

WISE-3310

Wireless IoT Mesh Network Gateway



Features

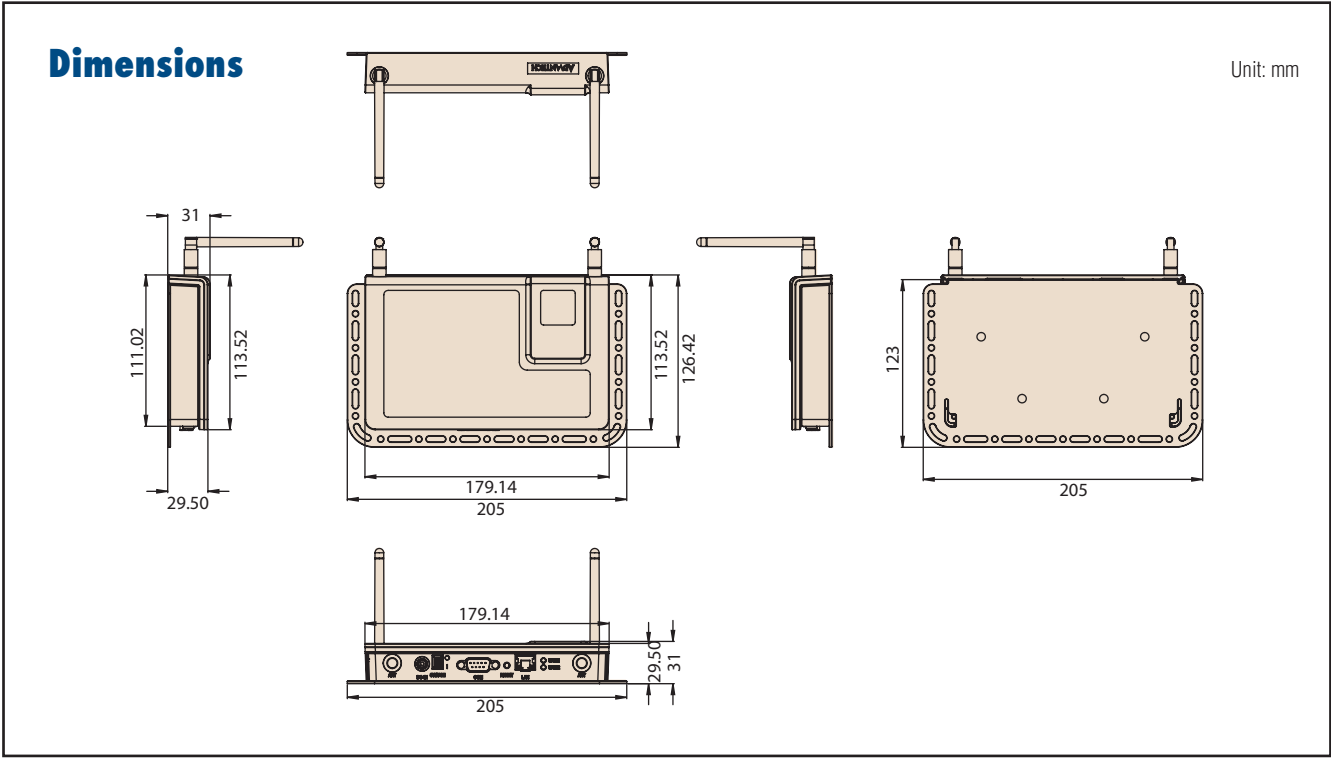
- All-in-One RISC-based Intelligent and Industrial platform with Freescale i.MX6 Dual Cortex-A9 1.0 GHz processor
- 99.999% reliability WSN MESH network
- Linux 3.10.17 BSP embedded
- Compliant to 6LoWPAN and IEEE 802.15.4e standards
- Support 200/100 wireless nodes (by different SKU)
- Power saving mode and fanless design
- Web UI user interface

Introduction

Advantech RISC-based WPAN Network Controller, WISE-3310, is powered by the Freescale i.MX6 Dual Cortex-A9 1.0 GHz processor, Linux 3.10.17 BSP and Linear Dust LTC5800 Cortex M3 MCU. With changeable embedded modules and feature-rich protocol, WISE-3310 creates a cost-effective open platform for easy integration and development in different M2M/IoT applications. Connect with Advantech WPAN sensor nodes, by Smartmesh IP protocol for applications in wireless sensor networks where seamless internet protocol (IP) is valued. Also, WISE-3310 provide the WISE-Agent to connect with WISE-PaaS which provide the IoT Software platform for streamline IoT application development.

Specifications

Processor System	CPU	Freescale ARM Cortex-A9 i.MX6 Dual 1 GHz
Memory	Technology	DDR3 1066 MHz
	Capacity	On-board DDR3 1GB
	Flash	4GB eMMC NAND Flash for OS. And 4MB SPI NOR Flash for Advantech boot loader
Ethernet	Chipset	Freescale i.MX6 integrated RGMII
	Speed	1, 10/100/1000 Mbps
	PoE	-
WSN	Standard	Complaint 6LoWPAN and IEEE802.15.4e
	Frequency Band	2.400 ~ 2.4800 GHz
	Number of Channels	15
	Channel Separation	5 MHz
	Raw Data Rate	250 Kbps
Wireless	Output Power	Hight setting: 8 dBm/ Low setting: 0 dBm
	WiFi	IEEE802.11bgn (option)
Graphics	Cellular	-
	HDMI	-
RTC	VGA	-
	RTC	Yes
Indicator and Button	Watchdog Timer	Yes
	WDT	Yes
	USB	-
	Audio	-
	GPIO	-
	CANBus	-
	I ² C	-
	LED	2 for WSN status, 1 Yellow LED for WSN1 and 1 Green LED for WSN2
	Button	1 reset button for system reboot
	Serial Port	1 x RS-232 (CTS, RTX,Tx,Rx)
	Switch	1 Power Switch
Mini PCIe Socket	1 half-size Mini PCIe slot	
SD Socket	1 x SD slot	
Expansion	Antenna hole (SMA)	2 for 200-node SKU, 3 for 100-node SKU; 4 antenna holes totally
	SIM	-
Power	DC-input	DC 9~ 24V
	Power Type	DC-in
	Power Consumption	3.96W (Max)
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)
	Operating Humidity	5% ~ 95% Relative Humidity, non-condensing
Mechanical	Dimensions(L x W x H)	205 x 126 x 31 mm with a metal plate 180 x 114 x 31 mm without a metal plate
	Mounting	Metal bracket wall mount
	Weight	312g
	Operating System	Linux
Certifications		CE/FCC Class B, TELEC, KCC, NCC



Software Key Features

<p>Completed Software Services</p> <ul style="list-style-type: none"> ▪ BSP and image ▪ SDK ▪ WSN API ▪ Device management API (SUSI/SUSI IoT API) ▪ WISE-Agent 	<p>Easy-use from sensor to cloud</p> <ul style="list-style-type: none"> ▪ WSN Mesh self-forming ▪ Web UI setting for WSN and Cloud ▪ WSN API with CoAP protocol ▪ WISE-Agent connect to WISE-PaaS/RMM
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Ordering Information

Model Name	Description
WISE-3310-D200L1E	WISE-3310 WPAN GW, 200-Node, Linux OS
WISE-3310-D100L1E	WISE-3310 WPAN GW, 100-Node, Linux OS

Related Models

Model Name	Description
WISE-1020-0C01E	Wireless IoT Node with on-board Chip-antenna
WISE-1020-0S01E	Wireless IoT Node with external SMA Antenna
WISE-1021WR-1100E	Wireless IoT Node with TI MSP430 MCU

Packing List

Part No.	Description	Quantity
96PSA-A36W12R1	ADP A/D 100-240V 36W 12V	1
1750007622-01	Antenna 2.4Ghz 3.5dBi SMA Male Reverse	2 (for WISE-3310-D200L1E) 1 (for WISE-3310-D100L1E)