

## **CIRCUIT DESCRIPTION**

### **1. Radio Part**

The RF (radio frequency) signal receiving from antenna pass through input loop, being expanded by radioamplifier, was sent to mixer; mixing with local oscillator signal, generate an IF (intermediate frequency) signal of 10.7Mhz (or 455 Khz); expanded by IF (intermediate frequency), being demodulated, generate an AF (audio frequency) signal and the AF signal was sent to power amplifier for expansion to push speaker make sound.

### **2. Base Part**

#### **1) Reception**

The signal receiving from handset by antenna was filtered through 2475Mhz filter and was sent to radioamplifier for expansion, then was sent to mixer; at the same time the signal generated by local oscillator was also sent to mixer, generate an IF (intermediate frequency) signal of 10.7Mhz, and then generate an IF (intermediate frequency) signal of 450Khz after remixing; being expanded and demodulated, generate an AF (audio frequency) signal; being expanded by voice amplifier, voice signal comes out from telephone line.

#### **2) Transmission**

The AF (audio frequency) signal receiving from telephone line was expanded by voice compression amplifier, then was sent to modulation oscillator for modulation; expanding the power of the demodulated signal, filtering it by 2403Mhz filter, was finally being sent out by antenna.

### **3. Handset Part**

#### **1) Reception**

The signal receiving from base by antenna was filtered through 2403Mhz filter and was sent to radioamplifier for expansion, then was sent to mixer; mixing with local oscillator frequency, generate an IF (intermediate frequency) signal of 10.7Mhz, and then generate an IF (intermediate frequency) signal of 450Khz after remixing; being expanded and demodulated, generate an AF (audio frequency) signal; being expanded by voice amplifier, make a sound from speaker.

#### **2) Transmission**

Voice signal generate an AF (audio frequency) signal through microphone, was expanded by voice compression amplifier, then was sent to modulation oscillator for modulation; expanding the power of the demodulated signal, filtering it by 2475Mhz filter, was finally being sent out by antenna.