

The Basestation consists of BML (Burst Mode Logic), Speech network, Isolation interface, RF module, Linear regulator, Current Limiter, EEPROM, Xtal and so on.

1. Bust Mode Logic

This is part to control all function of the Basestation, we used the DE56300CA3DLC which is controller for DECT and control analog parts. This device include all control circuits of the Basestation for RF module, Isolation interface, ADPCM CODEC, series regulator and soon. Also, the embedded processor to be compatible with Intel 8051-core in the DE56300CA3DLC processes the program.

2. Speech network

The function of this connects LINE interface and the DE56300CA3DLC.

3. Isolation interface

The function of this connects line and speech network IC. Also, the Isolation interface include the ring detect circuit, Caller-ID (option) and soon.

4. EEPROM

This is 32K bytes of non-volatile memory. The each kind of value to set-up at Dialing memory. Ring level, operating parameter, EMC code and soon are stored in this device.

5. Current limiter

The current Limiter is circuit to supply the proper current to charge batteries of the handset from DC 7.5 V voltage to be inputted from the adapter.

RF CIRCUIT DESCRIPTION

1. RF Module The DE19RF19 (B3) RF IC Transceiver for DECT Standard Applications operating in European, Latin American and North American frequency ranges allocated for DECT.
2. Both the DE19RF19 PIN17-PIN25 and DSPG's base hand can support several receivers to base hand interface.
3. The receiver input circuit uses a balun1 circuitry. This BALUN transforms the single ended 50 Ω source from the band filter to the DE19RF19 RXP&RXN differential RF input. The parallel inductor (L2.L3) is used to resonate between RXP and RXN inputs and cancel the differential imaginary parallel part of the chip impedance, thus the resultant impedance has only a 'real' component. This RX BALUN is composed of (L2.L3.C15.C5.L7.L9.C4).
4. The transmitting output is symmetrical with an open collector output structure, more suitable for power transmission. Therefore two external collector coils are connected from TXN&TXP (pin 9 and 10) to the supply rail. On this RF module, these coils are made by (L11, L12). The symmetrical signal coming out is transformed to an asymmetrical signal using coupling capacitors (C63, C64) and a BALUN (C11.L4.L5.C24.C27.). The typical output power at this point is 20dBm.
5. After the Rx/Tx PIN diode (D1), The PIN diode is used as a switch, when open it provides 15dB isolation and less than 1dB loss when closed. The control signal *TRSW* and *TRSWN* from the DE19RF19