IoT Solution Product Selection Guide

∴ **IoT Gateways**

∴ **Quanmax**

Solutions for IoT

IoT (Internet of Things) promises a world where everything is interconnected and every device can share or exchange data / information with each other without any hindrance or limitation. To help realize this next future technology, Quanmax is devoted itself to developing high security and privacy embedded IoT platforms with full network speed and capacity.

Quanmax IoT Gateways, supporting a variety of Cloud protocols, including TR-069, MQTT, OMA-DM, XMPP, AIIS, OSGI and OIC, allow seamless connection to most cloud platforms such as Microsoft Azure, Amazon Web Services (AWS), Google, Baidu, etc.

In addition, Quanmax can offer an integration service that combines possible accessory / peripheral hardware (eg. RF modules for desired wireless communication technologies, sensors / nodes installed in possible application domains) and management software into the IoT Gateway. The management software offered to pre-load by request includes 1) security management; 2) remote monitoring management; 3) wireless monitoring; 4) industry data collection & translation; 5) image / video management; or 6) digital signage management based on the target application and functionality.

Application	Application Software (Smart Buildings, Smart Homes, Smart Factories, Smart Grids, Smart Cities, ...)
Cloud	Cloud Platform (Microsoft Azure, Amazon Web Services (AWS), Google, Baidu, ...)
Cloud Network	TR-069, MQTT, OMA-DM, XMPP, AIIS, OSGI, OIC
Ethernet Network	WiFi, 3G, LTE, Bluetooth, RFID, ZigBee, 6LoWPAN, SubG, IEEE 802.15.4e...
Software	Management Software (1) security management (4) industry data collection & translation (2) remote monitoring management (5) image / video management (3) wireless monitoring (6) digital signage management
Hardware	IoT Gateway + RF Module
Sensor Network	Modbus, CAN bus, EtherCAT, CANopen, Profibus, OPC DA, OPC HDA, OPC UA, 1-Wire, C-Bus, M-Bus, ZigBee, MOST, AFDX…
Hardware	Nodes / Sensors

■ Quanmax   ■ 3rd Parties

About Quanmax

Founded in 1999, Quanmax is committed to supply high-quality embedded computing products and solutions to help its clients develop a variety of computer-aided facilities for individual users and business firms in all industries including but not limited to Digital Signage, KIOSK, Gaming, Factory Automation, Machine Automation, Building Automation, Transportation & Logistics, Medical System and Telecom.

Now, Quanmax's businesses can be divided into five categories:
- Motherboards (ECX, Pico-ITX, Com-Express, QSEVEN, Mini-ITX, Micro-ATX, ATX)
- Infotainment Solutions;
- Automation Solutions;
- IoT Solutions; and
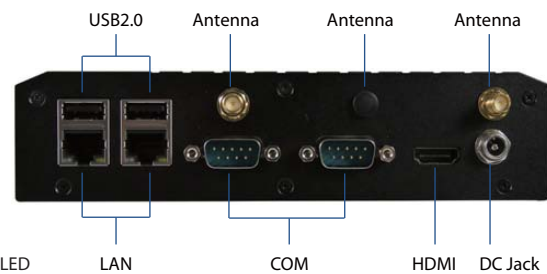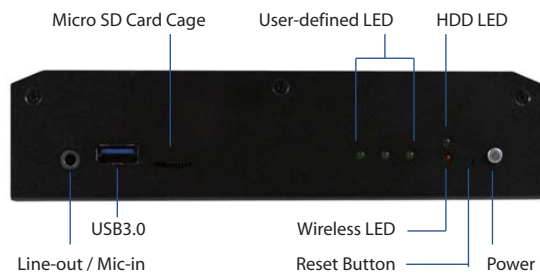- Network Security Solutions.

With strong engineering competence in customized design, software integration, system optimization and life cycle management, Quanmax can always launch appropriate products in accordance with each market segment and customer or even more than expected.

UbiQ-100 Series

Fanless

Extended Temp.

Aluminum Housing AI

Standard / Extended Temperature IoT Gateway with Intel® BayTrail SoC Processor

- ●● Intel® BayTrail SoC Processor, Atom™ E3815/E3825 / Celeron® N2930
- ●● 2GB/4GB DDR3L memory onboard
- ●● 16GB/32GB eMMC onboard, 1x Micro SD Card Cage for storgae
- ●● 1x HDMI for video output
- ●● 2x USB2.0, 1x USB3.0, 2x COM, 1x Audio for peripheral connection
- ●● 2x LAN for wired network connection
- ●● 2x mPCIe for wireless network expansion (eg. Wi-Fi, 3G, LTE, Bluetooth, RFID, ...)
- ●● Built-in management software by request
- ●● Fanless design
- ●● Extended temperature model available: -20℃ ~ 70℃

Micro SD Card Cage   User-defined LED   HDD LED   USB2.0   Antenna   Antenna   Antenna

USB3.0   Wireless LED   LAN   COM   HDMI   DC Jack

Line-out / Mic-in   Reset Button   Power Button w/ LED

Processor	
UbiQ-100/T: Intel® Atom™ E3815 (Single Core, 512K Cache, 1.46 GHz)	
UbiQ-110/T: Intel® Atom™ E3825 (Dual Core, 1M Cache, 1.33 GHz)	
UbiQ-120: Intel® Celeron® N2930 (Quad Core, 2M Cache, up to 2.16 GHz)	

Memory
2GB DDR3L 1600 memory onboard (UbiQ-100/T)
4GB DDR3L 1600 memory onboard (UbiQ-110/T/120)

BIOS
AMI uEFI BIOS w/ 64Mb SPI Flash
Watchdog: Programmable WDT to generate system reset event
H/W Monitor: Voltages, Temperatures
Real Time Clock: SoC intergrated RTC

Storage
16GB eMMC onboard (UbiQ-100/T)
32GB eMMC onboard (UbiQ-110/T/120)
1x Micro SD Card Cage (on front)

Graphics Controller
Intel® HD Graphics (integrated)

Display Interfaces
1x HDMI (on rear, 1920 x 1080 @ 60Hz)

Audio Chipset
Realtek ALC662

Audio Chipset
1x Line-out/Mic-in (on front)

Ethernet
2x LAN (on rear, 1x Intel® I210-AT, 1x Intel® I211-AT)

USB
1x USB3.0 (Type A on front)
2x USB2.0 (Type A on rear)

Serial Port
2x RS-232/422/485 (DB9 on rear)

Expansion
2x mPCIe

Power Supply
Connector: Lockable DC Jack (on rear)
Input Voltage: DC 12V

Button & Switch
1x Power Button (on front, w/ Power LED)
1x Reset Button (on front)

Status Indicators
1x Power LED (on front, w/ Power Button)
1x HDD LED (on front)
1x Wireless LED (on front)
3x User-defined LED (on front)

Cooling
Fanless

OS Support
Windows (Windows 7 excluded), Linux Ubuntu 14.04

Construction
Aluminum Chassis

Dimension (W x D x H)
170 x 89.5 x 39.8 mm / 6.69" x 3.52" x 1.57"

Weight
0.5 kg / 1.10 lb

Environmental Characteristics
Operating Temperature: 0℃ ~ 60℃ / 32°F ~ 140°F (Standard)
-20℃ ~ 70℃ / -4°F ~ 158°F (Extended)
Storage Temperature: -20℃ ~ 80℃ / -4°F ~ 176°F
Humidity: 0% ~ 90%

Certification
CE, FCC Class A

Ordering Information

Model Name	Description
UbiQ-100	Intel® Atom™ E3815, 2GB DDR3L onboard, 16GB eMMC onboard, 2x USB2.0, 1x USB3.0, 2x LAN, 2x COM, 2x mPCIe, Op. temp.: 0℃ ~ 60℃
UbiQ-110	Intel® Atom™ E3825, 4GB DDR3L onboard, 32GB eMMC onboard, 2x USB2.0, 1x USB3.0, 2x LAN, 2x COM, 2x mPCIe, Op. temp.: 0℃ ~ 60℃
UbiQ-120	Intel® Celeron® N2930, 4GB DDR3L onboard, 32GB eMMC onboard, 2x USB2.0, 1x USB3.0, 2x LAN, 2x COM, 2x mPCIe, Op. temp.: 0℃ ~ 60℃
UbiQ-100T	Intel® Atom™ E3815, 2GB DDR3L onboard, 16GB eMMC onboard, 2x USB2.0, 1x USB3.0, 2x LAN, 2x COM, 2x mPCIe, Op. temp.: -20℃ ~ 70℃
UbiQ-110T	Intel® Atom™ E3825, 4GB DDR3L onboard, 32GB eMMC onboard, 2x USB2.0, 1x USB3.0, 2x LAN, 2x COM, 2x mPCIe, Op. temp.: -20℃ ~ 70℃

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always the right way with embedded future

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Rev.2016.04