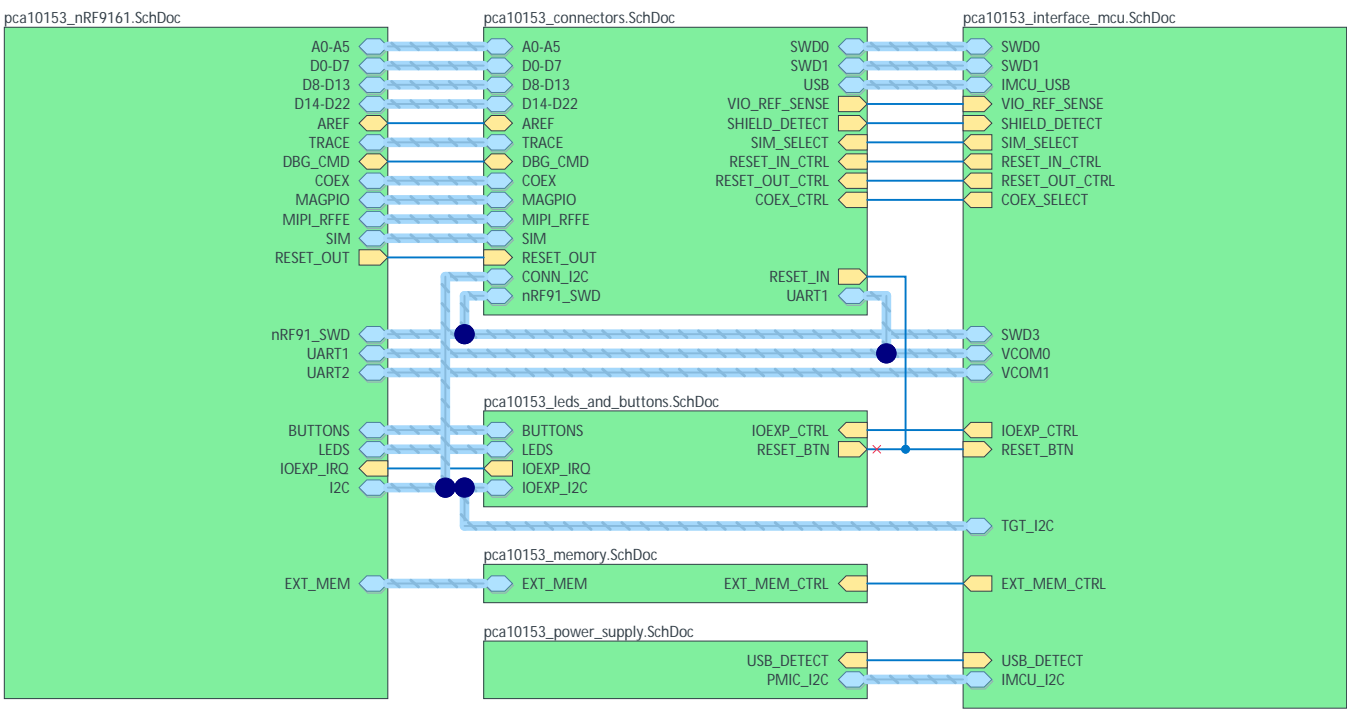


Nordic Semiconductor ASA

nRF9161 Development Kit (PCA10153)

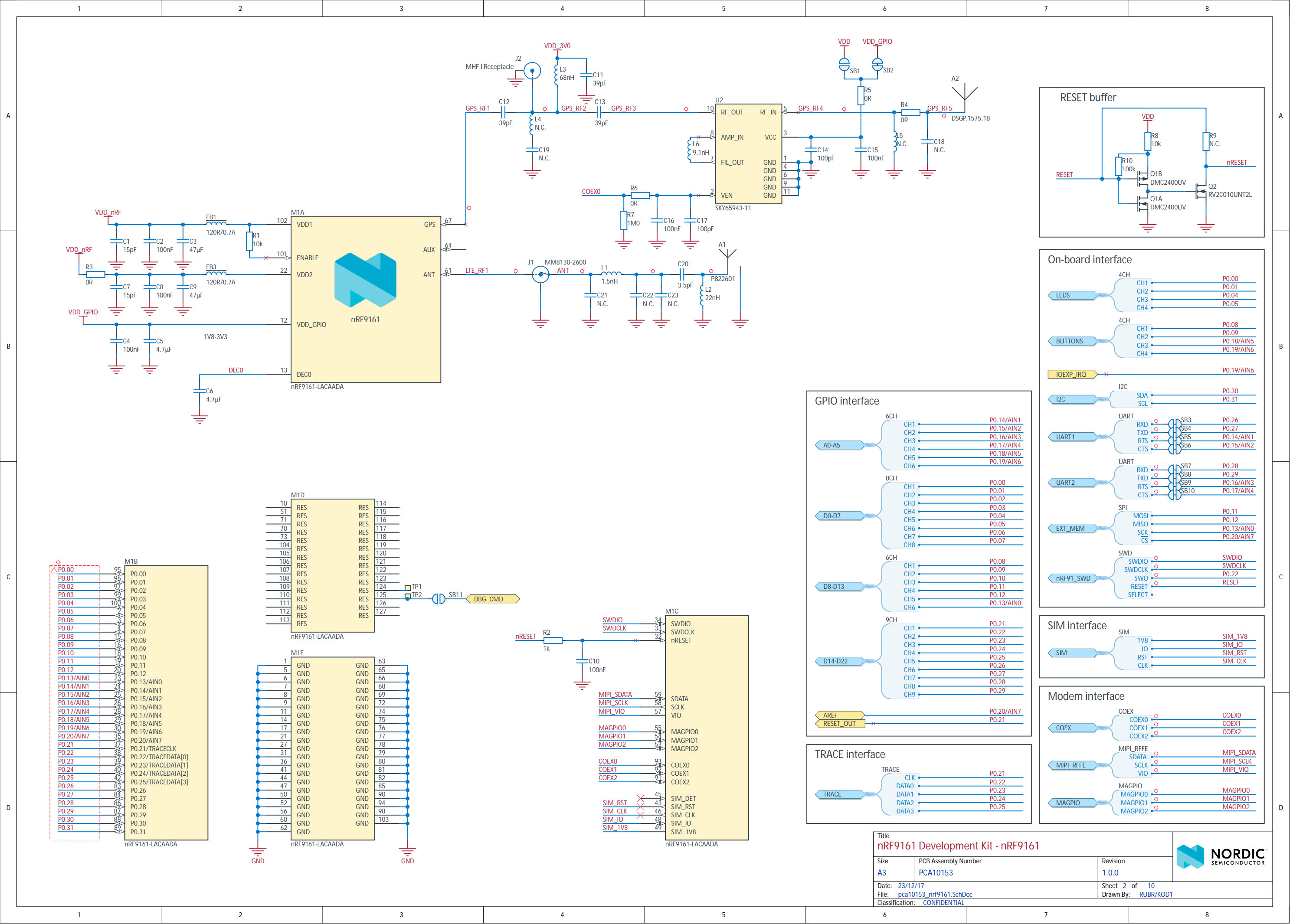
Sheet 1:	Top Level
Sheet 2:	nRF9161
Sheet 3:	Interface MCU
Sheet 4:	LEDs and Buttons
Sheet 5:	IO Expander
Sheet 6:	Memory
Sheet 7:	Connectors
Sheet 8:	Power Supply
Sheet 9:	Analog Switch 1
Sheet 10:	Analog Switch 2

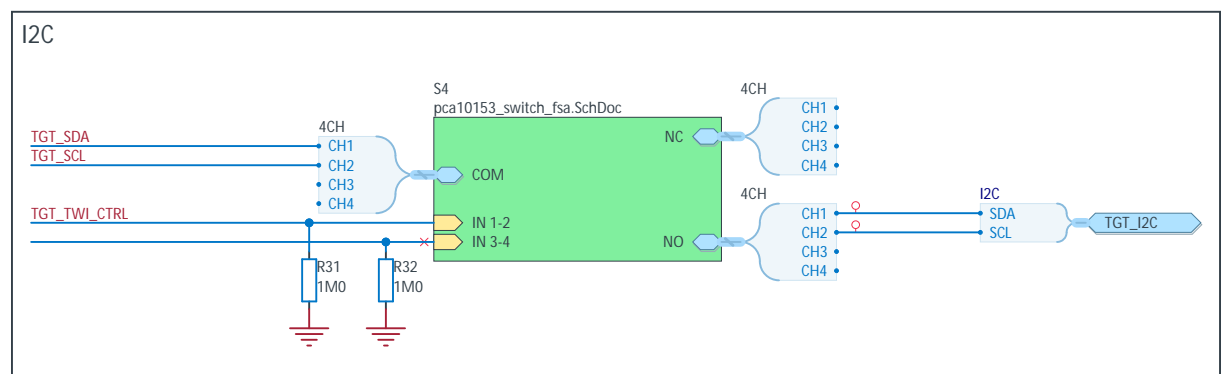
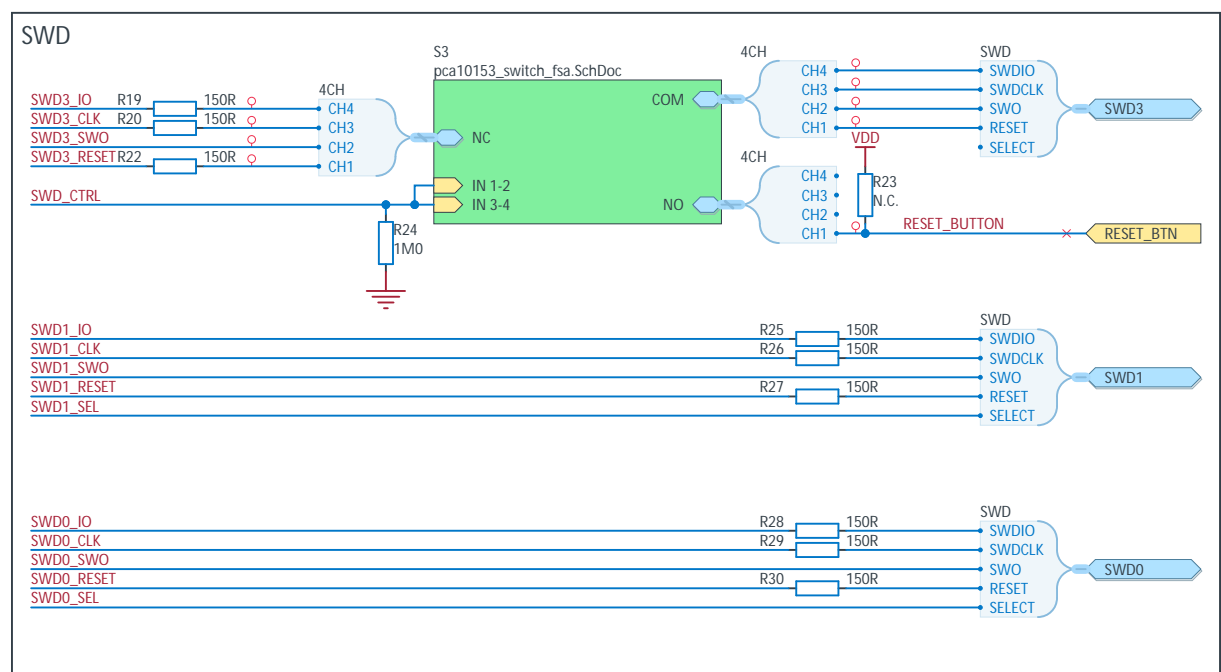
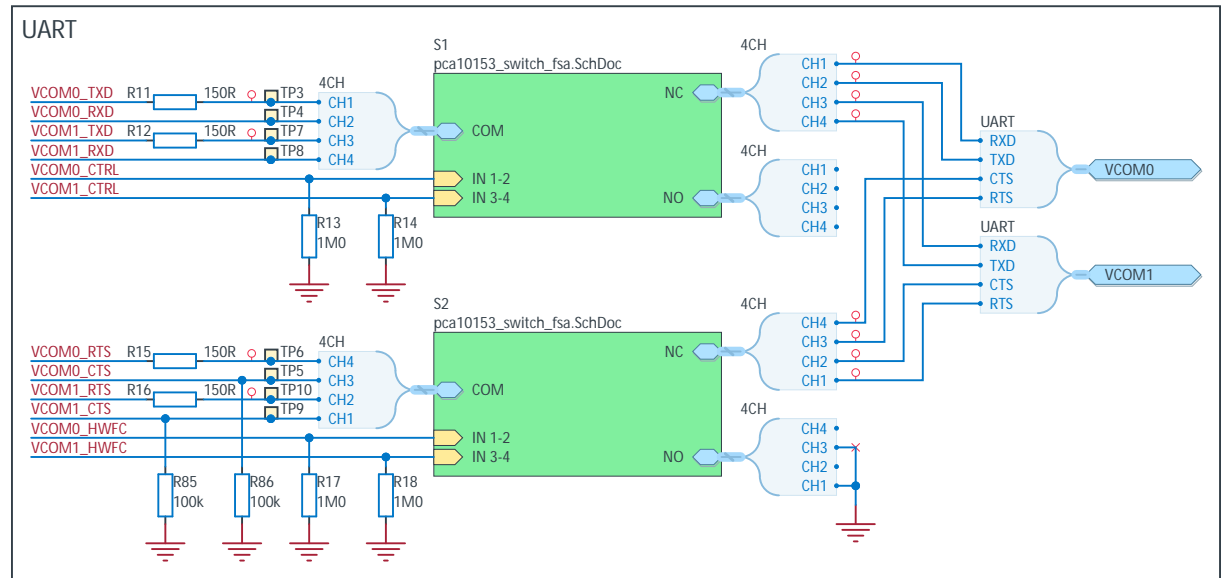
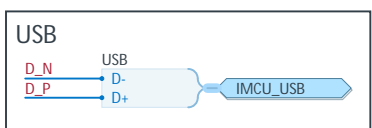
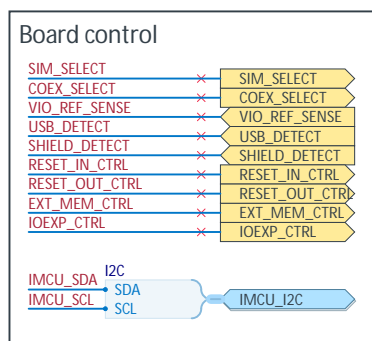
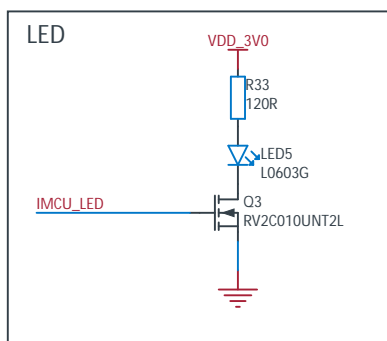
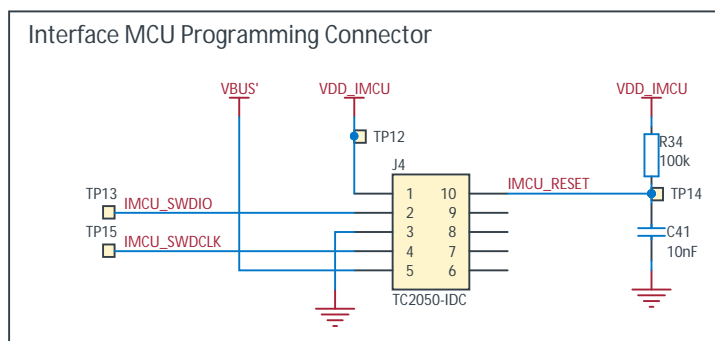
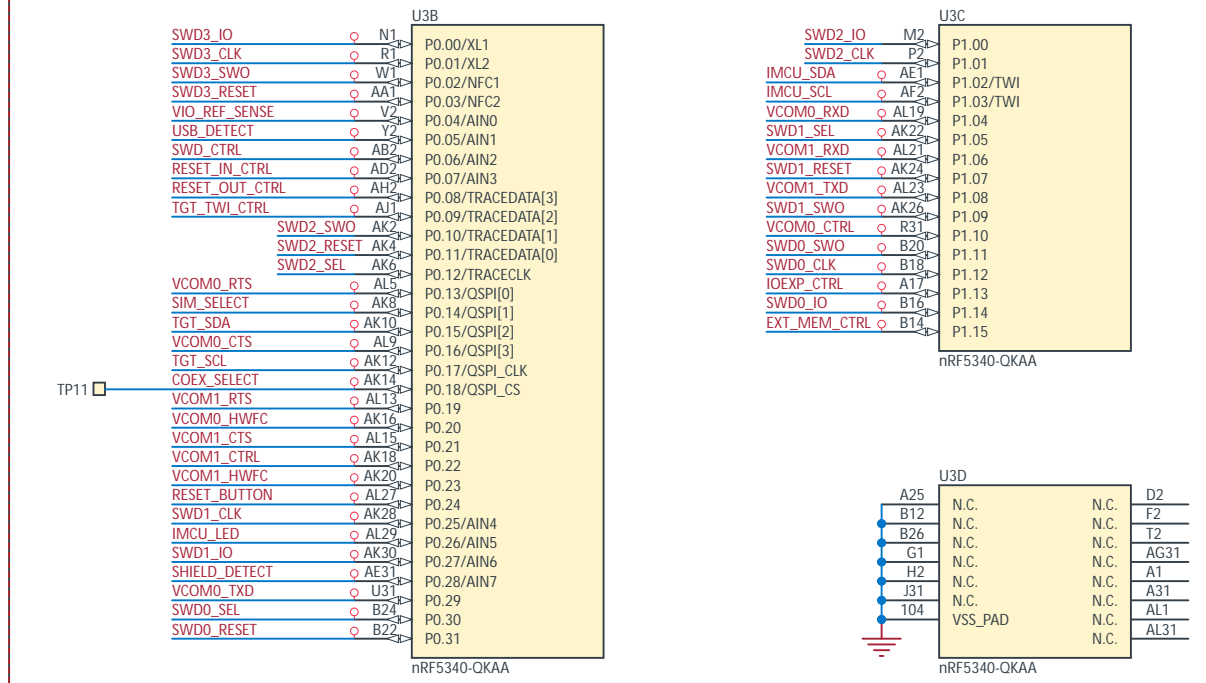
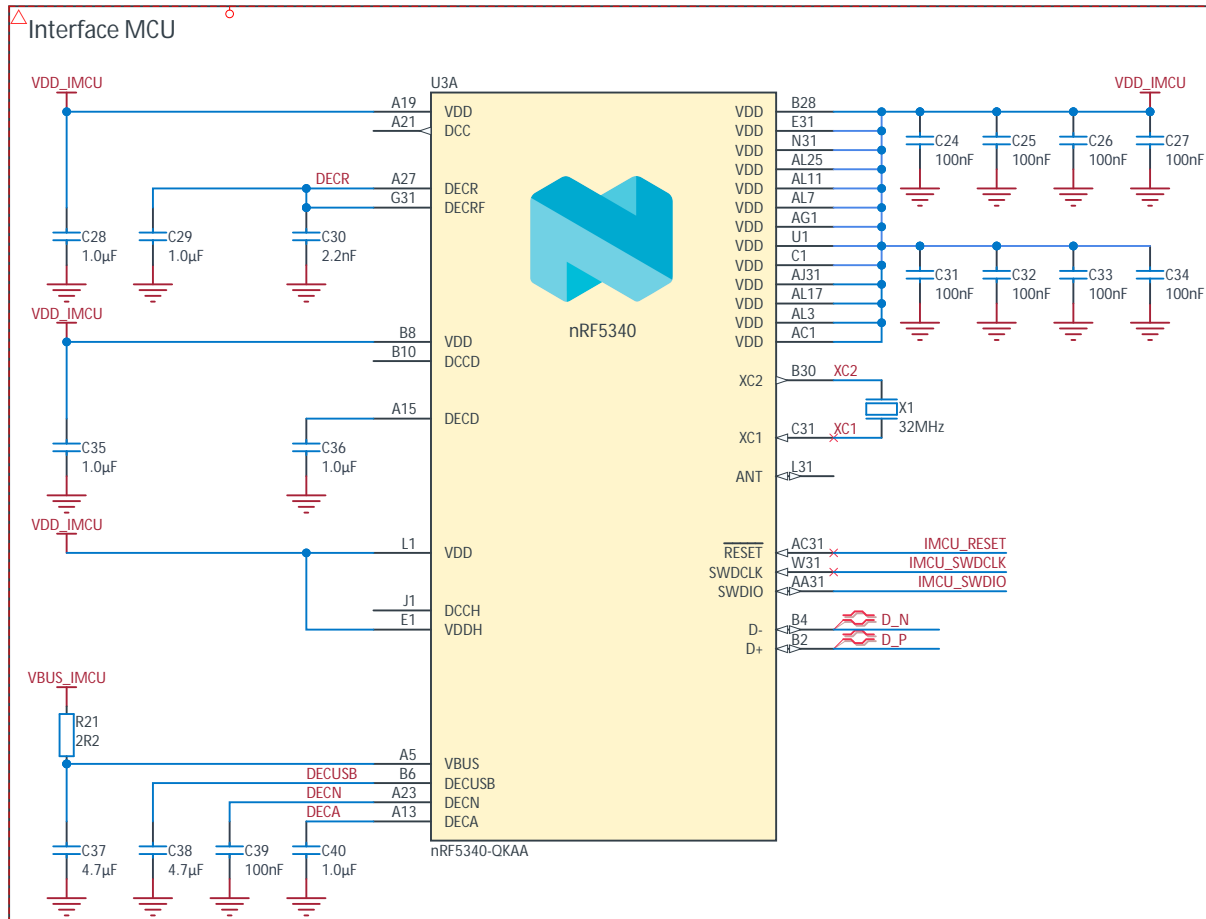


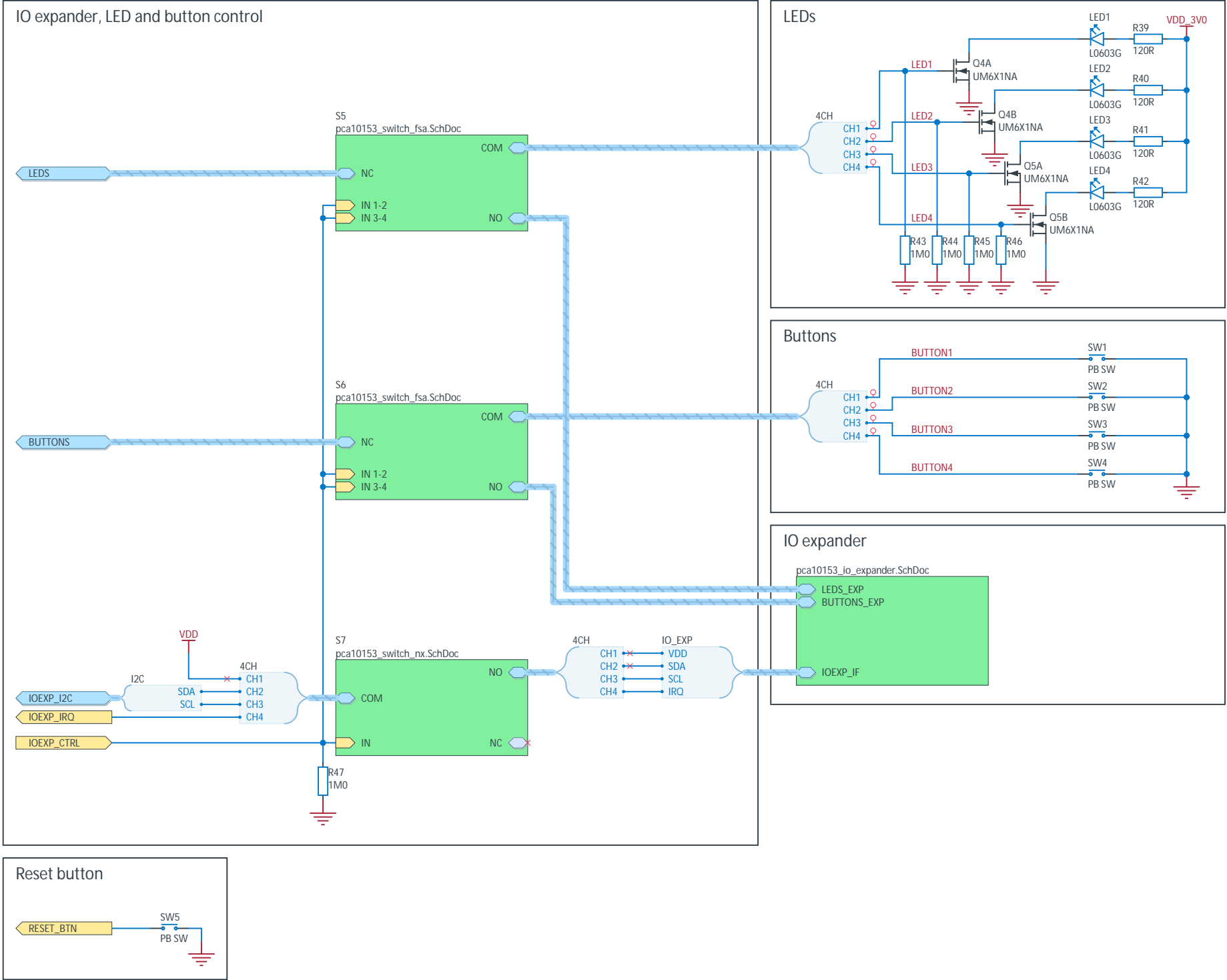
✖ The No ERC object is a design directive.
This directive is placed on a node in the circuit to suppress harmless warnings and/or error violation conditions that are detected when the schematic project is compiled.

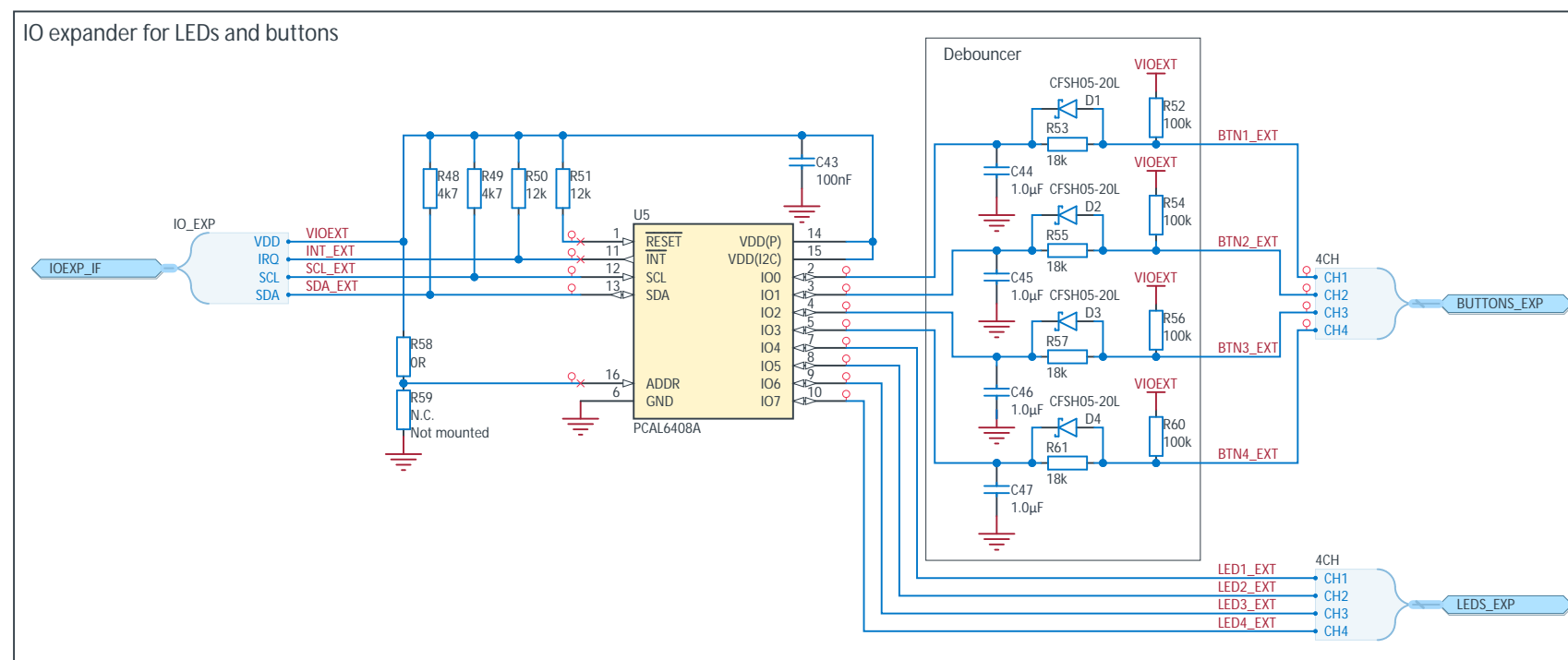
PCA10153
1.0.0
<year>. <week>
<UID>


Title nRF9161 Development Kit - Top Level			
Size A3	PCB Assembly Number PCA10153	Revision 1.0.0	
Date: 23/12/17		Sheet 1 of 10	
File: pca10153_top_level.SchDoc		Drawn By: RUBR/KOD1	
Classification: CONFIDENTIAL			

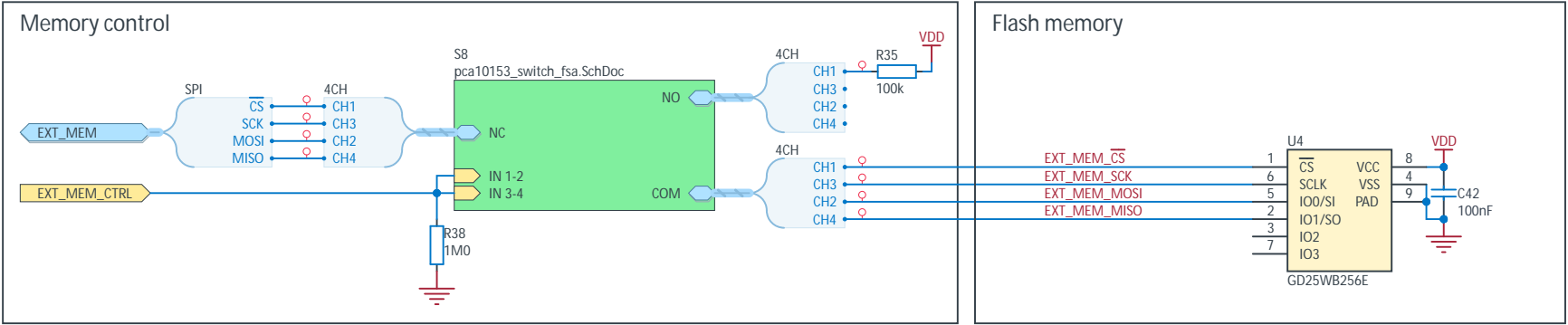








Title nRF9161 Development Kit - IO Expander		
Size A3	PCB Assembly Number PCA10153	
Revision 1.0.0		
Date: 23/12/17		Sheet 5 of 10
File: pca10153_io_expander.SchDoc		Drawn By: RUBR/KOD1
Classification: CONFIDENTIAL		



[illegible][illegible][illegible][illegible][illegible]

Pin Header 2x5, 1.27mm

Pin 1: VDD

Pin 2: SWDIO

Pin 3: SWDCLK

Pin 4: SWO

Pin 5: SELECT

Pin 6: RESET

Pin 7: GND

Pin 8: GND

Pin 9: GND

Pin 10: GND

SWDIO, SWDCLK, SWO, SELECT, RESET

nRF91_SWD

Diagram illustrating the pin header configuration for a P25 microcontroller. The header is labeled "Pin Header 2x10, 1.27mm, SWD". The pins are numbered 1 through 20. The connections are as follows:

- Pin 1: VDD
- Pin 2: SWDIO
- Pin 3: SWDCLK
- Pin 4: SWO
- Pin 5: SELECT
- Pin 6: RESET
- Pin 7: TRACE
- Pin 8: CLK
- Pin 9: DATA0
- Pin 10: DATA1
- Pin 11: DATA2
- Pin 12: DATA3
- Pin 13: GND
- Pin 14: GND
- Pin 15: GND
- Pin 16: GND
- Pin 17: GND
- Pin 18: GND
- Pin 19: GND
- Pin 20: GND


The diagram shows the microSD Card Connector (J8) and the UART1 connection. The microSD Card Connector (J8) is a 10-pin connector. The pins are connected as follows:

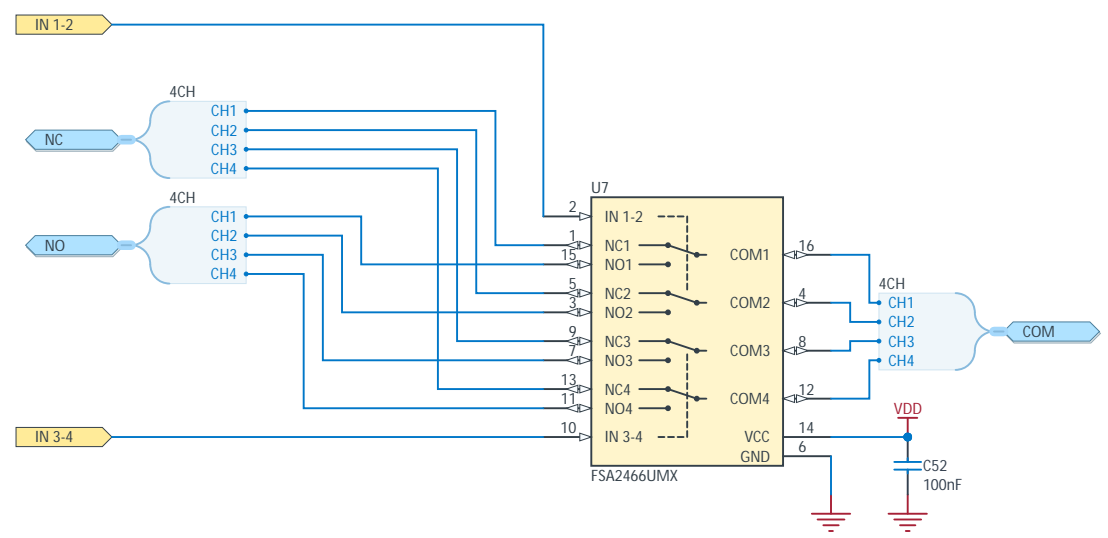
- Pin 4: VDD
- Pin 7: TRACE
- Pin 8: DATA0
- Pin 9: DATA1
- Pin 10: DATA2
- Pin 1: DATA3
- Pin 2: CLK
- Pin 3: CLK
- Pin 5: CLK
- Pin 6: DBG_CMD
- Pin 9: GND
- Pin 10: Shield
- Pin 11: VSS

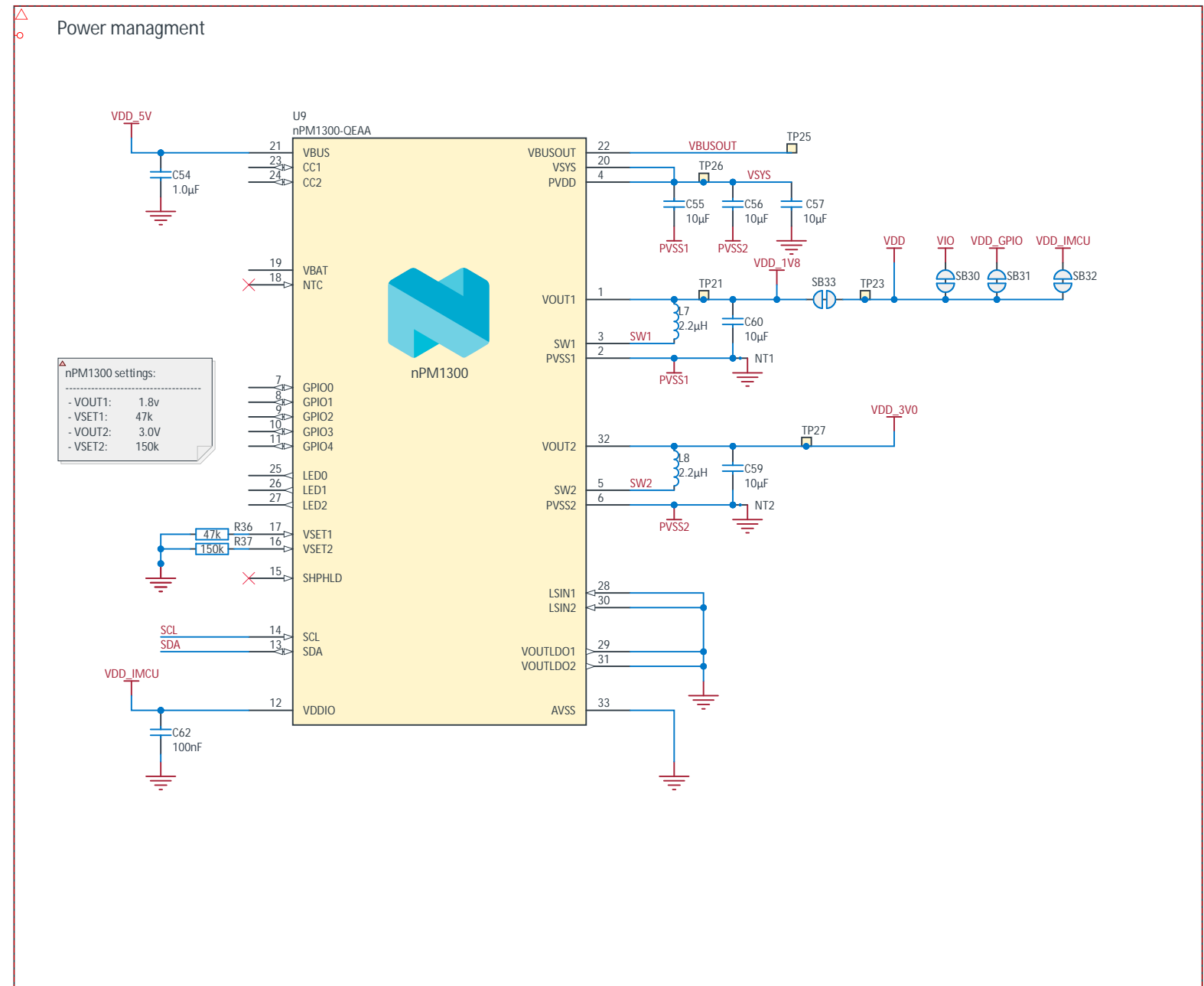
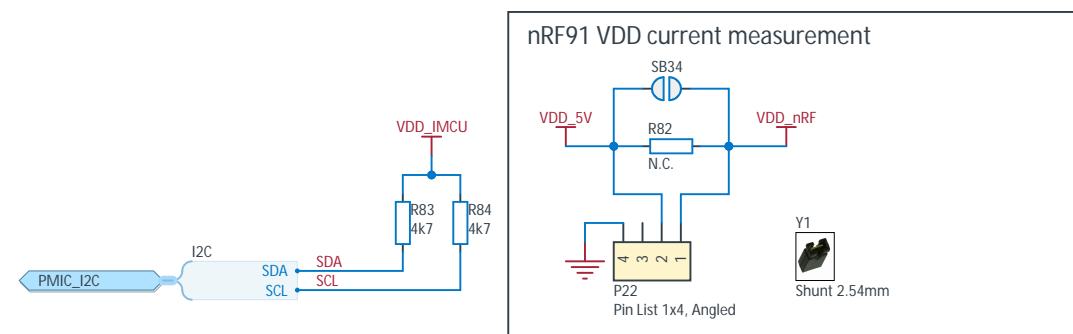
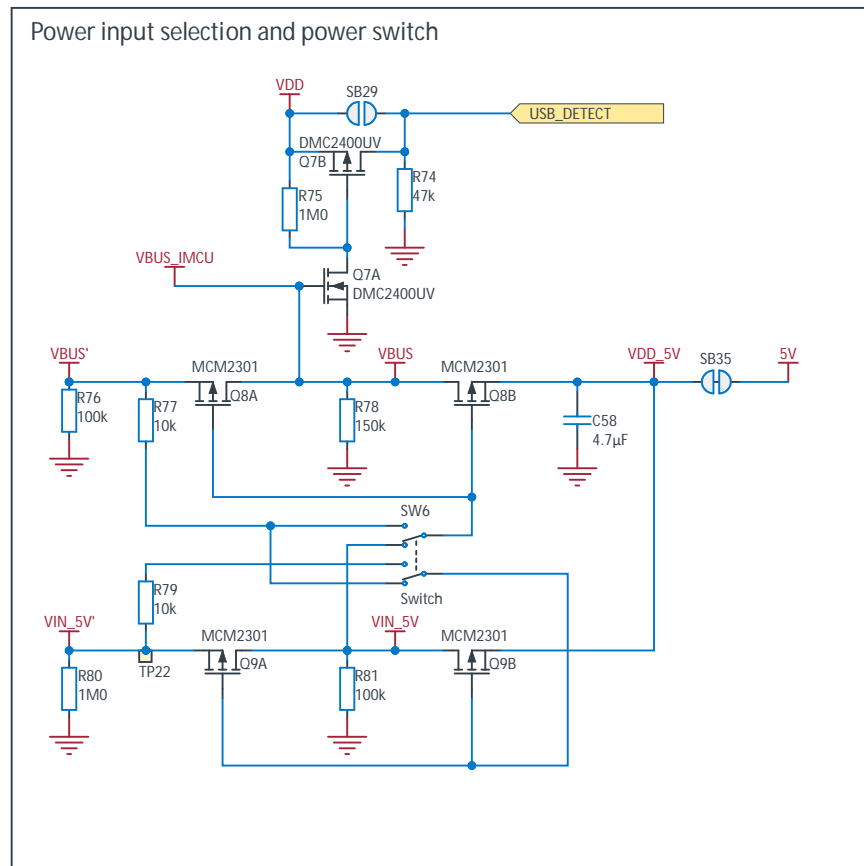
The UART1 connection is shown below the microSD Card Connector. It is a 6-pin connector (P29) with the following connections:

- Pin 1: GND
- Pin 2: RTS
- Pin 3: RXD
- Pin 4: TXD
- Pin 5: CTS
- Pin 6: UART

The UART1 connection is also shown with a 6-pin connector (P29) and a 6-pin connector (P29) labeled "Pin List 1x6, Angled".


Title rNF9161 Development Kit - Connectors			
Size A3	PCB Assembly Number PCA10153	Revision 1.0.0	
Date: 23/12/17		Sheet 7 of 10	
File: pca10153_connectors.SchDoc		Drawn By: RUBR/KOD1	
Classification: CONFIDENTIAL			

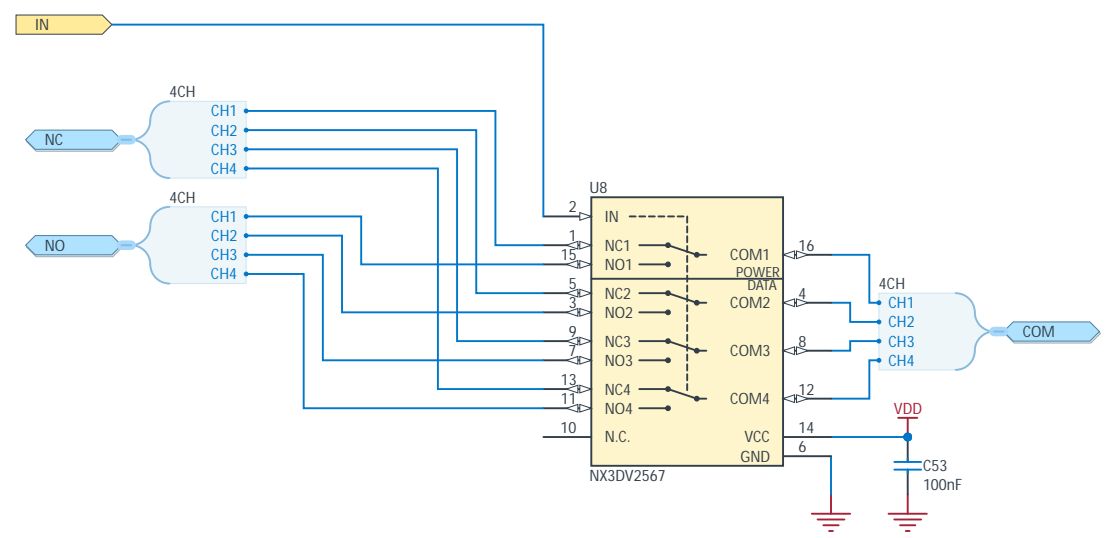




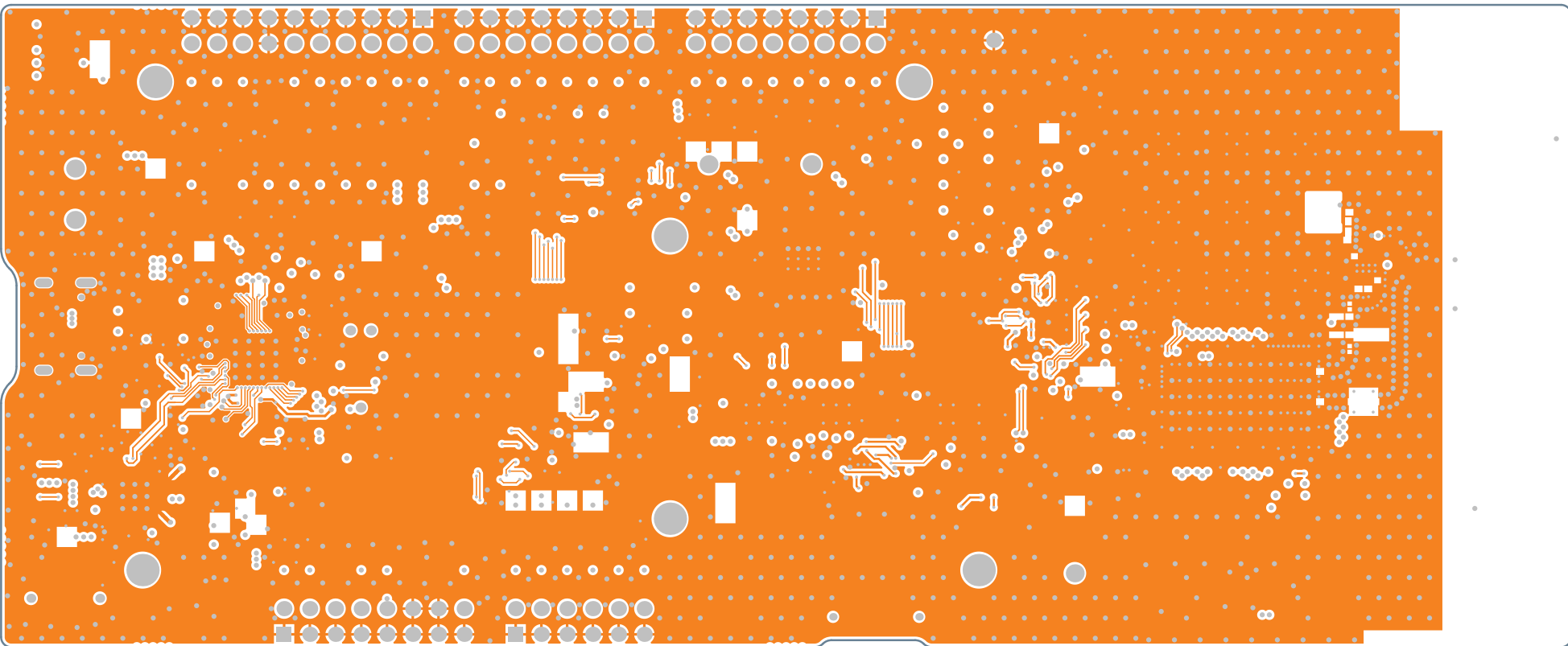
Instrument ground

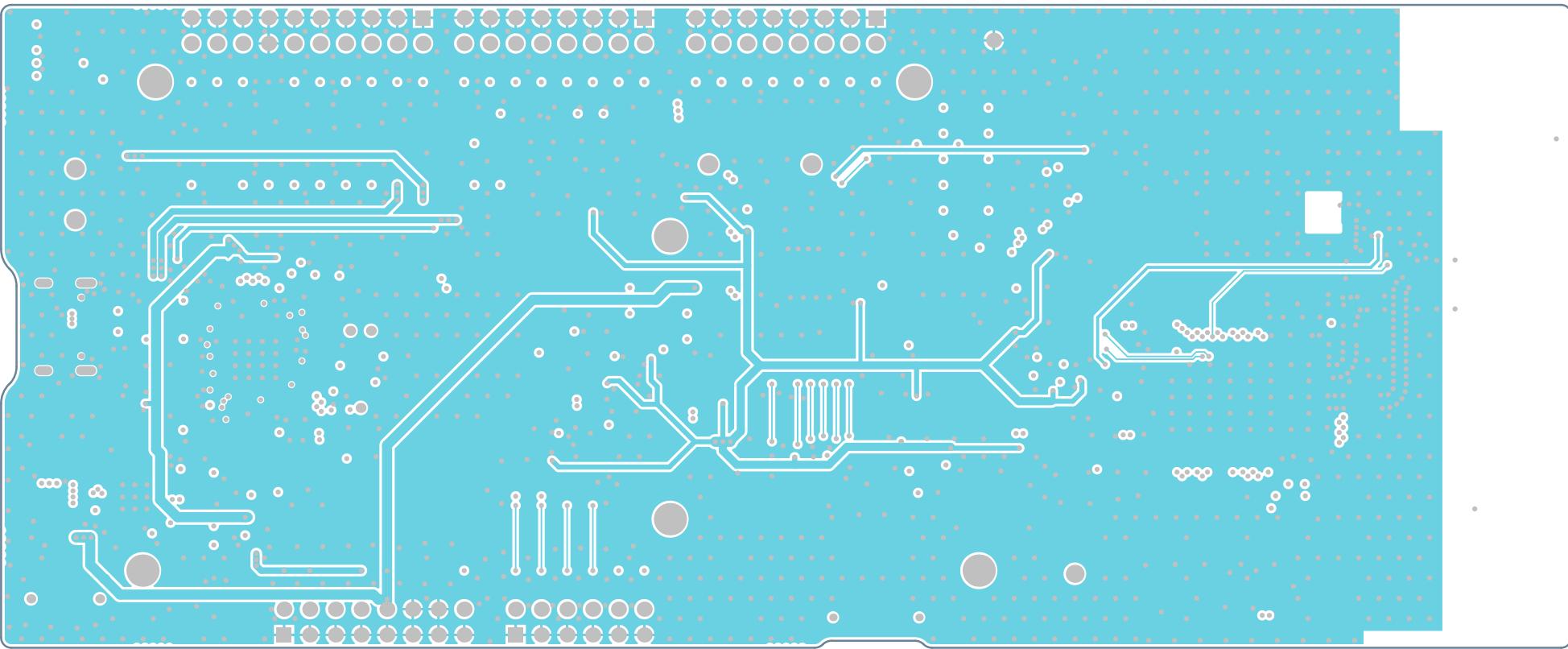


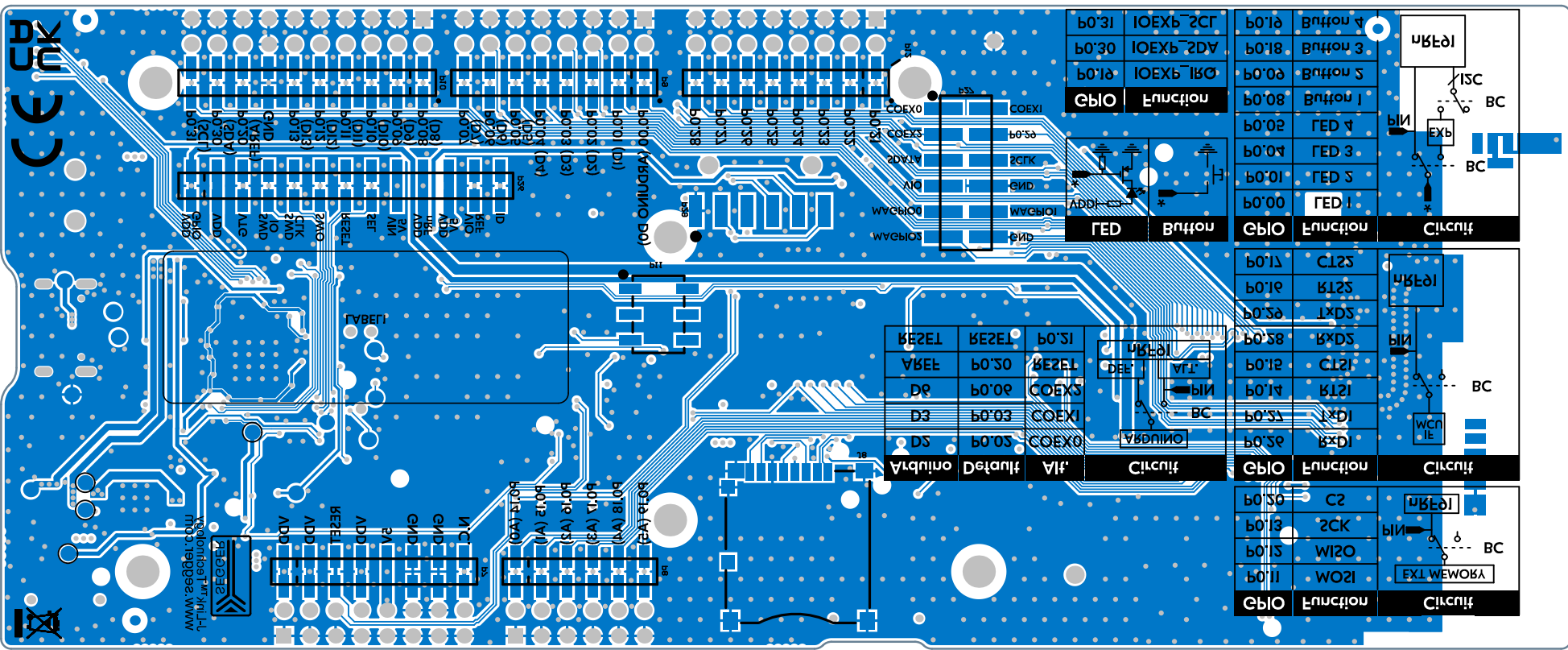
Title nRF9161 Development Kit - Power Supply			
Size A3	PCB Assembly Number PCA10153	Revision 1.0.0	
Date: 23/12/17		Sheet 10 of 10	
File: pca10153_power_supply.SchDoc		Drawn By: RUBR/KOD1	
Classification: CONFIDENTIAL			



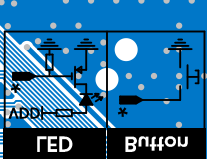








b0'31	IOEXB'2CF
b0'30	IOEXB'2DV
b0'18	IOEXB'18C
GPIO	Function



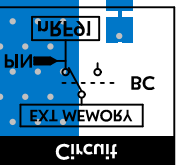
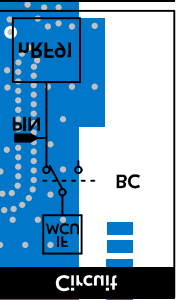
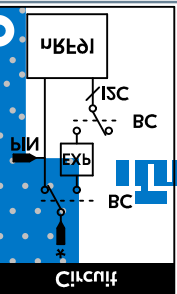
b0'31	IOEXB'2CF
b0'30	IOEXB'2DV
b0'18	IOEXB'18C
GPIO	Function

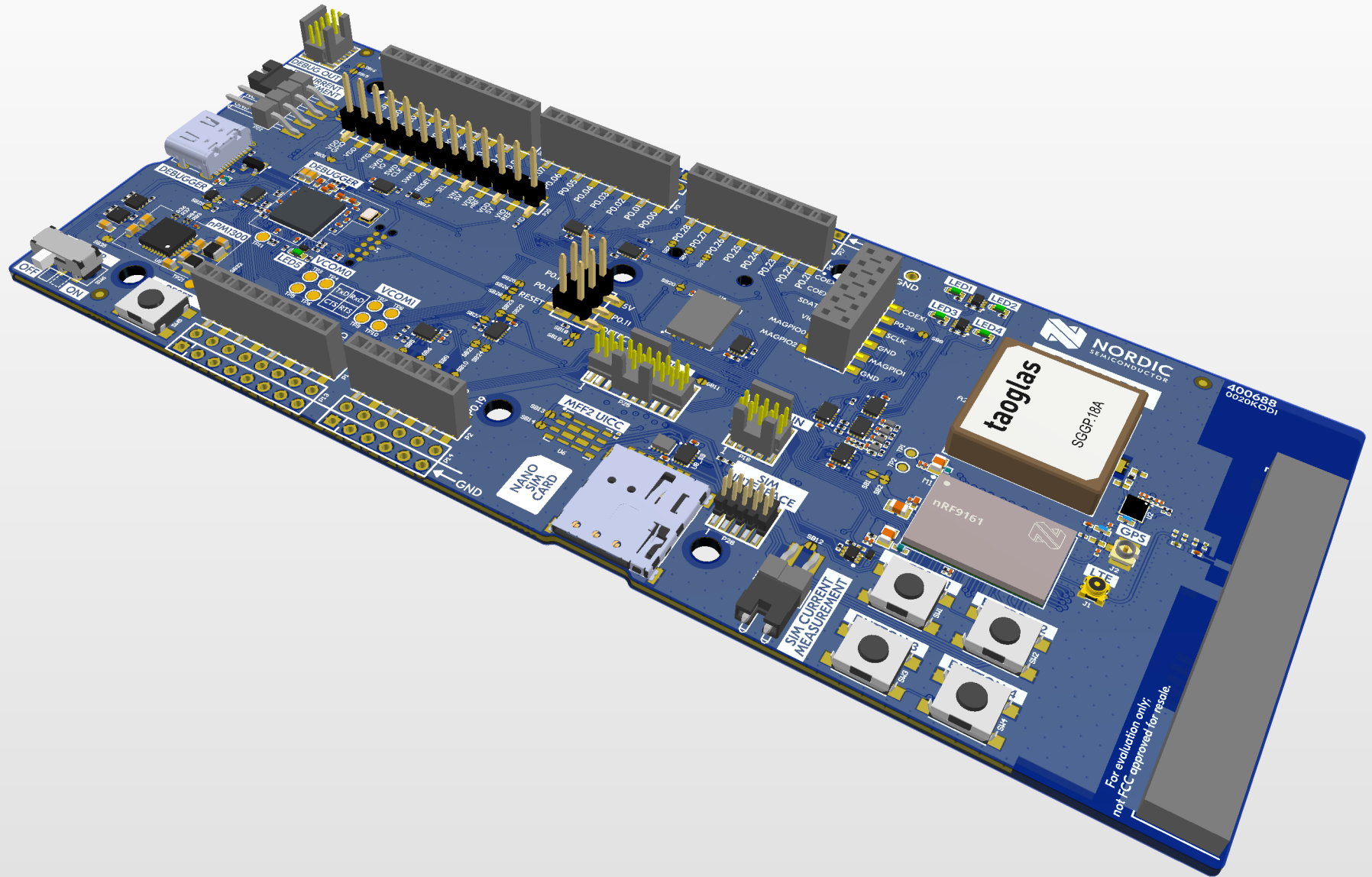
b0'31	IOEXB'2CF
b0'30	IOEXB'2DV
b0'18	IOEXB'18C
GPIO	Function

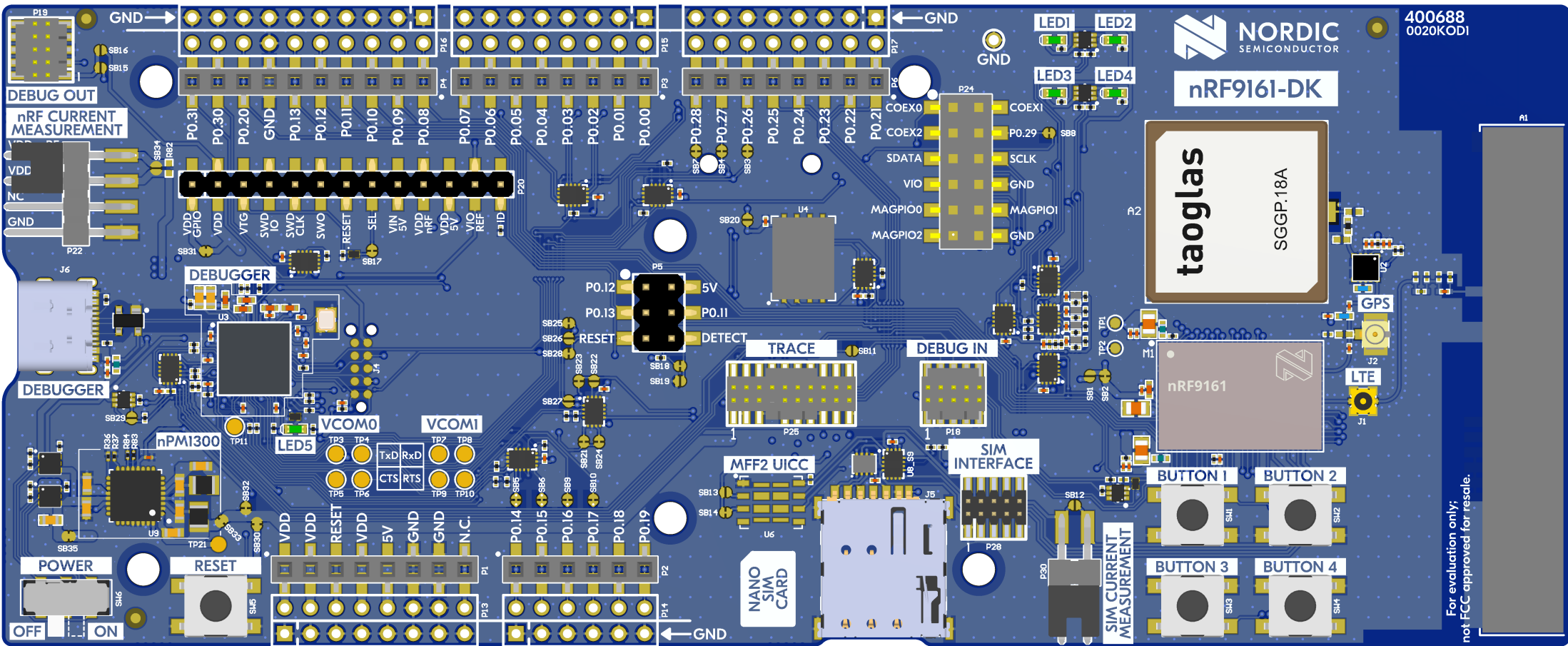
b0'18	Button 4
b0'18	Button 3
b0'08	Button 2
b0'02	LED 4
b0'04	LED 3
b0'01	LED 2
b0'00	LED 1
GPIO	Function

b0'18	Button 4
b0'18	Button 3
b0'08	Button 2
b0'02	LED 4
b0'04	LED 3
b0'01	LED 2
b0'00	LED 1
GPIO	Function

b0'30	C2
b0'13	2CK
b0'15	W2O
b0'11	W02I
GPIO	Function









For evaluation only:
not FCC approved for resale.



MAGPIO2	GND
MAGPIO0	VIO
SCLK	SDATA
P0_29	COEX2
COEX1	COEX0

 <p>Button</p>	 <p>LED</p>
---	--

GPIO	Function
P0.26	RxD1
P0.27	TxD1
P0.14	RTS1
P0.15	CTS1
P0.28	RxD2
P0.29	TxD2
P0.16	RTS2
P0.17	CTS2