

SHANGHAI ZI BEI TELESYSTEMS CO., LTD

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CIRCUIT DESCRIPTION OF 39205

1. RF MODULE

1) RX PART

The receiver front-end contains a band pass filter, RF low noise amplifier, active transistor mixer, a monolithic crystal filter and 10.7MHz "IF" amplifier.

This front-end receives THE RF signal from the antenna. RF signals frequency range is 926.0504286—927.9693328MHz for Handset and 902.0315952—903.9504994MHz for Base unit pass through RF AMP(Q655,Q555).

After passing through the band pass filter, the signal is mixed with 1st local frequency from voltage controlled oscillator. The signal is amplified on the IF AMP transistor(Q803,Q205) and the signal pass through the ceramic filter(10.7MHz), then the signal enter by the FM IF(intermediate frequency) IC. And the signal is mixed in the FM IF IC(MC3361). The signal pass through the ceramic filter(455KHz). The output signal in the FM IF IC streams from the AF-OUT terminal of the connector.

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 by the VC801,VC201.

The RF signal enter by the transmission power AMP transistor.

Enter by the band pass filter.

The RF signal pass through the band pass filter, towards the ANT. The last transmission RF signal is 902.0315952—903.9504994MHz for Handset and 926.0504286—927.9693328MHz for Base Unit.

2. HANDSET MAIN

The demodulated signal, resulting from Double Super Heterodyne system, which appears at output Pin No.9 of u801(MC3361) is connected to Pin No.16 of u802(KA8507). The audio output from Pin No.19 of u802 is finally amplified by Q805 and ac coupled to the receiver unit the HAC compatibility.

The demodulated date code from Pin No. 9 of u801 is fed to Q801,Q802 and it is connected to (DATA IN) Pin No. 5 of u701(MCU).

Voice signal from C-MIC is coupled to Pin no.8 of u802. The voice signal is compressed by u802 & output Pin No.1 is connected to RF board for modulation.

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Pin No.28 of u701(MCU) is the output part for data code that should be transmitted to due base unit.

This data code is connected to the Pin No.4 of u802 for modulation.

During the charging,, it is detected by Pin No.27 of u701.

Key board, operation is monitored by Pin no.11-14,18-20,26 of u701.

Key Tone and the ringing from Pin no.29 of u701 drives the BUZZER.

3. BASE MAIN

The demodulated signal from Pin No.9 of u201(MC3361) is sent to u202 Pin No.15 to expansion, The expanded signal amplitude by Q306 and Q307 and sent to the telephone line.

Relay controlling is done by Pin No.13 of u103(MCU).

Ring signal is detected by Pin No.7 of u103 resulting a data code to the handset.

DTMF dialing is generated by u103 Pin No.6 this signal output through the base of Q306,307 to tel-line.

When the handset is placed on the base cradle, the charging is detected by Pin no.9 of u103 sends data codes to handset for security code setting.

The power to the base unit is supplied by u101(5V REGULATOR IC).

MODEL 39205 FREQUENCY TABLE

CHANNEL	HS Tx (MHz)	BS Tx (MHz)
0	902.0315952	926.0504286
1	902.064119	926.0829524
2	902.0966428	926.1154762
3	902.1291666	926.148
4	902.1616904	926.1805238
5	902.1942142	926.2130476
6	902.226738	926.2455714
7	902.2592618	926.2780952
8	902.2917856	926.310619
9	902.3243094	926.3431428
10	902.3568332	926.3756666
11	902.389357	926.4081904
12	902.4218808	926.4407142
13	902.4544046	926.473238
14	902.4869284	926.5057618
15	902.5194522	926.5382856
16	902.551976	926.5708094
17	902.5844998	926.6033332
18	902.6170236	926.635857
19	902.6495474	926.6683808
20	902.6820712	926.7009046
21	902.714595	926.7334284
22	902.7471188	926.7659522
23	902.7796426	926.798476
24	902.8121664	926.8309998
25	902.8446902	926.8635236
26	902.877214	926.8960474
27	902.9097378	926.9285712
28	902.9422616	926.961095
29	902.9747854	926.9936188
30	903.0073092	927.0261426
31	903.039833	927.0586664
32	903.0723568	927.0911902
33	903.1048806	927.123714
34	903.1374044	927.1562378
35	903.1699282	927.1887616
36	903.202452	927.2212854
37	903.2349758	927.2538092
38	903.2674996	927.286333
39	903.3000234	927.3188568
40	903.3325472	927.3513806
41	903.365071	927.3839044
42	903.3975948	927.4164282
43	903.4301186	927.448952

44	903.4626424	927.4814758
45	903.4951662	927.5139996
46	903.52769	927.5465234
47	903.5602138	927.5790472
48	903.5927376	927.611571
49	903.6252614	927.6440948
50	903.6577852	927.6766186
51	903.690309	927.7091424
52	903.7228328	927.7416662
53	903.7553566	927.77419
54	903.7878804	927.8067138
55	903.8204042	927.8392376
56	903.852928	927.8717614
57	903.8854518	927.9042852
58	903.9179756	927.936809
59	903.9504994	927.9693328