

## Working principle

In the BT part, after the BT module (MBGP3021B4) receives the digital signal, it transmits the I2S data to the MCS MLC3740 chip for audio codec processing.

All audio sources are encoded and decoded by the MCS MLC3740 chip, and then input to the DSP chip (AK7755) for digital signal processing and output to the DAC chip (PCM5121).

Power supply: AC100-240V 50/60Hz 35W  
DC 3.6V powered by built-in battery as below:  
Model: ICA086NA  
Rated: DC 3.6V, 7500mAh, 27.0Wh

### BT Classic

Operation Frequency: 2402MHz to 2480MHz

Modulation Type: GFSK

Number of Channels: 40

Channel Spacing: 2MHz

Antenna Type: Integral antenna

Antenna Gain: 3.39dBi

### BLE:

Operation Frequency: 2402MHz to 2480MHz

Modulation Type: GFSK, pi/4DQPSK, 8DPSK

Number of Channels: 79

Channel Spacing: 1MHz

### Spectrum Spread

Frequency Hopping Spread Spectrum (FHSS)

### Technology:

Antenna Type: Integral antenna

Antenna Gain: 3.39dBi

There is 3 pieces of crystal in the product, 12MHz for MCU MLC3740, 24 MHz for MIC 2.4G Rx IC  
WB-8815TR and 32 MHz for BT IC QCC3021