WISE-3620

Wireless IoT WiFi Network Gateway



Features

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

Introduction

WISE-3620 is Qualcomm ARM Cortex A based hardware platform, which is operating at OpenWRT, described as a Linux distribution for embedded devices. The Advantech WISE-3620 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 802.11AC MU-MIMO 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.

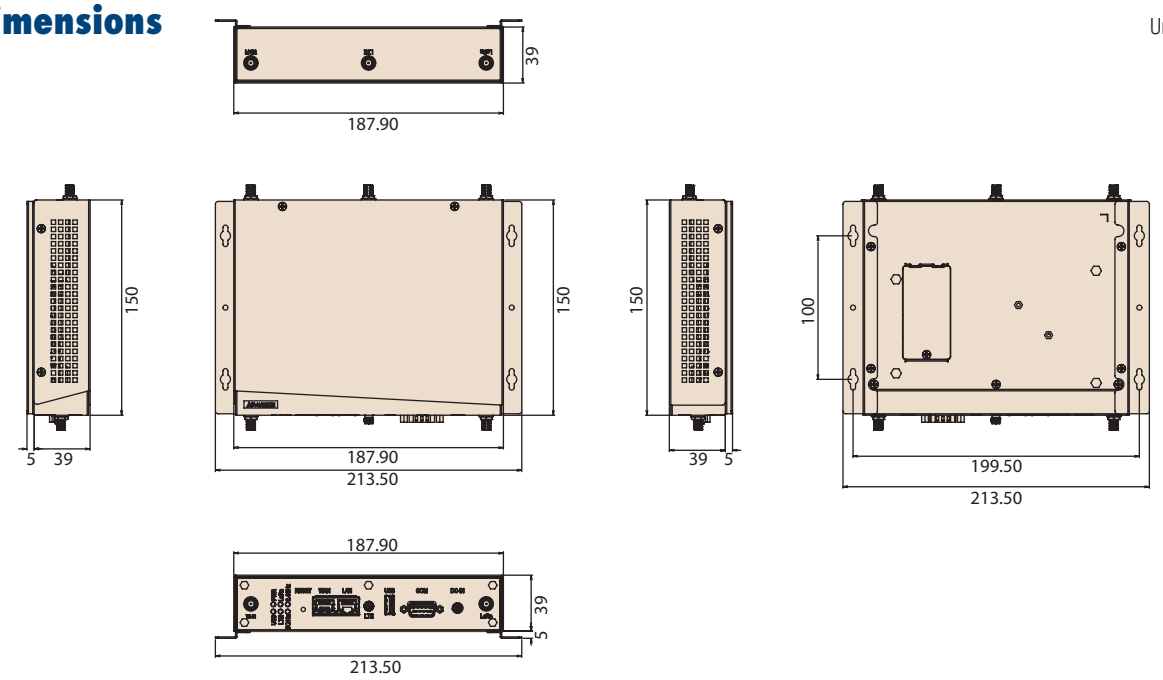
Specifications

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
	3G/LTE (Option)	3G miniPCIe card	3G Band Suport: B5, B8, B2, B1, B4
Expansion	SD socket	1 x Micro SD socket	
	mini PCIe	1 x Full size mini PCIe slot 1 x Full size mini PCIe Module	
	SIM	2 x Micro SIM slot	
I/O (Edge)	USB	1 x USB 3.0 type A	
	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 Optional for 3G: 2 x SMA (1 x Rx Diversity)
	LED	6 x PWR/Wi-Fi 2G/Wi-Fi 5G/USB/WWAN	
	Button	1 x Reset button	
Power	Power Supply Voltage	9 - 24V	
	Power Type	DC-in	
	Power Comsuption	18 Watt	
Environment	Operational Temperature	-20 ~ 70 degree C	
	Operating Humidity	5%~95% Relative Humidity, non-condensing	
Mechanical	Dimensions (W x D x H)	187.9mm x 150mm x 39mm	
Operating System	OpenWRT Barrier Breaker (Linux (3.14))		
Network Sub-sysem	L2/3 multilayer switch / router		
	Access Control List mask rules		
	Hardware network address translation (NAT) engine		
Network Connectivity	4 x scenario configurations by corresponding communicaiton 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		

All product specifications are subject to change without notice

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

- 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
WISE-3620	WISE-3620 802.11AC MU-MIMO WiFi Engineering Sample

Related Models

Model Name	Description
WISE-1520ITB-TDA1E	WISE-1520 M2.COM Wi-Fi module
WISE-1530ITB-SDA10	WISE-1530 M2.COM WIFI/BLE 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