



[migrate-ed9.hellosanta.tw/products/edge-1-series](http://migrate-ed9.hellosanta.tw/products/edge-1-series) EDGE 1 Series

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

## Field Communication

- » Modbus
  - • Windows Utility, Console CLI

## 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
- 

## 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
- 

## 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 1 Series**
  - • 1 x Internal LoRa Antenna
  -
- 

## Power

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

## 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
- 

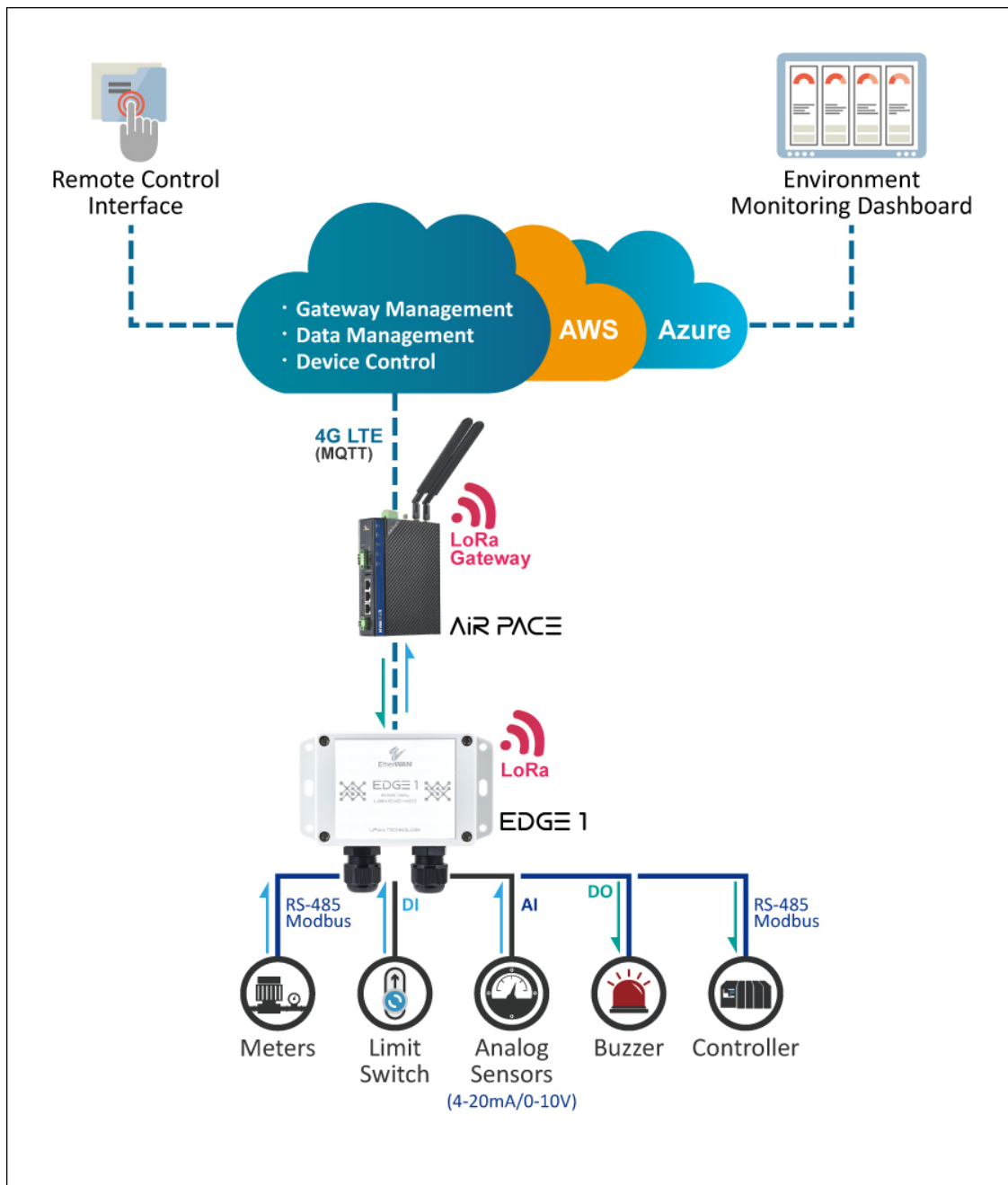
## Environment Limits

- **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)
- 

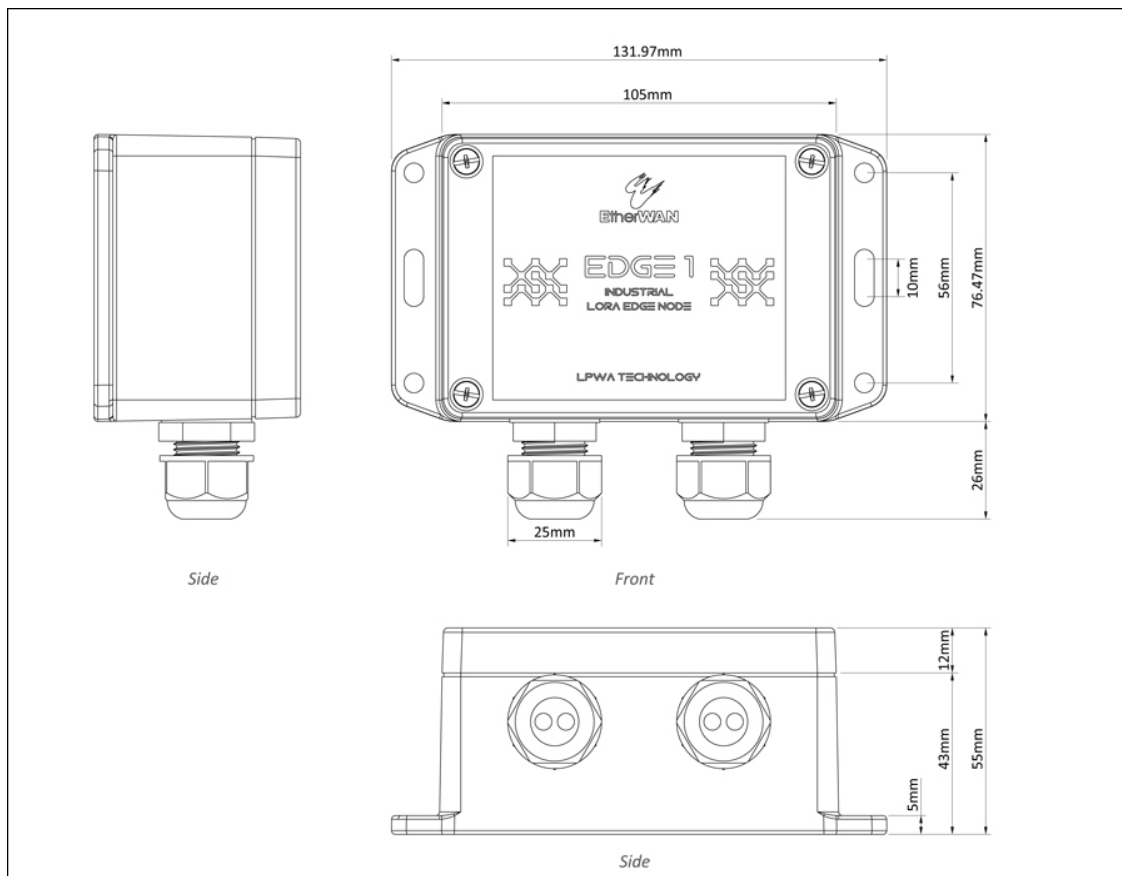
## Regulatory Approvals

- **Safety**
  - EN 60950-1
  - 
  - **Emissions/Immunity**
  - CE
- 

Application



Dimensions



## 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.



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