TABLE OF CONTENTS

SHEET NO.	SHEET NAME	BLOCK NAME
1	TABLE OF CONTENT	pc065b_fibv2_toplevel
2	POWER	pc065b_fibv2_toplevel
3	FMC_CONNECTOR	pc065b_fibv2_toplevel
4	SFP_CONNECTORS	pc065b_fibv2_toplevel
5	SFP_INTERFACES_0:3	pc065b_fibv2_toplevel
6	SFP_INTERFACES_4:7	pc065b_fibv2_toplevel
7	CLOCK	pc065b_fibv2_toplevel
8	I2C LEVEL TRANSLATORS	pc065b_fibv2_toplevel
9	LEVEL TRANSLATORS	pc065b_fibv2_toplevel
10	CONNECTORS	pc065b_fibv2_toplevel
11	EEPROM	pc065b_fibv2_toplevel
12	page1	sfp_module
13	page1	sfp_module
14	page1	sfp_module
15	page1	sfp_module

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SHEET NO.	SHEET NAME	BLOCK NAME
16	page1	sfp_module
17	page1	sfp_module
18	page1	sfp_module
19	page1	sfp_module
20	I2C LEVEL TRANSLATOR	i2c_level_translate
21	I2C LEVEL TRANSLATOR	i2c_level_translate
22	I2C LEVEL TRANSLATOR	i2c_level_translate
23	I2C LEVEL TRANSLATOR	i2c_level_translate
24	I2C LEVEL TRANSLATOR	i2c_level_translate
25	I2C LEVEL TRANSLATOR	i2c_level_translate
26	I2C LEVEL TRANSLATOR	i2c_level_translate
27	I2C LEVEL TRANSLATOR	i2c_level_translate
28	I2C LEVEL TRANSLATOR	i2c_level_translate
29	AB	fmc_hpc_generic
30	CDGH	fmc_hpc_generic

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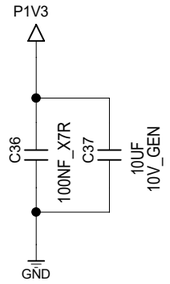
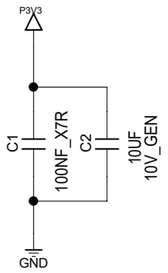
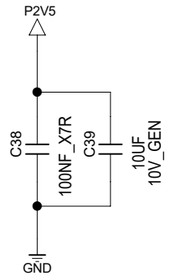
SHEET NO.	SHEET NAME	BLOCK NAME
31	EFJK	fmc_hpc_generic

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		



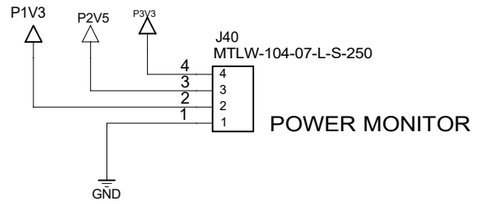




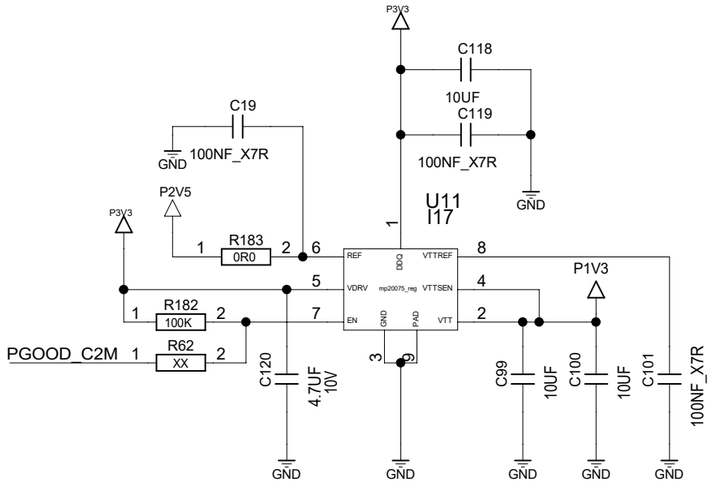
USE 2V5 OR VADJ FOR TRANSLATORS?

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

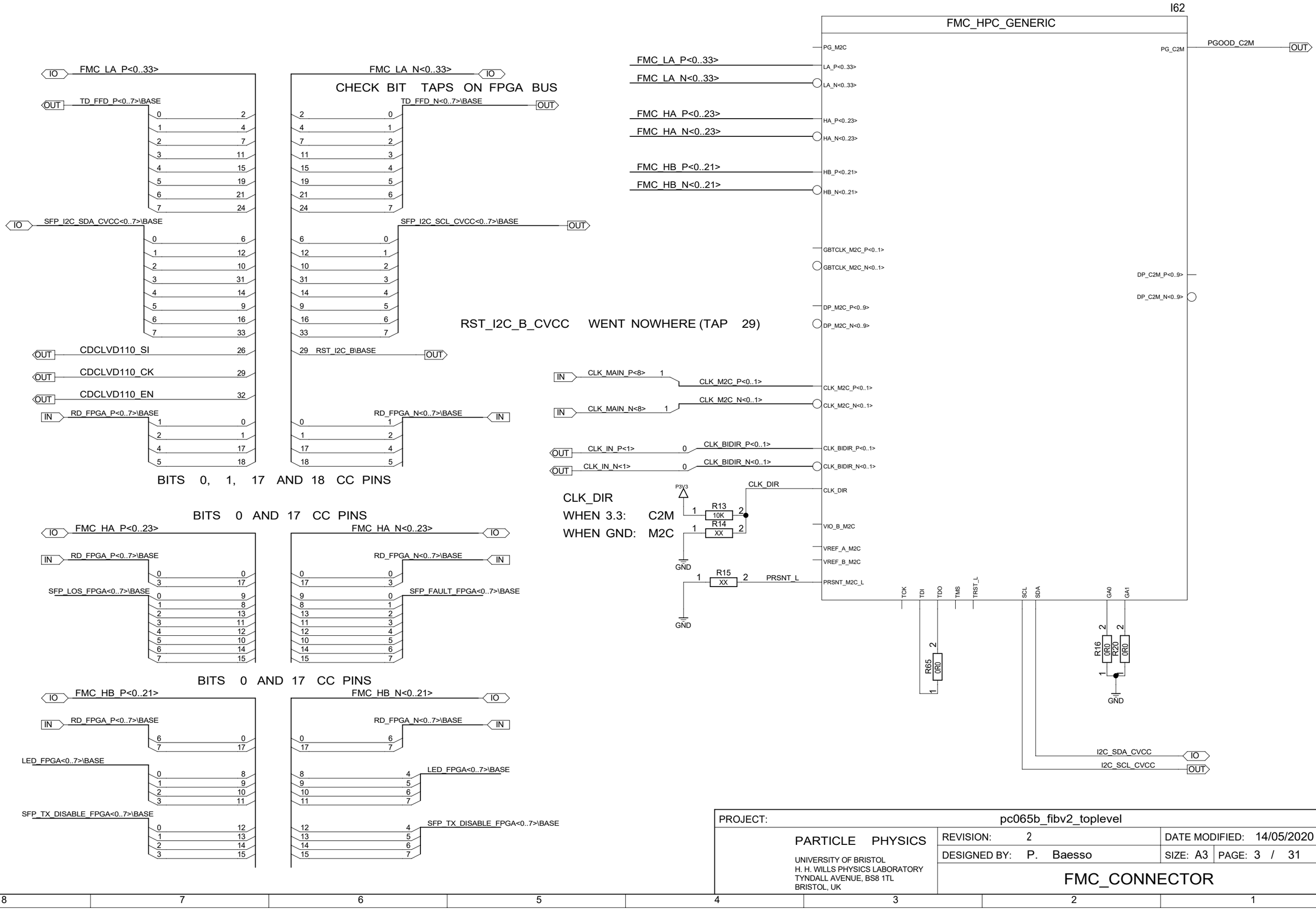
MAX CURRENTS PER RAILS
P3V3: 3 A
P12V: 1A
VADJ: 4 A



POWER MONITOR



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		

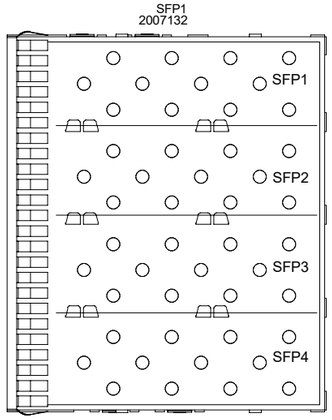


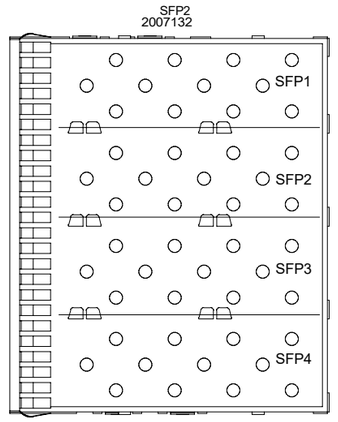
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS	REVISION: 2	DATE MODIFIED: 14/05/2020	
UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 3 / 31
	FMC_CONNECTOR		

1X4 SFP+ CAGE

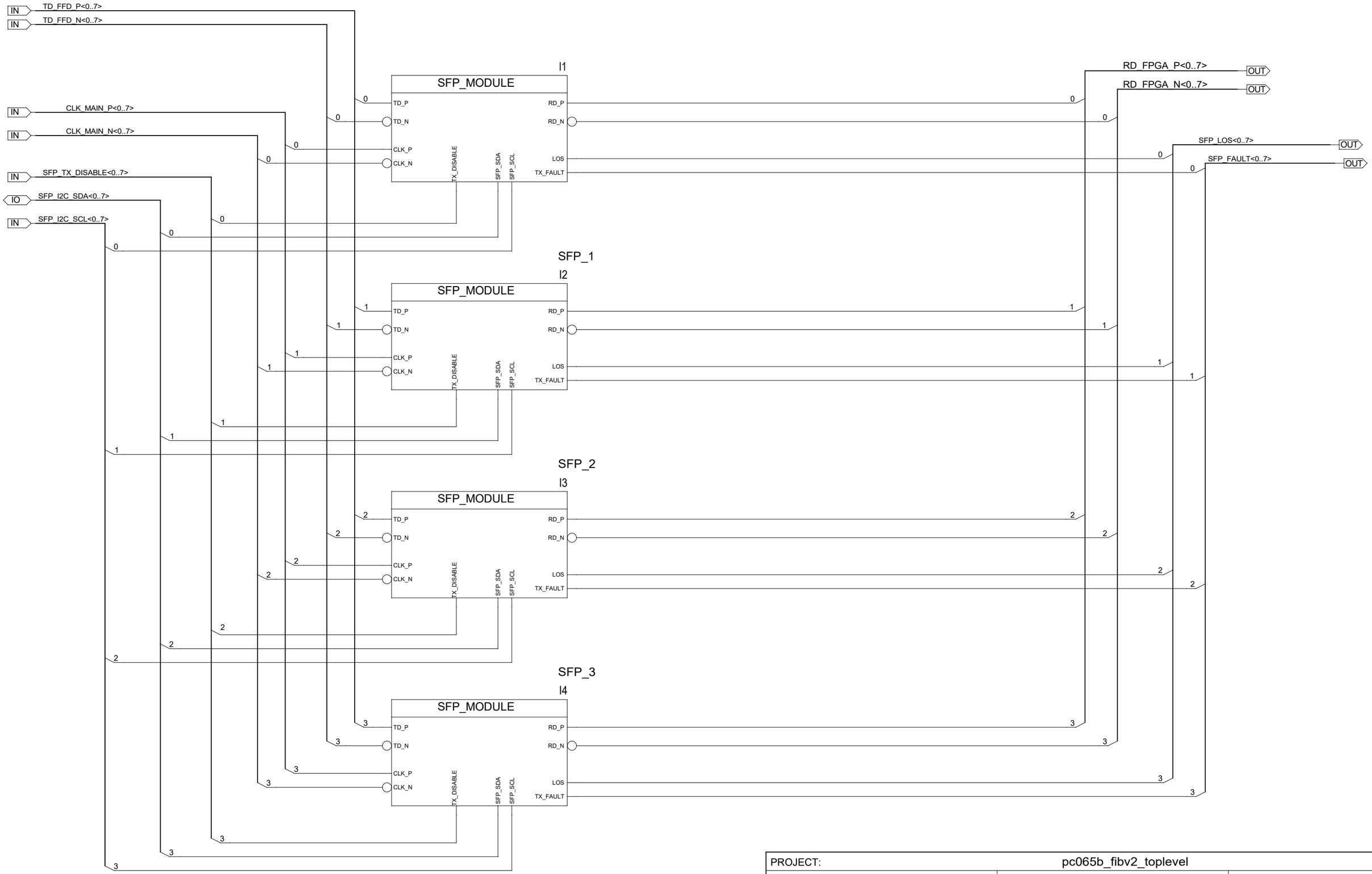
USE 2110069-1 FOR LIGHTPIPES

USE 2007132-1 FOR NO LIGHTGUIDES

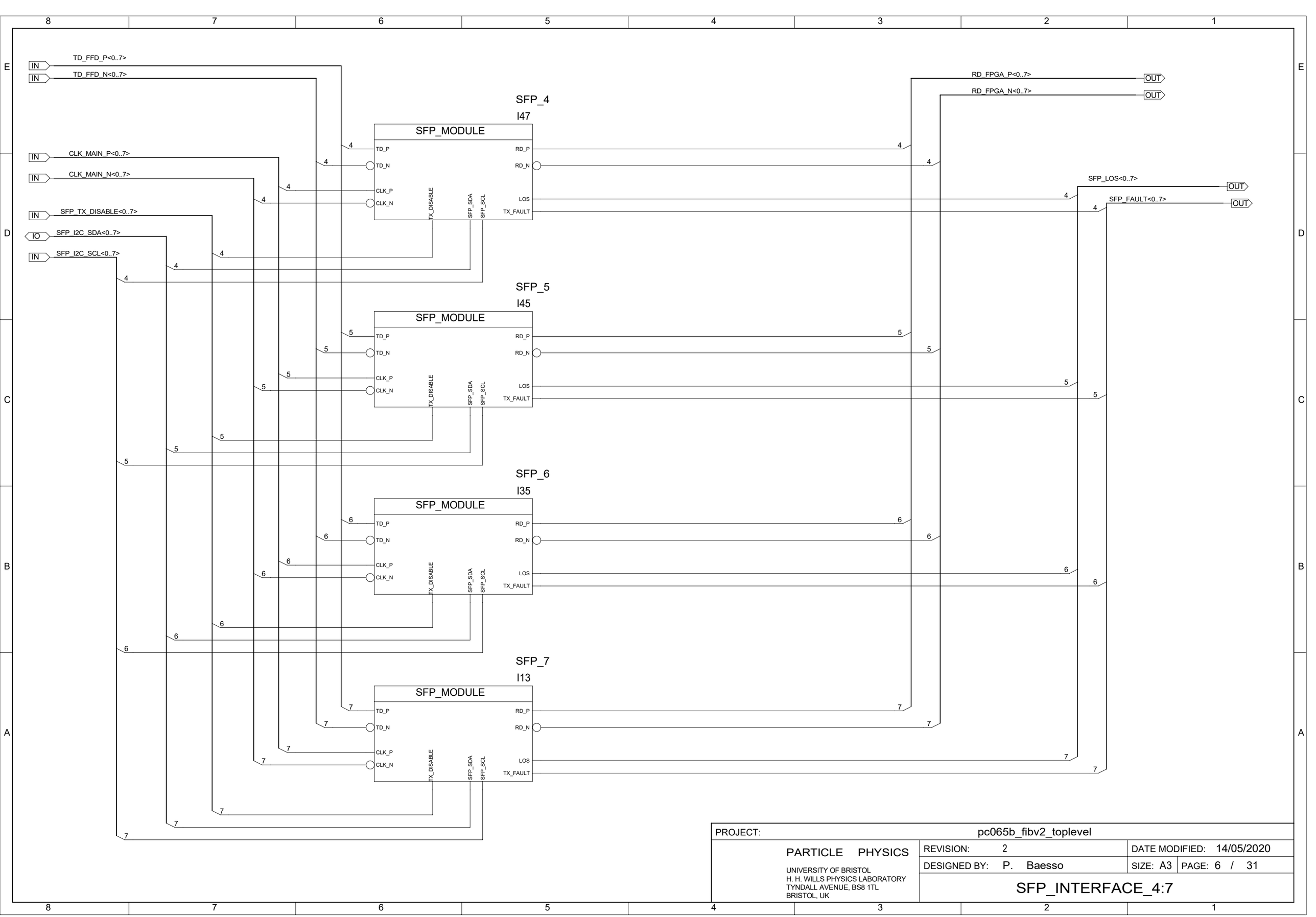




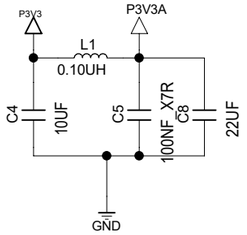
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 4 / 31
	SFP_CONNECTORS		

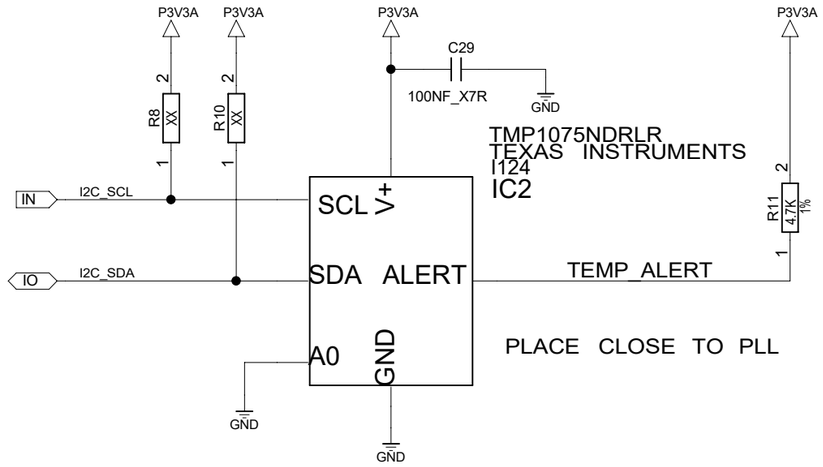


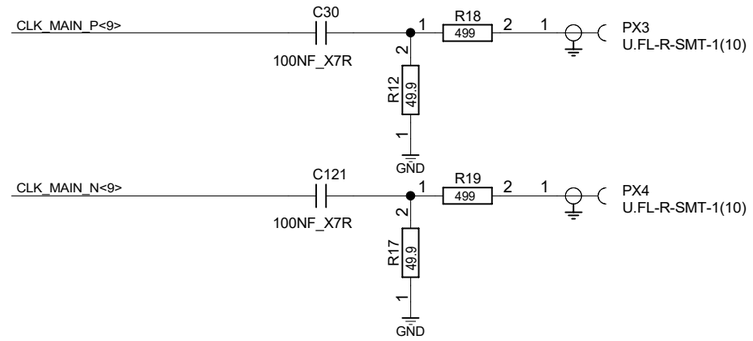
PROJECT:	pc065b_fibv2_toplevel
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2
	DATE MODIFIED: 14/05/2020
	DESIGNED BY: P. Baesso
	SIZE: A3
	PAGE: 5 / 31
	SFP_INTERFACE_0:3



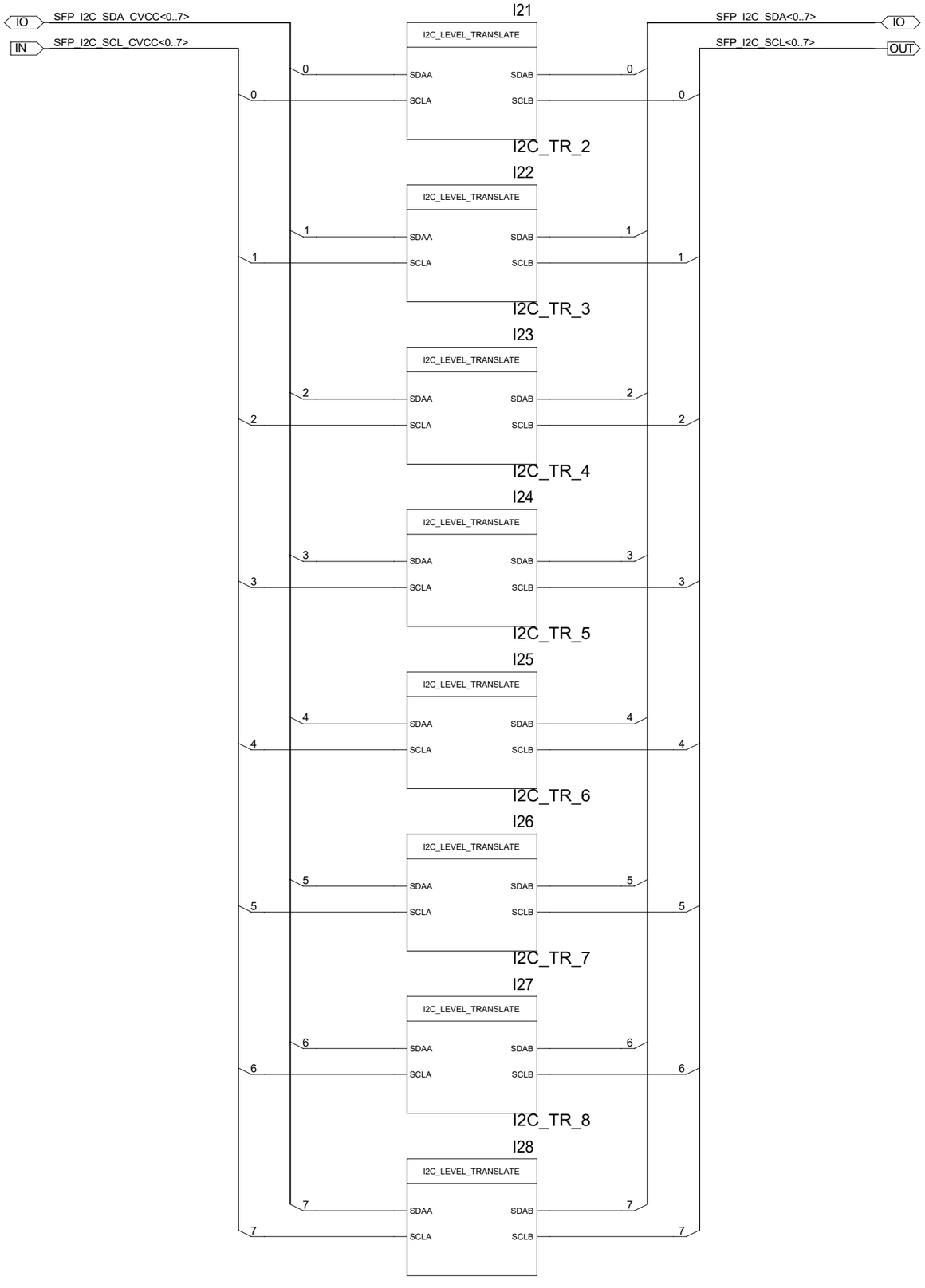
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 6 / 31
	SFP_INTERFACE_4:7		

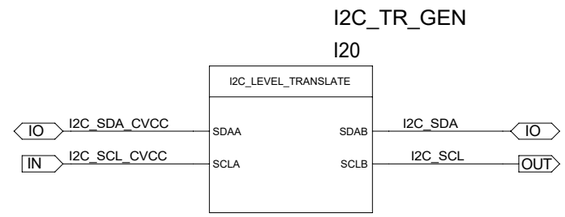




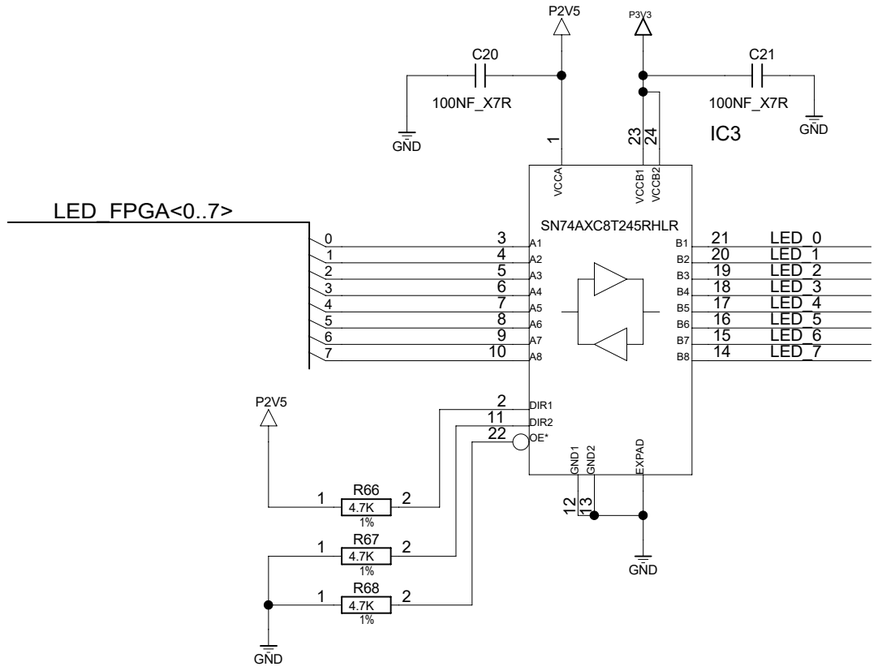


PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 7 / 31
	CLOCK		

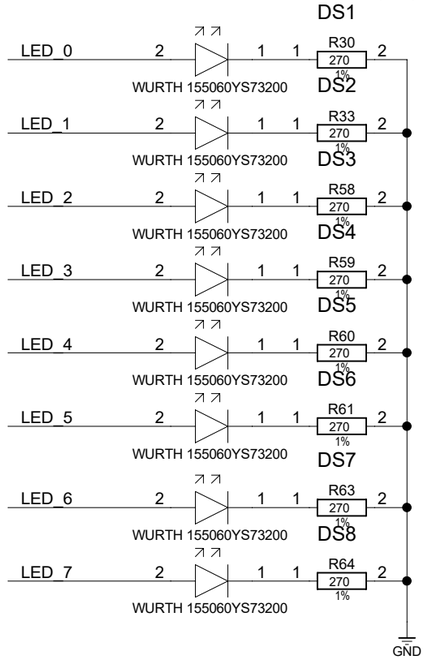


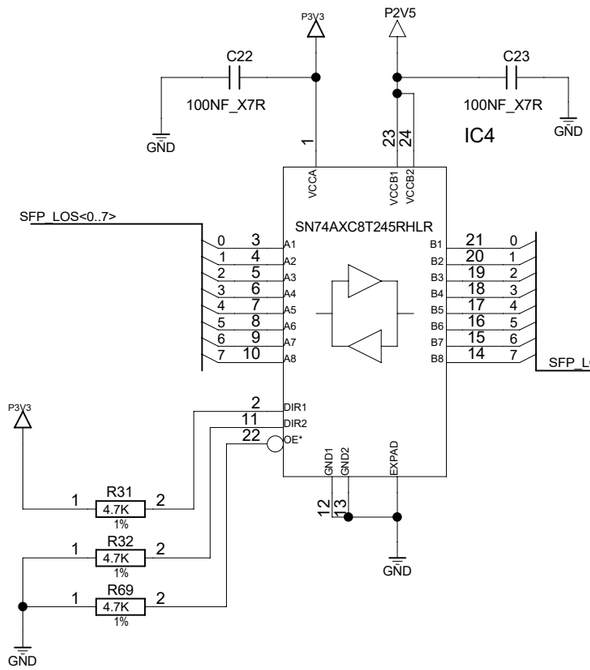


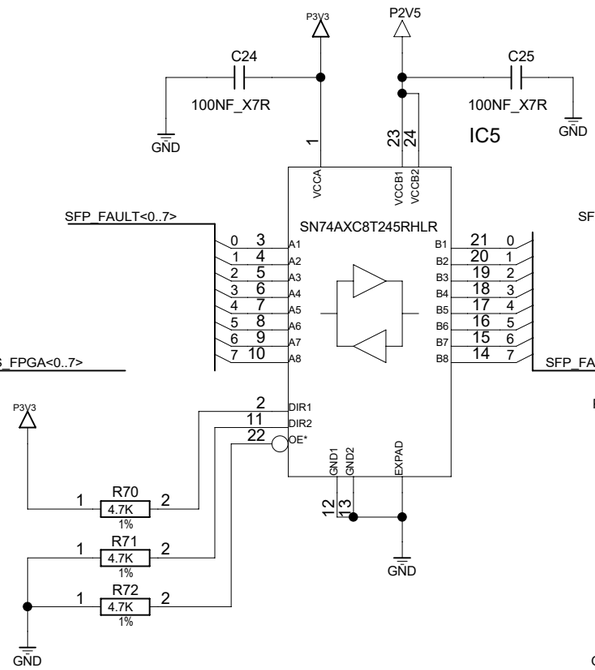
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 8 / 31
	I2C LEVEL TRANSLATORS		

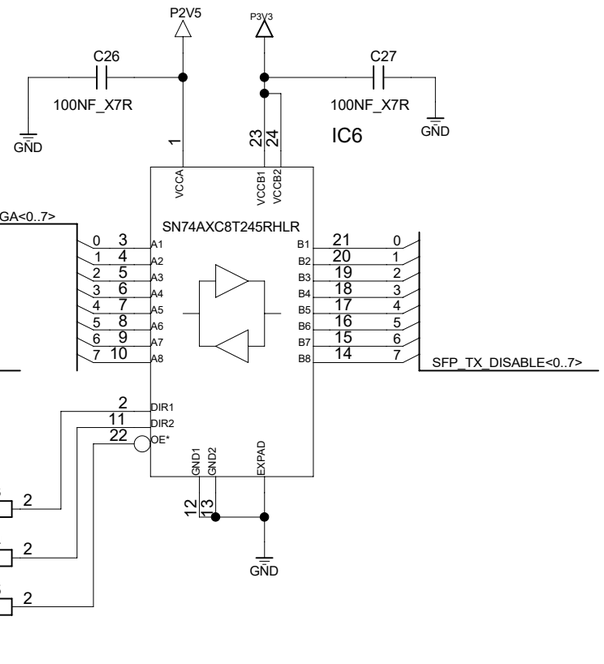


SIDE LAUNCH LEDS HERE (X8)

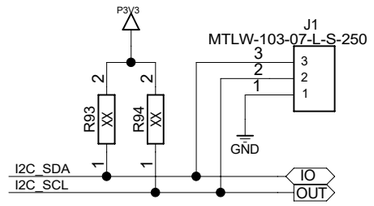








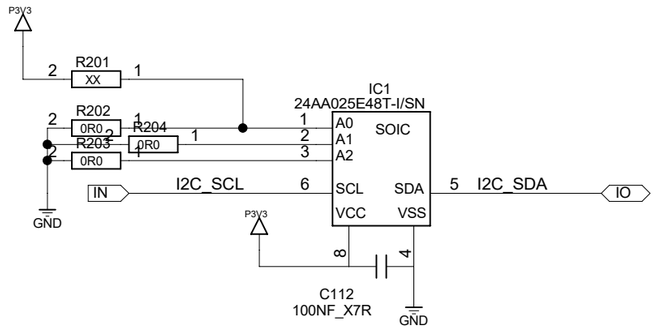
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 9 / 31
	LEVEL TRANSLATORS		



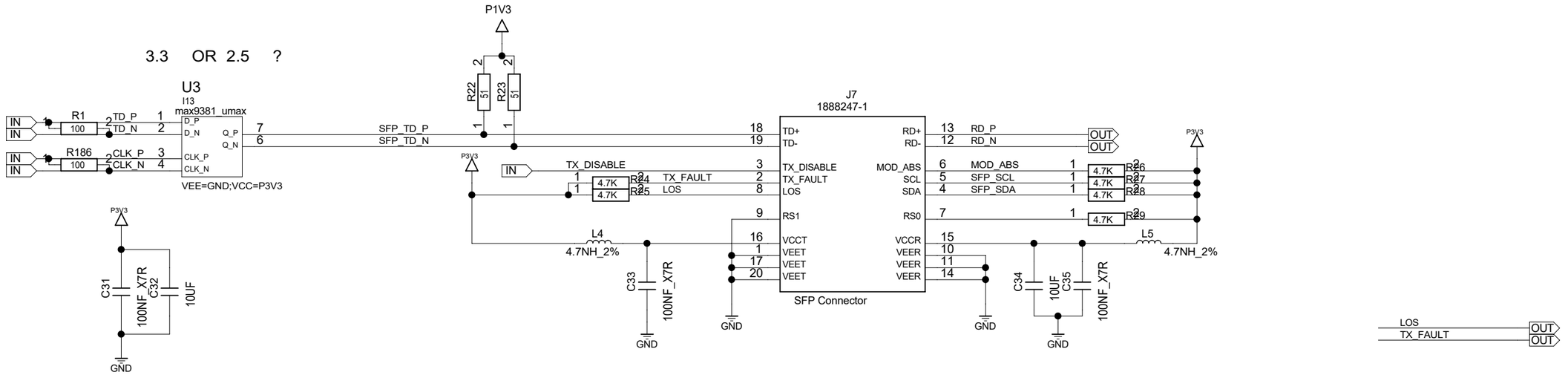
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 10 / 31
	CONNECTORS		

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

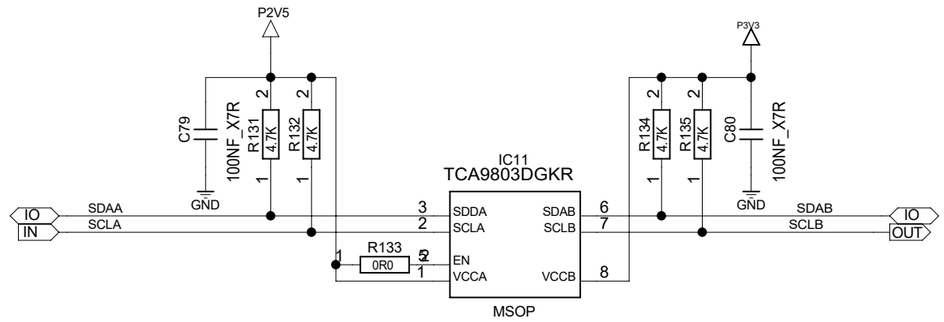
ADN2814ACPZ IS NO LONGER AVAILABLE



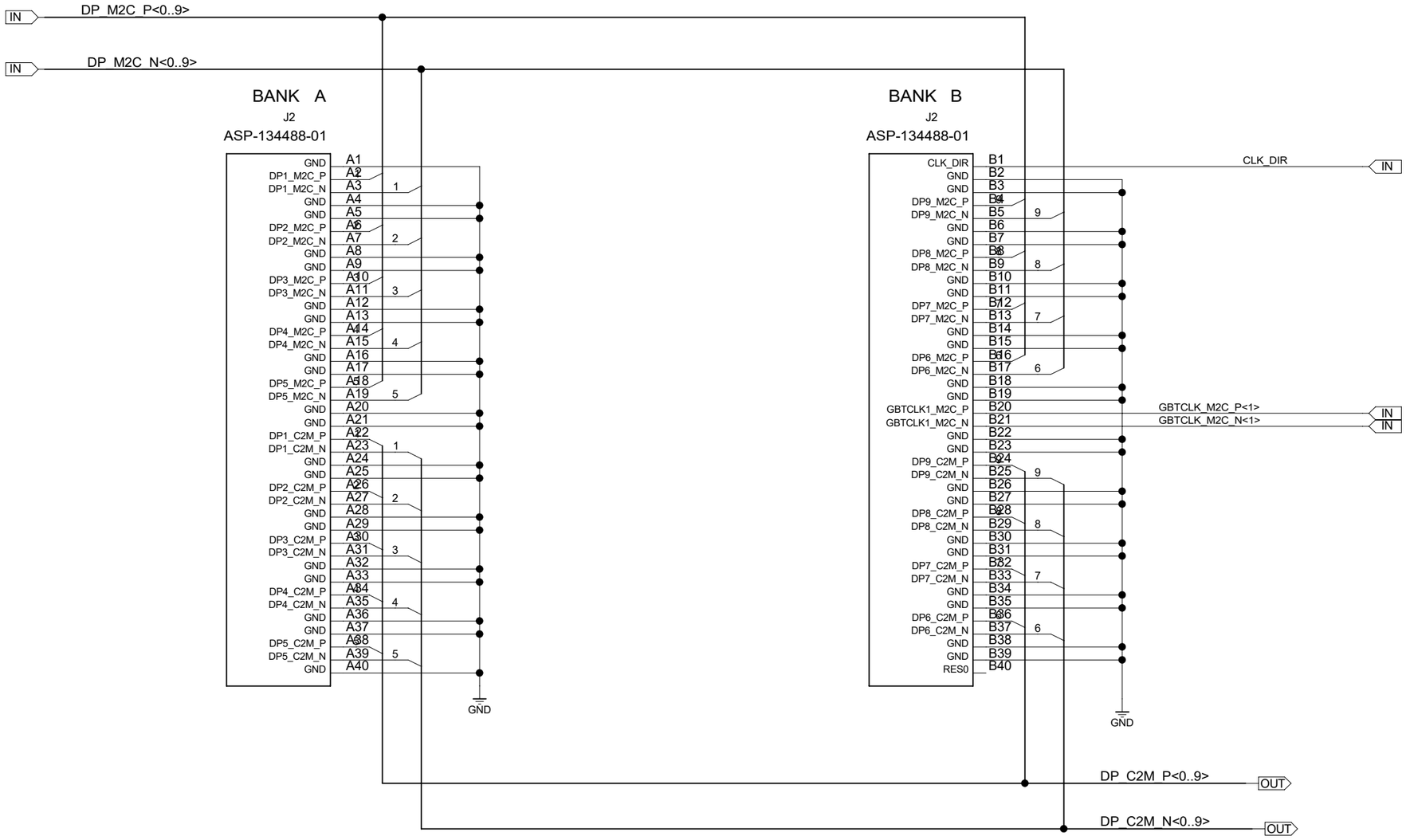
PROJECT:	pc065b_fibv2_toplevel		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 11 / 31
	EEPROM		



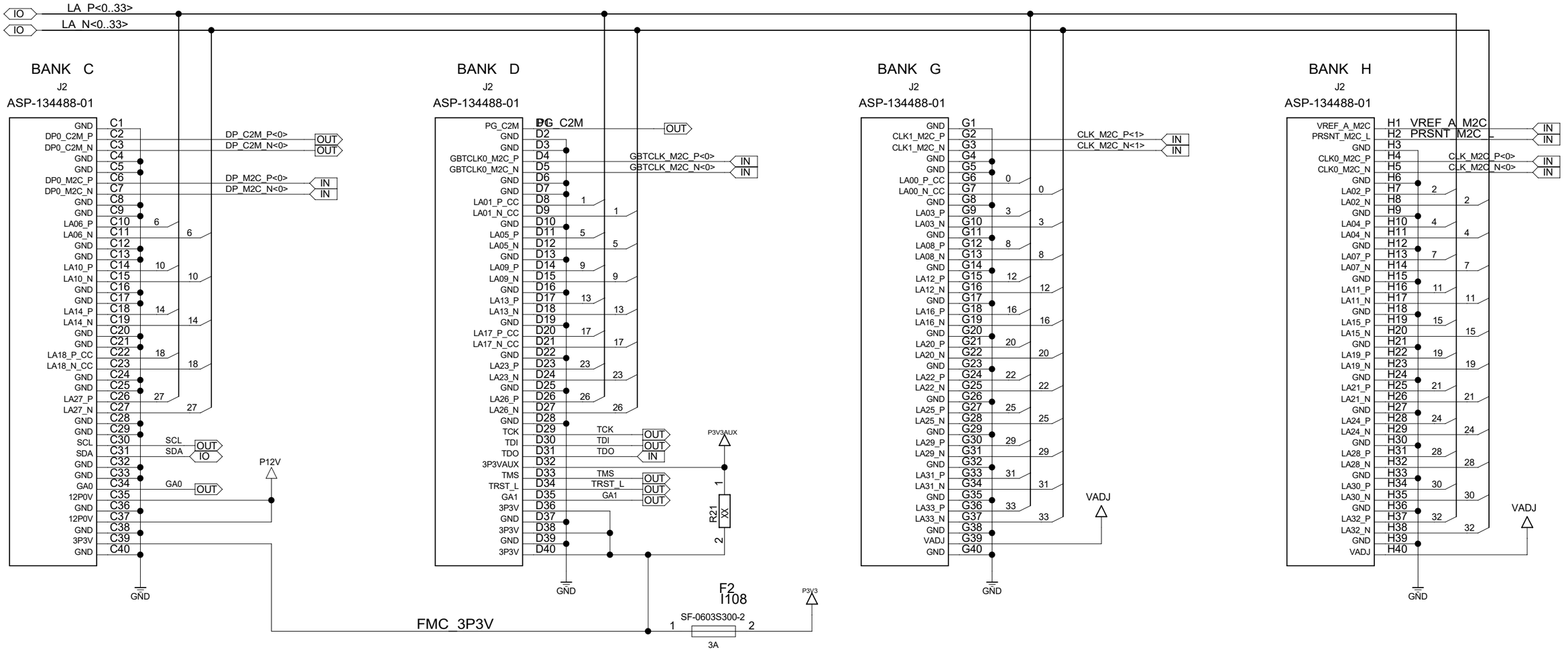
PROJECT:	sfp_module		
PARTICLE PHYSICS UNIVERSITY OF BRISTOL H. H. WILLS PHYSICS LABORATORY TYNDALL AVENUE, BS8 1TL BRISTOL, UK	REVISION: 2	DATE MODIFIED: 14/05/2020	
	DESIGNED BY: P. Baesso	SIZE: A3	PAGE: 12 / 31
	SFP_MODULE		



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
HA01_N_CC	E3	1
GND	E4	
GND	E5	
HA05_P	E6	5
HA05_N	E7	5
GND	E8	
HA09_P	E9	9
HA09_N	E10	9
GND	E11	
HA13_P	E12	13
HA13_N	E13	13
GND	E14	
HA16_P	E15	16
HA16_N	E16	16
GND	E17	
HA20_P	E18	20
HA20_N	E19	20
GND	E20	
HB03_P	E21	3
HB03_N	E22	3
GND	E23	
HB05_P	E24	5
HB05_N	E25	5
GND	E26	
HB09_P	E27	9
HB09_N	E28	9
GND	E29	
HB13_P	E30	13
HB13_N	E31	13
GND	E32	
HB19_P	E33	19
HB19_N	E34	19
GND	E35	
HB21_P	E36	21
HB21_N	E37	21
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
HA00_N_CC	F5	0
GND	F6	
HA04_P	F7	4
HA04_N	F8	4
GND	F9	
HA08_P	F10	8
HA08_N	F11	8
GND	F12	
HA12_P	F13	12
HA12_N	F14	12
GND	F15	
HA15_P	F16	15
HA15_N	F17	15
GND	F18	
HA19_P	F19	19
HA19_N	F20	19
GND	F21	
HB02_P	F22	2
HB02_N	F23	2
GND	F24	
HB04_P	F25	4
HB04_N	F26	4
GND	F27	
HB08_P	F28	8
HB08_N	F29	8
GND	F30	
HB12_P	F31	12
HB12_N	F32	12
GND	F33	
HB16_P	F34	16
HB16_N	F35	16
GND	F36	
HB20_P	F37	20
HB20_N	F38	20
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
HA03_N	J7	3
GND	J8	
HA07_P	J9	7
HA07_N	J10	7
GND	J11	
HA11_P	J12	11
HA11_N	J13	11
GND	J14	
HA14_P	J15	14
HA14_N	J16	14
GND	J17	
HA18_P	J18	18
HA18_N	J19	18
GND	J20	
HA22_P	J21	22
HA22_N	J22	22
GND	J23	
HB01_P	J24	1
HB01_N	J25	1
GND	J26	
HB07_P	J27	7
HB07_N	J28	7
GND	J29	
HB11_P	J30	11
HB11_N	J31	11
GND	J32	
HB15_P	J33	15
HB15_N	J34	15
GND	J35	
HB18_P	J36	18
HB18_N	J37	18
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
HA02_N	K8	2
GND	K9	
HA06_P	K10	6
HA06_N	K11	6
GND	K12	
HA10_P	K13	10
HA10_N	K14	10
GND	K15	
HA17_P_CC	K16	17
HA17_N_CC	K17	17
GND	K18	
HA21_P	K19	21
HA21_N	K20	21
GND	K21	
HA23_P	K22	23
HA23_N	K23	23
GND	K24	
HB00_P_CC	K25	0
HB00_N_CC	K26	0
GND	K27	
HB06_P_CC	K28	6
HB06_N_CC	K29	6
GND	K30	
HB10_P	K31	10
HB10_N	K32	10
GND	K33	
HB14_P	K34	14
HB14_N	K35	14
GND	K36	
HB17_P_CC	K37	17
HB17_N_CC	K38	17
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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