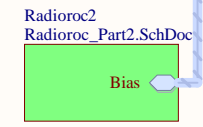
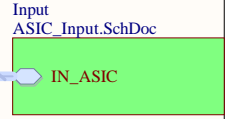
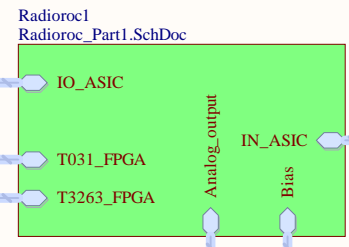
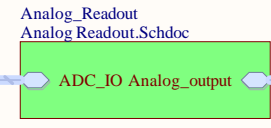
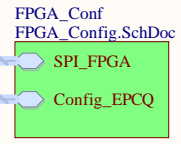
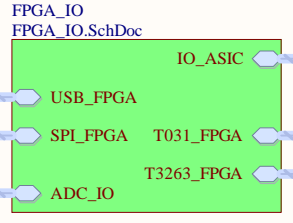
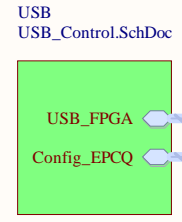
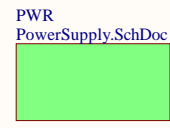
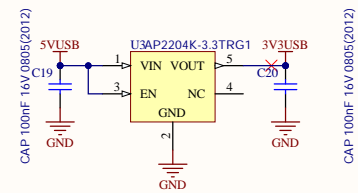
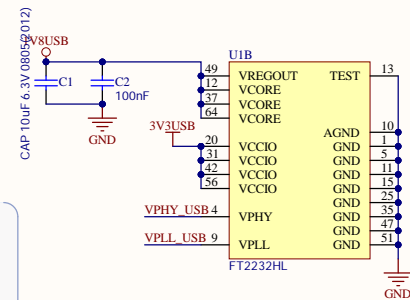
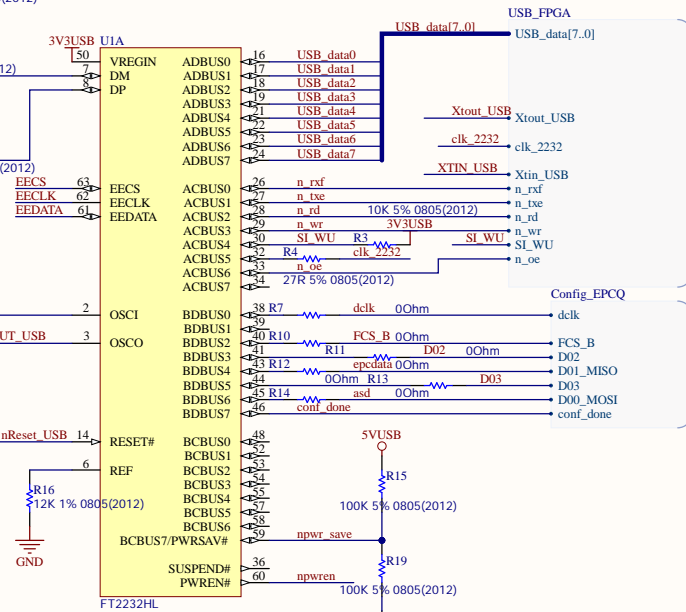
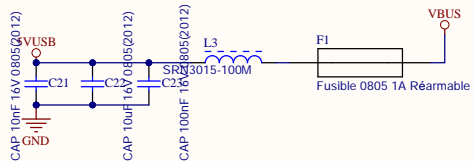
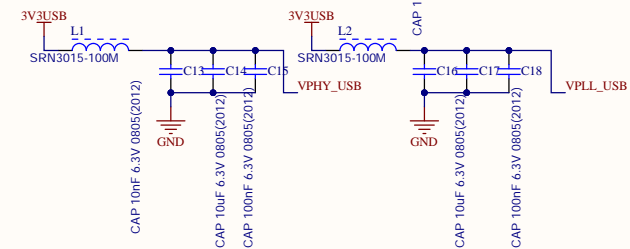
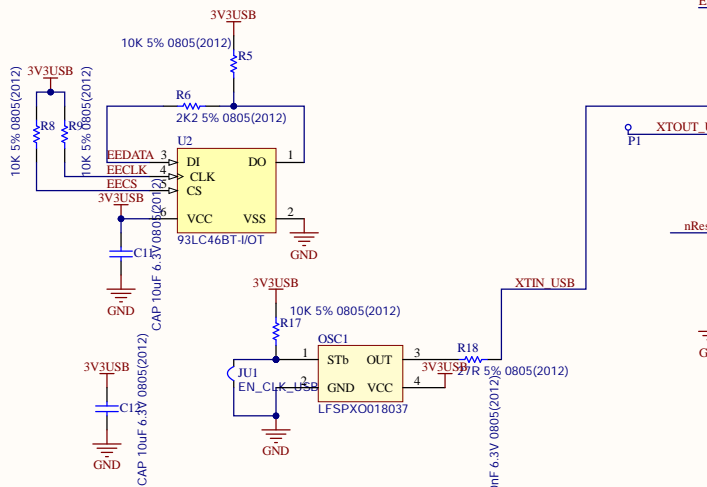
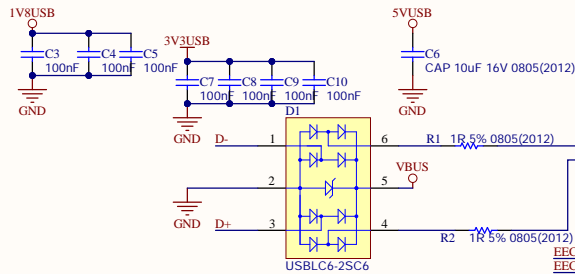
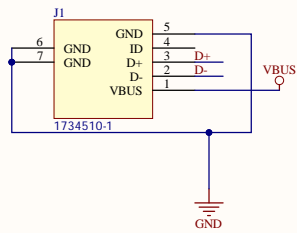


Radioroc v3 Log :
Schematic :
 Remove Pull-down res on Program_B (FPGA_Config)
 Remove HV Filter for single Channels (ASIC Input)
 Input connector changed to EdgeBoard Type (ASIC Input)
 Add resistor bridge for vbias 1v (add ref for vbias_1V) and vbg (ASIC Input)
 Remove SMA at the Input side (Injection Board?) (ASIC Input)
 Add decoupling capacitor to the External ADC (Analog_Readout)
 Ib_paT referenced to vdd_pa (Radioroc_Part2)
 4k70hm for scl and sda pull-up (Radioroc_Part1)
 Suppres Testpoint on LVDS lines (Mise en forme LVDS)
 Remove PMOS for VCCUSB (USB_Control)
 val_evt_n replaced from GND to 0.6V allowing 1.2V single ended on val_evt_p
 Change and add some IO FPGA and Test points (FPGA_IO)

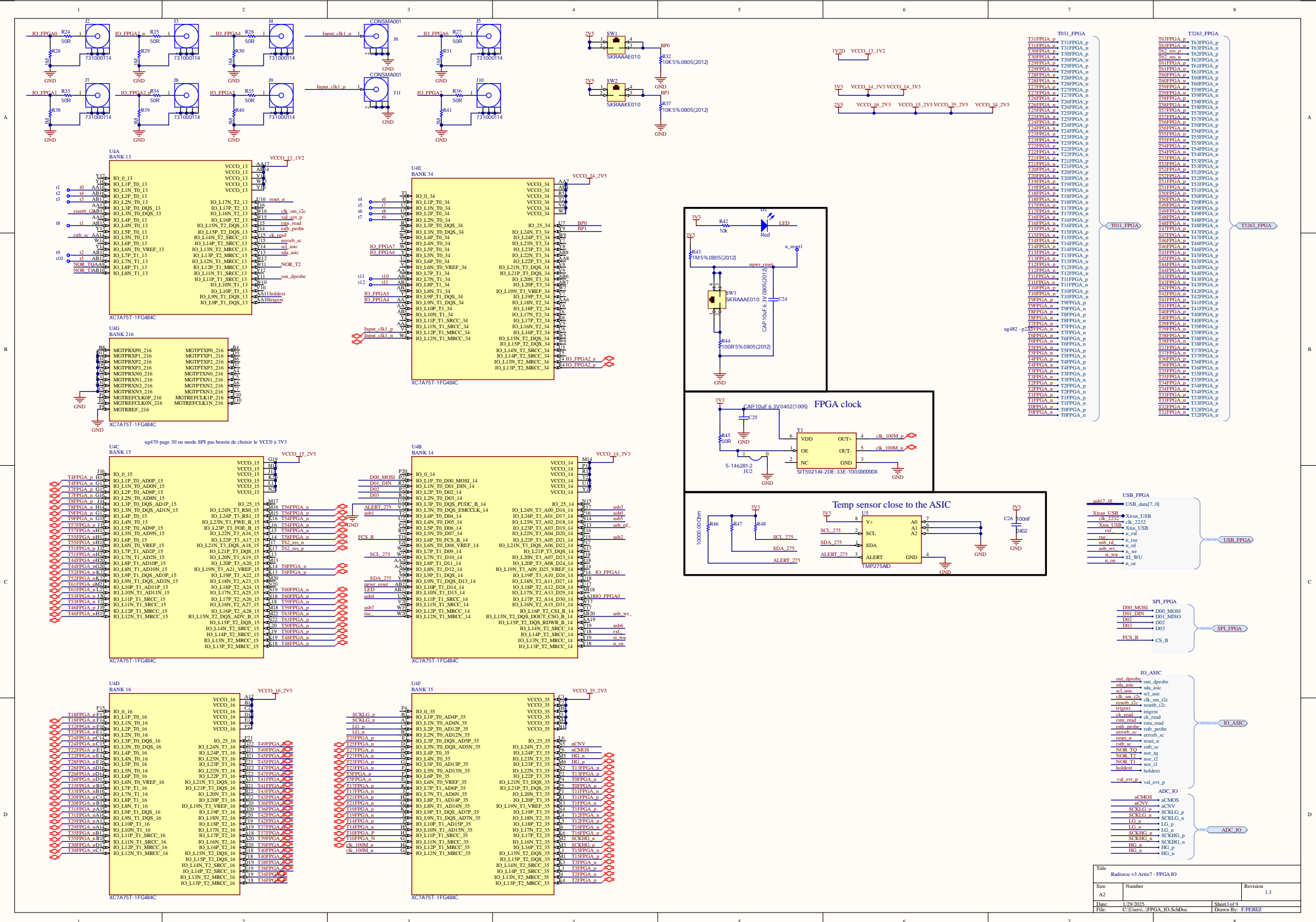
PCB :
 Reroute shunt 0.1 Ohm in a 4 wire and analog readout path
 Update GND Bridge
 Route Input connector closer to the ASIC
 Change the socket constraints to the new Yamaichi's one
 Add Mechanical holes for Crystal/SiPM board



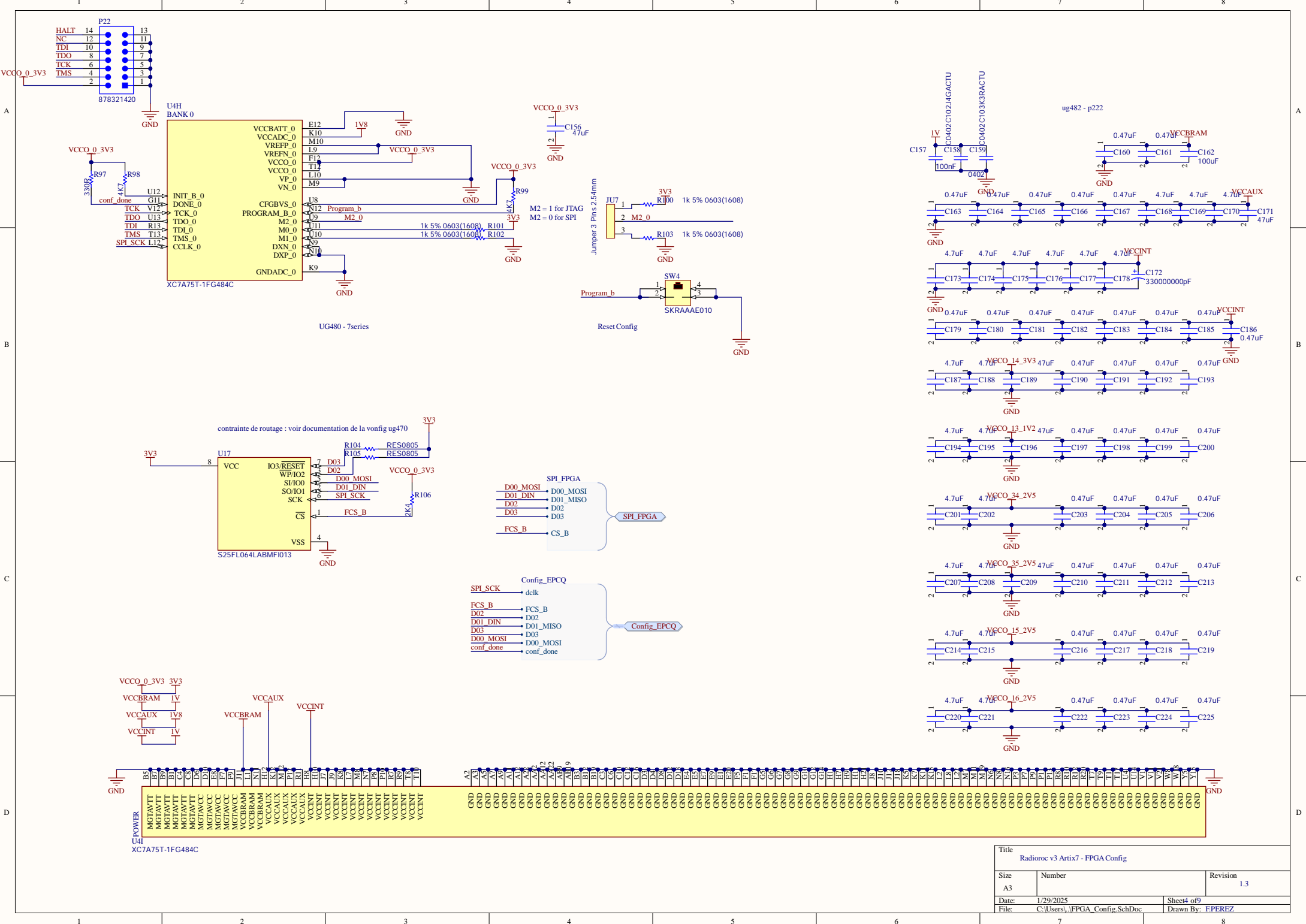
Title Radioroc v3 Artix7 - Top		
Size A4	Number	Revision 1.3
Date: 1/29/2025	Sheet 1 of 9	
File: C:\Users\...\Top Level.SchDoc	Drawn By: FPEREZ	



Title Radiorec v3 Artix7 - USB Control		
Size A3	Number	Revision 1.3
Date: 1/29/2025	Sheet2 of9	
File: C:\Users\...USB Control.SchDoc	Drawn By: F.PEREZ	



Title			
Radiorcs v3 Airt7 - FPGA IO			
Size	A2	Number	Revision 1.3
Date:	12/03/2018	Sheet: 1 of 9	Drawn By: J.PEREZ
File:	C:\Users\JPEREZ\Desktop\Radiorcs v3 Airt7 - FPGA IO		



A

B

C

D

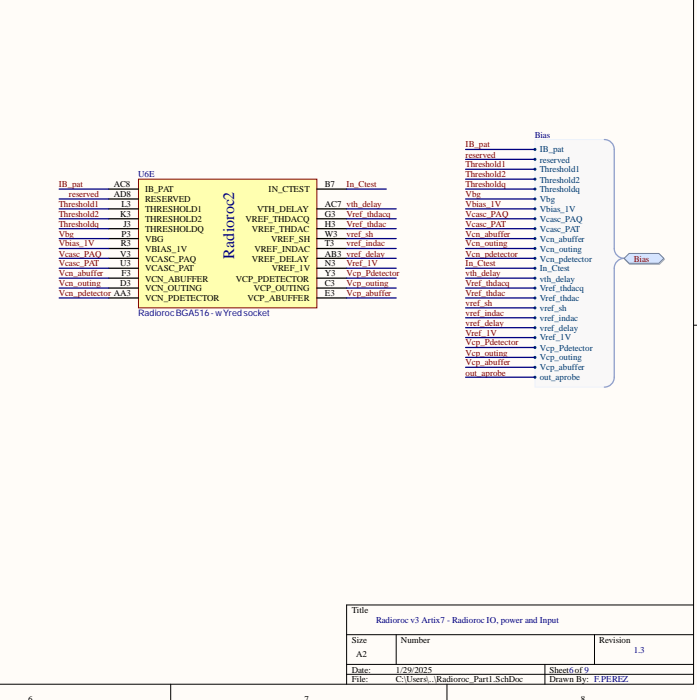
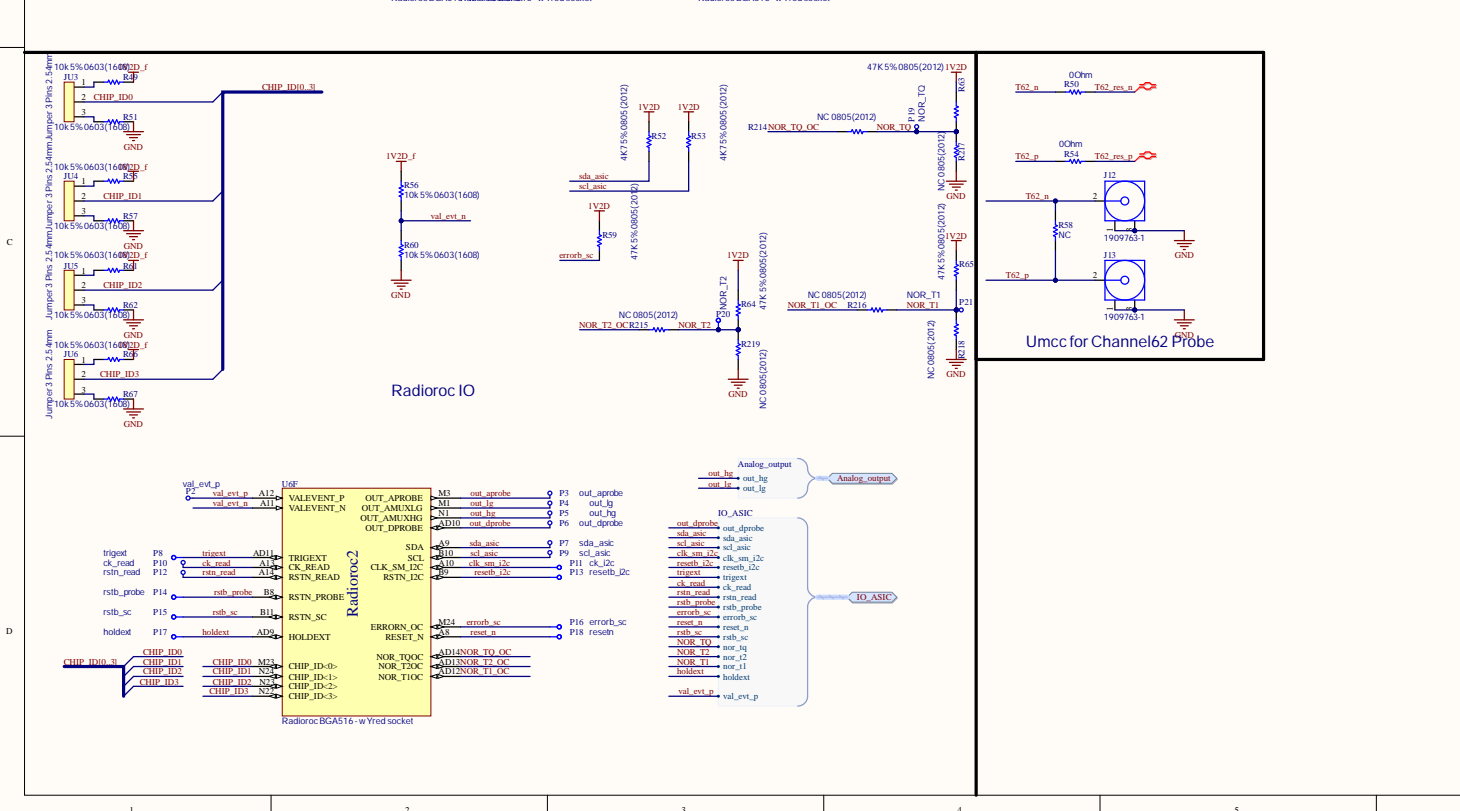
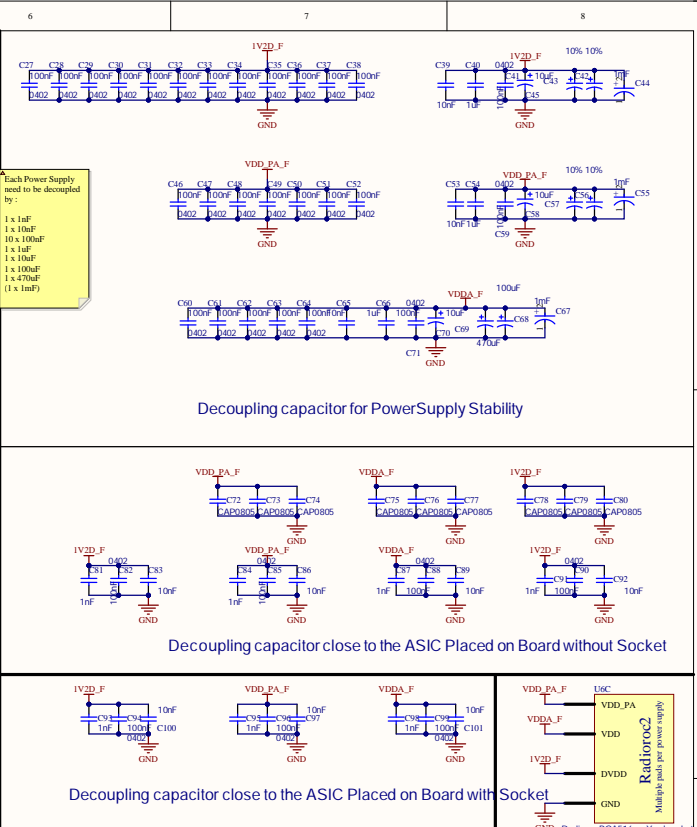
A

B

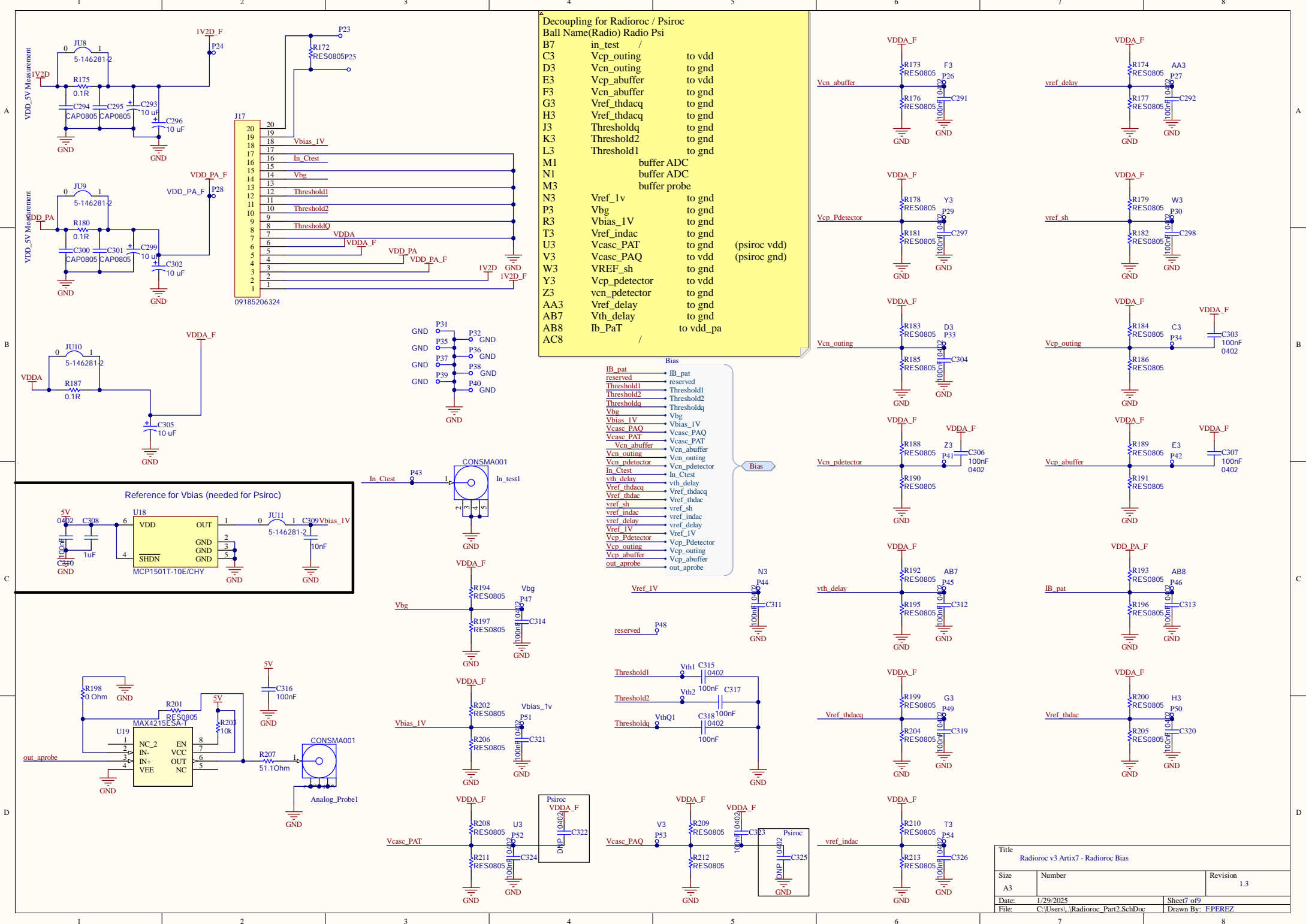
C

D

Title		
Radoroc v3 Artix7 - FPGA Config		
Size	Number	Revision
A3		1.3
Date:	1/29/2025	
File:	C:\Users\... \FPGA_Config.SchDoc	Sheet4 of9
Drawn By: FPEREZ		



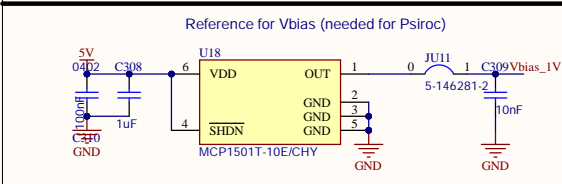
Title			
Radiatorc v3 Actx7 - Radiatorc IO, power and Input			
Size	Number	Revision	
A2		1.3	
Date:	1/20/2018	Sheet of 9	
File:	C:\Users\j.Radiatorc_Par1\SchDoc	Drawn By:	FPEREZ



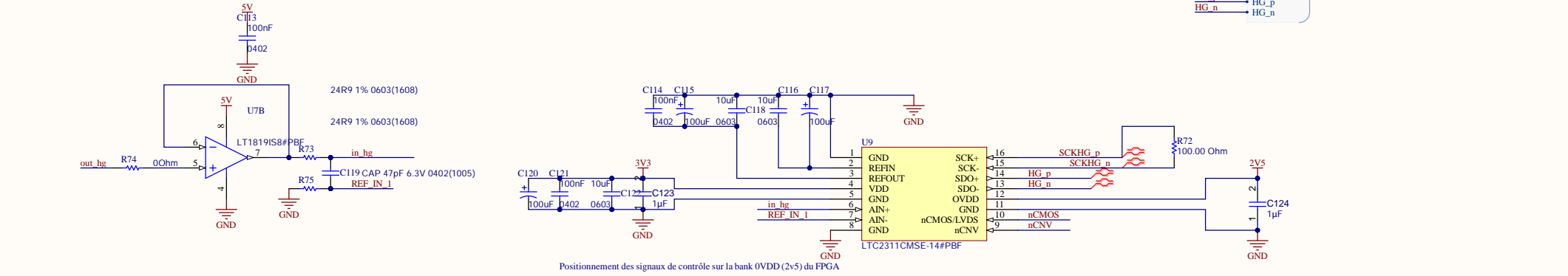
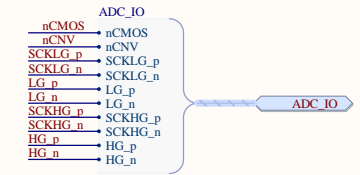
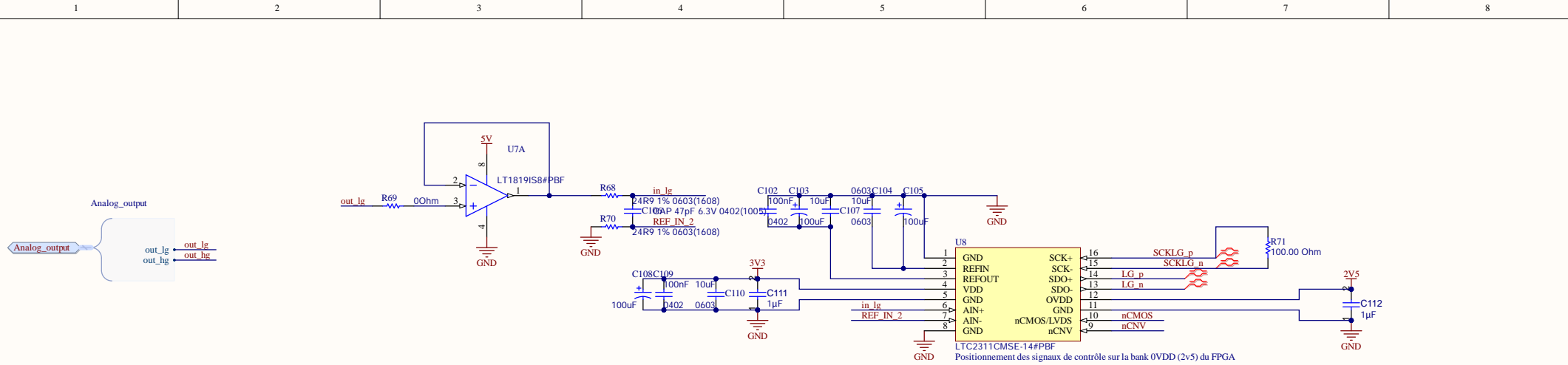
Decoupling for Radioroc / Psiroc

Ball Name	(Radio)	Radio Psi	
B7	in_test	/	to vdd
C3	Vcp_outing		to vdd
D3	Vcn_outing		to gnd
E3	Vcp_abuffer		to vdd
F3	Vcn_abuffer		to gnd
G3	Vref_thdacq		to gnd
H3	Vref_thdacq		to gnd
J3	Thresholdq		to gnd
K3	Threshold2		to gnd
L3	Threshold1		to gnd
M1		buffer ADC	
N1		buffer ADC	
M3		buffer probe	
N3	Vref_lv		to gnd
P3	Vbg		to gnd
R3	Vbias_1V		to gnd
T3	Vref_indac		to gnd
U3	Vcasc_PAT		to gnd
V3	Vcasc_PAQ		to vdd
W3	VREF_sh		to gnd
Y3	Vcp_pdetector		to vdd
Z3	vcn_pdetector		to gnd
AA3	Vref_delay		to gnd
AB7	Vth_delay		to gnd
AB8	Ib_PaT		to vdd_pa
AC8	/	/	/

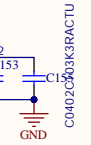
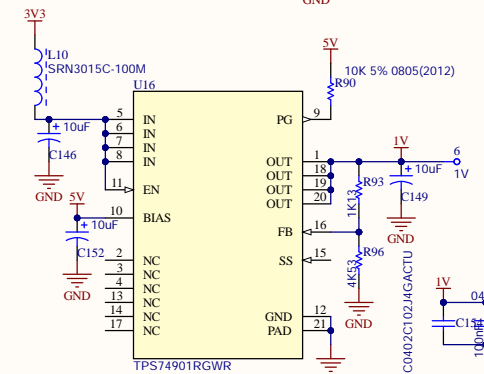
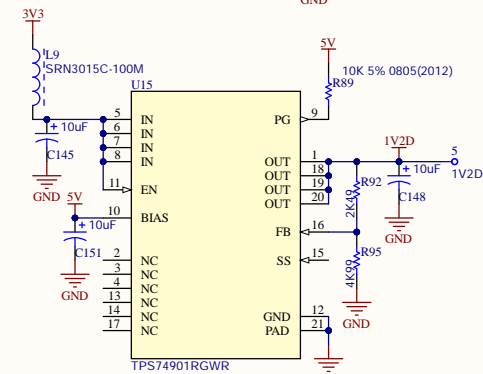
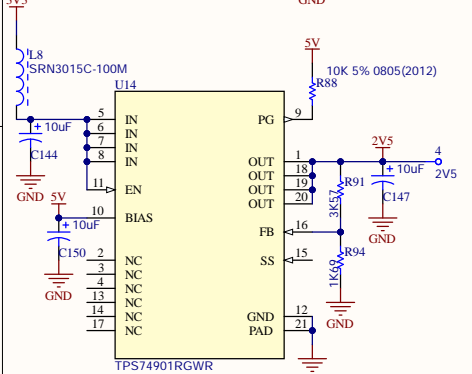
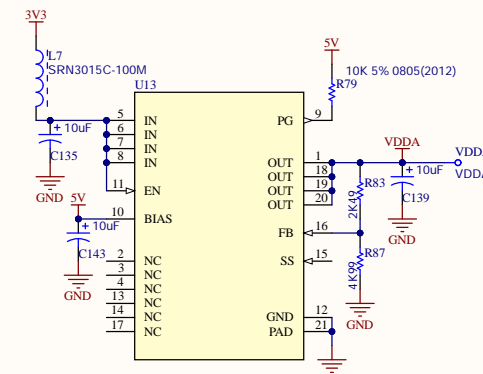
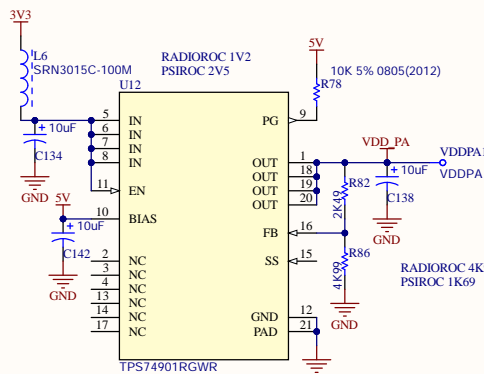
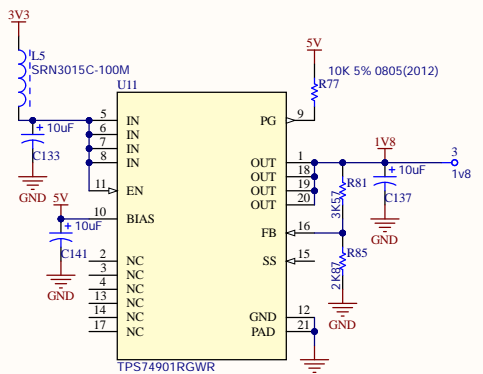
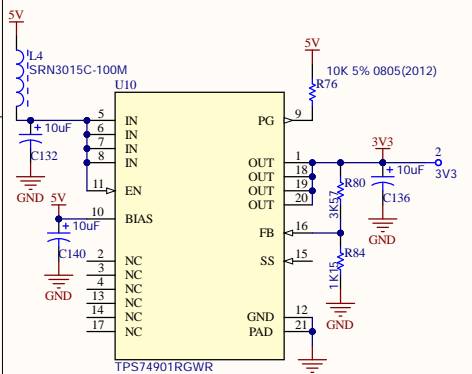
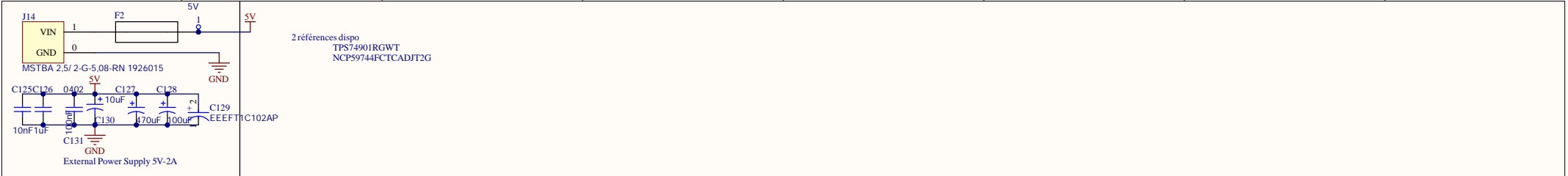
- Bias
- IB_pat → IB_pat
 - reserved → reserved
 - Threshold1 → Threshold1
 - Threshold2 → Threshold2
 - Thresholdq → Thresholdq
 - Vbg → Vbg
 - Vbias_1V → Vbias_1V
 - Vcasc_PAQ → Vcasc_PAQ
 - Vcasc_PAT → Vcasc_PAT
 - Vcn_abuffer → Vcn_abuffer
 - Vcn_outing → Vcn_outing
 - Vcn_pdetector → Vcn_pdetector
 - In_Ctest → In_Ctest
 - vth_delay → vth_delay
 - Vref_thdacq → Vref_thdacq
 - Vref_thdac → Vref_thdac
 - vref_sh → vref_sh
 - vref_indac → vref_indac
 - vref_delay → vref_delay
 - Vref_1V → Vref_1V
 - Vcp_Pdetector → Vcp_Pdetector
 - Vcp_outing → Vcp_outing
 - Vcp_abuffer → Vcp_abuffer
 - out_aprobe → out_aprobe



Title		
Radioroc v3 Artix7 - Radioroc Bias		
Size	Number	Revision
A3		1.3
Date:	1/29/2025	Sheet7 of9
File:	C:\Users\...Radioroc_Part2.SchDoc	Drawn By: FPEREZ



Title		
Radoroc v3 Artix7 - Analog Readout of Radoroc LG and HG		
Size	Number	Revision
A3		1.3
Date:	1/29/2025	Sheet8 of9
File:	C:\Users\... \Analog readout.SchDoc	Drawn By: F.PEREZ



Title		
Radiocor v3 Artix7 - Power Supply		
Size	Number	Revision
A3		1.3
Date:	1/29/2025	Sheet9 of9
File:	C:\Users\...PowerSupply\SchDoc	Drawn By: F.PEREZ

