

The handset consists of BML, LCD, RF-Module, Keypad, Regulator, Charger, EEPROM X-tal, Earpiece, Ringer, Microphone and soon.

1 . Burst Mode Logic(BML)

The BML control all function of the handset, we used the DE56200AA4CLC of DSPG for the BML.

The DE56200AA4CLC is controller for DECT only.

This device include all control circuits of the handset for RF module, LCD controller, keypad interface, earpiece, Microphone, ADPCM CODEC, switching and series regulator and soon. Also, the embedded processor to be compatible with Intel 8051-core process the program.

2 . Charger

The base supply DC 7.5V power to the charger and the charger charge the batteries to use this power. The CDT signal on the charger circuit is generated when the handset is to being charged this signal is used to control the charger circuit and for automatic off-hook by cradle-off when an incoming call is coming.

3 . Switching & Linear Regulator

The switching Regulator generate s DC 3.3V voltage from the batteries(3.6V/ 3cell).

The generated voltage is supplied to the C2830 and then the linear regulator generate DC 3.3V voltage. DC 3.3V is used for RF-module, DC 3.3V is used for the DE56200AA4CLC and the circumference circuits.

4 . EEPROM

This is 32K bytes of non-volatile memory. The each kind of value to set-up at note-book memory, radial memory, and so on are stored in this device, sms r.

5 . LCD

Dots matrix LCD display(128*64 dots matrix).

6 . KEY PAD

The keypad consists of 12 dialing keys and 8 function keys.

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 band can support several receivers to base band 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