

# WISE-6610

## Industrial LoRaWAN Gateway



### Features

- Long-range wide area IoT gateway
- LoRaWAN protocol for closed and public system application
- Ethernet and I/O for connecting a wide array of field assets
- DIN rail and wall mounting design
- Low power consumption for solar and battery power applications
- Enhanced memory for hosting customer software applications
- Redundancy-enhanced functions for continuous data transmission

### Introduction

The WISE-6610 is a high-performance LoRaWAN gateway that offers reliable connectivity for industrial environments. It supports the LoRaWAN protocol for building LoRaWAN private and public networks, as well as various protocols including MQTT. The hardware and software flexibility of the WISE-6610 provides rich features for edge intelligence systems, and its support for VPN tunneling with various protocols ensures safe communications. The WISE-6610 also provides a network server that can phase the LoRaWAN data in our device. The WISE-6610 provides the redundancy-enhanced functions to prevent connection loss.

### Specifications

#### WSN Support

- **Standard** LoRaWAN
- **Frequency** 868/915/923MHz
- **ANT Connector** RP-SMA Male connector x 1

#### LAN Interface

- **Ethernet** 10/100 Mbps, auto MDI/MDIX
- **Connector** 1 x RJ45
- **Protection** 1.5-kV built-in magnetic isolation protection

#### Digital I/O

- **Port Type** 1x Digital Input On Voltage: 2.7V to 36V<sub>DC</sub>
- **Port Connector** 4-way Molex mini-fit connector

#### General

- **LED Indicators** PWR, DAT, WAN, ETH
- **Reboot Trigger** Reset button

#### Software

- **Network and Routing** DHCP server, NAT/PAT, VRRP, dynamic DNS client, DNS proxy, VLAN, QoS, DMVPN, NTP client/server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS, SNMP v1/v2c/v3, backup routers, PPP, PPPoE, SSL, port forwarding, host port routing, Ethernet bridging, network server SSH, Web Browser
- **Configuration**
- **Network Security** HTTPS, SSH, VPN tunnels, SFTP, DMZ, firewall (IP filtering, MAC address filtering, inbound/outbound port filtering)
- **VPN tunneling** Open VPN client and server and P2P, L2TP, PPTP, GRE, EasyVPN, IPSec with IKEv1 and IKEv2

#### Cellular Interface (WISE-6610-EXXXC/WISE-6610-AXXXC Only)

- **LTE Bit rate** 150 Mbps (DL), 50 Mbps (UL)
- **LTE Bands** B20(800MHz), B8(900MHz), B3(1800MHz), B1(2100 MHz), B7(2600 MHz)
- **3G Bit rate** 42.0 Mbps (DL), 5.76 Mbps (UL)
- **3G Bands** 900, 2100 MHz
- **No. of SIM Slots** 2 x Mini SIMs (2FF)
- **ANT Connector** 2 x RP-SMA female connectors

#### Cellular Interface (WISE-6610-N100C-A/N500C-A Only)

- **LTE** Cat M1
- **LTE Bit rate** 375 Kbps (DL), 375 Kbps (UL)
- **LTE FDD** B12, B13, B28(700MHz), B20(800MHz), B5, B18, B19, B26(850MHz), B8(900MHz), B4(1700MHz), B3(1800 MHz), B2(1900 MHz), B1(2100MHz)
- **LTE TDD** B39(1900 MHz)

#### Mechanics

- **Dimensions (W x H x D)** 150 x 37.5 x 83 mm (5.9" x 1.48" x 3.27")
- **Mounting** DIN rail, wall
- **Weight** 500g
- **Enclosure Rating** IP30
- **SD Card** 1 x Micro SD Card slot

#### Power Requirements

- **Power Input** 9 ~ 36 V<sub>DC</sub>
- **Power Connector** 4-way Molex mini-fit connector
- **Power Consumption** 3.1/6.6/40 mW (average/peak/sleep mode)

#### Environment

- **Operating Temperature** -40 ~ 75°C
- **Storage Temperature** -40 ~ 85°C
- **Operating Humidity** 10 ~ 95% RH

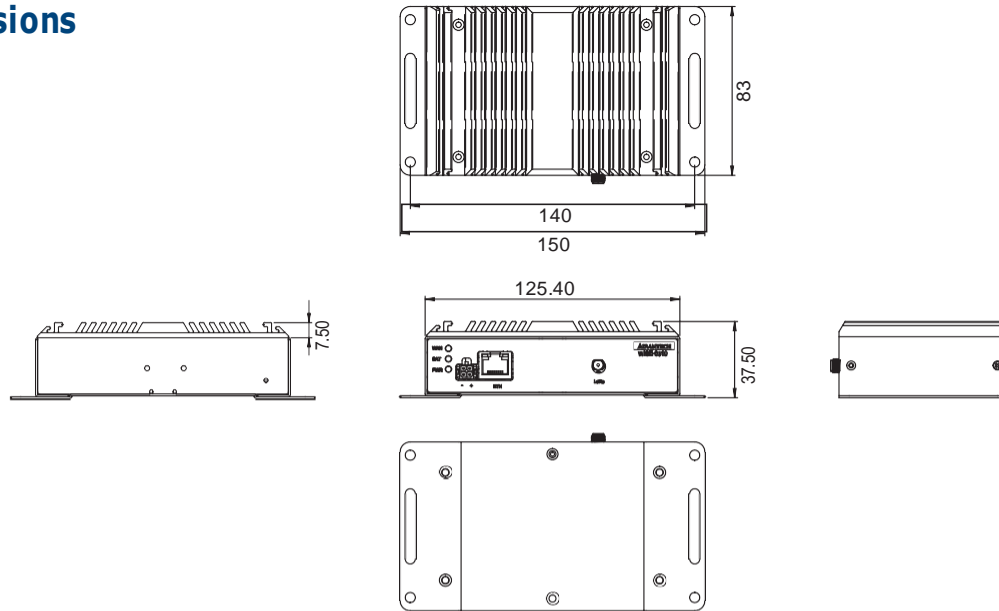
#### Regulatory Approvals

- **EMC** EN61000-4-2, Level 3  
EN61000-4-3, Level 3  
EN61000-4-4, Level 3  
EN61000-4-5, Level 3  
EN61000-4-6, Level 3  
EN61000-4-12, Level 3  
EN61000-4-11, voltage dip: 70%
- **Shock** IEC 60068-2-27
- **Free Fall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

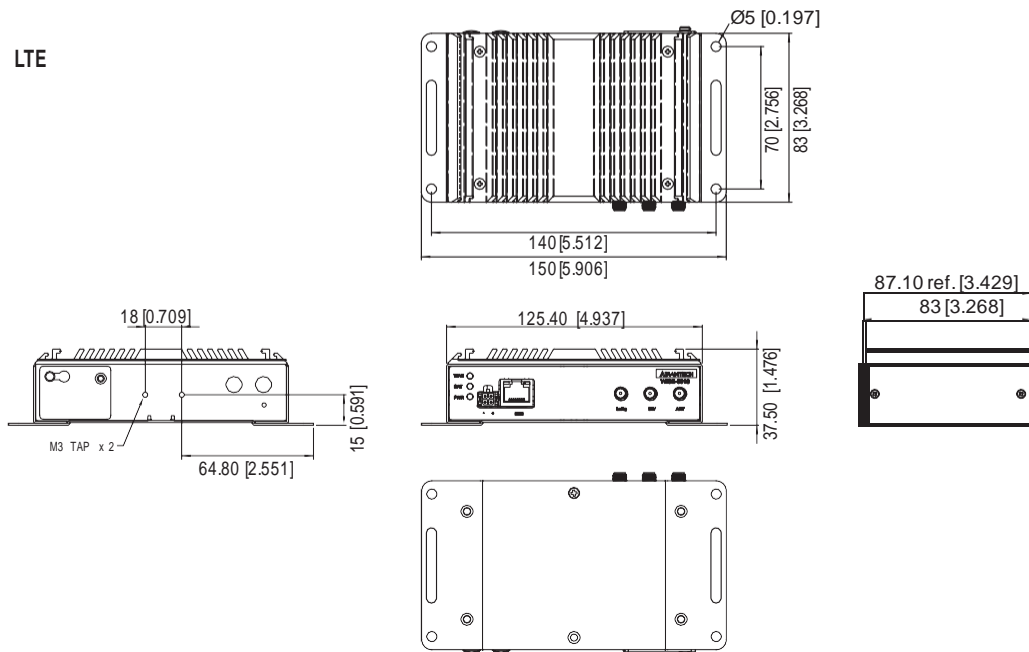
## Dimensions

WISE-6610

Unit: mm [inch]



WISE-6610 LTE



## Ordering Information

- |                            |   |                            |  |
|----------------------------|---|----------------------------|--|
| • <b>WISE-6610-N100-A</b>  | LoRaWAN gateway supports up to 100 nodes with 915 MHz         | • <b>WISE-6610-A500C-A</b> | LoRaWAN Cellular Gateways support up to 500 nodes with 923 MHz |
| • <b>WISE-6610-E100-A</b>  | LoRaWAN gateway supports up to 100 nodes with 868 MHz         | • <b>WISE-6610-A500-A</b>  | LoRaWAN gateway supports up to 500 nodes with 923 MHz          |
| • <b>WISE-6610-A100-A</b>  | LoRaWAN gateway supports up to 100 nodes with 923 MHz         | • <b>WISE-6610-N100C-A</b> | LoRaWAN Cellular Gateways support up to 100 nodes with 915 MHz |
| • <b>WISE-6610-N500-A</b>  | LoRaWAN gateway supports up to 500 nodes with 915 MHz         | • <b>WISE-6610-N500C-A</b> | LoRaWAN Cellular Gateways support up to 500 nodes with 915 MHz |
| • <b>WISE-6610-E500-A</b>  | LoRaWAN gateway supports up to 500 nodes with 868 MHz         | • <b>WISE-6610-E100C-A</b> | LoRaWAN Cellular Gateways support up to 100 nodes with 868 MHz |
| • <b>WISE-6610-A100C-A</b> | LoRaWAN Cellular Gateway support up to 100 nodes with 923 MHz | • <b>WISE-6610-E500C-A</b> | LoRaWAN Cellular Gateways support up to 500 nodes with 868 MHz |

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