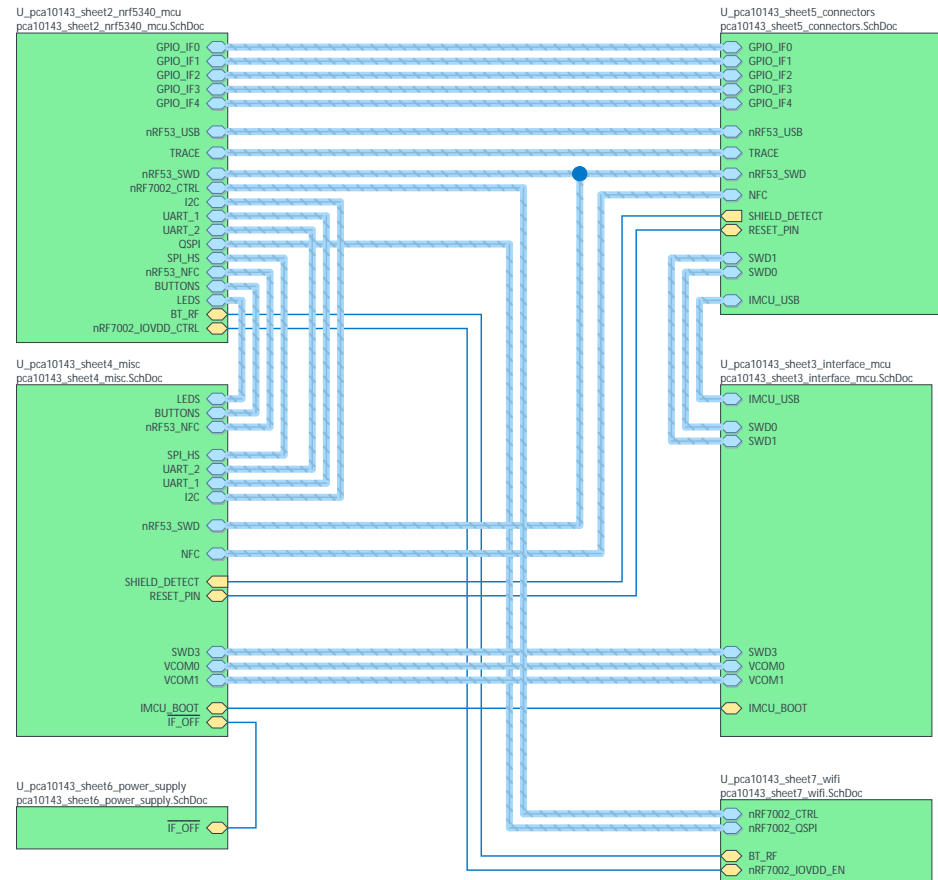



Nordic Semiconductor ASA

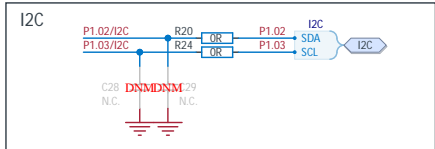
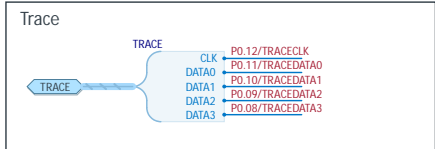
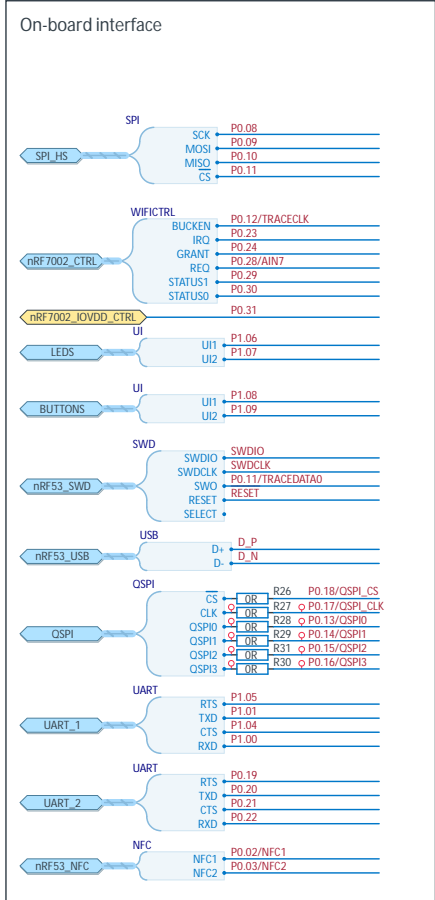
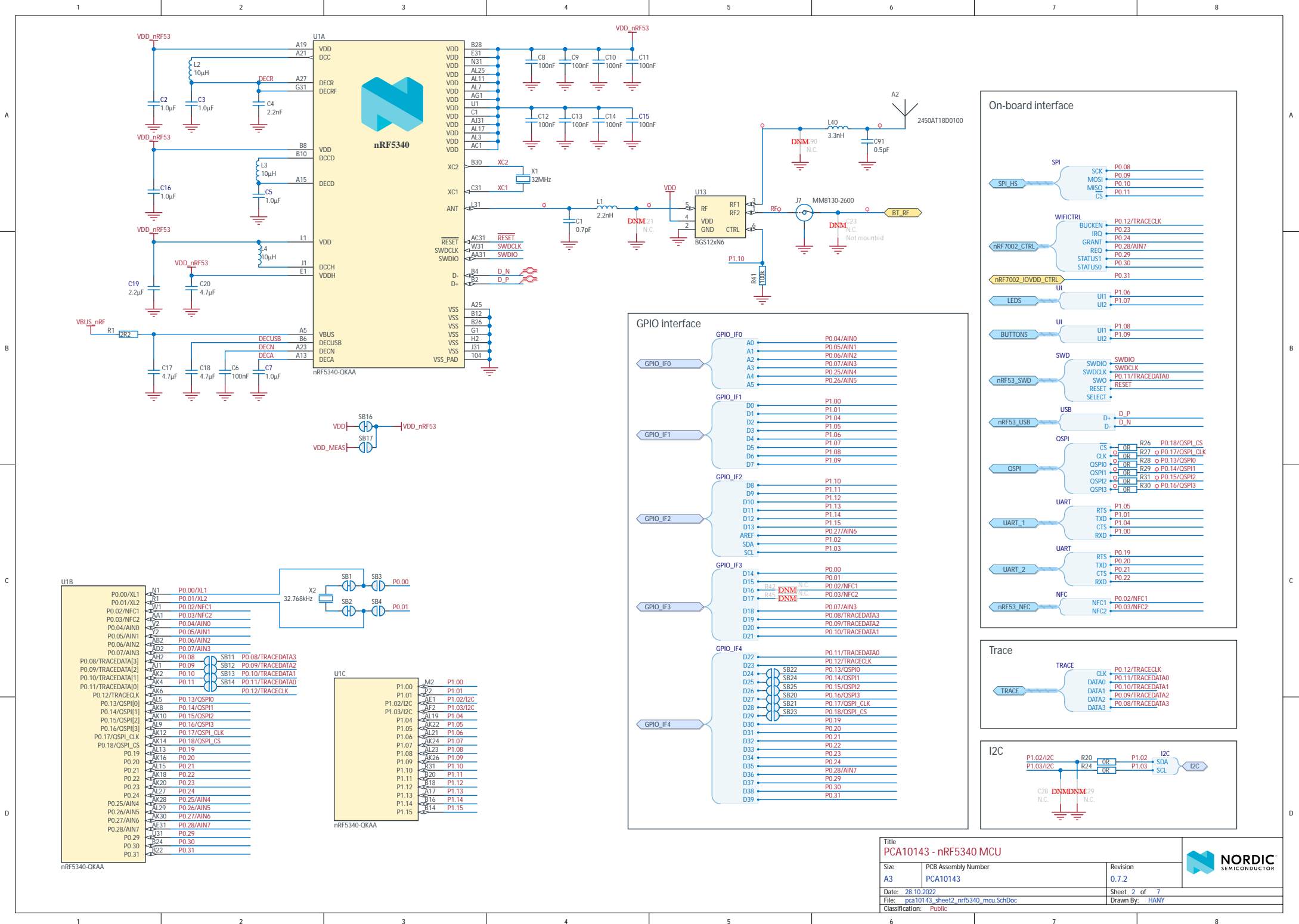
nRF7002 Wi-Fi 802.11ax Development Board (PCA10143)

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.

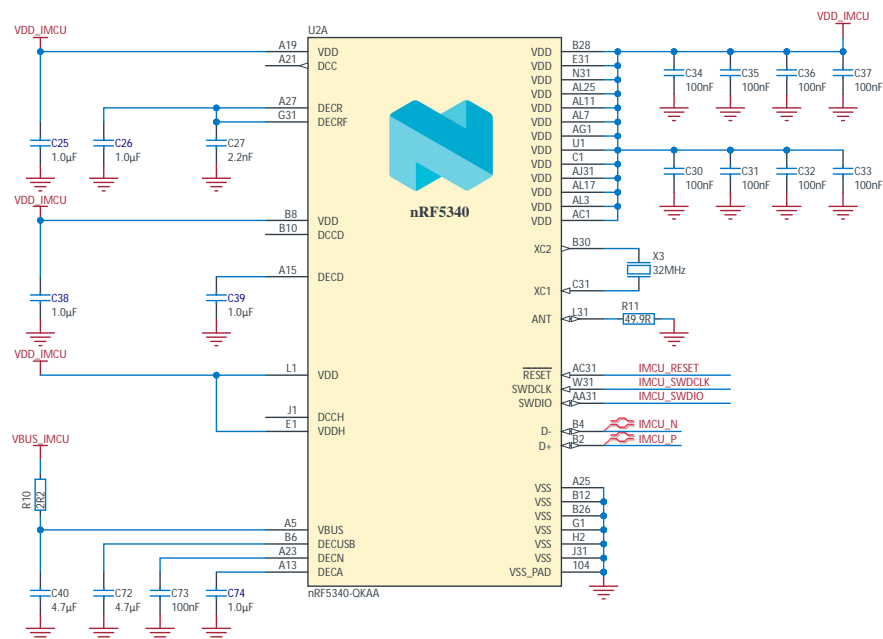
Title PCA10143 - Cover			
Size A3	PCB Assembly Number PCA10143	Revision 0.7.2	
Date: 28.10.2022		Sheet 1 of 7	
File: pca10143_sheet1_cover_SchDoc		Drawn By: HANY	
Classification: Public			



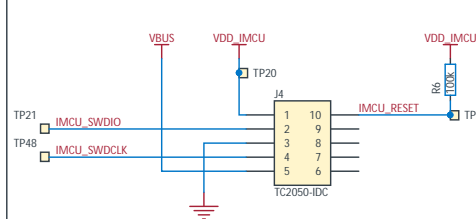
Title PCA10143 - nRF5340 MCU		
Size A3	PCB Assembly Number PCA10143	Revision 0.7.2
Date: 28.10.2022		Sheet 2 of 7
File: pca10143_sheet2_nrf5340_mcu_SchDoc		Drawn By: HANY
Classification: Public		



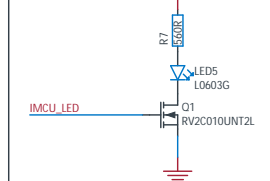
Interface MCU



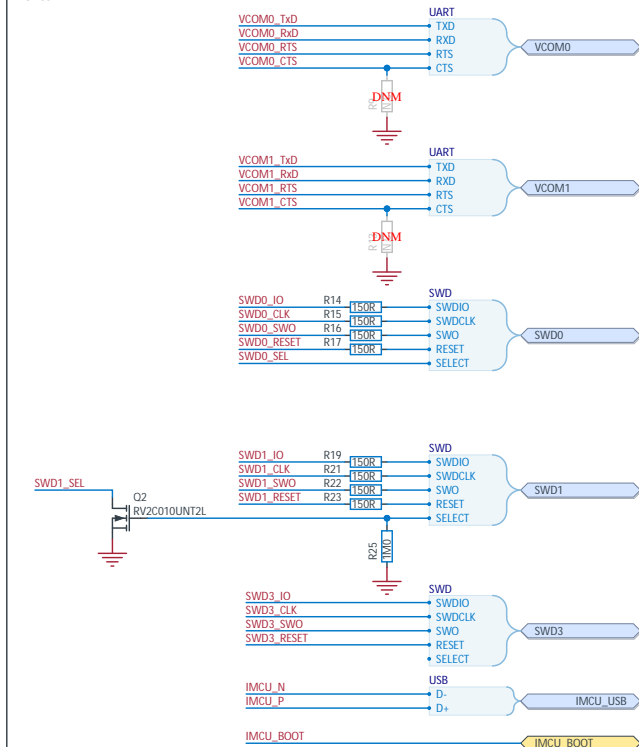
Interface MCU Programming Connector



LED



Ports

Title
PCA10143 - Interface MCUSize
A3PCB Assembly Number
PCA10143

Date: 28.10.2022

File: pca10143_sheet3_interface_mcu.SchDoc

Classification: Public

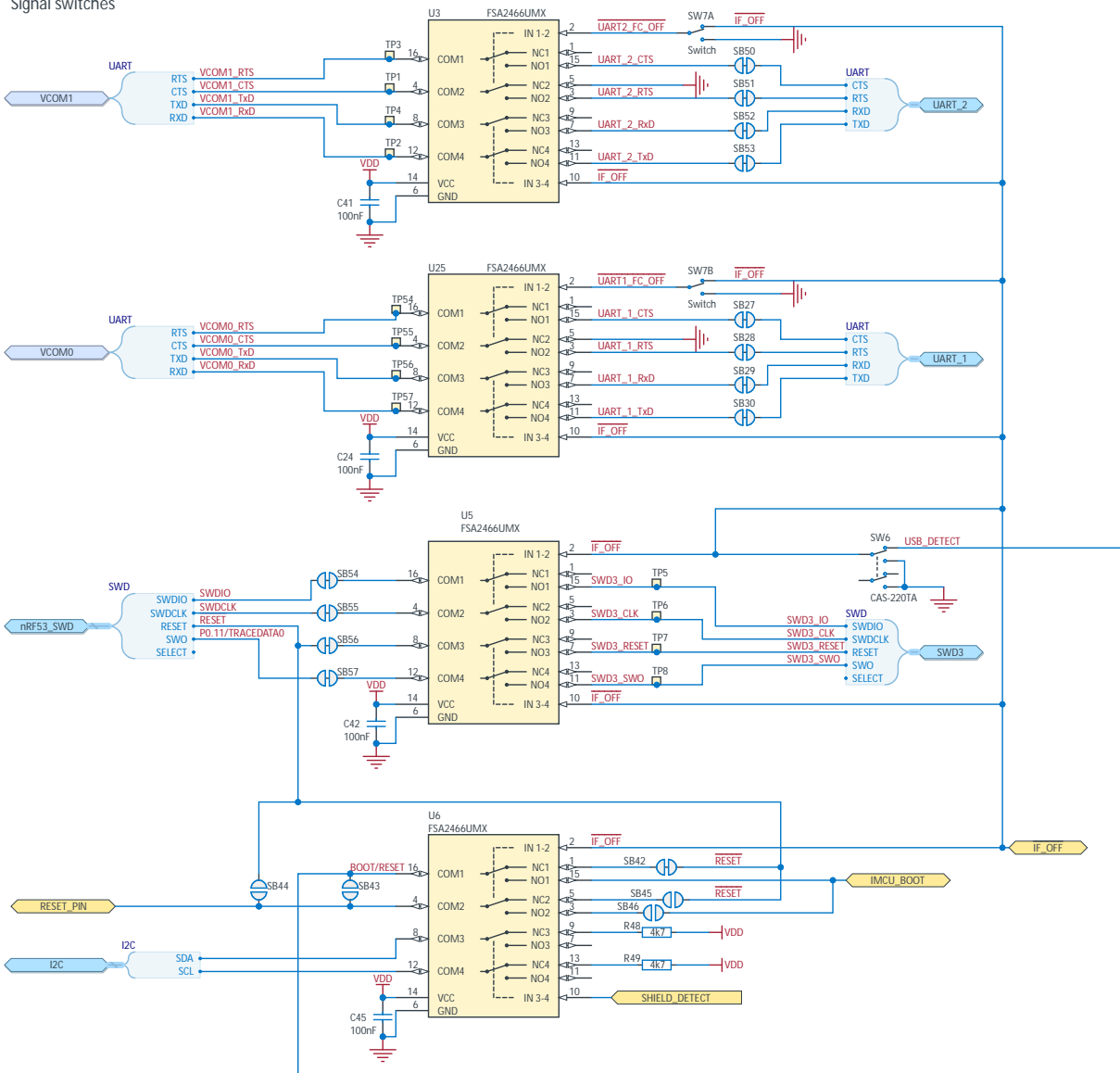
Revision
0.7.2

Sheet 3 of 7

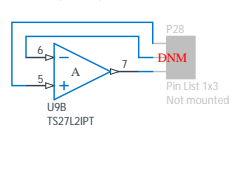
Drawn By: HANY



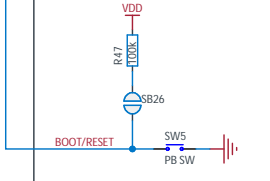
Signal switches



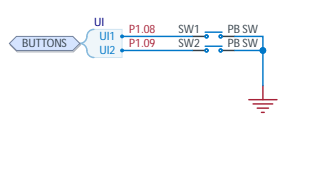
Extra Op-amp



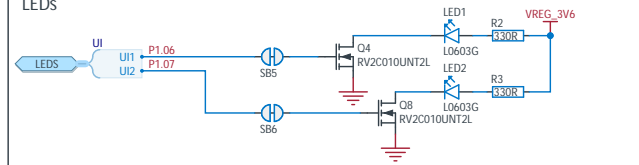
Boot/Reset button



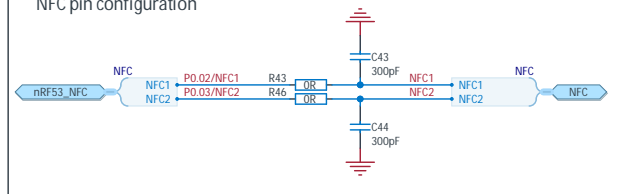
Buttons



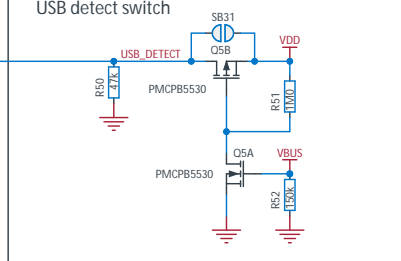
LEDs



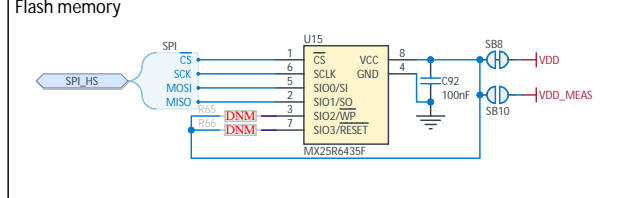
NFC pin configuration



USB detect switch



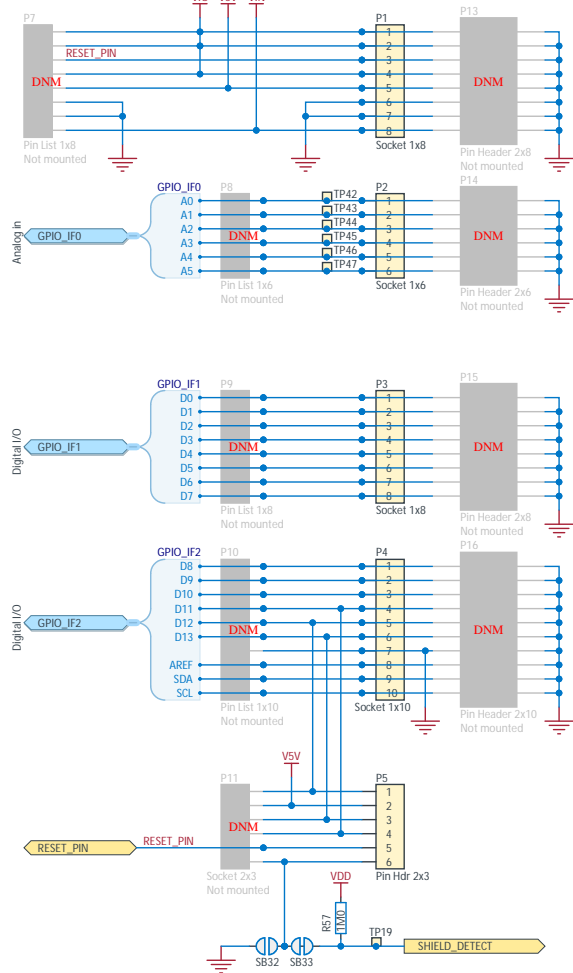
Flash memory

Title
PCA10143 - MiscellaneousSize
A3Date: 28.10.2022
File: pca10143_sheet4_misc.SchDoc
Classification: PublicPCB Assembly Number
PCA10143Revision
0.7.2Sheet 4 of 7
Drawn By: HANY

Arduino Interface Connectors

Bottom Connectors

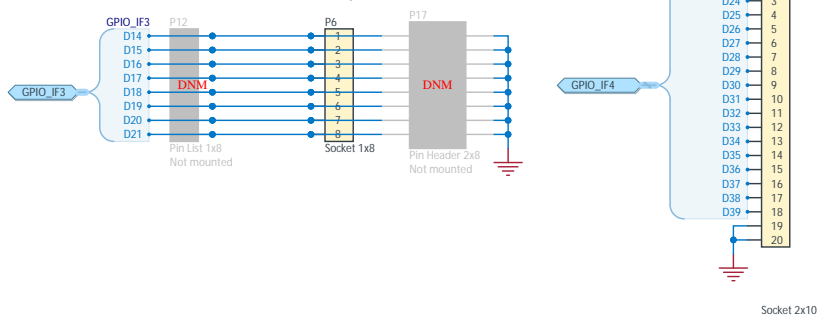
Top connectors



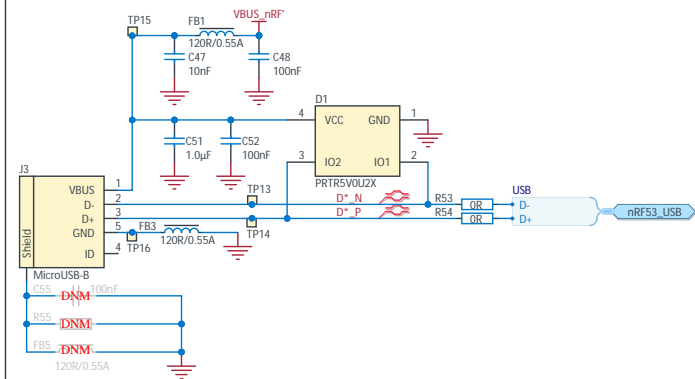
Auxiliary Connectors

Bottom Connectors

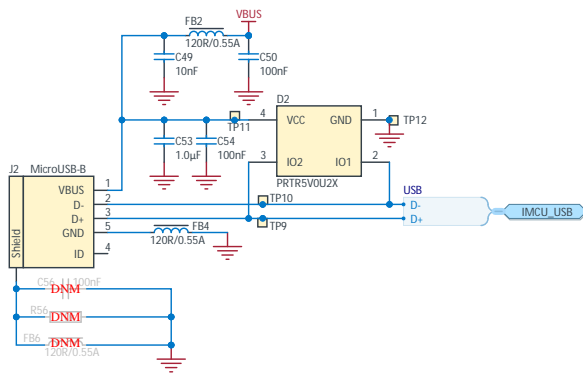
Top connectors



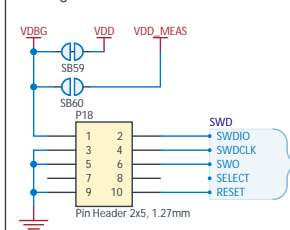
nRF USB Connector



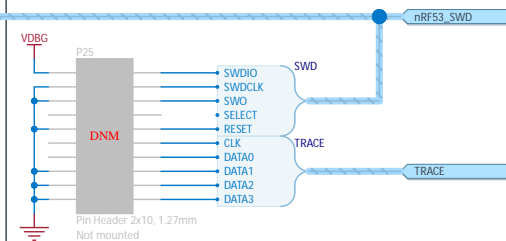
Interface MCU USB Connector



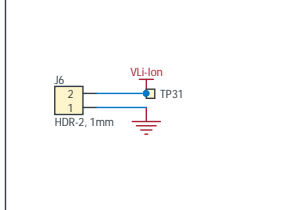
Debug IN Connector



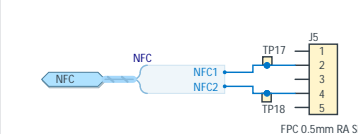
Trace connector



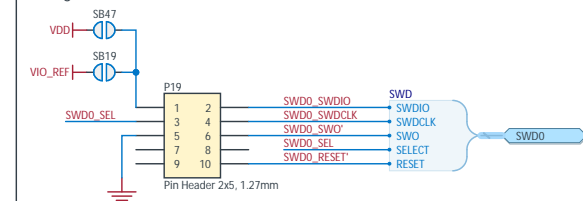
Li-ion connector



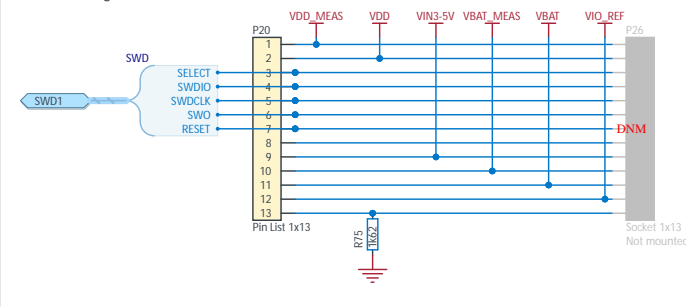
NFCT Antenna Connector



Debug OUT Connector



Shield Debug and Current measurement Connector



Title
PCA10143 - Connectors

Size
A3

PCB Assembly Number
PCA10143

Date: 28.10.2022
File: pca10143_sheet5_connectors.SchDoc
Classification: Public

Revision
0.7.2

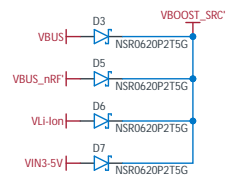
Sheet 5 of 7
Drawn By: HANY



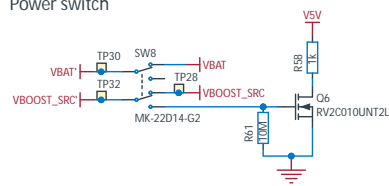
A

A

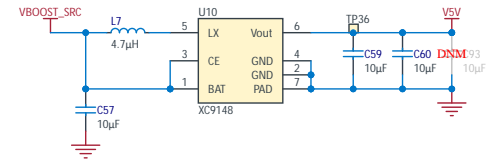
Power input, reverse protection



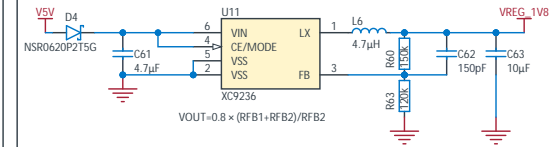
Power switch



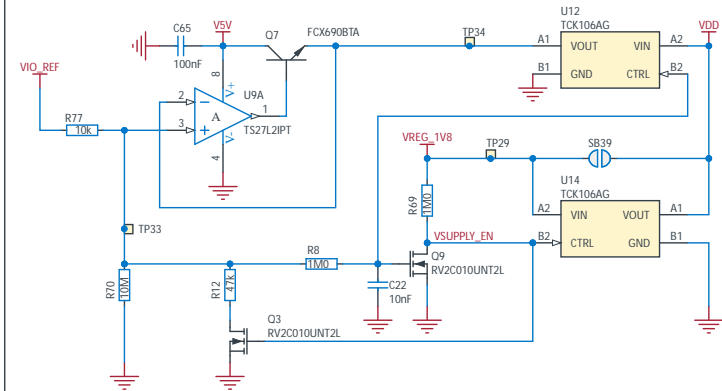
5V Boost regulator



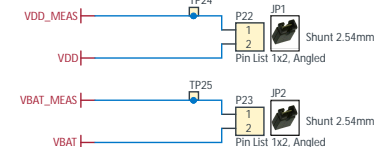
Buck regulator for VDD



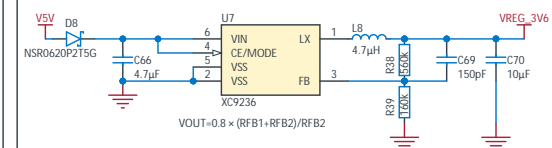
VDD_nRF sense buffer and switch



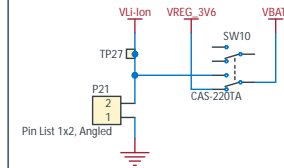
nRF power source select and current measurement



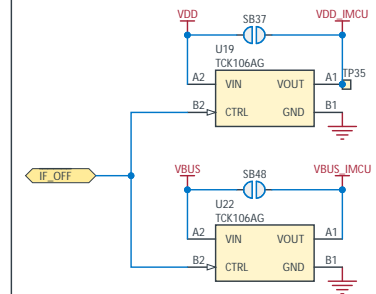
Buck regulator for VBAT



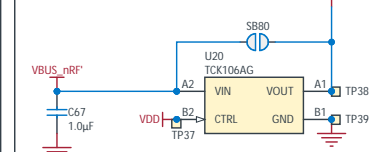
Battery power sources



Interface MCU power switch



VBUS_nRF switch



B

B

C

C

D

D

Instrument ground



Title PCA10143 - Power Supply		
Size A3	PCB Assembly Number PCA10143	Revision 0.7.2
Date: 28.10.2022		Sheet 6 of 7
File: pca10143_sheet6_power_supply.SchDoc		Drawn By: HANY
Classification: Public		



1

2

3

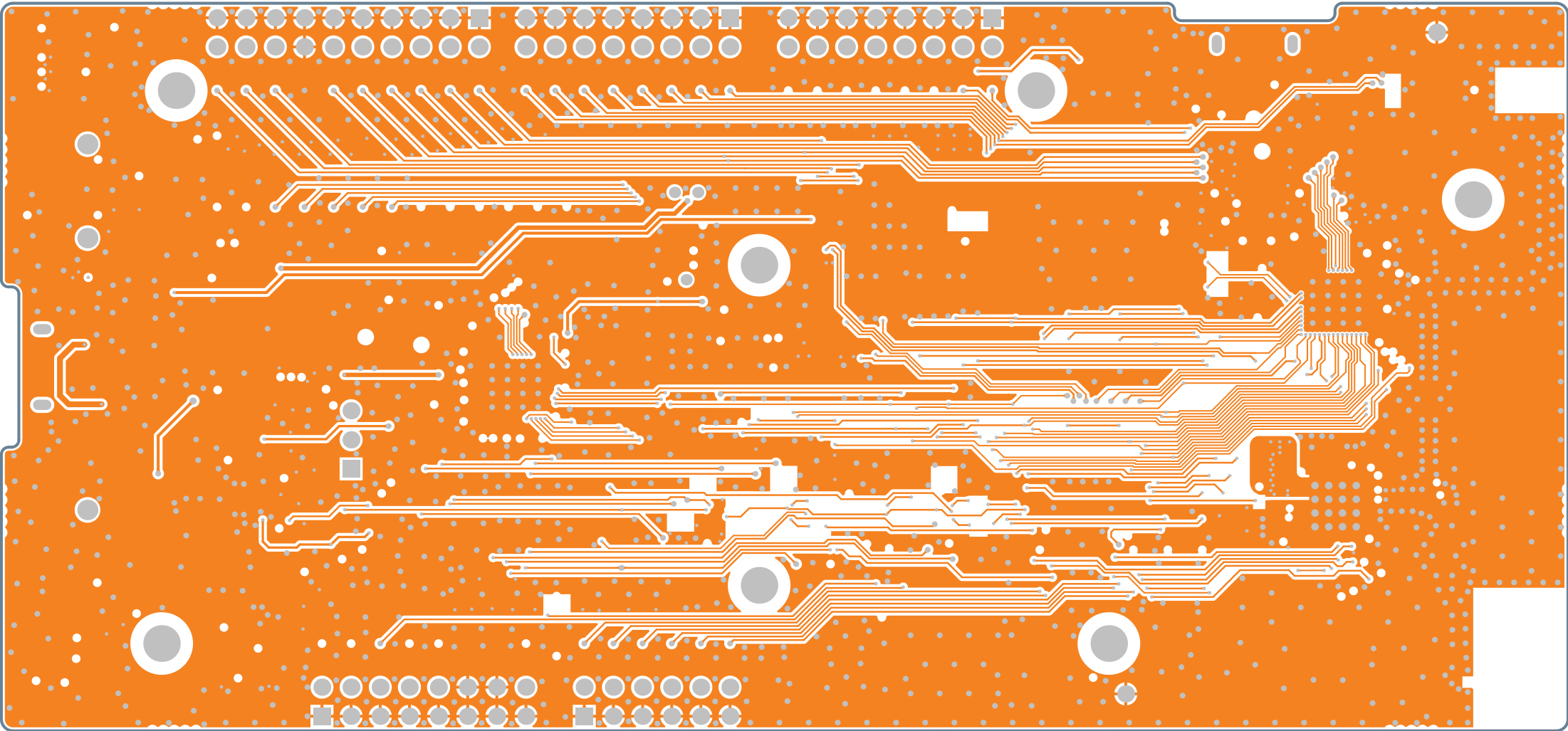
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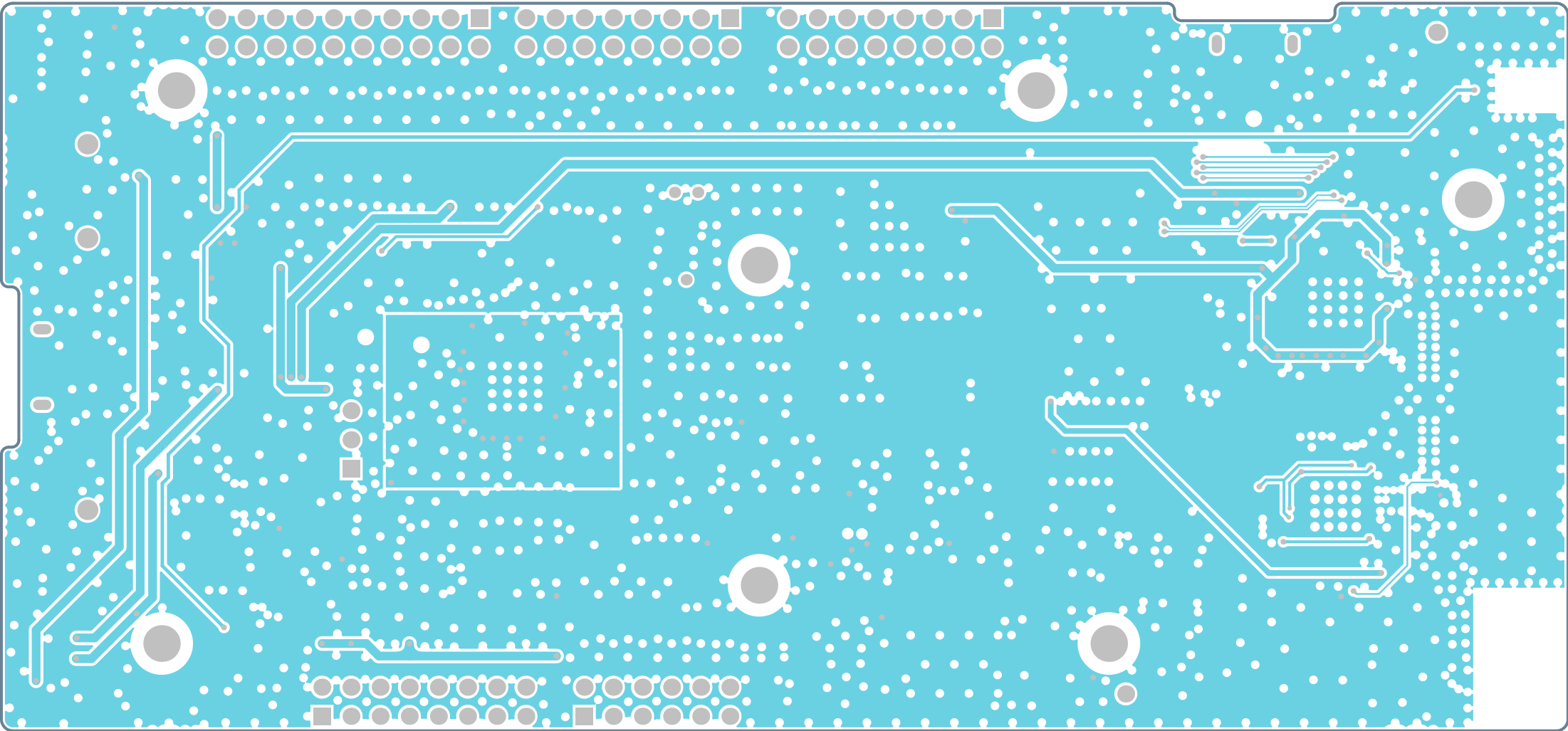
5

6

7

8





P0'16	DIO3	R30\2BS0	
P0'12	DIO5	R3\2BS2	
P0'14	DIO1	R50\2BS4	GPIO MLEI Rxx 2BSxPIN
P0'13	DIO0	R38\2BS5	
P0'15	CLK	R31\2BS1	
P0'18	C2	R56\2BS3	
P1'05	LED 5	2B6	
P1'06	LED 1	2B2	ADD
P0'11	TRACEx	2B14	2B14 2B15 2B13 2B11
P0'10	TRACEx	2B13	
P0'09	TRACEx	2B15	GPIO PIN 2B1x
P0'08	TRACEx	2B11	
P1'09	Button 5		
P1'08	Button 1		
P0'01	XTL5	2B4	
		2B5	GPIO PIN
P0'03		2B3	
P0'02	XTL1	2B1	PIN
P0'00			
GPIO	Function	2Port	HW

P0'03	NEC5		GPIO OR NFC PIN
P0'05	NEC1		
		2MDCLK	
		2MDIO	
		RESEL	
P0'11	2MO		
P1'00	RXD		
P1'04	CL2		
P1'01	LXD		
P1'02	RL2		
P0'55	RXD		
P0'51	CL2		
P0'50	LXD		
P0'19	RL2		
GPIO	Function	HW	



