

## EDGE 1 Series

IoT LPWA Solution - EDGE 1 Industrial LoRa Edge Node (Project base with quantity requirement)



## 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: LoRaWAN™ is deployed on the Edge node product respectively, fulfilling wireless monitoring and controlling needs under an IoT framework.

The EDGE 1 deploys LoRaWAN™ wireless technology to provide field asset connectivity to AiR PACE Smart LoRa IoT Edge Computing Gateway with 4G LTE Backhaul & Network Server in low data rates over long distances.

EtherWAN — "When Connectivity is Crucial."

## Spotlight

- » Multiple I/O to connect to a Wide Variety of Field Equipment
- » Integrated 10 bit A/D Converter to convert Analog Signal to Digital Data
- » Serial port supports Modbus RTU Interoperability
- » Battery or DC Power Input
- » -30 to 70°C Temperature Range
- » IP65 Enclosure Design

## Frequency Bands

### + LoRa Communication Frequency Band

Models	Band Options	Regions
EDGE 1-EA	923-924MHz (AS923)*Japan, Vietnam Excluded	APAC (*Japan, Vietnam Excluded)
EDGE 1-EU	863-870MHz (EU868)*Europe, Vietnam	Europe, Vietnam

## Features

### WAN & Uplink

#### » EDGE 1

- Uplink: Support LoRa wireless data transmission capability, with standard LoRaWAN™ Protocol and Class A/C and self-organizing network capabilities
  - Data Security: Supports LoRaWAN™ standard Encryption
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### Field Communication

#### » Modbus

- Windows Utility, Console CLI
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### Administration

#### » Configuration

- Windows Utility, Console CLI
-

# Specifications

## Wireless Interfaces

### EDGE 1

- 1 x LoRa Module

### Frequency Band

- 863-870MHz (EU/EU868), 923-924MHz (APAC/AS923)\* Japan Excluded

### Specification

- Max. Output Power: 14dBm (EU868), 20dBm (AS923)
  - Sensitivity: -132dBm@980bps
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## 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)

### 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
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## I/O Connectors

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

## EDGE 1 Series

- 1 x Internal LoRa Antenna
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## Power

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

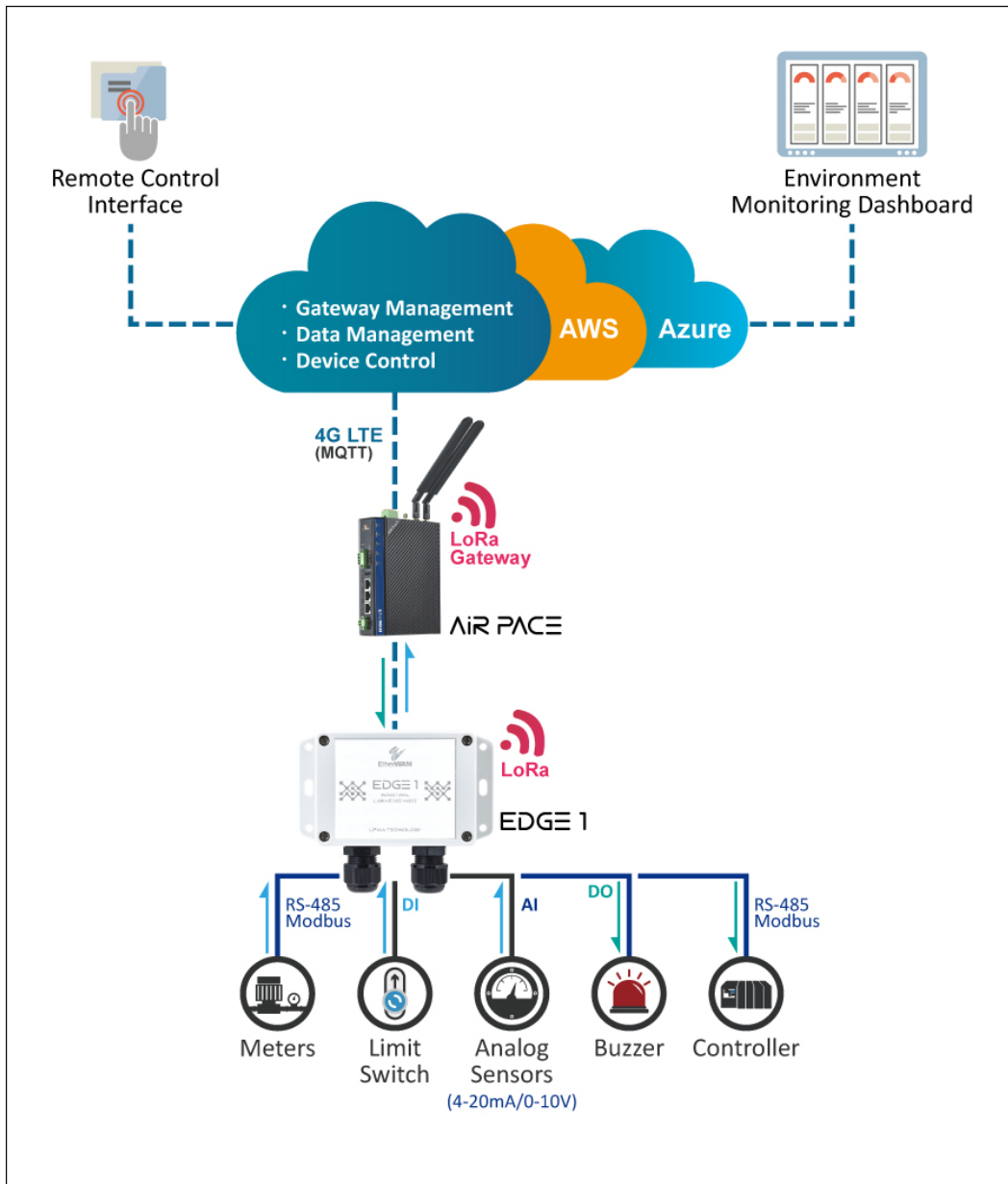
### Safety

EN 60950-1

## Emissions/Immunity

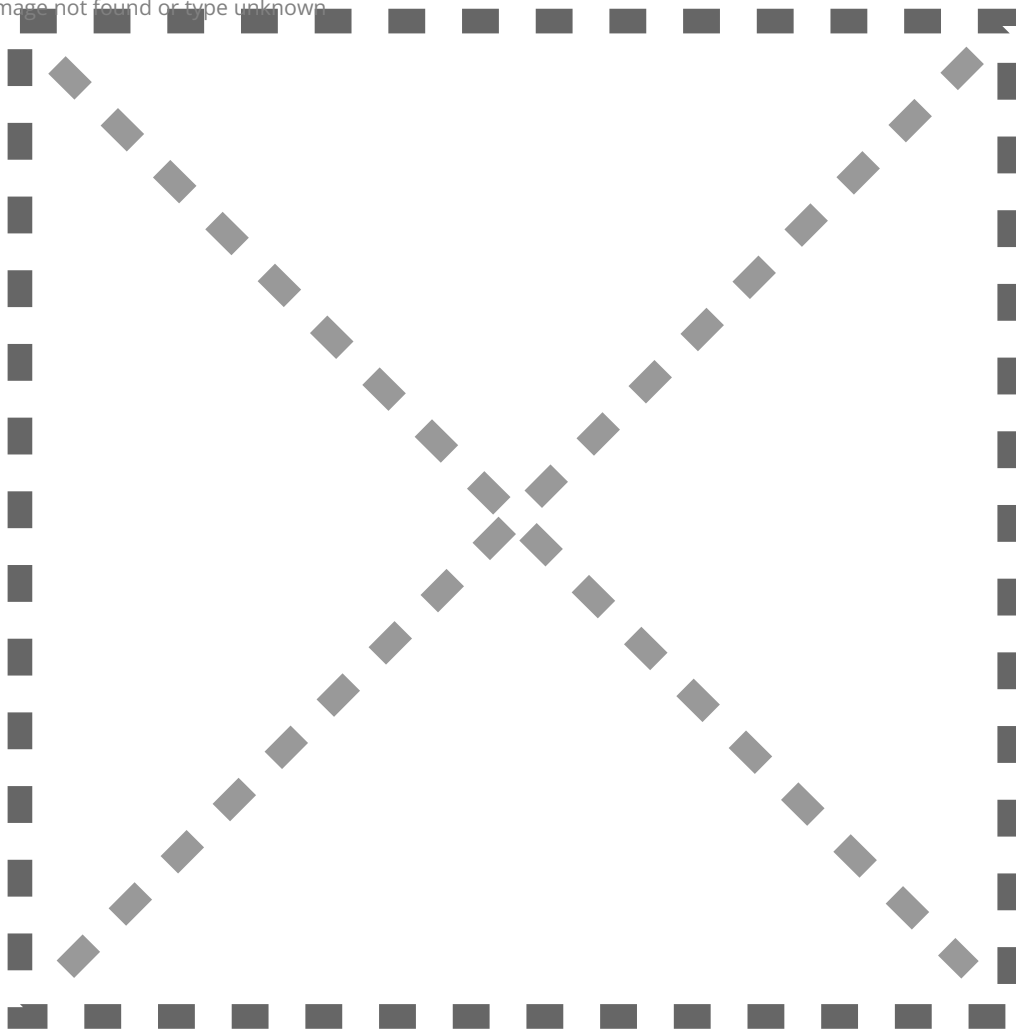
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## Application



## Dimensions

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## Ordering Info

Model	Band/Channel	Regions
EDGE 1-EA	923-924MHz (AS923)	APAC (*Japan, Vietnam Excluded)
EDGE 1-EU	863-870MHz (EU868)	Europe, Vietnam

## Included Accessories

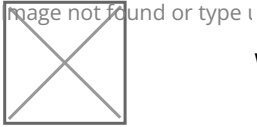
- Device x 1
- Cable Tie for fixing battery x 2
- Jumper for AI current mode setting x 3
- Water & Dust-proof stopper x 3

## Optional Accessory

USB-to-Serial Console Cable

Note

Note



W96G-11330Y100 ER18505-3.6V-4000mAh battery for EDGE 1 & EDGE 2 series.

