

LoRaWAN Occupancy Sensor-60G MV Radar

Product Specification

Applicability

This guide applies to the following Atomsenses products, unless otherwise specified:

Model	Description
AS-SH8	- LoRaWAN 60G 3D Mini Wave Radar Occupancy Sensor

Declaration of Conformity

Atomsenses sensors and other products comply with the essential requirements and relevant provisions of CE/EMC, and RoHS standards.



Hardware Introduction

This is a ranging radar that utilizes millimeter waves, possessing the advantages of high accuracy (at the millimeter level), long detection range, and immunity to the influence of light. The product calculates the target distance by leveraging the time difference between the electromagnetic wave emitted by the radar and the reflected electromagnetic wave received. Consequently, it achieves a higher accuracy rate and is less prone to misses.

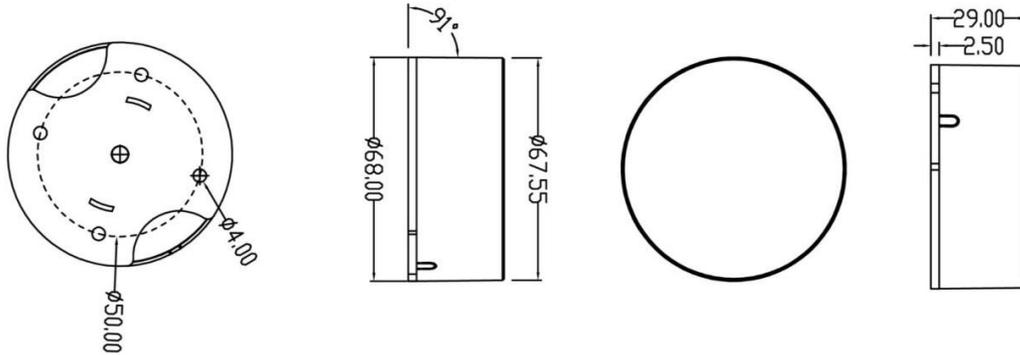
Features

- Circular Design, Adopting ABS Material for a Lighter, More Robust and Aesthetically Pleasing Shell
- Employing 60G Millimeter Wave Radar Technology for More Precise Detection and Stable Operation
- Effective Detection Range of 200 - 350CM, with High Sensitivity, Suitable for Use in Unisex Toilets or Bedrooms
- RS485/LoRa Communication Modes for Simplified Data Aggregation, and Private Protocol to Prevent Information Leakage
- IP65 Design for a Wide Range of Operating Environments and Strong Applicability
- Built-in Intelligent Learning Algorithm to Filter Abnormal Fluctuations in Detection and Output Detection Results
- Top Wall Mounting Method with Customized Brackets for More Convenient Angle Adjustment and Installation

Device Appearance



Dimensions(mm)



Technical specifications and standards

Specifications	Parameters
Protocol	LoRaWAN®
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Probe	3D SQT - 60G mm Wave Probe
Warming-up time	Less than 1 minute
Overall power consumption	2.5W
Status Indicator	0 - unoccupied; 1 - occupied
Status Report	Report regularly (frequency can be set); Report when status changes
Response Time	Default : occupied < 1s , from occupied to unoccupied ~ 30s
Detection Area	~20 square meters
Detection Distance	200 - 400CM
Sensor Adjustable Angle	0°, 15°, 30°, 45°, 60°, 75°
Power Supply	DC9~24V
Operating Temperature	-20°C ~ 60°C
Operating Humidity	5% to 80% RH (without condensation)
Ingress Protection	IP67
Dimension	Diameter × Height: 65 x 25 mm
Operating Life	3 years
Material & Color	PC+ABS (Flame Retardant), White
Installation	Ceiling Mount or Wall Mount via Screws or 3M tapes

