

MR03

AI-Powered Vital Sign Monitoring mmWave Radar

MR03 is an AI-powered mmWave radar device with edge computing algorithms, specifically designed for senior living scenarios. It is suitable for indoor spaces such as bedrooms, living rooms, and bathrooms, with a maximum detection range of up to 6m x 4m. The device can accurately detect accidental falls by elderly individuals and trigger automatic alerts. It supports nighttime sleep breathing and heart rate monitoring, generating sleep analysis reports. It also features emergency intercom assistance and out-of-bed status monitoring, promptly notifying caregivers to follow up with care, building a home safety net for elderly living and enabling 24/7 protection of seniors at home.

- Fall Detection
- Heart Rate Monitoring
- Bed-Exit Detection
- Sleep Analysis
- Respiratory Monitoring
- Emergency vIntercom

Key Benefits

Fall Detection & Out-of-Bed Monitoring, Comprehensive SafetyProtectionfor Seniors

MR03 can identify accidental fall events of seniors within the detection area and trigger alerts, promptly notifying caregivers to intervene, effectively preventing secondary injuries caused by delayed rescue. The device also supports real-time out-of-bed status monitoring; once a senior leaves the bed, the system automatically sends notifications for caregivers to provide timely assistance. When multiple people are present in the detection area, the device can still maintain accurate fall detection capability. For multi-bed senior living scenarios, MR03 can independently monitor each bed for out-of-bed status and report out-of-bed alert information for clearer management.

Intelligent Sleep Health Assessment, Non-contact Nighttime Safety Monitoring

MR03 utilizes non-contact mmWave radar detection technology to continuously collect seniors' breathing and heart ratevital signsdata, intelligently analyzing sleep structure and quality, and automatically generating sleep analysis reports to provide data support for sleep health assessment and intervention optimization. The system also features physiological parameter anomaly alerting; once abnormal breathing or heart rate fluctuations are detected, alerts are immediately pushed to caregivers, effectively preventing various safety risks during seniors' nighttime sleep.

Smart Emergency Two-Way Intercom, One-Touch Peace of Mind

MR03 is equipped with an emergency two-way intercom function. Seniors can initiate intercom assistance via the wireless emergency alarm button. Additionally, when the device detects emergencies such as falls, abnormal heart rate, or breathing irregularities, it can automatically trigger an emergency intercom channel. This enables caregivers to quickly communicate with seniors in real time and verify the on-site situation, effectively preventing secondary injuries and safety risks caused by delayed response.

Akuvox Cloud Integration, Remote Maintenance + Multi-Channel Alert Push

MR03 can seamlessly integrate with the Akuvox cloud platform, leveraging cloud capabilities for remote device maintenance and management. After the device triggers an alert, the Akuvox cloud service can push pre-warning information in real time to caregivers'mobile apps, and can also directly place phone calls for more timely alert delivery.

Complete API for Deep Integration with Third-Party Platforms

MR03 features a comprehensive API interface that enables integration with third-party platforms, supporting diverse functions including configuration writing, alert pushing, data reporting, and other integration capabilities.

Specifications

Physical Parameters

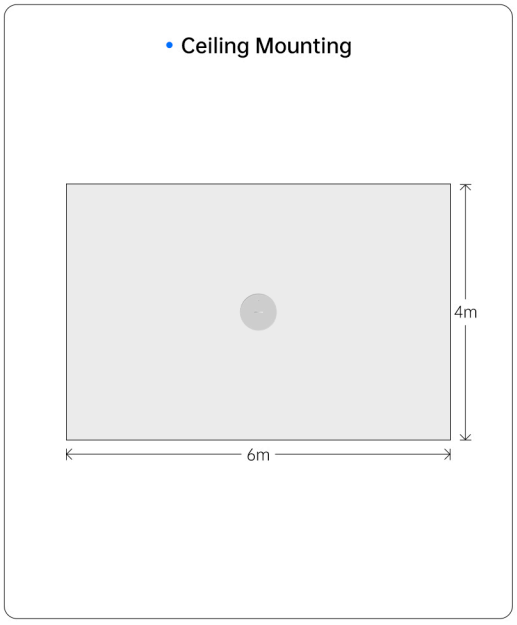
Material	Plastic
Power Supply	IEEE802.3 PoE or 5V2A Adapter(USB Type-C)
Wi-Fi	IEEE802.11(b/g/n)
Microphone	1
Speaker	1
RF Communication Module	433MHz/869MHz/915MHz Optional
RJ45 Network Port	1
USB Type-C Port	1
Operating Temperature	-10°C ~ +45°C
Storage Temperature	-20°C ~ +70°C
Operating Humidity	10~90%
Product Dimensions	Φ110 mm x 24 mm
Installation Method	Wall Mount & Ceiling Mount

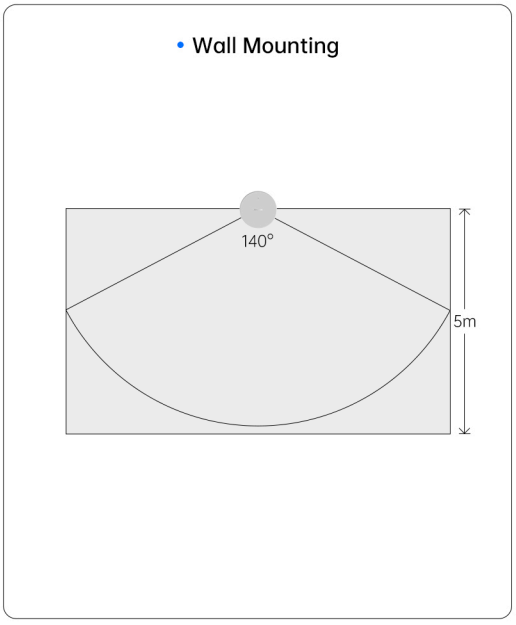
Radar Parameters

Operating Frequency Band	60GHz-64GHz
Bandwidth	4 GHz
Modulation Mode	FMCW (Frequency Modulated Continuous Wave)
Transmit Power	11dBm
TX/RX Antennas	4TX 4RX

Detection Range

Ceiling Mount	6m x 4m
Wall Mount	Within 140° front field of view, max. distance 5m





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