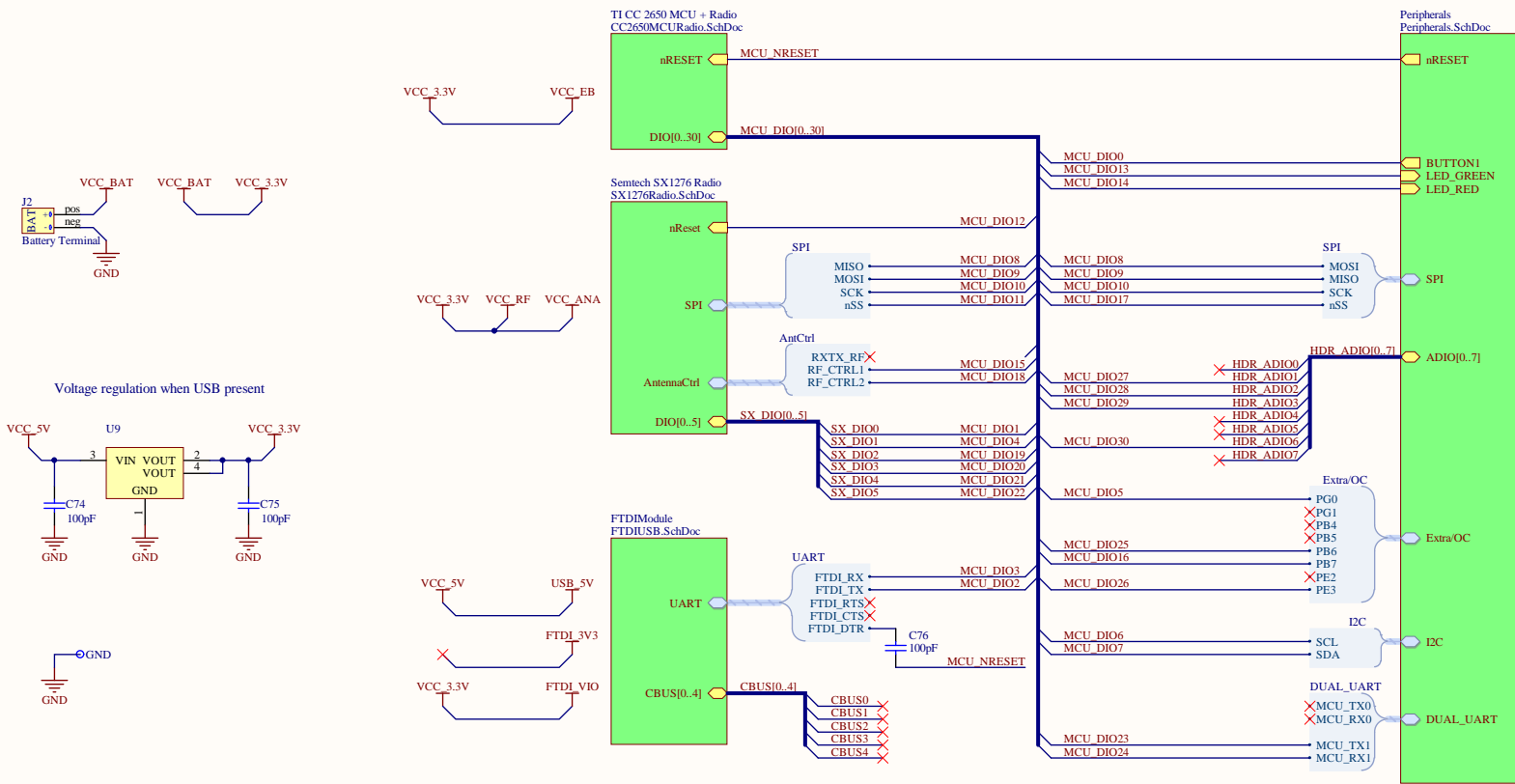


Title FTDI USB		
Size A	Number	Revision 1
Date:	6/21/2016	Sheet of
File:	C:\Users\j\FTDIUSB.SchDoc	Drawn By: Craig Hesling

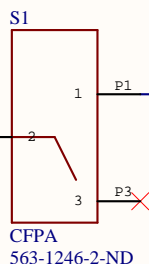


Use DIO0 as bootloader backdoor pin if I can't get FTDI to enter bootloader

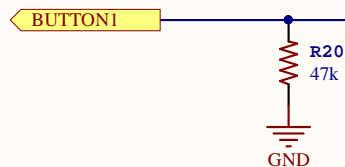
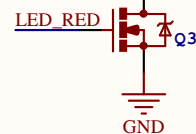
Title		
LoRaBug Main		
Size	Number	Revision
A3		1
Date:	6/21/2016	Sheet of
File:	C:\Users\Main\SchDoc	Drawn By: Craig Hesling

nRESET

Button General/Bootloader



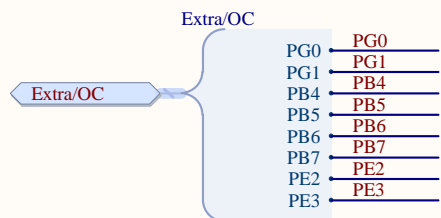
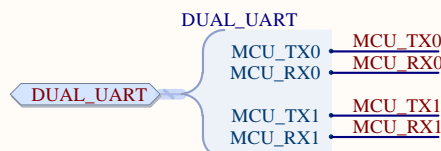
VCC_3.3V



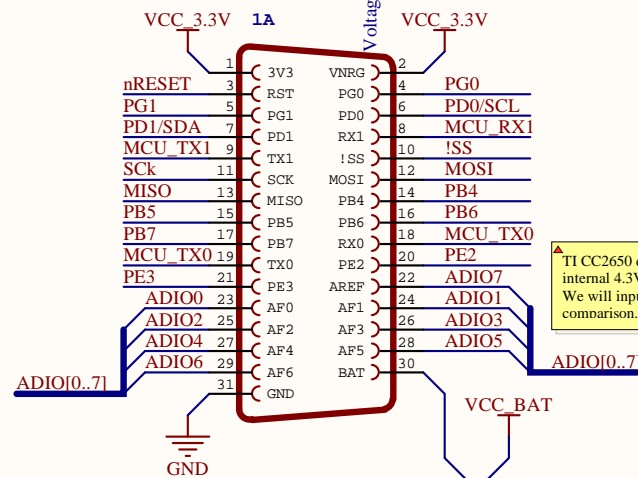
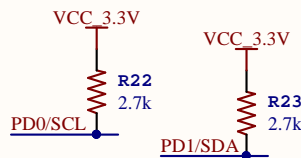
LED_RED

LED_GREEN

ADIO[0..7]



I2C Pullups



Mount Points



Title		
Peripherals		
Size	Number	Revision
A		1
Date:	6/21/2016	Sheet of
File:	C:\Users\...\Peripherals.SchDoc	Drawn By: Craig Hesling

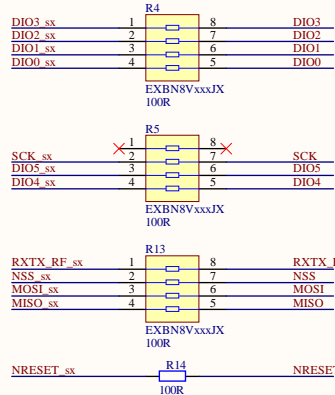
SX1276 RF Part:

Test Pads

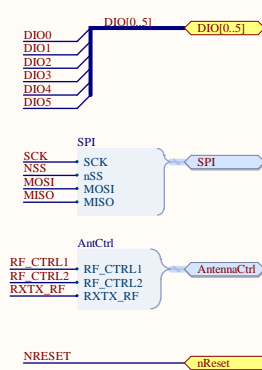
SCK → PR1
NSS → PR2
MOSI → PR3
MISO → PR4

RFI Shield
Shield
GND

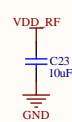
100Ohm Resistors:



Interface:



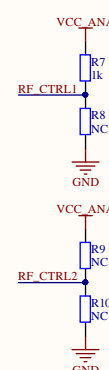
Power Input:



Power Select:

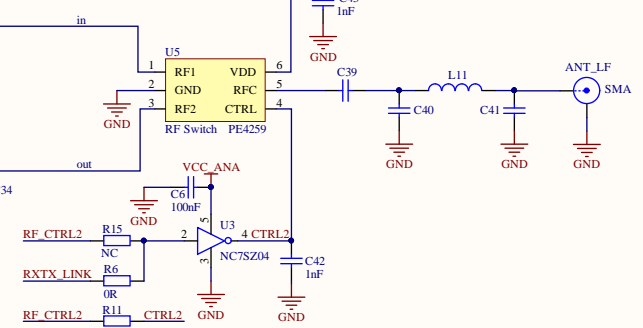


Pullup/Pulldowns:



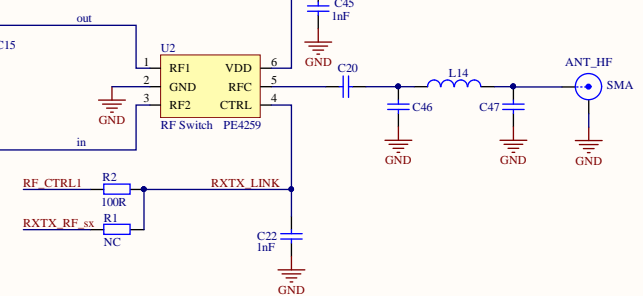
RFO_LF: +14dBm @ target 433MHz

RF Switch LF:



PA_BOOST: +20dBm @ target 915MHz

RF Switch HF:



Design Notes

- * PA_BOOST (Power Amplifier Boost) is configured for the high frequency(HF) side. This provides the +20dBm to the HF side. So, we do not use RFO_LF.
 - * 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	Number	Revision
A3		1
Date:	6/21/2016	Sheet of
File:	C:\Users\...SX1276Radio.SchDoc	Drawn By: Craig Hesling

