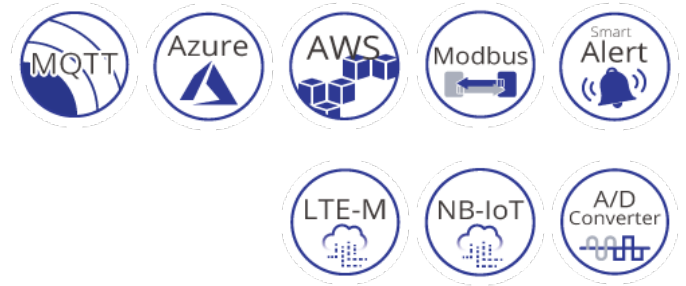


EDGE 2

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)
-

Regulatory Approvals

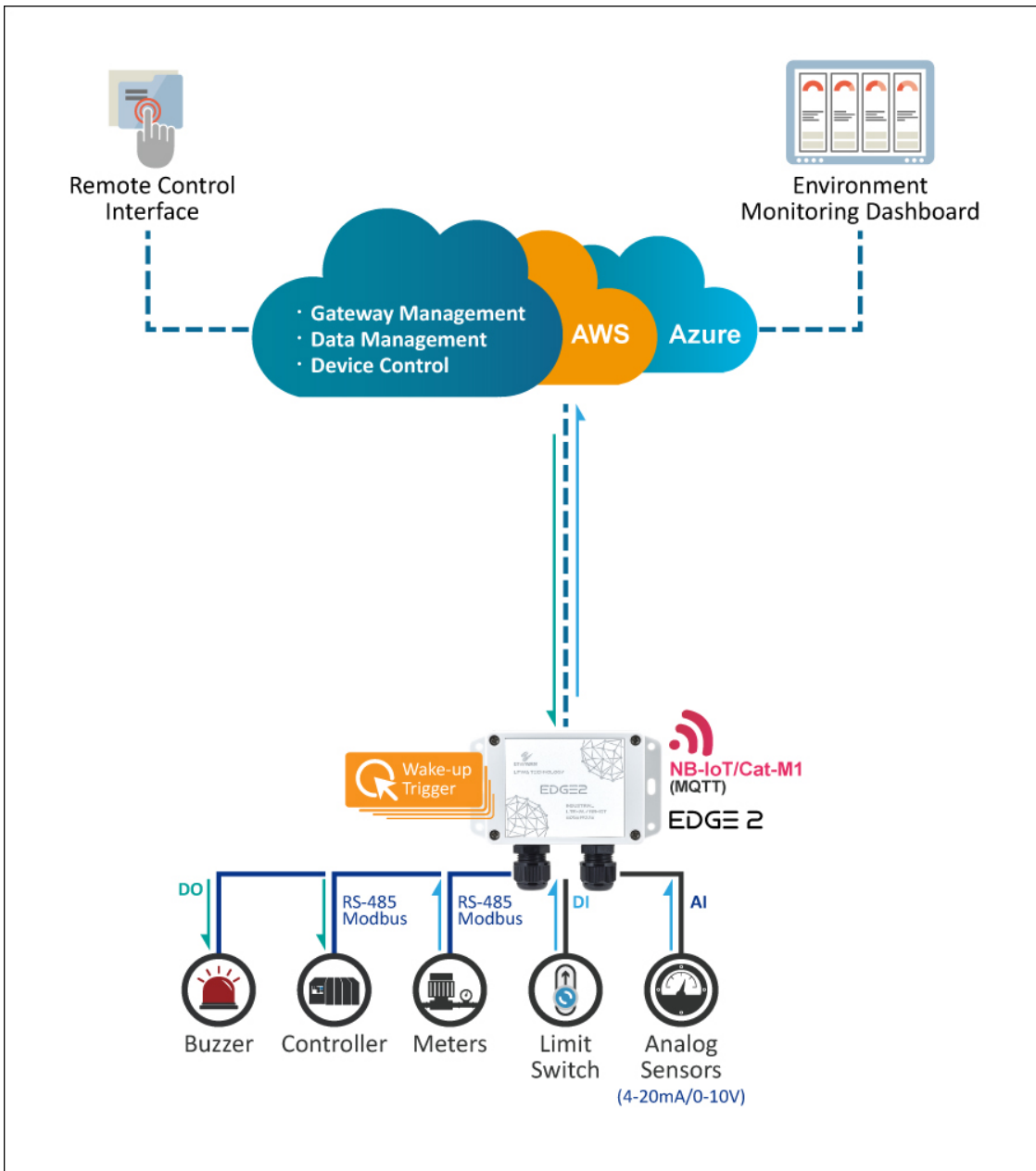
Safety

EN 60950-1

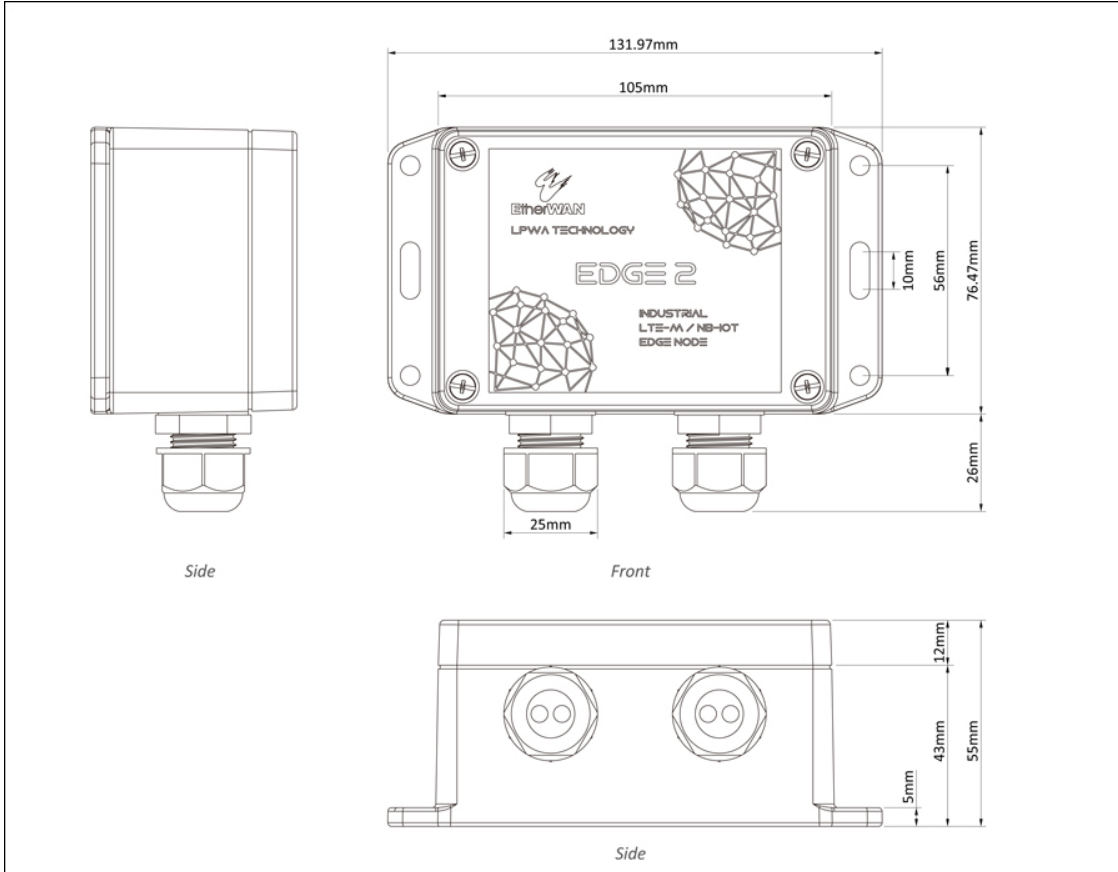
Emissions/Immunity

CE/NCC/EAC

Application



Dimensions



Ordering Info

Model	Band/Channel	Regions
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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-1140Y11
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USB-to-Serial console cable is an optional accessory purchased separately for utility configuration for EDGE 2 setting and configuration.



W96G-11330Y1
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ER18505-3.6V-4000mAh battery for EDGE 2 series.

