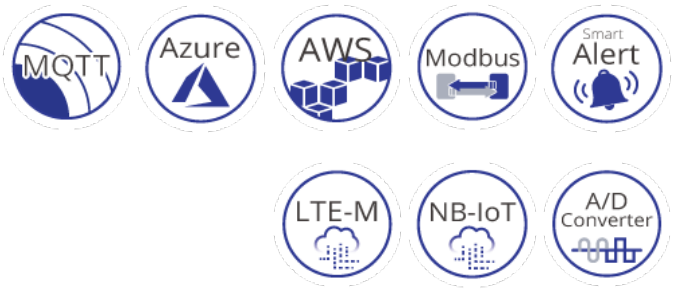
EDGE 2

Industrial LTE-M/NB-IoT Edge Node



Overview

EDGE series products are Internet of Things devices which speed up IoT project deployment on field sites in an easy and scalable way. The major advance wireless LPWA solution: LTE NB-IoT/Cat-M1 is deployed on the Edge node product respectively, fulfilling wireless monitoring and controlling needs under an IoT framework.

The EDGE 2 conveniently and transparently connects the existing field site sensors/serial devices with only basic configuration to NBIoT/Cat-M1 Internet network.

EtherWAN — "When Connectivity is Crucial."

Spotlight

Flexible Connectivity for Critical Applications

Multiple I/O to connect to a Wide Variety of Field Equipment
Over thousands data storage (16MB Log storage); Scheduled Uplink
Integrated 10 bit A/D Converter to convert Analog Signal to Digital Data

Reliable and Uninterrupted Connection

Serial port supports Modbus RTU Interoperability
Remote Control when VDC powered (DO output and Modbus Control)
Wake up trigger with sensor data continuing uplink
Smart alert with over threshold trigger DO and MQTT event activate

Rugged Industrial Design

IP65 Enclosure Design
-30 to 70°C Temperature Range
Battery or DC Power Input

IoT Cloud Connectivity

MQTT Protocol for Cloud Connectivity
Ready to Cloud for AWS and Azure

Frequency Bands

LTE Cat. NB2/M1 Frequency Band

Model	Band/Channel	Regions
EDGE 2	FDD:B1/B2/B3/B4/B5/B8/B12/ B13/B17/B18/B19/B20/B25 /B27/B28/B66/B71/B85 GSM:B5/B8/B3/B2	All Regions (*Worldwide)

Features

WAN & Uplink

EDGE 2

• Protocol: TCP, UDP, MQTT
• Cloud: AWS, Azure and MQTT based cloud
• Data Security: SSL TLS 1.2
• Connection: By schedule plan
(per Yearly/Monthly/Weekly/Daily/Hourly or per designated Minutes)
• Data Upload: Multiple servers supported for redundancy,
re-trial plan for interrupted connection

Field Communication

Modbus

• Master for accessing attached Modbus RTU Slaves
(Up to 8 Modbus devices supported)

Data Logging

• By schedule plan
(per Yearly/Monthly/Weekly/Daily/Hourly or per designated Minutes)

Administration

Configuration

• Windows Utility, Console CLI, USB-to-Serial console cable

System

• Backup & Restore, Reboot & Reset, Syslog, Upgrade

Specifications

Wireless Interfaces

EDGE 2

- 1 x LTE Cat. M1/NB2 Module
- 3GPP, Cat. M1/NB2 with PSM (*Power save mode) supported

Data Transmission

- Cat. M1: Max. 375Kbps (DL); Max. 375Kbps (UL)
- Cat. NB2: Max. 32Kbps (DL); Max. 70Kbps (UL)

Specification

- Max. Output Power: 23dBm
- Sensitivity:
  -107dBm@Cat M1, 1.4MHz Bandwidth, CE Mode A
  -113dBm@Cat NB2, CE Level 0

I/O Interfaces

Analog Input

- 3 x AI ports (supports 0-10V/4-20mA)
- Conversion: 10bit ADC
- Input Range: 0-10V, or 4-20mA (Dual mode)
- Resolution: 10mV, or 20uA (with 2-bit hard-wired divider involved)

Digital Input

- 2 x DI ports (Isolated, supports Pulse Counter, Dry Contact)

Digital Output

• 1 x DO port (Isolated, Non-Relayed Output, Maximum 24V/300mA)

Wake-up Port

• 1 x Internal Reed Switch (EDGE 2) and dedicated wake-up port reserved for device wake-up triggering

RS-485

• Support 8 sets Modbus RTU devices
• Modbus/RTU read command FC 1,2,3,4 and write command FC 5,6 from MQTT or LoRaWAN

I/O Connectors

2 x M16 waterproof connectors with 2-hole cable gland for wiring the required ports to external sensors/meters

Embedded Antennas

EDGE 2 Series

• 1 x Internal 2dBi Antenna

Log Storage

Data logging (EDGE 2)

• 16MB Internal Storage

Power

4000mAh 3.6V Li-SOCL2 battery (Optional), or external 5-12VDC Power Input predefined by Jumper

• Power Consumption:

ON: 1000mWH
Sleep: 0.3mWH
Sending: 11.25mW / per one time

Mechanical

Casing

• Plastic (PC, UL-94V2)
• IP65

Dimension

• 105 x 55 x 76.47mm (W x D x H); Enclosure only
• 131.97 x 81 x 76.47mm (W x D x H); Including Cable Gland, Brackets

Weight

• 0.3Kg (0.66lbs)

Installation

• Bracket mounting

Environment Limits

Operating Temperature

• -30 to 70°C (-22 to 158°F)

Storage Temperature

- -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity

- 5% to 95% (non-condensing)

Regulatory Approvals

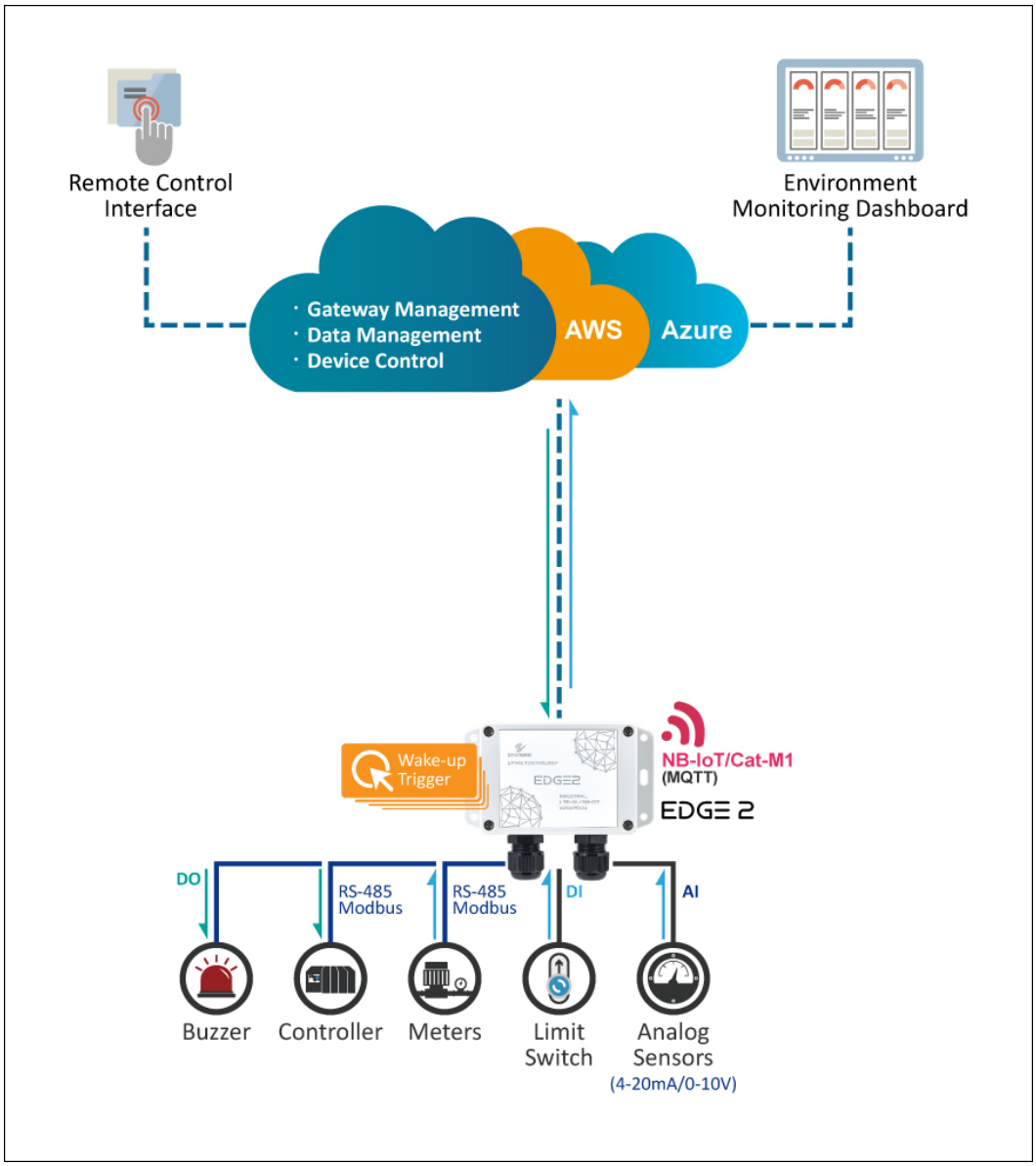
Safety

- EN 60950-1

Emissions/Immunity

- CE/NCC/EAC

Application



Dimensions

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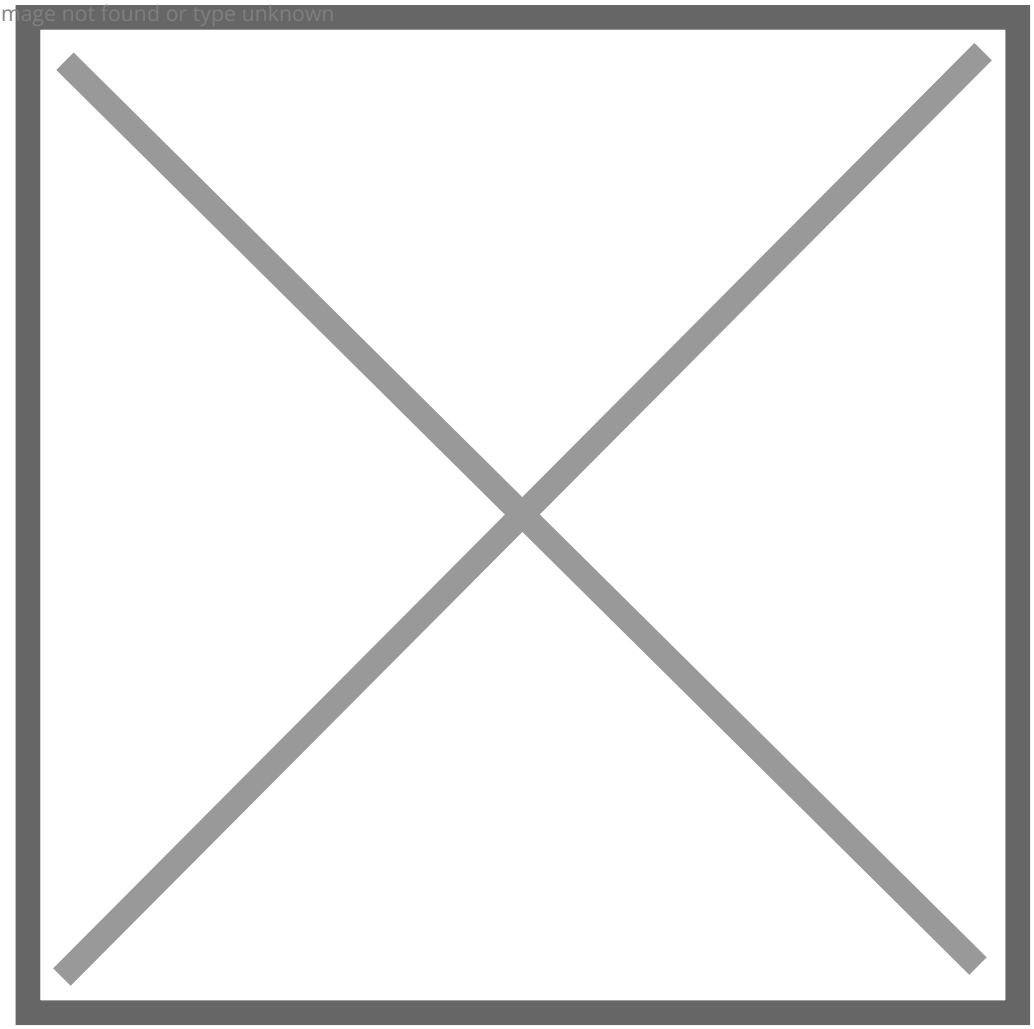

Ordering Info

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Included Accessories

• Device x 1

• Cable Tie for fixing battery x 2

• Jumper for AI current mode setting x 3

• Water & Dust-proof stopper x 3

Optional Accessory

USB-to-Serial Console Cable	Note	Note
	W96G-1140Y1126	USB-to-Serial console cable is an optional accessory purchased separately for utility configuration for EDGE 2 setting and configuration.
Image not found or type unkno	W96G-11330Y100	ER18505-3.6V-4000mAh battery for EDGE 2 series.

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