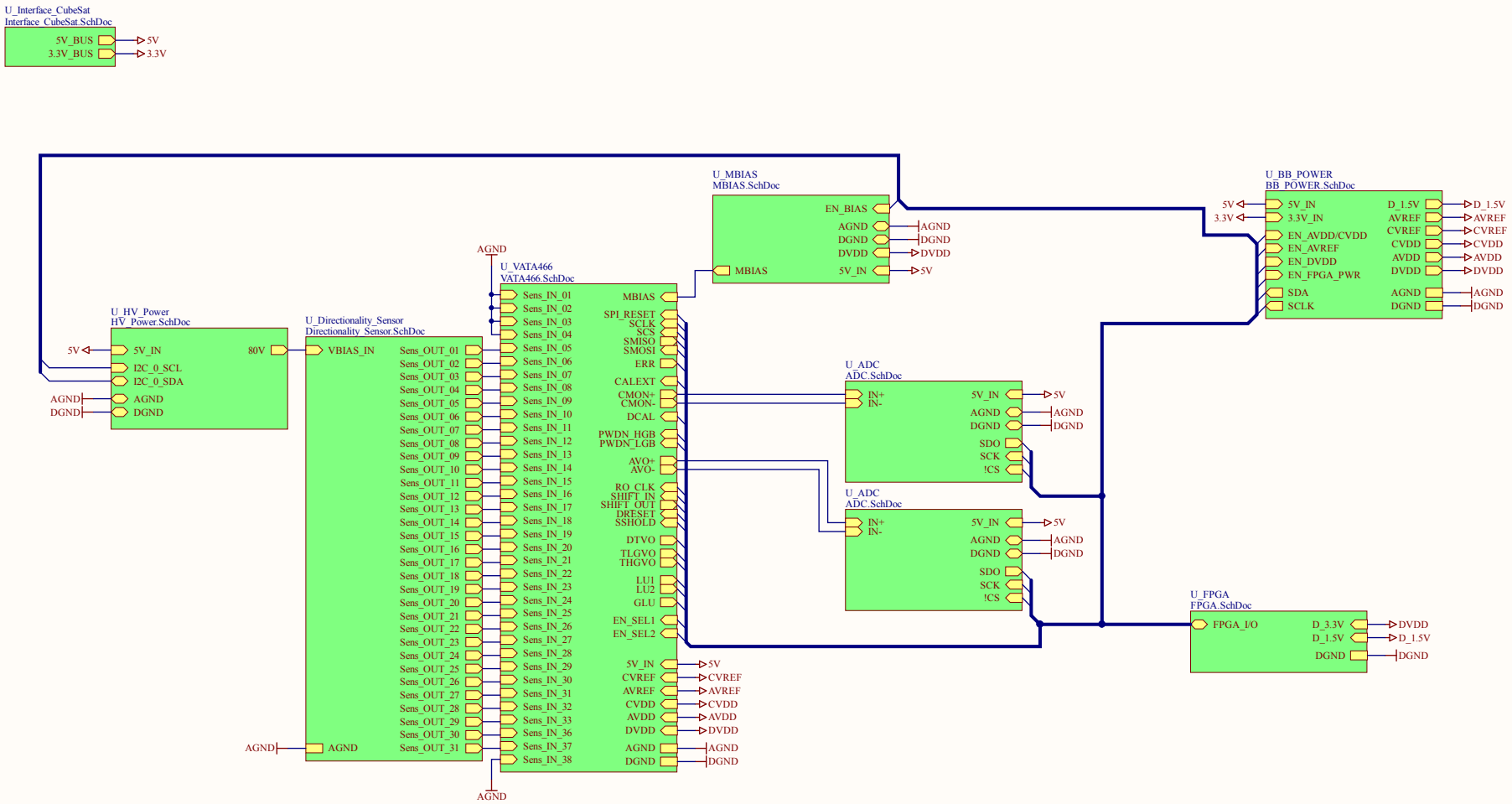
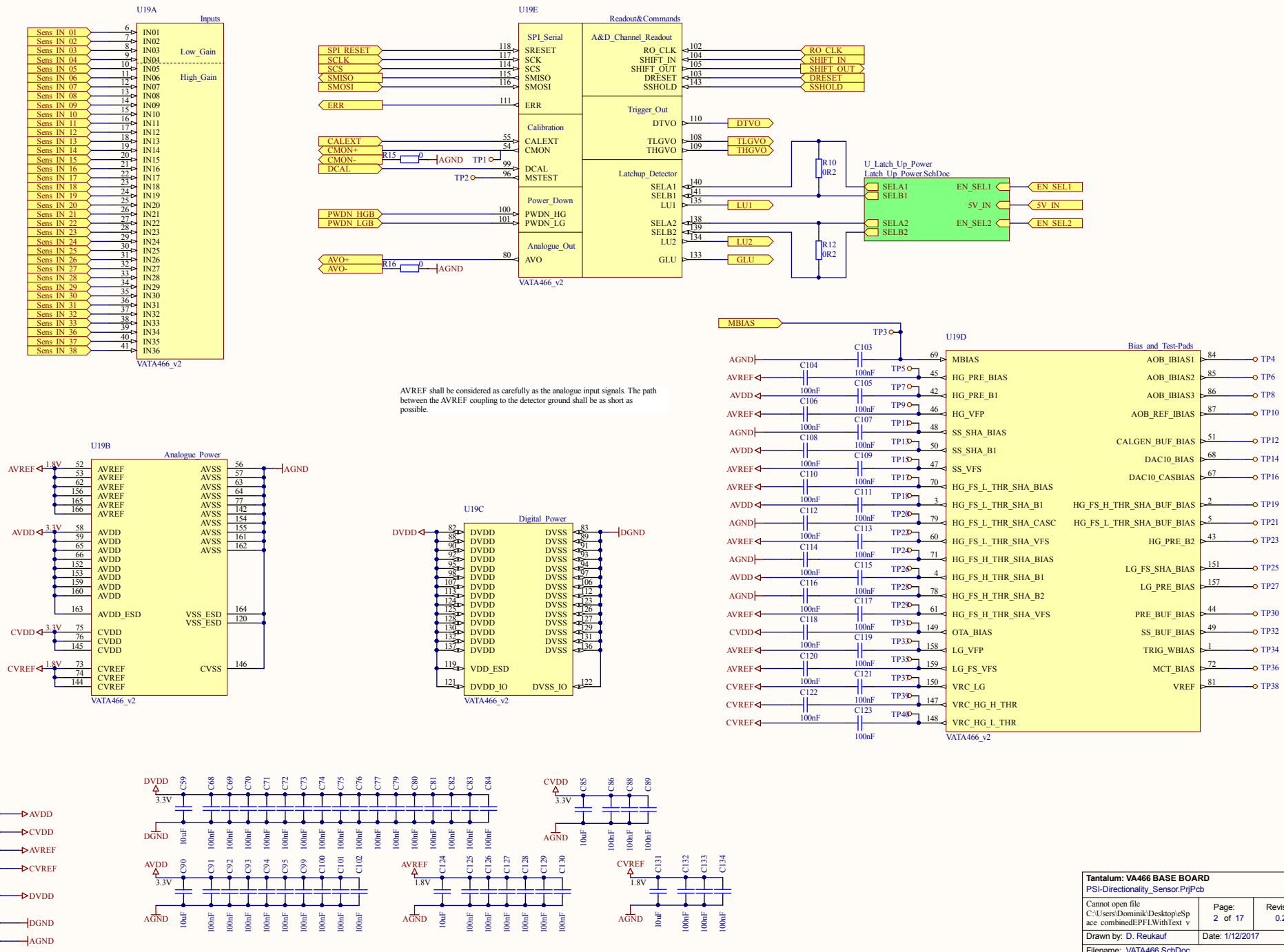
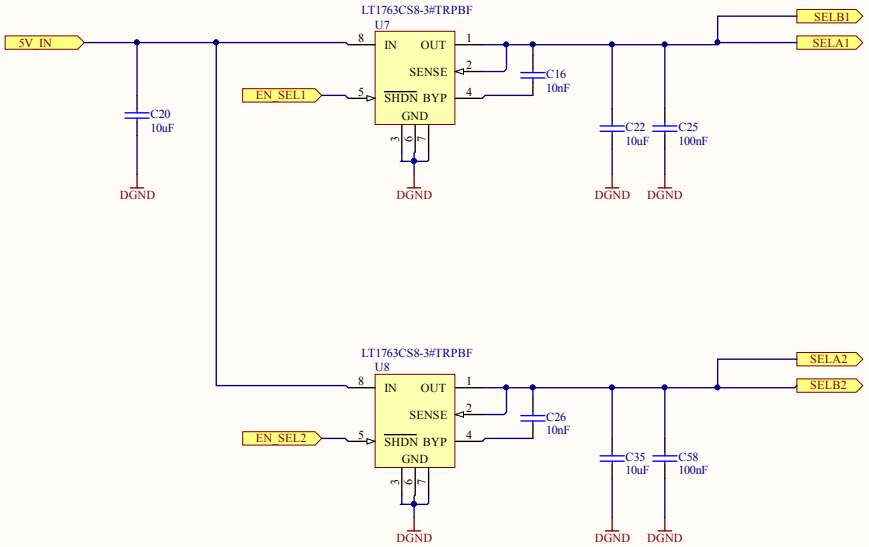
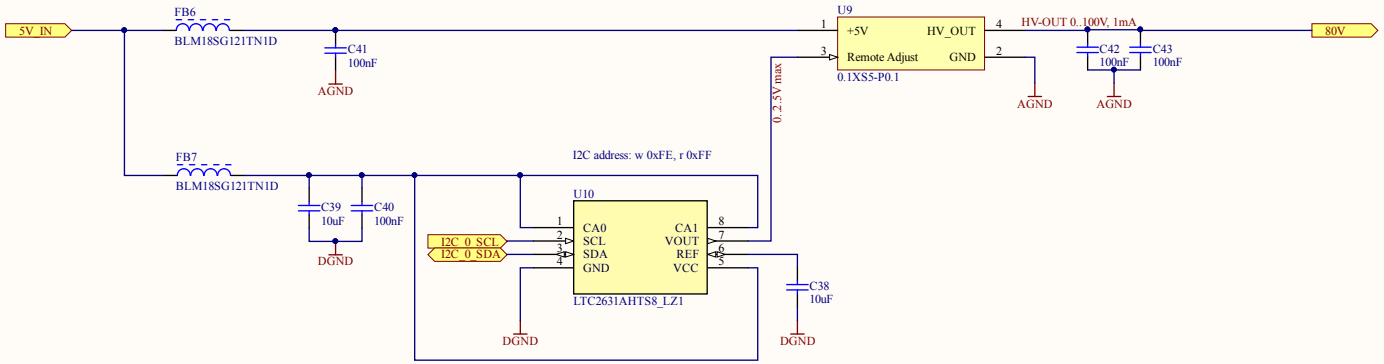


Tantalum: VA466 BASE BOARD	
PSI-Directionality_Sensor.PrjPcb	
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 1 of 17 / Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017
Filename: VATA466_Base_Board.SchDoc	


U19A
Inputs
Low_Gain
High_Gain
VATA466_v2
U19E
Readout&Commands
SPI_Serial
A&D_Channel_Readout
Trigger_Out
Calibration
Latchup_Detector
Power_Down
Analogue_Out
VATA466_v2
U_Latch_Up_Power
Latch_Up_Power.SchDoc
AVREF shall be considered as carefully as the analogue input signals. The path between the AVREF coupling to the detector ground shall be as short as possible.
U19B
Analogue_Power
VATA466_v2
U19C
Digital_Power
VATA466_v2
U19D
Bias_and_Test-Pads
VATA466_v2
Tantalum: VA466 BASE BOARD
PSI-Directionality_Sensor.PrjPcb
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v
Page: 2 of 17
Revision: 0.2
Drawn by: D. Reukauf
Date: 1/12/2017
Filename: VATA466.SchDoc



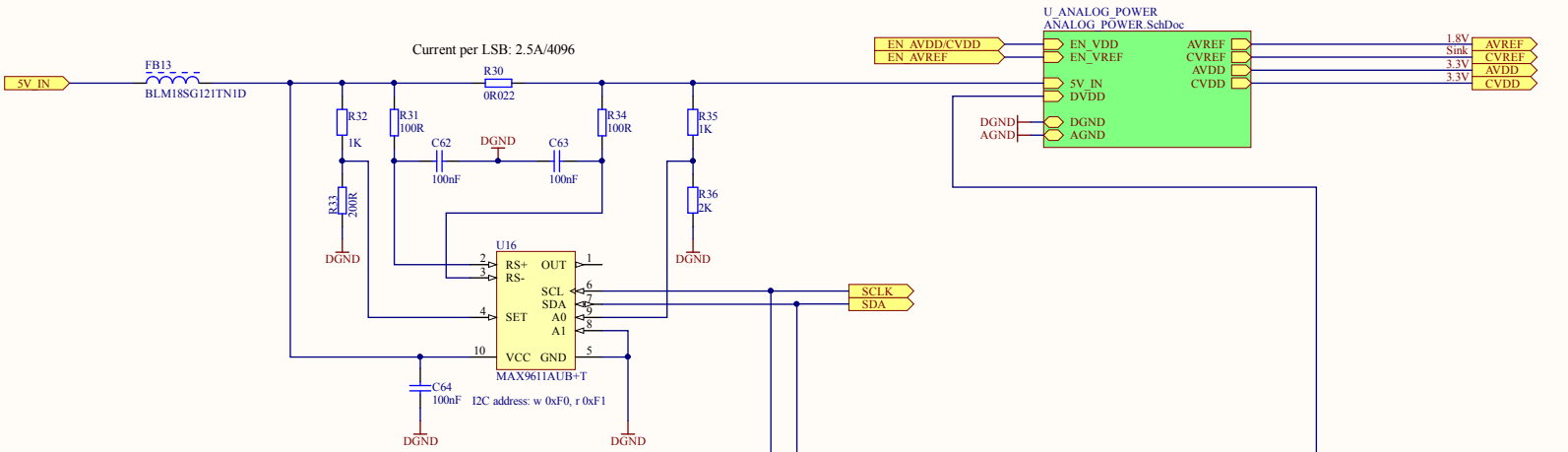
Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 3 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: Latch_Up_Power.SchDoc		



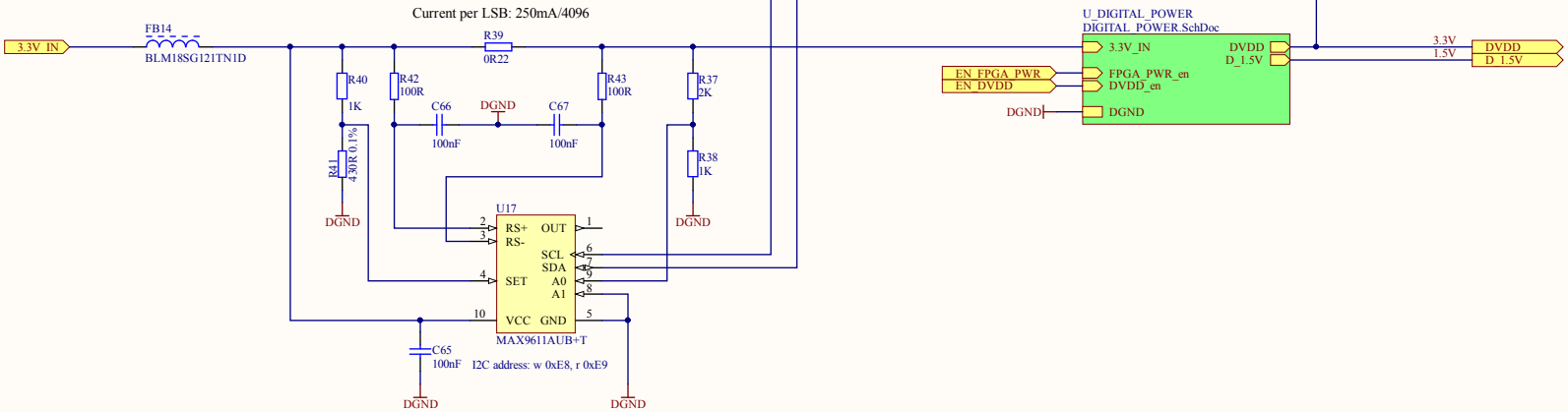
DGND — DGND

AGND — AGND

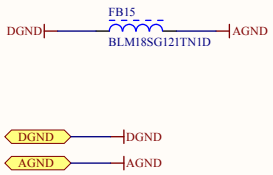
Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb	
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 4 of 17 / Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017
Filename: HV_Power.SchDoc	



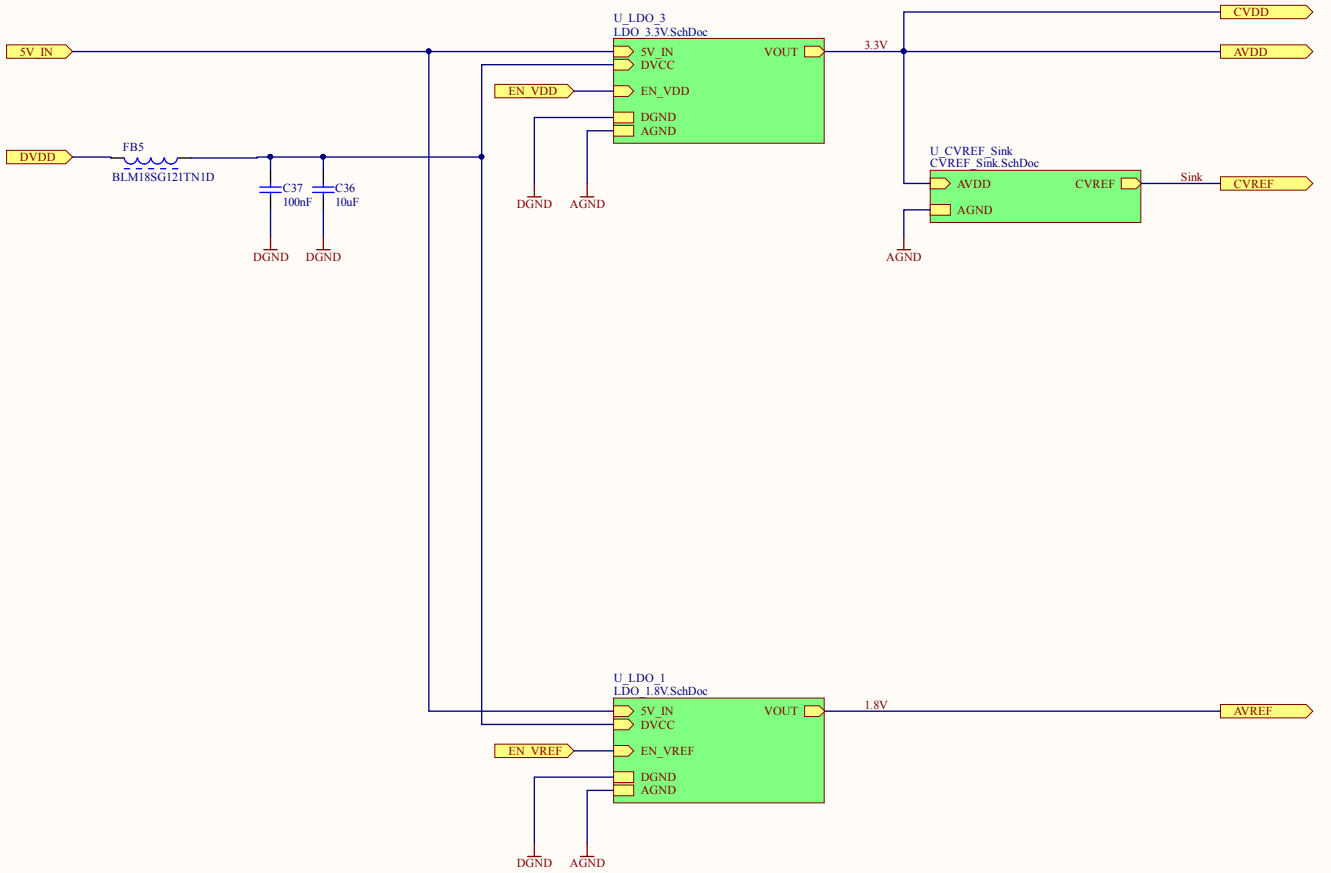
Vset Resolution: 6.6V/4096 =1.611mV/Bit



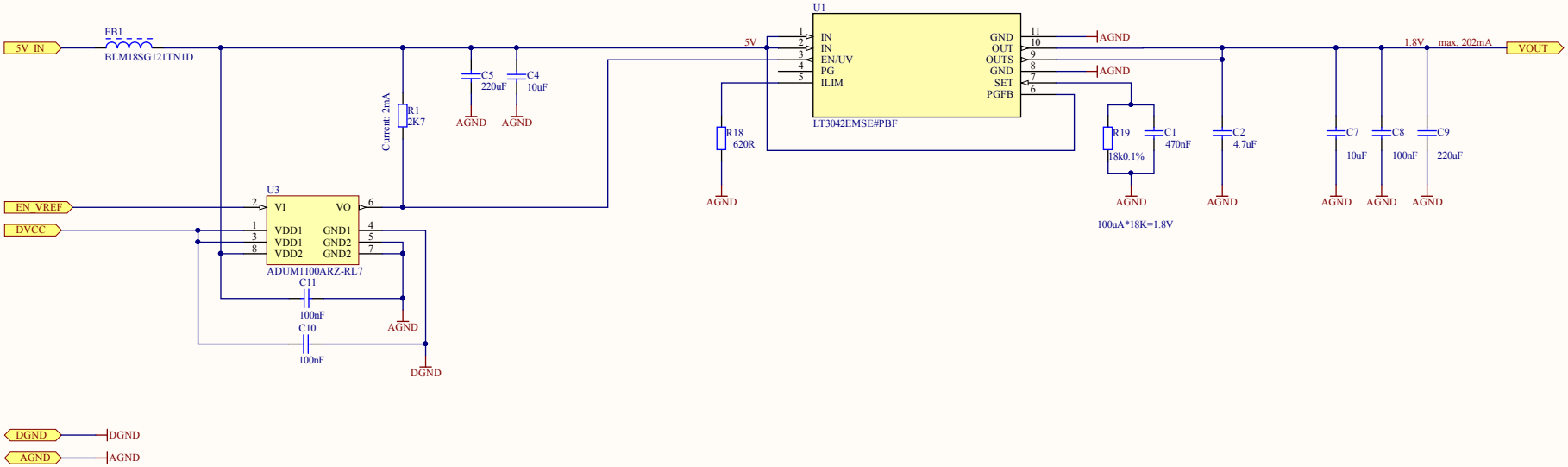
Vset Resolution: 6.6V/4096 =1.611mV/Bit



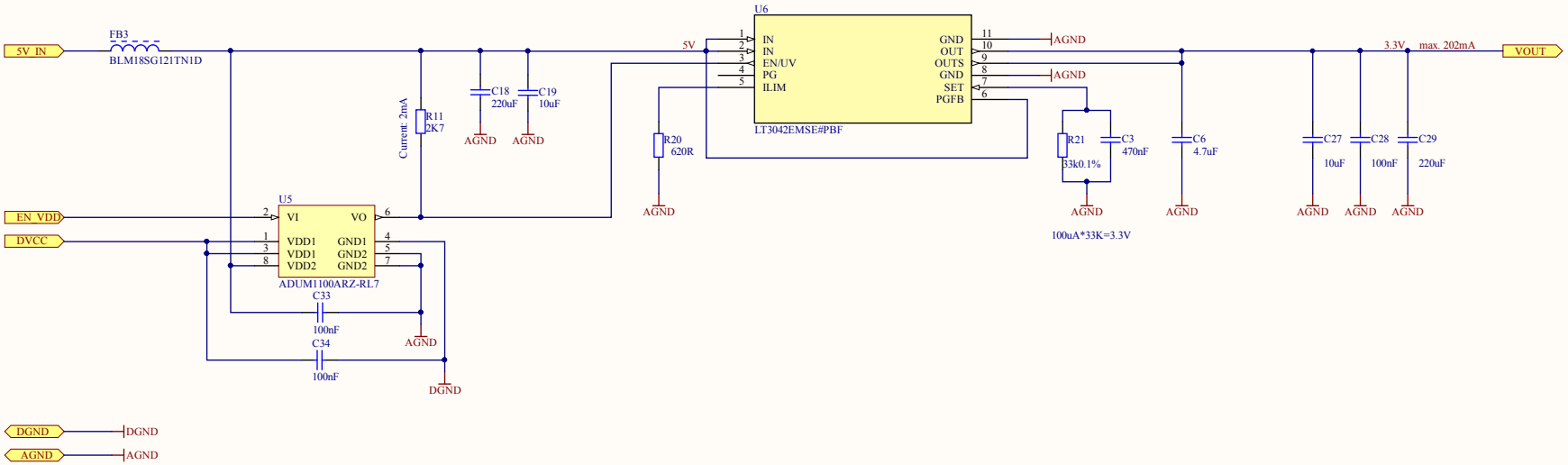
Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 5 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: BB_POWER.SchDoc		



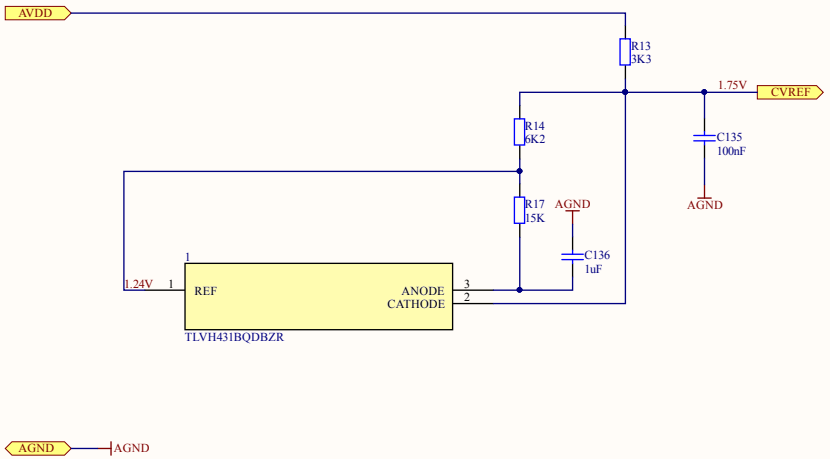
Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 6 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: ANALOG_POWER.SchDoc		



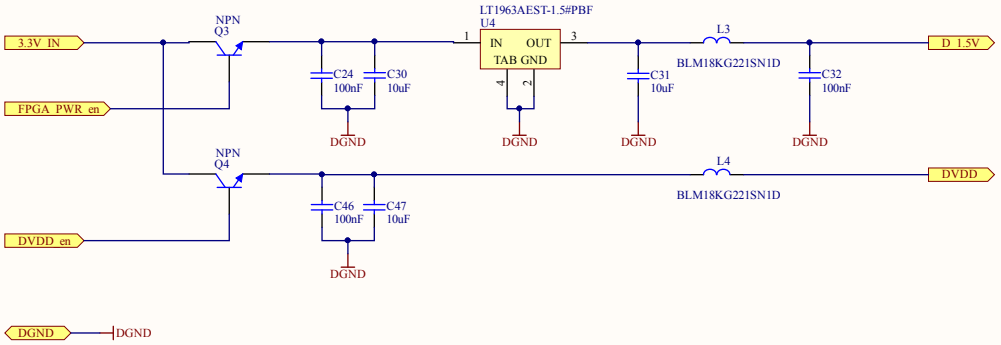
Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 7 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: LDO_1.8V.SchDoc		



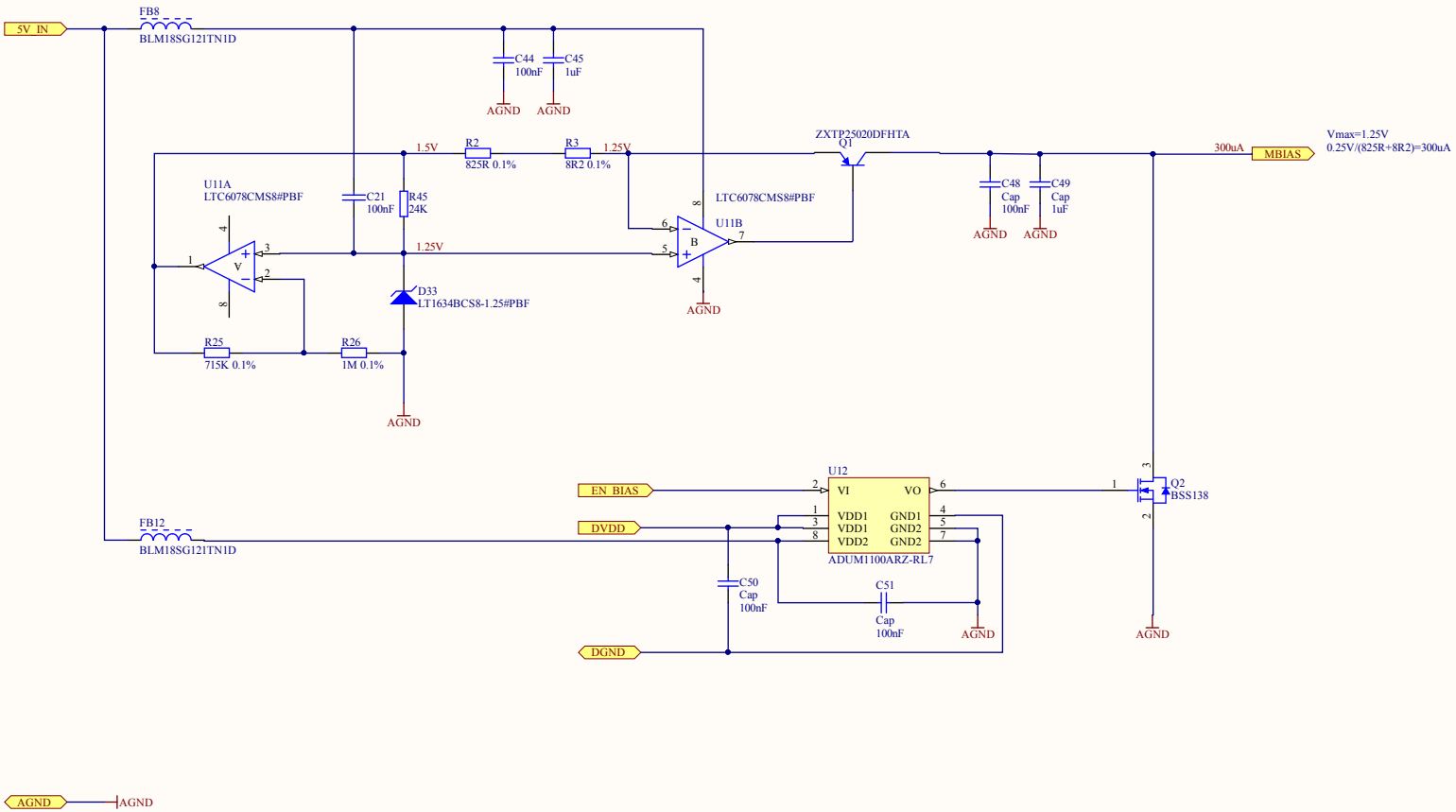
Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 8 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: LDO_3.3V.SchDoc		



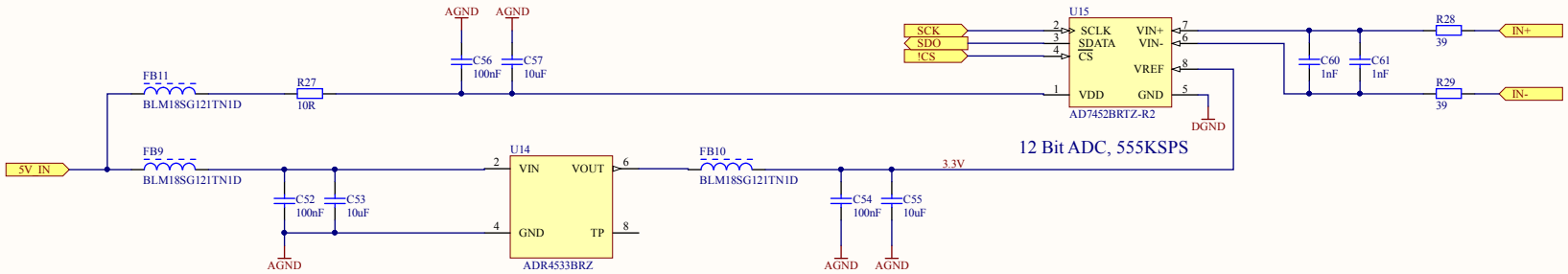
Tantalum: VA466 BASE BOARD	
PSI-Directionality_Sensor.PrjPcb	
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 9 of 17 / Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017
Filename: CVREF_Sink.SchDoc	

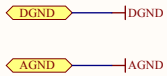


Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 10 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: DIGITAL_POWER.SchDoc		

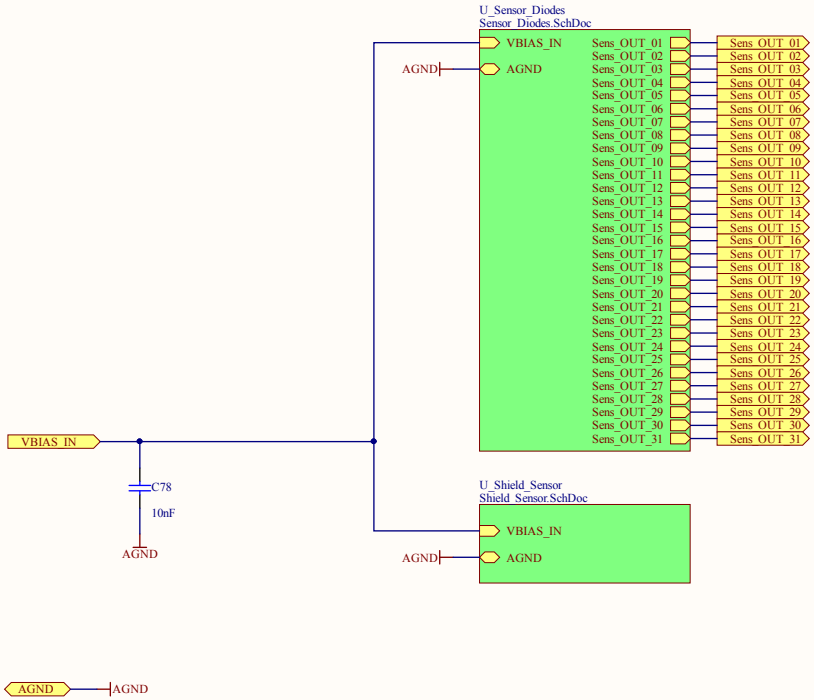


Tantalum: VA466 BASE BOARD	
PSI-Directionality_Sensor.PrjPcb	
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 11 of 17 / Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017
Filename: MBIAS.SchDoc	





Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 12 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: ADC.SchDoc		



Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb			
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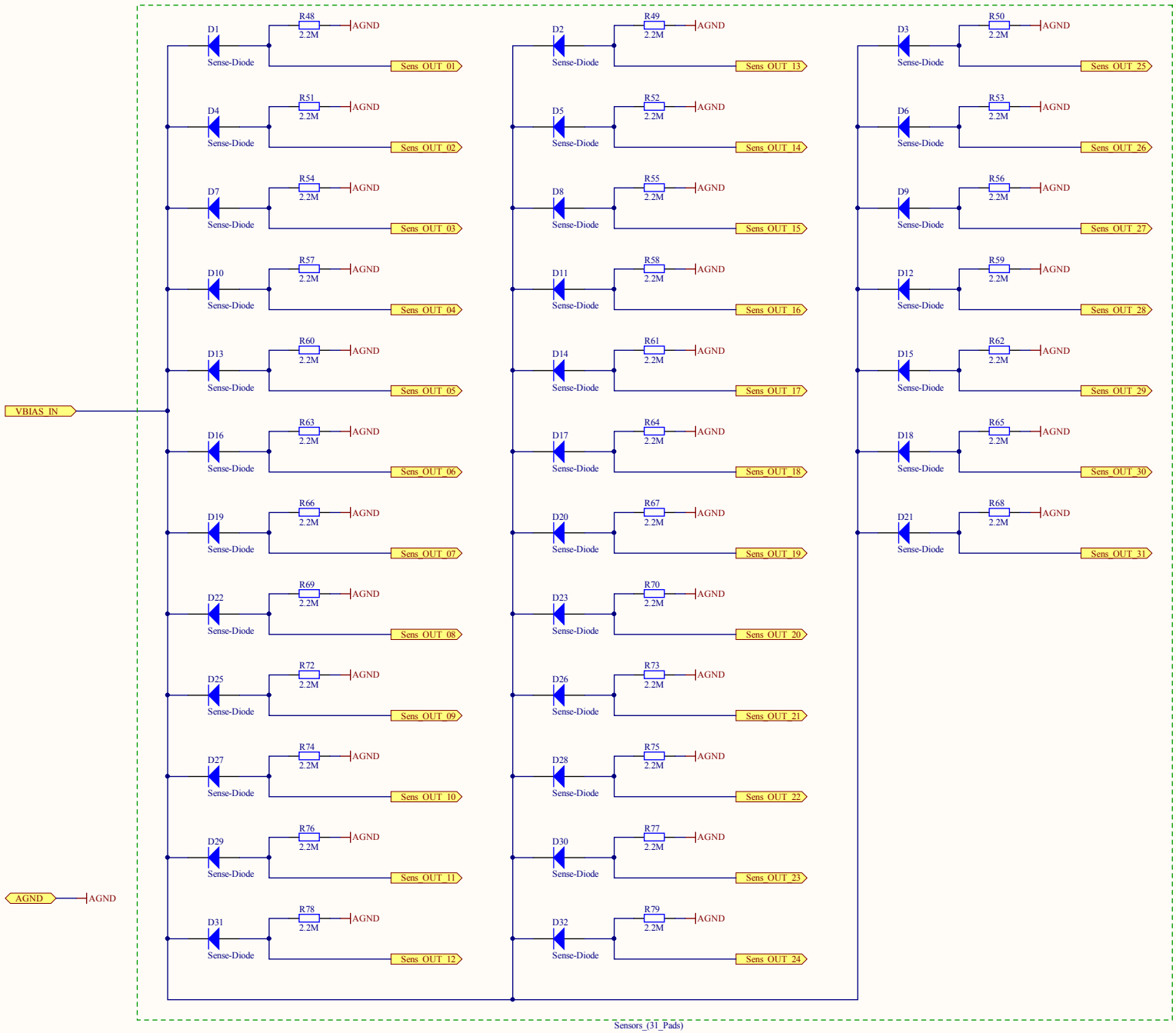
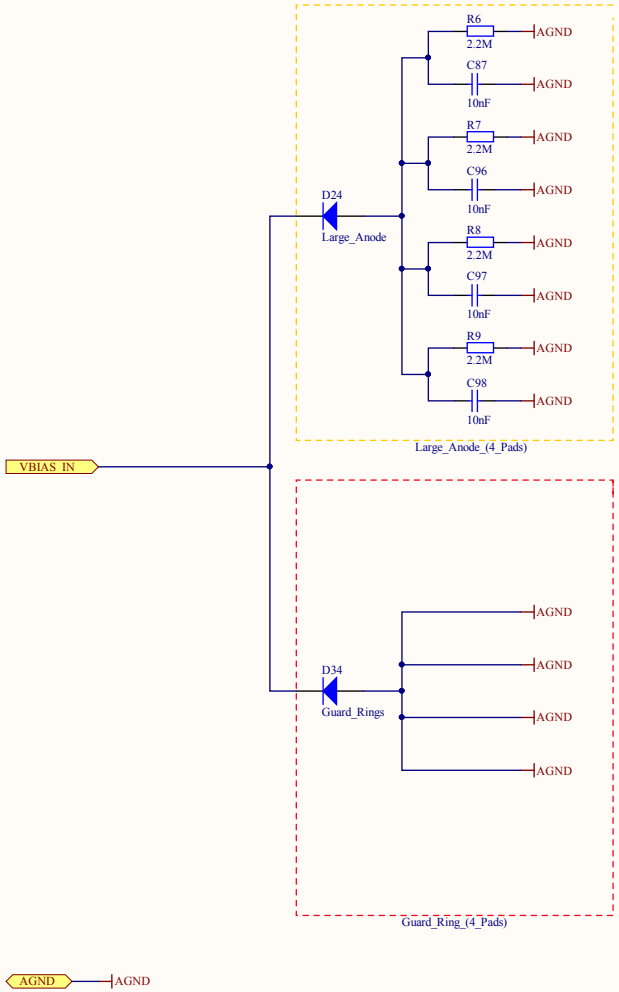
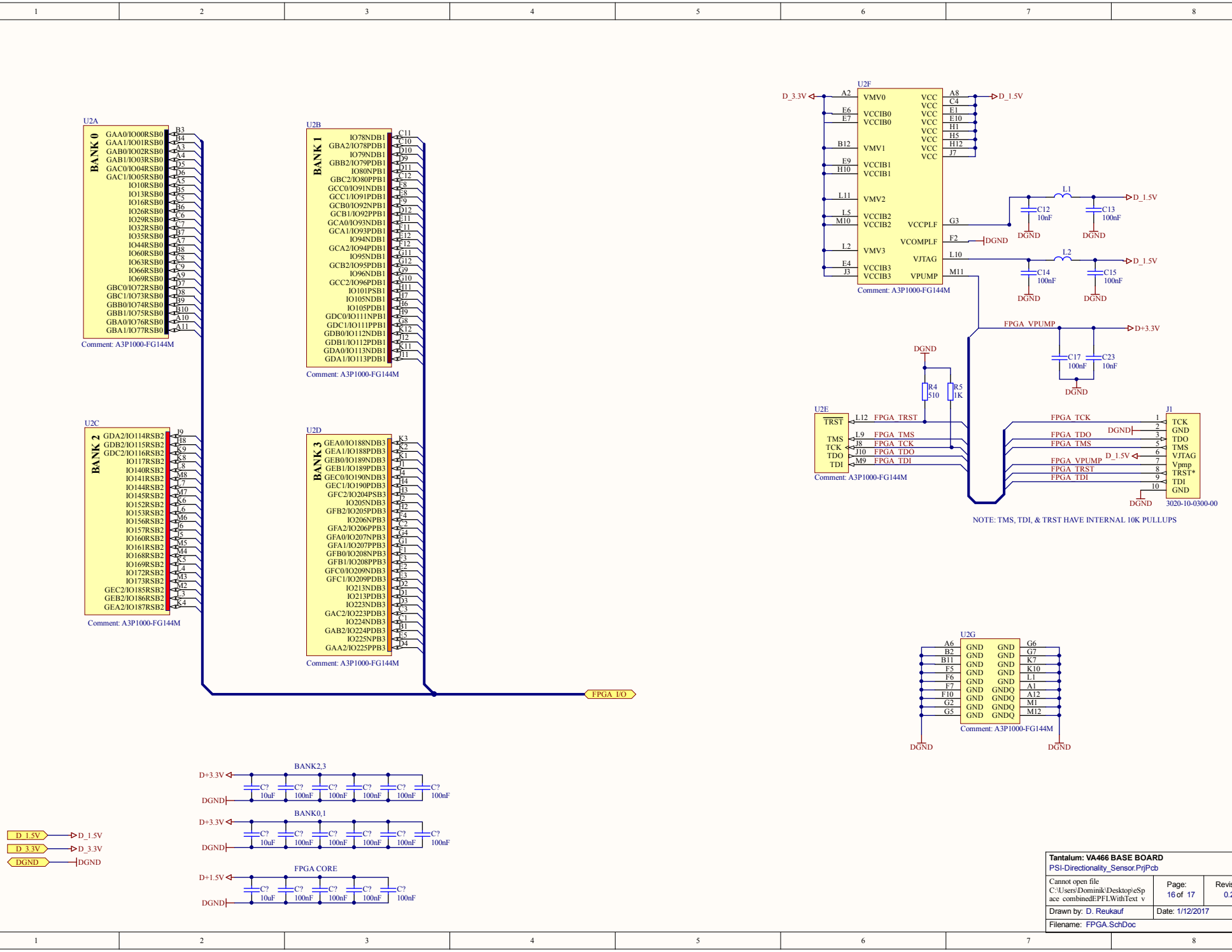
Drawn by: D. Reukauf		Date: 1/12/2017	
Filename: Directionality_Sensor.SchDoc			



Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 14 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: Sensor_Diodes.SchDoc		



Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 15 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: Shield_Sensor.SchDoc		


U2A
BANK 0
GAA0/IO00RSB0
GAA1/IO01RSB0
GAB0/IO02RSB0
GAB1/IO03RSB0
GAC0/IO04RSB0
GAC1/IO05RSB0
IO10RSB0
IO13RSB0
IO16RSB0
IO26RSB0
IO29RSB0
IO32RSB0
IO35RSB0
IO44RSB0
IO60RSB0
IO63RSB0
IO66RSB0
IO69RSB0
GBC0/IO72RSB0
GBC1/IO73RSB0
GBB0/IO74RSB0
GBB1/IO75RSB0
GBA0/IO76RSB0
GBA1/IO77RSB0
Comment: A3P1000-FG144M
U2B
BANK 1
IO78NDB1
GBA2/IO78PDB1
IO79NDB1
GBB2/IO79PDB1
IO80NPB1
GBC2/IO80PPB1
GCC0/IO91NDB1
GCC1/IO91PDB1
GCB0/IO92NPB1
GCB1/IO92PPB1
GCA0/IO93NDB1
GCA1/IO93PDB1
IO94NDB1
GCA2/IO94PDB1
IO95NDB1
GCB2/IO95PDB1
IO96NDB1
GCC2/IO96PDB1
IO101PSB1
IO105NDB1
IO105PDB1
GDC0/IO111NPB1
GDC1/IO111PPB1
GDB0/IO112NDB1
GDB1/IO112PDB1
GDA0/IO113NDB1
GDA1/IO113PDB1
Comment: A3P1000-FG144M
U2C
BANK 2
GDA2/IO114RSB2
GDB2/IO115RSB2
GDC2/IO116RSB2
IO117RSB2
IO140RSB2
IO141RSB2
IO144RSB2
IO145RSB2
IO152RSB2
IO153RSB2
IO156RSB2
IO157RSB2
IO160RSB2
IO161RSB2
IO168RSB2
IO169RSB2
IO172RSB2
IO173RSB2
GEC2/IO185RSB2
GEB2/IO186RSB2
GEA2/IO187RSB2
Comment: A3P1000-FG144M
U2D
BANK 3
GEA0/IO188NDB3
GEA1/IO188PDB3
GEB0/IO189NDB3
GEB1/IO189PDB3
GEC0/IO190NDB3
GEC1/IO190PDB3
GFC2/IO204PSB3
IO205NDB3
GFB2/IO205PDB3
IO206NPB3
GFA2/IO206PPB3
GFA0/IO207NPB3
GFA1/IO207PPB3
GFB0/IO208NPB3
GFB1/IO208PPB3
GFC0/IO209NDB3
GFC1/IO209PDB3
IO213NDB3
IO213PDB3
IO223NDB3
GAC2/IO223PDB3
IO224NDB3
GAB2/IO224PDB3
IO225NPB3
GAA2/IO225PPB3
Comment: A3P1000-FG144M
FPGA_I/O
U2F
D_3.3V
VMV0
VCCIB0
VCCIB0
VMV1
VCCIB1
VCCIB1
VMV2
VCCIB2
VCCIB2
VMV3
VCCIB3
VCCIB3
VCC
VCCPLF
VCOMPLF
VJTAG
VPUMP
D_1.5V
DGND
L1
L2
C12 10nF
C13 100nF
C14 100nF
C15 100nF
Comment: A3P1000-FG144M
FPGA_VPUMP
D+3.3V
C17 100nF
C23 10nF
R4 510
R5 1K
U2E
TRST
TMS
TCK
TDO
TDI
FPGA_TRST
FPGA_TMS
FPGA_TCK
FPGA_TDO
FPGA_TDI
Comment: A3P1000-FG144M
J1
TCK
GND
TDO
TMS
VJTAG
Vpmp
TRST*
TDI
GND
3020-10-0300-00
NOTE: TMS, TDI, & TRST HAVE INTERNAL 10K PULLUPS
U2G
GND
GNDQ
Comment: A3P1000-FG144M
BANK2,3
BANK0,1
FPGA CORE
C? 10uF
C? 100nF
D_1.5V
D_3.3V
DGND
Tantalum: VA466 BASE BOARD
PSI-Directionality_Sensor.PrjPcb
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v
Page: 16 of 17
Revision: 0.2
Drawn by: D. Reukauf
Date: 1/12/2017
Filename: FPGA.SchDoc

5V_BUS

3.3V_BUS

Tantalum: VA466 BASE BOARD PSI-Directionality_Sensor.PrjPcb		
Cannot open file C:\Users\Dominik\Desktop\eSpace combinedEPFLWithText v	Page: 17 of 17	Revision: 0.2
Drawn by: D. Reukauf	Date: 1/12/2017	
Filename: Interface_CubeSat.SchDoc		