

## Operational Description

### 1) Oscillator Block and Phase-locked Loop(PLL) Synthesizer Block

This part is composed of X1, C1, R1, C3, and U1

The RF IC(U1) supply voltage to oscillate X1. And the frequency in this section is determined by X1 and C1.

The PLL synthesizer in RF IC(U1) multiple frequencies as we want to get.

### 2) SAW Filter Block

This part is composed of L1, L2, L6, C4, C5, and CF1.

The signal what we need is filtered by Saw Filter and related components.

### 3) LNA Block

This part is composed of Q1, R11, R12, L3, L7, C2, C6, C7, C25, and U1.

The filtered signals are amplified by LNA circuit composed of Q1 and related components.

### 4) Mixer Block

Mixing signals from PLL synthesizer and LNA circuit to make mid-ranged frequencies.

### 5) IF Filter Block

This part is composed of CF2 and R2.

The signals what we need is filtered by Ceramic Filter(CF2).

### 6) IF AMP & Demodulator Block

The inputted signals from IF filter is amplified by IF amplifier in RF IC.

And the signals are demodulated by audio buffer and comparator.