



Energy Monitoring



Water Monitoring



HVAC Monitoring



Vibration Monitoring



Diesel Generator Monitoring



Fire System Monitoring



NB Safe Monitoring



UPS and Temperature Monitoring



Smart IoT Monitoring Solution



The **NBSense** Gateway ensures seamless monitoring and management across industrial and infrastructure applications.



Key Features:

Versatile Monitoring:

Supports Energy, Water, Temperature, UPS, Diesel Generators, HVAC, Vibration, NBSafe, and Fire Safety Systems.

Reliable Communication:

Uses RS485 protocol for noise-resistant, long-distance data transmission, ensuring uninterrupted performance in industrial environments.

Cloud-Based Management:

Data sent to AWS Cloud for processing and visualization on an intuitive dashboard.

Real-Time Insights:

Monitor live metrics, analyze trends, generate reports, and receive alerts for critical events.

Optimized Operations:

Enhances visibility, reduces downtime, and enables predictive maintenance for efficient system performance.

SPECIFICATIONS



Module

Name	NBSense Gateway
Technology	EC200UCN/ESP32S

GNSS

GNSS	GPS/GLONASS/BDS/Galileo/QZSS
Position Accuracy	< 2.5m CEP-50
Tracking Sensitivity	-160 dBm
Warm Start	28 s
Cold Start	30 s

Cellular

2G Band	B3/B8
4G LTE Band	LTE-FDD: B1/B3/B5/B8 LTE-TDD: 834/838/B39/B40/B41
LTE Data Rate (Mbps)	Max. 10 (DL)/Max. 5 (UL) (EC200UX LTE FDD: Max. 10 (DL)/Max. 5 (UL), LTE TDD Max 8.96 (DL)/Max. 3.1(UL)
GPRS Data Rate (Kbps)	Max 85.6 Kbps (DL)/Max 85.6Kbps (UL)

Physical Specifications

Dimensions	L = 133 mm W = 89 mm H = 37 mm
Weight	350 g

Communication Protocol

TCP/IP	HTTP, HTTPS, MQTT
Messaging Mode	Synchronous, Asynchronous, Event Based

SPECIFICATIONS



Power

Input Voltage Range	5 to 35V DC with over voltage and reverse polarity protection
Power Consumption	32 μ A @ Power off 1.54 mA @ LTE-TDD sleep (PF-128) 1.37 mA LTE-TDD sleep (PF-256) 27.95 mA @ Idle (PF-64, USB Connection) 12.7 mA @ Idle (PF-64, USB Disconnection)

Operating Environment

Operating Temperature	- 40 °C to +85 °C
Ingress Protection Rating	IP65 / IP67

Interface

Digital Inputs / Outputs	2
Analog Input	1
RS485	Isolated Half Duplex (upto 20 devices)
GNSS Antenna	External
Cellular Antenna	Patch / External
LED Indication	Power, GPS, Network
SIM	Physical
RTC	Yes
I2C, SPI	Yes

Certificate & Approvals

Regulatory	ROHS, CE
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