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# Nordic Semiconductor ASA

## nRF51 Bluetooth Smart/ANT/2.4GHz RF Development Board (PCA10028)

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- Sheet 1: nRF Radio
- Sheet 2: Interface MCU
- Sheet 3: Buttons and LEDs
- Sheet 4: Connectors
- Sheet 5: Power Supply


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D

D



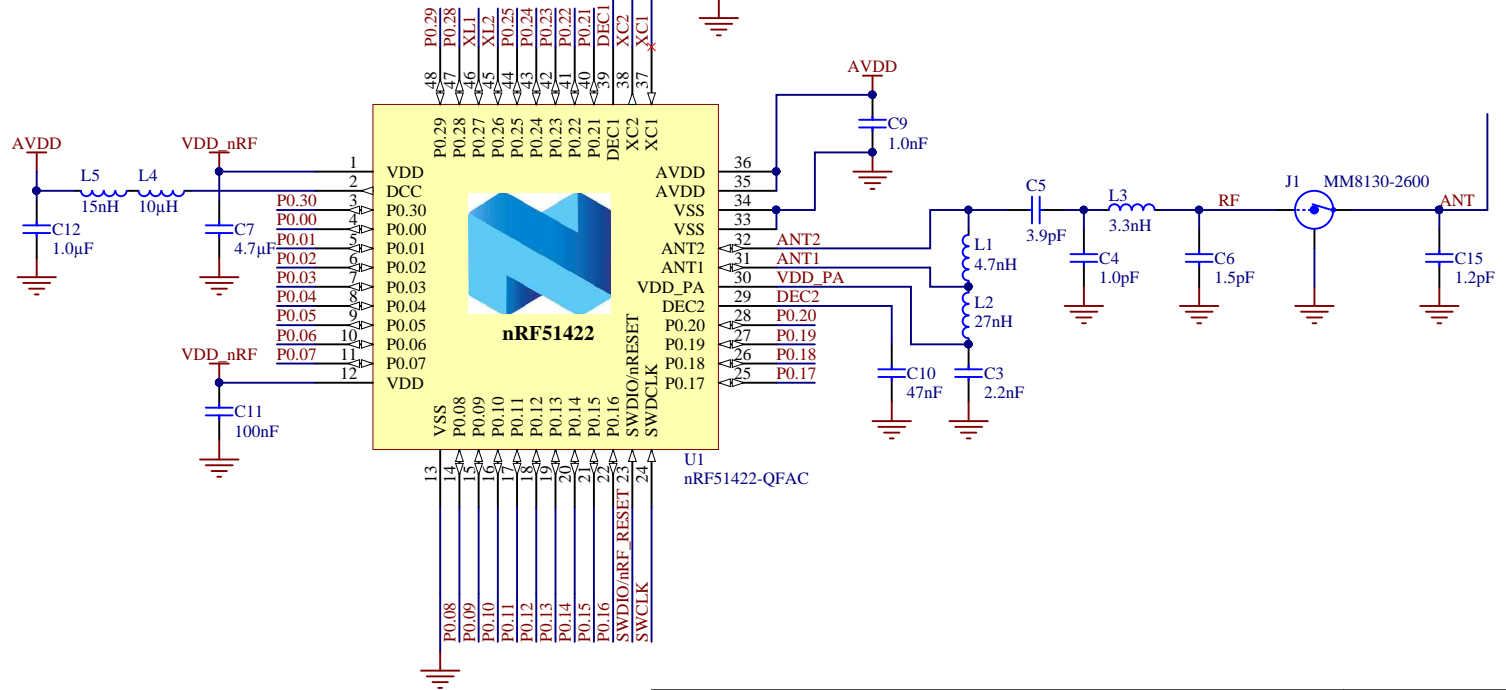
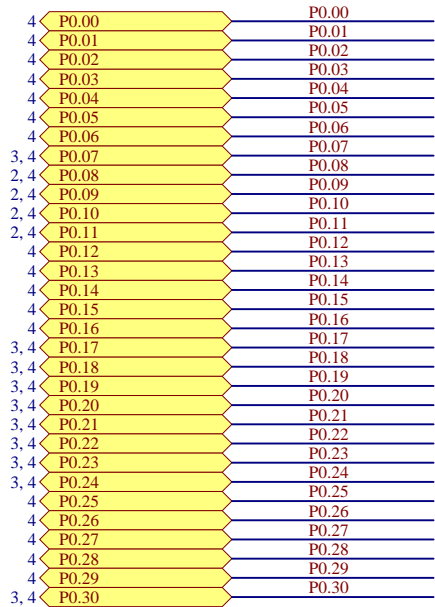
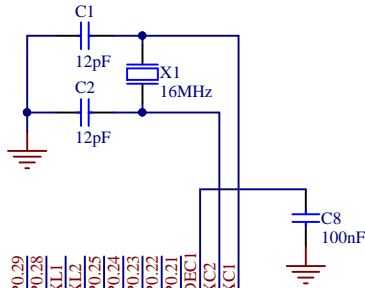
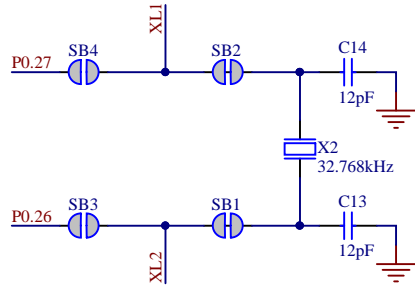
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Size A4	Project Number 4403	
Date: 31.05.2017		Revision 1.2.3
File: <a href="#">pca10028_cover.SchDoc</a>		Sheet 0 of 5 Drawn By: RUBR

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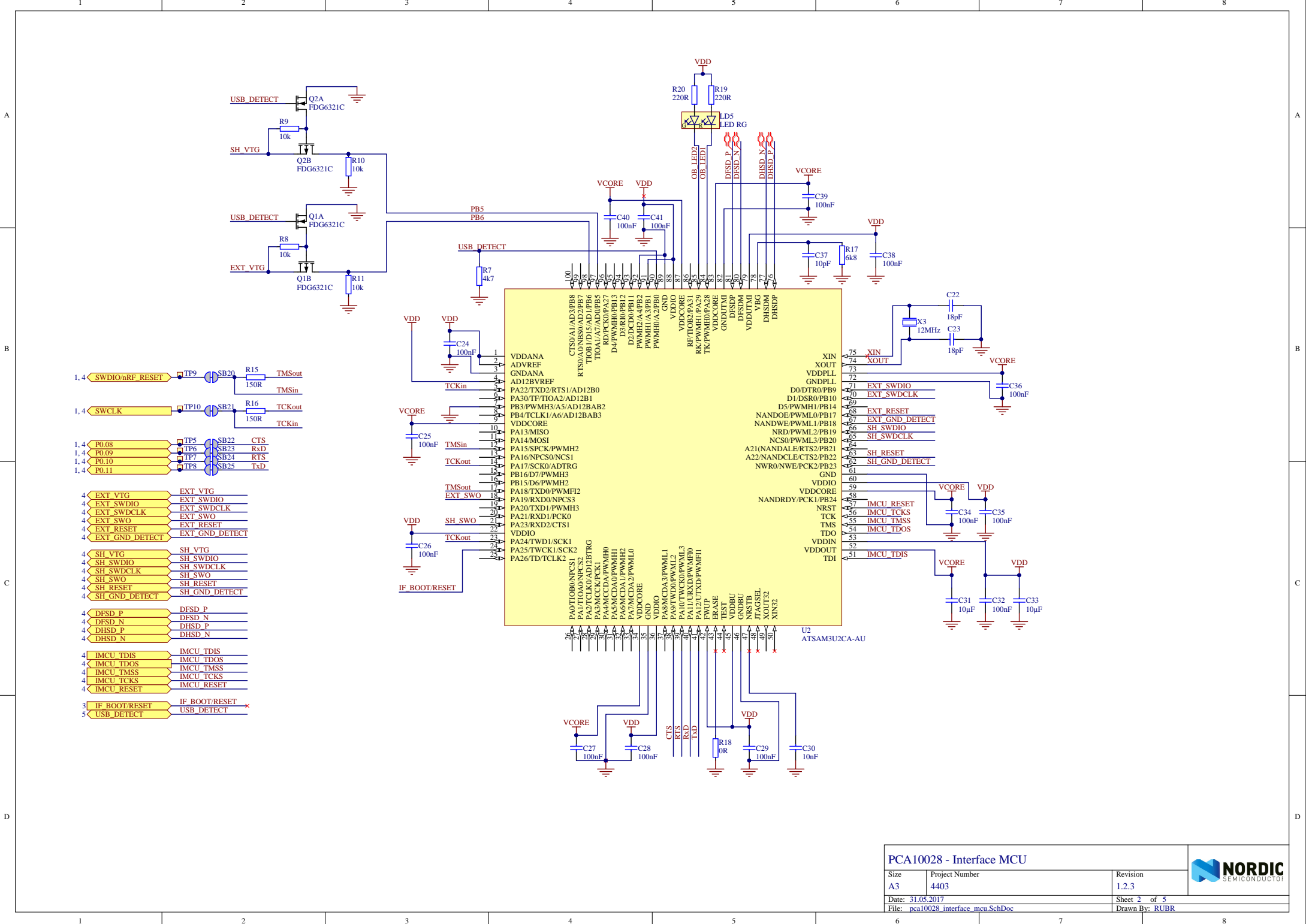
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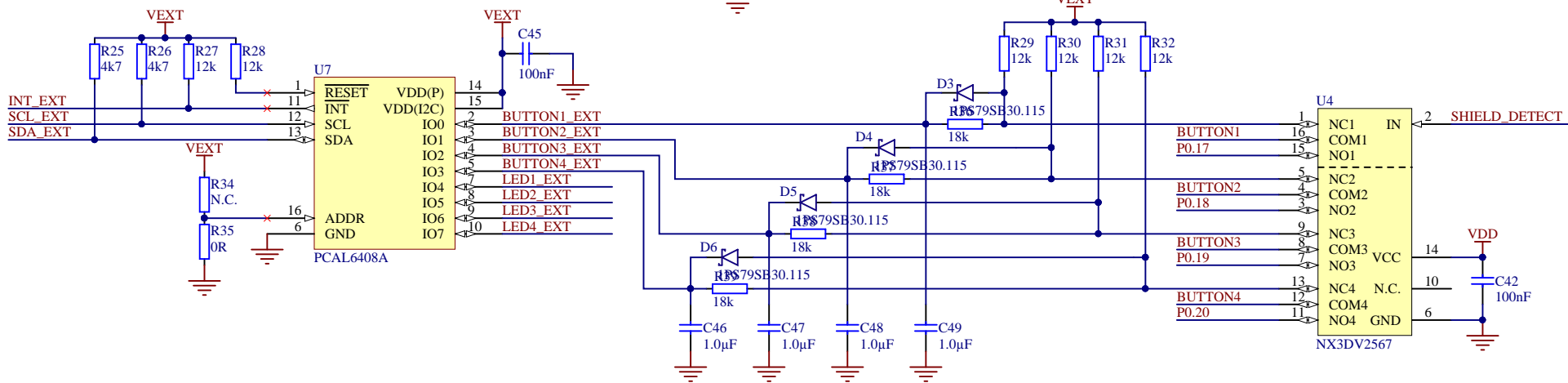
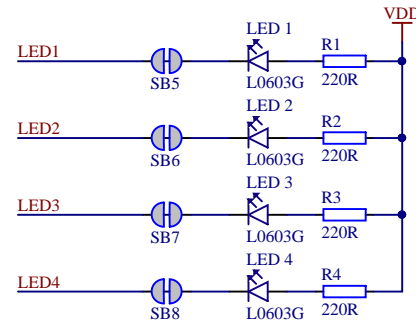
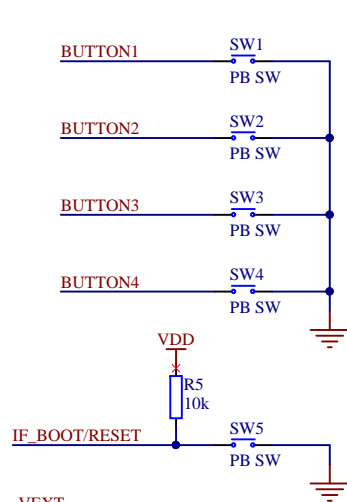
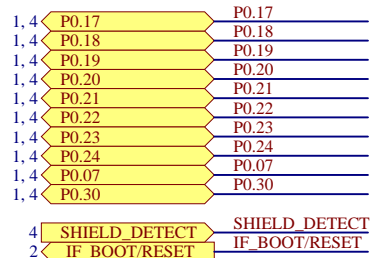
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Title <b>PCA100028 - Radio</b>		Revision 1.2.3	
Size A4	Project Number 4403		
Date: 31.05.2017		Sheet 1 of 5	
File: pca10028_radio.SchDoc		Drawn By: RUBR	

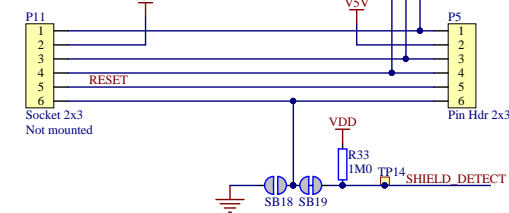
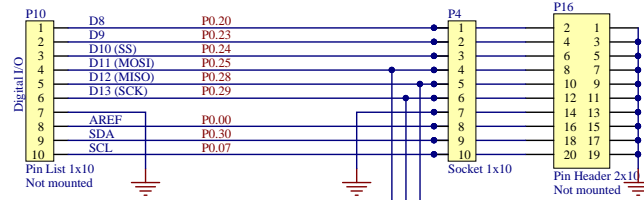
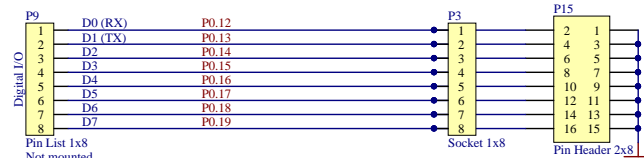
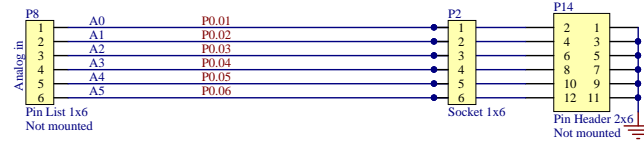
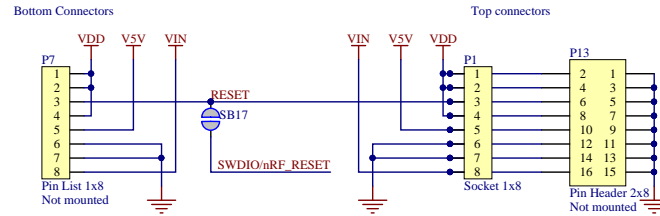




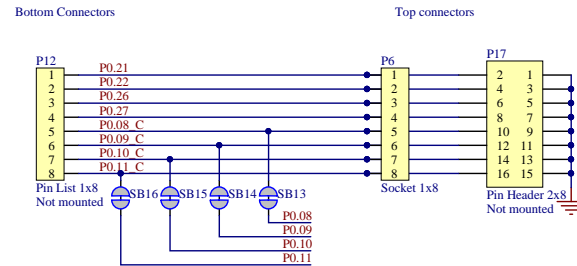
Title  
**PCA10028 - Buttons and LEDs**

Size A4	Project Number 4403	Revision 1.2.3	
Date: 31.05.2017		Sheet 3 of 5	
File: pca10028_buttons_and_leds.SchDoc		Drawn By: RUBR	

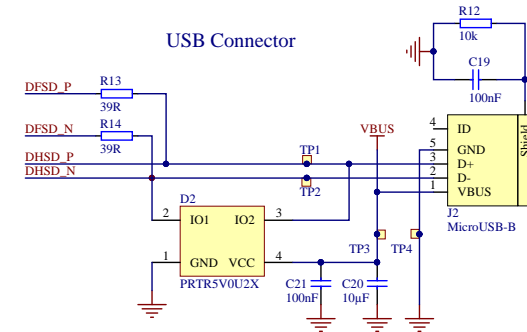
## Arduino Interface Connectors



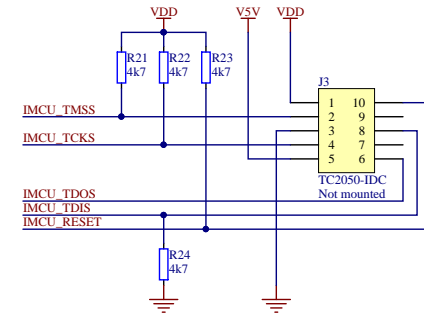
## Auxiliary Connectors



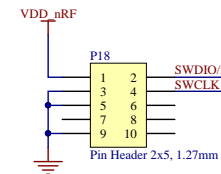
## USB Connector



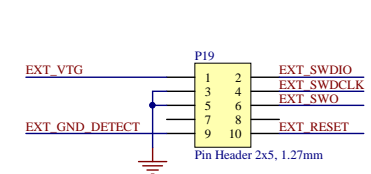
## J-Link Prog Connector



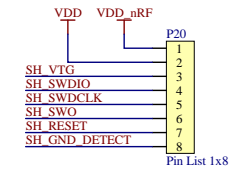
## Debug IN Connector



## Debug OUT Connector



## Shield Debug and Current measurement Connector

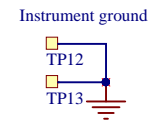
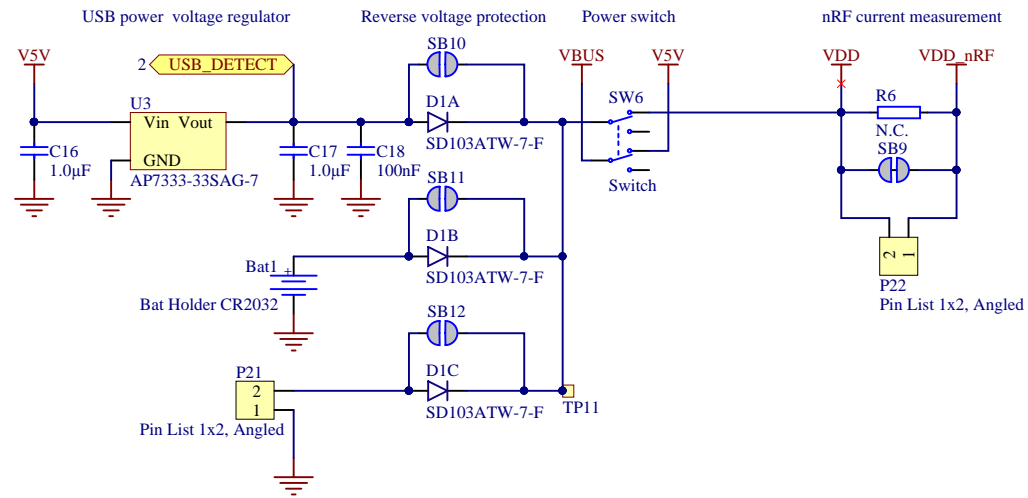


1	P0.00	P0.00
1	P0.01	P0.01
1	P0.02	P0.02
1	P0.03	P0.03
1	P0.04	P0.04
1	P0.05	P0.05
1	P0.06	P0.06
1.3	P0.07	P0.07
1.2	P0.08	P0.08
1.2	P0.09	P0.09
1.2	P0.10	P0.10
1.2	P0.11	P0.11
1	P0.12	P0.12
1	P0.13	P0.13
1	P0.14	P0.14
1	P0.15	P0.15
1	P0.16	P0.16
1.3	P0.17	P0.17
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1	P0.25	P0.25
1	P0.26	P0.26
1	P0.27	P0.27
1	P0.28	P0.28
1	P0.29	P0.29
1.3	P0.30	P0.30
2	EXT_VTG	EXT_VTG
2	EXT_SWDIO	EXT_SWDIO
2	EXT_SWCLK	EXT_SWCLK
2	EXT_SWO	EXT_SWO
2	EXT_RESET	EXT_RESET
2	EXT_GND_DETECT	EXT_GND_DETECT
2	SH_VTG	SH_VTG
2	SH_SWDIO	SH_SWDIO
2	SH_SWCLK	SH_SWCLK
2	SH_SWO	SH_SWO
2	SH_RESET	SH_RESET
2	SH_GND_DETECT	SH_GND_DETECT
2	DFSD_P	DFSD_P
2	DFSD_N	DFSD_N
2	DHSD_P	DHSD_P
2	DHSD_N	DHSD_N
2	IMCU_TDIS	IMCU_TDIS
2	IMCU_TDOS	IMCU_TDOS
2	IMCU_TMSS	IMCU_TMSS
2	IMCU_TCKS	IMCU_TCKS
2	IMCU_RESET	IMCU_RESET
1.2	SWDIO/nRF_RESET	SWDIO/nRF_RESET
1.2	SWCLK	SWCLK
3	SHIELD_DETECT	SHIELD_DETECT

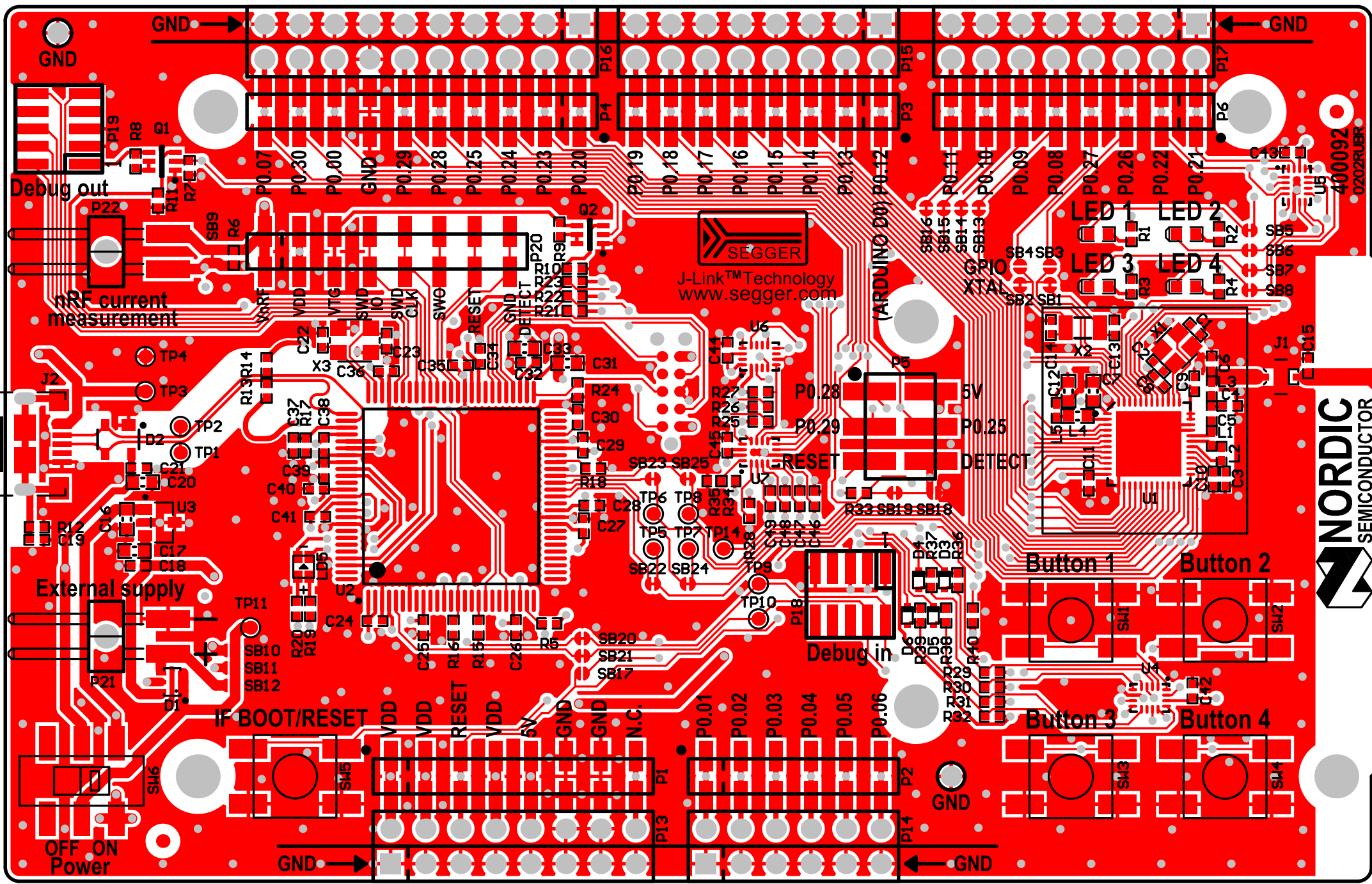
## PCA10028 - Connectors

Size	Project Number	Revision
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Date:	31.05.2017	Sheet 4 of 5
File:	pca10028_connectors.SchDoc	Drawn By: RUBR





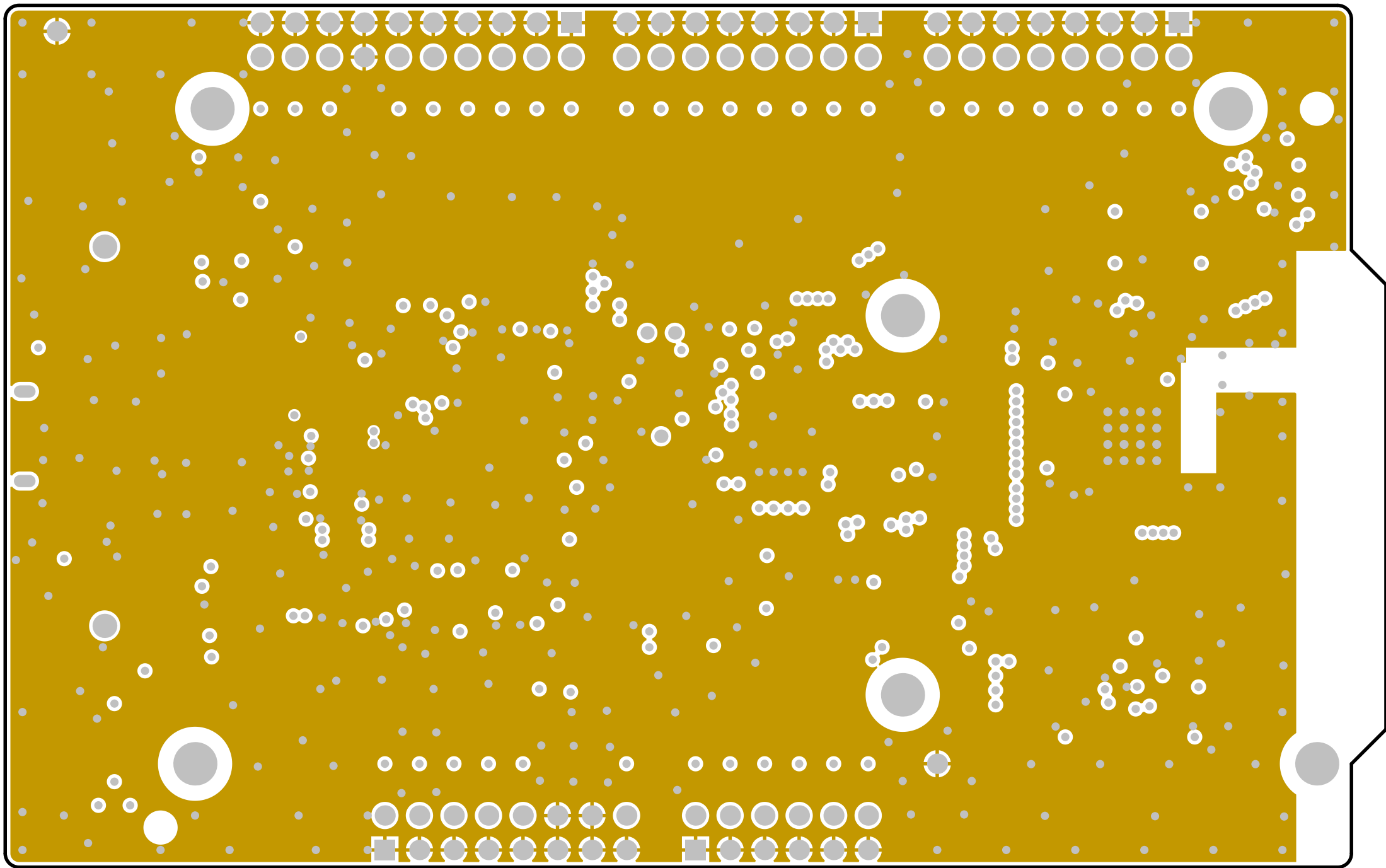
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Size A4	Project Number 4403		
Date: 31.05.2017		Sheet 5 of 5	
File: pca10028_power_supply.SchDoc		Drawn By: RUBR	



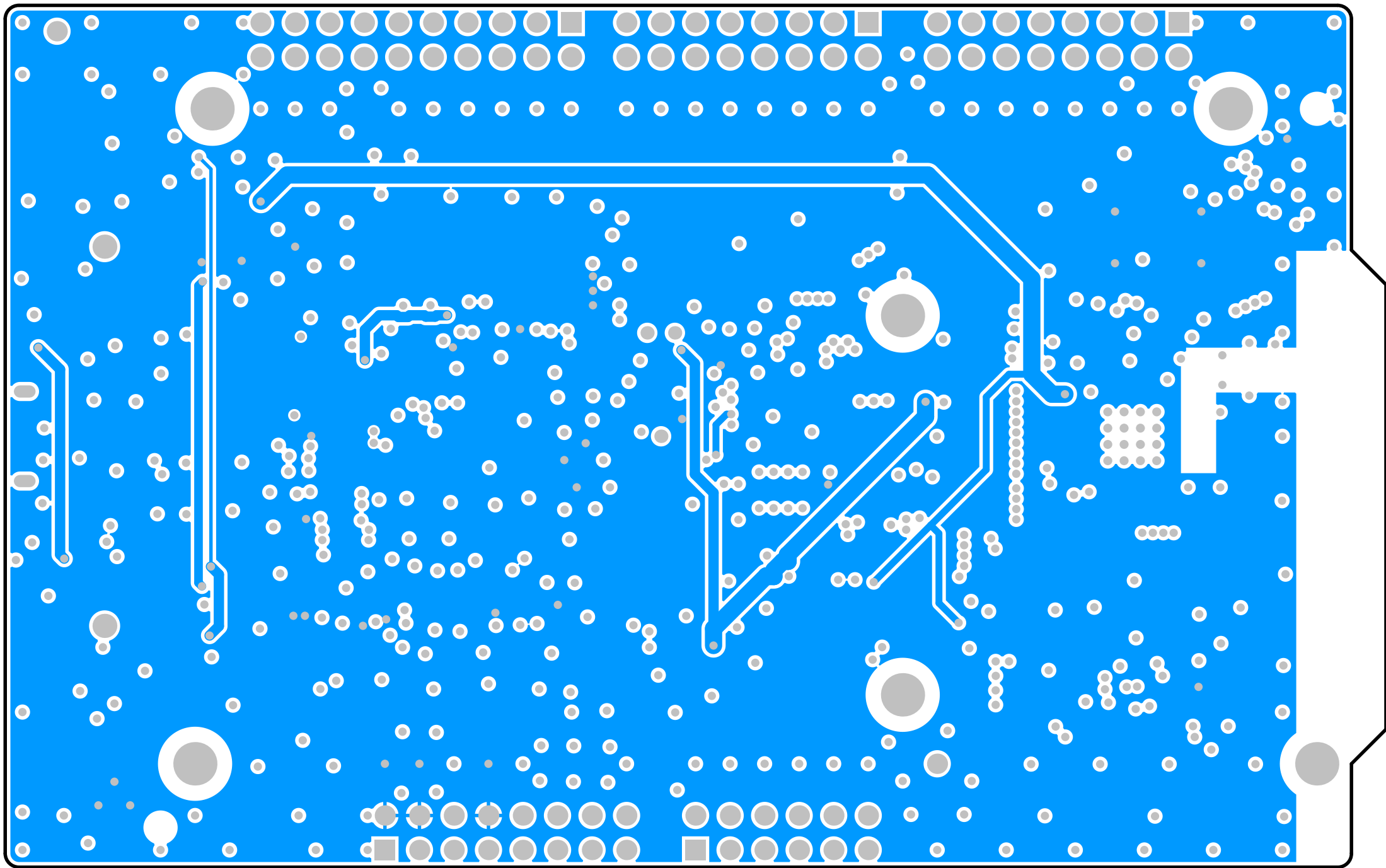
**NORDIC**  
SEMICONDUCTOR

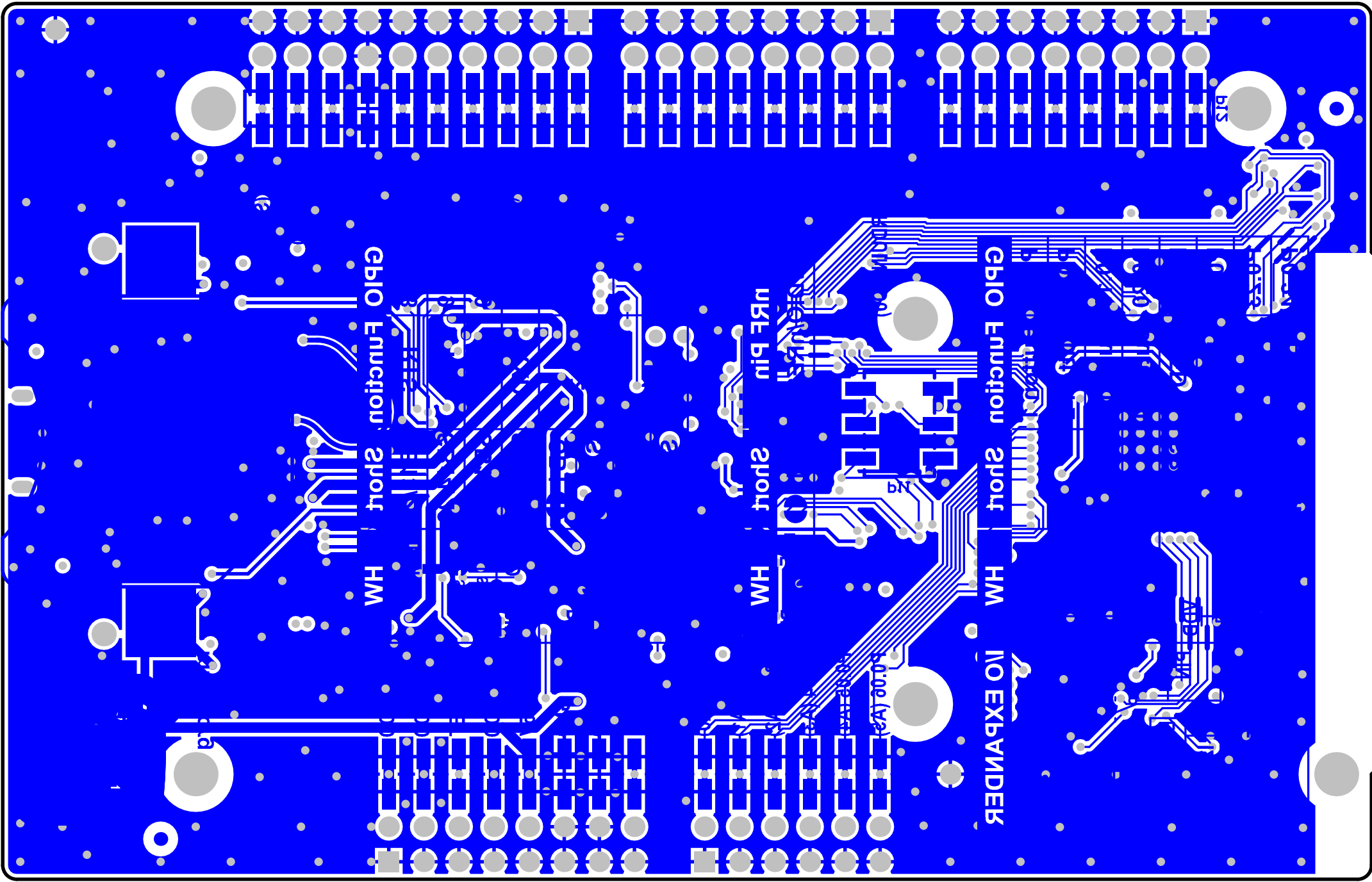
[www.nordicsemi.com](http://www.nordicsemi.com)

400092  
0202RUBR









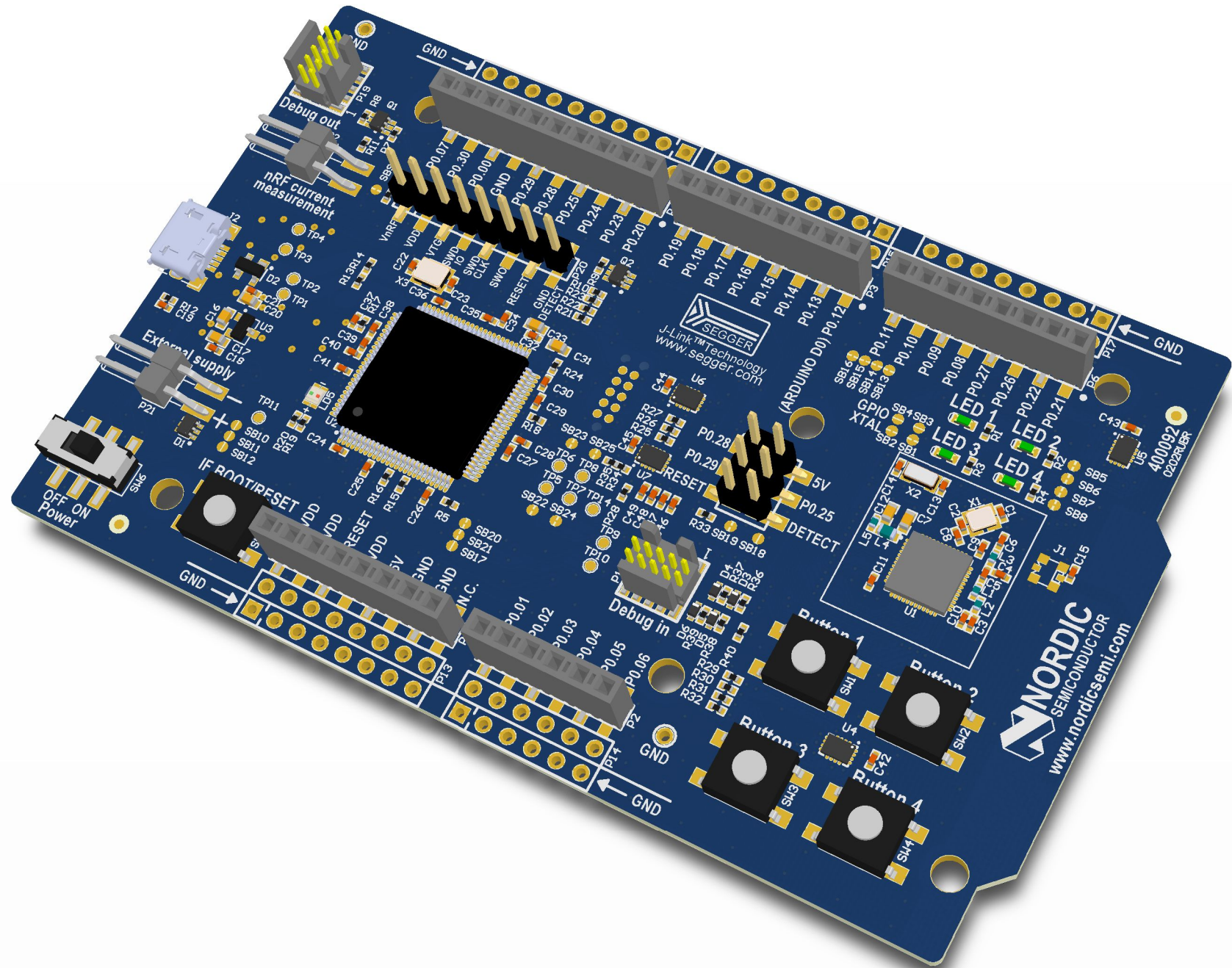
BTS

GPIO Function  
Short  
HW

URF PIN  
Short  
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GPIO Function  
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IO EXPANDER

IO EXPANDER



**NORDIC**  
SEMICONDUCTOR  
www.nordicsemi.com

SEGGER  
J-Link™ Technology  
www.segger.com

nRF current  
measurement

External supply

OFF ON  
Power

IF ROOT/RESET

Debug in

Debug out

Button 1

Button 2

Button 3

Button 4

LED 1

LED 2

LED 3

LED 4

5V

RESET

DETECT

GPIO

XTAL

(ARDUINO D0)

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