

# WISE-3610

## Wireless IoT LoRa Network Gateway



### Features

- Qualcomm Atheros Quad-Core ARM Cortex-A7 SoC
- Built-in Dual Band Concurrent Wi-Fi MU-MIMO (2x2)
- LPWAN LoRa Private (WISE-Link) Connectivity
- WAN x1 / LAN x1 Gigabit Ethernet
- Integration of Modbus TCP and Modbus RTU networks
- IPSec / L2TP VPN Traffic Encryption
- Rich Network Scenario by S/W Configuration
- Modularization hardware design
- OpenWRT BSP embedded
- Web UI user interface

### Introduction

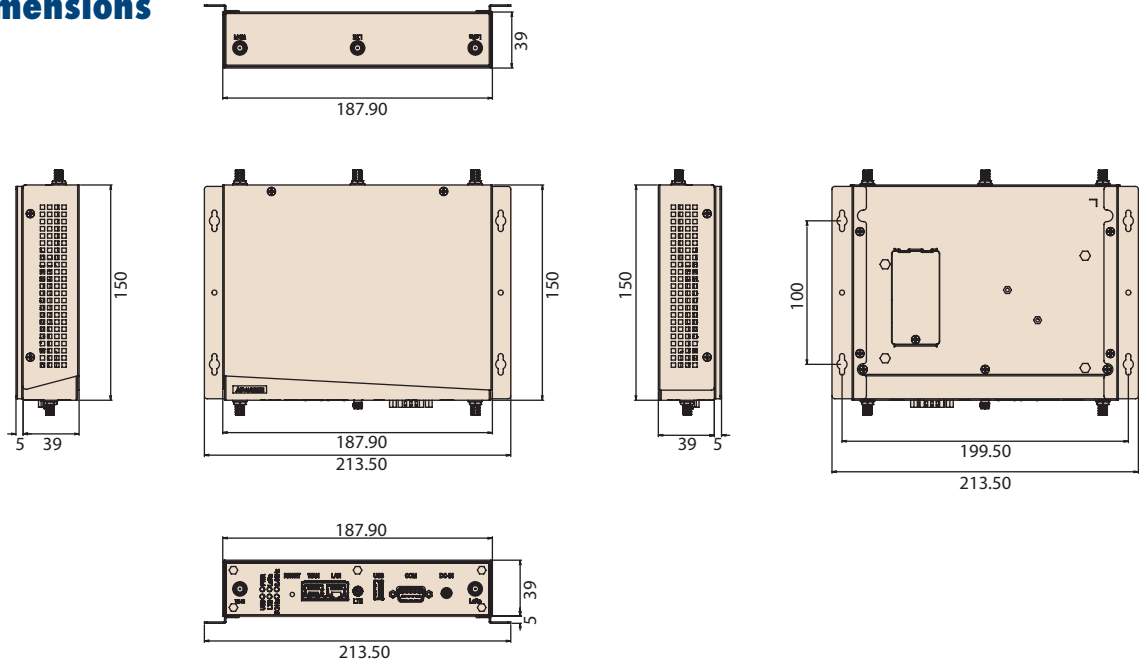
WISE-3610 is Qualcomm ARM Cortex A based hardware platform, which is operating at OpenWRT, described as a Linux distribution for embedded devices. The Advantech WISE-3610 Industrial Router is Advantech IoT gateway design for smart city, Industrial 4.0 applications, even those in harsh environment, leveraging wireless sensor technology. This IoT gateway can aggregate both the wireless sensor networks (WSN), including Low Power WAN (LPWAN) technology by Advantech private LoRa technology, wired sensors and ties them into an IP network. With modular slot design, it can agilely adapt to a variety of wireless technologies at regional RF bands, wireless communication protocol by various uplink requirement and quickly go to market.

### Specifications

Processor System	CPU	QCA Quad-core ARM Cortex A7 CPU 716 MHz	
	RAM	DDR3L 256MB	
	Flash	128MB	
Ethernet	WAN	1 10/100/1000 Mbps	
	LAN	1 10/100/1000 Mbps	
Security	VPN Engine	IPsec, L2TP	
Connectivity	Wi-Fi	2x2 IEEE802.11ac MU-MIMO 2.4GHz / 5GHz	Qualcomm® VIVE™ technology
	LoRa	LoRa Private Network - WISE-Link	up-to 500 sensor nodes support
	3G/LTE (Option)	3G miniPCle card	3G Band Support: B5, B8, B2, B1, B4
Expansion	SD socket	1 x Micro SD socket	
	mini PCle	1 x Full size mini PCle slot 1 x Full size mini PCle Module	For LoRa Host
	SIM	2 x Micro SIM slot	
	USB	1 x USB 3.0 type A	
I/O (Edge)	Serial Port	1 x RS-232/422/485 (DB9 Male)	Configure by hardware switch on board
	Antenna	6 x SMA Connector	Wi-Fi: 2 x RP-SMA LoRa: 2 x SMA Optional for 3G: 2 x SMA (1 x Rx Diversity)
	LED	6 x PWR/LoRa/Wi-Fi 2G/Wi-Fi 5G/USB/WWAN	
	Button	1 x Reset button	
	Power	Power Supply Voltage	9 - 24V
Environment	Power Type	DC-in	
	Power Consumption	18 Watt	
	Operational Temperature	-20 ~ 70 degree C	
Mechanical	Operating Humidity	5%~95% Relative Humidity, non-condensing	
	Dimensions (W x D x H)	187.9mm x 150mm x 39mm	
Operating System	OpenWRT Barrier Breaker (Linux (3.14))		
Network Sub-system	L2/3 multilayer switch / router		
	Access Control List mask rules		
	Hardware network address translation (NAT) engine		
Network Connectivity	4 x scenario configurations by corresponding communication network support - NorthBond: WWAN (3G), WAN, Wi-Fi (2.4Ghz or 5Ghz) - SouthBond: LAN, Wi-Fi (2.4Ghz or 5Ghz), LoRa		Depend on different application environment for corresponding configuration
Cloud	WISE-PaaS / RMM Cloud		
Certification	TELEC, CE/FCC/IC Class B, SRRC, KCC, NCC		

**Dimensions**

Unit: mm



**Software Key Features**

**Completed Software Services**

- Modbus TCP and Modbus RTU networks
- Rich network scenario configuration
- Point-to-point VPN encryption engine
- Network routing path acceleration
- WISE-Agent

**Easy-use from sensor to cloud**

- WISE-Link LoRa Private Network
- Web UI setting for WSN, Gateway and Cloud
- IoT communication with MQTT protocol
- WISE-Agent connect to WISE-PaaS/RMM

**Ordering Information**

Model Name	Description
WISE3610ILS5A1E-ES	WISE-3610 Wi-Fi LoRa Private 915Mhz Engineering Sample

**Related Models**

Model Name	Description
WISE-1510	Wireless IoT LPWAN LoRa M2.COM Module
WISE-1520	Wireless IoT Wi-Fi M2.COM Module

**Packing List**

Part No.	Description	Quantity
96PSA-A36W12R1	ADP A/D 100-240V 36W 12V	1
1750008001-01	Antenna 2.4Ghz / 5Ghz SMA Male Reverse	2

**Optional Items**

Part No.	Description
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm
1750008424-01	3G/LTE Antenna Dipole 4dBi Full Band
1750008669-01	3G/LTE RX Diversity Antenna Cable IPEX to IPEX Connector
968EMW0093	Mini PCIE HSPA 3G Card with Rx Diversity
1750008599-01	LoRa Antenna Dipole, 1dBi 863-870 MHz
1750008598-01	LoRa Antenna Dipole 1dBi 902-928 MHz