Bluetooth module WB-9805B1 Instructions

1.Product Overview

WB-9805B1 is a high performance Bluetooth audio transmission Module. For receiving the source from the audio transmitting wireless audio signal transmitted. Such as mobile phones. Bluetooth adapter ., etc. Also includes an audio decoder chip 16 chip DAC output Can directly drive headphones. Class 2 power, Use Bluetooth 4.0 standard. Transmission speed up to 3M bit/S.

2.Application

This module is mainly used for short distance transmission of music You can easiy connect laptops, cell phones, PDA and other Bluetooth devices.

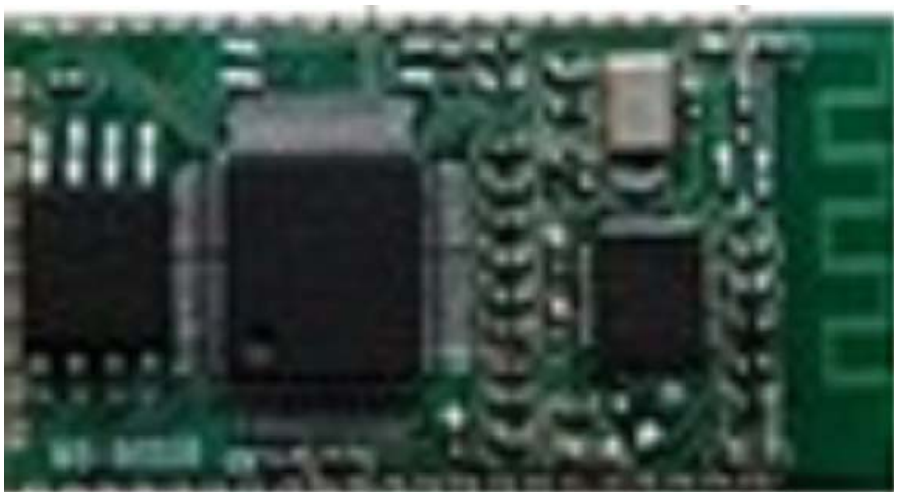
- ※ Bluetooth speaker ;
- ※ Bluetooth Stereo Headset;
- ※ Speakerphone;
- ※ Support for external radio;
- ※ Module built 7 COM and 8 SEG display driver.(5X7 LED, 7X8 LCD);
- ※ Three groups of 6 bit digital to analog conversion;
- ※ Bluetooth support background operation control other equipment;
- ※ Modules with U disk interface. SD/TF/MMC card interface. Music format support MP3,WMA,APE. FLAC,WAV (Requires certification license);

3.Product Specifications:

Bluetooth Specification	Bluetooth V4.0 / V2.1+EDR (without LE)
Can support the Bluetooth communication Profile	A2DP;AVRCP,HFP,SPP,BAS,BLE DIS,FMP,HRP,HRS,HTP,HTS,IAS,LLS
Working current(Bluetooth Mode)	≤60mA
Standby Current	≤0.03mA
Operating Voltage	Supports two kinds of voltage input DC5V or BATT(3.4 - 4.2V)
Operating temperature range	-10℃ to +45℃
Wireless transmission range	15Meter
Transmission power	CLASS 2 -6dB ~+4dB
Sensitivity	-87 Bm@ 0.1% BER
Frequency Range	2.402GHz-2.480GHz
External Interface	GPIO,I2C,Speaker,I2S,Microphone,IR,SD/SD/TF,MMC,USB
Audio Performance	High acoustic fi easily soon
Audio SNR	85dB @ 500mVrms Output
Distortion	<0.05% @500mVrms output
Module size	15x32x2.5mm

Channel No.	79
Date Rate	1 Mbps for Basic Rate using GFSK
	2 Mbps for Enhanced Data Rate using π /4-DQPSK
	3 Mbps for Enhanced Data Rate using 8DPSK
Modulation Type	GFSK, π/4-DQPSK,8DPSK

4. The module outline drawing in kind



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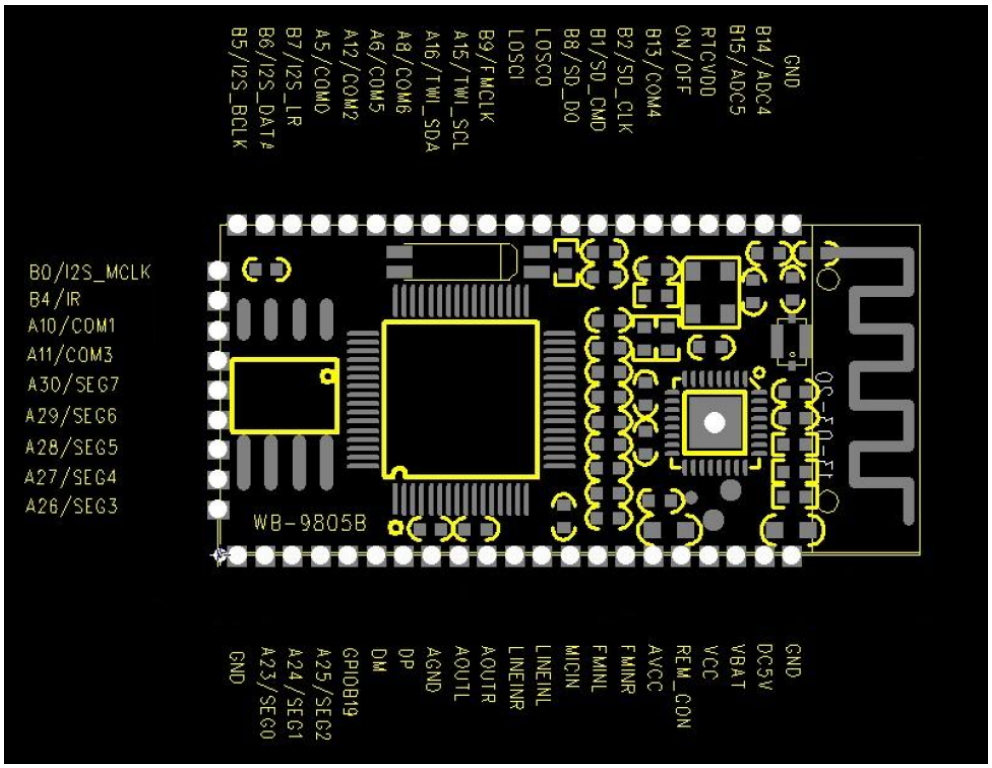
5.Pin Description



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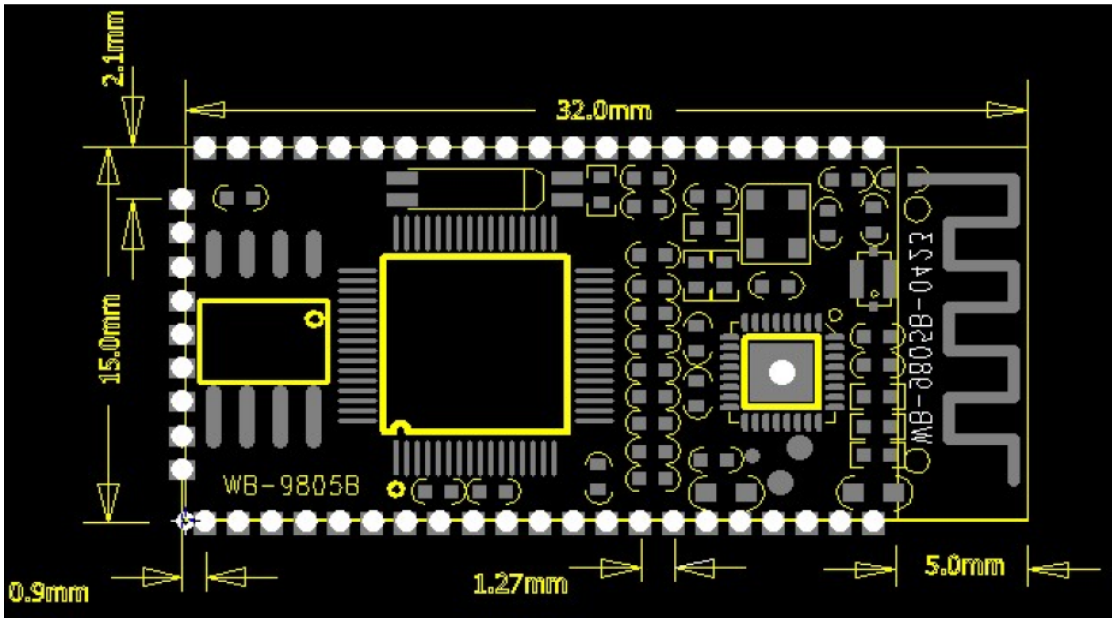
6. Module pin details of the describes:

Pin Number	Pin Name	Pin Description
1	GND	GND
2	GPIO-B14	General input and output ports(ADC port)
3	GP10-B15	General input and output ports(ADC port)
4	RTCVDD	IC intermal power supply.can not takd the load
5	ON/OFF	Soft switch ,reset pin
6	GPI0-B13	General input and output ports
7	GPI0-B2	SD CLK
8	GPI0-B1	SD CMD
9	GPI0-B8	SD DATO
10	LOSCO	32.768KHz crystal oscillator output
11	LOSCI	32.768KHz crystal oscillator input
12	GP10 B9	General input and output ports.FMCLK
13	GP10 -A15	General input and output ports,TW112C-SCL
14	GP10 -A16	General input and output ports,TW112C-SDA
15	GP10 -A8	General input and output ports
16	GP10 -A6	General input and output ports
17	GP10 -A12	General input and output ports
18	GP10 -A5	General input and output ports
19	GP10 -B7	12S-LR
20	GP10 -B6	12S-DATA
21	GP10 -B5	12S-BCLK
22	GP10 -BO	12S-MCLK
23	IR	IR
24	GP10-A10	General input and output ports
25	GP10-A11	General input and output ports
26	GP10-A30	General input and output ports
27	GP10-A29	General input and output ports
28	GP10-A28	General input and output ports
29	GP10-A27	General input and output ports
30	GP10-A26	General input and output ports
31	GND	GND
32	GP10-A23	General input and output ports
33	GP10-A24	General input and output ports
34	GP10-A25	General input and output ports
35	GP10-B19	General input and output ports,(line inDET)

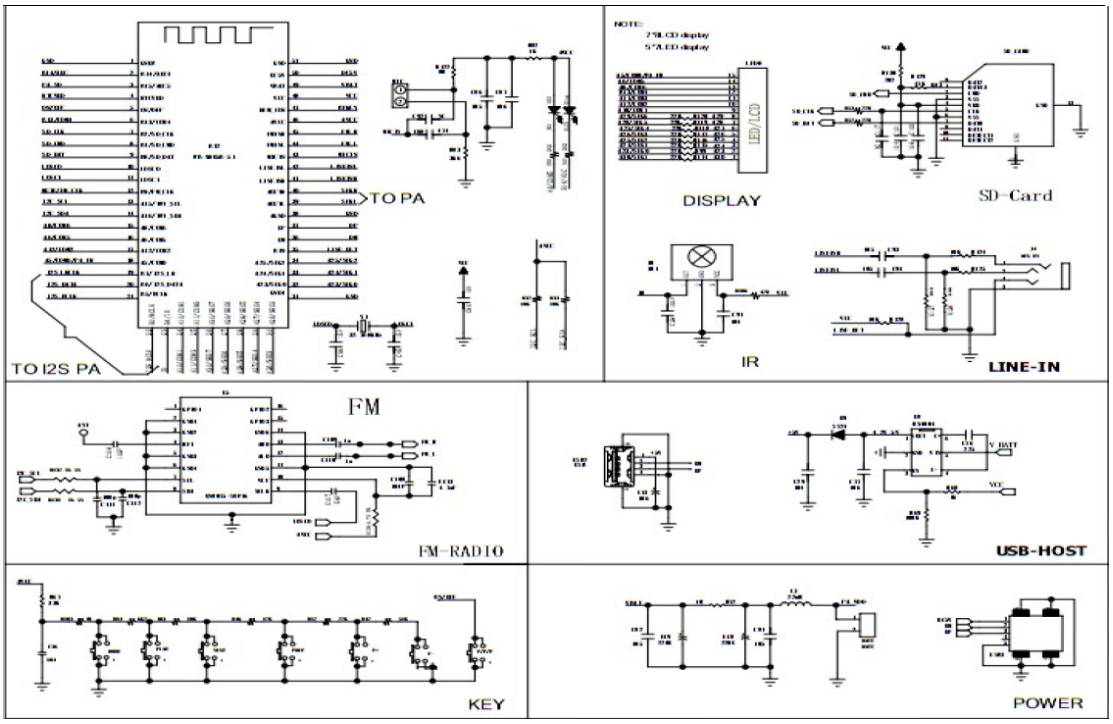
36	USBDM	USB DP
37	USBDP	USB DM
38	AGND	AGND
39	AOUTL	Left channel output
40	AOUTR	Right channel output
41	LINEINR	Right channel line input
42	LINEINL	Letf channel line input
43	MICIN	MIC IN
44	FMINL	FM Left channel input
45	FMINR	FM Ringht channel input
46	AVCC	Internal regulated power supply output pin -3.0V
47	LRADC1	ADC port can be connected to key
48	VCC	Internal regulated power supply output pin -3.V
49	VBAT	Battery power input.input supply range 3.4V-4.2V
50	DC5V	DC5V power input,input supply range 4.75-5.25V
51	GND	GND

7. Module Outline dimensions



WB-9805B1 PCB

8.Reference circuit diagram



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9.Notice for Bluetooth application

A. As for the Bluetooth apply in different environmemt,the influence of wireless signal even Bluetooth effected by the environment greatly.Wirdless signals will be absorbed by something like ad trees,metal obstacles.

B. Bluetooth module are placed in the a housing.Because the metal shell greatly effect to the wireless signal transmission, suggest not installed inmetal shell.

C. PCB board:the antenna of Bluetooth module is the PCB antenna,as for the metal will weaken the signal,so it is strictly prohibited shop and go line under the antenna module,it is better to hollow out.

D. WB-9805B must be added coupling capacitor for directly drive headphones;

E. Used pull switch off the power mode, power-off must increase the discharge circuits.

F.No SD＆USB function design,please add test points for SD＆USB order to facilitate upgrade the software used.

10. Caution for user

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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 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.

FCC Caution:

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

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter.

This End equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

IMPORTANT NOTE:

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling

The final end product must be labeled in a visible area with the following:
"Contains FCC ID:UZZWB9805B1".

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

Canada Statement

This device complies with Industry Canada's licence-exempt RSSs.. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Caution Exposure:

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS102 and users can obtain Canadian information on RF exposure and compliance.
Le dispositif répond à l'exemption des limites d'évaluation de routine dans la section 2.5 de RSS102 et les utilisateurs peuvent obtenir des renseignements canadiens sur l'exposition aux RF et le respect.

The final end product must be labelled in a visible area with the following:

The Industry Canada certification label of a module shall be clearly visible at all times when installed in the host device, otherwise the host device must be labelled to display the Industry Canada certification number of the module, preceded by the words "Contains transmitter module", or the word "Contains", or similar wording expressing the same meaning, as follows:
Contains transmitter module IC: 7633A-WB9805B1
This End equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

The end user manual shall include all required regulatory information/warning as show in this manual.