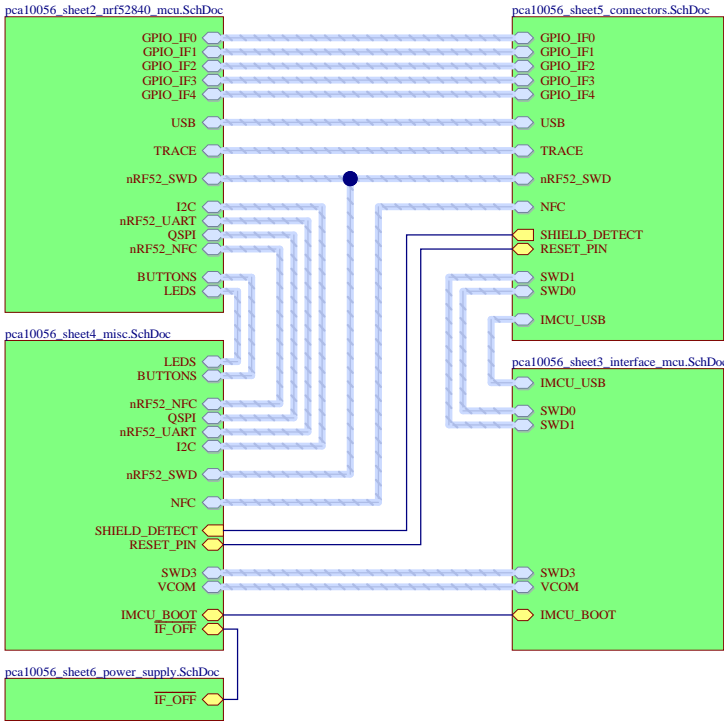



Nordic Semiconductor ASA

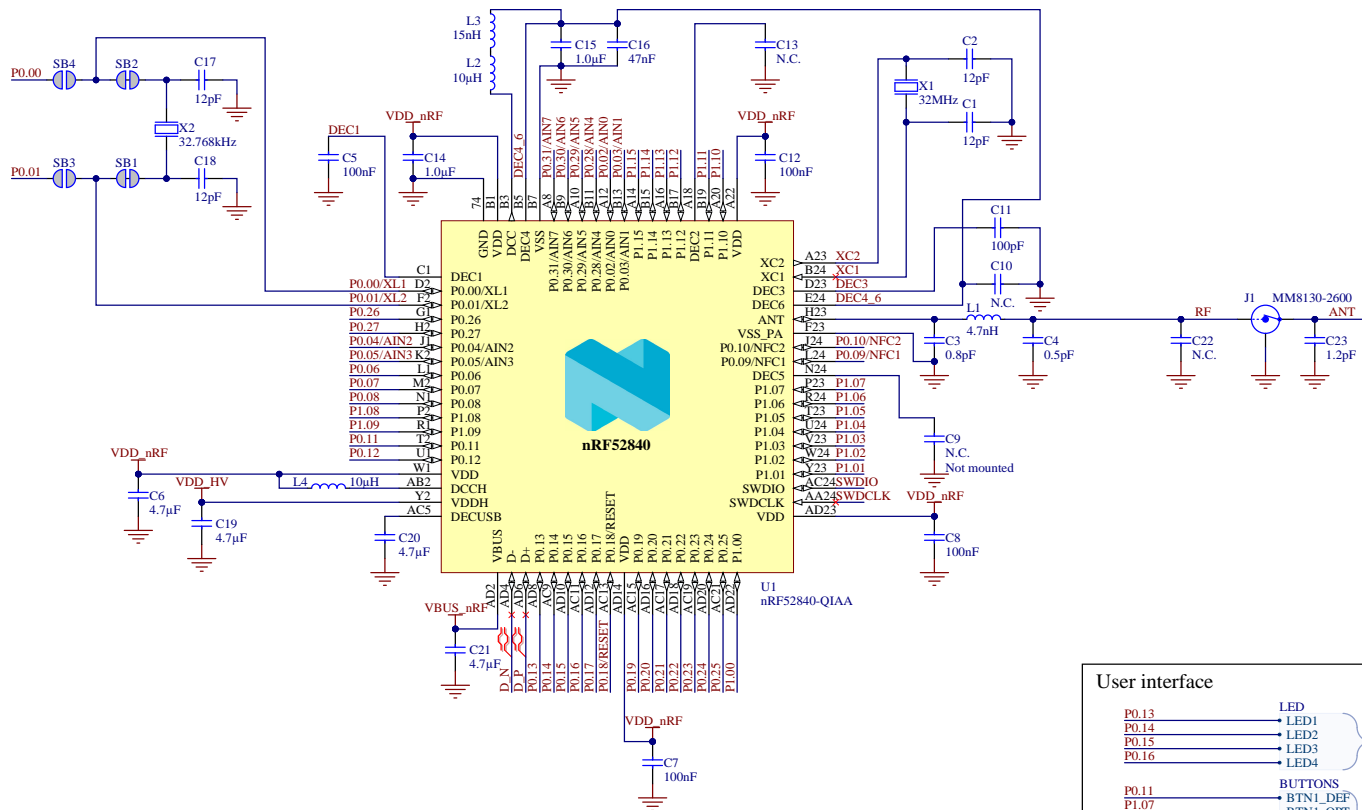
nRF52840 Bluetooth Low Energy/ANT/802.15.4/2.4GHz RF Development Board (PCA10056)

Sheet 1:	Cover
Sheet 2:	nRF Radio
Sheet 3:	Interface MCU
Sheet 4:	Miscellaneous
Sheet 5:	Connectors
Sheet 6:	Power Supply

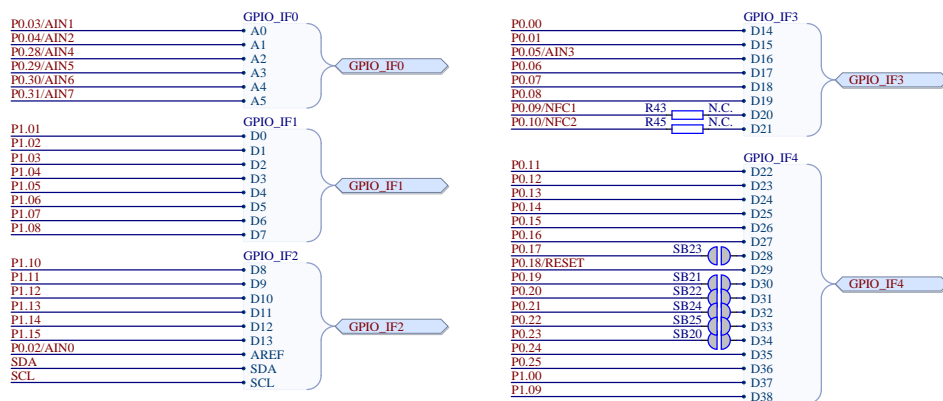


× The No ERC object is a design directive.
This directive is placed on a node in the circuit to suppress harmless warnings and/or error violation conditions that are detected when the schematic project is compiled.

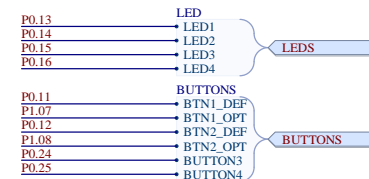
Cover			
Size A3	PCB Assembly Number PCA10056	Revision 3.0.0	
Date: 27.09.2021		Sheet 1 of 6	
File: pca10056_sheet1_cover.SchDoc		Drawn By: MASI/RUBR	



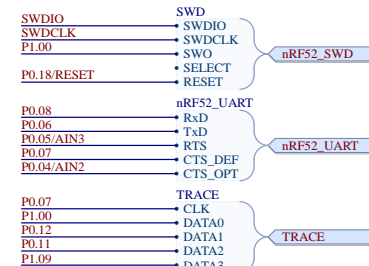
GPIO interface



User interface



Debug interface



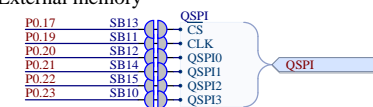
NFC



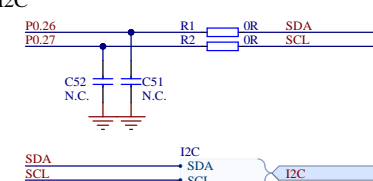
USB




External memory

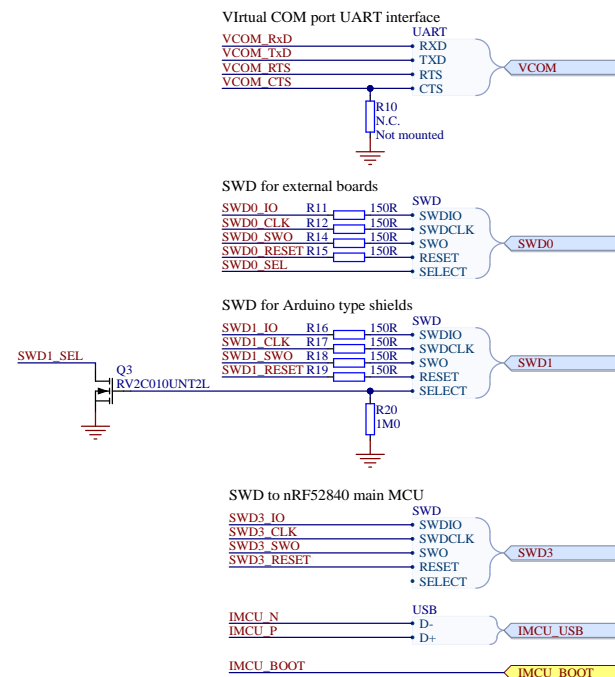
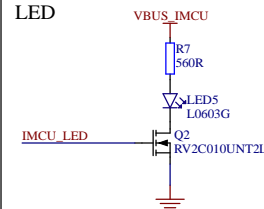
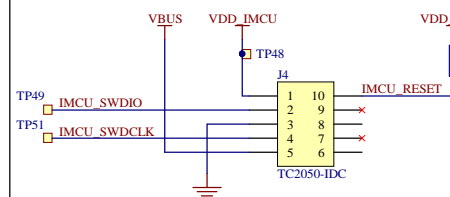
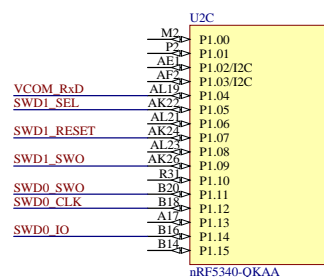
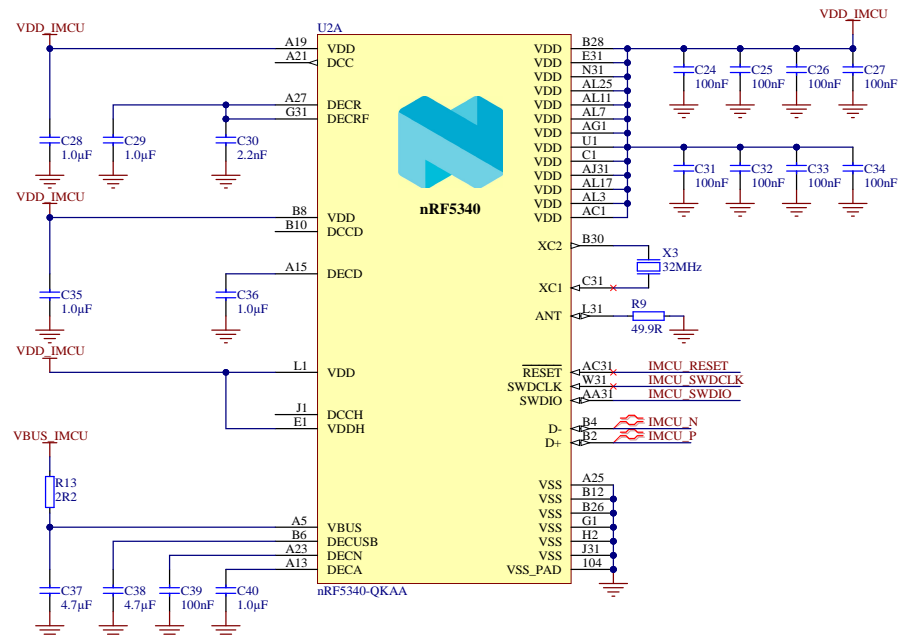


I2C

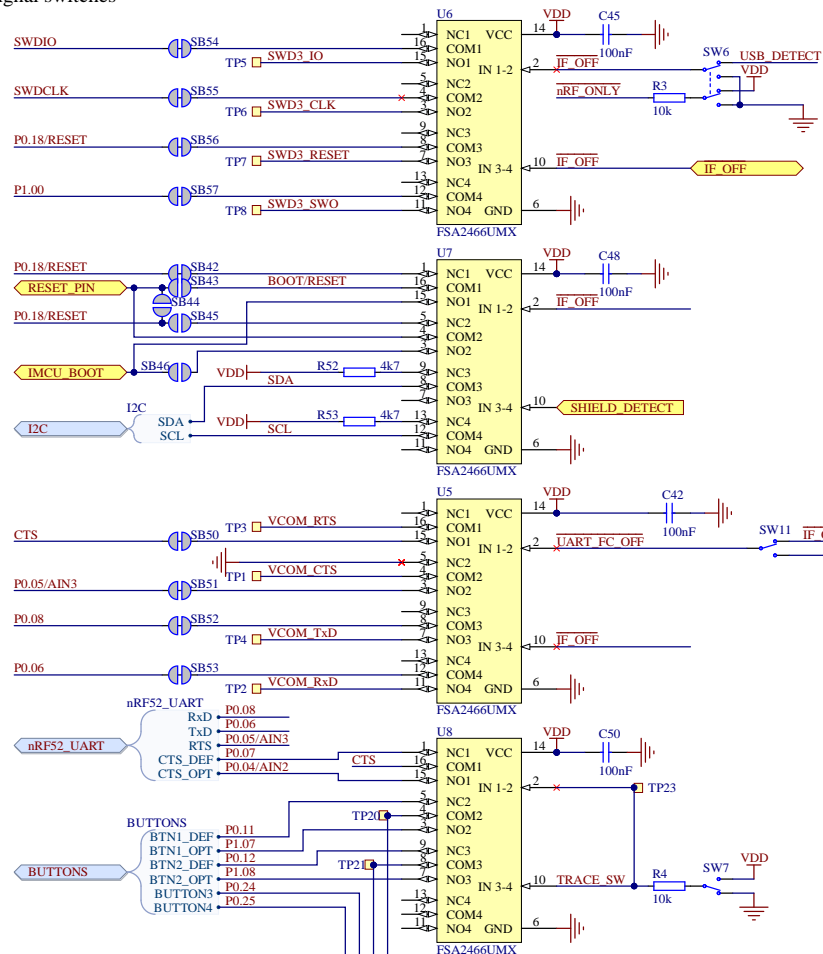


nRF52840 MCU

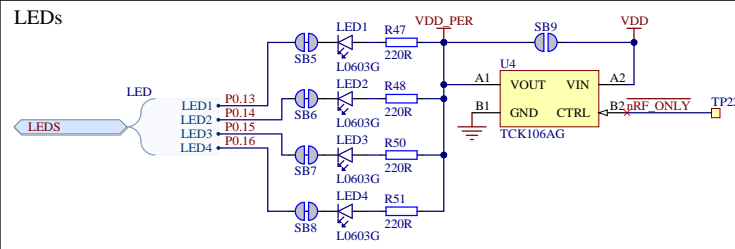
Size	PCB Assembly Number	Revision	
A3	PCA10056	3.0.0	
Date: 27.09.2021		Sheet 2 of 6	
File: pca10056_sheet2_nrf52840_mcu.SchDoc		Drawn By: MASI/RUBR	



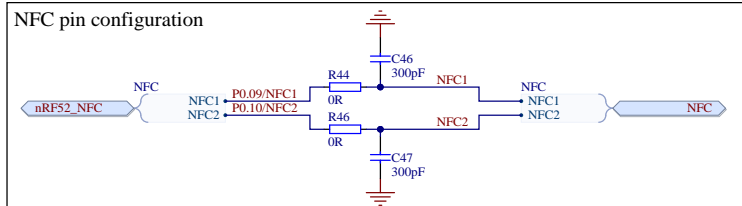
Signal switches



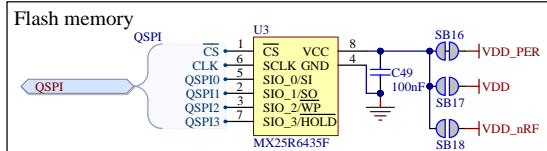
LEDs



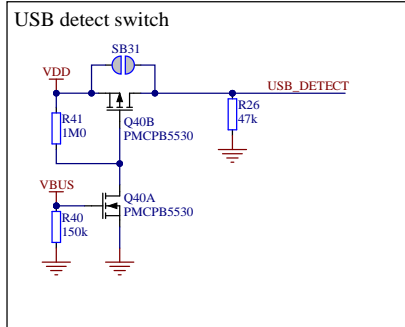
NFC pin configuration



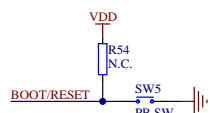
Flash memory



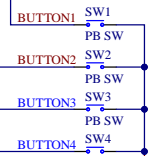
USB detect switch



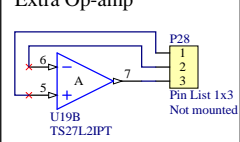
Boot/Reset button



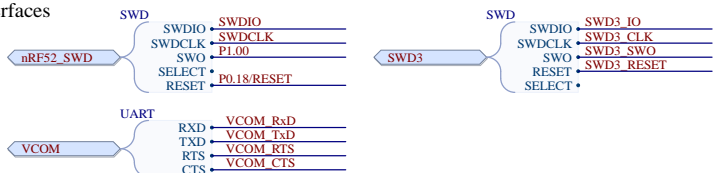
Buttons




Extra Op-amp



Debug interfaces

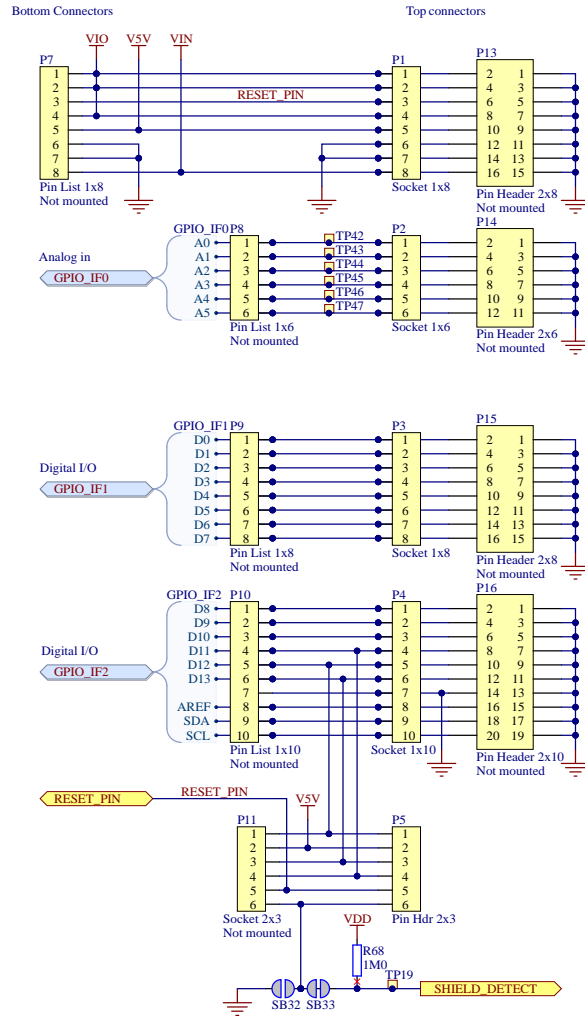


Miscellaneous

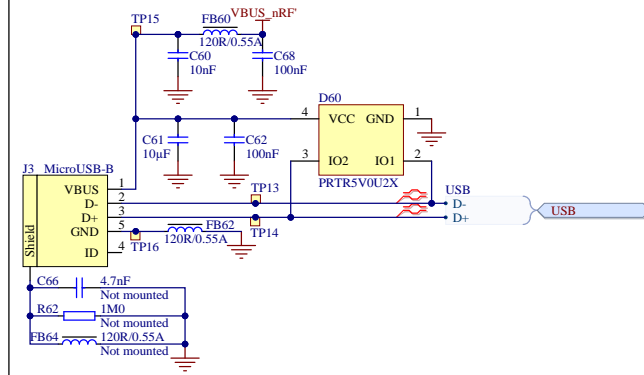
Size A3	PCB Assembly Number PCA10056	Revision 3.0.0	 NORDIC SEMICONDUCTOR
Date: 27.09.2021		Sheet 4 of 6	
File: pca10056_sheet4_misc.SchDoc		Drawn By: MASI/RUBR	



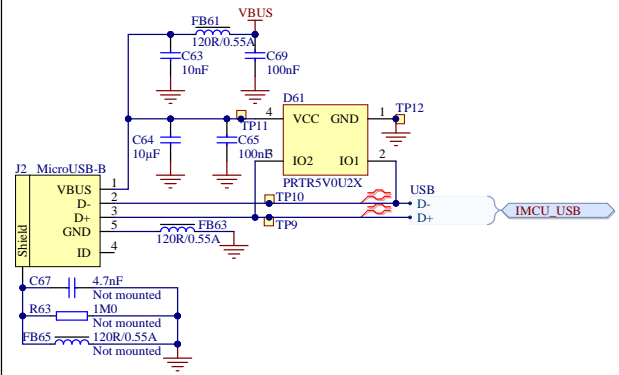
Arduino Interface Connectors



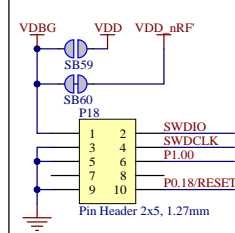
nRF USB Connector



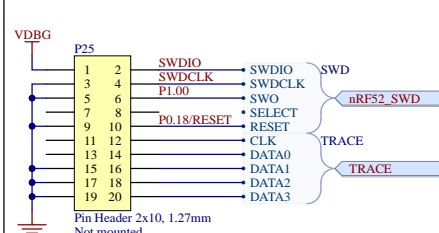
Interface MCU USB Connector



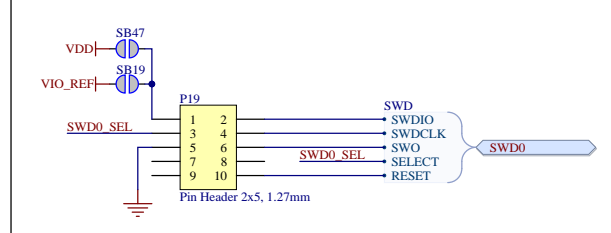
Debug IN Connector



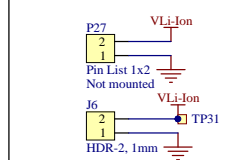
Trace connector



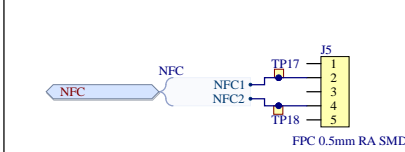
Debug OUT Connector



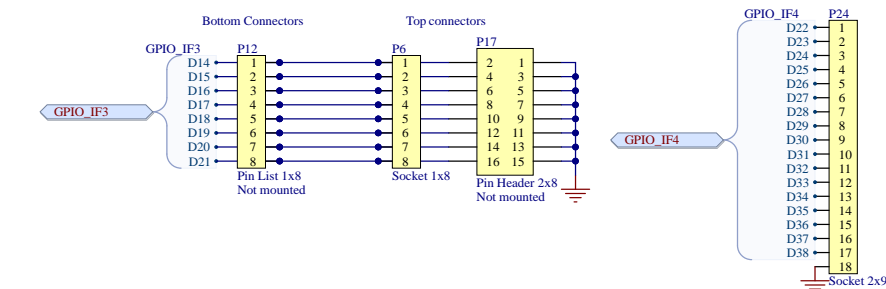
Li-ion connector



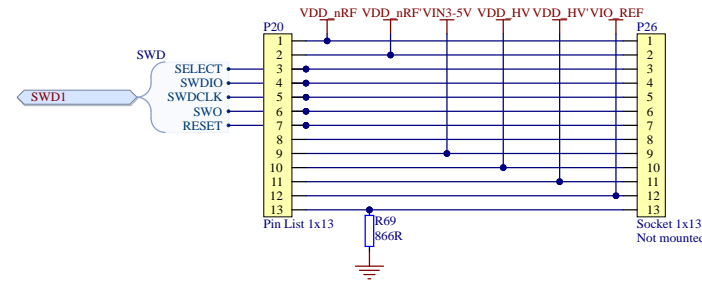
NFCT Antenna Connector




Auxiliary Connectors



Shield Debug and Current measurement Connector



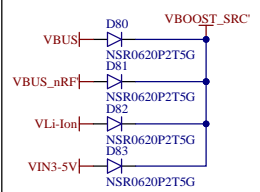
Connectors

Size	PCB Assembly Number	Revision	
A3	PCA10056	3.0.0	
Date: 27.09.2021	File: pca10056_sheet5_connectors.SchDoc	Sheet 5 of 6	
Drawn By: MASI/RUBR			

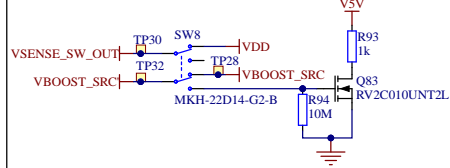
A

A

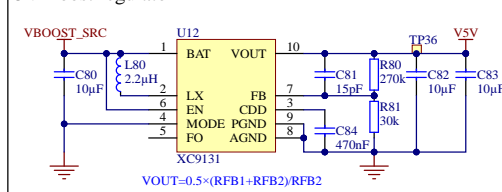
Power input, reverse protection



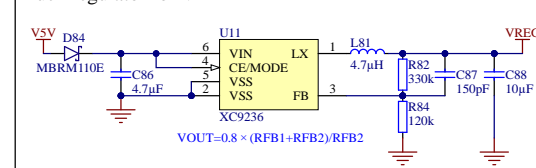
Power switch



5V Boost regulator



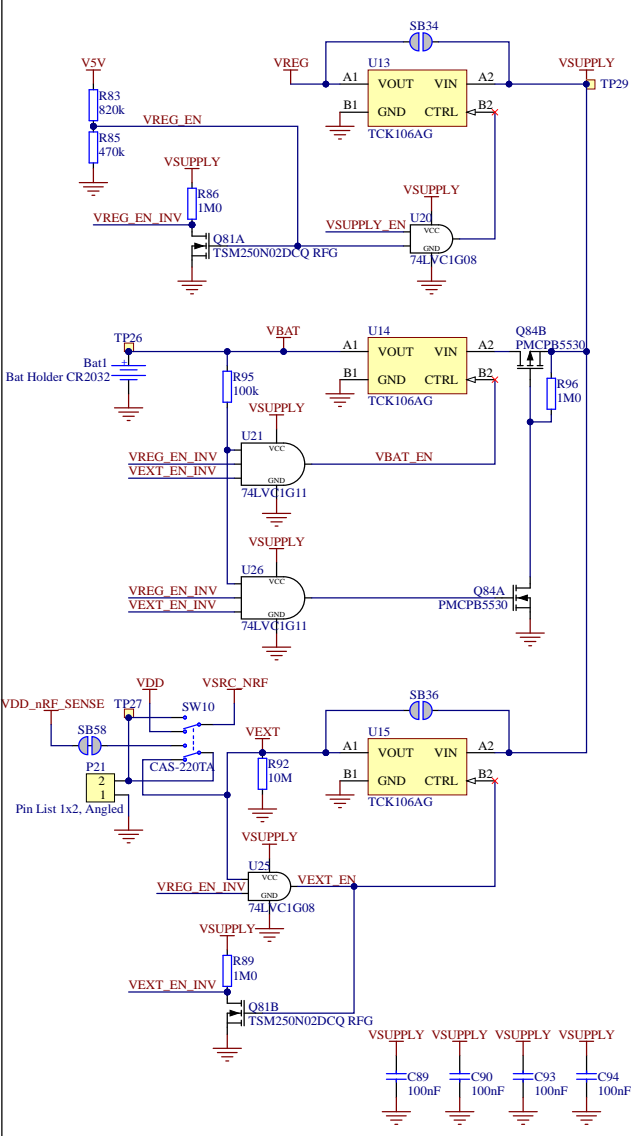
Buck regulator for VDD



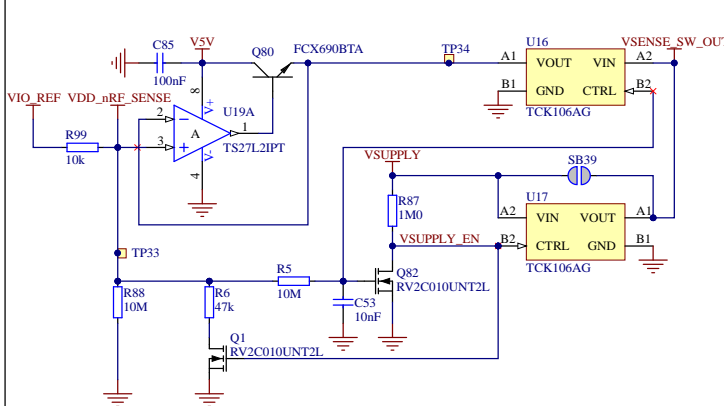
B

B

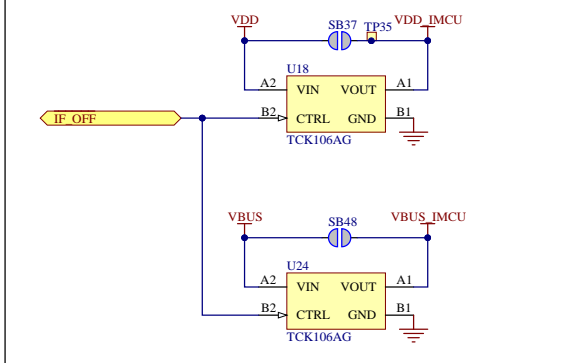
Power sources and switches



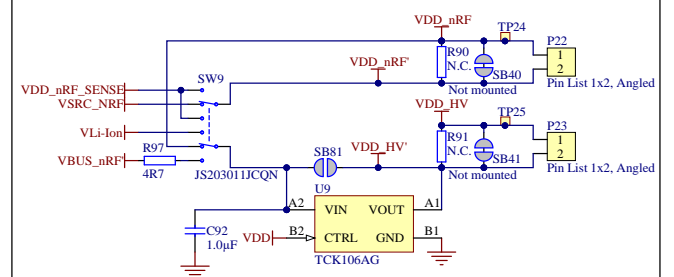
VDD_nRF sense buffer and switch



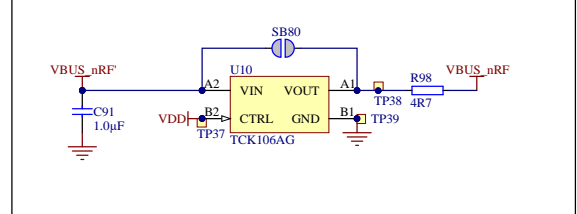
Interface MCU power switch



nRF power source select and current measurement



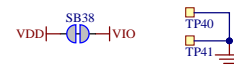
VBUS_nRF switch



D

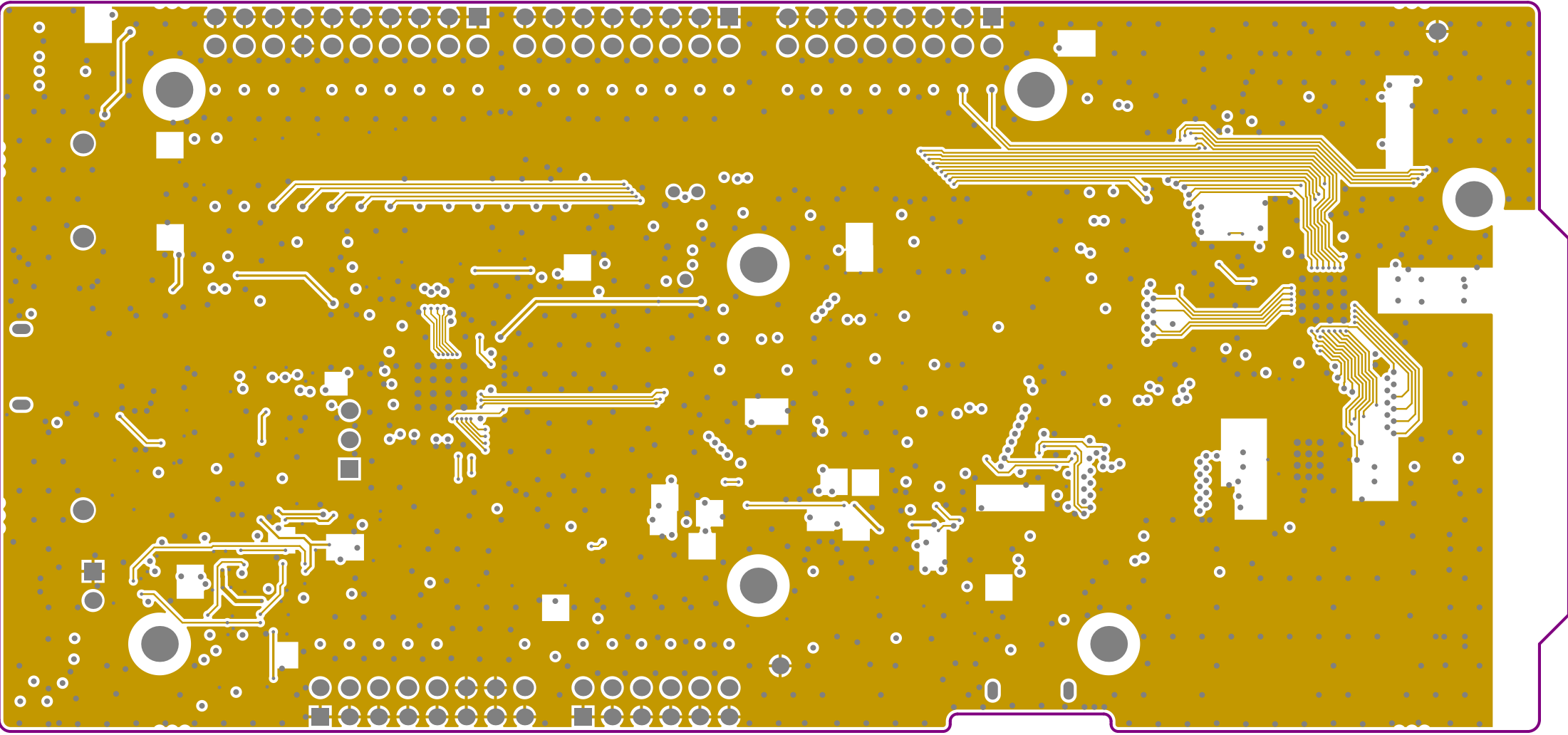
D

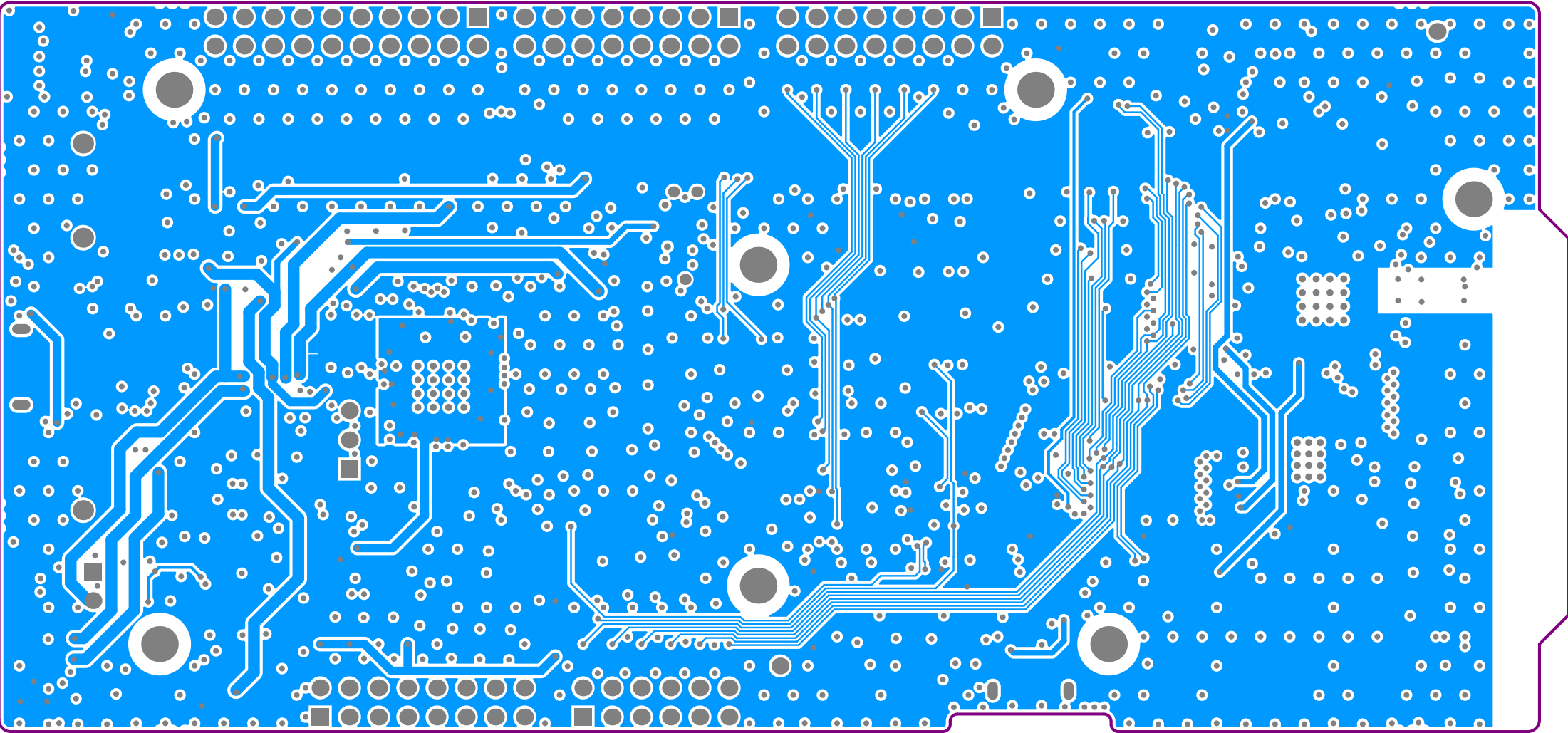
Instrument ground



Power Supply

Size A3	PCB Assembly Number PCA10056	Revision 3.0.0	
Date: 27.09.2021	Sheet 6 of 6	Drawn By: MASI/RUBR	
File: pca10056_sheet6_power_supply.SchDoc			





HW			
Defect	2M	VRANGE	
Function			
C12	H0'01	H0'04	
Function 5	H0'15	H0'08	
Function 1	H0'11	H0'01	

H0'09	DIO3	2B0'00	
H0'25	C0'25	2B0'12	
H0'31	DIO1	2B0'15	
H0'3D	DIO7	2B0'55	
H0'18	C1'8	2B0'1	
H0'1A	C2	2B0'18	
H0'1E	FSD 4	2B0	
H0'12	FED3	2B1	
H0'19	FED 3	2B1	
H0'13	FED3	2B2	
H0'32	g0'00 4		
H0'34	g0'00 3		
H0'15	g0'00 5		
H0'11	g0'00 1		
H0'01	X13	2B1	
H0'00	X17	2B3	

Gpio	Function	2'port	HW
H0'18	WEC3		
H0'10	WEC1		
H0'1A	2MIO3		
H0'12	2MIO2		
H0'1E	WEC0		
H0'19	WEC2		
H0'15	WEC4		
H0'1A	WEC5		
H0'12	WEC6		
H0'19	WEC7		
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H0'19	WEC319		
H0'15	WEC320		
H0'1A	WEC321		
H0'12	WEC322		
H0'19	WEC323		
H0'15	WEC324		
H0'1A	WEC325		
H0'12	WEC326		
H0'19	WEC327		
H0'15	WEC328		
H0'1A	WEC329		
H0'12	WEC330		
H0'19	WEC331		
H0'15	WEC332		
H0'1A	WEC333		
H0'12	WEC334		
H0'19	WEC335		
H0'15	WEC336		
H0'1A	WEC337		
H0'12	WEC338		
H0'19	WEC339		
H0'15	WEC340		
H0'1A	WEC341		
H0'12	WEC342		
H0'19	WEC343		
H0'15	WEC344		
H0'1A	WEC345		
H0'12	WEC346		
H0'19	WEC347		
H0'15	WEC348		

