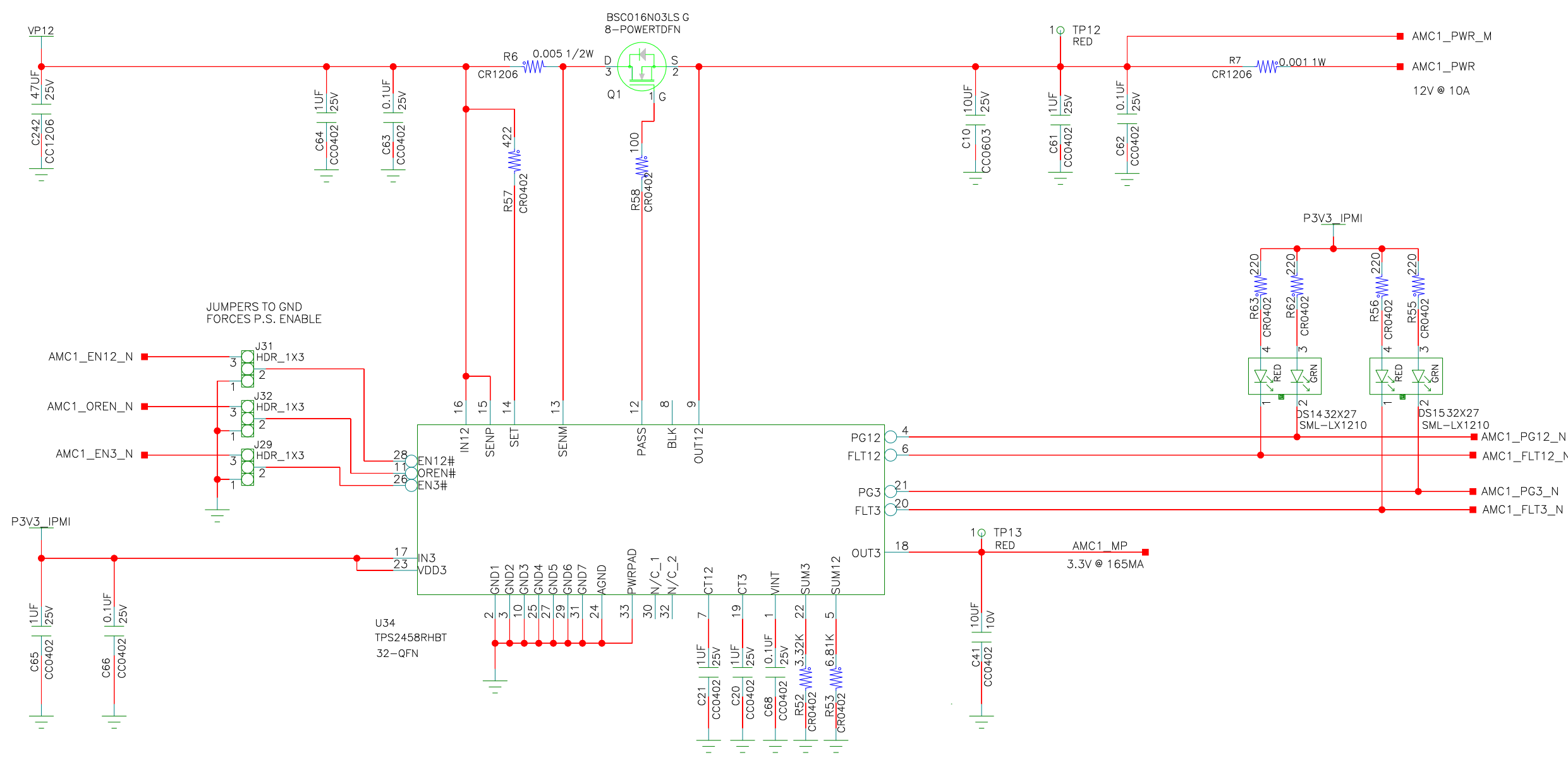


# ATCA HOT SWAP CONTROLLER

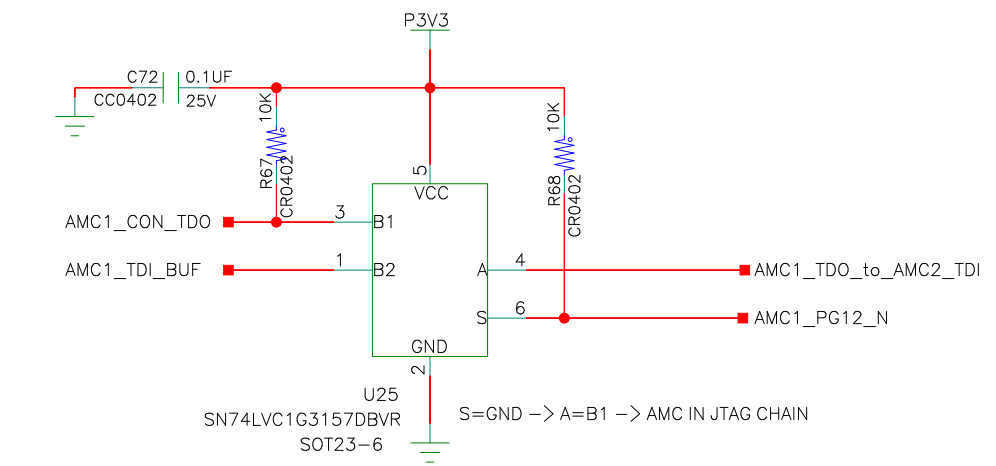
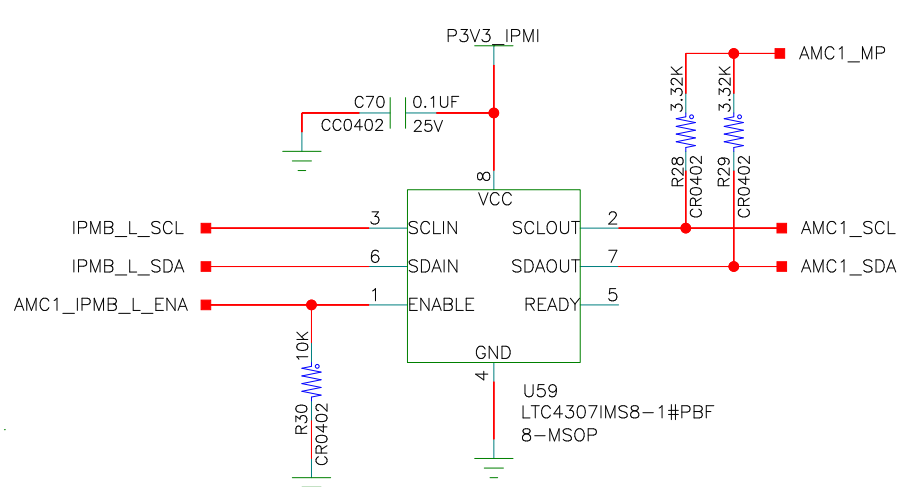
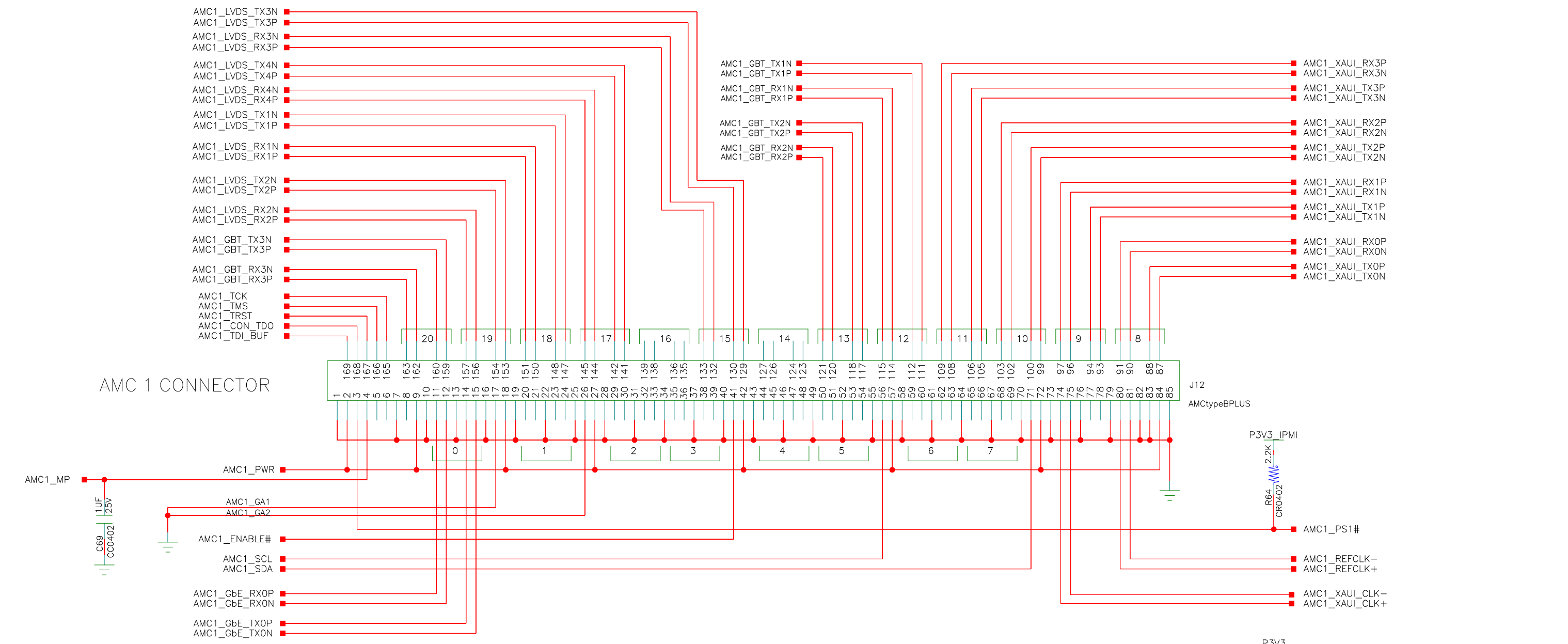
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	1	OF	49



AMC HOT SWAP CONTROLLER

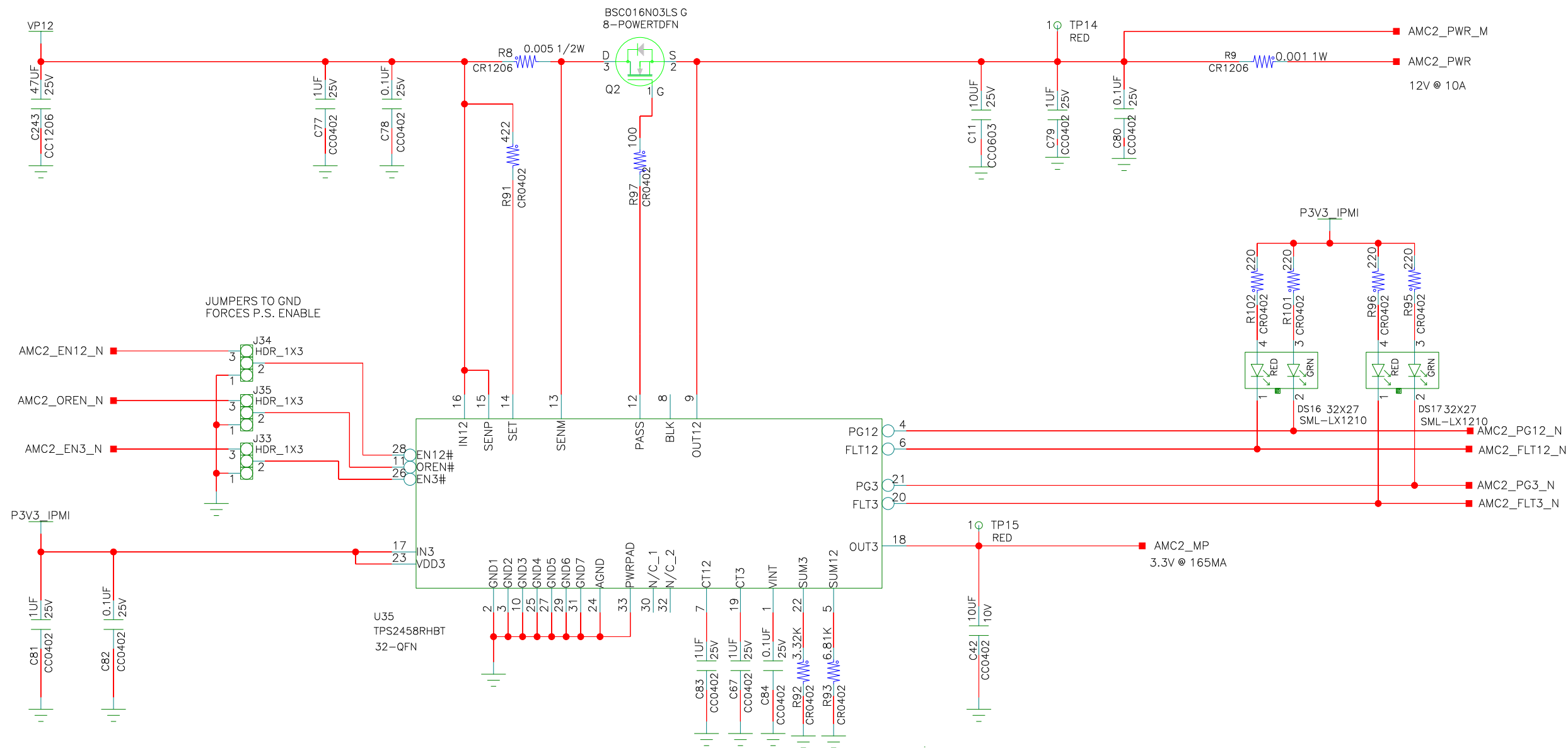
AMC 1 – 1 of 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	2 OF 49



AMC 1 - 2 of 2

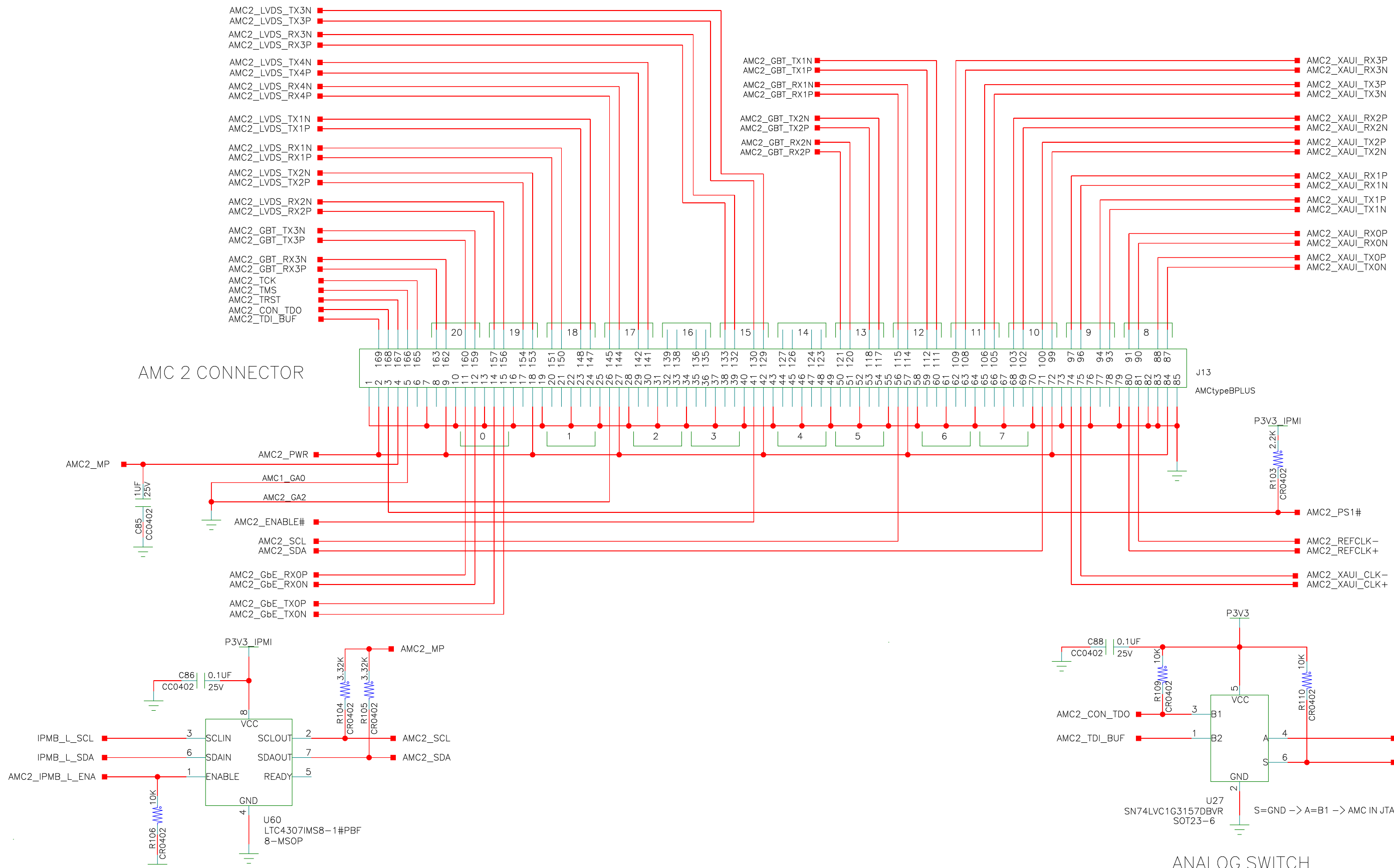
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	3 OF 49



AMC HOT SWAP CONTROLLER

AMC 2 – 1 of 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV A	SHEET 4 OF 49
DRAWN	ES	DATE	12/01/2014:08:22



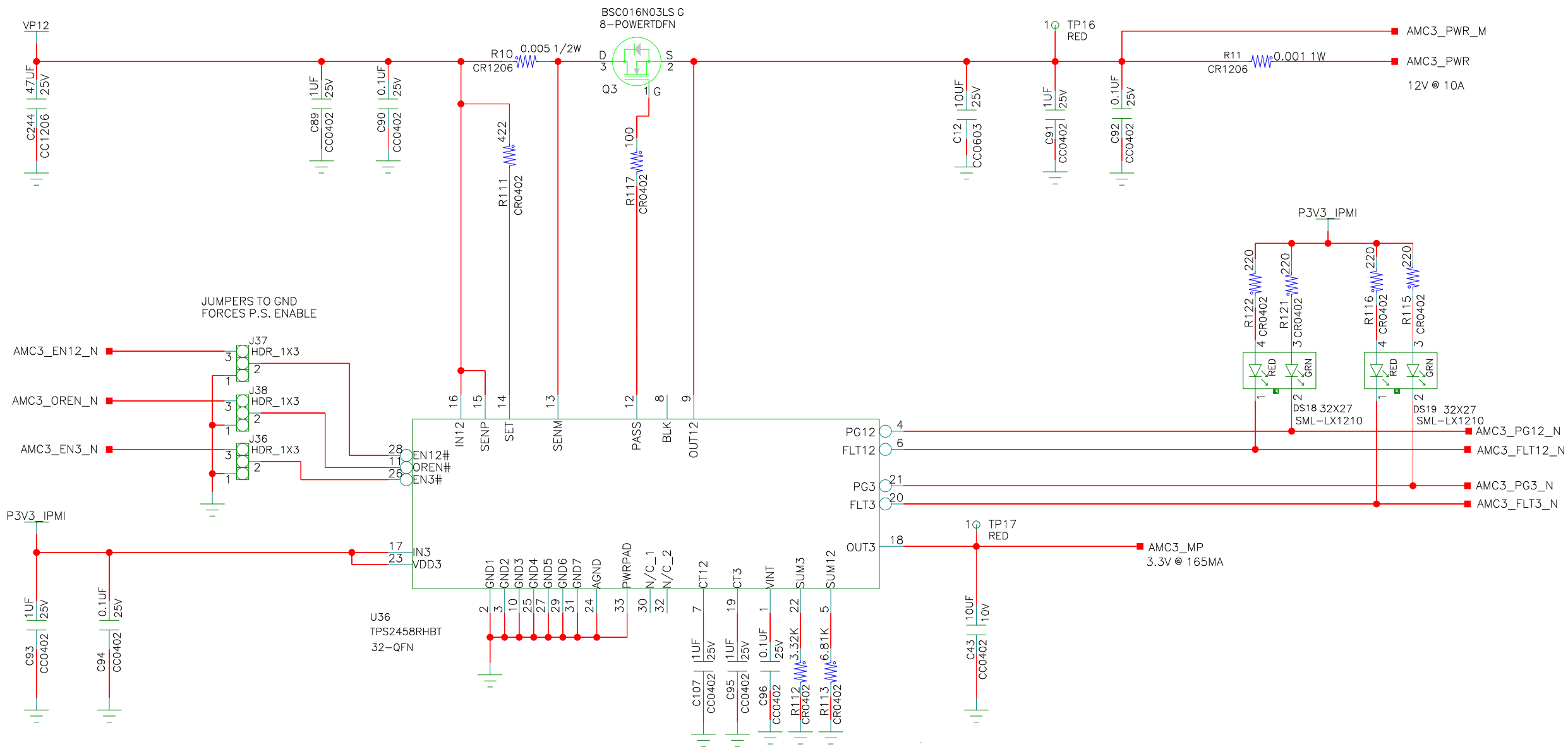
AMC 2 CONNECTOR

2-WIRE BUS BUFFER

ANALOG SWITCH

AMC 2 - 2 of 2

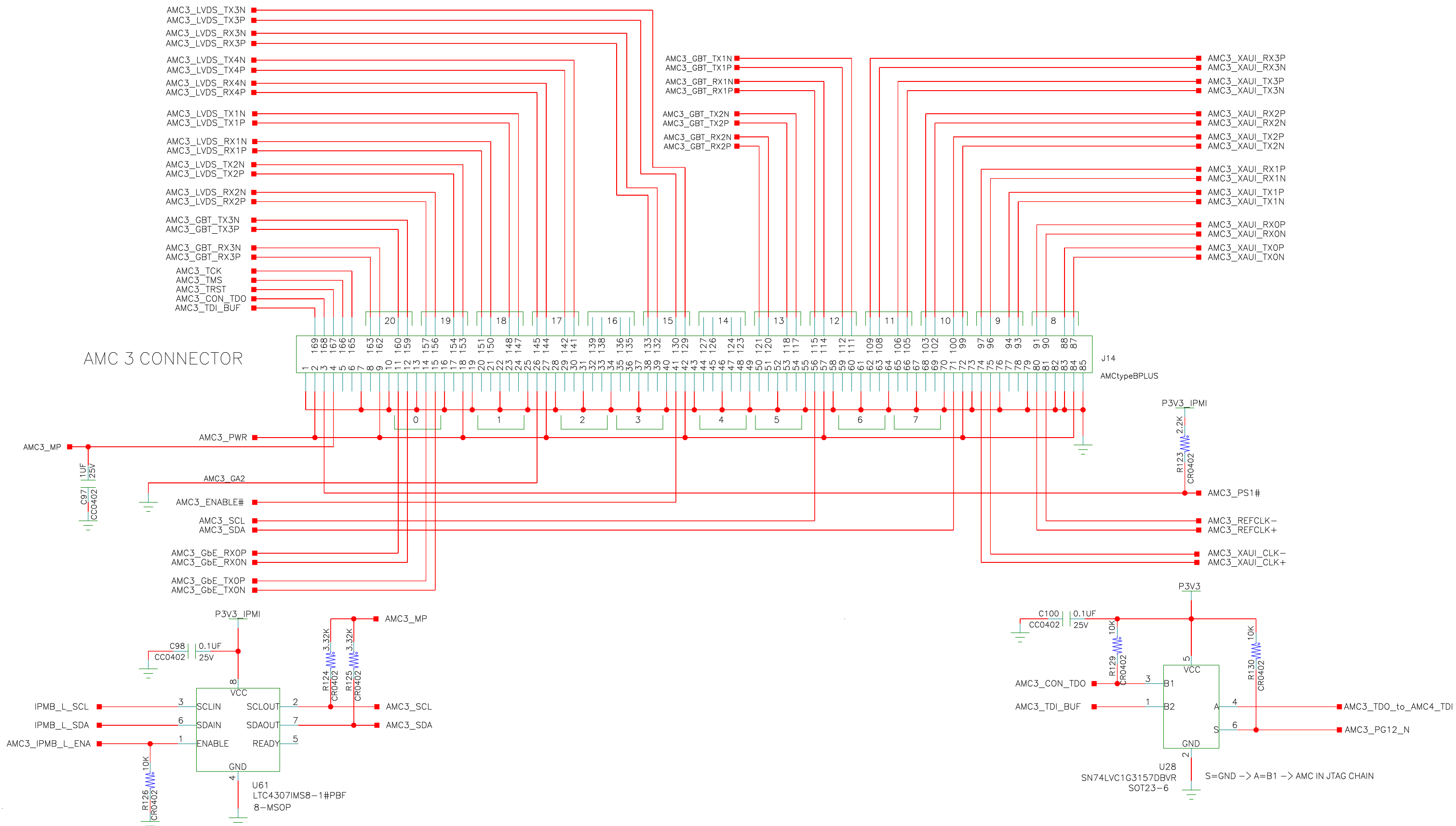
COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 5 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



AMC HOT SWAP CONTROLLER

AMC 3 – 1 of 2

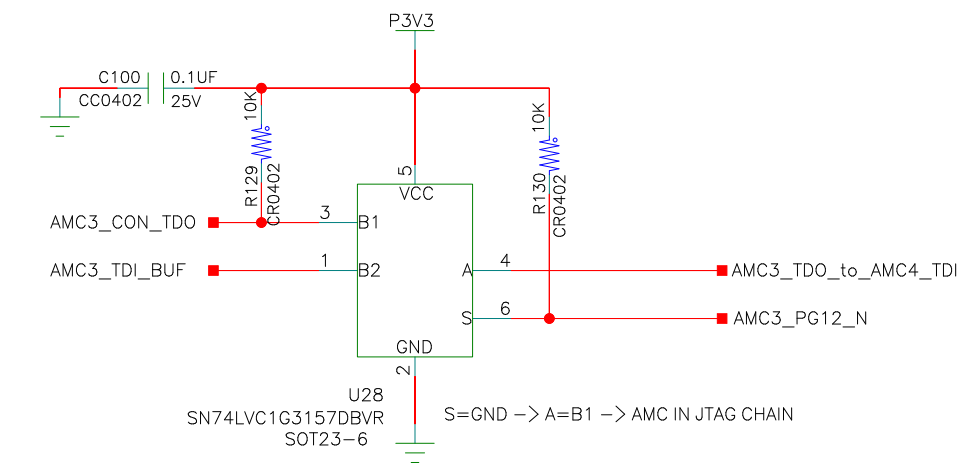
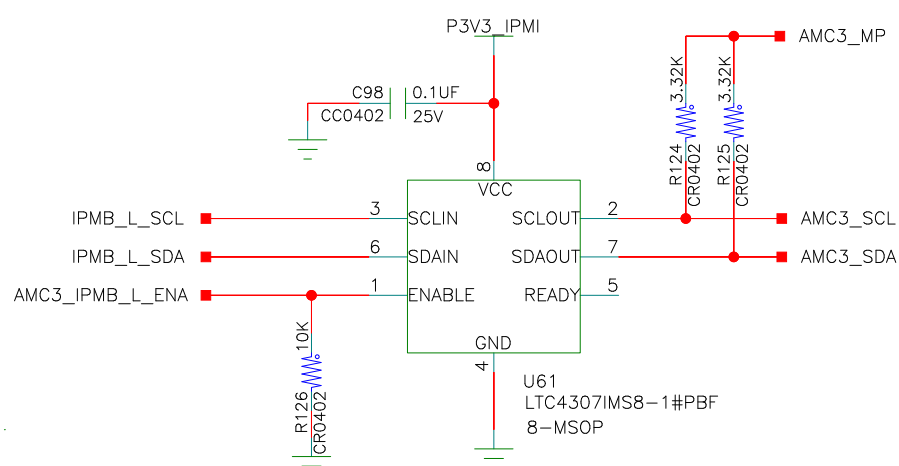
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	6 OF 49



AMC 3 CONNECTOR

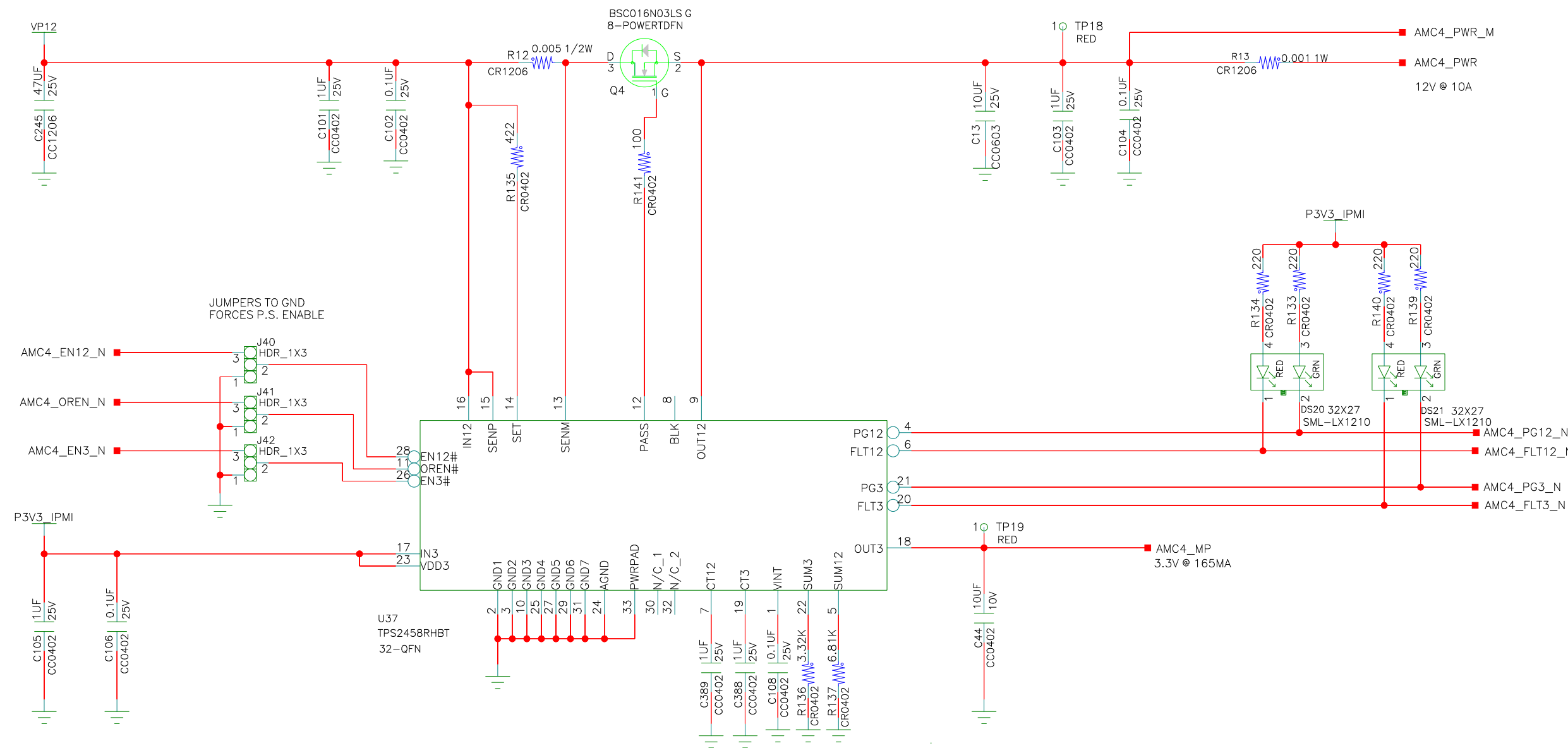
2-WIRE BUS BUFFER

ANALOG SWITCH



AMC 3 - 2 of 2

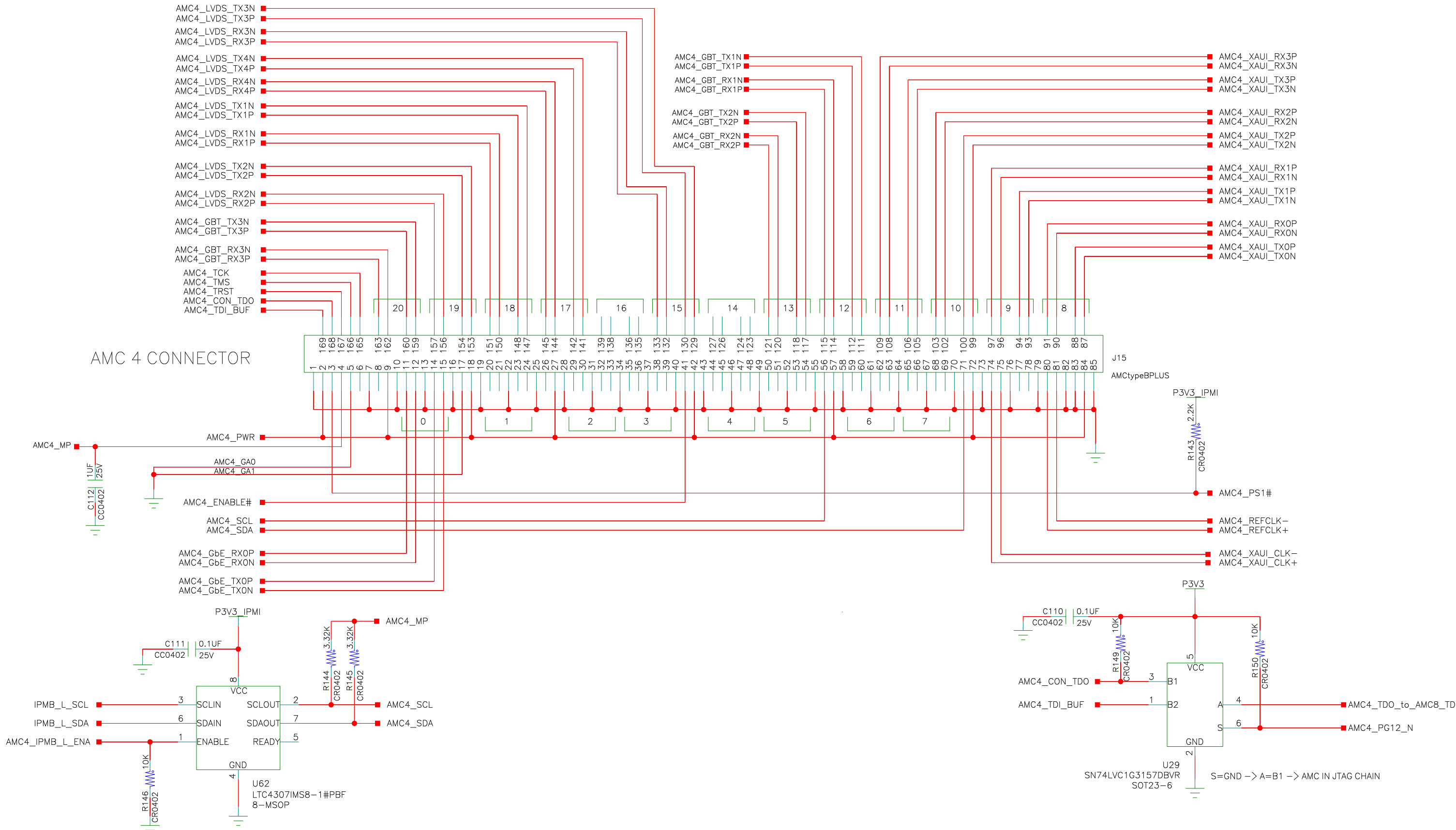
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	7 OF 49



AMC 4 – 1 of 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	8 OF 49





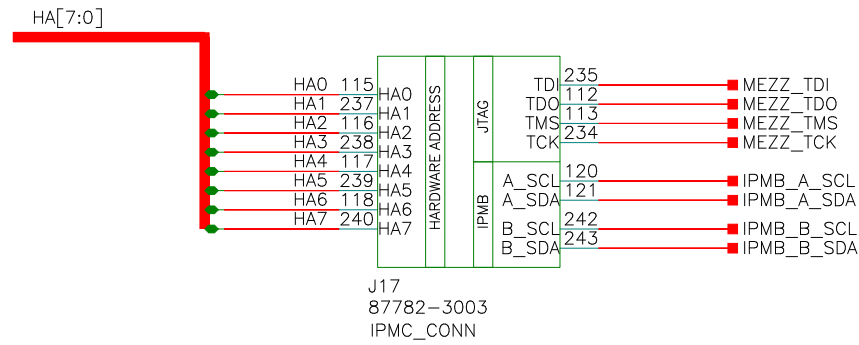
AMC 4 CONNECTOR

2-WIRE BUS BUFFER

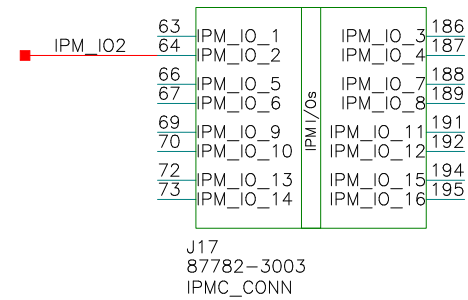
ANALOG SWITCH

AMC 4 - 2 of 2

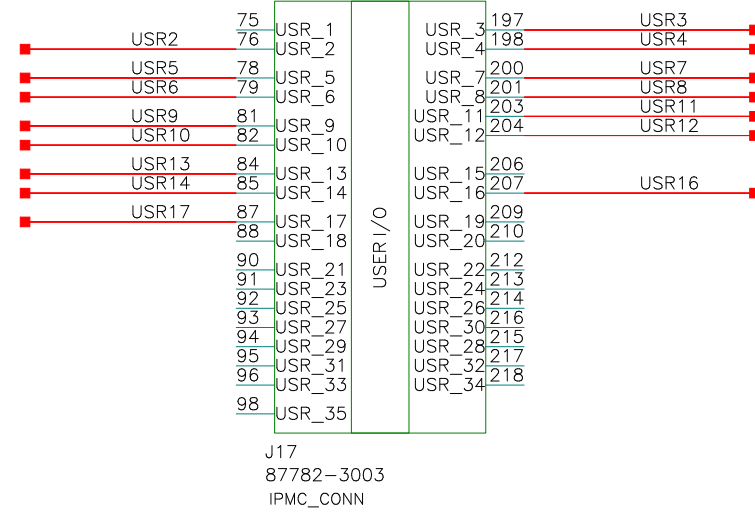
COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 9 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



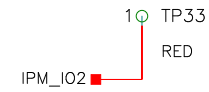
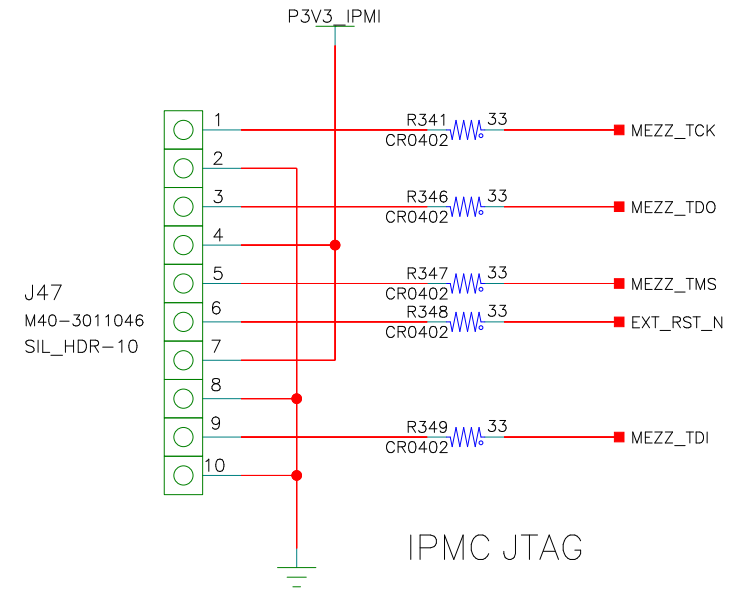
P/O IPMC CONNECTOR



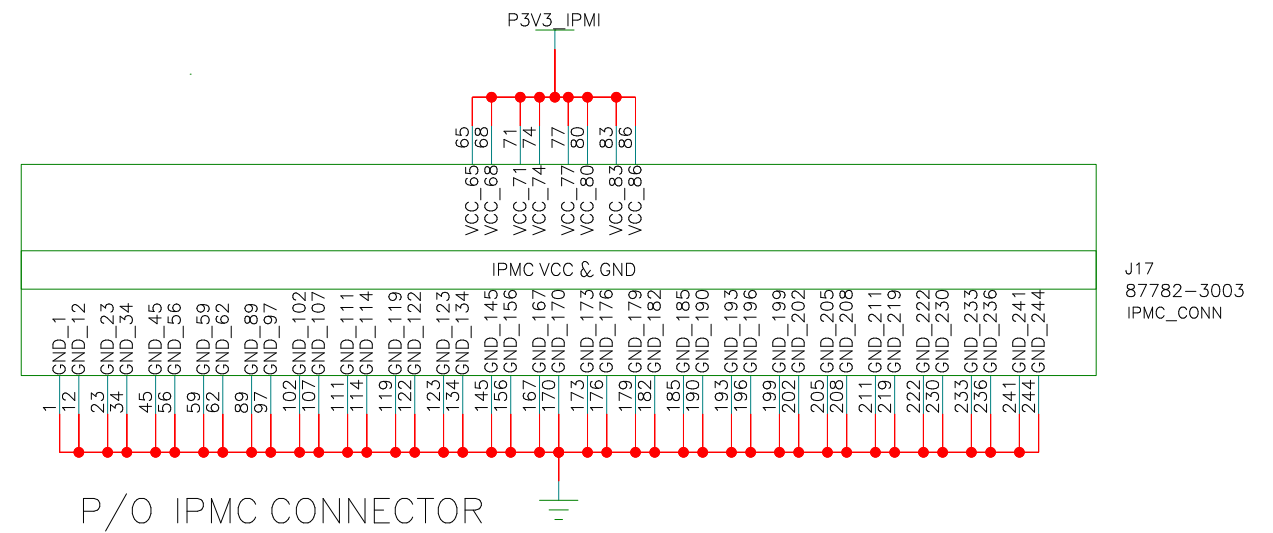
P/O IPMC CONNECTOR



P/O IPMC CONNECTOR



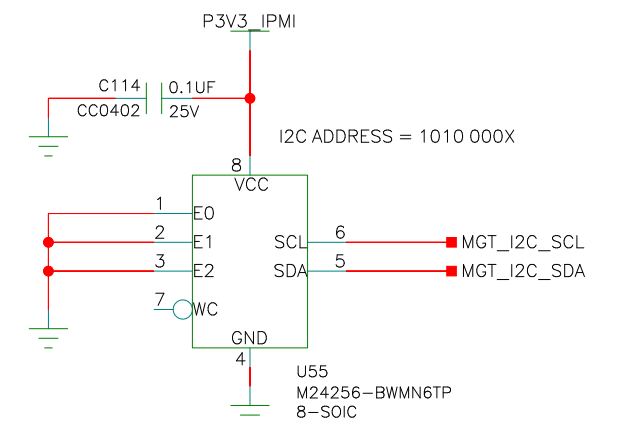
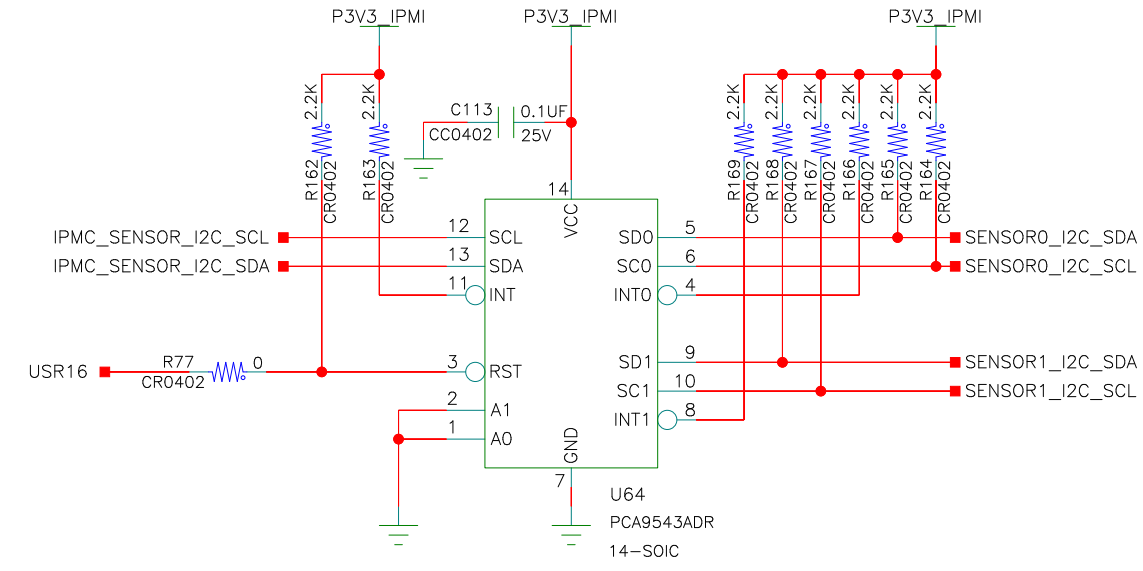
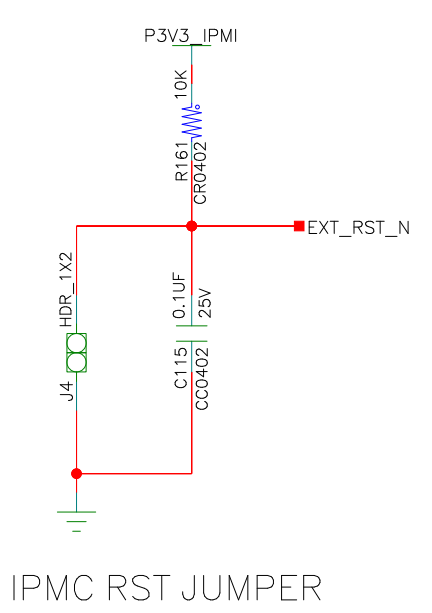
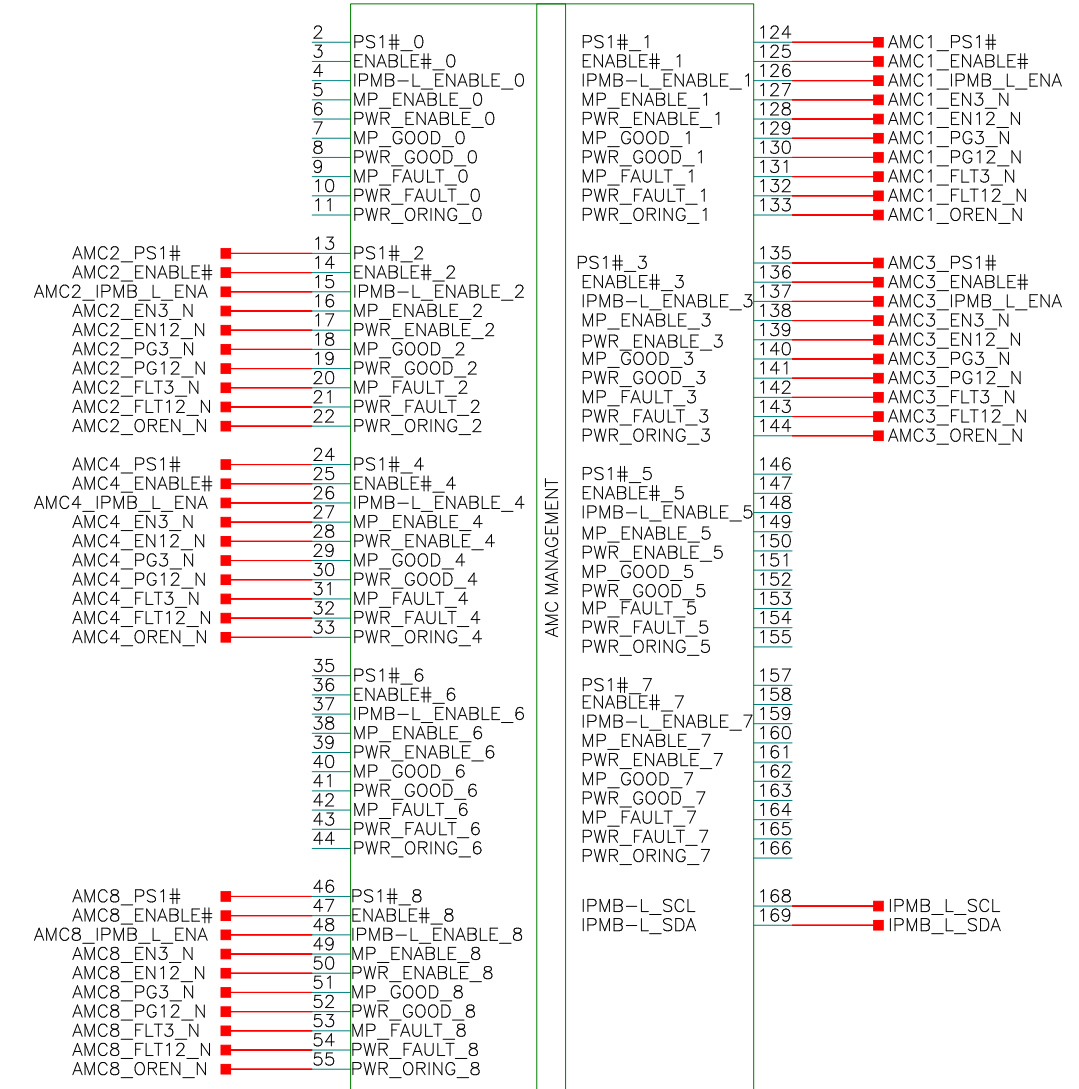
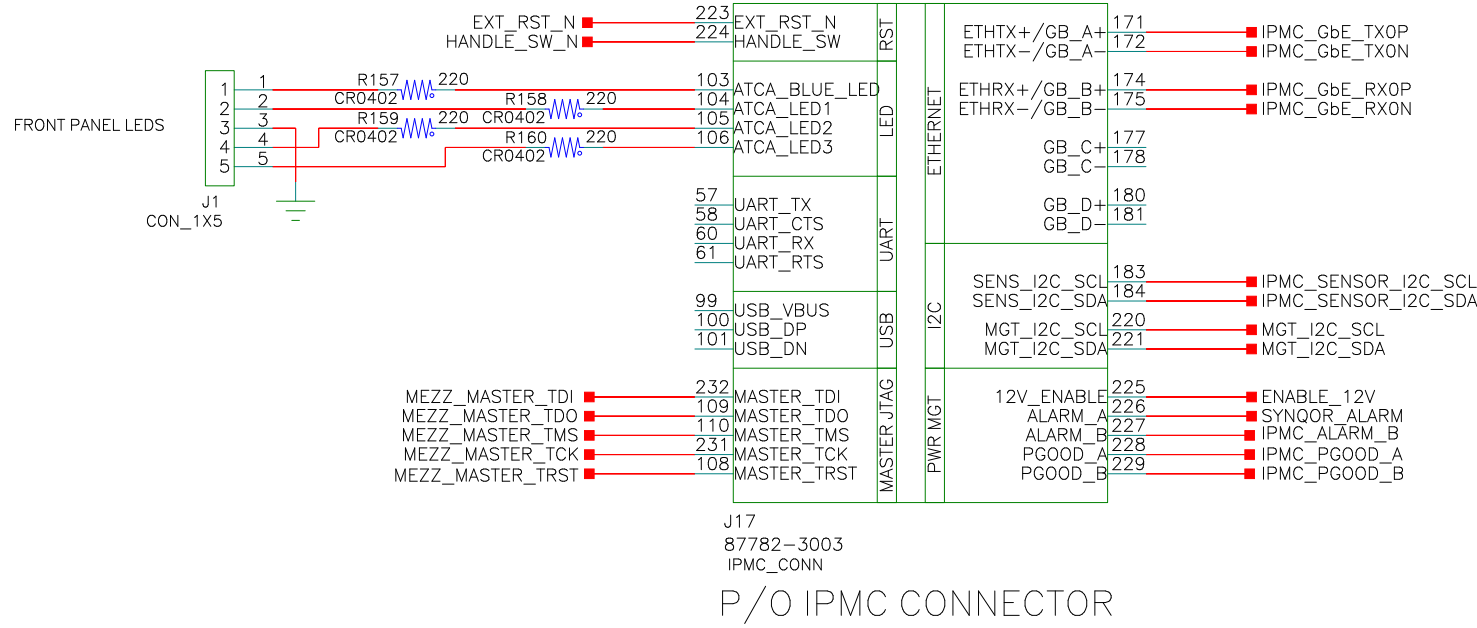
ANNEXY POWER GOOD LINE



P/O IPMC CONNECTOR

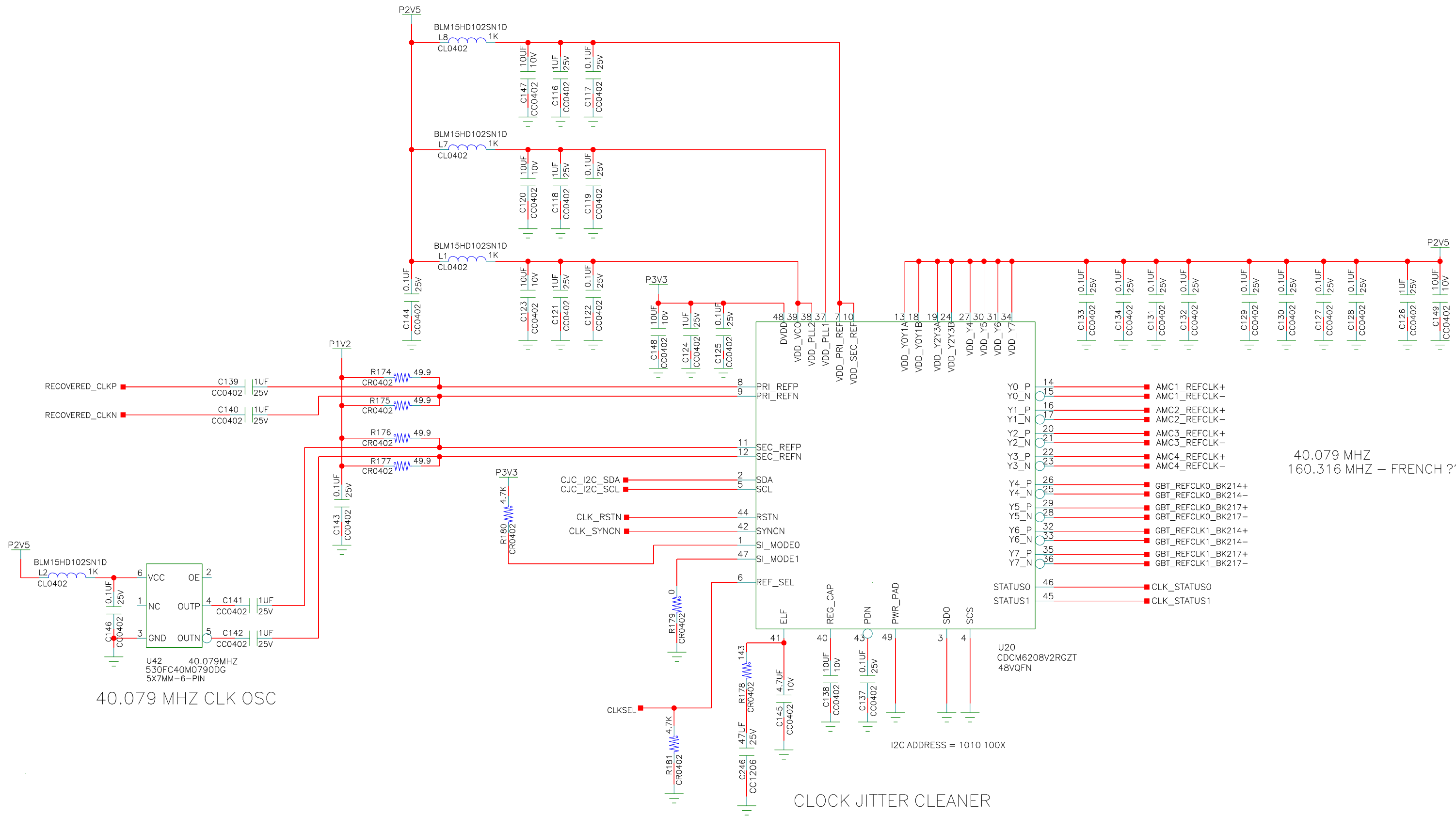
IPMC MEZZANINE - 1 of 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	10 OF 49



# IPMC MEZZANINE - 2 of 2

COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 11 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



40.079 MHz  
160.316 MHz – FRENCH ??

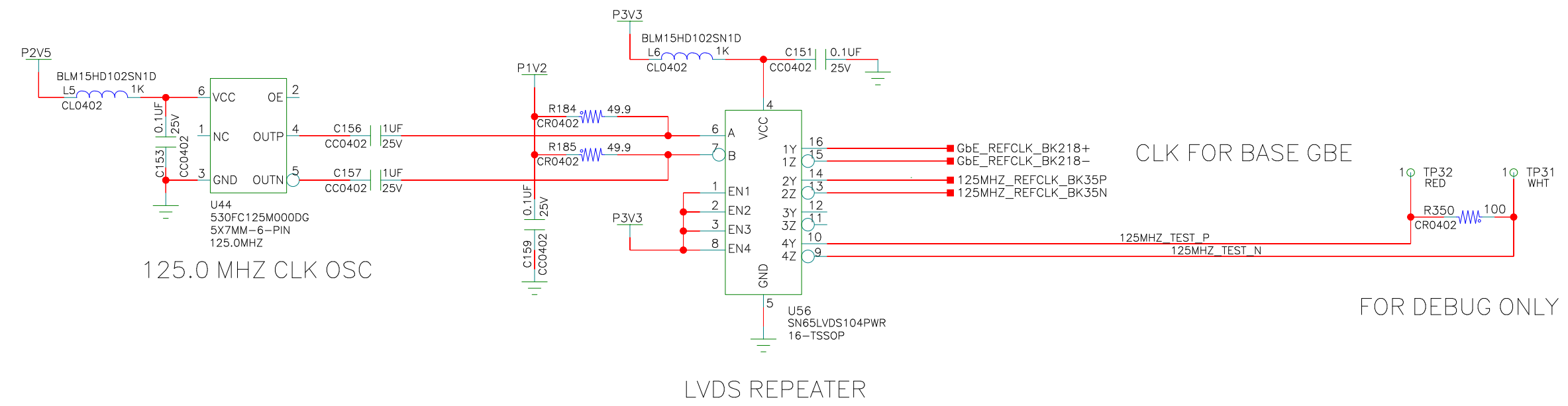
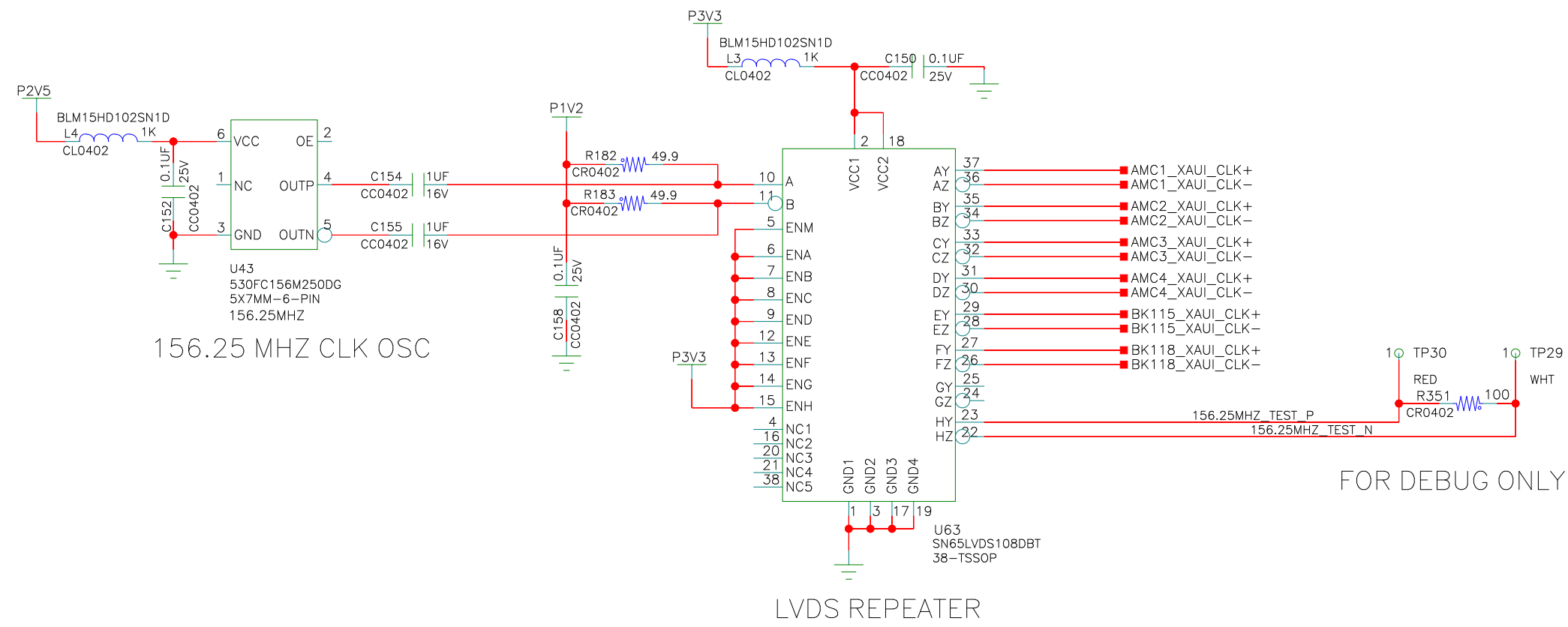
40.079 MHz CLK OSC

CLOCK JITTER CLEANER

I2C ADDRESS = 1010 100X

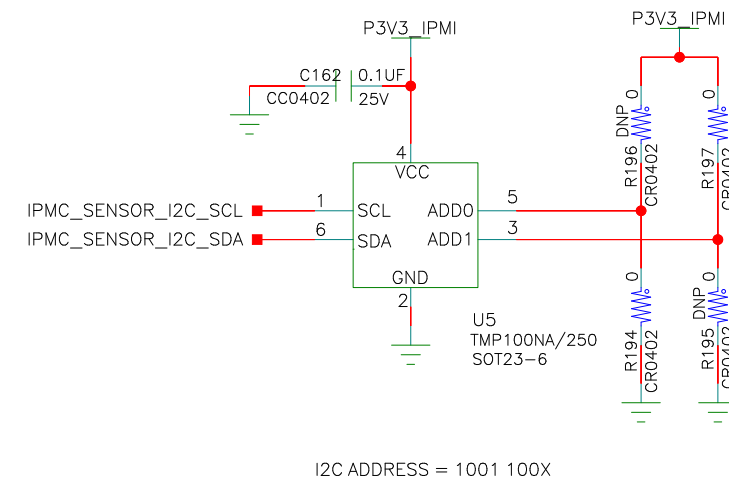
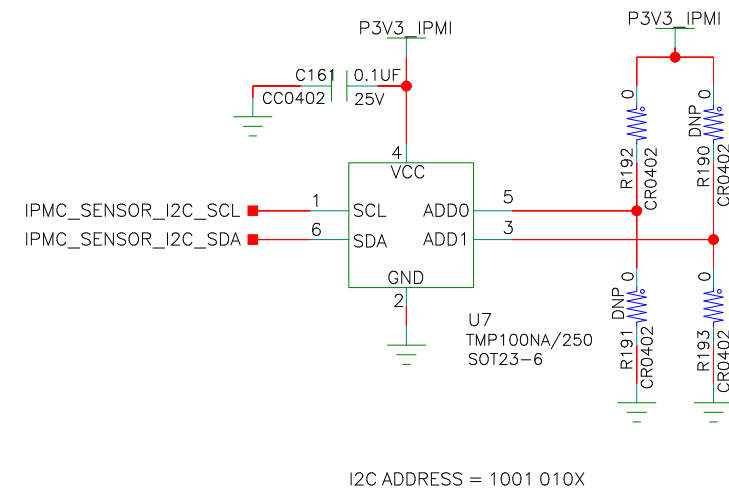
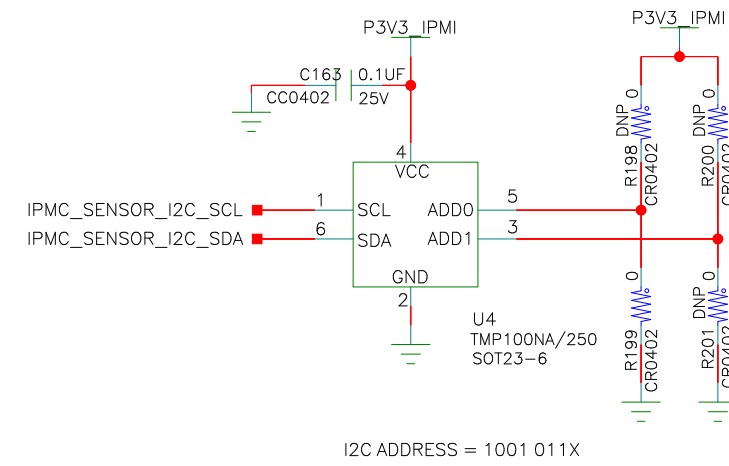
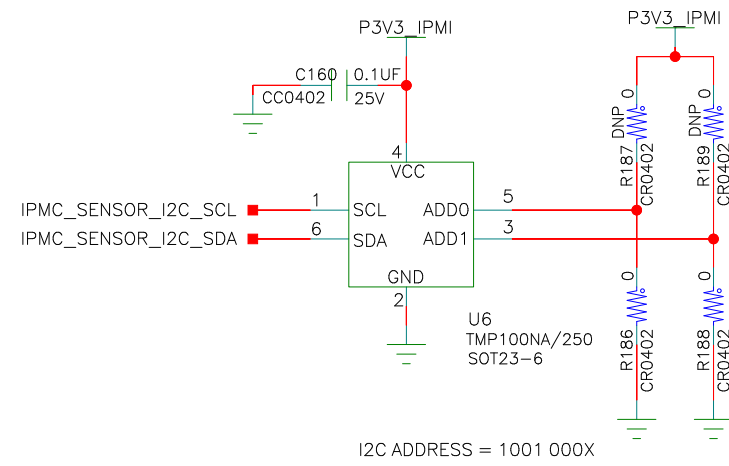
# CLOCK DISTRIBUTION 1 OF 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	12 OF 49



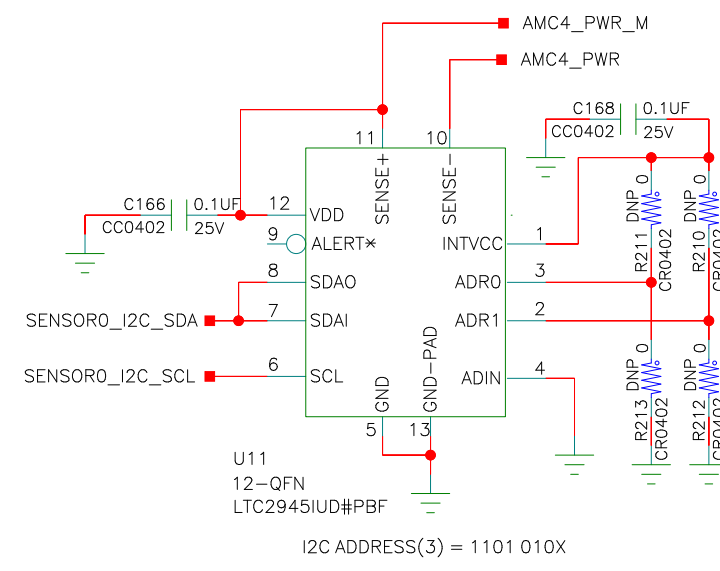
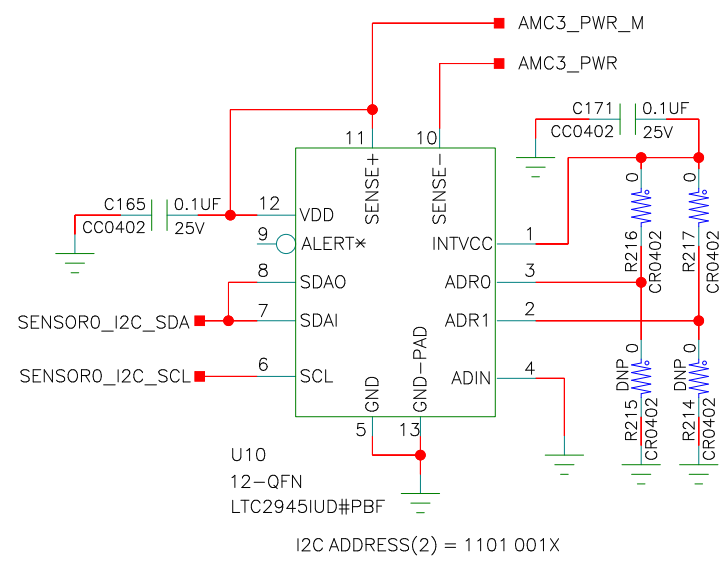
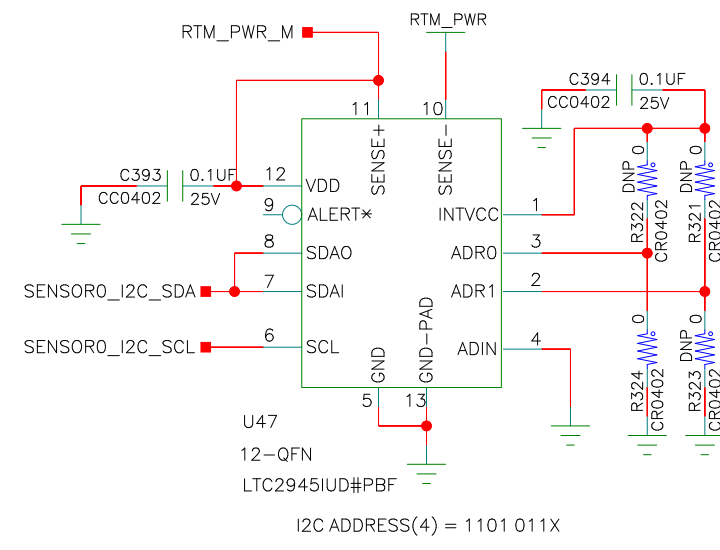
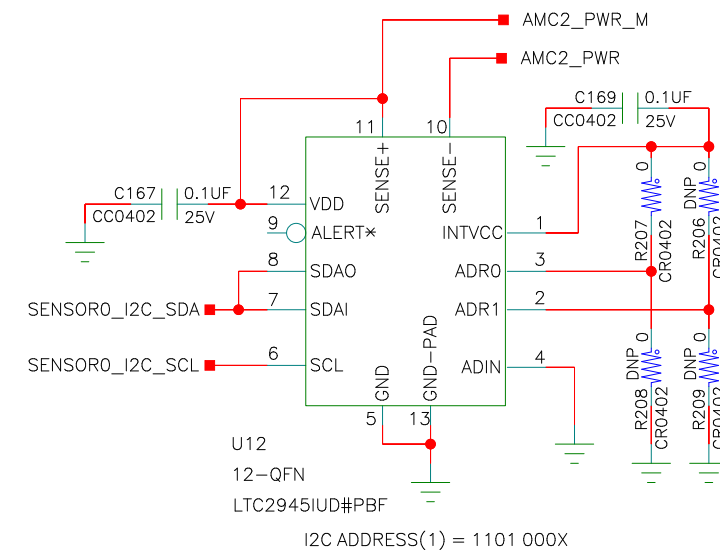
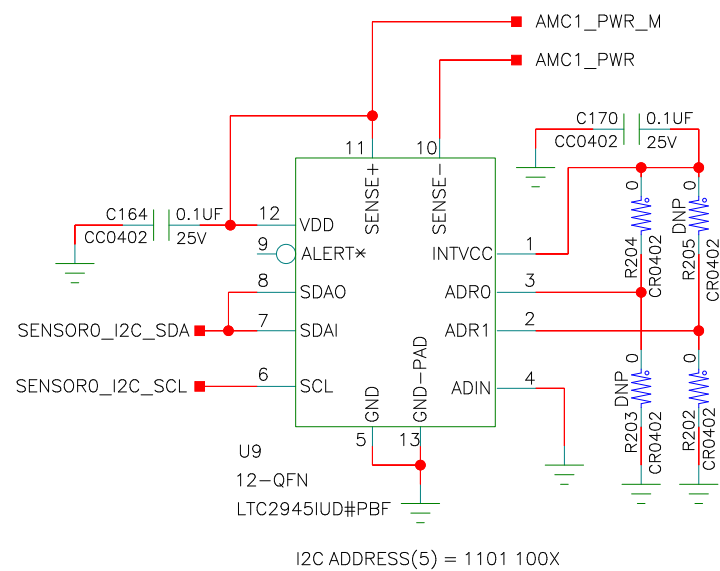
# CLOCK DISTRIBUTION 2 OF 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:26
		SHEET	13 OF 49



# TEMPERATURE SENSORS

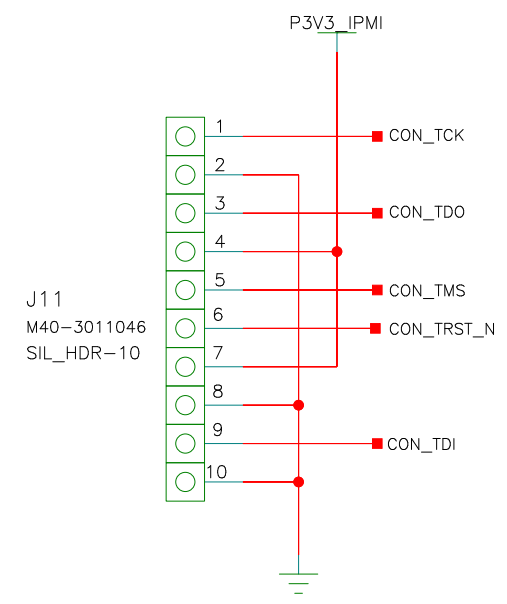
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	14 OF 49



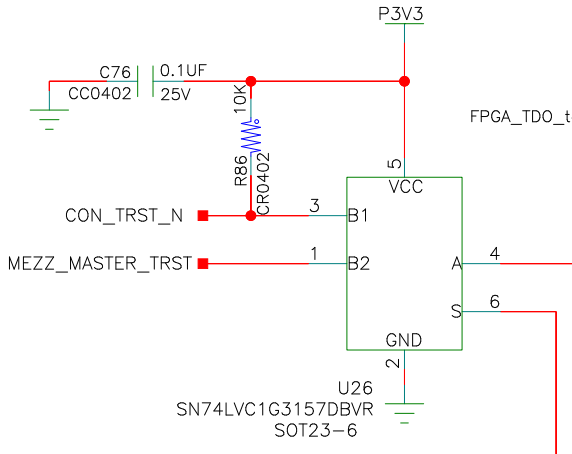
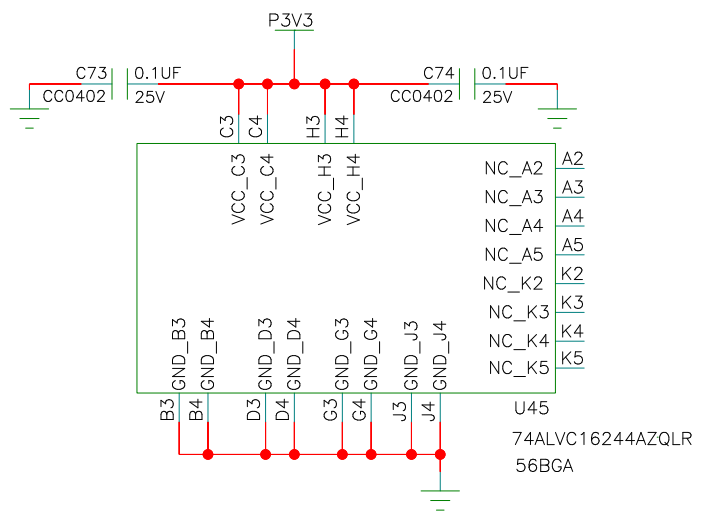
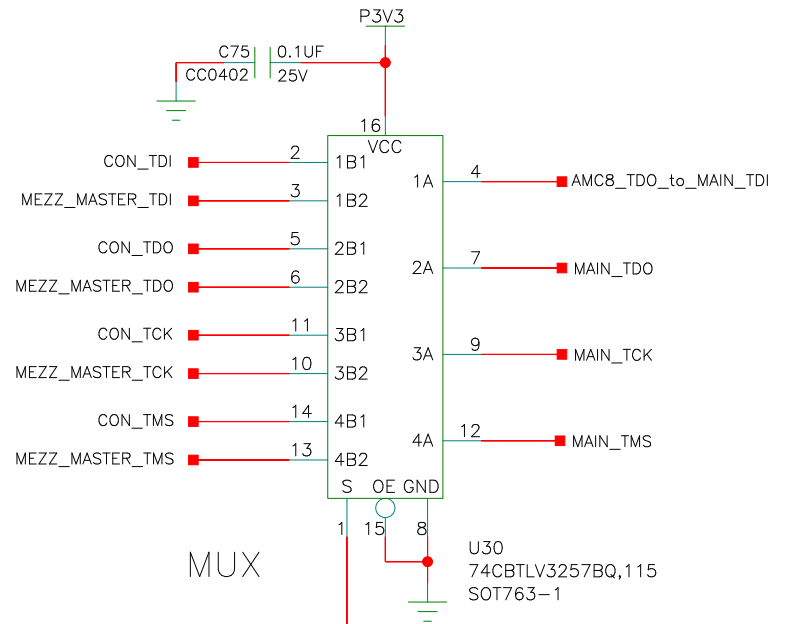
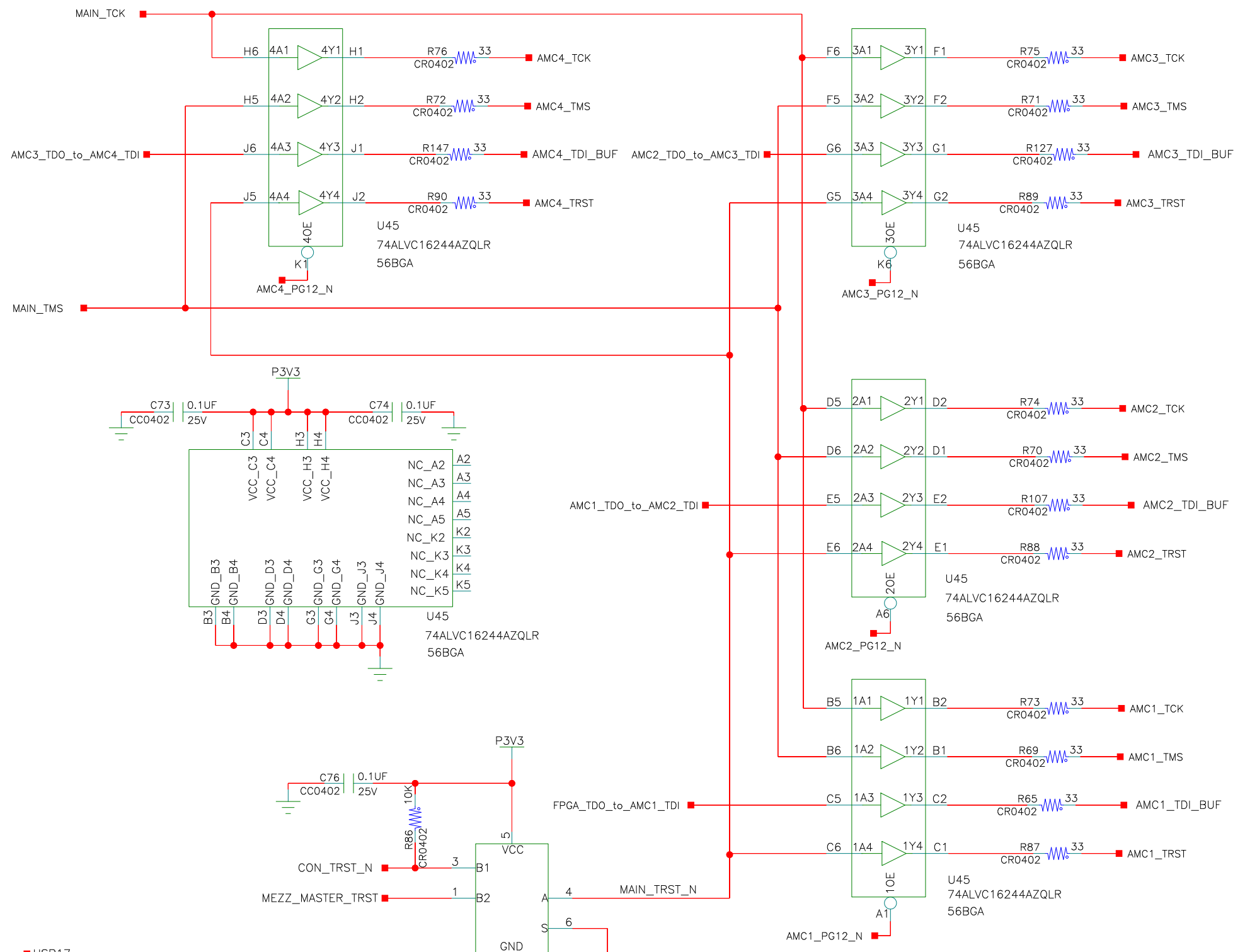
CURRENT MONITORS  
 102.4 MV MAX.  
 102.4 AMPS MAX  
 1 MV / AMP

# AMC / RTM CURRENT MONITORS

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	15 OF 49



ATCA JTAG CHAIN



JTAG

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	16 OF 49



VP12  
C28 100UF 16V  
CC1210

U31  
LTM4628  
LGA\_15X15\_144

M2 VIN\_1  
M3 VIN\_2  
M4 VIN\_3  
M5 VIN\_4  
M6 VIN\_5  
M7 VIN\_6  
M8 VIN\_7  
M9 VIN\_8  
M10 VIN\_9  
M11 VIN\_10  
L2 VIN\_11  
L3 VIN\_12  
L4 VIN\_13  
L5 VIN\_14  
L6 VIN\_15  
L7 VIN\_16  
L8 VIN\_17  
L9 VIN\_18  
L10 VIN\_19  
L11 VIN\_20  
J2 VIN\_21  
J3 VIN\_22  
J4 VIN\_23  
J9 VIN\_24  
J10 VIN\_25  
J11 VIN\_26  
K2 VIN\_27  
K3 VIN\_28  
K4 VIN\_29  
K9 VIN\_30  
K10 VIN\_31  
K11 VIN\_32

J6 TEMP  
F5 RUN1  
F9 RUN2  
E5 TRACK1  
D8 TRACK2  
J7 EXTVCC  
H8 INTVCC  
C6 FSET  
F4 MODE\_PLLIN  
G4 PHASMD

SGND1 GND1  
SGND2 GND2  
SGND3 GND3  
SGND4 GND4  
SGND5 GND5  
SGND6 GND6  
GND1 GND1  
GND2 GND2  
GND3 GND3  
GND4 GND4  
GND5 GND5  
GND6 GND6  
GND7 GND7  
GND8 GND8  
GND9 GND9  
GND10 GND10  
GND11 GND11  
GND12 GND12  
GND13 GND13  
GND14 GND14  
GND15 GND15  
GND16 GND16  
GND17 GND17  
GND18 GND18  
GND19 GND19  
GND20 GND20  
GND21 GND21  
GND22 GND22  
GND23 GND23  
GND24 GND24  
GND25 GND25  
GND26 GND26  
GND27 GND27  
GND28 GND28  
GND29 GND29  
GND30 GND30  
GND31 GND31  
GND32 GND32  
GND33 GND33  
GND34 GND34  
GND35 GND35  
GND36 GND36  
GND37 GND37  
GND38 GND38  
GND39 GND39  
GND40 GND40  
GND41 GND41  
GND42 GND42  
GND43 GND43  
GND44 GND44  
GND45 GND45  
GND46 GND46  
GND47 GND47  
GND48 GND48  
GND49 GND49  
GND50 GND50  
GND51 GND51  
GND52 GND52  
GND53 GND53  
GND54 GND54

C172 0.1UF 25V  
CC0402  
C262 4.7UF 10V  
CC0402  
R218 100K  
CR0402

R26 DNP  
CR0402

G5 CLKOUT  
G9 PG00D1  
G8 PG00D2  
G2 SW1  
G11 SW2

VOUTS1  
VOUT1\_1 A1  
VOUT1\_2 A2  
VOUT1\_3 A3  
VOUT1\_4 A4  
VOUT1\_5 A5  
VOUT1\_6 B1  
VOUT1\_7 B2  
VOUT1\_8 B3  
VOUT1\_9 B4  
VOUT1\_10 B5  
VOUT1\_11 C1  
VOUT1\_12 C2  
VOUT1\_13 C3  
VOUT1\_14 C4  
VOUTS2  
VOUT2\_1 A8  
VOUT2\_2 A9  
VOUT2\_3 A10  
VOUT2\_4 A11  
VOUT2\_5 A12  
VOUT2\_6 B8  
VOUT2\_7 B9  
VOUT2\_8 B10  
VOUT2\_9 B11  
VOUT2\_10 C9  
VOUT2\_11 C10  
VOUT2\_12 C11  
VOUT2\_13 C12  
VOUT2\_14 C12

VFB1 D5  
VFB2 D7  
COMP1 E6  
COMP2 E7  
DIFFP E8  
DIFFN E9

P3V3\_IPMI  
R14 4.7K  
CR0402  
P5V0\_GOOD  
USR7

P5V\_M  
R17 0.001 1W  
CR1206  
VCC5V  
TP20 RED

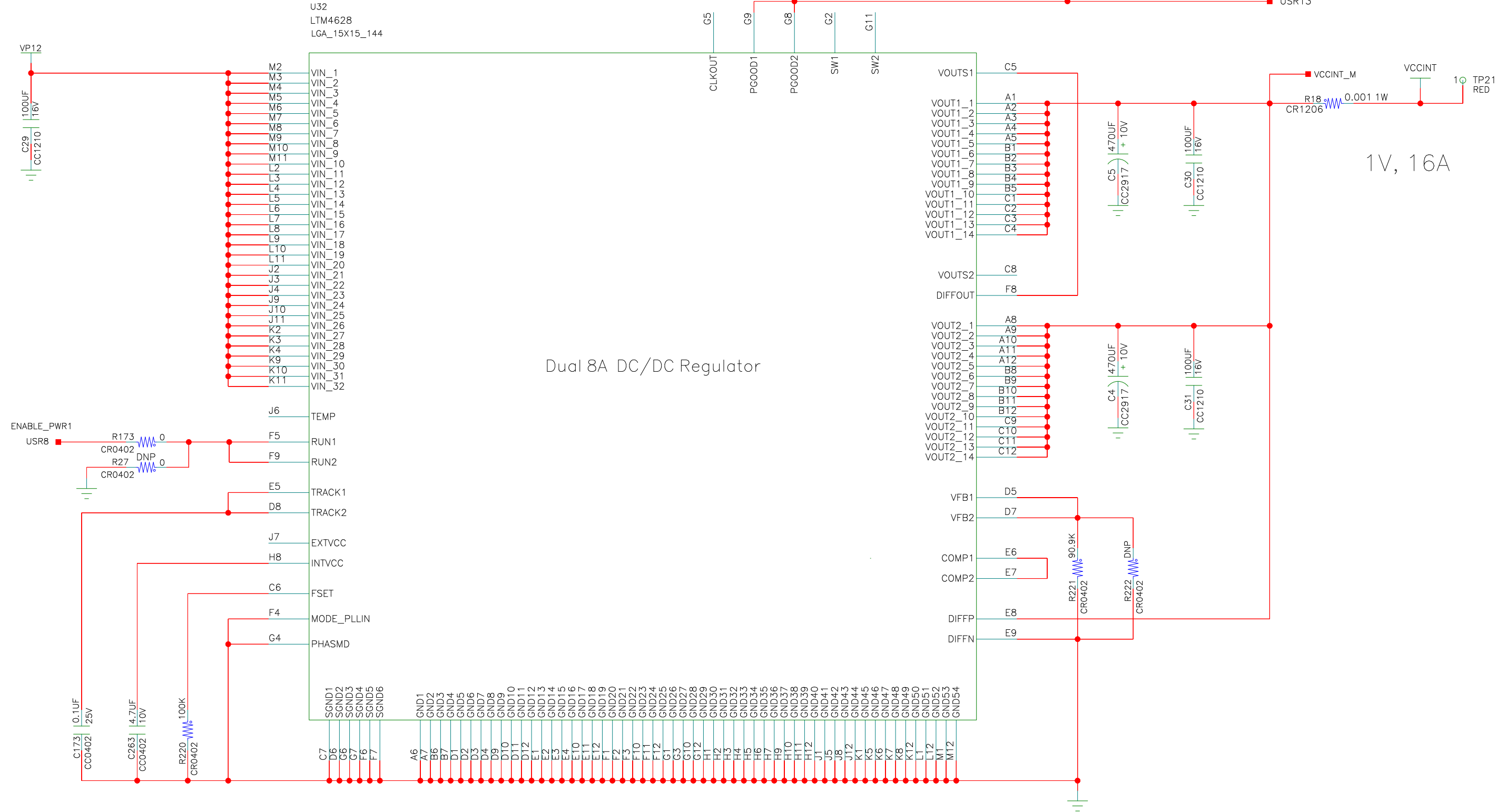
5V, 16A

Dual 8A DC/DC Regulator

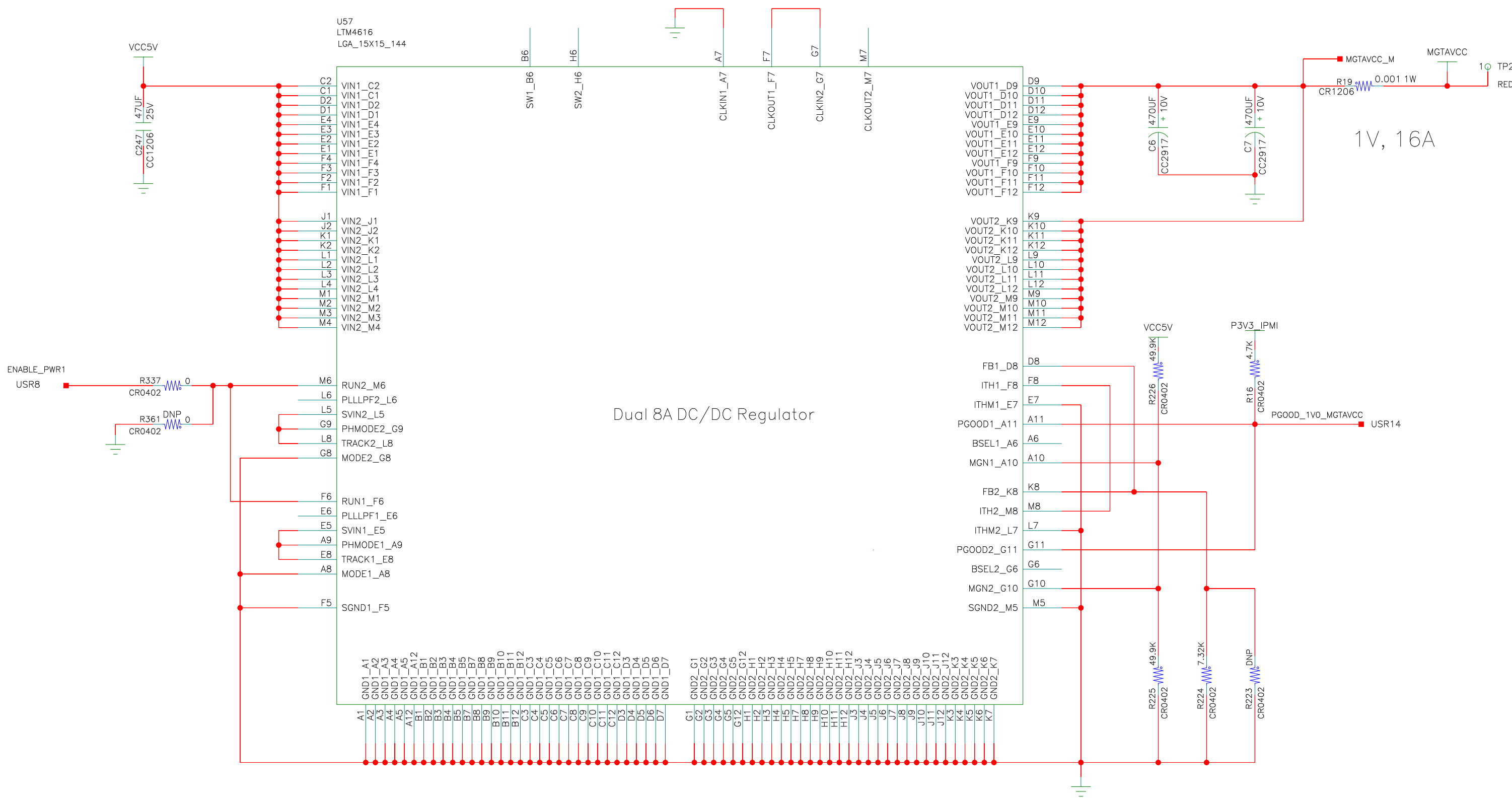
VCC5V powers on with the system VCC12V  
Internal pullups on RUN1, RUN2 insure that VCC5V is enabled with VCC12V

5V0 PREREGULATOR

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	17 OF 49



COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 18 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	

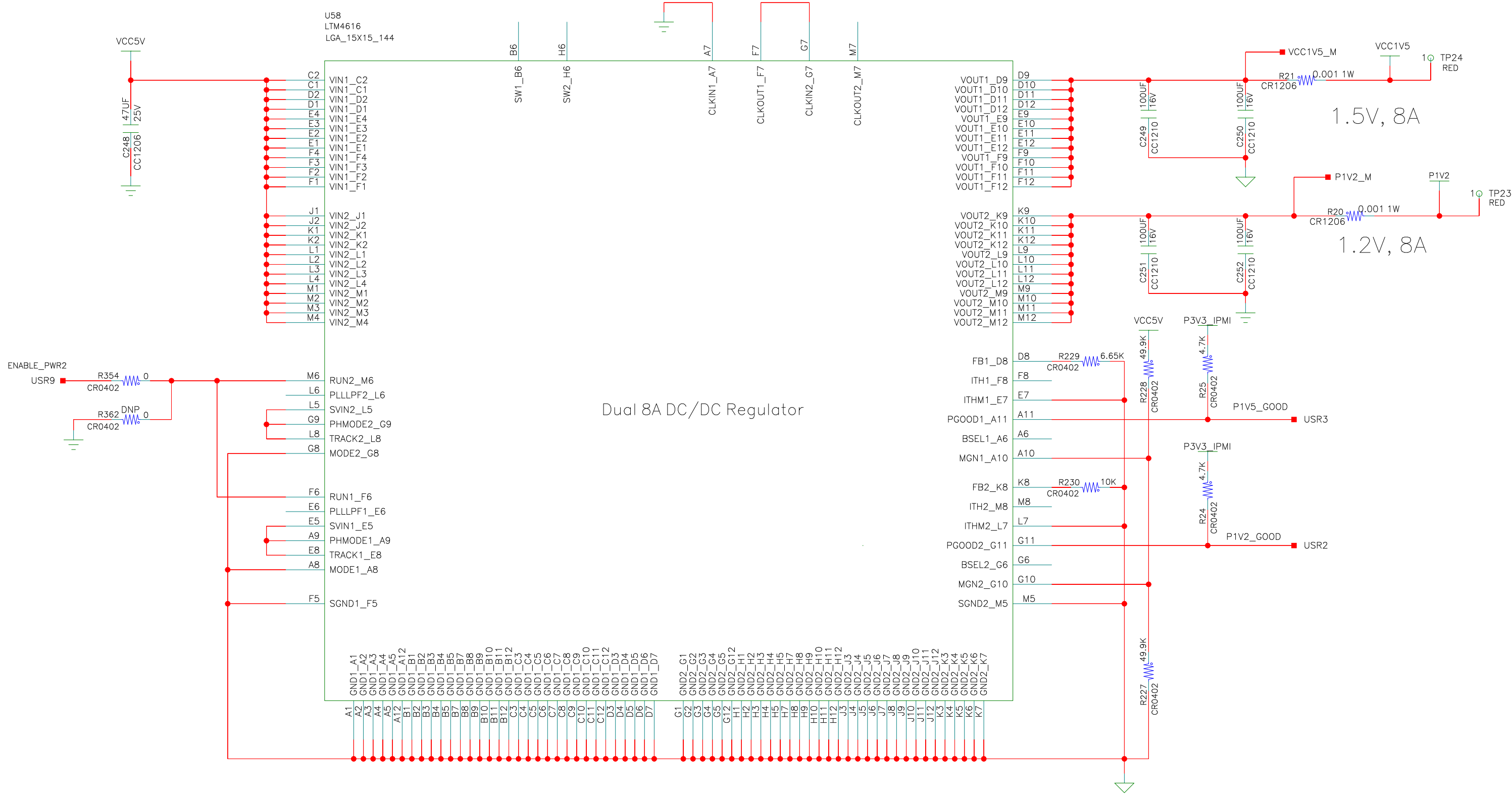


Dual 8A DC/DC Regulator

1V, 16A

1V0 GTX MGTAVCC

COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 19 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



Dual 8A DC/DC Regulator

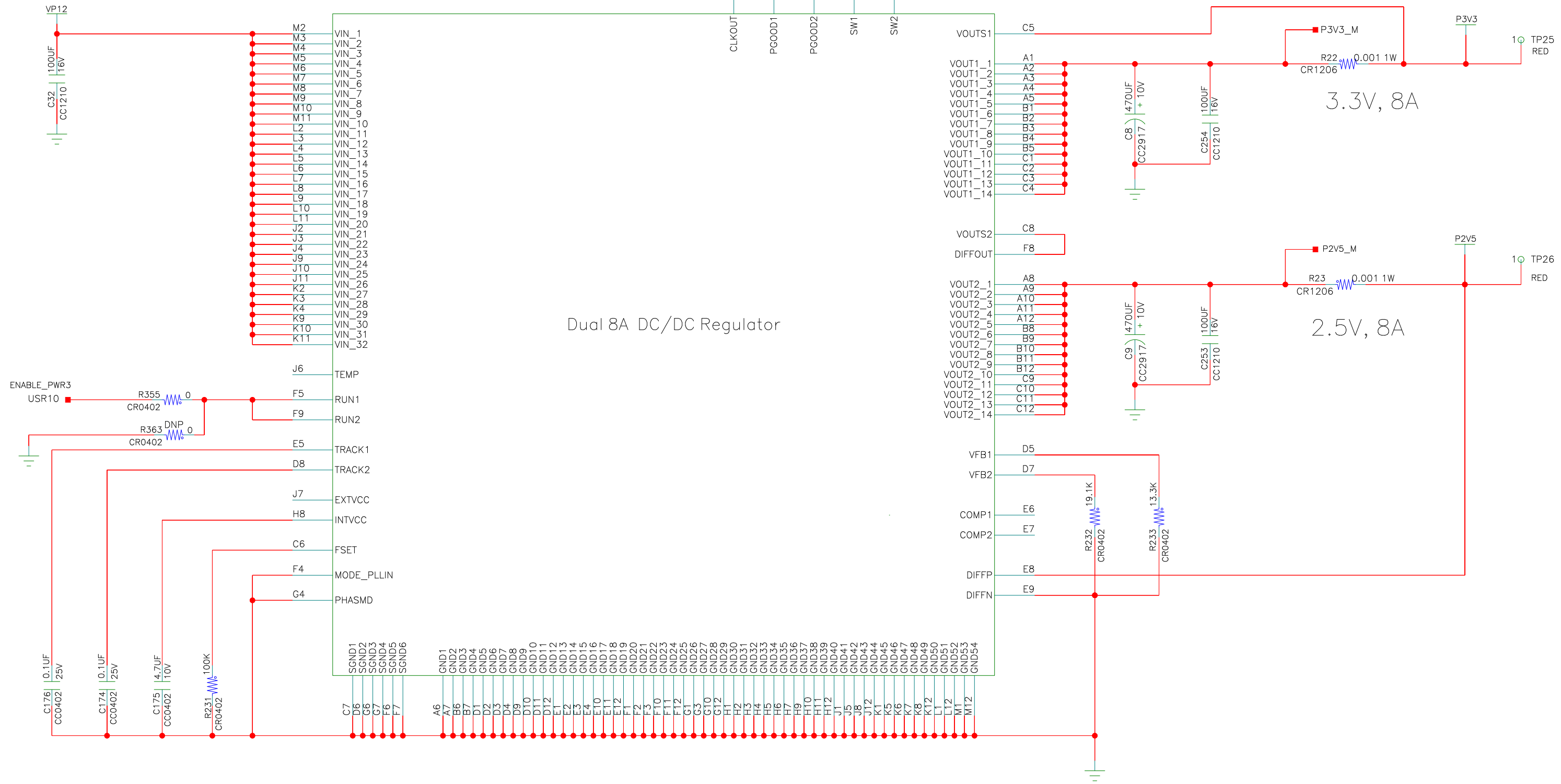
1V5 1V2 REGULATOR

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	20 OF 49

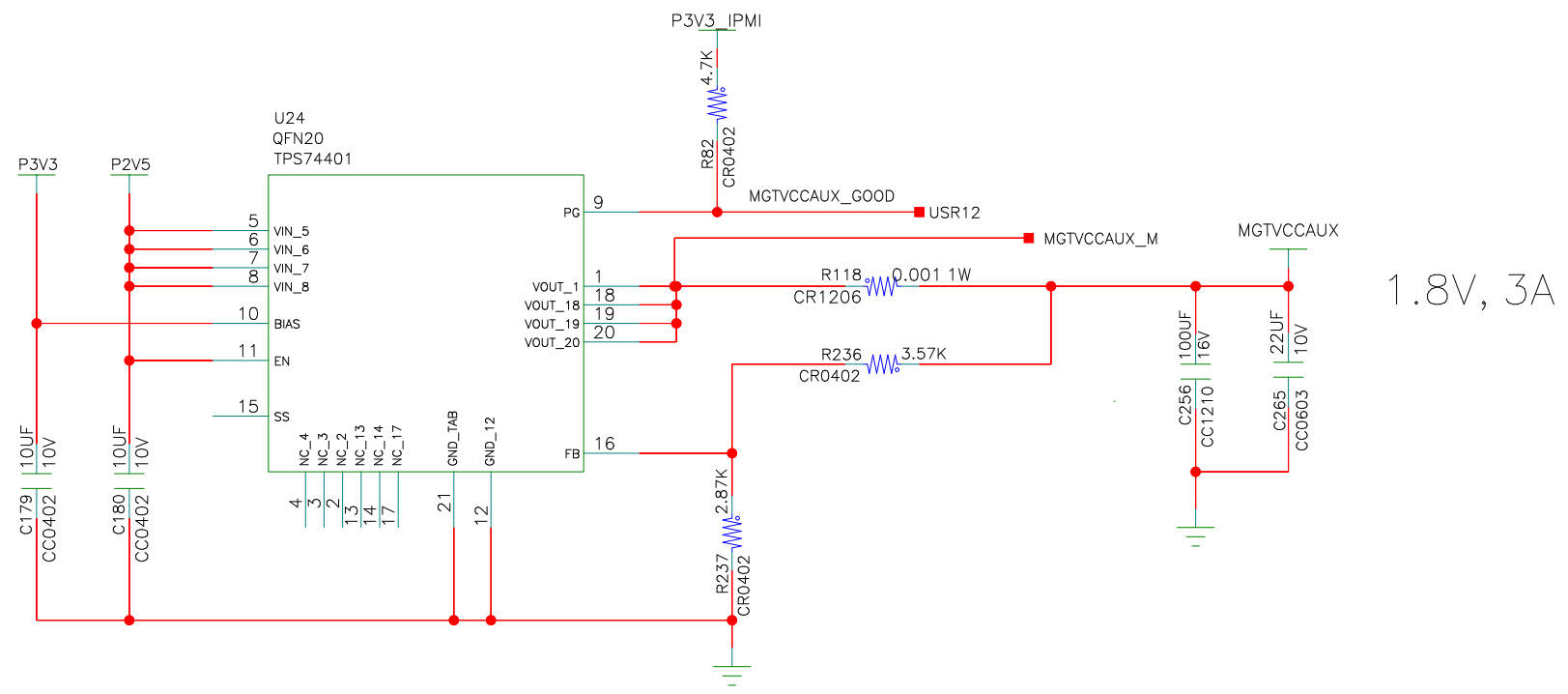
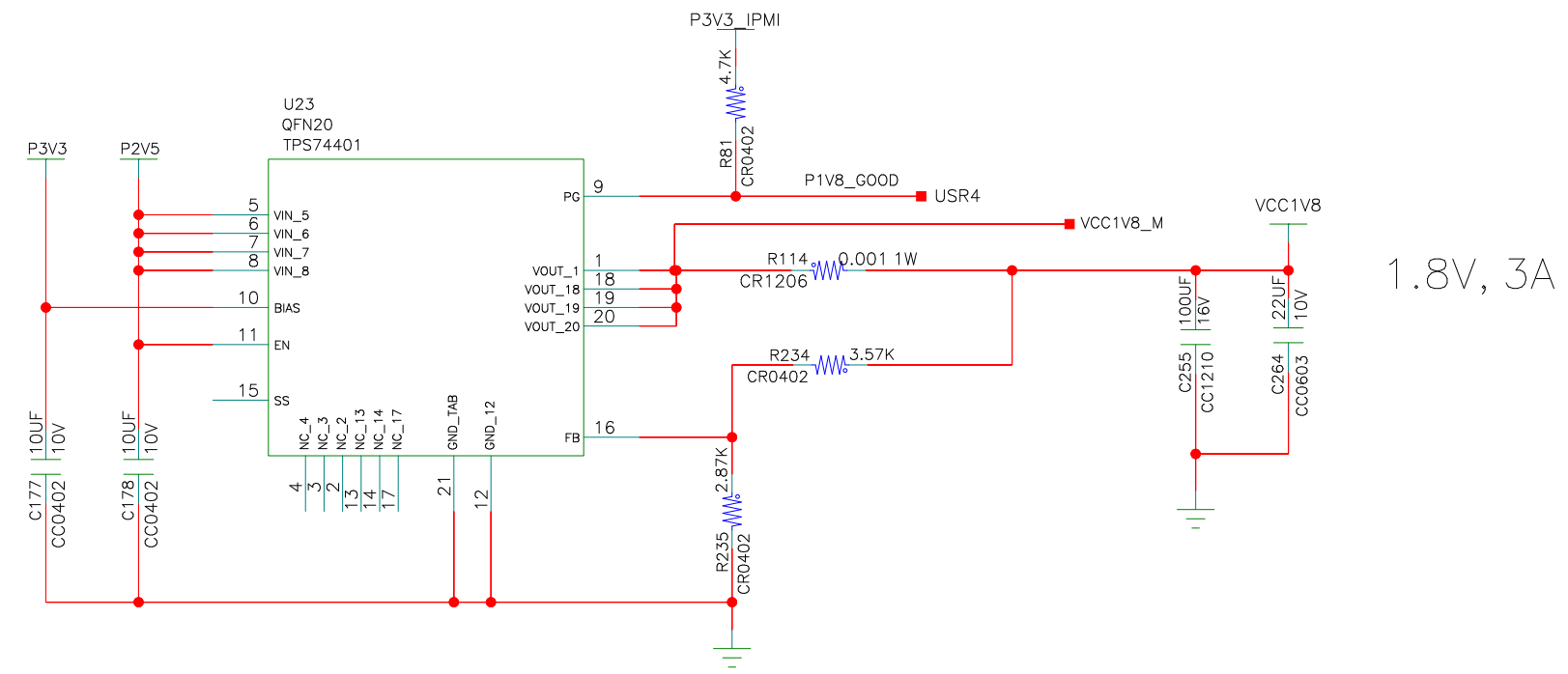
U33  
LTM4628  
LGA\_15x15\_144

Dual 8A DC/DC Regulator

3V3 2V5 REGULATOR

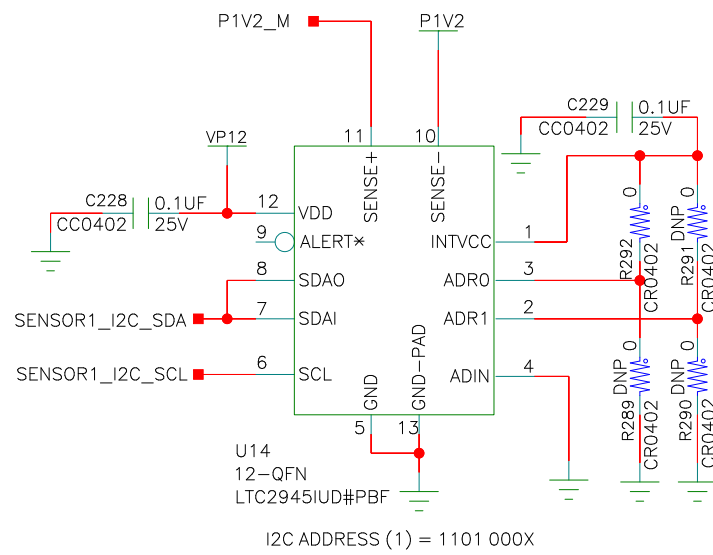


COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 21 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	

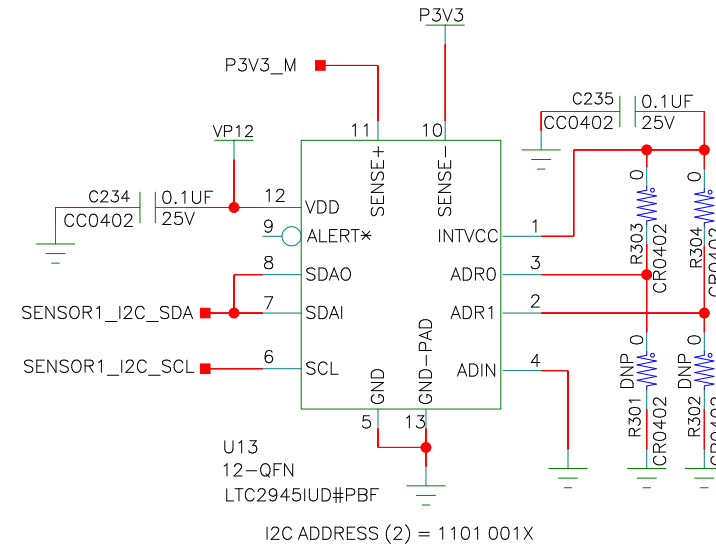


# LINEAR REGULATORS

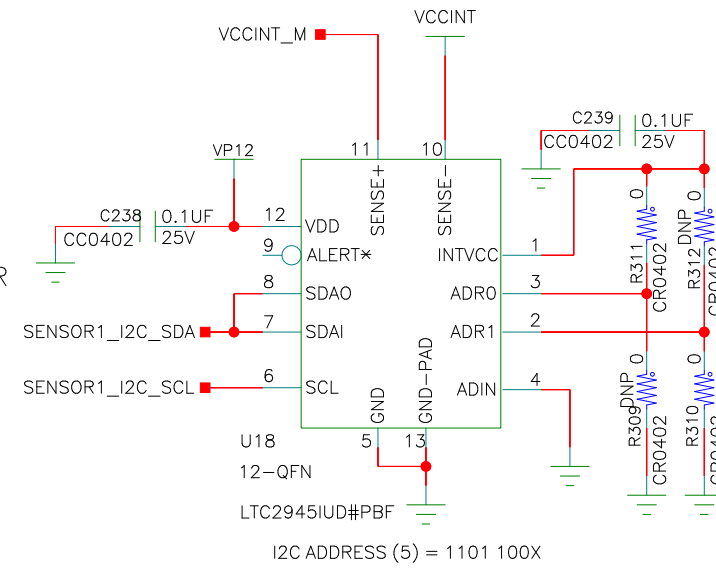
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	22 OF 49



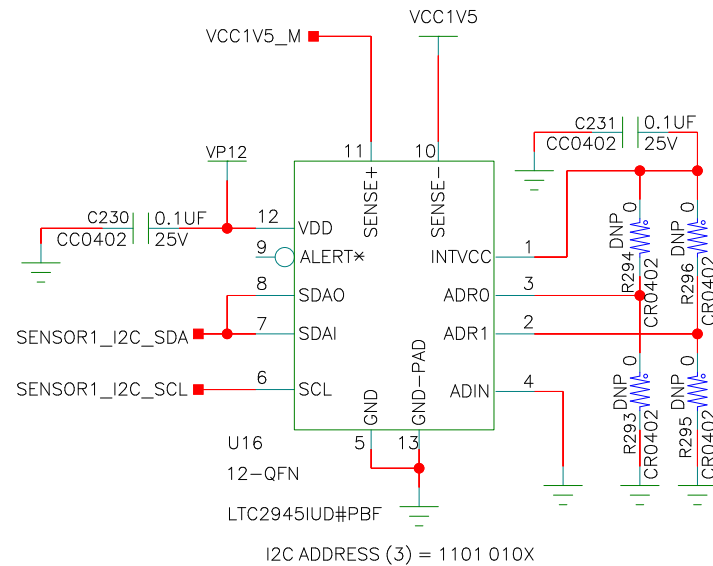
1.2V 8A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



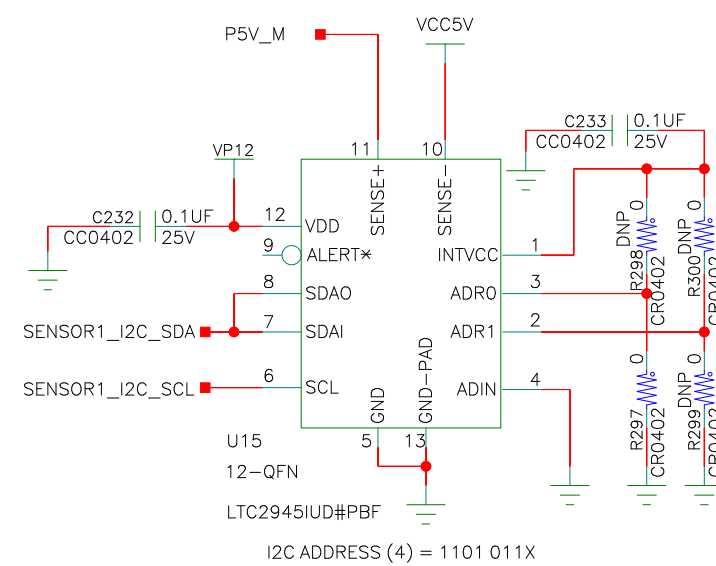
3.3V 8A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



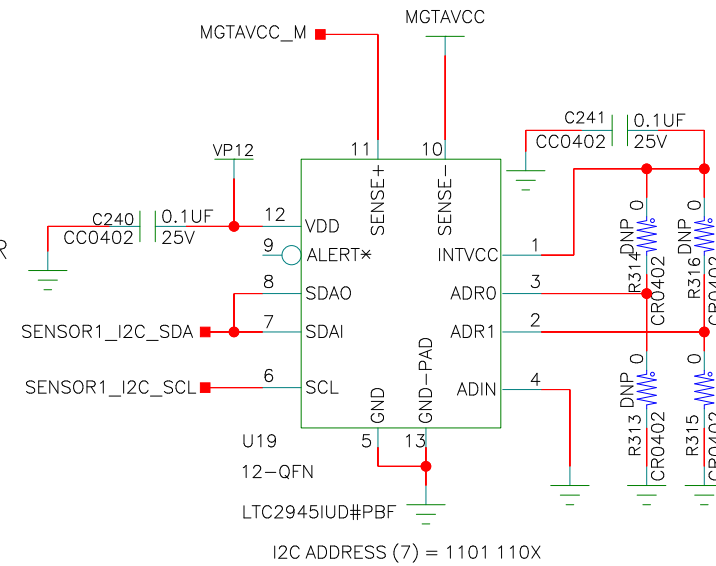
1.0V 16A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



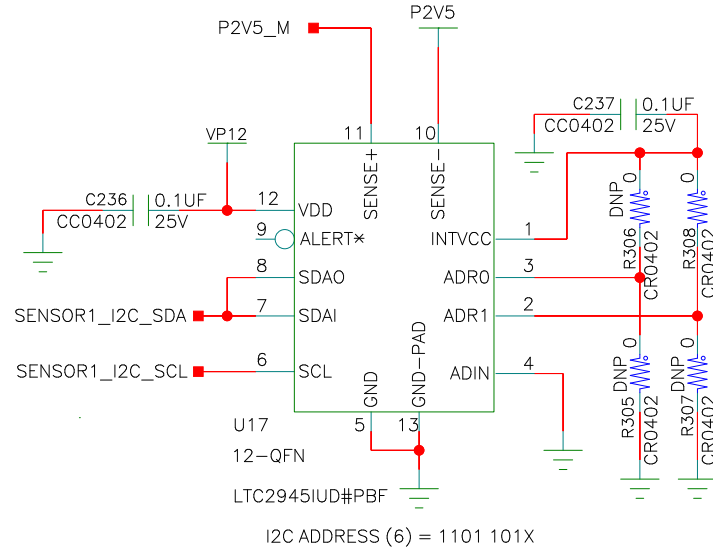
1.5V 8A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



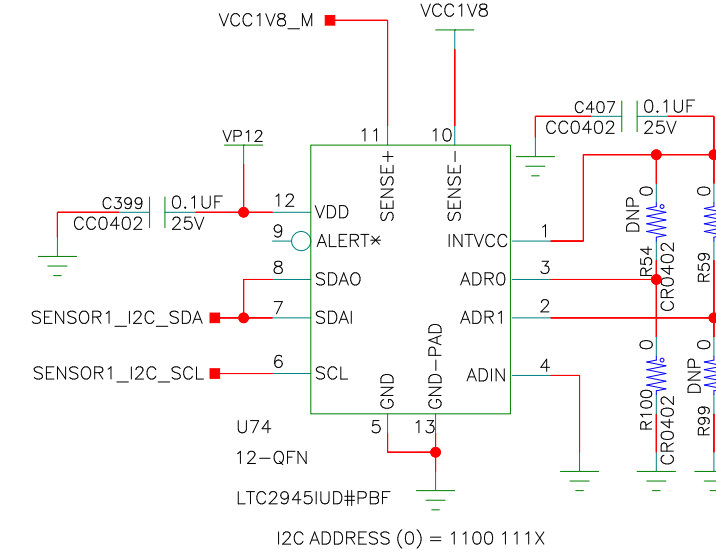
5.0V 16A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



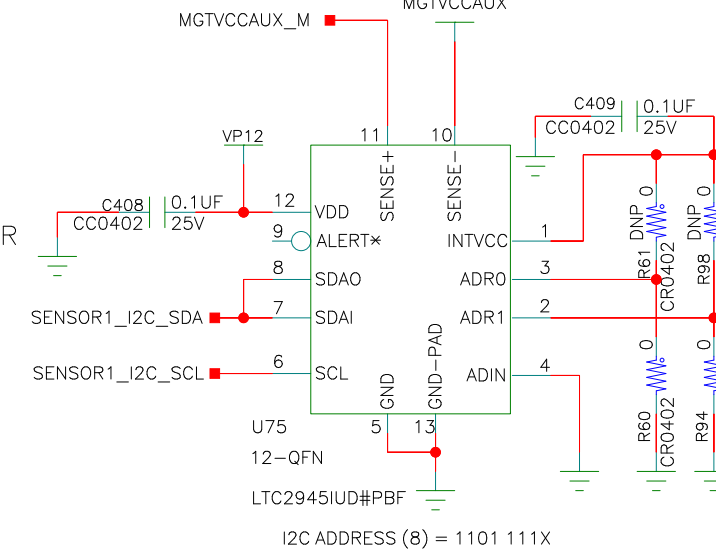
1.0V 16A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



2.5V 8A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



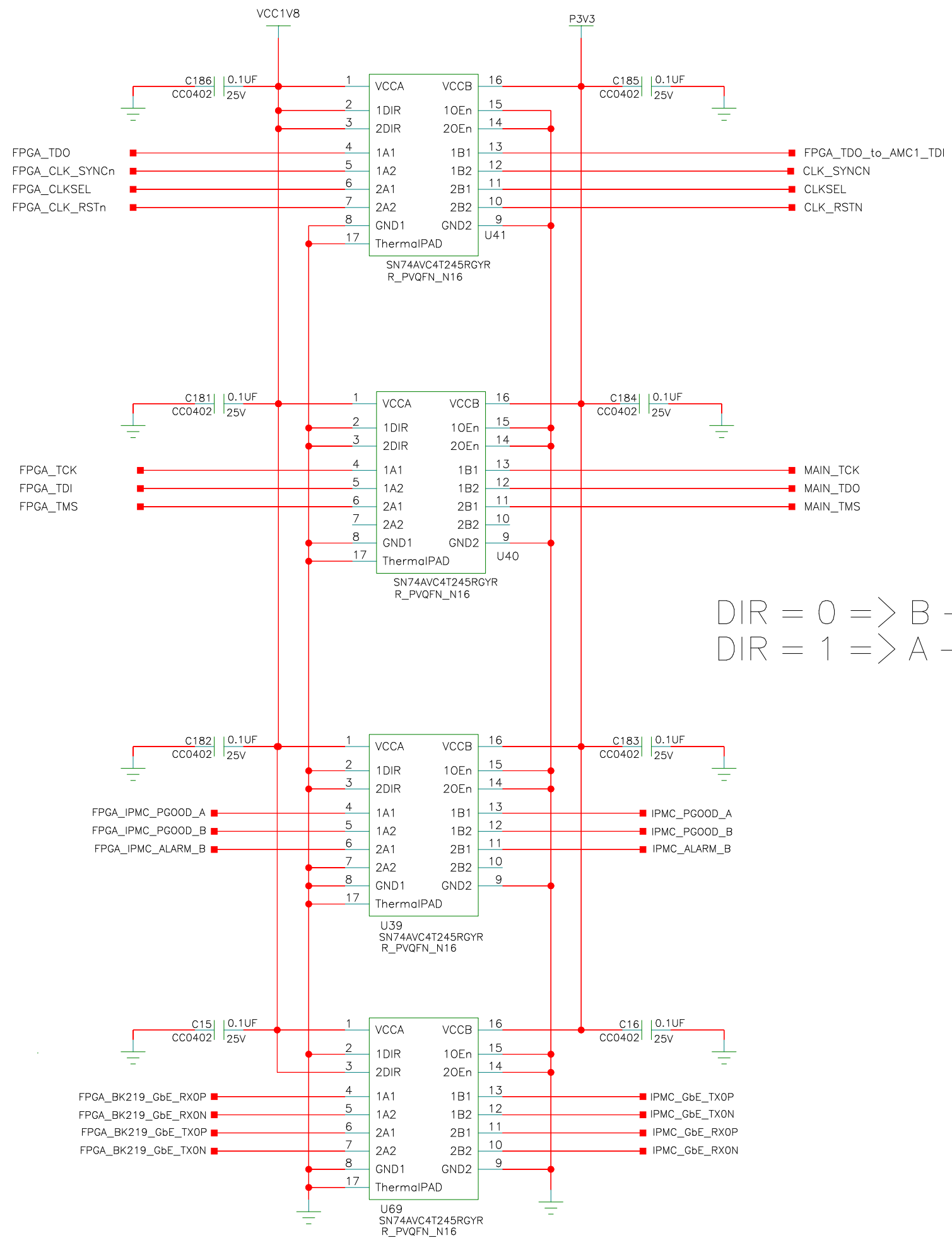
1.8V 3A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP



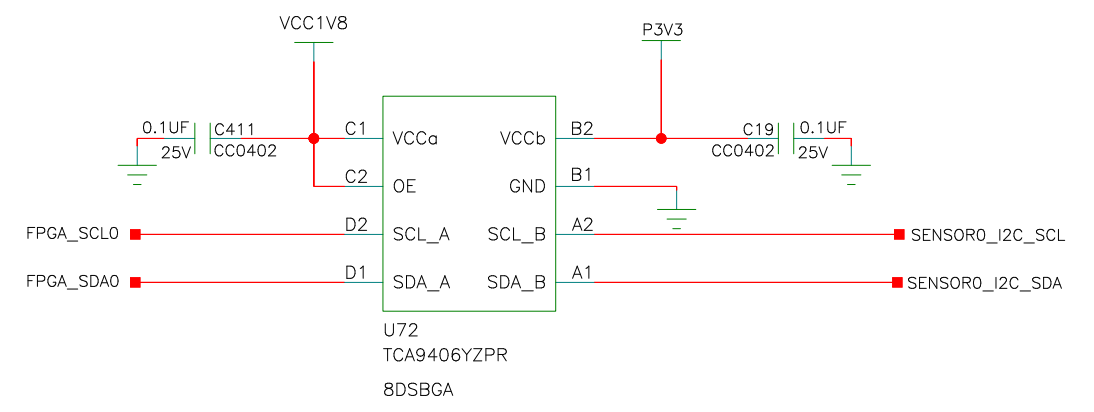
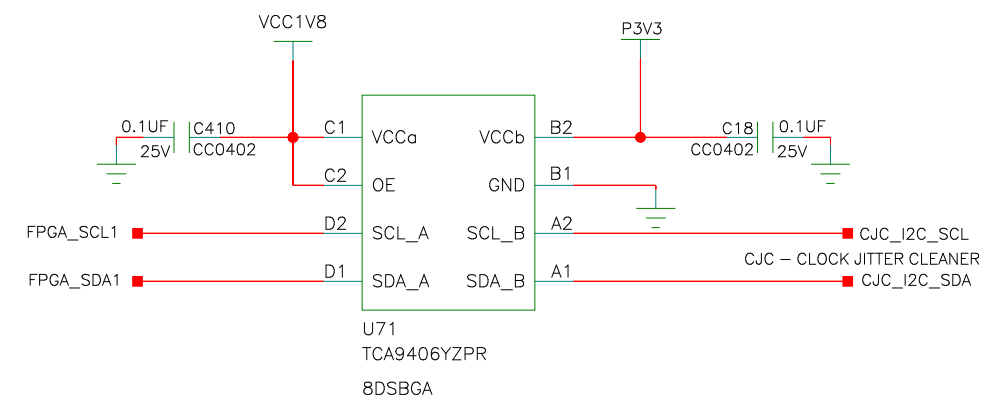
1.8V 3A  
CURRENT MONITOR  
102.4 MV MAX.  
102.4 AMPS MAX  
1 MV / AMP

# CURRENT MONITORS

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	23 OF 49



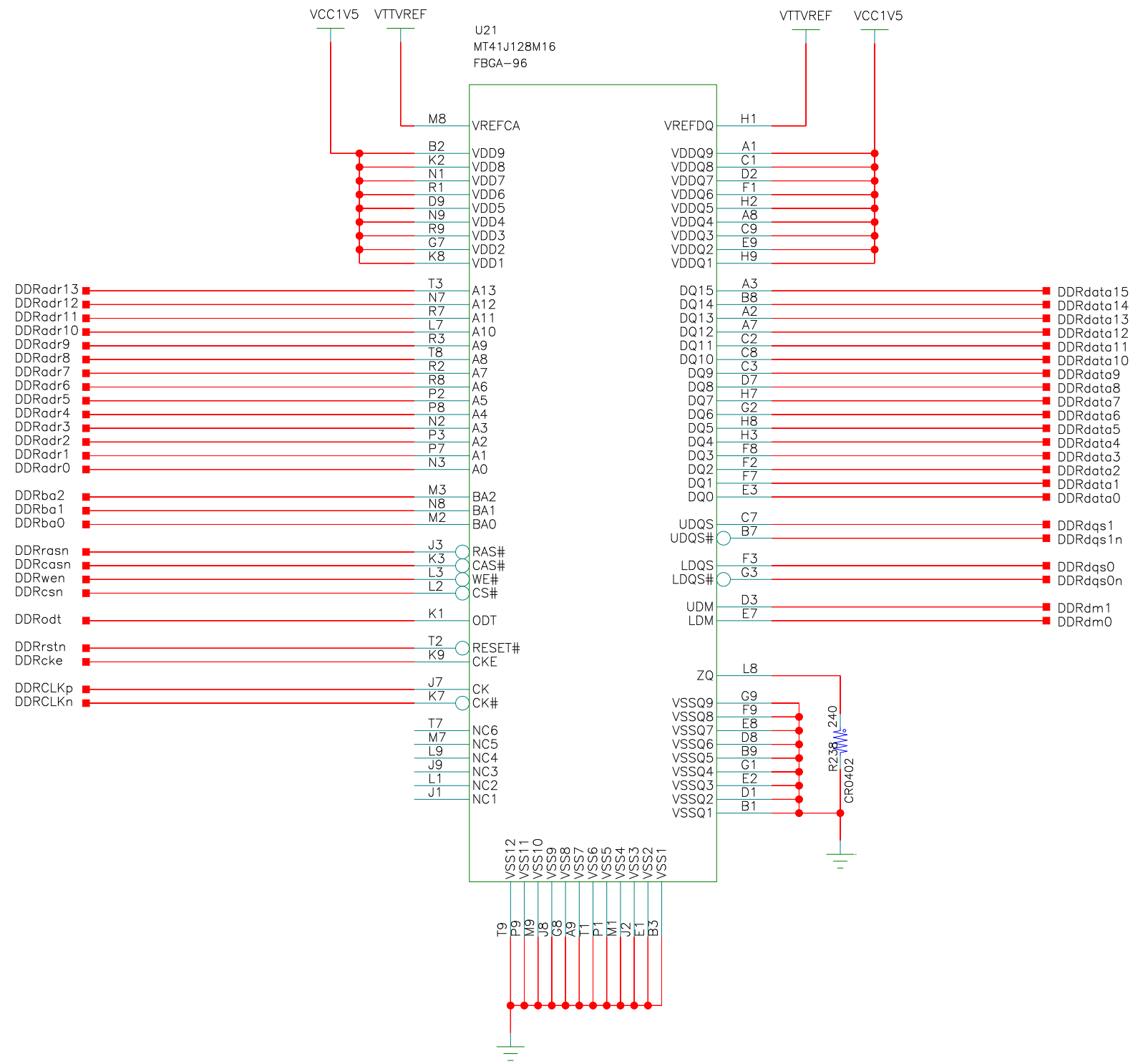
DIR = 0 => B -> A  
 DIR = 1 => A -> B



# LEVEL TRANSLATION

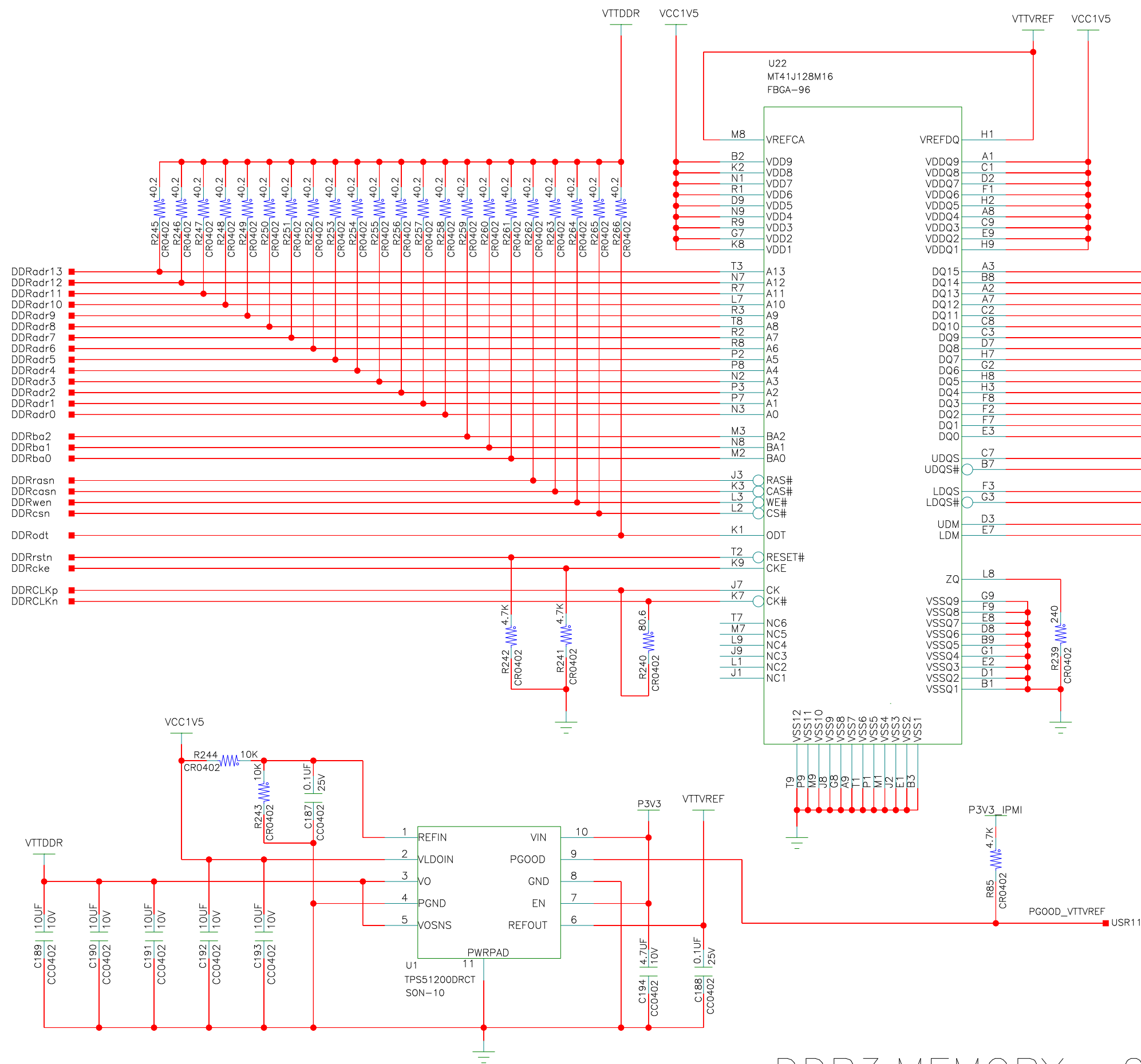
COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 24 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	





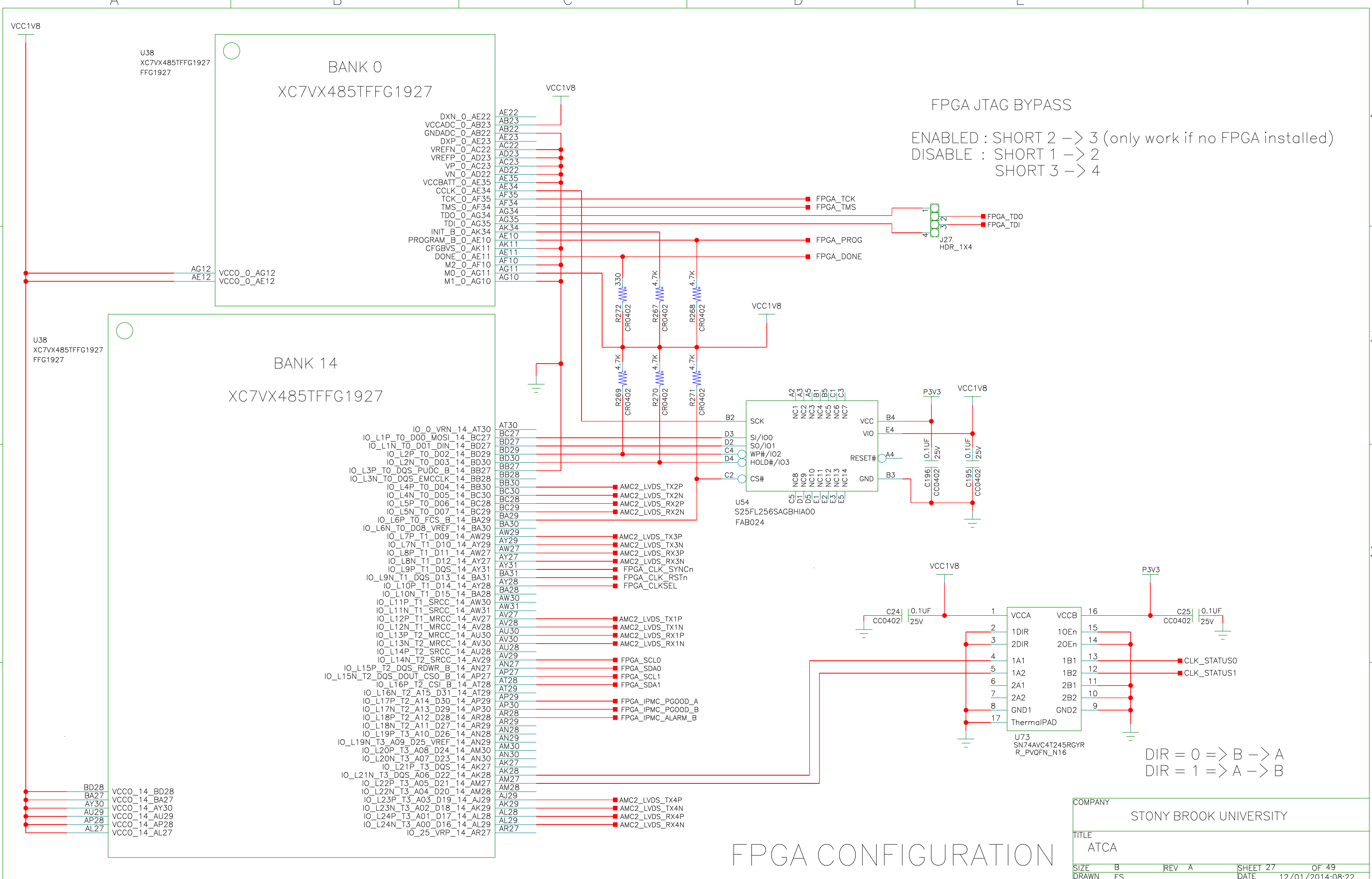
# DDR3 MEMORY - 1

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	25 OF 49



# DDR3 MEMORY - 2

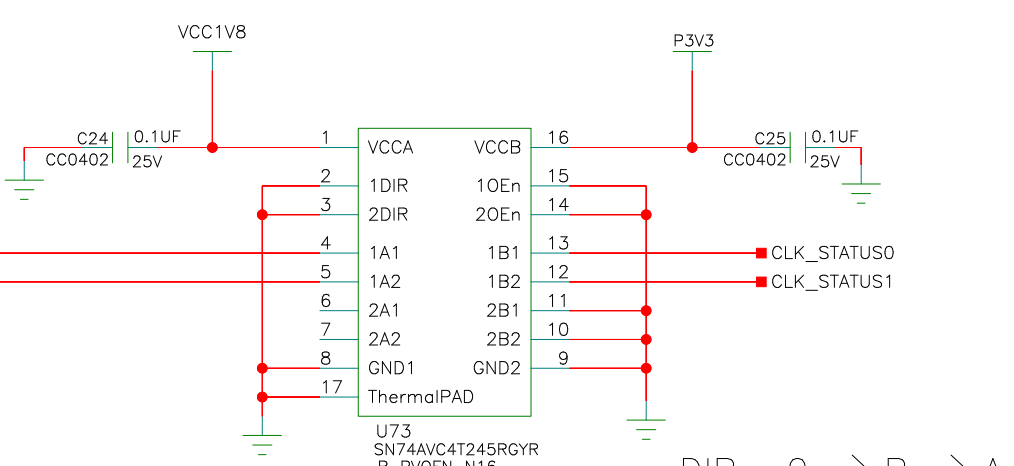
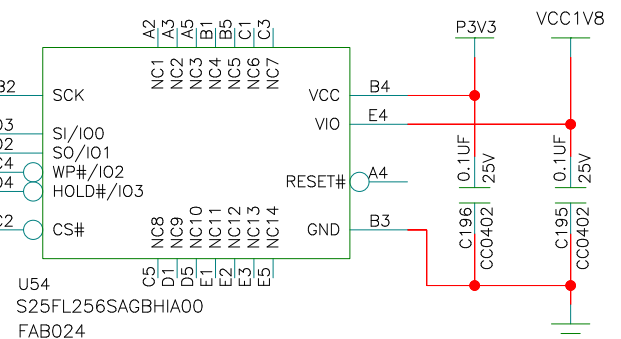
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	26 OF 49



- BANK 0**  
XC7VX485TFFG1927
- DXN\_0\_AE22
  - VCCADC\_0\_AB23
  - GNDADC\_0\_AB22
  - DXP\_0\_AE23
  - VREFN\_0\_AC22
  - VREFP\_0\_AD23
  - VP\_0\_AC23
  - VN\_0\_AD22
  - VCCBATT\_0\_AE35
  - CCLK\_0\_AE34
  - TCK\_0\_AF35
  - TMS\_0\_AF34
  - TDO\_0\_AG34
  - TDI\_0\_AG35
  - INIT\_B\_0\_AK34
  - PROGRAM\_B\_0\_AE10
  - CFGBVS\_0\_AK11
  - DONE\_0\_AE11
  - M2\_0\_AF10
  - M0\_0\_AG11
  - M1\_0\_AG10

- BANK 14**  
XC7VX485TFFG1927
- IO\_0\_VRN\_14\_AT30
  - IO\_L1P\_T0\_D00\_MOSI\_14\_BC27
  - IO\_L1N\_T0\_D01\_DIN\_14\_BD27
  - IO\_L2P\_T0\_D02\_14\_BD29
  - IO\_L2N\_T0\_D03\_14\_BD30
  - IO\_L3P\_T0\_DQS\_PUDC\_B\_14\_BB27
  - IO\_L3N\_T0\_DQS\_EMCCLK\_14\_BB28
  - IO\_L4P\_T0\_D04\_14\_BB30
  - IO\_L4N\_T0\_D05\_14\_BC30
  - IO\_L5P\_T0\_D06\_14\_BC28
  - IO\_L5N\_T0\_D07\_14\_BC29
  - IO\_L6P\_T0\_FCS\_B\_14\_BA29
  - IO\_L6N\_T0\_D08\_VREF\_14\_BA30
  - IO\_L7P\_T1\_D09\_14\_AW29
  - IO\_L7N\_T1\_D10\_14\_AY29
  - IO\_L8P\_T1\_D11\_14\_AW27
  - IO\_L8N\_T1\_D12\_14\_AY27
  - IO\_L9P\_T1\_DQS\_14\_AY31
  - IO\_L9N\_T1\_DQS\_D13\_14\_BA31
  - IO\_L10P\_T1\_D14\_14\_AY28
  - IO\_L10N\_T1\_D15\_14\_BA28
  - IO\_L11P\_T1\_SRCC\_14\_AW30
  - IO\_L11N\_T1\_SRCC\_14\_AW31
  - IO\_L12P\_T1\_MRCC\_14\_AV27
  - IO\_L12N\_T1\_MRCC\_14\_AV28
  - IO\_L13P\_T2\_MRCC\_14\_AU30
  - IO\_L13N\_T2\_MRCC\_14\_AV30
  - IO\_L14P\_T2\_SRCC\_14\_AU28
  - IO\_L14N\_T2\_SRCC\_14\_AV29
  - IO\_L15P\_T2\_DQS\_RDWR\_B\_14\_AN27
  - IO\_L15N\_T2\_DQS\_DOUT\_CSO\_B\_14\_AP27
  - IO\_L16P\_T2\_CSI\_B\_14\_AT28
  - IO\_L16N\_T2\_A15\_D31\_14\_AT29
  - IO\_L17P\_T2\_A14\_D30\_14\_AP29
  - IO\_L17N\_T2\_A13\_D29\_14\_AP30
  - IO\_L18P\_T2\_A12\_D28\_14\_AR28
  - IO\_L18N\_T2\_A11\_D27\_14\_AR29
  - IO\_L19P\_T3\_A10\_D26\_14\_AN28
  - IO\_L19N\_T3\_A09\_D25\_VREF\_14\_AN29
  - IO\_L20P\_T3\_A08\_D24\_14\_AM30
  - IO\_L20N\_T3\_A07\_D23\_14\_AN30
  - IO\_L21P\_T3\_DQS\_14\_AK27
  - IO\_L21N\_T3\_DQS\_A06\_D22\_14\_AK28
  - IO\_L22P\_T3\_A05\_D21\_14\_AM27
  - IO\_L22N\_T3\_A04\_D20\_14\_AM28
  - IO\_L23P\_T3\_A03\_D19\_14\_AJ29
  - IO\_L23N\_T3\_A02\_D18\_14\_AK29
  - IO\_L24P\_T3\_A01\_D17\_14\_AL28
  - IO\_L24N\_T3\_A00\_D16\_14\_AL29
  - IO\_25\_VRP\_14\_AR27

- AE22
- AB23
- AB22
- AE23
- AC22
- AD23
- AC23
- AD22
- AE35
- AE34
- AF35
- AF34
- AG34
- AG35
- AK34
- AE10
- AK11
- AE11
- AF10
- AG11
- AG10
- AT30
- BC27
- BD27
- BD29
- BD30
- BB27
- BB28
- BB30
- BC30
- BC28
- BC29
- BA29
- BA30
- AW29
- AY29
- AW27
- AY27
- AY31
- BA31
- AY28
- BA28
- AW30
- AW31
- AV27
- AV28
- AU30
- AV30
- AU28
- AV29
- AN27
- AP27
- AT28
- AT29
- AP29
- AP30
- AR28
- AR29
- AN28
- AN29
- AM30
- AN30
- AK27
- AK28
- AM27
- AM28
- AJ29
- AK29
- AL28
- AL29
- AR27

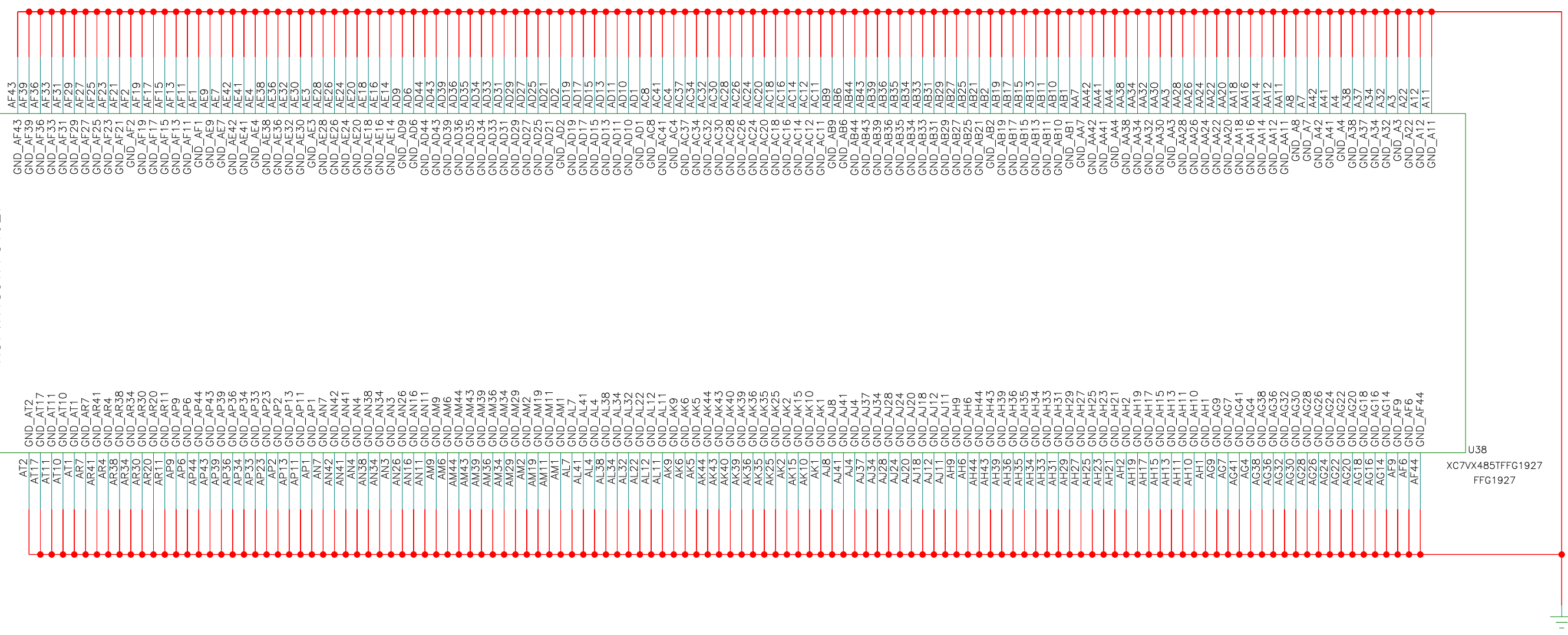


DIR = 0 => B → A  
 DIR = 1 => A → B

COMPANY			
STONY BROOK UNIVERSITY			
TITLE			
ATCA			
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET 27		OF 49	

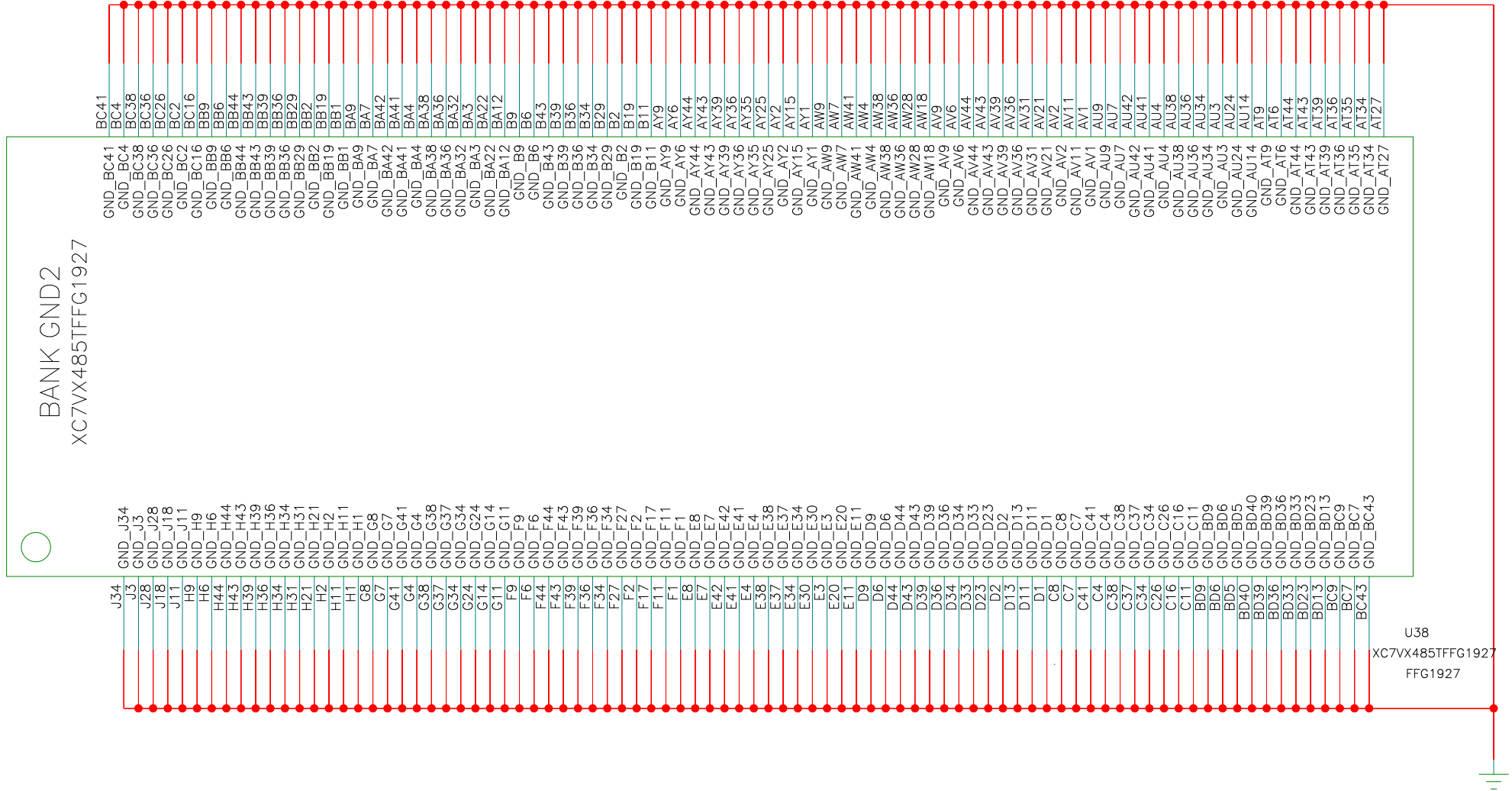
# FPGA CONFIGURATION

BANK GND1  
XC7VX485TFFG1927



# FPGA GND - 1

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	28 OF 49

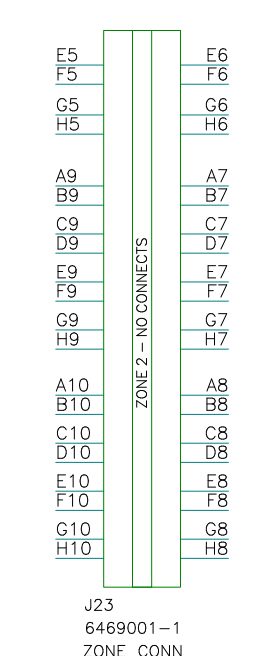
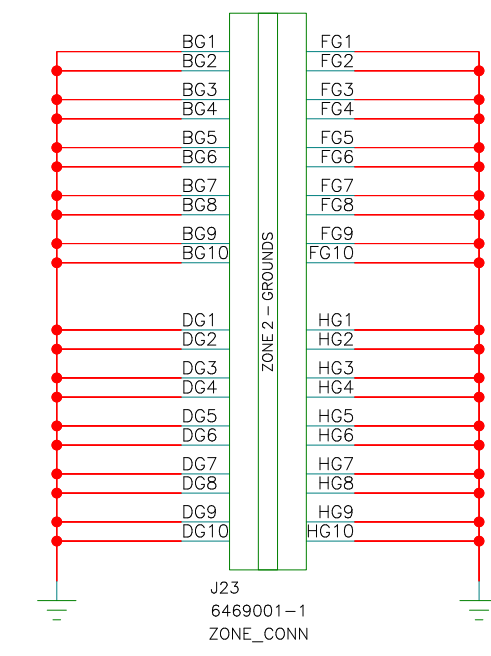
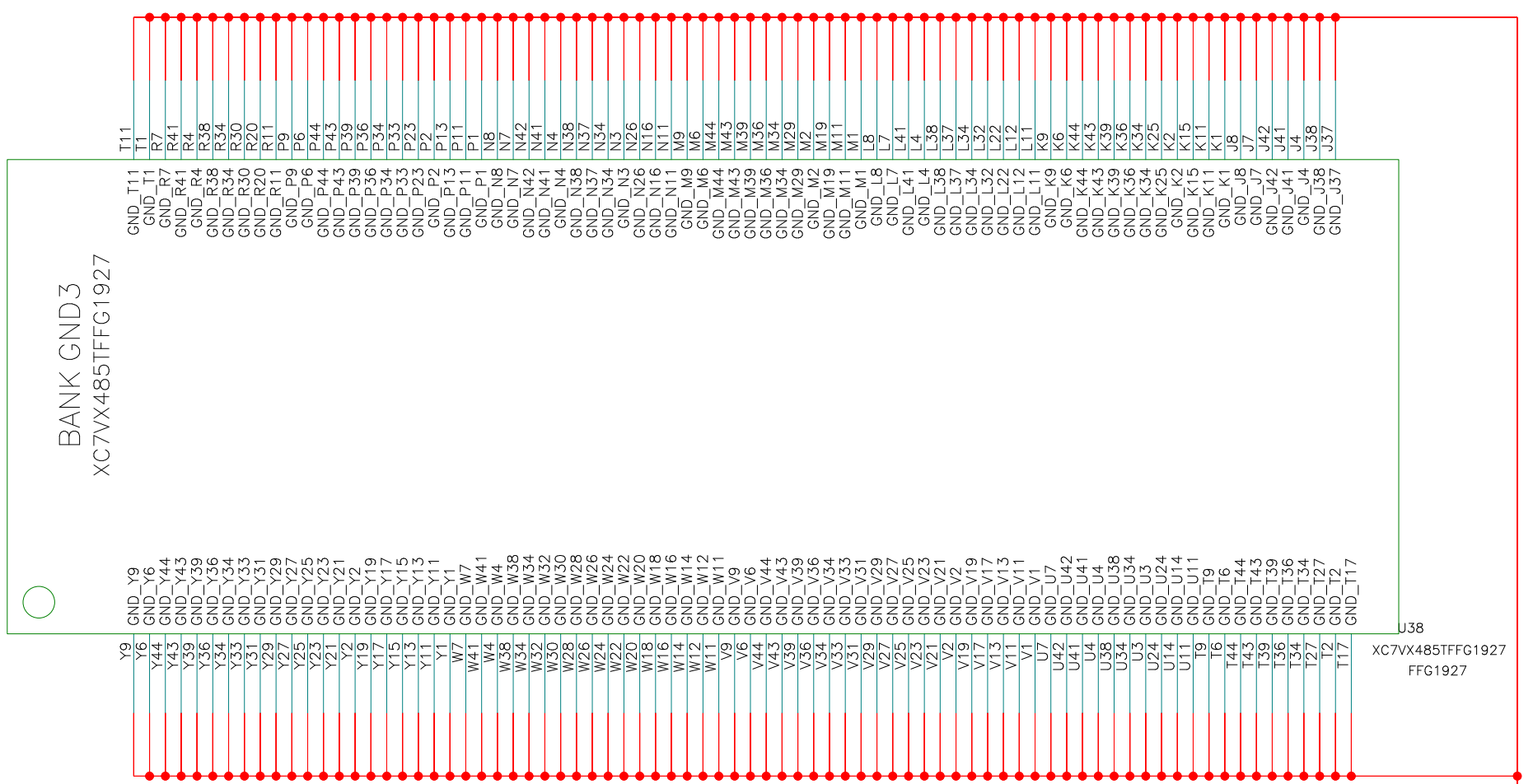


BANK GND2  
XC7VX485TFFG1927

J34 GND\_J34  
 J3 JND\_J3  
 J28 GND\_J28  
 J18 GND\_J18  
 J11 GND\_J11  
 H9 GND\_H9  
 H6 GND\_H6  
 H44 GND\_H44  
 H43 GND\_H43  
 H39 GND\_H39  
 H36 GND\_H36  
 H34 GND\_H34  
 H31 GND\_H31  
 H21 GND\_H21  
 H2 GND\_H2  
 H11 GND\_H11  
 H1 GND\_H1  
 G8 GND\_G8  
 G7 GND\_G7  
 G41 GND\_G41  
 G4 GND\_G4  
 G38 GND\_G38  
 G37 GND\_G37  
 G34 GND\_G34  
 G21 GND\_G21  
 G14 GND\_G14  
 G11 GND\_G11  
 F9 GND\_F9  
 F6 GND\_F6  
 F44 GND\_F44  
 F43 GND\_F43  
 F39 GND\_F39  
 F36 GND\_F36  
 F34 GND\_F34  
 F27 GND\_F27  
 F2 GND\_F2  
 F17 GND\_F17  
 F11 GND\_F11  
 F1 GND\_F1  
 E8 GND\_E8  
 E7 GND\_E7  
 E42 GND\_E42  
 E41 GND\_E41  
 E4 GND\_E4  
 E38 GND\_E38  
 E37 GND\_E37  
 E34 GND\_E34  
 E30 GND\_E30  
 E3 GND\_E3  
 E20 GND\_E20  
 E11 GND\_E11  
 D9 GND\_D9  
 D6 GND\_D6  
 D44 GND\_D44  
 D43 GND\_D43  
 D39 GND\_D39  
 D36 GND\_D36  
 D34 GND\_D34  
 D33 GND\_D33  
 D23 GND\_D23  
 D2 GND\_D2  
 D13 GND\_D13  
 D11 GND\_D11  
 D1 GND\_D1  
 C8 GND\_C8  
 C7 GND\_C7  
 C41 GND\_C41  
 C4 GND\_C4  
 C38 GND\_C38  
 C37 GND\_C37  
 C34 GND\_C34  
 C26 GND\_C26  
 C16 GND\_C16  
 C11 GND\_C11  
 BD9 GND\_BD9  
 BD6 GND\_BD6  
 BD5 GND\_BD5  
 BD40 GND\_BD40  
 BD39 GND\_BD39  
 BD36 GND\_BD36  
 BD33 GND\_BD33  
 BD23 GND\_BD23  
 BD13 GND\_BD13  
 BC9 GND\_BC9  
 BC7 GND\_BC7  
 BC43 GND\_BC43  
 BC41 GND\_BC41  
 BC4 GND\_BC4  
 BC38 GND\_BC38  
 BC36 GND\_BC36  
 BC26 GND\_BC26  
 BC2 GND\_BC2  
 BC16 GND\_BC16  
 BB9 GND\_BB9  
 BB6 GND\_BB6  
 BB44 GND\_BB44  
 BB43 GND\_BB43  
 BB39 GND\_BB39  
 BB36 GND\_BB36  
 BB29 GND\_BB29  
 BB2 GND\_BB2  
 BB19 GND\_BB19  
 BB1 GND\_BB1  
 BA9 GND\_BA9  
 BA7 GND\_BA7  
 BA42 GND\_BA42  
 BA41 GND\_BA41  
 BA4 GND\_BA4  
 BA38 GND\_BA38  
 BA36 GND\_BA36  
 BA32 GND\_BA32  
 BA3 GND\_BA3  
 BA22 GND\_BA22  
 BA12 GND\_BA12  
 B9 GND\_B9  
 B6 GND\_B6  
 B43 GND\_B43  
 B39 GND\_B39  
 B36 GND\_B36  
 B34 GND\_B34  
 B29 GND\_B29  
 B2 GND\_B2  
 B19 GND\_B19  
 B11 GND\_B11  
 B1 GND\_B1  
 AY6 GND\_AY6  
 AY44 GND\_AY44  
 AY43 GND\_AY43  
 AY39 GND\_AY39  
 AY36 GND\_AY36  
 AY35 GND\_AY35  
 AY25 GND\_AY25  
 AY2 GND\_AY2  
 AY15 GND\_AY15  
 AY1 GND\_AY1  
 AW9 GND\_AW9  
 AW7 GND\_AW7  
 AW41 GND\_AW41  
 AW4 GND\_AW4  
 AW38 GND\_AW38  
 AW36 GND\_AW36  
 AW28 GND\_AW28  
 AW18 GND\_AW18  
 AV9 GND\_AV9  
 AV6 GND\_AV6  
 AV44 GND\_AV44  
 AV43 GND\_AV43  
 AV39 GND\_AV39  
 AV36 GND\_AV36  
 AV31 GND\_AV31  
 AV21 GND\_AV21  
 AV2 GND\_AV2  
 AV11 GND\_AV11  
 AV1 GND\_AV1  
 AU9 GND\_AU9  
 AU7 GND\_AU7  
 AU42 GND\_AU42  
 AU41 GND\_AU41  
 AU4 GND\_AU4  
 AU38 GND\_AU38  
 AU36 GND\_AU36  
 AU34 GND\_AU34  
 AU3 GND\_AU3  
 AU24 GND\_AU24  
 AU14 GND\_AU14  
 AT9 GND\_AT9  
 AT6 GND\_AT6  
 AT44 GND\_AT44  
 AT43 GND\_AT43  
 AT39 GND\_AT39  
 AT36 GND\_AT36  
 AT35 GND\_AT35  
 AT34 GND\_AT34  
 AT27 GND\_AT27

# FPGA GND - 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	29	OF	49

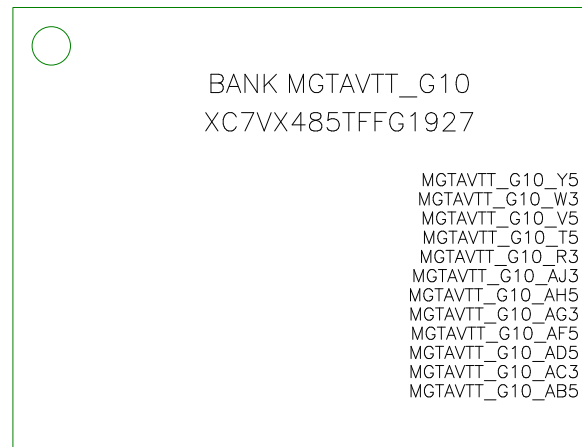


# FPGA, ZONE 2 GNDS & NC'S - 3

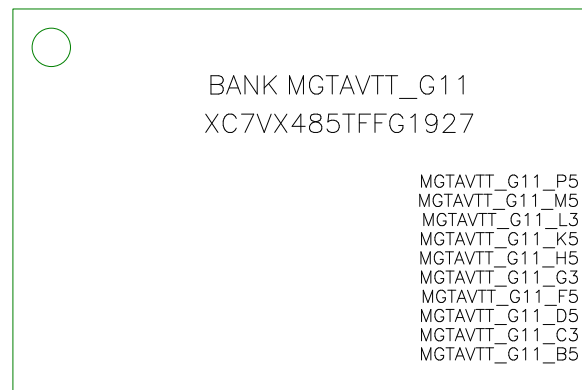
COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	30 OF 49



U38  
XC7VX485TFFG1927  
FFG1927

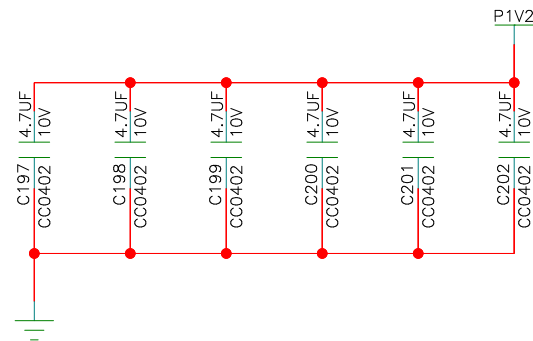


U38  
XC7VX485TFFG1927  
FFG1927



U38  
FFG1927  
XC7VX485TFFG1927

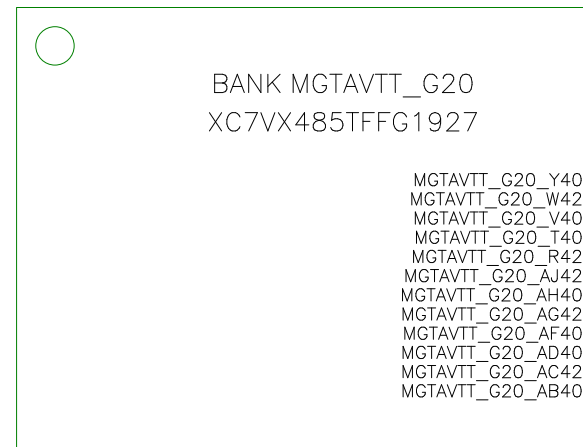
P1V2



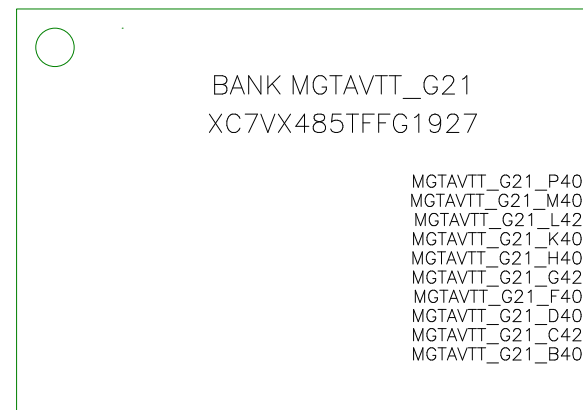
P1V2



U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927

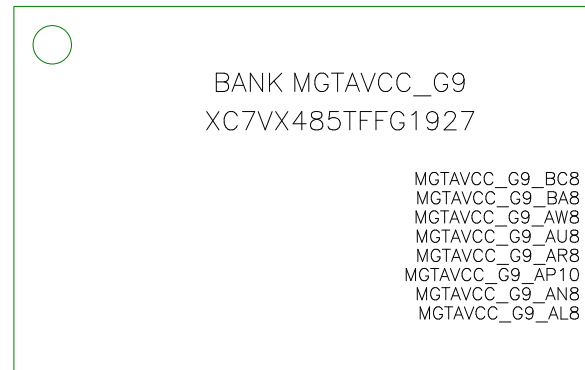


U38  
XC7VX485TFFG1927  
FFG1927

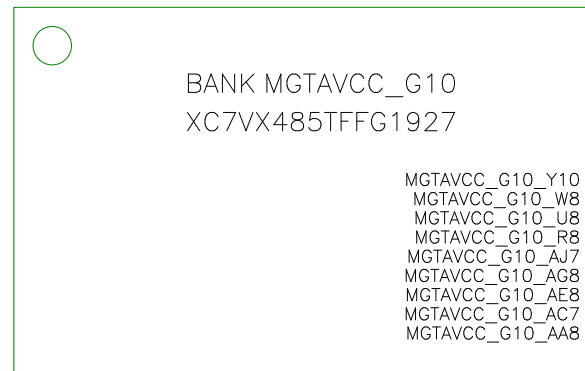
P1V2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	31	OF	49

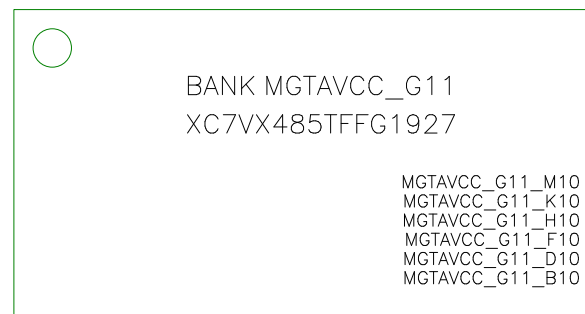
# FPGA PWR MGTAVTT



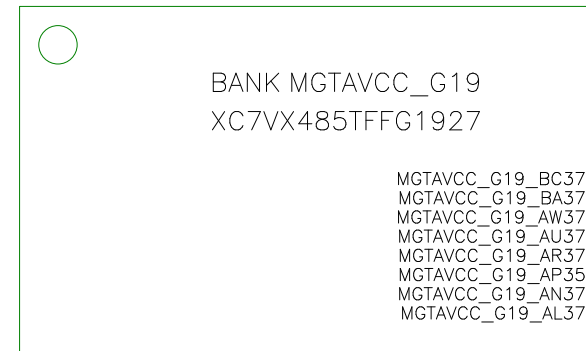
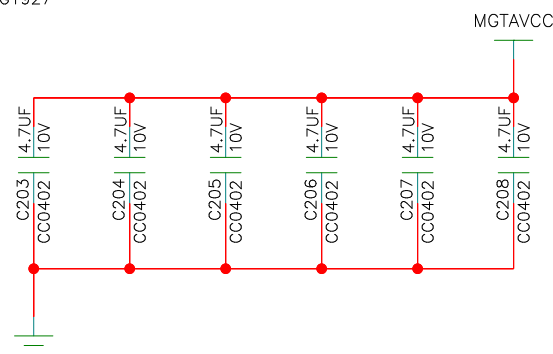
U38  
XC7VX485TFFG1927  
FFG1927



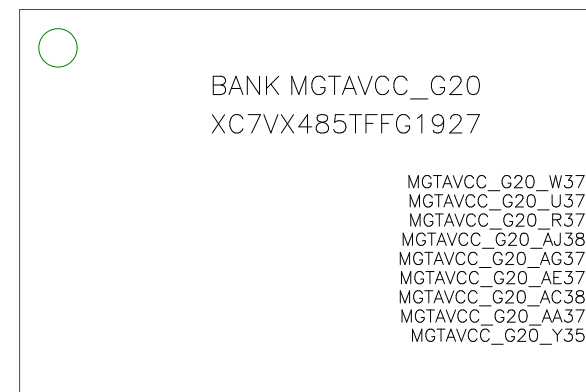
U38  
FFG1927  
XC7VX485TFFG1927



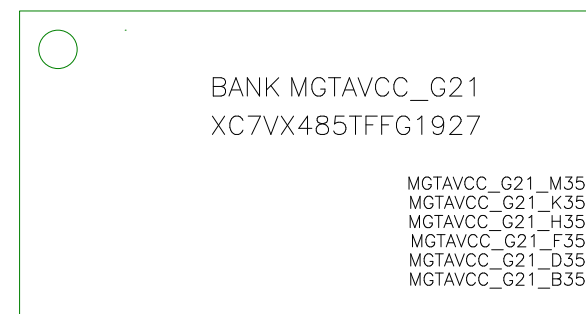
U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927

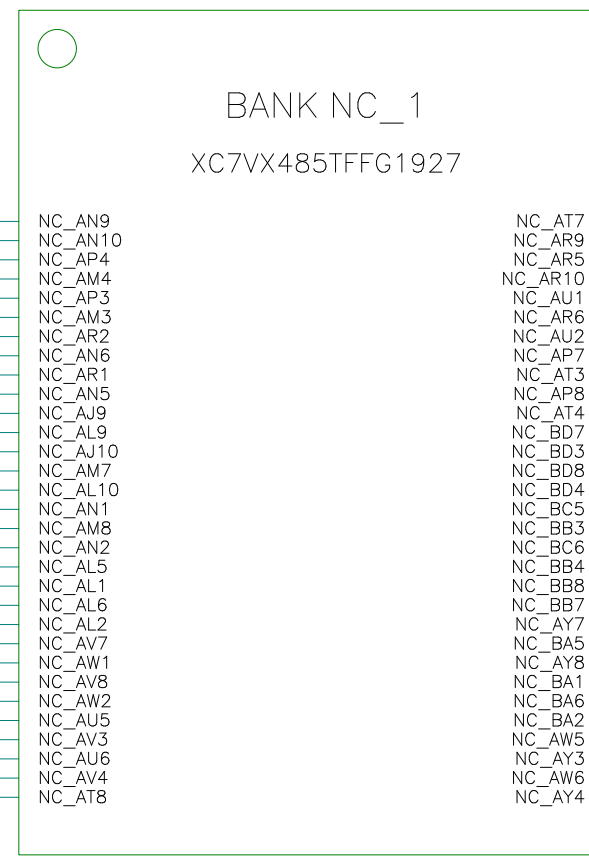


U38  
XC7VX485TFFG1927  
FFG1927

# FPGA PWR MGTAVCC

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	32	OF	49





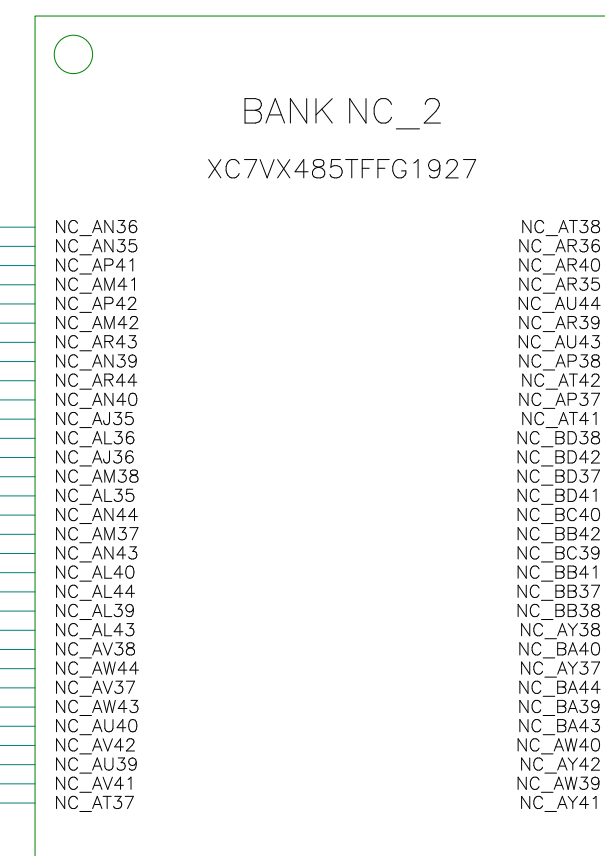
AN9  
AN10  
AP4  
AM4  
AP3  
AM3  
AR2  
AN6  
AR1  
AN5  
AJ9  
AL9  
AJ10  
AM7  
AL10  
AN1  
AM8  
AN2  
AL5  
AL1  
AL6  
AL2  
AV7  
AW1  
AV8  
AW2  
AU5  
AV3  
AU6  
AV4  
AT8

NC\_AN9  
NC\_AN10  
NC\_AP4  
NC\_AM4  
NC\_AP3  
NC\_AM3  
NC\_AR2  
NC\_AN6  
NC\_AR1  
NC\_AR5  
NC\_AJ9  
NC\_AL9  
NC\_AJ10  
NC\_AM7  
NC\_AL10  
NC\_AN1  
NC\_AM8  
NC\_AN2  
NC\_AL5  
NC\_AL1  
NC\_AL6  
NC\_AL2  
NC\_AV7  
NC\_AW1  
NC\_AV8  
NC\_AW2  
NC\_AU5  
NC\_AV3  
NC\_AU6  
NC\_AV4  
NC\_AT8

NC\_AT7  
NC\_AR9  
NC\_AR5  
NC\_AR10  
NC\_AU1  
NC\_AR6  
NC\_AU2  
NC\_AP7  
NC\_AT3  
NC\_AP8  
NC\_AT4  
NC\_BD7  
NC\_BD3  
NC\_BD8  
NC\_BD4  
NC\_BC5  
NC\_BB3  
NC\_BC6  
NC\_BB4  
NC\_BB8  
NC\_BB7  
NC\_AY7  
NC\_BA5  
NC\_AY8  
NC\_BA1  
NC\_BA6  
NC\_BA2  
NC\_AW5  
NC\_AY3  
NC\_AW6  
NC\_AY4

AT7  
AR9  
AR5  
AR10  
AU1  
AR6  
AU2  
AP7  
AT3  
AP8  
AT4  
BD7  
BD3  
BD8  
BD4  
BC5  
BB3  
BC6  
BB4  
BB8  
BB7  
AY7  
BA5  
AY8  
BA1  
BA6  
BA2  
AW5  
AY3  
AW6  
AY4

U38  
XC7VX485TFFG1927  
FFG1927



AN36  
AN35  
AP41  
AM41  
AP42  
AM42  
AR43  
AN39  
AR44  
AN40  
AJ35  
AL36  
AJ36  
AM38  
AL35  
AN44  
AM37  
AN43  
AL40  
AL44  
AL39  
AL43  
AV38  
AW44  
AV37  
AW43  
AU40  
AV42  
AU39  
AV41  
AT37

NC\_AN36  
NC\_AN35  
NC\_AP41  
NC\_AM41  
NC\_AP42  
NC\_AM42  
NC\_AR43  
NC\_AR44  
NC\_AN40  
NC\_AJ35  
NC\_AL36  
NC\_AJ36  
NC\_AM38  
NC\_AL35  
NC\_AN44  
NC\_AM37  
NC\_AN43  
NC\_AL40  
NC\_AL44  
NC\_AL39  
NC\_AL43  
NC\_AV38  
NC\_AW44  
NC\_AV37  
NC\_AW43  
NC\_AU40  
NC\_AV42  
NC\_AU39  
NC\_AV41  
NC\_AT37

NC\_AT38  
NC\_AR36  
NC\_AR40  
NC\_AR35  
NC\_AU44  
NC\_AR39  
NC\_AU43  
NC\_AP38  
NC\_AT42  
NC\_AP37  
NC\_AT41  
NC\_BD38  
NC\_BD42  
NC\_BD37  
NC\_BD37  
NC\_BD41  
NC\_BC40  
NC\_BB42  
NC\_BC39  
NC\_BB41  
NC\_BB37  
NC\_BB38  
NC\_BB38  
NC\_AY38  
NC\_BA40  
NC\_AY37  
NC\_BA44  
NC\_BA39  
NC\_BA43  
NC\_AW40  
NC\_AY42  
NC\_AW39  
NC\_AY41

AT38  
AR36  
AR40  
AR35  
AU44  
AR39  
AU43  
AP38  
AT42  
AP37  
AT41  
BD38  
BD42  
BD37  
BD41  
BC40  
BB42  
BC39  
BB41  
BB37  
BB38  
AY38  
BA40  
AY37  
BA44  
BA39  
BA43  
AW40  
AY42  
AW39  
AY41

U38  
XC7VX485TFFG1927  
FFG1927

# FPGA NC

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	33	OF	49



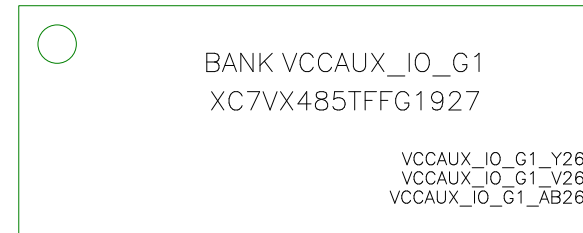
U38  
FFG1927  
XC7VX485TFFG1927



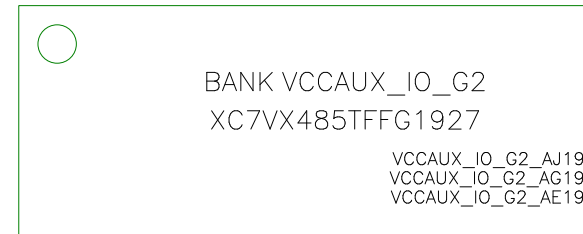
U38  
XC7VX485TFFG1927  
FFG1927



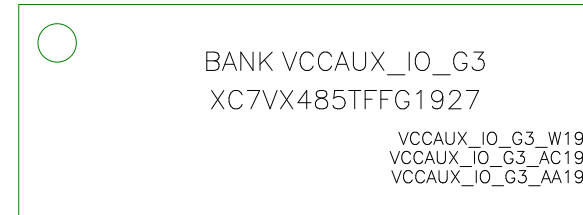
U38  
FFG1927  
XC7VX485TFFG1927



U38  
XC7VX485TFFG1927  
FFG1927



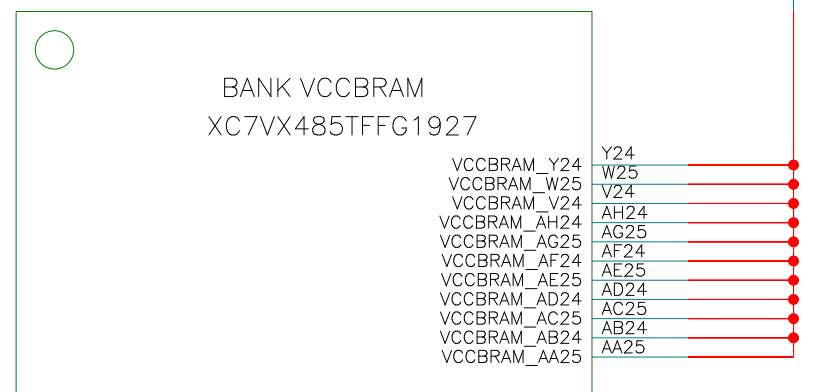
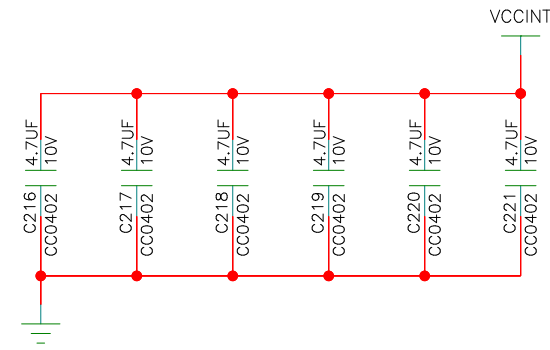
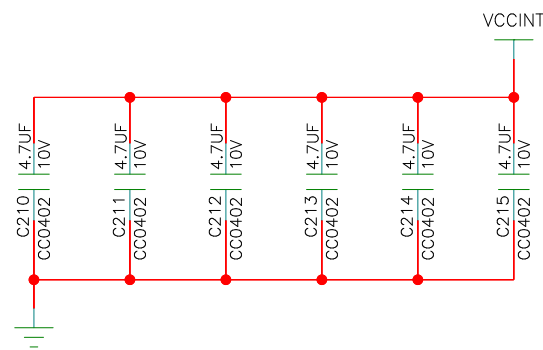
U38  
XC7VX485TFFG1927  
FFG1927



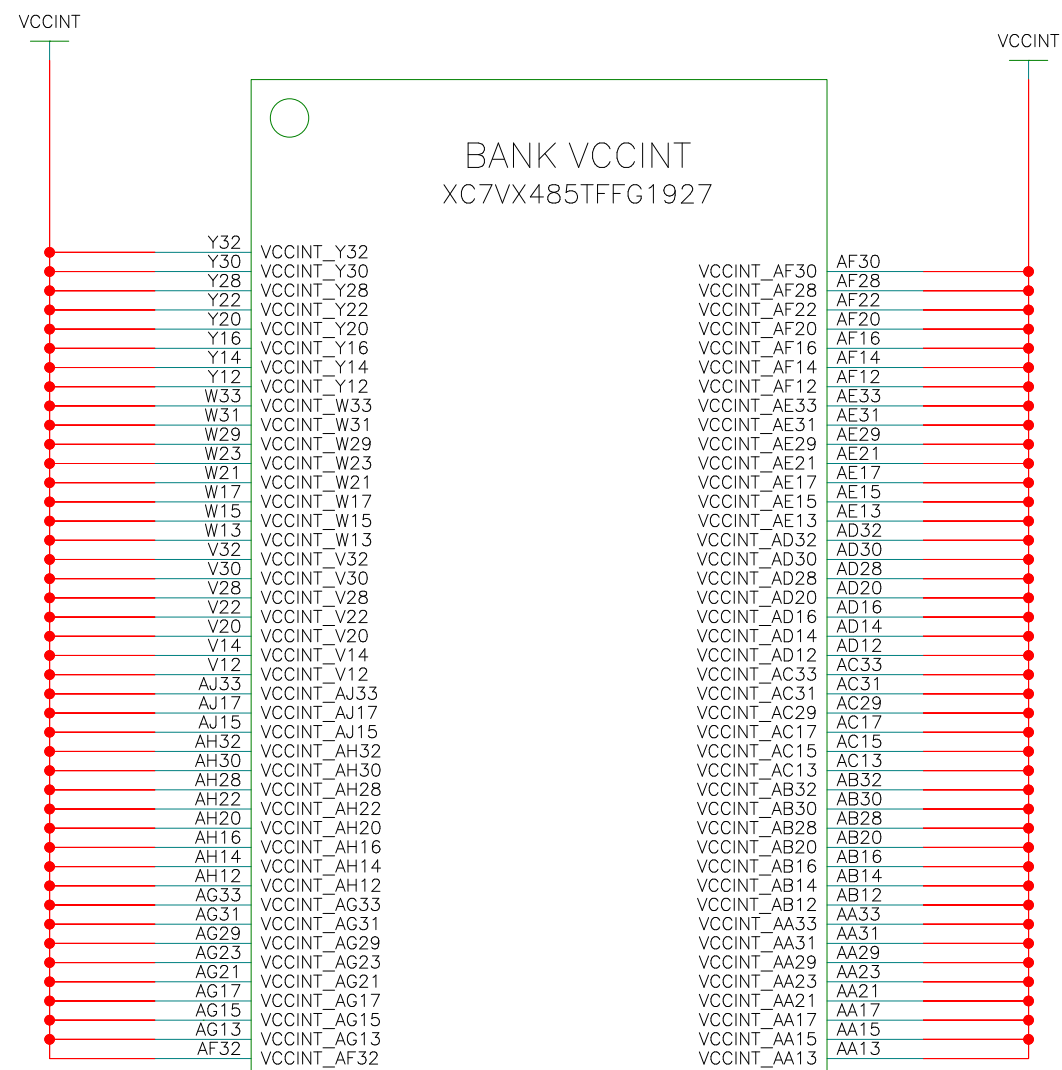
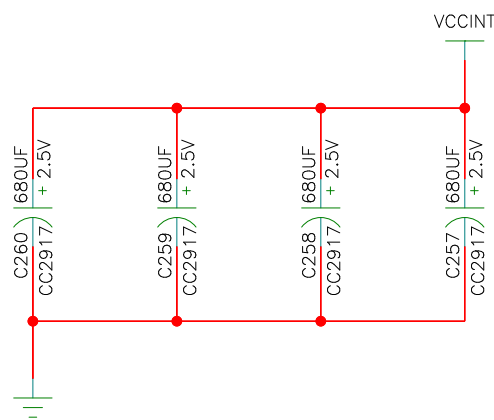
U38  
XC7VX485TFFG1927  
FFG1927

# FPGA PWR VCCAUX

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	34 OF 49



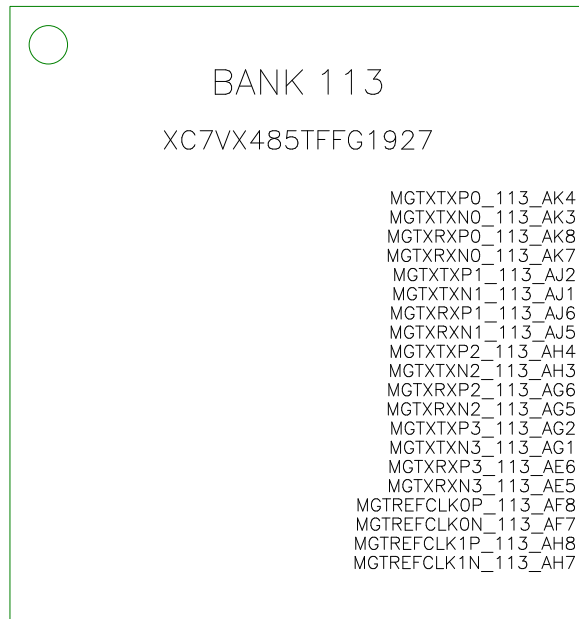
U38  
FFG1927  
XC7VX485TFFG1927



U38  
FFG1927  
XC7VX485TFFG1927

# FPGA PWR VCCINT

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	35 OF 49

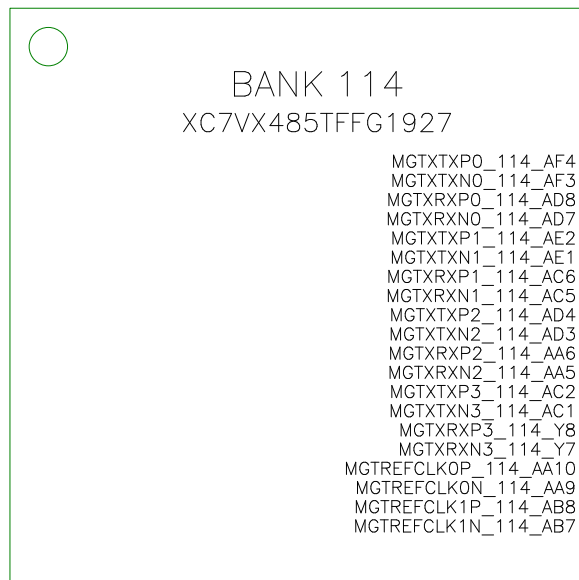
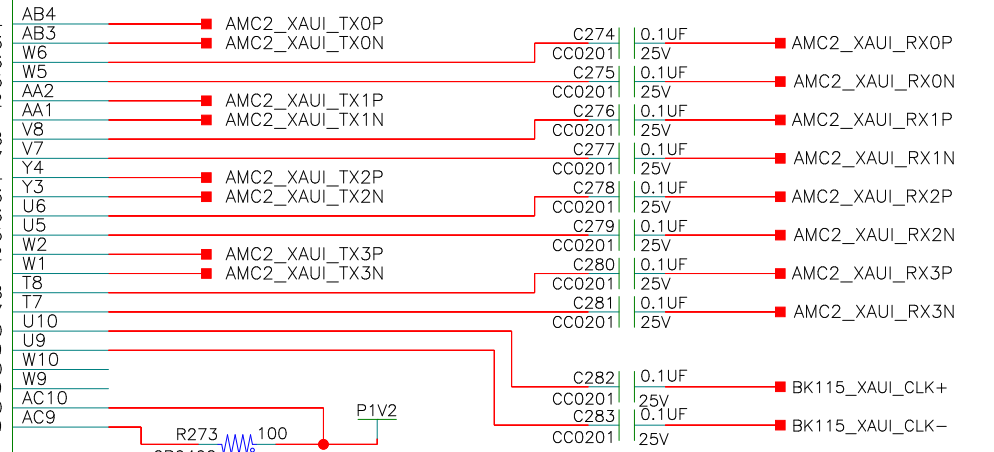


U38  
XC7VX485TFFG1927  
FFG1927



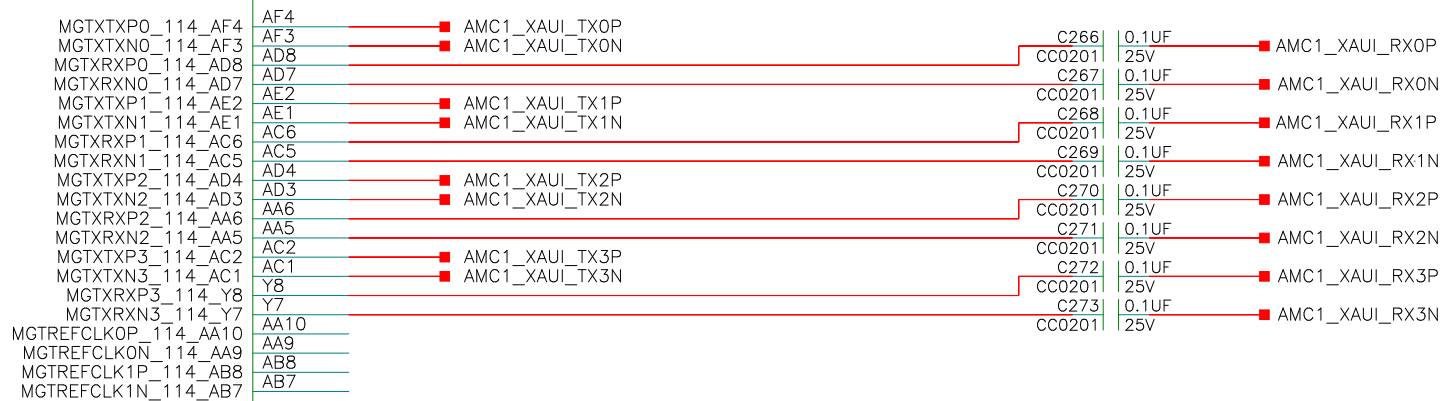
U38  
XC7VX485TFFG1927  
FFG1927

**AMC2 XAUI PORT**



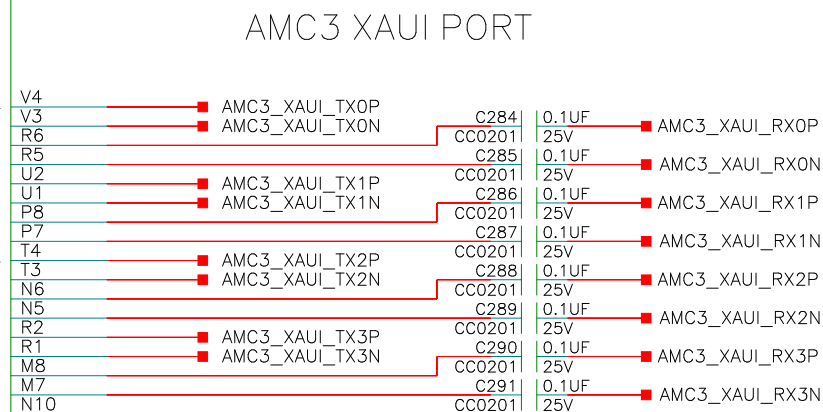
U38  
XC7VX485TFFG1927  
FFG1927

**AMC1 XAUI PORT**

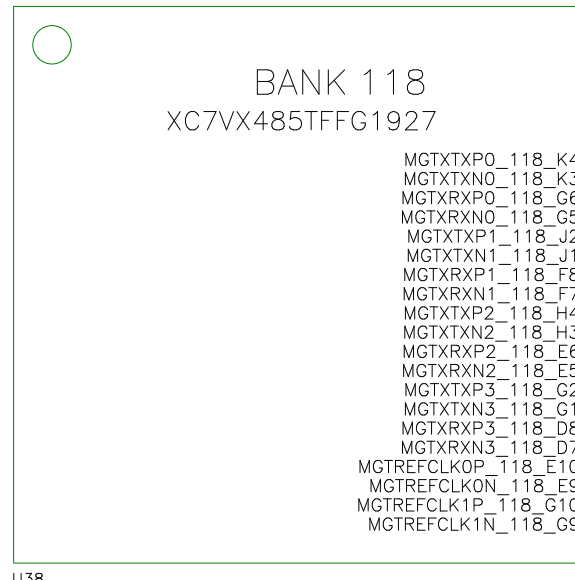


FPGA GTX 1

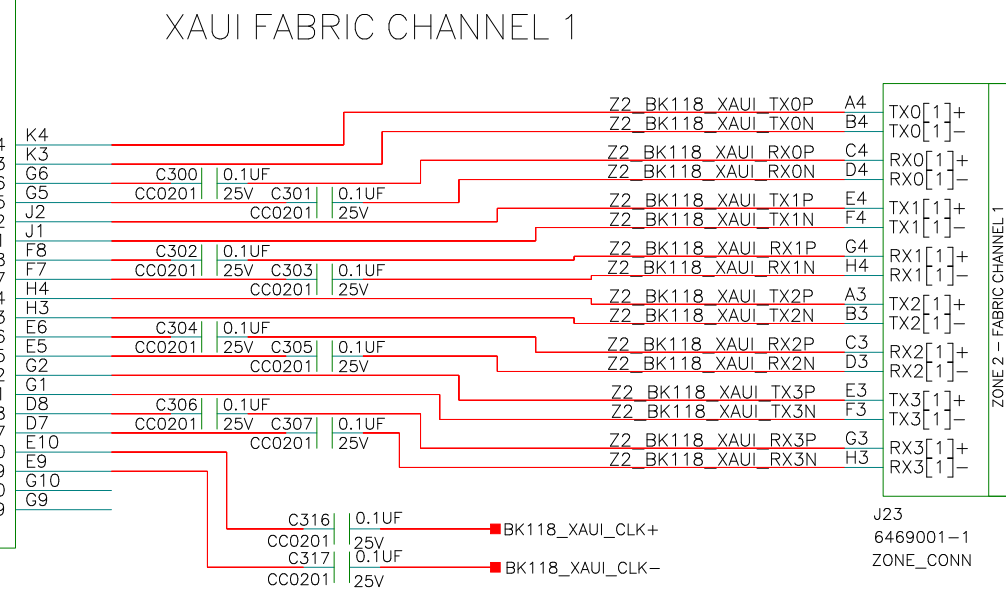
COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 36 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



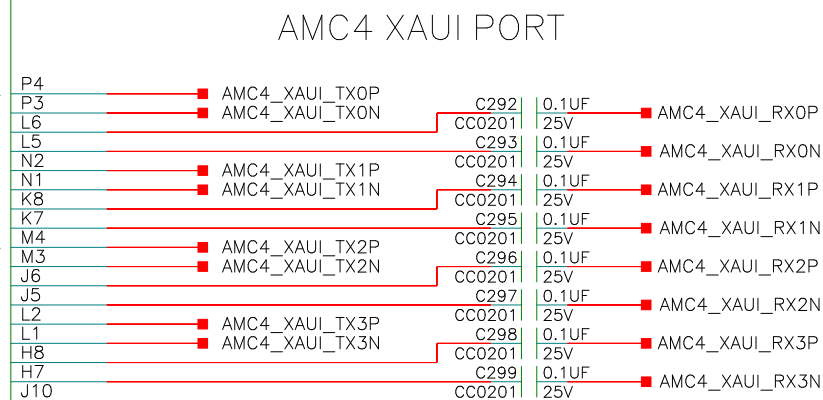
U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927



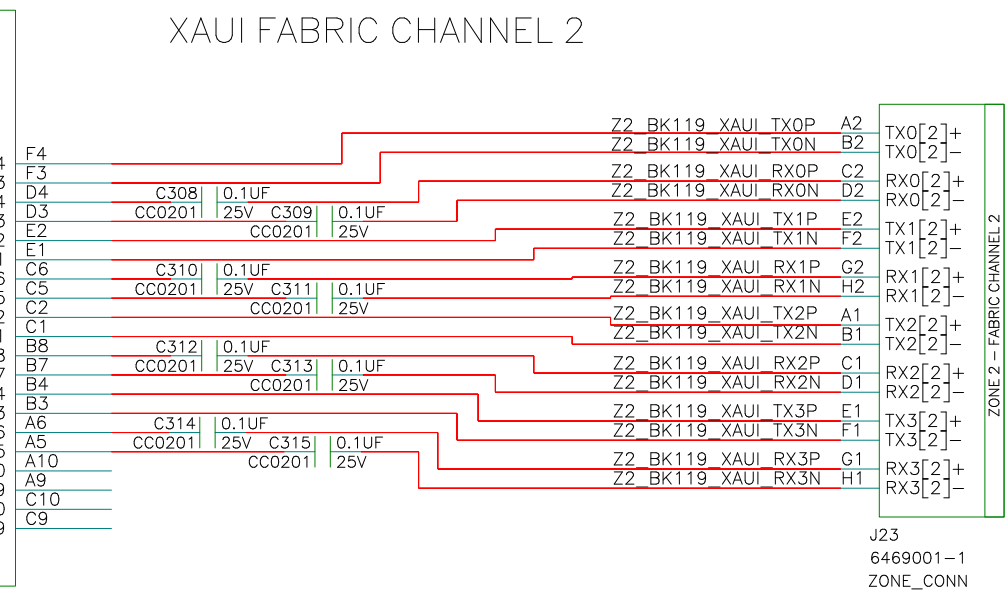
J23  
6469001-1  
ZONE\_CONN



U38  
XC7VX485TFFG1927  
FFG1927



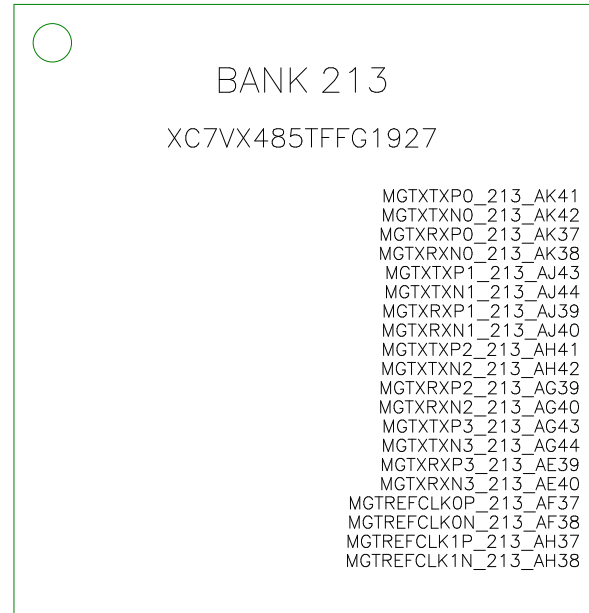
U38  
XC7VX485TFFG1927  
FFG1927



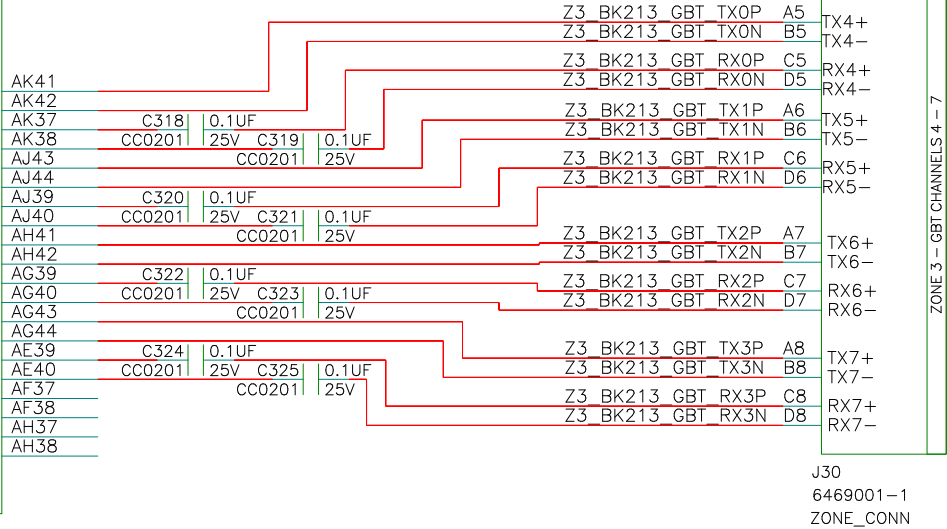
J23  
6469001-1  
ZONE\_CONN

FPGA GTX 2

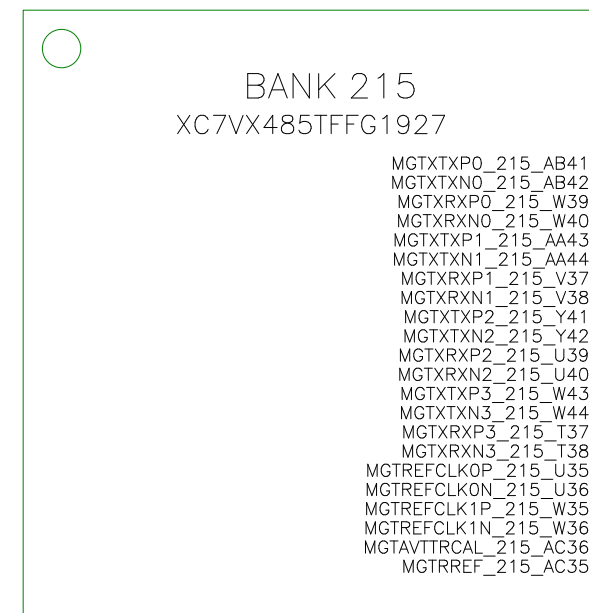
COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 37 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



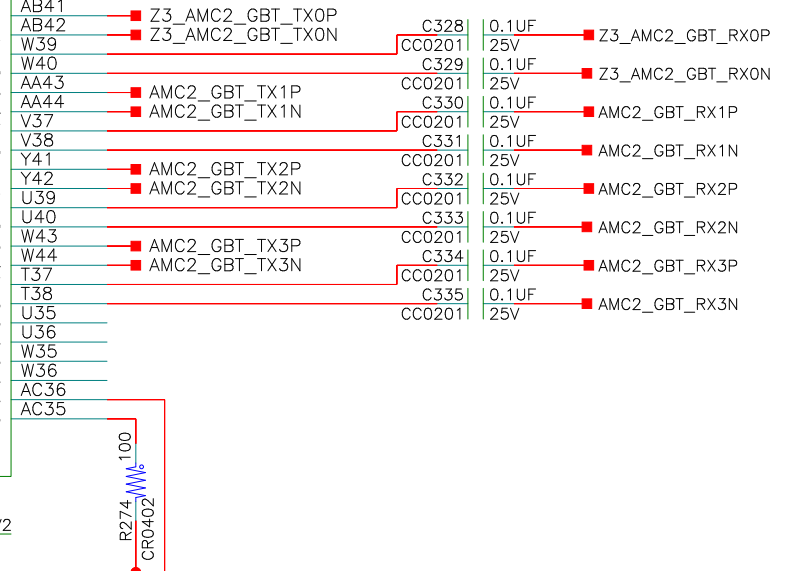
**GBT BANK 213 & ZONE 3**



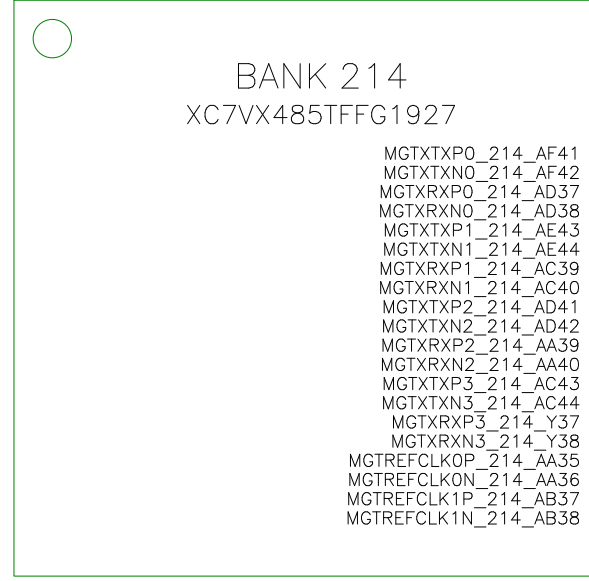
U38  
XC7VX485TFFG1927  
FFG1927



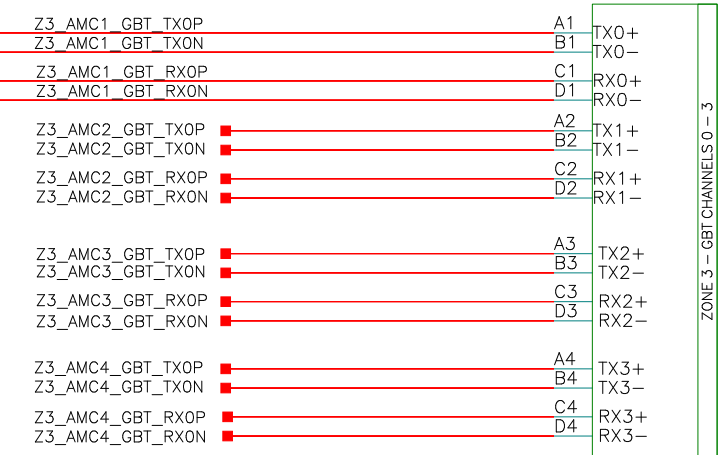
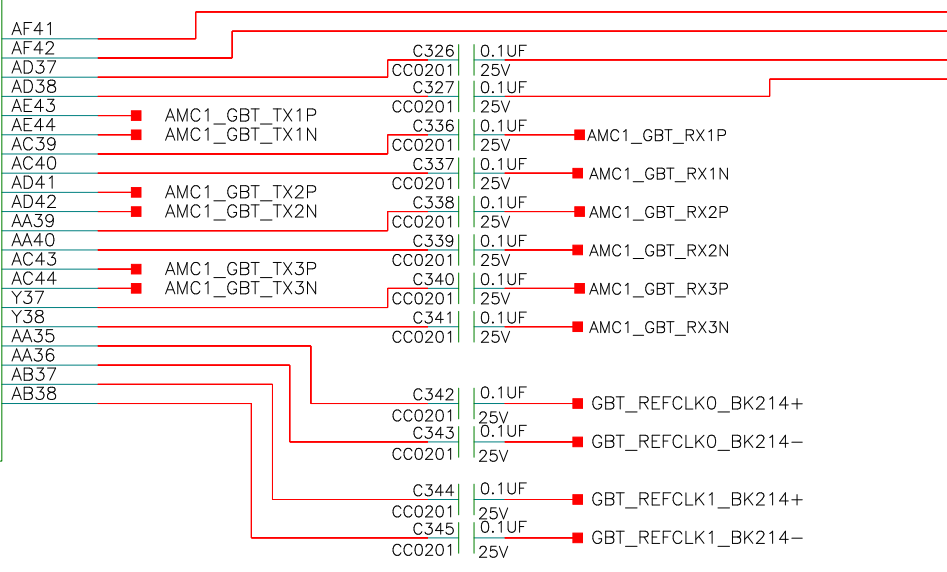
**GBT AMC2 & ZONE 3**



U38  
XC7VX485TFFG1927  
FFG1927



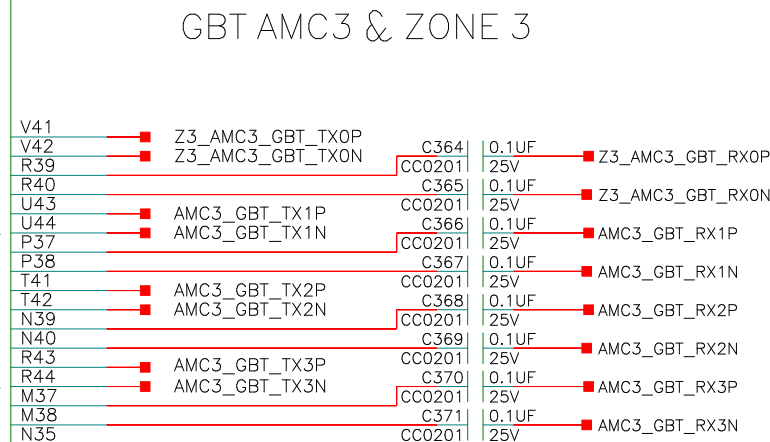
**GBT AMC1 & ZONE 3**



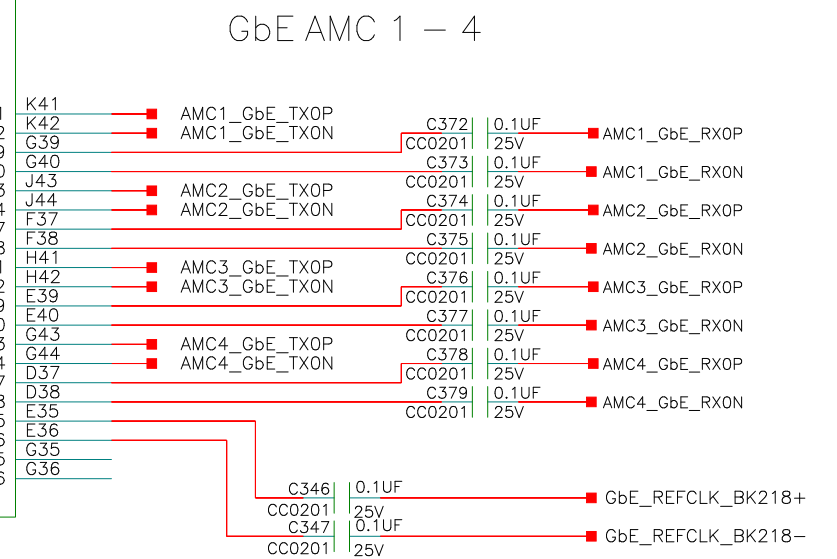
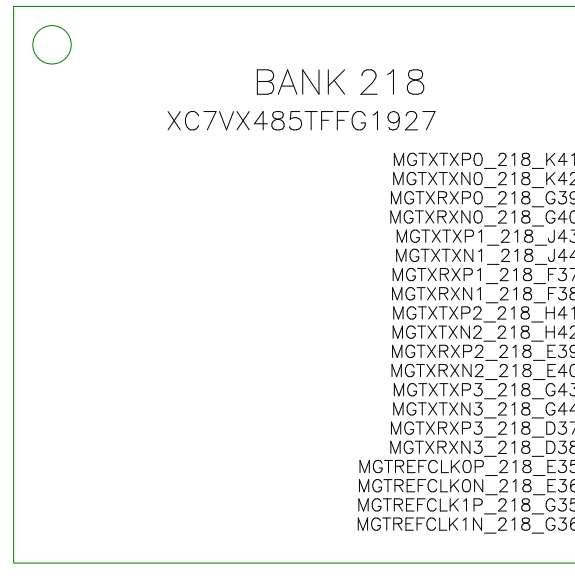
U38  
XC7VX485TFFG1927  
FFG1927

**FPGA GTX 3**

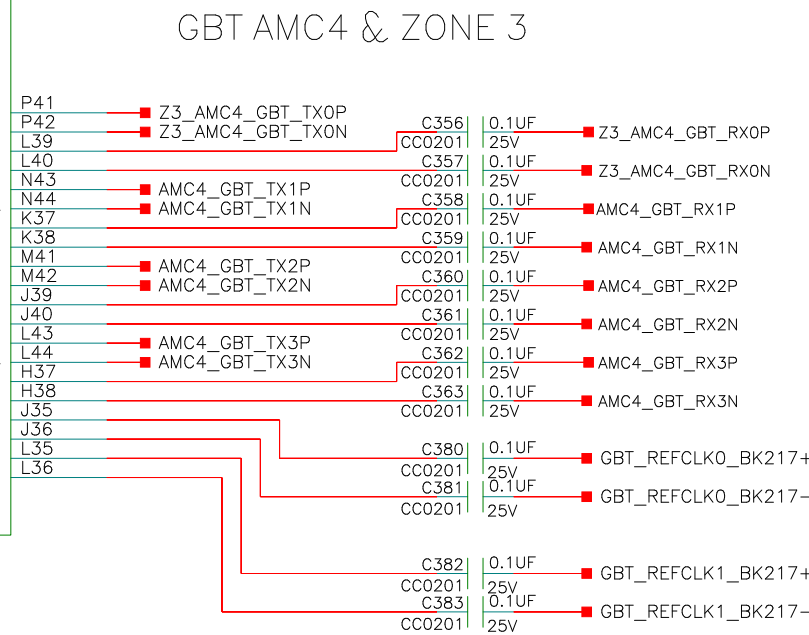
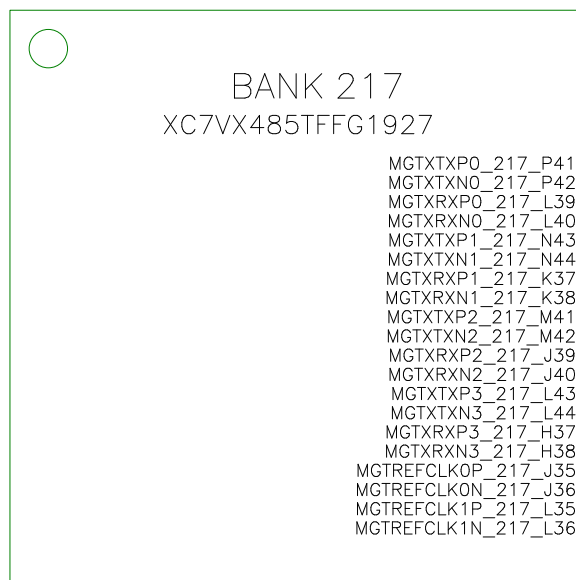
COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 38 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



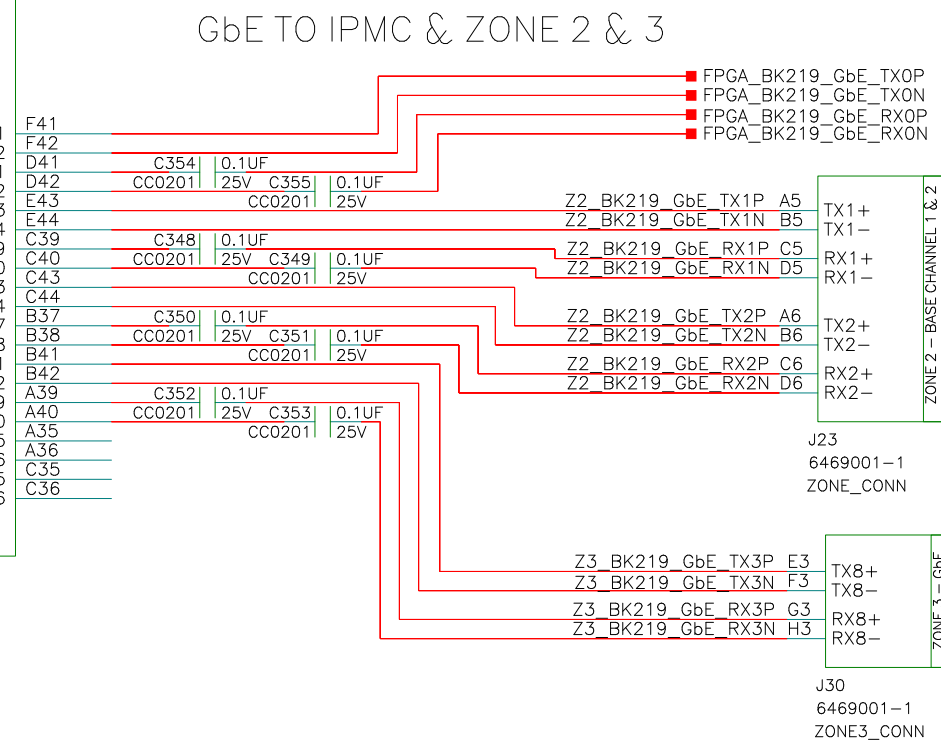
U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927



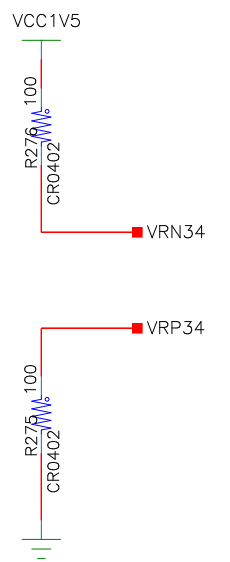
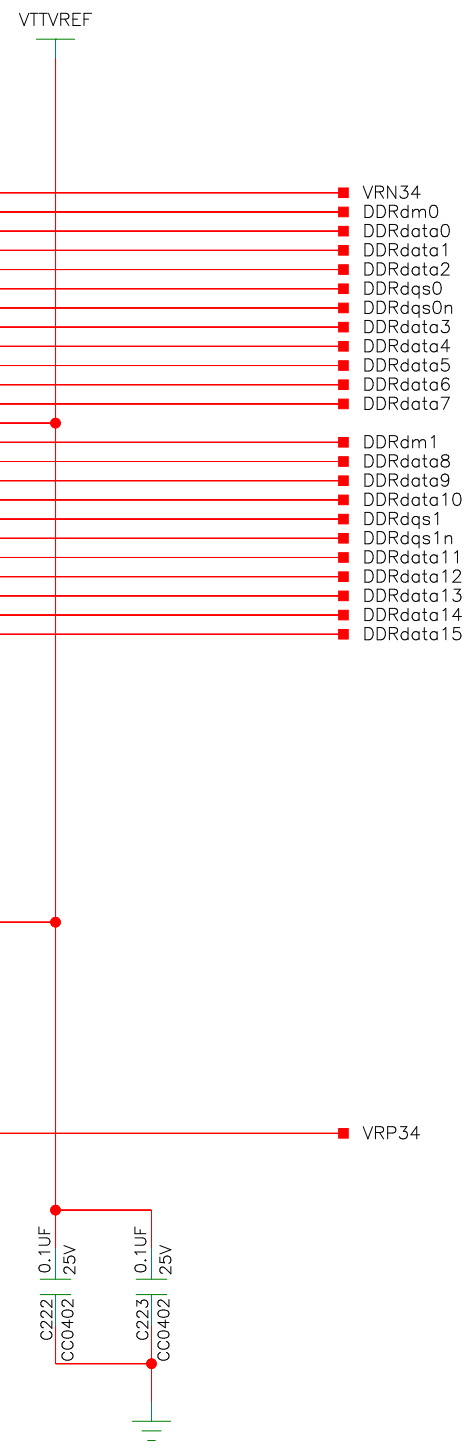
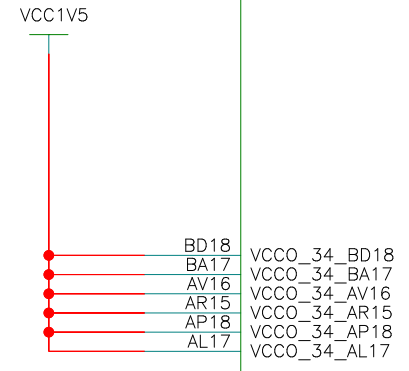
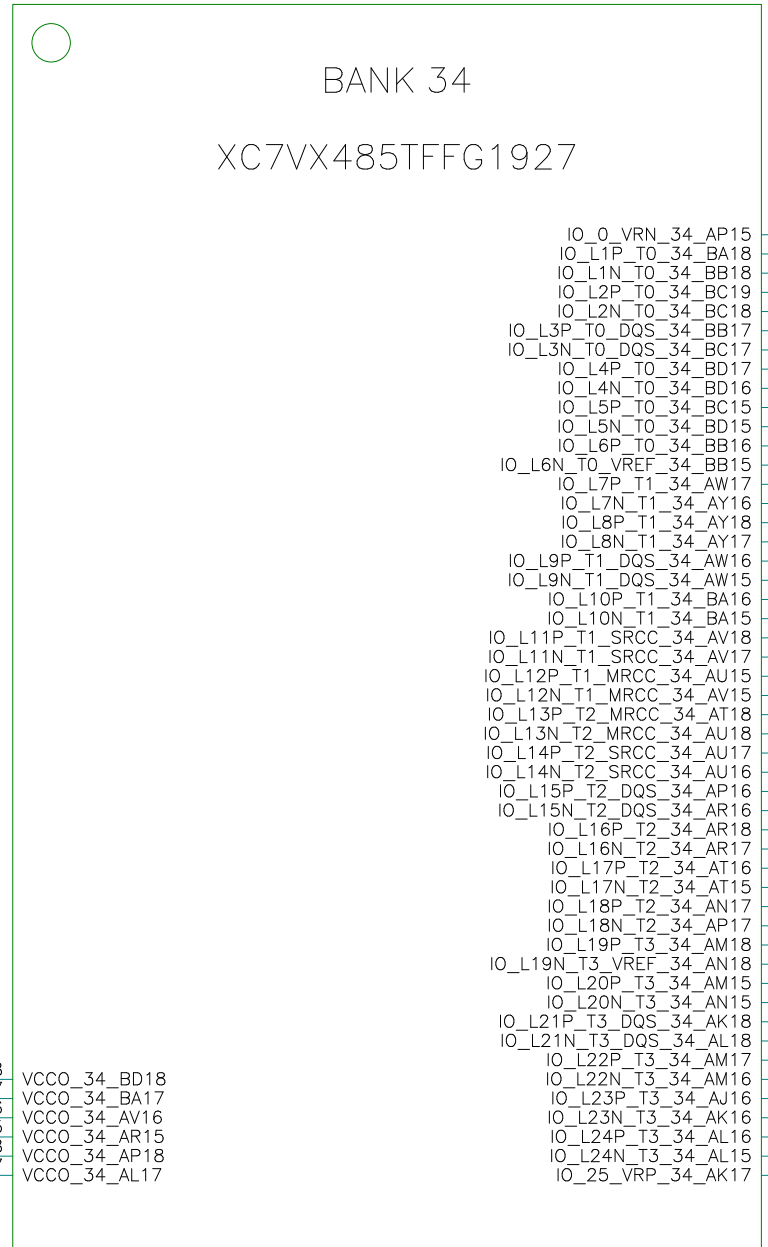
U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927

# FPGA GTX 4

COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 39 OF 49
DRAWN	ES	DATE	12/01/2014:16:16	

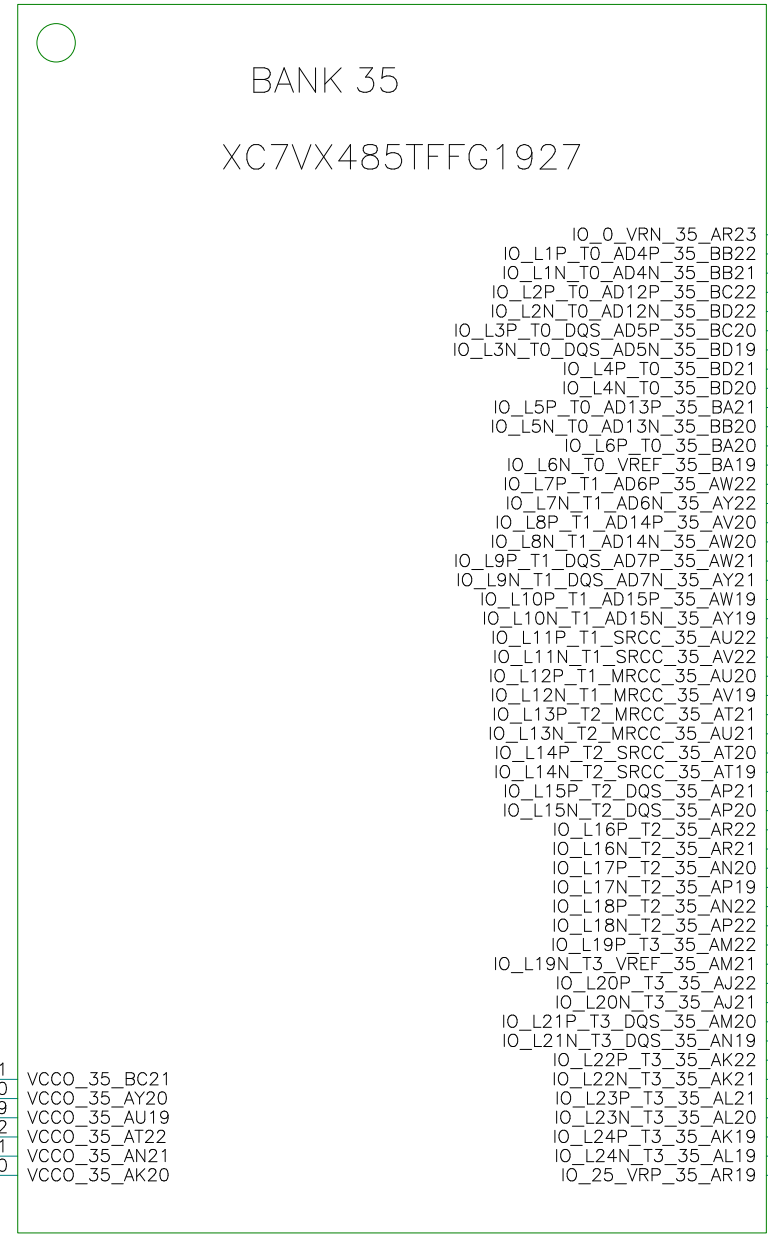


U38  
XC7VX485TFFG1927  
FFG1927

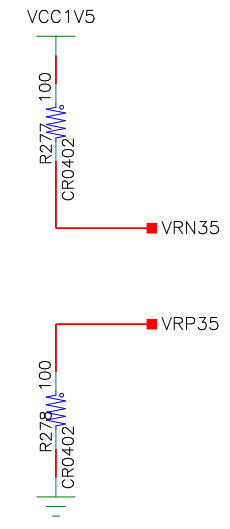
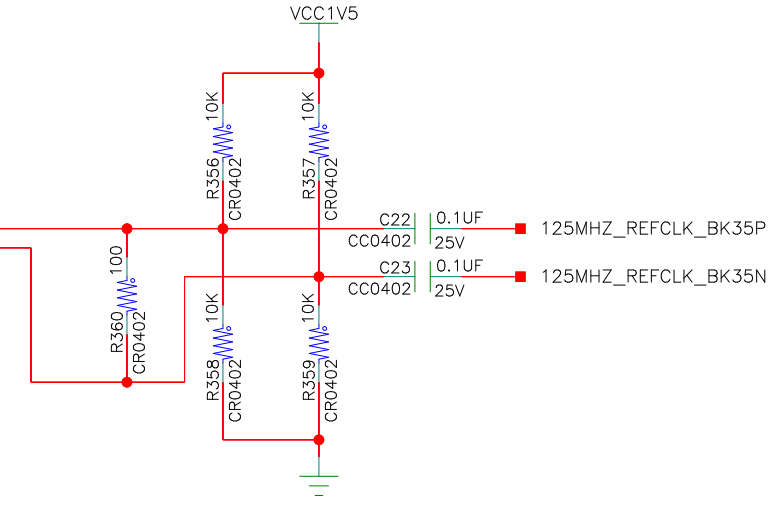
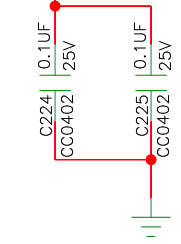
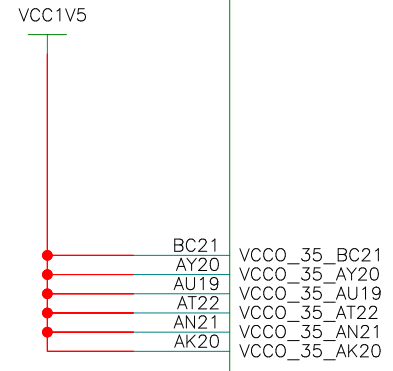
FPGA - DDR3 1

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	40 OF 49



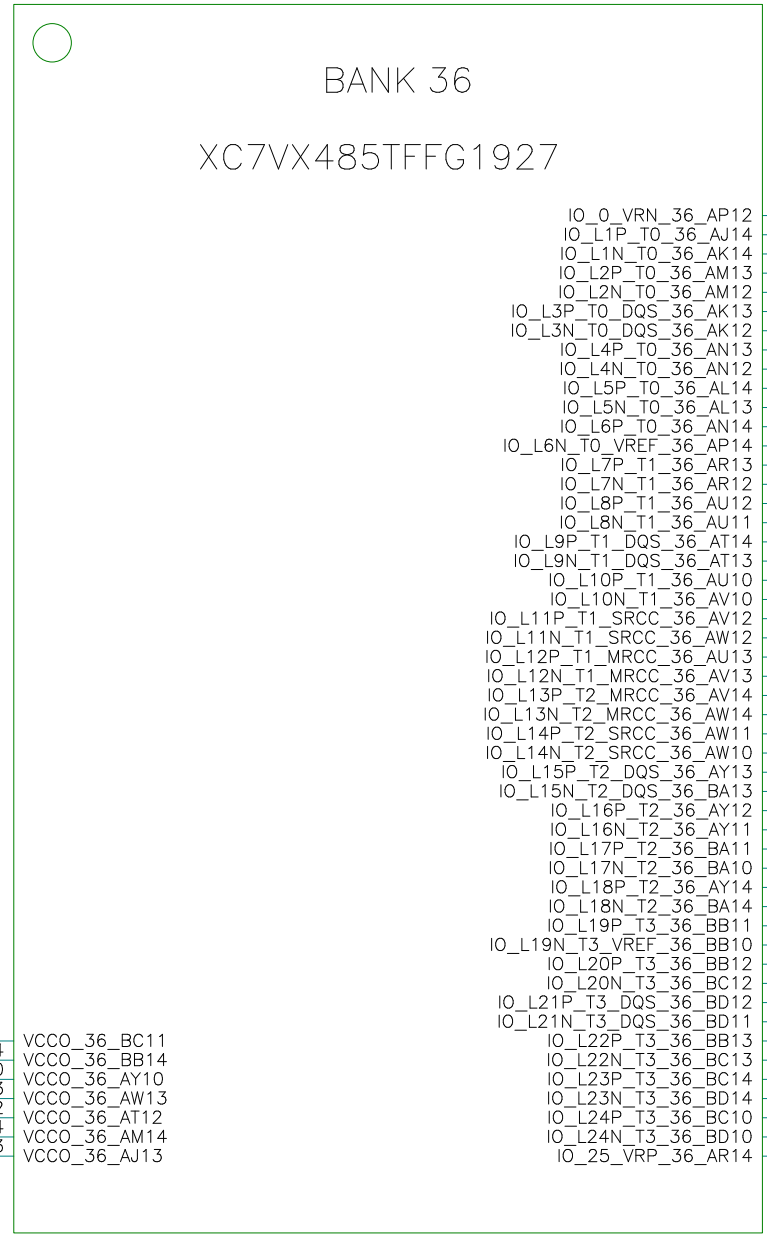


U38  
XC7VX485TFFG1927  
FFG1927



# FPGA - DDR3 2

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	41	OF	49



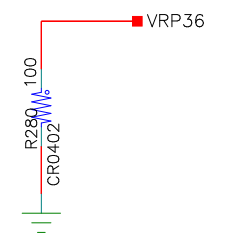
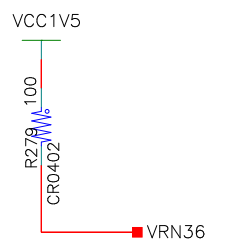
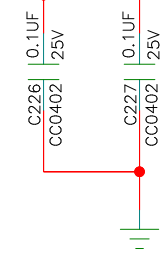
VCC1V5

- BC11 VCCO\_36\_BC11
- BB14 VCCO\_36\_BB14
- AY10 VCCO\_36\_AY10
- AW13 VCCO\_36\_AW13
- AT12 VCCO\_36\_AT12
- AM14 VCCO\_36\_AM14
- AJ13 VCCO\_36\_AJ13

U38  
XC7VX485TFFG1927  
FFG1927

VTTVREF

AP12 VRN36



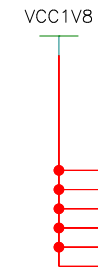
FPGA - DDR3 3

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	42 OF 49

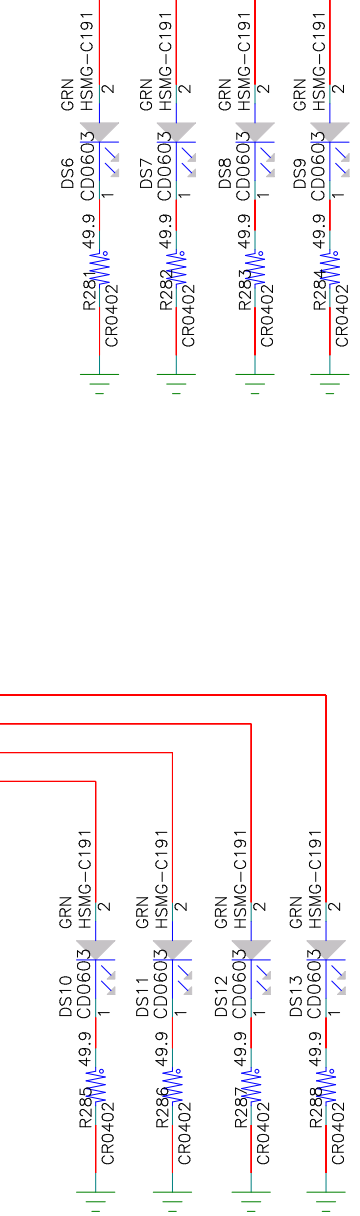
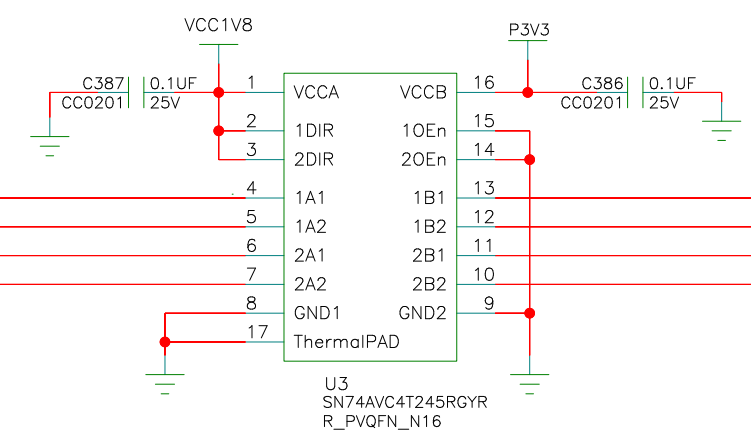
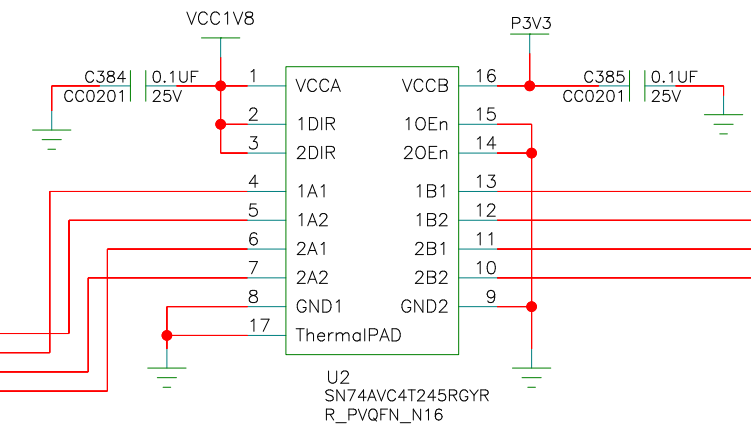
BANK 15  
XC7VX485TFFG1927

- IO\_0\_VRN\_15\_AR24 AR24
- IO\_L1P\_TO\_AD0P\_15\_BD25 BD25
- IO\_L1N\_TO\_AD0N\_15\_BD26 BD26
- IO\_L2P\_TO\_AD8P\_15\_BB23 BB23
- IO\_L2N\_TO\_AD8N\_15\_BC23 BC23
- IO\_L3P\_TO\_DQS\_AD1P\_15\_BB25 BB25
- IO\_L3N\_TO\_DQS\_AD1N\_15\_BC25 BC25
- IO\_L4P\_TO\_15\_BC24 BC24
- IO\_L4N\_TO\_15\_BD24 BD24
- IO\_L5P\_TO\_AD9P\_15\_BA26 BA26
- IO\_L5N\_TO\_AD9N\_15\_BB26 BB26
- IO\_L6P\_TO\_15\_BA24 BA24
- IO\_L6N\_TO\_VREF\_15\_BA25 BA25
- IO\_L7P\_T1\_AD2P\_15\_AW26 AW26
- IO\_L7N\_T1\_AD2N\_15\_AY26 AY26
- IO\_L8P\_T1\_AD10P\_15\_AY23 AY23
- IO\_L8N\_T1\_AD10N\_15\_BA23 BA23
- IO\_L9P\_T1\_DQS\_AD3P\_15\_AW25 AW25
- IO\_L9N\_T1\_DQS\_AD3N\_15\_AW25 AW25
- IO\_L10P\_T1\_AD11P\_15\_AW24 AW24
- IO\_L10N\_T1\_AD11N\_15\_AY24 AY24
- IO\_L11P\_T1\_SRCC\_15\_AV23 AV23
- IO\_L11N\_T1\_SRCC\_15\_AV24 AV24
- IO\_L12P\_T1\_MRCC\_15\_AU25 AU25
- IO\_L12N\_T1\_MRCC\_15\_AU26 AU26
- IO\_L13P\_T2\_MRCC\_15\_AT23 AT23
- IO\_L13N\_T2\_MRCC\_15\_AU23 AU23
- IO\_L14P\_T2\_SRCC\_15\_AT24 AT24
- IO\_L14N\_T2\_SRCC\_15\_AT25 AT25
- IO\_L15P\_T2\_DQS\_15\_AN23 AN23
- IO\_L15N\_T2\_DQS\_ADV\_B\_15\_AN24 AN24
- IO\_L16P\_T2\_A28\_15\_AT26 AT26
- IO\_L16N\_T2\_A27\_15\_AU27 AU27
- IO\_L17P\_T2\_A26\_15\_AP24 AP24
- IO\_L17N\_T2\_A25\_15\_AP25 AP25
- IO\_L18P\_T2\_A24\_15\_AN25 AN25
- IO\_L18N\_T2\_A23\_15\_AP26 AP26
- IO\_L19P\_T3\_A22\_15\_AL23 AL23
- IO\_L19N\_T3\_A21\_VREF\_15\_AM23 AM23
- IO\_L20P\_T3\_A20\_15\_AM25 AM25
- IO\_L20N\_T3\_A19\_15\_AM26 AM26
- IO\_L21P\_T3\_DQS\_15\_AK23 AK23
- IO\_L21N\_T3\_DQS\_A18\_15\_AK24 AK24
- IO\_L22P\_T3\_A17\_15\_AK26 AK26
- IO\_L22N\_T3\_A16\_15\_AL26 AL26
- IO\_L23P\_T3\_FOE\_B\_15\_AL24 AL24
- IO\_L23N\_T3\_FWE\_B\_15\_AL25 AL25
- IO\_L24P\_T3\_RS1\_15\_AJ25 AJ25
- IO\_L24N\_T3\_RS0\_15\_AJ26 AJ26
- IO\_25\_VRP\_15\_AR26 AR26

- GPIO\_LED\_4\_LS
- GPIO\_LED\_2\_LS
- GPIO\_LED\_0\_LS
- GPIO\_LED\_1\_LS
- GPIO\_LED\_5\_LS
- GPIO\_LED\_6\_LS
- GPIO\_LED\_7\_LS
- RECOVERED\_CLKP
- RECOVERED\_CLKN



U38  
XC7VX485TFFG1927  
FFG1927



# FPGA – BANK 15

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET	43	OF	49

BANK 16  
XC7VX485TFFG1927

VCC1V8

- BC31 VCCO\_16\_BC31
- BB34 VCCO\_16\_BB34
- AW33 VCCO\_16\_AW33
- AT32 VCCO\_16\_AT32
- AN31 VCCO\_16\_AN31
- AK30 VCCO\_16\_AK30

- IO\_0\_VRN\_16\_AU35 AU35
- IO\_L1P\_T0\_16\_AK33 AK33
- IO\_L1N\_T0\_16\_AL33 AL33
- IO\_L2P\_T0\_16\_AJ30 AJ30
- IO\_L2N\_T0\_16\_AJ31 AJ31
- IO\_L3P\_T0\_DQS\_16\_AK31 AK31
- IO\_L3N\_T0\_DQS\_16\_AL31 AL31
- IO\_L4P\_T0\_16\_AJ32 AJ32
- IO\_L4N\_T0\_16\_AK32 AK32
- IO\_L5P\_T0\_16\_AL30 AL30
- IO\_L5N\_T0\_16\_AM31 AM31
- IO\_L6P\_T0\_16\_AM32 AM32
- IO\_L6N\_T0\_VREF\_16\_AM33 AM33
- IO\_L7P\_T1\_16\_AN32 AN32
- IO\_L7N\_T1\_16\_AN33 AN33
- IO\_L8P\_T1\_16\_AR33 AR33
- IO\_L8N\_T1\_16\_AT33 AT33
- IO\_L9P\_T1\_DQS\_16\_AP31 AP31
- IO\_L9N\_T1\_DQS\_16\_AP32 AP32
- IO\_L10P\_T1\_16\_AR31 AR31
- IO\_L10N\_T1\_16\_AR32 AR32
- IO\_L11P\_T1\_SRCC\_16\_AU31 AU31
- IO\_L11N\_T1\_SRCC\_16\_AU32 AU32
- IO\_L12P\_T1\_MRCC\_16\_AU33 AU33
- IO\_L12N\_T1\_MRCC\_16\_AV33 AV33
- IO\_L13P\_T2\_MRCC\_16\_AV32 AV32
- IO\_L13N\_T2\_MRCC\_16\_AW32 AW32
- IO\_L14P\_T2\_SRCC\_16\_AV34 AV34
- IO\_L14N\_T2\_SRCC\_16\_AV35 AV35
- IO\_L15P\_T2\_DQS\_16\_AW34 AW34
- IO\_L15N\_T2\_DQS\_16\_AW35 AW35
- IO\_L16P\_T2\_16\_AY33 AY33
- IO\_L16N\_T2\_16\_AY34 AY34
- IO\_L17P\_T2\_16\_BA34 BA34
- IO\_L17N\_T2\_16\_BA35 BA35
- IO\_L18P\_T2\_16\_AY32 AY32
- IO\_L18N\_T2\_16\_BA33 BA33
- IO\_L19P\_T3\_16\_BB31 BB31
- IO\_L19N\_T3\_VREF\_16\_BB32 BB32
- IO\_L20P\_T3\_16\_BB35 BB35
- IO\_L20N\_T3\_16\_BC35 BC35
- IO\_L21P\_T3\_DQS\_16\_BC32 BC32
- IO\_L21N\_T3\_DQS\_16\_BC33 BC33
- IO\_L22P\_T3\_16\_BB33 BB33
- IO\_L22N\_T3\_16\_BC34 BC34
- IO\_L23P\_T3\_16\_BD31 BD31
- IO\_L23N\_T3\_16\_BD32 BD32
- IO\_L24P\_T3\_16\_BD34 BD34
- IO\_L24N\_T3\_16\_BD35 BD35
- IO\_25\_VRP\_16\_AT31 AT31

- AMC1\_LVDS\_TX2P
- AMC1\_LVDS\_TX2N
- AMC1\_LVDS\_RX2P
- AMC1\_LVDS\_RX2N
- AMC1\_LVDS\_TX3P
- AMC1\_LVDS\_TX3N
- AMC1\_LVDS\_RX3P
- AMC1\_LVDS\_RX3N
- AMC1\_LVDS\_TX1P
- AMC1\_LVDS\_TX1N
- AMC1\_LVDS\_RX1P
- AMC1\_LVDS\_RX1N
- AMC1\_LVDS\_TX4P
- AMC1\_LVDS\_TX4N
- AMC1\_LVDS\_RX4P
- AMC1\_LVDS\_RX4N

U38  
XC7VX485TFFG1927  
FFG1927

FPGA – BANK 16

COMPANY		STONY BROOK UNIVERSITY	
TITLE		ATCA	
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
SHEET 44		OF 49	

BANK 17  
XC7VX485TFFG1927

IO_0_VRN_17_M26	M26
IO_L1P_T0_17_B23	B23
IO_L1N_T0_17_A23	A23
IO_L2P_T0_17_C25	C25
IO_L2N_T0_17_B25	B25
IO_L3P_T0_DQS_17_C23	C23
IO_L3N_T0_DQS_17_C24	C24
IO_L4P_T0_17_A24	A24
IO_L4N_T0_17_A25	A25
IO_L5P_T0_17_D24	D24
IO_L5N_T0_17_D25	D25
IO_L6P_T0_17_E23	E23
IO_L6N_T0_VREF_17_E24	E24
IO_L7P_T1_17_G23	G23
IO_L7N_T1_17_F23	F23
IO_L8P_T1_17_F24	F24
IO_L8N_T1_17_F25	F25
IO_L9P_T1_DQS_17_H23	H23
IO_L9N_T1_DQS_17_H24	H24
IO_L10P_T1_17_G25	G25
IO_L10N_T1_17_G26	G26
IO_L11P_T1_SRCC_17_J24	J24
IO_L11N_T1_SRCC_17_H25	H25
IO_L12P_T1_MRCC_17_J25	J25
IO_L12N_T1_MRCC_17_J26	J26
IO_L13P_T2_MRCC_17_K23	K23
IO_L13N_T2_MRCC_17_K24	K24
IO_L14P_T2_SRCC_17_L24	L24
IO_L14N_T2_SRCC_17_L25	L25
IO_L15P_T2_DQS_17_L26	L26
IO_L15N_T2_DQS_17_K26	K26
IO_L16P_T2_17_N23	N23
IO_L16N_T2_17_N24	N24
IO_L17P_T2_17_N25	N25
IO_L17N_T2_17_M25	M25
IO_L18P_T2_17_M23	M23
IO_L18N_T2_17_L23	L23
IO_L19P_T3_17_T24	T24
IO_L19N_T3_VREF_17_T25	T25
IO_L20P_T3_17_P25	P25
IO_L20N_T3_17_P26	P26
IO_L21P_T3_DQS_17_U25	U25
IO_L21N_T3_DQS_17_U26	U26
IO_L22P_T3_17_T26	T26
IO_L22N_T3_17_R26	R26
IO_L23P_T3_17_U23	U23
IO_L23N_T3_17_T23	T23
IO_L24P_T3_17_R23	R23
IO_L24N_T3_17_R24	R24
IO_25_VRP_17_P24	P24

VCC1V8

R25	VCCO_17_R25
M24	VCCO_17_M24
J23	VCCO_17_J23
H26	VCCO_17_H26
E25	VCCO_17_E25
B24	VCCO_17_B24

U38  
XC7VX485TFFG1927  
FFG1927

BANK 18  
XC7VX485TFFG1927

IO_0_VRN_18_L30	L30
IO_L1P_T0_18_C30	C30
IO_L1N_T0_18_B30	B30
IO_L2P_T0_18_B33	B33
IO_L2N_T0_18_A33	A33
IO_L3P_T0_DQS_18_A30	A30
IO_L3N_T0_DQS_18_A31	A31
IO_L4P_T0_18_C32	C32
IO_L4N_T0_18_C33	C33
IO_L5P_T0_18_B31	B31
IO_L5N_T0_18_B32	B32
IO_L6P_T0_18_D30	D30
IO_L6N_T0_VREF_18_D31	D31
IO_L7P_T1_18_E31	E31
IO_L7N_T1_18_D32	D32
IO_L8P_T1_18_E32	E32
IO_L8N_T1_18_E33	E33
IO_L9P_T1_DQS_18_F30	F30
IO_L9N_T1_DQS_18_F31	F31
IO_L10P_T1_18_G33	G33
IO_L10N_T1_18_F33	F33
IO_L11P_T1_SRCC_18_G31	G31
IO_L11N_T1_SRCC_18_G32	G32
IO_L12P_T1_MRCC_18_H30	H30
IO_L12N_T1_MRCC_18_G30	G30
IO_L13P_T2_MRCC_18_H32	H32
IO_L13N_T2_MRCC_18_H33	H33
IO_L14P_T2_SRCC_18_J30	J30
IO_L14N_T2_SRCC_18_J31	J31
IO_L15P_T2_DQS_18_L31	L31
IO_L15N_T2_DQS_18_K31	K31
IO_L16P_T2_18_K32	K32
IO_L16N_T2_18_J32	J32
IO_L17P_T2_18_M31	M31
IO_L17N_T2_18_M32	M32
IO_L18P_T2_18_L33	L33
IO_L18N_T2_18_K33	K33
IO_L19P_T3_18_R32	R32
IO_L19N_T3_VREF_18_P32	P32
IO_L20P_T3_18_N33	N33
IO_L20N_T3_18_M33	M33
IO_L21P_T3_DQS_18_T31	T31
IO_L21N_T3_DQS_18_R31	R31
IO_L22P_T3_18_P31	P31
IO_L22N_T3_18_N32	N32
IO_L23P_T3_18_U32	U32
IO_L23N_T3_18_U33	U33
IO_L24P_T3_18_T33	T33
IO_L24N_T3_18_R33	R33
IO_25_VRP_18_U31	U31

VCC1V8

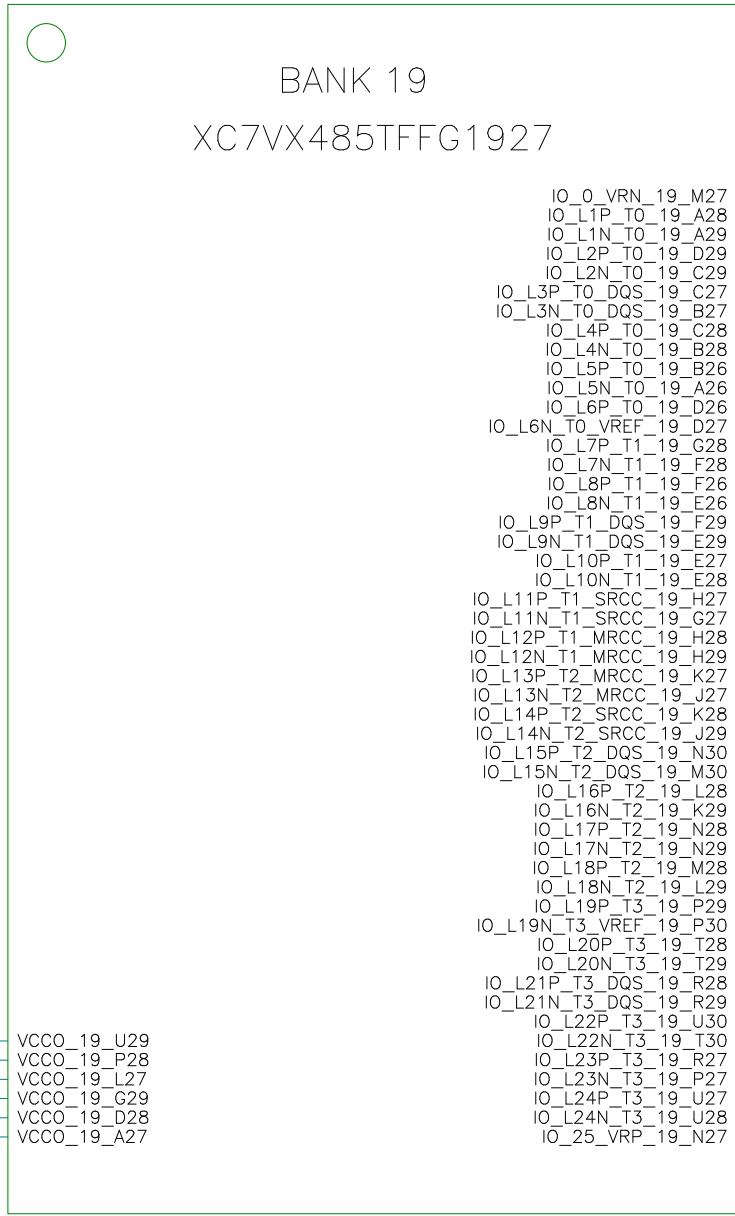
T32	VCCO_18_T32
N31	VCCO_18_N31
K30	VCCO_18_K30
J33	VCCO_18_J33
F32	VCCO_18_F32
C31	VCCO_18_C31

U38  
XC7VX485TFFG1927  
FFG1927

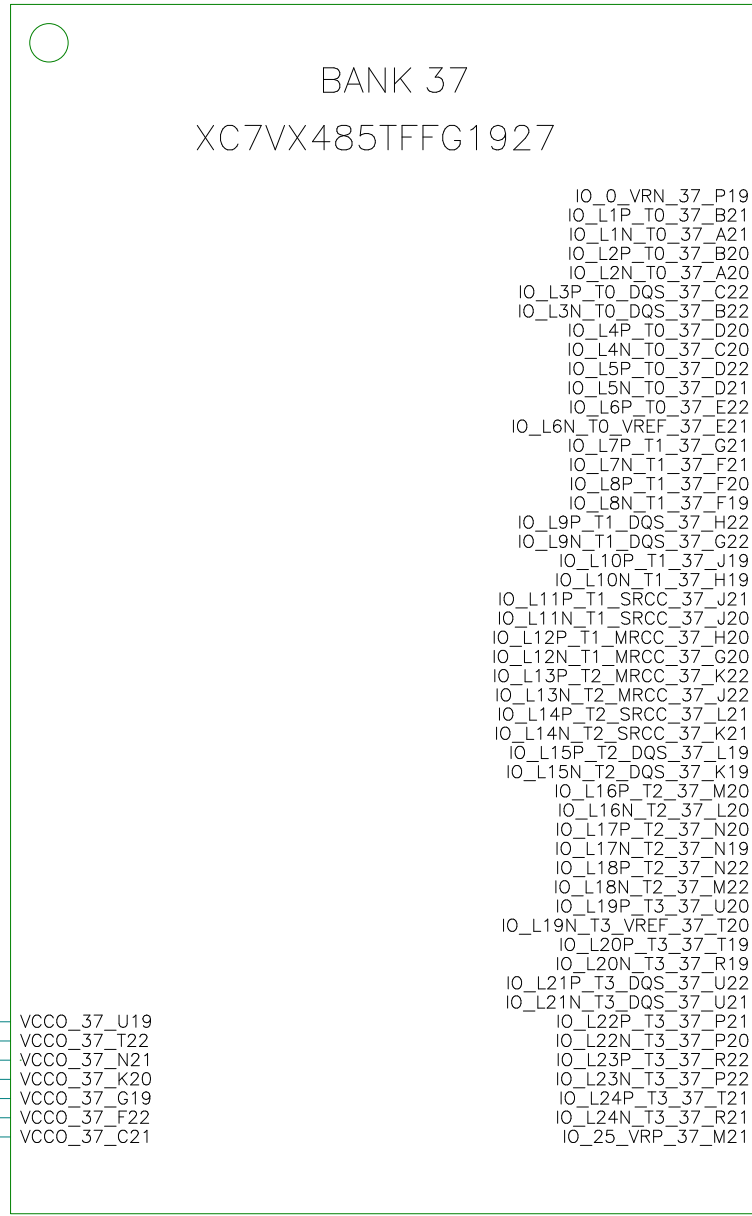
AMC4_LVDS_TX2P
AMC4_LVDS_TX2N
AMC4_LVDS_RX2P
AMC4_LVDS_RX2N
AMC4_LVDS_TX3P
AMC4_LVDS_TX3N
AMC4_LVDS_RX3P
AMC4_LVDS_RX3N
AMC4_LVDS_TX1P
AMC4_LVDS_TX1N
AMC4_LVDS_RX1P
AMC4_LVDS_RX1N
AMC4_LVDS_TX4P
AMC4_LVDS_TX4N
AMC4_LVDS_RX4P
AMC4_LVDS_RX4N

FPGA – BANKS 17 18

COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 45 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



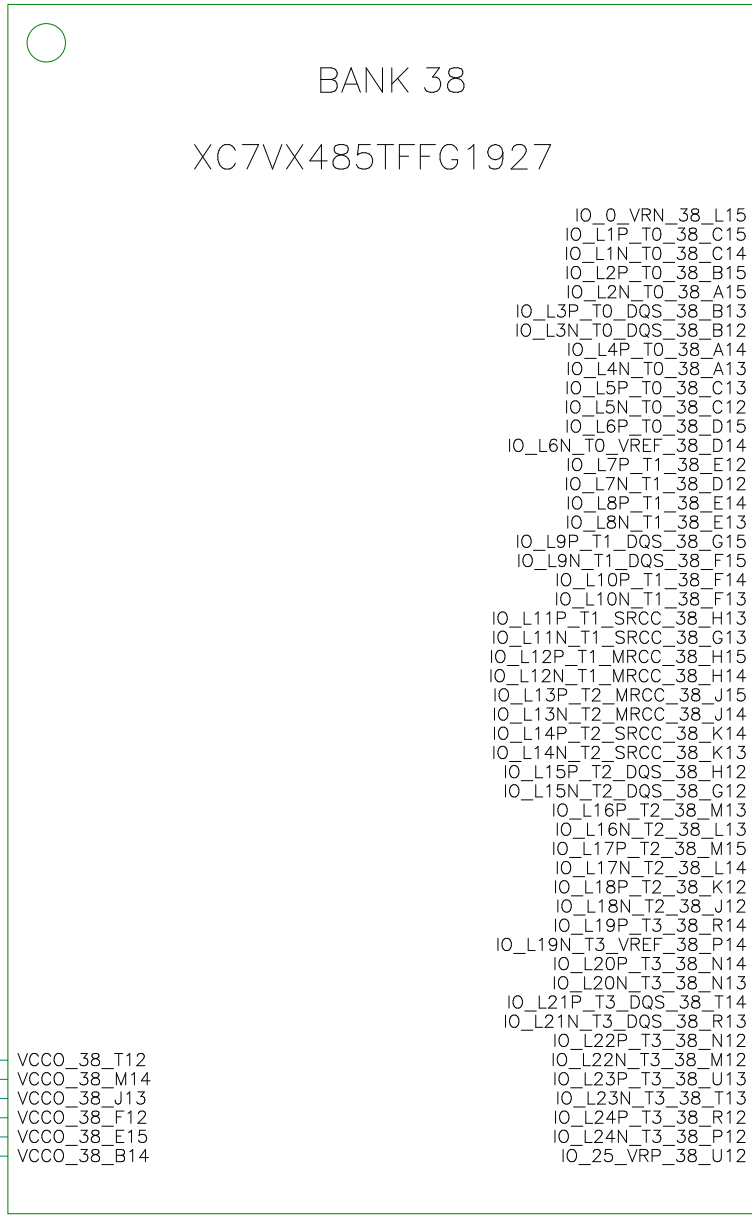
U38  
XC7VX485TFFG1927  
FFG1927



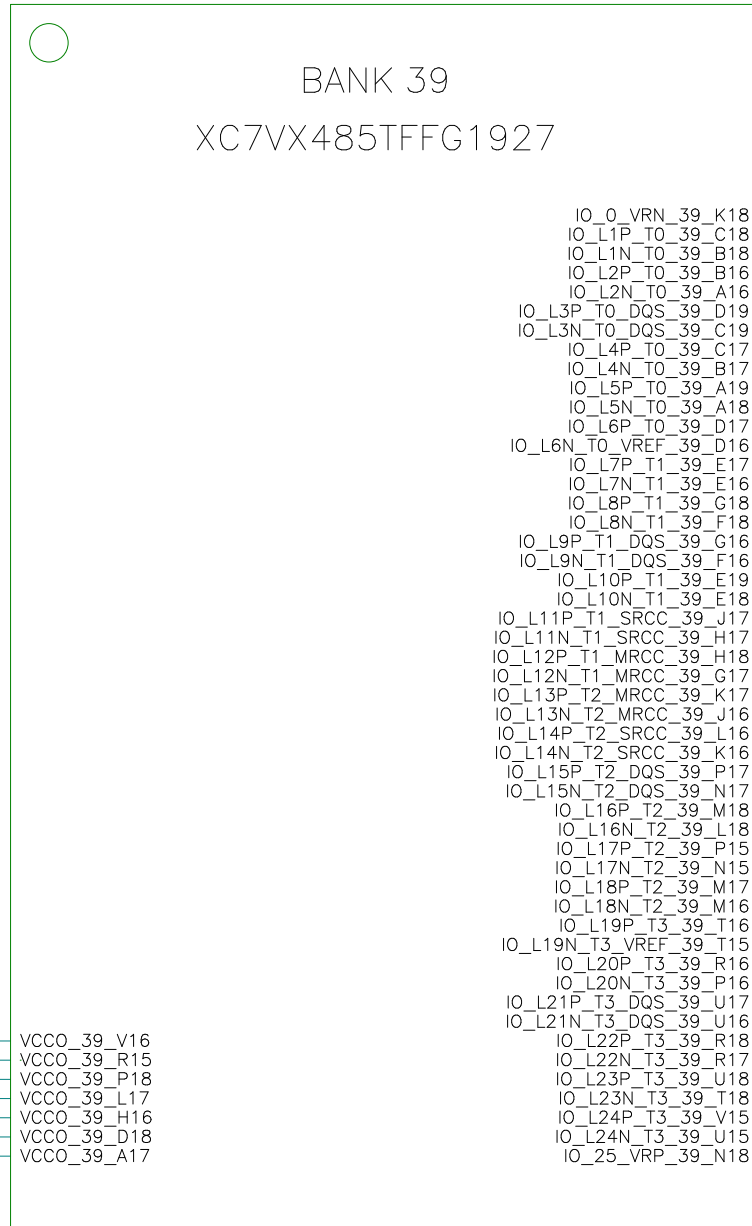
U38  
XC7VX485TFFG1927  
FFG1927

# FPGA – BANKS 19 37

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	46 OF 49



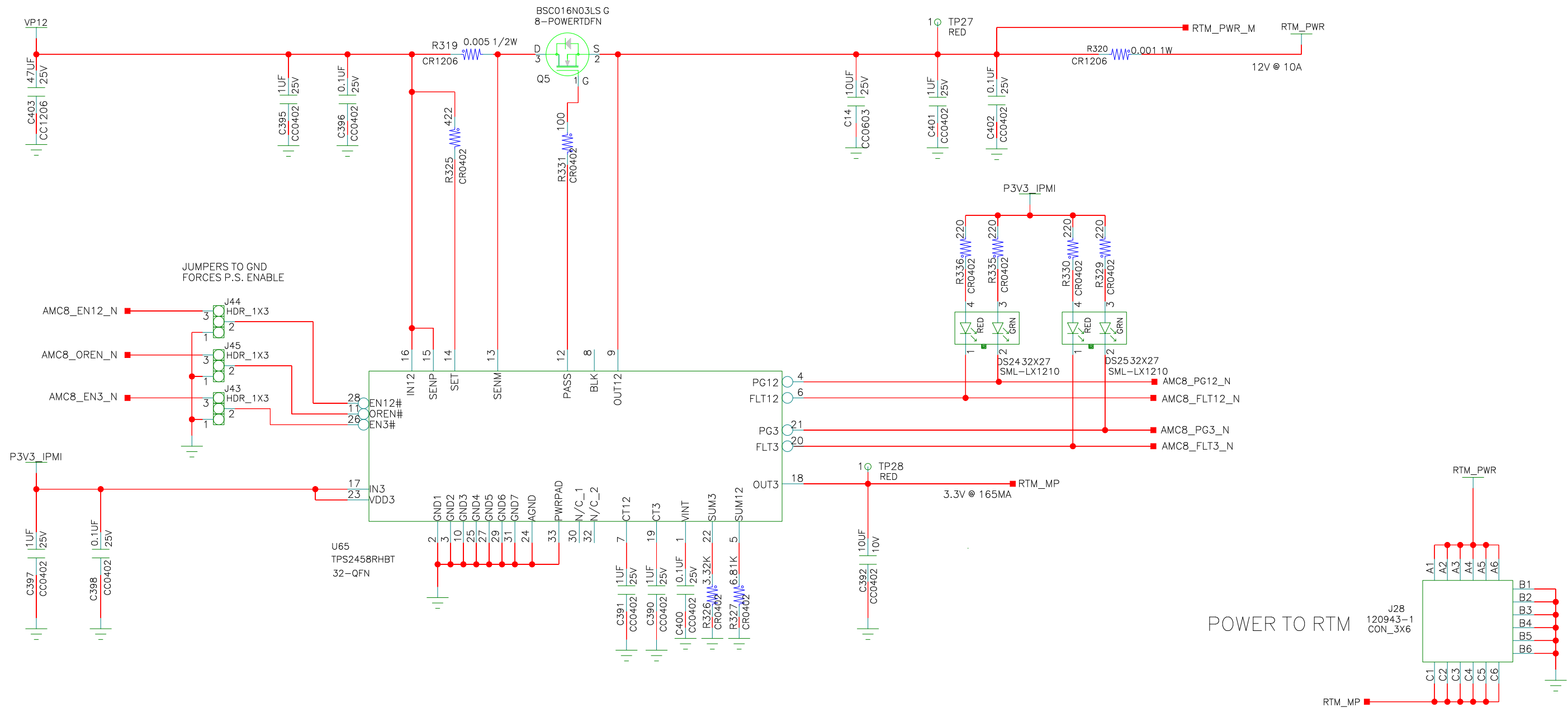
U38  
XC7VX485TFFG1927  
FFG1927



U38  
XC7VX485TFFG1927  
FFG1927

# FPGA – BANKS 38 39

COMPANY	STONY BROOK UNIVERSITY		
TITLE	ATCA		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	47 OF 49

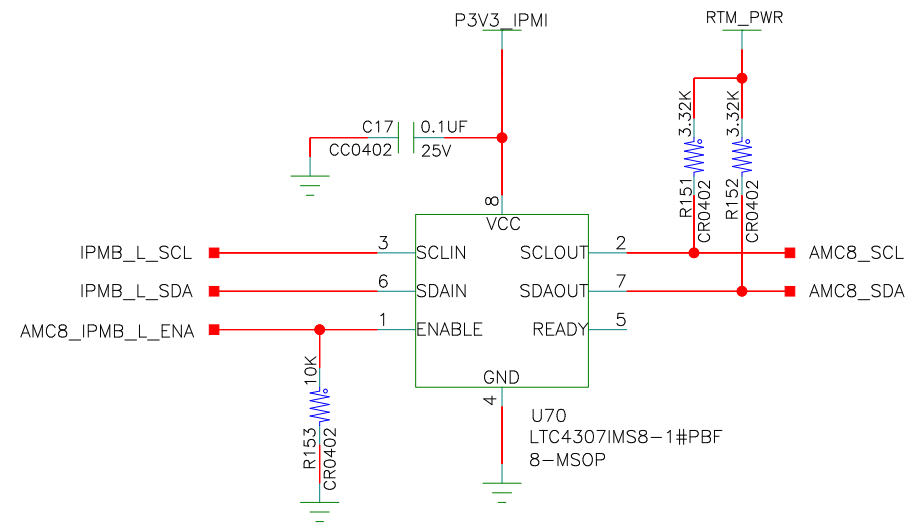


RTM HOT SWAP CONTROLLER

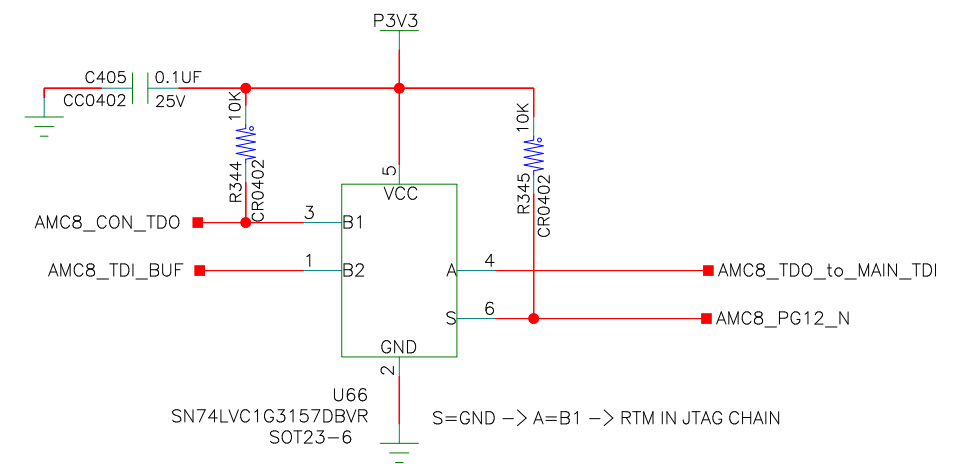
RTM 1 OF 2

COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 48 OF 49
DRAWN	ES	DATE	12/01/2014:08:22	



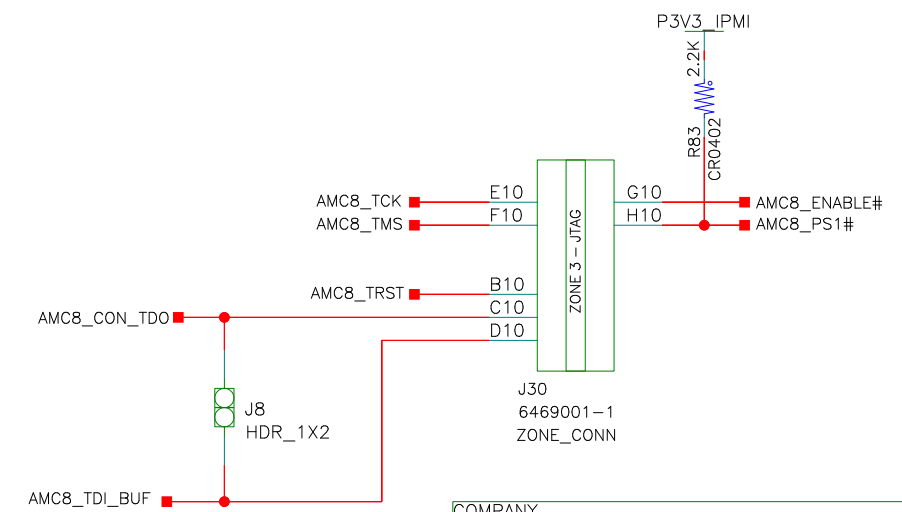
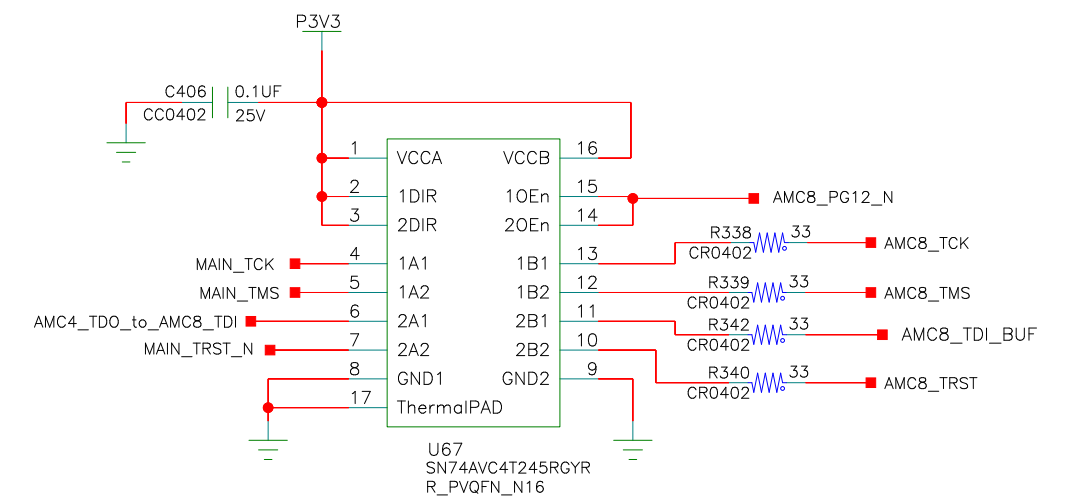
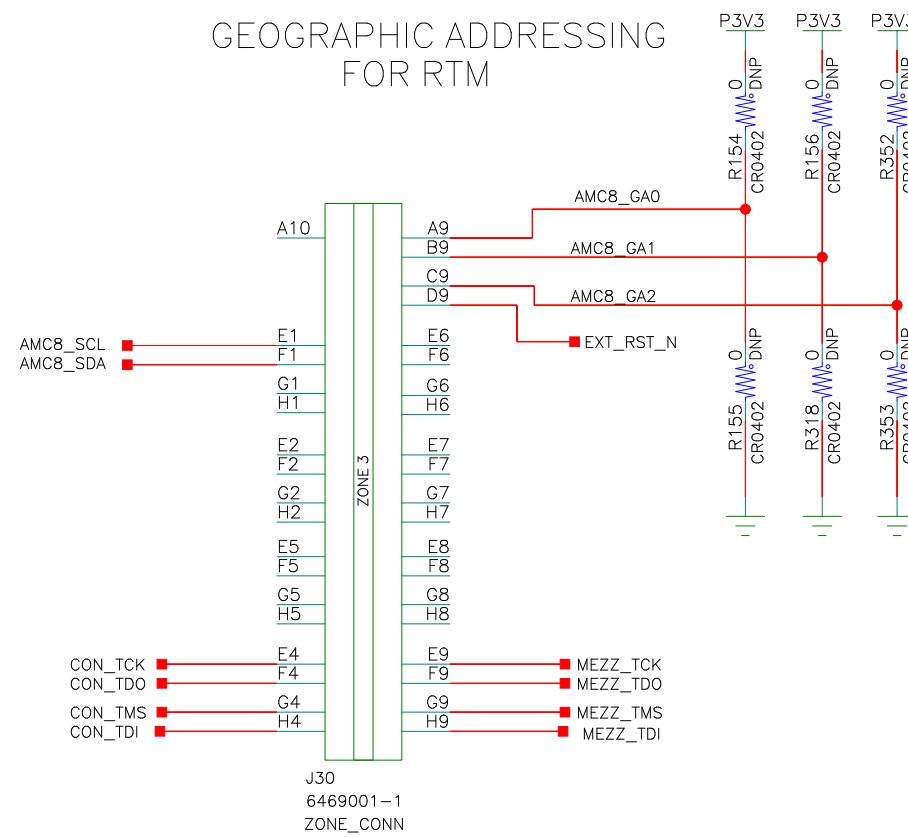
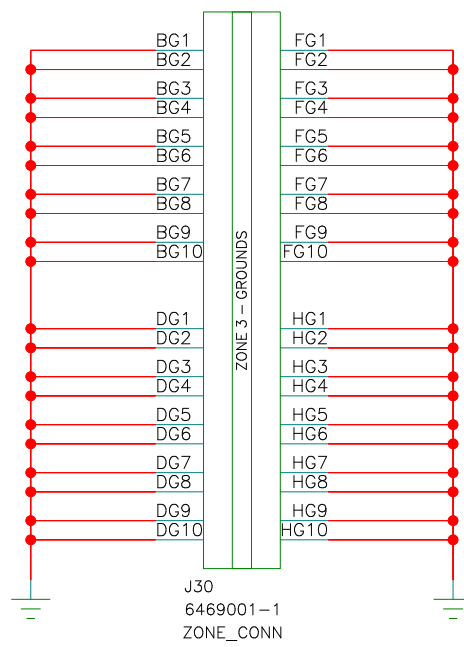


2-WIRE BUS BUFFER



ANALOG SWITCH

GEOGRAPHIC ADDRESSING FOR RTM



RTM 2 OF 2

COMPANY	STONY BROOK UNIVERSITY			
TITLE	ATCA			
SIZE	B	REV	A	SHEET 49 OF 49
DRAWN	ES	DATE	12/01/2014:16:14	

A B C D E F

4

4

3

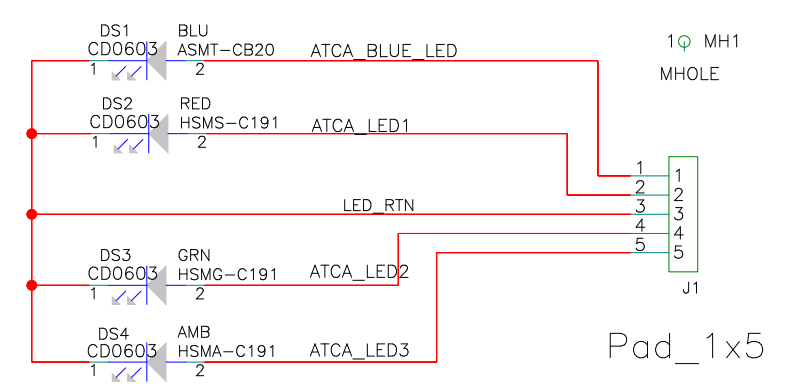
3

2

2

1

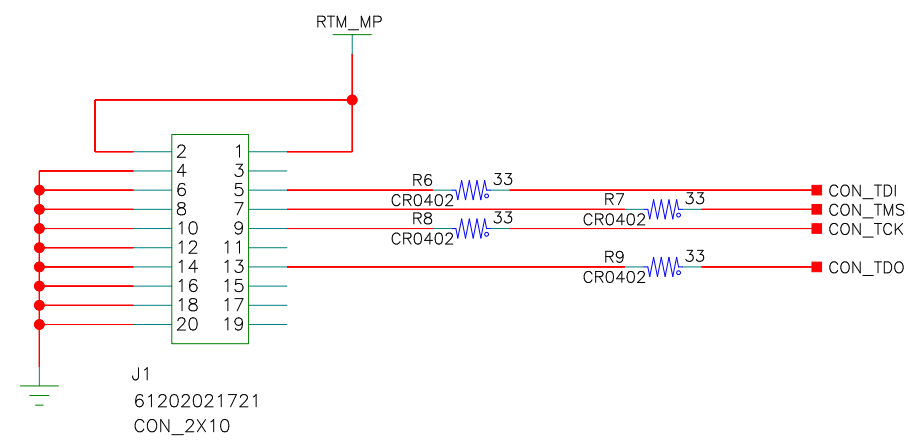
1



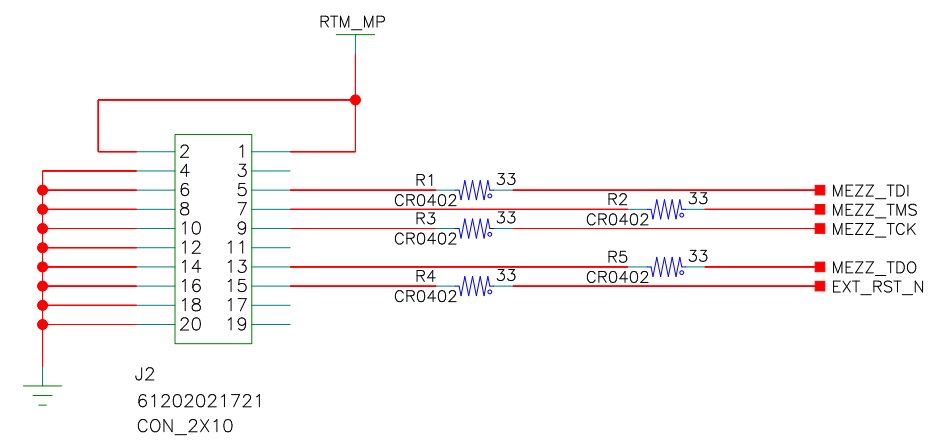
# FRONT PANEL LEDS

COMPANY	STONY BROOK UNIVERSITY		
TITLE	FRONT PANEL LEDS		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	1 OF 1

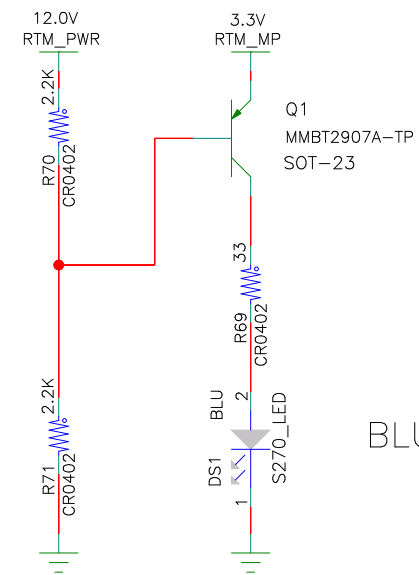
A B C D E F



ATCA JTAG CHAIN

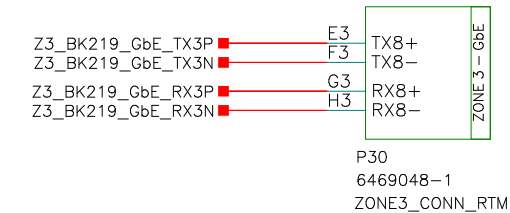
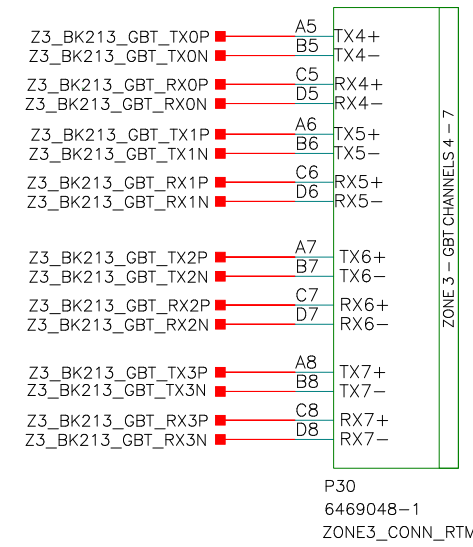
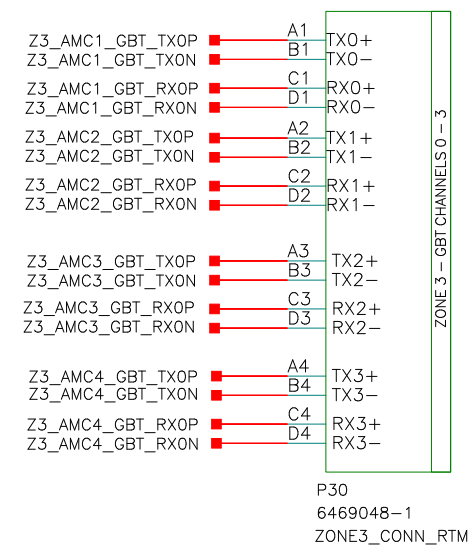
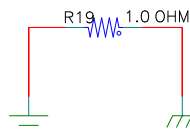
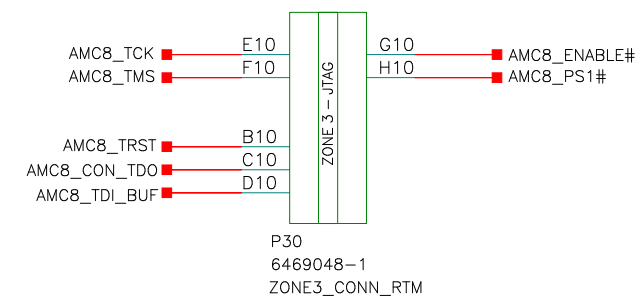
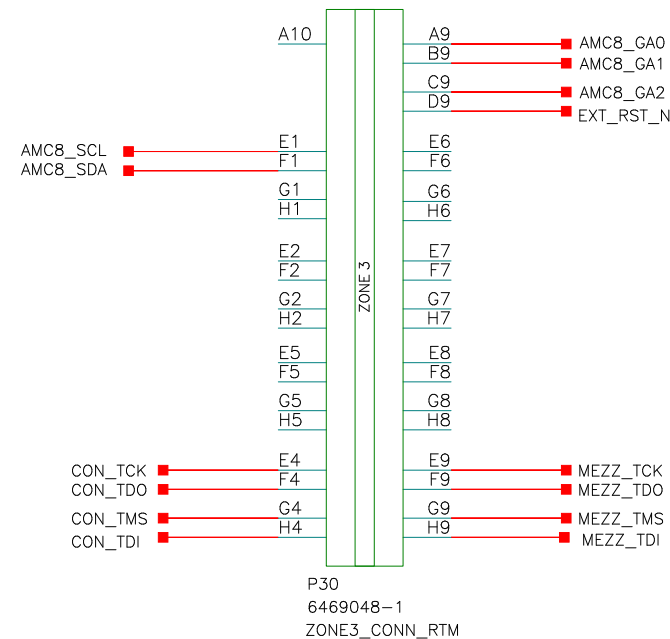
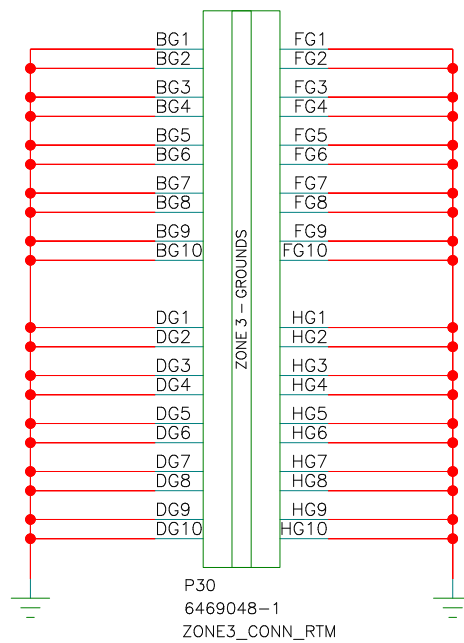


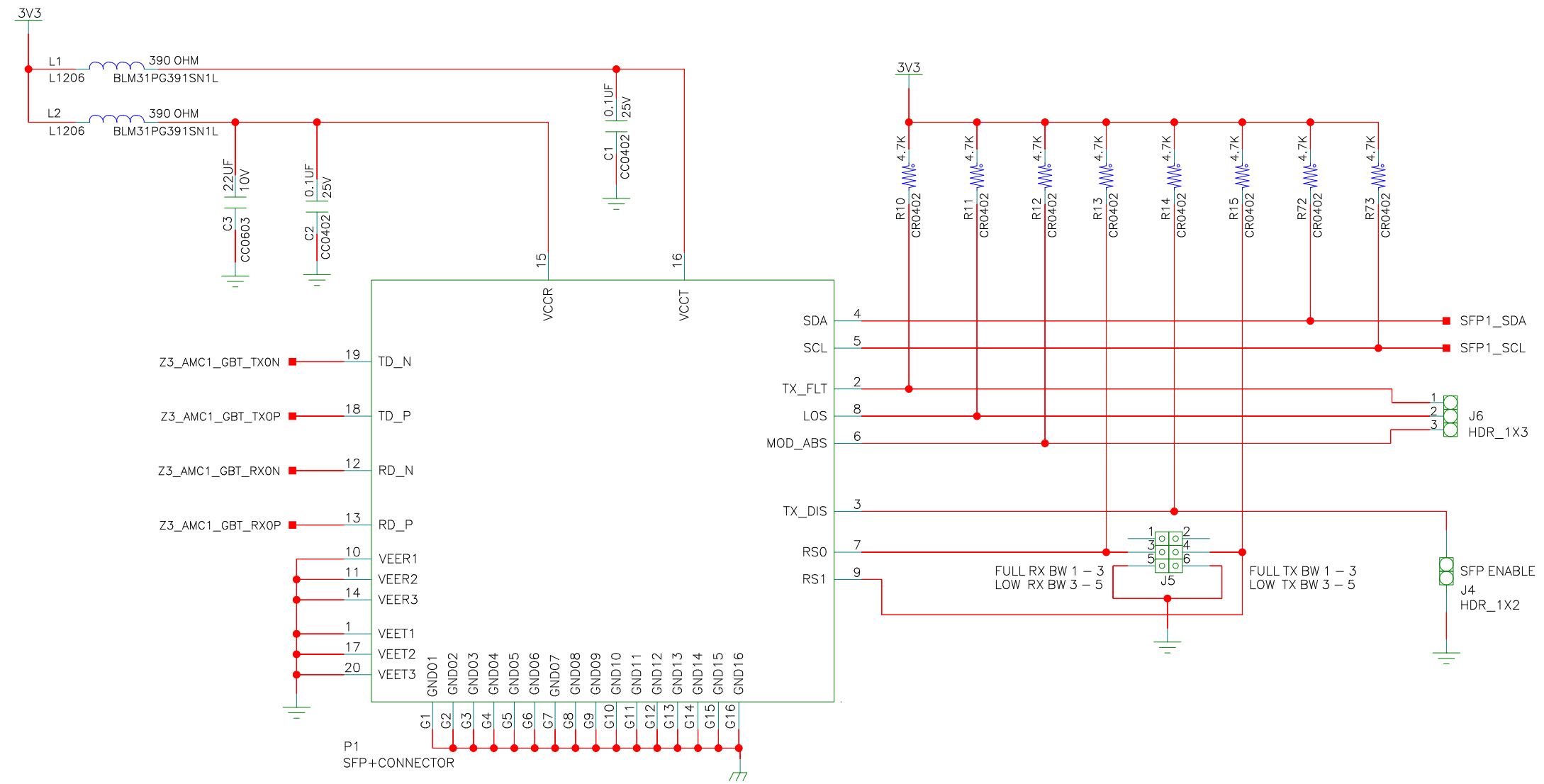
MEZZ JTAG CHAIN



BLUE HOTSWAP LED

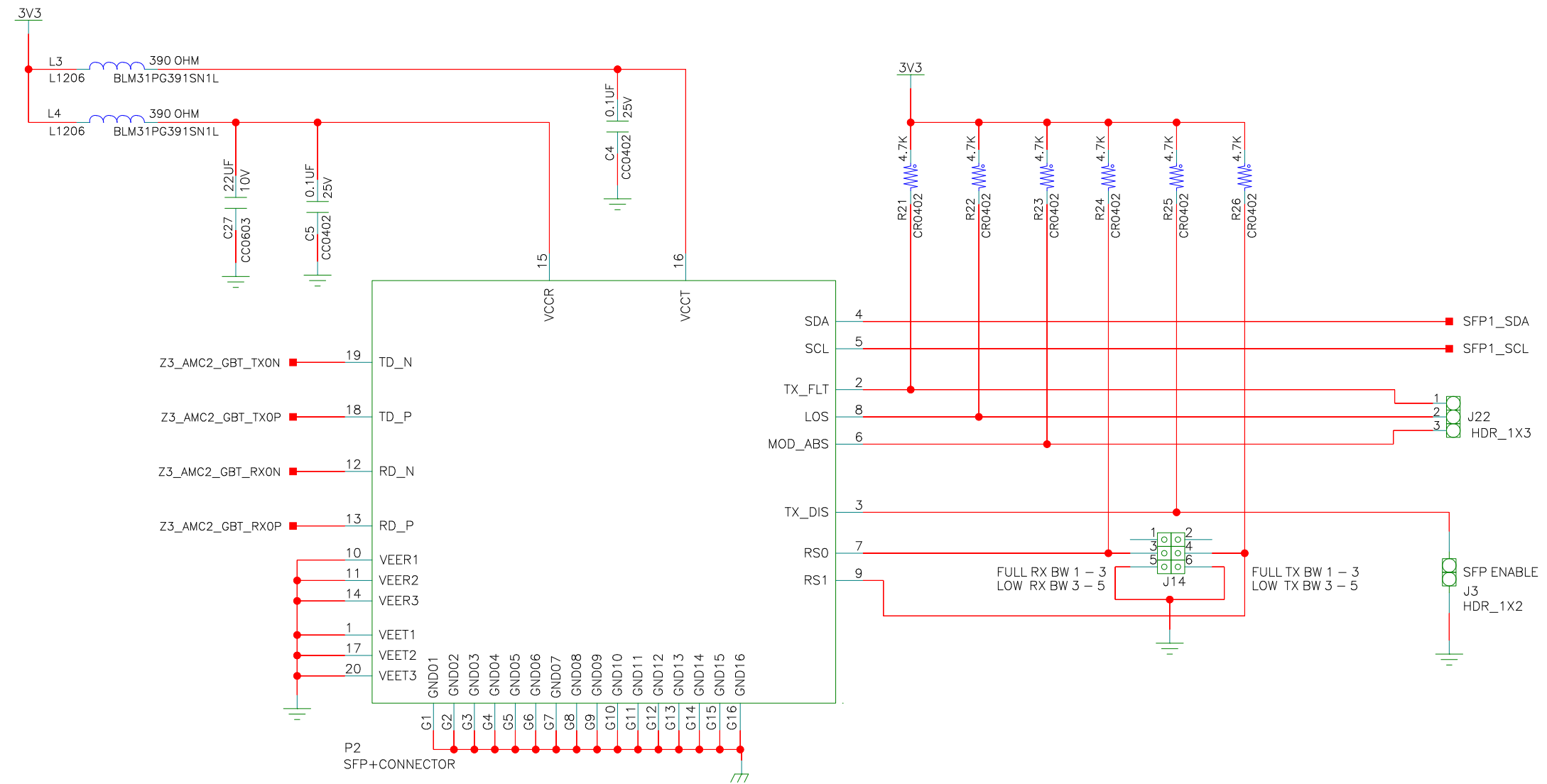
COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET 1	OF 12





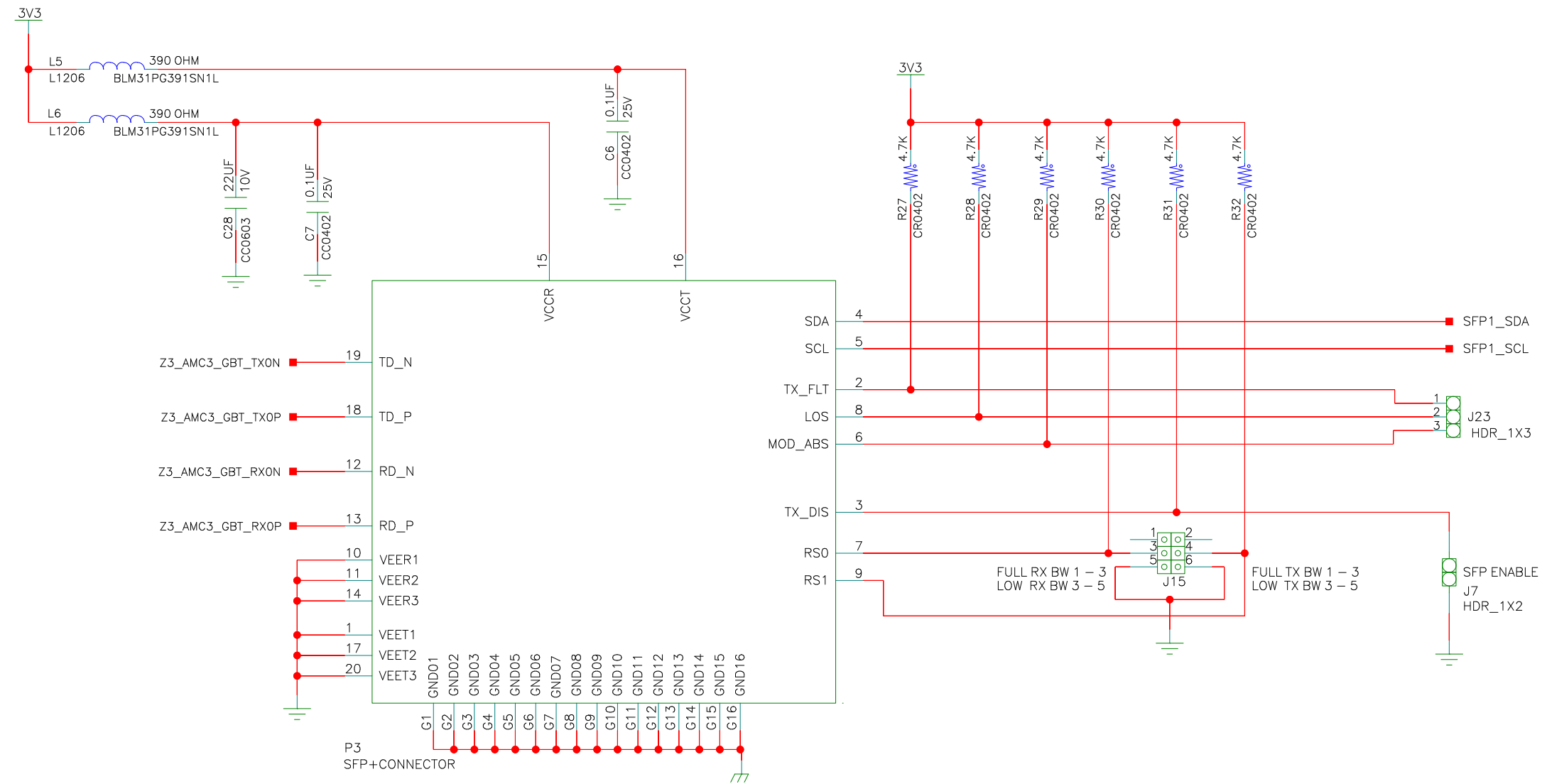
SFP+ CONNECTOR  
GBT CH 0

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	3 OF 12



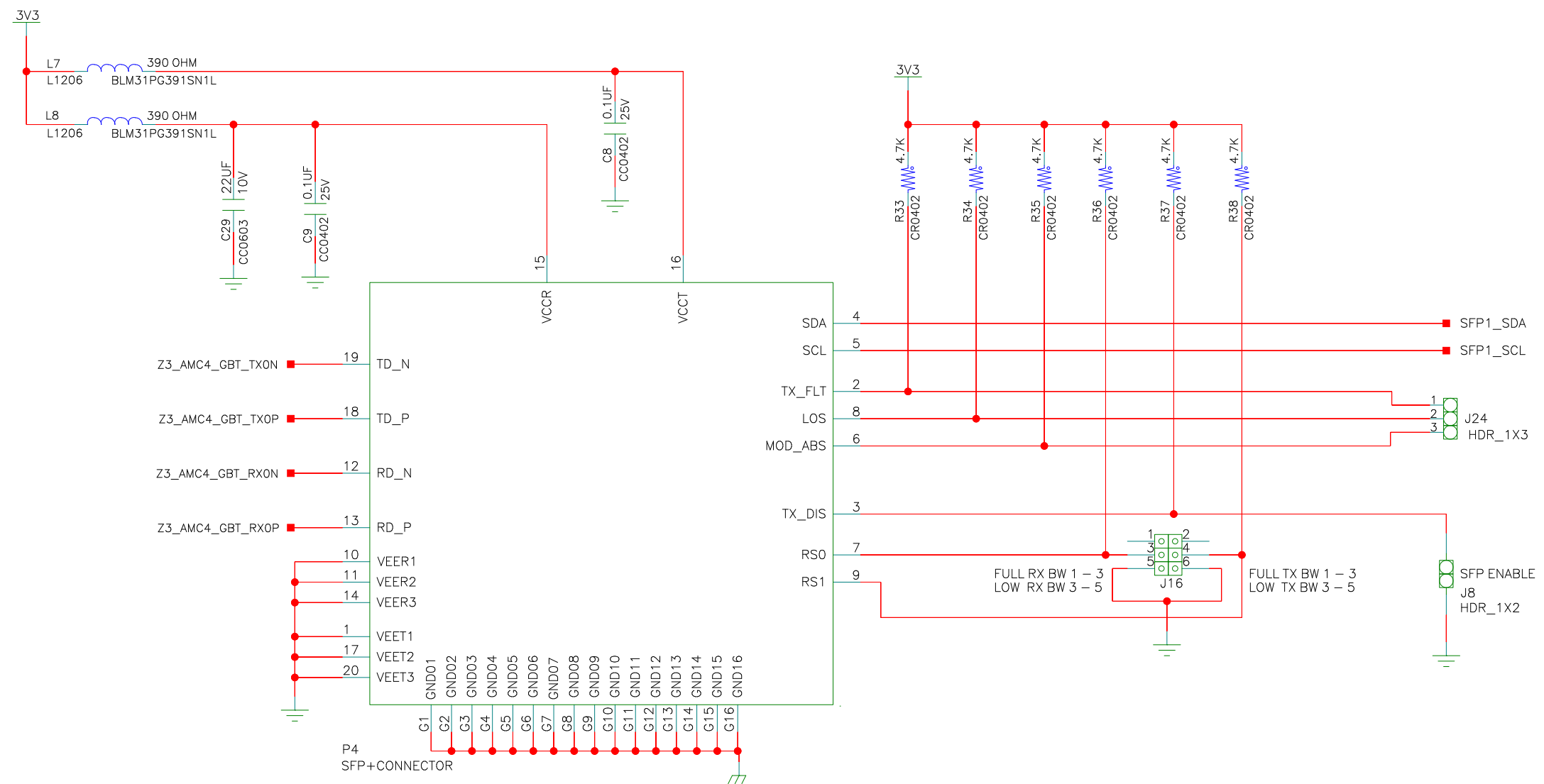
SFP+ CONNECTOR  
GBT CH 1

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	4 OF 12



SFP+ CONNECTOR  
GBT CH 2

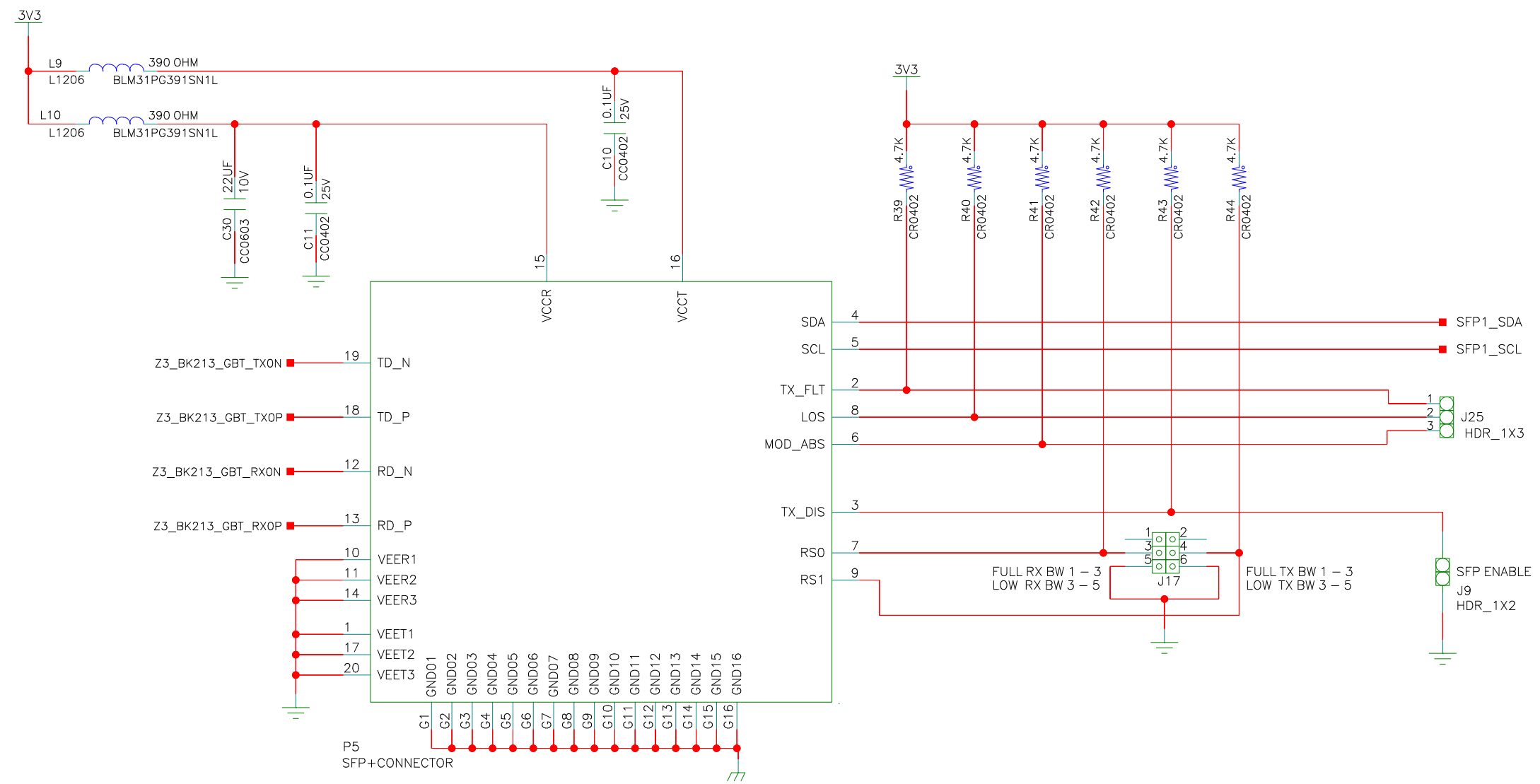
COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	5 OF 12



SFP+ CONNECTOR  
GBT CH 3

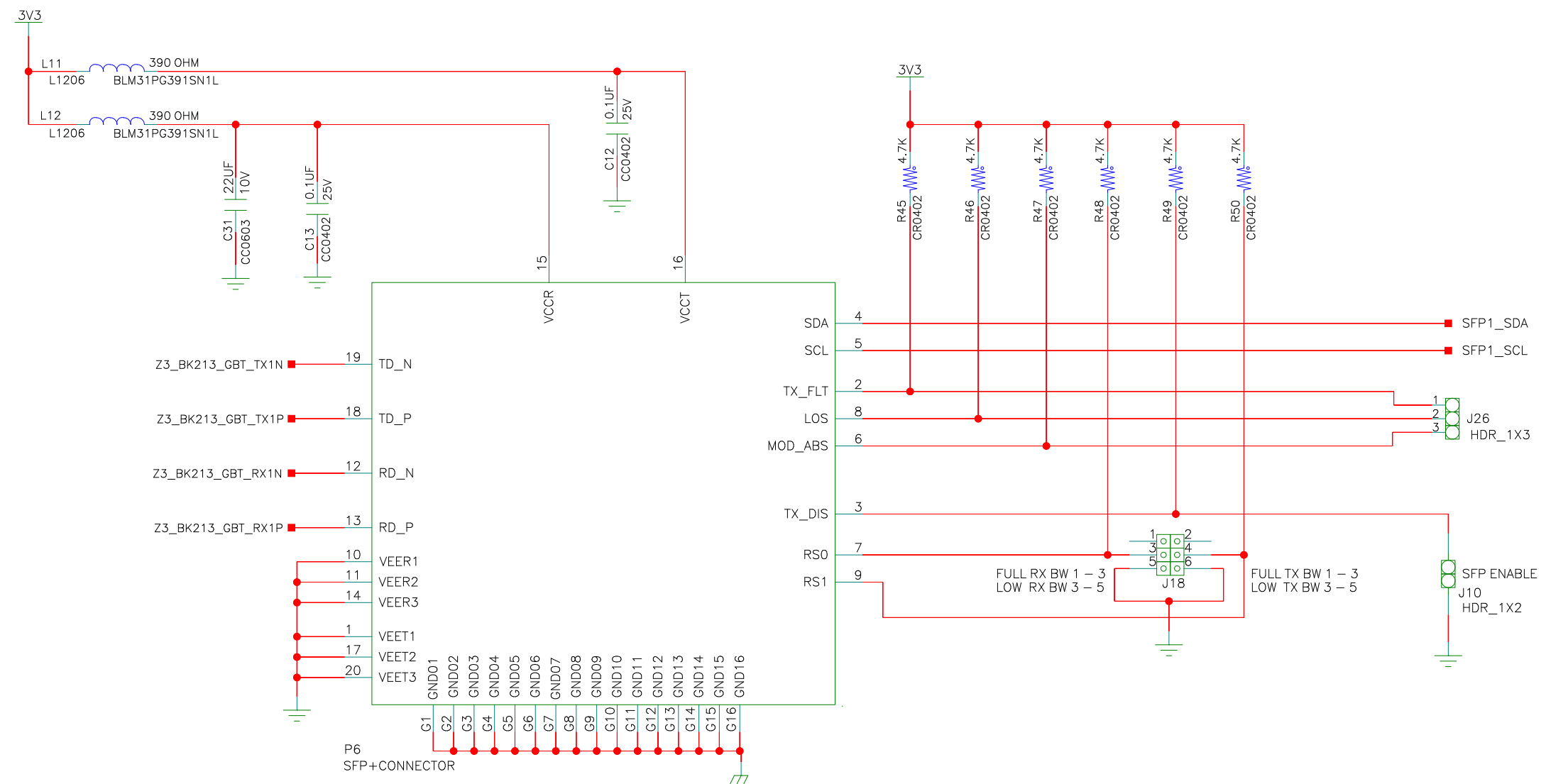
COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	6 OF 12





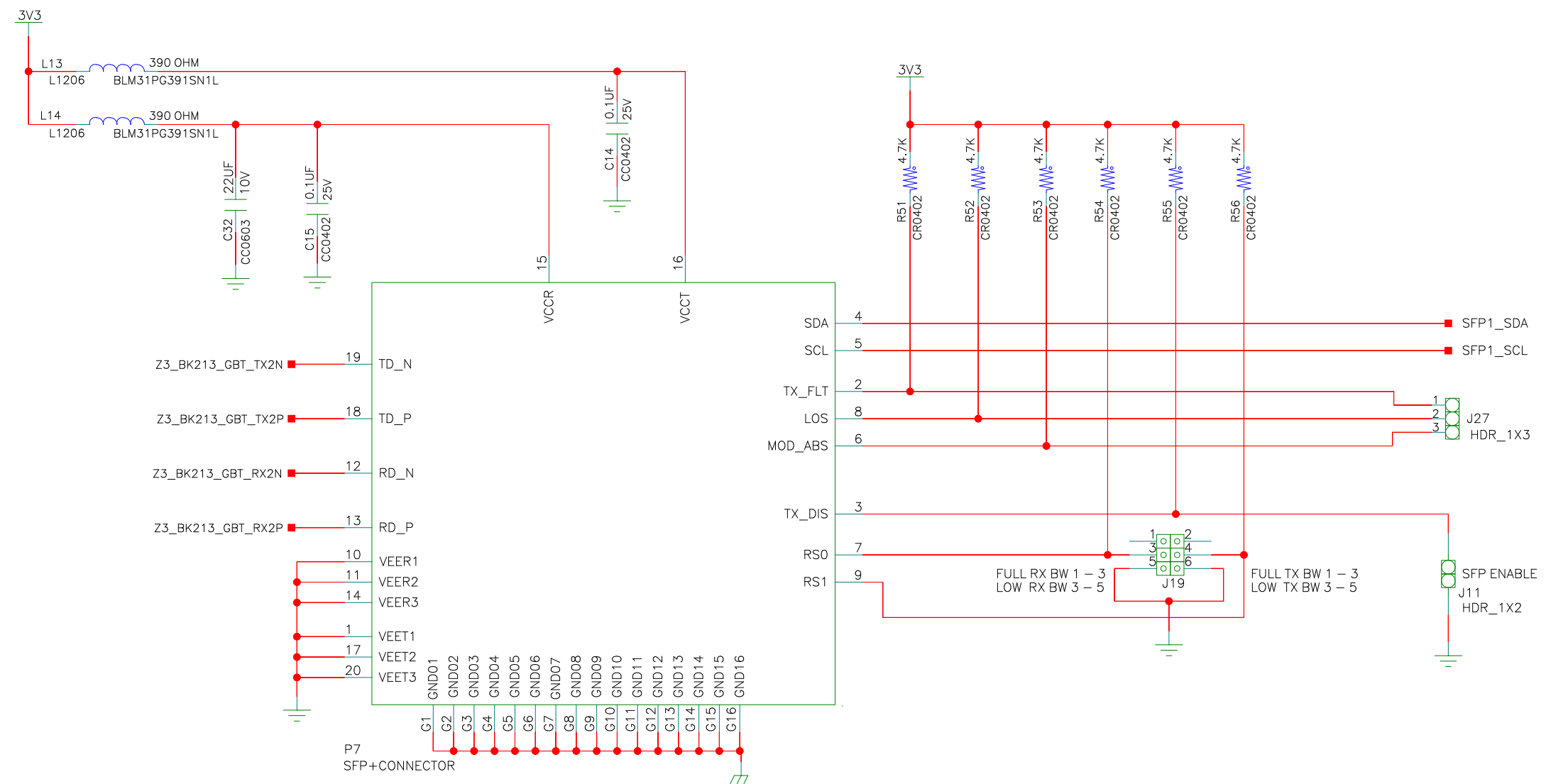
SFP+ CONNECTOR  
GBT CH 4

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	7 OF 12



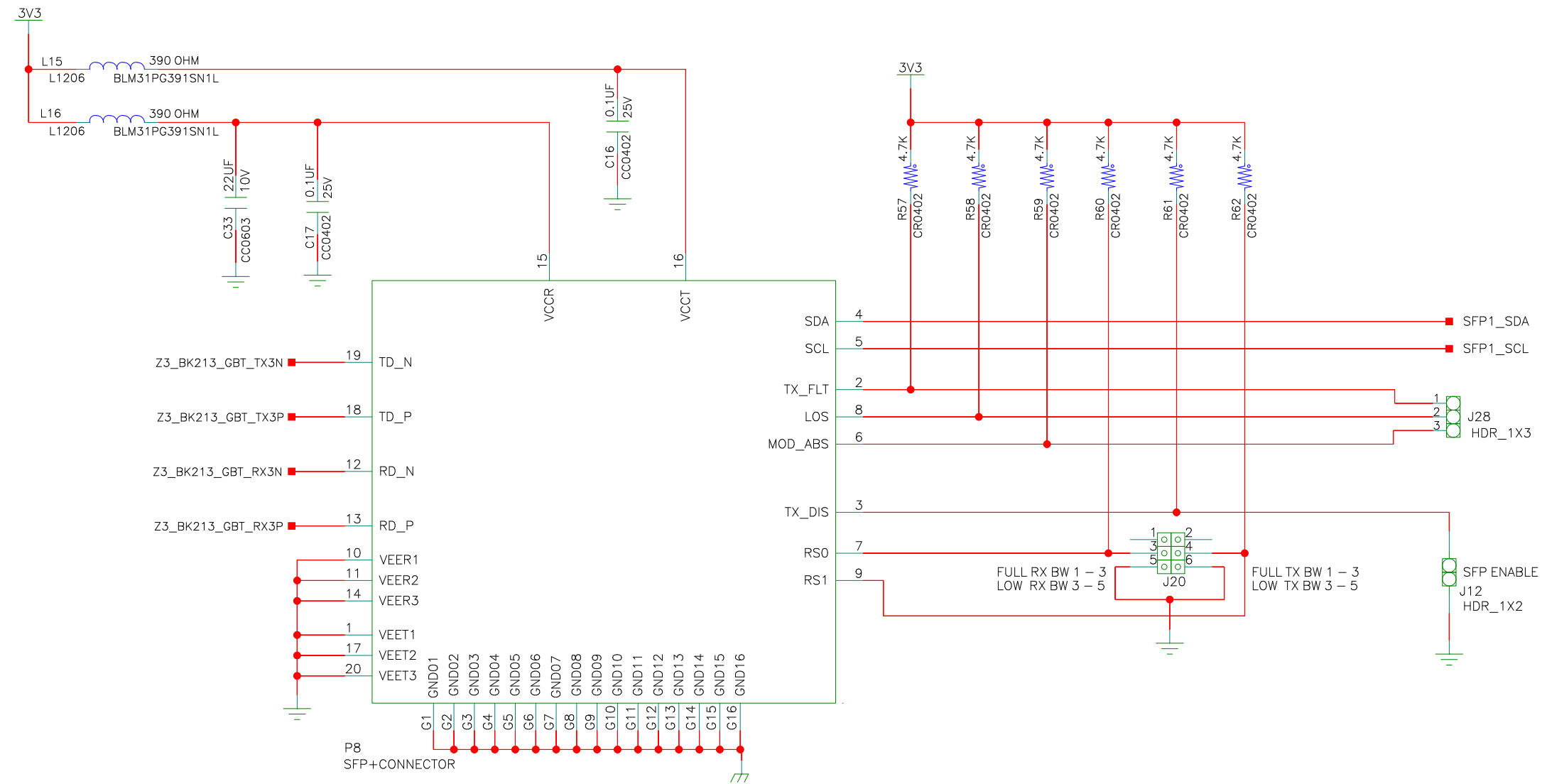
SFP+ CONNECTOR  
GBT CH 5

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	8 OF 12



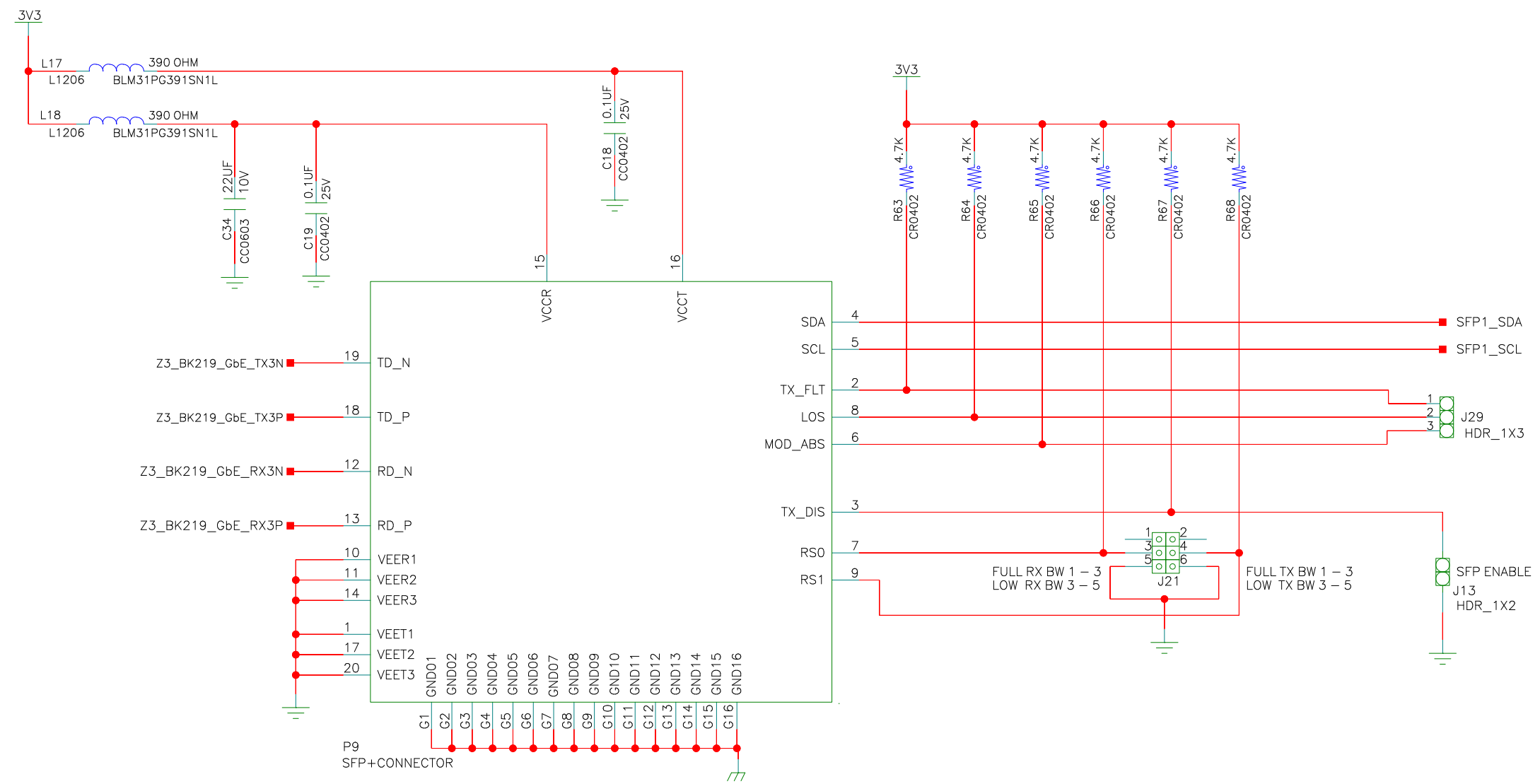
SFP+ CONNECTOR  
GBT CH 6

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	9 OF 12



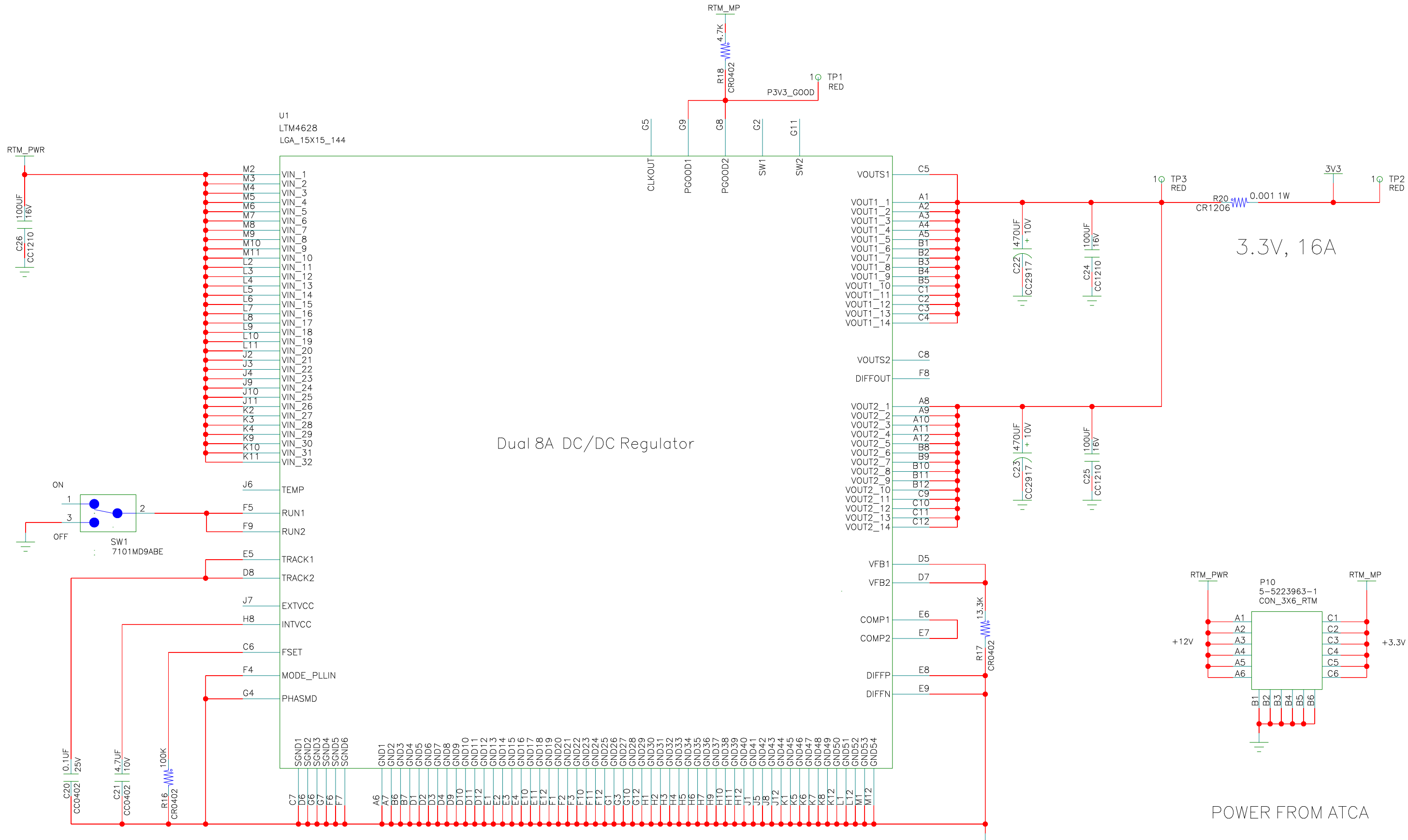
SFP+ CONNECTOR  
GBT CH 7

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	10 OF 12



SFP+ CONNECTOR  
GBE CH 1

COMPANY	STONY BROOK UNIVERSITY		
TITLE	RTM		
SIZE	B	REV	A
DRAWN	ES	DATE	12/01/2014:08:22
		SHEET	11 OF 12



COMPANY	STONY BROOK UNIVERSITY			
TITLE	RTM			
SIZE	B	REV	A	SHEET 12 OF 12
DRAWN	ES	DATE	12/01/2014:08:22	