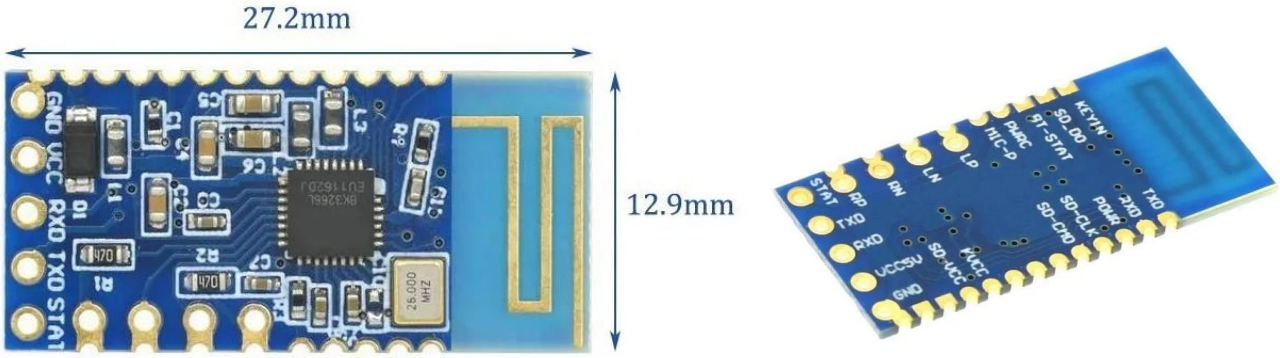
**Using AT commands on JDY67 using UART**

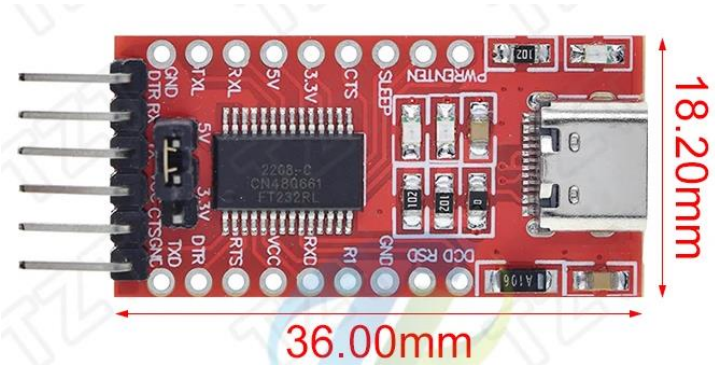
## Required

1. JDY 67 module
2. FTDI module
3. Arduino IDE and basic knowledge on how to use it
4. Basic knowledge on UART communication

JDY 67 module:

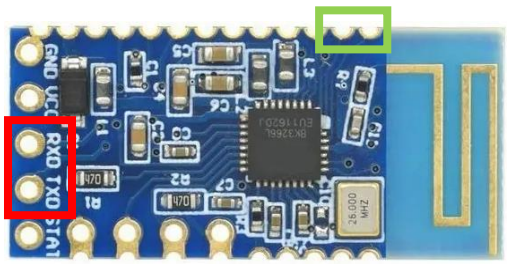



FT232RL FTDI module:



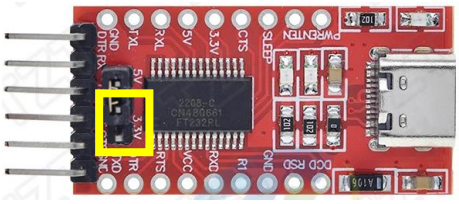

## UART Connection

IMPORTANT: The TXD and RXD (In RED box) pins at the bottom of the JDY 67 module is wrongly labeled in this specific module, you can use the interchanged as shown in the below connection diagram. The pins in green box are correctly labeled.

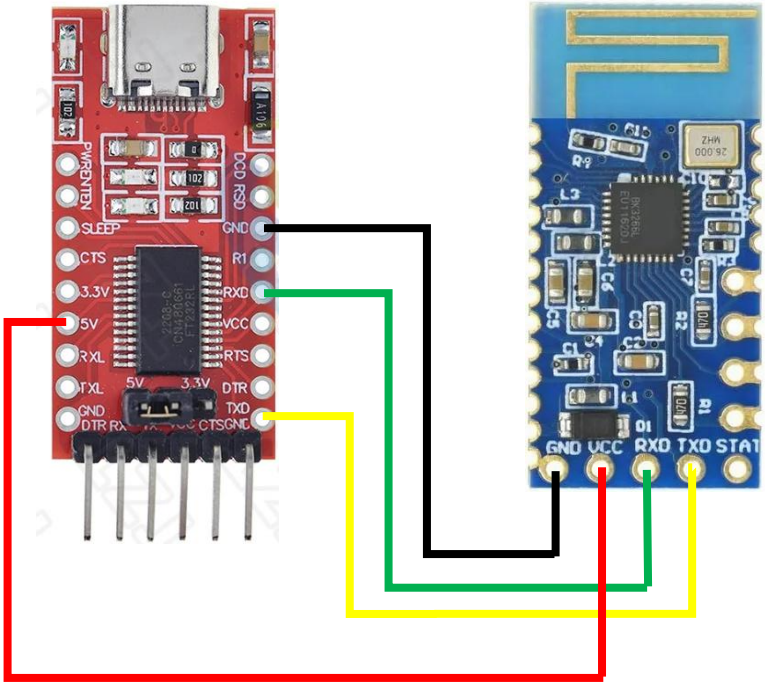


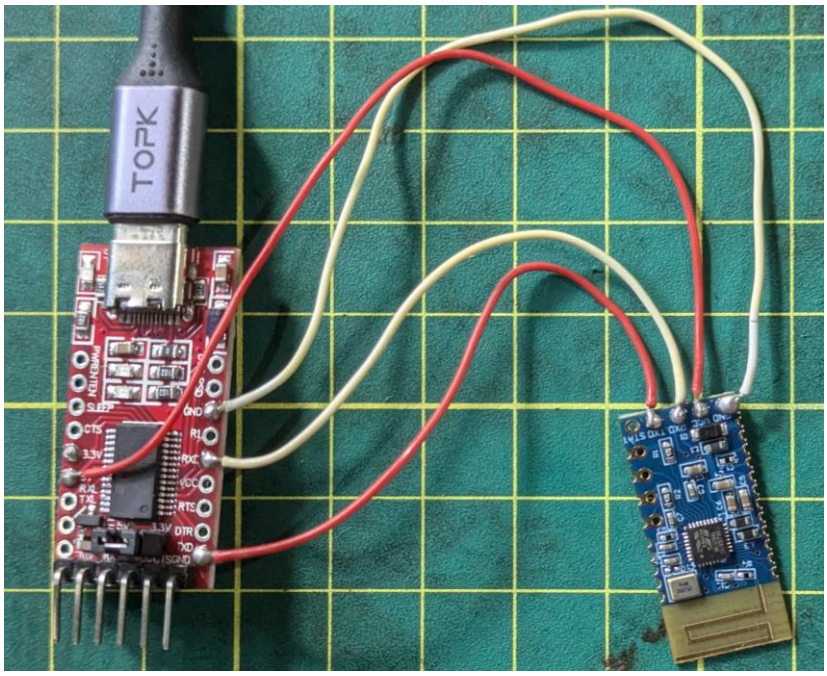
Pin connection is usual way to connect the UART connection, but in this case if you are using RED pins which are wrongly labeled, connect TXD to TXD and RXD to RXD

IMPORTANT: set the voltage jumper of the FTDI module to 3.3V




Connection Diagram:

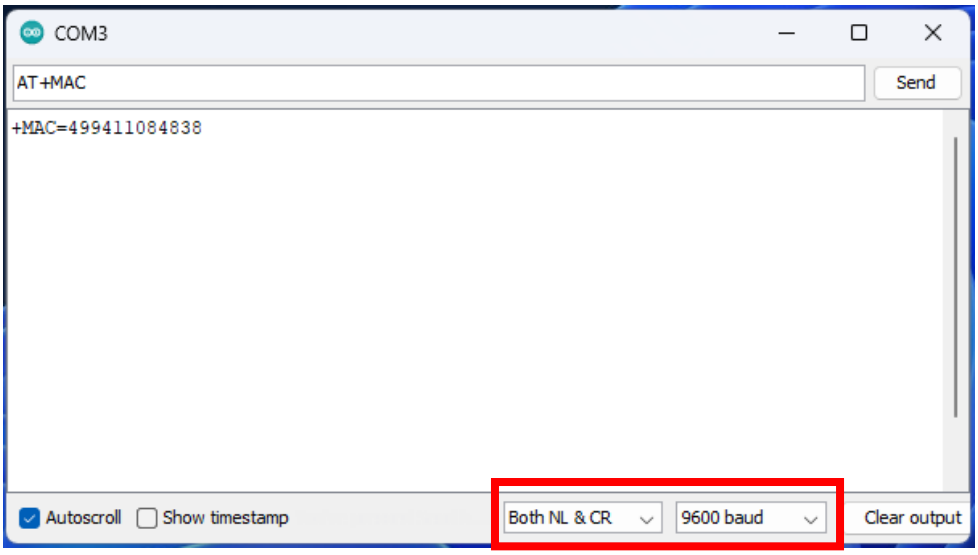


# Setting up serial communication

1st make sure your FTDI module drivers are properly installed and the device is detected.
A serial monitor is required. I used Arduino IDE 1.8.19 to do this.

1. Open Arduino ide
2. Select the correct COM port
3. Open serial monitor
4. Make sure “BOTH NL & CR” is selected as highlighted in the following image.
   Baud rate should be 9600




5. Check if the device is responding by returning the mac address when AT command “AT+MAC” is sent as shown in the above image.

# AT commands

To rename the Bluetooth audio device, use AT command “AT+NAMA<new name>”

Eg: AT+NAMAMyname

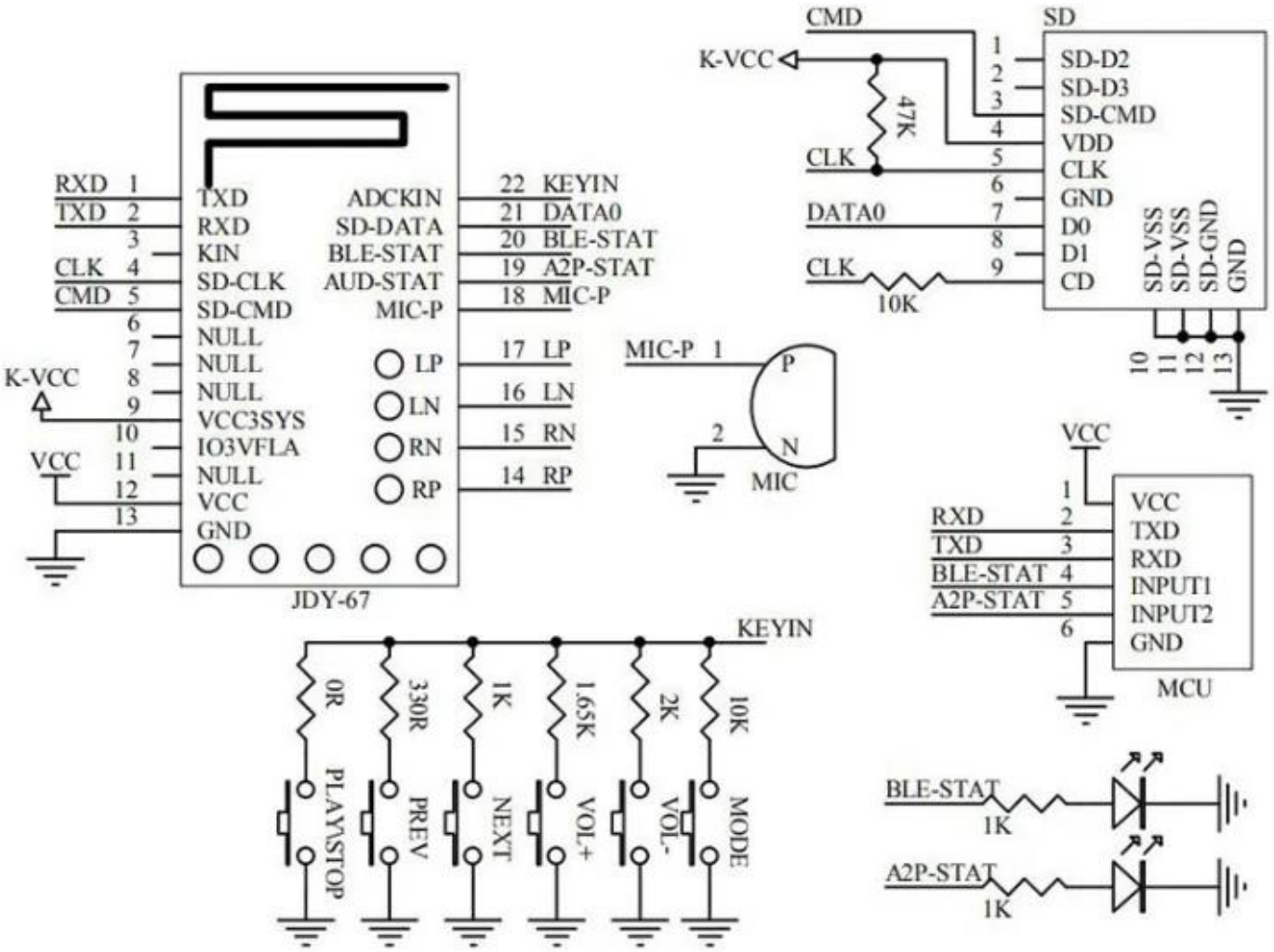
By default, two devices will be shown on you Bluetooth device list when trying to pair with the JDY 67. The JDY-67-BLE and JDY-67-AUDIO. If you only want the audio device, use the AT command “AT+ROLE0” to disable the BLE device

The following AT command sheet was given by the Ali express seller in the description

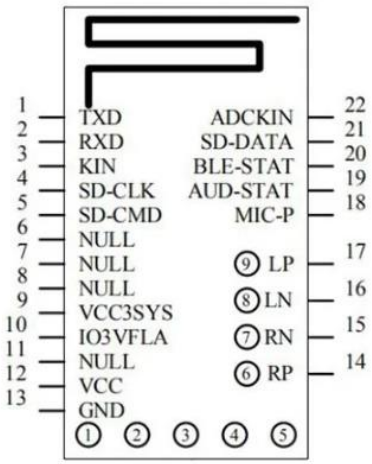
| Label | Instruction | Role | Working mode | Default |
|---|---|---|---|---|
| 1 | AT+VER | Querying the Version number | | |
| 2 | AT+RST | Reset | | |
| 3 | AT+MAC | Querying a MAC Address | | |
| 4 | AT+NAME | Example Query the BLE broadcast name | | JDY-67-BLE |
| 5 | AT+NAMA | Set the audio broadcast name to be queried | | JDY-67-AUDIO |
| 6 | AT+ENLOG | Example Query the status of the serial port output | | 1 |
| 7 | AT+BAUD | Example Set the baud rate | | 4 |
| 8 | AT+STARTEN | Set the low power mode | | 1 |
| 9 | AT+VOICE | Plays the voice of the specified FLASH internal fixation | | |
| 10 | AT+BTMOD | SD card MP3 and Bluetooth audio switch | | 0 |
| 11 | AT+NEXT | Next song | | |
| 12 | AT+LAST | In a song | | |
| 13 | AT+PLAY | Play | | |
| 14 | AT+PAUSE | Stop | | |
| 15 | AT+SDINDEX | Plays the MP3 file specified by the SD card | | |
| 16 | AT+SDPMODE | SD card music playback mode setting query (full cycle, stop after single play, single cycle, random play) | | |
| 17 | AT+CALL | Make your last call | | |
| 18 | AT+REJECT | Refuse to answer | | |
| 19 | AT+ACK | Answer the phone | | |
| 20 | AT+VOLDN | Volume reduction | | |
| 21 | AT+VOLUP | Volume and | | |
| 22 | AT+VOLUME | Setting query Volume | | 16 |
| 23 | AT+DISC | Disconnect | | |
| 24 | AT+STAT | Querying connection Status | | 0,0 |
| 25 | AT+PSTAT | Query whether the current music is being played | | |
| 26 | AT+SDSATA | Query D the music directory played by the SD card | | |
| 27 | AT+ROLE | Configure whether to enable BLE Bluetooth | Open the BLE | 1 |
| 28 | AT+SING | Configure differential output or single - end output | Differential output | 0 |
| 29 | AT+SDSV | Whether to record the SD card playback directory | Open | 1 |
| 30 | AT+SDPLAY | In SD mode, whether to play automatically when on | Automatically play | 1 |
| 31 | AT+CALEN | Whether to enable the phone function | Shut down | 0 |
| 32 | AT+AEQ | Sound options (rock, jazz, pop) | There is no sound | 0 |
| 33 | AT+FCC | Use in authentication (single carrier and modulated wave) | Shut down | 0 |

## Electrical connections

Image from item description from ALI express




## Pin Description



| Pin Number | Pin Function | Pin Description Function |
|---|---|---|
| 1 | TXD | Serial output |
| 2 | RXD | Serial Input |
| 3 | KIN | No function |
| 4 | SD-CLK | SD Card clock pin |
| 5 | SD-CMD | SD Card Command pins |
| 6 | NULL | |
| 7 | NULL | |
| 8 | NULL | |
| 9 | VCC3SYS | KVCC button Power supply pins |
| 10 | IO3VFLA | SD Card power supply pins |
| 11 | NULL | |
| 12 | VCC | 2.8V-4.3VPower supply pin |
| 13 | GND | Power Ground |
| 14 | RP | Right Positive differential output |
| 15 | RN | Right Negative differential output(not sure grounding GND) |
| 16 | LN | Left Negative differential output (be sure to not be grounded GND) |
| 17 | LP | Left Positive differential output |
| 18 | MIC-P | MIC Input + |
| 19 | AUD-STAT | Bluetooth audio connection status pin (not even a low level, a high level connection) |
| 20 | BLE-STAT | BLE Status pin connector (not tied low, tied high) |
| 22 | SD-DATA | SD Pin card data |
| 22 | ADCKIN | ADCKey input pins(Support access6Keys) |