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

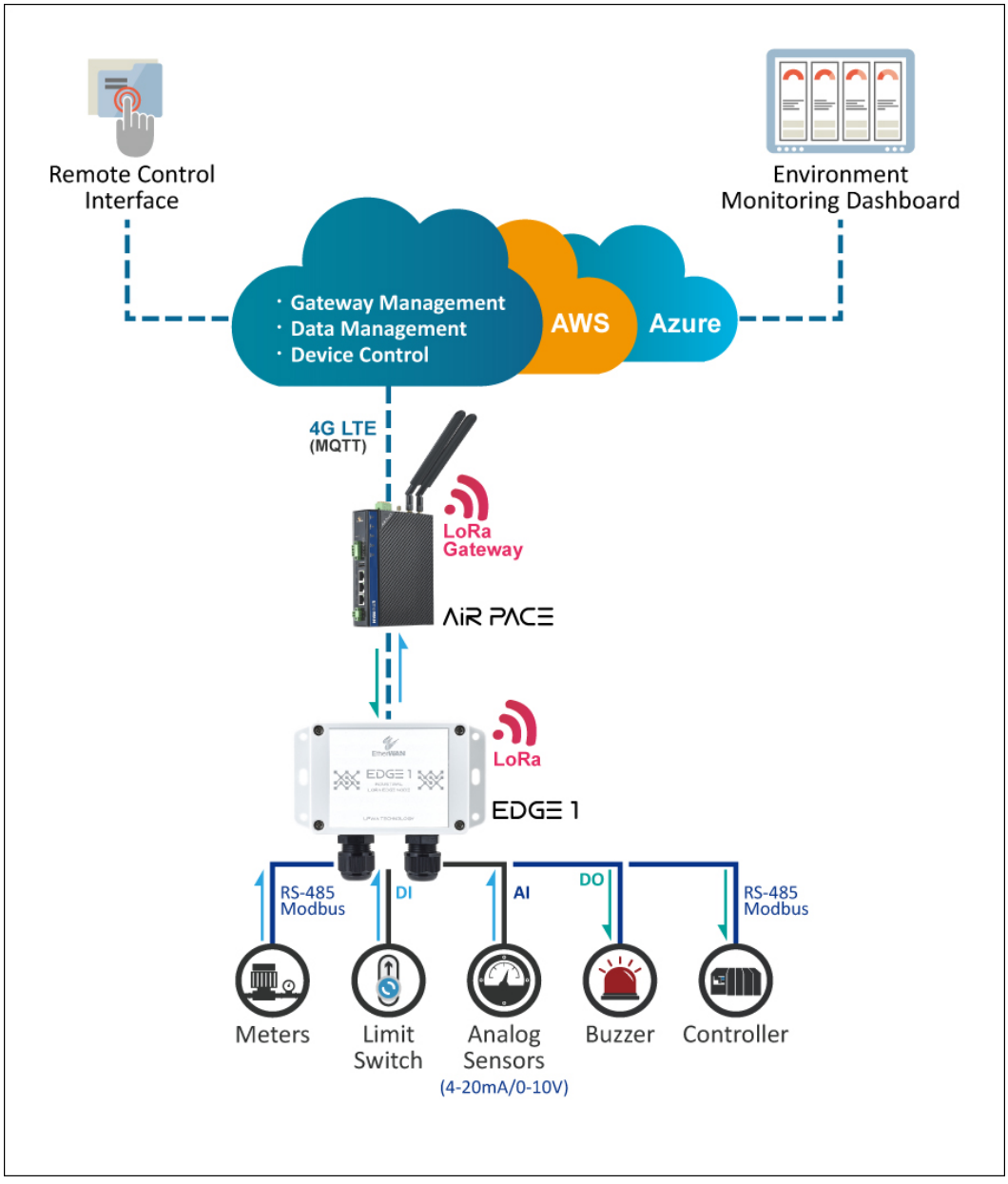
Safety

EN 60950-1

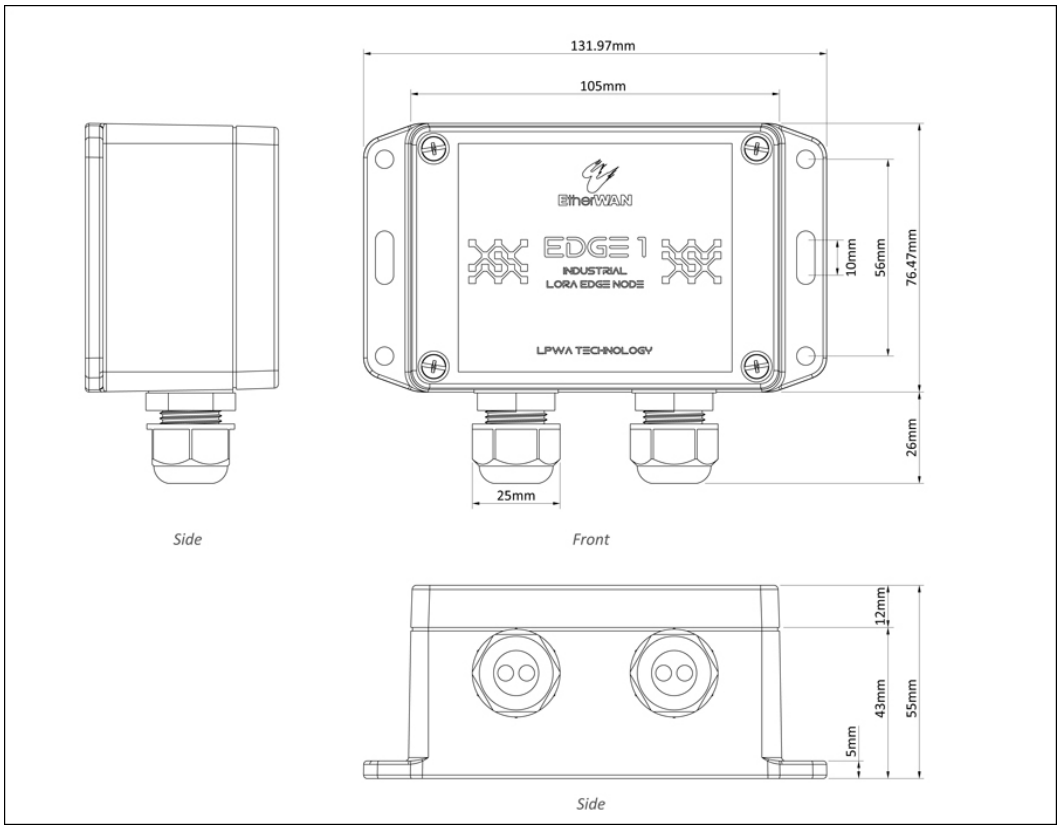
Emissions/Immunity

CE

Application



Dimensions


131.97mm
105mm
EtherWAN
EDGE 1
INDUSTRIAL
LORA EDGE NODE
LPWA TECHNOLOGY
10mm
56mm
76.47mm
26mm
25mm
Side
Front
12mm
43mm
55mm
5mm
Side

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.