

# Products

Home / Products



**RION<sup>®</sup> RION TECH**

**IMU100-BL: Wearable 9-Axis Sensor AHRS with Bluetooth 5.1 and 100Hz Update Rate**

**Product Details**

Place Of Origin: China  
Brand Name: RION  
Model Number: IMU100-BL  
Document: [IMU100-BL AHRS IMU Gyroscop...Pe.Pdf](#)

**Payment & Shipping Terms**

Minimum Order Quantity: 1pcs  
Price: \$39  
Packaging Details: Carton Packing  
Delivery Time: 3~5 Work Days  
Payment Terms: T/T,Paypal  
Supply Ability: 1000/Month

[Get Best Price](#)
[Chat Now](#)





## Specifications Description

### Specifications

**Highlight:** 9-Axis Sensor IMU, Bluetooth 5.1 AHRS, 100Hz Update Rate Inertial Measurement Unit

### Description

#### IMU100-BL: Wearable 9-Axis Sensor AHRS with Bluetooth 5.1 and 100Hz Update Rate

#### IMU100-BL: Wearable AHRS IMU Gyroscope with 9-Axis Sensor & Bluetooth 5.1

The IMU100-BL is a cost-effective Attitude and Heading Reference System designed for dynamic applications including model aircraft, drones, robots, agricultural machinery, and engineering vehicles.

### Product Overview

This advanced IMU collects sensor data, integrates Kalman filtering, and outputs real-time attitude data. Utilizing three-axis accelerometers, gyroscopes, and magnetic sensors with temperature compensation, the device ensures excellent stability and real-time performance.

The IMU100-BL provides comprehensive attitude data along with 9-axis measurements (acceleration, gyroscope, and magnetic field). It supports both USB2.0 and Bluetooth 5.1 wireless output with a range up to 40 meters and maintains user settings after power loss through on-chip flash IAP technology. Additional features include adaptive frequency hopping for reliable communication and multi-device networking for flexible industrial deployment.

### Key Features

- Integrated nine-axis sensor and temperature sensor
- DC 3.0-4.2V power supply
- 100Hz update rate
- Low noise performance
- Bluetooth 5.1 wireless transmission
- Light weight design
- Compact and lightweight construction
- Real-time 3D dynamic measurement
- Kalman filtering algorithm
- Long life with strong stability
- USB2.0 output interface
- High performance drift stability
- Excellent vibration performance
- Wide temperature range operation

### Applications

- Medical rehabilitation equipment monitoring

- Limb rehabilitation monitoring
- Human body capture systems
- Posture angle monitoring

## Technical Specifications

Parameter	Specifications
<b>Azimuth</b>	
Measuring Range	±180° (optional for gyro and magnetic azimuth)
Measurement Accuracy (RMS) @ 25°C	< 1.5° (without magnetic interference)
Resolution	< 0.1°
<b>Inclination</b>	
Measuring Range	Roll ±180°, Pitch ±90°
Measurement Accuracy (RMS) @ 25°C	< ±0.5° (dynamic), < ±0.2° (static)
Resolution	< 0.1°
<b>Gyroscope</b>	
Measuring Range	±500°/sec
Zero Deviation Stability @ 25°C	< 20°/hr
Resolution	< 0.1°/sec
Bandwidth	> 100Hz
<b>Accelerometer</b>	
Measuring Range	±8g
Resolution	< 10mg
Bandwidth	> 100Hz
<b>Magnetic Field Meter</b>	
Measuring Range	±8gauss
Resolution	< 2.5mgauss
Bandwidth	14-17Hz
<b>Electrical Connection</b>	
Supply Voltage	DC 3.0-4.2V
Power Consumption	50mA (typical)
Output Interface	USB2.0
Operating Temperature	-5°C to 55°C
Storage Temperature	-10°C to +55°C
MTBF	≥ 98,000 hours/time
Impact Resistance	100g @ 11ms, triaxial (half sine wave)
Vibration Resistance	10grms / 10-1000Hz
Waterproof Grade	IP65
Connector	Type-C connector
Weight	≤ 35g (excluding cable)

## Product Images



Shenzhen Rion Technology Co., Ltd.

Alice@rion-tech.net

86-156-25295088



Home

Products ▾

About Us ▾

News

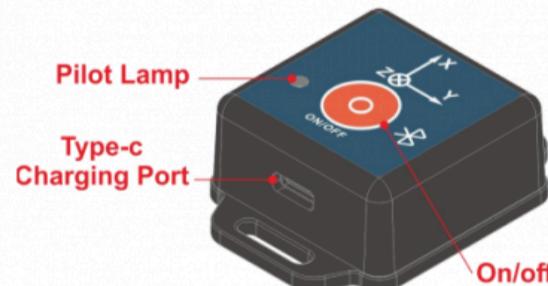
Cases

Q

English

Chat

### ► FUNCTION DESCRIPTION



NO/OFF button: press the button to start the machine and press the button to shut down the machine;

1. Indicator status:

**Red light flashes quickly:** The red LED flashes quickly when the device is turned on, indicating that it is connected to the Bluetooth host.

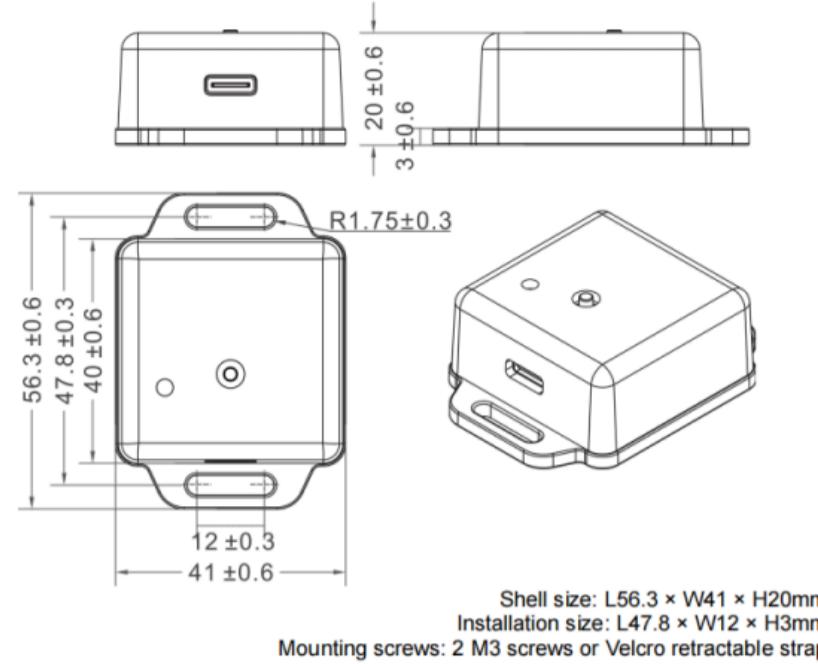
**Red light is always on:** The red LED is always on after connecting to the host.

**Red light flashes slowly:** The red LED flashes slowly when the battery is low, and the device automatically shuts down after 30 seconds.

**Green light is always on:** The green light is always on when charging.

2. Type-C charging port: It is recommended to use 5V charging plug. The charging time is about 4 hours, and the theoretical working time is 8 hours.

### ► DIMENSIONAL DRAWING


**Tags:**

High Resolution mems imu sensor

IMU

MEMS Inertial Measurement Unit

## Similar Products



Imu400 Multi Axis Inertial Navigation Module Ins Ttl Interface

[Get Best Price](#)


IMU406 Inertial Navigation Module Platform Attitude Accurate Measurement

[Get Best Price](#)

IMU400-STD4 Professional Driving Navigation Application

[Get It](#)

## Send your inquiry

Please send us your request and we will reply to you as soon as possible.


[Send](#)


### About

- [Company Profile](#)
- [Factory Tour](#)
- [Quality Control](#)
- [Contact Us](#)
- [SiteMap](#)
- [Privacy Policy](#)

### Products

- [Tilt Sensor Inclinometer](#)
- [Dynamic Inclinometer](#)
- [High Accuracy Digital Inclinometer](#)
- [2 Axis Digital Inclinometer](#)
- [Analog Inclinometer](#)
- [Wireless Inclinometer](#)

### Contact Us

- [✉ Alice@rion-tech.net](mailto:Alice@rion-tech.net)
- [📞 86-156-25295088](tel:86-156-25295088)
- [📍 Block 1, COFCO\(FUAN\) Robotics Industrial Park , Da Yang Road No. 90, Fuyong Distict, Shenzhen City, China](#)



