RVBT200V Circuitry Working Principle Instruction

RVBT200V circuitry can be divided into master control part (see picture 1), audio amplifier part (see picture 2),power supply part (see picture 3) and module part(see picture 4) .

Among them，the master control part achieves on-and –off control, status indication, caller ID display module etc. but in different status, each button has different function, see details in the working instruction .

As the picture 1,S4 is three-way switch, which is for volume control ,phonebook select and Telephone No. page turning etc.

S2 is for ending the call, and returning back to phonebook etc；

S3 is multifunction key which is for receiving call & going in certain state.

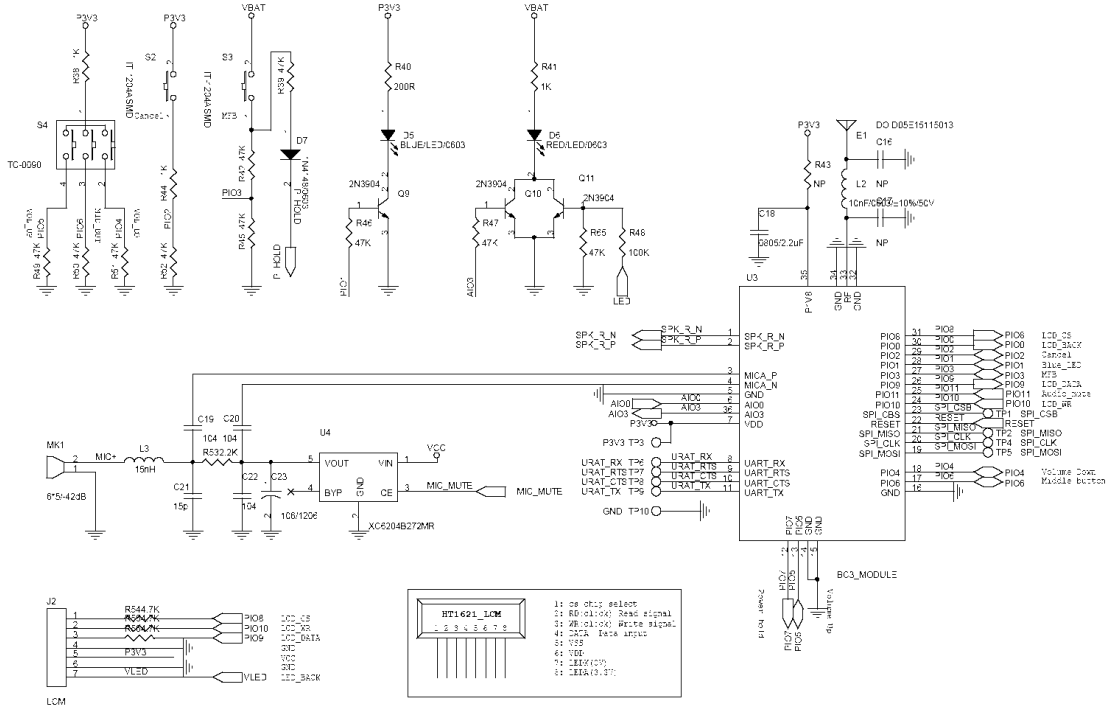
D5 blue LED is for standby, speaking indication, when D5 and D6 red LED is flashing in turn, it indicates pairing state.

D7 works as power holding, when the overall power is on, segregate ‘P hold” with highlevel to avoid that PIO3 has highlevel before pressing S3 , in this case ,key operation can’t be identified.

The power supply of MIC is realized by U4, after the Bluetooth devices have set up speech Channel with another Bluetooth device,MIC mute changes to effective level, U4 supplies power to MIC, speech differential signals are sent to Bluetooth module by C19, C20.

HT1621_LCM display module can display caller ID in speaking and telephone number in phonebook, and display working state of the device. LCM display module connects with main circuitry by serial LOC.

Bluetooth transmit/ receive antenna connects with Bluetooth module by a specially-setting π-type filter. Carefully adjusting electrical parameter of π-type filter can achieve accurate impedance pairing and proper passbrand property of antenna.



PIC 1

Audio amplifier part mainly contains speaker signal amplifier and earphone plug. This is a typical differential input BTL amplifier circuitry. Among them 33PF capacitance is mainly for supply short circuit channel to RF signal to avoid too much interference to audio circuitry.

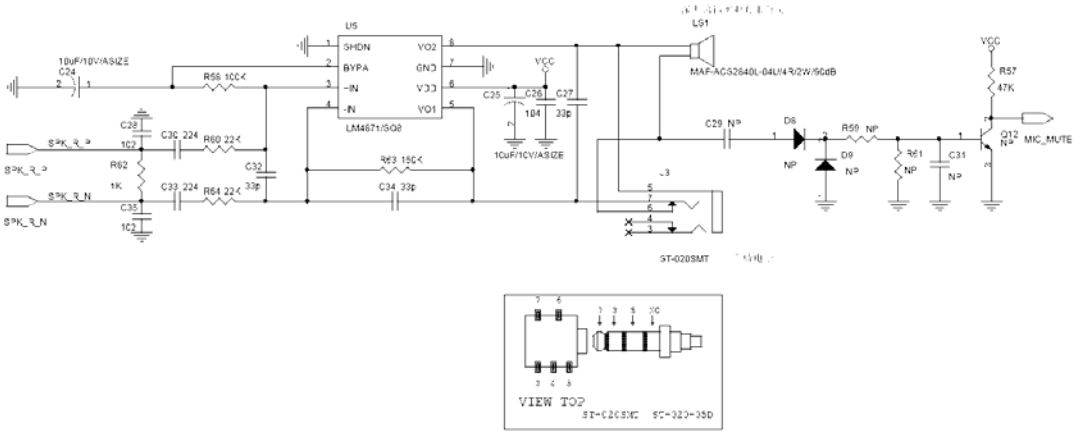
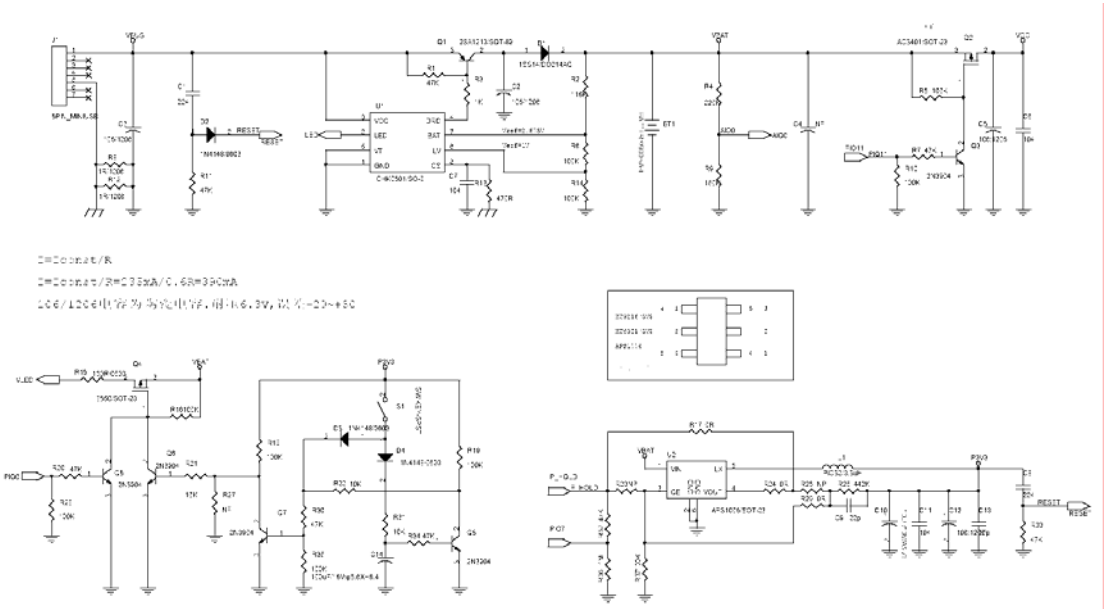


图 2

Power supply （see picture 3）supplies power for each part of the device and charges to battery. The management of Lithium- ion battery is realized by U1, there are three modes which includes 1/10 fore-charging, constant current charging decided by R8, R12 and constant voltage charging decided by voltage divider sampling of R2,R6,R14. Q1 is amply-flow tube, D1 prevent battery back-flowing discharging. C1、R11 can supply module replacement pulse when being plugged charging Mini UBS.Q2 is on-and –off tube of power amplifier circuitry, when the module is in standby state, Q2 is in stopping state to save the power.U2 and the accessories makes up a DC/DC circuitry with ENBL and changes the battery voltage into 3.3v voltage that the module needs. When module powers on, the output is PIO7 high level, 3.3 output value when U2 holding on working; when PIO7 is lower level, U2 cut off.Q4、Q5、Q6、Q7、Q8 and its accessories components makes up a LCD controlling circuitry, high level output of module or working of on-and –off switch can enable the background light drive of LCD to work..



PIC 3

Module (see picture 4) is the core part of whole product. All the directives and operation is achieved by U1(BC352239).U2 is memorizer.Y1 C1 C2 makes up 16 M oscillatory circuit to supply timing pulse. B1is equalizing filter

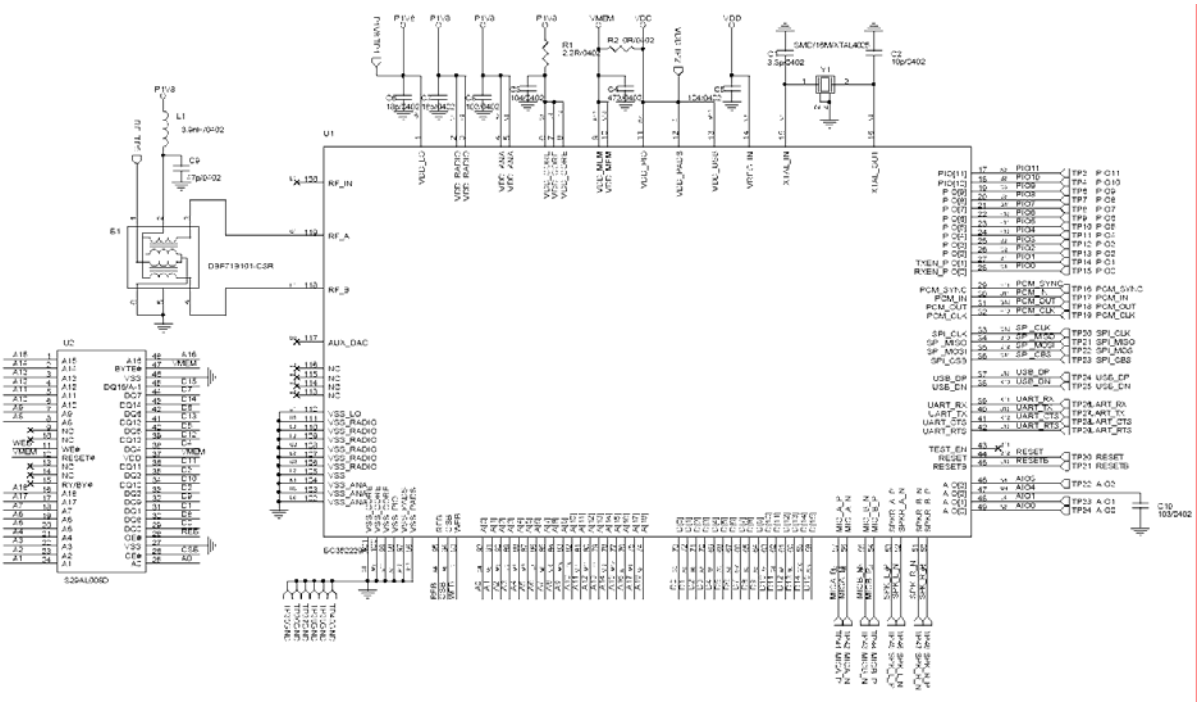


图 4