



IoT Solution Product Selection Guide

••• IoT Gateways

 **Quannmax**



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.

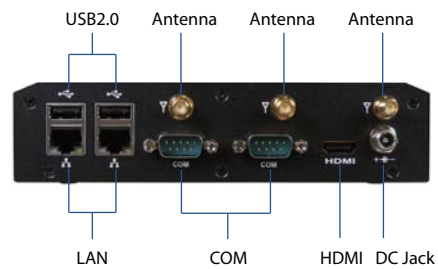
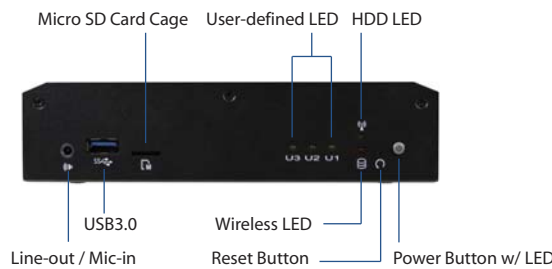
With strong engineering competence in customized design, software integration, system optimization and life cycle management, Quanmax can always launch appropriate products in accordance with each market segment and customer or even more than expected.

UbiQ-100 Series



Standard / Extended Temperature Fanless 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 storage
- 1x HDMI for display 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°C ~ 70°C



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)
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 Power Adapter: AC to DC, 100V ~ 240V

Firmware	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 integrated RTC
System Control & Monitoring	1x Power Button w/ LED (on front) 1x Reset Button (on front) 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	Aluminium 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°C ~ 60°C / 32°F ~ 140°F (Standard) -20°C ~ 70°C / -4°F ~ 158°F (Extended) Storage Temperature: -20°C ~ 80°C / -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°C ~ 60°C
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°C ~ 60°C
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°C ~ 60°C
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°C ~ 70°C
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°C ~ 70°C



UbiQ-200 Series

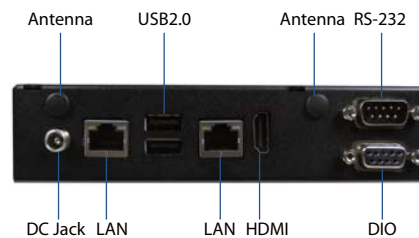
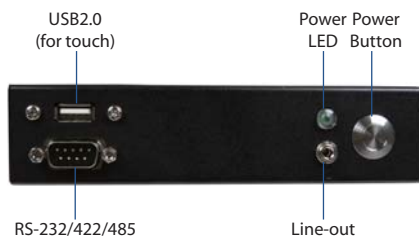


ARM
Cortex-A9



Standard / Extended Temperature Fanless IoT Gateway with NXP ARM® Cortex®-A9 Core i.MX 6Dual Processor

- NXP ARM® Cortex®-A9 Core i.MX 6Dual Automotive Application Processor
- 1GB/2GB DDR3 1066 memory
- 4GB/8GB eMMC NAND Flash onboard for storage
- 1x HDMI for video output
- 2x LAN, 1x mPCIe, 1x Micro-SIM Cage for network connection and expansion
- 3x USB2.0, 2x COM, 1x DIO for peripheral connection
- Fanless design
- Palm-sized compact volume
- Extended temperature model available: -20°C ~ 70°C



Processor	NXP ARM® Cortex®-A9 Core i.MX 6Dual Automotive Processor (Dual Core, 1M Cache, 1 GHz, 3.5W TDP)
Memory	1GB/2GB DDR3-1066 SDRAM Onboard
Storage	4GB/8GB eMMC NAND Flash onboard
Graphics Controller	Vivante GC2000, Vivante GC355, Vivante GC320
Display Interfaces	1x HDMI (1920 x 1080 @ 30Hz, on rear)
Audio Chipset	Freescale SGT15000
Audio Interfaces	1x Line-out (on front)
Ethernet	2x LAN (RJ-45 on rear, 1x Micrel KSZ9031RNX, 1x Microchip LAN9500A)
USB	3x USB2.0 (1x Type A on front for touch, 2x Type A on rear)
Serial Ports	1x RS-232/422/485 (DB9 on rear/front TBD) 1x SRS-232 (DB9 on front/rear TBD)
Other I/O Ports	1x DIO (DB9 female on rear)
Expansion	1x mPCIe 1x Micro-SIM Card Cage

Power Supply	Connector: Lockable DC Jack (on rear) Input Voltage: DC 12V Power Adapter: AC to DC, 100V ~ 240V
System Control & Monitoring	1x Power Button (on front) 1x Power LED (on front)
Cooling	Fanless
OS Support	Linux 3.0.35
Construction	Metal Chassis
Dimension (W x D x H)	150 x 92 x 35 mm / 5.91" x 3.62" x 1.38"
Weight	0.55 kg / 1.21 lb
Environmental Characteristics	Operating Temperature: 0°C ~ 50°C / 32°F ~ 122°F (Standard) -20°C ~ 70°C / -4°F ~ 158°F (Standard) Storage Temperature: -20°C ~ 80°C / -4°F ~ 176°F Humidity: 0% ~ 90%
Certification	CE, FCC Class A

Ordering Information

Model Name	Description
UbiQ-200 Series	NXP ARM® Cortex®-A9 Core i.MX6 Dual, 1GB/4GB DDR3 memory, 4GB/8GB eMMC, 2x HDMI, 2x LAN, 3x USB2.0, 2x COM, 1x DIO, 1x mPCIe



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