Gravio Multi Sensor Gen 1.0

Model: GMS9218

Instructions for use

2024/11

Product overview

All-in-One Sensor Device, featuring a temperature and humidity sensor, IMU sensor, human presence radar sensor. It can interact with the gateway based on the serial protocol and Zigbee 3.0 using hexadecimal code to issue commands. You can send and receive information using serial port software, such as SSCOM.

Front view

Device Pairing and Unpairing Operation

- **Pairing:** To pair, enable Zigbee gateway pairing mode and wait for the device to join the network. When the device is powered on for the first time, it will automatically search for and join the network. The network search time is limited to 120 seconds. If the device does not join the network within 120 seconds, it will stop searching. To initiate pairing again, press and hold the button for more than 6 seconds. After the blue LED flashes and a beep is heard from the buzzer, the device will search for the network again. Once successfully joined, the device will display a green network indicator.
- **Unpairing:** To unpair, press and hold the button for more than 6 seconds. After the blue LED flashes and a beep is heard, the unpairing operation will be completed. (Ensure that the gateway's pairing mode is disabled; otherwise, the device will rejoin the network).

Power-on operation

Wireless Instructions for use

First open the serial debugging assistant, such as sscom, set the baud rate to 115200, open the serial port after 8N1. Send the command in hex:

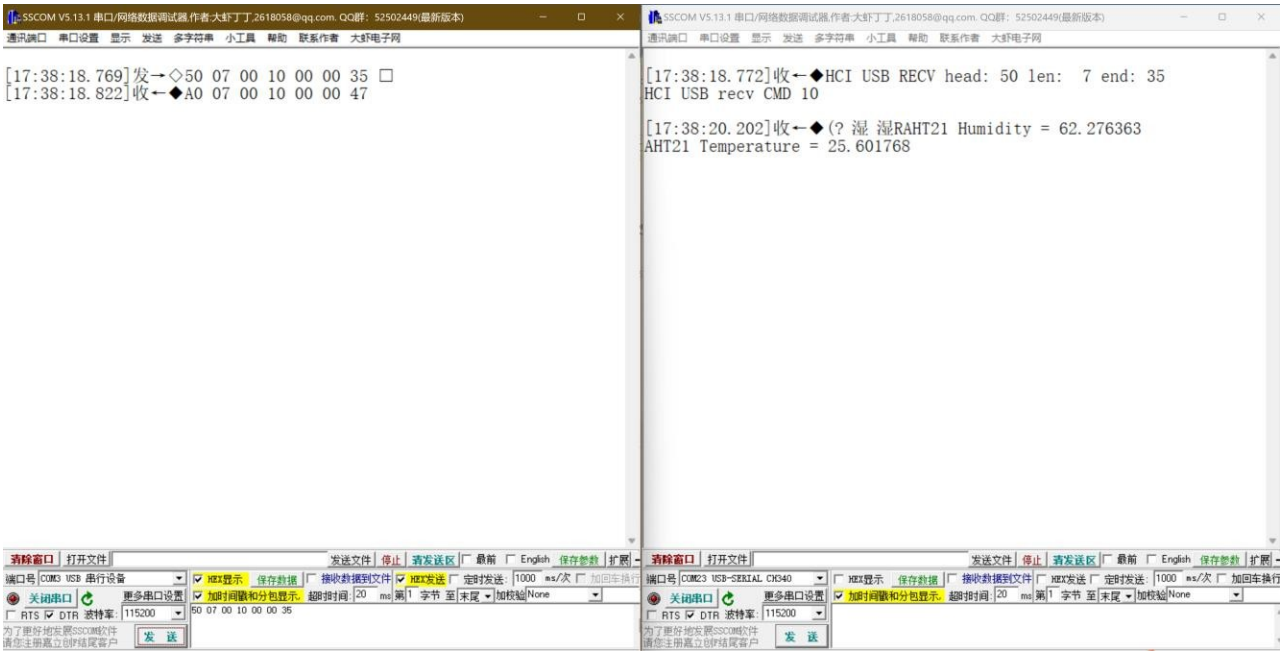
Temperature and Humidity Sensor

The temperature and humidity sensor can be configured to turn on and off, report Zigbee frequency, and support reporting temperature and humidity values.

Enable the temperature and humidity sensor.

>> send : 50 07 00 10 00 00 35

>>receive : A0 07 00 10 00 00 47



As shown in the figure

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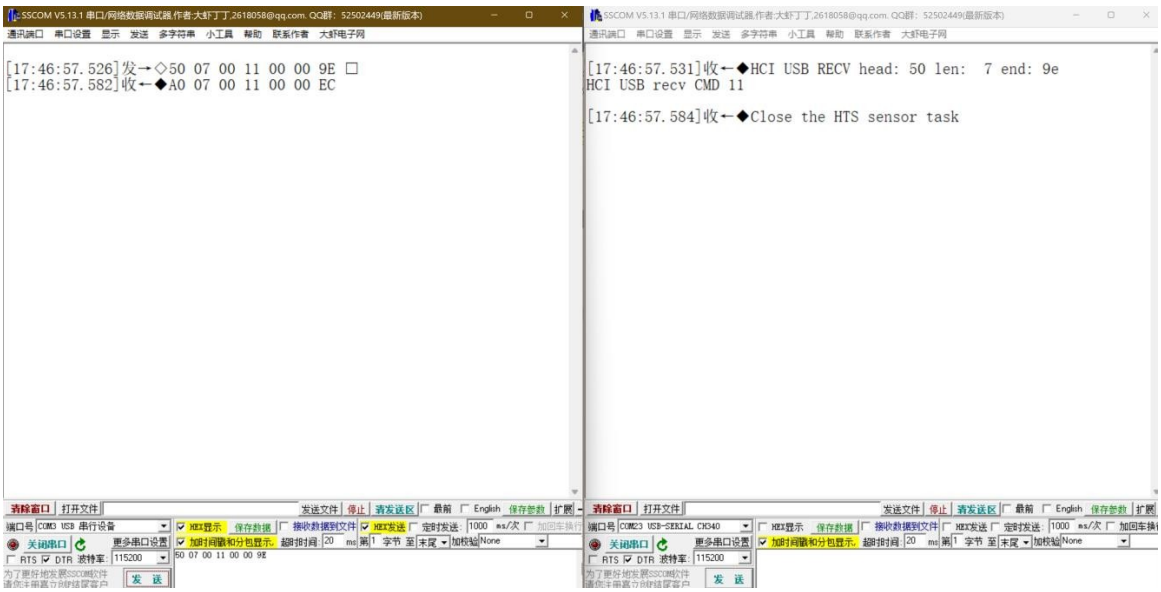
Turn off the temperature and humidity sensor.

>> send : 50 07 00 11 00 00 9E

>>receive : A0 07 00 11 00 00 EC

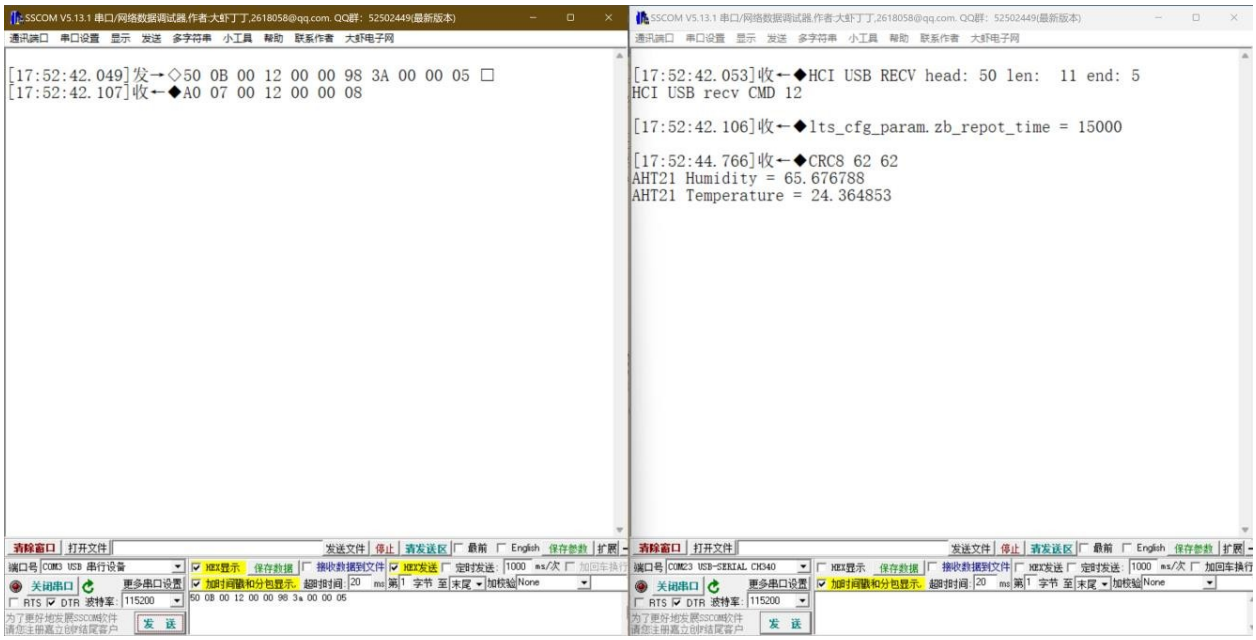


As shown in the figure

Modify the reporting Zigbee frequency.

>> send : 50 0B 00 12 00 00 98 3a 00 00 05

>>receive : A0 07 00 12 00 00 08



As shown in the figure

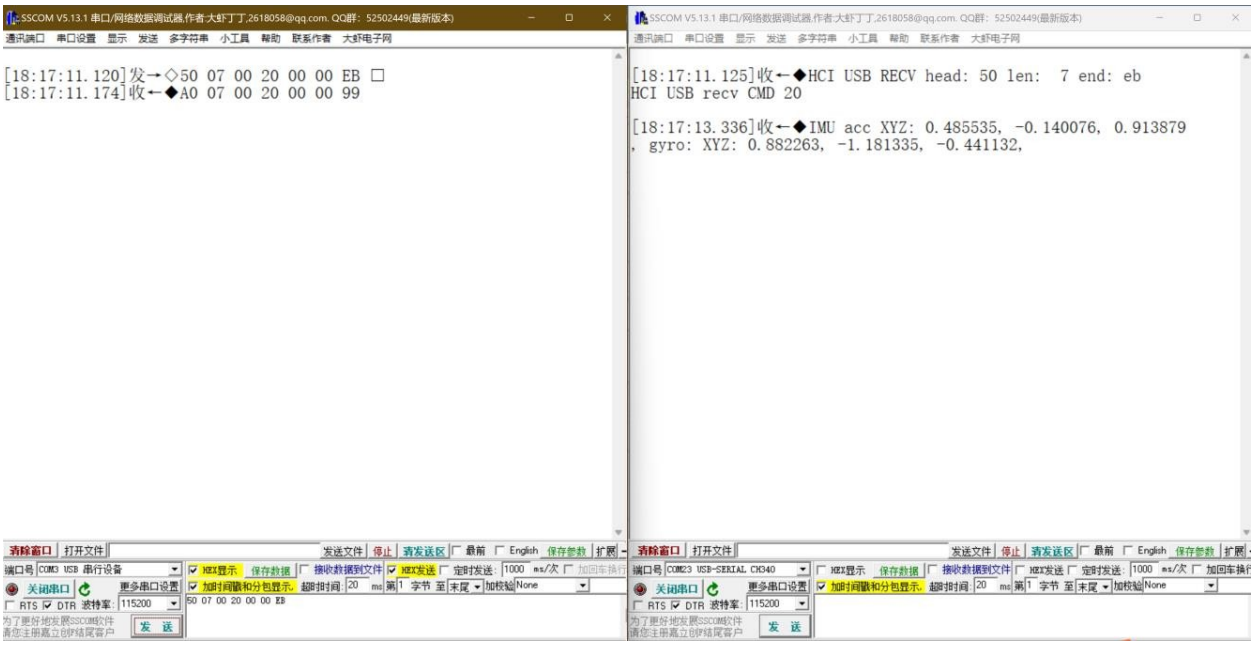
IMU sensor

The imu sensor can be configured to turn on and off, set the Zigbee reporting frequency, and support reporting acceleration data and angular velocity data.

Enable the imu sensor.

>> send : 50 07 00 20 00 00 EB

>>receive : A0 07 00 20 00 00 99

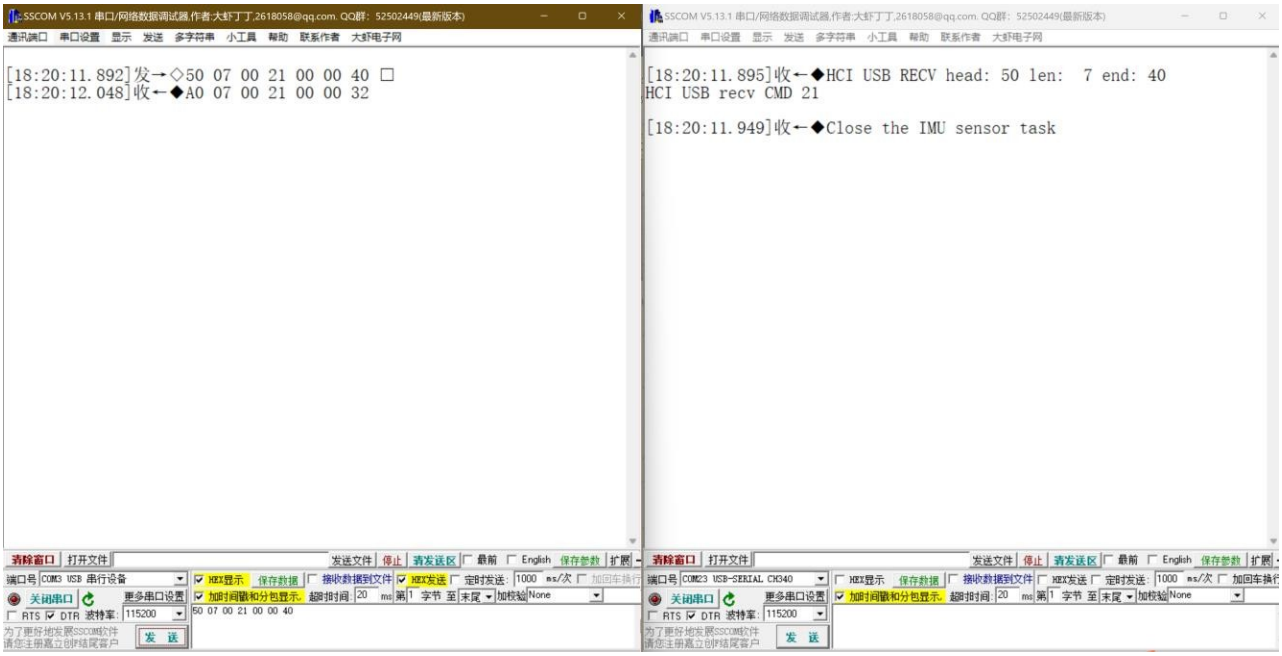


As shown in the figure

Turn off the imu sensor.

>> send : 50 07 00 21 00 00 40

>>receive : A0 07 00 21 00 00 32

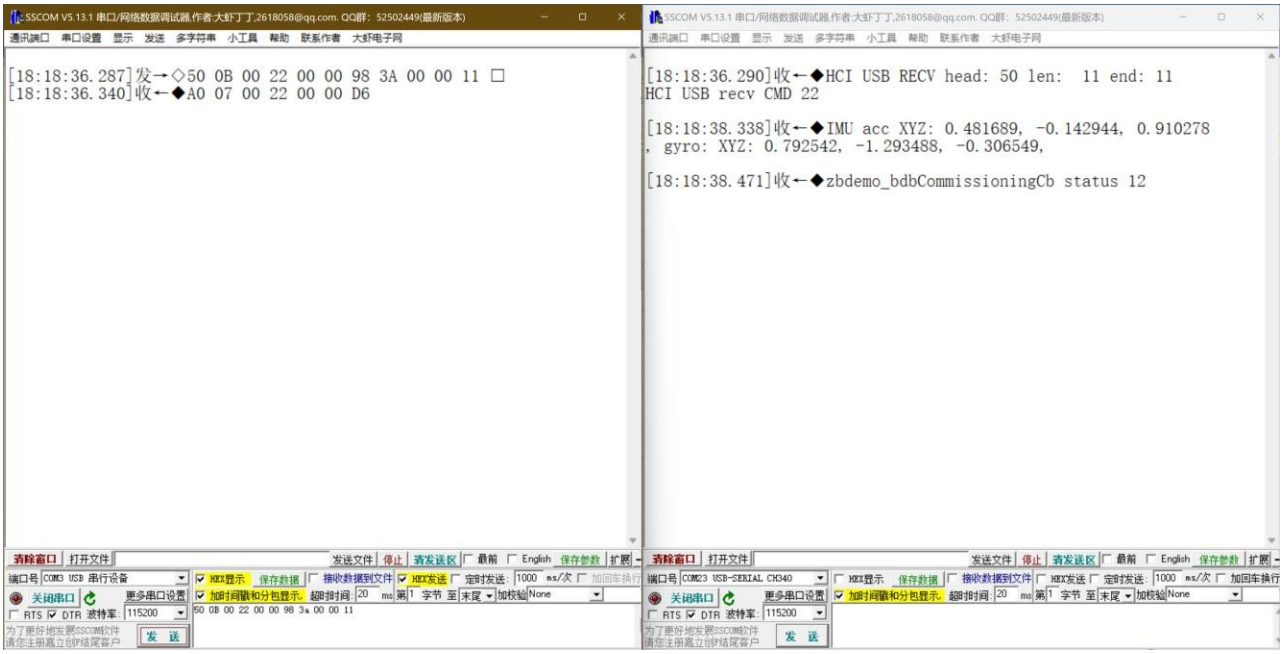


As shown in the figure

Modify the reporting Zigbee frequency.

>> send : 50 0B 00 22 00 00 98 3a 00 00 11

>>receive : A0 07 00 22 00 00 D6



As shown in the figure

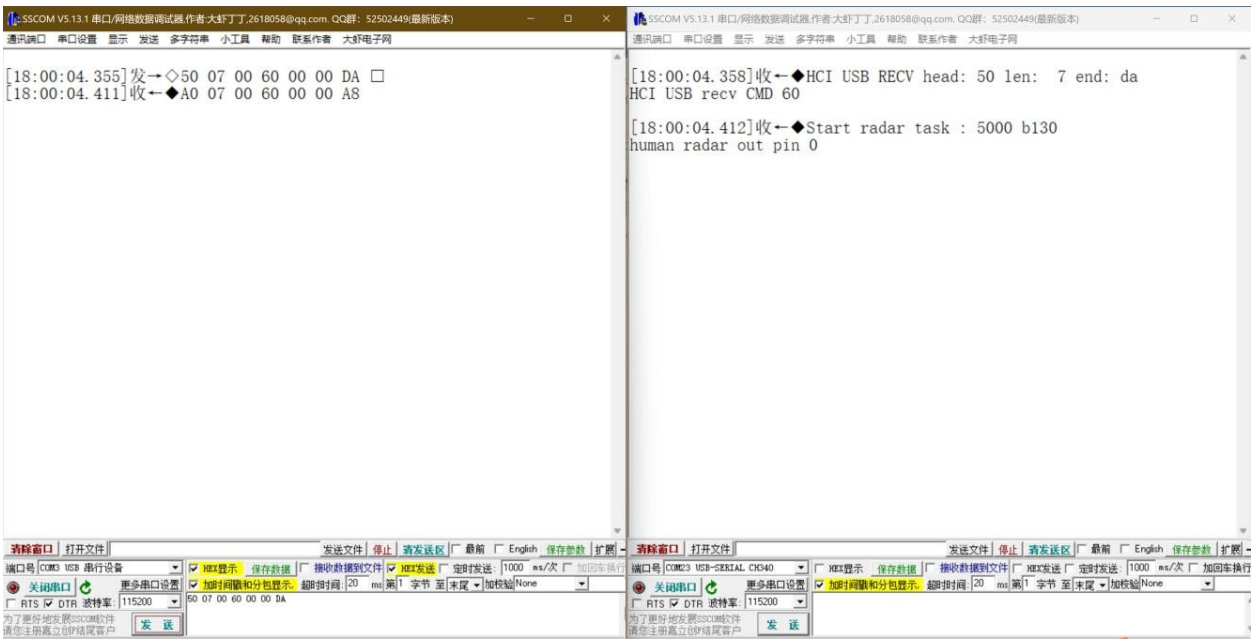
Human Presence Radar Sensor

The human radar sensor can be configured to turn on and off, set the Zigbee reporting frequency, and support reporting human presence detection.

Enable the human presence radar sensor.

>> send : 50 07 00 60 00 00 DA

>>receive : A0 07 00 60 00 00 A8

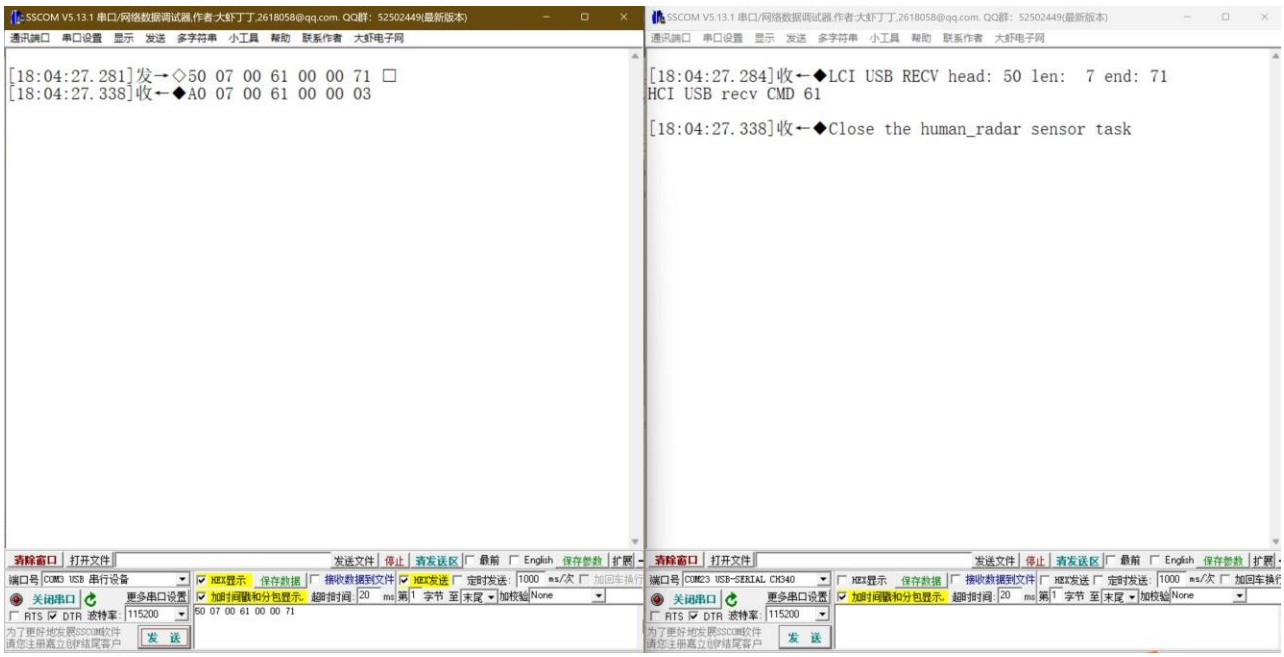


As shown in the figure

Turn off the human presence radar sensor.

>> send : 50 07 00 61 00 00 71

>>receive : A0 07 00 61 00 00 03

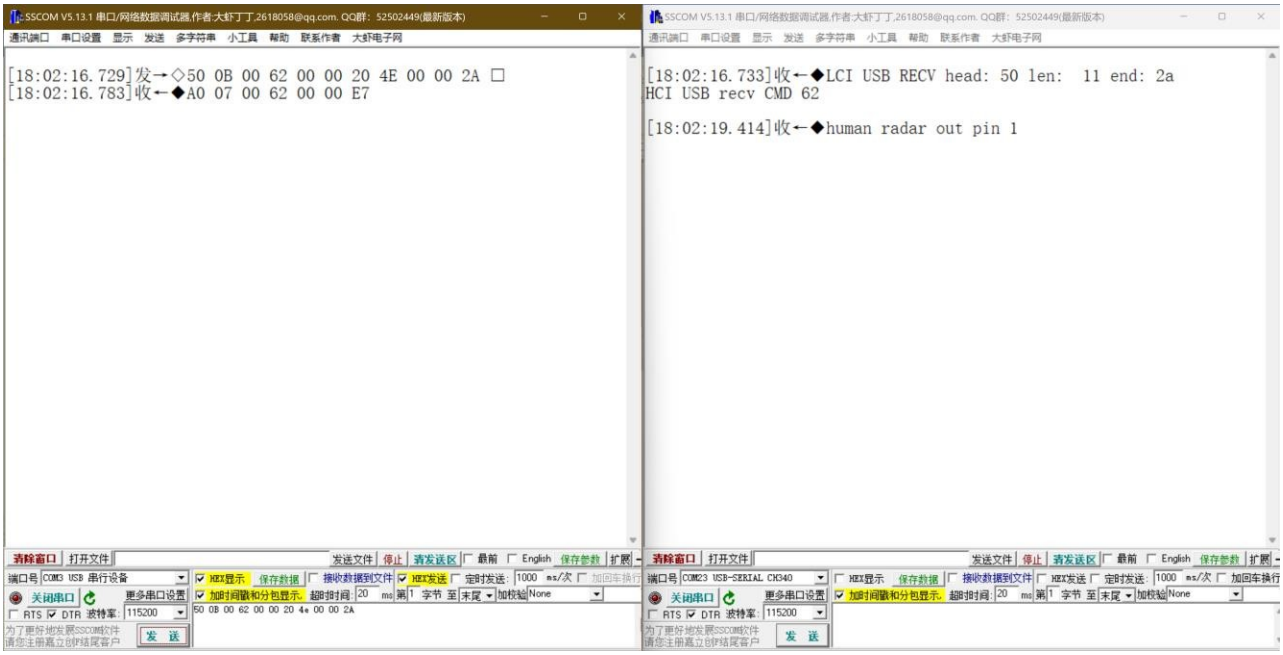


As shown in the figure

Modify the reporting Zigbee frequency.

>> send : 50 0B 00 62 00 00 20 4e 00 00 2A

>>receive : A0 07 00 62 00 00 E7



As shown in the figure

FCC STATEMENT :

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.

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

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 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.

RF warning statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition

without restriction.