# **Circuit Description**

## 1, port of send-off

When the user communicate with someone through the blue-ivory earphone, microphone will bring audio frequency signal which trough C4 sieve wave and audio Q2、R2、C1 to be blew up, and then enter into PIN\_23(MIC\_N) of module U1(BEM005). Radio frequency will send gauss frequently shift key modulate signal from 204GHz to 2.485GHz when the radio frequency signal decoded. After Transmit data was sieved wave by gauss filter, filterF1outputto modulate the VCO frequency. According to cluster row input data stream logic electricity frequency, VCO frequency will departure, from central fenq2uency, to positive end and negative end. Modulate exponent of emitter depends on offset. After the signal was blew up, it would be transmitted from mini-fascia antenna and sent to another blue equipment.

### 2. End of receiver

As same as taking-over part of equipment, GFSK signal transmitted from another blue-ivory equipment was received through antenna too, and then blew up. Signal incepted by inferior mixer switch to IF frequency. Pill CO used in transmitting as frequency conversion local oscillator attach to receiver to use when carry through the above step, then demodulation IF

signal and switch to data. After receiving 2402MHz~2480MHz signal by antenna, and sending the signal filter F1 of module, imbalanced conversion implement T1, LC filter converted by RF end of module, and then send main CMOS chip CSR(213159A16) of module U1 (BEM005). And then by PIN\_27、28(SPK\_P、SPK\_N) transmitted R5,R7,lastly deliver to SPK which sending out frequency signal.

#### 3, portions of storage

As a result of main COMS chip need to exert to some program, so meeting a EEPROM with communication in PIN\_6. 7end, and reading this program from PIN-6. 7 in circuit work. R10,R12,R13 pull resistance for EEPROM in circuit. And C8 capacitance for filter.

#### 4. electrification institution

>From earphone of blue-ivory earphone join into power supply adapter, and elasticized to battery through Q3,R14,D3,R15.When the battery voltage drive down,Q3 blowing up, and current transfluxed from Q3 to R6,D2,so LED(D2) emit glow after opening. This phenomenon is charging up now.

## 5. voltage conversion

when battery finished electrification, red indicator light is crushed out. When opened blue-ivory earphone, from battery fan-out end go through C6 filter, by U3 convert to voltage, fan-out 2.5V voltage provide.

- 6. the swith was finished trougth out pio3 and pio9 in the module periphery of r16 r17 r18 r19 r20 d4 excessive funtion key sw1.
- 7. The design holds two LEDs: red LED,D2;green LED D3. These are driven by the transistor.Q1.