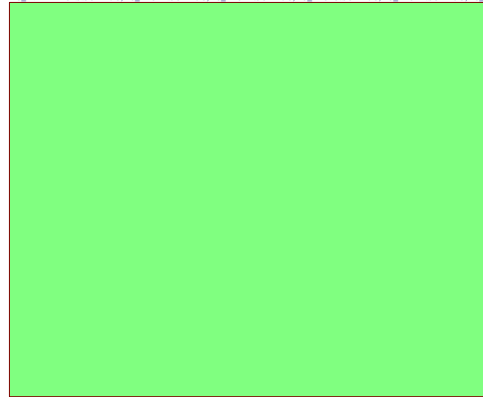


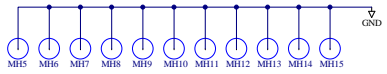
Readout Card - All Sheets:
 RC_INTERFACES.SCHDOC;RC_FPGA1.SCHDOC;RC_FPGA2.SCHDOC;RC_FPGA3.SCHDOC;RC_FPGA4.SCHDOC;RC_FPGA5.SCHDOC;RC_FPGA6.SCHDOC;RC_MEMORY.SCHDOC;RC_ANALOGUE.SCHDOC;RC_POWER_SUPPLIES1.SCHDOC;RC_POWER_SUPPLIES2.SCHDOC;RC_Mechanical.SCHDOC



Use UBC Logo
 Use UBC Logo

Add Fiducial Point
 FP1
 Add Fiducial Point
 FP2
 Add Fiducial Point
 FP3
 Add Fiducial Point
 FP4

Fiducial fiducials should be located in the four corners of the PCB board.
 Fiducials should be at least 5mm from the edge of the board.

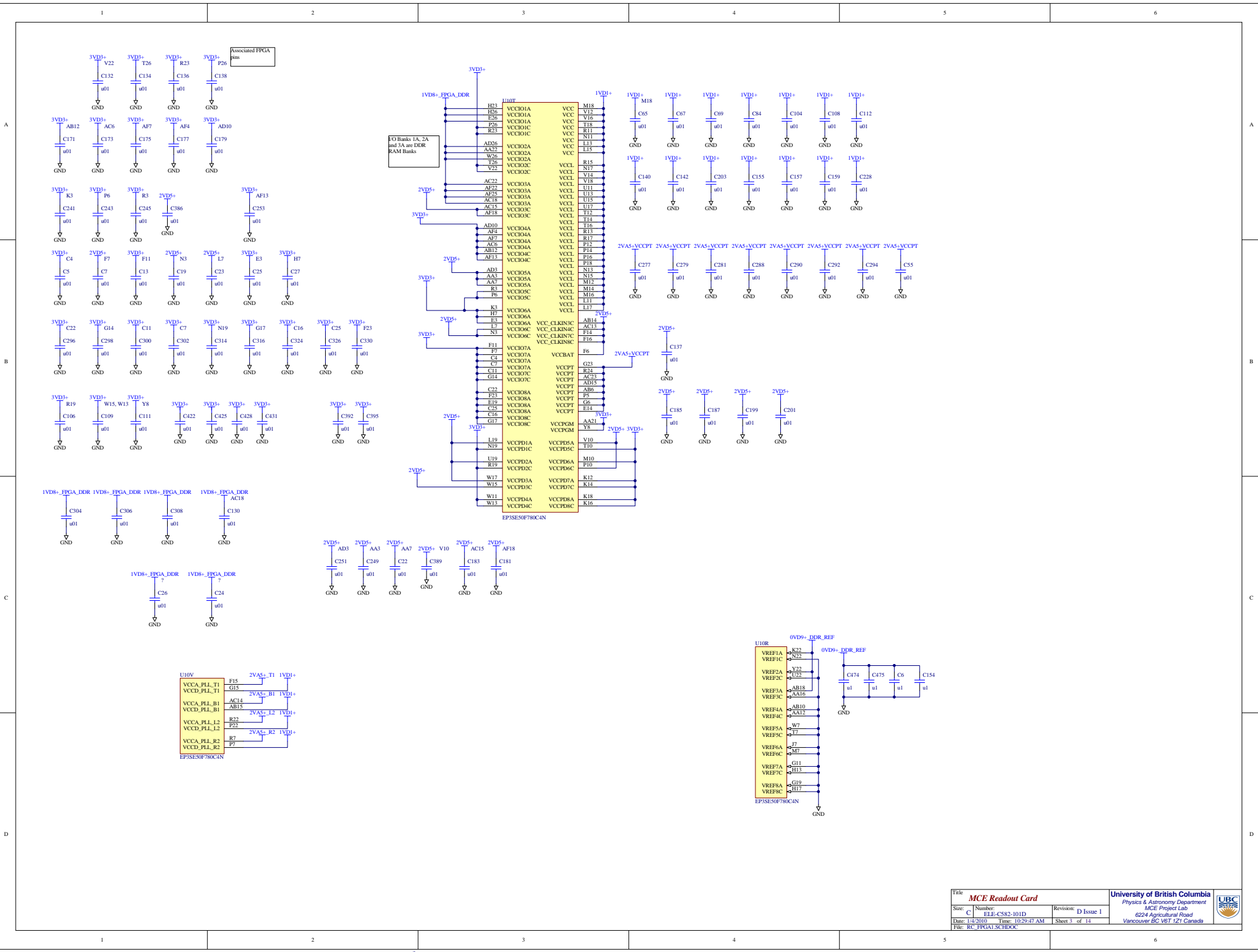


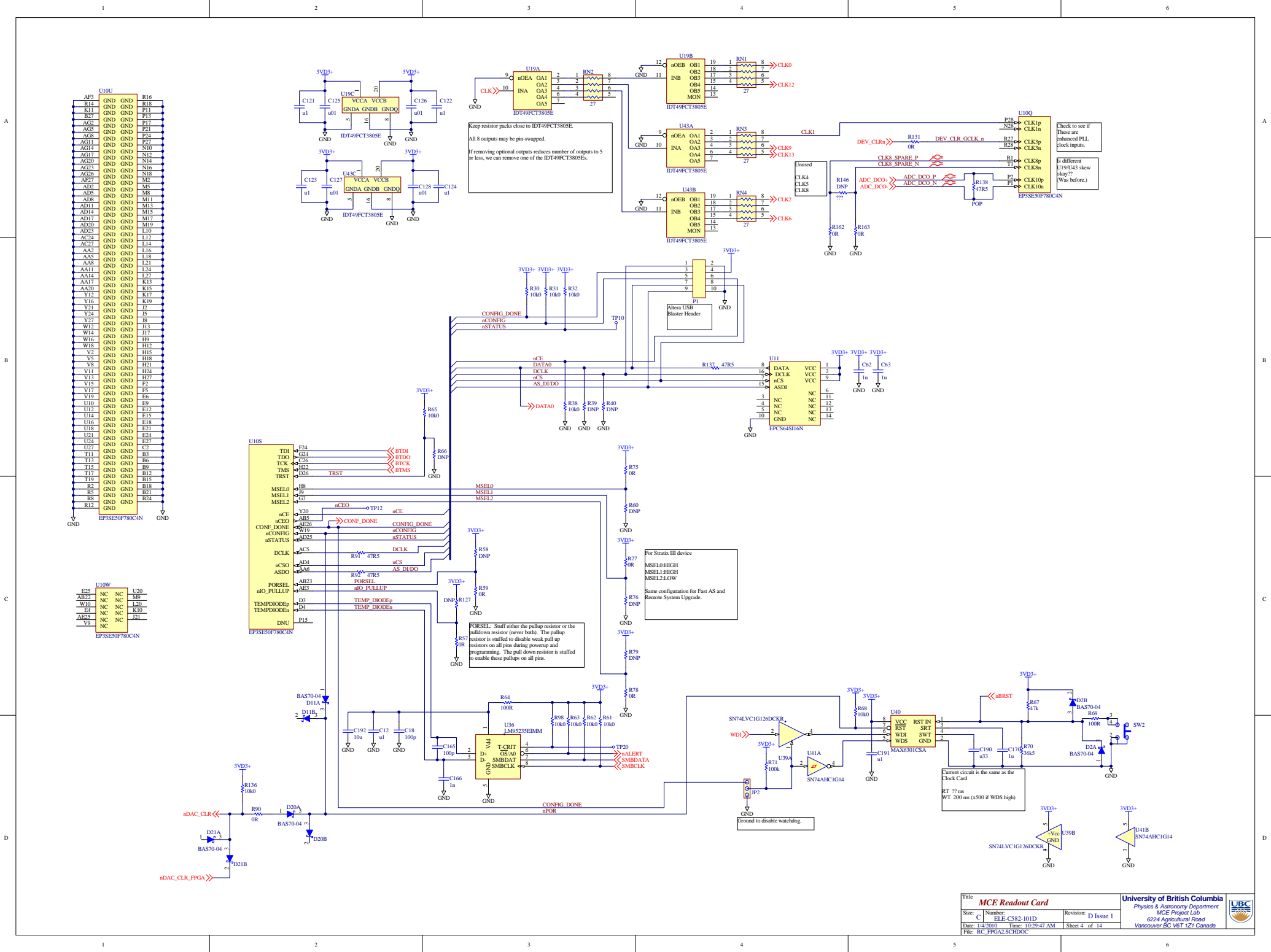
There is a problem with manually placing Mounting Holes. Created Part to fix problem

Front Panel Mounting Assembly

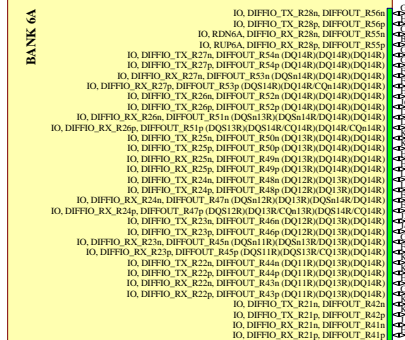
Bottom Extraction Handle Manufacturer: Rittal Part Number: 3686-902 Mech3	Top Extraction Handle Manufacturer: Rittal Part Number: 3686-903 Mech4
SCUBA2 Readout Card Front Panel Manufacturer: PHAS-MS Part Number: SC2-ELE-SS81-110 Mech5	
Mounting Bracket for PCB Manufacturer: Rittal Part Number: 3685-198 (10/pack) Mech11	Mounting Bracket for PCB Manufacturer: Rittal Part Number: 3685-198 (10/pack) Mech12
M2.5 x 8mm Machine Screw Cone Head Type: Hardware Mech15	M2.5 x 8mm Machine Screw Cone Head Type: Hardware Mech16
M2.5 x 8mm Machine Screw Type: Hardware Mech19	M2.5 x 8mm Machine Screw Type: Hardware Mech20
M2.5 x 8mm Machine Screw Type: Hardware Mech21	M2.5 x 8mm Machine Screw Type: Hardware Mech22

PCB Part Number for BOM:



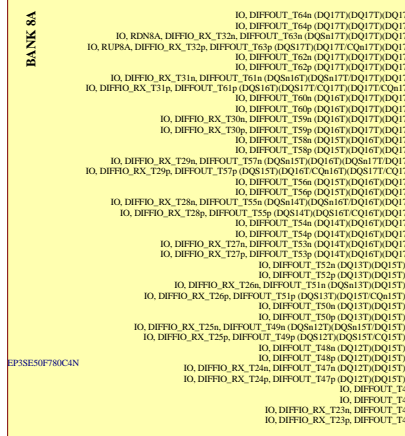


U10K BANK 6A



EP1SE50F780C4N

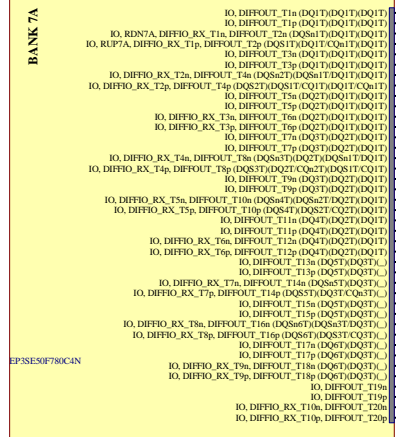
U100 BANK 8A



EP1SE50F780C4N

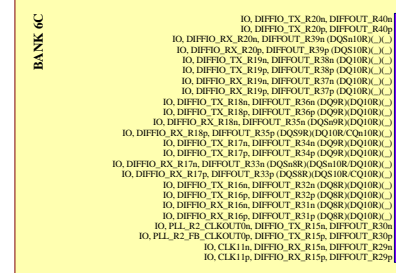
Add Fiducial Pin FP5 Please locate fiducials near the BGA footprint. Add Fiducial Pin FP6

U10M BANK 7A



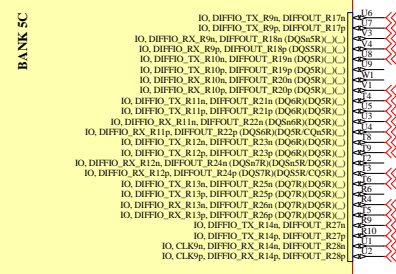
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U10L BANK 6C



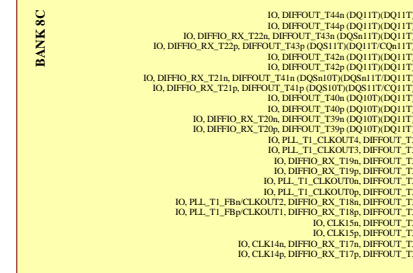
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U10P BANK 8C



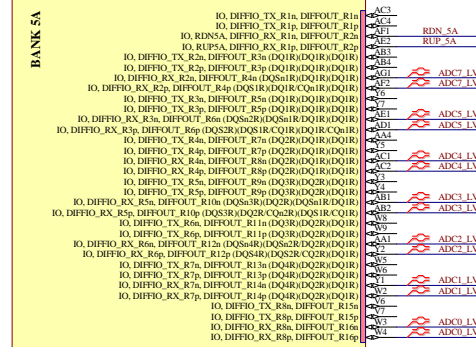
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U10P BANK 8C

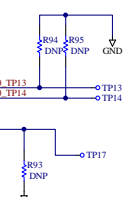


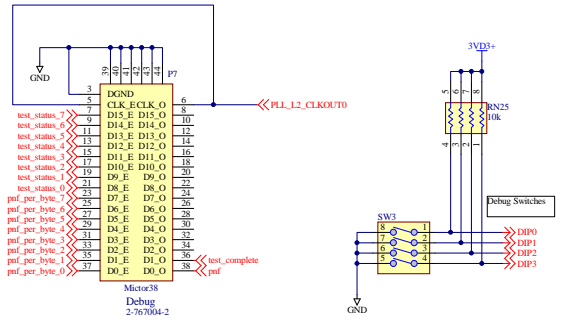
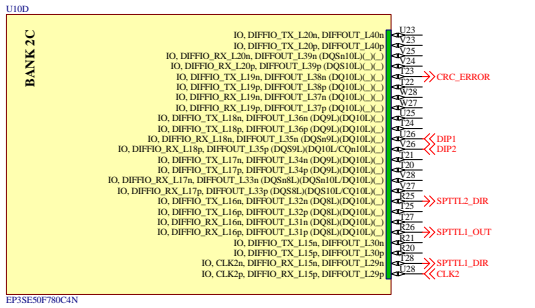
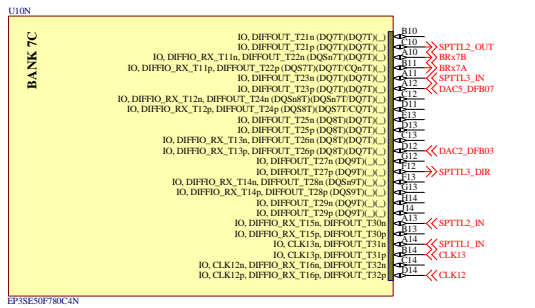
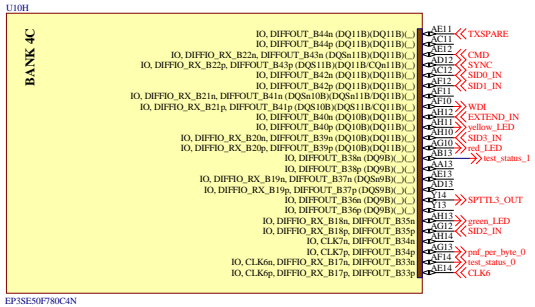
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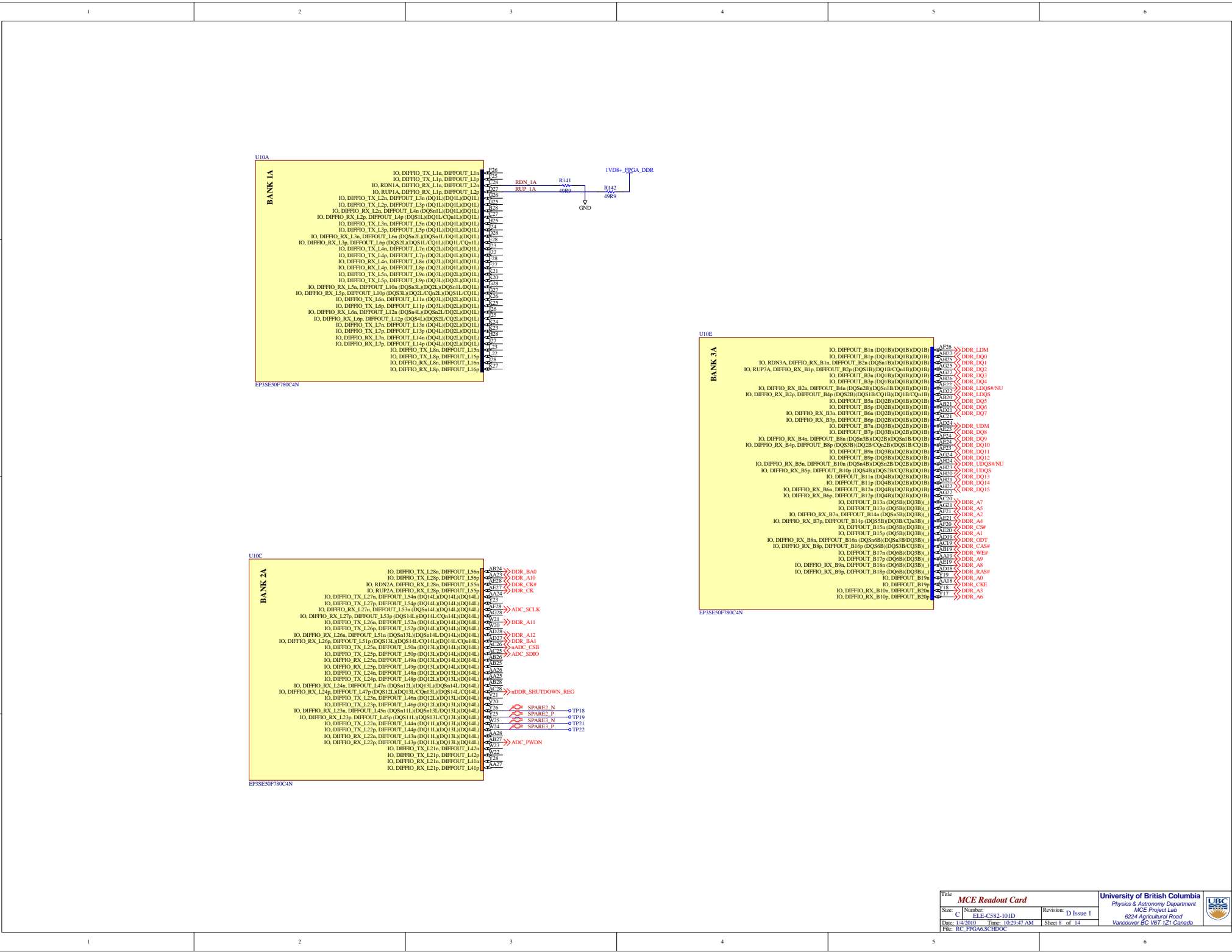
U10H BANK 5A

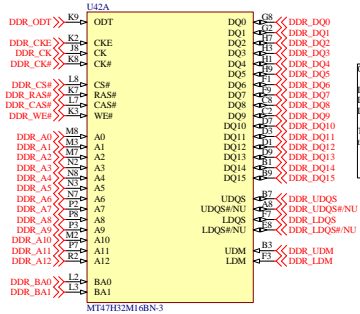
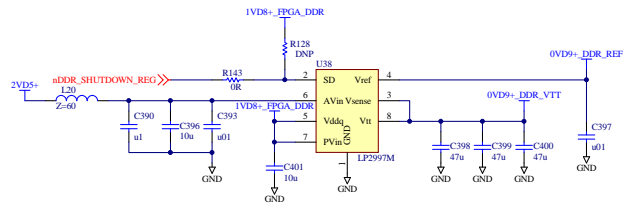


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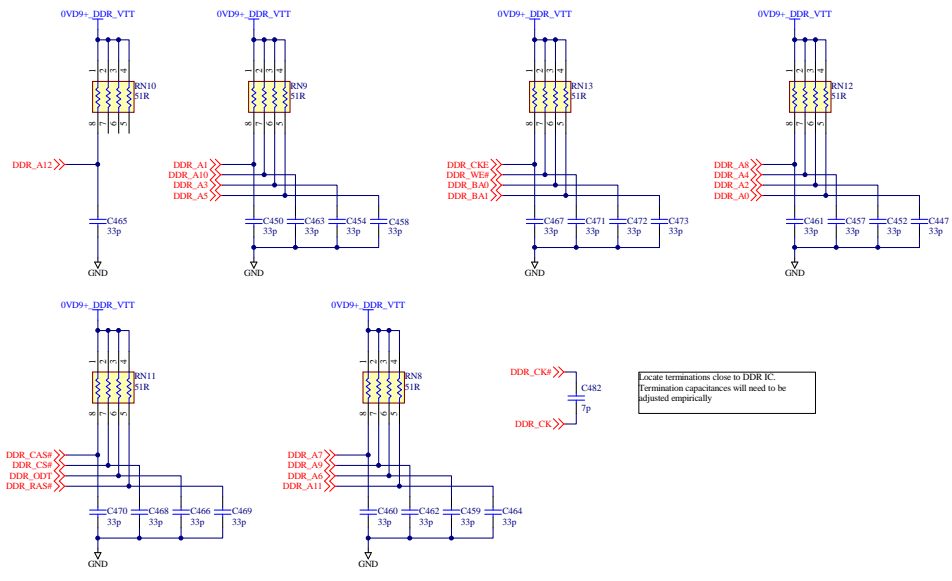
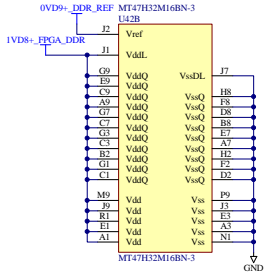
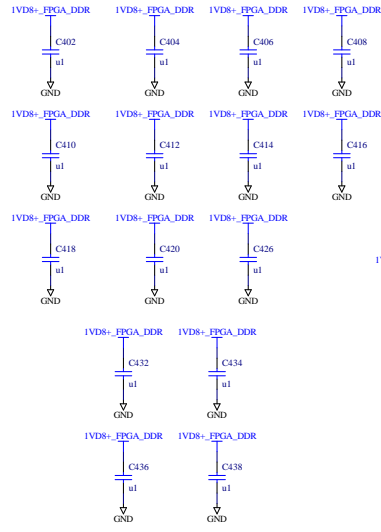




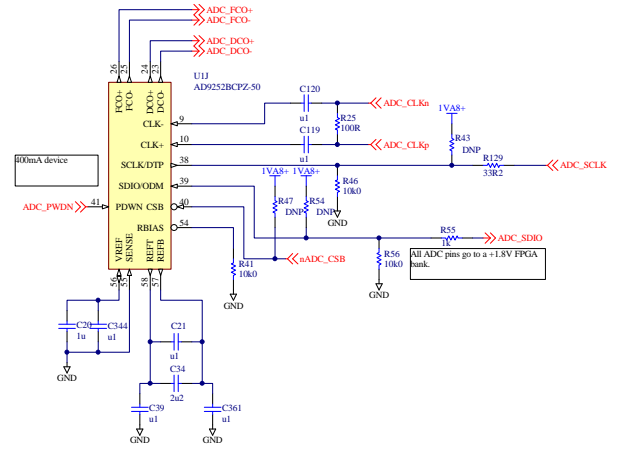
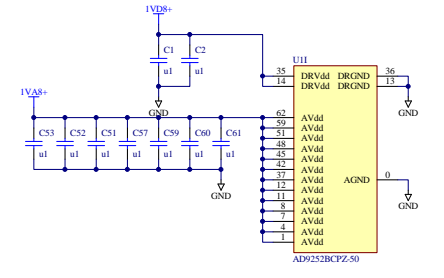
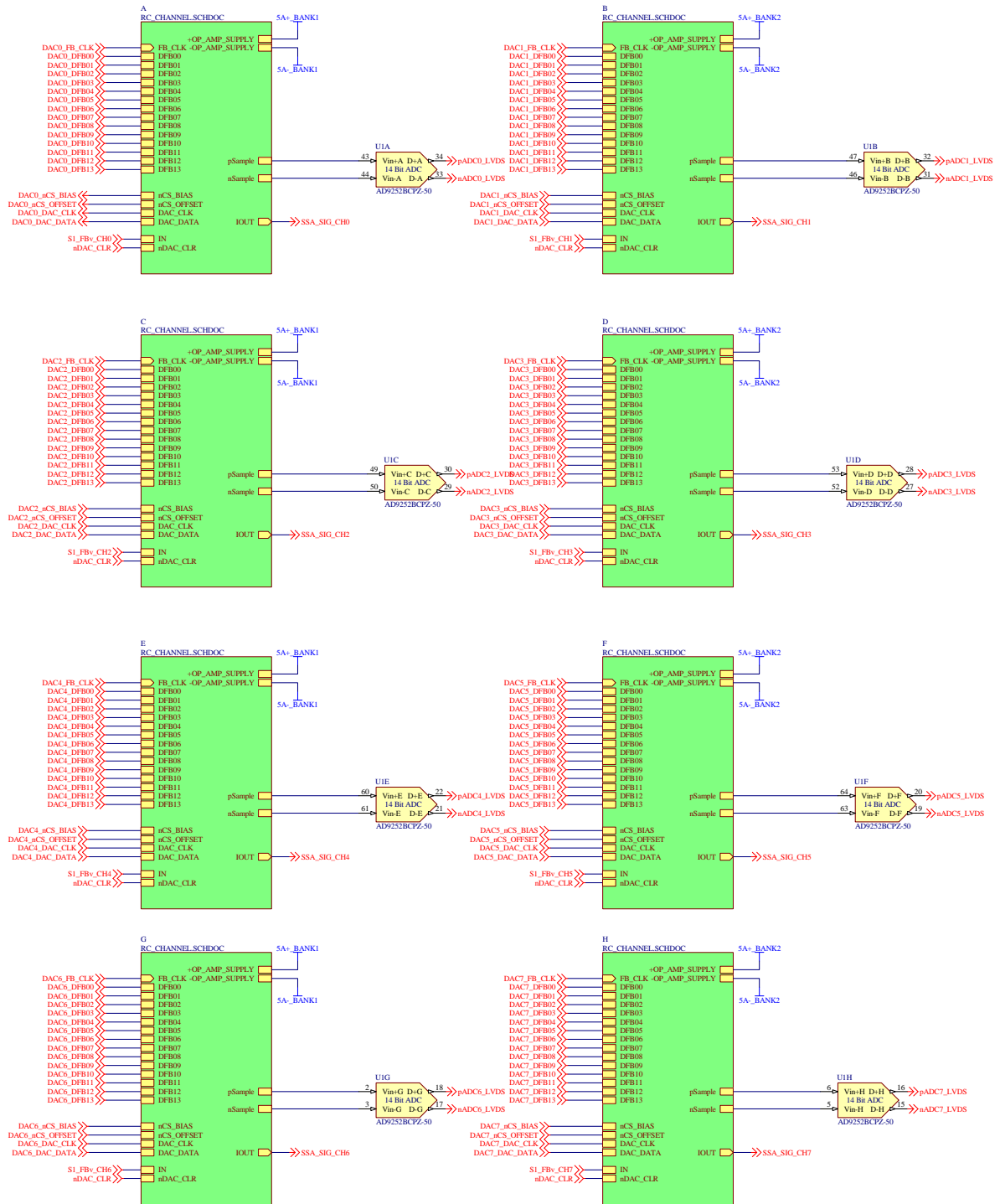


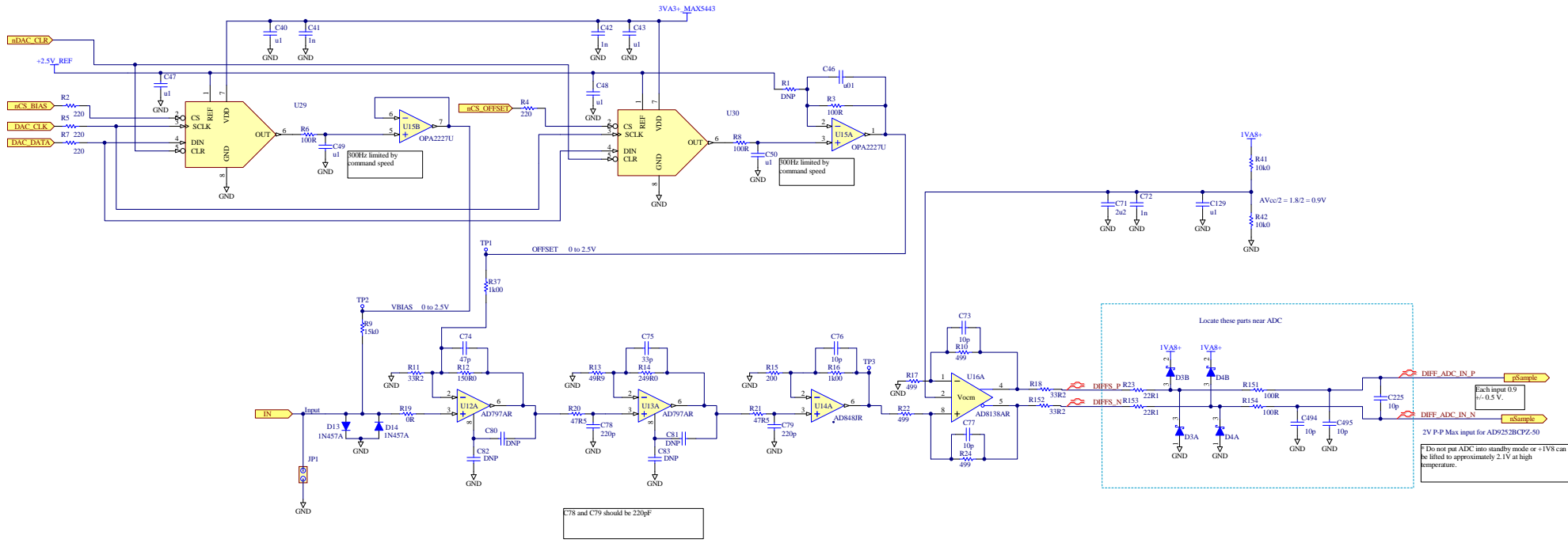


On-die Termination can be applied to:
 DQ0 through DQ15
 LDM, UDM,
 LDQS, LDQS#, UDQS, and UDQS#
 The ODT input will be ignored if disabled via the LOAD MODE command

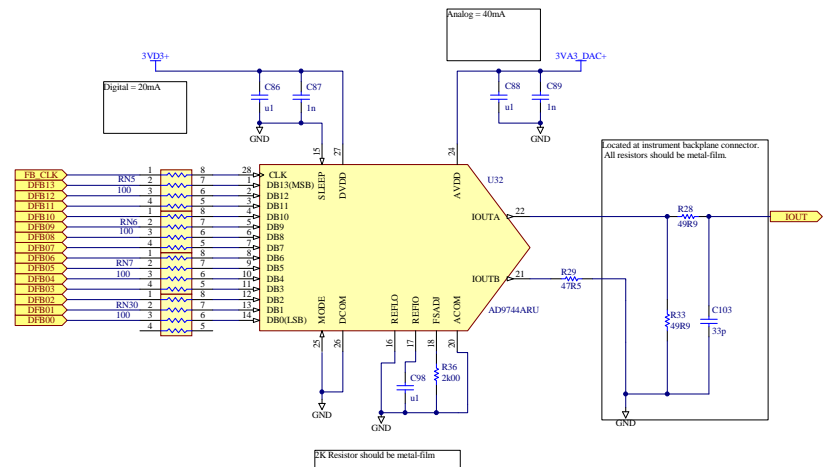
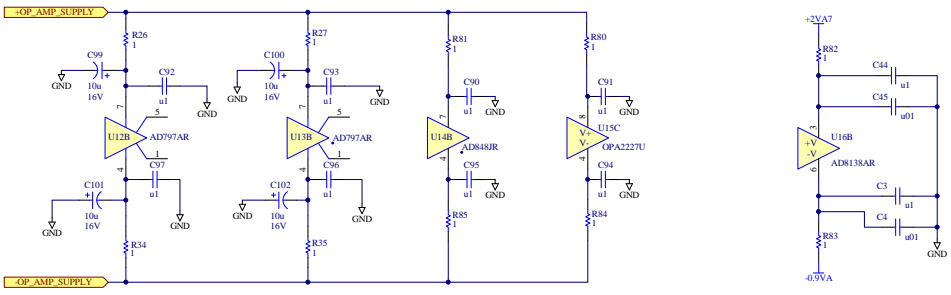


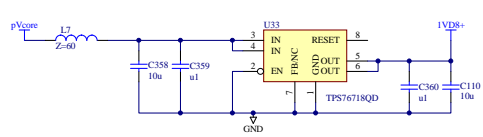
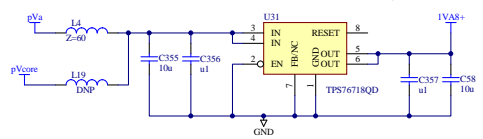
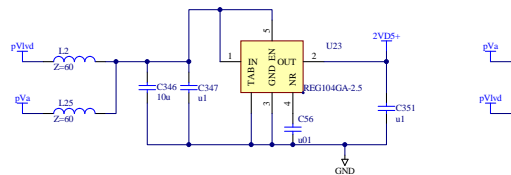
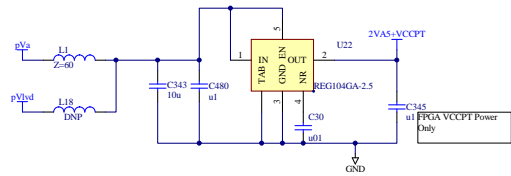
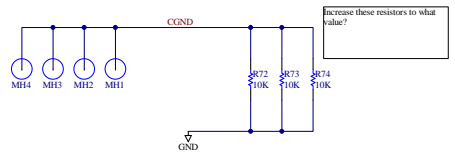
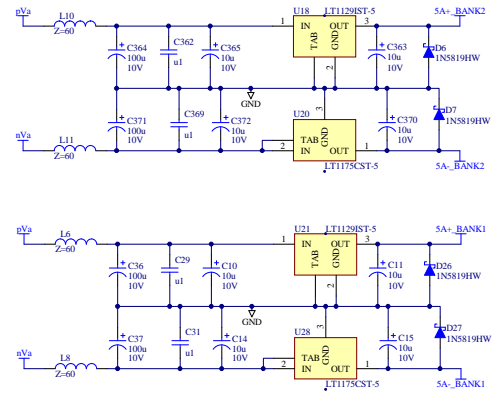
Locate terminations close to DDR IC.
 Termination capacitances will need to be adjusted empirically.



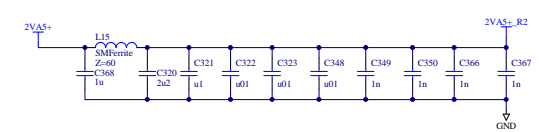
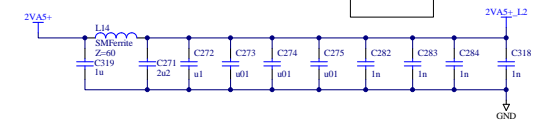
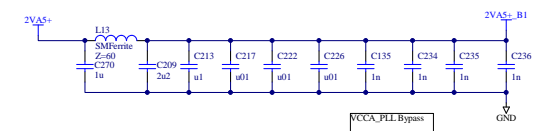
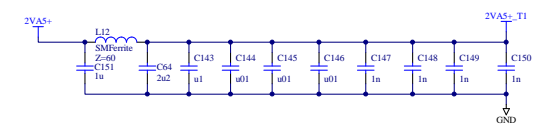
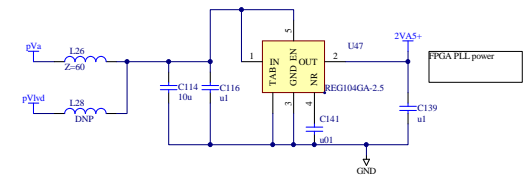


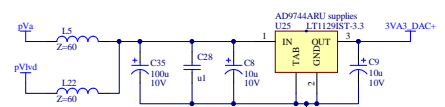
C78 and C79 should be 220pF





ADC Power





Needed Supplies

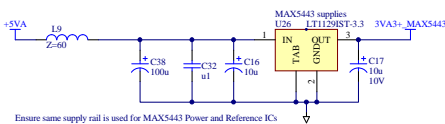
FPGA

- 3.3VD - I/O supply (300mA for FPGA)
- 2.5VA - VCCPT and VCCA_PLL (low current for FPGA)
- 2.5VD - CLK_IN Supply (low current for FPGA)
- 1.1VD - Core Supply, VCC, VCCD_PLL (500mA for FPGA)

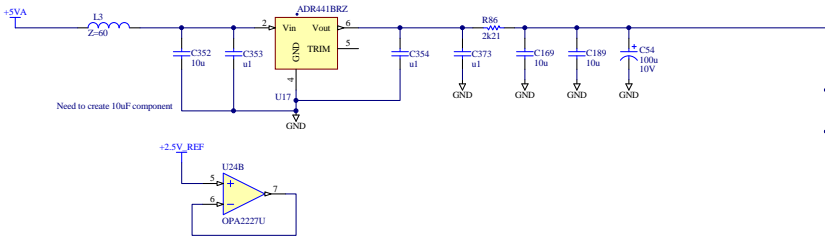
Analog

- 1.8VD - Digital (1A)
- 1.8VA - Analog (1A)
- 5VA - For Op Amps (700mA) - check AD8138 current consumption
- 5VA - For Op Amps (700mA) - check AD8138 current consumption
- 3.3VD DAC - Digital Side (250mA)
- 3.3VA DAC - Analog Side (400mA)

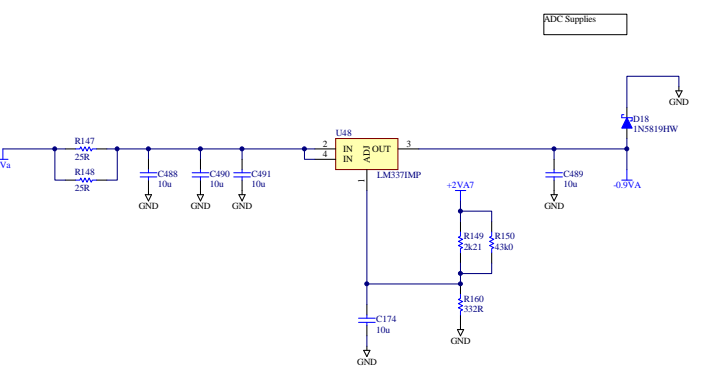
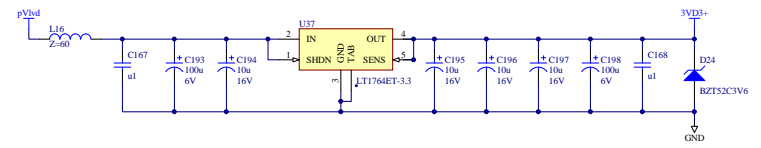
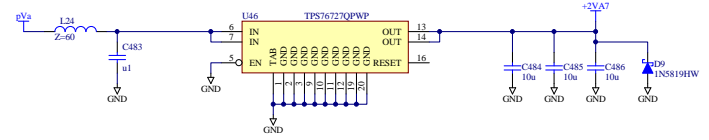
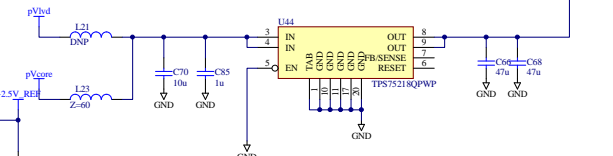
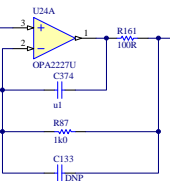
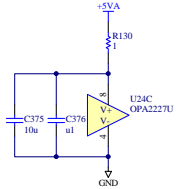
Double check current for supplies



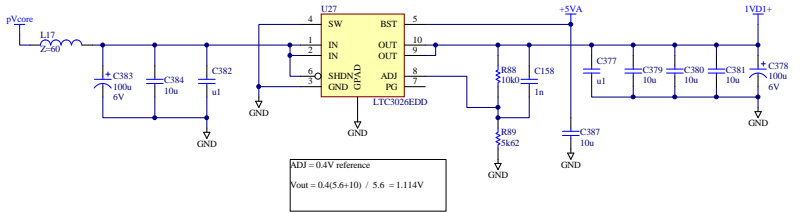
Ensure same supply rail is used for MAX5443 Power and Reference ICs



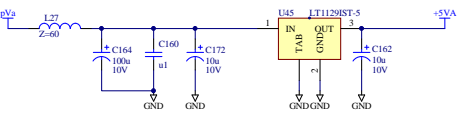
Need to create 10uF component



ADC Supplies



ADJ = 0.4V reference
 $V_{out} = 0.4(5.6+10) / 5.6 = 1.114V$



Front Panel Mounting Assembly

Bottom Extraction Handle
Manufacturer: Rittal
Part Number: 3686-902
Mech3

Top Extraction Handle
Manufacturer: Rittal
Part Number: 3686-903
Mech4

SCUBA2 Readout Card Front Panel
Manufacturer: PHAS-MS
Part Number: SC2-ELE-S581-110
Mech8

Mounting Bracket for PCB
Manufacturer: Rittal
Part Number: 3685-198 (10 pack)
Mech11

Mounting Bracket for PCB
Manufacturer: Rittal
Part Number: 3685-198 (10 pack)
Mech12

M2.5 x 8mm Machine Screw Cone Head
Type: Hardware
Mech15

M2.5 x 8mm Machine Screw Cone Head
Type: Hardware
Mech16

M2.5 x 8mm Machine Screw
Type: Hardware
Mech19

M2.5 x 8mm Machine Screw
Type: Hardware
Mech20

M2.5 x 8mm Machine Screw
Type: Hardware
Mech21

M2.5 x 8mm Machine Screw
Type: Hardware
Mech22

Title		
Size B	Number	Revision
Date: 1/4/2010	Sheet of	
File: C:\Documents and Settings\...RC_Mechanics\Brosch.Dwg		