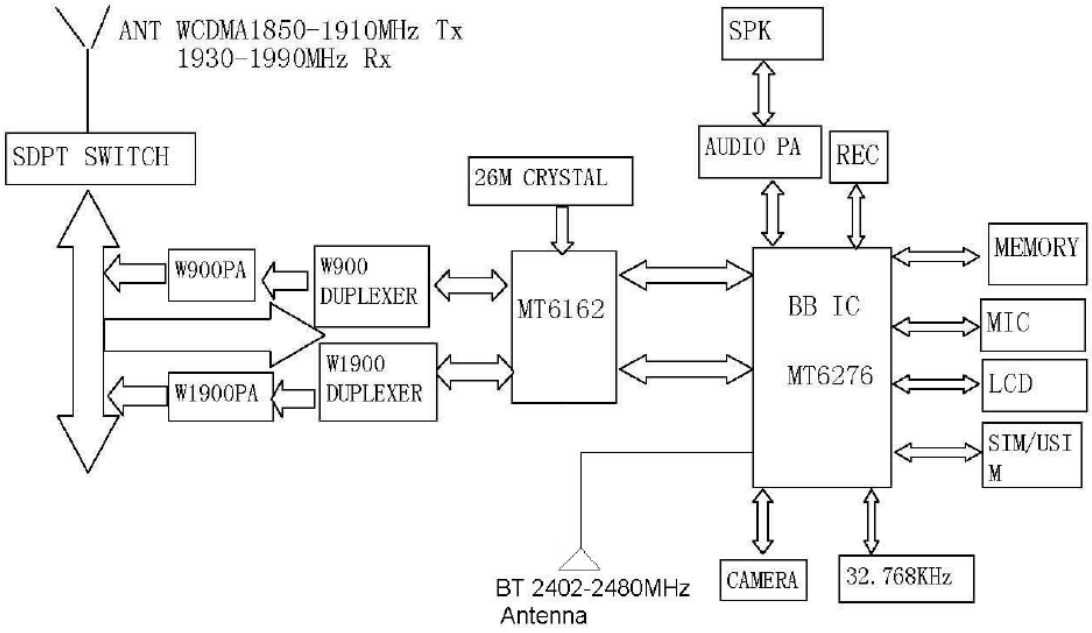
General Technical Description

1. Scope

This document is shown and provided the more detail information about the platform used in. The basic description for the Baseband and RF section are also included.

2. Detail Block Diagram



3. RF Front End

1.The MT6162 is a single-chip multi-mode multi-band transceiver offering unparalleled integration and feature set resulting in industry's lowest eBoM. It is fully compliant with 3G mode (3GPP Rel. 6). The direct conversion receiver is part of an over-sampled sigma-delta architecture. The direct modulation transmitter DFM (Direct-Frequency Modulation), delivers high modulation accuracy with exceptionally low noise and eliminates the need for transmit SAW filters in 3G modes. On-chip impairments compensation is used to guarantee optimum 3G Rx and Tx performance. The 3G receiver operation is SAW-less and does not require any Rx SAW filters post LNAs. Two on-chip VCOs at 2xLO/4xLO frequencies provide the two local oscillators required for RX and TX sections; they are followed by frequency dividers and are locked to the system reference via two fast-settling RF Fractional-N PLLs.All functional and PLL programming is done via a 3-wire serial bus.

2. WCDMA PA BST3402 is a fully matched 10-pin surface mount module developed for UMTS Band2. This power amplifier module operates in the 1850-1910MHz bandwidth. BST3408 is a fully matched 10-pin surface mount module developed for UMTS Band8. This power amplifier module operates in the 880-915MHz bandwidth. The BST3402& BST3408 meets stringent UMTS linearity requirements up to

24.0dBm output power. The 3mmx3mm form factor package is self contained, incorporating 50ohm input and output matching networks.

The IQ signal passed to the Mixer and loop filter, and processed by MT6162. If it's Band 2,the WCDMA signal passed though the PA BST3402,or it's Band 8,the WCDMA signal passed though the PA BST3408.The amplified signal pass though the duplexer to the SP4T, and radiated by ANT.
Received signal pass though SP4T, and duplexer into the LNA of MT6162.Then changed to low frequency by Mixer and loop filter. Final though the serial port to the CPU.

4. Baseband

MT6276 is a monolithic chip that integrates leading edge power management unit, analog baseband, and radio circuitry based on 65nm low power process.

MT6276 is a feature-rich and extremely powerful single-chip solution for high-end HSPA/WCDMA. Based on the 32-bit ARM1176JZSTM RISC processor, MT6276's superb processing power, along with high bandwidth architecture and dedicated hardware support, provides a platform for high performance HSPA MODEM application and leading-edge multimedia applications.

Besides, MT6276 also features a highly integrated Bluetooth transceiver and FM receiver. The Bluetooth transceiver is fully compliance with Bluetooth specification v2.1+EDR.

5. Bluetooth

MT6276 offers a highly integrated Bluetooth radio and baseband processor. Only a minimum of external components are required. MT6276 provides superior sensitivity and class 1 output power, thus ensures the quality of the connection with a wide range of Bluetooth devices. MT6276 is fully compliant with Bluetooth v2.1 and offers the enhanced data rates of up to 3Mbps with Mediatek's proprietary interface. MT6276 has rich support of Bluetooth profiles. It enables diversified applications that are widely used on the handset with excellent interoperability.

PWR=3dBm±1dBm