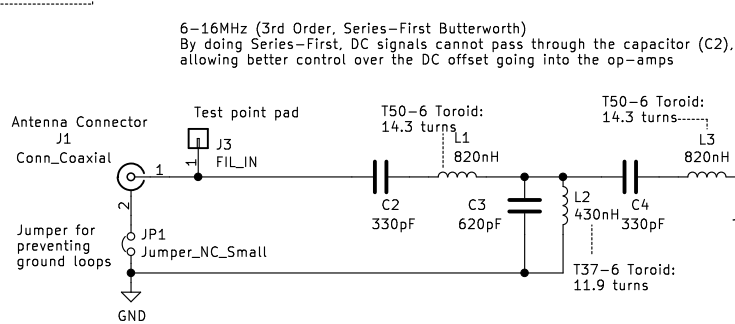


Toroid Info:
T37-6: 3nH per turns*2
T50-6: 4nH per turns*2
See datasheet for more info

Bandpass Filter

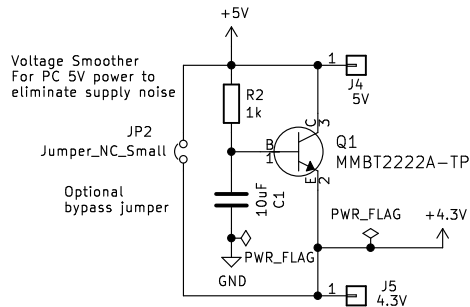
6-16MHz (3rd Order, Series-First Butterworth)
By doing Series-First, DC signals cannot pass through the capacitor (C2), allowing better control over the DC offset going into the op-amps



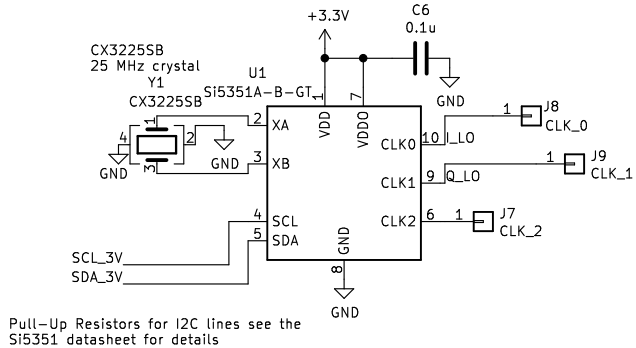
2.15V Voltage Bias to center the incoming frequency between max and min input values for Taylor mixer

Voltage Smoother

To smooth 5V power supply from USB which may contain noise

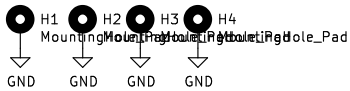
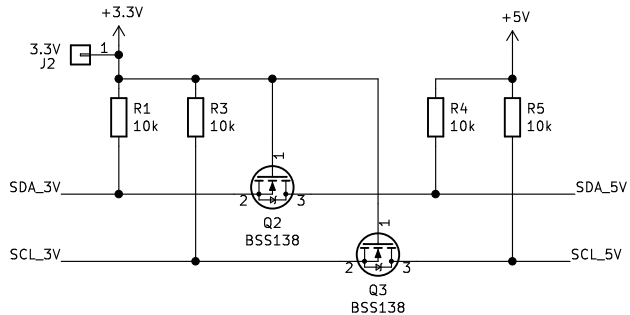


Local Oscillator (Si5351a)

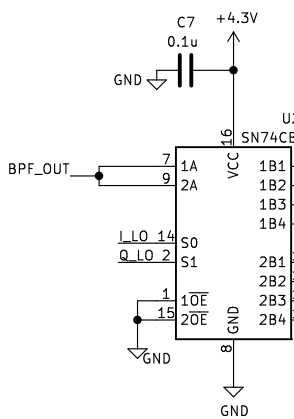


5V to 3.3V Converter

This is used to convert the 5V logic of the Arduino nano to the 3.3V logic of the Si5351a both directions.

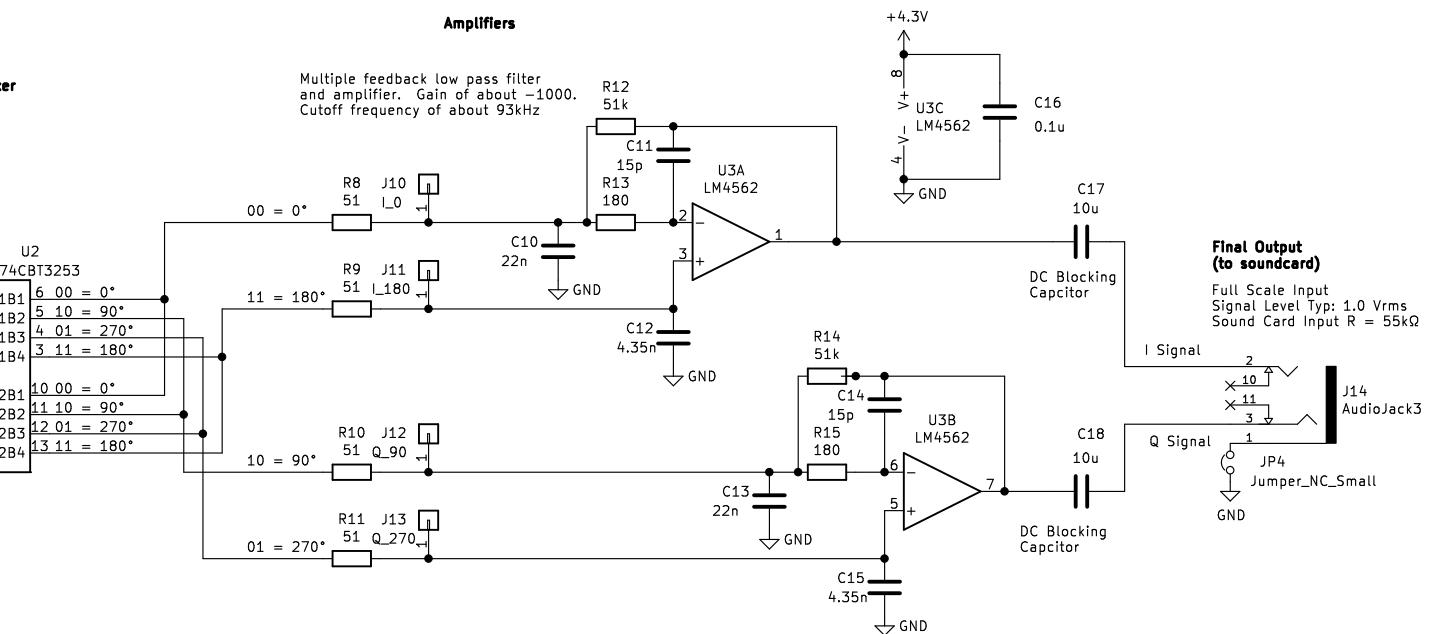


Taylor Mixer

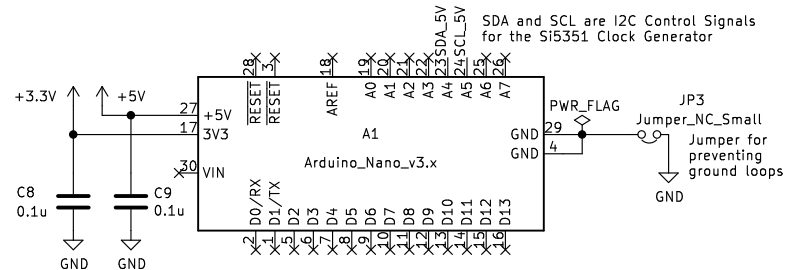


Amplifiers

Multiple feedback low pass filter and amplifier. Gain of about -1000. Cutoff frequency of about 93kHz



Arduino Nano



ENGR 357

Author: Caleb Nelson

Walla Walla University

Sheet: /

File: SDRReciever.sch

Title: SDR Reciever

Size: A3

Date: 2021-04-30

Rev: 1

KiCad E.D.A. kicad (5.1.9)-1

Id: 1/1