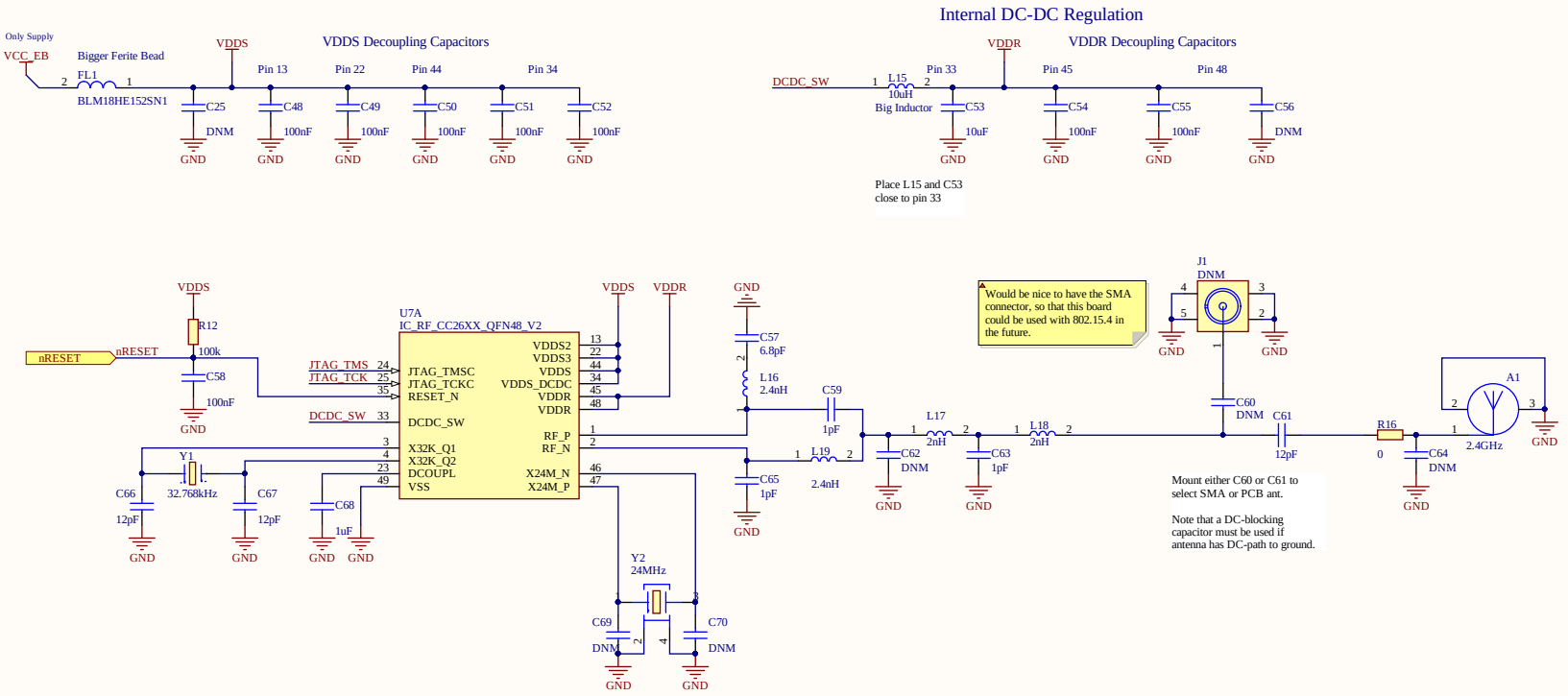
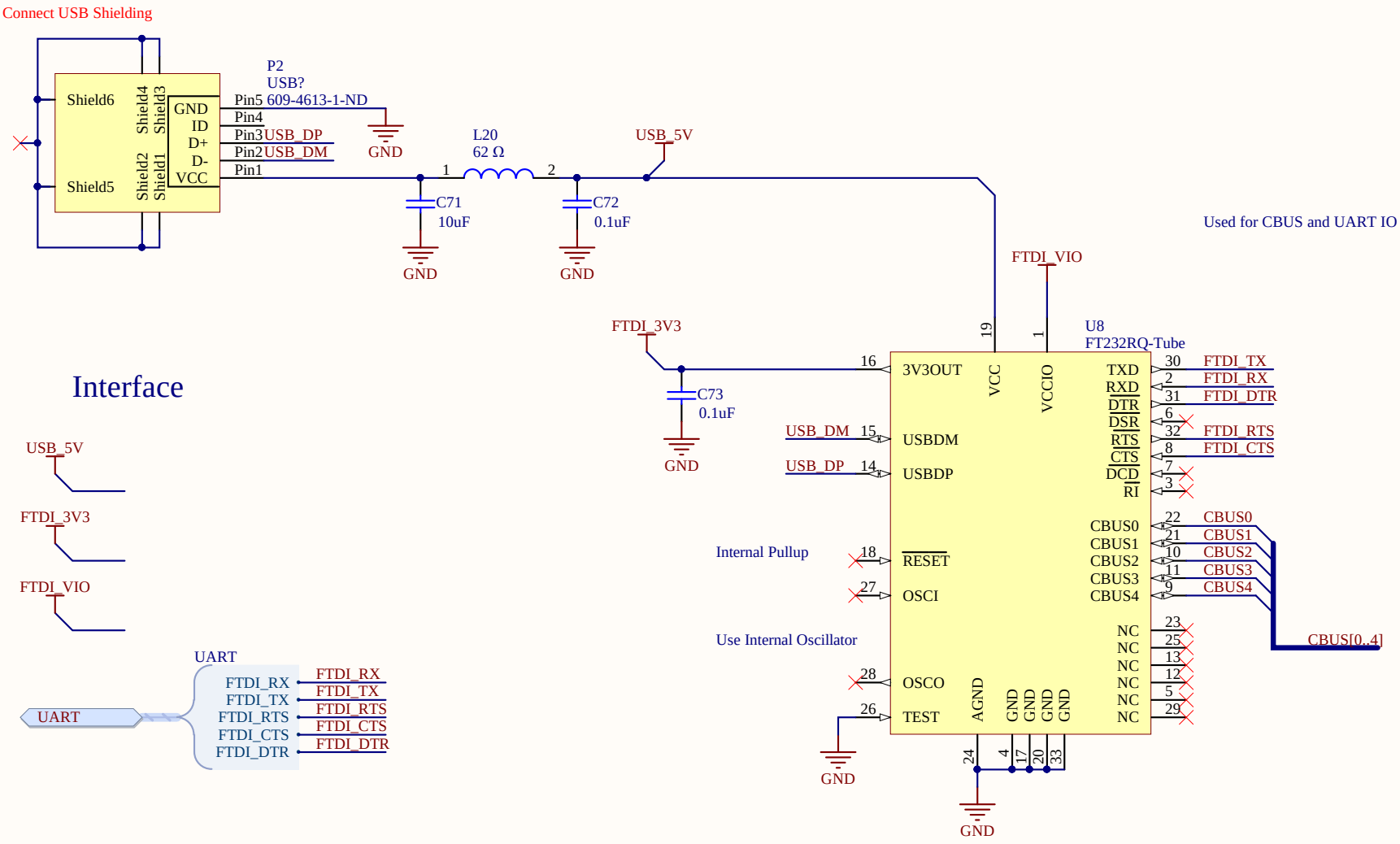


Title	TI CC2650 Radio and MCU	
Size: A3	Number:	Revision: 1
Date: 6/10/2016	Sheet of	
File: C:\Users\...\CC2650MCURadio.SchDoc	Drawn By: Craig Hesling	



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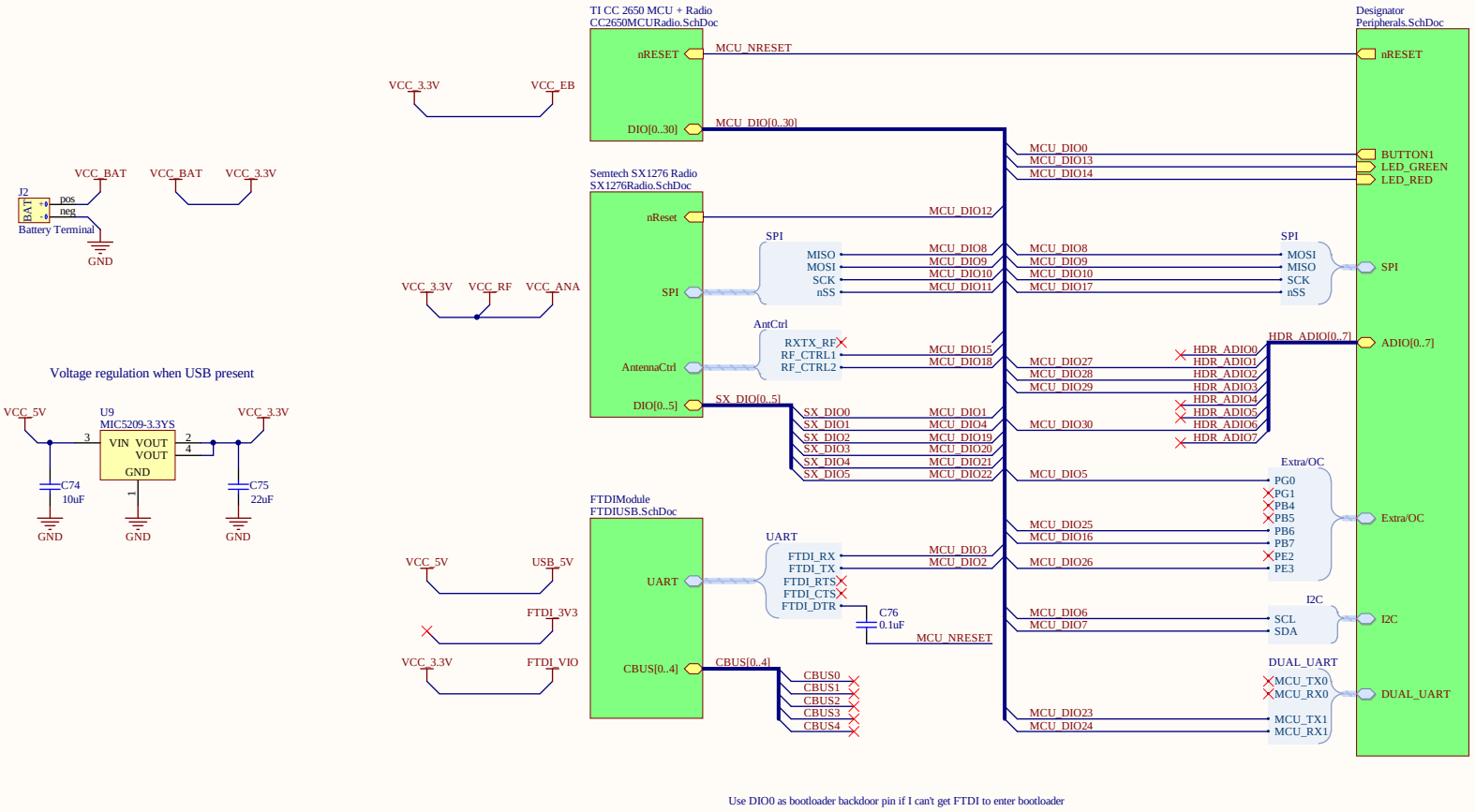
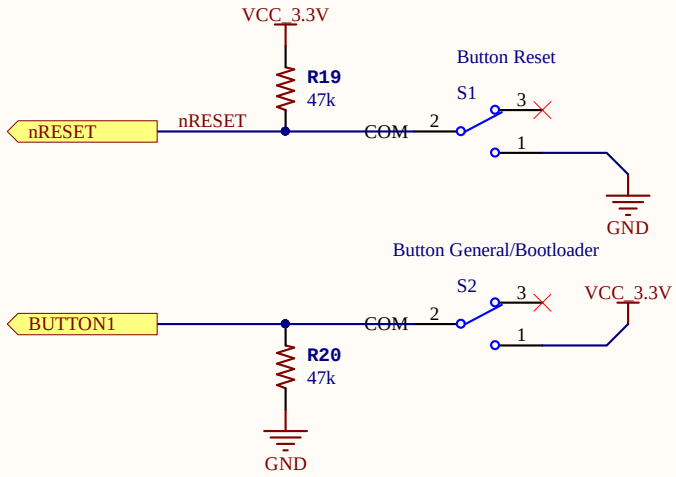
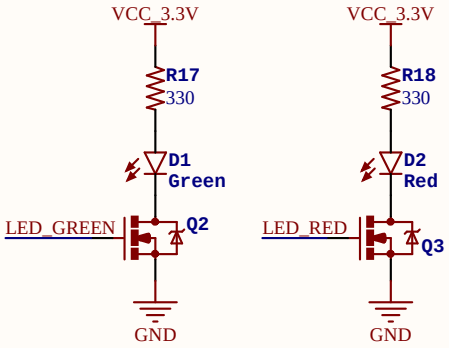
Size: A	Number:	Revision: 1
Date: 6/10/2016		Sheet of
File: C:\Users\..\FTDIUSB.SchDoc		Drawn By: Craig Hesling

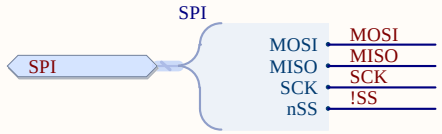


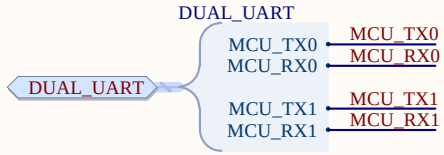
Title	LoRaBug Main	
Size: A3	Number:	Revision: 1
Date: 6/10/2016		Sheet of
File: C:\Users\..\Main.SchDoc		Drawn By: Craig Hesling

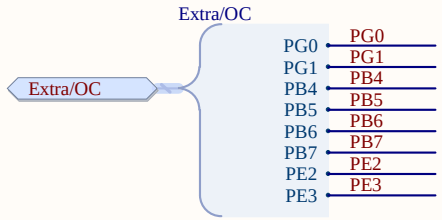
Reset - May want to use internalt push button 431151015826



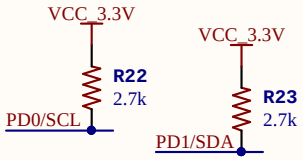


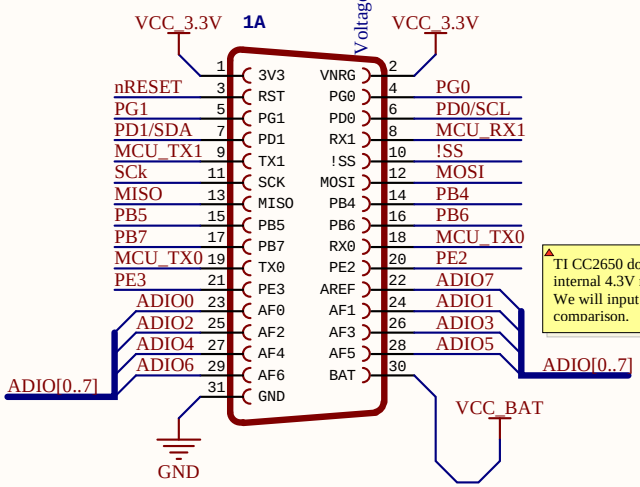






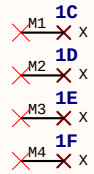
I2C Pullups

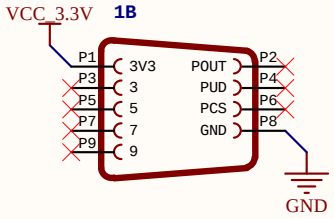




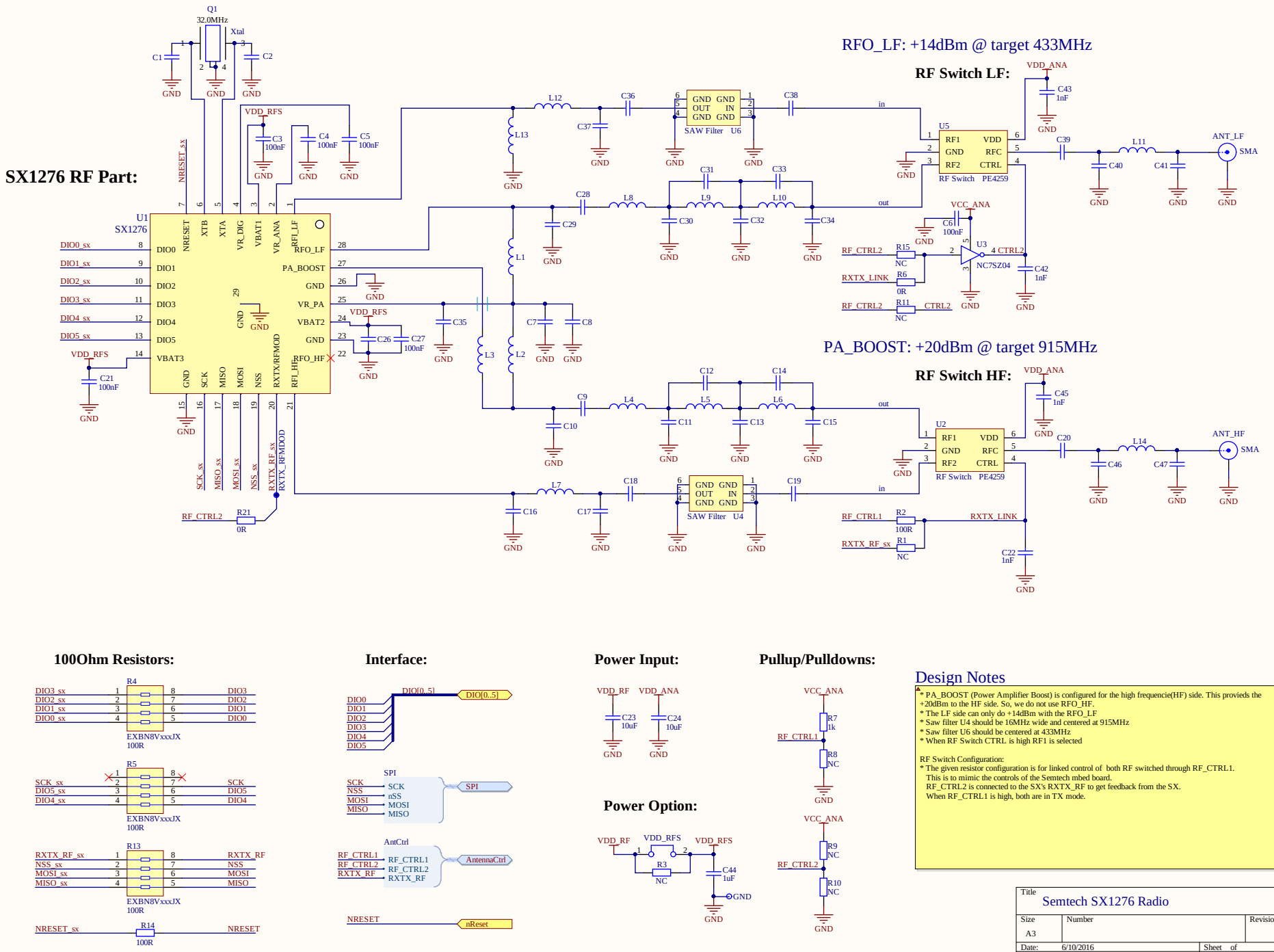
TI CC2650 doesn't have a dedicated AREF. It uses an internal 4.3V ref OR VDDS.
We will input AREF as the last Analog pin for internal comparison.

Mount Points





Title: Peripherals		
Size: A	Number:	Revision: 1
Date: 6/10/2016		Sheet of
File: C:\Users\..\Peripherals.SchDoc		Drawn By: Craig Hesling


SX1276 RF Part:
RFO_LF: +14dBm @ target 433MHz
RF Switch LF:
PA_BOOST: +20dBm @ target 915MHz
RF Switch HF:
U1
SX1276
Q1
32.0MHz
Xtal
U5
RF Switch PE4259
U2
RF Switch PE4259
U3
NC7SZ04
SAW Filter U6
SAW Filter U4
ANT_LF
ANT_HF
SMA
VDD_ANA
VDD_RFS
VCC_ANA
GND
RF_CTRL2
RXTX_LINK
RF_CTRL1
RXTX_RF_sx
100Ohm Resistors:
Interface:
Power Input:
Pullup/Pulldowns:
Power Option:
EXBN8VxxxJX
100R
SPI
AntCtrl
nReset
Design Notes
* PA_BOOST (Power Amplifier Boost) is configured for the high frequencie(HF) side. This provieds the +20dBm to the HF side. So, we do not use RFO_HF.
* The LF side can only do +14dBm with the RFO_LF
* Saw filter U4 should be 16MHz wide and centered at 915MHz
* Saw filter U6 should be centered at 433MHz
* When RF Switch CTRL is high RF1 is selected
RF Switch Configuration:
* The given resistor configuration is for linked control of both RF switched through RF_CTRL1.
This is to mimic the controls of the Semtech mbed board.
RF_CTRL2 is connected to the SX's RXTX_RF to get feedback from the SX.
When RF_CTRL1 is high, both are in TX mode.
Title
Semtech SX1276 Radio
Size
A3
Number
Revision
1
Date:
6/10/2016
Sheet of
File:
C:\Users\..\SX1276Radio.SchDoc
Drawn By:
Craig Hesling