

2023 - 2024 EDGE AI PLATFORM



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Gold
IoT Solutions

vecow

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Everyone deserves a better system...

Vecow at a Glance

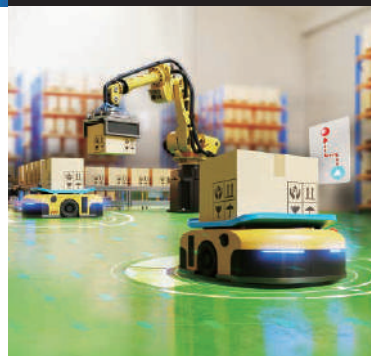
Founded in 2010, Vecow is a team of embedded experts and we aim to be your trusted embedded business partner. Vecow is committed to designing, developing, producing, and supplying high quality AIoT solutions with trusted reliability, advanced technology, and innovative concepts. Our products include: AI-ready Inference Systems, AI Computing Systems, Fanless Embedded Systems, Vehicle Computing Systems, Robust Computing Systems, Single Board Computers, Multi-Touch Computers/Displays, Frame Grabbers, Embedded Peripherals and Design & Manufacturing Services for Machine Vision, Autonomous Vehicle, Smart Robotics, Digital Rail, Public Security, Transportation & V2X, Smart Factory, Deep Learning, and any Edge AI applications.

Autonomous Vehicle



Making driving safer and greener while delivering higher traffic efficiency and connection.

Smart Robotics



Enabling the evolution of industry towards smarter, safer, and more efficient factories.

Digital Rail



Making your rail journey safer, more enjoyable and connected through digital rail.

Your Trusted Embedded Business Partner



Smart **Edge AI** Solution Services

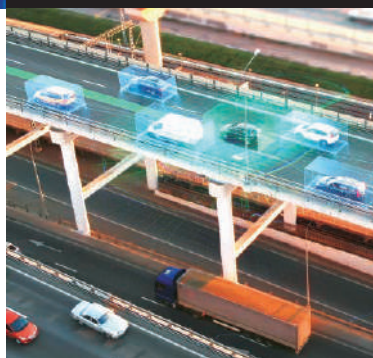
An Intelligent Future Made Possible

Public Security



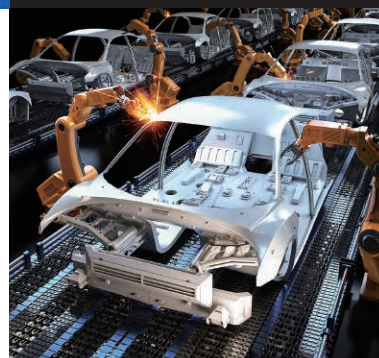
Building a safer, more comfortable for better living from contact-free technologies.

Transportation & V2X



Delivering safe, robust, reliable, and efficient transportation management.

Smart Factory



Accelerating the performance operations across machines and utilizing AI tools for digital factory.

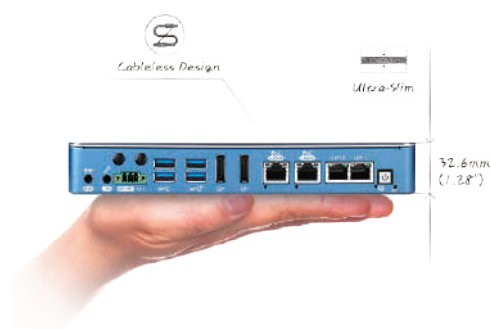
Core Competencies

With seasoned edge computing professionals, leading integrated product features, flexible tailor-made services and one-stop comprehensive solution, Vecow serves trusted products and services to make AI-oriented IoT infrastructure and performance-driven edge computing applications possible.



Leading Expertise

Vecow is a team of experienced embedded computing experts in product planning, design & development, manufacturing, sales & marketing and after service field. We target the latest performance-driven computing solution to make your real-time edge AI applications possible anytime anywhere. With years of embedded domain know-how learning from worldwide successful projects, we study, plan, design, produce, and fine-tune our deliveries armed with top-tier performance and optimized user's experiences for Machine Vision, Autonomous Vehicle, Smart Robotics, Digital Rail, Public Security, Transportation & V2X, Smart Factory, Deep Learning, and any Edge AI applications.

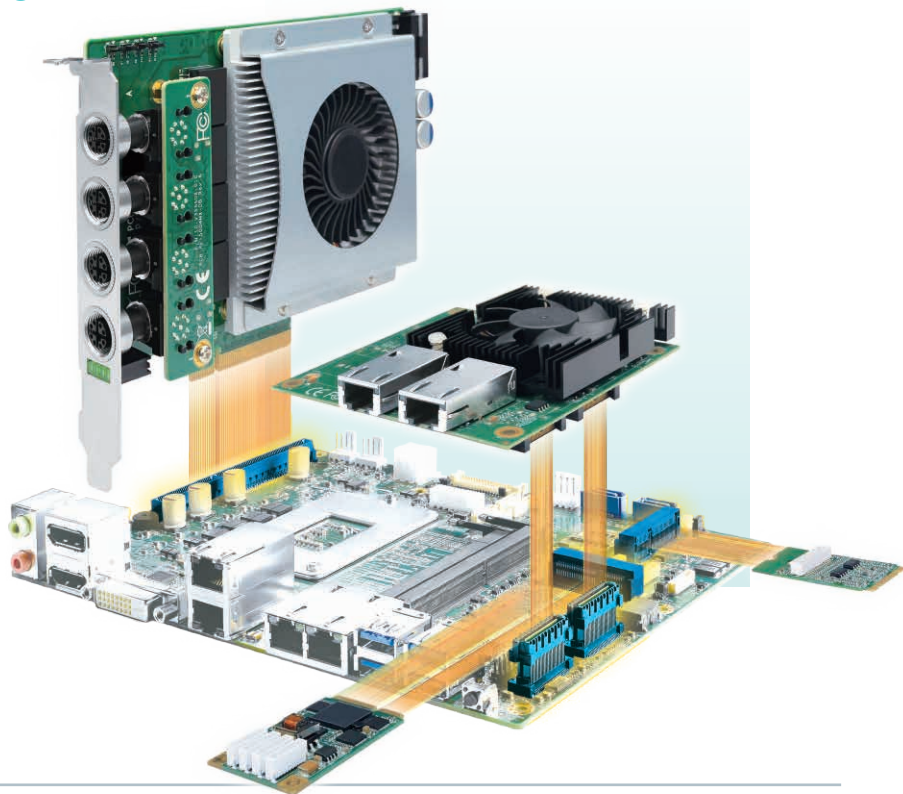
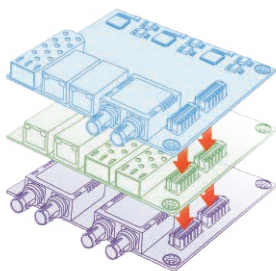


Compact Design

Charactered with system-oriented features, such as fanless design, wide-range operating temperature, workable wide-range power input, smart circuit protection, user-friendly feature, cable-less & all-in-one single-board design, small form factor, and leading system performance, Vecow embedded computers are compact integrated and highly-reliable engines to meet various requirements of performance-driven vertical applications even in harsh environments.

Easy Customization

Based on Vecow original design concepts, standard product deliveries, new solution features, and any of our technical achievements, we are willing to carry out innovative ideas with new extension delivery for you. Seasoned Vecow Design & Manufacturing Service team offers quality and professional tailor-made service to you with well-organized project status, less project design, research & development efforts, reduced total cost of project ownership (TCO) and even faster time-to-market.



Top Tier Ecosystem

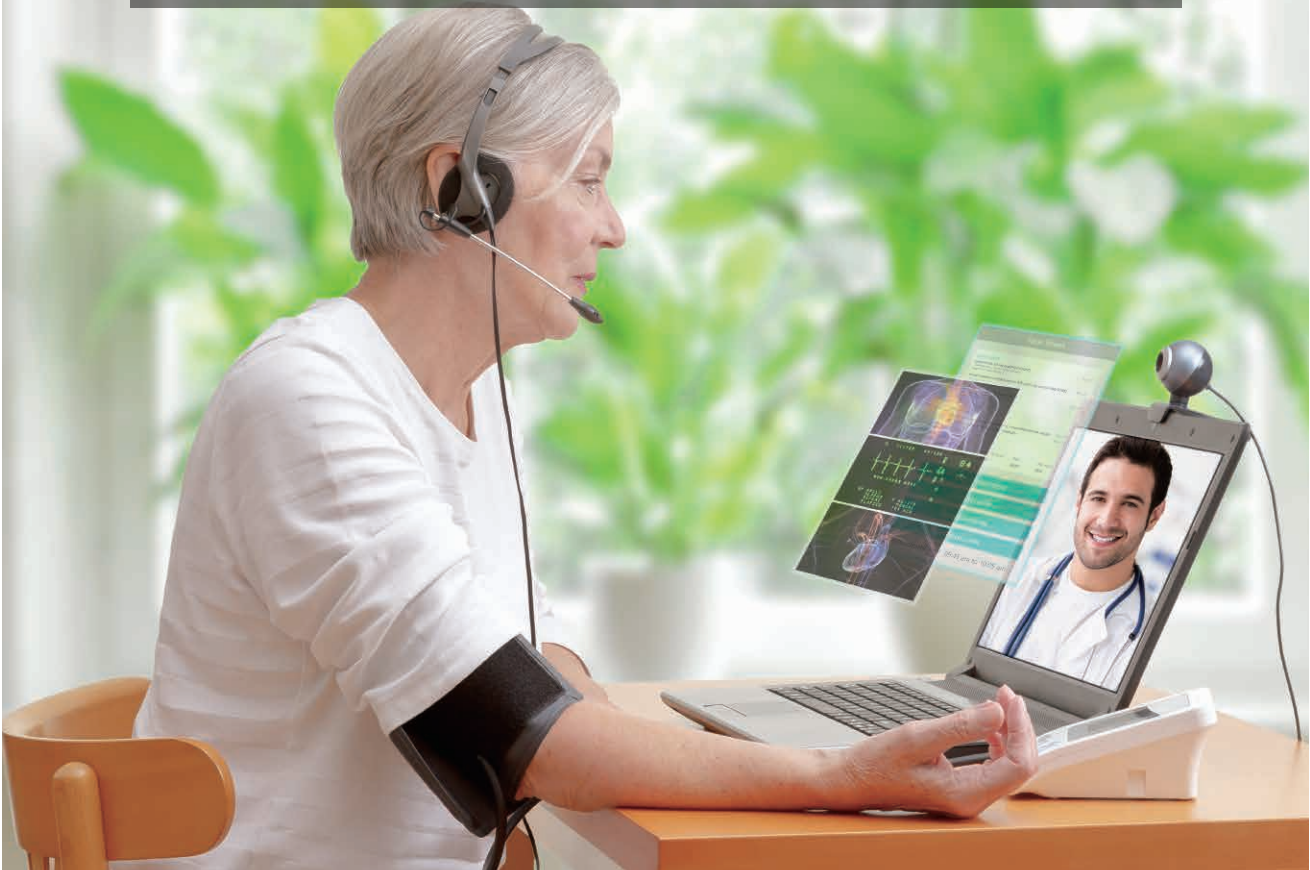
Flexible Teamwork

Vecow manages close relationship with our business partners to maintain our technical footprint, supplier management and new business opportunities. Our in-house embedded expertise covers product planning & management, hardware design & engineering, BIOS engineering, software design & engineering, mechanical engineering, design quality assurance, product manufacturing, procurement management, production management, quality assurance, field application engineering and after services. Supported by world-leading ecosystem and skillful embedded expertise, Vecow delivers one-stop integrated, speedy, quality and flexible solutions to meet your project requirements.

Telemedicine Platforms

Introduction

If it's possible for something good to come out of the pandemic, you could point to the increased use of telemedicine, and the positive impact this technology has had on society. So many more people are getting to "see" their doctors through virtual meetings, and doctors can more easily diagnose patients thanks to the technology that is available at their fingertips. This is true for both industrialized nations as well as more remote countries where there are fewer doctors. Doctors are making use of technology to help in their diagnoses. They input the data and allow the computer to assist in the diagnosis and treatment. The speed and accuracy in which that treatment occurs can potentially save lives and significantly reduce medical expenses.



Requirement

- Compact & lightweight
- Wireless communications
- Real-time HD video data streaming
- Smart and remote management



Solutions

Vecow EMBC-5000 and ECX-2000 Series offer trusted solutions for medical imaging, real-time diagnostics, remote communication, and other health-care applications. The systems are based on the latest Intel® Core™ SoC platforms; higher system and graphics performance with less TDP; optional OpenVINO Tool kits to accelerate AI performance; 2.5G LAN for faster data transfer; Mini PCIe adapters for video capture, rugged SUMIT expansion for additional communications ports; and the security commensurate with the application.



EMBC-5000 3.5" SBC

- 11th Gen Intel® Core™ i7/i5/i3 processor, up to 28W TDP
- 1 2.5G LAN, 1 GigE LAN, SUMIT A,B
- Fanless -40°C to 75°C
- SIM Socket for 5G/WiFi/4G/3G/LTE/GPRS/UMTS



ECX-2000

- 10th Gen Intel® Xeon®/Core™ i9/i7/i5/i3 Processor
- Max 9 GigE LAN, 6 USB
- 1 M.2 Key B, 1 M.2 Key E, 1 Mini PCIe
- DC 9V to 50V, 80V Surge Protection
- OpenVINO Based AI Accelerator

Portable & Low-Power Fanless Platform

Speed Enforcement



Introduction

Excessive speeding has many negative consequences. For example, a driver can more easily lose control of a vehicle that's traveling at an unsafe speed. Longer braking times and distances are required by higher speeds. And the faster you drive, the more fuel you are consuming. There are some obvious ways to slow drivers down. Having a larger police presence on the road is one way, but with reduced manpower occurring around that country, that solution may not be a possibility. Many highways use signage to try to discourage drivers from speeding, but that passive effort seems to have little to effect on people. As a result, intelligent traffic systems are rapidly growing in popularity. A combination of radar technology and sensors embedded into the road surface, also called modern speed enforcement, is proven for the ideal solution.

Requirement

- Lightweight and portable
- Low power, rugged design
- Rich I/O interfaces
- User-friendly interfaces





Solutions

Vecow SPC-6000 has all the necessary compute power and I/O to operate in a speed-enforcement application. Its power spec is low enough for mobile applications and it can handle the temperature extremes of outdoor use. The SPC-6000 is designed with an Intel Atom® x6425RE processor. It supports Intel's Time Coordinated Computing (TCC) and Time Sensitive Networking (TSN) technologies. And it is compatible with Vecow's VHub One-stop AIoT solution service that acts as an AI enabler and training platform.

SPC-6000

- Intel Atom® x6425RE Processor
- 1 GigE LAN, 2.5G LAN, 4 USB
- DC 12V, Fanless -40°C to 70°C
- SIM socket supports 5G/WiFi/4G/3G/LTE/GPRS/UMTS



Security Printing

Introduction

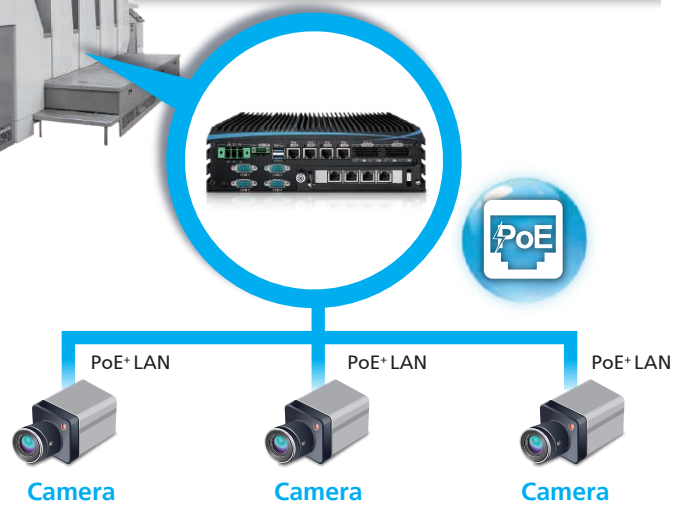
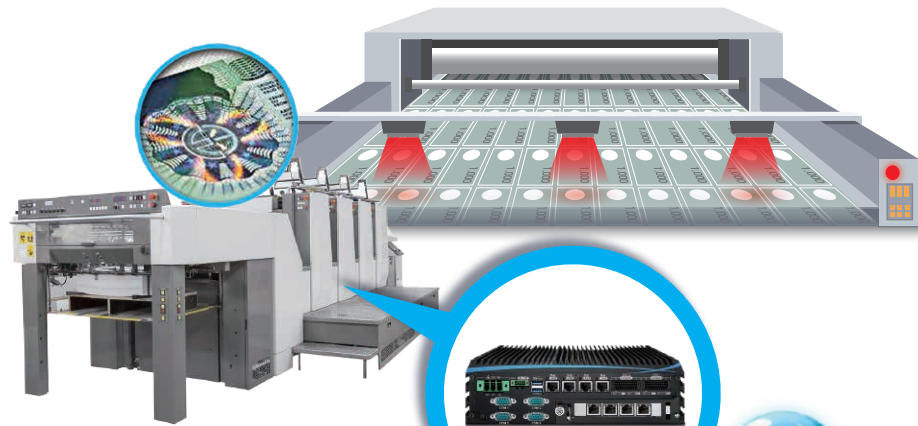
Secure printing could be a mechanism to keep documents confidential. It could also be a way to ensure that documents are not copied. The reasons for needing secure printing are many. A simple example is to protect important documents, like banknotes, checks, passports, tamper-evident labels, product authentication and identity cards. The list of documents that needs to be protected is quite long. And the volume of those secure documents is quite large. Hence, a need to produce this protected material quickly, often in real time, is of high importance. The solution is to build an inspection platform as part of the production line to verify the printing quality. A workstation-grade high-performance computing platform capable of supporting high-speed cameras for real-time image/video capture and data computing is essential.



Requirement

- High computing power
- Rugged and an-vibration
- Multiple LAN ports for IP camera
- Wireless communications





Solutions

Vecow ECX-1210 Fanless Embedded System can serve as the backbone of a secure printing facility. It can connect to high-speed cameras and operate in real-time. The system has the horsepower to accommodate the high-speed cameras used for real-time image capture with minimal latency and little to no downtime. In addition, Power-over-Ethernet (PoE) could be used for the cameras to maximize productivity. Features of the ECX-1210 include six Gigabit Ethernet LAN ports, two front-access SSD trays, PCI/PCIe, and various other expansions.



ECX-1210

- Intel® Xeon®/Core™ i7/i5/i3 Processor
- 6 GigE LAN with 4 PoE+, 6 USB
- 2 2.5" SSD Tray, 1 CFast, 2 M.2, 2 SATA III
- DC 6V to 36V, Fanless -40°C to 75°C

Robotics as a Service

Introduction

RaaS takes conventional robotics technology and adds a connectivity element, meaning that the robots can be connected to the Internet, an intranet, or a Cloud service. By having this connection, the robots can be monitored, controlled, maintained, and upgraded, all from a remote location, with 24/7/365 access. A secondary definition of RaaS focuses on the service side, where the robot typically belongs to a central company, and that robot is deployed at the customer's location. Then the service provided by the robot is sold and the owner would know when a new robot should be swapped in based on maintenance needs and requirements. In addition, cleaning robots are becoming the norm in public facilities like airports, shopping malls, and hospitals. They are typically mobile and application-specific platforms that automate the cleaning processes for consumer, commercial, and industrial uses. The advantages of working with robots are cost savings and consistency.

Requirement

- Rugged design
- Multiple I/O interfaces
- Wireless communications
- Easy maintenance
- Anti-vibration & Anti-shock



Solutions

Vecow workstation-grade Embedded System ECX-2000 and Ultra-compact Fanless System SPC-5600 are the perfect engines for a cleaning robot, with small size, low power draw, and adherence to industry specs concerning, shock, vibration, and temperature. With Intel® Core™ i9/i7/i5/i3 processor, the systems have more than enough compute power for today and tomorrow.



SPC-5600

- Intel® Core™ i7/i5/i3 Processor
- 4 USB, 4 GigE LAN, 4 COM
- Supports DC 12V
- Fanless -25°C to 60°C
- Supports WiFi/4G/3G/LTE/GPRS/UMTS



ECX-2000

- 10th Gen Intel® Xeon®/Core™ i9/i7/i5/i3 Processor
- 6 USB, 9 LAN with 4 PoE+
- Fanless -40°C to 75°C
- DV 9V to 50V, 80V Surge Protection

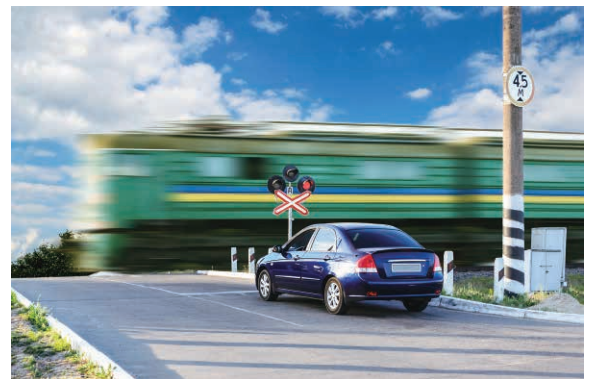


Digital Rail



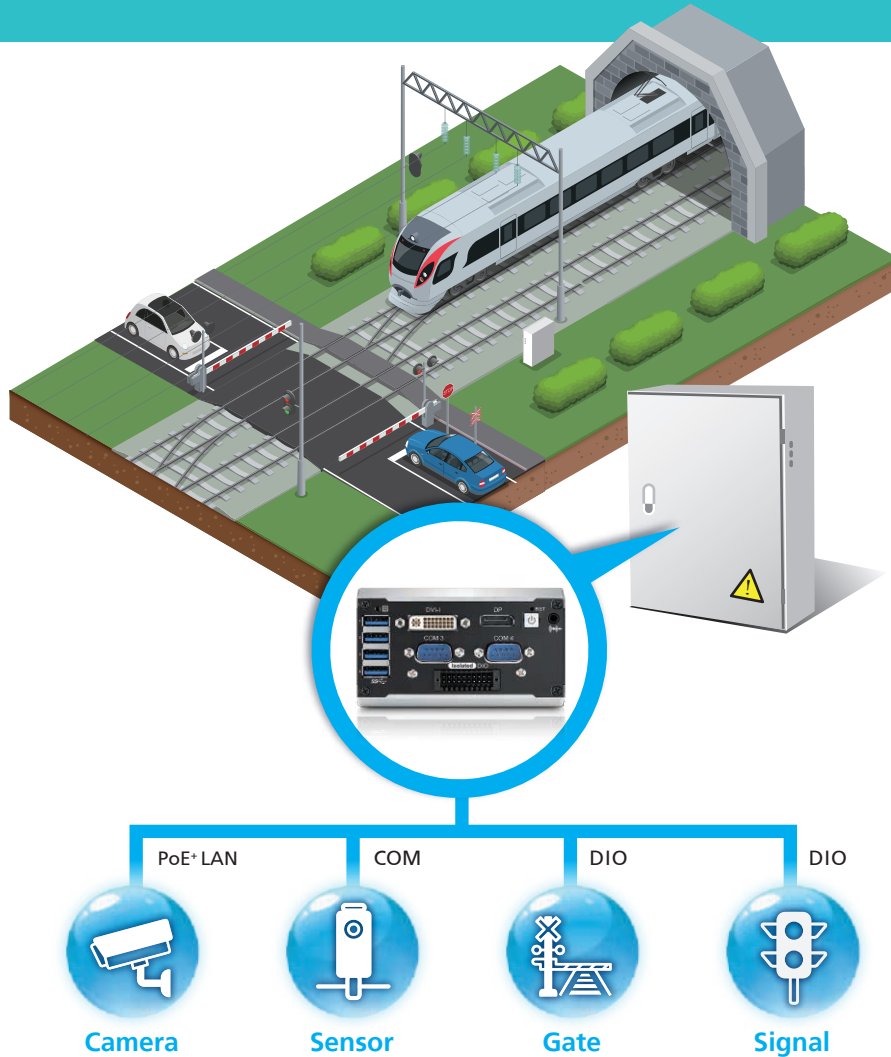
Introduction

Vision systems for rail applications can serve many purposes, from the very mundane to those that can protect passengers. The obvious uses are to constantly monitor tracks to ensure that the railways remain clear of obstructions and to ensure that trains are where they are supposed to be at any given time. The rail companies and infrastructure owners encounter a series of challenges when designing a system aimed at surveillance for rail applications. The first challenge is knowing what to surveil, and the second is understanding what hardware and software are needed to ensure that the proper actions are taken at the appropriate times. Another key consideration is the environment. In some cases, the system may be permanently outdoors, and could be subject to wide temperature swings. And the system may be subject to lots of shock and vibration as part of a moving train. Finally, systems aimed at rail applications tend to be in use for many years. As a result, it's important to ensure longevity, potentially beyond five or ten years.



Requirement

- Compact design
- Rugged design for extremed environments
- Power-efficient
- Wireless communications
- Anti-vibration & Anti-shock



Solutions

Vecow provides a series of optimal solutions for railroad surveillance, including SPC-4600, AIC-100 and ABP-3000 AI. With fanless operation in the -40°C to +75°C temperature range, the SPC-4600 is built on low-power, quad-core Intel Atom E3950 SoC. The AIC-100 is an intelligent automation controller designed with an industrial-grade NXP i.MX6ULL Arm Cortex-A7 processor, a 9V to 50V power input. Rounding out the offerings is the ABP-3000 AI, which can be integrated with a compact AI accelerator, and supports an OpenVINO-based AI accelerator. It performs the operations needed for machine vision applications.



SPC-4600

- Intel Atom® x7-E3950 SoC
- 4 USB, Isolated DIO, 2 GigE PoE+ LAN
- DC 9V to 36V
- Fanless -40°C to +75°C



AIC-100

- Industrial-grade NXP i.MX6ULL Arm Cortex-A7 Processor
- 2 LAN, 1 USB, 2 COM
- Mini PCIe with SIM socket for 4G/LTE/WiFi/BT/GPRS/UMTS/LoRaWAN
- DC 9V to 50V, Fanless -25°C to 70°C



ABP-3000 AI

- Intel® Core™ U-series Processor
- 4 USB, 4 GigE LAN with 2 PoE+
- DC 9V to 50V, Fanless 0°C to 60°C
- Optional Compact AI Accelerator

Autonomous Vehicle



Introduction

Building safe and robust advanced driver assistance systems (ADAS) and autonomous driving systems is so complex. With the right development and testing platforms, developers can iteratively design, build, and test their ideas to more quickly and reliably take them from concept to a proven and production-ready design. The platform needed to provide integrated software and hardware for developing and verifying system functionality and performance, as well as needed to be able to collect, synchronize, and analyze data from a wide range of cameras and other sensors. With the variety of cameras and sensors that were to be used, the platform was going to be critical and it was important for the system to be able to support a full spectrum of interfaces. There was also the need for flexible hardware with enough I/O to provide a sufficient number of each interface.

Requirement

- Powerful computing capability
- Rugged design
- Flexible expansion
- Anti-vibration & Anti-shock





Solutions

Vecow provides three hardware plus software solution platforms for customers, dubbed the Autoware platforms. It forms the heart of an autonomous vehicle system and manages the data from the sensors and cameras, operating in real time. The Entry-Level Autoware platform: SPC-4020A is optimized for applications that require smaller amounts of data and a reduced form factor while having a flexible range of interfaces. The professional Autoware platform: RCX-1430FR PEG is aimed at applications that require more data collection and real-time responsiveness. For the most compute-intensive applications, the GPC-1000 is the high-end side of the Autoware family and is capable of bringing real-time AI computing to the edge.

All of these systems are optimized for in-vehicle operation, supporting a wide range of input power, surge protection, and ignition power control functionality. Each system supports fanless operation across the industrial temperature range and is EN50155 certified. The systems have also been designed with flexible interfaces. Rather than building a custom platform, developers can configure these optimized systems to use the sensors and expansion cards of their choice.



SPC-4020A

- Intel Atom® x7-E3950 SoC
- 4 USB, 4 COM with 2 Isolated
- DC 9V to 36V
- Fanless -40°C to 75°C



RCX-1430FR PEG






- Intel® Xeon®/Core™ i7/i5/i3 Processor
- Up to 300W Graphics Card
- 6 USB, 4 SSD Tray, 2 PCI/PCIe Slot
- DC 24V to 36V, 80V Surge Protection









GPC-1000

- Workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor
- 1500W for dual 3-slot Graphics Card
- 4 PCIe slot, 4 USB, 4 GigE LAN
- DC 9V to 55V






High-performance Fanless Systems






Series		IVX-1000		ECX-3000		
Model No.		IVX-1000	IVX-1000 ICY	ECX-3025R	ECX-3025	ECX-3000-PoER
Product Image						
System	CPU	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)
	Chipset	Intel® R680E	Intel® R680E	Intel® R680E	Intel® R680E	Intel® R680E
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770
	Ethernet	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows10, Linux	Windows10, Linux	Windows10, Linux	Windows10, Linux	Windows10, Linux
Display I/O	VGA	1	1	NA	NA	NA
	DVI-I	NA	NA	1	1	1
	DVI-D	NA	NA	NA	NA	NA
	DisplayPort	2	2	2	2	2
	Serial	4 Isolated RS-232/422/485	4 Isolated RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
I/O Interface	USB 3.0/3.1/3.2	4 (External)	4 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (External, A-coded)	1 (External, A-coded)	NA	NA	NA
	GigE LAN	10 (9-port 2.5G, 4 w/PoE*)	10 (9-port 2.5G, 4 w/PoE*)	9 (8-port 2.5G, 4 w/PoE*)	9 (8-port 2.5G, 4 w/PoE*)	6 (5-port 2.5G, 4 w/PoE*)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
	SFP	NA	NA	NA	NA	NA
	M12	8 (X-coded)	8 (X-coded)	NA	NA	NA
	CAN Bus	NA	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA	NA
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
	Others	2 SSD/HDD Tray (External)	6 SSD/HDD Tray (External 15mm in height)	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)
	Storage	SATA III	2	6	2	2
SATA II		NA	NA	NA	NA	NA
CFast		NA	NA	NA	NA	NA
mSATA		1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
M.2		1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
Micro SD		NA	NA	1 (External)	1 (External)	1 (External)
Mini PCIe		1	1	1	1	1
Expansion	SIM Card	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	SUMIT A, B	NA	NA	NA	NA	2 (Optional)
	Input	DC-in 16V to 160V	DC-in 16V to 160V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
Power	Connector	Terminal Block	Terminal Block	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes	Yes
	Dimensions (W x L x H)	360 x 228 x 88 mm (14.2" x 8.9" x 3.5")	360 x 228 x 171mm (14.2" x 8.9" x 6.7")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
Weight	7.1 kg (15.65 lb)	10.6 kg (23.43 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	
Mounting	Wallmount, 2U Rackmount	Wallmount, 4U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	
Operating Temperature	-25°C to 45°C (-6°F to 113°F)	-25°C to 45°C (-6°F to 113°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 75°C (-40°F to 167°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 61373 : 2010	IEC 61373 : 2010	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	
Shock	IEC 61373 : 2010	IEC 61373 : 2010	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

ECX-3000-PoES	ECX-3000-PoE	ECX-3000-4R	ECX-3000-4G	ECX-3000-2R	ECX-3000-2G
					
Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)	Intel® Core™ i9/17/15/13 Processor (RPL-S/ADL-S)
Intel® R680E	Intel® R680E	Intel® R680E	Intel® R680E	Intel® R680E	R680E
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770
Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows10, Linux	Windows10, Linux	Windows10, Linux	Windows10, Linux	Windows10, Linux	Windows10, Linux
NA	NA	NA	NA	NA	NA
1	1	1	1	1	1
NA	NA	NA	NA	NA	NA
2	2	2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
NA	NA	NA	NA	NA	NA
6 (5-port 2.5G, 4 w/PoE*)	6 (5-port 2.5G, 4 w/PoE*)	4 (3-port 2.5G)	4 (3-port 2.5G)	2 (1-port 2.5G)	2 (1-port 2.5G)
4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	16 GPIO	16 GPIO	16 GPIO	16 GPIO
16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	NA	NA	NA	NA
4 M.2 SSD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
2	2	2	2	2	2
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
1 (External)	1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
1	1	1	1	1	1
2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
Yes	Yes	Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

- 1 High-performance Fanless Systems
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- 4 Expandable Embedded Systems
- 5 Ultra-compact Fanless Systems
- 6 Rackmount Systems
- 7 Industrial Multi-Touch Computers/Displays
- 8 Industrial Motherboards
- 9 COM Express
- 10 Embedded Peripherals






High-performance Fanless Systems






Series		ECX-2000				
Model No.		ECX-2025R/ ECX-2025FR	ECX-2025/ ECX-2025F	ECX-2000-PoE/ ECX-2000F-PoE	ECX-2000-PoE/ ECX-2000F-PoE	ECX-2000-6FR/ ECX-2000F-6FR
Product Image						
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® I225	Intel® I219LM, Intel® I210, Intel® I225	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA	NA
	DVI-I	1	1	1	1	1
	DVI-D	1	1	1	1	1
	DisplayPort	1	1	1	1	1
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	9 (3-port 2.5G, 4 w/PoE*)	9 (3-port 2.5G, 4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (2 w/SFP+)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA
	SFP	NA	NA	NA	NA	2
	M12	NA	NA	NA	NA	NA
	CAN Bus	NA	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA	16 GPIO
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	NA
	Others	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)
Storage	SATA III	2	2	2	2	2
	SATA II	NA	NA	NA	NA	NA
	CFast	NA	NA	NA	NA	NA
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
Expansion	Mini PCIe	1	1	1	1	1
	SIM Card	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	SUMIT A, B	NA	NA	2 (Optional)	2 (Optional)	NA
Power	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
	Connector	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
Weight		3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ECX-2000-6F/ ECX-2000F-6F	ECX-2000-4R/ ECX-2000F-4R	ECX-2000-4G/ ECX-2000F-4G	ECX-2000-2R/ ECX-2000F-2R	ECX-2000-2G/ ECX-2000F-2G
				
Intel® Xeon®/Core™ i9/7/5/3 Processor (CML-S)	Intel® Xeon®/Core™ i9/7/5/3 Processor (CML-S)	Intel® Xeon®/Core™ i9/7/5/3 Processor (CML-S)	Intel® Xeon®/Core™ i9/7/5/3 Processor (CML-S)	Intel® Xeon®/Core™ i9/7/5/3 Processor (CML-S)
Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (2 w/SFP+)	4	4	2	2
NA	NA	NA	NA	NA
2	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
16 GPIO	16 GPIO	16 GPIO	16 GPIO	16 GPIO
NA	NA	NA	NA	NA
NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
2	2	2	2	2
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
1	1	1	1	1
2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
NA	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
Yes	Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

- 1 High-performance Fanless Systems
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- 8 Industrial Motherboards
- 9 COM Express
- 10 Embedded Peripherals





High-performance Fanless Systems


Series		ECX-1000				
Model No.		ECX-1000-9R	ECX-1000-9GD	ECX-1000-PoER	ECX-1000-PoE	ECX-1000-6FR
Product Image						
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® 82574L	Intel® I219LM, Intel® I210, Intel® 82574L	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA	NA
	DVI-I	1	1	1	1	1
	DVI-D	1	1	1	1	1
	DisplayPort	1	1	1	1	1
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	9 (4 w/PoE*)	9 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (2 w/SFP+)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA
	SFP	NA	NA	NA	NA	2
	M12	NA	NA	NA	NA	NA
	CAN Bus	NA	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA	16 GPIO
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	NA
	Others	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)
	Storage	SATA III	2	2	2	2
SATA II		NA	NA	NA	NA	NA
CFast		1	1	1	1	1
mSATA		2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
M.2		1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
Micro SD		NA	NA	NA	NA	NA
Mini PCIe		2	2	2	2	2
Expansion	SIM Card	2 (External)	2 (External)	2 (External)	2 (External)	2 (External)
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SUMIT A, B	NA	NA	2 (Optional)	2 (Optional)	NA
	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Power	Connector	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
	Ignition Control	Yes	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Dimensions (W x L x H)	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	
Weight	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	
Mounting	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	
Shock	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

ECX-1000-6F	ECX-1000-4R	ECX-1000-4G	ECX-1000-2R	ECX-1000-2G
				
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (2 w/SFP+)	4	4	2	2
NA	NA	NA	NA	NA
2	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
16 GPIO	16 GPIO	16 GPIO	16 GPIO	16 GPIO
NA	NA	NA	NA	NA
NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
2	2	2	2	2
NA	NA	NA	NA	NA
1	1	1	1	1
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
NA	NA	NA	NA	NA
2	2	2	2	2
2 (External)	2 (External)	2 (External)	2 (External)	2 (External)
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
NA	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, N50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

- 1 High-performance Fanless Systems
- 2 AI Computing Systems
- 3 10GiGE Embedded Systems
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- 6 Rackmount Systems
- 7 Industrial Multi-Touch Computers/Displays
- 8 Industrial Motherboards
- 9 COM Express
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High-performance Fanless Systems

Series		ECX-1000 AIO		SPC-5600	
Model No.		ECX-1200 AIO	ECX-1100 AIO	SPC-5600	SPC-5600A
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® H310	Intel® H310
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	1	NA	NA
	DVI-I	NA	NA	NA	NA
	DVI-D	1	1	1	1
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	4 (External)	4 (External)
	USB 2.0	1 (Internal)	1 (Internal)	2 (Internal)	2 (Internal)
	GigE LAN	6 (4 w/PoE*)	2	4	4
	PoE LAN	4 (IEEE 802.3at)	NA	NA	NA
	SFP	NA	NA	NA	NA
	M12	NA	NA	NA	NA
	CAN Bus	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	32 (16 DI, 16 DO)	16 GPIO	NA	NA
	Isolated DIO	NA	NA	NA	NA
	AIO	32 AI, 2 AO	32 AI, 2 AO	NA	NA
	Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	NA	NA
	Storage	SATA III	2	2	2
SATA II		NA	NA	NA	NA
CFast		1 (External)	1 (External)	NA	NA
mSATA		2 (Mini PCIe)	2 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
M.2		1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	NA	NA
Micro SD		NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	SIM Card	3 (External)	3 (External)	1 (Internal)	1 (Internal)
	M.2	1 Key E 2230	1 Key E 2230	NA	NA
	SUMIT A, B	2 (Optional)	2 (Optional)	NA	NA
Power	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 12V	DC-in 9V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	Yes	NA	NA
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	209 x 151 x 75 mm (8.2" x 5.9" x 3.0")	209 x 151 x 75 mm (8.2" x 5.9" x 3.0")
Weight		4.6 kg (10.14 lb)	4.6 kg (10.14 lb)	2.4 kg (5.29 lb)	2.7 kg (5.95 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail	Wallmount, DIN Rail
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-25°C to 60°C (-13°F to 140°F)	-25°C to 60°C (-13°F to 140°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

Series		HPS-1000			
Model No.		HPS-1000-4S	HPS-1000-4R	HPS-1000-4G	
Product Image					
System	CPU	AMD Ryzen™ 7 Pro 5000 Series Processors	AMD Ryzen™ 7 Pro 5000 Series Processors	AMD Ryzen™ 7 Pro 5000 Series Processors	
	Chipset	AMD X570	AMD X570	AMD X570	
	BIOS	AMI	AMI	AMI	
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	
	Graphics	AMD Radeon™	AMD Radeon™	AMD Radeon™	
	Ethernet	Intel® I210, Intel® I225	Intel® I210, Intel® I225	Intel® I210, Intel® I225	
	Audio	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD	
	Super I/O	Fintek F81966	Fintek F81966	Fintek F81966	
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	
Display I/O	VGA	NA	NA	NA	
	DVI-I	NA	NA	NA	
	DVI-D	NA	NA	NA	
	DisplayPort	3	3	3	
	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	
I/O Interface	USB 3.0/3.1/3.2	- 3 USB 3.1 - 3 USB 3.2 Gen2	- 3 USB 3.1 - 3 USB 3.2 Gen2	- 3 USB 3.1 - 3 USB 3.2 Gen2	
	USB 2.0	NA	NA	NA	
	GigE LAN	4 (1 port 2.5G, 2 w/PoE*)	4 (1 port 2.5G, 2 w/PoE*)	4 (1 port 2.5G, 2 w/PoE*)	
	PoE LAN	2 (IEEE 802.3at)	2 (IEEE 802.3at)	2 (IEEE 802.3at)	
	SFP	NA	NA	NA	
	M12	NA	NA	NA	
	CAN Bus	NA	NA	NA	
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	
	GPIO	NA	NA	NA	
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	
	Others	2 2.5" SSD/HDD Bracket (Internal)	2 2.5" SSD/HDD Tray (External)	1 2.5" SSD/HDD Tray (External) 2 M.2 Key M SSD Tray (External)	
	SATA III	2	2	2	
	SATA II	NA	NA	NA	
	CFast	1	1	1	
mSATA	NA	NA	NA		
Storage	M.2	- 1 Key M 2280 - 1 Key B 2280 (share)	- 1 Key M 2280 - 1 Key B 2280 (share)	- 1 Key M 2280 - 1 Key B 2280 (share)	
	Micro SD	NA	NA	NA	
	Expansion	Mini PCIe	NA	NA	NA
	SIM Card	1	1	1	
	M.2	- 1 Key B 2280/3042/3052 - 1 Key E 2230	- 1 Key B 2280/3042/3052 - 1 Key E 2230	- 1 Key B 2280/3042/3052 - 1 Key E 2230	
	SUMIT A, B	1 SUMIT B (Optional)	1 SUMIT B (Optional)	1 SUMIT B (Optional)	
	Power	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
Connector		Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	
Ignition Control		Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	
Remote Switch		Yes	Yes	Yes	
Dimensions (W x L x H)	260 x 188 x 88mm (10.24" x 7.40" x 3.46")	260 x 188 x 88mm (10.24" x 7.40" x 3.46")	260 x 188 x 88mm (10.24" x 7.40" x 3.46")		
Weight	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)		
Mounting	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount		
Operating Temperature	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)		
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)		
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing		
Vibration	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I		
Shock	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I		
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2		

1 High-performance Fanless Systems

2 AI Computing Systems

3 10GiGE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems





7 Industrial Multi-Touch Computers/Displays






8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals

AI Computing Systems

Series		EVS-2000 (MXM)			ECX-3000 PEG
Model No.		EVS-2000	EVS-2000F	EVS-2000 LIQ	ECX-3800 PEG
Product Image					
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® W480E	Intel® R680E
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR5 4800MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics/AI Accelerator	- Intel® UHD 630 - MXM Graphics (By request)	- Intel® UHD 630 - MXM Graphics (By request)	- Intel® UHD 630 - MXM Graphics (By request)	Intel® UHD 770
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I226
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	1	1	NA
	DVI-I	NA	NA	NA	1
	DVI-D	1	1	1	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	3 RS-232/422/485	3 RS-232/422/485	3 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	NA
	GigE LAN	2	2	2	6 (5 port 2.5G, 4 w/PoE ⁺)
	PoE LAN	NA	NA	NA	4 2.5G PoE ⁺ (IEEE 802.3at)
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
Storage	SATA III	2	2	2	4
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	1 (Mini PCIe)	NA
	M.2	- 1 Key B 2280 - 1 Key M 2280	- 1 Key B 2280 - 1 Key M 2280	- 1 Key B 2280 - 1 Key M 2280	1 Key M 2280
	Micro SD	1	1	1	NA
	Mini PCIe	1	1	1	1
Expansion	SIM Card	1 (Nano SIM, External)	1 (Nano SIM, External)	1 (Nano SIM, External)	3 (Nano SIM, External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230
	PCI/PCIe	1 PCI/PCIe x4	1 PCI/PCIe x4	1 PCI/PCIe x4	2 PCIe x8, 2 PCIe x4
	SUMIT A, B	2 (Optional)	2 (Optional)	2 (Optional)	NA
	Power	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 12V to 50V
Power	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes
	Dimensions (W x L x H)	280 x 215 x 79 mm (11.0" x 8.5" x 3.1")	280 x 215 x 86.5 mm (11.0" x 8.5" x 3.4")	260 x 215 x 93 mm (10.2" x 8.5" x 3.7")	260 x 240 x 142mm (10.24" x 9.45" x 5.59")
Weight	4.9 kg (10.80 lb)	5.0 kg (11.02 lb)	5.0 kg (11.02 lb)	7.5 kg (16.53 lb)	
Mounting	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail	
Operating Temperature	-25°C to 55°C (-13°F to 140°F)	-25°C to 55°C (-13°F to 140°F)	5°C to 55°C (41°F to 131°F)	-20°C to 45°C (-4°F to 113°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	MIL-STD-810G, Procedure I	
Shock	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	MIL-STD-810G, Procedure I	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

ECX-3600 PEG	ECX-3400 PEG	ECX-3200MX PEG (M12)	ECX-3200 PEG	ECX-3100 PEG
				
Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)
Intel® R680E	Intel® R680E	Intel® R680E	Intel® R680E	Intel® R680E
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770
Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I226
Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA
1	1	1	1	1
NA	NA	NA	NA	NA
2	2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C
NA	NA	NA	NA	NA
6 (5 port 2.5G, 4 w/PoE ⁺)	6 (5 port 2.5G, 4 w/PoE ⁺)	6 (5 port 2.5G, 4 w/PoE ⁺)	6 (5 port 2.5G, 4 w/PoE ⁺)	2 (1 port 2.5G)
4 2.5G PoE ⁺ (IEEE 802.3at)	4 2.5G PoE ⁺ (IEEE 802.3at)	4 2.5G PoE ⁺ (IEEE 802.3at)	4 2.5G PoE ⁺ (IEEE 802.3at)	NA
NA	NA	4 2.5G (X-coded, PoE ⁺)	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA	16 GPIO
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA
4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
4	4	2	2	2
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
NA	NA	NA	NA	NA
1	1	1	1	1
3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)
- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230
2 PCIe x8, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	1 PCIe x16	1 PCIe x16	1 PCIe x16
NA	NA	NA	NA	NA
DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
Yes	Yes	Yes	Yes	Yes
260 x 240 x 120 mm (10.24" x 9.45" x 4.72")	260 x 240 x 104 mm (10.24" x 9.45" x 4.09")	260 x 240 x 79 mm (10.24" x 9.45" x 3.11")	260 x 240 x 79 mm (10.24" x 9.45" x 3.11")	260 x 240 x 79 mm (10.24" x 9.45" x 3.11")
6.5 kg (14.33 lb)	5.5 kg (12.13 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)
Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I
MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
AI Computing
Systems

3
10GiE
Embedded
Systems

4
Expandable
Embedded
Systems

5
Ultra-compact
Fanless Systems

6
Rackmount
Systems






7
Industrial Multi-
Touch Computers/
Displays







8
Industrial
Motherboards

9
COM
Express

10
Embedded
Peripherals

AI Computing Systems

Series		ECX-2000 PEG				
Model No.		ECX-2600 PEG/ ECX-2600F PEG	ECX-2400 AI/ ECX-2400F AI	ECX-2400S PEG/ ECX-2400SF PEG	ECX-2400 PEG/ ECX-2400F PEG	ECX-2300 PEG/ ECX-2300F PEG
Product Image						
System	CPU	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
	Chipset	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics/ AI Accelerator	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - AI Accelerator up to 64TOPS	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
	Ethernet	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Window 10, Linux	Window 10, Linux	Window 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	1	1	1	1	1
	DVI-I	NA	NA	NA	NA	NA
	DVI-D	1	1	1	1	1
	DisplayPort	2	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	NA	NA	NA	NA	NA
	GigE LAN	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	2
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA	16 GPIO
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA
	Others	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	- 1 SSD/HDD Tray (External) - 2 M.2 SSD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)
	Storage	SATA III	4	4	2	4
CFast		NA	NA	NA	NA	NA
mSATA		2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
M.2		1 Key M 2280	1 Key M 2280	3 Key M 2280	1 Key M 2280	1 Key M 2280
Micro SD		1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
Expansion		Mini PCIe	2	2	2	2
	SIM Card	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	PCI/PCle	2 PCIe x8, 1 PCIe x4	1 PCIe x4	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4
	SUMIT A, B	NA	NA	NA	NA	NA
Power	Input	DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 50V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 240 x 123 mm (10.2" x 9.4" x 4.8")	260 x 240 x 104 mm (10.2" x 9.4" x 4.1")	260 x 240 x 104 mm (10.2" x 9.4" x 4.1")	260 x 240 x 104 mm (10.2" x 9.4" x 4.1")	260 x 240 x 104 mm (10.2" x 9.4" x 4.1")
Weight		6.5 kg (14.33 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)
Mounting		Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail
Operating Temperature		-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ECX-1000 PEG					
ECX-2200 PEG/ ECX-2200F PEG	ECX-2100 PEG/ ECX-2100F PEG	ECX-1400 PEG	ECX-1300 PEG	ECX-1200 PEG	ECX-1100 PEG
					
Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® W480E	Intel® W480E	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1	1	1
NA	NA	NA	NA	NA	NA
1	1	1	1	1	1
2	2	2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
NA	NA	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (4 w/PoE*)	2	6 (4 w/PoE*)	2	6 (4 w/PoE*)	2
4 (IEEE 802.3at)	NA	4 (IEEE 802.3at)	NA	4 (IEEE 802.3at)	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	16 GPIO	NA	16 GPIO	NA	16 GPIO
32 (16 DI, 16 DO)	NA	32 (16 DI, 16 DO)	NA	32 (16 DI, 16 DO)	NA
2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
2	2	4	4	2	2
NA	NA	1 (External)	1 (External)	1 (External)	1 (External)
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key B 2280	1 Key B 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280
1 (External)	1 (External)	NA	NA	NA	NA
2	2	2	2	2	2
3 (Nano SIM, External)	3 (Nano SIM, External)	3 (External)	3 (External)	3 (External)	3 (External)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
1 PCIe x16	1 PCIe x16	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	1 PCIe x16	1 PCIe x16
NA	NA	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 12V to 50V	DC-in 12V to 50V	DC-in 12V to 36V	DC-in 12V to 36V	DC-in 12V to 36V	DC-in 12V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes (SW IGN)	Yes (SW IGN)	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
260 x 240 x 79 mm (10.2" x 9.4" x 3.1")	260 x 240 x 79 mm (10.2" x 9.4" x 3.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	4.8 kg (10.58 lb)	4.8 kg (10.58 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
IEC 60068-2-27	IEC 60068-2-27	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1 High-performance Fanless Systems

2 AI Computing Systems

3 10GiE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems





7 Industrial Multi-Touch Computers/Displays







8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals





AI Computing Systems





Series		RCX-2000 PEG			
Model No.		RCX-2700R PEG	RCX-2700 PEG	RCX-2400R PEG	RCX-2400 PEG
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5 Processor (RKL-S)	Intel® Xeon®/Core™ i7/i5 Processor (RKL-S)	Intel® Xeon®/Core™ i7/i5 Processor (RKL-S)	Intel® Xeon®/Core™ i7/i5 Processor (RKL-S)
	Chipset	Intel® W580	Intel® W580	Intel® W580	Intel® W580
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200 MHz	260-pin SO-DIMM, DDR4 3200 MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics/AI Accelerator	- Intel® UHD P750/750 - PEG (By request)	- Intel® UHD P750/750 - PEG (By request)	- Intel® UHD P750/750 - PEG (By request)	- Intel® UHD P750/750 - PEG (By request)
	Ethernet	Intel® I219LM, Intel® I225IT	Intel® I219LM, Intel® I225IT	Intel® I219LM, Intel® I225IT	Intel® I219LM, Intel® I225IT
	Audio	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	NA	NA	NA	NA
	DVI-D	NA	NA	NA	NA
	DisplayPort	3	3	3	3
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2 (1-port 2.5G)	2 (1-port 2.5G)	2 (1-port 2.5G)	2 (1-port 2.5G)
	PoE LAN	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
	Storage	SATA III	4	4	4
CFast		NA	NA	NA	NA
mSATA		2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
M.2		- 1 Key M 2280 - 1 Key B 2280	- 1 Key M 2280 - 1 Key B 2280	- 1 Key M 2280 - 1 Key B 2280	- 1 Key M 2280 - 1 Key B 2280
Micro SD		NA	NA	NA	NA
Expansion		Mini PCIe	2	2	2
	SIM Card	3 (External)	3 (External)	3 (External)	3 (External)
	M.2	- 1 Key B 3042/3052/2280 - 1 Key E 2230	- 1 Key B 3042/3052/2280 - 1 Key E 2230	- 1 Key B 3042/3052/2280 - 1 Key E 2230	- 1 Key B 3042/3052/2280 - 1 Key E 2230
	PCI/PCIe	2 PCIe x8, 3 PCIe x4	2 PCIe x8, 3 PCIe x4	1 PCIe x16, 2 PCIe x4	1 PCIe x16, 2 PCIe x4
	SUMIT A, B	NA	NA	NA	NA
Power	Input	DC-in 9V to 55V	DC-in 9V to 55V	DC-in 9V to 55V	DC-in 9V to 55V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)	253.9 x 215.8 x 375.0mm (10.00" x 8.50" x 14.76")	253.9 x 215.8 x 375.0mm (10.00" x 8.50" x 14.76")	183.1 x 208.3 x 375.0mm (7.21" x 8.19" x 14.76")	183.1 x 208.3 x 375.0mm (7.21" x 8.19" x 14.76")	
Weight	9.8 kg (21.61 lb)	9.5 kg (20.94 lb)	8.6 kg (18.96 lb)	8.3 kg (18.30 lb)	
Mounting	Wallmount	Wallmount	Wallmount	Wallmount	
Operating Temperature	-25°C to 60°C (-13°F to 147°F)	-25°C to 60°C (-13°F to 147°F)	-25°C to 60°C (-13°F to 147°F)	-25°C to 60°C (-13°F to 147°F)	
Storage Temperature	-25°C to 85°C (-13°F to 185°F)	-25°C to 85°C (-13°F to 185°F)	-25°C to 85°C (-13°F to 185°F)	-25°C to 85°C (-13°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	
Shock	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

		GPC-1000		RCX-1500 PEG	
RCX-2300R PEG	RCX-2300 PEG	GPC-1000MX	GPC-1000	RCX-1540R PEG	RCX-1540 PEG
					
Intel® Xeon®/Core™ i7/i5 Processor (RKL-S)	Intel® Xeon®/Core™ i7/i5 Processor (RKL-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CFL-R-S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® W580	Intel® W580	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 2133Hz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
- Intel® UHD P750/750 - PEG (By request)	- Intel® UHD P750/750 - PEG (By request)	- Intel® UHD Graphics 630 - PEG (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)
Intel® I219LM, Intel® I225IT	Intel® I219LM, Intel® I225IT	Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	1	1
NA	NA	NA	1	NA	NA
3	3	1	2	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485, A-coded	4 RS-232/422/485	3 RS-232/422/485	3 RS-232/422/485
6 (External)	6 (External)	2 USB 3.1 Gen2, 4 USB 3.1 Gen1	4 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	NA	NA	1 (Internal)	1 (Internal)
2 (1-port 2.5G)	2 (1-port 2.5G)	4 (X-coded)	4	2	2
NA	NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA	NA	NA
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	16 (8 DI, 8 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
4 SSD/HDD Tray (External)	NA	- 2 SSD/HDD Tray (External) - 2 CAN (A-coded)	NA	4 SSD/HDD Tray (External)	NA
4	4	2	2	4	4
NA	NA	NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	1 (mini PCIe)	1 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
-1 Key M 2280 -1 Key B 2280	-1 Key M 2280 -1 Key B 2280	1 Key M 2280	NA	1 Key M 2280	1 Key M 2280
NA	NA	NA	NA	NA	NA
2	2	1	2	2	2
3 (External)	3 (External)	2 (Nano SIM, External)	1 (Internal)	2 (External)	2 (External)
- 1 Key B 3042/3052/2280 - 1 Key E 2230	- 1 Key B 3042/3052/2280 - 1 Key E 2230	- 1 Key B 3042/3052/2280 - 1 Key E 2230	NA	1 Key E 2230	1 Key E 2230
2 PCIe x4, 1 PCIe x16	2 PCIe x4, 1 PCIe x16	2 PCIe x8, 2 PCIe x4	2 PCIe x8, 1 PCIe x4, 1 PCIe x1	2 PCIe x8, 1 PCIe x4, 1 PCIe x1	2 PCIe x8, 1 PCIe x4, 1 PCIe x1
NA	NA	NA	2 (Optional)	NA	NA
DC-in 9V to 55V	DC-in 9V to 55V	DC-in 12V to 55V	DC-in 9V to 55V	- DC-in 6V to 36V - 12V PEG Power	- DC-in 6V to 36V - 12V PEG Power
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	NA	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
166.4 x 208.5 x 375.0mm (6.55" x 8.21" x 14.76")	166.4 x 208.5 x 375.0mm (6.55" x 8.21" x 14.76")	375 x 243 x 215.8 mm (14.76" x 9.57" x 8.50")	243 x 369 x 209 mm (9.6" x 14.5" x 8.2")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")
8.1 kg (17.85 lb)	7.8 kg (17.19 lb)	9.1 kg (20.06 lb)	9.0 kg (19.8 lb)	7.1 kg (15.62 lb)	6.9 kg (15.19 lb)
Wallmount	Wallmount	Wallmount	Wallmount	Wallmount	Wallmount
-25°C to 60°C (-13°F to 147°F)	-25°C to 60°C (-13°F to 147°F)	-25°C to 45°C (-6°F to 113°F)	-25°C to 60°C (-6°F to 140°F)	-25°C to 45°C (-6°F to 113°F)	-25°C to 60°C (-6°F to 140°F)
-25°C to 85°C (-13°F to 185°F)	-25°C to 85°C (-13°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

- 1 High-performance Fanless Systems
- 2 AI Computing Systems
- 3 10GiE Embedded Systems
- 4 Expandable Embedded Systems
- 5 Ultra-compact Fanless Systems
- 6 Rackmount Systems
- 7 Industrial Multi-Touch Computers/Displays
- 8 Industrial Motherboards
- 9 COM Express
- 10 Embedded Peripherals

AI Computing Systems

Series		RCX-1500 PEG		RCX-1000 PEG	
Model No.		RCX-1520R PEG	RCX-1520 PEG	RCX-1430FR PEG	RCX-1430F PEG
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics/AI Accelerator	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG 1 (By request) - PEG 2 (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	NA	NA	NA	NA
	DisplayPort	1	1	1	1
I/O Interface	Serial	3 RS-232/422/485	3 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
Storage	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
	SATA III	4	4	4	4
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	SIM Card	2 (External)	2 (External)	2 (External)	2 (External)
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	PCI/PCIe	2 PCIe x8	2 PCIe x8	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4, 1 PCIe x1
	SUMIT A, B	NA	NA	NA	NA
Power	Input	- DC-in 6V to 36V - 12V PEG Power	- DC-in 6V to 36V - 12V PEG Power	- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		198 x 350 x 210 mm (7.8" x 13.8" x 8.3")	198 x 350 x 210 mm (7.8" x 13.8" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")
Weight		7.1 kg (15.62 lb)	6.9 kg (15.19 lb)	5.6 kg (12.37 lb)	5.4 kg (11.87 lb)
Mounting		Wallmount	Wallmount	Wallmount	Wallmount
Operating Temperature		-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
Shock		IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

RCX-1421FR PEG	RCX-1421F PEG	RCX-1412FR PEG	RCX-1412F PEG
			
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)	- Intel® UHD 630 - PEG (By request)
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA
1	1	1	1
NA	NA	NA	NA
1	1	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
2	2	2	2
NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
4	4	4	4
NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
NA	NA	NA	NA
2	2	2	2
2 (External)	2 (External)	2 (External)	2 (External)
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
1 PCIe x16, 1 PCIe x4, PCI	1 PCIe x16, 1 PCIe x4, PCI	1 PCIe x16, 2 PCI	1 PCIe x16, 2 PCI
NA	NA	NA	NA
- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)	- DC-in 24V to 36V - DC-in 12V (Optional)
Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")
5.6 kg (12.37 lb)	5.4 kg (11.87 lb)	5.6 kg (12.37 lb)	5.4 kg (11.87 lb)
Wallmount	Wallmount	Wallmount	Wallmount
-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)	-25°C to 45°C (-13°F to 113°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010	IEC 61373 : 2010
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
AI Computing
Systems

3
10GiE
Embedded
Systems

4
Expandable
Embedded
Systems

5
Ultra-compact
Fanless Systems

6
Rackmount
Systems





7
Industrial Multi-
Touch Computers/
Displays







8
Industrial
Motherboards

9
COM
Express

10
Embedded
Peripherals

10GigE Embedded Systems

Series		10GigE LAN			
Model No.		ECX-3071XR	ECX-3071X	ECX-2055R	ECX-2055
Product Image					
System	CPU	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
	Chipset	Intel® R680E	Intel® R680E	Intel® W480E	Intel® W480E
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 770	Intel® UHD 770	Intel® UHD 630	Intel® UHD 630
	10G Ethernet	Intel® X710-AT2	Intel® X710-AT2	Intel® X550-AT2	Intel® X550-AT2
	GigE Ethernet	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	NA	NA	1	1
	DisplayPort	2	2	1	1
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	NA	NA	1 (Internal)	1 (Internal)
	10GigE LAN	2 (RJ45, External)	2 (RJ45, External)	2 (RJ45, External)	2 (RJ45, External)
	GigE LAN	6 (5-port 2.5G, 4 w/ PoE*)	6 (5-port 2.5G, 4 w/ PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
	SFP+	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
	Others	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
Storage	SATA III	2	2	2	2
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	1 (mini PCIe)	1 (mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	1 (External)	1 (External)	1	1
Expansion	Mini PCIe	1	1	1	1
	SIM Card	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (Nano SIM, External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
Power	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
	Connector	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
Weight		3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-25°C to 50°C, with Internal Fan (-13°F to 122°F)	-25°C to 50°C, with Internal Fan (-13°F to 122°F)	-40°C to 55°C, with Internal Fan (-40°F to 131°F)	-40°C to 55°C, with Internal Fan (-40°F to 131°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

		10G SFP+			
ECX-1055R	ECX-1055	ECX-2071R	ECX-2071	ECX-1071R	ECX-1071
					
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® W480E	Intel® W480E	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® X550-AT2	Intel® X550-AT2	Intel® X710-BM2	Intel® X710-BM2	Intel® X710-BM2	Intel® X710-BM2
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA	NA
1	1	1	1	1	1
1	1	1	1	1	1
1	1	1	1	1	1
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
2 (RJ45, External)	2 (RJ45, External)	2 (SFP+, External)	2 (SFP+, External)	2 (SFP+, External)	2 (SFP+, External)
6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)
4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)
NA	NA	2	2	2	2
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA	NA	NA
16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA	2 SSD/HDD Tray (External)	NA
2	2	2	2	2	2
NA	NA	NA	NA	NA	NA
1	1	NA	NA	1	1
2 (Mini PCIe)	2 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
NA	NA	1	1	NA	NA
2	2	1	1	2	2
2 (External)	2 (External)	2 (Nano SIM, External)	2 (Nano SIM, External)	2 (External)	2 (External)
1 Key E 2230	1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	1 Key E 2230
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN	Terminal Block, Mini-DIN
Yes	Yes	Yes (SW IGN)	Yes (SW IGN)	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")	260 x 175 x 79 mm (10.2" x 6.9" x 3.1")
3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)	3.8 kg (8.38 lb)
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
-40°C to 55°C, with Internal Fan (-40°F to 131°F)	-40°C to 55°C, with Internal Fan (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)	-40°C to 55°C (-40°F to 131°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1 High-performance Fanless Systems

2 AI Computing Systems

3 10GigE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems





7 Industrial Multi-Touch Computers/Displays







8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals

Expandable Embedded Systems

Series		ECX-3200/3100			ECX-2200
Model No.		ECX-3200MX	ECX-3200	ECX-3100	ECX-2210MX/ ECX-2210MXF
Product Image					
System	CPU	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Core™ i9/i7/i5/i3 Processor (RPL-S/ADL-S)	Intel® Xeon®/Core™ i9/i7/i5/i3 Processor (CML-S)
	Chipset	Intel® R680E	Intel® R680E	Intel® R680E	Intel® W480E
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR5 4800MHz	260-pin SO-DIMM, DDR4 2933MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 770	Intel® UHD 770	Intel® UHD 770	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I226	Intel® I219LM, Intel® I210, Intel® I350
	Audio	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek® ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	1
	DVI-I	1	1	1	NA
	DVI-D	NA	NA	NA	1
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	- 6 USB 3.2 Type A - 1 USB 3.2 Gen 2x2 Type C	6 (External)
	USB 2.0	NA	NA	NA	NA
	GigE LAN	6 (5 port 2.5G, 4 w/PoE ⁺)	6 (5 port 2.5G, 4 w/PoE ⁺)	2 (1 port 2.5G)	6 (4 w/PoE ⁺)
	PoE LAN	4 2.5G PoE ⁺ (IEEE 802.3at)	4 2.5G (IEEE 802.3at)	NA	4 (IEEE 802.3at)
	M12	4 2.5G (X-coded, PoE ⁺)	NA	NA	4 (X-coded, PoE ⁺)
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	16 GPIO	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	32 (16 DI, 16 DO)
Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	
Storage	SATA III	2	2	2	2
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	NA	NA	NA	2 (Mini PCIe)
	M.2	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280
	Micro SD	NA	NA	NA	1 (External)
Expansion	Mini PCIe	1	1	1	2
	PCIe	1 PCIe x16	1 PCIe x16	1 PCIe x16	1 PCIe x16
	PCI	NA	NA	NA	NA
	M.2	- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 2 Key B 2280/3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	SIM Card	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)
	SUMIT	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
Power	Input	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 240 x 79 mm (10.2" x 9.5" x 3.1")	260 x 240 x 79 mm (10.2" x 9.5" x 3.1")	260 x 240 x 79 mm (10.2" x 9.5" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")
Weight		4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	IEC 60068-2-64
Shock		MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	MIL-STD-810G, Procedure I	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

		ECX-2100				ECX-1200
ECX-2210/ ECX-2210F	ECX-2201MX/ ECX-2201MXF	ECX-2201/ ECX-2201F	ECX-2110/ ECX-2110F	ECX-2101/ ECX-2101F	ECX-1210M	
						
Intel® Xeon®/Core™ i9/i7/ i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/ i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/ i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/ i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i9/i7/ i5/i3 Processor (CML-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	
Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® W480E	Intel® C246	
AMI	AMI	AMI	AMI	AMI	AMI	
260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2933MHz	260-pin SO-DIMM, DDR4 2666MHz	
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210, Intel® I350	
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	
1	1	1	1	1	1	
NA	NA	NA	NA	NA	NA	
1	1	1	1	1	1	
NA	NA	NA	NA	NA	NA	
NA	NA	NA	NA	NA	NA	
2	2	2	2	2	2	
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	
NA	NA	NA	NA	NA	1 (Internal)	
6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	2	2	6 (4 w/PoE*)	
4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA	NA	4 (IEEE 802.3at)	
NA	4 (X-coded, PoE*)	NA	NA	NA	4 (PoE*)	
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	
NA	NA	NA	16 GPIO	16 GPIO	NA	
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	NA	32 (16 DI, 16 DO)	
2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray	
2	2	2	2	2	(External)	
NA	NA	NA	NA	NA	NA	
NA	NA	NA	NA	NA	1 (External)	
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	
1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key M 2280	1 Key B 2280, 1 Key M 2280	
1 (External)	1 (External)	1 (External)	1 (External)	1 (External)	NA	
2	2	2	2	2	2	
1 PCIe x16	NA	NA	1 PCIe x16	NA	1 PCIe x16	
NA	1 PCI	1 PCI	NA	1 PCI	NA	
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	
3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (Nano SIM, External)	3 (External)	
2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 50V	DC-in 6V to 36V	
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	
Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes (SW IGN)	Yes	
Yes	Yes	Yes	Yes	Yes	Yes	
260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 240 x 79 mm (10.2" x 9.45" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	
4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	
Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

1
High-performance
Fanless Systems

2
AI Computing
Systems

3
10GiGE
Embedded
Systems

4
Expandable
Embedded
Systems

5
Ultra-compact
Fanless Systems

6
Rackmount
Systems






7
Industrial Multi-
Touch Computers/
Displays







8
Industrial
Motherboards

9
COM
Express

10
Embedded
Peripherals




Expandable Embedded Systems





Series		ECX-1200			ECX-1100	
Model No.		ECX-1210	ECX-1201M	ECX-1201	ECX-1110	ECX-1101
Product Image						
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	
Display I/O	VGA	1	1	1	1	1
	DVI-I	NA	NA	NA	NA	NA
	DVI-D	1	1	1	1	1
	HDMI	NA	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA	NA
	DisplayPort	2	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	2	2
	PoE LAN	4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA	NA
	M12	NA	4 (PoE*)	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	16 GPIO	16 GPIO
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	NA
	Others	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)
Storage	SATA III	2	2	2	2	2
	SATA II	NA	NA	NA	NA	NA
	CFast	1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280	1 Key B 2280, 1 Key M 2280
	Micro SD	NA	NA	NA	NA	NA
	Mini PCIe	2	2	2	2	2
Expansion	PCIe	1 PCIe x16	NA	NA	1 PCIe x16	NA
	PCI	NA	1 PCI	1 PCI	NA	1 PCI
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SIM Card	3 (External)	3 (External)	3 (External)	3 (External)	3 (External)
	SUMIT	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Power	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")	260 x 215 x 79 mm (10.2" x 8.5" x 3.1")
Weight		4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)	4.5 kg (9.92 lb)
Mounting		Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ECX-1400			ECX-1300		
ECX-1420	ECX-1411	ECX-1402	ECX-1320	ECX-1311	ECX-1302
					
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210, Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
1	1	1	1	1	1
NA	NA	NA	NA	NA	NA
1	1	1	1	1	1
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
2	2	2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
6 (4 w/PoE*)	6 (4 w/PoE*)	6 (4 w/PoE*)	2	2	2
4 (IEEE 802.3at)	4 (IEEE 802.3at)	4 (IEEE 802.3at)	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	16 GPIO	16 GPIO	16 GPIO
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	NA	NA
4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)	4 SSD/HDD Tray (External)
4	4	4	4	4	4
NA	NA	NA	NA	NA	NA
1 (External)	1 (External)	1 (External)	1 (External)	1 (External)	1 (External)
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key B 2280	1 Key B 2280	1 Key B 2280	1 Key B 2280	1 Key B 2280	1 Key B 2280
NA	NA	NA	NA	NA	NA
2	2	2	2	2	2
1 PCIe x16, PCIe x4	1 PCIe x16	NA	1 PCIe x16, 1 PCIe x4	1 PCIe x16	NA
NA	1 PCI	2 PCI	NA	1 PCI	2 PCI
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
3 (External)	3 (External)	3 (External)	3 (External)	3 (External)	3 (External)
2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")	260 x 215 x 104 mm (10.2" x 8.5" x 4.1")
5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)
Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

- 1 High-performance Fanless Systems
- 2 AI Computing Systems
- 3 10GiE Embedded Systems
- 4 Expandable Embedded Systems
- 5 Ultra-compact Fanless Systems
- 6 Rackmount Systems
- 7 Industrial Multi-Touch Computers/Displays
- 8 Industrial Motherboards
- 9 COM Express
- 10 Embedded Peripherals

Expandable Embedded Systems

Series		RCX-1000F			
Model No.		RCX-1430FR	RCX-1430F	RCX-1421FR	RCX-1421F
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	NA	NA	NA	NA
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
Storage	SATA III	4	4	4	4
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	PCIe	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4, 1 PCIe x1	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4
	PCI	NA	NA	1 PCI	1 PCI
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SIM Card	2 (External)	2 (External)	2 (External)	2 (External)
Power	SUMIT	NA	NA	NA	NA
	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	Yes	Yes	Yes
Remote Switch	Yes	Yes	Yes	Yes	
Dimensions (W x L x H)	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	
Weight	5.3 kg (11.7 lb)	4.9 kg (10.8 lb)	5.3 kg (11.7 lb)	4.9 kg (10.8 lb)	
Mounting	Wallmount	Wallmount	Wallmount	Wallmount	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	
Shock	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

		RCX-1000	
RCX-1412FR	RCX-1412F	RCX-1440R	RCX-1440
			
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
Intel® C246	Intel® C246	Intel® C246	Intel® C246
AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA
1	1	1	1
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
2	2	2	2
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
6 (External)	6 (External)	6 (External)	6 (External)
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
2	2	2	2
NA	NA	NA	NA
NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
4	4	4	4
NA	NA	NA	NA
NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242
NA	NA	NA	NA
2	2	2	2
1 PCIe x16	1 PCIe x16	1 PCIe x8, 3 PCIe x4	1 PCIe x8, 3 PCIe x4
2 PCI	2 PCI	NA	NA
1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
2 (External)	2 (External)	2 (External)	2 (External)
NA	NA	NA	NA
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 330 x 210 mm (6.8" x 13" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")
5.3 kg (11.7 lb)	4.9 kg (10.8 lb)	5 kg (11 lb)	4.6 kg (10.1 lb)
Wallmount	Wallmount	Wallmount	Wallmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance Fanless Systems

2
AI Computing Systems

3
10GiE Embedded Systems

4
Expandable Embedded Systems

5
Ultra-compact Fanless Systems

6
Rackmount Systems





7
Industrial Multi-Touch Computers/Displays






8
Industrial Motherboards

9
COM Express

10
Embedded Peripherals





Expandable Embedded Systems






Series		RCX-1000			
Model No.		RCX-1422R	RCX-1422	RCX-1404R	RCX-1404
Product Image					
System	CPU	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)
	Chipset	Intel® C246	Intel® C246	Intel® C246	Intel® C246
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz
	Memory Capacity	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM
	Graphics	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	1	1	1	1
	DVI-D	NA	NA	NA	NA
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485
	USB 3.0/3.1/3.2	6 (External)	6 (External)	6 (External)	6 (External)
	USB 2.0	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
	GigE LAN	2	2	2	2
	PoE LAN	NA	NA	NA	NA
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)
	Others	4 SSD/HDD Tray (External)	NA	4 SSD/HDD Tray (External)	NA
Storage	SATA III	4	4	4	4
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)
	M.2	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242
	Micro SD	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	2	2
	PCIe	1 PCIe x16, 1 PCIe x4	1 PCIe x16, 1 PCIe x4	NA	NA
	PCI	2 PCI	2 PCI	4 PCI	4 PCI
	M.2	1 Key E 2230	1 Key E 2230	1 Key E 2230	1 Key E 2230
	SIM Card	2 (External)	2 (External)	2 (External)	2 (External)
	SUMIT	NA	NA	NA	NA
Power	Input	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	172 x 250 x 210 mm (6.8" x 9.8" x 8.3")	
Weight	5 kg (11 lb)	4.6 kg (10.1 lb)	5 kg (11 lb)	4.6 kg (10.1 lb)	
Mounting	Wallmount	Wallmount	Wallmount	Wallmount	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	
Shock	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

			SEC-2000	
RCX-1220A	RCX-1220	RCX-1211	SEC-2220	SEC-2211
				
Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel Atom® x7-E3950 (APL-I)	Intel Atom® x7-E3950 (APL-I)
Intel® C246	Intel® C246	Intel® C246	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz
Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 128GB, 4 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	Intel® HD 505	Intel® HD 505
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I210	Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	1	1
1	1	1	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	1	1
NA	NA	NA	NA	NA
2	2	2	NA	NA
4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485 (2 w/Isolated)	4 RS-232/422/485 (2 w/Isolated)
6 (External)	6 (External)	6 (External)	2 (External)	2 (External)
1 (Internal)	1 (Internal)	1 (Internal)	4 (2 External, 2 Internal)	4 (2 External, 2 Internal)
2	2	2	2 (IEEE 1588)	2 (IEEE 1588)
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	16 GPIO	16 GPIO
32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	NA	NA
NA	NA	NA	NA	NA
4	4	4	1	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
2 (Mini PCIe)	2 (Mini PCIe)	2 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	1 Key M 2280/2260/2242	NA	NA
NA	NA	NA	NA	NA
2	2	2	2	2
2 PCIe x8	1 PCIe x16, 1 PCIe x4	1 PCIe x16	2 PCIe x1	1 PCIe x1
NA	NA	1 PCI	NA	1 PCI
1 Key E 2230	1 Key E 2230	1 Key E 2230	NA	NA
2 (External)	2 (External)	2 (External)	1 (Internal)	1 (Internal)
NA	NA	NA	NA	NA
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 12V	DC-in 12V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes	Yes	Yes	NA	NA
Yes	Yes	Yes	Yes	Yes
131 x 250 x 210 mm (5.2" x 9.8" x 8.3")	131 x 250 x 210 mm (5.2" x 9.8" x 8.3")	131 x 250 x 210 mm (5.2" x 9.8" x 8.3")	125 x 210 x 160 mm (4.9" x 8.3" x 6.3")	125 x 210 x 160 mm (4.9" x 8.3" x 6.3")
4.3 kg (9.5 lb)	4.3 kg (9.5 lb)	4.3 kg (9.5 lb)	3.5 kg (7.7 lb)	3.5 kg (7.7 lb)
Wallmount	Wallmount	Wallmount	Wallmount	Wallmount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

- 1** High-performance Fanless Systems
- 2** AI Computing Systems
- 3** 10GiGE Embedded Systems
- 4** Expandable Embedded Systems
- 5** Ultra-compact Fanless Systems
- 6** Rackmount Systems
- 7** Industrial Multi-Touch Computers/Displays
- 8** Industrial Motherboards
- 9** COM Express
- 10** Embedded Peripherals

Ultra-compact Fanless Systems

Series		SPC-7000			
Model No.		SPC-7000	SPC-7100	SPC-7200	SPC-7000W
Product Image					
System	CPU	Intel® Core™ i7-1185G7E/i5-1145G7E	Intel® Core™ i7-1185G7E/i5-1145G7E	Intel® Core™ i7-1185G7E/i5-1145G7E	Intel® Core™ i7-1185G7E/i5-1145G7E
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
	Graphics/AI Accelerator	Intel® Iris® X ^e Graphics	Intel® Iris® X ^e Graphics	Intel® Iris® X ^e Graphics	Intel® Iris® X ^e Graphics
	Ethernet	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225	Intel® I219LM, Intel® I225
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	NA	NA
	DVI-I	NA	NA	NA	NA
	DVI-D	NA	NA	NA	NA
	HDMI	NA	NA	NA	NA
	LVDS	NA	NA	NA	NA
	DisplayPort	2	2	2	2
	eDP	NA	NA	NA	NA
I/O Interface	Serial	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485
	USB 3.0/3.1/3.2	2 (External)	2 (External)	2(External)	2(External)
	USB 2.0	4 (2 External, 2 Internal)	4 (2 External, 2 Internal)	4 (2 External, 2 Internal)	4 (2 External, 2 Internal)
	GigE LAN	2 (1-port 2.5G)	2 (1-port 2.5G)	2 (1-port 2.5G)	2 (1-port 2.5G)
	PoE LAN	NA	NA	NA	NA
	M12	NA	NA	NA	NA
	Audio	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	NA	NA	NA	NA
	Others	NA	NA	NA	NA
Storage	SATA III	1	1	1	1
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	NA	NA	NA	NA
	M.2	1 M.2 Key B 2260/2242	1 M.2 Key B 2260/2242	1 M.2 Key B 2260/2242	1 M.2 Key B 2260/2242
Expansion	Mini PCIe	NA	NA	NA	NA
	PCIe	NA	NA	NA	NA
	PCI	NA	NA	NA	NA
	SIM Card	1 (External)	1 (External)	1 (External)	1 (External)
	M.2	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230
	SUMIT	2 (Optional)	2 (Optional)	2 (Optional)	2 (Optional)
Power	Input	DC-in 9V to 55V	DC-in 9V to 55V	DC-in 9V to 55V	DC-in 16V to 160V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	Yes	Yes	Yes
	Remote Switch	Yes	Yes	Yes	Yes
Dimensions (W x L x H)		150 x 106 x 44 mm (5.9" x 4.2" x 1.7")	150 x 106 x 57 mm (5.9" x 4.2" x 2.2")	150 x 106 x 60 mm (5.9" x 4.2" x 2.4")	150 x 106 x 81 mm (5.9" x 4.2" x 1.8")
Weight		0.9 kg (2.0 lb)	1.3 kg (2.9 lb)	1.4 kg (3.1 lb)	1.3 kg (2.87 lb)
Mounting		Wallmount, VESA Mount	Wallmount, VESA Mount	Wallmount, VESA Mount, DIN Rail	Wallmount, VESA Mount, DIN Rail
Operating Temperature		-40°C to 65°C (-40°F to 149°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 70°C (-40°F to 158°F)	-25°C to 65°C (-13°F to 149°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
Certification		CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

ABP-3000		SPC-5000		
ABP-3000 AI	ABP-3000	SPC-5000	SPC-5100	SPC-5200
				
Intel® Core™ i7-8665UE/ i3-8145UE	Intel® Core™ i7-8665UE/ i3-8145UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE
Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
- Intel® UHD 620 - Hailo-8™	Intel® UHD 620	Intel® UHD 620	Intel® UHD 620	Intel® UHD 620
Intel® I350	Intel® I350	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	1	1	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
2	2	1	1	1
NA	NA	NA	NA	NA
4 RS-232/422/485	4 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	4 RS-232/422/485
4 (External)	4 (External)	4 (External)	4 (External)	4 (External)
NA	NA	NA	NA	NA
4 (2 w/PoE*)	4 (2 w/PoE*)	2	2	4 (2 w/PoE*)
2 (IEEE 802.3at)	2 (IEEE 802.3at)	NA	NA	2 (IEEE 802.3at)
NA	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
NA	NA	NA	NA	NA
16 (8 DI, 8 DO)	16 (8 DI, 8 DO)	NA	NA	16 (8 DI, 8 DO)
NA	NA	NA	NA	NA
NA	NA	1	1	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
1 Key B 2280	- 1 Key B 2280 - 1 Key M 2280	NA	NA	NA
1	1	2	2	1
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
2 (Internal)	2 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)
- 1 Key B 3042/3052 - 1 Key E 2230	- 1 Key B 3042/3052 - 1 Key E 2230	NA	NA	NA
NA	NA	2 (Optional)	2 (Optional)	NA
DC-in 9V to 50V	DC-in 9V to 50V	DC-in 9V to 48V	DC-in 9V to 48V	DC-in 9V to 48V
Mini-DIN	Mini-DIN	Terminal Block	Terminal Block	Terminal Block
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
224 x 149 x 33 mm (8.8" x 5.9" x 1.3")	224 x 149 x 33 mm (8.8" x 5.9" x 1.3")	150 x 106 x 44 mm (5.9" x 4.2" x 1.7")	150 x 106 x 62 mm (5.9" x 4.2" x 2.4")	227 x 106 x 44 mm (9.0" x 4.2" x 1.7")
1.4 kg (3.1 lb)	1.4 kg (3.1 lb)	0.9 kg (2.0 lb)	1.3 kg (2.9 lb)	1.0 kg (2.2 lb)
Wallmount	Wallmount	Wallmount, VESA Mount	Wallmount, VESA Mount	Wallmount, VESA Mount
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 70°C (-40°F to 158°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
AI Computing
Systems

3
10GiE
Embedded
Systems

4
Expandable
Embedded
Systems

5
Ultra-compact
Fanless Systems

6
Rackmount
Systems





7
Industrial Multi-
Touch Computers/
Displays







8
Industrial
Motherboards

9
COM
Express

10
Embedded
Peripherals

Ultra-compact Fanless Systems

Series		RES-3000	ARS-2000			
Model No.		RES-3000	ARS-2010M	ARS-2010	ARS-2001M	
Product Image						
System	CPU	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC	
	BIOS	AMI	AMI	AMI	AMI	
	Memory Type	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz	
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	
	Graphics/ AI Accelerator	Intel® UHD 620	Intel® HD 620/520	Intel® HD 620/520	Intel® HD 620/520	
	Ethernet	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	
	Audio	NA	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E	
	OS Support	Windows 10, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	
Display I/O	VGA	NA	NA	NA	NA	
	DVI-I	NA	1	1	1	
	DVI-D	1	1	1	1	
	HDMI	NA	NA	NA	NA	
	LVDS	NA	NA	NA	NA	
	DisplayPort	NA	NA	NA	NA	
	eDP	NA	NA	NA	NA	
I/O Interface	Serial	2 RS-232/422/485	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)	
	USB 3.0/3.1/3.2	NA	4 (External)	4 (External)	4 (External)	
	USB 2.0	2	NA	NA	NA	
	GigE LAN	2	3 (2 w/PoE*)	3 (2 w/PoE*)	3 (2 w/PoE*)	
	PoE LAN	NA	2 (IEEE 802.3at)	2 (IEEE 802.3at)	2 (IEEE 802.3at)	
	M12	6 (2 COM, 2 LAN, 1 USB, 1 Power)	2 (PoE*)	NA	2 (PoE*)	
	Audio	NA	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	
	GPIO	NA	NA	NA	NA	
	Isolated DIO	NA	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	32 (16 DI, 16 DO)	
	Others	NA	NA	NA	NA	
Storage	SATA III	1	2	2	2	
	SATA II	NA	NA	NA	NA	
	CFast	NA	1	1	1	
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	
	M.2	NA	NA	NA	NA	
	Mini PCIe	NA	2	2	2	
	PCIe	NA	1 PCIe x4	1 PCIe x4	NA	
Expansion	PCI	NA	NA	NA	1 PCI	
	SIM Card	NA	1 (External)	1 (External)	1 (External)	
	M.2	NA	NA	NA	NA	
	SUMIT	NA	NA	NA	NA	
	Power	Input	DC-in 9V to 48V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V
		Connector	M12	Terminal Block	Terminal Block	Terminal Block
Ignition Control		NA	Yes	Yes	Yes	
Remote Switch		NA	Yes	Yes	Yes	
Dimensions (W x L x H)	250 x 180 x 44 mm (9.8" x 7.1" x 1.7")	186 x 147 x 82 mm (7.3" x 5.8" x 3.2")	186 x 147 x 82 mm (7.3" x 5.8" x 3.2")	186 x 147 x 82 mm (7.3" x 5.8" x 3.2")		
Weight	2.3 kg (5.1 lb)	2.2 kg (4.9 lb)	2.2 kg (4.9 lb)	2.2 kg (4.9 lb)		
Mounting	Wallmount, VESA Mount	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail		
Operating Temperature	-30°C to 70°C (-22°F to 158°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)		
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)		
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing		
Vibration	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64		
Shock	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27		
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2		

			SPC-6000	ESP-1000	PBC-1000
ARS-2001	ARS-2000ML	ARS-2000L	SPC-6000	ESP-1000	PBC-1000
					
Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	Intel® Core™ i7-7600U/ i7-6600U/i5-6300U/ Celeron® 3955U	Intel Atom® x6425RE	Intel Atom® x6425RE	Intel Atom® x6211E
Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
AMI	AMI	AMI	AMI	AMI	AMI
260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 2133MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz
Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
Intel® HD 620/520	Intel® HD 620/520	Intel® HD 620/520	Intel® UHD Graphics for 10th Gen Intel® Processors	Intel® UHD Graphics for 10th Gen Intel® Processors	Intel® UHD Graphics for 10th Gen Intel® Processors
Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I210, Intel® I225	Intel® I210, Intel® I225	Realtek 8119I
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	IT8659E
Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Windows 8.1, Windows 7, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
NA	NA	NA	NA	NA	NA
1	1	1	1	1	NA
1	1	1	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	1	1	1
NA	NA	NA	NA	NA	NA
4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485 (1 w/Isolated)	4 RS-232/422/485	4 RS-232/422/485	- 1 RS-232/422/485 - 1 RS-232
4 (External)	4 (External)	4 (External)	2 (External)	2(External)	2 (External)
NA	NA	NA	2 (External)	2(External)	NA
3 (2 w/PoE*)	3 (2 w/PoE*)	3 (2 w/PoE*)	- 1 GigE LAN - 1 2.5GigE LAN	- 2 (1-port 2.5G) - 6 10/100/1000Base Switch LAN - 2 100/1000Base Switch SFP	2
2 (IEEE 802.3at)	2 (IEEE 802.3at)	2 (IEEE 802.3at)	NA	NA	NA
NA	2 (PoE*)	NA	NA	NA	NA
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Line-out	1 Line-out	NA
NA	32 GPIO (External)	32 GPIO (External)	NA	NA	NA
32 (16 DI, 16 DO)	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
2	2	2	NA	NA	1
NA	NA	NA	NA	NA	NA
1	1	1	NA	NA	NA
1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	NA	NA	NA
NA	NA	NA	1 Key M 2280	1 Key M 2280	1 M.2 Key B 2280 (shared)
2	2	2	NA	NA	NA
NA	NA	NA	NA	NA	NA
1 PCI	NA	NA	NA	NA	NA
1 (External)	1 (External)	1 (External)	1 (External)	NA	1 (Internal)
NA	NA	NA	- 1 Key B 3042/3052 - 1 Key E 2230	1 Key E 2230	- 1 Key B 3052 (shared) - 1 Key E 2230
NA	NA	NA	NA	NA	NA
DC-in 6V to 36V	DC-in 6V to 36V	DC-in 6V to 36V	DC-in 12V	DC-in 9V to 55V	DC-in 12V
Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block	Terminal Block
Yes	Yes	Yes	Yes (SW IGN)	Yes(SW IGN)	NA
Yes	Yes	Yes	NA	NA	NA
186 x 147 x 82 mm (7.3" x 5.8" x 3.2")	186 x 147 x 54 mm (7.3" x 5.8" x 2.1")	186 x 147 x 54 mm (7.3" x 5.8" x 2.1")	106.2 x 150.4 x 66.0 mm (4.2" x 5.9" x 2.6")	254 x 216 x 375 mm (10.0" x 8.5" x 14.8")	126 x 79 x 33 mm (5.0" x 3.1" x 1.3")
2.2 kg (4.9 lb)	1.8 kg (4 lb)	1.8 kg (4 lb)	1.4 kg (3.1 lb)	1.9 kg (4.19 lb)	0.7 kg (1.5 lb)
Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, DIN Rail	Wallmount, VESA Mount
-40°C to 75°C (-40°F to 167°F)	-40°C to 70°C (-40°F to 158°F)	-25°C to 70°C (-13°F to 158°F)	-40°C to 70°C (-40°F to 157°F)	-25°C to 60°C (-13°F to 147°F)	-40°C to 75°C (-40°F to 167°F)
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-25°C to 85°C (-13°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2

1
High-performance
Fanless Systems

2
AI Computing
Systems

3
10GigE
Embedded
Systems

4
Expandable
Embedded
Systems

5
Ultra-compact
Fanless Systems

6
Rackmount
Systems





7
Industrial Multi-
Touch Computers/
Displays

8
Industrial
Motherboards






9
COM
Express

10
Embedded
Peripherals

Ultra-compact Fanless Systems

Series		SPC-4000			
Model No.		SPC-4600	SPC-4500	SPC-4020A	SPC-4020
Product Image					
System	CPU	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz
	Memory Capacity	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
	Graphics/AI Accelerator	Intel® HD 505	Intel® HD 505	Intel® HD 505	Intel® HD 505
	Ethernet	Intel® I210	Intel® I210	Intel® I210	Intel® I210
	Audio	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Super I/O	IT8786E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display I/O	VGA	NA	NA	1	1
	DVI-I	1	1	NA	NA
	DVI-D	NA	NA	NA	NA
	HDMI	NA	NA	1 (Lockable)	1 (Lockable)
	LVDS	NA	NA	NA	NA
	DisplayPort	1	1	NA	NA
	eDP	NA	NA	NA	NA
I/O Interface	Serial	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485 (2 w/Isolated)	4 RS-232/422/485 (2 w/Isolated)
	USB 3.0/3.1/3.2	4 (External)	4 (External)	2 (External)	2 (External)
	USB 2.0	NA	NA	2 (External) 2 (Internal)	2 (External) 2 (Internal)
	GigE LAN	2 (2 w/PoE+, IEEE 1588)	2 (IEEE 1588)	2 (IEEE 1588)	2 (IEEE 1588)
	PoE LAN	2 (IEEE 802.3at)	NA	NA	NA
	M12	NA	NA	NA	NA
	Audio	1 Line-out	1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
	GPIO	NA	NA	NA	NA
	Isolated DIO	16 (8 DI, 8 DO)	NA	16 (8 DI, 8 DO)	16 (8 DI, 8 DO)
	Others	NA	NA	NA	NA
Storage	SATA III	1	1	1	1
	SATA II	NA	NA	NA	NA
	CFast	NA	NA	NA	NA
	mSATA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	NA	NA	NA	NA
Expansion	Mini PCIe	2	2	3	3
	PCIe	NA	NA	NA	NA
	PCI	NA	NA	NA	NA
	SIM Card	1 (External)	1 (External)	1 (External)	1 (External)
	M.2	NA	NA	1 (Key B)	1 (Key B)
Power	SUMIT	NA	NA	NA	NA
	Input	DC-in 9V to 36V	DC-in 12V	DC-in 9V to 36V	DC-in 12V
	Connector	Terminal Block	Terminal Block	Terminal Block	Terminal Block
	Ignition Control	Yes	NA	NA	NA
Power	Remote Switch	Yes	NA	Yes	Yes
	Dimensions (W x L x H)	106 x 150 x 63 mm (4.2" x 5.9" x 2.5")	106 x 150 x 59 mm (4.2" x 5.9" x 2.3")	155 x 111 x 84 mm (6.1" x 4.4" x 3.3")	155 x 111 x 68 mm (6.1" x 4.4" x 2.7")
Weight	1.2 kg (2.65 lb)	0.9 kg (2.0 lb)	1.1 kg (2.43 lb)	1.1 kg (2.43 lb)	
Mounting	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail, 2U Rackmount	Wallmount, DIN Rail	Wallmount, DIN Rail	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
Humidity	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
Vibration	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	
Shock	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	
Certification	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

Rackmount Systems

		RMS-2000		RMS-1000	
SPC-4010	SPC-4010C	RMS-2000-G2	RMS-1000	RMS-1100	
					
Intel Atom® x7-E3950	Intel Atom® x5-E3930	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Core™ i7-8665UE	Intel® Core™ i7-8665UE	
Intel® SoC	Intel® SoC	Intel® C246	Intel® SoC	Intel® SoC	
AMI	AMI	AMI	AMI	AMI	
204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	
Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 128GB, 4 UDIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	
Intel® HD 505	Intel® HD 500	Intel® UHD 630	Intel® UHD 620	Intel® UHD 620	
Intel® I210	Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	Intel® I219LM, Intel® I210	
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	
1	1	1	NA	NA	
NA	NA	NA	NA	NA	
NA	NA	NA	1	1	
1 (Lockable)	1 (Lockable)	1	NA	NA	
NA	NA	NA	NA	NA	
NA	NA	1	1	1	
NA	NA	NA	NA	NA	
2 RS-232/422/485 (Isolated)	2 RS-232/422/485	1 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	
2 (External)	2 (External)	4 (External)	4 (External)	4 (External)	
2 (External) 2 (Internal)	2 (External) 2 (Internal)	2 (External)	NA	NA	
2 (IEEE 1588)	2 (IEEE 1588)	4	8 (6 X-coded M12)	8 (6 X-coded M12)	
NA	NA	NA	NA	NA	
NA	NA	NA	6 (X-coded)	6 (X-coded)	
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	
NA	NA	NA	NA	NA	
NA	NA	NA	NA	NA	
NA	NA	8 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	2 SSD/HDD Tray (External)	
1	1	8	2	2	
NA	NA	NA	NA	NA	
NA	NA	NA	NA	NA	
1 (Mini PCIe)	1 (Mini PCIe)	NA	1 (Mini PCIe)	1 (Mini PCIe)	
NA	NA	NA	NA	NA	
2	2	NA	2	2	
NA	NA	NA	NA	NA	
NA	NA	NA	NA	NA	
1 (External)	1 (External)	NA	1 (Internal)	1 (Internal)	
NA	NA	1 Key M 2280	NA	NA	
NA	NA	NA	NA	NA	
DC-in 12V	DC-in 12V	AC-in 115V to 230V	DC-in 9V to 48V	DC-in 16V to 160V (w/4kV Isolation)	
Terminal Block	Terminal Block	3 Square Pin Plug	Terminal Block	Terminal Block	
NA	NA	NA	Yes	Yes	
Yes	Yes	NA	Yes	Yes	
155 x 111 x 44 mm (6.1" x 4.4" x 1.7")	155 x 111 x 44 mm (6.1" x 4.4" x 1.7")	437 x 533 x 89 mm (17.2" x 21.0" x 3.5")	483 x 301 x 44 mm (19.0" x 11.9" x 1.7")	483 x 301 x 44 mm (19.0" x 11.9" x 1.7")	
0.8 kg (1.84 lb)	0.8 kg (1.84 lb)	20.0 kg (44.10 lb)	4.0 kg (8.8 lb)	4.0 kg (8.8 lb)	
Wallmount, DIN Rail	Wallmount, DIN Rail	Rackmount	Rackmount	Rackmount	
-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	0°C to 40°C (32°F to 104°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 55°C (-40°F to 131°F)	
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-20°C to 75°C (-4°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64, IEC 61373	IEC 60068-2-64, IEC 61373	
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27, IEC 61373	IEC 60068-2-27, IEC 61373	
CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	CE, FCC	CE, FCC, EN50155, EN50121-3-2	CE, FCC, EN50155, EN50121-3-2	

1
High-performance
Fanless Systems

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AI Computing
Systems

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10GiE
Embedded
Systems

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Expandable
Embedded
Systems

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Ultra-compact
Fanless Systems

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Rackmount
Systems





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Industrial Multi-
Touch Computers/
Displays






8
Industrial
Motherboards

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COM
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10
Embedded
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Industrial Multi-Touch Computers

Series		MTC-9000	MTC-7000		
Model No.		MTC-9021W	MTC-7021W	MTC-7015W	MTC-7015
Product Image					
Panel	LCD Size	21.5" (16 : 9)	21.5" (16 : 9)	15.6" (16 : 9)	15.6" (4 : 3)
	Max Resolution	1920 x 1080 (Full HD)	1920 x 1080 (Full HD)	1366 x 768 (WXGA)	1024 x 768 (XGA)
	Brightness (cd/m ²)	250	250	400	250
	Contrast Ratio	3000 : 1	3000 : 1	500 : 1	700 : 1
	LCD Color	16.7M	16.7M	16.7M	16.7M
	Viewing Angle (H/V)	89/89/89/89	89/89/89/89	85/85/80/80	80/80/70/70
Touch Screen	Screen Type	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
	Touch Type	10-point	10-point	10-point	10-point
	Interface	USB	USB	USB	USB
	7H Anti-scratch	Yes	Yes	Yes	Yes
System	CPU	Intel® Core™ i7-1185G7E/ i5-1145G7E	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2400MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
	Display	2 DisplayPort	1 DVI-D, 1 DisplayPort	1 DVI-D, 1 DisplayPort	1 DVI-D, 1 DisplayPort
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Storage	SATA III	1	1	1	1
	CFast	NA	NA	NA	NA
	mSATA	NA	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)
External I/O	Serial	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485
	USB 3.0	2	4	4	4
	USB 2.0	2	NA	NA	NA
	GigE LAN	2 (1-port 2.5G)	2	2	2
	PoE LAN	NA	NA	NA	NA
	Audio	NA	NA	NA	NA
	Isolated DIO	NA	NA	NA	NA
	GPIO	NA	NA	NA	NA
Others	2.5" SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	
Expansion	Mini PCIe	NA	2	2	2
	SIM Card	1	1 (Internal)	1 (Internal)	1 (Internal)
Power	Input	DC-in 9-55V	DC-in 9V to 48V	DC-in 9V to 48V	DC-in 9V to 48V
	Ignition Control	Yes (SW IGN)	NA	NA	NA
	Remote Switch	Yes	NA	NA	NA
Dimensions (W x H x L)		537 x 329 x 77.1 mm (21.2" x 12.9" x 3.1")	538 x 329 x 77 mm (21.2" x 13.0" x 3.0")	392 x 242 x 66 mm (15.4" x 9.5" x 2.6")	361 x 278 x 77 mm (14.2" x 10.9" x 3.0")
Weight		6.35 kg (13.99 lb)	6.35 kg (13.99 lb)	3.6 kg (7.94 lb)	4.1 kg (9.04 lb)
Front Panel Protection		IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant
Mounting		VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount
Operating Temperature		-5°C to 55°C (-23°F to 131°F)	-5°C to 55°C (-23°F to 131°F)	-5°C to 55°C (-23°F to 131°F)	-5°C to 55°C (-23°F to 131°F)
Storage Temperature		-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
EMC		CE, FCC	CE, FCC	CE, FCC	CE, FCC

		MTC-8000				
MTC-7010W	MTC-8021W	MTC-8015W	MTC-8015	MTC-8010W		
						
10.1" (16 : 10)	21.5" (16 : 9)	15.6" (16 : 9)	15" (4 : 3)	10.1" (16 : 10)		
1280 x 800 (WSVGA)	1920 x 1080 (Full HD)	1366 x 768 (WXGA)	1024 x 768 (XGA)	1280 x 800 (WSVGA)		
300	250	400	250	300		
1300 : 1	3000 : 1	500 : 1	700 : 1	1300 : 1		
262K	16.7M	16.7M	16.7M	262K		
85/85/85/85	89/89/89/89	85/85/80/80	80/80/70/70	85/85/85/85		
Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive		
10-point	10-point	10-point	10-point	10-point		
USB	USB	USB	USB	USB		
Yes	Yes	Yes	Yes	Yes		
Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950	Intel Atom® x7-E3950		
260-pin SO-DIMM, DDR4 2400MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz	204-pin SO-DIMM, DDR3L 1866MHz		
Max 32GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM		
1 DVI-D, 1 DisplayPort	1 VGA, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI		
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux		
1	1	1	1	1		
NA	NA	NA	NA	NA		
1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)	1 (Full-size Mini PCIe)		
2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485	2 RS-232/422/485		
4	2	2	2	2		
NA	2	2	2	2		
2	2	2	2	2		
NA	NA	NA	NA	NA		
NA	NA	NA	NA	NA		
NA	NA	NA	NA	NA		
NA	NA	NA	NA	NA		
1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)	1 SSD/HDD Kit (External)		
2	2	2	2	2		
1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)	1 (Internal)		
DC-in 9V to 48V	DC-in 9V to 36V	DC-in 9V to 36V	DC-in 9V to 36V	DC-in 9V to 36V		
NA	NA	NA	NA	NA		
NA	NA	NA	NA	NA		
256.5 x 178.3 x 69.1 mm (10.1" x 7.0" x 2.7")	538 x 329 x 77 mm (21.2" x 13" x 3.0")	392 x 242 x 66 mm (15.4" x 9.5" x 2.6")	361 x 278 x 77 mm (14.2" x 10.9" x 3.0")	256.5 x 178.3 x 69.1 mm (10.1" x 7.0" x 2.7")		
1.85 kg (4.08 lb)	6.35 kg (13.99 lb)	3.6 kg (7.94 lb)	4.1 kg (9.04 lb)	1.85 kg (4.08 lb)		
IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant		
VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount		
-5°C to 55°C (-23°F to 131°F)	-10°C to 60°C (-14°F to 140°F)	-10°C to 60°C (-14°F to 140°F)	-10°C to 60°C (-14°F to 140°F)	-10°C to 60°C (-14°F to 140°F)		
-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)		
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing		
IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64		
IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27		
CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC		

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High-performance
Fanless Systems

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AI Computing
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10GigE
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Industrial Multi-Touch Computers





Series		MTC-1000	STC-6000
Model No.		MTC-1010W	STC-6015
Product Image			
Panel	LCD Size	10.1" (16 : 10)	15" (4 : 3)
	Max Resolution	1280 x 800 (WSVGA)	1024 x 768
	Brightness (cd/m ²)	350	250
	Contrast Ratio	800:1	700 : 1
	LCD Color	16.7M	262k
	Viewing Angle (H/V)	85/85/85/85	80/80/70/70
Touch Screen	Screen Type	Projected Capacitive	Projected Capacitive
	Touch Type	10-point	10-point
	Interface	USB	USB
	7H Anti-scratch	Yes	Yes
System	CPU	Intel Atom® x7-E3950	Intel® Core™ i7-6600U
	Memory Type	204-pin SO-DIMM, DDR3L 1866MHz	260-pin SO-DIMM, DDR4 2133
	Memory Capacity	Max 8GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM
	Display	1 VGA, 1 HDMI	NA
	OS Support	Windows 10, Linux	Windows 10, Linux
Storage	SATA III	1	1
	CFast	NA	NA
	mSATA	1 (Full-size Mini PCIe)	1
External I/O	Serial	1 RS-232/422/485	2 RS-232/422/485
	USB 3.0	2	NA
	USB 2.0	2	1 2-port M12 A-coded
	GigE LAN	2	1 2-port M12 X-coded
	PoE LAN	NA	NA
	Audio	NA	NA
	Isolated DIO	NA	NA
	GPIO	NA	NA
	Others	1 SSD/HDD Kit (External)	2.5" SSD/HDD Kit (External)
Expansion	Mini PCIe	2	2
	SIM Card	1 (Internal)	2
Power	Input	DC-in 9V to 36V	DC-in 9-36V
	Ignition Control	NA	Yes
	Remote Switch	NA	Yes
Dimensions (W x H x L)		256.5 x 178.3 x 47.1mm (10.1" x 7.0" x 1.9")	386 x 320 x 72.3 mm (15.2" x 12.6" x 2.85")
Weight		1.5 kg (3.31 lb)	9 kg (19.8 lb)
Front Panel Protection		N/A	IP66 Compliant
Mounting		VESA Mount, Panel Mount	VESA Mount, Panel Mount
Operating Temperature		-20°C to 60°C (-4°F to 140°F)	-5°C to 55°C (-23°F to 131°F)
Storage Temperature		-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Humidity		5% to 95%, non-condensing	10% to 90%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27
EMC		CE, FCC	CE, FCC

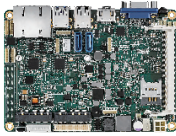
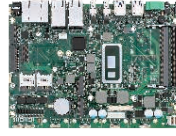



Industrial Multi-Touch Displays

Series		MTD-6000				
Model No.		MTD-6024	MTD-6021	MTD-6019	MTD-6017	MTD-6015
Product Image						
Panel	LCD Size	24" (16 : 9)	21.5" (16 : 9)	19" (4 : 3)	17" (4 : 3)	15" (4 : 3)
	Max Resolution	1920 x 1080 (Full HD)	1920 x 1080 (Full HD)	1280 x 1024 (SXGA)	1280 x 1024	1024 x 768 (XGA)
	Brightness (cd/m ²)	250	250	250	250	250
	Contrast Ratio	3000 : 1	3000 : 1	1,000 : 1	1,000 : 1	600 : 1
	LCD Color	16.7M	16.7M	16.7M	16.7M	16.7M
	Viewing Angle (H/V)	89/89/89/89	89/89/89/89	85/85/80/80	85/85/80/80	80/80/70/70
Touch Screen	Screen Type	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive
	Touch Type	10-point	10-point	10-point	10-point	10-point
	Interface	USB	USB	USB	USB	USB
	7H Anti-scratch	Yes	Yes	Yes	Yes	Yes
System	CPU	NA	NA	NA	NA	NA
	Memory Type	NA	NA	NA	NA	NA
	Memory Capacity	NA	NA	NA	NA	NA
	Display	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D	1 VGA, 1 DVI-D
	OS Support	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux	Windows 10, Windows 7, Linux
Storage	SATA III	NA	NA	NA	NA	NA
	CFast	NA	NA	NA	NA	NA
	mSATA	NA	NA	NA	NA	NA
External I/O	Serial	NA	NA	NA	NA	NA
	USB 3.0	NA	NA	NA	NA	NA
	USB 2.0	NA	NA	NA	NA	NA
	GigE LAN	NA	NA	NA	NA	NA
	PoE LAN	NA	NA	NA	NA	NA
	Audio	Mic-in	Mic-in	Mic-in	Mic-in	Mic-in
	Isolated DIO	NA	NA	NA	NA	NA
	GPIO	NA	NA	NA	NA	NA
Expansion	Others	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch	Internal speakers Type A USB for enable touch
	Mini PCIe	NA	NA	NA	NA	NA
	SIM Card	NA	NA	NA	NA	NA
Power	Input	DC-in 12V	DC-in 12V	DC-in 12V	DC-in 12V	DC-in 12V
	Ignition Control	NA	NA	NA	NA	NA
	Remote Switch	NA	NA	NA	NA	NA
Dimensions (W x H x L)		576.9 x 345.9 x 54 mm (22.7" x 13.6" x 2.1")	360.9 x 277.8 x 54 mm (14.2" x 10.9" x 2.1")	425.5 x 350.5 x 54 mm (16.7" x 13.8" x 2.1")	392.4 x 324.7 x 54 mm (15.4" x 12.7" x 2.1")	360.9 x 277.8 x 54 mm (14.2" x 10.9" x 2.1")
Weight		8.3 kg(18.30lb)	5.8 kg (12.79 lb)	5.5 kg (12.13 lb)	4.7 kg (10.36 lb)	3.5 kg (7.72 lb)
Front Panel Protection		IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant	IP65 Compliant
Mounting		VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount, Panel Mount
Operating Temperature		0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Storage Temperature		-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Humidity		5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing	5% to 90%, non-condensing
Vibration		IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64	IEC 60068-2-64
Shock		IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27	IEC 60068-2-27
EMC		CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

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- 2 AI Computing Systems
- 3 10GigE Embedded Systems
- 4 Expandable Embedded Systems
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- 6 Rackmount Systems
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Industrial Motherboards

Series		Pico-ITX	3.5" Single Board Computer		
Model No.		EPBC-1000	EMBC-5000	EMBC-3000	EMBC-2000
Product Image					
System	CPU	Intel Atom® x6211E	Intel® Core™ i7-1185G7E/ i5-1145G7E	Intel® Core™ i7-8665UE/ i5-8365UE/i3-8145UE/ Celeron® 4305UE	Intel® Atom® x7-E3950
	Chipset	Intel® SoC	Intel® SoC	Intel® SoC	Intel® SoC
	BIOS	AMI	AMI	AMI	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 3200MHz	260-pin SO-DIMM, DDR4 2400MHz	204-pin SO-DIMM, DDR3L 1866MHz
	Memory Capacity	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 32GB, 1 SO-DIMM	Max 8GB, 1 SO-DIMM
	Super I/O	IT8659E	IT8786E	IT8786E	IT8786E
	OS Support	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux
Display	Graphics Engine	Intel® UHD Graphics for 10th Gen Intel® Processors	Intel® Iris®X ^e Graphics	Intel® UHD 620	Intel® HD 505
	4K Resolution	Yes	Yes	Yes	Yes
	VGA	NA	NA	NA	1
	DVI-D	NA	1	1	NA
	HDMI	NA	NA	NA	1
	LVDS	NA	1	1	1
	DisplayPort	1	1	1	NA
Ethernet	LAN 1	Realtek RTL8119I	Intel® I219LM	Intel® I219LM	Intel® I210
	LAN 2	Realtek RTL8119I	Intel® I210	Intel® I210	Intel® I210
	LAN 3	NA	NA	NA	NA
	LAN 4	NA	NA	NA	NA
	Connector	2 RJ45	2 RJ45	2 RJ45	2 RJ45
Audio	Codec	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD
	Connector	1 Mic-in and Line-out Header	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out
Storage	SATA III	1	2	2	1
	mSATA	NA	1 (Mini PCIe)	1 (Mini PCIe)	1 (Mini PCIe)
	M.2	1 M.2 Key B (2280, shared)	1 M.2 Key B 2260 Socket	NA	NA
I/O Interface	Serial	1 RS-232/422/485 1 RS-232	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485 (2 w/Isolated)
	USB 3.0/3.1/3.2	2	4	4	2
	USB 2.0	2	2	2	4
	PS2 KB/MS	NA	1	1	1
	GPIO	8 GPIO	NA	NA	16 GPIO
	Expansion	Mini PCIe	NA	2	2
PCIe Slot		NA	NA	NA	NA
PCI Slot		NA	NA	NA	NA
SIM Card		1	1	1	1
SUMIT		NA	2 (Optional)	2 (Optional)	NA
M.2		1 M.2 Key B (3052, shared) 1 M.2 Key E (2230)	1 M.2 Key B Socket (3042/3052) 1 M.2 Key E Socket (2230)	NA	NA
Power	Input	DC-in 12V	DC-in 9V to 55V	DC-in 9V to 48V	DC-in 12V (Optional 9V to 36V)
	Connector	Wafer 2-pin	ATX 4-pin	ATX 4-pin	ATX 4-pin
	Ignition	NA	Yes	Yes	NA
Dimensions (W x L)		100 x 72 mm (3.9 x 2.8")	146 x 102 mm (5.75" x 4.02")	146 x 102 mm (5.75" x 4.02")	146 x 102 mm (5.75" x 4.02")
Operating Temperature		-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 75°C (-40°F to 167°F)
Storage Temperature		-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity		5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing
Certification		CE, FCC	CE, FCC	CE, FCC	CE, FCC

	5.25" Single Board Computer				Micro-ATX
EMBC-2000C	EXBC-2000	EXBC-1000	EXBC-1100	UMBC-1100	
					
Intel® Atom® x7-E3950	Intel® Core™ i7-8665UE/ i3-8145UE	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	Intel® Xeon®/Core™ i7/i5/i3 Processor (CFL-R S/CFL-S)	
Intel® SoC	Intel® SoC	Intel® H310	Intel® C246	Intel® C246	
AMI	AMI	AMI	AMI	AMI	
204-pin SO-DIMM, DDR3L 1866MHz	260-pin SO-DIMM, DDR4 2400MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin SO-DIMM, DDR4 2666MHz	260-pin UDIMM, DDR4 2666MHz	
Max 8GB, 1 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 64GB, 2 SO-DIMM	Max 128GB, 4 UDIMM	
IT8786E	IT8786E	IT8786E	IT8786E	IT8786E	
Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	Windows 10, Linux	
Intel® HD 505	Intel® UHD 620	Intel® UHD 630	Intel® UHD 630	Intel® UHD 630	
Yes	Yes	Yes	Yes	Yes	
1	NA	NA	NA	1	
NA	NA	1	1	NA	
1	NA	NA	NA	1	
1	1	1	1	NA	
NA	2	2	2	1	
Intel® I210	Intel® I350	Intel® I219LM	Intel® I219LM	Intel® I219LM	
Intel® I210	Intel® I350	Intel® I210	Intel® I210	Intel® I211	
NA	Intel® I350 PoE+	Intel® I210	Intel® I210	Intel® I211	
NA	Intel® I350 PoE+	Intel® I210	Intel® I210	Intel® I211	
2 RJ45	4 RJ45	4 RJ45	4 RJ45	4 RJ45	
Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	Realtek ALC888S-VD	
1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	1 Mic-in, 1 Line-out	
1	NA	2	2	8	
1 (Mini PCIe)	NA	1 (Mini PCIe)	1 (Mini PCIe)	NA	
NA	- 1 Key B 2280 - 1 Key M 2280	NA	NA	NA	
2 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	4 RS-232/422/485	5 RS-232/422/485	
2	4	4	4	6	
4	NA	2	2	4	
1	NA	1	1	NA	
16 GPIO	16 GPIO	16 GPIO	16 GPIO	16 GPIO	
2	1	2	2	NA	
NA	NA	1 PCIe x16	1 (PCIe x16/PCIe x4/PCIe x1/USB 2.0)	1 PCIe x16, 2 PCIe x4	
NA	NA	NA	NA	NA	
1	2	1	1	NA	
NA	NA	NA	2 (Optional)	NA	
NA	- 1 Key B 3042/3052 - 1 Key Key E 2230	NA	NA	1 Key M 2280	
DC-in 12V (Optional 9V to 36V)	DC-in 9V to 50V	DC-in 12V	DC-in 12V	12V/5V/5VSB/3.3V	
ATX 4-pin	ATX 4-pin	ATX 4-pin	ATX 4-pin	ATX 24-pin, ATX 8-pin	
NA	Yes	NA	NA	NA	
146 x 102 mm (5.75" x 4.02")	203 x 146 mm (8.0" x 5.8")	203 x 146 mm (8.0" x 5.8")	203 x 146 mm (8.0" x 5.8")	244 x 244 mm (9.6" x 9.6")	
-40°C to 75°C (-40°F to 167°F)	-40°C to 85°C (-40°F to 185°F)	-25°C to 60°C (-13°F to 140°F)	-25°C to 60°C (-13°F to 140°F)	-0°C to 60°C (-32°F to 140°F)	
-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	
5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	5% to 95%, non-condensing	
CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	

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High-performance
Fanless Systems

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Expandable
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Fanless Systems

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Rackmount
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Industrial Multi-
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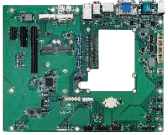
8
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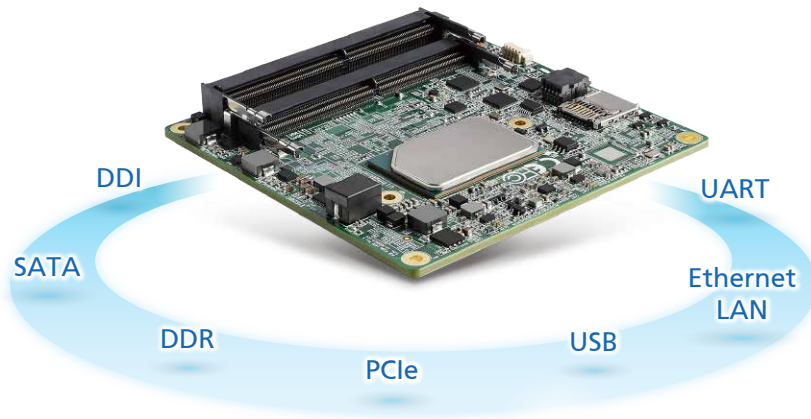
COM Express

Model No.		VCOM-1600
Product Image		
Form Factor	Module Interface	PICMG® COM Express® Revision 2.0
	Module Type	Type 6, Compact form factor
System	CPU	Intel Atom® x6000E
	Chipset	Intel® SoC
	BIOS	AMI
	Memory Type	260-pin SO-DIMM, DDR4 3200
	Memory Capacity	Max 64GB, 1 SO-DIMM
	Super I/O	IT8786E
	OS Support	Windows 10, Linux
Display	Graphics Engine	UHD Graphics
	4K Resolution	2 DDI
	VGA	1
	DVI-D	NA
	HDMI	NA
	LVDS	1
	DisplayPort	Optional
Ethernet	LAN 1	2.5G
	Connector	NA
Audio	Codec	On Carrier board
	Connector	NA
Storage	SATA III	2
	mSATA	NA
	M.2	NA
	SD Card	1
I/O Interface	Serial	2 UART
	USB 3.0/3.1/3.2	Optional 4 (to RAW C/D)
	USB 2.0	8 (to RAW A/B)
	GPIO	8 (to RAW A/B)
Expansion	Mini PCIe	NA
	PCIe Slot	- 4 PCIe x1 (configurable, to RAW A/B) - 1 PCIe x1 (to RAW A/B) - 1 PCIe x16 (to RAW C/D)
	PCI Slot	NA
Power	Input	NA
	Connector	RAW A/B/C/D
Dimensions (W x L)		95 x 95 mm (3.74" x 3.74")
Operating Temperature		-25°C to 60°C (-13°F to 147°F)
Storage Temperature		-25°C to 85°C (-13°F to 185°F)
Humidity		5% to 95%, non-condensing
Certification		CE, FCC

Model No.		VCOM-BASE
Product Image		
Form Factor	Support Core Module	PICMG® COM Express® Revision 2.0, Type 6
	Carrier Board	ATX Form Factor
Display	VGA	1
	DVI-D	1
	HDMI	NA
	LVDS	1
	DisplayPort	2
Ethernet	LAN 1	On COM module
	Connector	1
Audio	Codec	Realtek ALC888S-VD
	Connector	1 Line-in, 1 Line-out, 1 Mic-out
Storage	SATA III	3
	mSATA	1
	M.2	Key B 2280
I/O Interface	Serial	2 DB9
	USB 3.0/3.1/3.2	4
	USB 2.0	2
	GPIO	8 (Header)
Expansion	Mini PCIe	1
	PCIe Slot	- 1 PCIe x1 - 1 PCIe x4 - 1 PCIe x16
	PCI Slot	NA
	SIM Card	2
	SUMIT	NA
	M.2	1 Key B (3042) 1 Key E (2230)
	Internal I/O	I/O
Power	Input	ATX: 12V±5% / 5Vsb ±5%; or AT: 12V±5%
	Connector	ATX Power Connector
Dimensions (W x L)		244 x 305 mm (9.61" x 12.01")
Operating Temperature		-25°C to 60°C (-13°F to 147°F)
Storage Temperature		-25°C to 85°C (-13°F to 185°F)
Humidity		5% to 95%, non-condensing
Certification		CE, FCC

Accelerating Time-to-Market with Optimal Solution of COM Express

Rich I/O Expansion



Quickness & Flexibility



Shorter Time to Market



Save Design Effort



Flexible Customization



Scalability for Easy Upgrade



Vibration Resistance

Diverse Range of Applications



1 High-performance Fanless Systems

2 AI Computing Systems

3 10GigE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/Displays

8 Industrial Motherboards

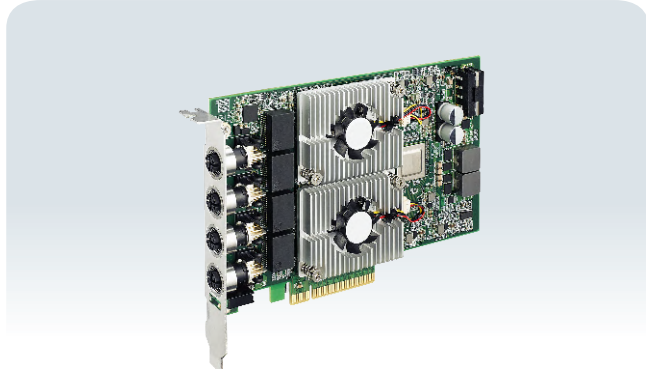
9 COM Express

10 Embedded Peripherals

PCIe Card

PE-8004MX (M12)

4-port X-coded M12 10GigE PoE+ Card



Features

- 4-port Independent 10GigE LAN
- PCI Express x8 interface
- Power over Ethernet (PoE+), rugged X-coded M12 connectors, up to 25.5W Power Output at 48V DC per port
- 0°C to 50°C Operating Temperature



Specifications

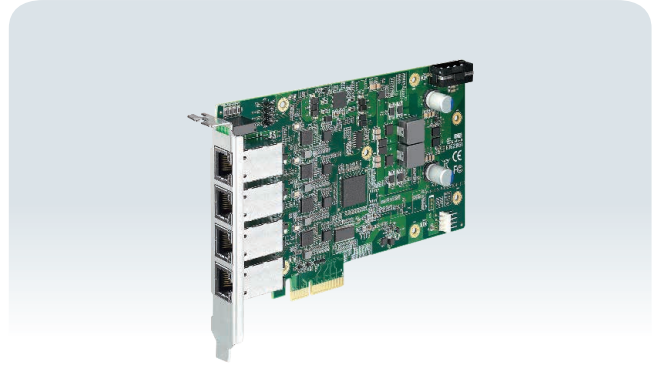
Ethernet	
Power Requirement	PCI Express x8
LAN Controller	Intel® Ethernet Controller X710-AT2
LAN Controller Qty	2
Data Rate	10Gbps/*5Gbps/*2.5Gbps/1Gbps/100Mbps (*Linux only)
Number of Port	4
Connector	8-pin X-coded M12 Connector
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none">▪ Up to 25.5W Power Output @48V DC per port▪ 4 LED for PoE On/Off Mode
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimensions (W x L)	168mm x 105mm (6.6" x 4.1")
Bracket	Full height
Environment	
Operating Temperature	0°C to 50°C with fan (32°F to 122°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-8004MX	4-port 10GigE PoE+ M12 X-coded LAN Card with Intel® X710-AT2 Controllers
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PE-6004

4-port 2.5GigE PoE+ Card



Features

- 4-port independent 2.5GigE LAN
- PCI Express x4 interface
- Power over Ethernet (PoE+), up to 25.5W Power Output at 48V DC per port
- -25°C to 60°C Operating Temperature



Specifications

Ethernet	
Interface	PCI Express x4
Controller	Intel® Ethernet Controller I225-LM
Controller Qty	4
Data Rate	2.5Gbps/1Gbps/100Mbps/10Mbps
Number of Port	4
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none">▪ 4 RJ45 Connector▪ 4 LED for PoE On/Off Mode▪ Up to 25.5W Power Output at 48V DC per port
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimension (W x L)	167.7mm x 111.1mm (6.60" x 4.38")
Bracket	Full height
Environment	
Operating Temperature	-25°C to 60°C with air flow (-40°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-6004	Intel® I225 4-CH PCI Express Card with 2.5GigE PoE+
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PE-5004

4-port 10GigE PoE* Card



Features

- 4-port independent 10GigE PoE* LAN
- PCI Express x8 interface
- Power over Ethernet (PoE*), up to 25.5W Power Output at 48V DC per port
- -25°C to 55°C Operating Temperature



Specifications

Ethernet	
Interface	PCI Express x8
Controller	Intel® Ethernet Controller XL710
Controller Qty	1
PHY	Intel® X557
PHY Qty	1
Data Rate	10Gbps/1Gbps/100Mbps
Number of Port	4
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none"> ▪ 4 RJ45 Connector ▪ 4 LED for PoE On/Off Mode ▪ Up to 25.5W Power Output at 48V DC per port
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimensions (W x L)	168mm x 111mm (6.6" x 4.4")
Bracket	Full height
Environment	
Operating Temperature	-25°C to 55°C with air flow (-40°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-5004	Intel® XL710 4-CH PCI Express Card with 10GigE PoE*
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PE-5002

2-port 10GigE PoE* Card



Features

- 2-port independent 10GigE PoE* LAN
- PCI Express x4 interface
- Power over Ethernet (PoE*), up to 25.5W Power Output at 48V DC per port
- -25°C to 60°C Operating Temperature



Specifications

Ethernet	
Interface	PCI Express x4
Controller	Intel® Ethernet Controller X550-AT2
Controller Qty	1
Data Rate	10Gbps/*5Gbps/*2.5Gbps/1Gbps/100Mbps (*Linux only)
Number of Port	2
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none"> ▪ 2 RJ45 Connector ▪ 2 LED for PoE On/Off Mode ▪ Up to 25.5W Power Output at 48V DC per port
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimension (W x L)	168mm x 111mm (6.6" x 4.4")
Bracket	Full height
Environment	
Operating Temperature	-25°C to 60°C with air flow (-40°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-5002	Intel® X550-AT2 2-CH PCI Express Card with 10GigE PoE*
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1 High-performance Fanless Systems

2 AI Computing Systems

3 10GigE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/Displays

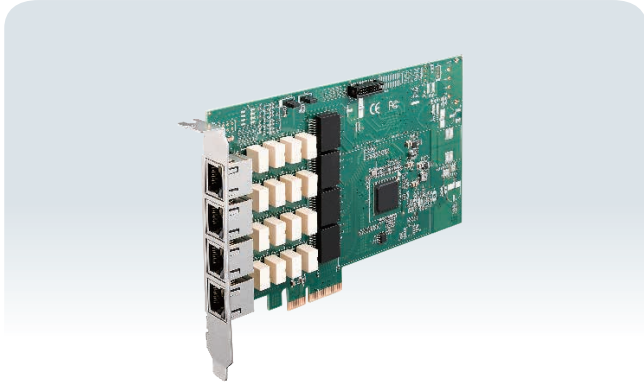
8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals

PE-3014

4-port Gigabit LAN Bypass Card



Features

- 4-port Independent Gigabit Ethernet
- All-in-one, fully-integrated single-chip GigE switching solution with lower power consumption
- Supports dual hardware LAN Bypass mode
- Optional supports rugged M12 connections
- -25°C to 70°C Operating Temperature



Specifications

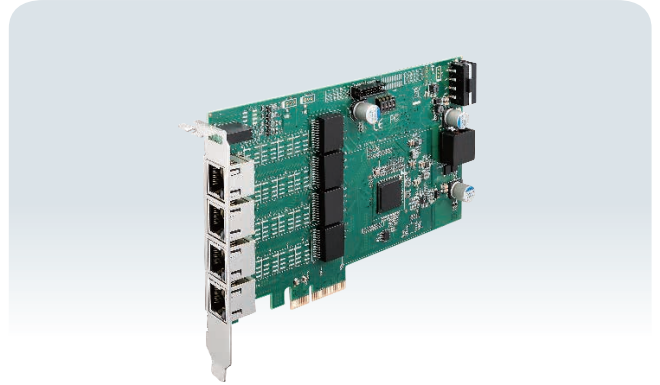
Ethernet	
Interface	PCI Express x4
Controller	Intel® Ethernet Controller I350
Controller Qty	1
Data Rate	10/100/1000 Mbps
Number of Port	4
Connector	<ul style="list-style-type: none"> ▪ 8-pin RJ45 ▪ A-coded M12 (Optional)
Jumbo Frame	Up to 9728 byte
Link Aggregation (LAG)	Present
Mechanical	
Dimensions (W x L)	168mm x 121mm (6.6" x 4.8")
Bracket	Full height
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-3014	Intel® I350 4-CH PCI Express Card with advanced 2-pair LAN Bypass
---------	---

PE-3004

4-port Gigabit PoE+ Card



Features

- 4-port Independent Gigabit Ethernet
- Power over Ethernet (PoE+), up to 25.5W Power Output at 48V DC per port
- Optional supports rugged M12 connections
- -25°C to 70°C Operating Temperature



Specifications

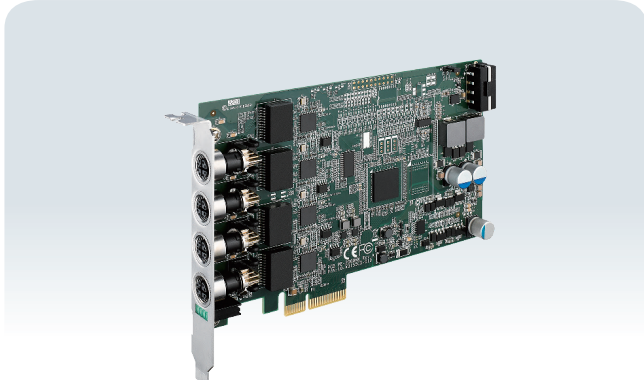
Ethernet	
Interface	PCI Express x4
Controller	Intel® Ethernet Controller I350
Controller Qty	1
Data Rate	10/100/1000 Mbps
Number of Port	4
Connector	<ul style="list-style-type: none"> ▪ 8-pin RJ45 ▪ A-coded M12 (Optional)
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none"> ▪ 4 RJ45 PoE Port ▪ 4 A-coded M12 PoE Port (Optional) ▪ Up to 25.5W Power Output at 48V DC per port
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimension (W x L)	168mm x 121mm (6.6" x 4.8")
Bracket	Full height
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-3004	Intel® I350 4-CH PCI Express Card with PoE+
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PE-2004MX (M12)

4-port X-coded M12 GigE PoE+ Card



Features

- 4 independent GigE LAN
- PCI Express x4 interface
- Power over Ethernet (PoE+), rugged X-coded M12 connectors, up to 25.5W Power Output at 48V DC per port
- -25°C to 70°C Operating Temperature



Specifications

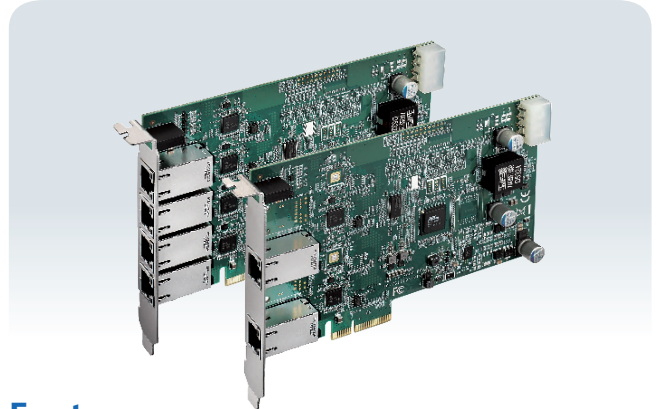
Ethernet	
Power Requirement	PCI Express x4
LAN Controller	Intel® Ethernet Controller I210
LAN Controller Qty	4
Data Rate	1Gbps/ 100 /10 Mbps
Number of Port	4
Connector	8-pin X-coded M12 Connector
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none"> ▪ Up to 25.5W Power Output @48V DC per port ▪ 4 LED for PoE On/Off Mode
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimensions (W x L)	168mm x 105mm (6.6" x 4.1")
Bracket	Full height
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

PE-2004MX	4-port GigE PoE+ M12 X-coded LAN Card with Intel® I210 Controllers
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PE-2002/2004

2/ 4-port GigE PoE+ Card



Features

- 2/ 4 Independent Gigabit LAN
- PCI Express x4 Interface
- Power over Ethernet (PoE+), Up to 25.5W Power Output at 48V DC per port
- -25°C to 70°C Operating Temperature



Specifications

Ethernet	
Interface	PCI Express x4
Controller	<ul style="list-style-type: none"> ▪ 2 Intel® I210 Gigabit LAN (PE-2002) ▪ 4 Intel® I210 Gigabit LAN (PE-2004)
Data Rate	10/ 100/ 1000 Mbps (Vary by attached Ethernet device)
Connector	8-pin RJ45
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none"> ▪ 2 PoE ports, up to 25.5W Power Output at 48V DC per port (PE-2002) ▪ 4 PoE ports, up to 25.5W Power Output at 48V DC per port (PE-2004)
Power Connector	1 4-pin 12V Power Connector
DIO	16 Isolated DIO : 8 DI, 8 DO (Optional)
Mechanical	
Dimension (W x D x H)	168mm x 121mm x 21mm (6.6" x 4.8" x 0.8")
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)

Order Information

PE-2004	Intel® I210 4-CH PCI Express PoE+ Card
PE-2002	Intel® I210 2-CH PCI Express PoE+ Card

1 High-performance Fanless Systems

2 AI Computing Systems

3 10GigE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/ Displays

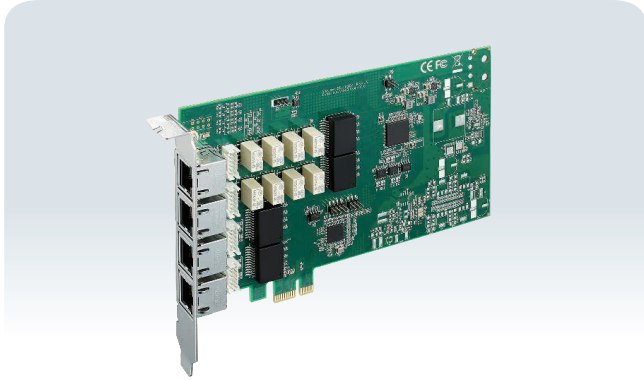
8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals

SE-1014

4-port RJ45 LAN Switch Card with LAN Bypass



Features

- Full-featured LAN functions, up to 1000Mbps data rate
- All-in-one, fully-integrated single-chip GigE switching solution with lower power consumption
- Supports hardware LAN Bypass mode
- -40°C to 85°C Operating Temperature



Specifications

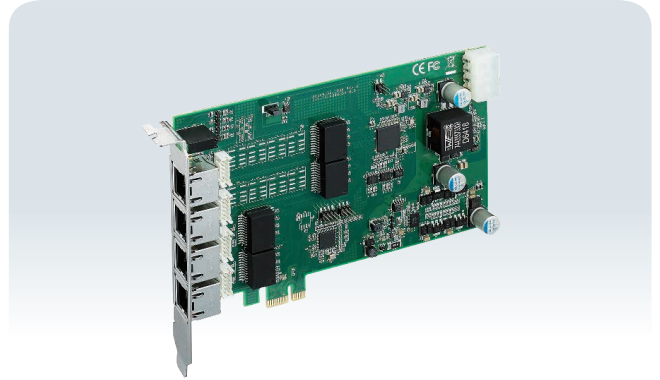
Ethernet	
Interface	PCI Express x1
Controller	Intel® Ethernet Controller I210
Controller Qty	1
Data Rate	10/100/1000 Mbps
Number of Port	4
Connector	8-pin RJ45
Mechanical	
Dimensions (W x L)	168mm x 121mm (6.6" x 4.8")
Bracket	Full height
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

SE-1014	4-port RJ45 PCI Express LAN Switch Card with advanced LAN Bypass
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SE-1004

4-port RJ45 LAN Switch Card with PoE*



Features

- Full-featured LAN functions, up to 1000Mbps data rate
- IEEE 802.3at Power over Ethernet (PoE*) compliant
- All-in-one, fully-integrated single-chip GigE switching solution with lower power consumption
- -40°C to 85°C Operating Temperature



Specifications

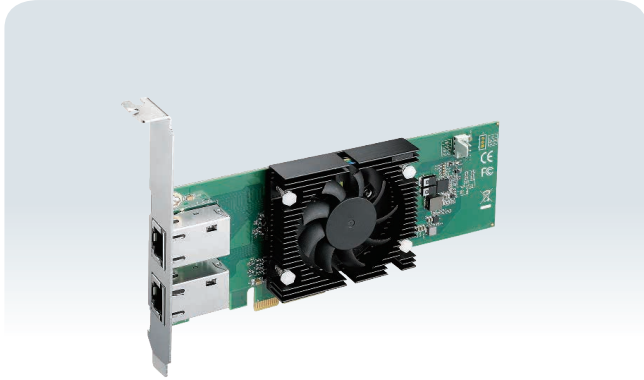
Ethernet	
Interface	PCI Express x1
Controller	Intel® Ethernet Controller I210
Controller Qty	1
Data Rate	10/100/1000 Mbps
Number of Port	4
Connector	8-pin RJ45
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Output	<ul style="list-style-type: none"> ▪ 4 RJ45 PoE Port ▪ Up to 25.5W Power Output at 48V DC per port
Power Connector	1 4-pin 12V Power Connector
Mechanical	
Dimensions (W x L)	168mm x 121mm (6.6" x 4.8")
Bracket	Full height
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

SE-1004	4-port RJ45 PCI Express LAN Switch Card with PoE*
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LE-1055

Low Profile 2-port 10 GigE LAN Card



Features

- 10Gbps data rate
- IEEE 802.3an Fast Ethernet standard compliant
- Low Profile and Full Height form factors available
- -40°C to 55°C Operating Temperature



Specifications

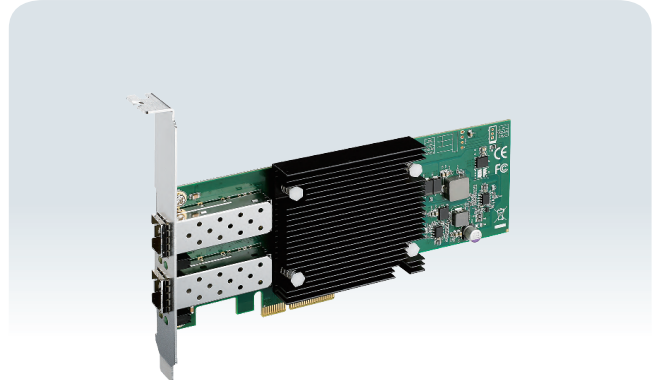
Ethernet	
Interface	PCI Express x4
Controller	Intel® Ethernet Controller X550-AT2
Controller Qty	2
Data Rate	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps
Number of Port	2
Connector	8-pin RJ45
Mechanical	
Dimensions (W x L)	168mm x 121mm (6.6" x 4.8", PCIe low profile)
Bracket	<ul style="list-style-type: none"> ▪ Full height ▪ Low profile (Optional)
Environment	
Operating Temperature	-40°C to 55°C (-40°F to 131°F, with Fan)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

LE-1055	2-port 10 GigE LAN Card with Intel® X550-AT2 Controllers
---------	--

FE-1071

Low Profile 2-port 10 GigE SFP+ Card



Features

- 10Gbps data rate
- IEEE 802.3 Fast Ethernet over optical fiber standard compliant
- Low Profile and Full Height form factors available
- -40°C to 55°C Operating Temperature



Specifications

Ethernet	
Interface	PCI Express x4
Controller	Intel® Ethernet Controller X710-BM2
Controller Qty	2
Data Rate	10Gbps
Number of Port	2
Connector	SFP+
Mechanical	
Dimensions (W x L)	168mm x 64mm (6.6" x 2.5", PCIe low profile)
Bracket	<ul style="list-style-type: none"> ▪ Full height ▪ Low profile (Optional)
Environment	
Operating Temperature	-40°C to 55°C (-40°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

FE-1071	2-port 10 GigE SFP+ LAN Card with Intel® X710-BM2 Controllers
---------	---

1 High-performance Fanless Systems

2 AI Computing Systems

3 10GigE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/Displays

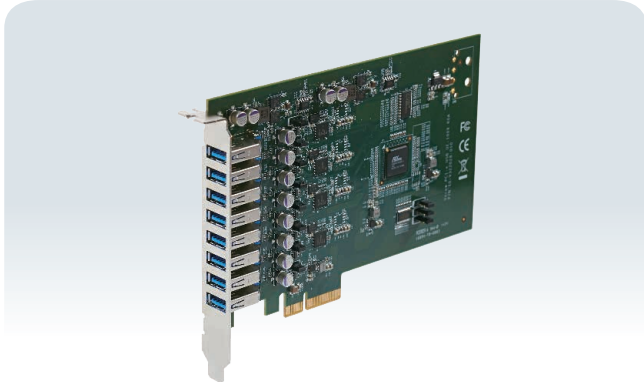
8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals

UE-1008

8-port USB Card



Features

- 4 Independent USB 3.0 controllers
- 8 USB 3.0 ports
- PCI Express x4 Interface



Specifications

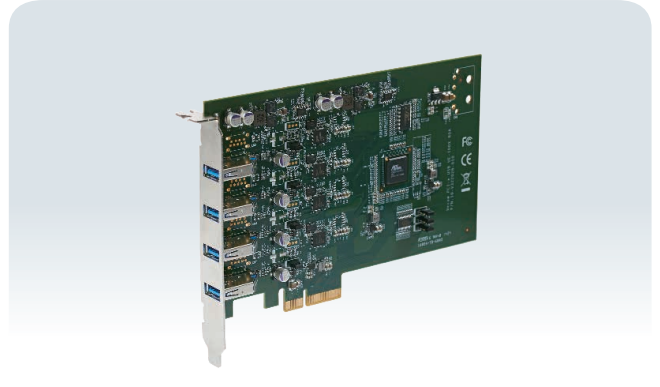
Ethernet	
Interface	PCI Express x4
Controller	4 Renesas μ PD720202 Host Controller
Connector	8 USB 3.0 Type-A Connector
Current Protection	User-configurable 900mA/1500mA per port current limit (Jumper)
Data Rate	<ul style="list-style-type: none">▪ Super Speed (5Gbps)▪ High Speed (480Mbps)▪ Full Speed (12Mbps)▪ Low Speed (1.5Mbps)
Mechanical	
Dimensions (W x L)	168mm x 121mm (6.6" x 4.8")
Environment	
Operating Temperature	0°C to 70°C (32°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

UE-1008	8-port USB 3.0 Host Adapter with 4 Independent USB 3.0 Controllers
---------	--

UE-1004

4-port USB Card



Features

- 4 Independent USB 3.0 controllers
- 4 USB 3.0 ports
- PCI Express x4 Interface



Specifications

Ethernet	
Interface	PCI Express x4
Controller	4 Renesas μ PD720202 Host Controller
Connector	4 USB 3.0 Type-A Connector
Current Protection	User-configurable 900mA/1500mA per port current limit (Jumper)
Data Rate	<ul style="list-style-type: none">▪ Super Speed (5Gbps)▪ High Speed (480Mbps)▪ Full Speed (12Mbps)▪ Low Speed (1.5Mbps)
Mechanical	
Dimensions (W x L)	168mm x 121mm (6.6" x 4.8")
Environment	
Operating Temperature	0°C to 70°C (32°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

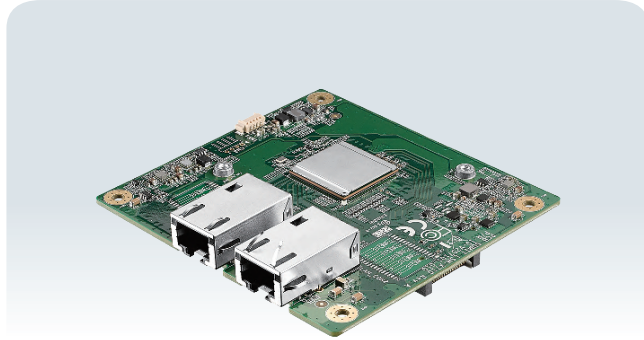
Order Information

UE-1004	4-port USB 3.0 Host Adapter with 4 Independent USB 3.0 Controllers
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SUMIT Card

LSM-X710-AT2

SUMIT Card with 2 10GigE LAN



Features

- Intel® X710-AT2 10GBASE-T controller
- IEEE 802.3an Fast Ethernet standard compliant
- -25°C to 50°C Operating Temperature



Specifications

Ethernet	
Controller	Intel® Ethernet Controller X710-AT2
Controller Qty	1
Data Rate	10Gbps/ 5Gbps/ 2.5Gbps/ 1Gbps/100Mbps
I/O Interface	
Bus Type	SUMIT B
LAN	2 RJ45 Connector
Mechanical	
Dimensions (W x L)	90mm x 96mm (3.5" x 3.8")
Weight	150 g
Environment	
Operating Temperature	-25°C to 50°C (-13°F to 122°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

LSM-X710-AT2	SUMIT (PCIe) Expansion Card with 2 10G RJ45 LAN
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FSM-710-BM2

SUMIT Card with 2 10GigE SFP+ Fiber LAN



Features

- Intel® X710-BM2 10Gigabit Ethernet Controller
- IEEE 802.3 Fast Ethernet over optical fiber standard compliant
- SIM Card Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- -25°C to 55°C Operating Temperature



Specifications

Ethernet	
Controller	Intel® Ethernet Controller X710-BM2
Data Rate	10Gbps
I/O Interface	
Bus Type	<ul style="list-style-type: none"> ▪ FSM-710-BM2 : SUMIT B ▪ FSM-710-BM2-E : SUMIT A, B
LAN	2 10GBASE SFP+ Fiber Connector
Mini PCIe	1 Full-size Mini PCIe Socket
SIM Card	1 SIM Card Socket (Internal, optional supports External I/O Type)
USB	1 USB 2.0 Connector
Mechanical	
Dimensions (W x L)	90mm x 96mm (3.5" x 3.8")
Weight	160 g
Environment	
Operating Temperature	-25°C to 55°C (-13°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

FSM-710-BM2	SUMIT (PCIe) Expansion Card with 2 10GigE SFP+ LAN
FSM-710-BM2-E	SUMIT (PCIe) Expansion Card with 2 10GigE SFP+ LAN, 1 Mini PCIe, 1 SIM Socket, 1 USB 2.0

1 High-performance Fanless Systems

2 AI Computing Systems

3 10GigE Embedded Systems

4 Expandable Embedded Systems

5 Ultra-compact Fanless Systems

6 Rackmount Systems

7 Industrial Multi-Touch Computers/ Displays

8 Industrial Motherboards

9 COM Express

10 Embedded Peripherals

LSM-200

SUMIT Card with 3-port 2.5G LAN



Features

- Intel® Ethernet Controller I225
- 3 independent LAN ports support 2.5Gbps
- -25°C to 70°C Operating Temperature
- SUMIT A, B Interface



Specifications

Ethernet	
LAN Controller	Intel® I225 Gigabit Ethernet Controller
Controller Qty	3
Data Rate	2.5Gbps/1Gbps/100Mbps/10Mbps
I/O Interface	
Bus Type	SUMIT A, B
LAN	3 RJ45 Connector
Mechanical	
Dimensions (W x L)	90.0mm x 96.0mm (3.54" x 3.78")
Weight	145 g
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

LSM-200	SUMIT (PCIe) Card with 3 Channel 2.5G LAN
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LSM-100

SUMIT Card with 3-port GigE LAN



Features

- Intel® I210 Gigabit Ethernet Controller
- IEEE 802.3ab Gigabit Ethernet standard compliant
- 3 independent GigE LAN Connection
- -25°C to 85°C Operating Temperature
- SUMIT A, B Interface



Specifications

Ethernet	
Controller	Intel® I210 Gigabit Ethernet Controller
Controller Qty	3
Data Rate	1Gbps/ 100Mbps/ 10Mbps
I/O Interface	
Bus Type	SUMIT A, B
LAN	3 RJ45 Connector
Mechanical	
Dimensions (W x L)	90mm x 96mm (3.5" x 3.8")
Weight	150 g
Environment	
Operating Temperature	-25°C to 85°C (-13°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

LSM-100-3	SUMIT (PCIe) Card with 3 Channel GigE LAN
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FSM-200

SUMIT Card with 2 1000BASE SFP Fiber LAN



Features

- Intel® I350 Gigabit Ethernet Controller
- IEEE 802.3 Fast Ethernet over optical fiber standard compliant
- Dual 100BASE-FX fiber ports



Specifications

Ethernet	
Controller	Intel® Ethernet Controller i350
Controller Qty	1
I/O Interface	
Bus Type	SUMIT B
LAN	2 1000BASE SFP Fiber Connector
PS/2	1 PS/2 KB/MS Connector (Optional)
Mechanical	
Dimensions (W x L)	90mm x 96mm (3.5" x 3.8")
Weight	150 g
Environment	
Operating Temperature	0°C to 60°C (32°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

FSM-200	SUMIT (PCIe) Expansion Card with 2 1000BASE SFP Fiber LAN
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FSM-100

SUMIT Card with 2 100BASE-FX GigE Fiber LAN



Features

- Intel® 82574 Gigabit Ethernet Controller
- IEEE 802.3 Fast Ethernet over optical fiber standard compliant
- Dual 100BASE-FX fiber ports



Specifications

Ethernet	
Controller	Intel® 82574L Gigabit Ethernet Controller
Controller Qty	2
Data Rate	1Gbps
I/O Interface	
Bus Type	SUMIT A, B
LAN	2 100BASE-FX Fiber Connector
PS/2	1 PS/2 KB/MS Connector (Optional)
Mechanical	
Dimensions (W x L)	90mm x 96mm (3.5" x 3.8")
Weight	170 g
Environment	
Operating Temperature	0°C to 60°C (32°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

FSM-100FX	SUMIT (PCIe) Expansion Card with 2 100BASE-FX Fiber LAN, 1 PS/2 KB/MS
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6 Rackmount Systems

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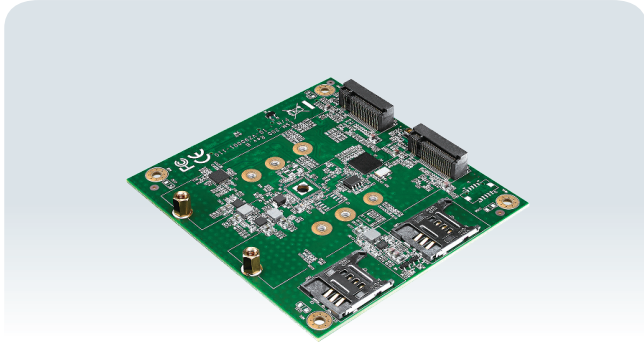
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ESM-200

SUMIT Card with dual M.2 Key B slot and dual SIM Socket



Features

- Rugged SUMIT A, B Interface
- Dual M.2 Key B Socket
- Onboard dual SIM Socket
- 0°C to 70°C Operating Temperature
- PCI Express compliant



Specifications

I/O Interface	
Bus Type	SUMIT A, B
SIM Card	2 SIM Card Socket
M.2	2 M.2 Key B Socket supports M.2 form factor : 2230/2242/2280/3030/3042/3052
Mechanical	
Dimensions (W x L)	90.2mm x 95.9mm (3.55" x 3.77")
Weight	145 g
Environment	
Operating Temperature	0°C to 70°C (-40°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @70°C
EMC	CE, FCC Class A

Order Information

ESM-200	SUMIT Card with 2 M.2 Key B socket, PCIe x1 & USB 3.0 interface for 5G applications
ESM-201	SUMIT Card with 2 M.2 Key B socket, PCIe x2 interface

ESM-100

SUMIT Card with 3 Mini PCIe Slot, 3 SIM Socket, 1 USB 2.0



Features

- SUMIT A, B function compliant
- 3 Mini PCIe support up to 3 SIM Socket
- Onboard 1 USB 2.0 Connector
- -25°C to 70°C Operating Temperature
- PCI Express compliant



Specifications

I/O Interface	
Mini PCIe	3 Full Size Mini PCIe Slot
SIM Card	3 SIM Card Socket (Internal, optional supports External I/O Type)
USB	1 USB 2.0 Connector
Mechanical	
Dimensions (W x L)	90mm x 96mm (3.5" x 3.8")
Weight	145 g
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @70°C
EMC	CE, FCC Class A

Order Information

ESM-100	SUMIT (PCIe) Expansion Card with 3 Mini PCIe, 3 SIM, 1 USB 2.0
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Mini PCIe Module DMX-110

Mini PCIe Digital I/O Card, 32-bit Isolated DIO



Features

- 4KV Isolated Protection for each channel
- -40°C to 85°C Operating Temperature
- 32-bit Programmable signals
- 4 ports digital signal, each with 8-bit GPIO
- Onboard Interrupt supports Rising/Falling Edge
- Programmable Timer and Counter for status monitoring
- Isolated DIO Control : Sink Mode/Source Mode



Specifications

Ethernet	
Interface	USB 2.0
Number of port	4 (8-bit GPIO/each)
Power Input	3.3V DC-in
I/O Voltage	3.3V
Isolated DIO Expansion Card (DMX-100-E)	
Number of port	- Input : 2 (8-bit GPIO/each) - Output : 1 with 16-bit Isolated DIO
I/O Voltage	- Sink Mode : 6V to 40V - Source Mode : 6V to 48V
Mechanical	
Dimensions (W x L)	▪ DMX-100-M : 30.0mm x 50.9mm ▪ DMX-100-E : 45.0mm x 55.0mm ▪ Cable Length : 250mm
Weight	160 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
- 1 DMX-100-M GPIO Card - 4 Isolated DIO Cable - 1 Screw Kit - 2 Bracket	- 2 DMX-100-E Isolated DIO Expansion Card - 2 Sink/Source Mode Control Cable - 2 Terminal block 20-pin (2.54mm)

Order Information

DMX-110	Mini PCIe 32-bit GPIO Card with Isolated DIO Expansion Card
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DMX-100

Mini PCIe Digital I/O Card, 32-bit GPIO



Features

- -40°C to 85°C Operating Temperature
- 32-bit Programmable signals
- 4 ports digital signal, each with 8-bit GPIO
- Onboard Interrupt supports Rising/Falling Edge
- Programmable Timer and Counter for status monitoring



Specifications

Ethernet	
Interface	USB 2.0
Number of port	4 (8-bit GPIO/each)
Power Input	3.3V DC-in
I/O Voltage	3.3V
Mechanical	
Dimensions (W x L)	▪ DMX-100-M : 30.0mm x 50.9mm ▪ Cable Length : 250mm
Weight	160 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
- 1 Screw Kit - 2 Bracket	- 1 DMX-100-M GPIO Card - 4 GPIO Cable

Order Information

DMX-100	Mini PCIe 32-bit GPIO Card
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SMX-200

Mini PCIe 4-port Isolated RS-232/422/485 Serial Card



Features

- 4-port high-speed RS-232/422/485
- Each serial channel supports up to 2.5kV Isolation
- Up to 31.25Mbps super fast data transmission
- -40°C to 85°C Operating Temperature
- Interrupt Status Register for Performance Enhancement



Specifications

Ethernet	
Interface	Mini PCIe
Controller	EXAR XR17V354
Standard	RS-232/422/485 (2.5kV Isolation)
Number of Port	4
Baud Rate	Up to 921.6kbps
FIFOs	256 byte
Flow Control	CTS/RTS, Xon/Xoff
Mechanical	
Dimensions (W x L)	<ul style="list-style-type: none"> ▪ Mini Card : 30mm x 51mm ▪ Cable Length : 260mm
Weight	145 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
- 1 SMX-200 Serial Card	- 1 Screw Kit
- 2 Cable Set	- 2 Bracket
- 1 Driver CD	

Order Information

SMX-200	4-port Isolated RS-232/422/485 Serial Card
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SMX-100

Mini PCIe 4-port RS-232/422/485 Serial Card



Features

- 4 high-speed RS-232/422/485 ports
- Up to 31.25Mbps super fast data transmission
- -40°C to 85°C Operating Temperature
- 3kV ESD Protection
- Interrupt Status Register for Performance Enhancement



Specifications

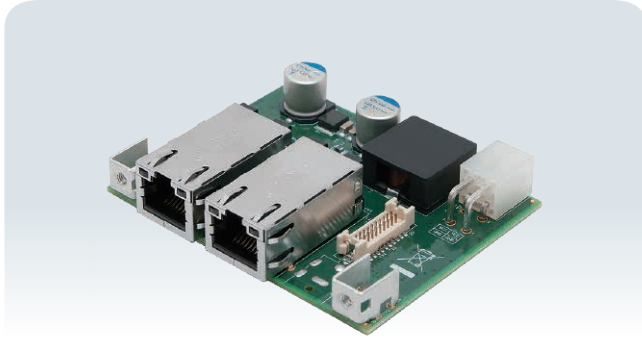
Ethernet	
Interface	Mini PCIe
Chipset	EXAR XR17V354
Standard	RS-232/422/485
Number of Port	4
Baud Rate	Up to 921.6kbps
FIFOs	256 byte
Flow Control	CTS/RTS, Xon/Xoff
Mechanical	
Dimensions (W x L)	<ul style="list-style-type: none"> ▪ Mini Card : 30mm x 51mm ▪ Cable Length : 300mm
Weight	145 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
- 1 SMX-100 Serial Card	- 1 Screw Kit
- 2 Cable Set	- 1 Bracket
- 1 Driver CD	

Order Information

SMX-100	4-port RS-232/422/485 Serial Card
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PMX-100

Mini PCIe 2-port PoE+ GigE Card



Features

- 2 GigE LAN ports support IEEE 802.3at PoE+ with 12V to 24V DC Power Input
- -40°C to 85°C Operating Temperature
- IEEE 802.3, 802.3u and 802.3ab compliant



Specifications

Ethernet	
Interface	PCI Express x1
Controller	Intel® I210 Gigabit LAN
Data Rate	10/100/1000 Mbps
Number of Port	2
Connector	8-pin RJ45
PoE Standard	IEEE 802.3at compliant
Power Requirement	
Input	12V to 24V
Output	Up to 25.5W Power Output at 48V DC per port
Mechanical	
Dimensions (W x L)	<ul style="list-style-type: none"> ▪ Mini Card : 30mm x 51mm ▪ Daughter Card : 56mm x 61mm ▪ Cable Length : 300mm
Weight	145 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
<ul style="list-style-type: none"> - 1 Driver CD - 1 Screw Kit - 1 Bracket 	<ul style="list-style-type: none"> - 1 PMX-100 PoE GigE Card - 1 RJ45 Daughter Card - 1 Connection Cable

Order Information

PMX-101	Mini PCIe 2-port PoE+ GigE Card with DC Jack
PMX-100	Mini PCIe 2-port PoE+ GigE Card

LMX-200

Mini PCIe 2-port Gigabit LAN Card



Features

- 2 GigE LAN ports, up to 1Gbps data rate
- IEEE 802.3, 802.3u and 802.3ab compliant
- PCI Express x1 Interface
- -40°C to 85°C Operating Temperature



Specifications

Ethernet	
Interface	PCI Express x1
Chipset	2 Intel® I210 Gigabit LAN
Data Rate	10/100/1000 Mbps
Number of Port	2
Connector	8-pin RJ45
Mechanical	
Dimensions (W x L)	<ul style="list-style-type: none"> ▪ Mini Card : 30mm x 51mm ▪ Daughter Card : 50.5mm x 27.7mm ▪ Cable Length : 300mm
Weight	145 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
<ul style="list-style-type: none"> - 1 Driver CD - 1 Screw Kit - 1 Bracket 	<ul style="list-style-type: none"> - 1 LMX-200 Mini PCIe LAN Card - 1 RJ45 Connector Card - 1 Connection Cable

Order Information

LMX-200	Mini PCIe 2-port Gigabit LAN Card
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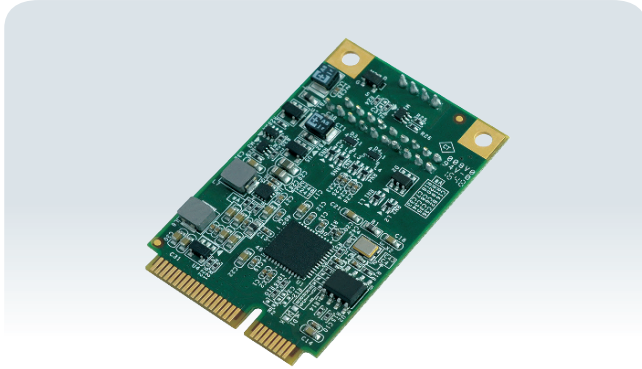
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UMX-100

Mini PCIe 2-port USB 3.0 Card



Features

- 2 high-speed USB 3.0 ports, up to 5Gbps data rate
- USB 3.0 Rev. 1.0 compliant
- Intel® xHCI Rev. 1.0 compliant
- PCI Express x1 Interface
- -40°C to 85°C Operating Temperature



Specifications

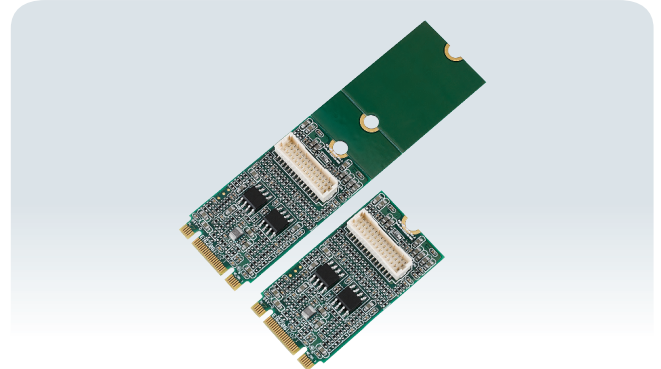
Ethernet	
Interface	Mini PCIe
Controller	Renesas μPD720202
Standard	USB 3.0 Rev. 1.0 compliant
Number of Port	2
Data Rate	Up to 5Gbps
Link Aggregation	Present
Connector	19-pin Header
Mechanical	
Dimensions (W x L)	<ul style="list-style-type: none"> ▪ Mini Card : 30mm x 51mm ▪ Cable Length : 320mm
Weight	152 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
- 1 Driver CD	- 1 UMX-100 Mini PCIe USB Card
- 1 Screw Kit	- 1 Cable Set
- 1 Bracket	

Order Information

UMX-100	Mini PCIe 2-port USB Card
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M.2 Module LMT-100

M.2 2-port GigE LAN Card with optional PoE*



Features

- Intel® I210 Ethernet Controller supports 2-port independent GigE LAN
- IEEE 802.3at PoE* with 12V to 24V Power Input
- Flexible supports M.2 Key B, Key M
- Foldable design supports multiple M.2 form factors : 2242, 2252, 2280
- -40°C to 85°C Operating Temperature



Specifications

Ethernet	
LAN Controller	Intel® I210 Ethernet Controller
Data Rate	1Gbps/100Mbps/10Mbps
Connector	8-pin RJ45
VLAN	802.1Q VLAN supported
Power Requirement	
PoE Standard	IEEE 802.3at compliant
Power Input	12V to 24V
Power Output	Up to 25.5W Power Output at 48V DC per port
Mechanical	
Dimensions (W x L)	<ul style="list-style-type: none"> ▪ M.2 Card : 22mm x 80mm (Foldable design for 22mm x 42mm or 22mm x 52mm) ▪ Daughter Card for LMX-100 : 50.5mm x 27.7mm ▪ Daughter Card for LMX-100P : 56mm x 61mm ▪ Cable Length : 300mm
Weight	145 g
Environment	
Operating Temperature	-40°C to 85°C (-40°F to 185°F), with air flow
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Packing List	
- 1 Driver CD	- 1 M.2 LAN Card
- 1 Screw Kit	- 1 RJ45 I/O Card
- 1 Bracket	- 1 Connection Cable

Order Information

LMT-100	Intel® I210 M.2 2-port GigE LAN Card
LMT-100P	Intel® I210 M.2 2-port PoE* GigE LAN Card

Power Module

WPM-120

DC to ATX Power Module, 750W, 9V to 55V Input



Features

- Wide Input Range : 9V to 55V DC
- 750W Power Budget
- Over Voltage and Current Protection
- Surge Protection
- -25°C to 55°C Operating Temperature



Specifications

Power	
Input Voltage	9V to 55V
Output	750W
Output Voltage	12V
I/O Connector	
Input Connector	2 1-pin connector
Output Connector	ATX 16-pin connector
Fan Connector	1 4-pin Fan connector
Mechanical	
Dimensions (W x L)	118.0mm x 74.0mm (4.65" x 2.91")
Others	
Over Voltage	14.4V
Over Current	80A
Surge Protection	TVS (8kW/58V)
Environment	
Operating Temperature	-25°C to 55°C (-13°F to 131°F), with air flow
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

WPM-120	DC to ATX Power Module, 750W, 9V to 55V Input, ATX Output, -25°C to 55°C
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WPM-110

DC to ATX Power Module, 200W, 16V to 160V Input



Features

- Wide Input Range : 16V to 160V DC
- 200W Power Budget
- 4kV DC Isolation, up to 500V Surge Protection
- Over Voltage and Current Protection
- -25°C to 55°C Operating Temperature
- EN50155, EN45545 Compliant



Specifications

Power	
Input Voltage	16V to 160V
Output	200W
Output Voltage	12V
I/O Connector	
Input Connector	ATX 6-pin connector
Output Connector	ATX 6-pin connector
Fan Connector	1 4-pin Power connector
Mechanical	
Dimensions (W x L)	160.0mm x 70.0mm (6.30" x 2.76")
Others	
Over Voltage	13.2V to 15.6V
Over Current	18.7A to 24A
Isolation	4kV DC
Surge Protection	0.5kV DC 8/20us Surge
Environment	
Operating Temperature	-25°C to 55°C (-13°F to 131°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing

Order Information

WPM-110	DC to ATX Power Module, 200W, 16V to 160V Input, ATX Output, -25°C to 55°C
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