

RVBT200V Circuit Operation Principle Description

RVBT200V circuit can divide into four parts: master control (see Picture1), audio amplification part (see Picture 2), power part(see Picture 3)and module part(see Picture 4) .

Of them, master control part mainly finishes switch control, status indicator and number display module etc and realizes all operation and indication. But all keys which have different function under different state. For the detail information, you can refer to operation instruction.

As Picture 1, S4 is three direction switch, mainly for VOL+, VOL-, phone note choice and number page search; S2 used in phone pausing and phone number note off etc;

S3 is a multi function button, apply to receive phone or come into some condition etc;

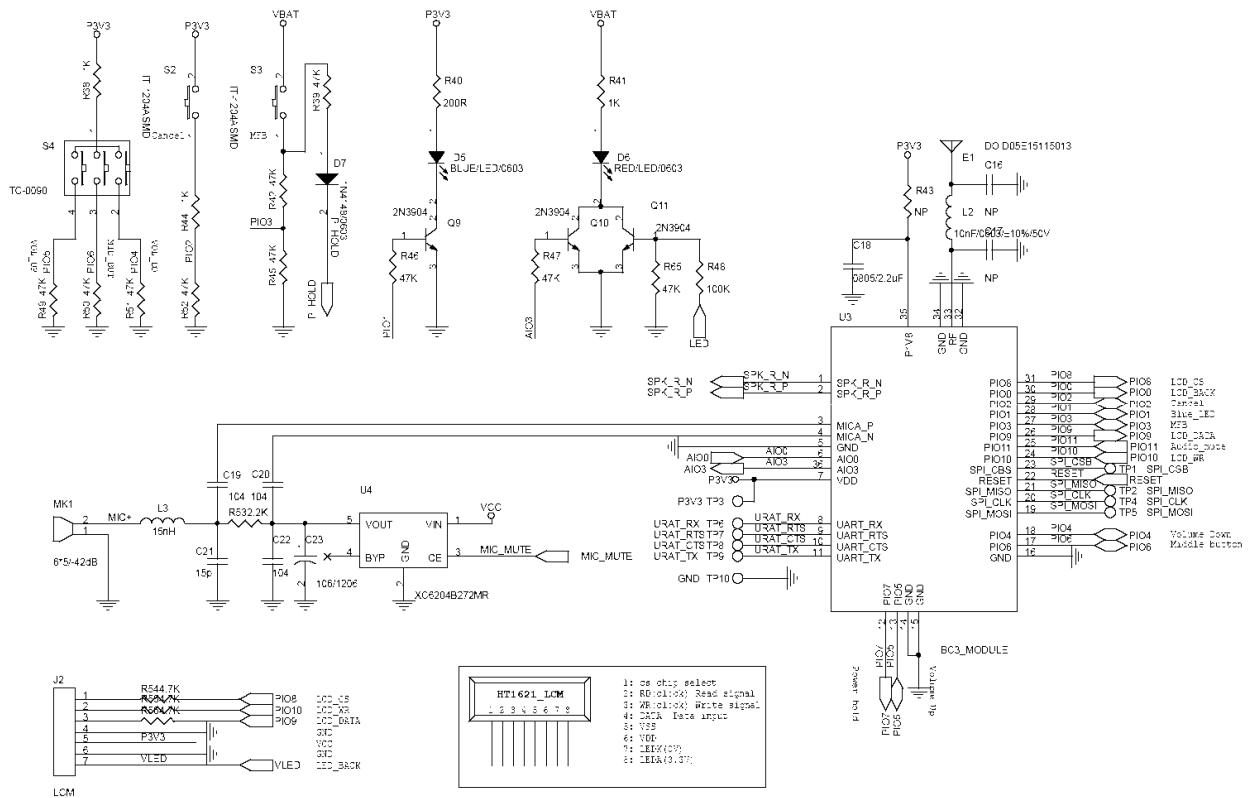
D5 Blue LED used in standby, calling show. When D6 and LED flash alteration, it shows in the pairing condition;

D7 used in power keeping. When power on, close off the high electricity frequency of the “P_hold” to avoid high electricity frequency before pressing S3, and can't clear the button operation;

The power supply of MIC is provided by U4, when our Bluetooth equipment establish communication with others(such as mobile phone), The MIC mute turns to effective electricity frequency, and U4 starts to provide electricity, voice difference signal sends to Bluetooth module by C19 and C20;

HT1621_LCM display module can show the telephone number in speaking and number notes. It also shows the working condition of equipment. LCM display module connects master control by serial communication wire.

The sending and receiving antenna of Bluetooth connects to Bluetooth module by a special π form rejector. Adjust the electrical equipment parameter carefully; it can realize accurate impedance match and antenna passband characteristic.



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Audio amplification part (see Picture 2) refers to Speaker signal amplification and headset plug parts. This is a typical differential input BTL amplification circuit. The 33PF capacitance provides

short circuit access for RF, to prevent audio frequency from over amplification disturb.

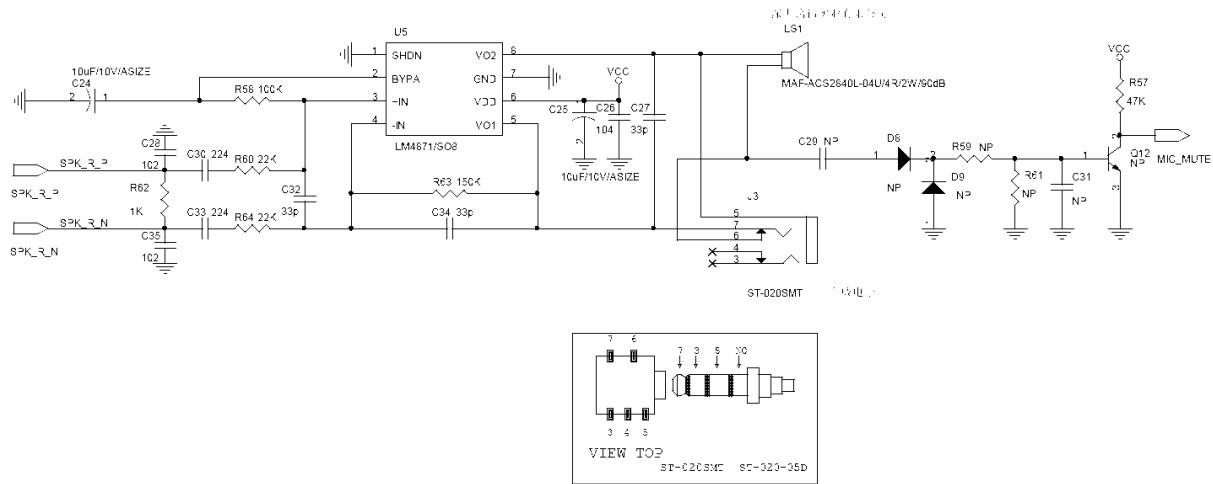


图 2

Power part (see Picture 3) can power supply for all parts of the whole product and charge for battery. Charging management of lithium ion battery is realized by U1, providing 1/10 in advance charger, constant flow charger determined by R8、R12, and constant voltage charger determined by disport voltage sampling of R2、R6、R14 these three module. Q1 is charger enlarge flow tube. D1 can prevent battery from back flow and discharge. C1、R11 can provides module replacement impulse when it connects to charging Mini UBS pin. Q2 is switch tube of work circuit. When module is in standby state, Q2 is in close state to save energy sources. U2 and its border hardware consists a DC/DC circuit with sending power, transferring battery voltage for 3.3V voltage module required. After module power on, output PIO7 is high electricity, U2's working output voltage is 3.3V; PIO7 is low electricity when U2 power off. Q4、Q5、Q6、Q7、Q8 and its border component consists a dominate circuit. The behind light of LCD will work when module output high electricity or switch S1 working.

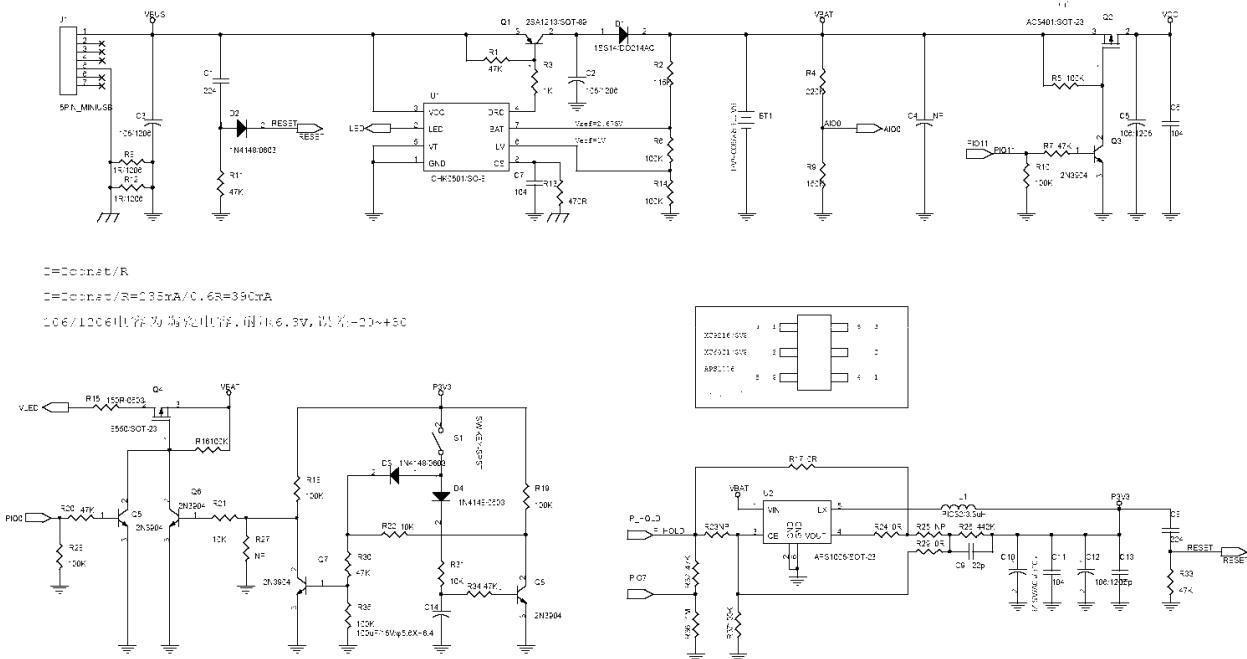


图 3

Module part (see Picture 4) is the heart of whole product. All instruction and calculation are finished by U1 (BC352239). U2 is the memorizer. Y1 C1 C2 consists by 16M surge circuit, provide timepiece impulse for U1. B1 is balance filter.

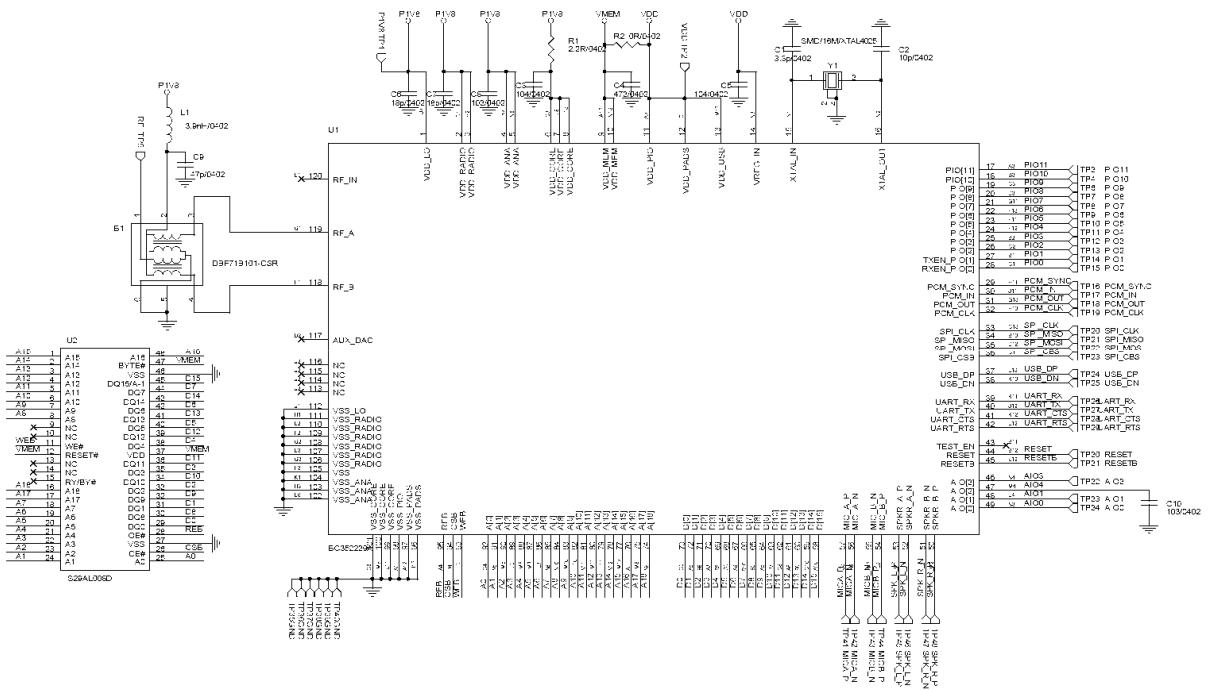


图 4