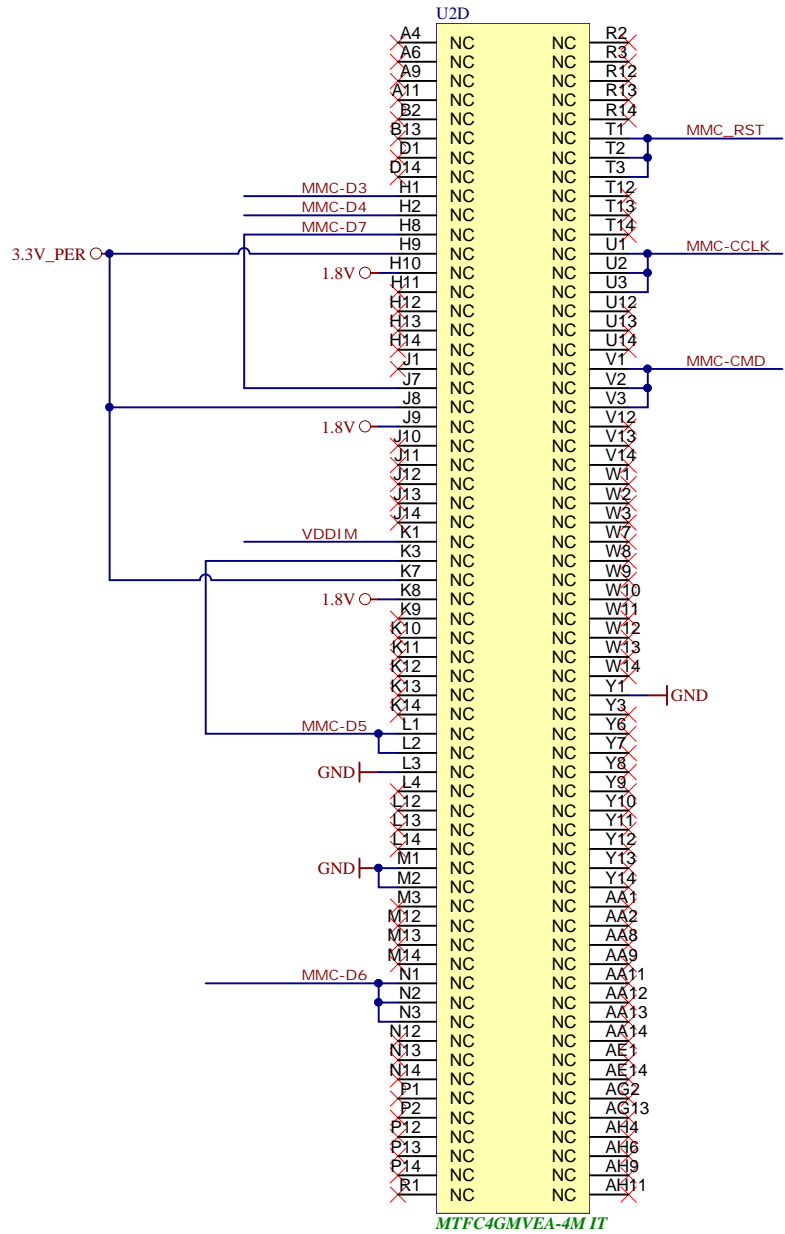
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		Title: TEBF0808 - SD	
		A4	Number: TEBF0808 TEBF0808
Date: 2016-07-27		Copyright: Trenz Electronic GmbH	
Filename: SD.schdoc		Page24 of 35	



LAYOUT NOTES:
 Signal trace length skew constraints
 - Mismatch within DAT0DAT7 < 250 mil
 - CLK to DAT0-7 mismatch < 250 mil
 - CLK to CMD mismatch < 250 mil
 - CLK to RST_N mismatch < 1000 mil



Title: TEBF0808 - eMMC		
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Filename: eMMC.SchDoc		

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A

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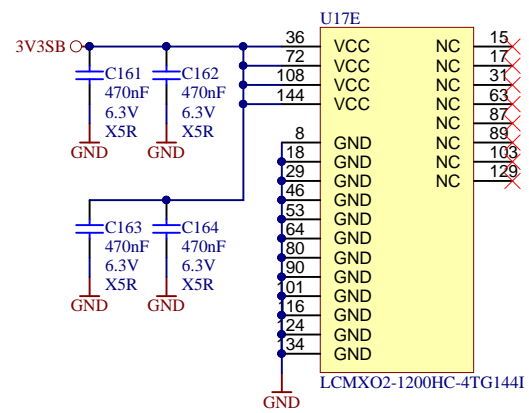
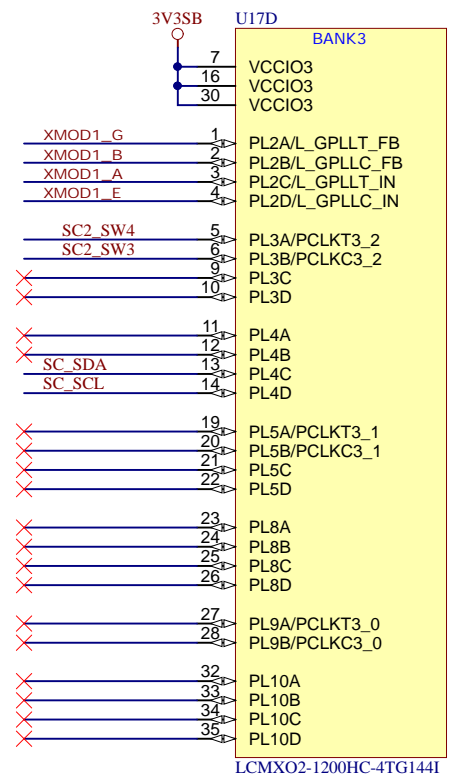
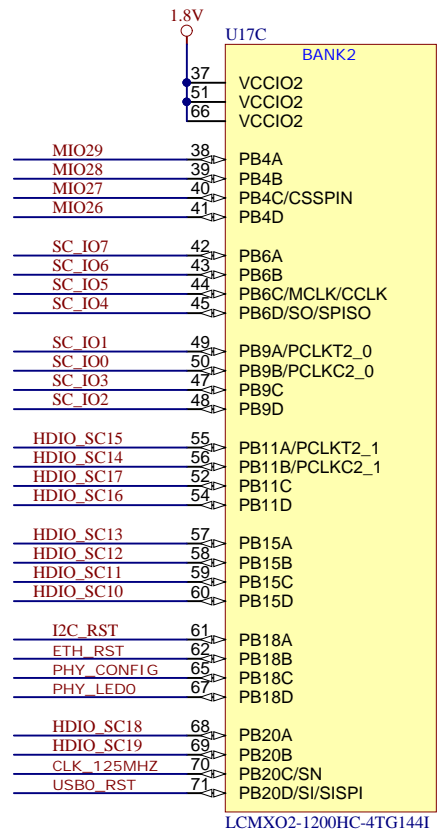
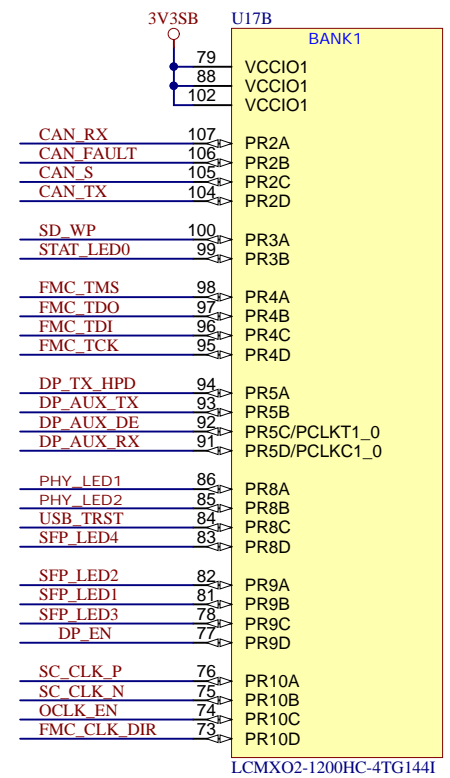
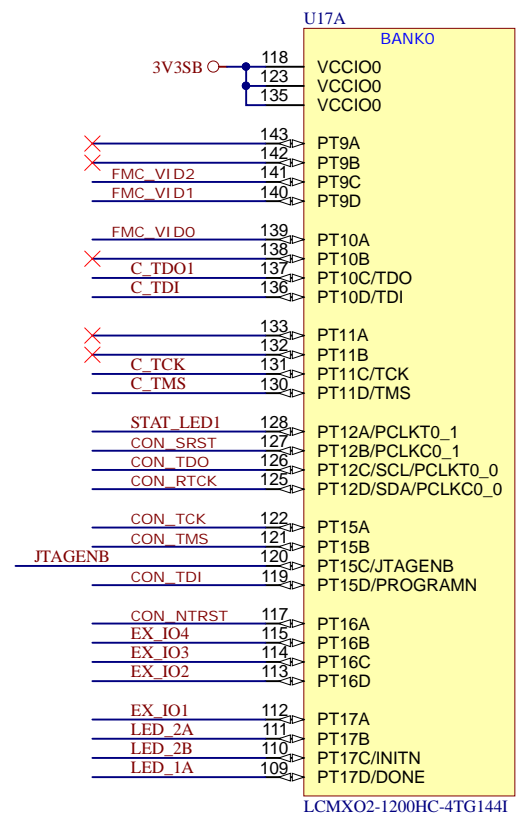
B

C

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Title: TEBF0808- CPLD		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: SC.schdoc		

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SW 2

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A

A

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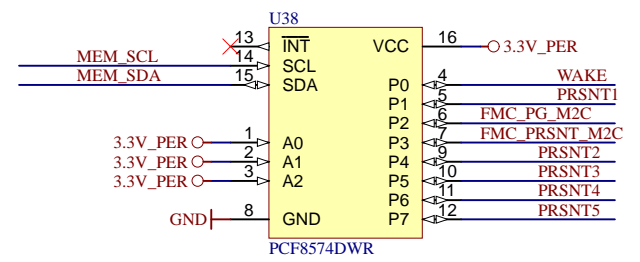
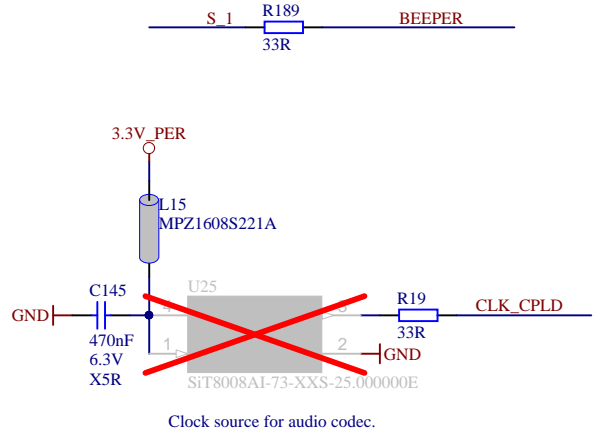
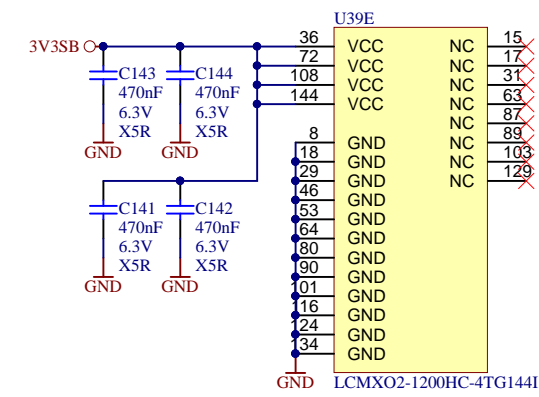
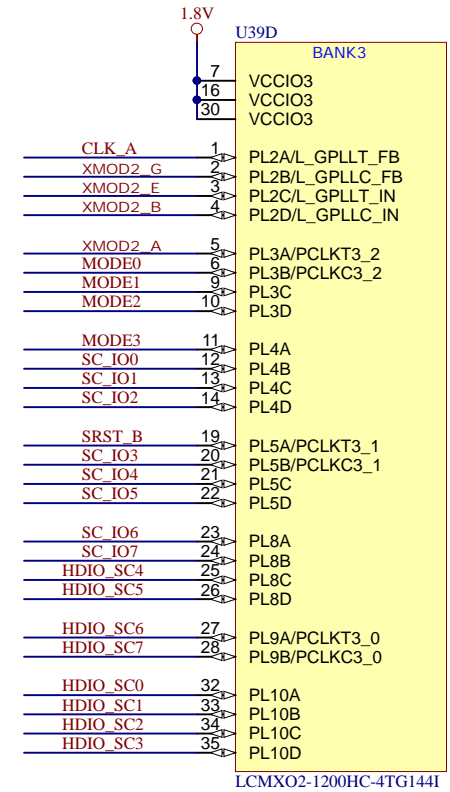
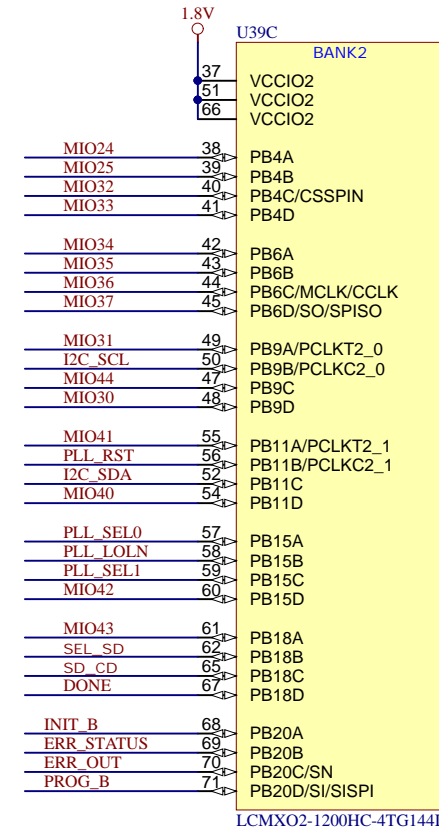
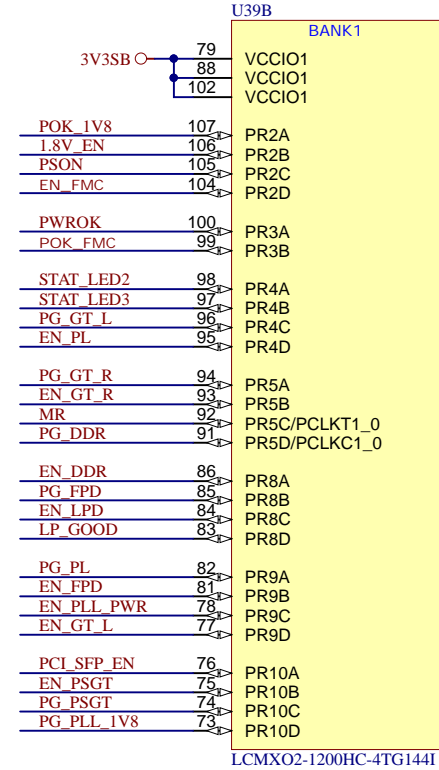
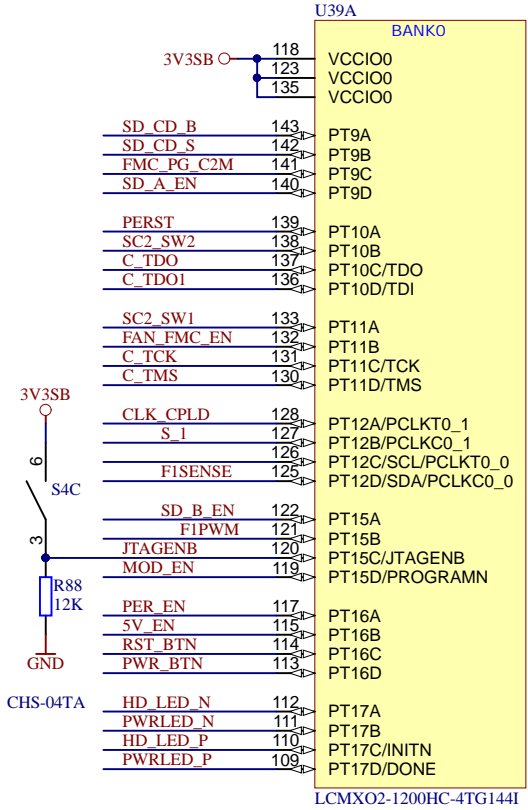
B

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D



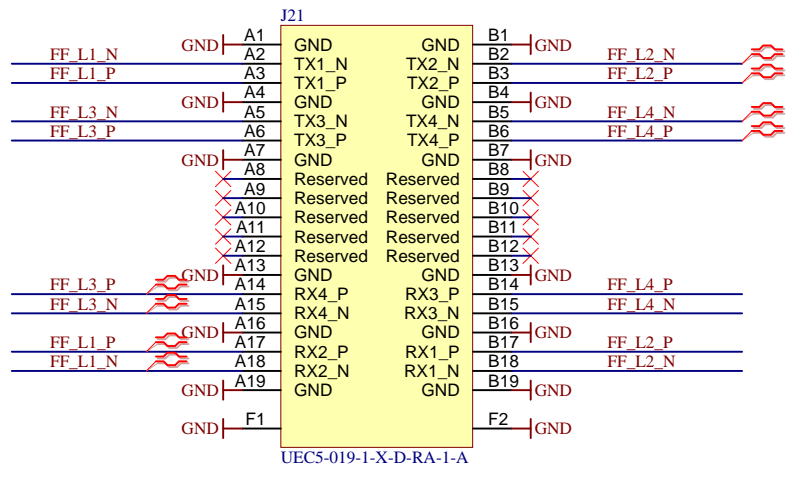
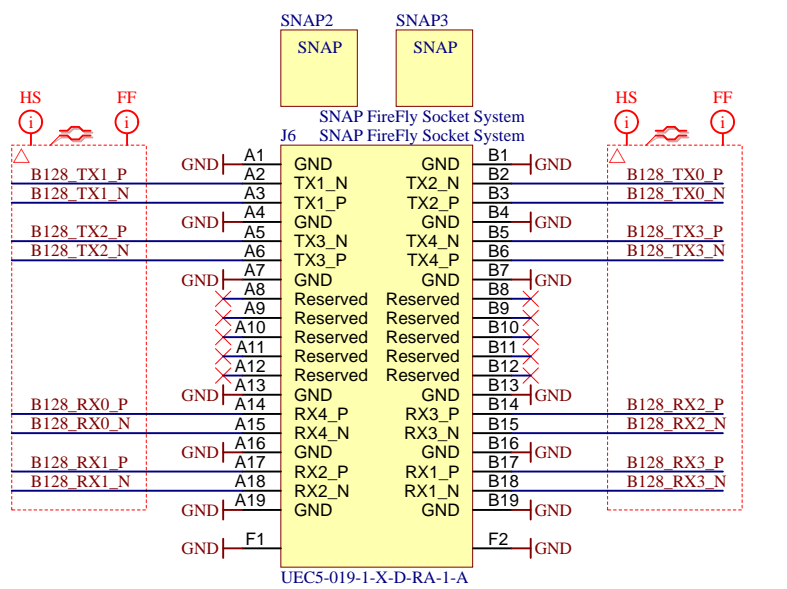
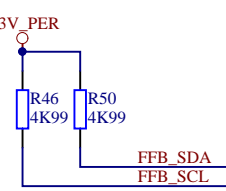
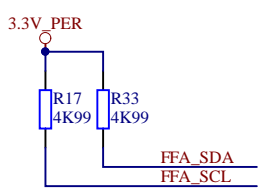
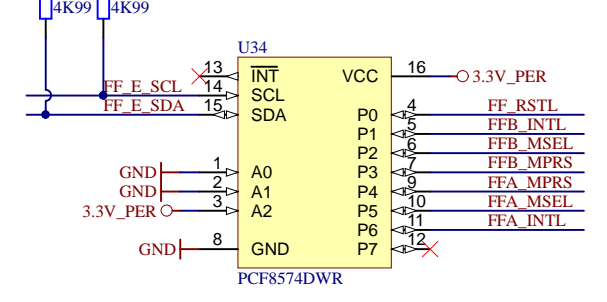
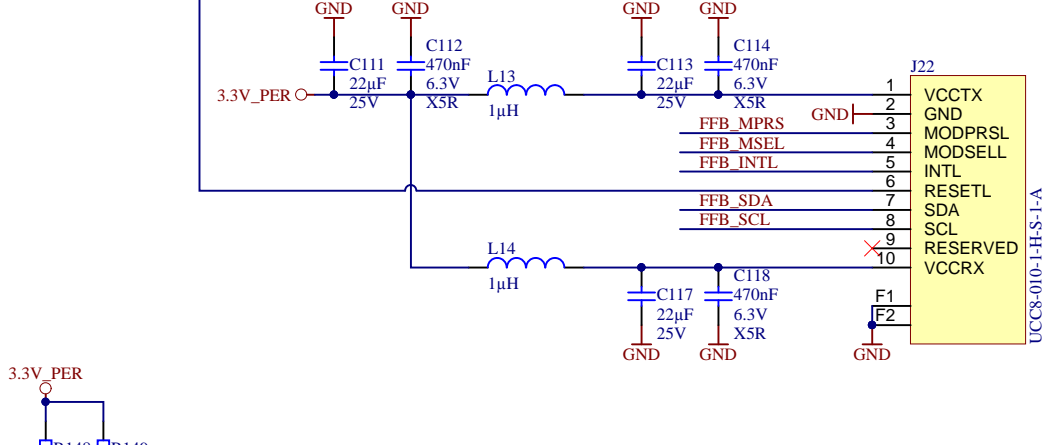
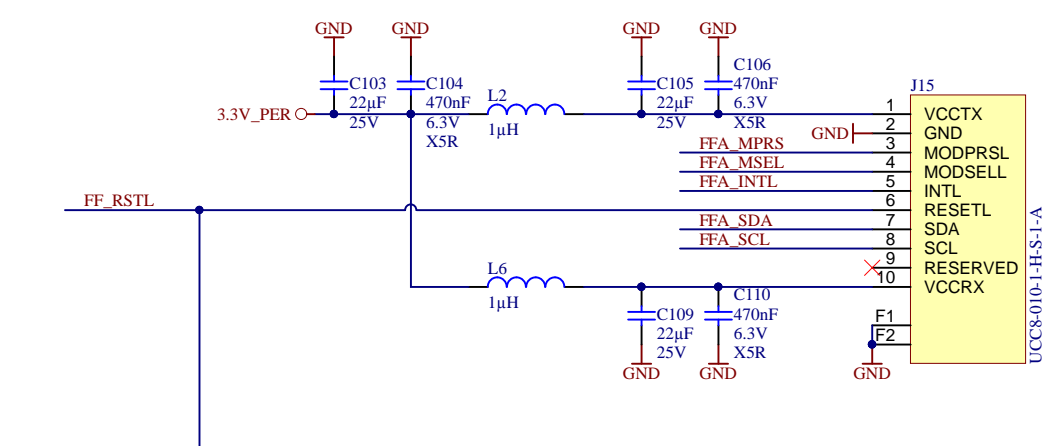
Title: TEBF0808 - CPLD_2		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: SC2.schdoc		

1

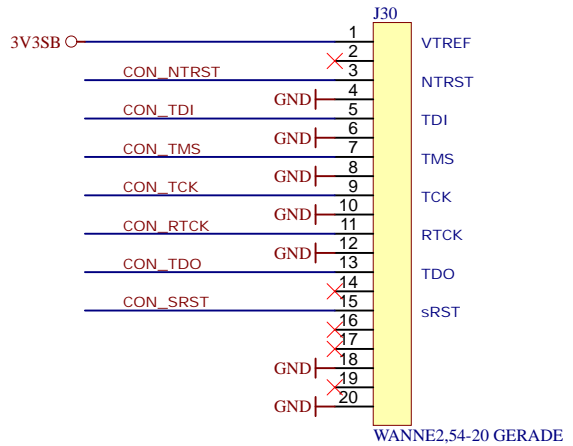
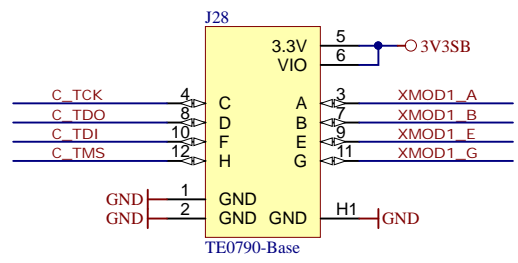
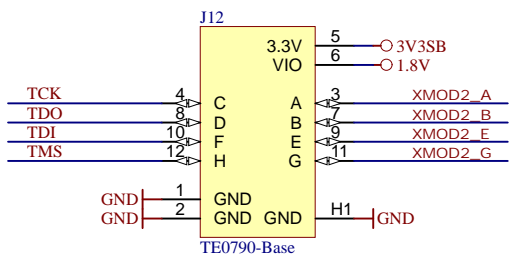
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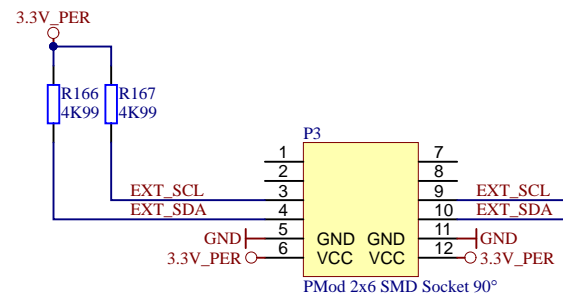
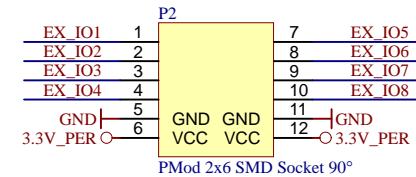
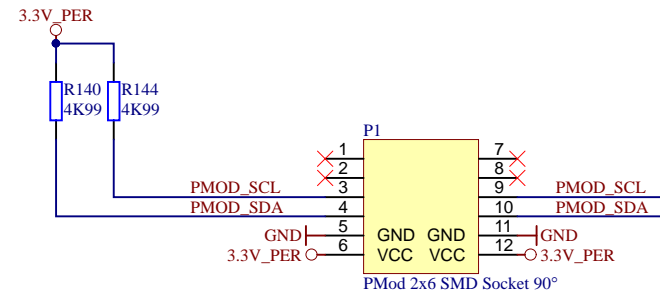
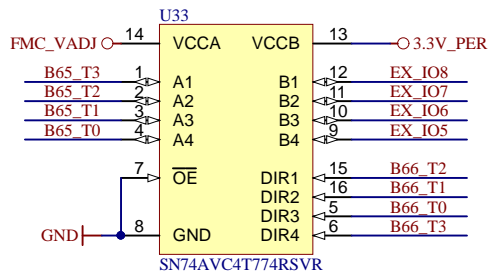
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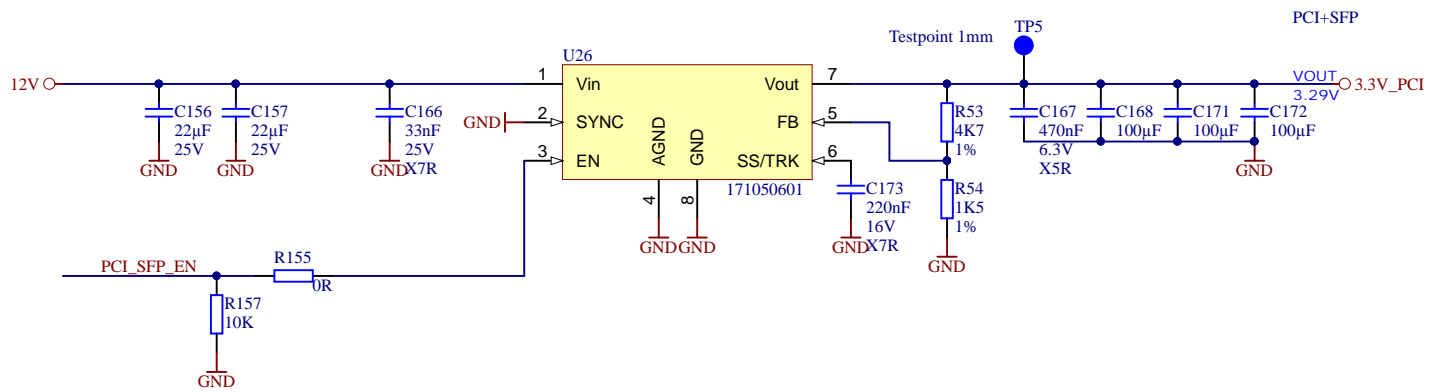
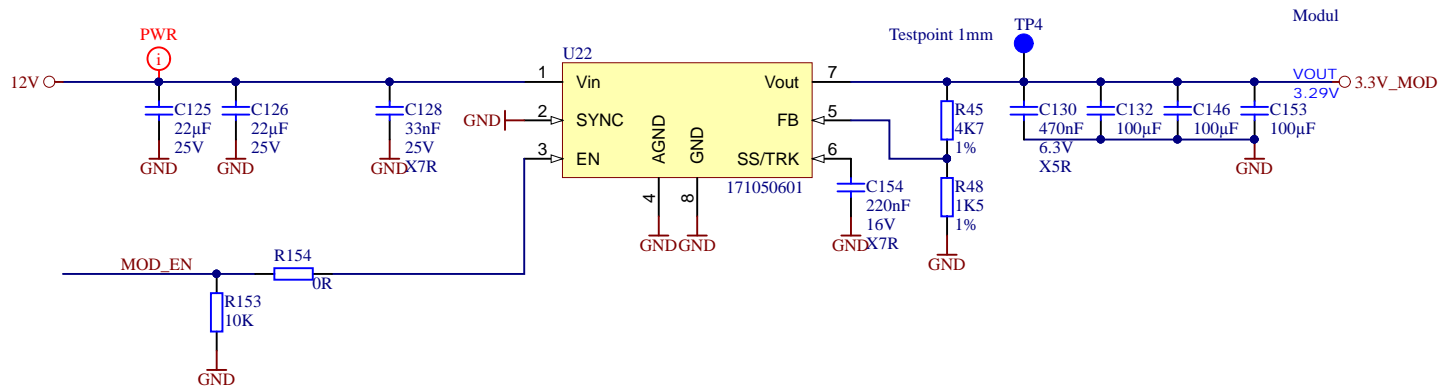
Title: TEBF0808 - Analog		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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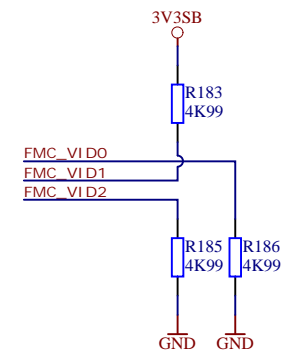
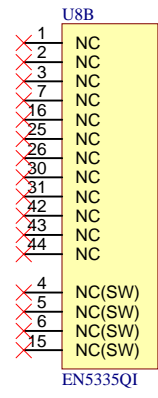
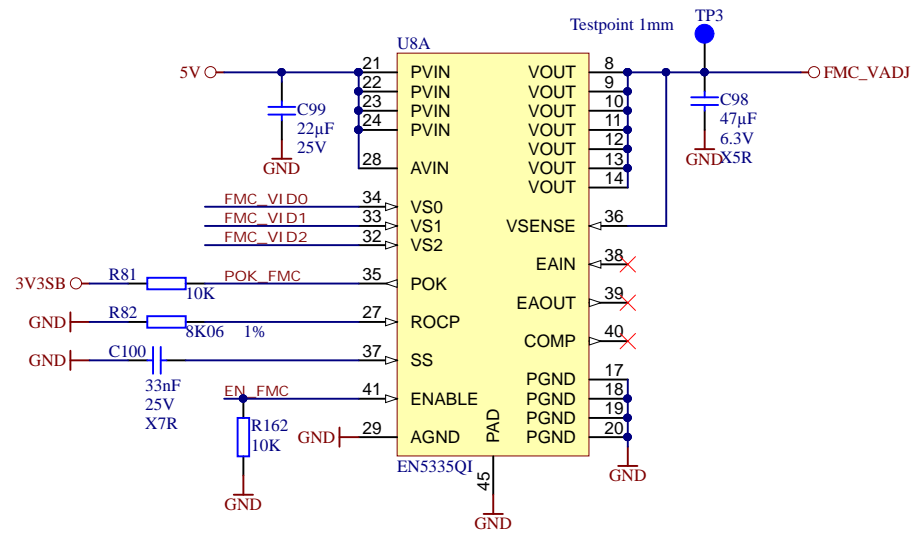
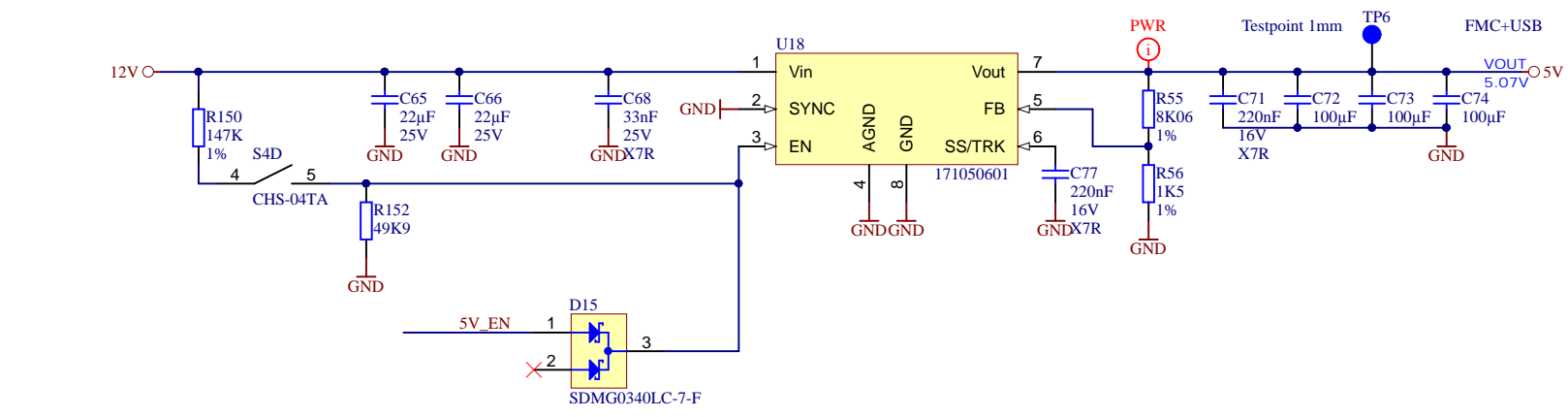
Title: TEBF0808 - XMOD		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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	Title: TEBF0808 - MISC	
	A4	Number: TEBF0808 TEBF0808
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	Filename: PMODE.schdoc	
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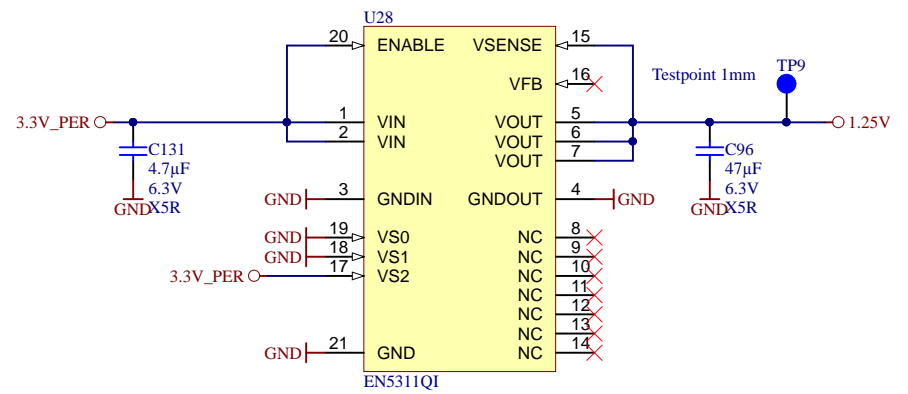
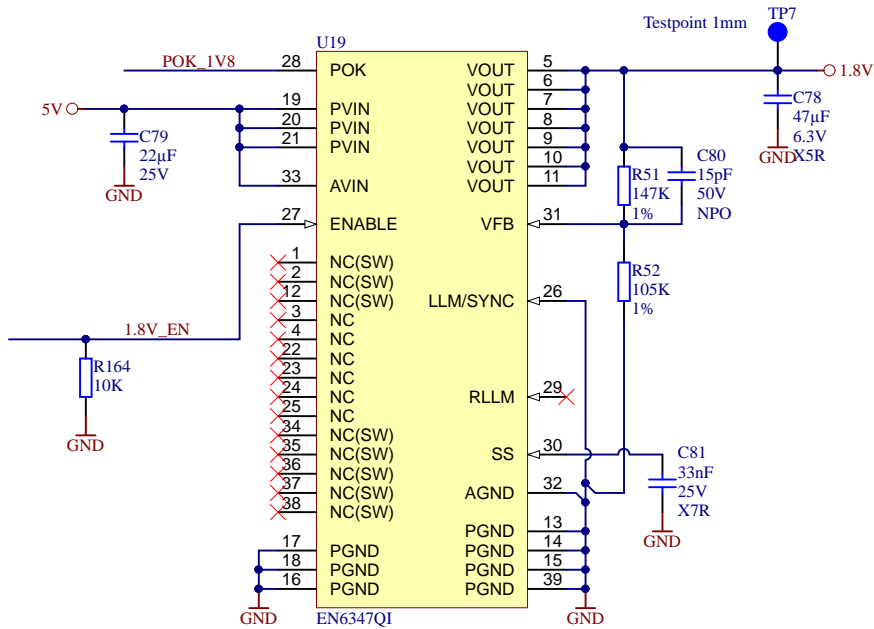
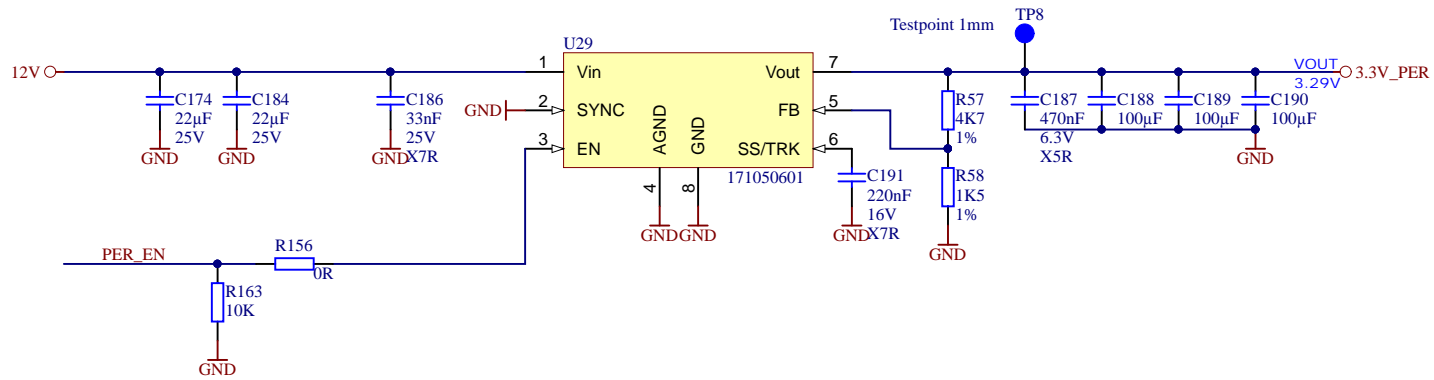
Title: TEBF0808 - Power		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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Filename: Power_1.schdoc		




VS2 | VS1 | VS0 | Output Voltage

0	1	0	1.8V
0	1	1	1.5V
1	0	0	1.25V
1	0	1	1.2V

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A4	Number: TEBF0808 TEBF0808	Rev. 02
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		Title: TEBF0808 - Power	
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A

A

B

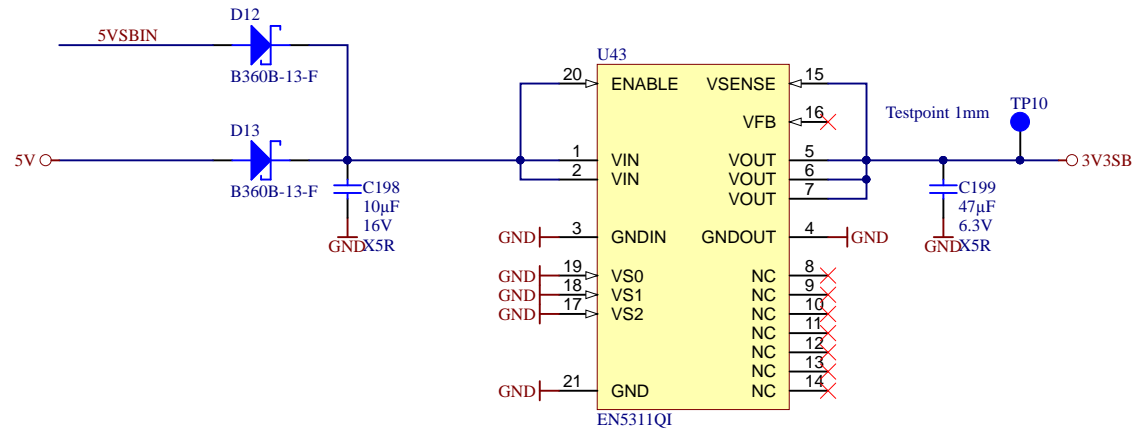
B


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		Title: TEBF0808 - Power	
		A4	Number: TEBF0808 TEBF0808
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Filename: Power_4.schdoc		Page 34 of 35	

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A

A

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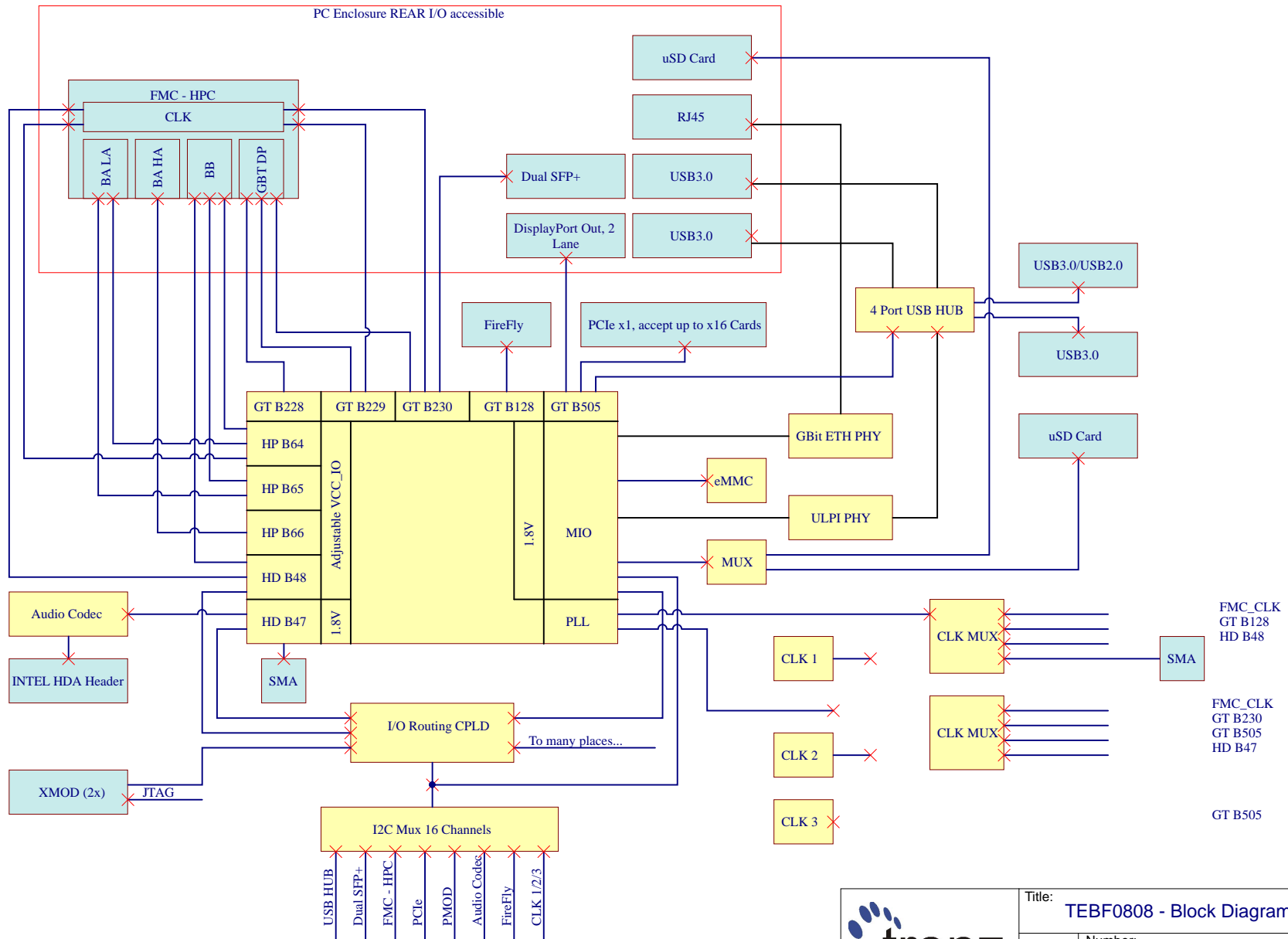
C

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D

PC Enclosure REAR I/O accessible



Title: TEBF0808 - Block Diagram		
A4	Number: TEBF0808 TEBF0808	Rev. 02
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