

# Nordic Semiconductor ASA

**nRF52833 Bluetooth Low Energy/ANT/802.15.4/2.4GHz RF Development Board (PCA10100)**

- |          |               |
|----------|---------------|
| Sheet 1: | Cover         |
| Sheet 3: | Pin Map       |
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| Sheet 4: | Interface MCU |
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 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.

...

**PCA10100 - Cover**

Size <b>A3</b>	Project Number <b>4452</b>	Revision <b>1.0.1</b>
Date: 03.02.2021	Sheet 1 of 7	
File: pca10100_sheet1_cover.SchDoc		Drawn By: RUBR

A

A

B

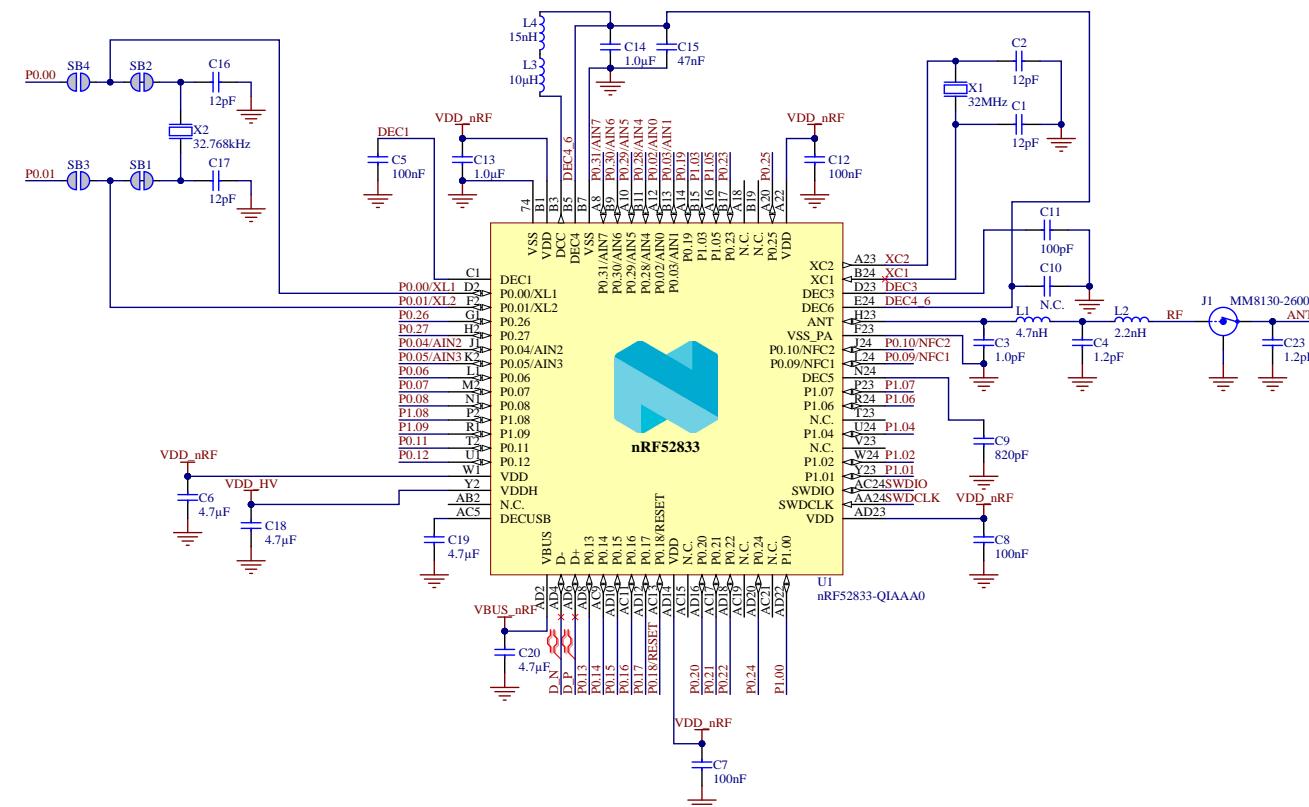
B

C

C

D

D



P.0.00	P.0.01
P.0.01	P.0.02/AIN0
P.0.02/AIN0	P.0.03/AIN1
P.0.03/AIN1	P.0.04/AIN2
P.0.04/AIN2	P.0.05/AIN3
P.0.05/AIN3	P.0.06
P.0.06	P.0.07
P.0.07	P.0.08
P.0.08	P.0.09/NFC1
P.0.09/NFC1	P.0.10/NFC2
P.0.10/NFC2	P.0.11
P.0.11	P.0.12
P.0.12	P.0.13
P.0.13	P.0.14
P.0.14	P.0.15
P.0.15	P.0.16
P.0.16	P.0.17
P.0.17	P.0.18/RESET
P.0.18/RESET	P.0.19
P.0.19	P.0.20
P.0.20	P.0.21
P.0.21	P.0.22
P.0.22	P.0.23
P.0.23	P.0.24
P.0.24	P.0.25
P.0.25	P.0.26
P.0.26	P.0.27
P.0.27	P.0.28/AIN4
P.0.28/AIN4	P.0.29/AIN5
P.0.29/AIN5	P.0.30/AIN6
P.0.30/AIN6	P.0.31/AIN7
P.0.31/AIN7	P.1.00
P.1.00	P.1.01
P.1.01	P.1.02
P.1.02	P.1.03
P.1.03	P.1.04
P.1.04	P.1.05
P.1.05	P.1.06
P.1.06	P.1.07
P.1.07	P.1.08
P.1.08	P.1.09

D- D+  
SWDIO SWDCLK

PCA10100 - nRF52833 MCU

Size	Project Number	Revision
A3	4452	1.0.1
Date: 03.02.2021	Sheet 2 of 7	
File: pca10100_sheet2_nrf52833_mcu.SchDoc		Drawn By: RUBR



A

A

B

B

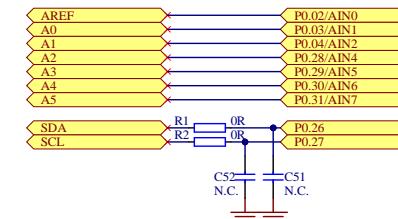
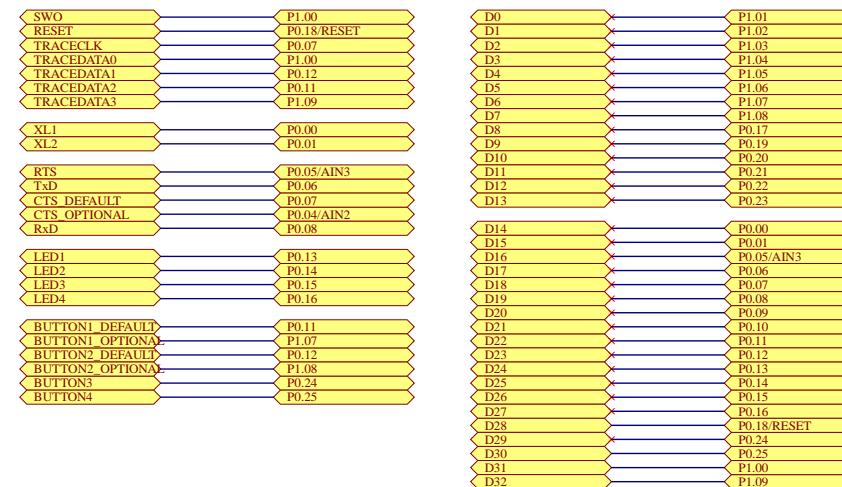
C

C

D

D

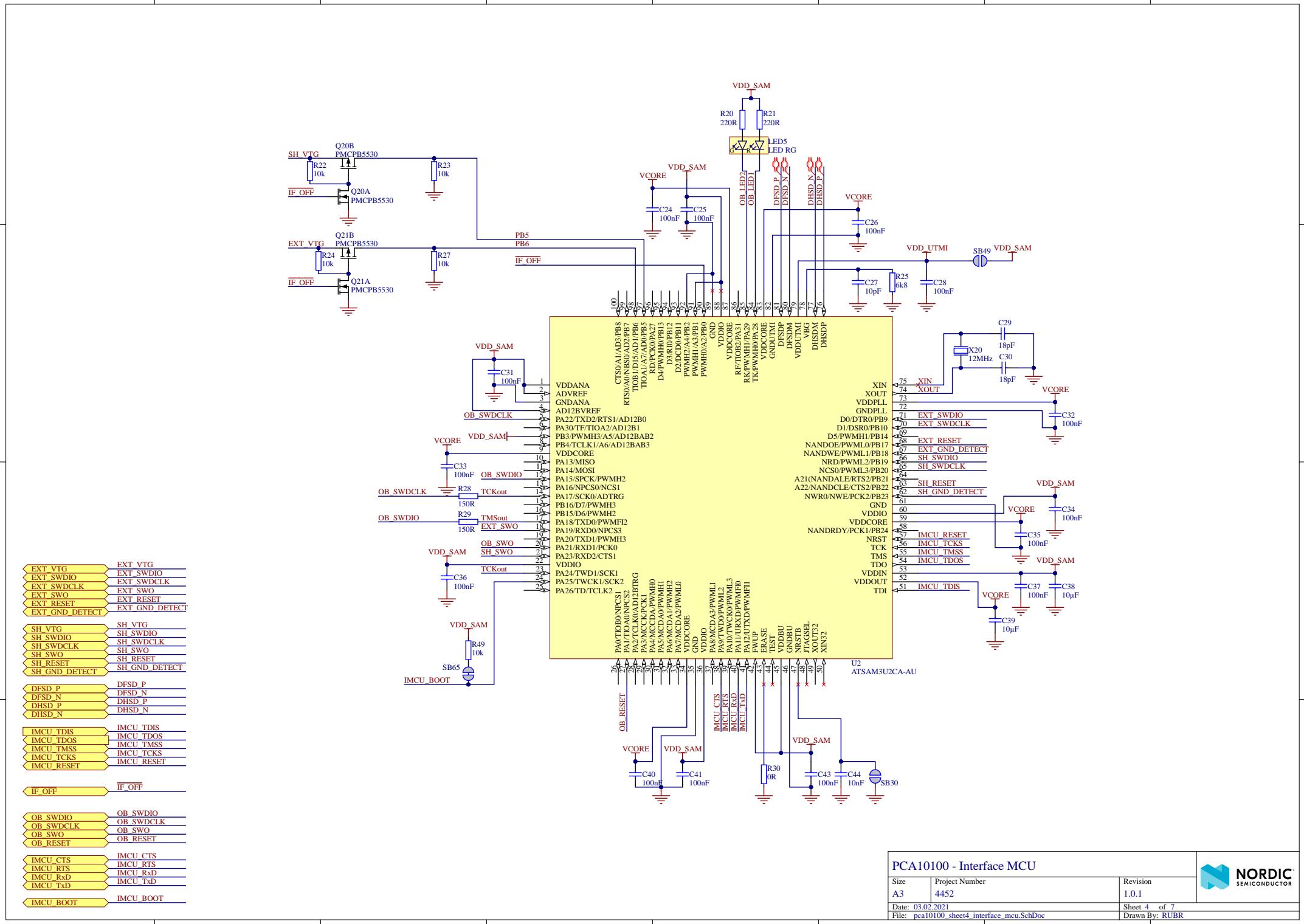
### GPIO pin mapping



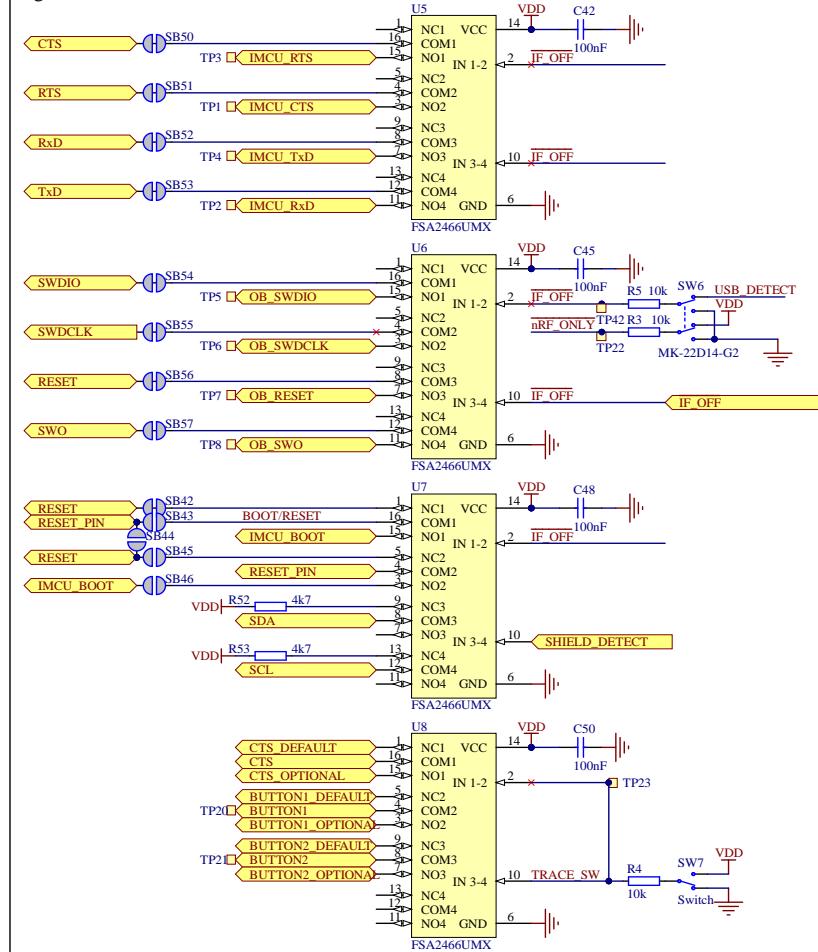
### PCA10100 - Pin Map

Size	Project Number	Revision
A3	4452	1.0.1
Date: 03.02.2021	Sheet 3 of 7	
File: pca10100_sheet3_pin_map.SchDoc		Drawn By: RUBR

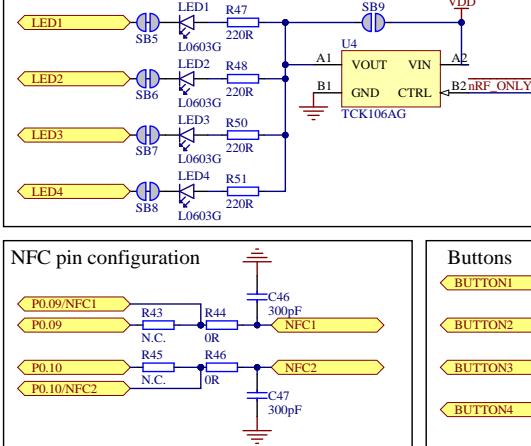




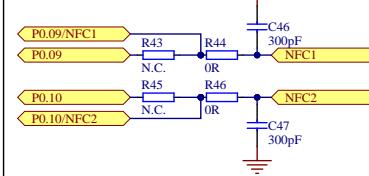
## Signal switches



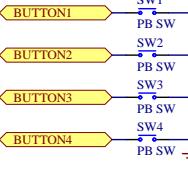
## LEDs



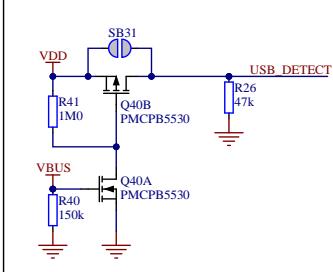
## NFC pin configuration



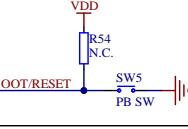
## Buttons



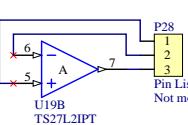
## USB detect switch



## Boot/Reset button



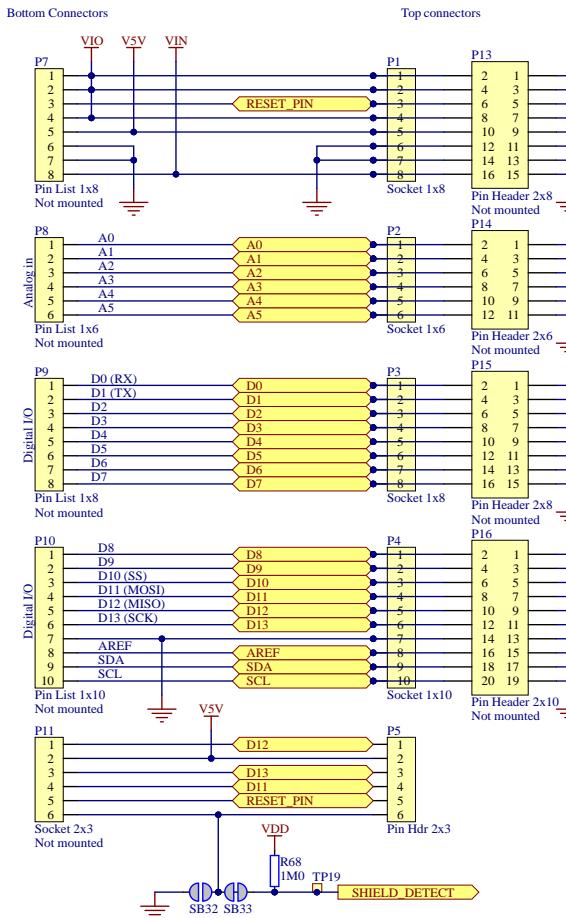
## Extra Op-amp



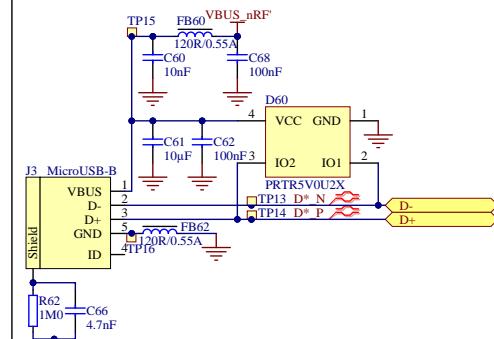
## PCA10100 - Miscellaneous

Size **A3** Project Number **4452**Revision **1.0.1**Date: **03.02.2021**Sheet **5** of **7**File: **pca10100\_sheet5\_msc.SchDoc**

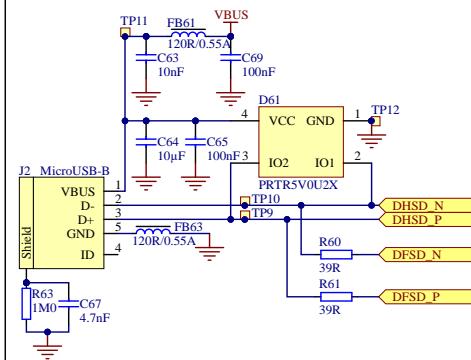
### Arduino Interface Connectors



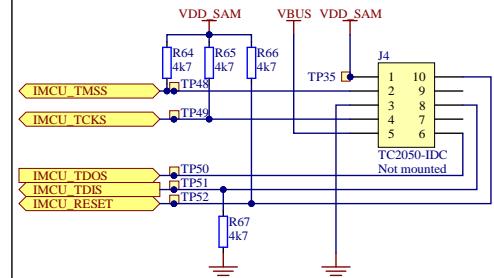
### nRF USB Connector



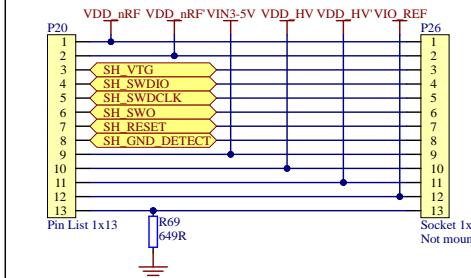
### Interface MCU USB Connector



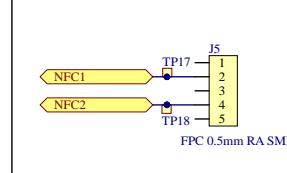
### Interface MCU Programming Connector



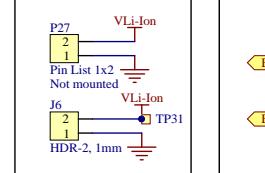
### Shield Debug and Current measurement Connector



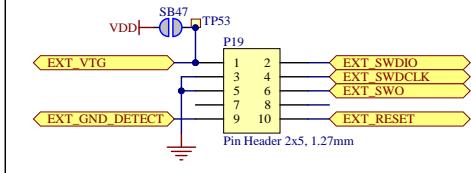
### NFCT Antenna Connector



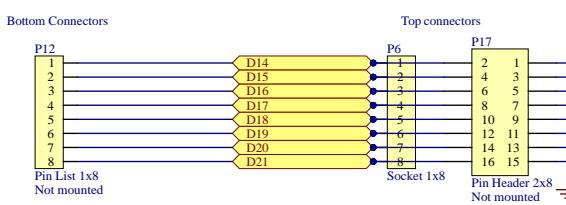
### Li-ion connector



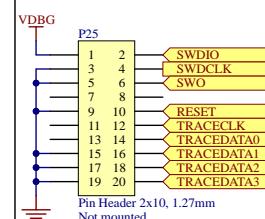
### Debug OUT Connector



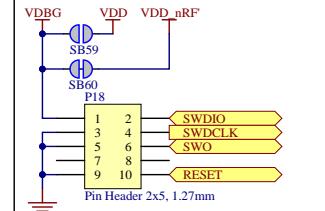
### Auxiliary Connectors



### Trace connector

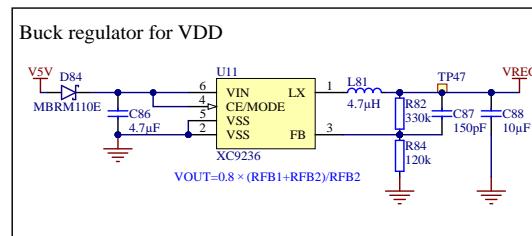
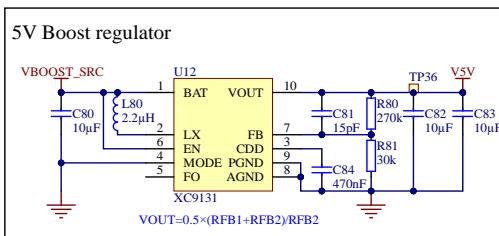
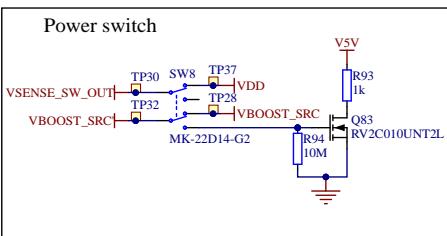
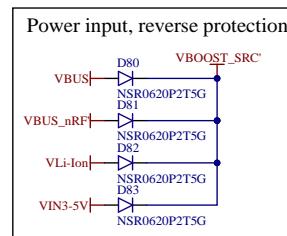


### Debug IN Connector

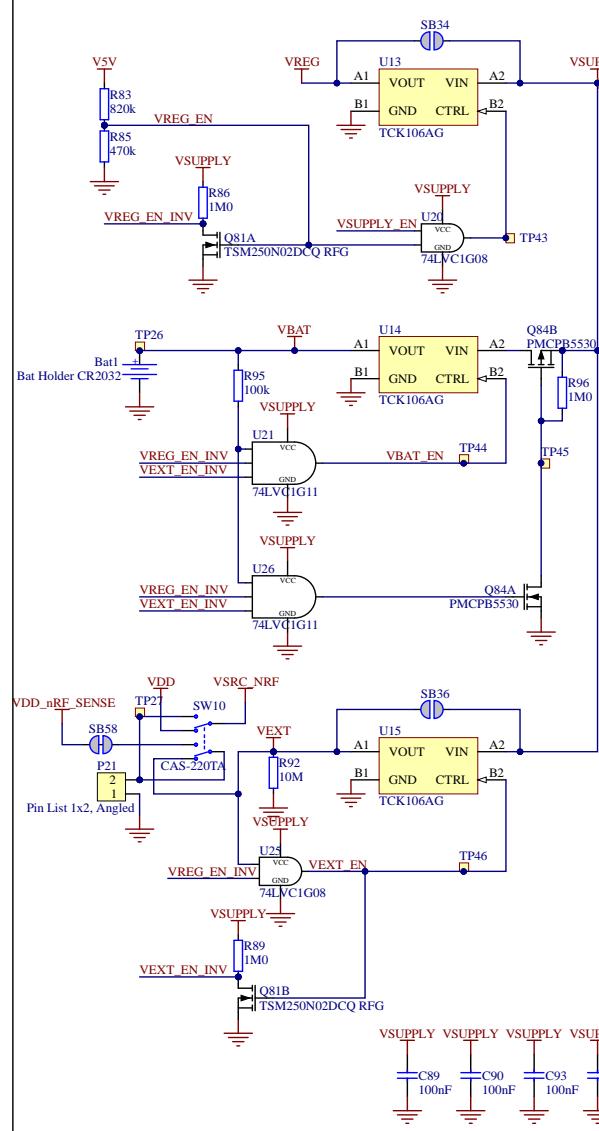


### PCA10100 - Connectors

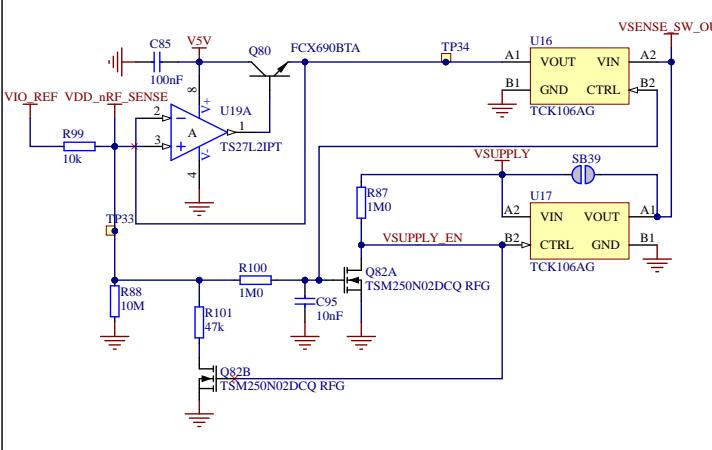
Size	Project Number	Revision
A3	4452	1.0.1
Date: 03.02.2021	Sheet 6 of 7	
File: pca10100_sheet6_connectors.SchDoc		Drawn By: RUBR



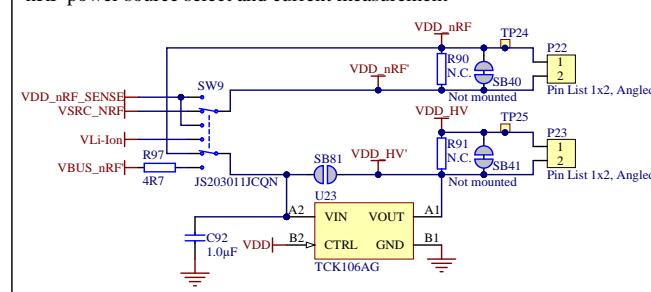
### Power sources and switches



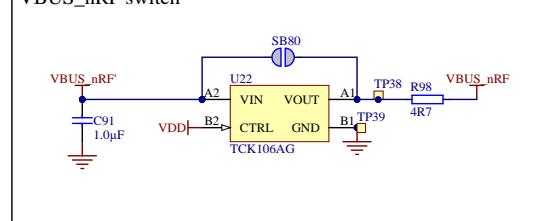
### VDD\_nRF sense buffer and switch



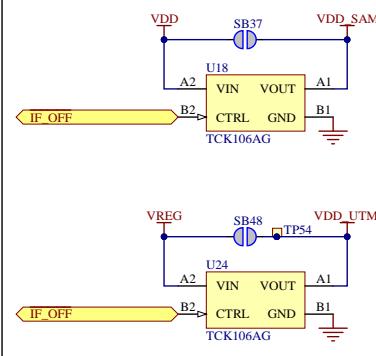
### nRF power source select and current measurement



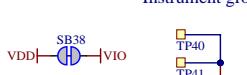
### VBUS\_nRF switch



### Interface MCU power switch



### Instrument ground



### PCA10100 - Power Supply

Size	Project Number	Revision
A3	4452	1.0.1
Date: 03.02.2021		
Sheet 7 of 7		
File: pca10100_sheet7_power_supply.SchDoc		Drawn By: RUBR

