

CIRCUIT DESCRIPTION OF CT-900

BASE SET :

The demodulated signal, resulting from Double Super Heterodyne system, which appears at output Pin no.3 of CN1 is sent to IC2 (Compander IC) Pin no.15 for Expansion. The expanded audio signal output from Pin no.19 is coupled to Q12,13 during the TELE mode. The audio signal is sent to the Telephone Line via hybrid Transformer HYB1.

The demodulated data code from CN1 Pin no.5 is Generated by Q3,4. Its output is connected to CODE Input Pin no.14 of IC3.

The Audio signal receiving from TEL-LINE is input to IC2 Pin no.2 for compression. The compressed audio signal from Pin no.3 of IC102 is connected to pin no.10 of CN1 for modulation.

Pin no.29 of IC3 is the output port for data codes that should be transmitted to the handset. the data code is connected to Pin no.10 of CN1 of for modulation.

Relay controlling is done by Pin no.17 of IC3.

Ring signal monitored by IC6 (PHOTO COUPLER IC) is detected by Pin no.13 of IC3 resulting a data code to the handset.

DTMF dialling is generated by IC3 Pin no.18-23 this signal output through the Q11.

When the handset is placed on the base cradle, the charging is detected by Pin no.12 of IC3 and IC3 sends data codes to handset for security code setting.

When the handset is far away from bas unit, squelch circuit of IC1 operates and Pin no.11 of IC1 goes "HI". This will be detected by the micro processor and after 20 secs. Go to Stand by mode.

The power to the base unit is supplied by IC5 (5V REGULATOR IC).

GVC

CIRCUIT DESCRIPTION OF CT-900

HAND SET :

The demodulated signal, resulting from Double Super Heterodyne system, which appears at output Pin no.3 of CN1 is connected to IC102A Pin no.15 Expander input. The audio output from IC102A Pin no.19 is finally amplified by Q107 and a.c coupled to the Receiver unit with HAC compatibility.

The demodulated data code from CN1 Pin no.3 is fed to Q105,106 is connected to (DATA IN) Pin no.15 of IC103.

voice signal from C-MIC is coupled to Pin no.8 of IC102. The voice signal is compressed by IC & output Pin no.1 is connected to Pin no.10 of CN1 for modulation.

pin no.31 of IC4 is the output port for data code that should be transmitted to the base unit. This data code is connected to the Pin no.10 of CN1 for modulation.

During the charging, it is detected by IC103 Pin no.5.

Key board operation is monitored by Pin no.11, 16-18, 28-30 of IC103.

Key Tone and the ringing from Pin no.9 of IC103 drives the BUZZER.

900MHz DESCRIPTION OF CIRCUIT

1. BASE RF MODULE

1) RX PART

THE RECEIVER FRONT-END CONTAINS A BAND PASS FILTER, AN RF LOW NOISE AMPLIFIER, A BAND PASS FILTER, A ACTIVE TRANSISTOR MIXER, A MONOLITHIC CRYSTAL FILTER AND 10.7MHz IF AMPLIFIER.

ALSO IT INCLUDES BUFFER AMPLIFIERS FOR THE GENERATION OF LOCAL OSCILLATOR POWER.

THIS FRONT-END RECEIVER RECEIVERS AN RF SIGNAL FROM THE ANTENNA. AND RF SIGNALS WITHIN THIS FREQUENCY RANGE IS 926.025MHz-927.975MHz PASS THROUGH RF AMP (Q1) AND BAND PASS FILTER.

AFTER PASSING THROUGH THE BAND PASS FILTER, THE SIGNAL IS MIXED WITHIN 1ST LOCAL FREQUENCY FROM VOLTAGE CONTROLLED OSCILLATOR. THE SIGNAL IS AMPLIFIED ON THE IF AMP TRANSISTOR (Q3) AND THE SIGNAL PASS THROUGH THE MONOLITHIC CRYSTAL FILTER (10.7MHz). AFTER THE IF SIGNAL PASS THE MCF FILTER, THE SIGNAL ENTER BY THE FM IF (INTERMEDIATE FREQUENCY) IC. AND THE SIGNAL IS MIXED IN THE FM IF IC (IC1). THE SIGNAL PASS THROUGH THE CERAMIC FILTER (450MHz). THE OUTPUT SIGNAL IN THE FM IF IC STREAMS FROM THE AF-OUT TERMINAL OF THE CONNECTOR TO THE BASE.

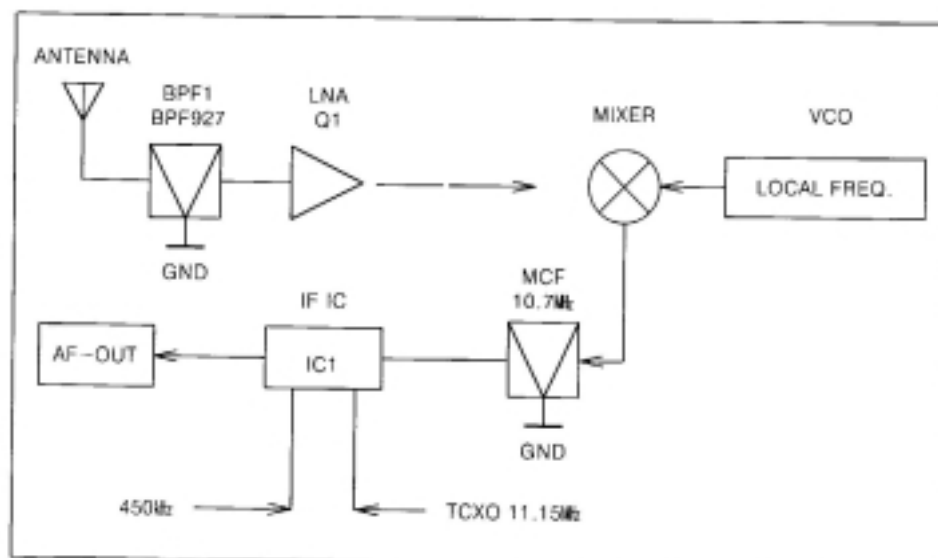


FIG. 1

2) TX PART

THE SIGNAL IS MADE TO THE PORTABLE, ENTER BY THE AF-IN TERMINAL OF THE CONNECTOR.

THE SIGNAL AND THE MOD TERMINAL OF THE TX VCO.

THE SIGNAL IS MIXED IN THE TX VCO MIXING THE RF SIGNAL, THE RF SIGNAL ADJUST THE TRIMMER CAPACITOR (VC1).

THE RF SIGNAL ENTER BY THE TRANSMISSION POWER AMP TRANSISTOR (Q4,7). ENTER BY THE BAND PASS FILTER.

THE RF SIGNAL PASSES THROUGH THE BAND PASS FILTER, TOWARDS THE ANT.

THE LAST TRANSMISSION RF SIGNAL IS 902.025MHz-903.975MHz.

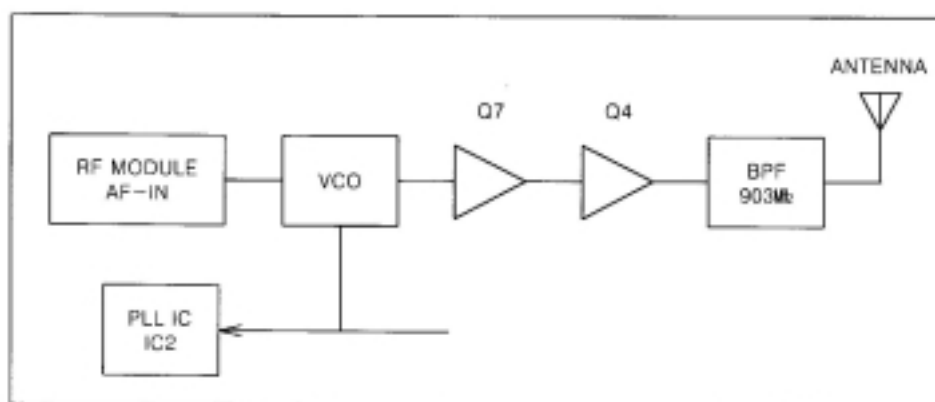


FIG. 2

2. PORTABLE RF MODULE

1) RX PART

THE RECEIVER FRONT-END CONTAINS A BAND PASS FILTER, AN RF LOW NOISE AMPLIFIER, A BPF, A ACTIVE TRANSISTOR MIXER, A MONOLITHIC CRYSTAL FILTER AND 10.7MHz IF AMPLIFIER.

ALSO IT INCLUDES BUFFER AMPLIFIERS OR THE GENERATION OF LOCAL OSCILLATOR POWER.

THIS FRONT-END RECEIVERS AN RF SIGNAL FROM THE ANTENNA. AND RF SIGNALS WITHIN THIS FREQUENCY RANGE IS 902.025MHz-903.975MHz PASS THROUGH RF AMP (Q1) AND BAND PASS FILTER.

AFTER PASSING THROUGH THE BAND PASS FILTER, THE SIGNAL IS MIXED WITHIN 1ST LOCAL FREQUENCY FROM VOLTAGE CONTROLLED OSCILLATOR. THE SIGNAL IS AMPLIFIED ON THE IF AMP TRANSISTOR (Q3) AND THE SIGNAL PASS THROUGH THE MONOLITHIC CRYSTAL FILTER (10.7MHz) AFTER THE IF SIGNAL PASS THE MCF FILTER, THE SIGNAL ENTER BY THE FM IF IC (IC1). THE SIGNAL PASS THROUGH THE CERAMIC FILTER (450kHz). THE OUTPUT SIGNAL IN THE FM IF IC STREAMS FROM THE AF-OUT TERMINAL OF THE CONNECTOR 1 TO THE BASE.

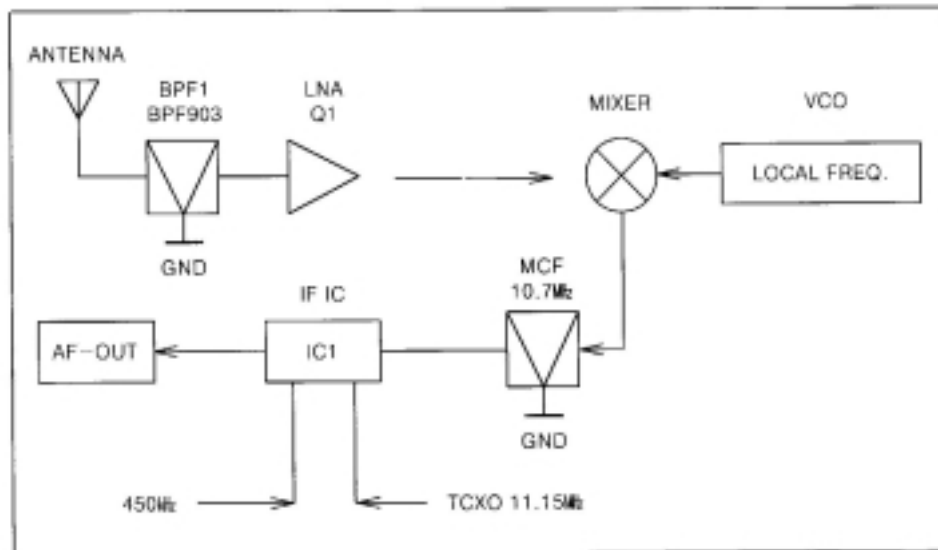


FIG. 3

2) TX PART

THE SIGNAL IS MADE TO THE PORTABLE, ENTER BY THE AF-IN TERMINAL OF THE CONNECTOR.

THE SIGNAL SEND THE MID TERMINAL OF THE TX VCO.

THE SIGNAL IS MIXED IN THE TX VCO MIXING THE RF SIGNAL, THE RF SIGNAL ADJUST THE TRIMMER CAPACITOR (VC1).

THE RF SIGNAL ENTER BY THE TRANSMISSION POWER AMP TRANSISTOR (Q4,7).

THE SIGNAL IS AMPLITUDE IN THE Q4,7 ENTER BY THE BAND PASS FILTER.

THE RF SIGNAL PASS THROUGH THE BAND PASS FILTER, TOWARDS THE ANT. THE LAST TRANSMISSION RF SIGNAL IS 926.025MHz~927.975MHz.

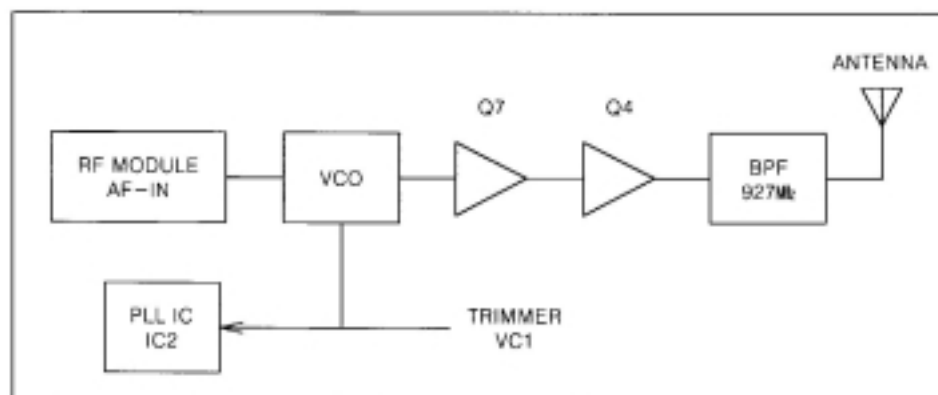


FIG. 4