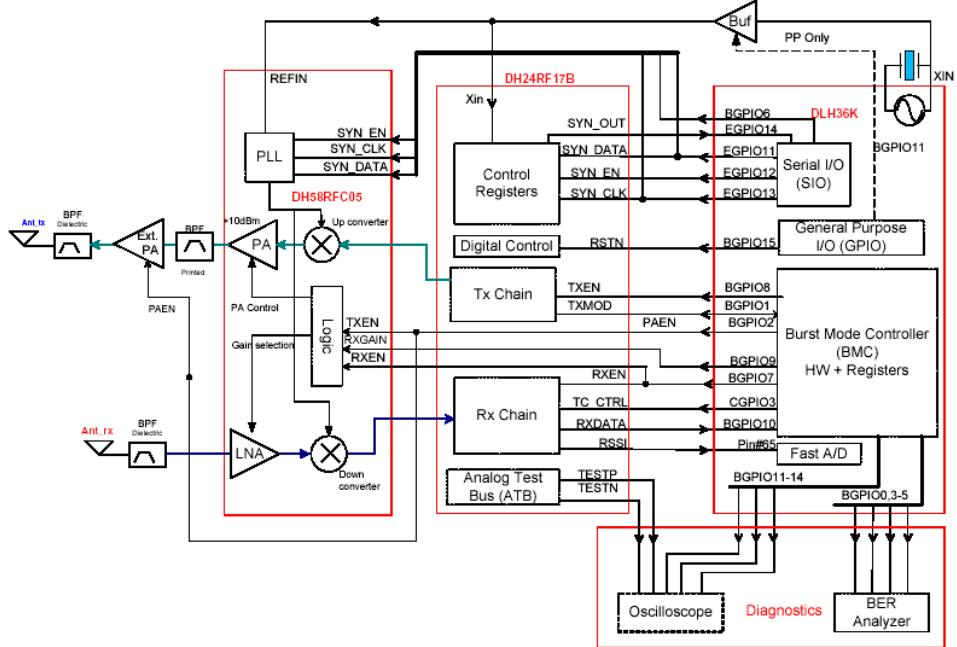


The technical Description of Gh5862

RF SYSTEM BLOCK DIAGRAM



1. RF Module

RX Part

RX LNA (DH58RFC05)

The received signal within the 5.725~5.850GHz ISM band is typically band pass filtered by an external wideband pre-selector filter before application to a 5.8GHz LNA.

RX Down-Conversion Mixer (DH58RFC05)

The output of the LNA is fed internally to the input of the receive down conversion mixer. The receive mixer is implemented as a simple double-balanced mixer, and also provides a single ended to differential conversion function.

1st IF Amplifier and Mixer (DH24RF17).

The 2.4GHz 1st IF signal from the receive down conversion mixer inter chip band pass filter is applied to the RX input of the DH24RF17 2.4GHz Transceiver. An integrated LNA amplifies the 2.4GHz signal prior to application to the image reject down conversion mixer.

TX Part

TX IF Amplifier (DH24RF17)

The DH24RF17 contains an integrated power amplifier capable of producing + 20dBm output power. The P.A. is implemented as a two stage complementary overdriven amplifier, operating between class AB and Class C.

TX Up Conversion Mixer (DH58RF05)

The TX IF signal within the 2.40~2.483 GHZ band from the DH24RF17 is internally AC-coupled inside the DH58RFC05 and converted to a differential signal by means of a passive balance. The signal is buffered by a differential amplifier and then up converted to the 5.8GHz band by mixing with the 3.3GHz LO in a simple double balanced mixer.

TX Power Amplifier (DH58RFC05)

The FSK modulated transmit signal is buffered and amplified by the power amplifier to a nominal level of + 10dBm at the output of the DH58RFC05. The P.A. is implemented as a two stage amplifier, operating in Class B. The output stage is internally matched to 50ohm.

2. The base Band Part of The Base Unit.

Tel line Interface.

Separate then incoming and outgoing audio signal and sidetone.

Make the tel-line on-hook and off- hook

Ring Detect and Branch Phone Detect

Detects the ring signal from the tel-line in on-hook status and informs the CPU, and detects if the branch phone is in the off hook mode or on-hook mode and then informs to the CPU.

Audio Path Switch Circuitry,

This circuitry can set up the path to implement the functions of talking with the telephone line, inter-communication, 3 way conference between the two handsets and tel-line. This circuitry is controlled by the CPU.

The CPU

It is the central controller. It manages the all parts including the audio path switch

circuitry to work properly and the communication with the handset through the RF link. The frequency of the clock is 13.824MHz.

3. The Base Band part of The Handset Unit.

Key Board,

The user interface.

Power Control Circuitry.

Switch on or off the power of TX part and RX part of the RF module.

It is controlled by the CPU.

Charge Circuit and Charge Detector,

Charge the battery in the handset when the handset is in the base cradle and detect if the handset is charging or not, and then informs to the CPU.

The CPU

It is the central controller. It manages the all parts including the audio path switch circuitry to work properly and the communication with the handset through the RF link. The frequency of the clock is 13.824MHz.

4. The Antennas

It is single pole type and soldered permanently on the RF module of both base and Handset

The End.