

Text on PCB:  
(close to edge)  
(TOP side)

GBE

IN1

OUT1

OUT2

OUT3

OUT4

OUT5

OUT6

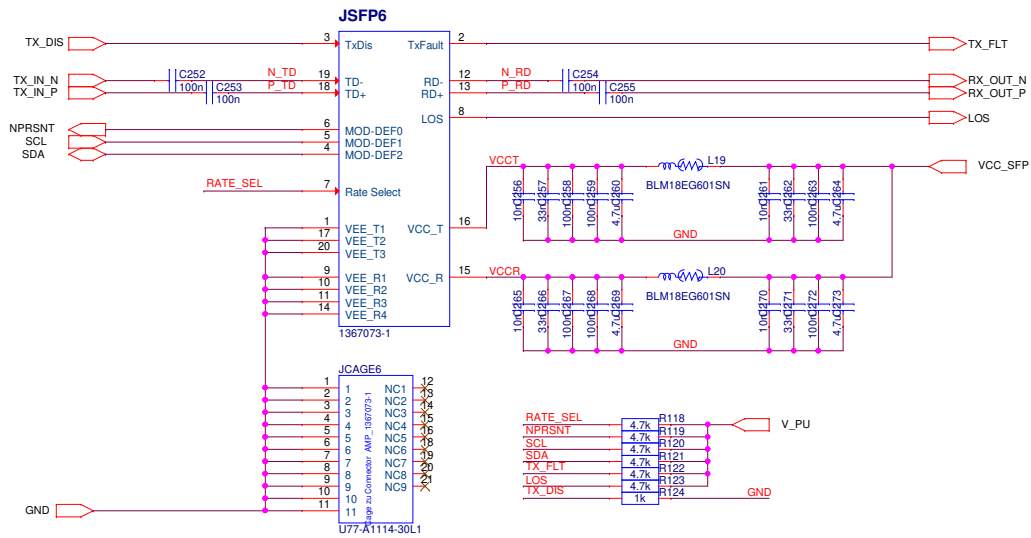


Gesellschaft für Schwerionenforschung mbH  
Planckstrasse 1  
D-64291 Darmstadt  
GERMANY  
www.gsi.de

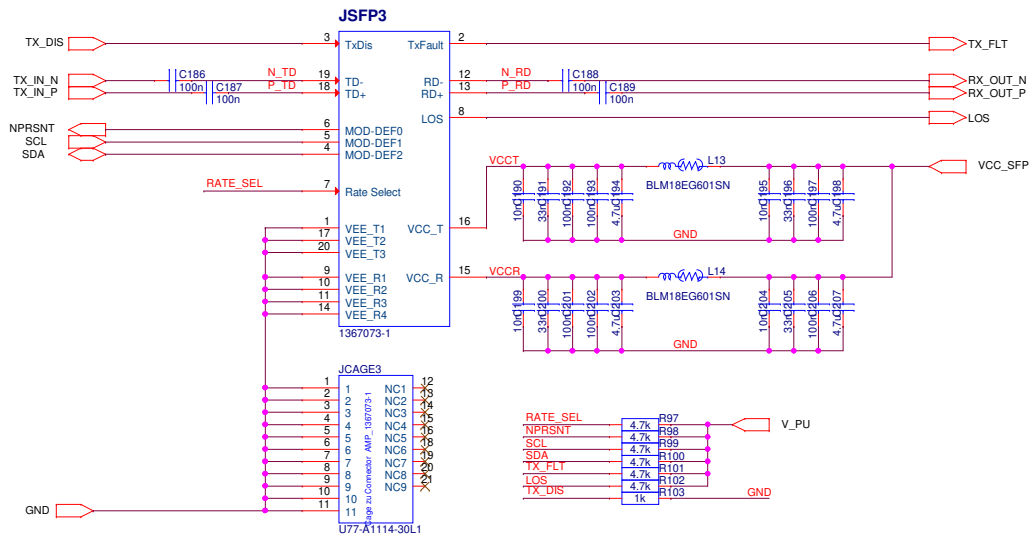
FRONT I/O (BOT side)


Design: K:\GSU\BIOGMA\BIOGMA_HUB1\BIOGMA_HUB1.DSN	Size: A3	Page: 1 / 9
Modified: Wednesday, June 07, 2023	Layouter: H.Kavan	
Designer: H.Herzog		

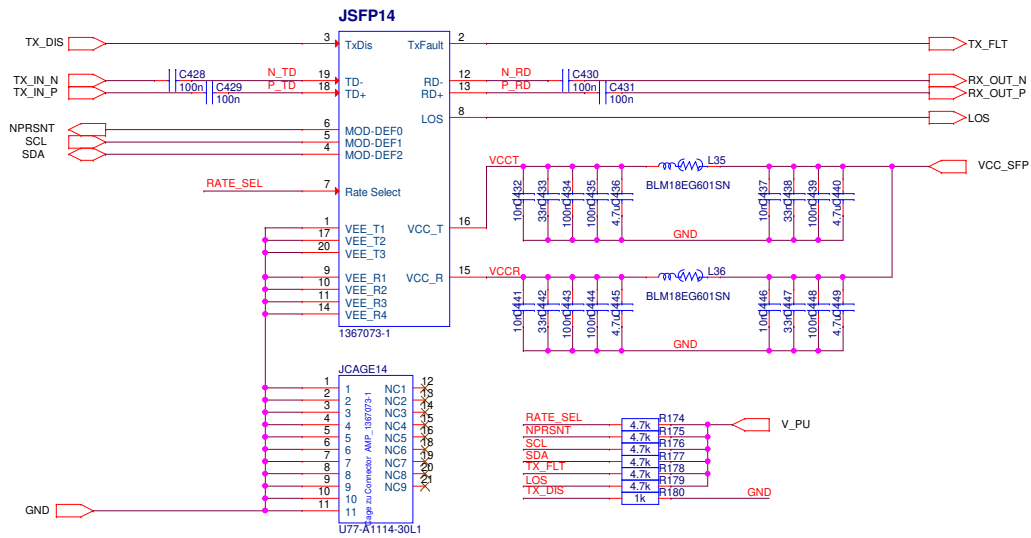


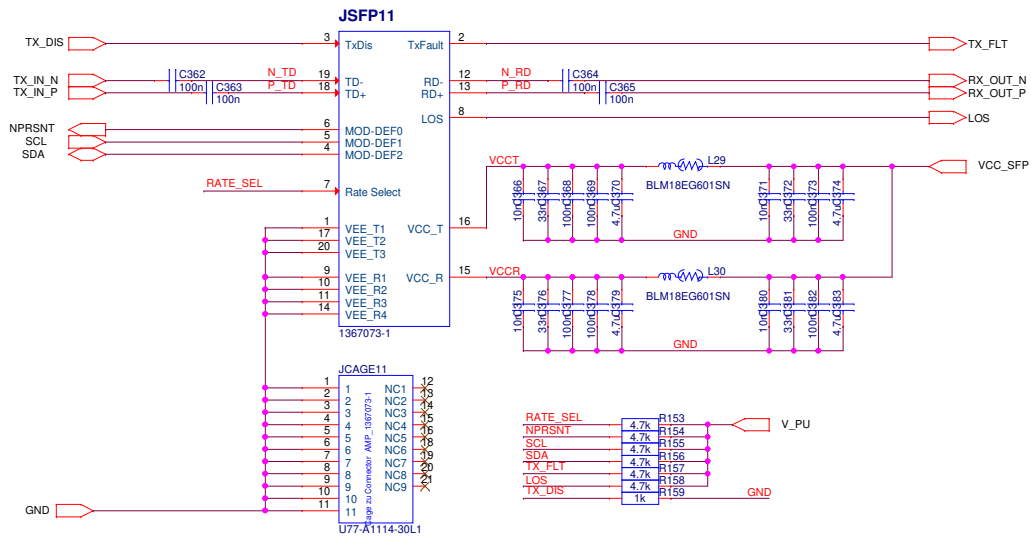


<b>GSI</b>	Gesellschaft für Schwerionenforschung mbH		
	Planckstrasse 1 D-64291 Darmstadt GERMANY www.gsi.de		
<b>SFP Port</b>			
Design:	KIGSLUOBIDOGMAIDOGMA_HUB1IDOGMA_HUB1.DSN	Size:	A3
Modifikt:	Wednesday, June 07, 2023	Page:	1 / 9
Designer:	H. Heppner	Layouter:	H. Kavan

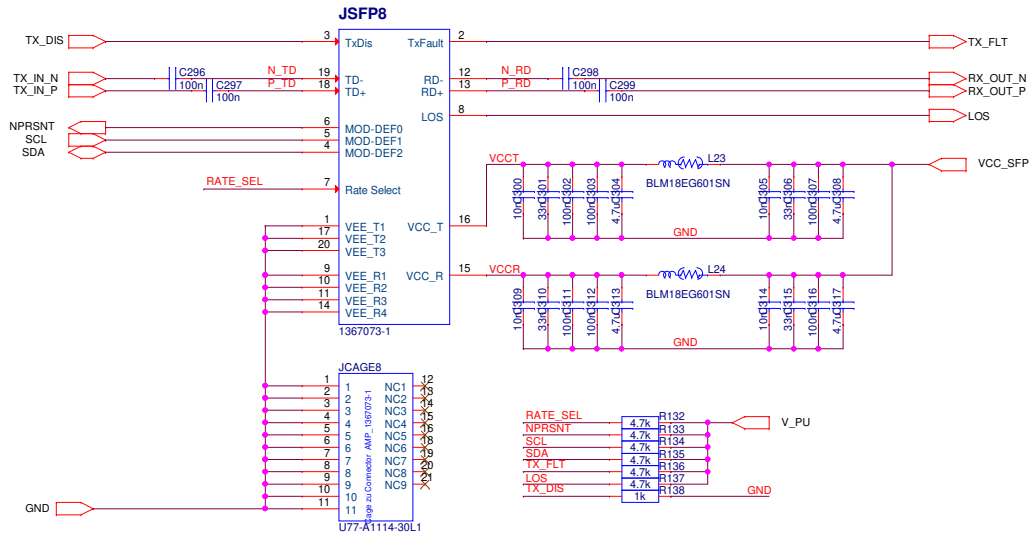


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	<b>SFP Port</b>	
Design: K:\GSII\OB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN Modified: Wednesday, June 07, 2023 Designer: H. Heppner	Size: A3 Layouter: H. Kavan	Page: 1 / 9

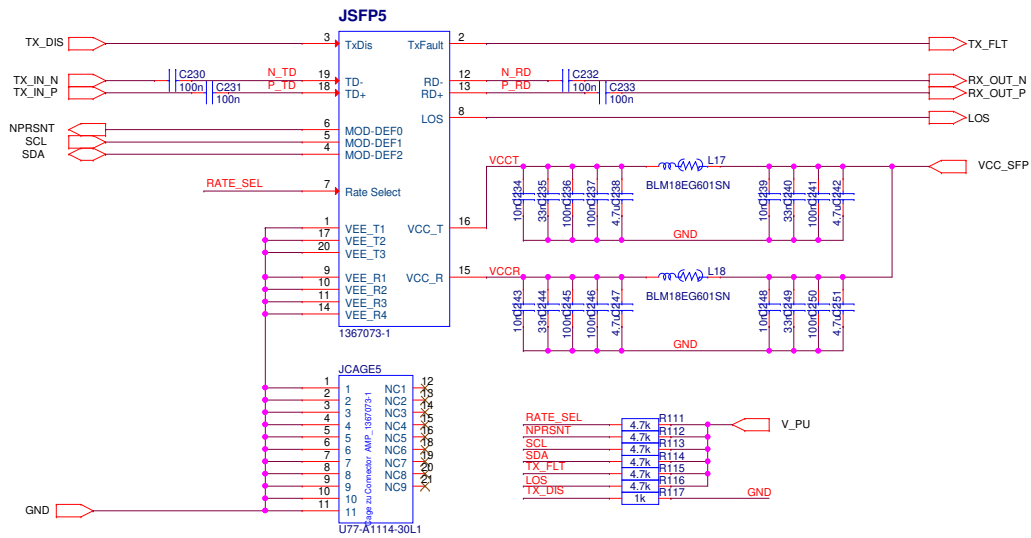




<b>GSI</b>	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY www.gsi.de		
	<b>SFP Port</b>		
Design:	KIGSL0BIDOGMAIDOGMA_HUB1IDOGMA_HUB1.DSN	Size:	A3
Modifikt:	Wednesday, June 07, 2023	Page:	1 / 9
Designer:	H. Heppner	Layouter:	H. Kavan

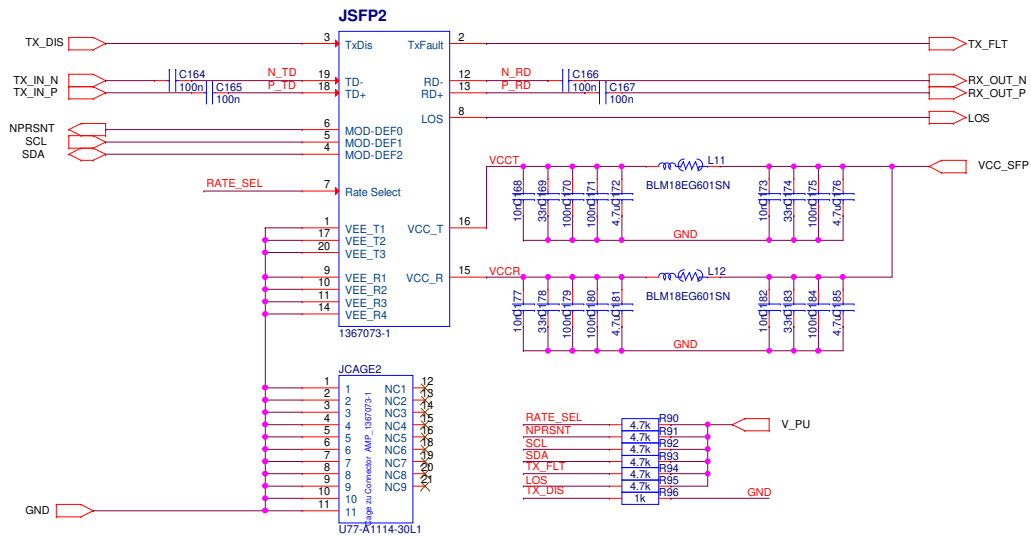


<b>GSI</b>	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY www.gsi.de		
	<b>SFP Port</b>		
Design:	KIGSLOBI/DOGMA/DOGMA_HUB1/DOGMA_HUB1.DSN	Size:	A3
Modifikt:	Wednesday, June 07, 2023	Page:	1 / 9
Designer:	H. Heppner	Layouter:	H. Kavan

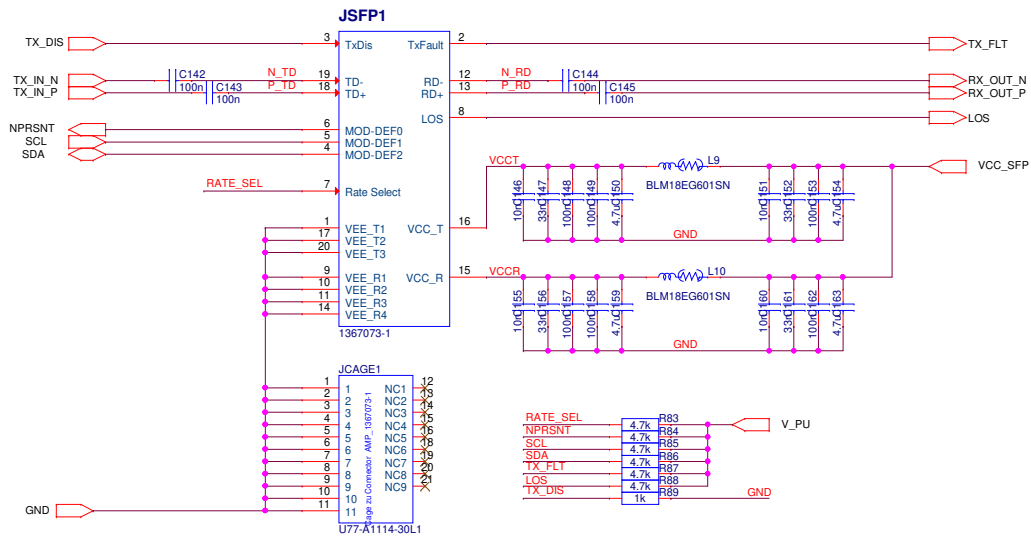


	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY <a href="http://www.gsi.de">www.gsi.de</a>	
	<b>SFP Port</b>	
Design: K:\GSII\OB\DOGMAL\DOGMA_HUB1\DOGMA_HUB1.DSN Modified: Wednesday, June 07, 2023 Designer: H.Heggen	Size: A3 Layouter: H.Kavan	Page: 1 / 9

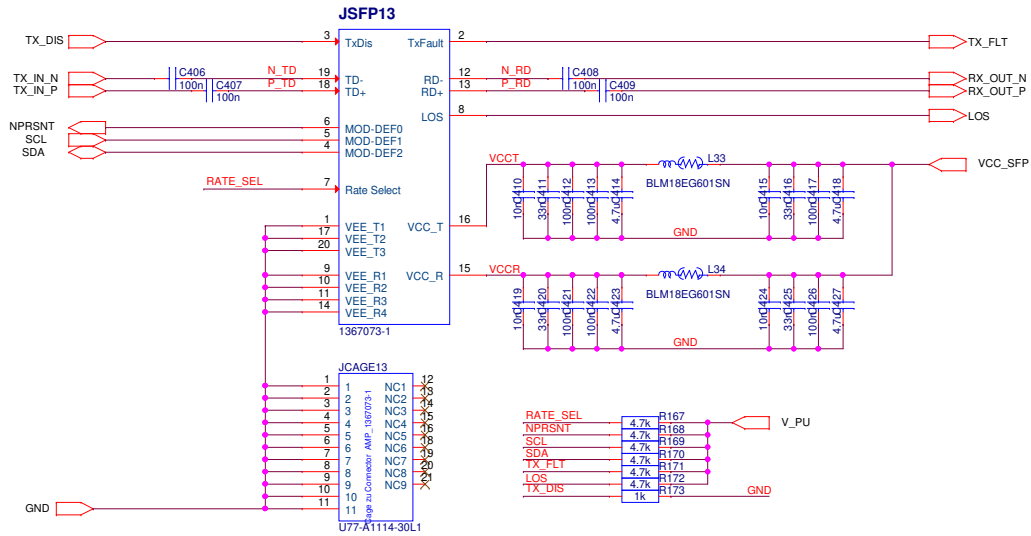




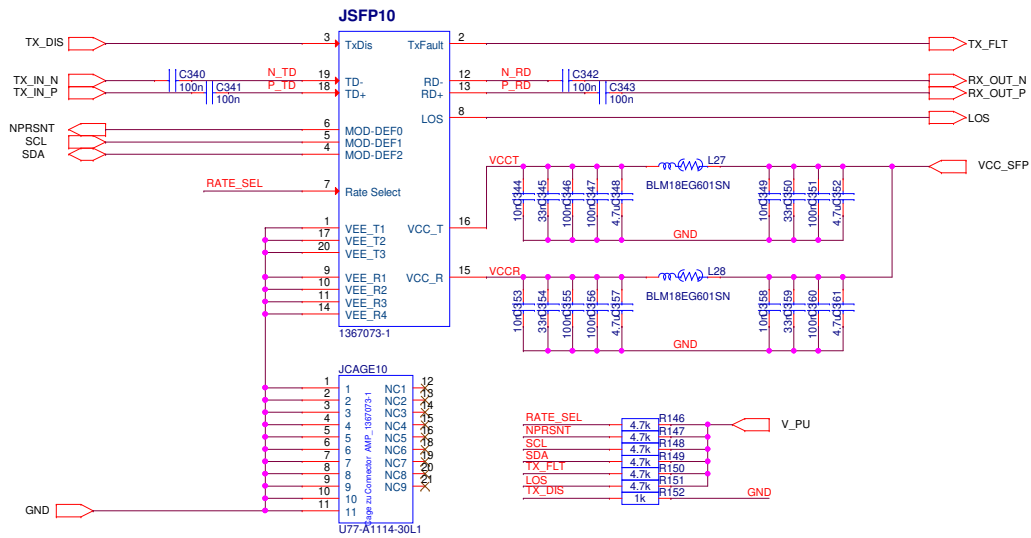
	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY <a href="http://www.gsi.de">www.gsi.de</a>		
	<b>SFP Port</b>		
Design: K:\GS\JOB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN Modified: Wednesday, June 07, 2023 Designer: H. Heppner	Size: A3	Page: 1 / 9 Layouter: H. Kavan	




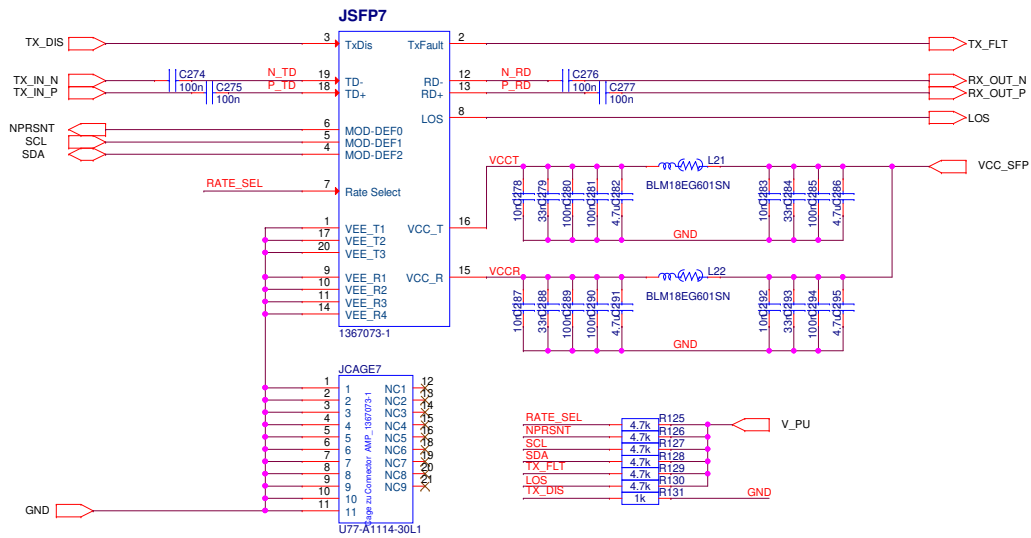




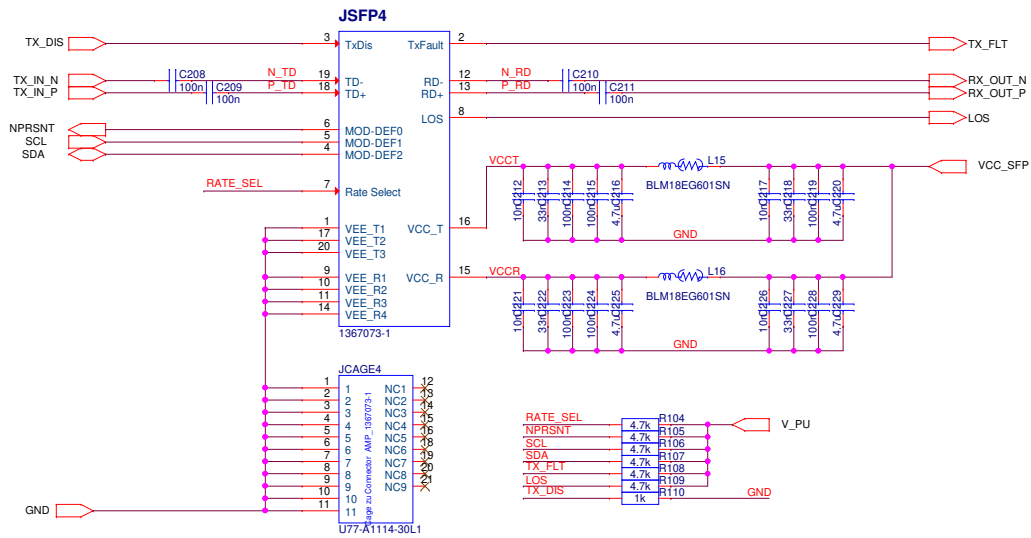
<b>GSI</b>	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY www.gsi.de		
	<b>SFP Port</b>		
Design:	K:\GSI\OB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN	Size:	A3
Modifikt:	Wednesday, June 07, 2023	Page:	1 / 9
Designer:	H. Heppner	Layouter:	H. Kavan



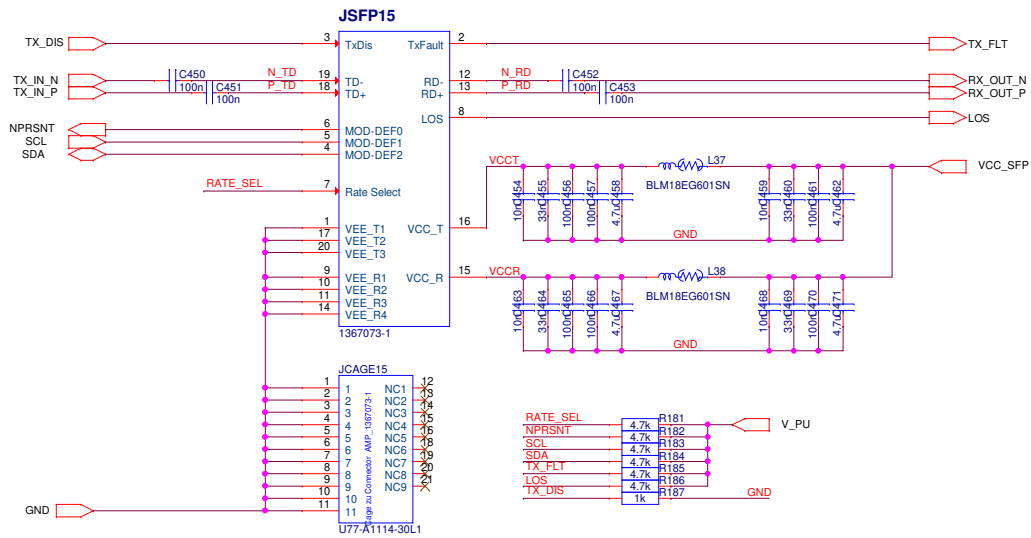
	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY <a href="http://www.gsi.de">www.gsi.de</a>	
	<b>SFP Port</b>	
Design: K:\GSII\OB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN Modified: Wednesday, June 07, 2023 Designer: H. Heppner	Size: A3 Layouter: H. Kavan	Page: 1 / 9



<b>GSI</b>	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY www.gsi.de		
	<b>SFP Port</b>		
Design:	K:\GSI\OB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN	Size:	A3
Modifikt:	Wednesday, June 07, 2023	Page:	1 / 9
Designer:	H. Heppner	Layouter:	H. Kavan

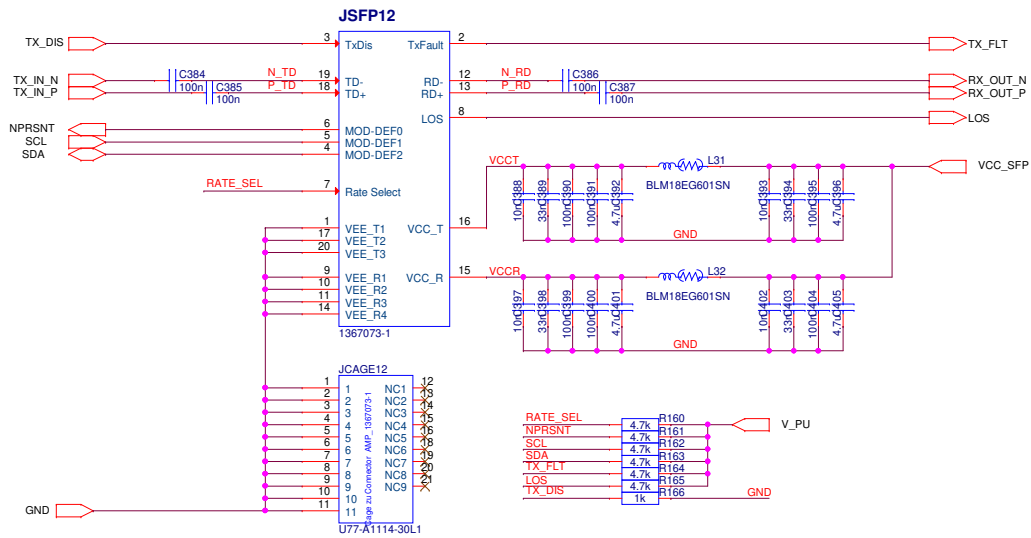


	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY <a href="http://www.gsi.de">www.gsi.de</a>		
	<b>SFP Port</b>		
Design: K:\GSII\OB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN Modified: Wednesday, June 07, 2023 Designer: H. Heppner	Size: A3 Layouter: H. Kavan	Page: 1 / 9	

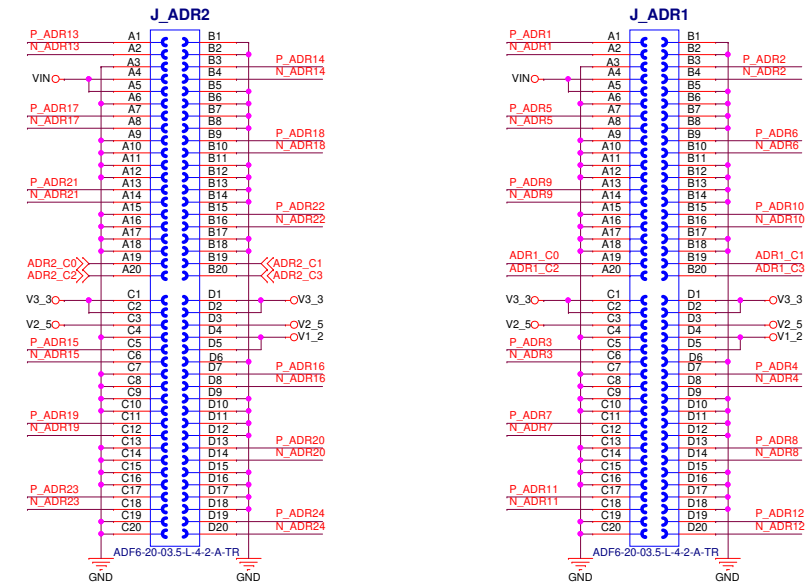
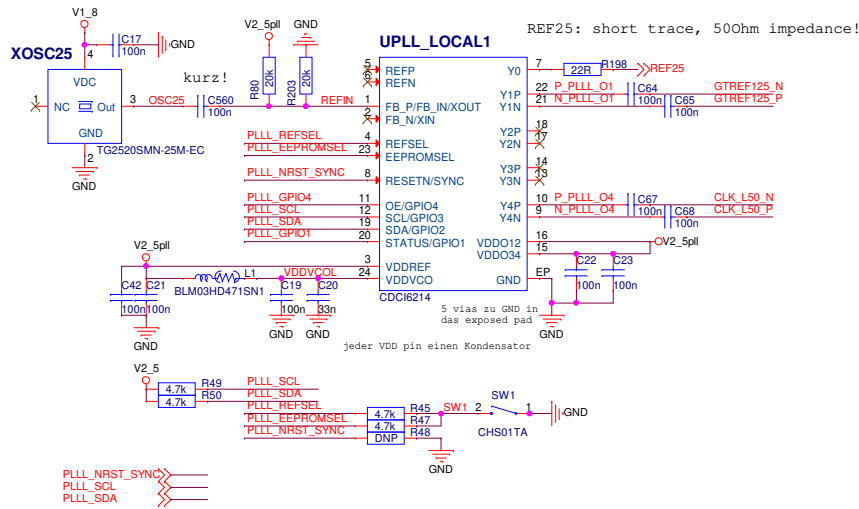


	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY <a href="http://www.gsi.de">www.gsi.de</a>	
	<b>SFP Port</b>	
Design: K:\GSII\OB\DOGMA\DOGMA_HUB1\DOGMA_HUB1.DSN Modified: Wednesday, June 07, 2023 Designer: H. Heppner	Size: A3 Page: 1 / 9 Layouter: H. Kavan	





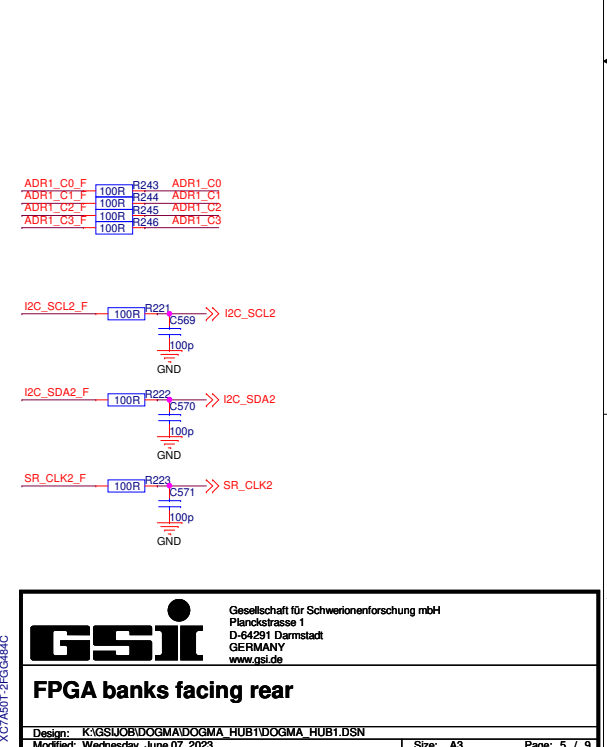
<b>GSI</b>	Gesellschaft für Schwerionenforschung mbH Planckstrasse 1 D-64291 Darmstadt GERMANY www.gsi.de		
	<b>SFP Port</b>		
Design:	K:\GSI\OB\DOGMAL\DOGMA_HUB1\DOGMA_HUB1.DSN	Size:	A3
Modifikt:	Wednesday, June 07, 2023	Page:	1 / 9
Designer:	H. Heppner	Layouter:	H. Kavan



U1E

Bank 35		Bank 34	
F4	IO_0_35 2.5V	T3	IO_0_34 2.5V
P_ADR13	B1	P_ADR7	T1
N_ADR13	A1	N_ADR7	U1
P_ADR14	C2	P_ADR8	U2
N_ADR14	B2	N_ADR8	V2
P_ADR15	E1	P_ADR4	R3
N_ADR15	D1	N_ADR4	R2
P_ADR17	E2	P_ADR6	W2
N_ADR17	D2	N_ADR6	Y2
P_ADR16	G1	P_ADR11	W1
N_ADR16	F1	N_ADR11	Y1
P_ADR18	F3	P_ADR9	U3
N_ADR18	E3	N_ADR9	V3
P_ADR24	K1	P_ADR5	AA1
N_ADR24	J1	N_ADR5	AB1
P_ADR19	H2	P_ADR3	AB3
N_ADR19	G2	N_ADR3	AB2
P_ADR20	K2	P_ADR10	Y3
N_ADR20	J2	N_ADR10	AA3
P_ADR21	J5	P_ADR1	AA5
N_ADR21	H5	N_ADR1	AA5
P_ADR22	H3	P_ADR2	Y4
N_ADR22	G3	N_ADR2	AA4
P_ADR23	H4	P_ADR12	V4
N_ADR23	G4	N_ADR12	W4
P_RX14	K4	CLK_L50_P	R4
N_RX14	J4	CLK_L50_N	T4
P_TX13	L3	P_RX8	U5
N_TX13	K3	N_RX8	W5
P_RX13	M1	N_RX7	W5
N_RX13	L1	P_TX8	W5
P_RX12	M2	N_TX8	W5
N_RX12	M2	P_TX7	R6
P_TX14	J6	N_TX7	T6
N_TX14	J6	I2C_SDA2_F	VE
P_TX12	L5		
N_TX12	L5		
P_RX11	N4	PLL_GPIO1	V7
N_RX11	N3	PLL_EEPROMSEL	W7
P_RX9	R1	PLL_SDA	AB7
N_RX9	P1	SR_CLK2_F	V9
P_TX9	P4	PLL_REFSEL	V8
N_TX9	P2	PLL_NRST_SYNC	AA8
P_TX10	P2	PLL_SQI	AB8
N_TX10	M6	ADR1_C1_F	Y8
P_TX11	M5	ADR1_C3_F	Y7
N_TX11	M5	ADR1_C0_F	W9
P_RX10	P6	ADR1_C2_F	Y9
N_RX10	N5		
DISABLE_LEDS	L6	I2C_SCL2_F	U7
	IO_25_35		IO_25_34

XC7A50T-2FGG484C



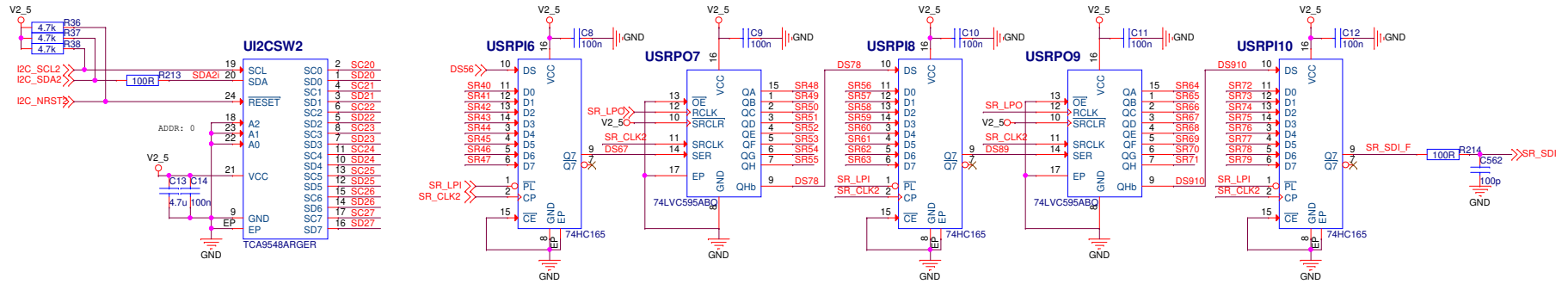
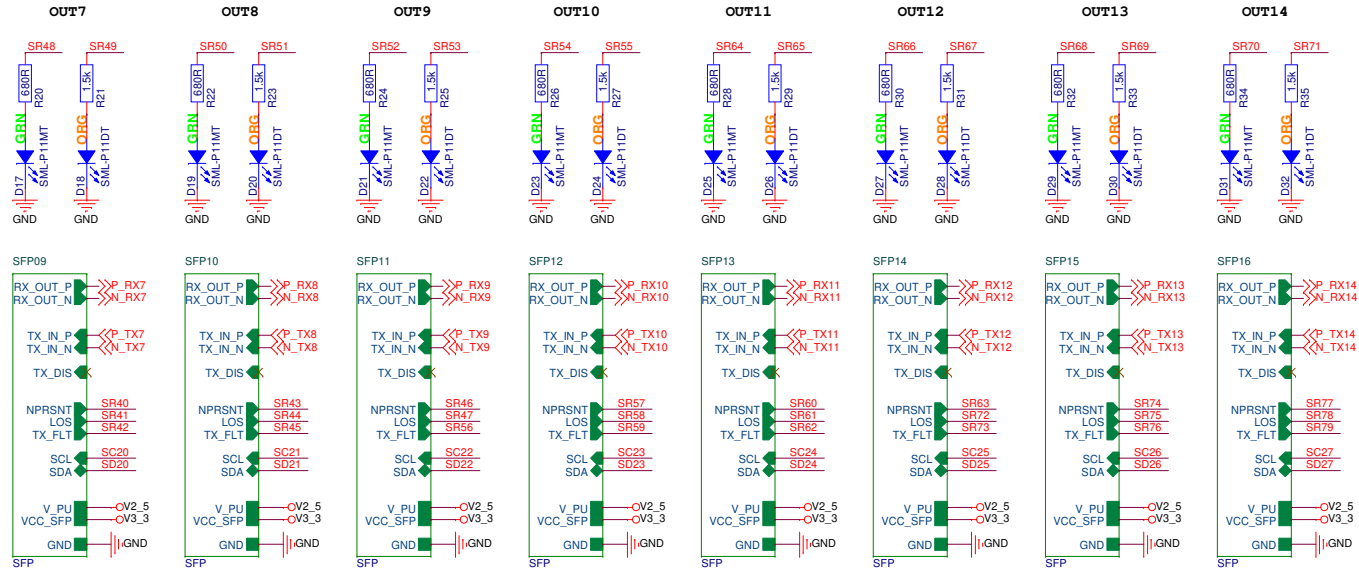
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GERMANY  
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FPGA banks facing rear

Design: KGSUOBDOGMADOGMA\_HUB1DOGMA\_HUB1.DSN  
Modifiziert: Wednesday, June 07, 2023  
Designer: H.Heggen

Size: A3  
Page: 5 / 9  
Layouter: H.Kavan

Text on PCB:  
(close to edge)  
(TOP side)

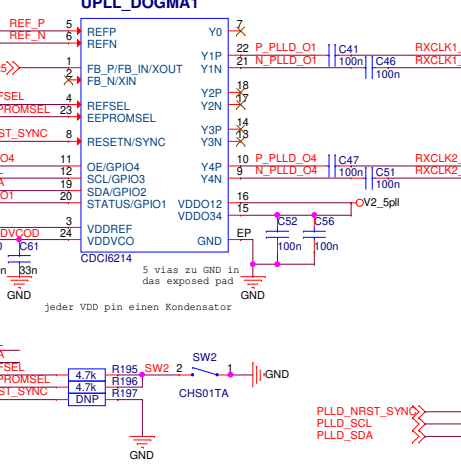
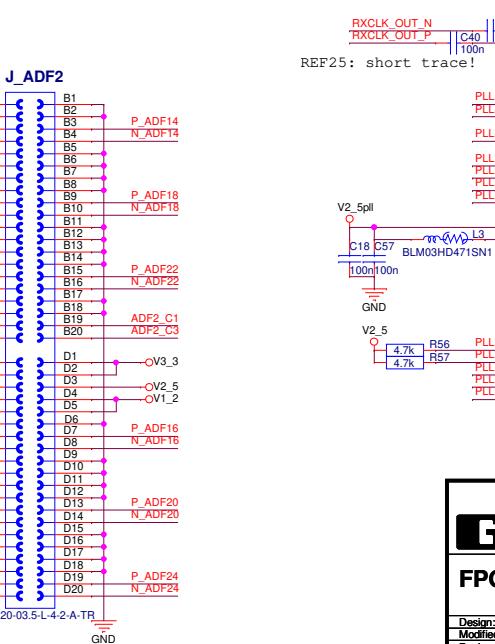
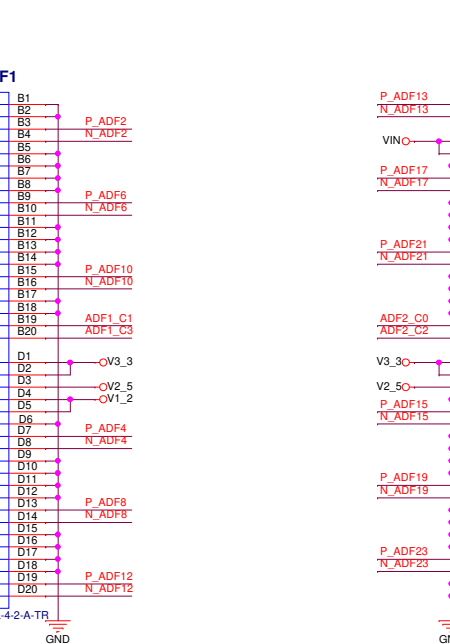
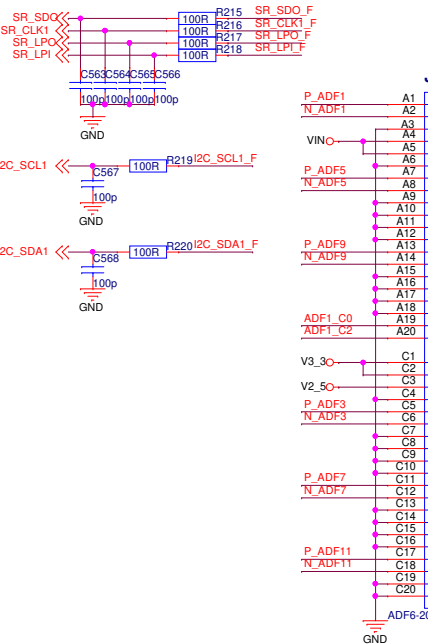
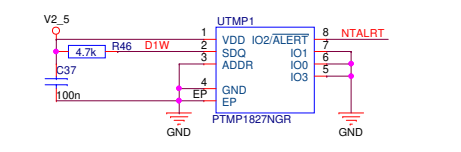
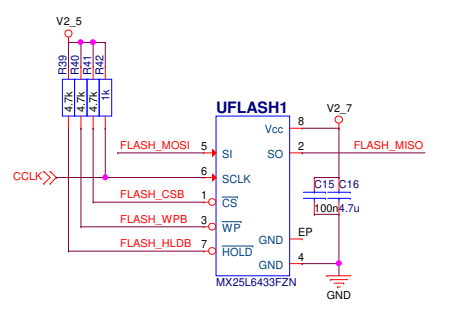
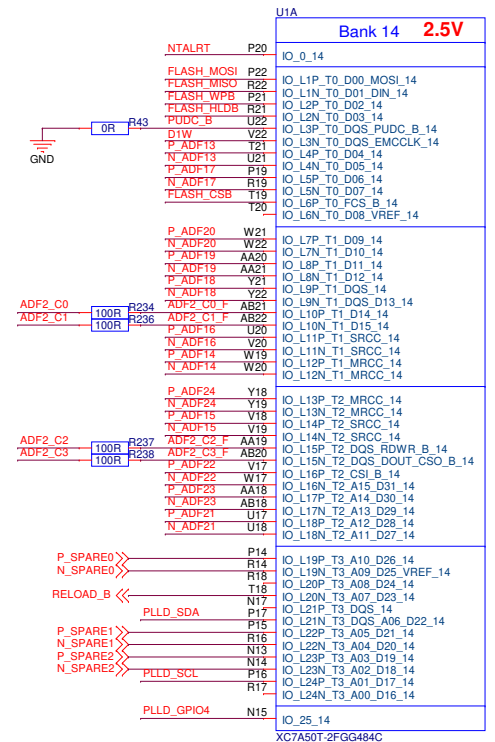
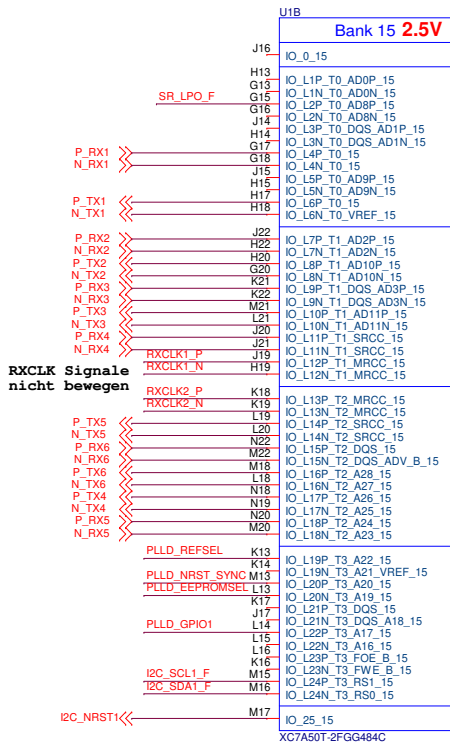
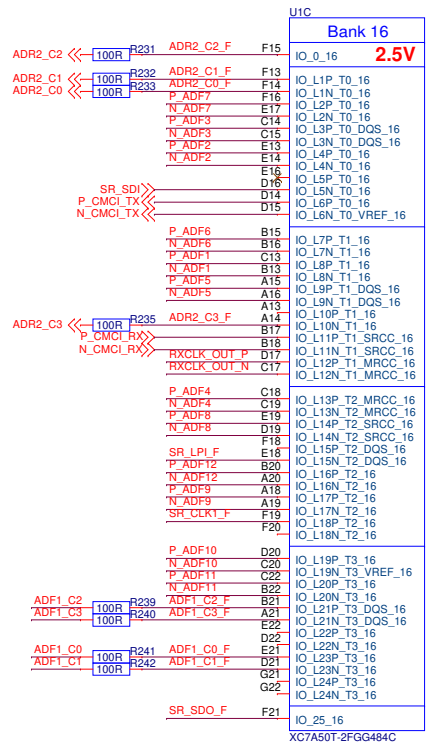


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**REAR I/O (BOT side)**

Design: KGSLSUBDOGMA\DOGMA\_HUB1\DOGMA\_HUB1.DSN  
Modified: Wednesday, June 07, 2023  
Designer: H.Hoogen

Size: A3  
Page: 5 / 9  
Layouter: H.Kavan



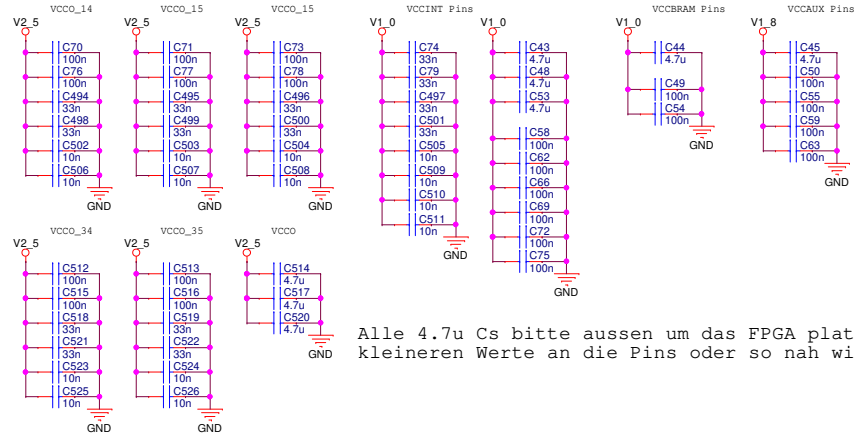
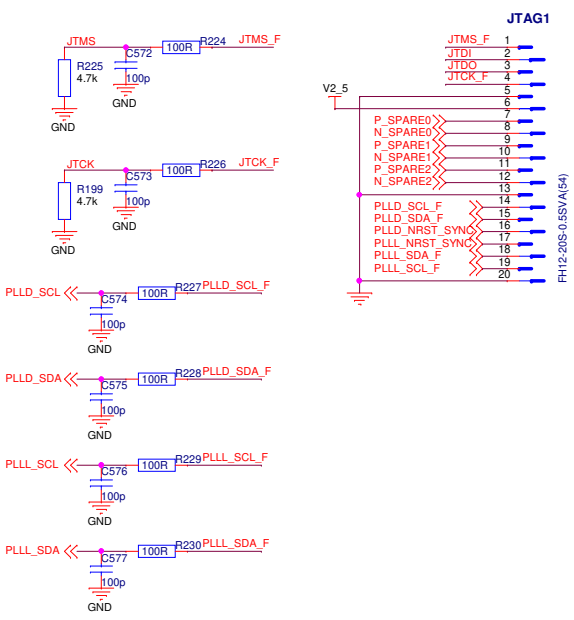
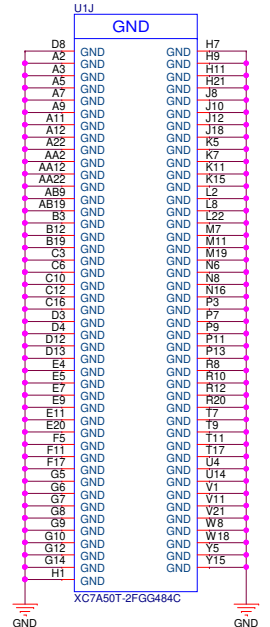
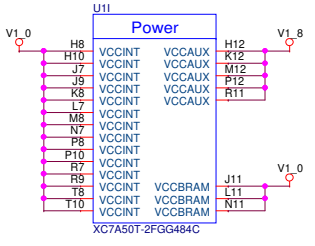
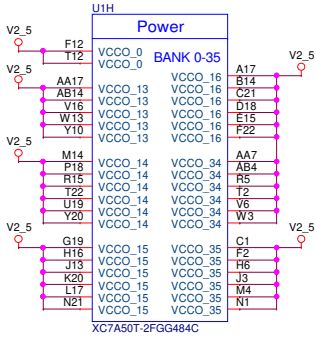
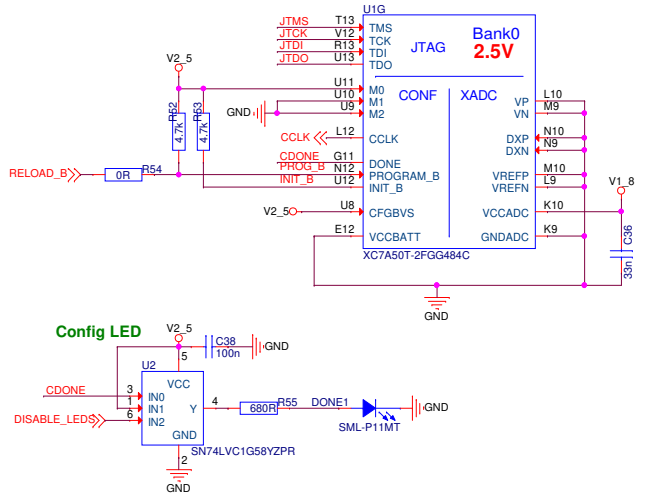
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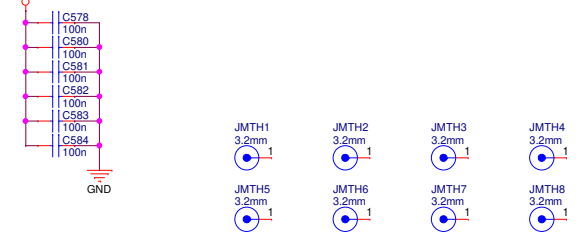
**FPGA banks facing front**

Design: KGSU0BDOGMA1DOGMA\_HUB1DOGMA\_HUB1.DSN  
Modified: Wednesday, June 07, 2023  
Designer: H.Hogan

Size: A3  
Page: 6 / 9  
Layouter: H.Kavan



Alle 4.7u Cs bitte aussen um das FPGA platzieren und die kleineren Werte an die Pins oder so nah wie moeglich.

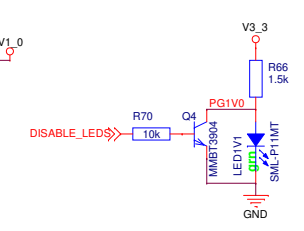
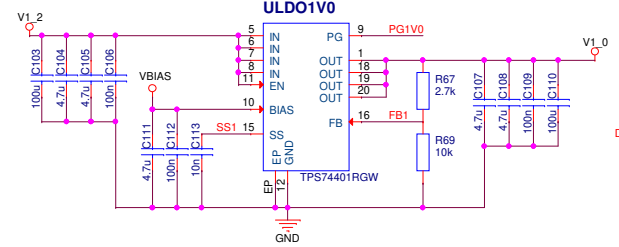
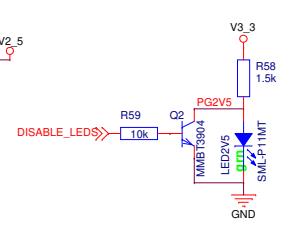
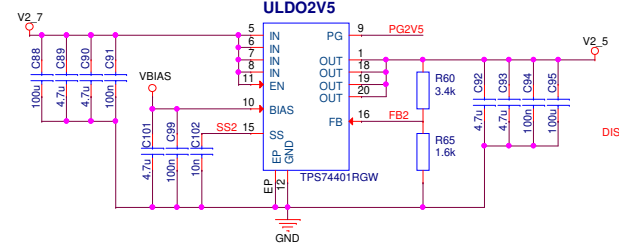
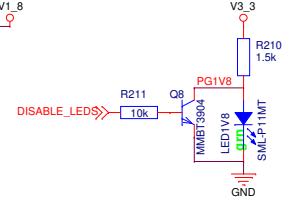
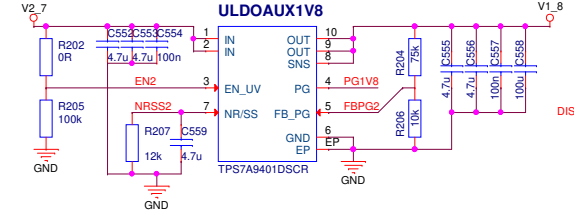
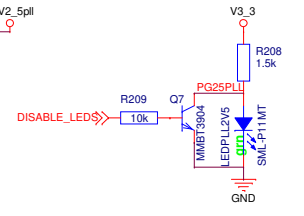
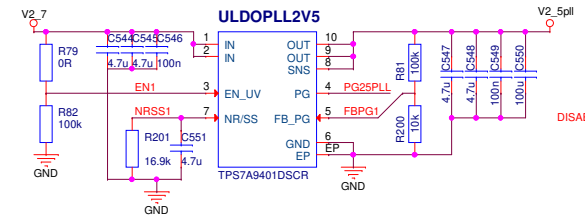
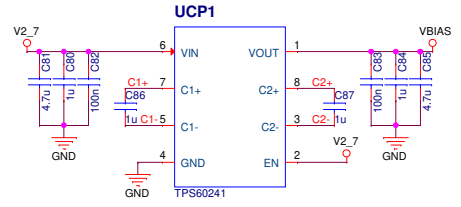
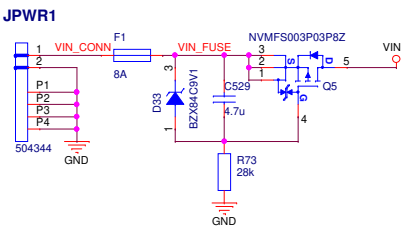
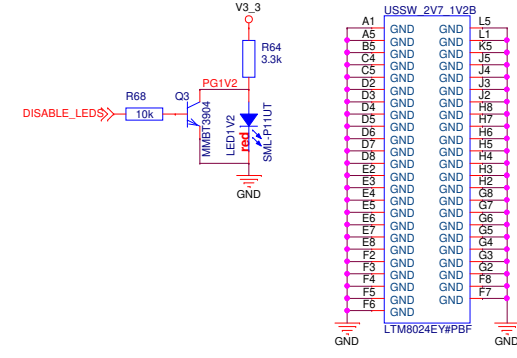
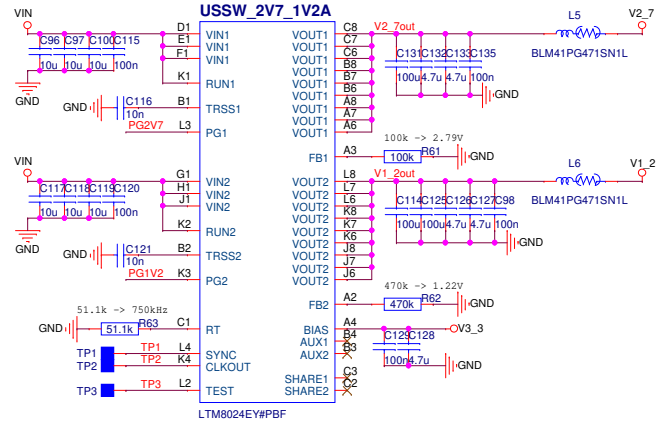
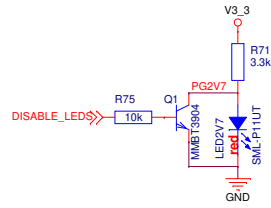


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 D-64291 Darmstadt  
 GERMANY  
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**POWER**

Design: K:\GSJ\BIO\DOGM\DOGMA\_HUB1\DOGMA\_HUB1.DSN  
 Modifiziert: Wednesday, June 07, 2023  
 Designer: H.Heppner

Size: A3 Page: 7 / 9  
 Layouter: H.Kavan

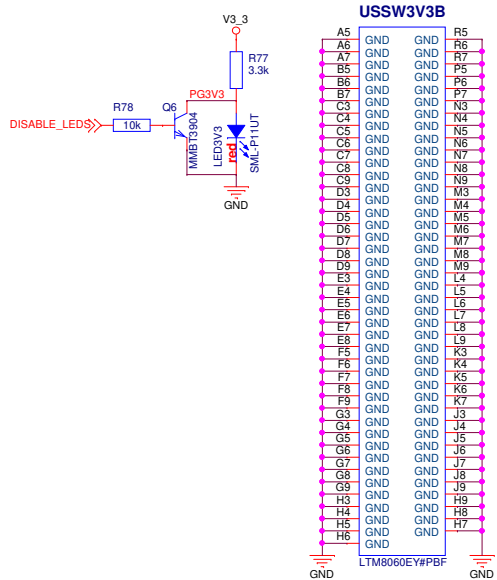
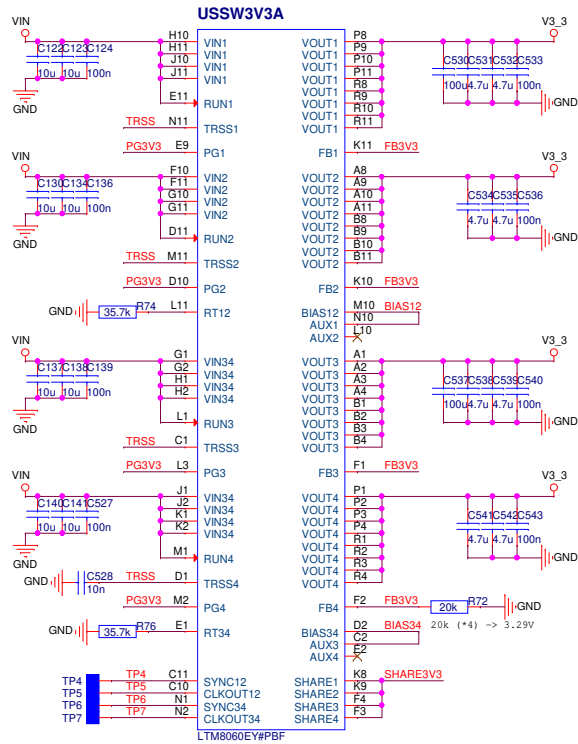


Power  
 V1\_0: <1A  
 V1\_2: 200mA  
 V1\_8: <500mA  
 V2\_5: <1A  
 V3\_3: 10A

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SUPPLY LEFT SIDE

Design: K:\GSI\OB\DOGMAD\DOGMAD_HUB1\DOGMAD_HUB1.DSN	Size: A3	Page: 8 / 9
Modifikt: Wednesday, June 07, 2023	Layouter: H.Kavan	
Designer: H.Heggen		



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**SUPPLY RIGHT SIDE**

Design: K:\GSJ\06\DOGMA\DOGMA HUB1\DOGMA HUB1.DSN  
 Modified: Wednesday, June 07, 2023  
 Designer: H.Heggen

Size: A3  
 Page: 9 / 9  
 Layouter: H.Kavan