Circuit Description

1. The 2G mobile phone have bluetooth function option inside, the bluetooth is a wireless data transmission function, and the radio ferquency is from 2402 to 2480MHz with GFSK modulation. The uplink frequency band is from 824MHz to 849MHz for GSM850, the uplink frequency band is from 1850MHz to 1910MHz for GSM1900.

2. Baseband Rf Processor Si4210 is a Aero II transceiver. It is consist with RFVCO, Mixer, Loopfilter, LC, and IFVCO, Demodulator and Phase Det filter etc. Serial data can get well communication and controlling with it. And the well characteristics VCO , filter and high performance data dealing and controlling make it as a good IC for mobile design.

3. The PA enlargement is a amplifier for the modulation and demodulation signal and enlarge the well siganl for the mobile using. It supporting the GSM and DCS protocol. The mobile is consist the main part of Si4210 and RF7182, SAW filter and other I/O interface accessories.

Si4210 is powered and supporting with the 26MHz CXO and actived the PhaseDet. I/Q is also controlled with it and the the phase signal is pass to the IFVCO and enter to the LNA mixer and filter.

Also, the serial data interface is actived and communicate with the RFVCO, then to the Mixer and loopfilter. As the modulation and demodulation with the Si4210 RF Processing, the GSM DCS signal enter into the 5dB LP and passing thiough the PA Enlargement for amplify. Then the enlarge siganl run to the LP and to the ANT switch.

Matching with the antenna circuit. The siganl is transmitting out through the ANT.

The receiving procedure is a revised direction as the transmitting procedure while is seperated through the ANT switch and monitor with the Serial data interface terminal.