

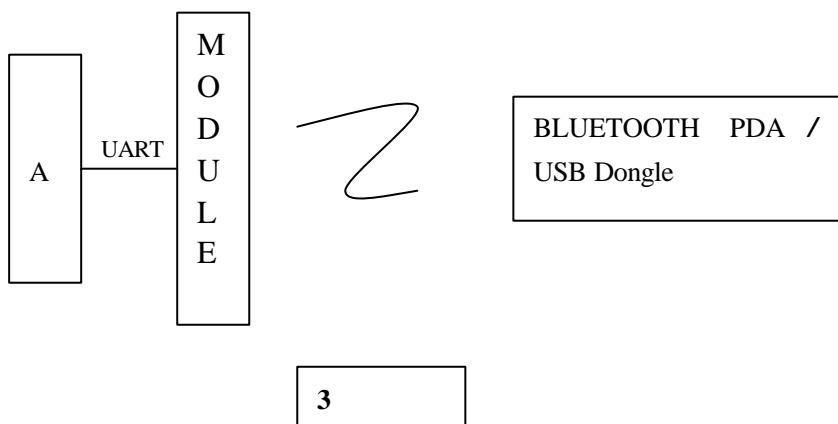
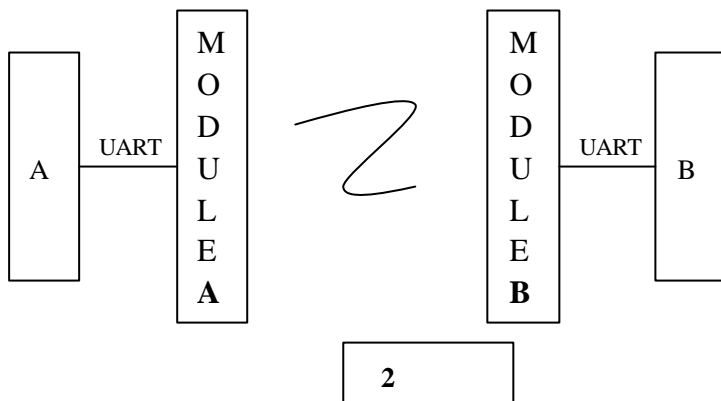
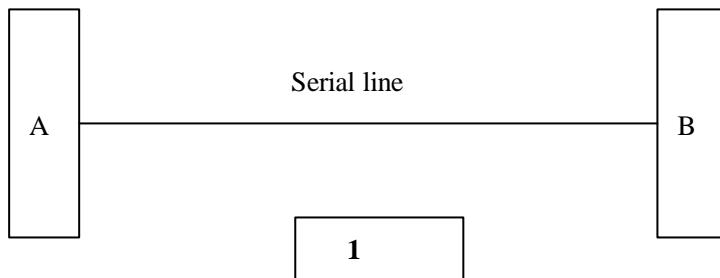
# Jinou Bluetooth module manual

## 1. Brief introduction

Bluetooth Modules can be applied to all kinds of home appliances, equipment (such as medical treatment equipment) and other electronic information products. As a cable replacement program, it can connect the single-chip processor or processor directly via using PnP mode to achieve the wireless data transmission among equipments transparently. Bluetooth module has the discrimination of principal and subordinate, which can be matched as one set. The principal and subordinate equipment can establish connection, identify and memorize the opposite equipments automatically when hardware circuit of Bluetooth module connects correctly with electricity supply. The equipments of user can use Bluetooth modules as the same as serial wires.

Bluetooth module can be used independently as well, excluding using by match. When user's equipment equipped with a Bluetooth module of one subordinate equipment, other Bluetooth devices, such as Bluetooth PDA can search out adapter of this Bluetooth module, and find out the services provided, then establish links and communication with this adapter through these services as well. This module can still be used as the same as the serial wires for the communications of users' equipments.

Bluetooth module provides a safety identification function. When users use safety identification, the equipments' connects must be authenticated, and only the authenticated equipment can realize communication. However this process could be automatically finished among a matched Bluetooth module. (Default password: 1234).



## 2. PIN Explanation

NO.	Name	Describe	Capability
1,3,36,38	GND	Power supply	
6	RESET	Hardware replacement	
11	CTS	CTS ( Input )	0-VCC
13	RTS	RTS ( Output )	0-VCC
12	TXD	Serial data output	0-VCC

14	RXD	Serial data input	0-VCC
16	VCC	Power supply voltage ( Input )	2.7-3.3V Type 3V
29	CLR	State switching on-off ( input ) , low voltage for setting parameter state, high voltage for normal working state.	0-VCC
30	LNK	Connect indication ( output ) , output high voltage in the state of connecting , output low voltage in the state of disconnecting.。	0-VCC
31	Sleep	Sleep/awaken/clear up address ( input ) , connect high voltage when not in use .	0-VCC
32	Led0	Dormancy state indication( output ) ,dormancy state is for high voltage , or else low voltage.	PIO3
33	Led1	Address pairing indication( output ) , pairing device void is available for high voltage , or else low voltage.	PIO2
37	ANT	Antenna connect	
The rest		Other Pins check modules document	

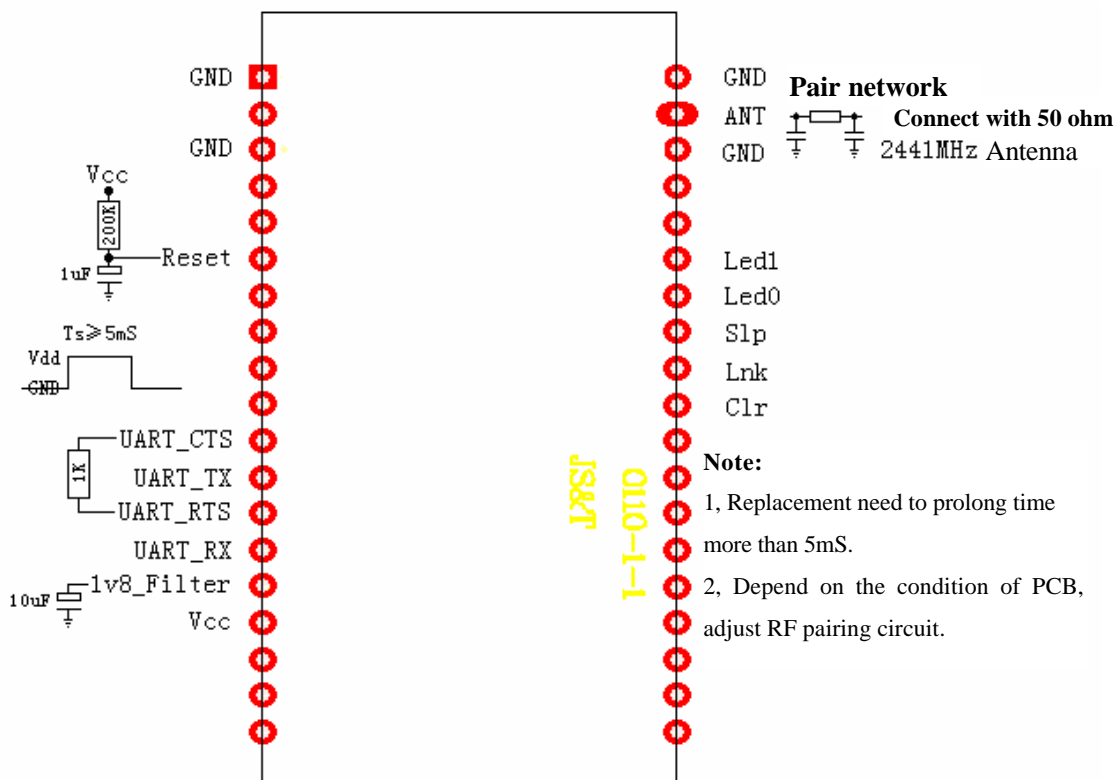
**Explanation :**

As for CTS and RTS, If you don't need flow control, Connect them by 1k resistance.

Drawing is followed: **Connect with 50 ohm in external and 2441MHz antenna.**

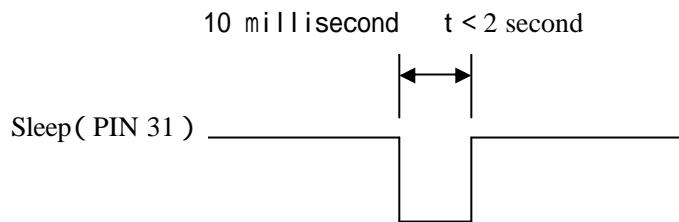
**Notice:**

- 1, Replacement need to prolong time more than 5mS
- 2, Depend on the condition of PCB, adjust RF pairing circuit.

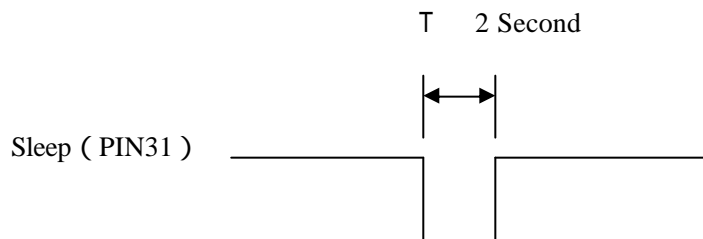


Please make sure power supply voltage and polarity is correct, Bluetooth modules strictly prohibit using negative. ( Please comply with COMS circuit operation rules, If there is any improper operation results in damage, we will not be responsible for your loss.)

### 3. Timing Diagram :



Explain : When the voltage of sleep PIN accord with requirement above, Bluetooth modules sleeping/awaken.



Explain : When the voltage of sleep PIN accord with requirement above, Bluetooth modules clear up memorized address.

### 4. Feature

- Compatible Bluetooth 1.2 , 2.0 Specification
- Class 2 Standard
- Effective distance 10M
- Working temperature: -25 ~ 85
- UART interface
- Multiple Baud Rates are supported (9.6k and 19.2k, 38.4k and 57.6k, 115.2k)
- Maximum is available to 1.384 Mbps
- Automatic energy-saving mode
- Low -power -wasted mode support & high-speed working mode support
- Safe authentication, data encryption.

## 5. Realize protocol

LM、LC、L2cap、SDP、RFCOMM  
Bluetooth Serial Port Profile

## 6. Use specification

If amendment of the parameters are needed, please move Cmd Data Switch to Cmd side until the completion of parameter setting, and install related parameters via the "AT command" or "parameter setting tool", such as parameters for principle/subordinate equipment, baud rate, authentication and address binding. If the communication is between two Bluetooth modules, you should set one as the principle one, and another one subordinate. Please move the Cmd Data to the Date side after finished.

After starting the equipment up, if no memorized addresses are saved, search nearby Bluetooth equipment first. If searching out, the principle equipment would enter into matching state. If authenticating right, the principle equipment would memorize (save) the address, and establish links with the equipment. If linking success, LINK light twinkles one time every five seconds; if having memorized addresses yet, the principle equipment connects directly with the memorized equipment without inquiries and matching. The memorized address could be deleted by using the AT command and Sleep keystroke.

As for subordinate equipment, which wait for being connected and searched by other equipment, its LINK light is dead, if connecting successfully

## 7. Notice

After finish below operations, module starts to be replacement. Therefore, PINS LED0、LED1、LINK will change suddenly. The best way is to prolong space on this condition,(IS) and then test PINS state of LED0、LED1、LINK

Operation : Clear up address、exit to dormancy state、enter into setting parameter state、exit to setting parameter state.

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