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_{DC}
- **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
- **Configuration** SSH, Web Browser
- **Network Security** HTTPS, SSH, VPN tunnels, SFTP, DMZ, firewall (IP filtering, MAC address filtering, inbound/outbound port filtering)
- **VPN tunnelling** 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 (800 MHz), B8 (900 MHz), B3 (1800 MHz), 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 (700 MHz), B20 (800 MHz), B5, B18, B19, B26 (850 MHz), B8 (900 MHz), B4 (1700 MHz), 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 (WISE-6610-XXXXC Only)

Power Requirements

- **Power Input** 9 ~ 36 V_{DC}
- **Power Connector** 4-way Molex mini-fit connector
- **Power Consumption** 8.2W-9W (9-36V_{DC}/1A)

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
- **RF** FCC/RED/NCC

Accessories

- **Power Supply** BB-RPS-MO4-M (not included)
- **LoRaWAN Antenna** 1750008946-01(included)
- **LTE Antenna** 1750009236-01 (cellular version included)

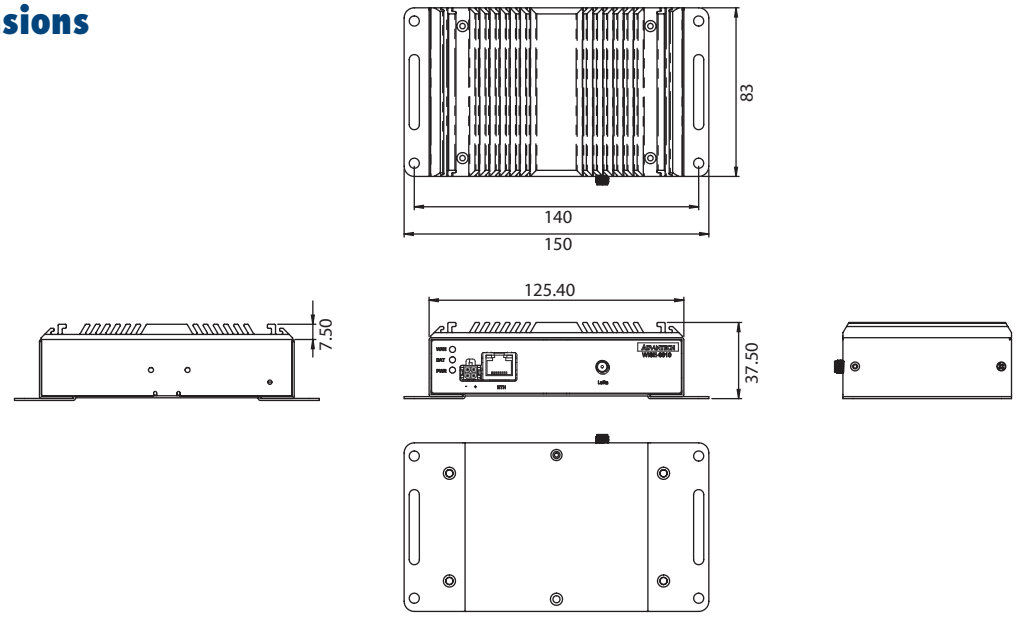
All product specifications are subject to change without notice.

Last updated: 22-Feb-2021

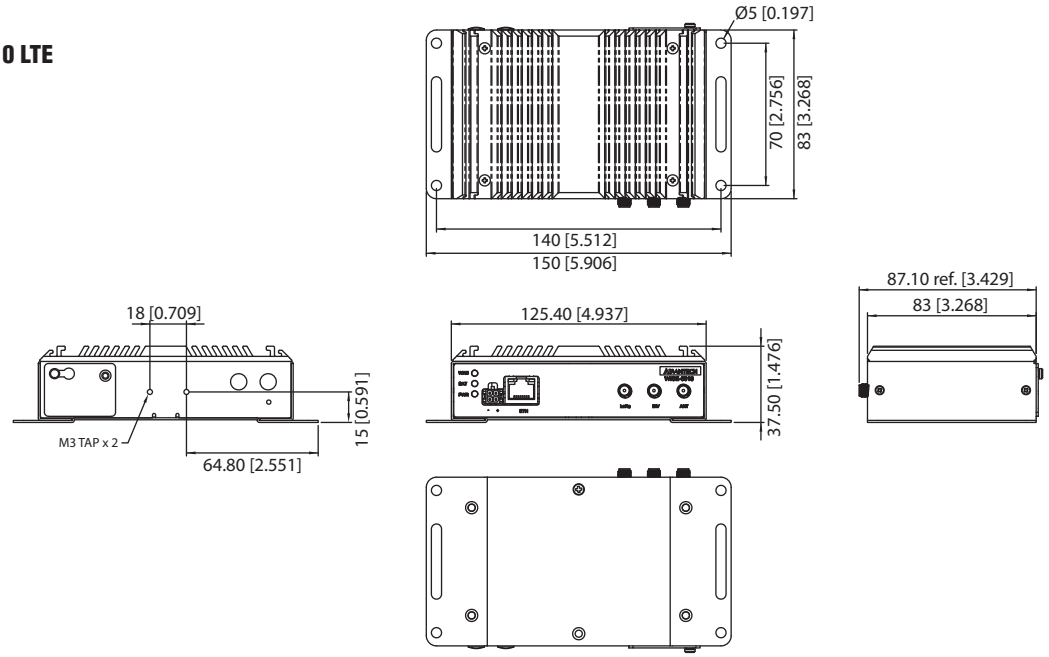
Dimensions

Unit: mm [inch]

WISE-6610



WISE-6610 LTE



Ordering Information

- **WISE-6610-N100-A** LoRaWAN gateway supports up to 100 nodes with 915 MHz
- **WISE-6610-E100-A** LoRaWAN gateway supports up to 100 nodes with 868 MHz
- **WISE-6610-A100-A** LoRaWAN gateway supports up to 100 nodes with 923 MHz
- **WISE-6610-N500-A** LoRaWAN gateway supports up to 500 nodes with 915 MHz
- **WISE-6610-E500-A** LoRaWAN gateway supports up to 500 nodes with 868 MHz
- **WISE-6610-A100C-A** LoRaWAN Cellular Gateway support up to 100 nodes with 923 MHz
- **WISE-6610-A500C-A** LoRaWAN Cellular Gateway support up to 500 nodes with 923 MHz
- **WISE-6610-A500-A** LoRaWAN gateway supports up to 500 nodes with 923 MHz
- **WISE-6610-N100C-A** LoRaWAN Cellular Gateway support up to 100 nodes with 915 MHz
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