Embedded Solution Overview

- **Embedded Boards**
- **Infotainment**
- **Automation**
- **IoT**
- **Network Security**

Quanmax

Single Board Computers

SBC (Single Board Computer) is a complete computer with all of its necessary components, including processor, memory, storage, I/Os and/or other features required for a functional computer, built onto a single circuit board. It is often housed inside a larger device or product to provide additional intelligence or control the functions of machine or equipment.

Form Factor		Pico-ITX	3.5" ECX	3.5" ECX
Series / Model		**PITX-MX60 Series**	**ECX-SLU0**	**KEEX-5100 Series**
System	Processor	ARM® Cortex®-A9 Core i.MX6 Dual	Intel® Skylake ULT Core™ i / Celeron® (Dual Core, 15W)	Intel® Core™ i3-4010U/i5-4300U/i7-4650U/ i5-5350U/i3-5010U/i7-5650U/ Celeron® 3765U
	Memory	1GB / 2GB DDR3-106 memory	2x DDR4 2133 SO-DIMM	1x DDR3L 1333/1600 SO-DIMM
Storage	eMMC	4GB / 8GB	-	-
	SATA3	-	2 / 1	-
	SATA2	-	-	2
	mSATA	-	-	1 (shared w/ mPCIe)
	Micro SD Cage	1	-	-
Display I/O	LVDS	1	1	1
	HDMI2.0	-	1 (on rear)	-
	HDMI	1 (on rear)	-	-
	DP	-	1 (on rear)	2 (on rear)
Multiple Display		Dual	Triple	Triple
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	3 (RJ-56 on rear)
USB	USB3.1	-	1 (Type C on rear)	-
	USB3.0	-	4 (Type A on rear) / 2 (Type A on rear)	3 (Type A on rear)
	USB2.0	3 (2x Type A on rear)	2 / 4 (2x Type A on rear)	2
	USB2.0 OTG	1 (Micro-USB on right)	-	-
Serial Port	RS-232/422/485	1	2	2
	RS-232	1	-	-
Other I/O	8-bit DIO	-	1	1
	CAN Bus	1	-	-
	GPIO / SPI / I2C	1	-	-
Expansion	M.2	-	1	-
	mPCIe	1	1	2 (1x shared w/ mSATA)
	Micro-SIM Cage	1	-	-
	SIM Cage	-	1 (by wafer)	1 (by wafer)

Form Factor		3.5" ECX	3.5" ECX	3.5" ECX	3.5" ECX
Series / Model		**KEEX-8100 Series**	**ECX-BW00**	**KEEX-1850 Series**	**KEEX-1760 Series**
System	Processor	Intel® Haswell Core™ i / Celeron® (FCPGA946 Socket)	Intel® Celeron® N3160	Intel® Celeron® N3160 / N3060	Intel® Celeron® J1900 / Atom™ E3845 / E3825 / N2807
	Chipset	Intel® HM87 / QM87	-	-	-
	Memory	1x DDR3L 1333/1600 SO-DIMM	1x DDR3L 1600 SO-DIMM	1x DDR3L 1600 SO-DIMM	1x DDR3L 1333/1067 SO-DIMM
Storage	SATA2	2	1	2 / 1	1
	mSATA	2 (shared w/ mPCIe)	1	1 / -	1
	Micro SD Cage	-	1	1	-
Display I/O	LVDS	1	-	1	1
	eDP	-	1	-	-
	HDMI	1 (on rear)	1 (on rear)	1 (on rear)	1 (on rear)
	DP	-	1 (on rear)	1 (on rear)	-
	DVI-I	1 (on rear)	-	-	-
	VGA	-	-	1	1 (on rear)
Multiple Display		Triple	Triple	Triple	Dual
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)
USB	USB3.0	4 (2x Type A on rear)	4 (Type A on rear)	4 (Type A on rear)	1 (Type A on rear)
	USB2.0	2	2	2	5 (2x Type A on rear)
Serial Port	RS-232/422/485	2	2	2	2
	RS-232	-	4	4	4
Other I/O	8-bit GPIO	1	1	1	1
Expansion	mPCIe	2 (shared w/ mSATA)	1	2 / 1	1
	SIM Cage	1 (by wafer)	1 (by wafer)	1 (by wafer)	1 (by wafer)

Ivy Bridge, Sandy Bridge and Cedarview based models are available. Please contact us for details.

Icon Legend

- Extended Temperature Model(s) Available
- Fanless Architecture
- IP65-rated Anti-spray & Anti-dust Design
- Palm-sized Form Factor

Industrial Motherboards

Industrial motherboard offers a greater number and variety of memory / storage sockets, expansion slots and I/O ports on a larger sized circuit board in comparison with SBC. Thus, it reserves flexibility for system upgrade in the future and enables connection to more peripheral devices, especially legacy ones.

Form Factor		Mini-ITX	Mini-ITX	Mini-ITX
Series		**MITX-SLS0 Series**	**KEMX-8200 Series**	**KEMX-8000 Series**
System	Processor	Intel® Skylake Core™ i (FCLGA1151 Socket)	Intel® Haswell Core™ i / Celeron® (FCLGA1150 Socket)	Intel® Haswell Core™ i / Celeron® (FCPGA946 Socket)
	Chipset	Intel® H110 / Q170	Intel® H81 / Q87	Intel® HM87 / QM87
	Memory	2x DDR4 1866/2133 SO-DIMM	2x DDR3 1333/1600 SO-DIMM	2x DDR3/L 1333/1600 SO-DIMM
Storage	SATA2	4	4	6
	mSATA	2 (shared w/ mPCIe) / -	2 (shared w/ mPCIe) / -	1 (shared w/ mPCIe)
Display I/O	LVDS	1	1	1
	eDP	-	1 (optional)	-
	HDMI	-	-	1 (on rear)
	DP	2 (on rear)	1 (on rear)	-
	DVI-D	1 (on rear)	1 (on rear)	1 (on rear)
	VGA	1	1 (on rear)	1 (on rear)
Multiple Display		Triple	Triple	Triple
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)
USB	USB3.0	4 (Type A on rear) / 6 (4x Type A on rear)	2 (Type A on rear) / 4 (2x Type A on rear)	6 (4x Type A on rear)
	USB2.0	4 (2x Type A on rear) / 6 (2x Type A on rear)	6 (2x Type A on rear) / 8 (2x Type A on rear)	6
Serial Port	RS-232/422/485	3 (2x DB9 on raer)	2 (1x DB9 on rear)	2 (DB9 on rear)
	RS-232	3	4	4
Other I/O	8-bit DIO	1	1	1
Expansion	PCIex16	1	1	1
	mPCIe	2 (shared w/ mSATA) / 2	2 (shared w/ mSATA) / 2	2 (1x shared w/ mSATA)
	SIM Cage	1 (by wafer)	1 (by wafer)	1 (by wafer)

Form Factor		Mini-ITX	Mini-ITX	ATX	ATX
Series / Model		**KEMX-1750 Series**	**KEMX-1702**	**KEMB-8100 Series**	**KEMB-8000 Series**
System	Processor	Intel® Celeron® J1900 / Atom™ E3845/25	Intel® Atom™ E3825	Intel® Skylake Core™ i / Celeron® (FCLGA1151 Socket)	Intel® Haswell Core™ i (FCLGA1150 Socket)
	Chipset	-	-	Intel® H110 / Q170	Intel® H81 / Q87
	Memory	2x / 1x DDR3L 1333 SO-DIMM	1x DDR3L 1333 SO-DIMM	4x DDR4 1866/2133 UDIMM	2x/4x DDR3 1333/1600 SO-DIMM
Storage	SATA2	1	1	4	4
	mSATA	1	1	2 (shared w/ mPCIe) / -	2 (shared w/ mPCIe) / -
Display I/O	LVDS	1	1	-	-
	HDMI	1 (on rear)	1 (on rear)	1 (on rear)	-
	DP	-	-	1 (on rear)	1 (on rear)
	DVI-D	-	-	1 (on rear)	1 (on rear)
	VGA	1 (on rear)	1 (on rear)	1	1 (on rear)
Multiple Display		Dual	Dual	Triple	Triple
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)
USB	USB3.0	1 (Type A on rear)	1 (Type A on rear)	4 (Type A on rear) / 6 (4x Type A on rear)	2 (Type A on rear) / 4 (2x Type A on rear)
	USB2.0	5 (4x Type A on rear)	5 (4x Type A on rear)	4 (Type A on rear) / 6 (Type A on rear)	6 (2x Type A on rear) / 8 (2x Type A on rear)
Serial Port	RS-232/422/485	2 (DB9 on rear)	2 (DB9 on rear)	2 (1x DB9 on rear)	2 (1x DB9 on rear)
	RS-232	4	4	4	4
Other I/O	8-bit DIO	1	-	-	-
	16-bit GPIO	-	-	1	1
	Parallel Port	1	1	-	-
Expansion	PCI	-	-	4	4
	PCIex16	-	-	1	1
	PCIex4 / x2 / x1	-	-	2 / -	-
	PCIex1	1	-	2 / -	2 / -
	mPCIe	1	2	1 / 2 (shared w/ mSATA)	1 / 2 (shared w/ mSATA)
	SIM Cage	1	1	1	1

Ivy Bridge, Sandy Bridge and Cedarview based models are available (for Mini-ITX). Please contact us for details.

Note

![Quanmax logo]

Computer-on-Modules

Computer-on-Module (COM) is a small form-factor, ready-to-use embedded computing platform with processor, memory, core power, BIOS, OS, drivers and associated BSPs already integrated on the board and validated to ensure its compatibility and functionality. System developers can eliminate significant development risk and focus on their core competence in developing carrier boards for application-specific systems.

Form Factor		Qseven™	COM Express® Mini + Type 10 Pin-out	COM Express® Compact + Type 6 Pin-out
Series / Model		**KEEX-200T**	**COMM-E380 Series**	**COMC-E380 Series**
System	Processor	ARM® Cortex®-A9 Core i.MX6 DL/D/Q	Intel® Atom™ E3845	Intel® Atom™ E3825 / E3845
	Memory	1GB DDR3 memory	4GB DDR3L-1333 ECC memory	2GB / 4GB DDRsL-1333 ECC memory
Storage	eMMC	4GB	- / 8GB / 16GB	16GB / 32GB
	SATA2	1	2	2
	Micro SD Cage	1	-	1
Display I/O	LVDS	2	1 (default, replaceable by eDP for option)	1 (replaceable by DP for alternative)
	HDMI	1	-	-
	DP	-	1	1 (+1 in case of LVDS replaced by DP)
	VGA	-	1	1
Multiple Display		Dual	Dual	Dual
Ethernet	LAN	1	1 (replaceable by PCIex1 for option)	1 (replaceable by PCIex1 for option)
USB	USB3.0	-	1	1
	USB2.0	1	7 (3x from CPU, 4x from HSIC Hub)	7 (3x from CPU, 4x from HSIC Hub)
	USB2.0 OTG	1	-	-
Serial Port	Tx / Rx	-	2	2
Other I/O	8-bit GPIO	-	1 (shared w/ SDIO)	1
	SDIO 3.0	-	1 (shared w/ GPIO)	-
	LPC	-	1	1
	I2C Bus	-	1	1
Expansion	PCIex1	1	3 (+1 in case of LAN replaced by PCIex1)	3 (+1 in case of LAN replaced by PCIex1)

Carrier boards are available for each Computer-on-Module. Please contact us for details.

OPS-compliant Digital Signage Players

OPS Series is a collection of digital signage players based on Intel® Open Pluggable Specification. They can help digital signage operators to easily, quickly and widely deploy rich media content in a cost-effective manner through the standardized interchangeable mechanical interface. In addition, they support independent multiple displays and a rich combination of video / audio interfaces through front I/Os and JAE connector.

Series / Model		**OPS-2050**	**OPS-2002**	**OPS-1000 Series**	**OPS-100 Series**
System	Processor	Intel® Core™ i7-6820HQ	Intel® Core™ i5-6200U	Intel® Core™ i7-5700EQ / i7-5850EQ / i7-4700HQ / i7-4700EQ / i5-4400E	Intel® Celeron® J1900 / N2930
	Chipset	Intel® QM170	-	Intel® QM87 / HM87	-
	Memory	2x DDR4 2133 SO-DIMM	2x DDR4 2133 SO-DIMM	2x DDR3/L 1333/1600 SO-DIMM	2x DDR3L 1333 SO-DIMM
Storage	SATA2 HDD/SSD	1 (on front)	1 (on front)	1 (on front)	1 (on front)
	mSATA	-	-	2 (shared w/ mPCIe)	1
Display I/O	HDMI2.0	2 (1x on front, 1x by JAE)	1 (by JAE)	-	-
	HDMI	-	-	2 (1x on front, 1x by JAE shared w/ by JAE DP)	2 (1x on front, 1x by JAE shared w/ by JAE DVI)
	DP	2 (1x on front, 1x by JAE)	2 (1x on front, 1x by JAE)	2 (1x on front, 1x by JAE shared w/ by JAE HDMI)	1 (by JAE)
	DVI	-	-	-	1 (by JAE shared w/ by JAE HDMI)
Multiple Display		Triple	Dual	Triple	Dual
Ethernet	LAN	2 (RJ-45 on front)	2 (RJ-45 on front)	2 (RJ-45 on front)	2 (RJ-45 on front)
USB	USB3.0	6 (4x Type A on front, 2x by JAE)	6 (4x Type A on front, 2x by JAE)	6 (4x Type A on front, 2x by JAE)	2 (1x Type A on front, 1x by JAE)
	USB2.0	2 (by JAE)	2 (by JAE)	2 (by JAE)	5 (3x Type A on front, 2x by JAE)
Expansion	M.2	1 (B Key)	2 (B Key, default for Wi-Fi / BT module)	-	-
	mPCIe	1 (default for Wi-Fi / 3G / 4G)	1 (default for 4G / 3G module)	2 (shared w/ mSATA)	1
	Micro SIM Cage	1	1	-	-
	SIM Cage	-	-	1	1

Areas of Expertise

Infotainment
Digital Signage, Kiosk, Gaming

Automation
Factory / Machine / Building / Home Automation

IoT

Network Security

Business Model

Volume Production

Customized Project

All specifications and photos are subject to change without notice

Digital Signage Players

QDSP Series is a platform designed for digital signage applications and typically features high-definition graphics / audio controller, independent multiple displays and a rich combination of video / audio interfaces. In consideration of any possible application scenarios, the device is enclosed within a compact slim case allowing it even to fit space-critical areas.

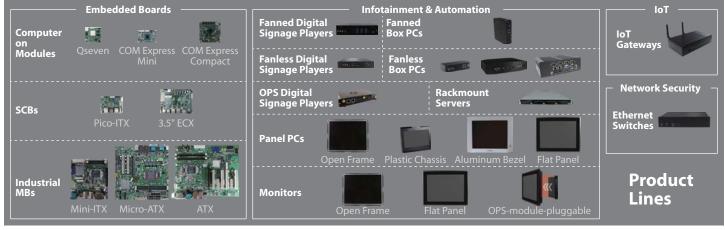| Series		QDSP-3000 Series	QDSP-6000 Series	QDSP-2090 Series
System	Processor	Intel® Skylake Core™ i (FCLGA1151 Socket)	Intel® Core™ i7-5650U / i5-5350U / i7-4650U / i5-4300U / i3-4010U / Celeron® 3765U	Intel® Haswell Core™ i (FCLGA1150 Socket)
	Chipset	Intel® H110 / Q170	-	Intel® H81 / Q87
	Memory	2x DDR4 1866/2133 SO-DIMM	2x DDR3/L 1333/1600 SO-DIMM	2x DDR3 1333/1600 SO-DIMM
Storage	SATA2 HDD/SSD	1	1	1
	mSATA	- / 2 (shared w/ mPCIe)	1	- / 2 (shared w/ mPCIe)
	eSATA	1	1 (on front)	-
Display I/O	HDMI2.0	2 (on rear)	-	-
	HDMI	-	2 (on rear)	-
	DP	1 (on rear)	-	2 (on rear)
	DVI-I	-	-	1 (on rear)
Multiple Display		Triple	Dual	Triple
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)
USB	USB3.0	4 (Type A on rear) / 6 (Type A on rear)	4 (2x Type A on front, 2x Type A on rear)	2 (Type A on front) / 6 (Type A on front)
	USB2.0	2 (Type A on rear) / -	2 (Type A on front)	4 (Type A on front) / -
Serial Port	RS-232/422/485	1 (DB9 on raer)	2 (DB9 on rear)	1 (DB9 on rear)
Expansion	mPCIe	2 / 2 (shared w/ mSATA)	2	2 / 2 (shared w/ mSATA)
	SIM Cage	1	1	1

Series / Model		QDSP-2080 Series	QDSP-300	QDSP-200 Series
System	Processor	Intel® Haswell Core™ i (FCPGA946 Socket)	Intel® Core™ i5-5200U or above (15W TDP)	Intel® Atom™ E3825 / Celeron® J1900 / N2807
	Chipset	Intel® HM87 / QM87	-	-
	Memory	2x DDR3/L 1333/1600 SO-DIMM	4GB DDR3/L 1333/1600 memory	1x DDR3L 1067 SO-DIMM / 4GB/2GB DDR3L 1333 memory
Storage	SATA2 HDD/SSD	1	120GB 2.5" SSD	1x 2.5" HDD/SSD / 120GB/64GB 2.5" SSD
	mSATA	2 (shared w/ mPCIe)	-	-
	Micro SD Cage	-	-	1 (on front) / -
Display I/O	HDMI	2 (on rear) / 1 (on rear)	1 (on rear)	1 (on rear)
	DP	- / 2 (on rear)	-	-
	DVI-I	- / 1 (on rear)	-	-
	DVI-D	-	1 (on rear)	-
	VGA	- / 1 (on rear)	-	1 (on rear)
Multiple Display		Triple	Dual	Dual
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	1 (RJ-45 on rear)
USB	USB3.0	6 (Type A on rear)	4 (Type A on front)	1 (Type A on front)
	USB2.0	-	2 (Type A on front)	2 (Type A on front)
Serial Port	RS-232/422/485	1 (DB9 on raer)	-	1 (RJ-45 on rear)
Expansion	mPCIe	2 (shared w/ mSATA)	1 (Wi-Fi / BT Combo module optional)	1
	SIM Cage	1	-	1 (by wafer)

Ivy Bridge, Sandy Bridge and Cedarview based models are available. Please contact us for details.

Product Lines

Computer on Modules
- Qseven
- COM Express Mini
- COM Express Compact

SCBs
- Pico-ITX
- 3.5" ECX

Industrial MBs
- Mini-ITX
- Micro-ATX
- ATX

Embedded Boards

Infotainment & Automation

Fanned Digital Signage Players

Fanless Digital Signage Players

OPS Digital Signage Players

Fanned Box PCs

Fanless Box PCs

Rackmount Servers

Panel PCs
- Open Frame
- Plastic Chassis
- Aluminum Bezel
- Flat Panel

Monitors
- Open Frame
- Flat Panel
- OPS-module-pluggable

IoT

IoT Gateways

Network Security

Ethernet Switches

Quanmax

Rugged Box PCs

QBOX Series is a collection of fanless box PCs enclosed within a rugged aluminium housing to prevent sensitive components from being exposed to dust and other environmental factors. Thus, it is suitable to applications in harsh conditions. In addition, extended temperature models are offered for deployment under extreme high, low or radically fluctuating temperatures.

Series / Model		QBOX-3300 Series	QBOX-2080 Series	QBOX-1800	QBOX-2700 Series
System	Processor	Intel® Core™ i5-5350U / i3-4010U / i5-4300U / i7-4650U	Intel® Celeron® N3160	Intel® Celeron® N3160	Intel® Celeron® J1900 / Atom™ E3825
	Memory	1x DDR3L 1333/1600 SO-DIMM	1x DDR3L 1600 SO-DIMM	2x DDR3L 1600 SO-DIMM	1x DDR3L 1333/1067 SO-DIMM
Storage	SATA2 HDD/SSD	1	1	1	1
	mSATA	1 (shared w/ mPCIe)	1 (shared w/ mPCIe, optional)	-	-
	Micro SD Cage	-	-	1 (on front)	- / 1 (on front)
Display I/O	HDMI	-	1 (on rear)	2 (on rear)	1 (on rear)
	DP	2 (on rear)	1 (on rear)	1 (on rear)	-
	VGA	-	-	-	1 (on rear)
Multiple Display		Dual	Dual	Triple	Dual
Ethernet	LAN	3 (RJ-45 on rear)	2 (RJ-45 on rear)	1 (RJ-45 on rear)	1 (RJ-45 on rear)
USB	USB3.0	4 (Type A on front)	4 (Type A on front)	4 (Type A on front)	1 (Type A on front)
	USB2.0	-	-	-	2 (Type A on front)
Serial Port	RS-232/422/485	2 (DB9 on rear)	2 (DB9 on front)	1 (DB9 on rear)	1 (DB9 on rear)
	RS-232	-	2 (DB9 on front)	-	1 (RJ-45 on rear)
Other I/O	DIO	1 (DB9 female on front)	1 (DB9 female on rear)	-	-
Expansion	mPCIe	2 (1x shared w/ mSATA)	2 (1x shared w/ optional mSATA)	1	1
	SIM Cage	1 (by wafer)	1 (by wafer)	1 (by wafer)	1 (by wafer)

Series / Model		QBOX-2072 Series	QBOX-1700	QBOX-200S Series	QBOX-200H
System	Processor	Intel® Celeron® J1900	Intel® Atom™ E3825	Intel® Atom™ E3825 / Celeron® N2930 / N2807	Intel® Atom™ E3805
	Memory	1x DDR3L 1333 SO-DIMM	1x DDR3L 1067 SO-DIMM	1x DDR3L 1067/1333 SO-DIMM	1x DDR3L 1067 SO-DIMM
Storage	SATA2 HDD/SSD	1	1	-	-
	mSATA	1 (optional)	-	1	1
	Micro SD Cage	-	1 (on front)	1 (on front) / -	1 (on front)
Display I/O	HDMI	1 (on rear)	1 (on rear)	1 (on rear)	-
	VGA	1 (on rear)	1 (on rear)	1 (on rear)	-
Multiple Display		Dual	Dual	Dual	-
Ethernet	LAN	2 (RJ-45 on rear)	1 (RJ-45 on rear)	1 (RJ-45 on rear)	1 (RJ-45 on rear)
USB	USB3.0	1 (Type A on rear)	1 (Type A on front)	1 (Type A on front)	1 (Type A on front)
	USB2.0	4 (Type A on rear)	2 (Type A on front)	2 (Type A on rear)	3 (2x Type A, 1x Type Micro-B on rear)
Serial Port	RS-232/422/485	2 (DB9 on rear)	-	1 (DB9 on rear)	1 (DB9 on rear)
	RS-232	2 (DB9 on rear)	1 (RJ-45 on rear)	-	-
Other I/O	DIO	1 (DB9 female on rear)	-	-	-
Expansion	mPCIe	2	1	1	1
	SIM Cage	1 (by wafer)	1 (by wafer)	1	1

Ivy Bridge, Sandy Bridge and Cedarview models are available. Please contact us for details.

Box PCs (Plastic Chassis)

QutePC Series is a collection of generally-used fanned box PCs. Palm size with a volume of only 0.6 liter is their greatest asset and allows them fit well almost anywhere. Enclosed in a plastic housing, the series is a perfectly reasonable platform as well for general-purpose applications.

Series		QutePC-5000 Series	QutePC-1700 Series
System	Processor	Intel® Core™ i5-5200U / i3-4010U	Intel® Atom™ E3825 / Celeron® J1900 / N2930 / N2807
	Memory	1x DDR3L 1333/1600 SO-DIMM	1x DDR3L 1067/1333 SO-DIMM
Storage		1x SATA2 HDD/SSD + 1x mSATA (shared w/ mPCIe)	1x SATA2 HDD/SSD + 1x/0x Micro SD Cage (on front)
Display I/O		1x HDMI (on rear) + 1x DVI-D (on rear)	1x HDMI (on rear) + 1x VGA (on rear)
Multiple Display		Dual	Dual
Ethernet	LAN	2 (RJ-45 on rear)	1 (RJ-45 on rear)
USB	USB3.0	4 (Type A on front)	1 (Type A on front)
	USB2.0	2 (Type A on front)	2 (Type A on front)
Serial Port	RS-232	-	1 (RJ-45 on rear)
Expansion		1x mPCIe (shared w/ mSATA) with 1x SIM Cage support (by wafer)	1x mPCIe with 1x SIM Cage support (by wafer)

Ivy Bridge, Sandy Bridge and Cedarview models are available. Please contact us for details.

Heavy-duty Box PCs

Featuring a greater variety and amount of I/Os

KUBE-8130

Processor	Intel® Celeron® J1900
Memory	2x DDR3L 1333 SO-DIMM
Storage	1x SATA2 HDD/SSD + 1x mSATA (shared w/ mPCIe)
Display I/O	1x HDMI (on rear) + 1x VGA (on rear)
Multiple Display	Dual
Ethernet	2x LAN (RJ-45 on rear)
USB	1x USB3.0 (on rear) + 5x USB2.0 (1x on front, 4x on rear)
Serial Port	2x RS-232/422/485 (on rear) + 8x RS-232 (4x on front, 4x on rear)
Other I/O	1x Parallel Port (on front)

Ivy Bridge, Sandy Bridge and Cedarview models are available. Please contact us.

Rackmount Servers

RAK Series is a collection of rackmount servers designed for standard rack cabinets. It features large storage capacity of four several hot-swap drive bays.

RAK-100
(Form Factor: 1U)

Processor	Intel® Skylake Core™ i (FCLGA1151 Socket)
Chipset	Intel® Q170
Memory	2x DDR4 1866/2133 SO-DIMM
Storage	4x 3.5" SATA3 hot-swap drive bay (on front) + 2x mSATA (w/ mPCIe)
Display I/O	2x DP (on rear) + 1x DVI-D (on rear)
Multiple Display	Triple
Ethernet	2x LAN (RJ-45 on rear)
USB	4x USB3.0 (on rear) + 3x USB2.0 (1x on front for touch, 2x on rear)
Serial Port	3x RS-232/422/485 (2x DB9 on rear, 1x DB9 on front)
Expansion	2x PCIex8 (Slot on rear) + 2x mPCIe (shared w/ mSATA) + 1x SIM (by wafer)

Rugged Panel PCs

KPC Series is a collection of 5-wire resistive touch screen panel PCs. Each model features an IP65-rated aluminium front bezel to protect the interior system unit against water spray and dust ingress. Thus, they can ensure a reliable long-term operation under harsh environmental conditions.

Model		KPC-1900	KPC-15B0/17B0	KPC-2150
System	Processor	Intel® Skylake® Core™ i (FCLGA1151 Socket)	Intel® Haswell Core™ i / Celeron® (FCPGA946)	Intel® Celeron® J1900
	Chipset	Intel® Q170	Intel® HM87 / QM87	-
	Memory	1x DDR4 1866/2133 SO-DIMM	2x DDR3L 1333/1600 SO-DIMM	1x DDR3L 1333 SO-DIMM
Storage	SATA2 HDD/SSD	1	1	1
	mSATA	1 (shared w/ mPCIe)	1 (shared w/ mPCIe, optional)	1
Display	Size	19" (5:4)	15" (4:3) / 17" (5:4)	21.5" (16:9)
	Touch	5-wire resistive	5-wire resistive	5-wire resistive
Display I/O	HDMI	-	1 (on rear)	1 (on rear)
	DP	2 (on rear)	-	-
	DVI-D	1 (on rear)	1 (on rear)	-
	VGA	-	1 (on rear)	1 (on rear)
Multiple Display		Triple	Triple	Dual
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)
USB	USB3.0	4 (Type A on rear)	4 (Type A on rear)	1 (Type A on rear)
	USB2.0	2 (Type A on rear)	-	4 (Type A on rear)
Serial Port	RS-232/422/485	3 (DB9 on rear)	2 (DB9 on rear)	2 (DB9 on rear)
	RS-232	3 (DB9 on rear)	2 (DB9 on rear)	-
Expansion	PCIex8	2 (slot on rear)	-	-
	mPCIe	2 (1x shared w/ mSATA)	2 (1x shared w/ optional mSATA)	1
	SIM Cage	1 (by wafer)	1 (by wafer)	1 (by wafer)

Series / Model		KPC-1570/1770 Series	KPC-1260 Series	KPC-1030
System	Processor	Intel® Celeron® J1900 / Atom™ E3845	Intel® Celeron® J1900 / Atom™ E3825	Intel® Celeron® J1900
	Memory	1x DDR3L 1333 SO-DIMM	1x DDR3L 1333/1067 SO-DIMM	1x DDR3L 1333 SO-DIMM
Storage	SATA2 HDD/SSD	1	1	1
	mSATA	1	1	1
Display	Size	15" (4:3) / 17" (5:4)	12.1" (4:3)	10.4" (4:3)
	Touch	5-wire resistive	5-wire resistive	5-wire resistive
Display I/O	HDMI	1 (on rear)	1 (on rear)	1 (on rear)
	VGA	1 (on rear)	1 (on rear)	1 (on rear)
Multiple Display		Dual	Dual	Dual
Ethernet	LAN	2 (RJ-45 on rear)	2 (RJ-45 on rear)	2 (RJ-45 on rear)
USB	USB3.0	1 (Type A on rear)	1 (Type A on rear)	1 (Type A on rear)
	USB2.0	4 (2x Type A on rear, 2x Type A on left)	4 (2x Type A on rear, 2x Type A on left)	2 (Type A on rear)
Serial Port	RS-232/422/485	2 (DB9 on rear)	2 (DB9 on rear)	2 (DB9 on rear)
	RS-232	-	-	2 (DB9 on rear)
Expansion	mPCIe	1	1	1
	SIM Cage	1 (by wafer)	1 (by wafer)	1 (by wafer)

Sandy Bridge, Cedarview and Pinview models are available. Please contact us for details.

Quanmax

Panel PCs (Plastic)

HPC Series Fanless panel PCs are enclosed within a plastic housing. They feature IP65 front design and 5-wire resistive touch screen.

Series		HPC-1050 Series
System	Processor	Intel® Celeron® J1900 / Atom™ E3825
	Memory	1x DDR3L 1333/1067 SO-DIMM
Storage	SATA2 HDD/SSD	1
Display	Size	10.1" (16:9)
	Touch	5-wire resistive
Display I/O	HDMI	1 (on rear)
	VGA	1 (on rear)
Multiple Display		Dual
Ethernet	LAN	2 (RJ-45 on rear)
USB	USB3.0	1 (Type A on rear)
	USB2.0	4 (2x Type A on rear, 2x Type A on left)
Serial Port	RS-232/422/485	2 (DB9 on rear)
Expansion	mPCIe	1
	SIM Cage	1 (by wafer)

Cedarview models are available. Please contact us for details.

Flat Panel PCs

PPC Series is a collection of fanless 10-point PCT multi-touch screen flat panel PCs with IP65-rated anti-spray / -dust glass surface.

Model		PPC-1500/1700/1900
System	Processor	Intel® Celeron® N3160
	Memory	1x DDR3L 1333/1600 SO-DIMM
Storage	SATA2 HDD/SSD	1
	Micro SD Cage	1
Display	Size	15" (4:3) / 17" (5:4) / 19" (5:4)
	Touch	10-point PCT
Display I/O	HDMI	1 (on rear)
	DP	1 (on rear)
Multiple Display		Triple
Ethernet	LAN	2 (RJ-45 on rear)
USB	USB3.0	4 (Type A on rear)
Serial Port	RS-232/422/485	2 (DB9 on rear)
	RS-232	2 (DB9 on rear)
Expansion	mPCIe	2
	SIM Cage	1 (by wafer)

Monitors

(1) **MoniQ Series**: IP65-rated 10-point PCT multi-touch flat panel monitor w/ an OPS slot reserved to transform itself into a panel PC
(2) **QTM Series**: IP65-rated 10-point PCT multi-touch flat panel monitor
(3) **OPM Series**: 5-wire resistive single-touch / 10-point PCT multi-touch open frame monitor
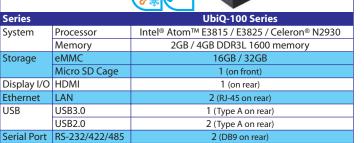
Model		MoniQ-1500/1700/1900	QTM-1500/1700/1900	OPM-1500/1700/1900
Display	Size	15" (4:3) / 17" (5:4) / 19" (5:4)	15" (4:3) / 17" (5:4) / 19" (5:4)	15" (4:3) / 17" (5:4) / 19" (5:4)
	Touch	10-point PCT	10-point PCT	5-wire resistive / 10-point PCT
Display I/O	HDMI	1 (on rear)	1 (on rear)	1 (on rear)
	DVI-D	1 (on rear)	1 (on rear)	1 (on rear)
	VGA	1 (on rear)	1 (on rear)	1 (on rear)
USB	USB2.0	1 (Type A on rear for touch)	1 (Type A on rear for touch)	-
Serial Port	RS-232	-	-	1 (DB9 on rear for touch, optional)

IoT Gateways

UbiQ Series IoT gateways support a variety of IoT protocols and enable flexible seamless connections between edge devices and most cloud platforms.

Series		UbiQ-100 Series
System	Processor	Intel® Atom™ E3815 / E3825 / Celeron® N2930
	Memory	2GB / 4GB DDR3L 1600 memory
Storage	eMMC	16GB / 32GB
	Micro SD Cage	1 (on front)
Display I/O	HDMI	1 (on rear)
Ethernet	LAN	2 (RJ-45 on rear)
USB	USB3.0	1 (Type A on rear)
	USB2.0	2 (Type A on rear)
Serial Port	RS-232/422/485	2 (DB9 on rear)
Expansion	mPCIe	2

Network Security

NWA Series supports LAN bypass function and can pass the link to the next available paths in case of a single point of network failure. They are suitable for network redundancy.

Series		NWA-6300 Series
System	Processor	Intel® Atom™ E3825 / E3845 / Celeron® J1900
	Memory	1x / 2x DDR3L 1067/1333 SO-DIMM
Storage	SATA2 HDD/SSD	1
	mSATA	1
	SD Cage	1 / -
Display I/O	VGA	1 (on rear)
Ethernet	LAN	4 (RJ-45 on rear)
USB	USB3.0	1 (Type A on rear)
	USB2.0	2 (Type A on rear)
Serial Port	RS-232	1 (RJ-45 on rear, console redirection)

All specifications and photos are subject to change without notice