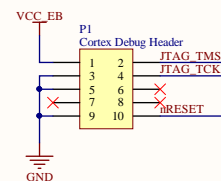
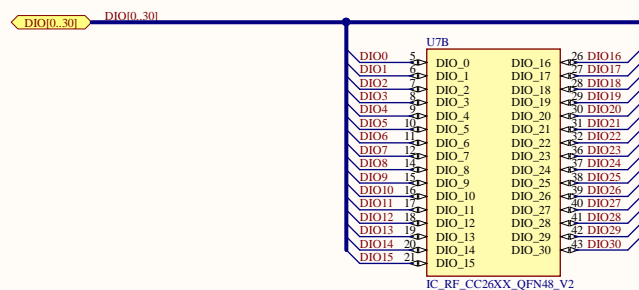
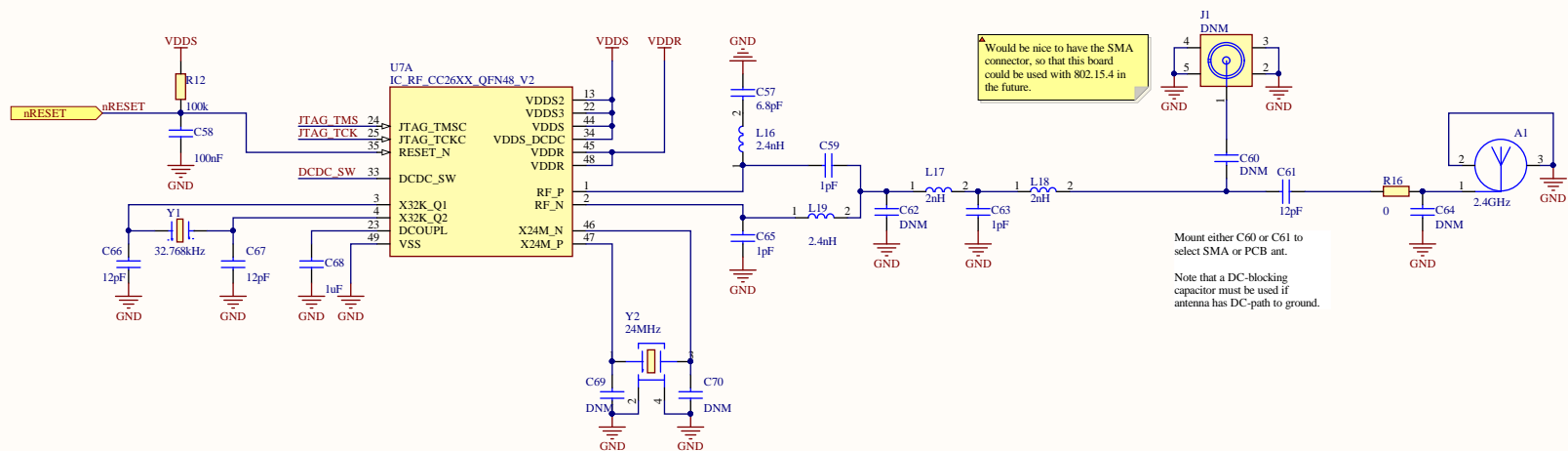
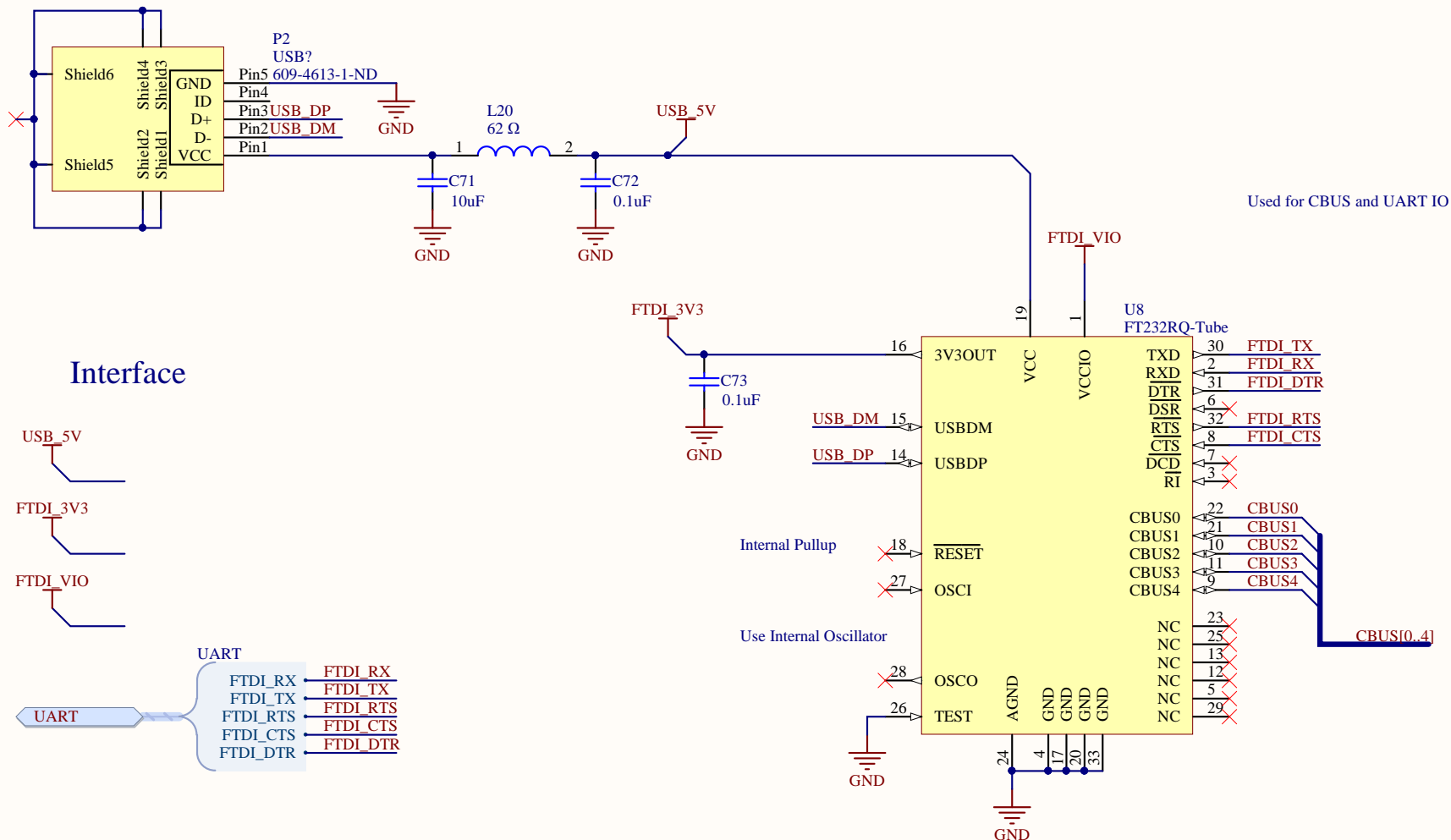


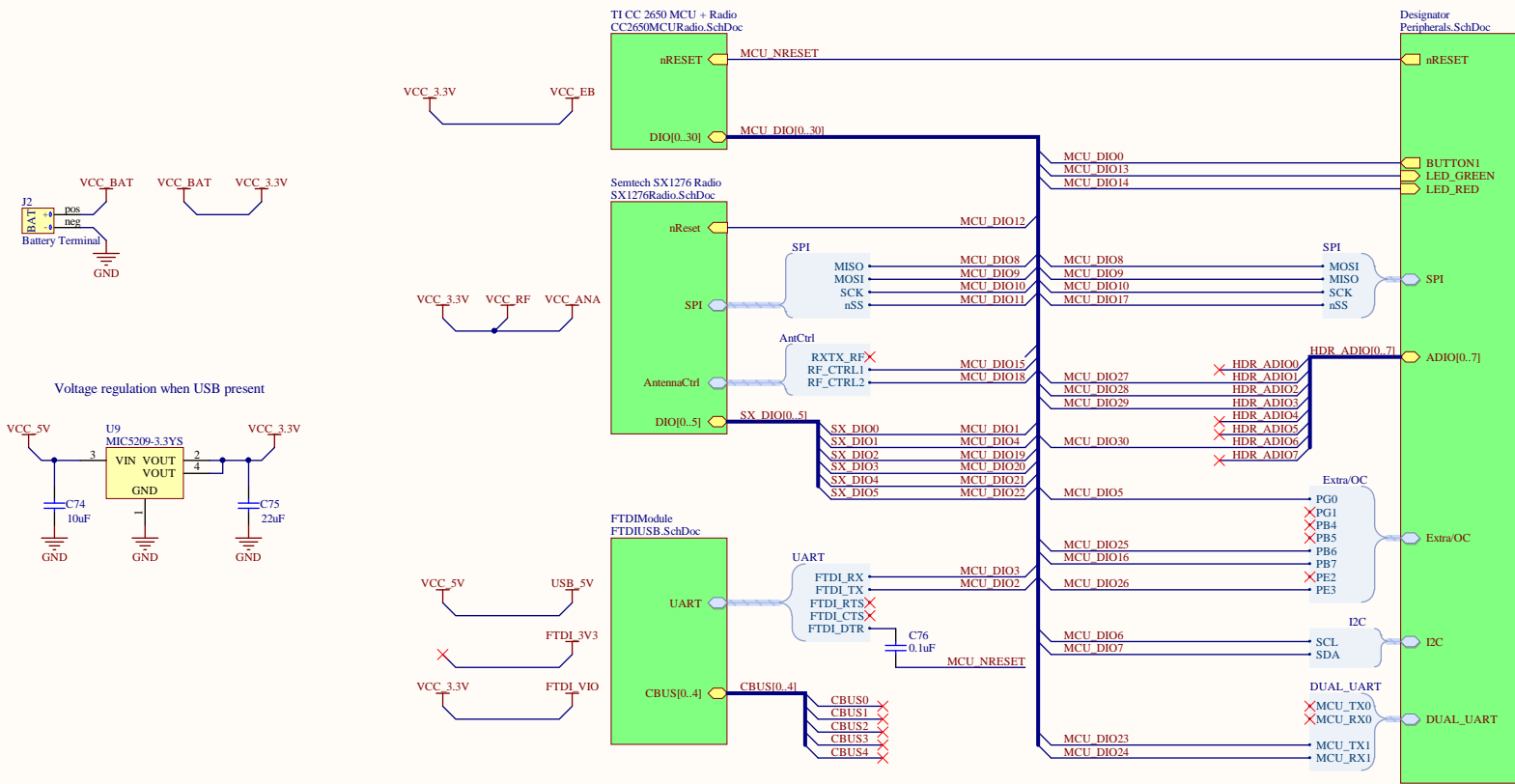
DNM I believe is Do Not Mount



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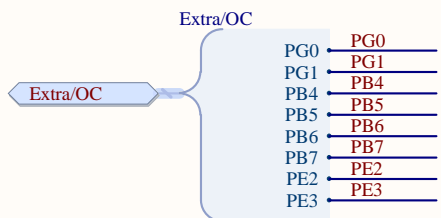
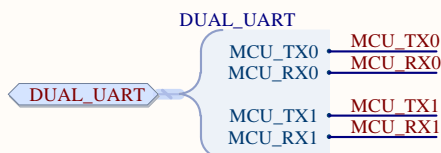
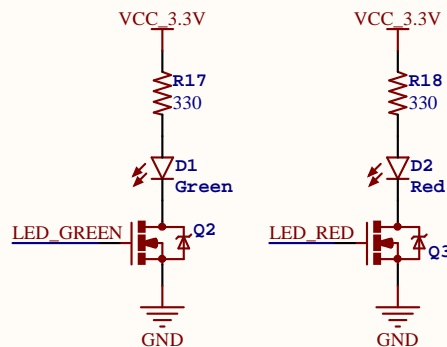
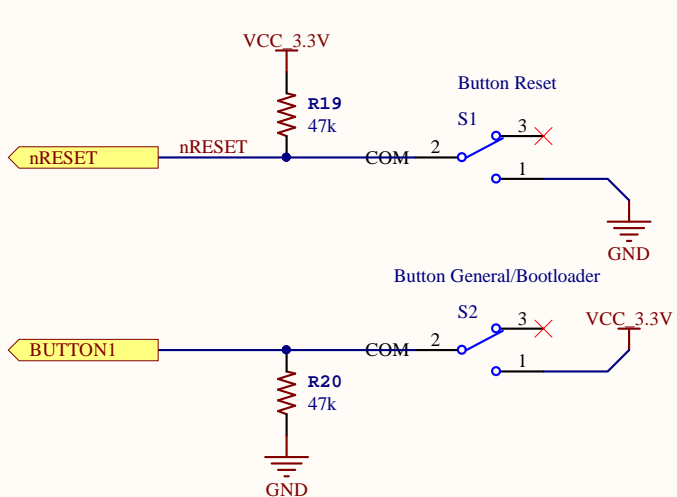
| | | |
|--------------------------|----------------------------|---|
| Title FTDI USB | | |
| Size A | Number | Revision 1 |
| Date: | 6/10/2016 | Sheet of |
| File: | C:\Users\...FTDIUSB.SchDoc | Drawn By: Craig Hesling |



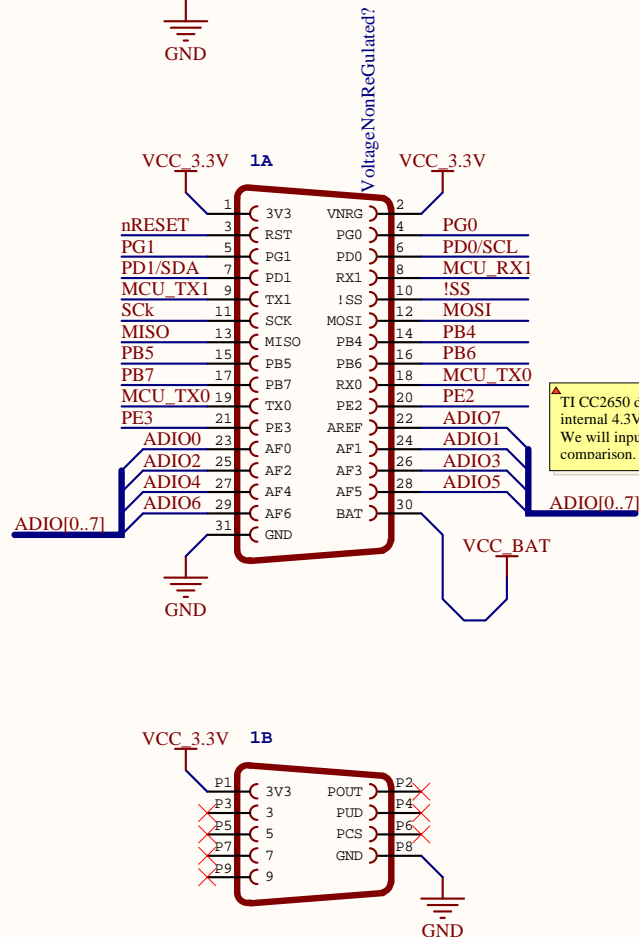
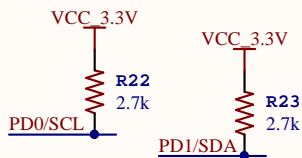
Use DIO0 as bootloader backdoor pin if I can't get FTDI to enter bootloader

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

Reset - May want to use internalt push button 431151015826

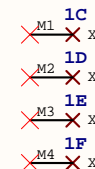


I2C Pullups



TI CC2650 doesn't have a dedicated AREF. It uses an internal 4.3V ref OR VDD5. We will input AREF as the last Analog pin for internal comparison.

Mount Points



Peripherals

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

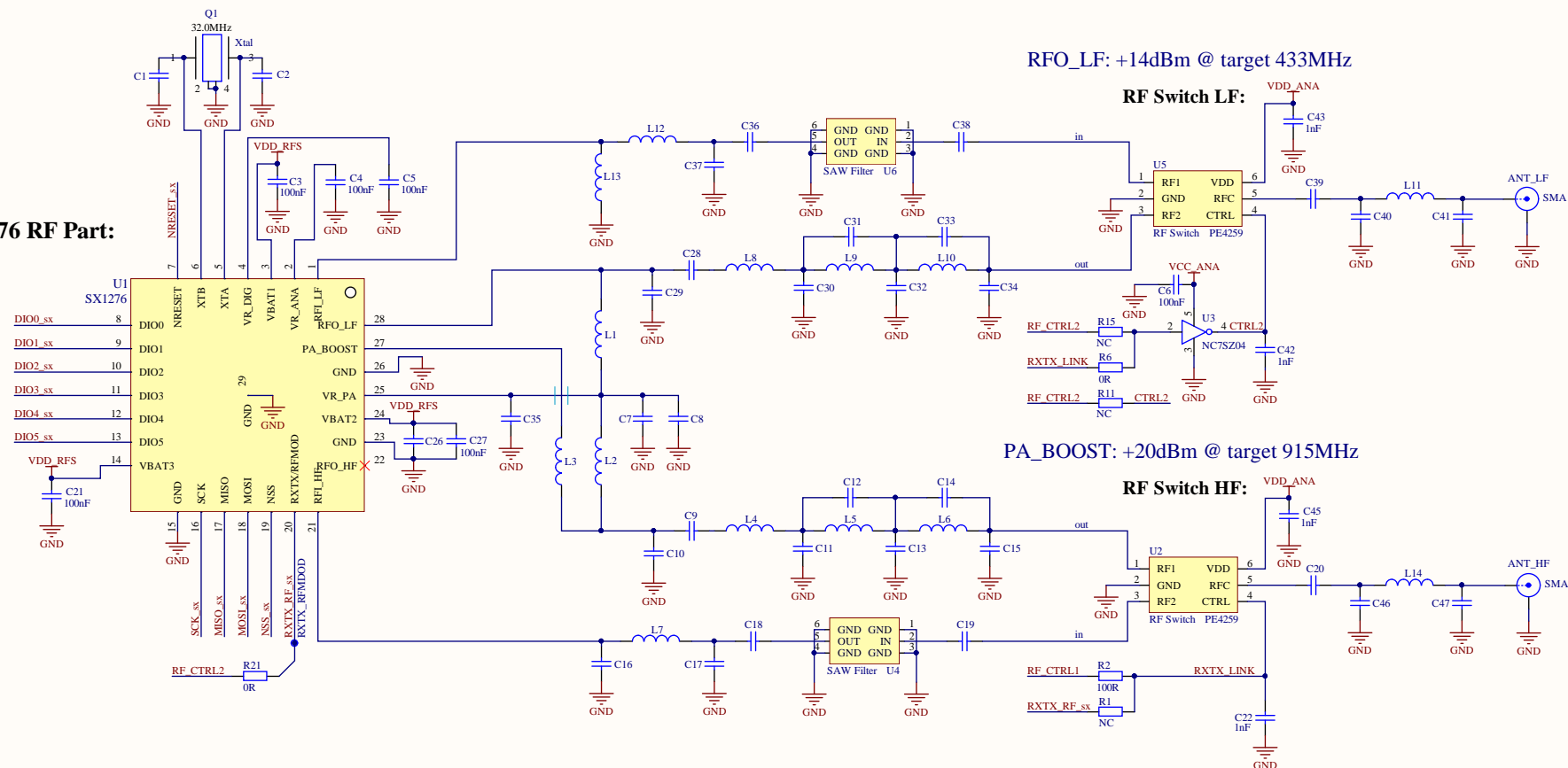


Figure 10 shows the pin connections for the EXBN8VxxxJX 100R. The diagram includes three 8-pin connectors: R4, R5, and R13. R4 and R13 are connected to DIO3, DIO2, DIO1, and DIO0. R5 is connected to SCK, DIO5, and DIO4. R13 is connected to RXTX, NSS, MOSI, and MISO. A NRESET pin is also shown at the bottom.

| Pin | Signal | Connector |
|-----|---------------------------------|-----------|
| 1 | DIO3 _{ss} | R4 |
| 2 | DIO2 _{ss} | R4 |
| 3 | DIO1 _{ss} | R4 |
| 4 | DIO0 _{ss} | R4 |
| 5 | DIO3 | R4 |
| 6 | DIO2 | R4 |
| 7 | DIO1 | R4 |
| 8 | DIO0 | R4 |
| 1 | SCK _{ss} | R5 |
| 2 | DIO5 _{ss} | R5 |
| 3 | DIO5 | R5 |
| 4 | DIO4 _{ss} | R5 |
| 5 | DIO5 | R5 |
| 6 | DIO4 | R5 |
| 1 | RXTX _{RF_{ss}} | R13 |
| 2 | NSS _{ss} | R13 |
| 3 | MOSI _{ss} | R13 |
| 4 | MISO _{ss} | R13 |
| 5 | RXTX | R13 |
| 6 | NSS | R13 |
| 7 | MOSI | R13 |
| 8 | MISO | R13 |
| 1 | NRESET _{ss} | R14 |
| 2 | NRESET | R14 |

The diagram illustrates the pinmux connections for the Antenna module. It shows several pins on the left, each connected to a specific module on the right via a blue line. The modules are represented by light blue rounded rectangles with a darker blue header. The connections are as follows:

- DIO0_51** and **DIO0_5** are connected to the **DIO** module.
- SCK**, **NSS**, **MOSI**, and **MISO** are connected to the **SPI** module.
- RF_CTRL1**, **RF_CTRL2**, and **RXTX_RF** are connected to the **AntennaCtrl** module.
- NRESET** is connected to the **nReset** module.

- * 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_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 CTRL1 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 mbid board.

RF_CTRL2 is connected to the SX's REXTX_RF to get feedback from the SX.

When RF_CTRL1 is high, both are in TX mode.

| | | |
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| Title Semtech SX1276 Radio | | |
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