Wzzard LRPv2 Node

Industrial LoRaWAN Node



Two 3.6-V 2500-mAH lithium AA batteries*

Analog input ($\pm 10 V_{DC}, \pm 5 V_{DC}, \pm 1 V_{DC}, 0 \sim 20 \text{ mA}$),

RP-SMA, omnidirectional, 1.5 dBi, 868 ~ 915

Holding force, 2.13 kg (4.7 lbs); four mounting

Magnetic mounting via an internal magnet

IP66-rated, fiber-reinforced polyester PBT

External Input 6 ~ 12 V_{DC}

digital input (0 ~ 48 V_{DC})

digital output (0 ~ 30 V_{DC})

ears, M5 (#10)

400 g

MHz; length, 170 mm (6.69")

LoRaWAN 868/915/923 MHz

-40 to 75°C (-40 to 167°F)

Network connectivity

Indoor or outdoor

Features

- Long-range wide area IoT application
- Optional solar or battery power input for low power consumption
- LoRaWAN protocol for closed and public system applications
- Provides connectivity to industry-standard analog or digital sensors
- Rugged, IP66-rated, fiber-reinforced polyester PBT enclosure

Introduction

The Wzzard LRPv2 LoRaWAN node intelligent sensor platform enables you to quickly and easily create a complete connectivity stack between your sensors and applications via a network or the Internet. The platform uses intelligent edge nodes and a wireless LoRaWAN network to transmit analog or digital signals or Modbus RTU sensor data to a WISE-6610 LoRaWAN gateway or other LoRaWAN-compliant gateway device. The Wzzard LRPv2 LoRaWAN node can accommodate virtually any industry standard external sensors. Connections can be made via either conduit fittings or cable glands. This line of nodes provides various sensor interface options including digital I/O as well as general purpose analog inputs.

Specifications

Power

Internal Optional

Mechanical

Physical Connection 12.7-mm (1/2") conduit, sensor interface cable included; 8-wire, 26-gage, 1.8-m (6')

Sensor Inputs

- Optional External Antenna
- Mounting
- Enclosure
- Weight

Technology

Wireless	

LED

Environmental

- Installation
- Operating Temperature
- Storage Temperature -40 to 85°C (-40 to 185°F)
- Operating Humidity 10 ~ 95% non-condensing

Digital Inputs

- Voltage Range V_{IL} = V_{IH}
- Pull-Up Current
- Type
- Isolation

Digital Outputs

- Voltage Range
- Output Type Output Current
- Protection
- Isolation

Open drain 200 mA max Current limit protection None

 $0 \sim 30 V_{DC}$

 $0 \sim 48 V_{DC}$

2 V (min.)

32 µA

None

0.8 V (max.)

Analog Inputs

- Input Range Resolution
- $\pm 10 V_{DC}, \pm 5 V_{DC}, \pm 1 V_{DC}, 0 \sim 20 \text{ mA},$ 16 bit
- Accuracy
- Input Load Resistance $100 \text{ M}\Omega (0 \sim 5 \text{ V}_{\text{DC}}), 120 \Omega, (0 \sim 20 \text{ mA})$ ±0.1% (Voltage) at 25 °C ±0.2% (Current) at 25 °C

Source/sink (PNP/NPN) software-selectable input

Note: 2-year battery life based on condition of data transmission frequency with one time per hour

AD \ANTECH	Industrial Ethernet Solutions
All product specifications	are subject to change without notice.

Wzzard LRPv2 Node



Serial Communication

- Port Type
- No. of Ports 1 Modbus RTU
- Protocol
- Data Bits
- Stop Bits
- Parity
- Baud Rate
- Serial Signals Data+, Data-
- Protection Built-in 15-kV ESD protection for all signals

2400 ~ 115200 bps

None, odd, even, space, mark

RS-485

8

1

8

1

None

115200 bps

1, 2

Console for Configuration

- Port Type Micro USB
- No. of Ports
- Data Bits
- Stop Bits
- Parity
- Baud Rate
- Serial Signals TxD, RxD

Regulatory Approvals

- Shock IEC60068-2-27
- Free Fall IEC60068-2-32
- Vibration IEC60068-2-6

Ordering Information

- BB-WSW2C00015-1 BB-WSW2C00015-2
- BB-WSW2C00015-3
- BB-WSW2C42100-1
- BB-WSW2C42100-2
- BB-WSW2C42100-3
- LoRaWAN node w/RS485, external antenna (915MHz)
- LoRaWAN node w/RS485, external antenna (868MHz)
- LoRaWAN node w/RS485, external antenna (923MHz) LoRaWAN node with power monitoring, 4 x AI, 2 x DI,
- 1 x DO, conduit, external antenna (915 MHz)
- LoRaWAN node with power monitoring, 4 x AI, 2 x DI, 1 x DO, conduit, external antenna (868 MHz)
- LoRaWAN node with power monitoring, 4 x AI, 2 x DI,1 x DO, conduit, external antenna (923 MHz)