DESCRIPTION OF CIRCUIT OPERATION

1. BASE UNIT

The demodulated signal, resulting from Double Super Heterodyne system, which appears at output Pin No.3 of CON1 is sent to U2 (COMPANDER IC) Pin No.16 for Expansion. The expended audio signal output from Pin No.19 is to Q1 during the TALK mode.

The audio signal is sent to the Telephone Line via Q3.

The demodulated data code from CON1 Pin No.3 is fed to U5-B.

It's output is connected to Pin No.14(Data Reference Input Pin) of IC3.

The Audio signal receiving from TEL-LINE is input to U2 Pin No.8 for compression. The compressed audio signal from Pin No.1 of U2 is connected to Pin No.10 of CON1 for Audio signal modulation.

Pin No.31 of IC3 generates data codes that should be transmitted to the hand set.

The data code is connected to Pin No.10 of CON1 for Data modulation.

Relay control is done by Pin No.18 of Q4

Ring signal monitored by U5-A is detected by Pin No.16 of IC3 and

Base Unit sends Ring Data Code to hand set.

DTMF dialing is generated by IC3 Pin no.20~25 and this signal is sent to TEL-LINE through the U5-D and Q1,Q3.

When the hand set is placed on the base cradle, the charging is detected by Pin No.13 of IC3 and IC3 sends I.D data codes to handset for security code setting.

When the handset is far away from base unit, squelch circuit of IC1 in RF part operates and Pin No.13 of IC1 goes "HI". This Squelch Detection Signal will be detected by Pin No.17 of IC3 (the micro processor) and the base set goes to Stand-By mode after 20 sec.

The power of the base set is supplied by U3(5V REGULATOR IC).

IN-USE LED display is controlled by Pin No.9 of IC3.

3. BASE RF MODULE

1) RX PART

The Receiver front-end contains a Band Pass Filter and RF Low Noise Amplifier, a active Transistor Mixer, a Ceramic Filter and 10.73MHz IF Amplifier.

Also it includes buffer Amplifier for the generation of Local Oscillator Power.
This front-end Receiver receivers RF signal from the Antenna and RF signals within this Frequency range is 2468.0MHz~2479.7MHz pass through RF Low Noise Amp (Q1) and Band Pass Filter (F1). After passing through the Band Pass Filter and the RF signal is Mixed within 1'ST Local Frequency from Voltage Controlled Oscillator. The signal is amplified on the IF AMP Transistor (Q3) and the signal pass through the 10.73MHz Ceramic Filter (F3). After the IF signal pass the Ceramic Filter, the signal enter by the FM IF (Intermediate Frequency) IC (IC1). And the signal is mixed in the FM IF IC (IC1).
The Output signal in the FM IF IC (IC1) streams from the AF-Output terminal of the connector 1 to the base set.

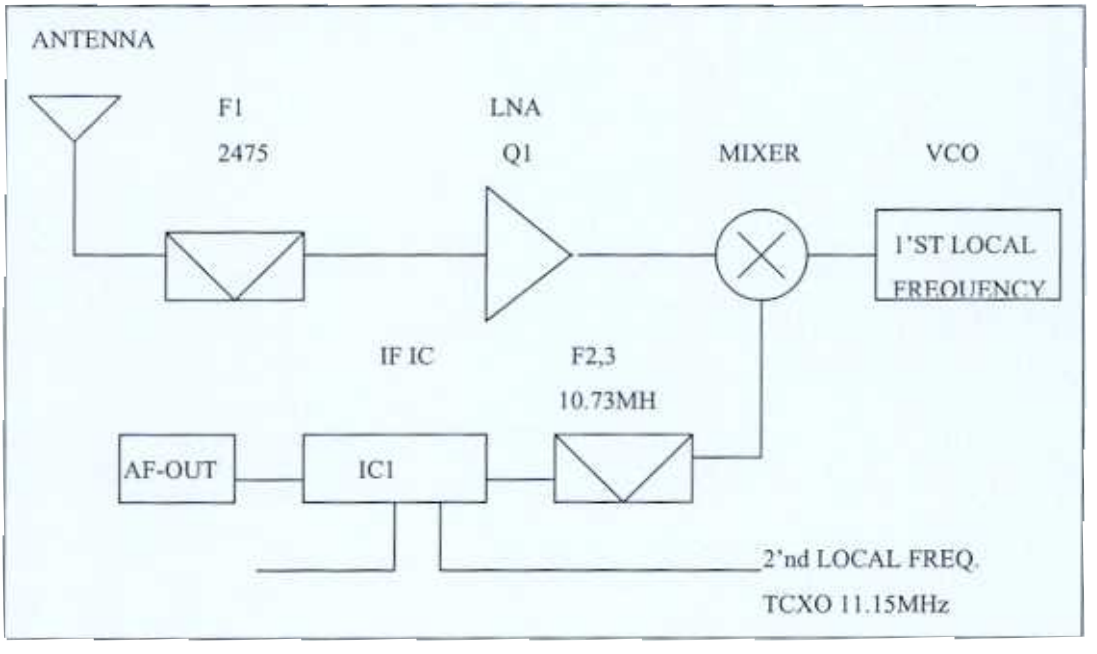

FIG.3

2) TX PART

The signal is made to the BASE and enter by the AF-Input terminal of the connector (PIN NO.10 of CON1). The signal send the Modulation terminal of the TX VCO and the TX Radio Frequency adjust the Trimmer Capacitor (VC1).

The RF signal enter by the Transistor Power AMP (Q7) and the signal is amplified in the Q5,Q10.

The RF signal enter by the Band Pass Filter, to wards the Antenna.

The last Transmission RF signal is 5803.019MHz~5816.019MHz.

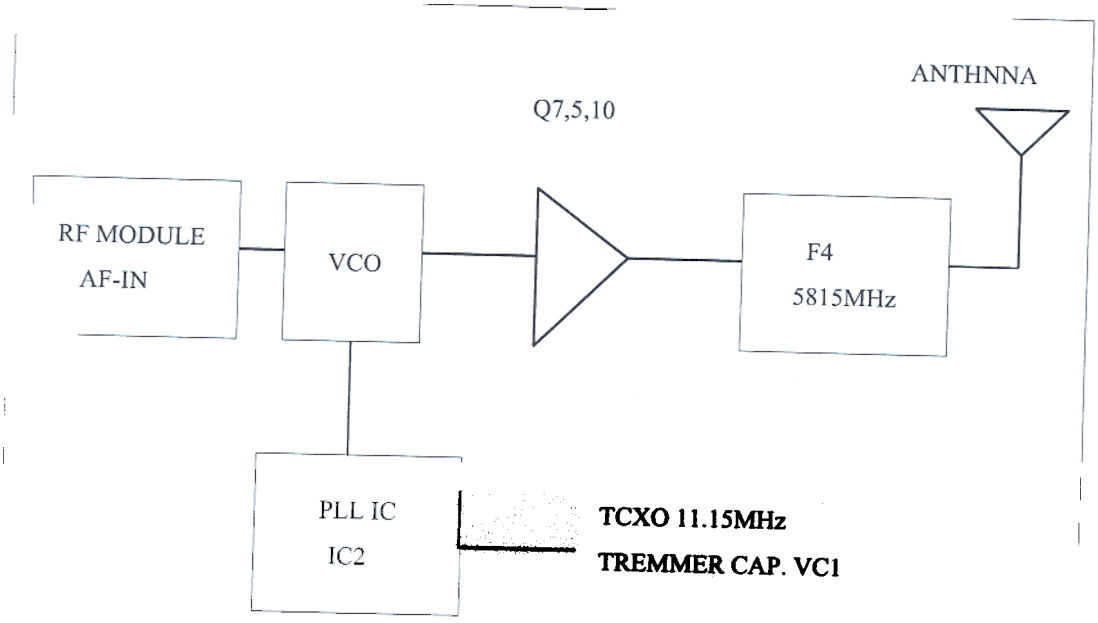

FIG. 4