

FICEMETOI Rd-01

FICEMETOI Rd-01 24G Human Body Sensing Module User Manual

Model: **Rd-01** | Brand: **FICEMETOI**

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your FICEMETOI Rd-01 24G Human Body Sensing Module. Please read this manual thoroughly before using the device to ensure optimal performance and safety. The Rd-01 is an advanced millimeter-wave radar module designed for precise human body sensing, integrating WiFi and BLE capabilities for versatile applications.

2. PRODUCT OVERVIEW

The FICEMETOI Rd-01 is a compact 24GHz radar module engineered for reliable human presence detection. It combines radar technology with WiFi and Bluetooth Low Energy (BLE) connectivity, making it suitable for various smart home, industrial, and security applications. Its design focuses on precision and stable performance.

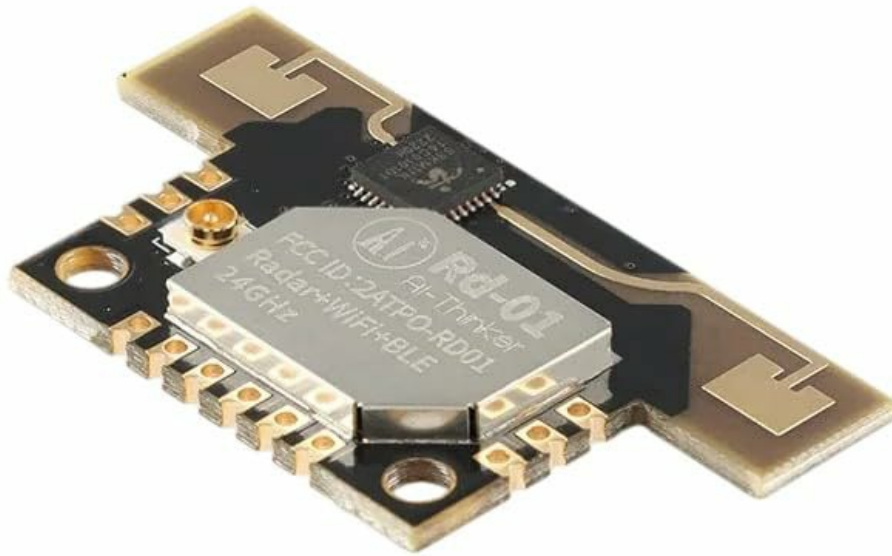


Image 2.1: The FICEMETOI Rd-01 24G Human Body Sensing Module, showcasing its compact design and integrated components.

3. KEY FEATURES

- **24GHz Millimeter Wave Radar:** Provides accurate and reliable human body sensing.
- **Integrated WiFi and BLE:** Offers flexible connectivity options for data transmission and control.
- **High-Quality Electronic Components:** Ensures reliable and long-lasting performance.
- **User-Friendly Design:** Engineered for ease of installation and use.
- **Versatile Applications:** Suitable for industrial, automotive, and household electronic systems.

4. SETUP INSTRUCTIONS

Follow these steps to properly set up your Rd-01 module:

1. **Power Supply:** Connect the module to a stable and appropriate power source as specified in the technical specifications. Ensure correct voltage and current to prevent damage.
2. **Physical Mounting:** Securely mount the Rd-01 module in the desired location, ensuring a clear line of

sight for the radar sensor. Avoid obstructions that could interfere with detection.

3. **Electrical Connections:** Connect the necessary data lines (e.g., UART, SPI, I2C, or GPIOs) to your host microcontroller or system according to your application's requirements. Refer to the module's datasheet for pinout details.
4. **Network Configuration (WiFi/BLE):** If using WiFi or BLE, configure the module's network settings. This typically involves connecting to a local network or pairing with a Bluetooth device using the appropriate software development kit (SDK) or application.
5. **Initial Testing:** After connections are made, power on the system and perform initial tests to verify basic functionality, such as power-on indication and initial sensor readings.

5. OPERATING INSTRUCTIONS

Once the Rd-01 module is set up, it operates by emitting 24GHz millimeter waves and analyzing the reflected signals to detect human presence and movement. The integrated WiFi and BLE allow for data communication and remote control.

- **Detection Range:** The module has a specified detection range. Ensure the target area is within this range for optimal performance.
- **Sensitivity Adjustment:** Depending on the application, the detection sensitivity may need to be adjusted. Refer to the module's programming guide or SDK for instructions on modifying sensitivity parameters.
- **Data Output:** The module outputs detection data via its communication interfaces (e.g., UART, WiFi, BLE). Integrate this data into your application for further processing or action.
- **Environmental Considerations:** While radar is less affected by light and temperature than other sensors, extreme environmental conditions or strong electromagnetic interference can impact performance.

6. MAINTENANCE

The FICEMETOI Rd-01 module is designed for low maintenance. However, following these guidelines can help ensure its longevity and consistent performance:

- **Cleaning:** Keep the module's surface clean and free from dust or debris. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive materials.
- **Environmental Conditions:** Operate the module within its specified temperature and humidity ranges. Avoid exposure to direct moisture, extreme temperatures, or corrosive environments.
- **Firmware Updates:** Periodically check the manufacturer's website for any available firmware updates. Applying updates can improve performance, add features, or resolve issues.
- **Connection Integrity:** Periodically inspect all electrical connections to ensure they are secure and free from corrosion.

7. TROUBLESHOOTING

If you encounter issues with your Rd-01 module, refer to the table below for common problems and their solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Module not powering on	Incorrect power supply voltage or polarity; loose power connection.	Verify power supply specifications and connections. Ensure correct voltage and polarity.
No human detection	Obstruction in radar path; target outside detection range; incorrect sensitivity settings.	Ensure clear line of sight. Verify target is within specified range. Adjust sensitivity settings as per programming guide.
Erratic or inconsistent readings	Electromagnetic interference; unstable power supply; environmental factors.	Relocate module away from strong EMI sources. Ensure stable power. Check for environmental factors like vibrations.
WiFi/BLE connectivity issues	Incorrect network configuration; out of range; interference.	Reconfigure network settings. Ensure module is within range of access point/device. Check for wireless interference.

8. TECHNICAL SPECIFICATIONS

- **Model:** Rd-01
- **Operating Frequency:** 24GHz Millimeter Wave
- **Integrated Connectivity:** WiFi, Bluetooth Low Energy (BLE)
- **Manufacturer:** FICEMETOI
- **ASIN:** B0F2B374RX
- **Date First Available:** March 24, 2025
- *Further detailed specifications (e.g., power consumption, detection range, dimensions, operating temperature) can be found in the official product datasheet.*

9. WARRANTY AND CUSTOMER SUPPORT

FICEMETOI products are manufactured with high-quality standards. For specific warranty terms and conditions, please refer to the official documentation provided with your purchase or visit the FICEMETOI website.

We pride ourselves on providing exceptional customer support. If you have any questions, concerns, or require assistance with your Rd-01 module, please contact our support team. We are ready to assist you to ensure the best experience.

Your purchase is backed by a **Money-Back Guarantee**, reflecting our confidence in the quality and performance of our products.