

BATTERY POWERED WIRELESS IoT SOLUTIONS MONITOR PREMISES AND ASSETS 24/7

LRS20UD0 LoRaWAN Ultrasonic Sensor



Product Features

- Provides a simple and cost-effective solution for detecting the occupancy in a specific area and distance.
- Long distance measurement range: up to 4 meters.
- Fast response.
- Up to 5 years battery lifetime.
- Easy installation without any complex wiring and pricey setup cost.
- Application: Smart Toilet, Office, Warehouse, Supermarket, etc.

Performance Characteristics

Power	1 x 3.6V C Size Lithium Battery
Standby Current	< 30 uA @3.6V
Sensor Type	Fast response ultrasonic sensor
Detectable Distance	3cm to 400cm Accuracy: +/- (10 + distance x 0.3) %
Typical Full Field of View (FOV)	60 degree
Data Upload Interval	Configurable (Default: 10 mins, Min: 180 sec)
Measurement Interval	Configurable (Default: 2 mins, Min: 60 sec)
On-device Alert Detection	Yes, exceeds or falls below threshold
Battery Life	Up to 5 years*

* Conditions: measurement interval at 60 sec, upload data at every 15 mins.

Note: specification of the ultrasonic sensor in a separate document.

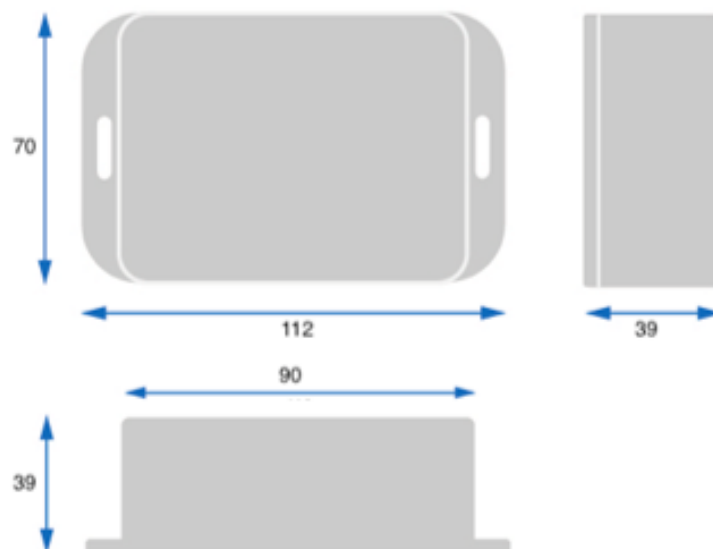
Wireless Characteristics

Wireless Connectivity	LoRaWAN® 1.0.3 EU863-870, US902-928, AU915-928, AS923
Transmit Power	EU868, AS923: +16dBm US915, AU915: +20dBm
Sensitivity	Max. -137dBm
Data Transfer Rate	0.3kbps - 50 kbps
LoRaWAN Features	ABP/OTAA, ADR, Class A End-device
Antenna Type	Built-in Antenna
Security	AES-CTR (LoRaWAN End-to-End Encryption) AES-CMAC (Data Integrity Protection)

Physical Characteristics

Dimensions	L 112mm x W 70 mm x H 39 mm
Weight	115g (excluding ultrasonic detector)
Operating Temperature	-20 to 60°C
Storage Temperature	-20 to 70°C
Storage Humidity	< 95% RH
Ingress Protection	IP67
Warranty Period	1 Year

Mechanical Dimensions



Ordering Information

SEN8 LoRaWAN Ultrasonic Sensor	LRS20UD0-0000-000x
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x = frequency band: 0 - AS923, 1 - EU868, 2 - AU915, 3 - US915