

JDY-30 SPP Bluetooth Module Instruction Manual

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Translated from Chinese document obtained on the Internet by KO4BB.

The JDY-30 Bluetooth module is designed to the Bluetooth protocol standard, operates in the 2.4GHz frequency band and supports fast data rates.

Product Features:

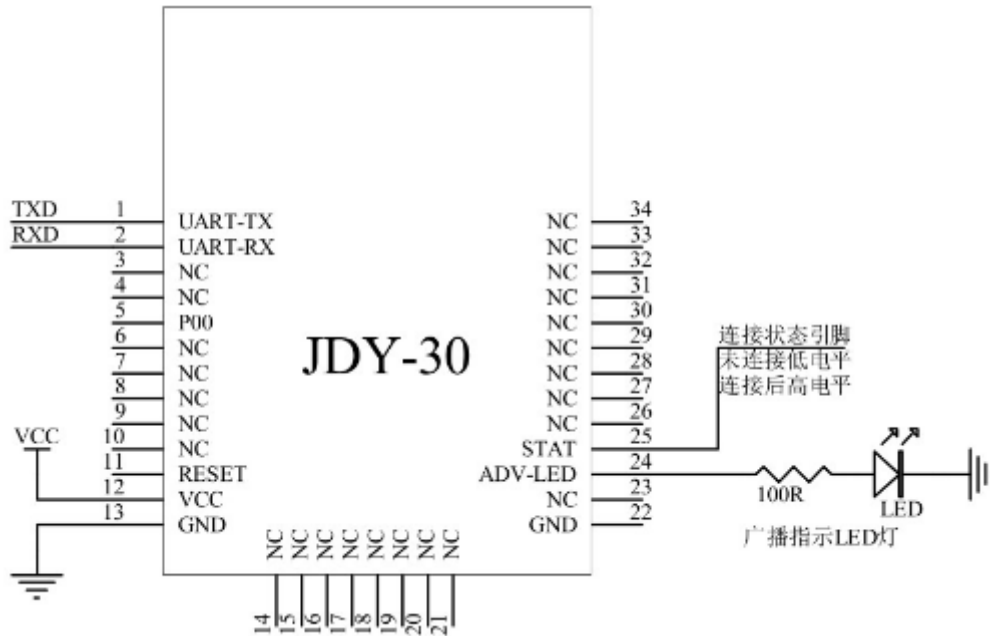
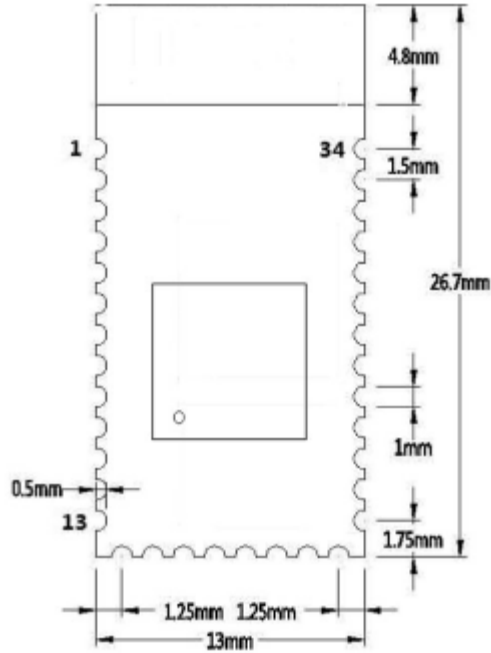
- 1: Support Bluetooth SPP serial port protocol with UART interface
- 2: Built-in PCB antenna
- 3: Bluetooth Class 2 (30 feet or 10 m range)
4. Bluetooth 2.1 protocol (note: this is per original Chinese specification, the module itself reports Bluetooth version 3.0)
- 5: Data transfer rate is faster than BLE Bluetooth, can reach 10's of kbit/s data transfer rate

Specifications:

Operating Voltage: 2.2 – 4.2V
Operating Temperature: -40 - 85°C
Antenna: PCB Onboard Antenna
Current consumption: Operating mode 19mA
Sleep mode 40uA

Pin	Function	Description
1	UART-Tx	Output from module, 3.3V CMOS level
2	UART-Rx	Input to module, 3.3V CMOS level
3 to 10	N/C	
11	Reset	
12	Vcc	3.3V DC Power Supply
13	GND	Power Supply Return (Ground)
14 to 20	N/C	
21	GND	Power Supply Return (Ground)
22	GND	Power Supply Return (Ground)
23	N/C	
24	ADV	LED output, flashes high during broadcast, steady high when connected
25	STAT	High when connected, Low when disconnected
26 to 34	N/C	

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Using AT commands, user can communicate through the serial port and Bluetooth chip. Serial port uses Tx, Rx signal lines.

Baud rates supported include 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200, 230400, 460800, 921600, 1382400.

The default Baud rate of the serial port is 9600 Bauds.

AT commands are supported when the Bluetooth module is not associated. Once the Bluetooth module is associated with another device, the Bluetooth module automatically enters the transparent data transmission mode.

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AT commands are case-sensitive and must be followed by carriage return and line feed characters: \r\n

ATTENTION: In data mode, the module sends the data it has received when it encounters new line characters \r\n. Therefore it cannot be used to send arbitrary binary data.

AT Commands		
Command	Response	Function
AT	OK	Test command
AT+RESET	OK	Module reset
AT+VERSION	+VERSION= JDY-31-V1.2,Bluetooth V3.0	Read module version (note 3)
AT+VERSION<version>	OK	Set module version (note 5)
AT+DEFAULT	OK	Reset module to factory defaults
AT+LADDR	+LADDR=A15A0202187A	Read MAC address
AT+LADDR<MAC_Address>	OK	Set MAC Address (notes 1, 5)
AT+NAME	+NAME= JDY-31-V1.2	Read module name (note 3)
AT+NAME<name>	OK	Set module name (note 5)
AT+PIN	+PIN=1234	Read PIN
AT+PIN<pin>	OK	Set PIN (note 5)
AT+BAUD	+BAUD=[1:C]	Read Baud Rate: 1: 1200 2: 2400 3: 4800 4: 9600 5: 19200 6: 38400 7: 57600 8: 115200 9: 230400 A: 460800 B: 921600 C: 1382400
AT+BAUD[1:C]	OK	Set Baud Rate (notes 2, 5)

Notes:

- 1) There is no good reason to change the MAC address. MAC addresses should be unique and changing it could cause two devices to have the same address which would make the modules unusable together.

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- 2) When changing the Baud rate, the unit responds with OK at the original Baud rate, then switches to the new Baud rate immediately (no need to reboot)
- 3) The original Chinese document referred to the JDY-31-V1.2. Testing was performed against a JDY-30-V2.7. Firmware appears to be identical.
- 4) When changing values, the new value is immediately saved to non-volatile memory, there is no need for a separate “Save” command as for the HC-05
- 5) When setting a new value, there is no space or other character between the keyword and the data. For example, to change the module name to “Test”, use the command

“AT+NAMETest”

If you insert a space between NAME and Test, it will be the leading character in the new value: “ Test”, which could be confusing.

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This document Change Log:

Firmware Version Tested	Document Version/Date	Description of change
JDY-30-V2.7	1.1/27Jan2020	Added notes for commands AT+BAUD and AT+VERSION