

# User manual of Bluetooth module (HJ-7188)

## 1. Introduction

HJ-7188 as an intelligent wireless audio data transmission product which is developed by our company with low-cost & high-efficiency stereo RF transmission solution applied. It owns high-quality sound ,wide compatibility and optimized overall performance based on Build-in JL7016C chip used.

Due to Drive-free mode applied in HJ-7188, it is very quickly for user to realize the wireless transmission of music and enjoy music only when the module connected to user's device, power on and connect the buttons.

## 2 · Application Fields

As main usage of the BT device is to transmit music in short distance. It is easy to be connected to laptops, mobile phones, PDAs and other digital products by BT so that to realize the wireless transmission of music.

## 3 · Feather

BT type: Module

BT spec: Bluetooth V5.3

Compatible version: V5.3/V5.0/V4.2/V4.2 LE/V4.0/V3.0/V2.1 + BR+EDR+BLE

Operating current  $\leq 30\text{mA}$

Standby current  $< 0.4\text{mA}$

Operating voltage: 3.3v—4.5v

Temperature range:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

Communication distance : 10 meters

Transmitting Power : +9dBm

Sensitivity : -95dBm

Frequency range : 2.4GHz-2.480GHz

External interface : GPIO, SPI , USB , Speaker , Microphone

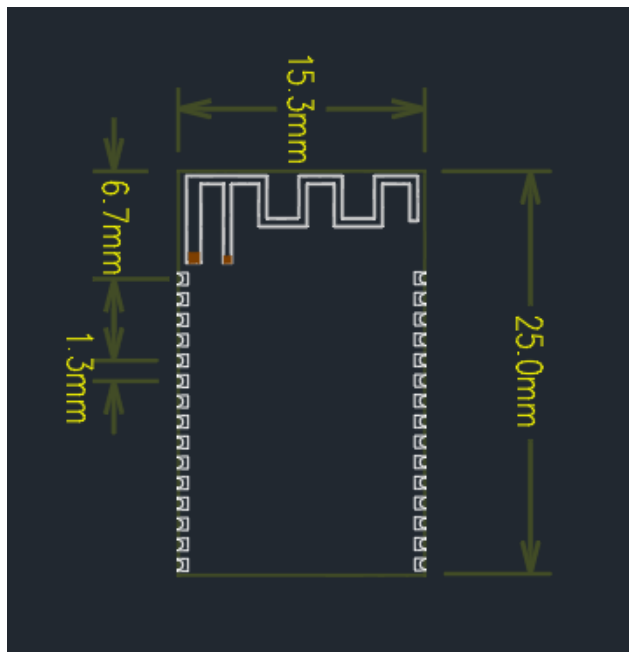
Audio performance: High acoustic fidelity sound

Audio SNR :  $\geq 95\text{dB}$

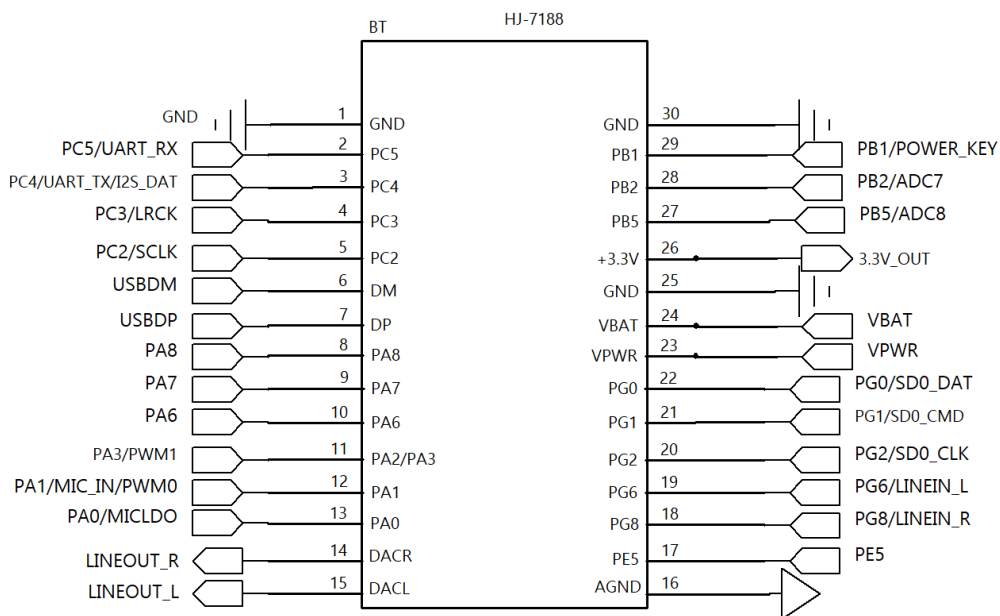
THD  $\leq 0.01\%$

Measurement: 25.0\*15.3\*1.0 mm

4 、 Dimension drawing of module :



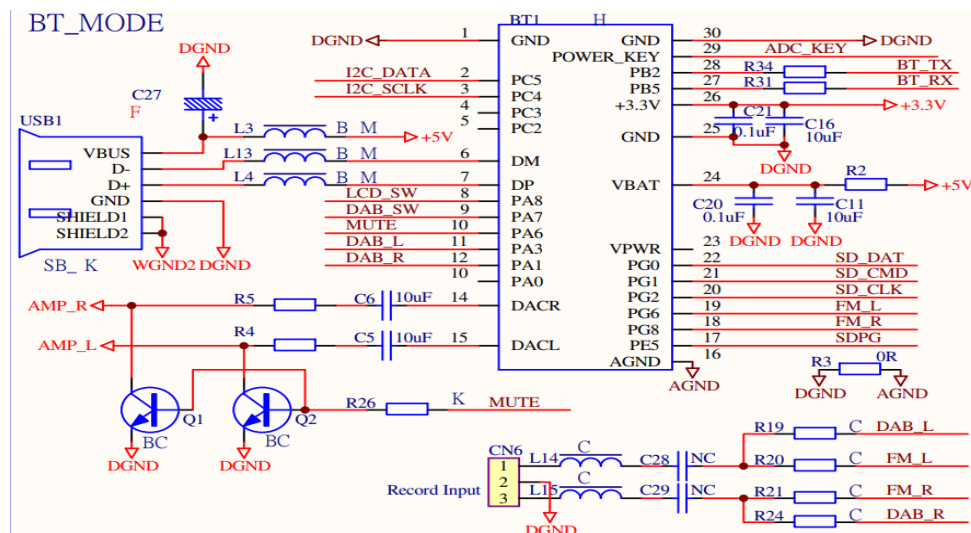
## 5 、Pin layout of module



| Pin# | Description |
|------|-------------|
| 1    | GND         |
| 2    | PC5         |
| 3    | PC4         |
| 4    | PC3         |
| 5    | PC2         |
| 6    | USBDM       |
| 7    | USBDP       |
| 8    | PA8         |
| 9    | PA7         |
| 10   | PA6         |
| 11   | PA3         |

|    |           |
|----|-----------|
| 12 | PA1       |
| 13 | PA0       |
| 14 | LINEOUT_R |
| 15 | LINEOUT_L |
| 16 | AGND      |
| 17 | PE5       |
| 18 | LINEIN_R  |
| 19 | LINEIN_L  |
| 20 | PG2       |
| 21 | PG1       |
| 22 | PG0       |
| 23 | VPWR      |
| 24 | VBAT      |
| 25 | GND       |
| 26 | +3.3V_OUT |
| 27 | PB5       |
| 28 | PB2       |
| 29 | PB1       |
| 30 | GND       |

## 7、Schematic



Host manufacturer is responsible for compliance of the host system with module installed with all other applicable requirements for the system such as Part 15 B,. Host manufacturer is strongly recommended to confirm compliance with FCC requirements for the

transmitter when the module is installed in the host.

### **Labelling**

The proposed label format is to be placed on the module. If it is not visible when the module is installed into the system, "Contains FCC ID: H38-HJ-7188 " shall be placed on the outside of final host system.

### **FCC Part 15 Statement**

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Privacy of communications may not be ensured when using this device.