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Revisions & Change Log

Rev

Description

Date

Approved

X1

Initial Draft

Oct 18

Chung

X2

Feedbacks Implemented

Oct 22

Chung

X3

Feedbacks from Chung Implemented

Oct 23

Chung

X4

Components changed as per the feedbacks

Oct 24

Chung

X5

RF and Bluetooth headers added

Oct 28

Chung

X6

Arduino connections added

Nov 1

Chung

X7

Net review and fix

Nov 3

Chung

A

Release to production, prototype build

Nov 8

Chung

A1

openSDA reset capacitor fix

Nov 22

del Rey

B

Release to production, production build

Jan 20

Chung

C

Release to production, production build

Feb 06

Chung

D

Fixing I2C swap to headers

Feb 26

Chung

D1

Enhancing USB PWR input filter for robustness

Mar 18

Chung

E

Swapping J2.2 connection to PTC12  
Fix Eth Link status when 2 FRDMs are connecter to each other

Jul 11

Chung

E1

Updating J13 Ethernet connector part

Sep 03

Chung

E2

Depopulating J14

Sep 10

Chung

E3

Depopulating C55, populating R75

Oct 14

Chung

E4

Some Net alias renaming  
Title block update

15-Apr-16

M. Byma

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Microcontroller Product Group

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Austin, TX 78735-8598

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Rafael del Rey

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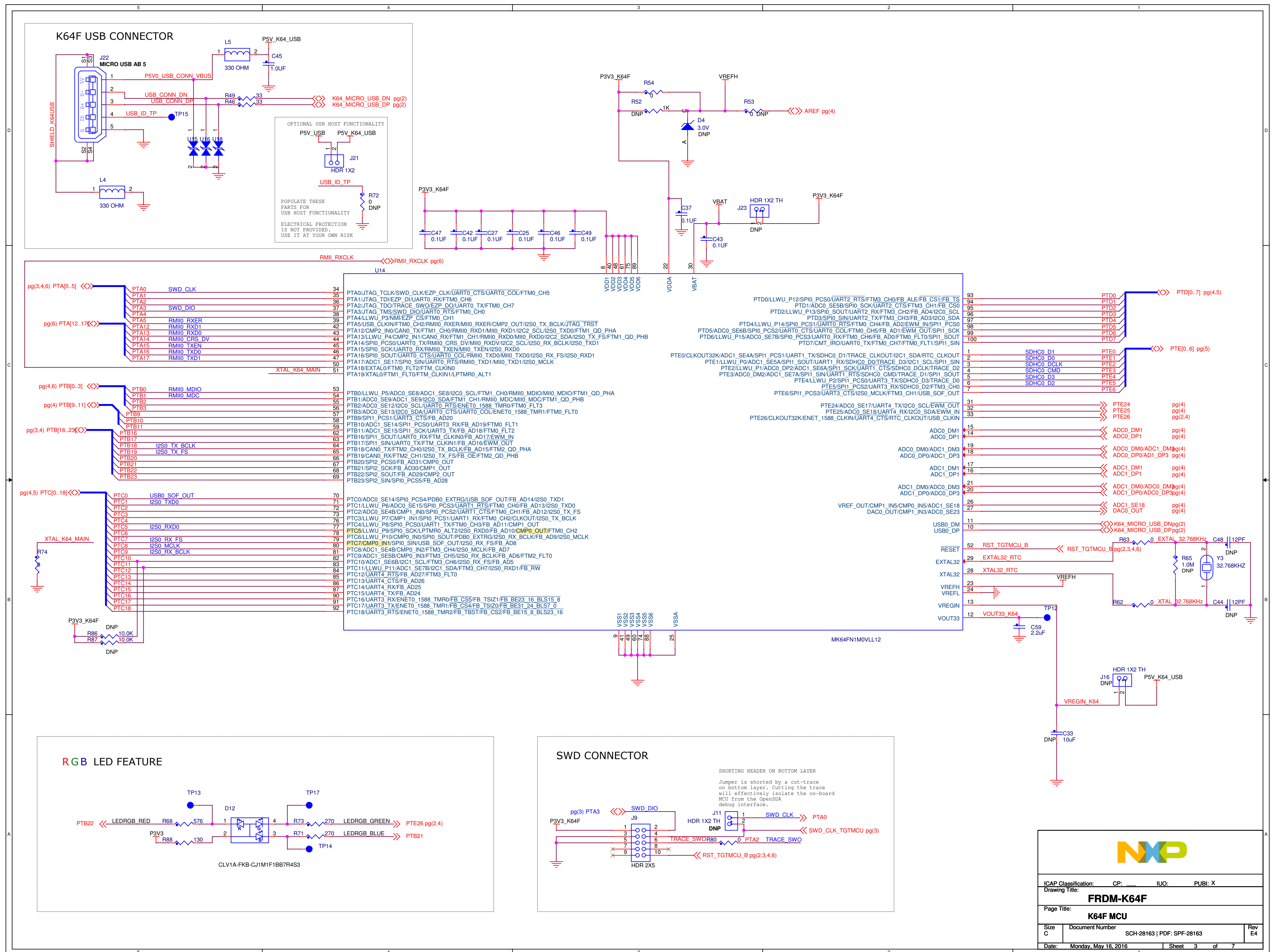
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5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

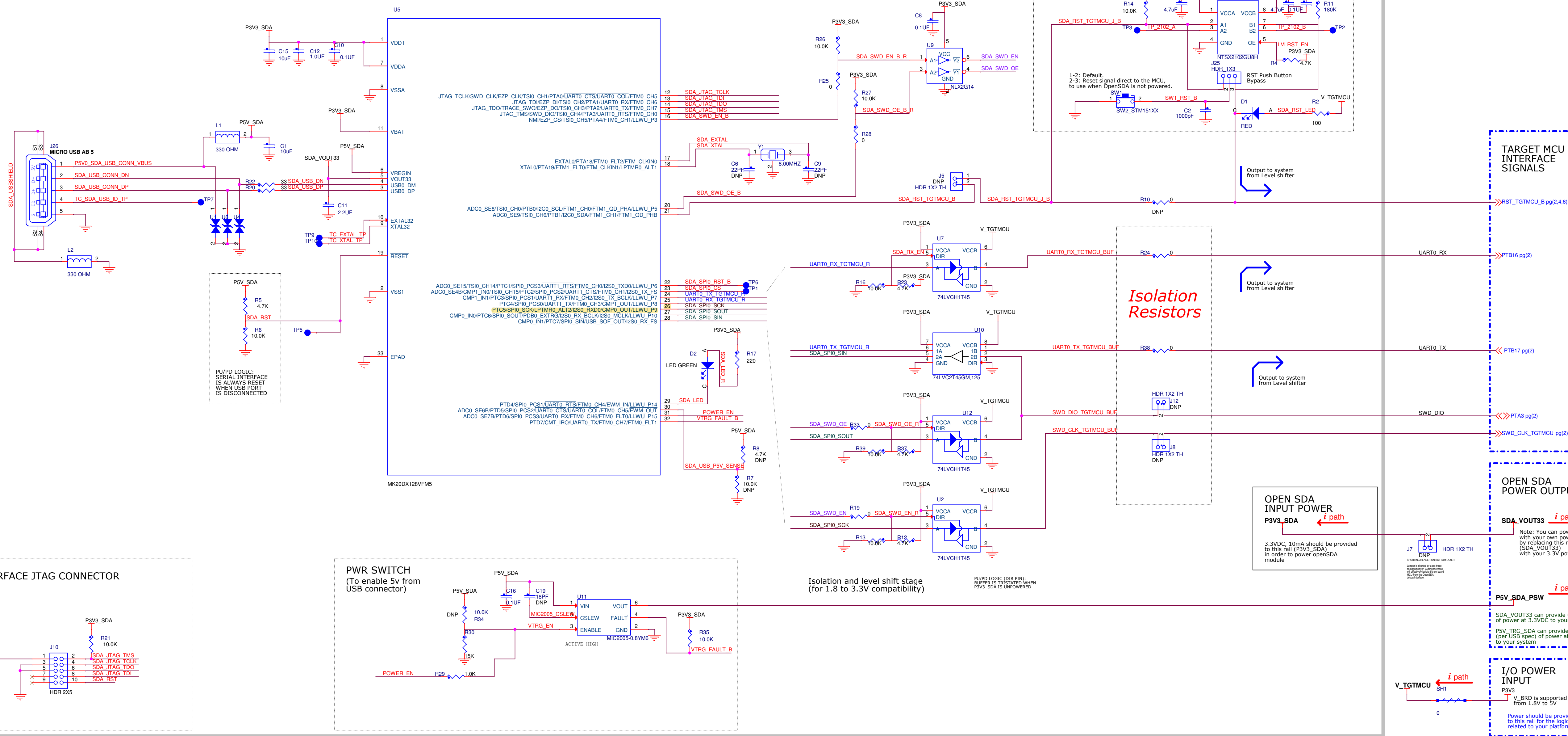


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<b>BLOCK DIAGRAM</b>				
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	SCH-28163   PDF: SPF-28163			
Date:	Friday, April 15, 2016	Sheet	2	of 7

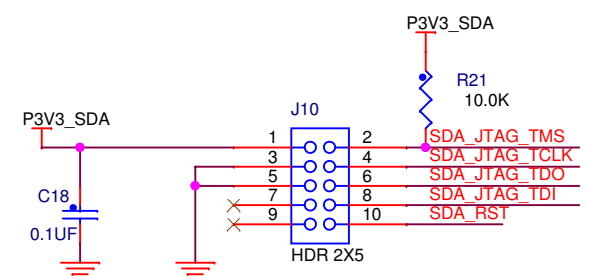




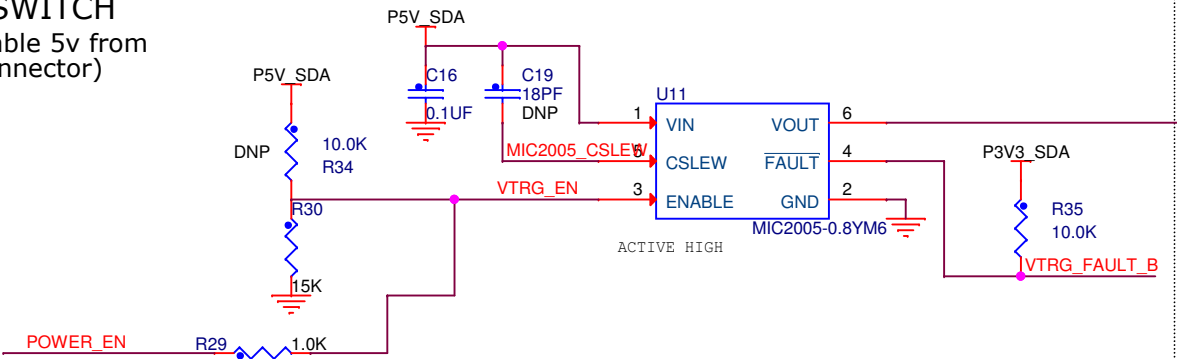
# OpenSDA Interface



OpenSDA INTERFACE JTAG CONNECTOR



PWR SWITCH  
(To enable 5v from USB connector)



Isolation and level shift stage  
(for 1.8 to 3.3V compatibility)

PU/PD LOGIC (OR PIN):  
BUFFER IS TRISTATED WHEN  
P3V3\_SDA IS UNPOWERED

OPEN SDA  
INPUT POWER

*i path*

3.3VDC, 10mA should be provided to this rail (P3V3\_SDA) in order to power OpenSDA module

OPEN SDA  
POWER OUTPUTS

*i path*

SDA\_VOUT33  
Note: You can power OpenSDA with your own power supplies by replacing this rail (SDA\_VOUT33) to your system

*i path*

P5V\_SDA\_PSW

SDA\_VOUT33 can provide up to 120mA of power at 3.3VDC to your system  
P5V\_TRG\_SDA can provide up to 450mA (per USB spec) of power at 5VDC to your system

I/O POWER  
INPUT

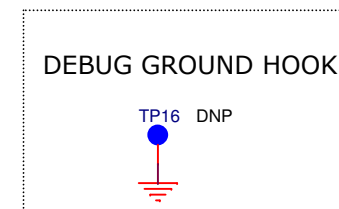
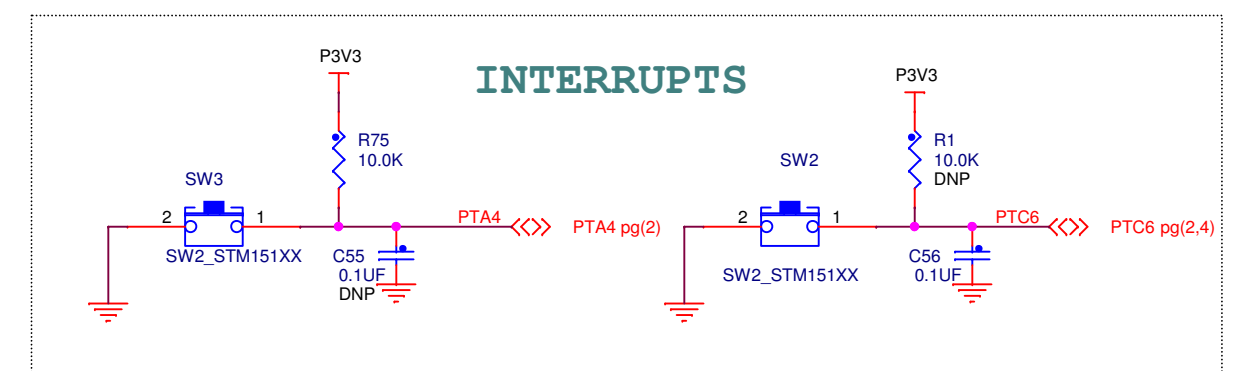
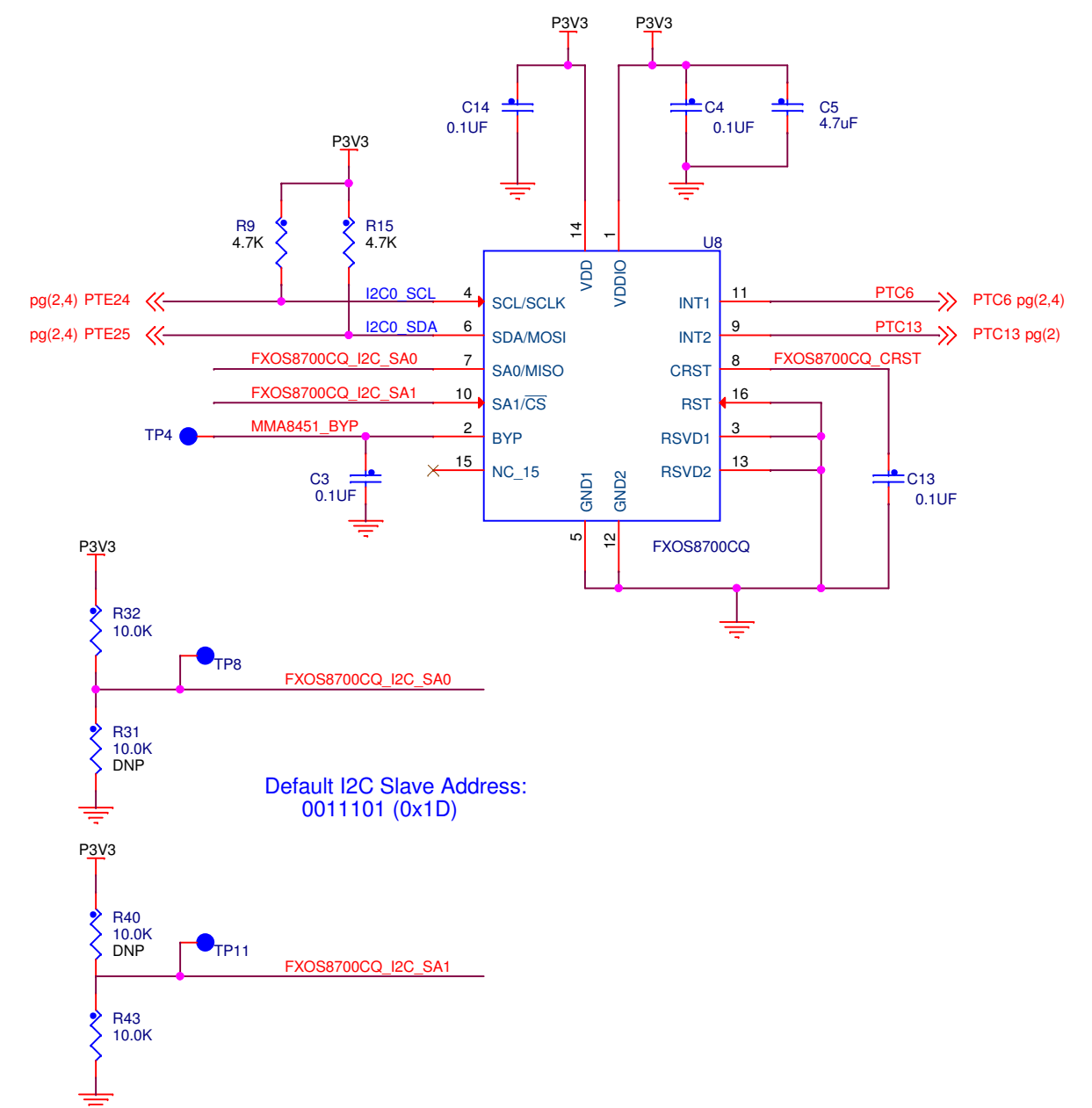
*i path*

V\_TGTMCU  
P3V3  
V\_BRD is supported from 1.8V to 5V  
Power should be provided to this rail for the logic related to your platform I/O

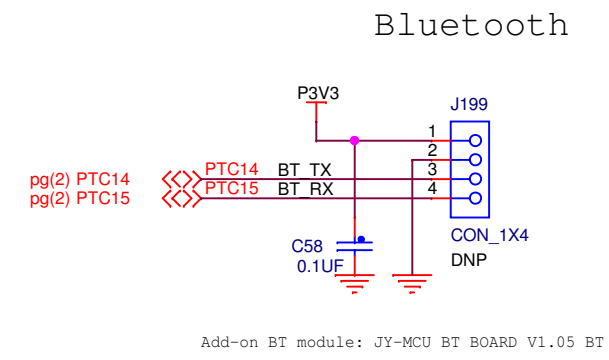
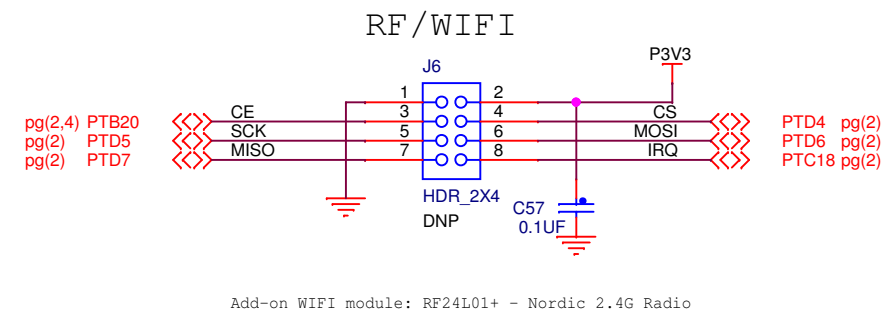
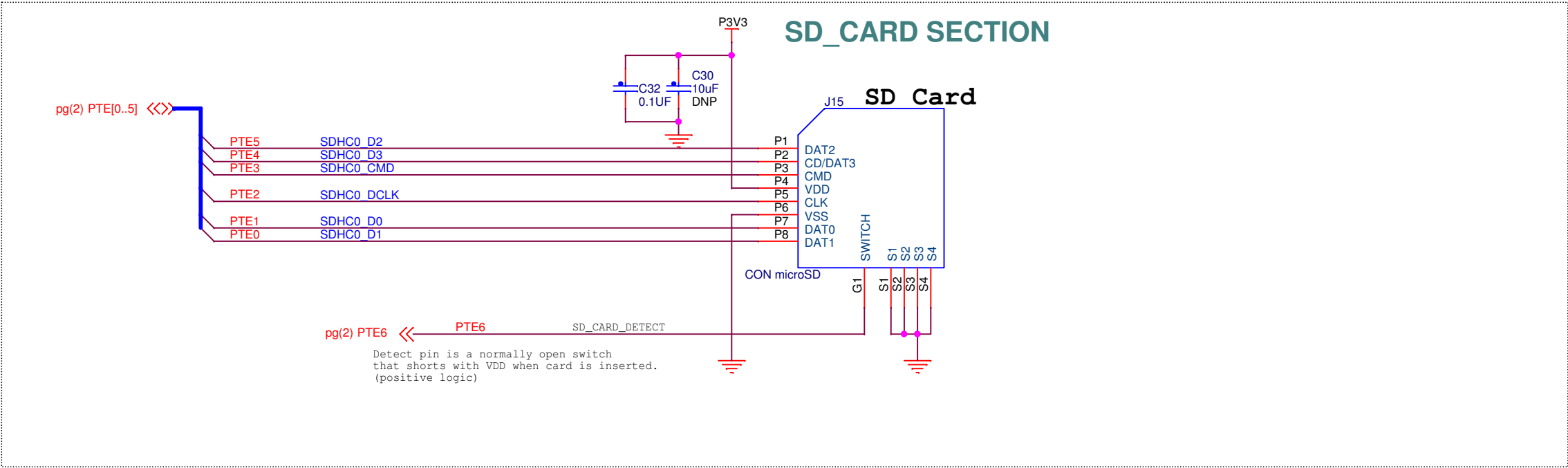
SDA\_SPI0\_RST\_B R18 0 SDA\_SWD\_EN  
SDA\_SPI0\_CS R3 0 SDA\_SWD\_OE  
DNP  
DNP  
{For enablement purposes only}



( ACCELEROMETER AND MAGNETOMETER )



ICAP Classification:		CP: _____	IUO: _____	PUBI: X
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<b>ARDUINO SHIELDS &amp; COMBO SENSOR</b>				
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