BST_100 Bluetooth schematic diagram description

1. Summary

The BST_100 Bluetooth Stereo speaker, based on CSR BC6145 QFN chipset, the single chip Bluetooth Stereo speaker solution, It provides the high quality stereo audio wireless transmission. It is compliant to Bluetooth v3.0 + EDR specification. It works with a 16MHz crystal. And the frequency is 2402-2480MHz

2. Schematic diagram description

The schematic diagram description references to the document < BST_100 Bluetooth speaker block diagram> and < BST_100 Bluetooth Speaker schematic diagram>.

U1(BC6145) is a single chip Bluetooth system, it provides Bluetooth RF, baseband and some power regulator functions. It is integrated DC +1.5V, DC +1.8V power supply. +1.5V uses for the chipset core running, +1.8V uses for the PIO pull up such as the buttons.
U3 is serial EERPOM, it use for store the configurations of MMI.
Y1 is a crystal oscillator, provides 16M clock reference.
BST_100 uses LTCC chip antenna for RF transceiver.
BST_100 has Blue and Red indicator lights to show different working state.

3. The Signal Path description

When the BST_100 Bluetooth Stereo speaker connects to a mobile phone or PC as an AV end device, the built-in MCU will control the RF modem to process the base band signal, like AUDIO signal, AT command, and indicate the working state by the LED. The stereo audio signal will be output after the audio codec to drive the speaker.