

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

WISE-PaaS/RMM  CE FCC 

Introduction

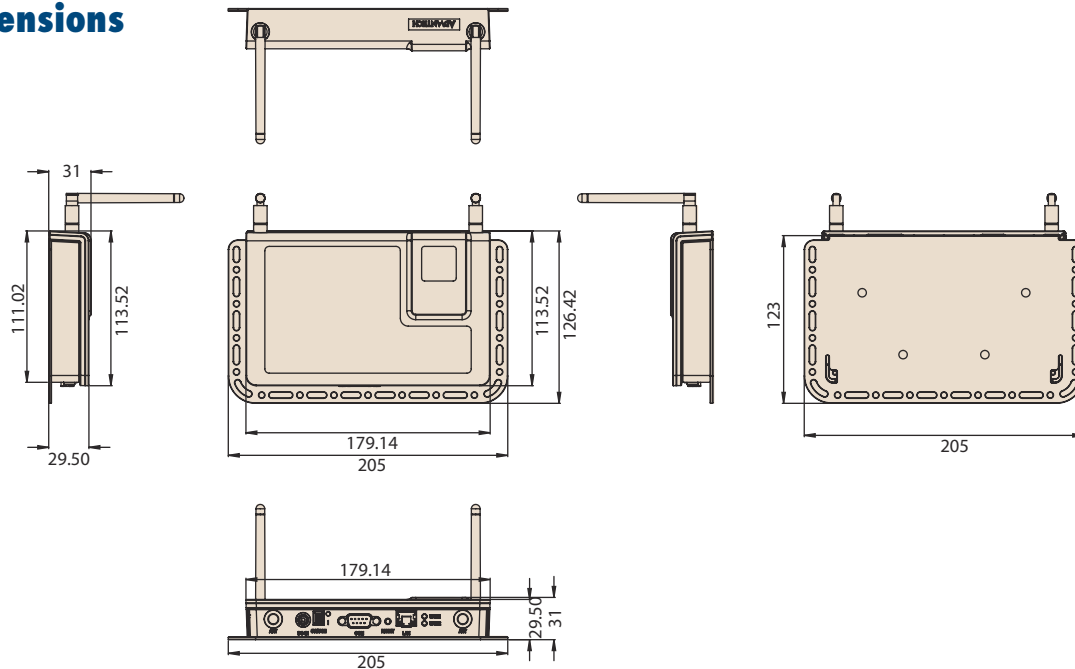
Advantech RISC-based WPAN Network Controller, WISE-3310, is powered by the Freescale i.MX6 Dual Cortex-A9 1.0 GHz processor, Linux 3.10.17 BSP and Linear Dust LTC5800 Cortex M3 MCU. With changeable embedded modules and feature-rich protocol, WISE-3310 creates a cost-effective open platform for easy integration 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 | High setting: 8 dBm/ Low setting: 0 dBm |
| | WiFi | IEEE802.11bgn (option) |
| Graphics | Cellular | - |
| | HDMI | - |
| RTC | VGA | - |
| | RTC | Yes |
| Indicator and Button | Watchdog Timer | 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 |
| Expansion | SD Socket | 1 x SD slot |
| | Antenna hole (SMA) | 2 for 200-node SKU, 3 for 100-node SKU; 4 antenna holes totally |
| Power | SIM | - |
| | DC-input | DC 9~ 24V |
| | Power Type | DC-in |
| Environment | Power Consumption | 3.96W (Max) |
| | Operating Temperature | 0 ~ 40° C (32 ~ 104° F) |
| Mechanical | Operating Humidity | 5% ~ 95% Relative Humidity, non-condensing |
| | 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 |
| Operating System | Weight | 312g |
| | Linux | V3.10.17 |
| Certifications | | CE(No RED certification)/FCC Class B, TELEC, KCC, NCC |

Dimensions

Unit: mm



Software Key Features

Completed Software Services

- BSP and image
- SDK
- WSN API
- Device management API (SUSI/SUSI IoT API)
- WISE-Agent

Easy-use from sensor to cloud

- WSN Mesh self-forming
- Web UI setting for WSN and Cloud
- WSN API with CoAP protocol
- WISE-Agent connect to WISE-PaaS/RMM

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) |