

Options to reduce noise:

- 1.) Set channel higher
- 2.) Set power amplifier to higher output

Normal range with default mode(RF24\_PA\_Max): Open sight = 100m

Tested with the code activating a pin that lights up diode when signal is received.

- draw the schematic

With WI-FI interference:

RF24\_PA\_Max mode: 11.3 mA

Open sight = 80 ft

Through Sheetrock walls = 50 ft

RF24\_PA\_Low mode: 7.5 mA

Open sight = 17ft

Through Sheetrock walls = 10 ft

RF24\_PA\_High: 9.0 mA

Open sight = 35 ft

Through Sheetrock = 27 ft

RF24\_PA\_Min: 7.0 mA \*not reliable

Open sight = 5ft

Through Sheetrock = 3 ft

Communication Protocols:

UART between transceivers: TX to RX

SPI between transceiver and arduino MOSI and MISO

Option1: use adapter to drop 5v to 3.3v to keep steady supply

Option2: use capacitor across vcc and gnd to keep steady voltage supply

Decibel: ratio of two signal powers

-Negative is when the second signal is larger than the first

-Positive is when the first signal is larger than the second