DESCRIPTION OF CIRCUIT OPERATION
BASE UNIT :

The demodulated signal, resulting from Double Super Heterodyne system, which appears at output Pin no.3 of J3 is sent to IC2 (COMPANDER IC) Pin no.16 for Expansion. The expended audio signal output from Pin no.19 is coupled to Q12,13 during the TEL. mode The audio signal is sent to the Telephone Line via hybrid Transformer HBY1.

The demodulated data code from J3 Pin no.3 is Generated by Q5,6.
It's output is connected to CODE Input Pin no.15 of IC1

The Audio signal receiving from TEL-LINE is input to IC2 Pin no.8 for compression. The compressed audio signal from Pin no.1 of IC2 is connected to Pin no.10 of J3 for TX modulation.

Pin no.29 of IC1 is the output port for data codes that should be transmitted to the handset the data code is connected to Pin no.10 of J3 for modulation.

Line controlling is done by Pin no.25 of IC1.
Ring signal monitored by IC7 (PHOTO COUPLER IC) is detected by Pin no.27 of IC1 resulting a data code to the handset.

DTMF dialing is generated by IC1 Pin no.22 this signal output through the HYB1.

When the handset is placed on the base cradle, the charging is detected by Pin no.26 of IC1 and IC1 sends data codes to handset for security code setting.

When the handset is far away form base unit, squelch circuit of IC1 operates and Pin no.13 of IC1 goes "HI". This will be detected by the micro processor and after 20 sec. go to Stand by mode.

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

LED display control Pin no.5,6 of IC1.

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

LED display control Pin no.5,6 of IC1.

HAND SET :

The demodulated signal, resulting from Double Super Heterodyne system, which appears at output Pin no.3 of CON1 is connected to U2-B Pin no.16 Expander input. The audio output from U2-B Pin no.19 is finally amplified by Q8 and A.C coupled to the Receiver unit with HAC compatibility.

The demodulated data code from CON1 Pin no.3 is fed to Q9,10.
Q9 is connected to (DATA IN) Pin no.26 of U1.

Voice signal from C-MIC is coupled to Pin no.8 of U2-A. The voice signal is compressed by U2-A and output Pin no.1 is connected to Pin no.10 of CON1 for modulation.

Pin no.29 of U1 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 CON1 for modulation.

During the charging, it is detected by U1 Pin no.23.

Key board operation is monitored by Pin no.50~ 61of U1.

Key Tone and the ringing from Pin no.62 of U1 drives the BUZZER.

1. 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 10.7MHz IF AMPLIFIER.

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

THIS FRONT-END RECEIVER RECEIVERS AND RF SIGNAL FROM THE ANTENNA. AND RF SIGNALS WITHIN THIS FREQUENCY RANGE IS 2403.05MHz ~ 2475.95MHz PASS THROUGH RF AMP (Q1) AND BAND PASS FITER.

AFTER PASSING THROUGH THE BAND PASS FILTER AND THE SIGNAL IS MIXED WITHIN 1'ST LOCAL FREQUENCY FROM VOLTAGE CONTROLLED OSCILLATOR. THE SIGNAL IS AMPLIFIED ON THE OF AMP TRANSISTOR (Q3) AND THE SIGNAL PASS THROUGH THE CERAMIC FILTER (10.7MHz).

AFTER THE IF SIGNAL PASS THE CERAMIC FILTER, THE SIGNAL ENTER BY THE FM IF(INTERMEDIATE FREQUENCY) IC1.

AND THE SIGNAL IS MIXED IN THE FM IF IC (DBL5018V). 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 TO THE BASE.

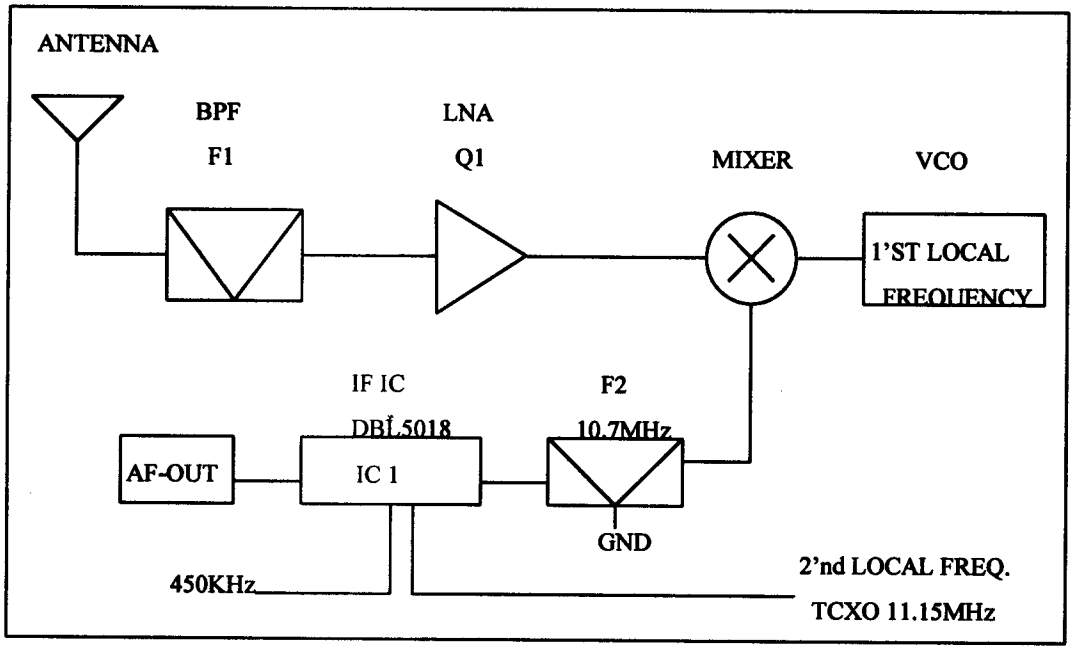

FIG. 1

2)TX PART

THE SIGNAL IS MADE TO THE BASE, ENTER BY THE AF-IN TERMINAL OF THE CONNECTOR(CON1 OF PIN NO.10).

THE SIGNAL SEND 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 Q5

THE SINAL IS AMPLITUDE IN THE Q7. ENTER BY THE BAND PASS FILTER.

THE RF SIGNAL PASS THROUGH THE BAND PASS FILTER, TO WARDS THE ANT. THE LAST TRANSMISSION RF SIGNAL IS 2403.05MHz ~ 2475.95MHz.

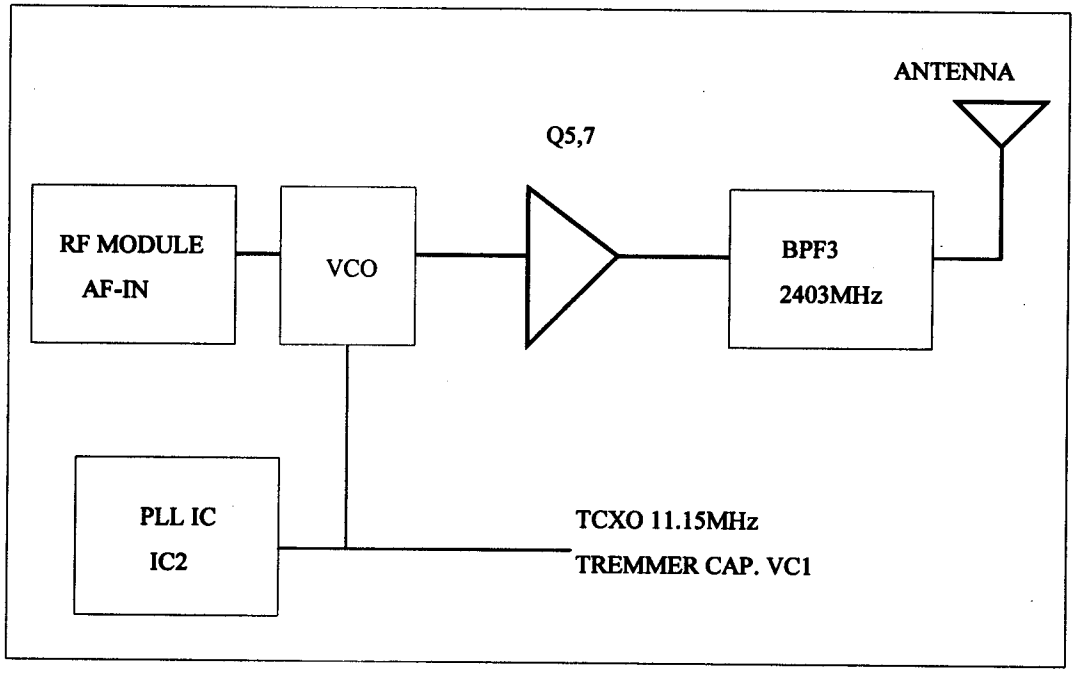

FIG. 2

2. PORTABLE RF MODULE

1) RX RART

THE RECEIVER FRONT-END CONTAINS A BAND PASS FILTER,AND RF LOW NOISE AMPLIFIER, ACTIVE TRANSISTOR MIXER, CERAMIC FILTER AND 10.7MHz "IF" AMPLIFTER.

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

THIS FRONT-END RECEIVERS AND RF SIGNAL FROM THE ANTENNA. AND RF SIGNALS WITHIN THIS FREQUENCY RANGE IS 2403.05MHz ~ 2475.95MHz PASS THROUGH RF AMP (Q1) AND BAND PASS FILTER..

AFTER PASSING THROUGH THE BAND PASS FILTER, THE 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 CERANIC 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 (DBL5018V). 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 PORTABLE.

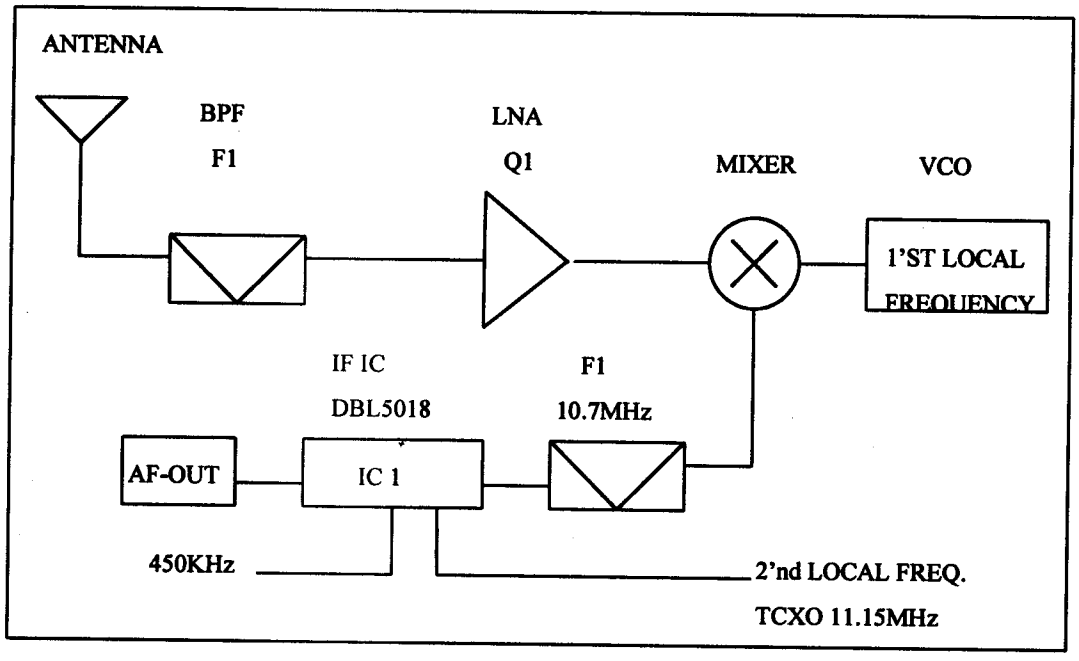

FIG.3

2) TX PART

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

THE SIGNAL SEND THE 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 (Q5,7). ENTER BY THE BAND PASS FILTER.

THE RF SIGNAL PASS THROUGH THE BAND PASS FILTER, TO WARDS THE ANT. THE LAST TRANSMISSION RF SIGNAL IS 2403.025MHz ~ 2475.95MHz.

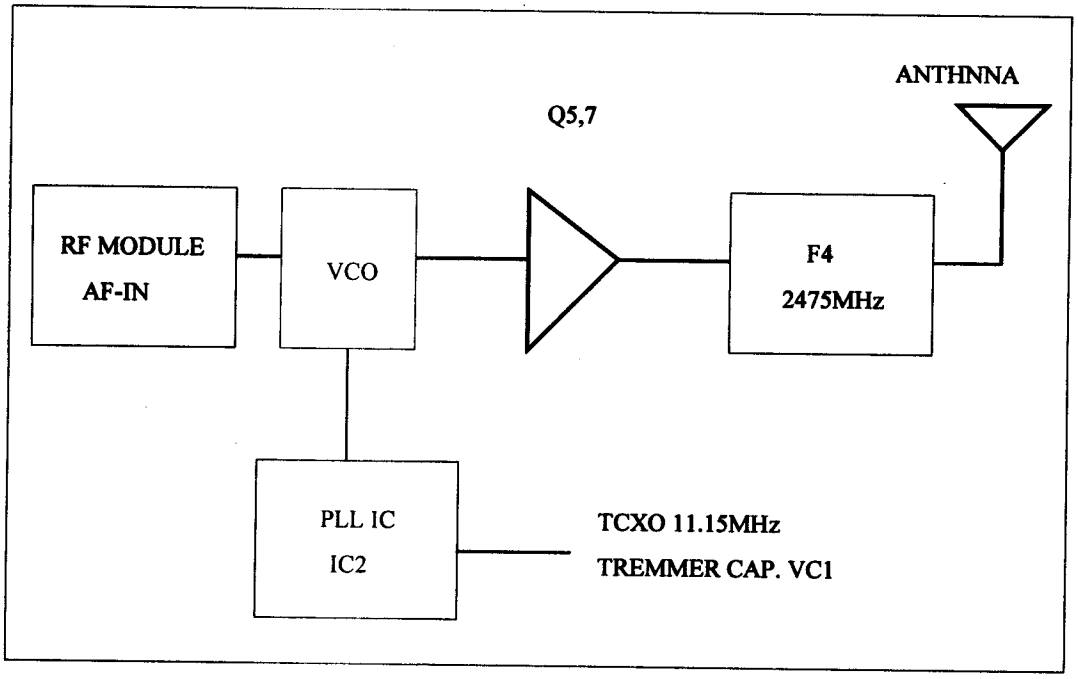

FIG. 4

CHANNEL TABLE MC-925

Ch	ANDY Tx(MHz	ANDY RX(MHz		BASE TX(MHz)	BASE RX (MHz)
1	2,474.000	2403.05		2403.05	2,474.000
2	2,474.050	2403.1		2403.1	2,474.050
3	2,474.100	2403.15		2403.15	2,474.100
4	2,474.150	2403.2		2403.2	2,474.150
5	2,474.200	2403.25		2403.25	2,474.200
6	2,474.250	2403.3		2403.3	2,474.250
7	2,474.300	2403.35		2403.35	2,474.300
8	2,474.350	2403.4		2403.4	2,474.350
9	2,474.400	2403.45		2403.45	2,474.400
10	2,474.450	2403.5		2403.5	2,474.450
11	2,474.500	2403.55		2403.55	2,474.500
12	2,474.550	2403.6		2403.6	2,474.550
13	2,474.600	2403.65		2403.65	2,474.600
14	2,474.650	2403.7		2403.7	2,474.650
15	2,474.700	2403.75		2403.75	2,474.700
16	2,474.750	2403.8		2403.8	2,474.750
17	2,474.800	2403.85		2403.85	2,474.800
18	2,474.850	2403.9		2403.9	2,474.850
19	2,474.900	2403.95		2403.95	2,474.900
20	2,474.950	2404		2404	2,474.950
21	2,475.000	2404.05		2404.05	2,475.000
22	2,475.050	2404.1		2404.1	2,475.050
23	2,475.100	2404.15		2404.15	2,475.100
24	2,475.150	2404.2		2404.2	2,475.150
25	2,475.200	2404.25		2404.25	2,475.200
26	2,475.250	2404.3		2404.3	2,475.250
27	2,475.300	2404.35		2404.35	2,475.300
28	2,475.350	2404.4		2404.4	2,475.350
29	2,475.400	2404.45		2404.45	2,475.400
30	2,475.450	2404.5		2404.5	2,475.450
31	2,475.500	2404.55		2404.55	2,475.500
32	2,475.550	2404.6		2404.6	2,475.550
33	2,475.600	2404.65		2404.65	2,475.600
34	2,475.650	2404.7		2404.7	2,475.650
35	2,475.700	2404.75		2404.75	2,475.700
36	2,475.750	2404.8		2404.8	2,475.750
37	2,475.800	2404.85		2404.85	2,475.800
38	2,475.850	2404.9		2404.9	2,475.850
39	2,475.900	2404.95		2404.95	2,475.900
40	2,475.950	2405		2405	2,475.950