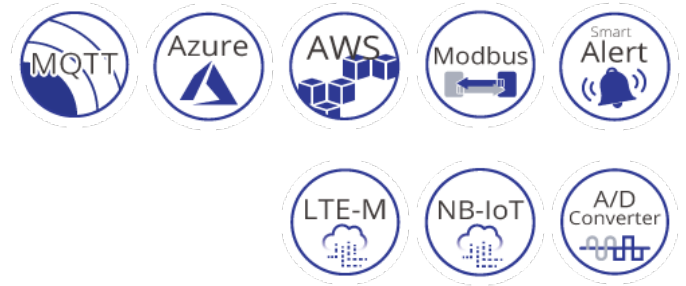


# EDGE 2

IoT LPWA Solution/Ready To Cloud - 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 NB-IoT/Cat-M1 Internet network.

EtherWAN — "When Connectivity is Crucial."



## Spotlight

- » MQTT Protocol for Cloud Connectivity
- » Ready to Cloud for AWS and Azure
- » Multiple I/O to connect to a Wide Variety of Field Equipment
- » Over thousands data storage (16MB Log storage); Scheduled Uplink (EDGE 2 Only)
- » Integrated 10 bit A/D Converter to convert Analog Signal to Digital Data
- » 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
- » Battery or DC Power Input
- » -30 to 70°C Temperature Range
- » IP65 Enclosure Design

## 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
- 

## 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)
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## **Regulatory Approvals**

### **Safety**

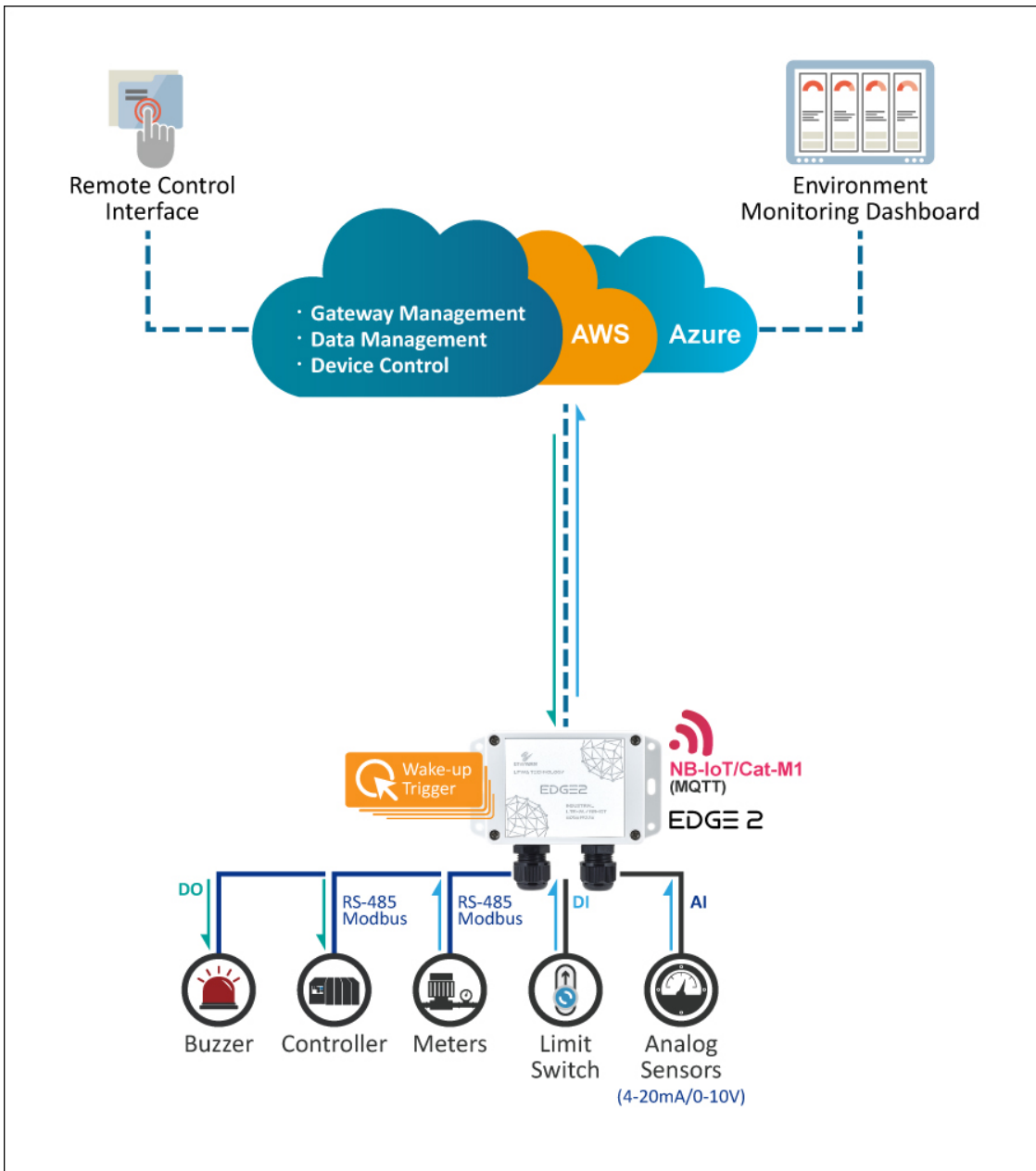
EN 60950-1

### **Emissions/Immunity**

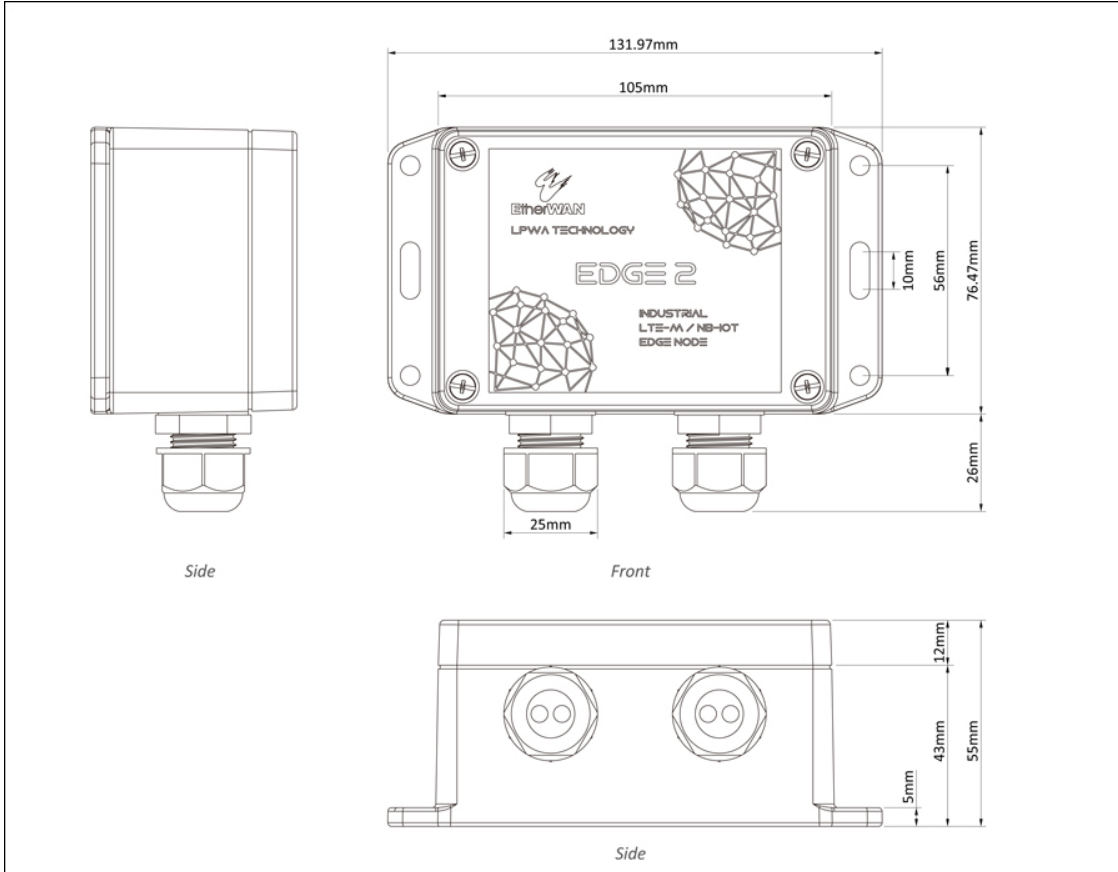
CE/NCC/EAC

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# Application



## Dimensions





## Ordering Info

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	/B27/B28/B66/B71/B85 GSM:B5/B8/B3/B2	

### 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.



W96G-11330Y100

ER18505-3.6V-4000mAh battery for EDGE 2 series.

