

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

SEN21U00-1000 NB-IoT Ultrasonic Sensor



Product Features

- Provides a simple and cost-effective solution for detecting the occupancy in a specified area and distance.
- Long distance measurement range: up to 4 meters.
- Fast response.
- 3 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: $\pm (10 + \text{distance} \times 0.3) \%$
Typical Full Field of View (FOV)	60 degree
Data Upload Interval	Configurable (Default: 1 hour)
Measurement Interval	Configurable (Default: 15 mins)
On-device Alert Detection	Yes, exceeds or falls below threshold
Battery Life	Up to 3 years

Battery life conditions: measurement interval at 15 mins and upload data once per hour. Specification of the ultrasonic sensor in a separate document.

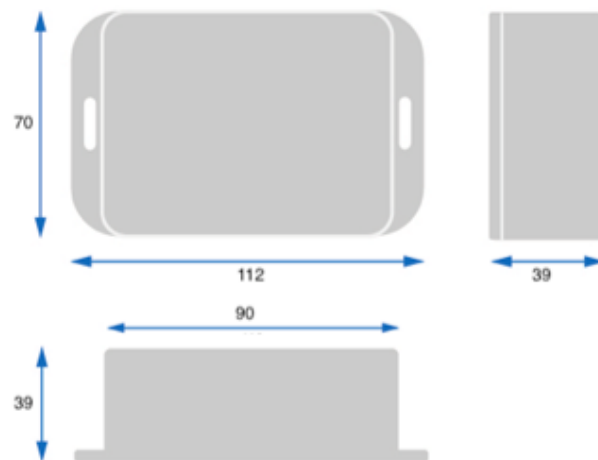
Wireless Characteristics

Wireless Connectivity	LTE Cat NB2 (NB-IoT)
NB-IoT Protocol	3GPP Release 14
Operating Band	3, 8, 20
Uplink Rate	16.7 kbps (Single Tone), 62.5 kbps (Multi-Tone)
Downlink Rate	25.5 kbps (Single Tone), 25.5 kbps (Multi-Tone)
Transmit Power	23 dBm $\pm$ 2 dB
Sensitivity	-116 dBm
Antenna Type	Built-in Antenna (External Antenna - Optional)

Physical Characteristics

Dimensions	L 112mm x W 70 mm x H 39 mm
Weight	116g (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 NB-IoT Ultrasonic Sensor	SEN21U00-1000-0000
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