## Circuit introduce

## TX part:

1. Audio frequency amplify and compress parts

MIC change tone signal through IC1B amplify, enter C14, R3, C19,,R8 network ,and deal with the signal by the control plus amplifier. So the audio frequency compress finish. Other way the plus of IC1A is controlled

2. Modulate and RF parts:

The audio signal out of IC1A modulate In D2, Y1 decides the frequency of carrier wave. Q4 finish oscillate and triple frequency.Q3 and Q2 finish double frequency.Q1 is power amplifier.

## RX part:

## 1. RF and IF parts:

(1) Channel A

Antenna E1 receive signal through T1, C14, C18, C25, C33, T3 combine to LPF network, Q6 amplify, through T4, C73, C78, C83, C91, T8 combine to LPF networking, sent to Q11, IF mixing 10.7MHz

Q16, F1, F2 combine to middle amplify. After choose-frequency, enter frequency amplify IC9, Output audio signal 'A Audio IN' and field strength AS

(2) Channel A

Antenna E2 receive signal through T2,C15, C20,C24,C35,T4 combine to LPF network, Q7 amplify ,through T8,C76,C81,C90,C97,T10 combine to LPF networking ,sent to Q12, IF mixing 10.7MHz

Q17, F3, F4 combine to middle amplify. After choose-frequency, enter frequency amplify IC10, Output audio signal 'B Audio IN' and field strength BS

## 2. Base oscillator

Y1, L3, C26, C30, C29, L5, Q4 combine to capacitive oscillator, Transmit the frequency of the receive part want. T6, C62, C67, C57, C43, T5 combine to Line pass network about triple or fourfold frequency, LOA sent to Q11 and LOB sent to Q12

## 3. Channel control part:

Field strength signal, AS sent to IC6B and BS sent to IC6A after amplify, sent to the compare IC 5C, the result control IC 7B,IC7D,IC7C combine to switch group finish the choose –frequency better signal from 'A Audio in 'and 'B Audio in'.

# 4. quiescence noise part:

IC 8A, IC 8B combine to noise amplify circuit, sent to compare 'IC 5A', another mixing field signal AS and BS, sent to 'IC 5D'. the results of the compares sent compares 'IC5B', the result control 'IC 7A' to finish quiescence noise control.

#### 5. Audio process part:

'IC1A' is 20dB amplifier, 'IC1B' is control plus amplifier and finish audio expanding with ic2,C32, C31, R21, R20dis-add network .IC3B is inversion.

# Other parts:

- 1. Q3, D2, C7, D1, Q1, Q2 combine to power switch circuit to prevent from surge.
- indicate part :
  Q15, Q14, Q13, D17, D16 finish the channel indicate and quiescence noise indicate
- 3. Q8, Q15, D18 finish audio level indicate