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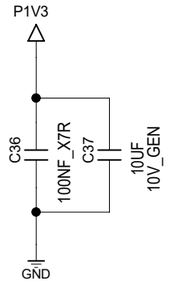
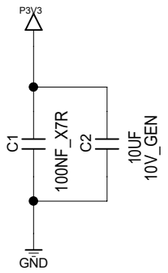
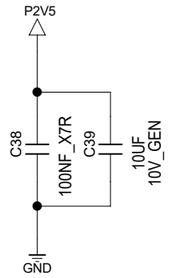
I2C ADDRESSES
EEPROM 0X50 (ALTERNATIVE: 0X51)
CDR 0X60 (ALTERNATIVE: 0X40)
CLOCK 0X68 (0X69, 0X6A, 0X6B)
EXPANDER 0X74
EXPANDER 0X75

PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 1 / 31
	TABLE OF CONTENT		

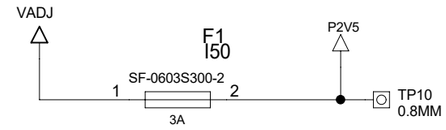




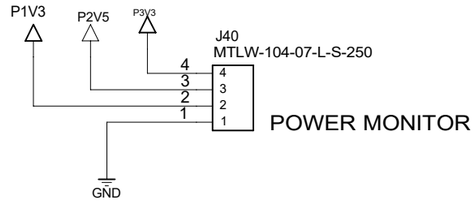


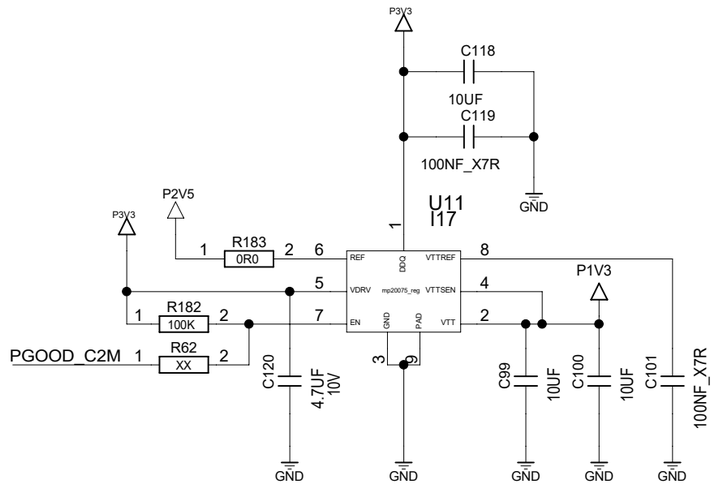
USE 2V5 OR VADJ FOR TRANSLATORS?

FOR NOW PLACE A JUMPER+TP TO ALLOW CONNECTING VADJ TO P2V5 OR USING EXTERNAL WIRE



MAX CURRENTS PER RAILS
P3V3: 3 A
P12V: 1A
VADJ: 4 A





PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 2 / 31
	POWER		

IO FMC_LA_P<0..33>

IO FMC_LA_N<0..33>

OUT TD_FFD_P<0..7>\BASE

0	2
1	4
2	7
3	11
4	15
5	19
6	21
7	24

TD_FFD_N<0..7>\BASE OUT

2	0
4	1
7	2
11	3
15	4
19	5
21	6
24	7

IN RD_FPGA_P<0..7>\BASE

0	3
1	28
2	30
3	8
4	0
5	27
6	1
7	5

RD_FPGA_N<0..7>\BASE IN

3	0
28	1
30	2
8	3
0	4
27	5
1	6
5	7

CHECK BIT TAPS ON FPGA BUS

IO SFP_I2C_SDA_CVCC<0..7>\BASE

0	6
1	12
2	10
3	31
4	14
5	9
6	18
7	33

SFP_I2C_SCL_CVCC<0..7>\BASE OUT

6	0
12	1
10	2
31	3
14	4
9	5
18	6
33	7

29 RST_I2C_B_CVCC\BASE OUT

32 FANOUT_IP_SEL IN

CHANGE NET NAME

CDCLVD110_SI 26

CDCLVD110_CK 29

CDCLVD110_EN 32

I62

FMC_HPC_GENERIC

PG_M2C

PG_C2M PGOOD_C2M OUT

LA_P<0..33>

LA_N<0..33>

HA_P<0..23>

HA_N<0..23>

HB_P<0..21>

HB_N<0..21>

GBTCLK_M2C_P<0..1>

GBTCLK_M2C_N<0..1>

DP_C2M_P<0..9>

DP_C2M_N<0..9>

DP_M2C_P<0..9>

DP_M2C_N<0..9>

IN REC_CLK_FPGA_P 0

IN CLK_MAIN_P<8> 1

CLK_M2C_P<0..1> CLK_M2C_P<0..1>

IN REC_CLK_FPGA_N 0

IN CLK_MAIN_N<8> 1

CLK_M2C_N<0..1> CLK_M2C_N<0..1>

OUT CLK_IN_P<1> 0

OUT CLK_IN_N<1> 0

CLK_BIDIR_P<0..1> CLK_BIDIR_P<0..1>

CLK_BIDIR_N<0..1> CLK_BIDIR_N<0..1>

CLK_DIR

WHEN 3.3: C2M

WHEN GND: M2C

P3V3 R13 10K CLK_DIR

R14 XX

GND

R15 XX PRSNT_L

GND

CLK_DIR

VIO_B_M2C

VREF_A_M2C

VREF_B_M2C

PRSNT_M2C_L

TCK TDI TDO TMS TRST_L SCL SDA GA0 GA1

R16 0R0 R20 0R0

GND

I2C_SDA_CVCC IO

I2C_SCL_CVCC OUT

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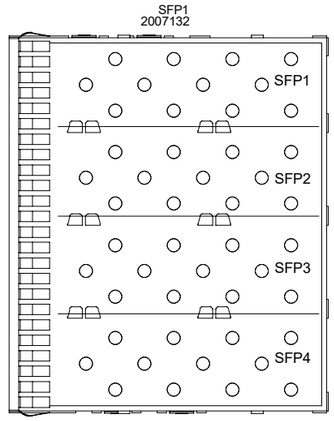
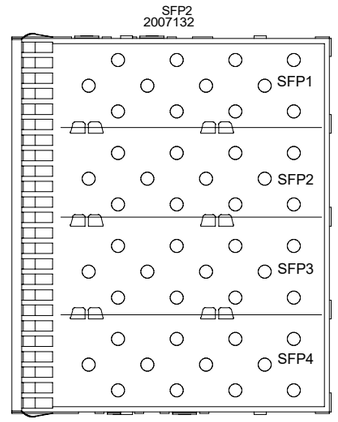
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 3 / 31
	FMC_CONNECTOR		

1X4 SFP+ CAGE

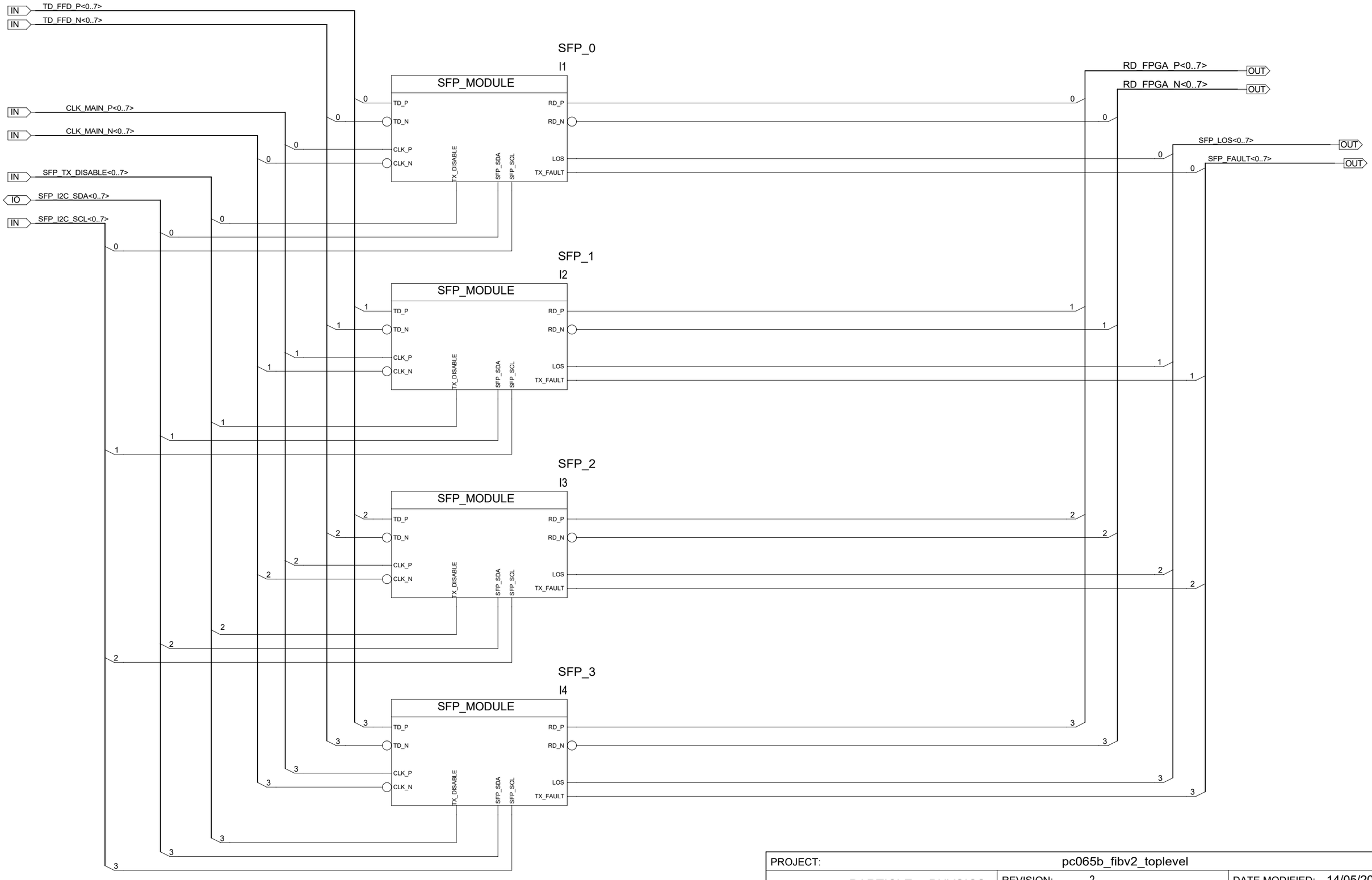
USE 2110069-1 FOR LIGHTPIPES

USE 2007132-1 FOR NO LIGHTGUIDES

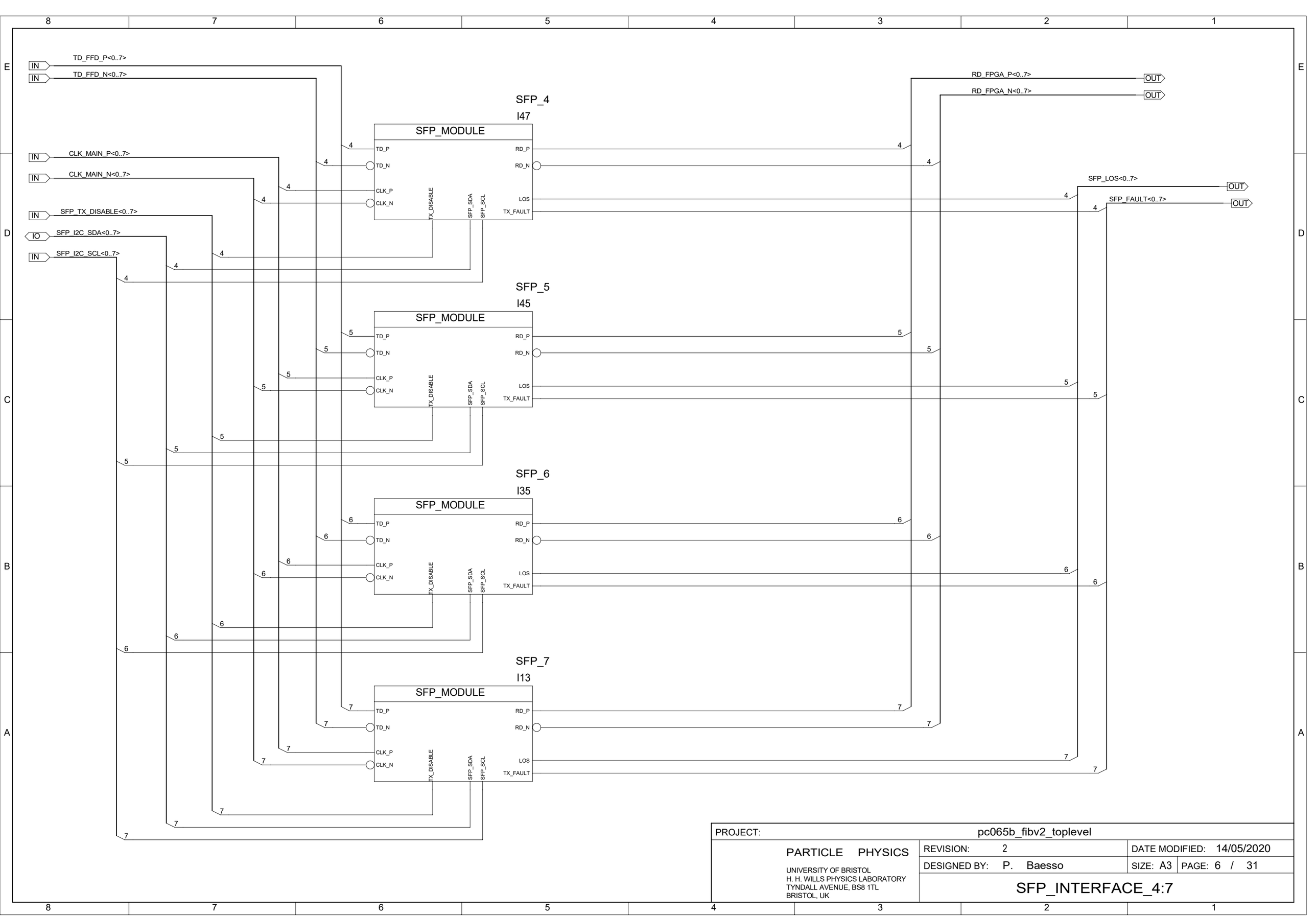




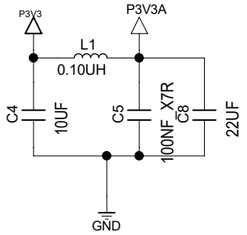
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 4 / 31
	SFP_CONNECTORS		

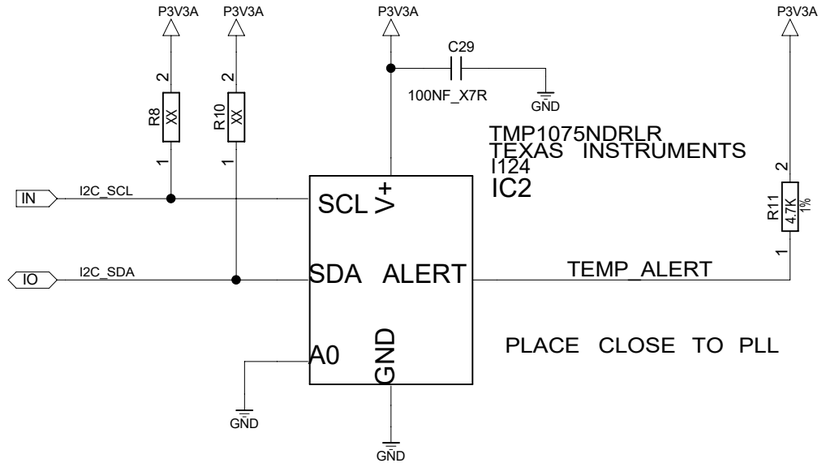


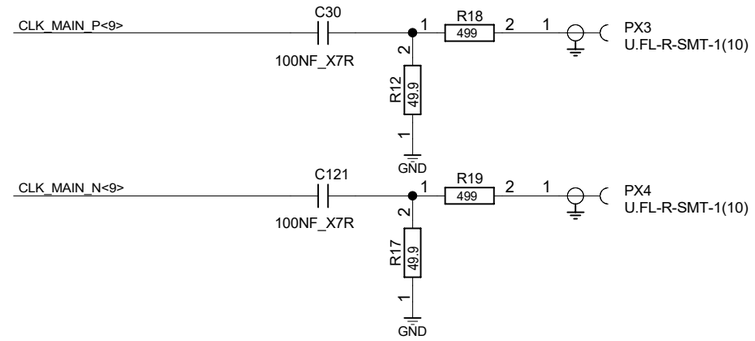
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 5 / 31
	SFP_INTERFACE_0:3		

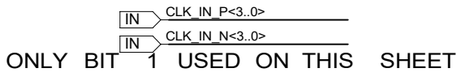


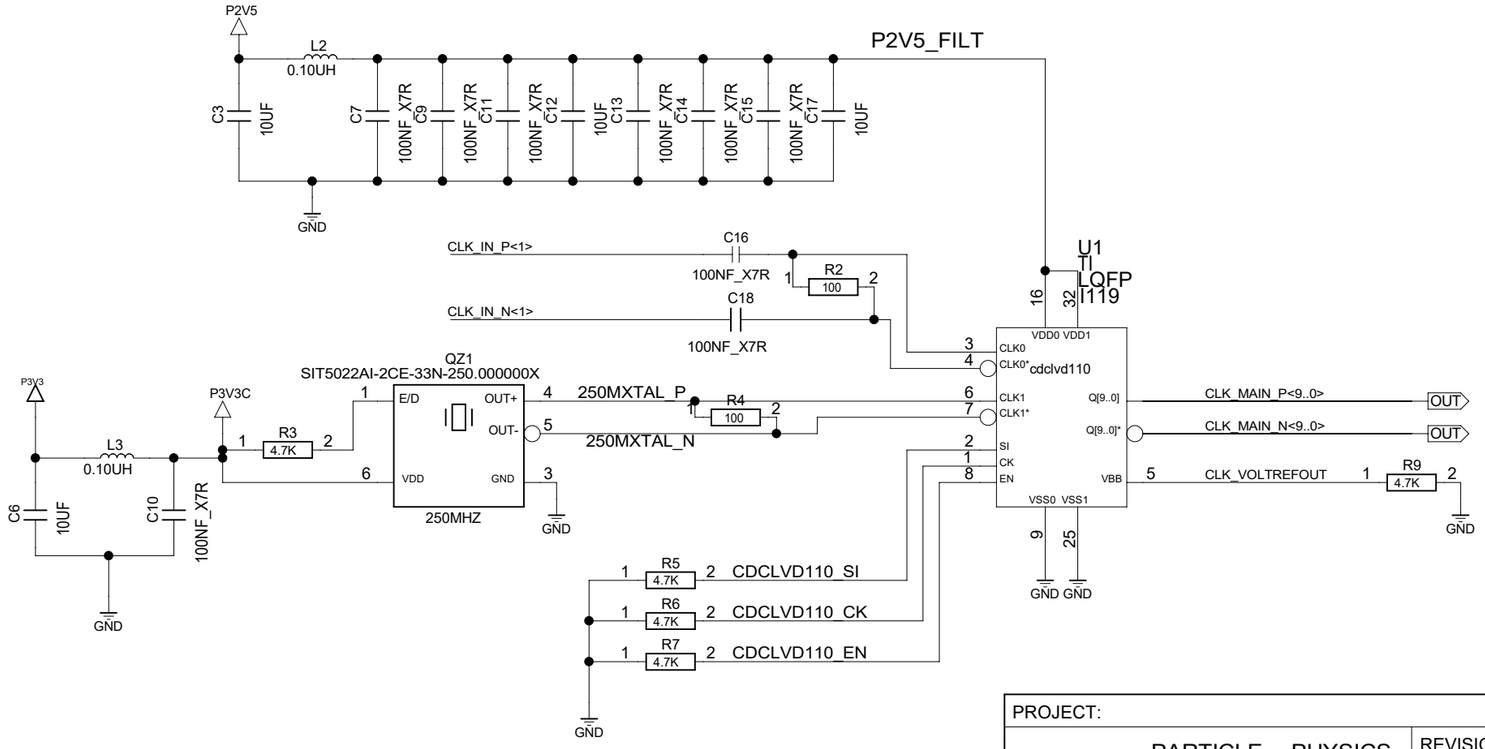
PROJECT:	pc065b_fibv2_toplevel	
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020
	DESIGNED BY: P. Baesso	SIZE: A3 / PAGE: 6 / 31
	SFP_INTERFACE_4:7	



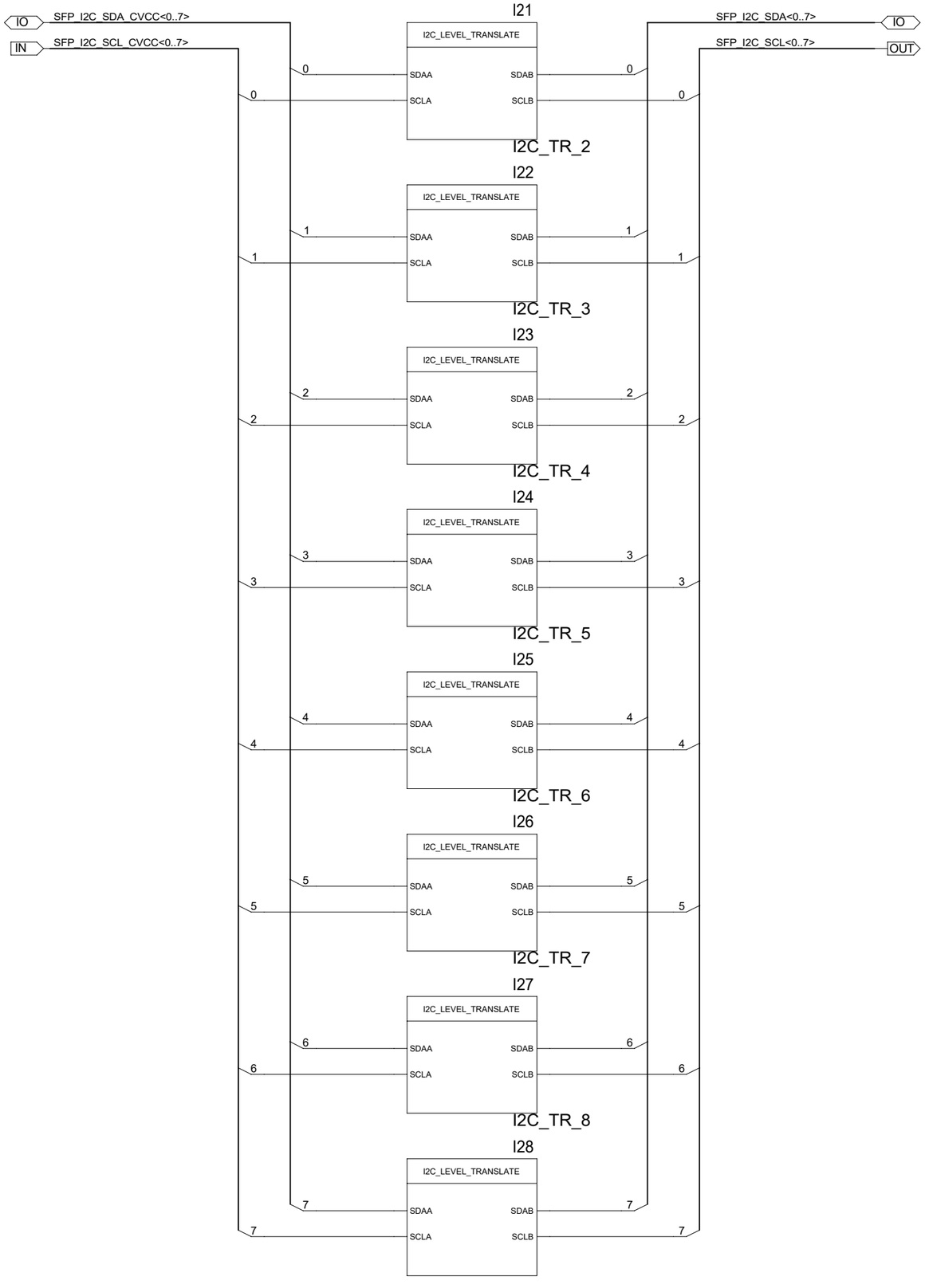


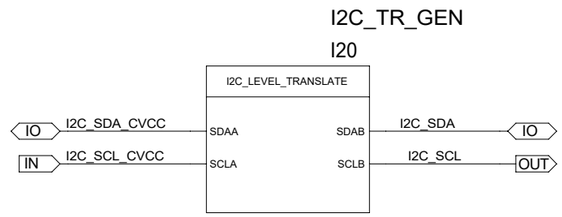




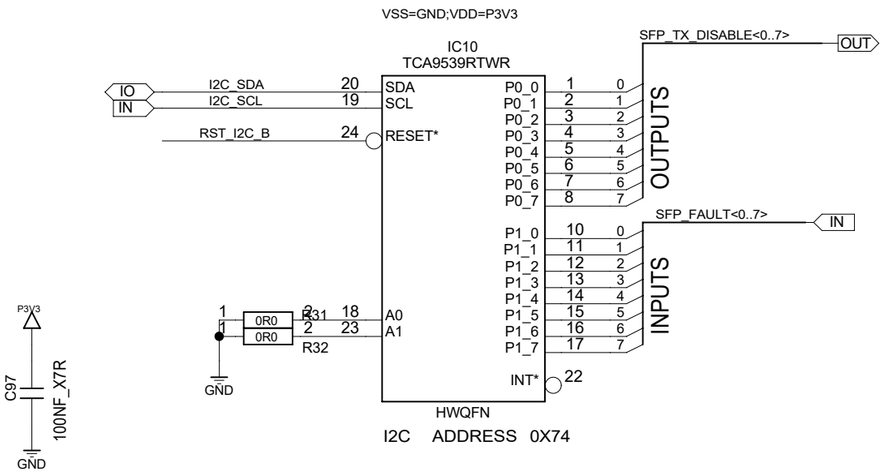


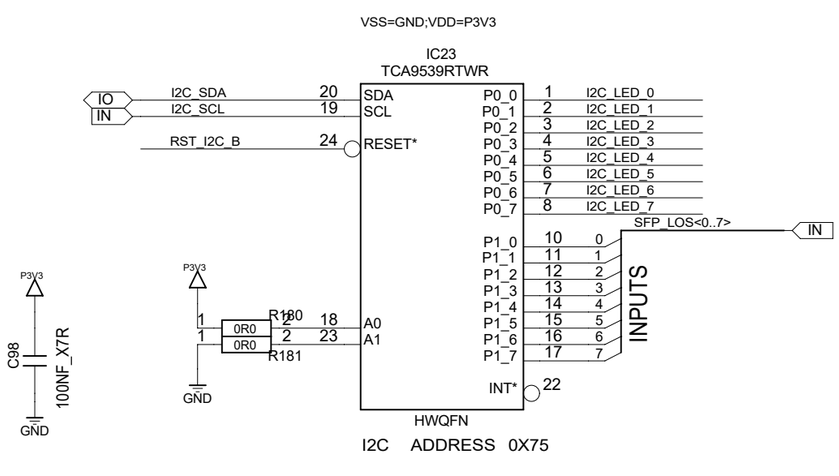
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 7 / 31
	CLOCK		

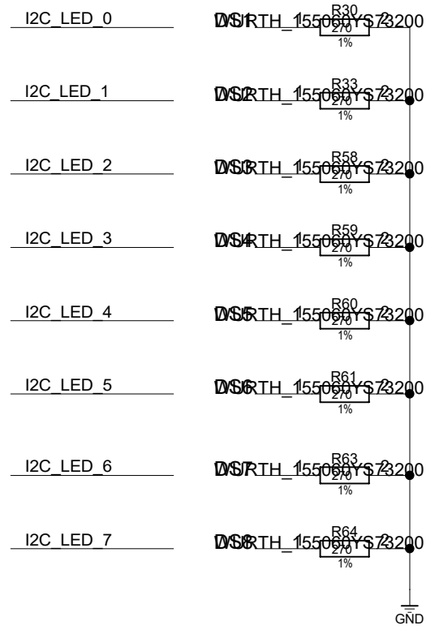




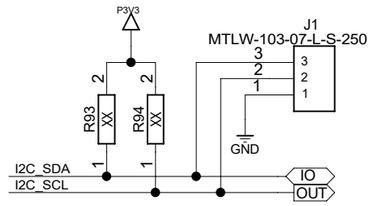
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 8 / 31
	I2C LEVEL TRANSLATORS		







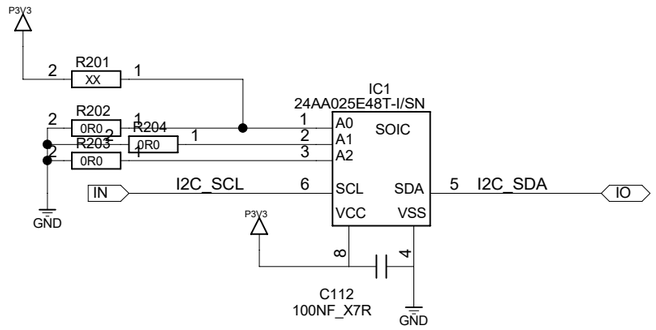
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 9 / 31
	LEVEL TRANSLATORS		



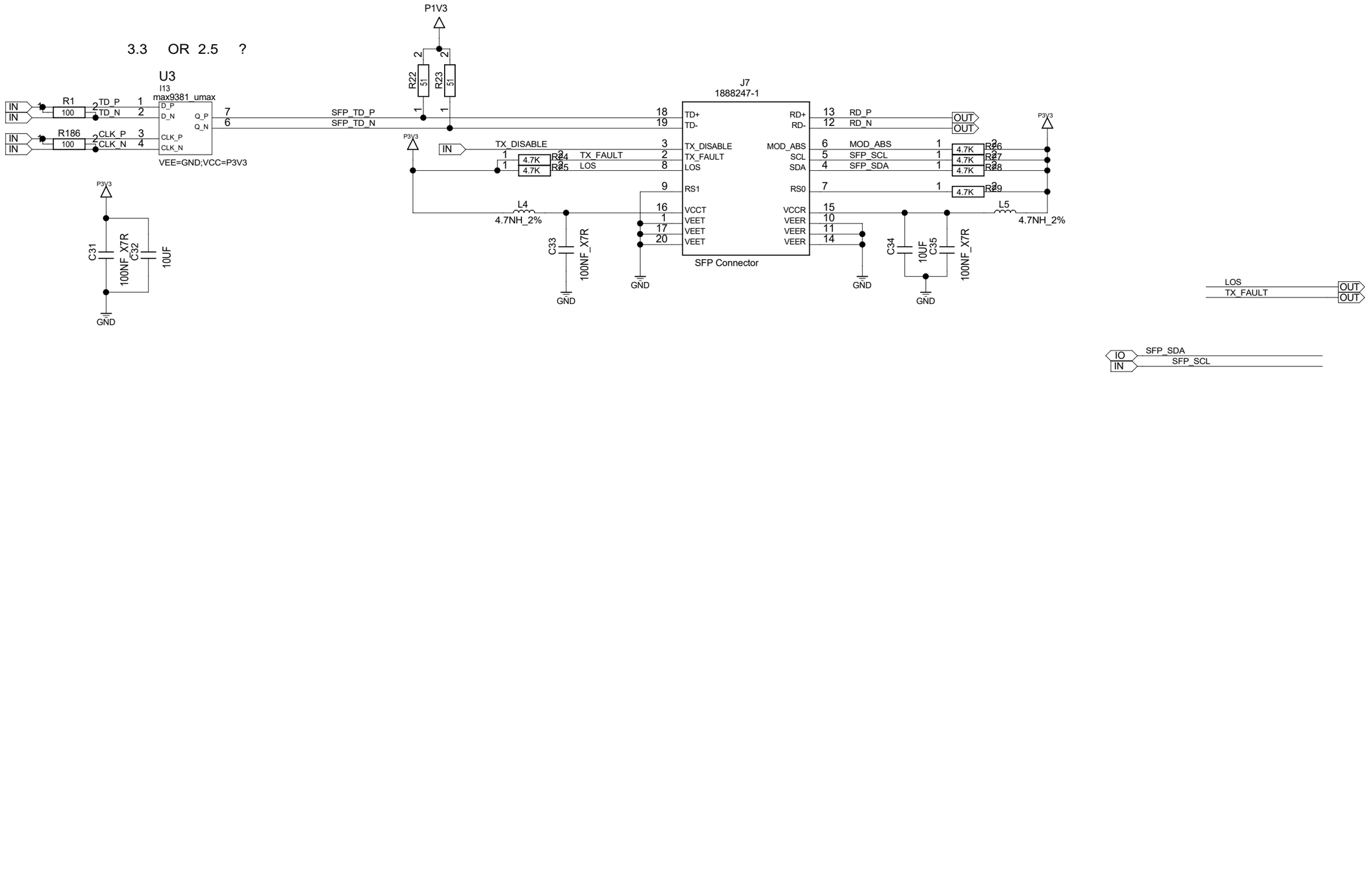
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 10 / 31
	CONNECTORS		

NBSG53AMNG IS AT END OF LIFE. DO NOT USE
ALTERNATIVES:
NB7V52MMNG
SY55852U
MAX9381EUA+

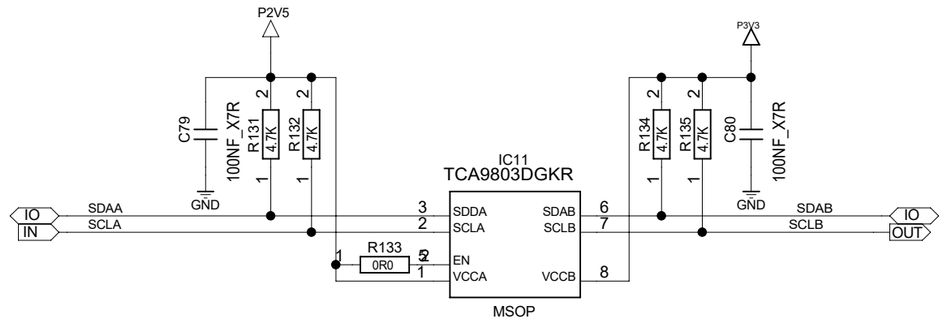
ADN2814ACPZ IS NO LONGER AVAILABLE



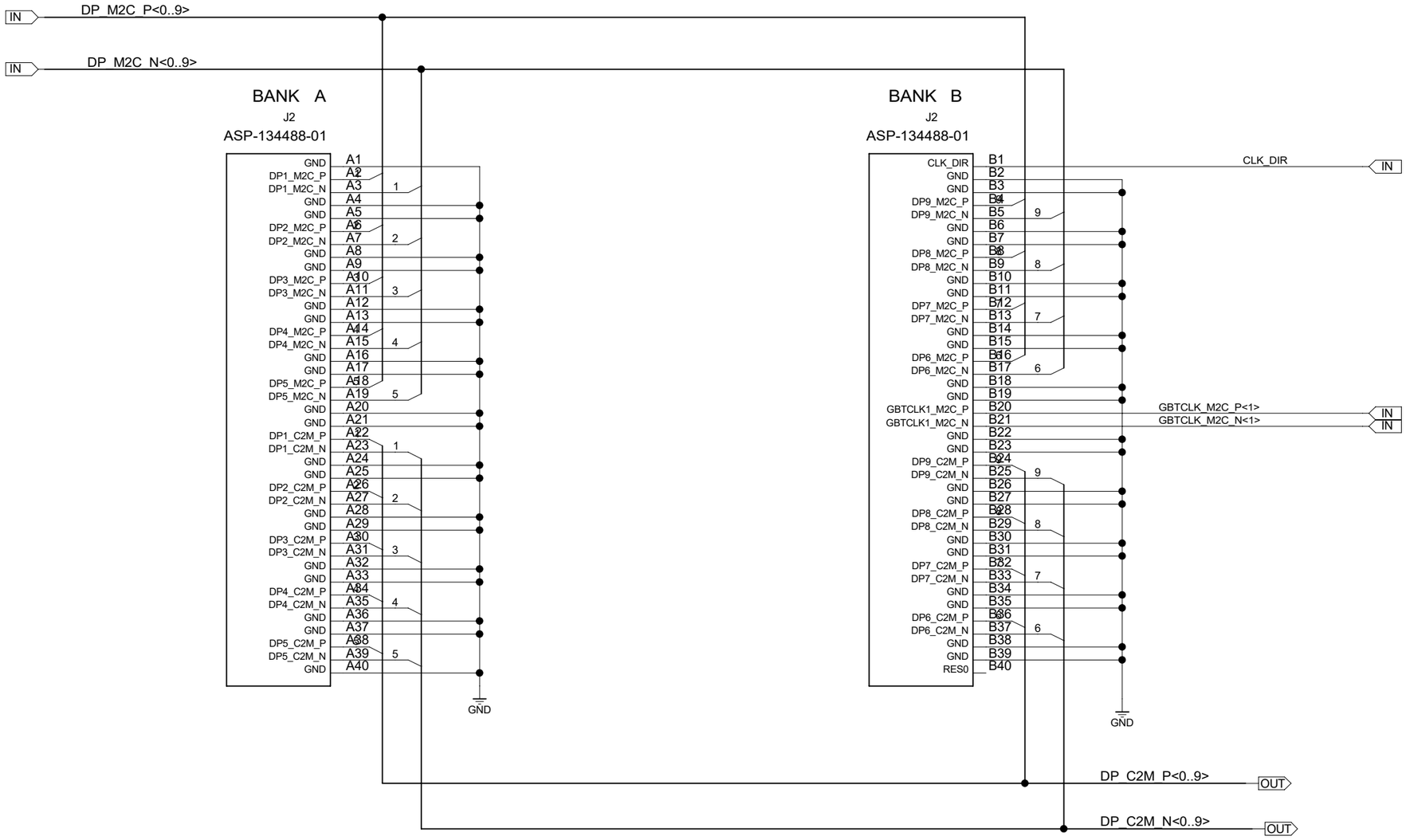
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 11 / 31
	EEPROM		



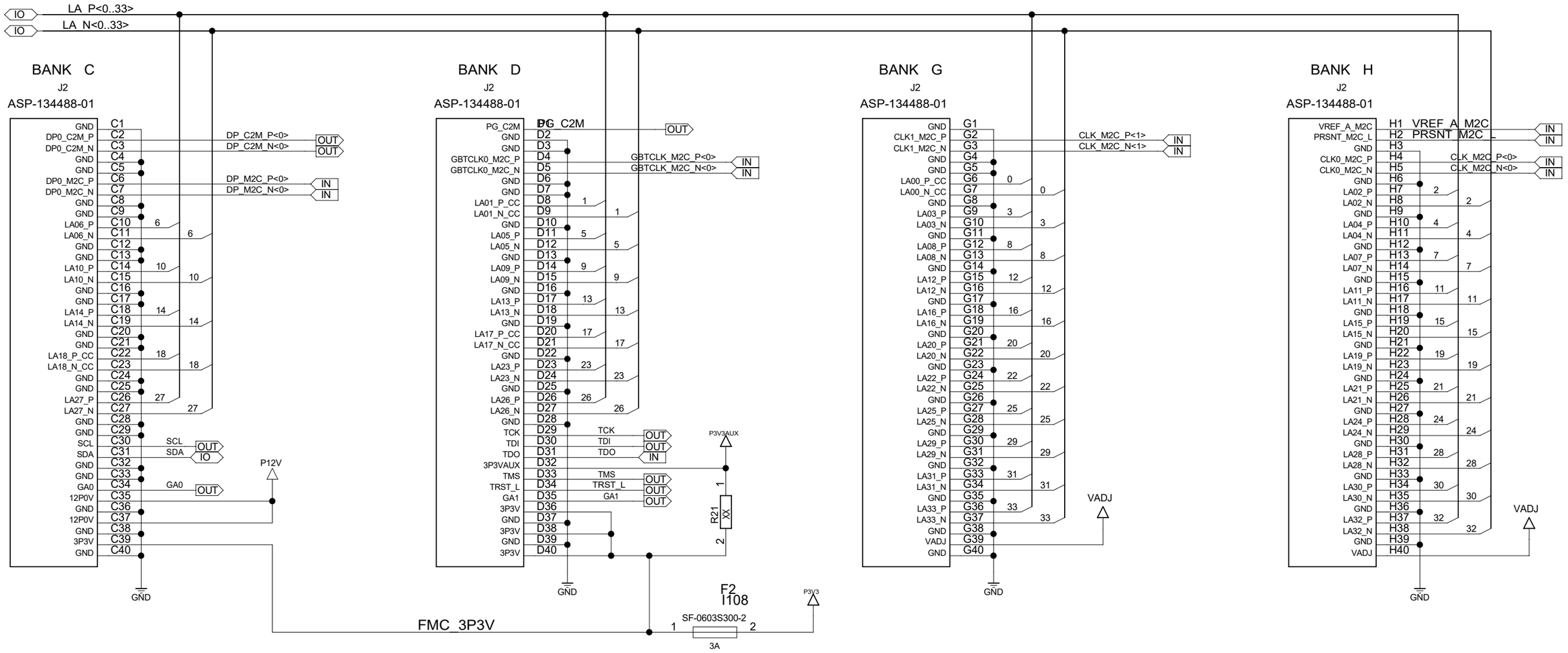
PROJECT:	sfp_module		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 12 / 31
	SFP_MODULE		



PROJECT:	i2c_level_translate		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 20 / 31
	I2C LEVEL TRANSLATOR		



PROJECT:	fmc_hpc_generic		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 29 / 31
	FMC HPC AB		



PROJECT:	fmc_hpc_generic
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	
REVISION: 2	DATE MODIFIED: 14/05/2020
DESIGNED BY: P. Baesso	SIZE: A3 PAGE: 30 / 31
FMC HPC CDGH	

IO HA_P<0..23>

IO HA_N<0..23>

BANK E

J2

ASP-134488-01

GND	E1		
HA01_P_CC	E2	1	1
HA01_N_CC	E3		
GND	E4		
GND	E5		
HA05_P	E6	5	5
HA05_N	E7		
GND	E8		
HA09_P	E9	9	9
HA09_N	E10		
GND	E11		
HA13_P	E12	13	13
HA13_N	E13		
GND	E14		
HA16_P	E15	16	16
HA16_N	E16		
GND	E17		
HA20_P	E18	20	20
HA20_N	E19		
GND	E20		
HB03_P	E21	3	3
HB03_N	E22		
GND	E23		
HB05_P	E24	5	5
HB05_N	E25		
GND	E26		
HB09_P	E27	9	9
HB09_N	E28		
GND	E29		
HB13_P	E30	13	13
HB13_N	E31		
GND	E32		
HB19_P	E33	19	19
HB19_N	E34		
GND	E35		
HB21_P	E36	21	21
HB21_N	E37		
GND	E38		
VADJ	E39		
GND	E40		

VADJ

GND

BANK F

J2

ASP-134488-01

PG_M2C	F1	PG_M2C	IN
GND	F2		
GND	F3		
HA00_P_CC	F4	0	0
HA00_N_CC	F5		
GND	F6		
HA04_P	F7	4	4
HA04_N	F8		
GND	F9		
HA08_P	F10	8	8
HA08_N	F11		
GND	F12		
HA12_P	F13	12	12
HA12_N	F14		
GND	F15		
HA15_P	F16	15	15
HA15_N	F17		
GND	F18		
HA19_P	F19	19	19
HA19_N	F20		
GND	F21		
HB02_P	F22	2	2
HB02_N	F23		
GND	F24		
HB04_P	F25	4	4
HB04_N	F26		
GND	F27		
HB08_P	F28	8	8
HB08_N	F29		
GND	F30		
HB12_P	F31	12	12
HB12_N	F32		
GND	F33		
HB16_P	F34	16	16
HB16_N	F35		
GND	F36		
HB20_P	F37	20	20
HB20_N	F38		
GND	F39		
VADJ	F40		

VADJ

GND

BANK J

J2

ASP-134488-01

GND	J1			
CLK3_BIDIR_P	J2	CLK_BIDIR_P<1>	IO	
CLK3_BIDIR_N	J3	CLK_BIDIR_N<1>	IO	
GND	J4			
GND	J5			
HA03_P	J6	3	3	
HA03_N	J7			
GND	J8			
HA07_P	J9	7	7	
HA07_N	J10			
GND	J11			
HA11_P	J12	11	11	
HA11_N	J13			
GND	J14			
HA14_P	J15	14	14	
HA14_N	J16			
GND	J17			
HA18_P	J18	18	18	
HA18_N	J19			
GND	J20			
HA22_P	J21	22	22	
HA22_N	J22			
GND	J23			
HB01_P	J24	1	1	
HB01_N	J25			
GND	J26			
HB07_P	J27	7	7	
HB07_N	J28			
GND	J29			
HB11_P	J30	11	11	
HB11_N	J31			
GND	J32			
HB15_P	J33	15	15	
HB15_N	J34			
GND	J35			
HB18_P	J36	18	18	
HB18_N	J37			
GND	J38			
VIO_B_M2C	J39	VIO_B_M2C	IN	
GND	J40			

GND

BANK K

J2

ASP-134488-01

VREF_B_M2C	K1	VREF_B_M2C	IN	
GND	K2			
GND	K3			
CLK2_BIDIR_P	K4	CLK_BIDIR_P<0>	IO	
CLK2_BIDIR_N	K5	CLK_BIDIR_N<0>	IO	
GND	K6			
HA02_P	K7	2	2	
HA02_N	K8			
GND	K9			
HA06_P	K10	6	6	
HA06_N	K11			
GND	K12			
HA10_P	K13	10	10	
HA10_N	K14			
GND	K15			
HA17_P_CC	K16	17	17	
HA17_N_CC	K17			
GND	K18			
HA21_P	K19	21	21	
HA21_N	K20			
GND	K21			
HA23_P	K22	23	23	
HA23_N	K23			
GND	K24			
HB00_P_CC	K25	0	0	
HB00_N_CC	K26			
GND	K27			
HB06_P_CC	K28	6	6	
HB06_N_CC	K29			
GND	K30			
HB10_P	K31	10	10	
HB10_N	K32			
GND	K33			
HB14_P	K34	14	14	
HB14_N	K35			
GND	K36			
HB17_P_CC	K37	17	17	
HB17_N_CC	K38			
GND	K39			
VIO_B_M2C	K40	VIO_B_M2C	IN	

GND

IO HB_P<0..21>

IO HB_N<0..21>

PROJECT:	fmc_hpc_generic		
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