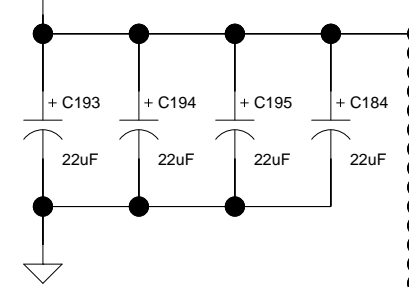


VCC12V

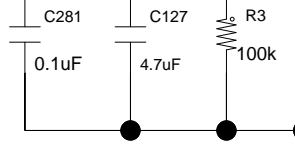


U22

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



LTM4628

Dual 8A DC/DC Regulator

- G5 CLKOUT
- G9 PGOOD1
- G8 PGOOD2
- G2 SW1
- G11 SW2

- VOUTS1
- VOUT1_1
- VOUT1_2
- VOUT1_3
- VOUT1_4
- VOUT1_5
- VOUT1_7
- VOUT1_8
- VOUT1_9
- VOUT1_10
- VOUT1_11
- VOUT1_12
- VOUT1_13
- VOUT1_14

- VOUTS2
- DIFFOUT

- VOUT2_1
- VOUT2_2
- VOUT2_3
- VOUT2_4
- VOUT2_5
- VOUT2_6
- VOUT2_7
- VOUT2_8
- VOUT2_9
- VOUT2_10
- VOUT2_11
- VOUT2_12
- VOUT2_13
- VOUT2_14

- VFB1

- VFB2

- COMP1

- COMP2

- DIFFP

- DIFFN

- C5
- A1
- A2
- A3
- A4
- A5
- B1
- B2
- B3
- B4
- B5
- C1
- C2
- C3
- C4

- C8
- F8

- A8
- A9
- A10
- A11
- A12
- B8
- B9
- B10
- B11
- B12
- C9
- C10
- C11
- C12

- D5

- D7

- E6

- E7

- E8

- E9



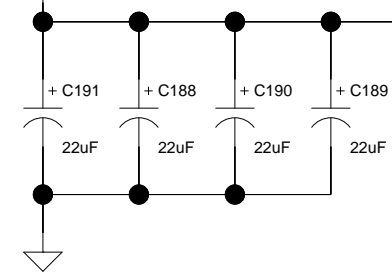
PG_5V0

VCC5V 5V, 16A

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

COMPANY			
Stony Brook University			
TITLE			
AMC 5V0 PREREGULATOR			
SIZE	B	REV 1.0	SHEET 1 OF 41
DRAWN	CEP	DATE	17/07/2014:05:22

VCC12V



U24

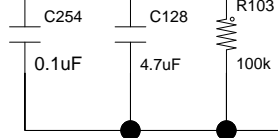
- M2 VIN_1
- M3 VIN_2
- M4 VIN_3
- M5 VIN_4
- M6 VIN_5
- M7 VIN_6
- M8 VIN_7
- M9 VIN_8
- M10 VIN_9
- M11 VIN_10
- L2 VIN_11
- L3 VIN_12
- L4 VIN_13
- L5 VIN_14
- L6 VIN_15
- L7 VIN_16
- L8 VIN_17
- L9 VIN_18
- L10 VIN_19
- L11 VIN_20
- J2 VIN_21
- J3 VIN_22
- J4 VIN_23
- J9 VIN_24
- J10 VIN_25
- J11 VIN_26
- K2 VIN_27
- K3 VIN_28
- K4 VIN_29
- K9 VIN_30
- K10 VIN_31
- K11 VIN_32

LTM4628

Dual 8A DC/DC Regulator

ENABLE_PWR1

- J6 TEMP
- F5 RUN1
- F9 RUN2
- E5 TRACK1
- D8 TRACK2
- J7 EXTVCC
- H8 INTVCC
- C6 FSET
- F4 MODE_PLLIN
- G4 PHASMD



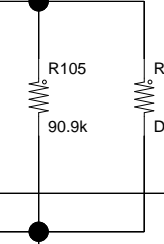
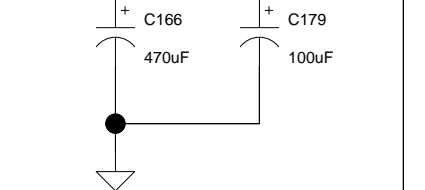
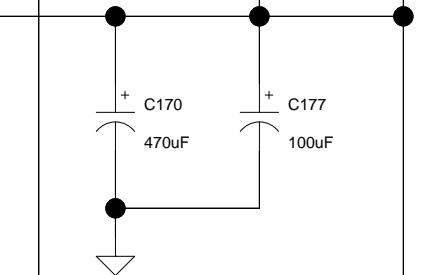
- SGND1 GND1
- SGND2 GND2
- SGND3 GND3
- SGND4 GND4
- SGND5 GND5
- SGND6 GND6
- C7 A6
- D6 A7
- G6 B6
- G7 B7
- F6 D1
- F7 D2
- F7 D3
- F7 D4
- F7 D5
- F7 D6
- F7 D7
- F7 D8
- F7 D9
- F7 D10
- F7 D11
- F7 D12
- F7 D13
- F7 D14
- F7 D15
- F7 D16
- F7 D17
- F7 D18
- F7 D19
- F7 D20
- F7 D21
- F7 D22
- F7 D23
- F7 D24
- F7 D25
- F7 D26
- F7 D27
- F7 D28
- F7 D29
- F7 D30
- F7 D31
- F7 D32
- F7 D33
- F7 D34
- F7 D35
- F7 D36
- F7 D37
- F7 D38
- F7 D39
- F7 D40
- F7 D41
- F7 D42
- F7 D43
- F7 D44
- F7 D45
- F7 D46
- F7 D47
- F7 D48
- F7 D49
- F7 D50
- F7 D51
- F7 D52
- F7 D53
- F7 D54

- G5 CLKOUT
- G9 PGOOD1
- G8 PGOOD2
- 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 B12
- VOUT2_11 C9
- VOUT2_12 C10
- VOUT2_13 C11
- VOUT2_14 C12

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

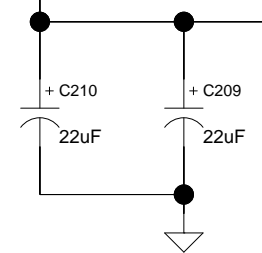


1V, 16A

PG_1V0

COMPANY		Stony Brook University	
TITLE		AMC 1V0 CORE VOLTAGE	
SIZE	B	REV 1.0	SHEET 2 OF 41
DRAWN	CEP	DATE	17/07/2014:05:21

VCC5V



U33

C2 VIN1_C2
 C1 VIN1_C1
 D2 VIN1_D2
 D1 VIN1_D1
 E4 VIN1_E4
 E3 VIN1_E3
 E2 VIN1_E2
 E1 VIN1_E1
 F4 VIN1_F4
 F3 VIN1_F3
 F2 VIN1_F2
 F1 VIN1_F1
 J1 VIN2_J1
 J2 VIN2_J2
 K1 VIN2_K1
 K2 VIN2_K2
 L1 VIN2_L1
 L2 VIN2_L2
 L3 VIN2_L3
 L4 VIN2_L4
 M1 VIN2_M1
 M2 VIN2_M2
 M3 VIN2_M3
 M4 VIN2_M4

B6 SW1_B6

H6 SW2_H6

A7 CLKIN1_A7

F7 CLKOUT1_F7

G7 CLKIN2_G7

M7 CLKOUT2_M7

LTM4616

Dual 8A DC/DC Regulator

M6 RUN2_M6
 L6 PLLLPF2_L6
 L5 SVIN2_L5
 G9 PHMODE2_G9
 L8 TRACK2_L8
 G8 MODE2_G8
 F6 RUN1_F6
 E6 PLLLPF1_E6
 E5 SVIN1_E5
 A9 PHMODE1_A9
 E8 TRACK1_E8
 A8 MODE1_A8
 F5 SGND1_F5

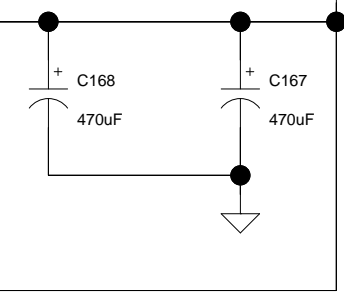
A1 GND1_A1
 A2 GND1_A2
 A3 GND1_A3
 A4 GND1_A4
 A5 GND1_A5
 A12 GND1_A12
 B1 GND1_B1
 B2 GND1_B2
 B3 GND1_B3
 B4 GND1_B4
 B5 GND1_B5
 B7 GND1_B7
 B8 GND1_B8
 B9 GND1_B9
 B10 GND1_B10
 B11 GND1_B11
 B12 GND1_B12
 C3 GND1_C3
 C4 GND1_C4
 C5 GND1_C5
 C6 GND1_C6
 C7 GND1_C7
 C8 GND1_C8
 C9 GND1_C9
 C10 GND1_C10
 C11 GND1_C11
 C12 GND1_C12
 D3 GND1_D3
 D4 GND1_D4
 D5 GND1_D5
 D6 GND1_D6
 D7 GND1_D7

G1 GND2_G1
 G2 GND2_G2
 G3 GND2_G3
 G4 GND2_G4
 G5 GND2_G5
 G12 GND2_G12
 H1 GND2_H1
 H2 GND2_H2
 H3 GND2_H3
 H4 GND2_H4
 H5 GND2_H5
 H7 GND2_H7
 H8 GND2_H8
 H9 GND2_H9
 H10 GND2_H10
 H11 GND2_H11
 H12 GND2_H12
 J3 GND2_J3
 J4 GND2_J4
 J5 GND2_J5
 J6 GND2_J6
 J7 GND2_J7
 J8 GND2_J8
 J9 GND2_J9
 J10 GND2_J10
 J11 GND2_J11
 J12 GND2_J12
 K3 GND2_K3
 K4 GND2_K4
 K5 GND2_K5
 K6 GND2_K6
 K7 GND2_K7

D9 VOUT1_D9
 D10 VOUT1_D10
 D11 VOUT1_D11
 D12 VOUT1_D12
 E9 VOUT1_E9
 E10 VOUT1_E10
 E11 VOUT1_E11
 E12 VOUT1_E12
 F9 VOUT1_F9
 F10 VOUT1_F10
 F11 VOUT1_F11
 F12 VOUT1_F12

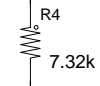
K9 VOUT2_K9
 K10 VOUT2_K10
 K11 VOUT2_K11
 K12 VOUT2_K12
 L9 VOUT2_L9
 L10 VOUT2_L10
 L11 VOUT2_L11
 L12 VOUT2_L12
 M9 VOUT2_M9
 M10 VOUT2_M10
 M11 VOUT2_M11
 M12 VOUT2_M12

D8 FB1_D8
 F8 ITH1_F8
 E7 ITHM1_E7
 A11 PGOOD1_A11
 A6 BSEL1_A6
 A10 MGN1_A10
 K8 FB2_K8
 M8 ITH2_M8
 L7 ITHM2_L7
 G11 PGOOD2_G11
 G6 BSEL2_G6
 G10 MGN2_G10
 M5 SGND2_M5



MGTAVCC 1V, 16A

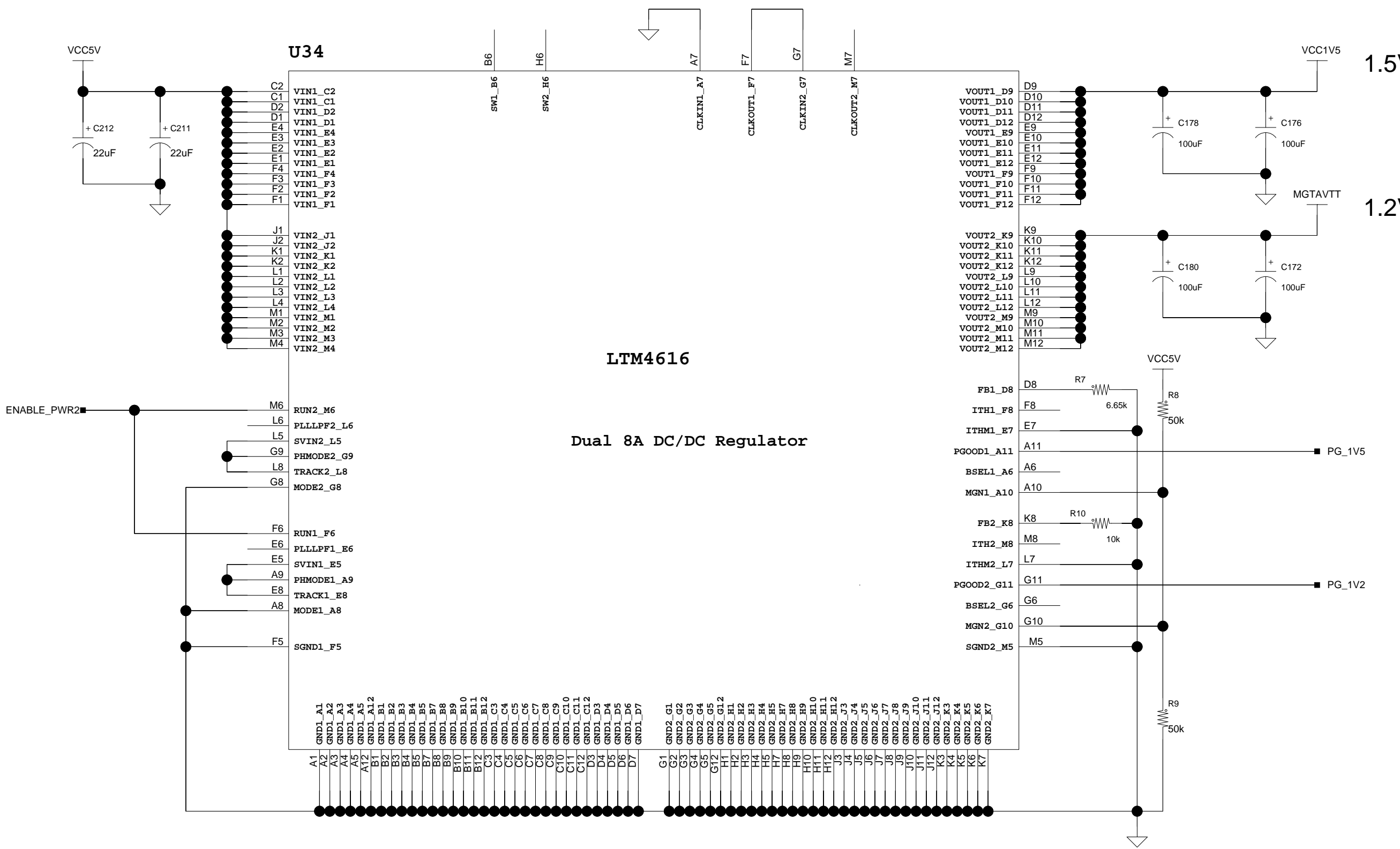
VCC5V



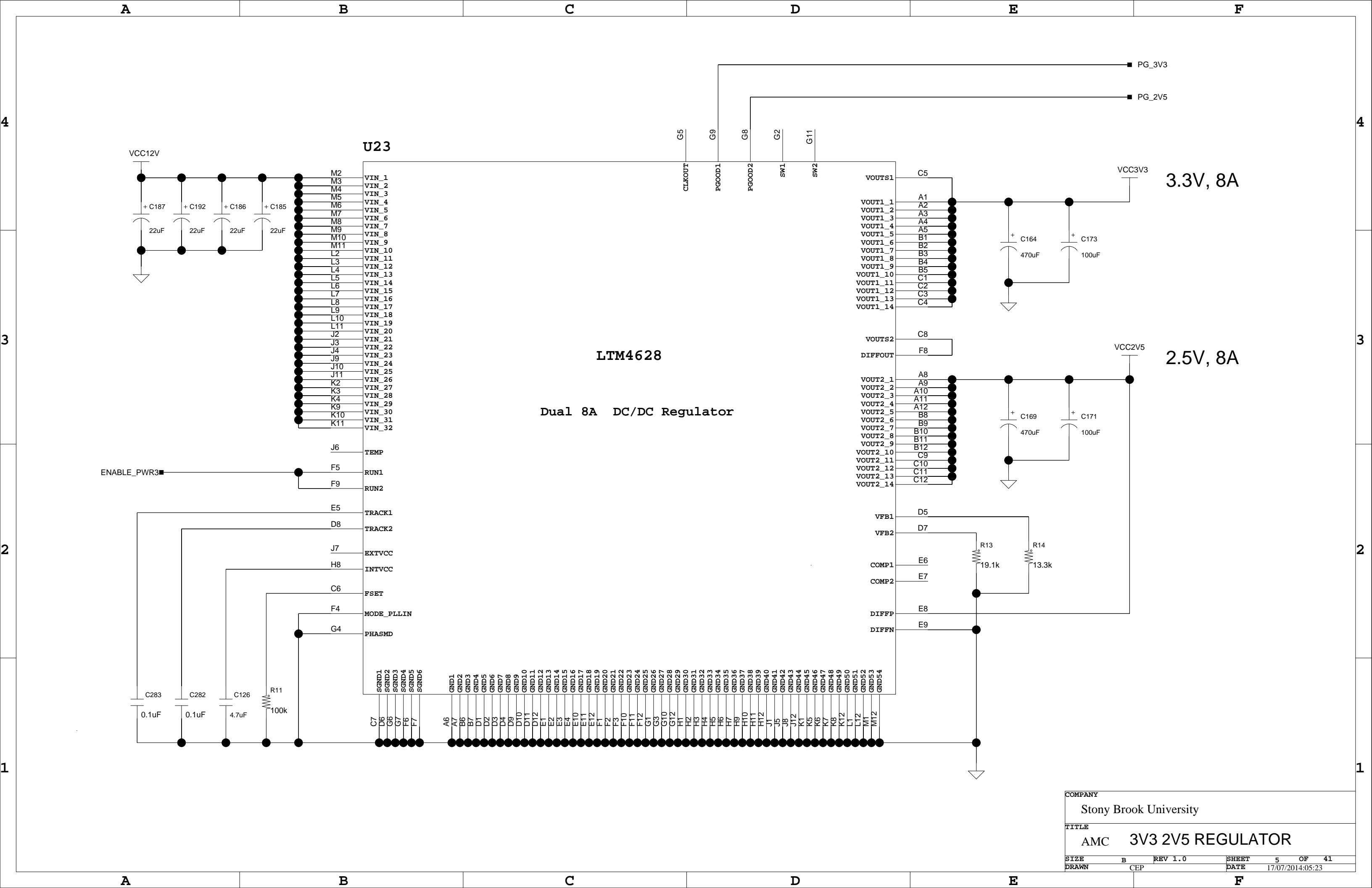
PG_1V0

ENABLE_PWR1

COMPANY			
Stony Brook University			
TITLE			
AMC 1V0 GTX MGTAVCC			
SIZE	B	REV 1.0	SHEET 3 OF 41
DRAWN	CEP	DATE	17/07/2014:05:18



COMPANY		Stony Brook University	
TITLE		AMC 1V5 1V2 REGULATOR	
SIZE	B	REV 1.0	SHEET 4 OF 41
DRAWN	CEP	DATE	17/07/2014:05:23



U23

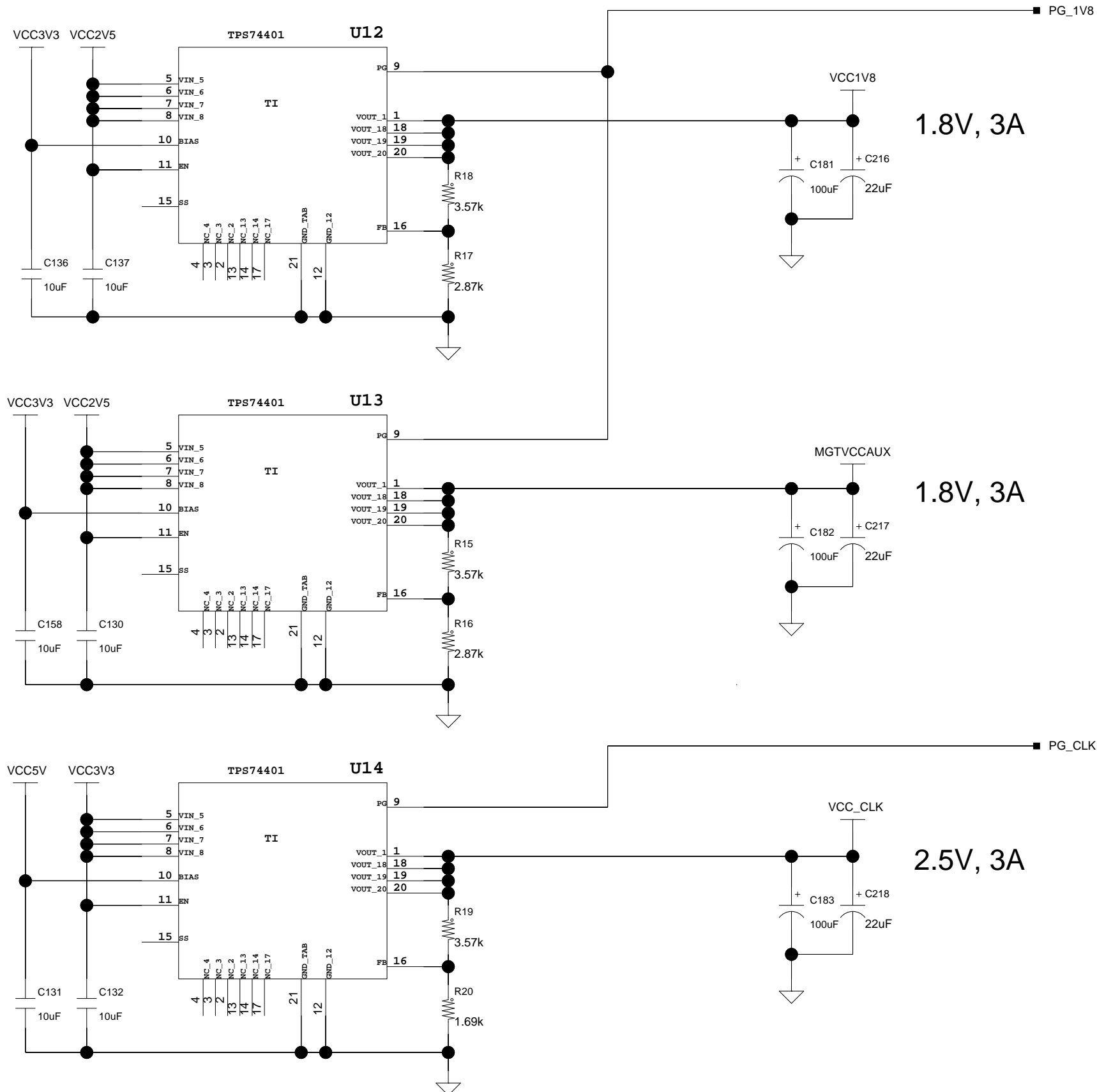
LTM4628

Dual 8A DC/DC Regulator

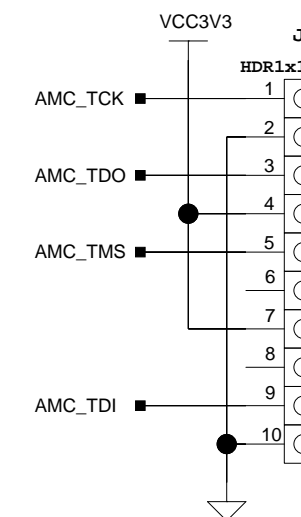
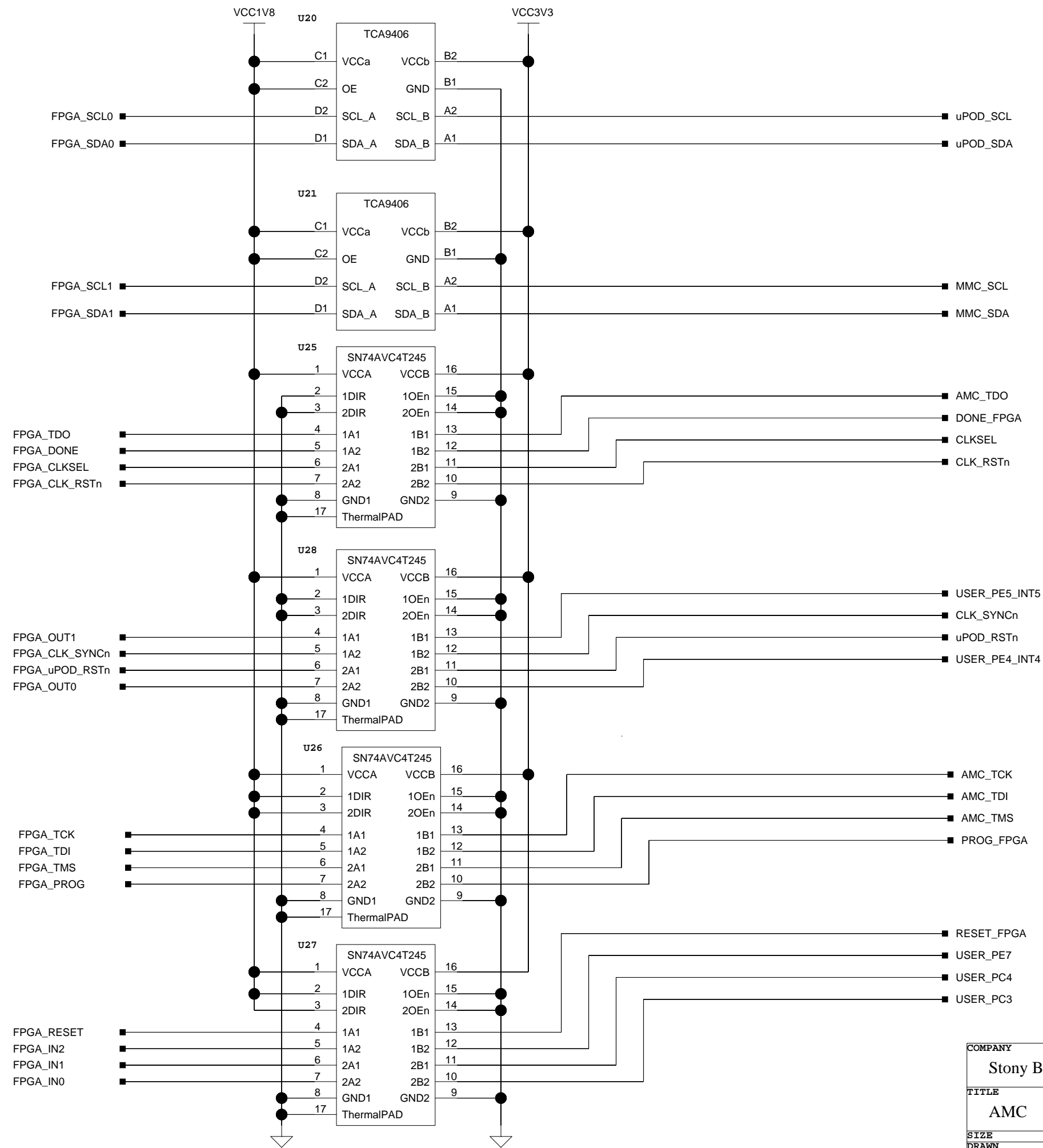
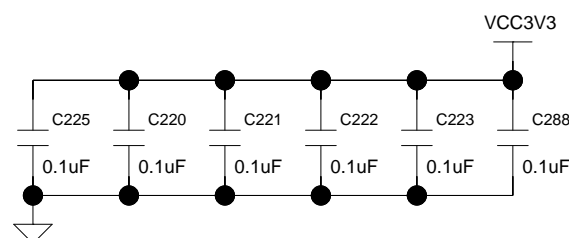
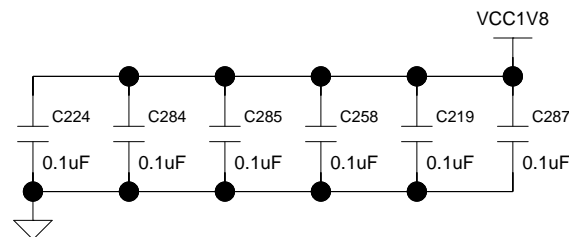
3.3V, 8A

2.5V, 8A

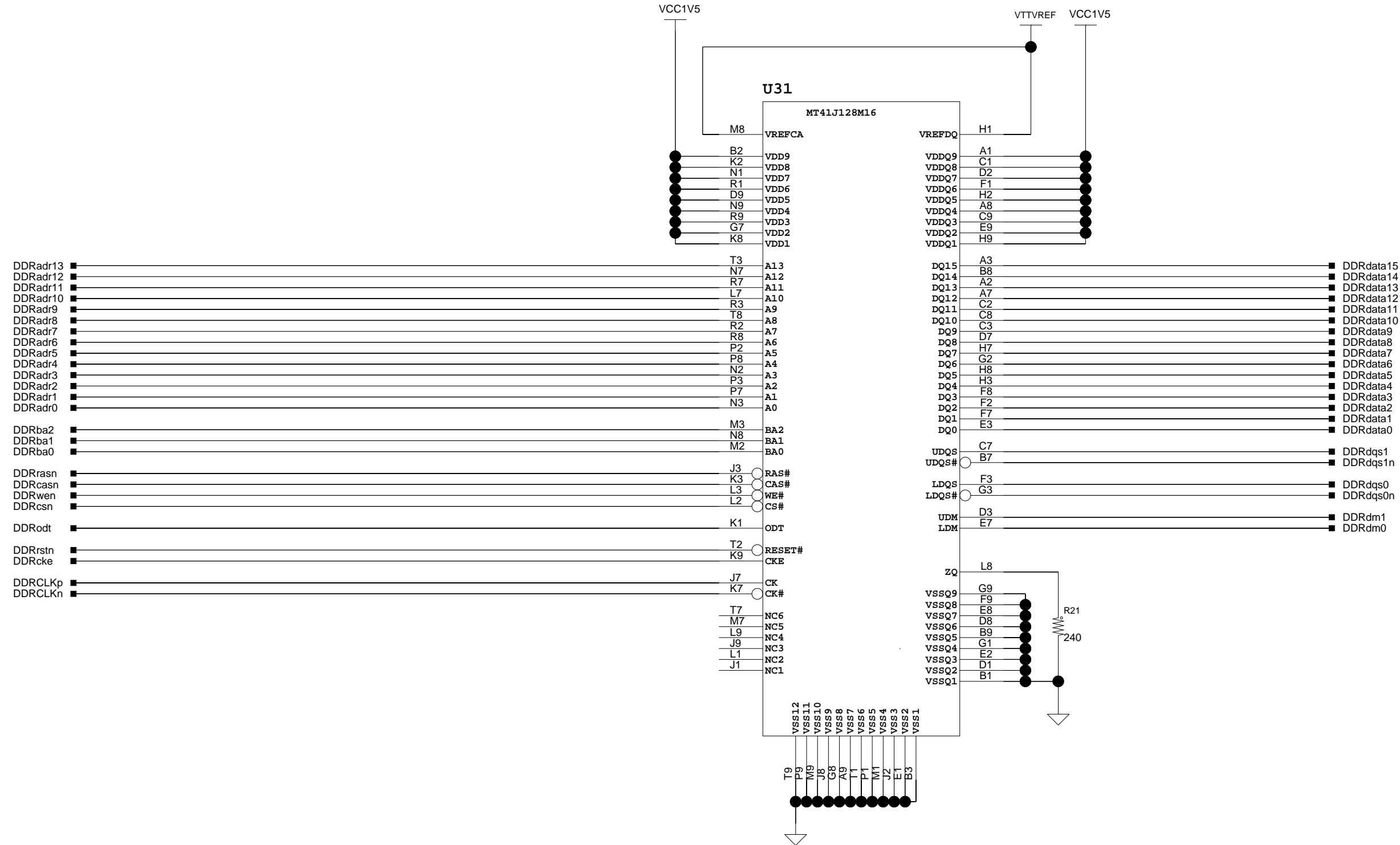
COMPANY				
Stony Brook University				
TITLE				
AMC 3V3 2V5 REGULATOR				
SIZE	B	REV 1.0	SHEET	5 OF 41
DRAWN	CEP	DATE	17/07/2014:05:23	



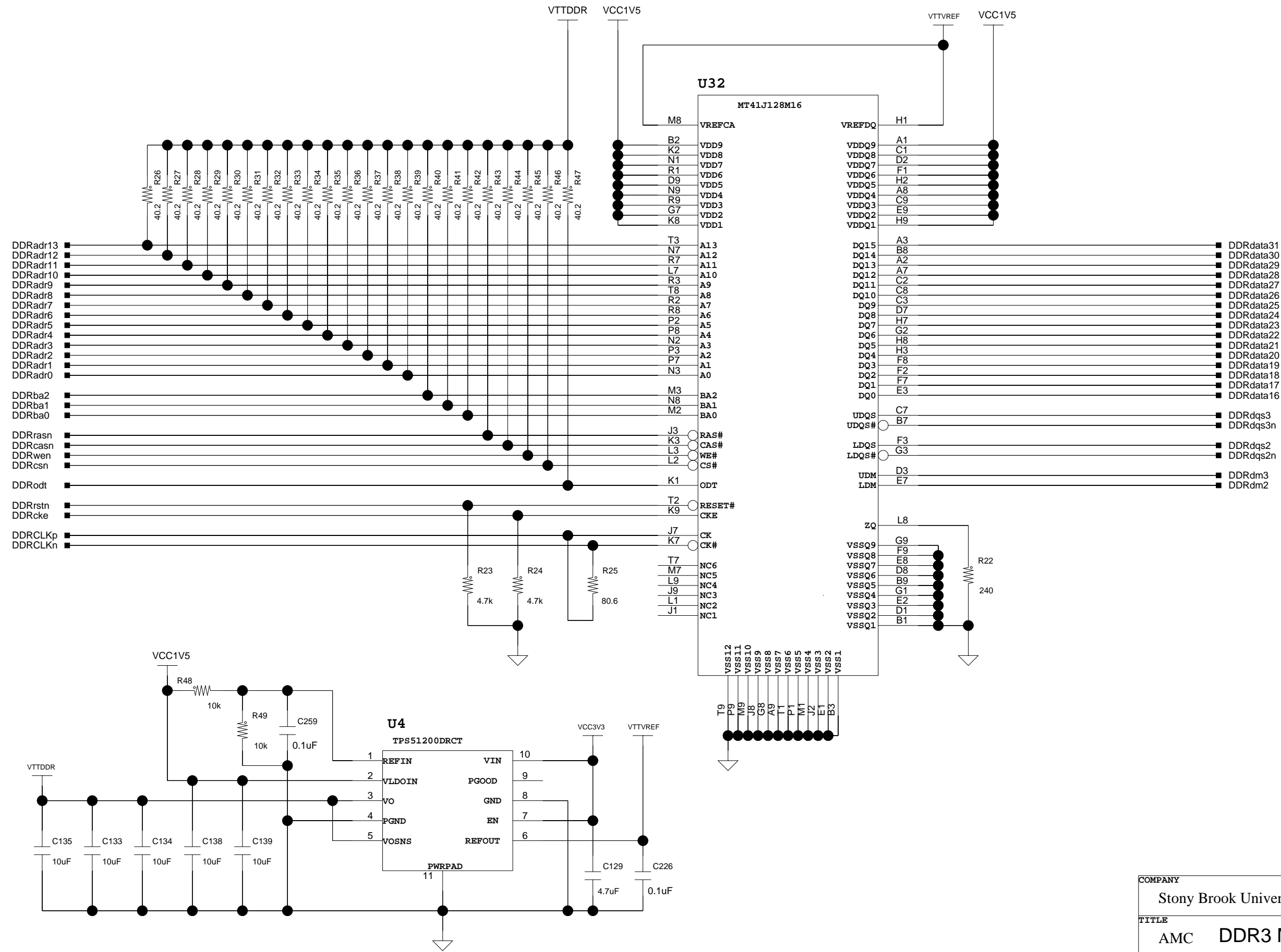
COMPANY			
Stony Brook University			
TITLE			
AMC LINEAR REGULATORS			
SIZE	B	REV 1.0	SHEET 6 OF 41
DRAWN	CEP	DATE	17/07/2014:05:26



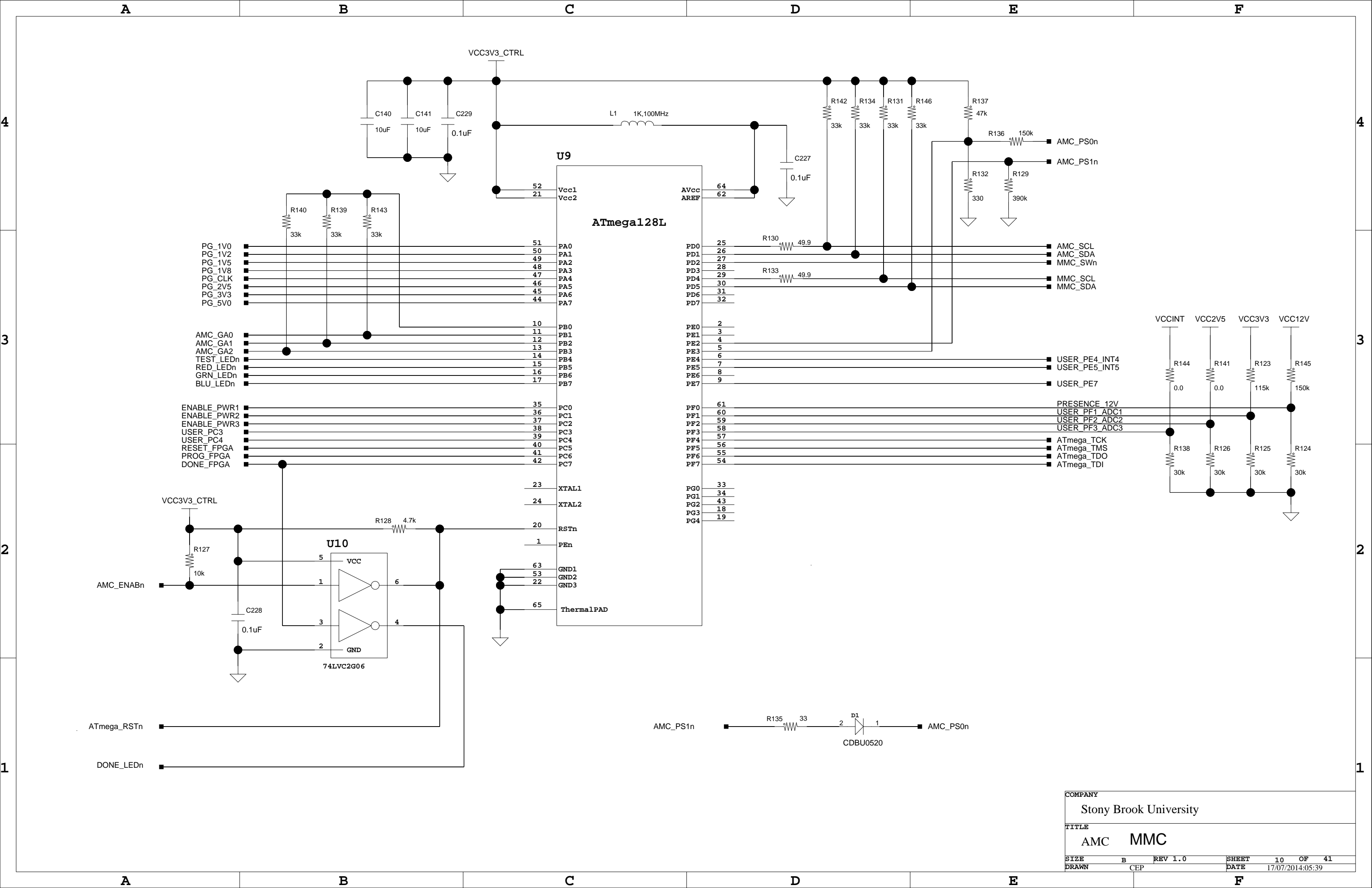
COMPANY			
Stony Brook University			
TITLE			
AMC LEVEL TRANSLATION			
SIZE	B	REV 1.0	SHEET 7 OF 41
DRAWN	CEP	DATE	17/07/2014:05:29



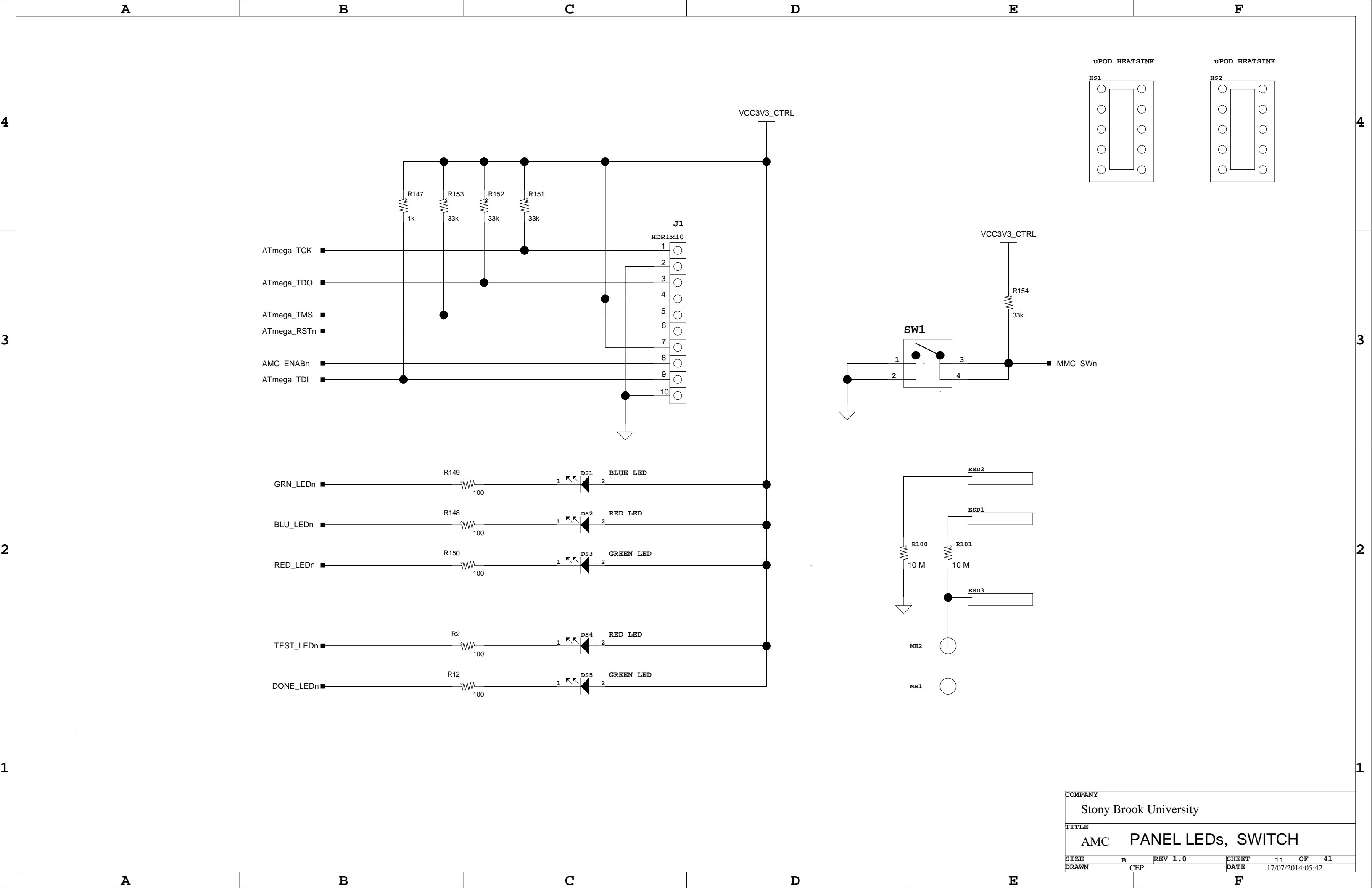
COMPANY		Stony Brook University	
TITLE		AMC DDR3 MEMORY - 1	
SIZE	B	REV 1.0	SHEET 8 OF 41
DRAWN	CEP	DATE	17/07/2014:05:37



COMPANY			
Stony Brook University			
TITLE			
AMC DDR3 MEMORY - 2			
SIZE	B	REV 1.0	SHEET 9 OF 41
DRAWN	CEP	DATE	17/07/2014:05:36



COMPANY			
Stony Brook University			
TITLE			
AMC MMC			
SIZE	B	REV 1.0	SHEET 10 OF 41
DRAWN	CEP	DATE	17/07/2014:05:39



COMPANY			
Stony Brook University			
TITLE			
AMC PANEL LEDs, SWITCH			
SIZE	B	REV 1.0	SHEET 11 OF 41
DRAWN	CEP	DATE	17/07/2014:05:42

VCC1V8

U30

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

AG12 VCC0_0_AG12
AE12 VCC0_0_AE12

VCC1V8

AE22
AB23
AB22
AE23
AC22
AD23
AC23
AD22
AE35
AE34
AF35
AF34
AG34
AG35
AK34
AE10
AK11
AE11
AF10
AG11
AG10

FPGA_TCK
FPGA_TMS
FPGA_TDO
FPGA_TDI
FPGA_PROG
FPGA_DONE

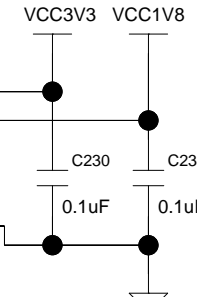
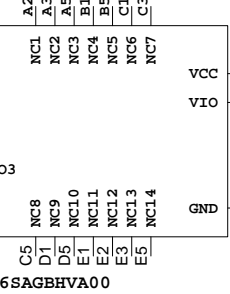
U30

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_CS0_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

BD28 VCC0_14_BD28
BA27 VCC0_14_BA27
AY30 VCC0_14_AY30
AU29 VCC0_14_AU29
AP28 VCC0_14_AP28
AL27 VCC0_14_AL27

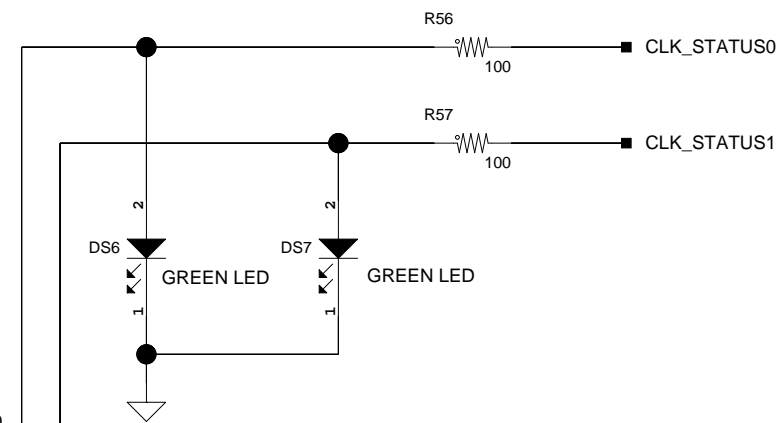
AT30
BC27
BD27
BD29
BD30
BB27
BB28
BB30
BC30
BC28
BC29
BA29
BA30
AW29
AY29
AW27
AY27
AY31
BA31
AY28
BA28
AW30
AW31
AV27
AV28
AU30
AV30
AU28
AV29
AN27
AP27
AT28
AT29
AP29
AP30
AR28
AR29
AN28
AN29
AM30
AN30
AK27
AK28
AM27
AM28
AJ29
AK29
AL28
AL29
AR27



FPGA_CLK_SYNCn
FPGA_CLK_RSTn
FPGA_CLKSEL

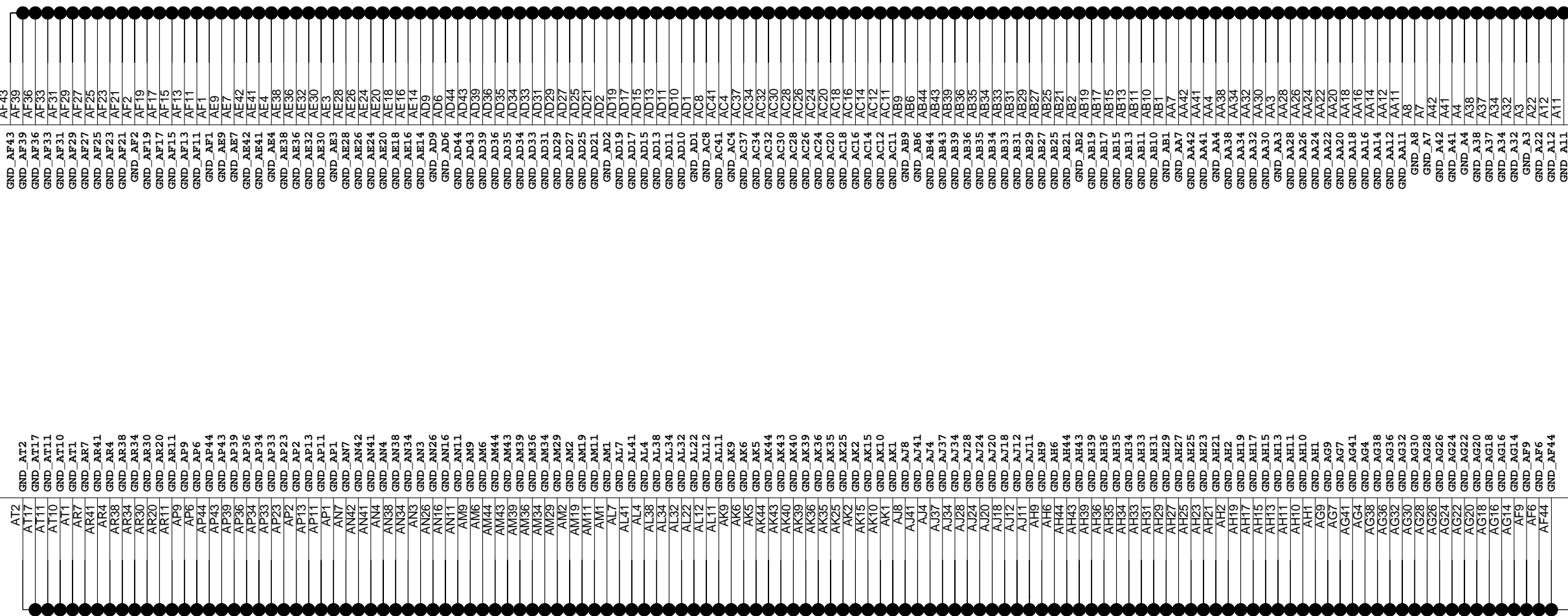
FPGA_CLK_STATUS0
FPGA_CLK_STATUS1

FPGA_RESET
FPGA_OUT0
FPGA_IN0
FPGA_IN1
FPGA_IN2

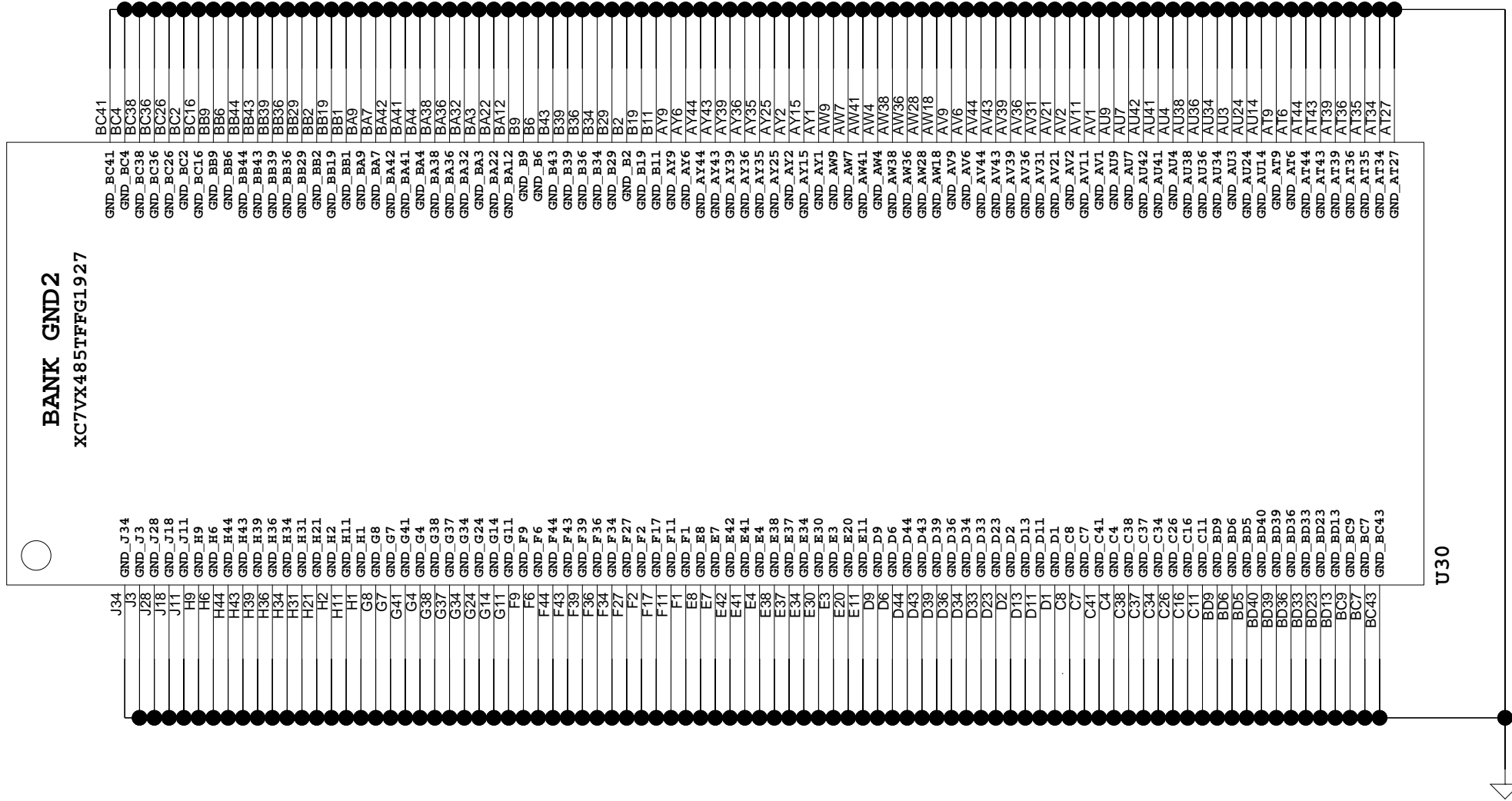


COMPANY		Stony Brook University	
TITLE		AMC FPGA CONFIGURATION	
SIZE	B	REV 1.0	SHEET 12 OF 41
DRAWN	CEP	DATE	17/07/2014:05:46

BANK GND1
XC7VX485TFFG1927

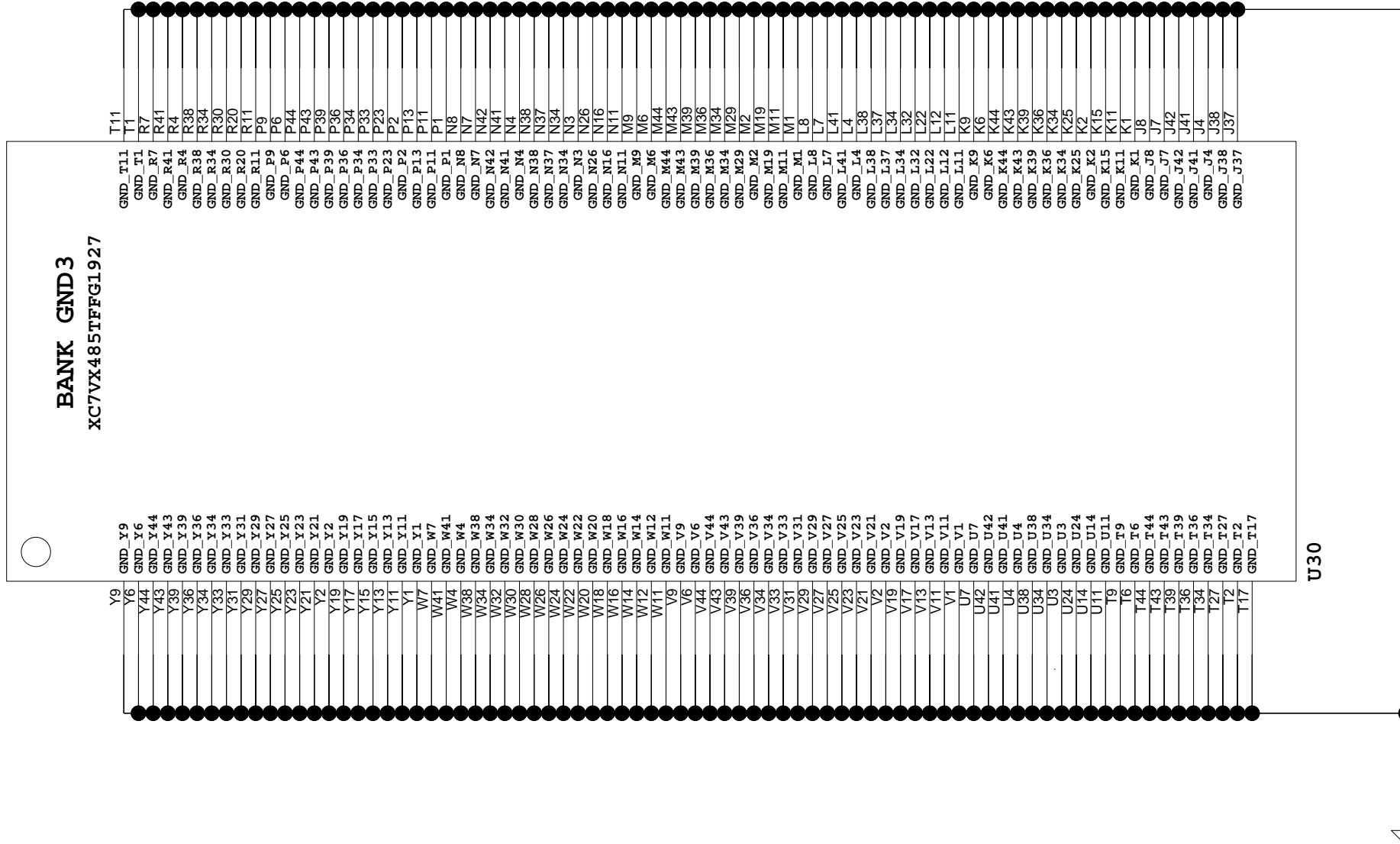


COMPANY			
Stony Brook University			
TITLE			
AMC FPGA GND - 1			
SIZE	B	REV 1.0	SHEET 13 OF 41
DRAWN	CEP	DATE	17/07/2014:05:47



BANK GND2
XC7VX485TFFG1927

COMPANY			
Stony Brook University			
TITLE			
AMC FPGA GND - 2			
SIZE	B	REV 1.0	SHEET 14 OF 41
DRAWN	CEP	DATE	17/07/2014:05:47

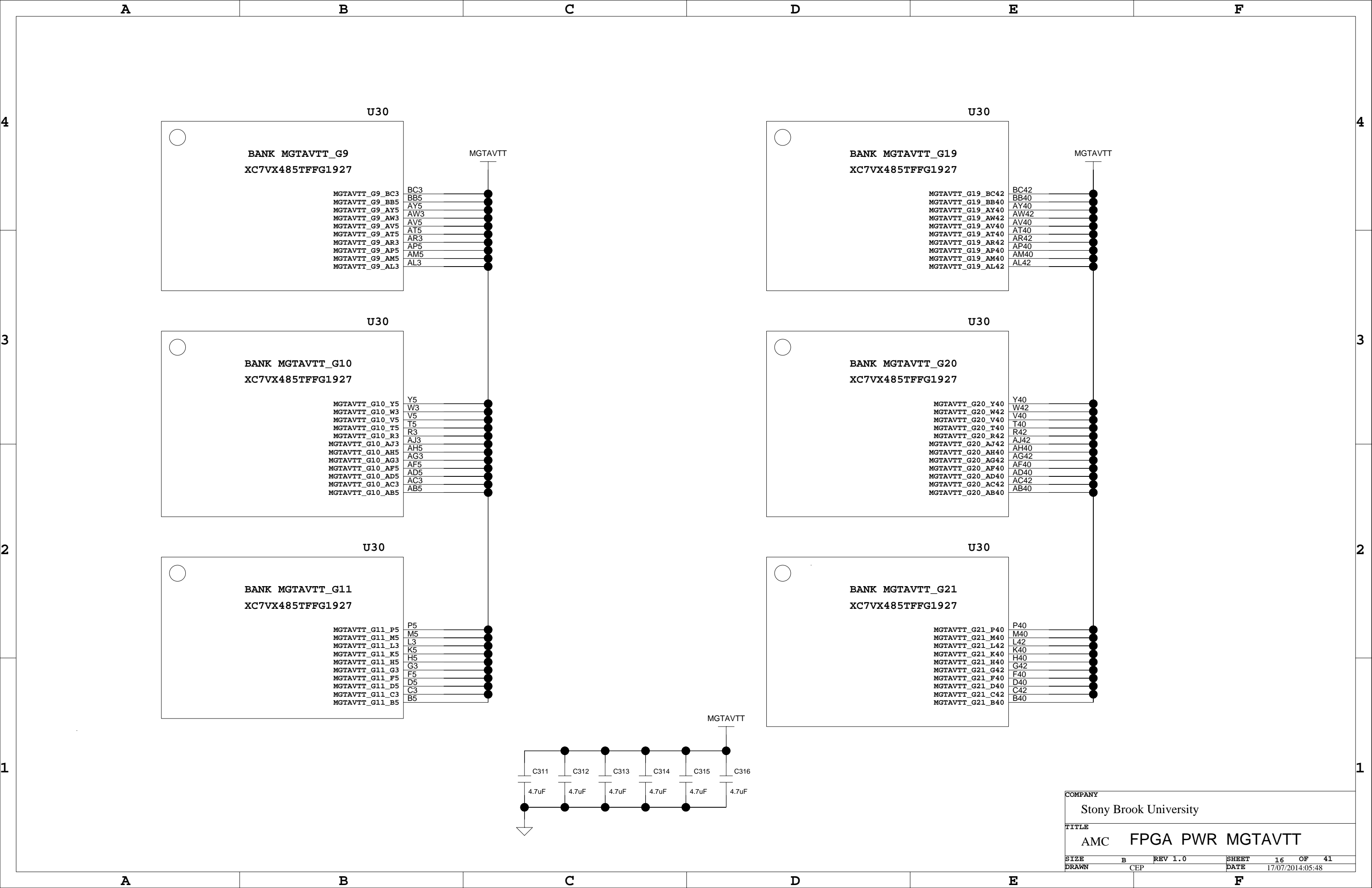


BANK GND3
XC7VX485TFFG1927

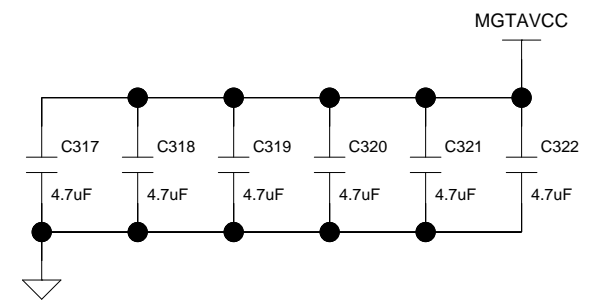
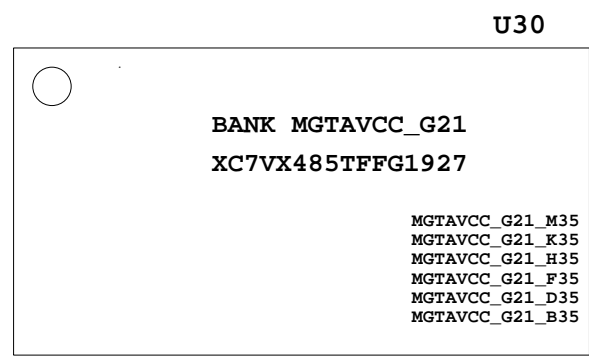
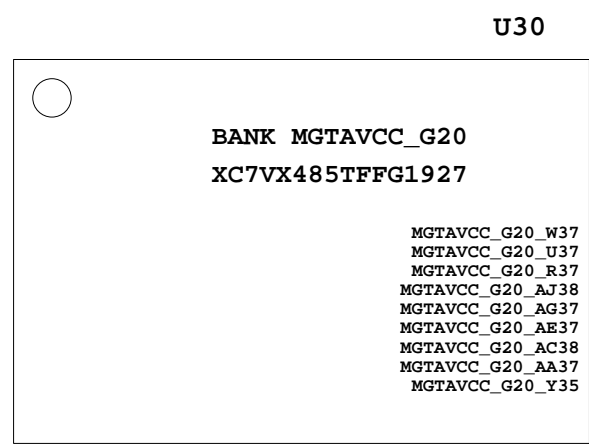
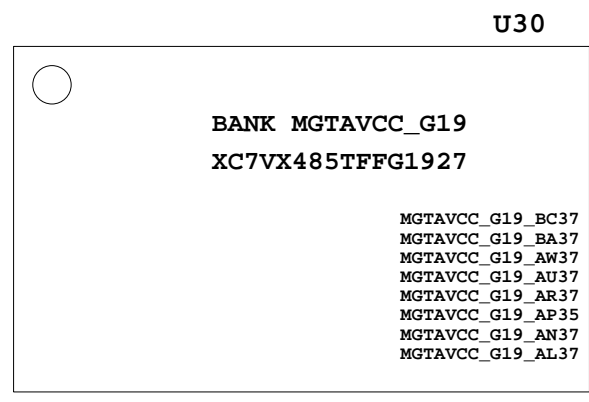
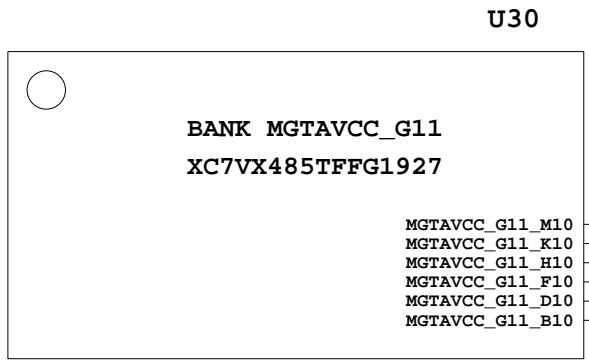
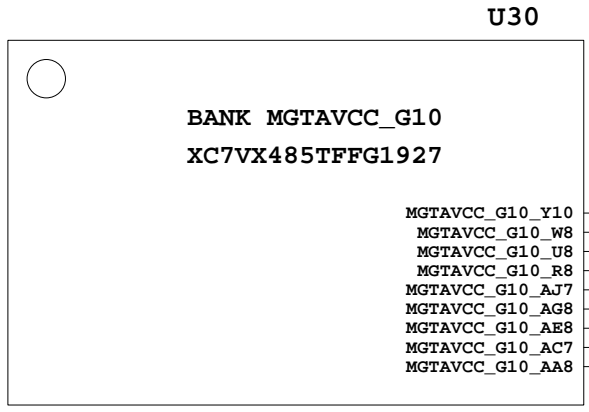
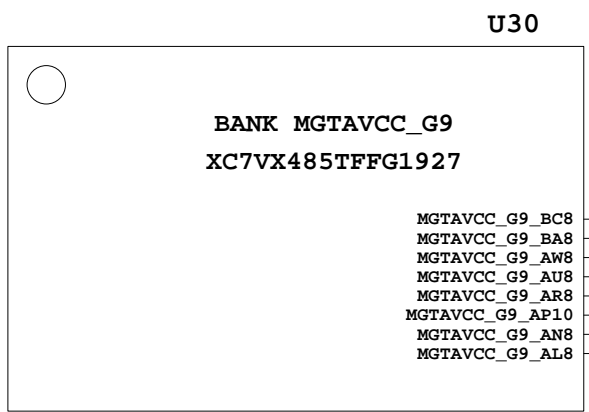
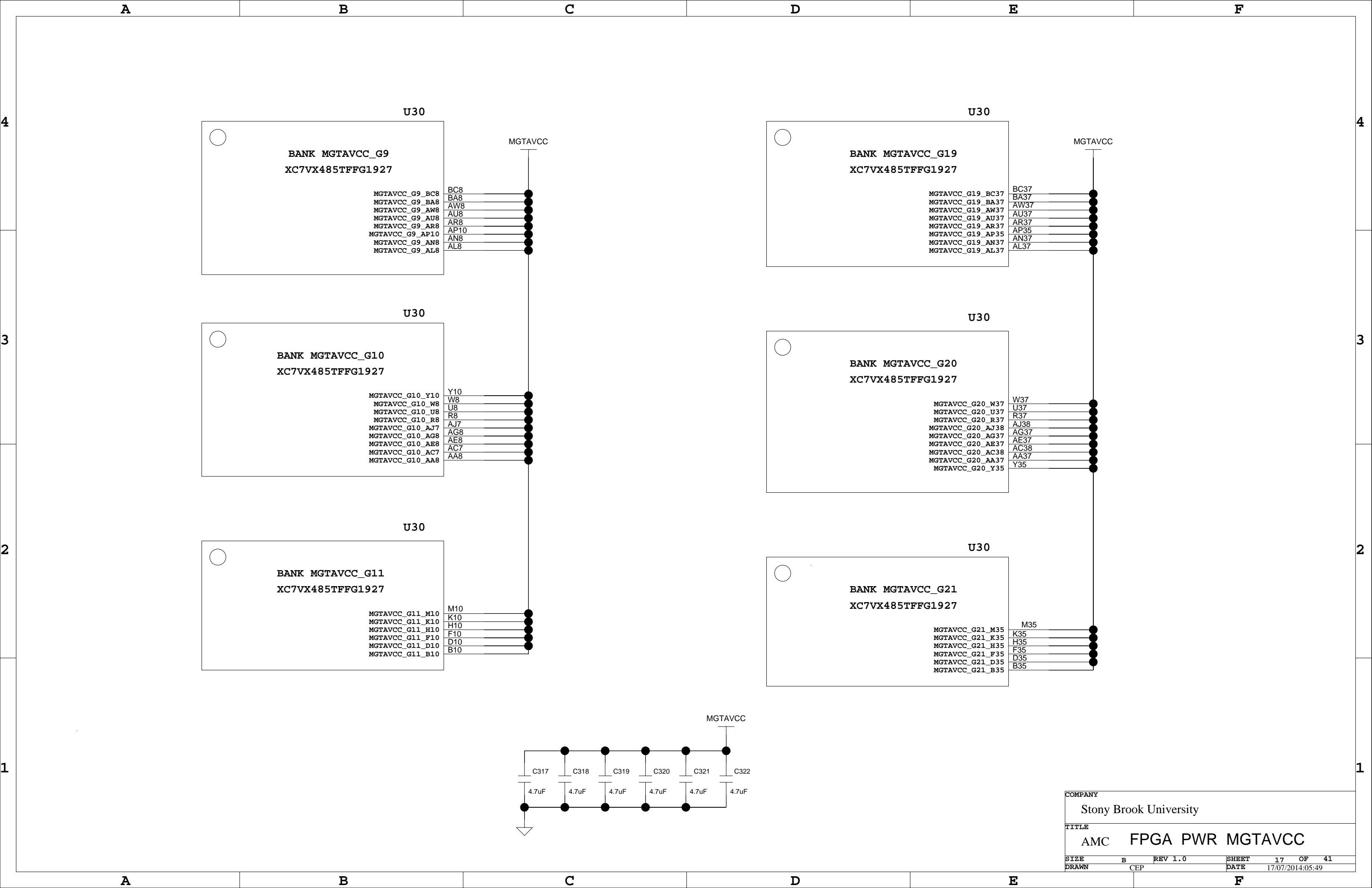
- | | | | |
|-----|---------|-----|---------|
| Y9 | GND_Y9 | T11 | GND_T11 |
| Y44 | GND_Y6 | T1 | GND_T1 |
| Y43 | GND_Y44 | R7 | GND_R7 |
| Y39 | GND_Y43 | R41 | GND_R41 |
| Y36 | GND_Y39 | R4 | GND_R4 |
| Y34 | GND_Y36 | R38 | GND_R38 |
| Y33 | GND_Y34 | R34 | GND_R34 |
| Y31 | GND_Y33 | R30 | GND_R30 |
| Y29 | GND_Y31 | R20 | GND_R20 |
| Y27 | GND_Y29 | R11 | GND_R11 |
| Y25 | GND_Y27 | P9 | GND_P9 |
| Y23 | GND_Y25 | P6 | GND_P6 |
| Y21 | GND_Y23 | P44 | GND_P44 |
| Y2 | GND_Y21 | P43 | GND_P43 |
| Y19 | GND_Y2 | P39 | GND_P39 |
| Y17 | GND_Y19 | P36 | GND_P36 |
| Y15 | GND_Y17 | P34 | GND_P34 |
| Y13 | GND_Y15 | P33 | GND_P33 |
| Y11 | GND_Y13 | P23 | GND_P23 |
| Y1 | GND_Y11 | P2 | GND_P2 |
| W7 | GND_Y1 | P13 | GND_P13 |
| W41 | GND_W7 | P11 | GND_P11 |
| W4 | GND_W41 | P1 | GND_P1 |
| W38 | GND_W4 | N8 | GND_N8 |
| W34 | GND_W38 | N7 | GND_N7 |
| W32 | GND_W34 | N42 | GND_N42 |
| W30 | GND_W32 | N41 | GND_N41 |
| W28 | GND_W30 | N4 | GND_N4 |
| W26 | GND_W28 | N38 | GND_N38 |
| W24 | GND_W26 | N37 | GND_N37 |
| W22 | GND_W24 | N34 | GND_N34 |
| W20 | GND_W22 | N3 | GND_N3 |
| W18 | GND_W20 | N26 | GND_N26 |
| W16 | GND_W18 | N16 | GND_N16 |
| W14 | GND_W16 | N11 | GND_N11 |
| W12 | GND_W14 | M9 | GND_M9 |
| W11 | GND_W12 | M6 | GND_M6 |
| V9 | GND_W11 | M44 | GND_M44 |
| V6 | GND_V6 | M43 | GND_M43 |
| V43 | GND_V44 | M39 | GND_M39 |
| V39 | GND_V43 | M36 | GND_M36 |
| V36 | GND_V39 | M34 | GND_M34 |
| V34 | GND_V36 | M29 | GND_M29 |
| V33 | GND_V34 | M2 | GND_M2 |
| V31 | GND_V33 | M19 | GND_M19 |
| V29 | GND_V31 | M11 | GND_M11 |
| V27 | GND_V29 | M1 | GND_M1 |
| V25 | GND_V27 | L8 | GND_L8 |
| V23 | GND_V25 | L7 | GND_L7 |
| V21 | GND_V23 | L41 | GND_L41 |
| V2 | GND_V21 | L4 | GND_L4 |
| V19 | GND_V2 | L38 | GND_L38 |
| V17 | GND_V19 | L37 | GND_L37 |
| V13 | GND_V17 | L34 | GND_L34 |
| V11 | GND_V13 | L32 | GND_L32 |
| V1 | GND_V11 | L22 | GND_L22 |
| U7 | GND_V1 | L12 | GND_L12 |
| U42 | GND_U7 | L11 | GND_L11 |
| U41 | GND_U42 | K9 | GND_K9 |
| U4 | GND_U41 | K6 | GND_K6 |
| U38 | GND_U4 | K44 | GND_K44 |
| U34 | GND_U38 | K43 | GND_K43 |
| U3 | GND_U34 | K39 | GND_K39 |
| U24 | GND_U3 | K36 | GND_K36 |
| U14 | GND_U24 | K34 | GND_K34 |
| U11 | GND_U14 | K25 | GND_K25 |
| T9 | GND_U11 | K2 | GND_K2 |
| T6 | GND_T9 | K15 | GND_K15 |
| T44 | GND_T6 | K11 | GND_K11 |
| T43 | GND_T44 | J8 | GND_J8 |
| T39 | GND_T43 | J7 | GND_J7 |
| T36 | GND_T39 | J42 | GND_J42 |
| T34 | GND_T36 | J41 | GND_J41 |
| T27 | GND_T34 | J4 | GND_J4 |
| T2 | GND_T27 | J38 | GND_J38 |
| T17 | GND_T2 | J37 | GND_J37 |

U30

COMPANY			
Stony Brook University			
TITLE			
AMC FPGA GND - 3			
SIZE	B	REV 1.0	SHEET 15 OF 41
DRAWN	CEP	DATE	17/07/2014:05:48



COMPANY			
Stony Brook University			
TITLE			
AMC FPGA PWR MGTAVTT			
SIZE	B	REV 1.0	SHEET 16 OF 41
DRAWN	CEP	DATE	17/07/2014:05:48



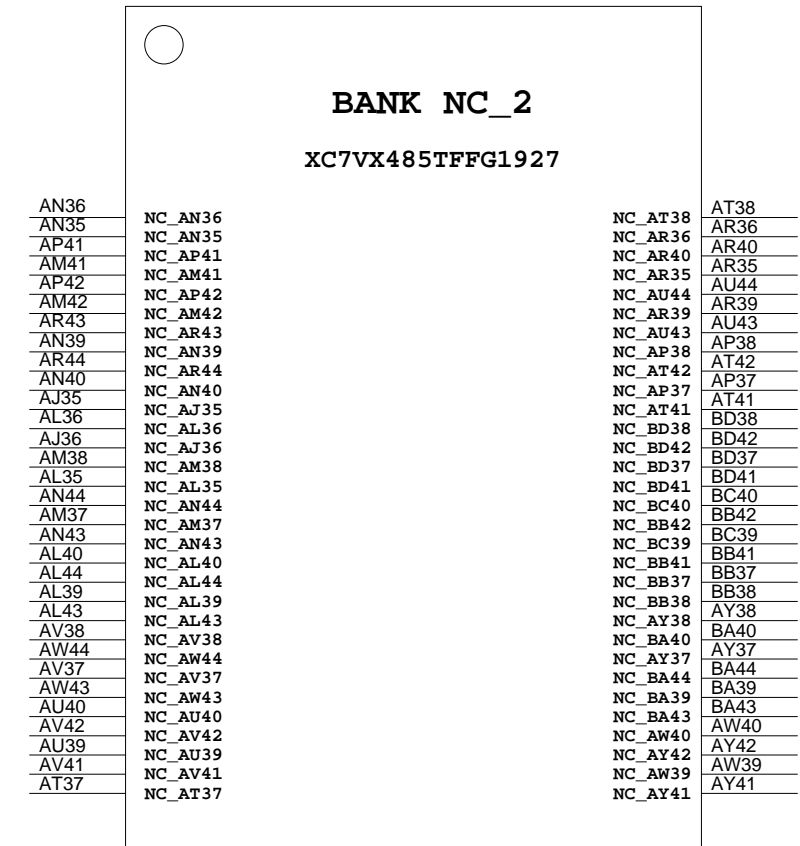
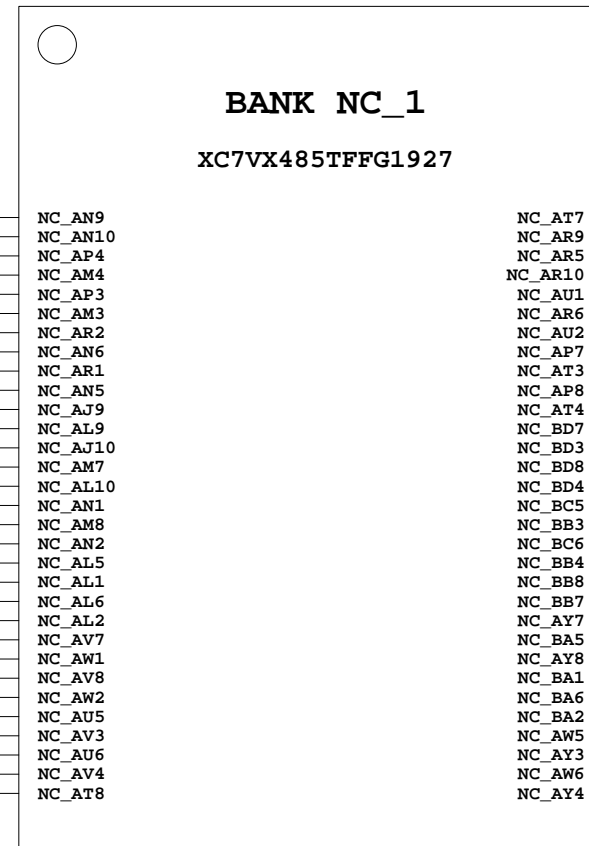
COMPANY			
Stony Brook University			
TITLE			
AMC FPGA PWR MGTAVCC			
SIZE	B	REV 1.0	SHEET 17 OF 41
DRAWN	CEP	DATE	17/07/2014:05:49

4

4

U30

U30



3

3

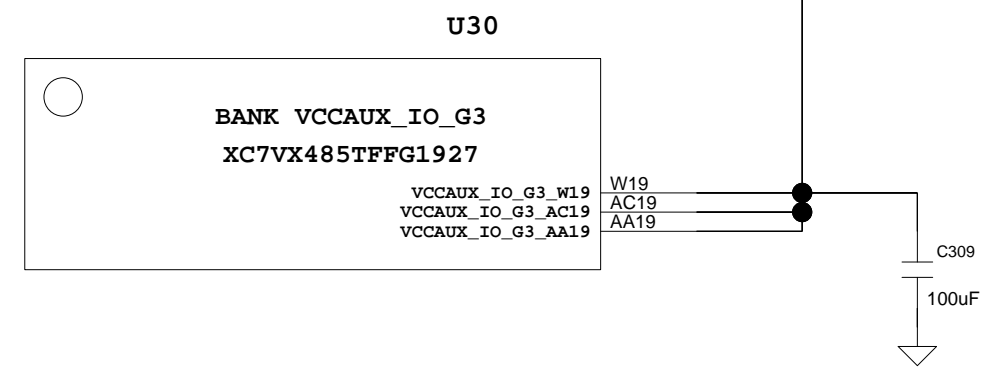
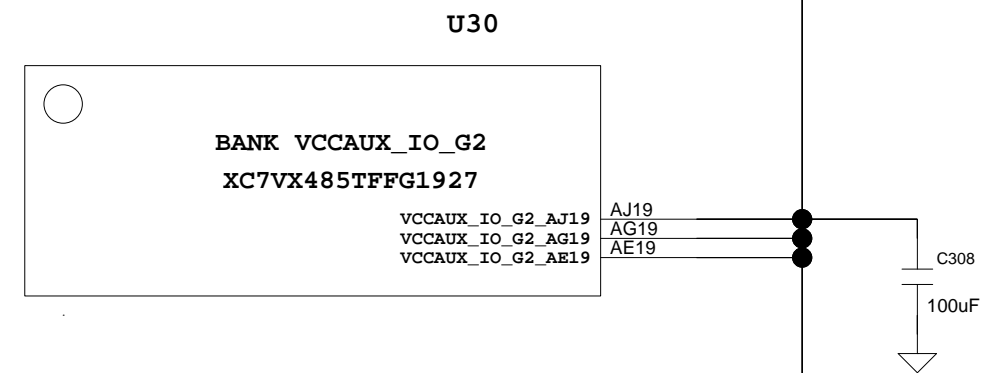
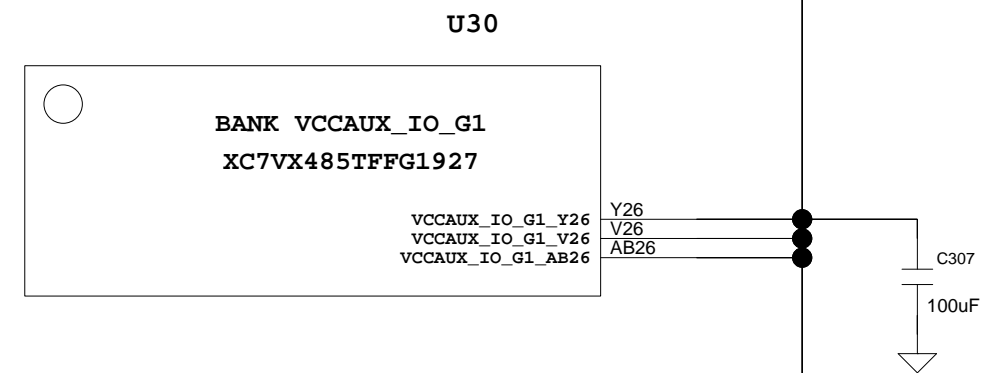
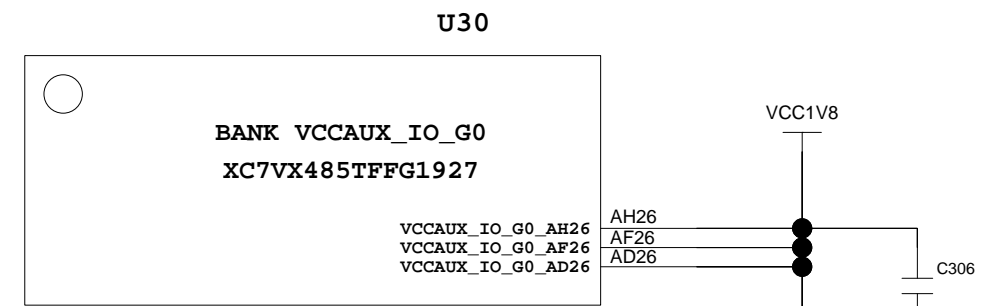
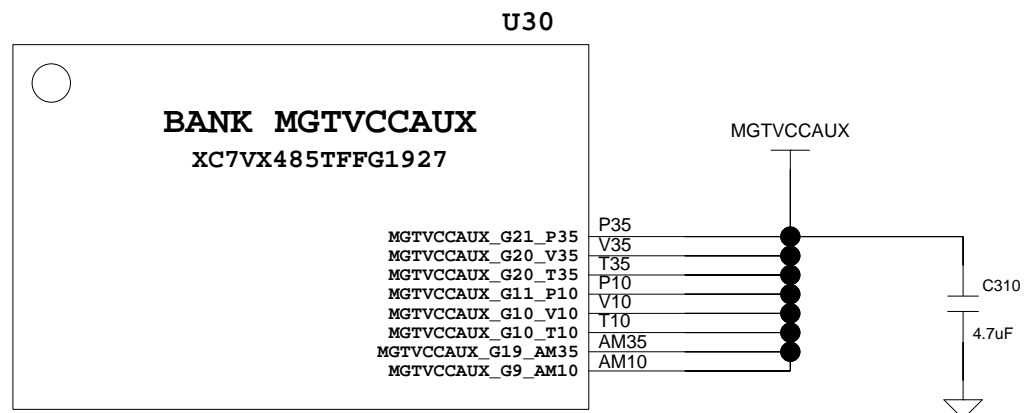
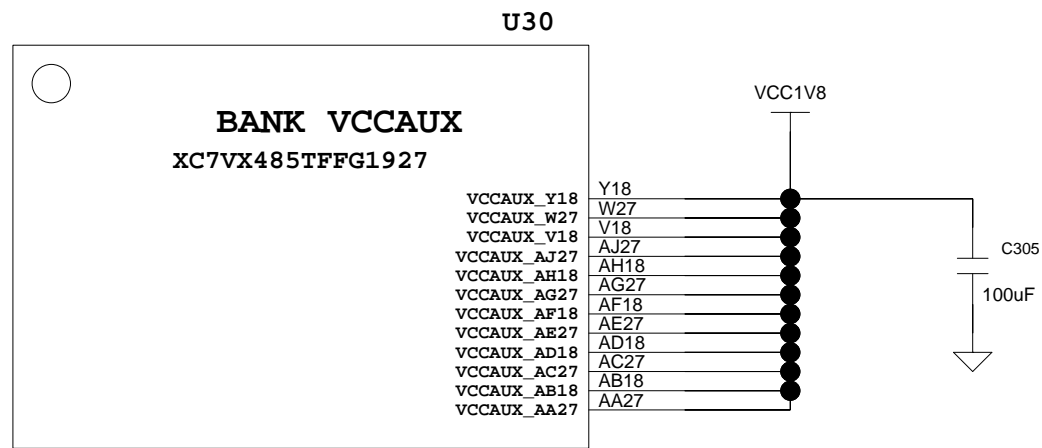
2

2

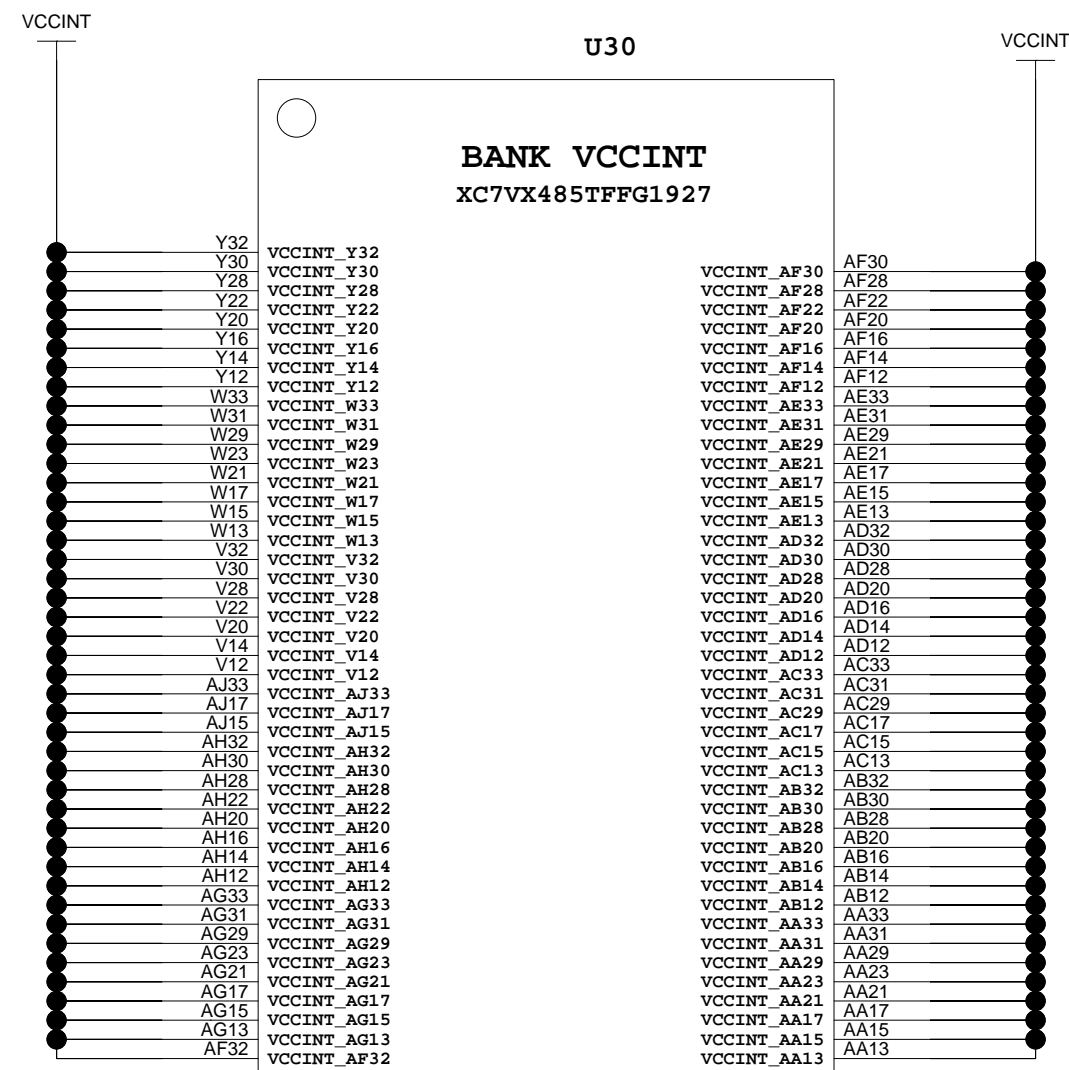
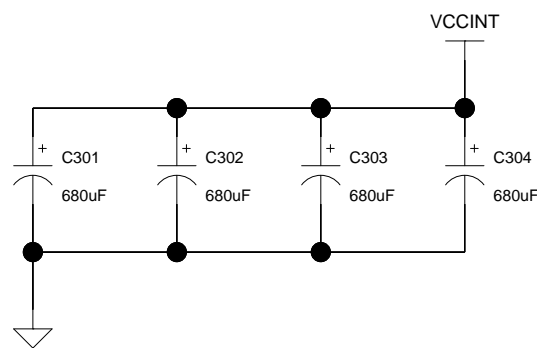
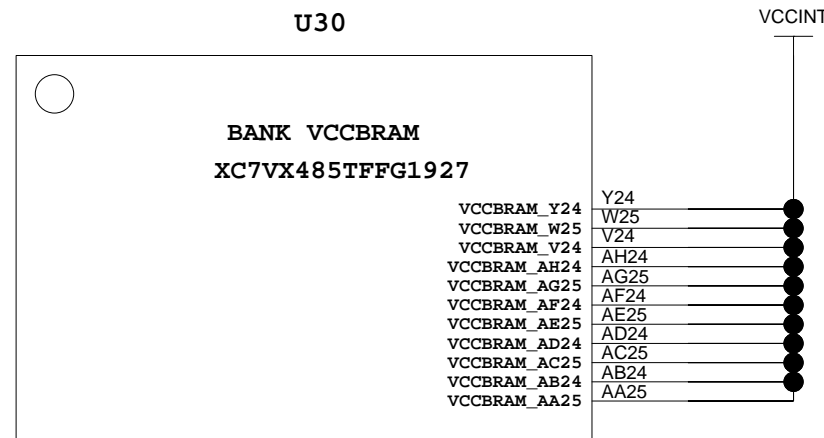
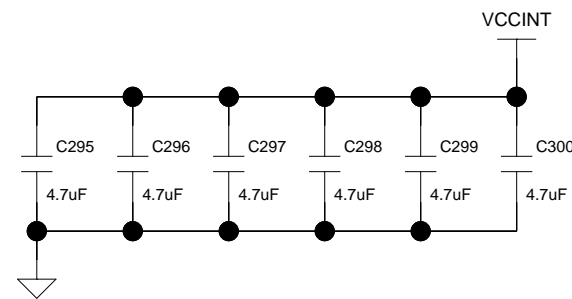
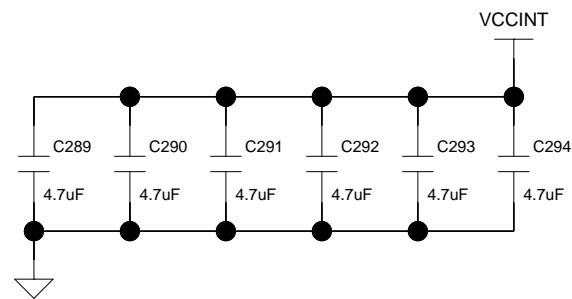
1

1

COMPANY			
Stony Brook University			
TITLE			
AMC FPGA NC			
SIZE	B	REV 1.0	SHEET 18 OF 41
DRAWN	CEP	DATE	17/07/2014:05:49



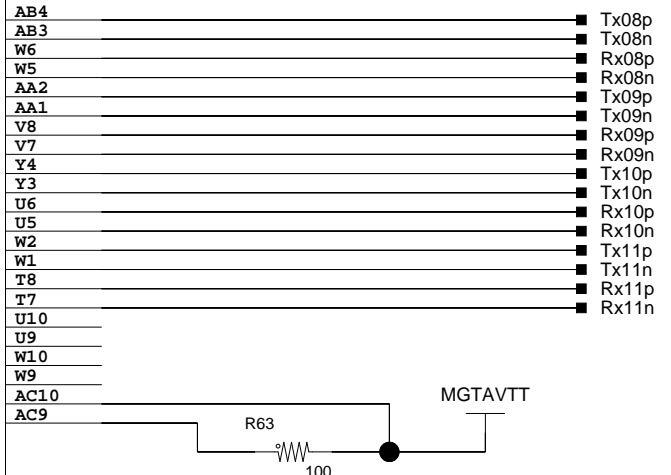
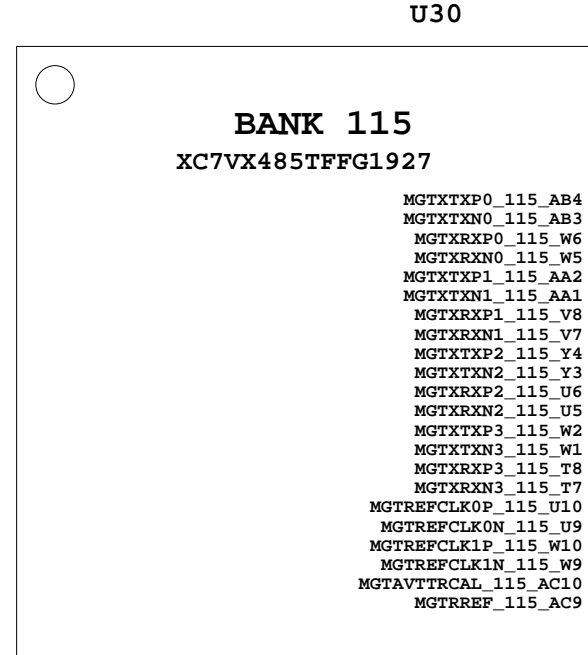
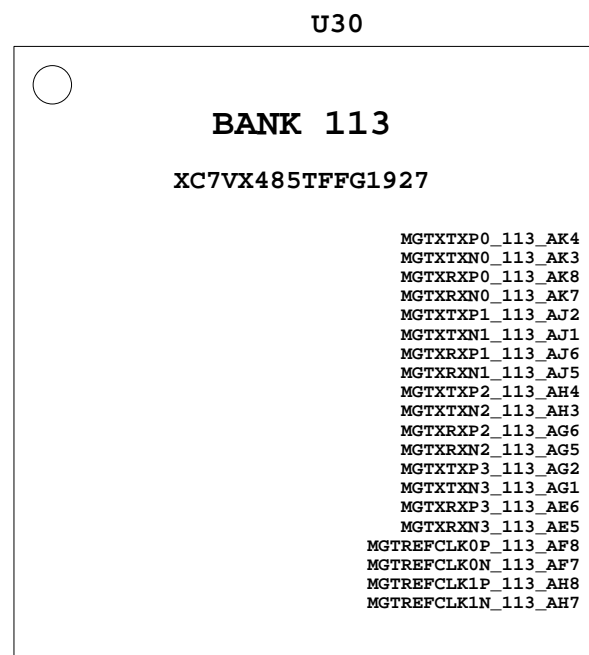
COMPANY			
Stony Brook University			
TITLE			
AMC FPGA PWR VCCAUX			
SIZE	B	REV 1.0	SHEET 19 OF 41
DRAWN	CEP	DATE	17/07/2014:05:50



COMPANY			
Stony Brook University			
TITLE			
AMC FPGA PWR VCCINT			
SIZE	B	REV 1.0	SHEET 20 OF 41
DRAWN	CEP	DATE	17/07/2014:05:50

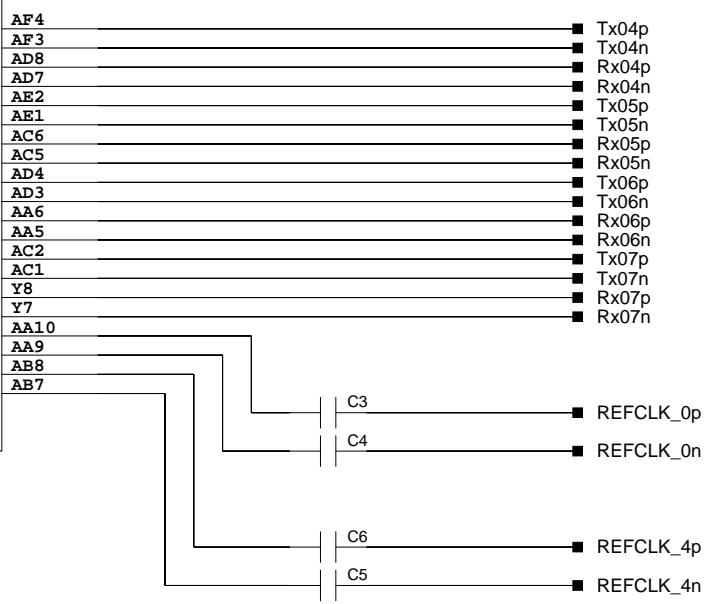
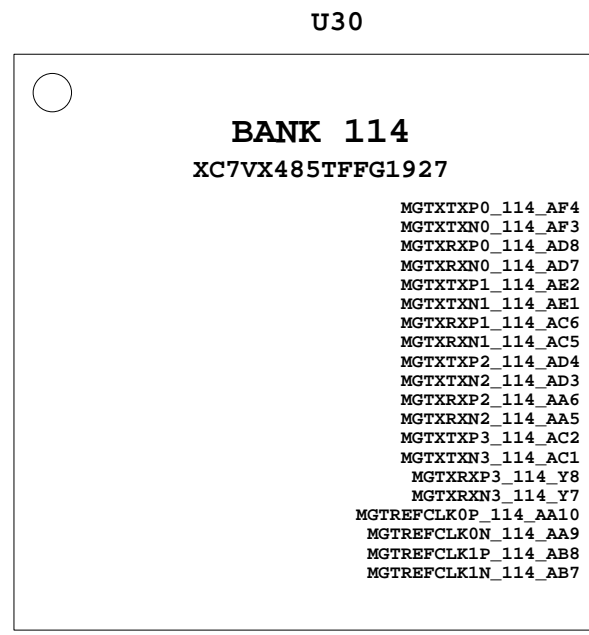
4

4



3

3



2

2

1

1

COMPANY			
Stony Brook University			
TITLE			
AMC FPGA GTX 1			
SIZE	B	REV 1.0	SHEET 21 OF 41
DRAWN	CEP	DATE	17/07/2014:05:51

A

B

C

D

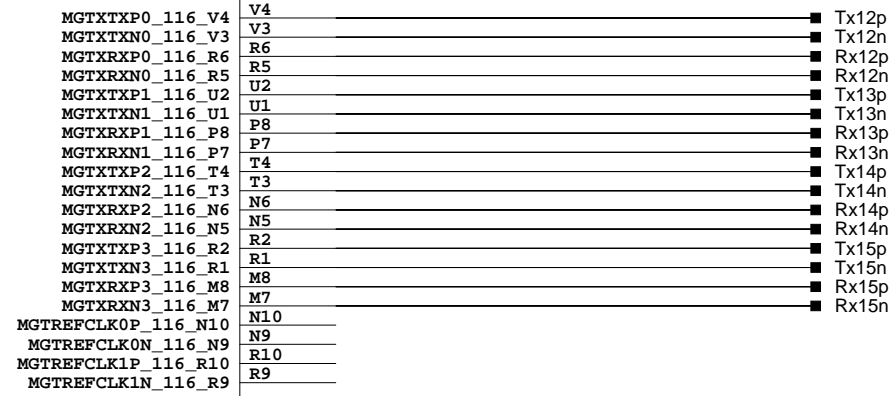
E

F

U30

BANK 116

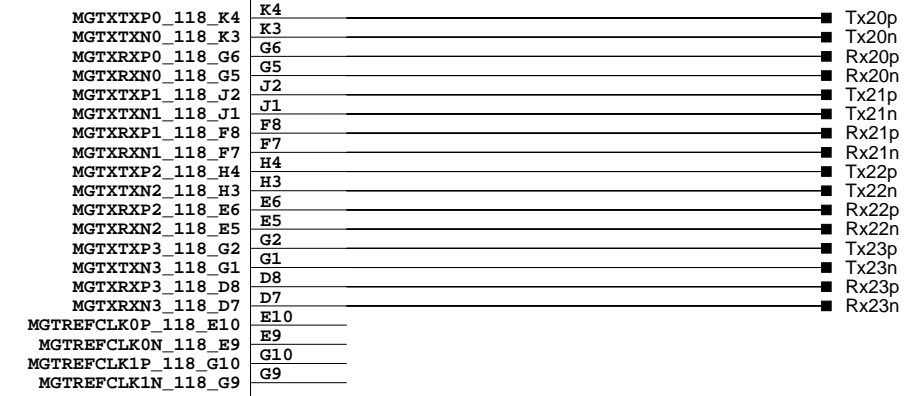
XC7VX485TFFG1927



U30

BANK 118

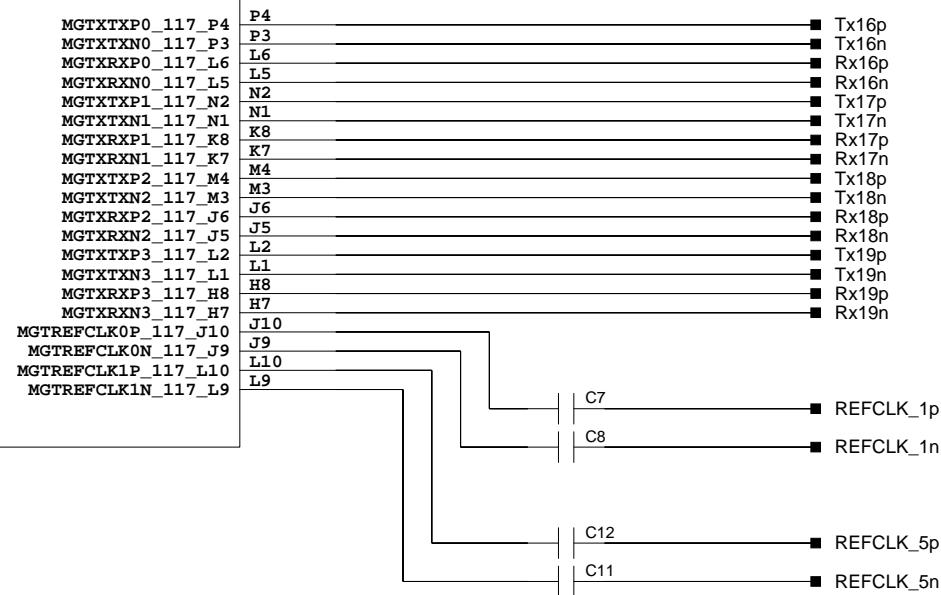
XC7VX485TFFG1927



U30

BANK 117

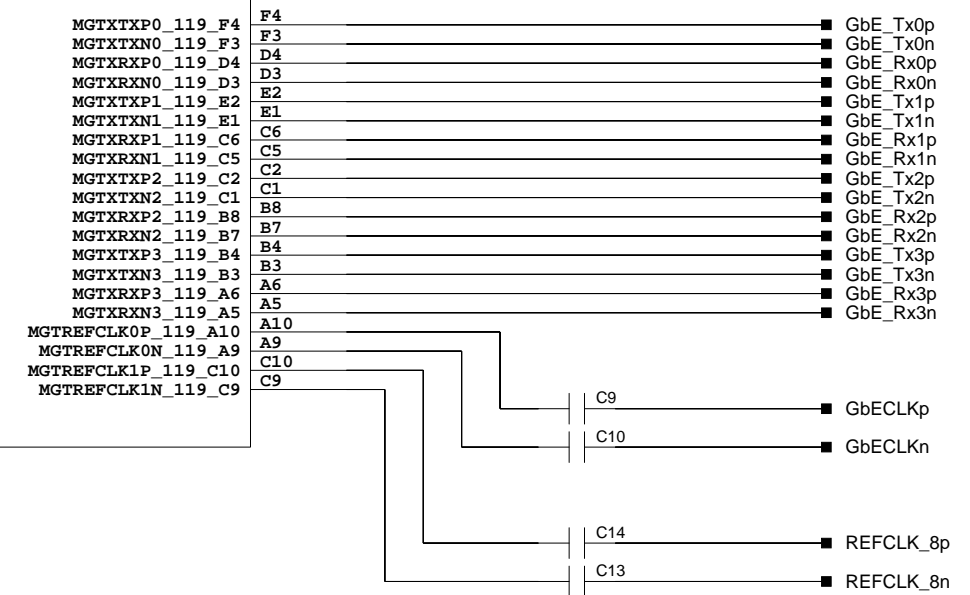
XC7VX485TFFG1927



U30

BANK 119

XC7VX485TFFG1927



COMPANY

Stony Brook University

TITLE

AMC FPGA GTX 2

SIZE

B

REV 1.0

SHEET

22

OF 41

DRAWN

CEP

DATE

17/07/2014:05:51

A

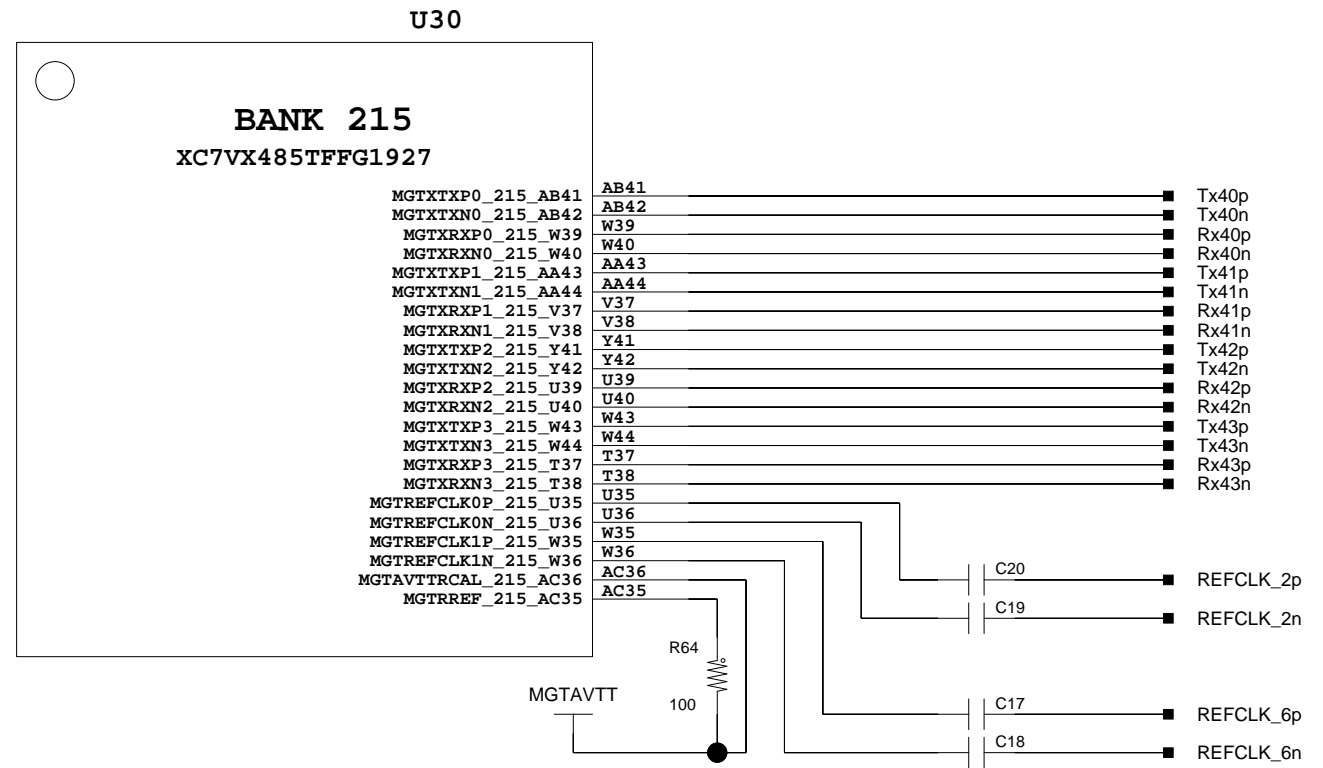
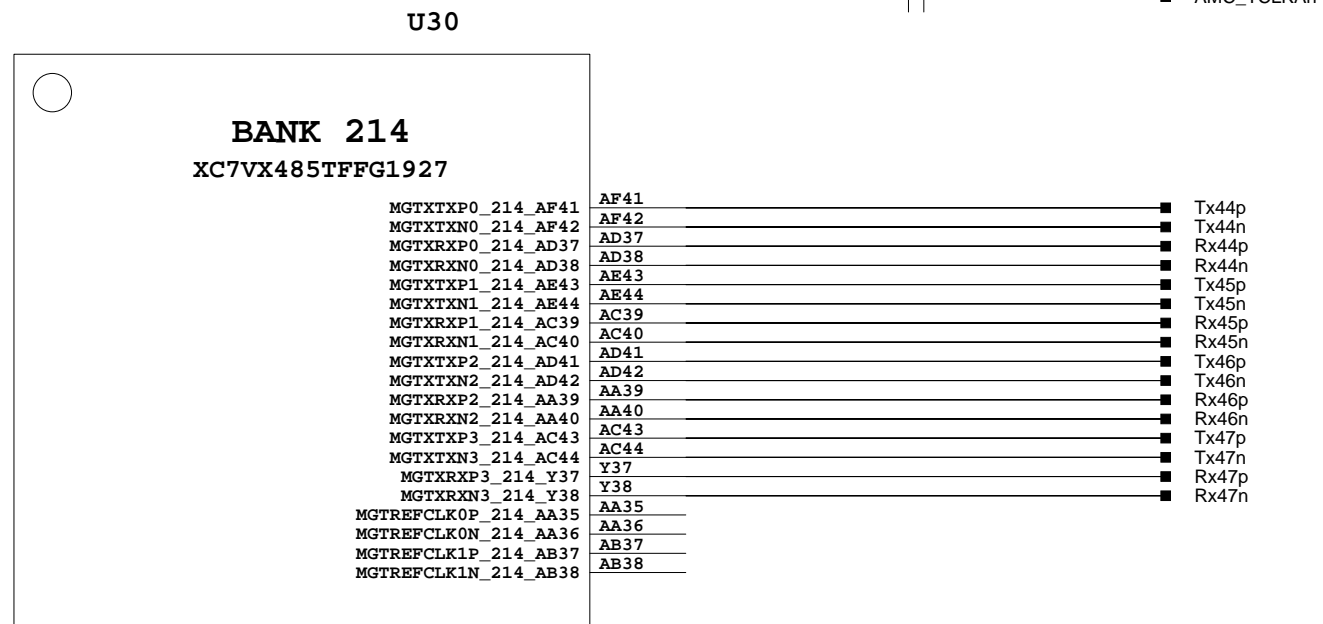
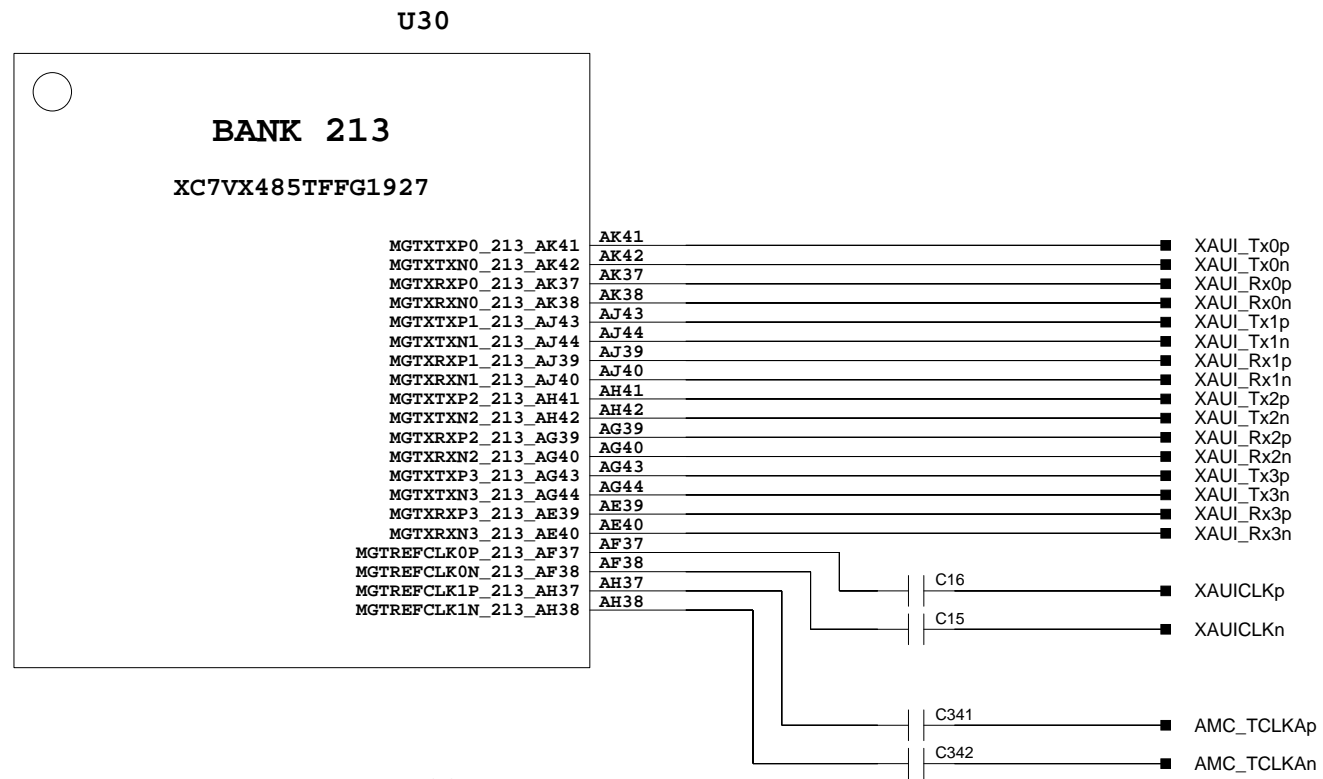
B

C

D

E

F



COMPANY			
Stony Brook University			
TITLE			
AMC FPGA GTX 3			
SIZE	B	REV 1.0	SHEET 23 OF 41
DRAWN	CEP	DATE	17/07/2014:05:52

A

B

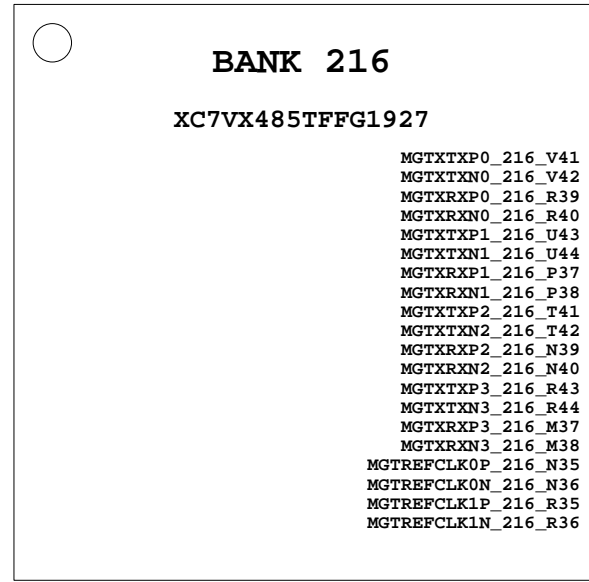
C

D

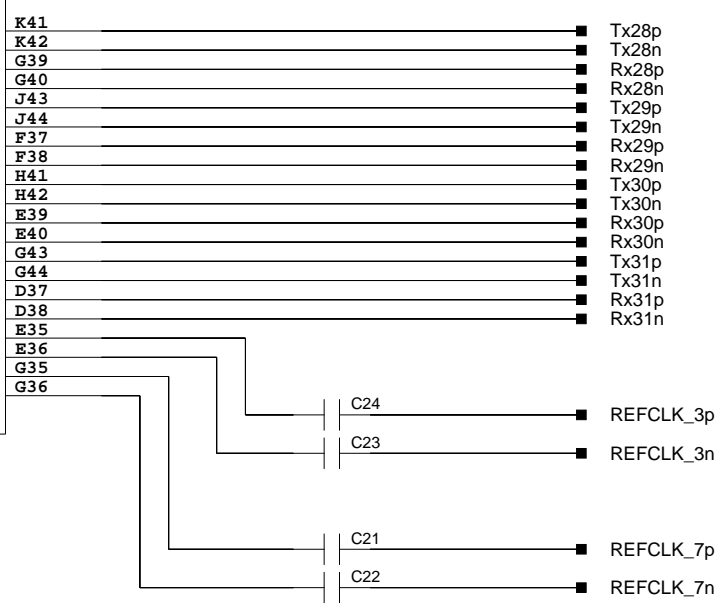
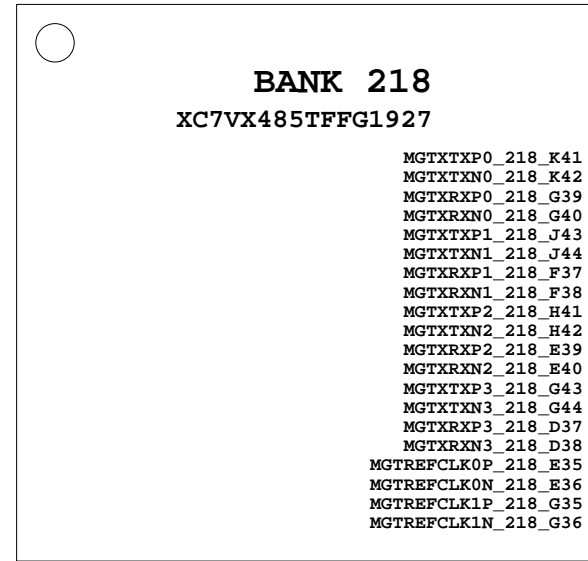
E

F

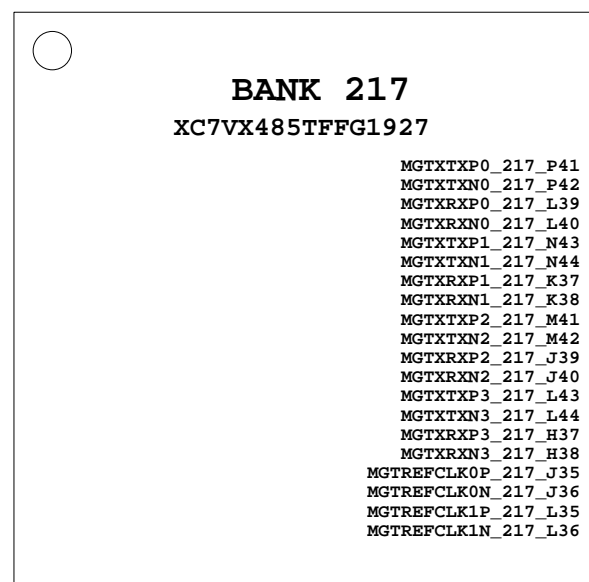
U30



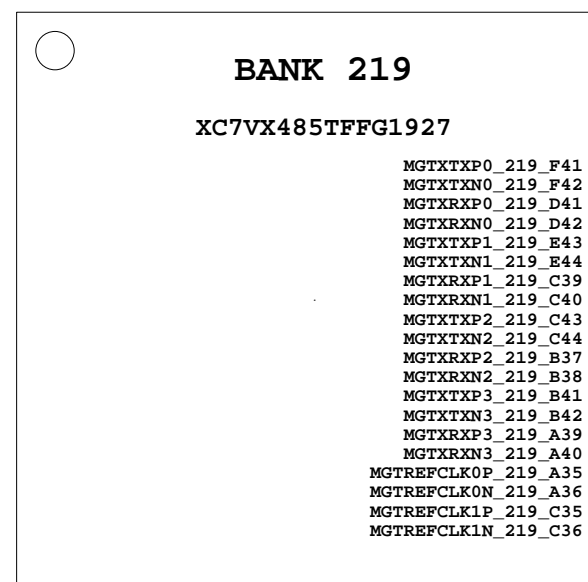
U30



U30



U30



A

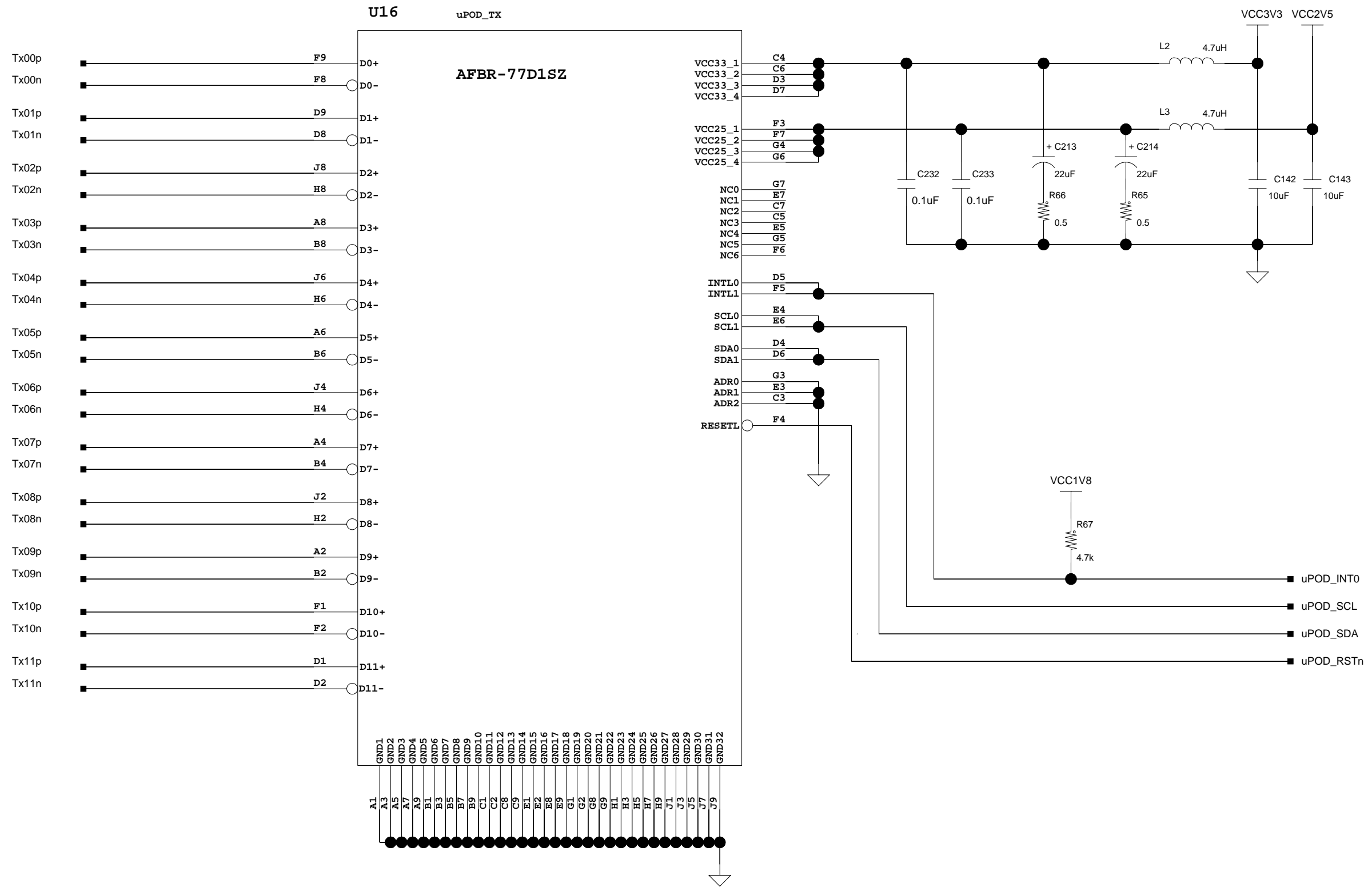
B

C

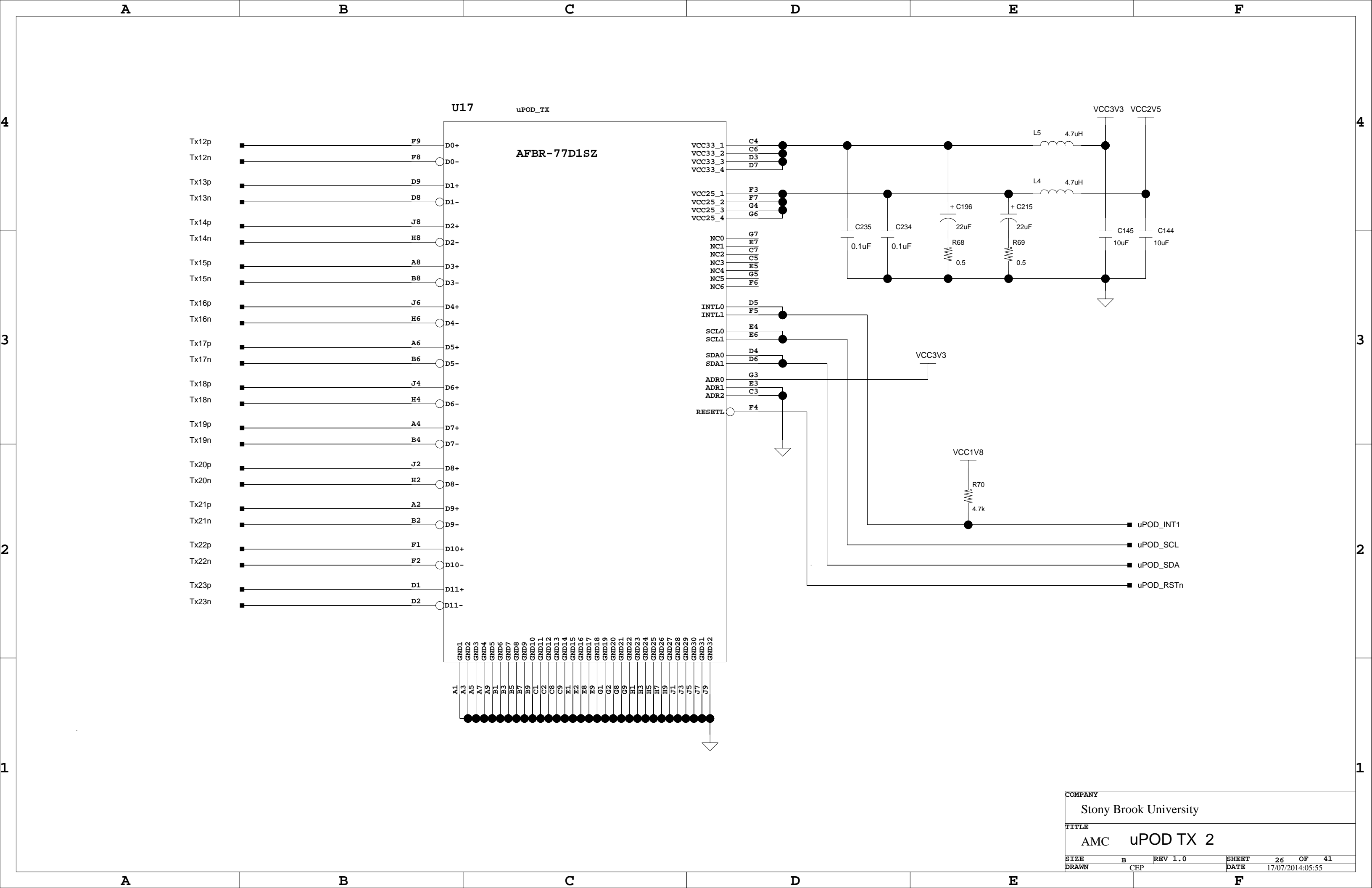
D

E

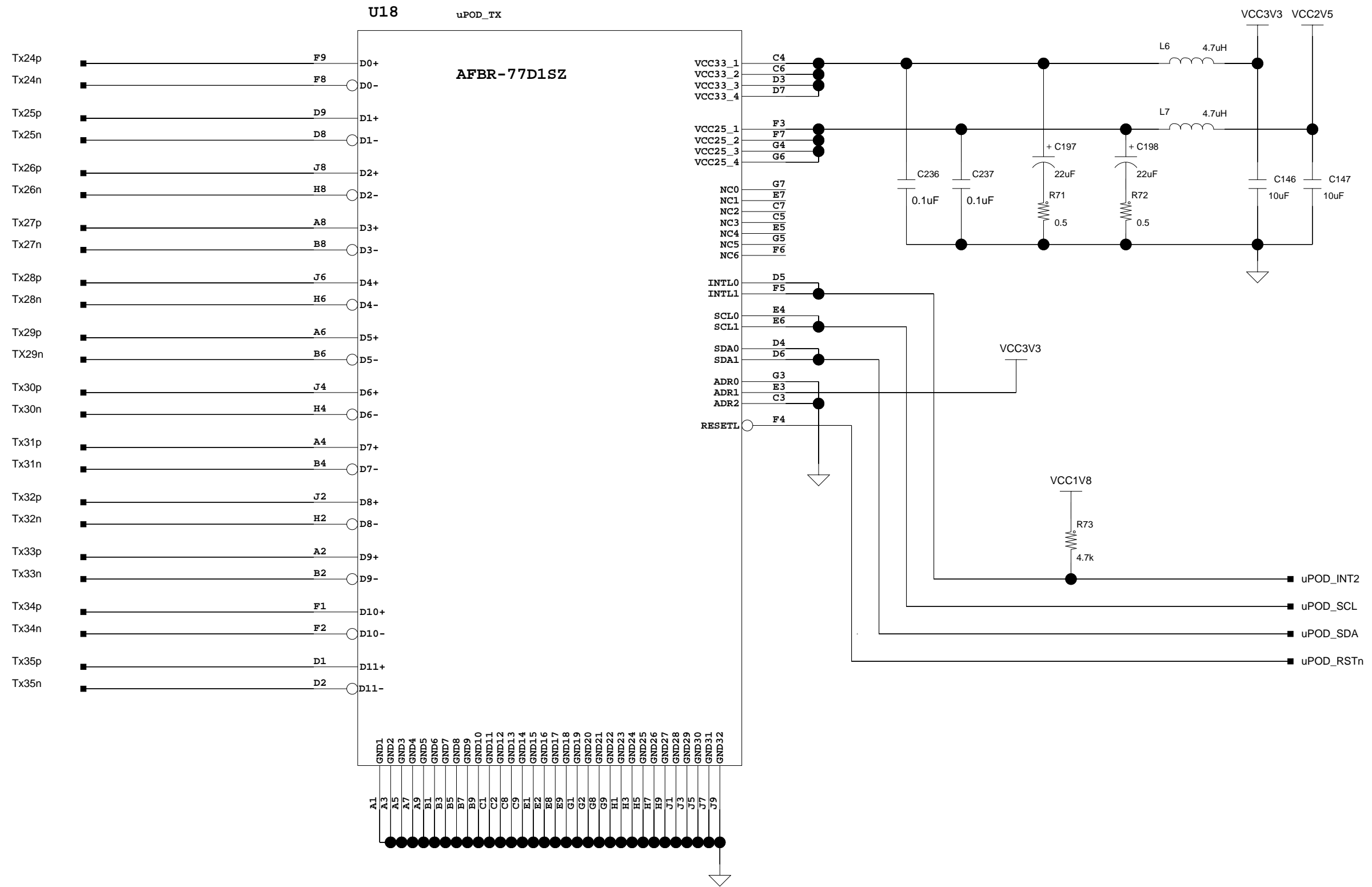
F



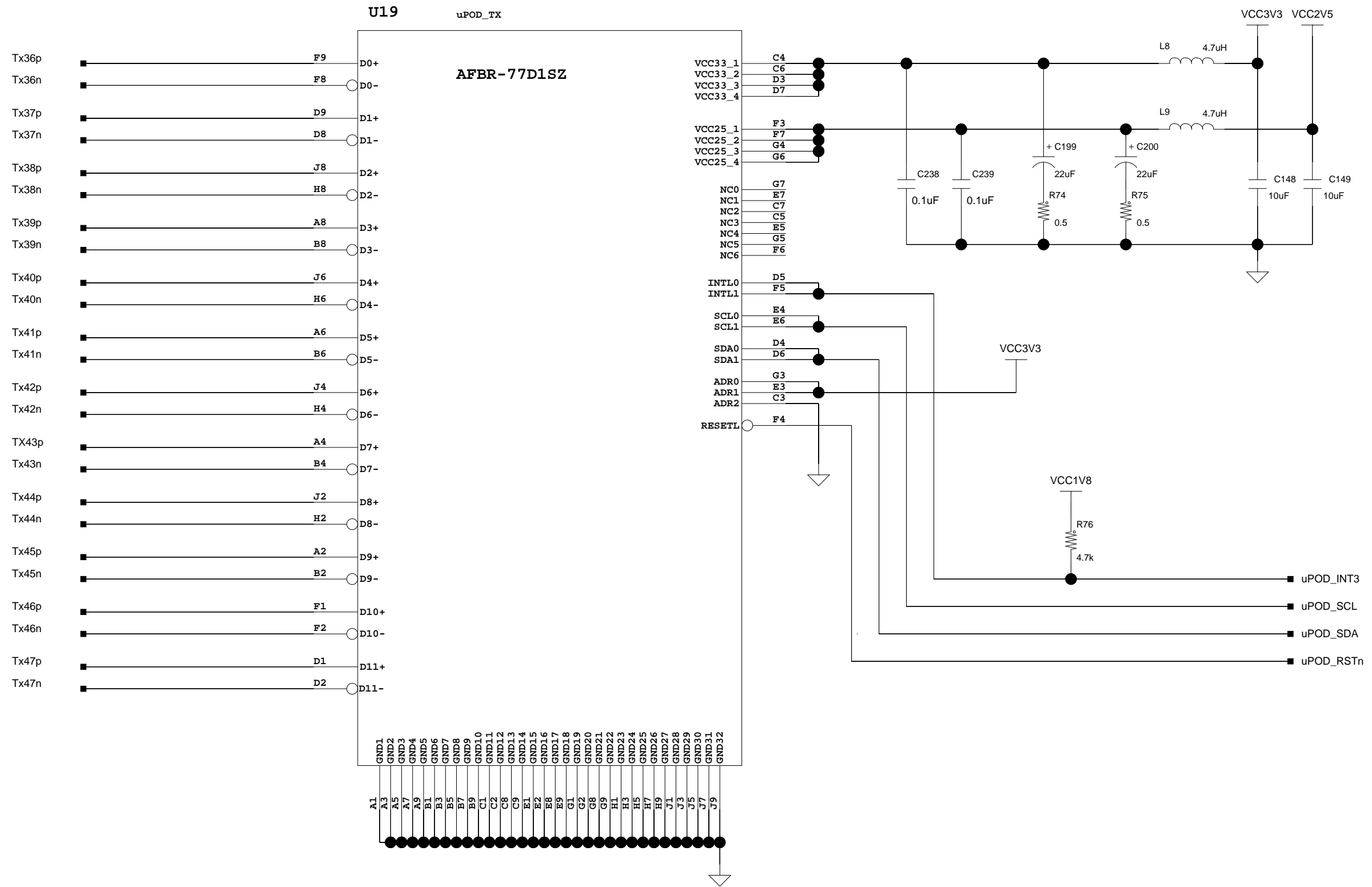
COMPANY			
Stony Brook University			
TITLE			
AMC uPOD TX 1			
SIZE	B	REV 1.0	SHEET 25 OF 41
DRAWN	CEP	DATE	17/07/2014:05:55



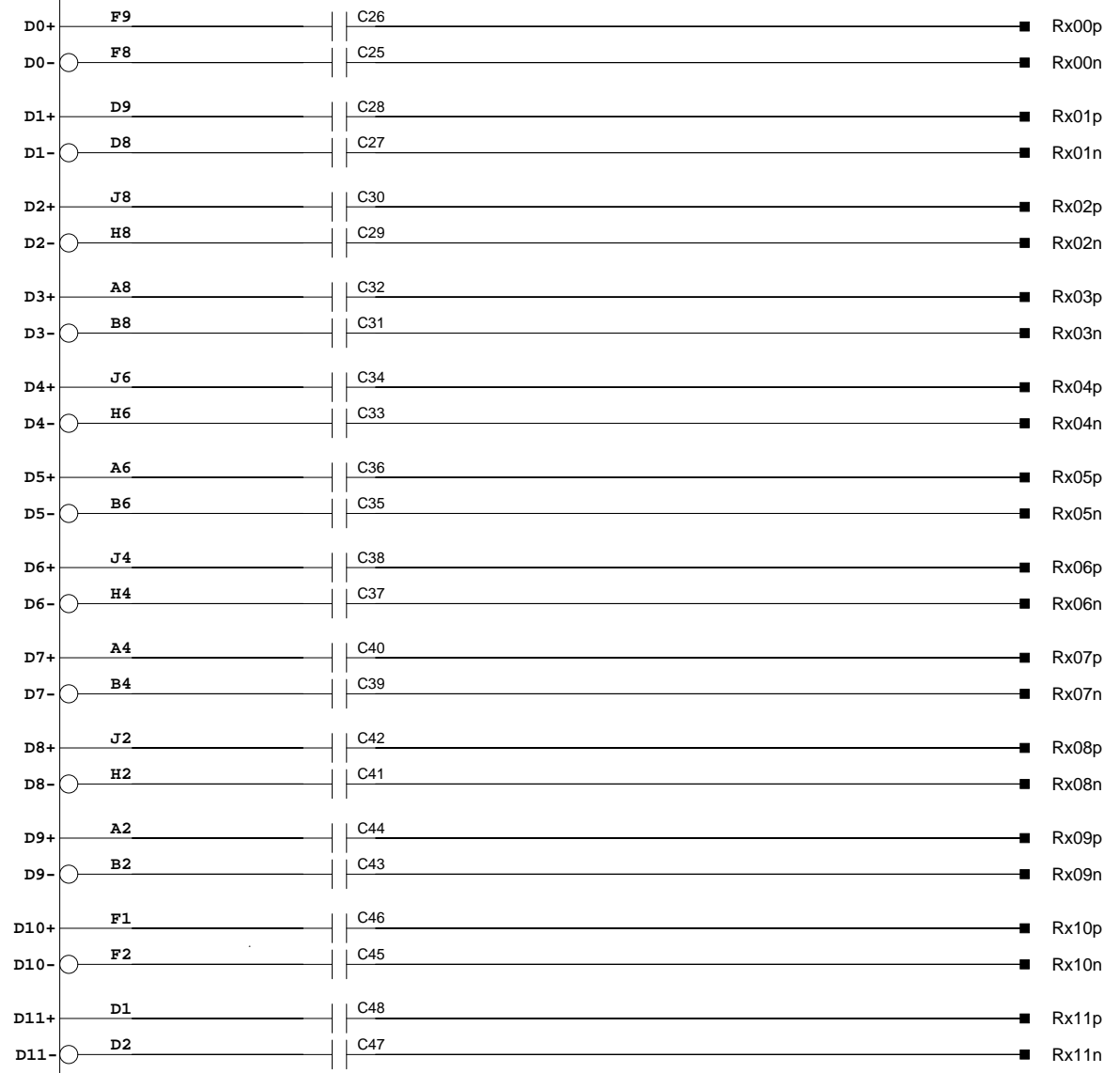
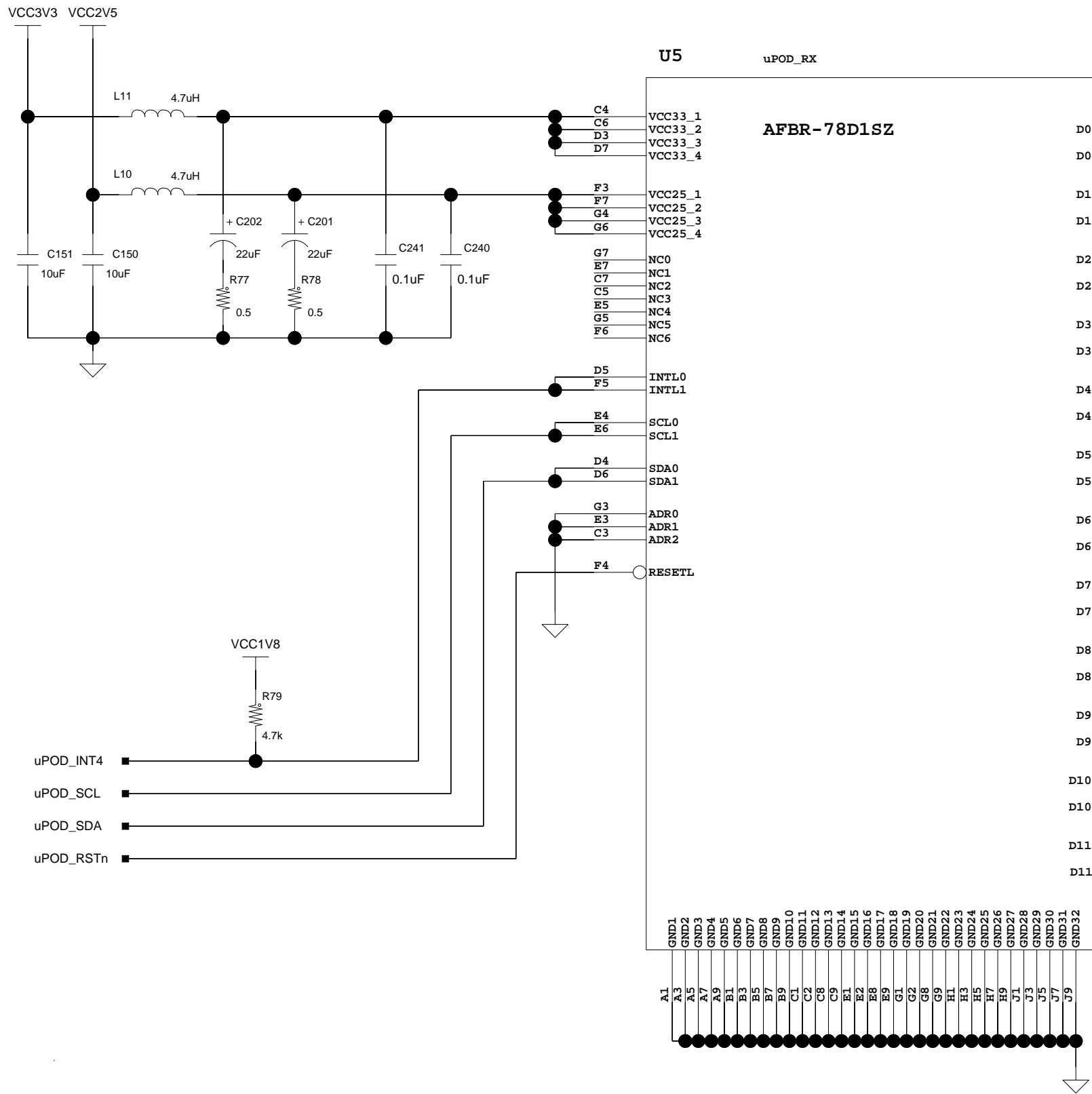
COMPANY			
Stony Brook University			
TITLE			
AMC uPOD TX 2			
SIZE	B	REV 1.0	SHEET 26 OF 41
DRAWN	CEP	DATE	17/07/2014:05:55



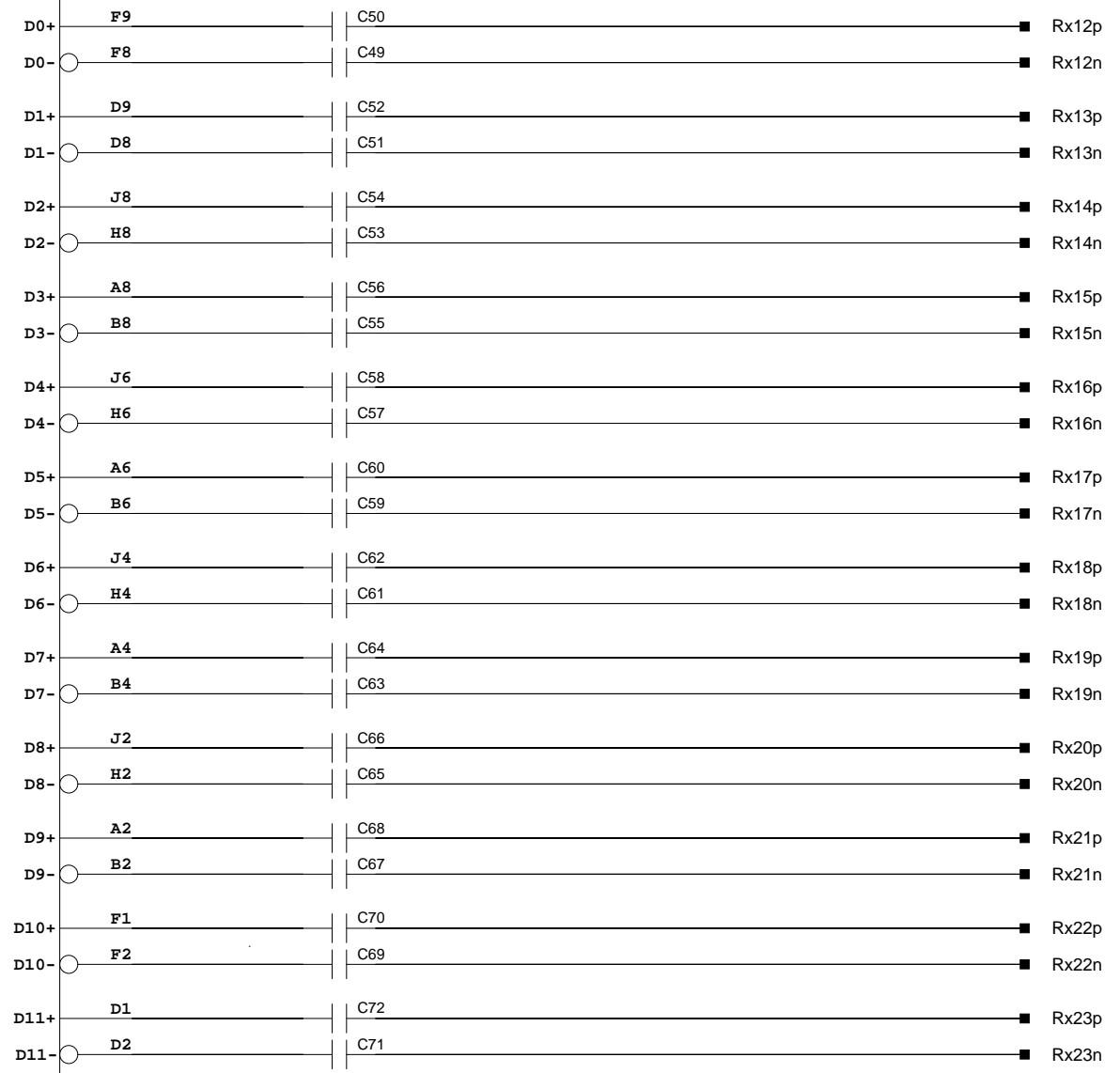
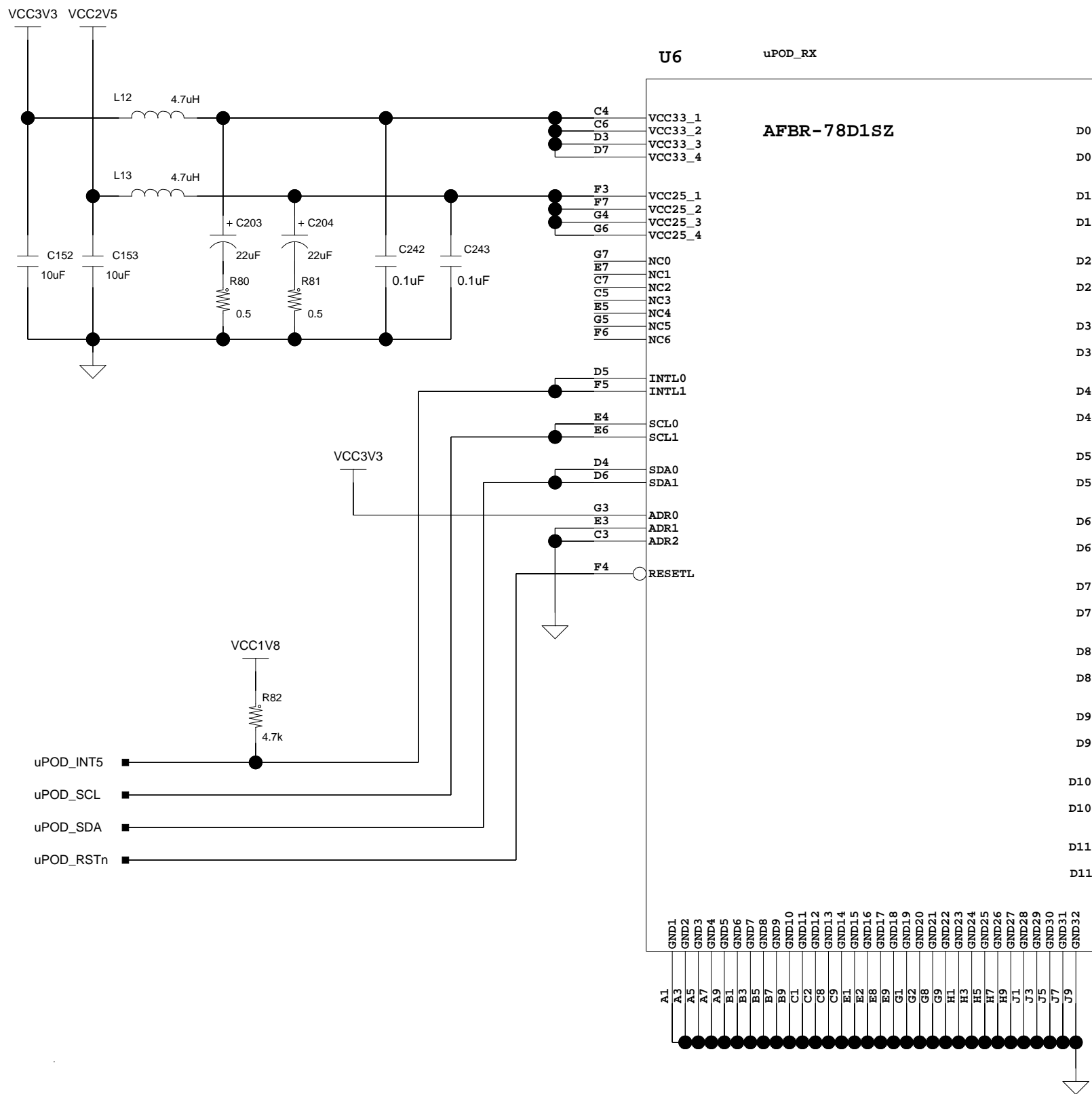
COMPANY			
Stony Brook University			
TITLE			
AMC uPOD TX 3			
SIZE	B	REV 1.0	SHEET 27 OF 41
DRAWN	CEP	DATE	17/07/2014:05:55

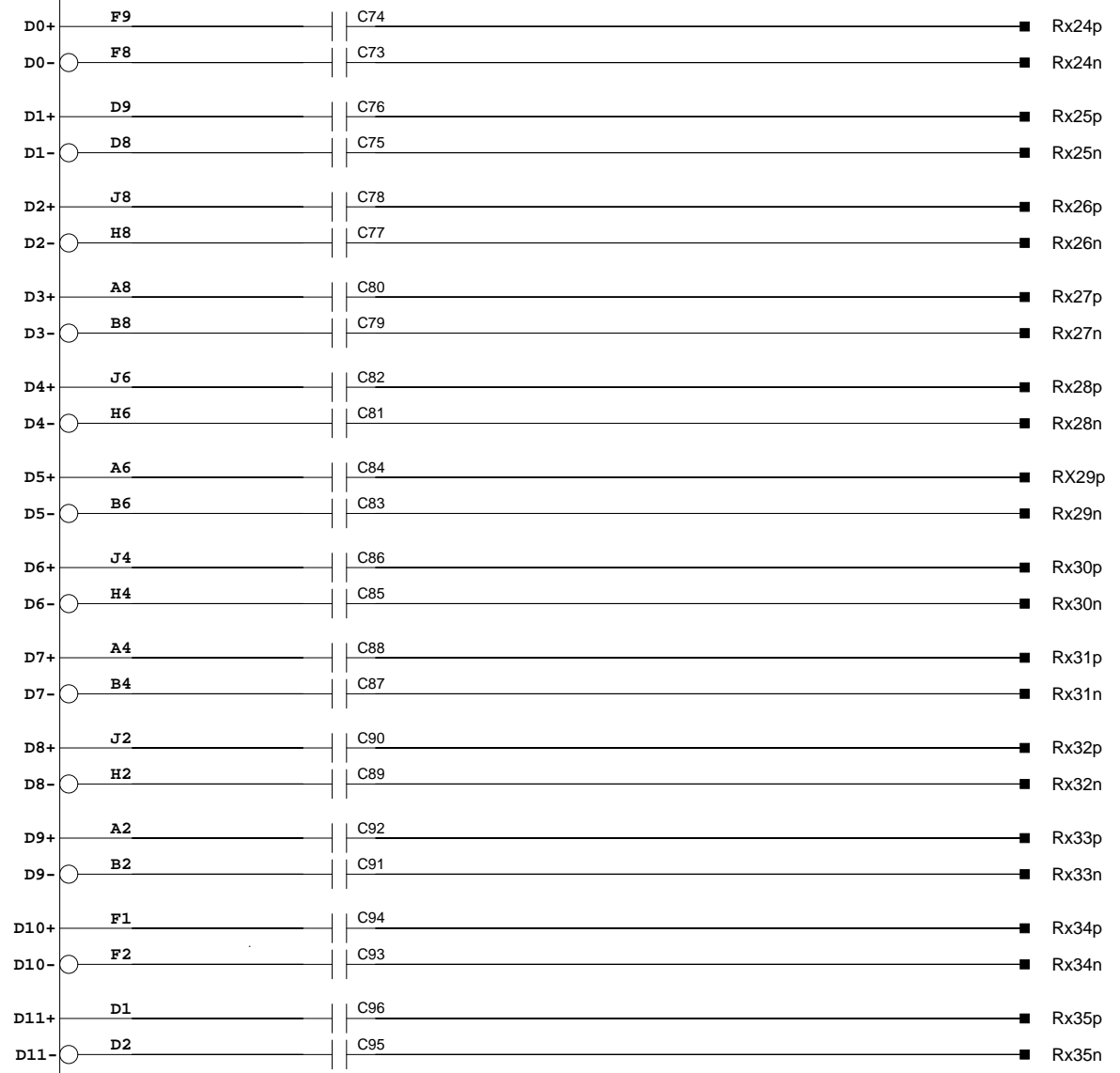
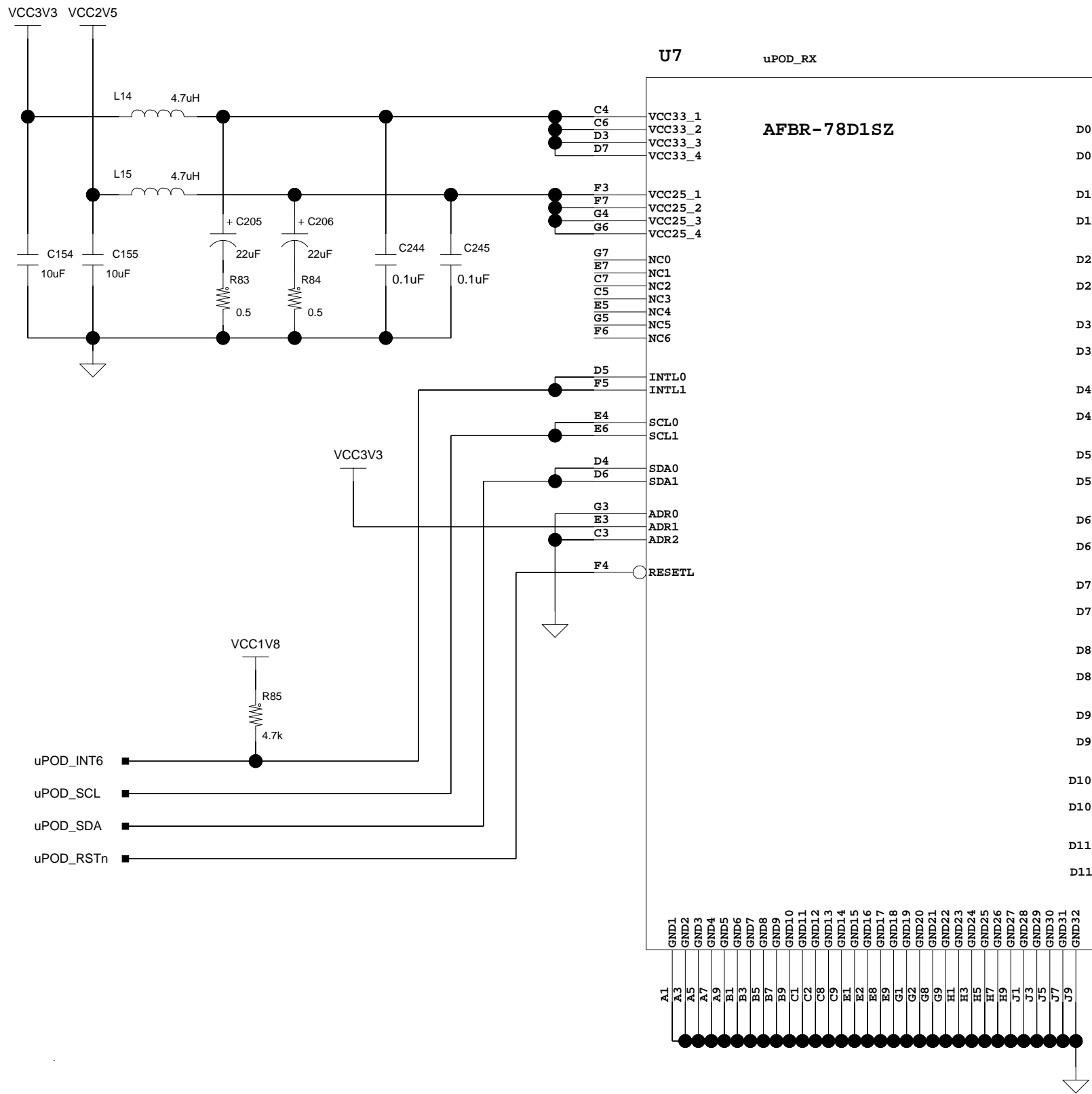


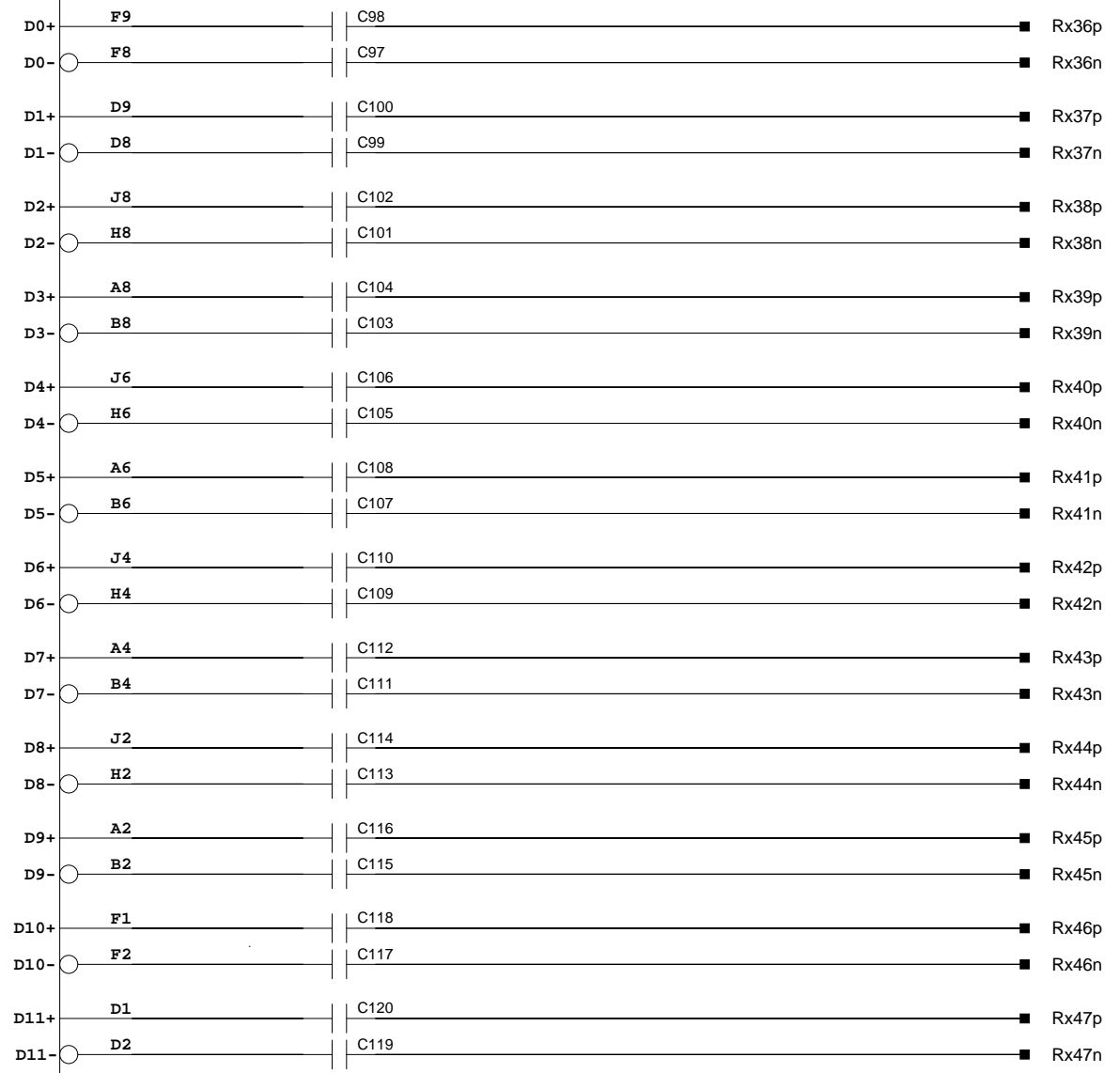
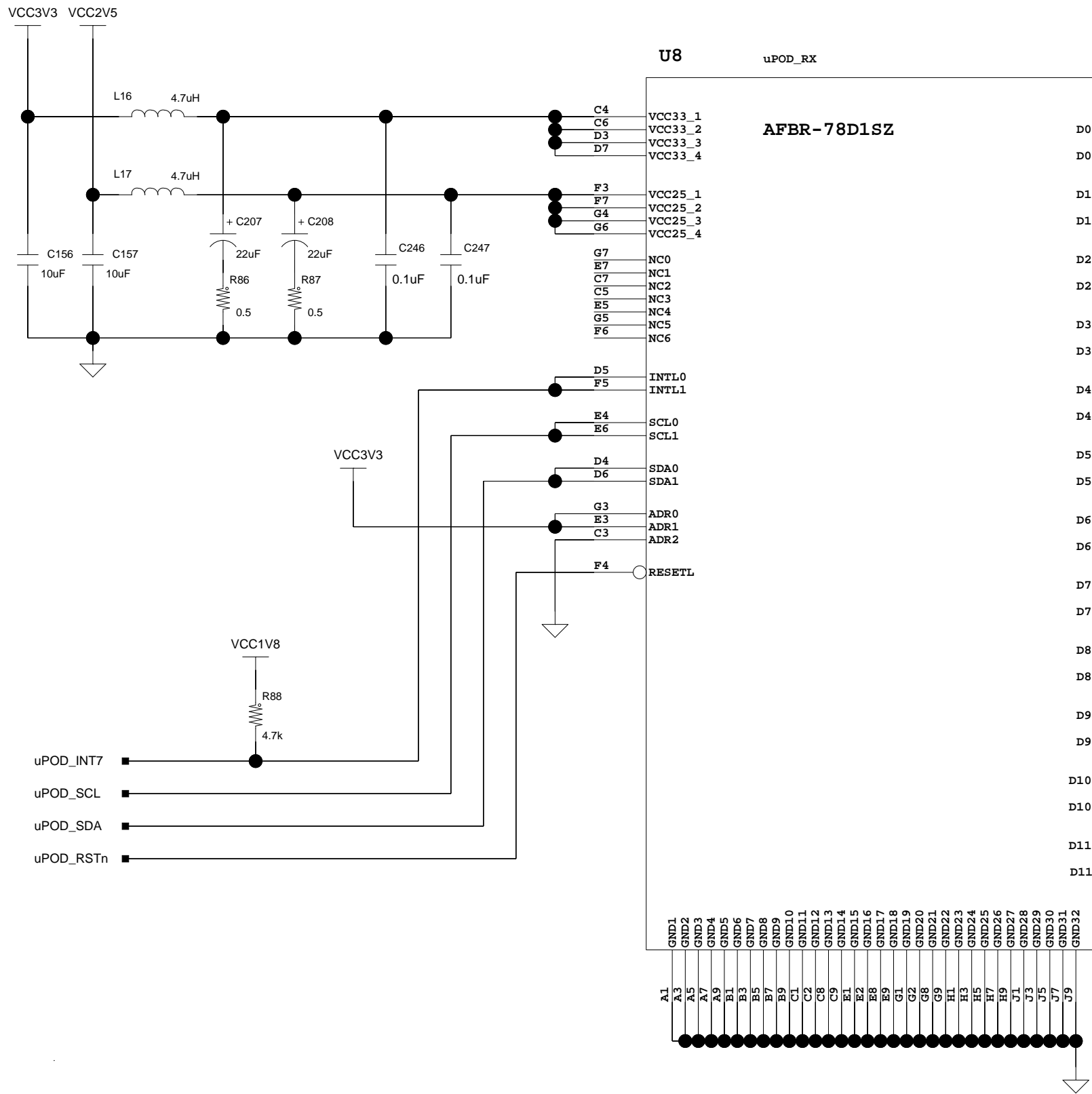
COMPANY			
Stony Brook University			
TITLE			
AMC uPOD TX 4			
SIZE	B	REV 1.0	SHEET 28 OF 41
DRAWN	CEP	DATE	17/07/2014:05:55



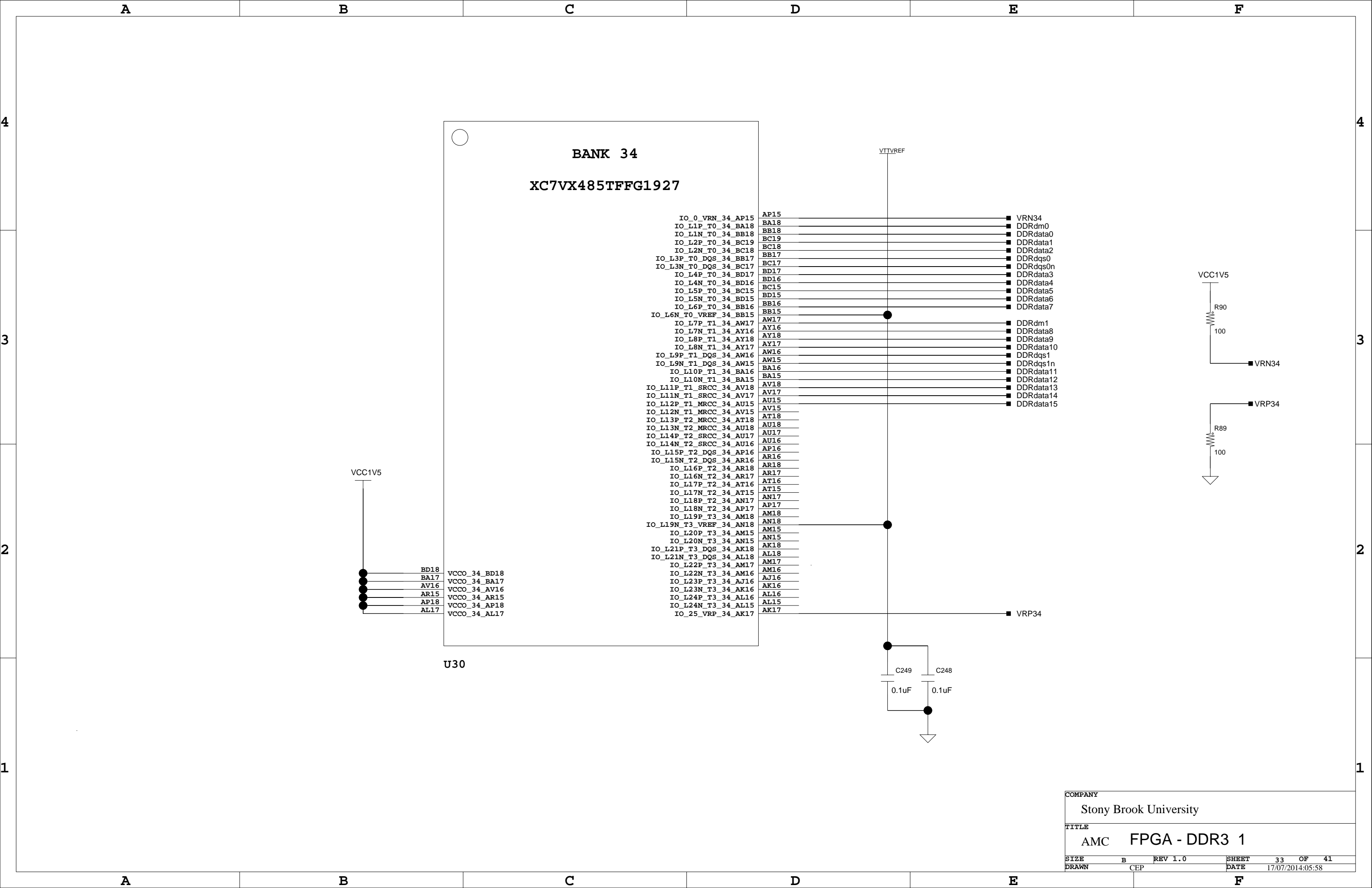
COMPANY			
Stony Brook University			
TITLE			
AMC uPOD RX 1			
SIZE	B	REV 1.0	SHEET 29 OF 41
DRAWN	CEP	DATE	17/07/2014:05:54



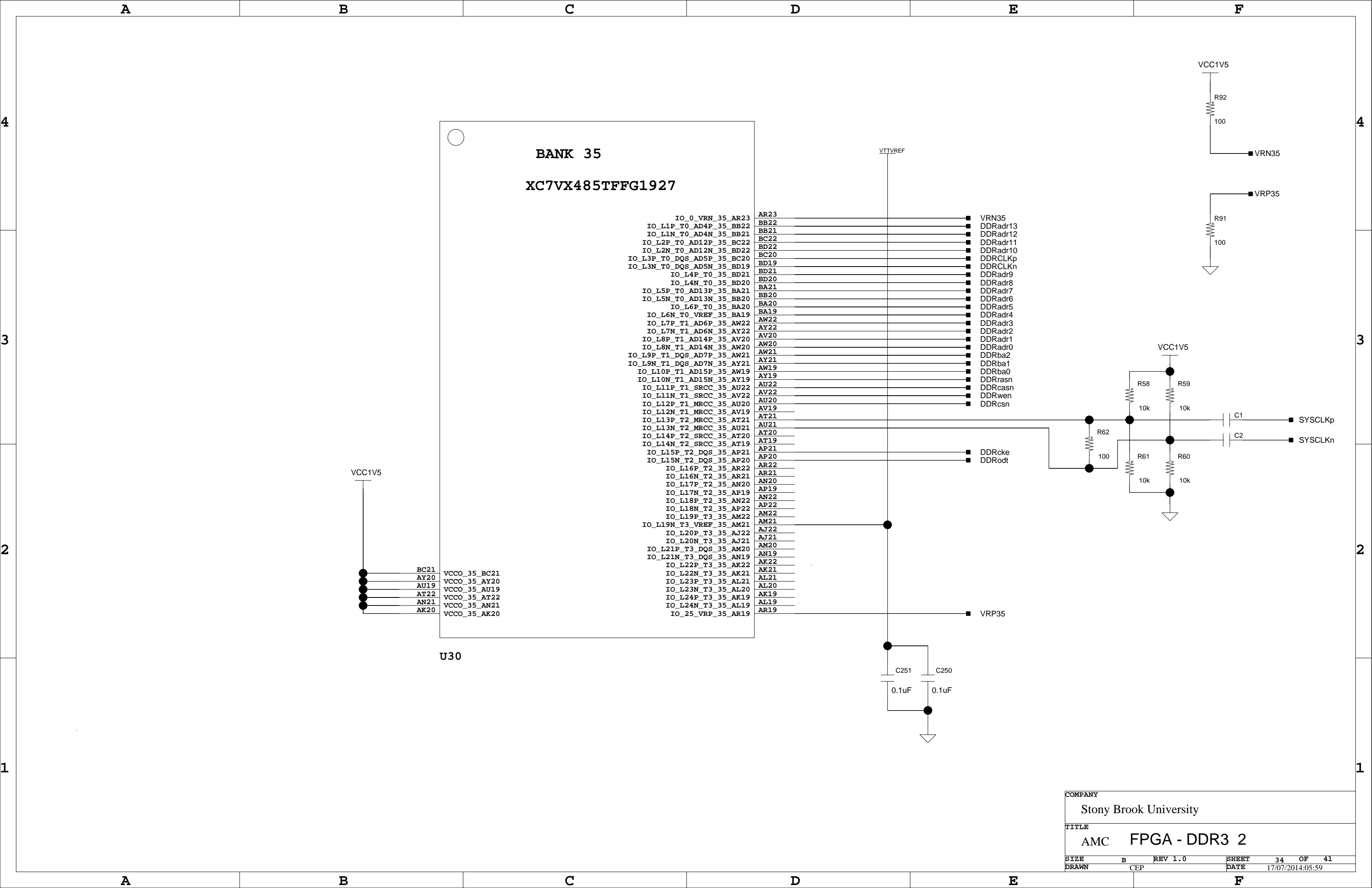




COMPANY			
Stony Brook University			
TITLE			
AMC uPOD RX 4			
SIZE	B	REV 1.0	SHEET 32 OF 41
DRAWN	CEP	DATE	17/07/2014:05:58



COMPANY			
Stony Brook University			
TITLE			
AMC FPGA - DDR3 1			
SIZE	B	REV 1.0	SHEET 33 OF 41
DRAWN	CEP	DATE	17/07/2014:05:58



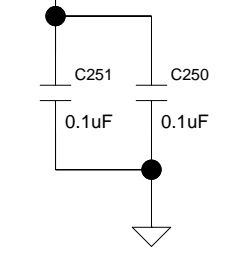
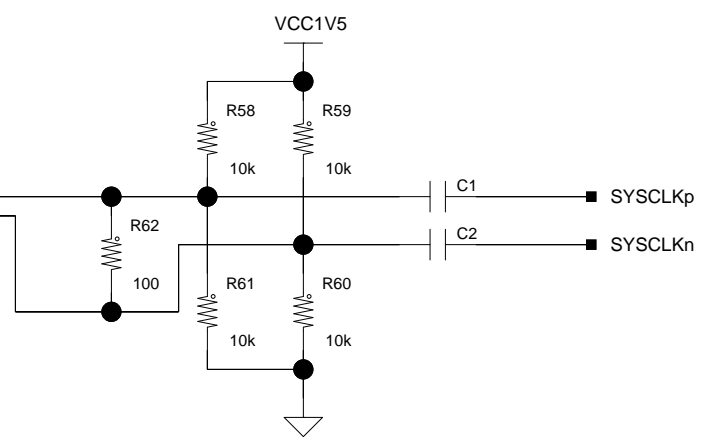
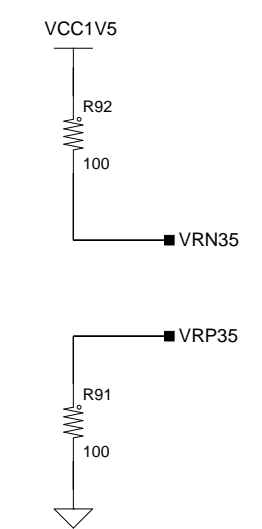
BANK 35
XC7VX485TFFG1927

- IO_0_VRN_35_AR23
- IO_L1P_T0_AD4P_35_BB22
- IO_L1N_T0_AD4N_35_BB21
- IO_L2P_T0_AD12P_35_BC22
- IO_L2N_T0_AD12N_35_BD22
- IO_L3P_T0_DQS_AD5P_35_BC20
- IO_L3N_T0_DQS_AD5N_35_BD19
- IO_L4P_T0_35_BD21
- IO_L4N_T0_35_BD20
- IO_L5P_T0_AD13P_35_BA21
- IO_L5N_T0_AD13N_35_BB20
- IO_L6P_T0_35_BA20
- IO_L6N_T0_VREF_35_BA19
- IO_L7P_T1_AD6P_35_AW22
- IO_L7N_T1_AD6N_35_AY22
- IO_L8P_T1_AD14P_35_AV20
- IO_L8N_T1_AD14N_35_AW20
- IO_L9P_T1_DQS_AD7P_35_AW21
- IO_L9N_T1_DQS_AD7N_35_AY21
- IO_L10P_T1_AD15P_35_AW19
- IO_L10N_T1_AD15N_35_AY19
- IO_L11P_T1_SRCC_35_AU22
- IO_L11N_T1_SRCC_35_AV22
- IO_L12P_T1_MRCC_35_AU20
- IO_L12N_T1_MRCC_35_AV19
- IO_L13P_T2_MRCC_35_AT21
- IO_L13N_T2_MRCC_35_AU21
- IO_L14P_T2_SRCC_35_AT20
- IO_L14N_T2_SRCC_35_AT19
- IO_L15P_T2_DQS_35_AP21
- IO_L15N_T2_DQS_35_AP20
- IO_L16P_T2_35_AR22
- IO_L16N_T2_35_AR21
- IO_L17P_T2_35_AN20
- IO_L17N_T2_35_AP19
- IO_L18P_T2_35_AN22
- IO_L18N_T2_35_AP22
- IO_L19P_T3_35_AM22
- IO_L19N_T3_VREF_35_AM21
- IO_L20P_T3_35_AJ22
- IO_L20N_T3_35_AJ21
- IO_L21P_T3_DQS_35_AM20
- IO_L21N_T3_DQS_35_AN19
- IO_L22P_T3_35_AK22
- IO_L22N_T3_35_AK21
- IO_L23P_T3_35_AL21
- IO_L23N_T3_35_AL20
- IO_L24P_T3_35_AK19
- IO_L24N_T3_35_AL19
- IO_25_VRP_35_AR19

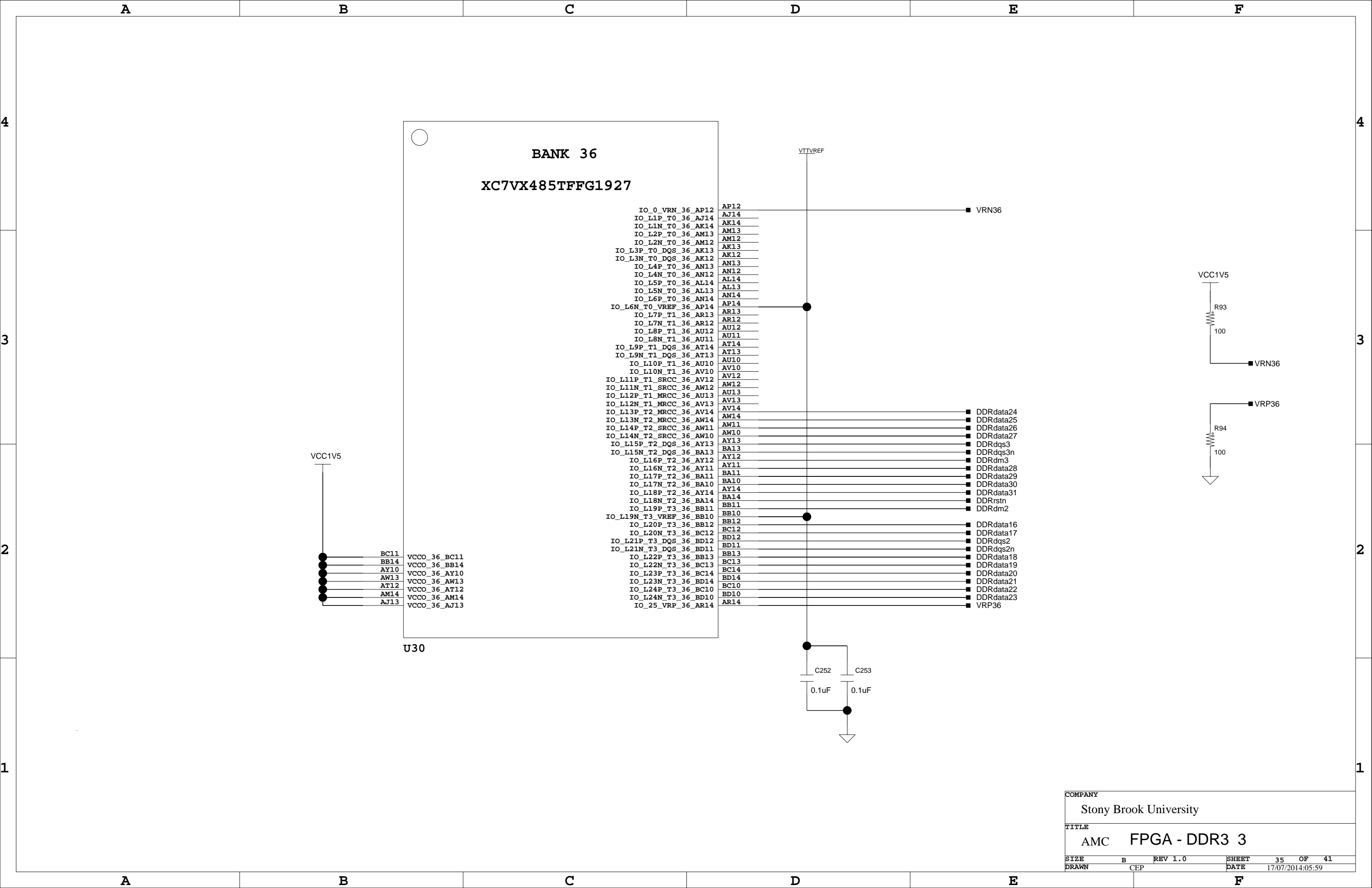
- VCC1V5
- BC21 VCCO_35_BC21
- AY20 VCCO_35_AY20
- AU19 VCCO_35_AU19
- AT22 VCCO_35_AT22
- AN21 VCCO_35_AN21
- AK20 VCCO_35_AK20

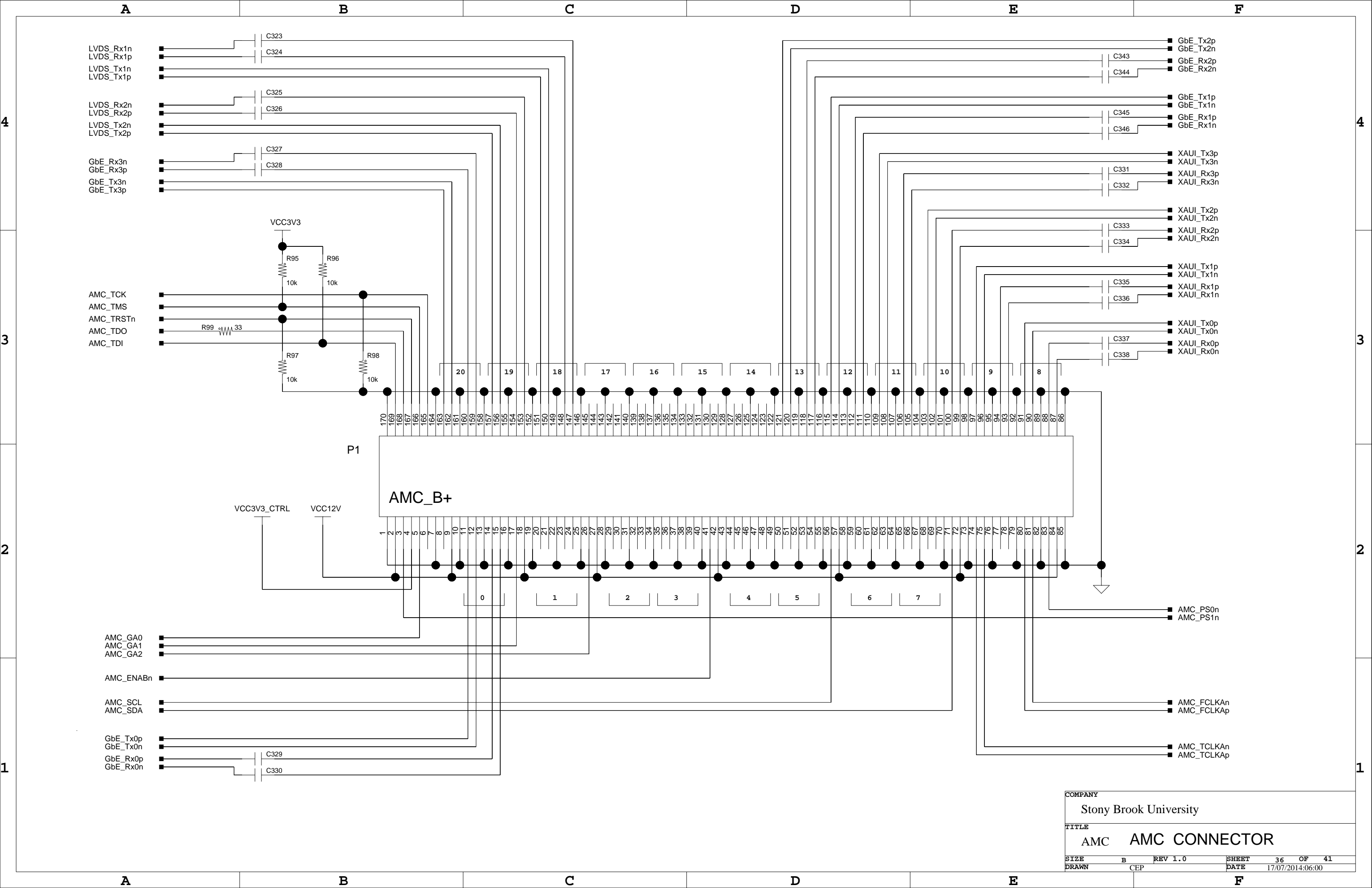
U30

VTTVREF

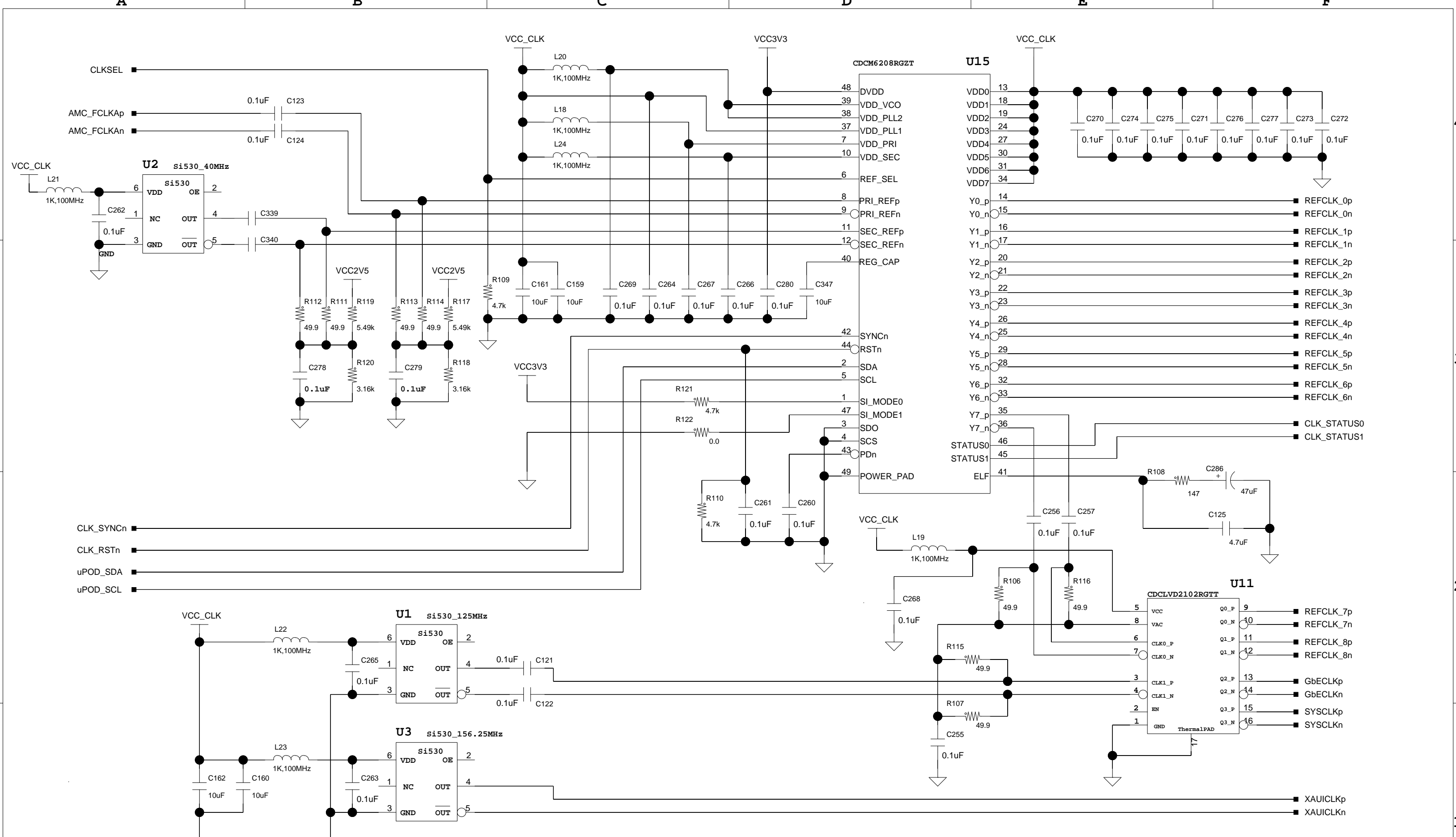


COMPANY			
Stony Brook University			
TITLE			
AMC FPGA - DDR3 2			
SIZE	B	REV 1.0	SHEET 34 OF 41
DRAWN	CEP	DATE	17/07/2014:05:59





COMPANY			
Stony Brook University			
TITLE			
AMC AMC CONNECTOR			
SIZE	B	REV 1.0	SHEET 36 OF 41
DRAWN	CEP	DATE	17/07/2014:06:00

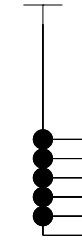


COMPANY			
Stony Brook University			
TITLE			
AMC CLOCK DISTRIBUTION			
SIZE	B	REV 1.0	SHEET 37 OF 41
DRAWN	CEP	DATE	17/07/2014:06:05

BANK 15
XC7VX485TFFG1927

IO_0_VRN_15_AR24	AR24
IO_L1P_T0_AD0P_15_BD25	BD25
IO_L1N_T0_AD0N_15_BD26	BD26
IO_L2P_T0_AD8P_15_BB23	BB23
IO_L2N_T0_AD8N_15_BC23	BC23
IO_L3P_T0_DQS_AD1P_15_BB25	BB25
IO_L3N_T0_DQS_AD1N_15_BC25	BC25
IO_L4P_T0_15_BC24	BC24
IO_L4N_T0_15_BD24	BD24
IO_L5P_T0_AD9P_15_BA26	BA26
IO_L5N_T0_AD9N_15_BB26	BB26
IO_L6P_T0_15_BA24	BA24
IO_L6N_T0_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_AV25	AV25
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

VCC1V5



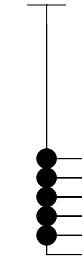
BB24	VCCO_15_BB24
AW23	VCCO_15_AW23
AV26	VCCO_15_AV26
AR25	VCCO_15_AR25
AM24	VCCO_15_AM24
AJ23	VCCO_15_AJ23

U30

BANK 16
XC7VX485TFFG1927

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

VCC1V5



BC31	VCCO_16_BC31
BB34	VCCO_16_BB34
AW33	VCCO_16_AW33
AT32	VCCO_16_AT32
AN31	VCCO_16_AN31
AK30	VCCO_16_AK30

U30

COMPANY			
Stony Brook University			
TITLE			
AMC FPGA - BANKS 15 16			
SIZE	B	REV 1.0	SHEET 38 OF 41
DRAWN	CEP	DATE	17/07/2014:06:05

4

4

3

3

2

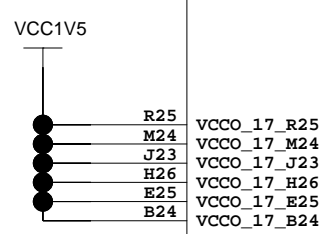
2

1

1

BANK 17
XC7VX485TFFG1927

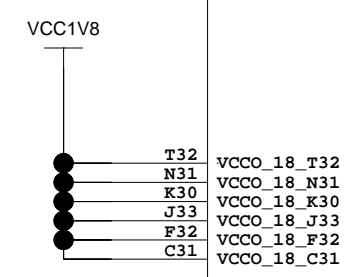
IO_0_VRN_17	M26	M26
IO_L1P_T0_17	B23	B23
IO_L1N_T0_17	A23	A23
IO_L2P_T0_17	C25	C25
IO_L2N_T0_17	B25	B25
IO_L3P_T0_DQS_17	C23	C23
IO_L3N_T0_DQS_17	C24	C24
IO_L4P_T0_17	A24	A24
IO_L4N_T0_17	A25	A25
IO_L5P_T0_17	D24	D24
IO_L5N_T0_17	D25	D25
IO_L6P_T0_17	E23	E23
IO_L6N_T0_VREF_17	E24	E24
IO_L7P_T1_17	G23	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



U30

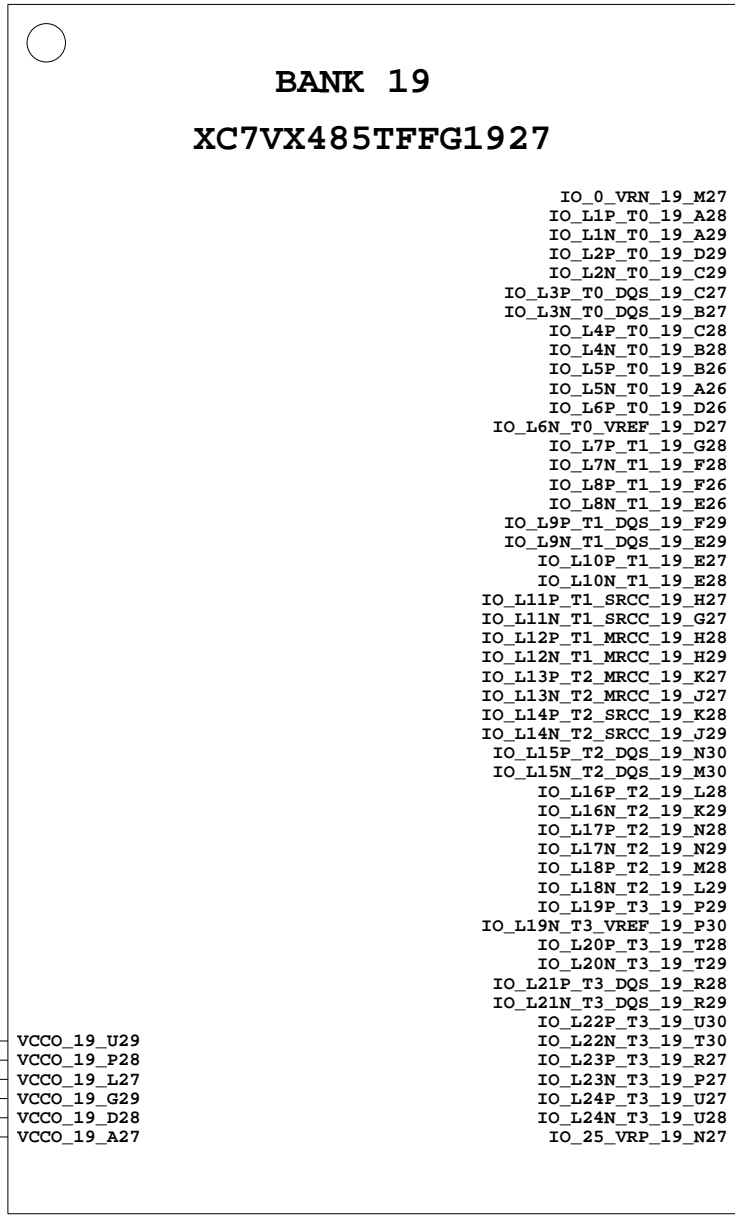
BANK 18
XC7VX485TFFG1927

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

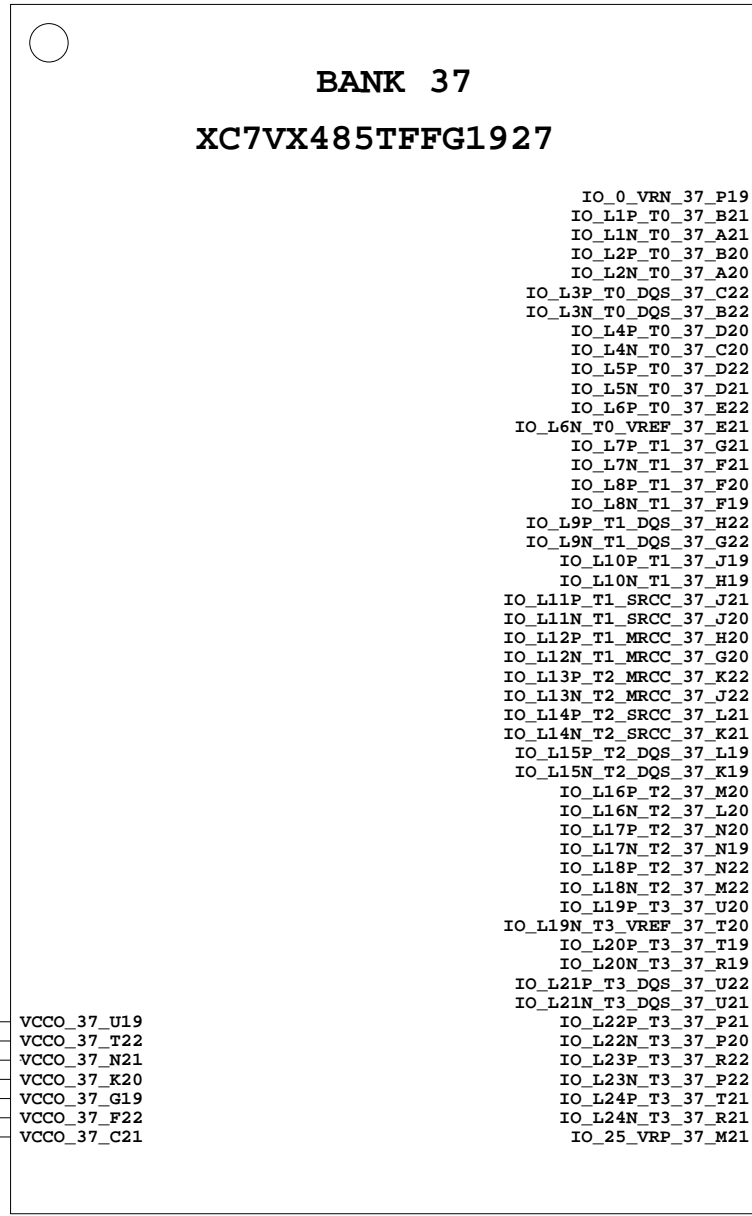


U30

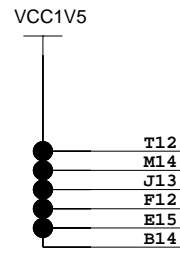
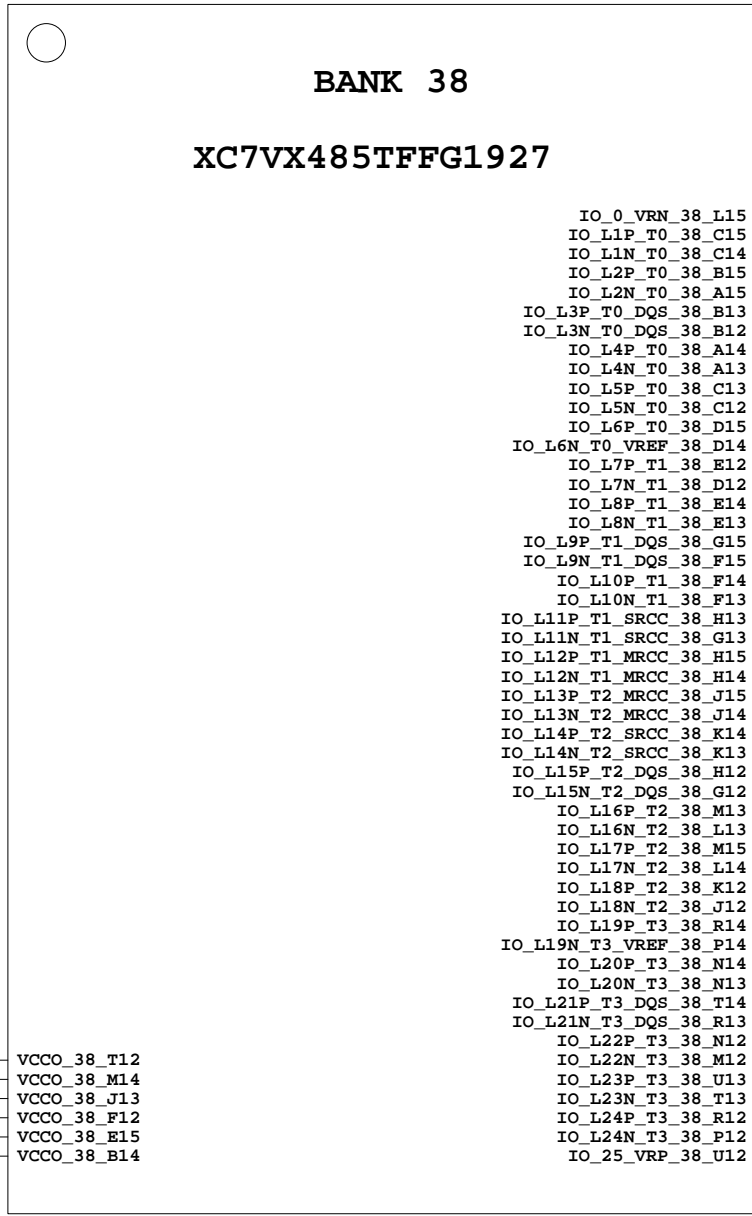
COMPANY		Stony Brook University	
TITLE		AMC FPGA - BANKS 17 18	
SIZE	B	REV 1.0	SHEET 39 OF 41
DRAWN	CEP	DATE	17/07/2014:06:06



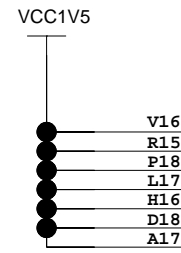
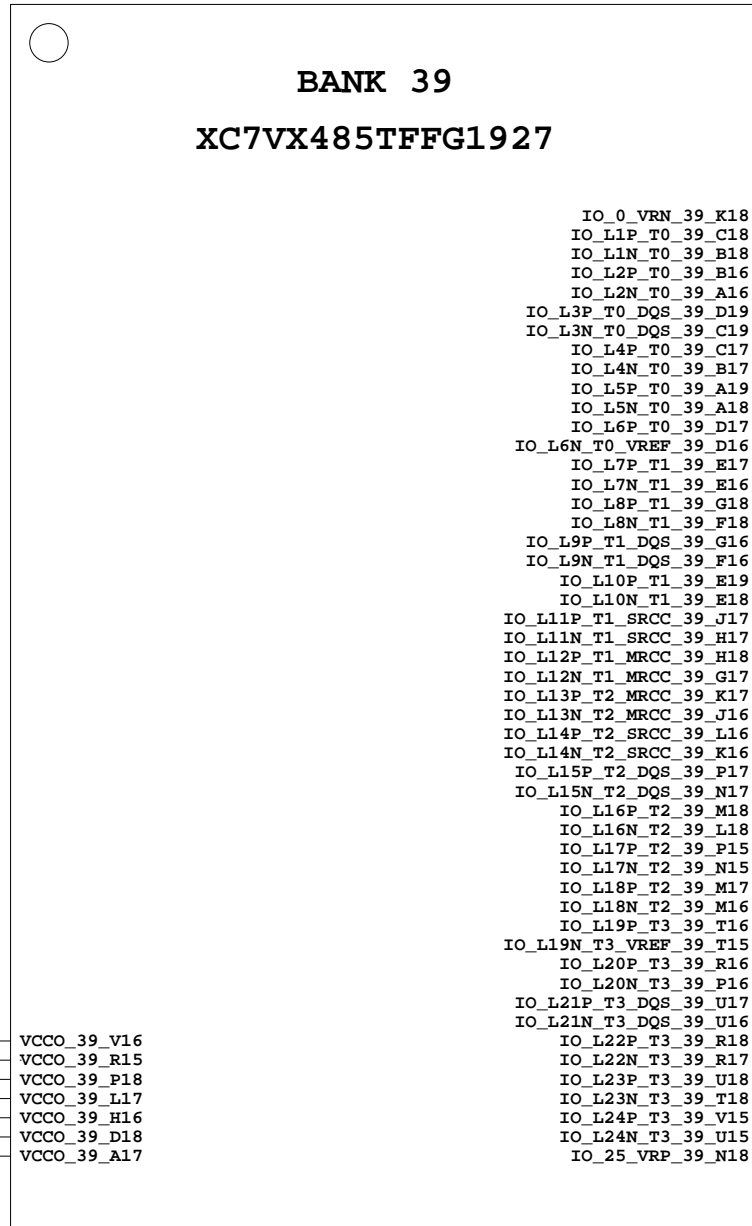
U30



U30



U30



U30