

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

SEN21100 NB-IoT Ambient Temperature & Humidity Sensor



Product Features

- Provides a simple and cost-effective solution for Ambient Temperature and Humidity monitoring.
- High precision measurements from -20°C to 60°C, 10% to 100% R.H.
- Instant alerts regardless of the data upload interval.
- Up to 3 years of battery life.
- Easy installation without any complex wiring and pricey setup cost.
- Supports open API.
- Application: Cold Room, Refrigerator, Medical laboratory, Hotel, Hospital, Factory.

Performance Characteristics

Power	1 x 3.6V C Size Lithium Battery
Standby Current	< 30 uA @3.6V
Temperature	Range: -20 to 60°C Accuracy: $\pm 0.7^{\circ}\text{C}$ (-20 to 0°C), $\pm 0.3^{\circ}\text{C}$ (0 to 60°C)
Humidity	Range: 10% to 100% RH Accuracy: $\pm 4.5\%$ RH (10 to 20%), $\pm 3\%$ RH (20 to 80%), $\pm 4.5\%$ RH (80 to 100%)
Data Upload Interval	Configurable (Default: 1 hour)
On-device Alert Detection	Yes, exceeds high/low temperature or high/low humidity threshold
Battery Life	Up to 3 years

Battery life conditions: measurement interval at 15 mins and upload data once per hour.

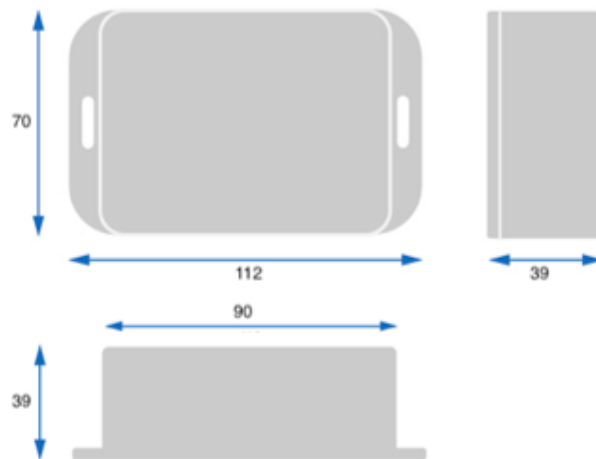
Wireless Characteristics

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	166g
Operating Temperature	-20 to 70°C
Storage Temperature	-20 to 80°C
Storage Humidity	< 95% RH
Warranty Period	1 Year

Mechanical Dimensions



Ordering Information

SEN8 NB-IoT Ambient Temperature & Humidity Sensor	SEN21100-0000-0000
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