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## Intelligent Systems

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# Intelligent Systems

## Full range of industrial computers and integration services for automation applications



With a diverse range of innovative technologies including cloud computing (industrial and video servers), edge computing (fanless, slim, portable devices), and high performance embedded systems, Advantech's intelligent systems are equipped with smart, secure, energy-saving features. Our intelligent systems are designed specifically for vertical markets in intelligent transportation, factory automation/machine automation, cloud infrastructure, and intelligent video application sectors.



### Modular IPCs

Modular computers are aimed at machine automation applications such as vision inspection, AOI, packaging inspection, process automation and intelligent monitoring. Modular IPCs are suited to service and maintenance applications and this compact system, with PoE and the latest Intel Core processors. They can be used in edge computing applications as they deliver enhanced computing and graphic performance.



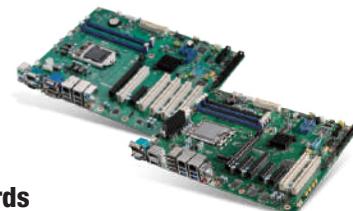
### Intelligent Inspection Systems

AIIS Vision system series are applied to machine automation applications such as AOI, label inspection, and alignment inspections which rely on machine vision. With PoE vision, USB3 vision, lighting control and multiple I/O interfaces, AIIS control system deliver performance computing and low power consumption. They offer intelligent management and extended product longevity.



### Industrial chassis

Advantech offers a complete selection of industrial computer chassis from 1U to 4U rackmount, to wall-mountable solutions, designed to support a variety of industrial-grade motherboard/single board computer (SBC) form factors, such as ATX, MicroATX, PICMG 1.0/1.3, and full-size/half-size SBC. Chassis include a range of features such as redundant power supply, hot swappable accessories, storage, and cooling options. High-end models with built-in intelligent system modules enable system health self diagnosis, smart fan control, and remote management with WISE-DeviceOn or SNMP sub agent.



### Industrial motherboards

Advantech provides a complete range of industrial motherboards in various form factors, from performance-rich ATX to best price/performance MicroATX and ultra compact highly integrated Mini-ITX. These motherboards are highly integrated and deliver advanced features like multi-core processing and PCI Express technology. They are suited for demanding industrial applications that require seamless upgrades, long term support, proven reliability and strict revision control.



### Slot SBCs and passive backplanes

Slot single board computers (SBC) and backplanes follow PICMG 1.0 and PICMG 1.3 standards that offer flexibility and performance. Assembled with backplanes, slot SBCs and embedded PCs with multiple I/O and processing elements. We also provide customizable passive backplanes which include PCI boards, ISA boards, PICMG 1.3, PICMG 1.0 full-sized, and half-sized single board computers.



### Industrial computer peripherals

Advantech IPC peripherals can integrate with various modules including IPMI, TPM, power supplies and versatile rack mount/wall mount peripherals. They can help system integrators build easy-to-operate computer systems.

**Industrial IoT**

**General Automation**

- Cloud & Edge Solutions
- Industrial Systems and Platforms
- IoT Devices & Communication

**IEM**

**Industrial Equipment Manufacturing**

- Semiconductor
- PCBA/Electronics
- Machinery
- AGV/AMR

**iFactory**

- Automobile
- Food & Beverage
- Pharmaceutical
- Metal Process

**Industrial Infrastructure**

- Energy Automation
- Environment Monitor
- Transportation
- Government

## Applications



**Automated Optical Inspection (AOI)**



**Factory Automation**



**Predictive Maintenance**



**Automatic Equipment**



**Imaging Processing**



**AI Inference**

## Start your Business with an IPC Expert



Tool-less thumb screws



Lockable door, with-or-without key



Front-accessible fan without opening top cover



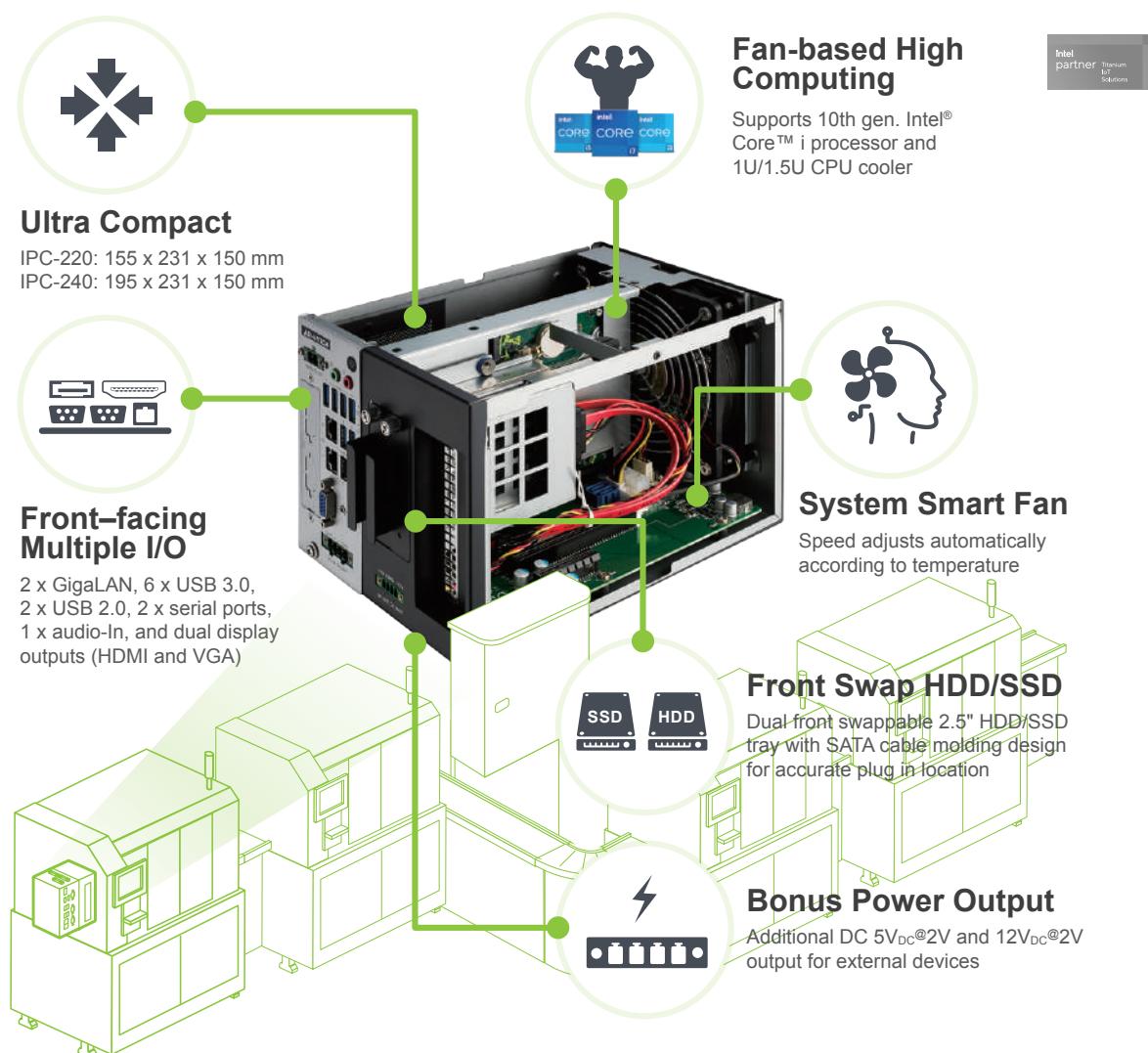
Small footprint chassis design for better work field layout arrangement

- 1** IIoT Software Solutions
- 2** Intelligent Systems
- 3** SKY Servers
- 4** AI & Advanced Computer Vision
- 5** Intelligent HMI and Monitors
- 6** Automation Computers
- 7** Intelligent Transportation Platforms
- 8** Mission Critical CompactPCI Platforms
- 9** Utility and Energy Solutions
- 10** EtherCAT Solutions and Automation Controllers
- 11** Intelligent Motion Control Solutions
- 12** High Speed DAQ Solutions
- 13** Industrial Communication
- 14** Intelligent Edge DAQ Devices
- 15** Remote I/O, Wireless I/O & Sensors
- 16** Serial Communication

# Ultra Compact IPCs

## Advantech industrial edge computer for intelligent manufacturing

The current industrial automation market is trending towards increasingly compact form factors and intelligent designs that offer space savings and boost efficiency. Advantech's latest IPC-200 series is an ultra-compact industrial edge computer that features a wide operating temperature range, wide input power tolerance, and front-facing I/O for convenient access and easy deployment. Despite its compact size, the IPC-220/240/242 offers high expandability to support machine vision and motion control, making it ideal for industrial automation and equipment manufacturing applications. Moreover, with Advantech's rapid and localized configuration services, the IPC-220/240/242 reduces the time-to-market for machine builders and accelerates the realization of Industry 4.0.



**Ultra Compact and Powerful**  
Industrial Edge Computer for Intelligent Manufacturing

[LEARN MORE](#)

Learn More: <https://www.advantech.com/campaign/compact-ipc>



# Ultra Compact IPCs

## Ultra Compact Chassis

**1**  
IIoT Software Solutions

**2**  
Intelligent Systems

**3**  
SKY Servers

**4**  
AI & Advanced Computer Vision

**5**  
Intelligent HMI and Monitors

**6**  
Automation Computers

**7**  
Intelligent Transportation Platforms

**8**  
Mission Critical CompactPCI Platforms

**9**  
Utility and Energy Solutions

**10**  
EtherCAT Solutions and Automation Controllers

**11**  
Intelligent Motion Control Solutions

**12**  
High Speed DAQ Solutions

**13**  
Industrial Communication

**14**  
Intelligent Edge DAQ Devices

**15**  
Remote I/O, Wireless I/O & Sensors

**16**  
Serial Communication



Model		IPC-220	IPC-240	IPC-242	
Form Factor		Compact	Compact	Compact	
Drive Bay	2.5"	2 HDD/SSD (Max 15mm Height)	2 HDD/SSD (Max 15mm Height)	2 HDD/SSD (Max 15mm Height)	
Cooling	No. of Fans	1	1	1	
	CFM	82	82	46.62	
	Air Filter	Yes	Yes	Yes	
Power Supply	AC	-	-	250W Flex	
	DC	19 ~ 24 V <sub>DC</sub> , 8A ~ 6.5A	5V <sub>DC</sub> and 12V <sub>DC</sub> , 2A MAX	-	
	DC Output	5V <sub>DC</sub> and 12V <sub>DC</sub> , 2A MAX		AC 250W	
Backplane	System Power Consumption	150W (without add on card) ~ 230W (with add on card)		AC 250W	
	PCIe x16	1	1	1	
	PCIe x4	1	IPC-240-20A1: 3 IPC-240-21A1: 1	IPC-242-00A1: 3 IPC-242-01A1: 1	
Dimension (W x H x D)	PCI	-	IPC-240-20A1: 0 IPC-240-21A1: 2	IPC-242-00A1: 0 IPC-242-01A1: 2	
	mm	155 x 231 x 150	195 x 231 x 150	333 x 269.2 x 88	
	inch	6.1" x 9.05" x 5.9"	7.68" x 9.05" x 5.9"	13.11" x 10.55" x 3.46"	
Weight	mm	3.1 kg	3.3 kg	4.2 kg	
	inch	PCE-2032/PCE-2132/PCE-2033/PCE-2133			

## Ultra Compact Motherboards

Model		PCE-2033/PCE-2133	PCE-2132/PCE-2032
Form Factor		Compact	
Processor System	Chipset	Q670E/H610E	Q470E/H420E
	CPU	Intel® 12th Gen Core™ i (LGA1700)	Intel® 10th Gen Core™ i (LGA1200)
	Core	Max. 16	Max. 10
	Cache	Max. 30 MB	Max. 20 MB
	Memory	Dual DDR5 4800 MHz Max. 64 GB	Dual DDR4 2666/2933 MHz Max. 64 GB
Graphic	Graphics Controller	Intel UHD Graphics	Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	
Expansion	Mini PCIe	1	
	SATA Channel	2 with SATA 3.0	
Storage	M.2	PCE-2033-00A1: 0 PCE-2133-00A1: 1 (NVMe M.2 2280 (PCIe Gen3 x4), M-key)	PCE-2032-00A1: 0 PCE-2132-00A1: 1 (NVMe M.2 2280 (PCIe Gen3 x4), M-key)
	mSATA	PCE-2033-00A1: 0 PCE-2133-00A1: 1(SATA/mPCIe/USB)	PCE-2032-00A1: 1(SATA) PCE-2132-00A1: 1(SATA/mPCIe/USB)
	RAID	0/1/5 (Q670E Only)	0/1/5 (Q470E Only)
	Ethernet Interface	2 x RJ45	
Ethernet	Controller	Q670E: LAN1: Intel® I219LM, LAN2: Intel® i225LM H610E: LAN1: Intel® I219V, LAN2: Intel® i225V	Q470E: LAN1: Intel® I219LM, LAN2: Intel® i210AT H420E: LAN1: Intel® I219V, LAN2: Intel® i210AT
	Display	VGA + HDMI	
Front I/O	LAN	2	
	USB	Q670E: 6 x USB 3.2, 2 x USB 2.0, 2 x Internal USB 2.0 H610E: 4 x USB 3.2, 4 x USB 2.0, 2 x Internal USB 2.0	Q470E: 6 x USB 3.2, 2 x USB 2.0, 2 x Internal USB 2.0 H420E: 6 x USB 3.2, 2 x USB 2.0, 2 x Internal USB 2.0
	COM	2 x RS-232/422/485 support auto flow control	
	Audio	2 (1 x line out and 1 x mic in)	
	Remote Power Switch	✓	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec/min	
Support Chassis		IPC-220 / IPC-240 / IPC-242	

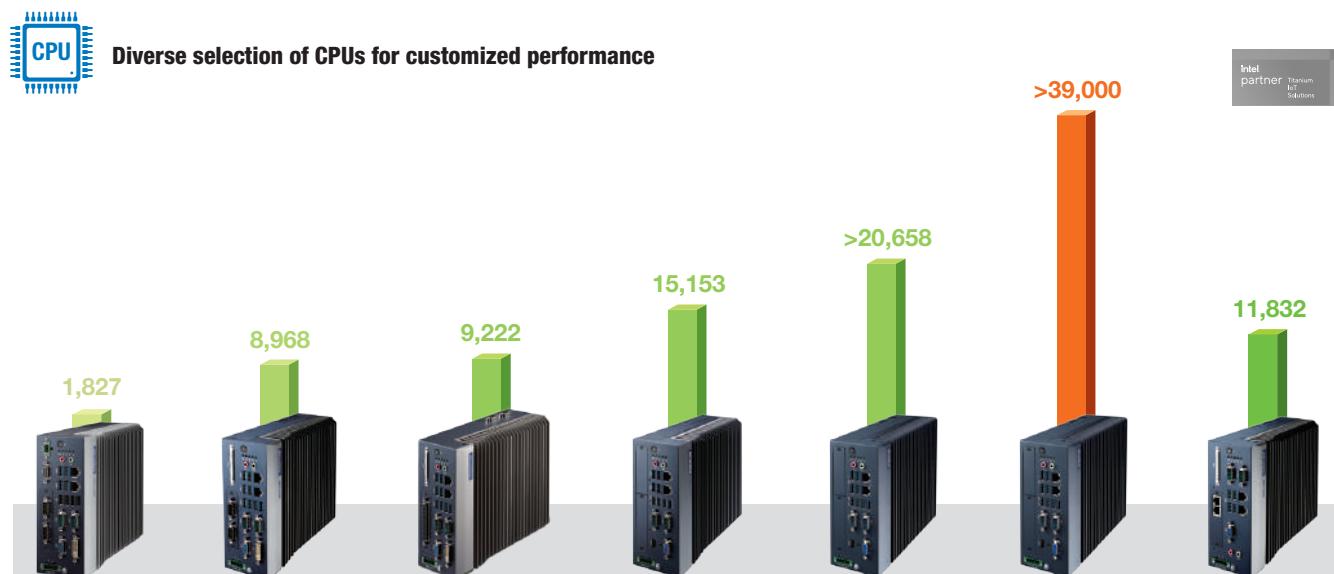
✓ : supported, - : not supported, △ : optional

# Modular IPCs

## Fanless Modular System Introduction

### Be flexible, be invincible: fanless edge PCs for the industrial IoT era

To enable the realization of Industry 4.0, field-based edge intelligence is important for developing new IoT applications. Advantech's MIC-7 series PCs provide high-performance computing, multiple I/O interfaces, and flexible expandability with the integration of i-Modules and iDoor, and can be widely deployed to support various industrial IoT applications. The MIC-7 series can be equipped with a wide range of processors to provide custom entry-level and high-end solutions. With the provision of multiple I/O for connecting devices, MIC-7 systems can serve as a data gateways and industrial controllers. Moreover, when integrated with intelligent i-Modules, a variety of add-on cards can be installed for machine automation applications.



<b>MIC-7300</b>	<b>MIC-7500</b>	<b>MIC-7700</b>	<b>MIC-770</b>	<b>MIC-770 V2</b>	<b>MIC-770 V3</b>	<b>MIC-7900</b>
- Atom™/APL - 4 Cores - 4 Threads	- 6 Gen Intel® Core™ - 4 Cores - 8 Threads	- 6/7 Gen Intel® Core™ - 4 Cores - 8 Threads	- 8/9 Gen Intel® Core™ - 8 Cores - 12 Threads	- 10 Gen Intel® Xeon®/Core™ - 10 Cores - 20 Threads	- 12 Gen Intel® Core™ - 16 Cores - 24 Threads	- Xeon® - 12 Cores - 24 Threads



### Flexible and Adaptable

Modular Fanless IPCs for the Industrial IoT Era

Learn More



Learn More: <https://page.advantech.com/en/global/intelligent-systems/modular-ipc/mic-7-series>



# Modular IPCs

## Fanless Modular System: MIC-7 Series

Model		MIC-770 V3	MIC-770 V2	MIC-770	MIC-7700
Form Factor		Compact	Compact	Compact	Compact
Processor System	Chipset	R680E/H610E	W480E/H420E	Q370/H310	Q170/H110
	CPU	Intel® 12th Gen Core™ i socket type (LGA1700)	Intel® 10th Gen Xeon®/Core™ i socket-type (LGA1200)	Intel® 8th/9th Gen Core™ i socket-type (LGA1151)	Intel® 6th/7th Gen Core™ i socket-type (LGA1151)
	Core	Max. 16	Max. 10	Max. 8	Max. 4
	Cache	Max. 30 MB	Max. 20 MB	Max. 12 MB	Max. 8 MB
	Memory	Dual DDR5 4800 MHz SODIMM Max. 64GB	Dual DDR4 2933 MHz SODIMM Max. 64GB	Dual DDR4 2400/2666 MHz SODIMM Max. 64 GB	Dual DDR4 2400 MHz SODIMM Max. 32 GB
Graphic	Graphics Controller	Intel® UHD Graphics	Intel® HD Graphics	Intel® HD Graphics	Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS
Expansion	PCIe x16	Supported via i-Module	Supported via i-Module	Supported via i-Module	Supported via i-Module
	PCIe x8				
	PCIe x4				
	PCIe x1				
	PCI				
	Mini PCIe	2 (R SKU) 1 (H SKU)	2 (W Sku) 1 (H Sku)	2 (Q Sku) 1 (H Sku)	2 (Q Sku) 1 (H Sku)
Storage	Storage Bay	1 x 2.5" internal HDD/SSD bay	1 x 2.5" internal HDD/SSD bay	1 x 2.5" internal HDD/SSD bay	1 x 2.5" internal HDD/SSD bay
	M.2	1 x NVMe M.2 2280 (PCIe Gen3 x4), M-key	-	-	-
	mSATA	1	1	1	1
	CFast	-	-	-	1
	RAID	0/1/5/10 (R SKU only)	0/1/5/10 (W SKU only)	0/1/5/10 (Q SKU only)	0/1/5/10 (Q SKU only)
Ethernet	Ethernet Interface	2 x RJ45 10/100/1000 Mbps	2 x RJ45 10/100/1000 Mbps	2 x RJ45 10/100/1000 Mbps	2 x RJ45 10/100/1000 Mbps
	Controller	R680E: LAN1: Intel® I219LM LAN2: Intel® I210IT H610E: LAN1: Intel® I219V LAN2: Intel® I210IT	W480E: LAN1: Intel® I219LM LAN2: Intel® I210IT H420E: LAN1: Intel® I219V LAN2: Intel® I210IT	Q370: LAN1: Intel® I219LM, LAN2: Intel® I210IT H310: LAN1: Intel® I219V, LAN2: Intel® I210IT	Q170: LAN1: Intel® I219LM, LAN2: Intel® I210IT H110: LAN1: Intel® I219V, LAN2: I210IT
Front I/O	Display	VGA+HDMI	VGA+HDMI	VGA+HDMI	VGA+DVI-D
	LAN	2	2	2	2
	USB	R680E: 2 x USB3.2 (Gen2), 6 x USB3.2 (Gen1), 1 x USB 2.0 (Internal) H610E: 4 x USB3.2 (Gen1), 4 x USB2.0	W480E: 2 x USB 3.2 (Gen2), 6 x USB 3.2 (Gen1) and 1 x internal USB 2.0 H420E: 4 x USB3.2 (Gen1), 4 x USB 2.0	Q370: 2 x USB3.1, 6 x USB3.0 and 1 x internal USB 2.0 H310: 4 x USB 3.0 and 4 x USB 2.0	Q170: 8 x USB 3.0 , 1 x internal USB 2.0 H110: 4 x USB 3.0, 4 x USB 2.0
	COM	2 x RS-232/422/485 supports auto flow control; 4 x RS-232 (Optional)	2 x RS-232/422/485 supports auto flow control; 4 x RS-232 (Optional)	2 x RS-232/422/485 supports auto flow control; 4 x RS-232 (Optional)	2 x RS-232/422/485 supports auto flow control + 4 x RS-232
	Audio	Line out/mic in	Line out/mic in	Line out/mic in	Line out/mic in
Watchdog Timer	Output	System reset	System reset	System reset	System reset
	Interval	Programmable 1~ 255 s/min	Programmable 1~ 255 s/min	Programmable 1~ 255 s/min	Programmable 1~ 255 s/min
Power Supply	Output Wattage	-	-	-	-
	Input Range	9 ~ 36 V <sub>DC</sub>	9 ~ 36 V <sub>DC</sub>	9 ~ 36 V <sub>DC</sub>	9 ~ 36 V <sub>DC</sub>
	Remote Power Switch	△	△	△	△
Cooling	System Fan	-	-	-	-
	Air Filter	-	-	-	-
Physical Characteristics	Dimensions (W x H x D)	77 x 192 x 230 mm (3.07" x 7.55" x 9.05")	77 x 192 x 230 mm (3.07" x 7.55" x 9.05")	77 x 192 x 230 mm (3.07" x 7.55" x 9.05")	77 x 192 x 230 mm (3.07" x 7.55" x 9.05")
	Weight	2.9 kg	2.9 kg	2.9 kg	2.9 kg

✓ : supported, - : not supported, △ : optional

1  
IIoT Software Solutions

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Intelligent Systems

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# Modular IPCs

## Fanless Modular System: MIC-7 Series



Model		MIC-790	MIC-7900	MIC-7300
Form Factor		Compact / 2U Rackmount	Compact	Compact
Processor System	Chipset	-	-	-
	CPU	Intel® Ice Lake -D Xeon D-2752TER BGA-type	Intel® Xeon® D-1559/D-1539 BGA-type	Intel® Celeron® N3350/Atom™ x7-E3950 BGA-type
	Core	12	Max. 12	Max. 4
	Cache	Max. 20 MB	Max. 18 MB	2 MB
	Memory	Six DDR4 2666 MHz SODIMM (support ECC) Max. 192GB	Dual DDR4 2400 MHz SODIMM (supports ECC) Max. 32 GB	Dual DDR3L 1867 MHz SODIMM Max. 8 GB
BMC		IPMI supported with Nuvoton N6776D	-	-
Graphic	Graphics Controller	ASPEED AST2600 with PCIe VGA/2D controller	ASPEED AST1400 with 256 MB VGA memory provides basic 2D VGA function	Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS
Expansion	PCIe x16	2 (via expansion riser card)		-
	PCIe x8	-		-
	PCIe x4	-	Supported via i-Module	-
	PCIe x1	-		Supported via i-Module
	PCI	-		Supported via i-Module
	Mini PCIe	-	1	1
	M.2	1 x M.2 3052 B-key for 5G LTE module 1 x M.2 2242 E-key for Wi-Fi module	-	-
Storage	Storage Bay	2 x 2.5" front accessible SSD	1 x 2.5" internal HDD/SSD bay	1 x 2.5" internal HDD/SSD bay
	M.2	2 x NVMe M.2 2280 (PCIe Gen3 x4), M-key	1 x NVMe M.2 22110 (PCIe Gen3 x4), M-key	-
	mSATA	-	1	1
	CFast	-	1	-
	RAID	-	-	-
Ethernet	Ethernet Interface	2 x RJ45 10GbE, 4 x RJ45 10/100/1000Mbps	2 x RJ45 10/100/1000 Mbps	2 x RJ45 10/100/1000 Mbps
	Controller	1 x Intel® X557-AT2, 4 x Intel® I210IT	4 x Intel® I210IT	2 x Intel® I210AT
Front I/O	Display	VGA	VGA	VGA+DVI-D
	LAN	2+4	4	2
	USB	2 x USB 3.0, 2 x USB 2.0	4 x USB 3.0	2 x USB 3.0 6 x USB 2.0
	COM	1 x COM RS-232	2 x RS-232/422/485 supports auto flow control 2 x RS-232	2 x RS-232/422/485 supports auto flow control + 4 x RS-232
	Audio	Line out/mic in	Line out/mic in	Line out/mic in
Watchdog Timer	Output	System reset	System reset	System reset
	Interval	Programmable 1~255 s/min	Programmable 1~ 255 s/min	Programmable 1~ 255 s/min
Power Supply	Output Wattage	500W, 12V, 41.7A	-	-
	Input Range	90 ~ 264 V <sub>AC</sub> , 127 ~ 379 V <sub>DC</sub> , 47 ~ 63 Hz	9 ~ 36 V <sub>DC</sub>	9 ~ 36 V <sub>DC</sub>
	Remote Power Switch	-	-	1
Cooling	System Fan	-	-	-
	Air Filter	-	-	-
Physical Characteristics	Dimensions (W x H x D)	295 x 88 x 350 mm (11.61" x 3.46" x 13.78")	73 x 192 x 230 mm (2.91" x 7.55" x 9.05")	73 x 192 x 230 mm (2.91" x 7.55" x 9.05")
	Weight	10 Kg	2.9 kg	2.9 kg

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## i-Module Expansion Slot for MIC-7 Series



i-Module	MIC-75M10	MIC-75M11	MIC-75M20	MIC-75M20-01	MIC-75M40	MIC-75M13	MIC-75S20	MIC-75G20	MIC-75G30
Slot 1	PCIe x16*	PCIe x16*	PCIe x4*	PCIe x8*	PCIe x4	PCIe x16*	PCIe x16*	PCIe x16	-
Slot 2	-	PCI	PCIe x16*	PCIe x8*	PCIe x8	PCI	PCIe x4*	-	PCIe x16 (signal PCIe x8) for GPU card
Slot 3	-	-	-	-	PCIe x4	PCI	-	PCIe x4	-
Slot 4	-	-	-	-	PCIe x4	PCI	-	-	PCIe x16 (signal PCIe x8) for GPU card
Slot 5	-	-	-	-	-	-	-	-	PCIe x4
SATA Port	-				1				1
SATA PWR	-				1				1
2.5" HDD/SSD Bay	-		1**		2	2 x Swappable + 2 x Internal	2 x Swappable	2 x swappable	
N.W. (kg)	0.64		0.87		1.16	1.60	2.99	5	
G.W. (kg)	1.71		2.02		2.47	2.98	4.79	7	
i-Module (W x H x D)	24 x 192 x 230		50 x 192 x 230		90 x 192 x 230		110 x 192 x 350	203 x 192 x 385	
MIC-7000 + i-Module (W x H x D)	97 x 192 x 230		123 x 192 x 230		163 x 192 x 230		184 x 192 x 350	276 x 192 x 385	
MIC-77X + i-Module (W x H x D)	101 x 192 x 230		127 x 192 x 230		167 x 192 x 230		187 x 192 x 350	280 x 192 x 385	
System Fan	-		98R1752000E (Optional)***		98R1751300E (Optional)***		Embedded	Embedded	
12V <sub>DC</sub> Conn					1				
12V <sub>DC</sub> Conn. for GPU				-			2	4	
PCI/PCIe Card Max. Length (with system fan)			190.2 mm		184.75 mm		287.35 mm	331 mm	
PCI/PCIe Card Max. Length (without system fan)			210.4 mm				-	-	

\* If installed on MIC-7300, this slot will be a PCIe x1 signal.

\*\* Need to order 98R1752010E (2.5" HDD/SSD kit for 2-slot i-Module)

\*\*\* Suggest to add optional system fan if power consumption of add-on card is more than 45W for better thermal management.

## Compatible Table

i-Modules	1-Slot		2-Slot			4-Slot			Featured		
	MIC-75M10	MIC-75M11	MIC-75M20	MIC-75M20-01	MIC-75M40	MIC-75M13	MIC-75S20	MIC-75G20	MIC-75G30		
MIC-7 System	✓	✓	✓	-	-	✓	✓	-	-		
MIC-7300											
MIC-7700Q/MIC-770V1Q/MIC-770V2W	✓	✓	✓	✓	✓	✓	✓	✓	✓		
MIC-7700H/MIC-770V1H/MIC-770V2H/MIC-770V3H	✓	✓	✓	-	-	✓	✓	✓	✓		
MIC-770V3W	✓	✓	✓	✓	✓	-	✓	✓	✓		
MIC-7900	✓	✓	✓	✓	✓	✓	✓	✓	✓		

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# Modular IPCs

## Flex I/O Expansion Kit for MIC-7 Series

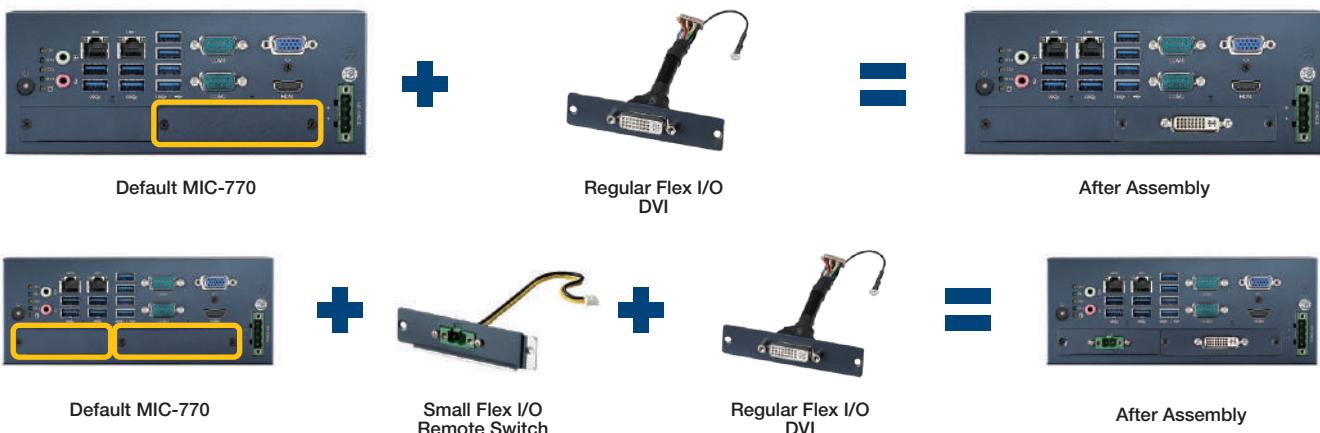
Flex I/O series modules provide flexible expansion for MIC-7 Series so customers can enjoy display, more control, and better communication via Flex I/O. All Flex I/O are attached directly from connectors reserved on the MIC-7 series main board and installed on the front panel, making it easy to fulfill machine, factory automation, and IEM deployments.

### Flex I/O Assembly Example

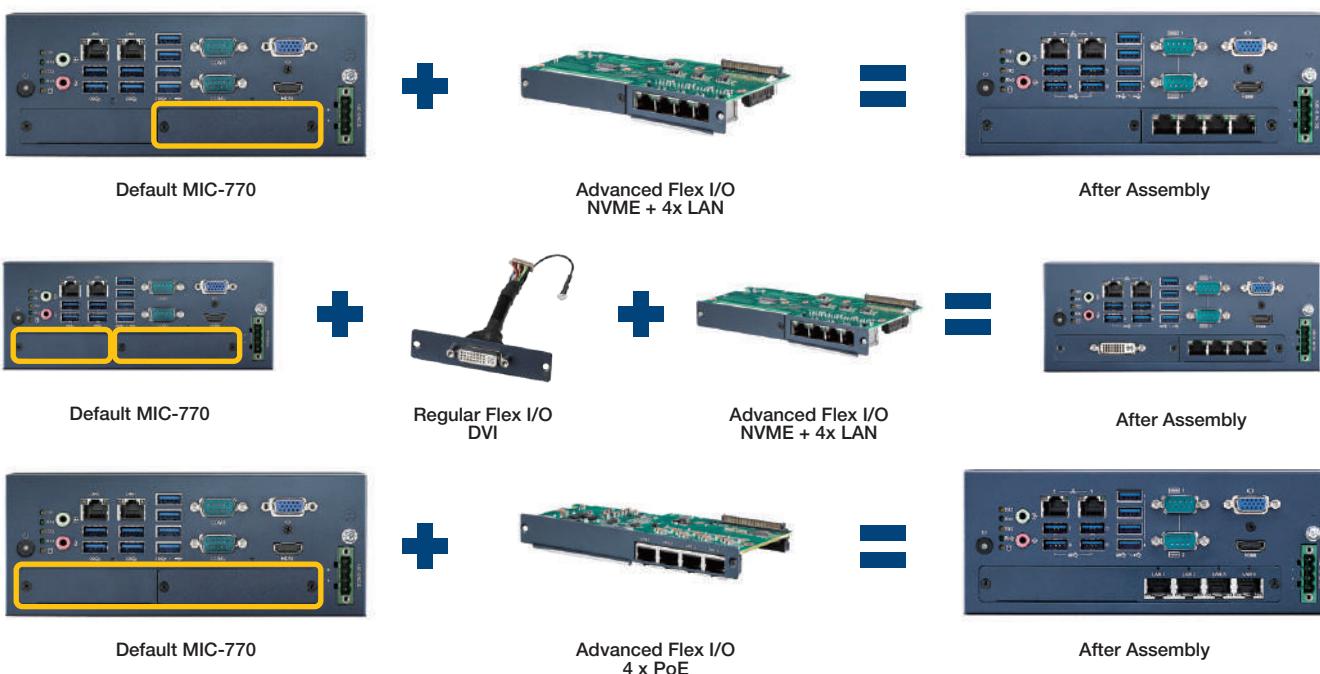
#### Small Flex I/O



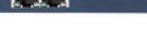
#### Regular Flex I/O



#### Advanced Flex I/O



## Compatible Table

Flex I/O	Function	Part Number	MIC-7300	MIC-7500	MIC-7700		MIC-770		MIC-770 V2		MIC-770 V3		MIC-7900
			Q	H	Q	H	W	H	W	H	W	H	
Small FIO													
	Remote Switch	98R17500701	-	-	-	-	✓	✓	✓	✓	✓	✓	-
Regular FIO													
	DVI	98R17500001	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
	HDMI & Remote Switch	98R17500101	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
	HDMI	98R17500301	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
	Remote Switch	98R17500401	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	COM Port	98R17500601	-	-	-	-	✓	✓	✓	✓	✓	✓	-
	Reset & Remote Switch & 5VDC	98R17500801	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	8-bit GPIO	98R17500901	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Dual LAN	9891790040E	-	-	✓	-	-	-	-	-	-	-	-
	GPIO module (32-bit)	AIIS-DIO32-00A1E	-	✓	✓	✓	-	-	-	-	-	-	✓
	TPM module	PCA-TPM-00B1E	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
Advanced FIO													
	NVME+ 4x LAN	98910770301	-	-	-	-	✓	-	✓	-	✓	-	-
	NVME	98910770401	-	-	-	-	✓	-	✓	-	✓	-	-
	POE	98910770501	-	-	-	-	✓	-	✓	-	✓	-	-

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# Intelligent Inspection Systems



Model		AIIS-3411P	AIIS-3411U
Form Factor		Compact	Compact
Processor System	Chipset	H420E	H420E
	CPU	Intel 10th generation Core i CPU(LGA1200)	Intel 10th generation Core i CPU(LGA1200)
	Core	Max. 10	Max. 10
	Cache	Max. 20MB	Max. 20MB
	Memory	Dual channel DDR4 2933/2666 MHz (non-ECC) SODIMM Max. 64 GB	Dual channel DDR4 2933/2666 MHz (non-ECC) SODIMM Max. 64 GB
Graphics	Graphics controller	Integrated Intel HD Graphics	Integrated Intel HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS
Machine Vision Interface	Interface	4-ch PoE	4-ch USB 3.0
	Controller	i210AT	Renesas µPD720202
Industrial I/O	PWM Lighting Output	4 Channels (via Optional AIIS-1882)	4 Channels (via Optional AIIS-1882)
	Lighting Trigger	4 Dedicated Channels (isolated, via optional AIIS-1882)	4 Dedicated Channels (isolated, via optional AIIS-1882)
	Digital I/O	28 Channels (isolated, via optional AIIS-1882)	28 Channels (isolated, via optional AIIS-1882)
Expansion	PCIe x8	1	1
	PCI*	1 x riser card (optional)	1 x riser card (optional)
	mini PCIe	1	1
	Lighting control	Yes, Optional AIIS-1882	Yes, Optional AIIS-1882
Storage	HDD Bay	1 x internal 2.5" HDD bay	1 x internal 2.5" HDD bay
	mSATA	1	1
	CFast	–	–
	RAID	–	–
Ethernet	Ethernet interface	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel i219LM LAN2: Intel i210AT	LAN1: Intel i219LM LAN2: Intel i210AT
Front I/O	Display	VGA + HDMI 1.4	VGA + HDMI 1.4
	LAN	2	2
	USB	4 x USB 3.0	4 x USB 3.0
	COM	1 x RS-232/422/485 1 x RS-232	1 x RS-232/422/485 1 x RS-232
	PS/2	–	–
	Audio	Line out/mic in	Line out/mic in
Watchdog Timer Output	Output	System reset	System reset
	Interval	Programmable 1 ~ 255 s/min	Programmable 1 ~ 255 s/min
Power Supply	Output Wattage	–	–
	Input Range	19~24 V <sub>DC</sub>	19~24 V <sub>DC</sub>
	Remote Power Switch	1	1
Cooling	System Fan	1 (8cm / 57 CFM)	1 (8cm / 57 CFM)
	Air Filter	–	–
Physical Characteristics	Dimensions (W x H x D)	240 x 97 x 190 mm (9.45" x 3.82" x 7.48")	240 x 97 x 190 mm (9.45" x 3.82" x 7.48")
	Weight	2.56kg	2.56kg

✓: supported, –: not supported, △: optional

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Model		AIIS-3400P	AIIS-3400U	AIIS-3410P	AIIS-3410U
Form Factor		Compact	Compact	Compact	Compact
Processor System	Chipset	H110	H110	H110	H110
	CPU	Intel 6th/7th generation Core i CPU (LGA1151)			
	Core	Max.4	Max.4	Max.4	Max.4
	Cache	Max. 8 MB	Max. 8 MB	Max. 8 MB	Max. 8 MB
	Memory	Dual channel DDR4 1866/2133 MHz (non-ECC) SODIMM Max. 32 GB	Dual channel DDR4 1866/2133 MHz (non-ECC) SODIMM Max. 32 GB	Dual channel DDR4 1866/2133 MHz (non-ECC) SODIMM Max. 32 GB	Dual channel DDR4 1866/2133 MHz (non-ECC) SODIMM Max. 32 GB
Graphics	Graphics controller	Integrated Intel HD Graphics			
	VRAM	Shared system memory is subject to OS			
Machine Vision Interface	Interface	4-ch PoE	4-ch USB	4-ch PoE	4-ch USB
	Controller	Intel i210AT	Renesas µPD720202	Intel i210AT	Renesas µPD720202
Industrial I/O	PWM Lighting Output	-	-	-	-
	Lighting Trigger	-	-	-	-
	Digital I/O	8 Channel (isolated) 32 Channels (isolated, via optional AIIS-1750)	8 Channel (isolated) 32 Channels (isolated, via optional AIIS-1750)	8 Channel (isolated) 32 Channels (isolated, via optional AIIS-1750)	8 Channel (isolated) 32 Channels (isolated, via optional AIIS-1750)
Expansion	PCIe x8	-	-	1	1
	PCI*	-	-	1 x riser card (optional)	1 x riser card (optional)
	mini PCIe	-	-	1	1
Storage	HDD Bay	1 x internal 2.5" HDD bay	1 x internal 2.5" HDD bay	1 x internal 2.5" HDD bay	1 x internal 2.5" HDD bay
	mSATA	-	-	-	-
	CFast	1	1	1	1
	RAID	-	-	-	-
Ethernet	Ethernet interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel i219LM LAN2: Intel i210AT			
Front I/O	Display	VGA + DVI-D	VGA + DVI-D	VGA + DVI-D	VGA + DVI-D
	LAN	2	2	2	2
	USB	4 x USB 3.0			
	COM	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485
	PS/2	-	-	-	-
	Audio	Line in/line out/mic in			
Rear I/O	Remote Switch	Yes	Yes	Yes	Yes
Watchdog Timer Output	Output	System reset	System reset	System reset	System reset
	Interval	Programmable 1 ~ 255 s/min			
Power Supply	Output Wattage	-	-	-	-
	Input Range	19 ~ 24 V <sub>DC</sub>			
	Remote Power Switch	1	1	1	1
Cooling	System Fan	1 (6cm / 27.7 CFM)	1 (6cm / 27.7 CFM)	1 (8cm / 57 CFM)	1 (8cm / 57 CFM)
	Air Filter	-	-	-	-
Physical Characteristics	Dimensions (W x H x D)	230 x 70.3 x 175 mm (9.06" x 2.77" x 6.89")	230 x 70.3 x 175 mm (9.06" x 2.77" x 6.89")	240 x 97 x 190 mm (9.45" x 3.82" x 7.48")	240 x 97 x 190 mm (9.45" x 3.82" x 7.48")
	Weight	1.8 kg	1.8 kg	2.4 kg	2.4 kg

✓: supported, - : not supported, △: optional

## Industrial Chassis

## Wallmount



Model		IPC-6806S	IPC-6806	IPC-6806W	IPC-6606	IPC-6608	IPC-7132
Supported Form Factor		PICMG 1.0/1.3 HL SBC	PICMG 1.0 FL SBC	PICMG 1.0/1.3 FL SBC	PICMG 1.0/1.3 FL SBC		ATX/μATX
Drive Bay	Slim ODD	–	–	–	–	–	–
	5.25"	–	–	1	1	2	1
	2.5"	–	–	–	–	–	–
	Hot-swap tray	–	–	–	–	–	–
	3.5"	(no support for IPC-DT-3120E)		1	1	1	1
	External	1	1	1	1	–	2
	Internal	1	1	1	1	–	2
Chassis I/O	USB 2.0	2	2	2	2	2	2
	USB 3.0	–	–	–	–	–	–
	PS/2	–	–	–	–	–	–
Cooling	No. of Fans	1	1	1	1	1	1
	CFM	51.5	51.5	58	51.5	82	82
Power Supply	AC Single	250W	250W	350W	300W 500W 700W		300W 500W 700W
	AC Redundant	(mechanical limit)		(mechanical limit)		(mechanical limit)	
	DC	(mechanical limit)	(mechanical limit)	(mechanical limit)	(mechanical limit)		–
Passive backplane	PICMG 1.0	✓	✓	✓	✓		–
	PICMG 1.3	✓	–	✓	✓		–
Intelligent System Module		–	–	–	–		–
Dimension (W x H x D)	mm	191 x 178 x 290	166 x 178 x 398	198 x 221 x 398	174 x 254 x 396	174 x 315 x 410	200 x 330 x 430
	inch	7.5 x 7.01 x 11.42	6.54 x 7.01 x 15.67	7.8 x 8.7 x 15.67	6.9 x 10 x 15.6	6.9 x 12.4 x 16.1	7.9 x 13 x 16.9
Weight	kg	5.6	6.3	8	9	11	10
	lb	12.3	13.9	17.6	19.8	24.2	21.9

✓: supported, –: not supported, △: optional

**Wallmount**

Model		IPC-5120 IPC-7120	IPC-6025	IPC-5122	IPC-7130 IPC-7130L	IPC-7220
Supported Form Factor		μATX	ATX/μATX	PICMG 1.0/1.3 FL SBC	μATX	ATX/μATX
Drive Bay	Slim ODD	–	–	1	–	–
	5.25"	1	–	–	1	1
	2.5"	–	–	–	–	–
	Hot-swap tray	–	–	–	2	–
	3.5"	External	1	1	–	2
	Internal	1	1	1	1	1
Chassis I/O	USB 2.0	–	2	2	2	2
	USB 3.0	–	–	–	–	–
	PS/2	–	–	–	–	–
Cooling	No. of Fans	1 + 1	1	1	1 + 1	1
	CFM	82 + 11	51.5	82	82 + 27.72	82
Power Supply	AC Single	250W 350W	350W	300W 500W 700W	300W 500W 700W	300W 500W 700W
	AC Redundant	(mechanical limit)	(mechanical limit)	(mechanical limit)	500W	500W
	DC	(mechanical limit)	(mechanical limit)	(mechanical limit)	–	–
Passive backplane	PICMG 1.0	–	✓	–	–	–
	PICMG 1.3	–	✓	–	–	–
Intelligent System Module		–	✓	✓	✓	–
Dimension (W x H x D)	mm	320 x 164 x 316.5	380 x 164 x 316.5	111 x 212 x 420	157 x 360 x 340	200 x 320 x 480
	inch	12.6 x 6.5 x 12.5	15 x 6.5 x 12.5	4.4 x 8.3 x 16.5	6.2 x 14.2 x 13.4	7.9 x 12.6 x 18.9
Weight	kg	6.5	7	4.7	6.5	12.8
	lb	14.4	15.5	10.3	14.3	28.2
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# Industrial Chassis

## Rackmount



Model		1U	2U	2U	2U		2U	2U	4U	4U
		ACP-1010	IPC-603	ACP-2000	ACP-2010	ACP-2320	ACP-2020	ACP-2020G	IPC-631	IPC-610L
Supported Form Factor		ATX/μATX	ATX/μATX	PICMG 1.0/1.3 FL SBC		ATX/μATX	ATX/μATX	ATX/μATX	ATX/μATX	PICMG 1.0/ 1.3 FL SBC
Drive Bay	Slim ODD	1	1	1	-	1	1	1	1	-
	5.25"	-	-	-	1	-	-	-	-	3
	2.5"	3.5*1 or 2.5*2	-	-	-	-	2 x internal 2 x external (hot-swap module optional)	2*external	2 x internal 2 x external (hot-swap module optional)	-
	Hot-Swap Tray	-	-	-	-	2 (3.5" or 2.5")	-	-	-	-
	External	1	-	2	1	-	-	-	-	1
	Internal	3.5*1 or 2.5*2	1	-	2	-	-	-	-	-
Chassis I/O	USB 2.0	2	-	-	2	2	2	2	-	2
	USB 3.0	-	-	-	-	-	-	-	-	-
	PS/2	-	-	1	1	1	-	-	-	1
Cooling	No. of Fans	2	2	2	2	2+1	1	2	2	1
	CFM	24/each	47/each	47/each	47/each	47/each + 28	41	103/each	82/each	82
Power Supply	AC Single	250W 350W	350W	250W 300W 500W 700W	250W 350W	350W	850W	500W 700W	250W 300W 500W 700W	
	AC Redundant	(mechanical limit)	(mechanical limit)	(mechanical limit)	(mechanical limit)	500W	(mechanical limit)	-	500W	
	DC	-	-	-	-	-	-	-	-	-
Passive Backplane	PICMG 1.0	✓	-	✓	-	-	-	-	-	✓
	PICMG 1.3	✓	-	✓	-	-	-	-	-	✓
Intelligent System Module		-	-	✓	✓	✓	-	-	-	-
Dimension (W x H x D)	mm	480 x 44 x 497	482 x 88 x 308	482 x 88 x 451	482 x 88 x 480	482 x 88 x 398	482 x 88 x 450	482 x 177 x 348	482 x 177 x 479	
	inch	19 x 1.7 x 19.6	19 x 3.46 x 12.1	19 x 3.5 x 17.8	19 x 3.46 x 18.9	19 x 3.46 x 15.7	18.96 x 3.46 x 17.52	19 x 7 x 13.7	19 x 7 x 18.9	
Weight	kg	8	6.4	11.3	10.7	11.7	8.6	11.78	8	14.5
	lb	17.6	14.1	24.9	23.5	25.7	18.96	25.97	17.6	31.9

✓: supported, - : not supported, △: optional

**Rackmount**

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Model		4U		4U		4U		4U		4U		4U		4U	
		IPC-610H	ACP-4000	ACP-4010	ACP-4320	ACP-4020	ACP-4340	IPC-623							
Supported Form Factor		ATX/ μATX	PICMG 1.0/1.3 FL SBC	ATX/ μATX	PICMG 1.0/1.3 FL SBC	ATX/ μATX	PICMG 1.0/1.3 FL SBC	ATX/ μATX	PICMG 1.0/1.3 FL SBC	ATX/ μATX	PICMG 1.3 HL SBC	ATX/ μATX	PICMG 1.0/1.3 FL SBC	PICMG 1.0/1.3 FL SBC	
Drive Bay	Slim ODD	–	–	–	–	–	–	–	1	1	–	–	–	–	
	5.25"	3	3	2	2	–	–	–	–	–	–	–	2		
	2.5"	–	–	–	–	–	–	1 x internal	1 x internal	–	–	–	–		
	Hot-Swap Tray	–	–	–	–	2	–	–	4	–	–	–	–		
	3.5"	External	1	1	1	1	2	2	–	–	–	–	1		
	Internal	–	–	–	–	–	–	–	–	–	–	–	–		
Chassis I/O	USB 2.0	2	2	4	2	–	–	–	–	–	–	–	–	–	
	USB 3.0	–	–	–	–	–	2	2	2	2	–	–	–	–	
	PS/2	1	1	–	–	–	–	–	–	–	–	–	–	–	
Cooling	No. of Fans	2	2	2	1 + 1	2	2	1 + 1	3						
	CFM	82/each	82/each	82/each	82 + 28	52 / each	82 + 52	150 / each							
Power Supply	AC Single	300W 500W 700W	300W 500W 700W	300W 500W 700W	300W 500W 700W	300W 700W	500W 700W	500W 500W	500W 1200W						
	AC Redundant	500W	500W	500W	500W	(mechanical limit)	500W	500W	500W	(mechanical limit)					
	DC	–	–	–	–	–	(mechanical limit)	500W (single and RPS)	(mechanical limit)						
Passive Backplane	PICMG 1.0	–	✓	–	✓	–	✓	–	✓	–	–	–	✓	✓	
	PICMG 1.3	–	✓	–	✓	–	✓	–	✓	–	✓	–	✓	✓	
Intelligent System Module		–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Dimension (W x H x D)	mm	482 x 177 x 479	482 x 177 x 479	482 x 177 x 479	482 x 177 x 479	482 x 177 x 348	482 x 177 x 479	482 x 177 x 657							
	inch	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7 x 13.7	19 x 7 x 18.8	19 x 7 x 26							
Weight	kg	15	15.2	16.6	17.6	8.5	12.5	27.4							
	lb	33	33.5	36.5	38.7	18.7	27.5	60.41							

✓: supported, –: not supported, △: optional

# Industrial Motherboards

## ATX Motherboards



Model		AIMB-788	AIMB-787	AIMB-786
Processor System	CPU	12th Generation Intel Core™ i9/i7/i5/i3, Pentium®/Celeron®	10th Generation Core™ i9/i7/i5/i3 & Pentium®/Celeron®	8th/9th Generation Core™ i7/i5/i3 & Pentium®/Celeron®
	Socket	LGA1700	LGA1200	LGA1151
	Max. Speed	3.6 GHz	3.8 GHz	3.7 GHz
	Cache	L3: up to 30 MB (depends on CPU)	L3: up to 20 MB (depends on CPU)	L3: up to 12 MB (depends on CPU)
	Chipset	Intel Q670E	Intel Q470E	Intel Q370
	BIOS	AMI 256 Mbit SPI	AMI 256 Mbit SPI	AMI 256 Mbit SPI
Expansion Slot	PCIe x16	1 (Gen4)	1 (Gen3)	1 (Gen3)
	PCIe x8	1 (x 4 link, Gen3)	–	–
	PCIe x4	3 (Gen3)	4 (Gen3)	4 (Gen3)
	PCIe x1	–	–	–
	PCI	2	2	2
Memory	Technology	Dual Channel DDR4 3200 MHz	Dual Channel DDR4 2400/2666/2933 MHz	Dual Channel DDR4 2400/2666 MHz
	Max. Capacity	128 GB	128 GB	128 GB
	Socket	4 x 288-pin DIMM	4 x 288-pin DIMM	4 x 288-pin DIMM
Graphics	Controller	Intel UHD Graphics	Intel HD Graphics	Intel HD Graphics
	VRAM	Shared system memory up to 1 GB	Shared system memory up to 1 GB	Shared system memory up to 1 GB
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	GbE LAN1: Intel I219-LM GbE LAN2: Intel I210-AT	GbE LAN1: Intel I219-LM GbE LAN2: Intel I210-AT	GbE LAN1: Intel I219-LM GbE LAN2: Intel I211-AT
M.2	Slot	PCIe x4 M-key 2280 type	PCIe x4 M-key 2280 type	–
SATA	Max. Date Transfer Rate	600 MB/s	600 MB/s	600 MB/s
	Channel	4 (SW RAID)	4 (SW RAID)	5 (SW RAID)
I/O Interface	VGA	1	1	1
	DVI	–	1	1
	DP	1	1	1
	HDMI	1	–	–
	USB	14 (6 USB 3.2 and 8 USB 2.0)	14 (6 USB 3.2 and 8 USB 2.0)	13 (6 USB 3.2 and 7 USB 2.0)
	Serial	6	6	6
	PS/2	–	Optional	Optional
	Ethernet (GbE)	2	2	2
	Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
Watchdog Timer	Output	System reset	System reset	System reset
	Interval	Programmable, 1-255 Sec	Programmable, 1-255 Sec	Programmable, 1 ~ 255 sec

✓: supported, –: not supported, △: optional

## ATX Motherboards



Model		AIMB-708	AIMB-707	AIMB-706
Processor System	CPU	12th Generation Intel Core™ i9/i7/i5/i3, Pentium®/Celeron®	10th Generation Core™ i9/i7/i5/i3 & Pentium®/Celeron®	8th/9th Generation Core™ i7/i5/i3 & Pentium®/Celeron®
	Socket	LGA1700	LGA1200	LGA1151
	Max. Speed	3.6 GHz	3.8 GHz	3.7 GHz
	Cache	L3: up to 30 MB (depends on CPU)	L3: up to 20 MB (depends on CPU)	L3: up to 12 MB (depends on CPU)
	Chipset	Intel H610E	Intel H420E	Intel H310
	BIOS	AMI 256 Mbit SPI	AMI 128 Mbit SPI	AMI 128 Mbit SPI
Expansion Slot	PCIe x16	1 (Gen4)	1 (Gen3)	1 (Gen3)
	PCIe x8	–	–	–
	PCIe x4	2 (Gen3)	2 (x 1 link, Gen3)	1 (Gen2)
	PCIe x1	–	–	–
	PCI	4	4	5
Memory	Technology	Dual Channel DDR4 3200 MHz	Dual Channel DDR4 2400/2666/2933 MHz	Dual Channel DDR4 2400/2666 MHz
	Max. Capacity	64 GB	64 GB	64 GB
	Socket	2 x 288-pin DIMM	2 x 288-pin DIMM	2 x 288-pin DIMM
Graphics	Controller	Intel UHD Graphics	Intel HD Graphics	Intel HD Graphics
	VRAM	Shared system memory subject to OS	Shared system memory subject to OS	Shared system memory subject to OS
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	GbE LAN1: Intel I219-V GbE LAN2: Intel I225-V (G2 Only)	GbE LAN1: Intel I219-V GbE LAN2: Intel I211-AT (G2 Only)	GbE LAN1: Intel I219-V GbE LAN2: Intel I211-AT (G2 Only)
M.2	Slot	PCIe x2 M-key 2280 type (G2 only)	PCIe x2 M-key 2280 type (G2 only)	–
SATA	Max. Date Transfer Rate	600 MB/s	600 MB/s	600 MB/s
	Channel	4	4	4
I/O Interface	VGA	1	1	1
	DVI	–	1 (G2 Only)	1 (G2 Only)
	DP	–	–	–
	HDMI	1 (G2 Only)	–	–
	USB	G2: 10 (4 USB 3.2 and 6 USB 2.0) VG: 7 (2 USB 3.2 and 5 USB 2.0)	G2: 10 (6 USB 3.2 and 4 USB 2.0) VG: 7 (4 USB 3.2 and 3 USB 2.0)	9 (4 USB 3.2 and 5 USB 2.0)
	Serial	G2: 6 VG: 2	G2: 6 VG: 2	G2: 6 VG: 2
	PS/2	–	Optional	2 (1 x keyboard and 1 x mouse)
	Ethernet (GbE)	G2: 2 VG: 1	G2: 2 VG: 1	G2: 2 VG: 1
	Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
	Watchdog Timer	Output	System reset	System reset
	Interval	Programmable, 1-255 Sec	Programmable, 1-255 Sec	Programmable, 1 ~ 255 sec

✓: supported, – : not supported, △: optional

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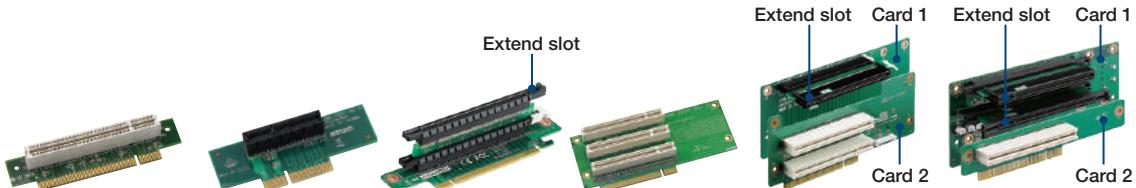
**14**  
Intelligent Edge DAQ Devices

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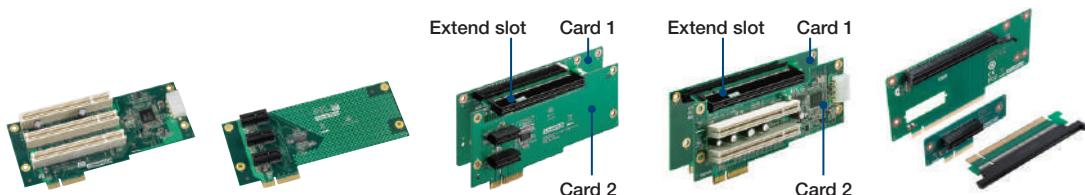
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Serial Communication

# Industrial Motherboards

## Riser Cards



Model		AIMB-RP10P-01A1E	AIMB-R4104-01A1E	AIMB-RF10F-01A1E	AIMB-RP30P-03A1E	AIMB-RP3PF-21A1E	AIMB-RP3P8-12A1E
Interface		PCI	PCIe x4	PCIe x 16	PCI	PCIe x16/PCI	PCIe x16/PCI
Expansion Slots		1 PCI	1 PCIe x4	1 PCIe x 16	3 PCI	1 PCIe x16 + 2 PCI	2 PCIe x8 + 1 PCI
Chassis	1U	✓	✓	✓	-	-	-
	2U	-	-	-	✓	✓	✓
ATX	AIMB-788	-	-	-	-	-	-
	AIMB-787	-	-	-	-	-	-
	AIMB-786	-	-	-	-	-	-
	AIMB-785	-	✓	✓	-	-	-
	AIMB-708	✓	-	✓	✓	✓	-
	AIMB-707	✓	-	✓	✓	✓	-
	AIMB-706	✓	-	✓	✓	✓	-
	AIMB-705	✓	-	✓	✓	✓	-



Model		AIMB-R430P-03A2E	AIMB-R4301-03A2E	AIMB-R431F-21A1E	AIMB-R43PF-21A1E	ASMB-RM2F4-11A1
Interface		PCIe x4	PCIe x4	PCIe x16/PCIe x4	PCIe x16/PCIe x4	PCIe x16 / PCIe x4
Expansion Slots		3 PCI	3 PCIe x1	1 PCIe x16 + 2 PCIe x1	1 PCIe x16 + 2 PCI	PCIe x16 / PCIe x4
Chassis	1U	-	-	-	-	-
	2U	✓	✓	✓	✓	✓ (ACP-2020G only)
ATX	AIMB-788	✓	△	□	✓	✓
	AIMB-787	✓	△	□	✓	✓
	AIMB-786	✓	△	□	✓	✓
	AIMB-785	✓	△	□	✓	✓

✓: Fully compatible

□: Only the PCIe x 16 and PCIe x1 (bottom slot) connectors work.

△: Only one PCIe x1 connector works (top slot).

# Slot SBCs and Passive Backplanes

## PICMG 1.3 Full-Size Single Board Computers

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Model	LGA1700 PICMG 1.3 SHB	
	PCE-5033	PCE-5133
Processor System	CPU	LGA1700 12th Generation Intel® Core™ i9/i7/i5/i3/Pentium/Celeron Processors
	Max. Speed	3.6 GHz
	Cache	Up to 30 MB (Depends on CPU)
	Chipset	Intel H610E
	BIOS	AMI 256 Mbit SPI
Backplane	PCIe	1 x16, 1 x4
Bus	PCI (32bit/33/66 MHz)	4
Memory	Technology	Dual-channel (non-ECC) U-DIMM DDR5 4800 MHz
	Max. Capacity	64 GB (Depends on CPU)
	Socket	2 x DDR5 288-pin DIMM
Graphics	Controller	Chipset integrated with Intel® HD Graphics
	VRAM	Shared system memory is subject to OS
	Video Out	1st: VGA 2nd: DVI-D/DP/HDMI 3rd: DVI-D/DP/HDMI
Ethernet	Interface	10M/100M/1000Mbps
	LAN1/LAN2 Controller	LAN 1: Intel® I225-V LAN 2: Intel® I225-V
	Connector	RJ45 x 2
	Disable in BIOS	✓
SATA	Max. Data Transfer Rate	600 MB/s SATA3.0
	Channel	4
	S/W Raid	–
Rear I/O	VGA	1
	Ethernet	2
	USB2.0	1
	USB3.2	2
	PS/2	0
	Serial	0
Internal I/O	USB 2.0	5 (USB Type A * 1 + 4 on backplane)
	USB 3.2	2
	SATA	4
	M.2 (2280 Type M)	0
	Serial	2
	Parallel	0
	PS/2	0
	OBS(Onboard Security Hardware Monitor)	✓
Watchdog Timer	Output	System reset
	Interval	Programmable, 1~255 sec/min
Miscellaneous	Advantech Audio Module	PCA-AUDIO-HDB1E
	Advantech SAB-2000	–
	AMT	–

✓: supported, – : not supported, △: optional

# Slot SBCs and Passive Backplanes

## PICMG 1.3 Full-Size Single Board Computers



Model		LGA1200 PICMG 1.3 SHB	LGA1200 PICMG 1.3 SHB	LGA1200 PICMG 1.3 SHB
		☞ PCE-5032	☞ PCE-5132	☞ PCE-7132
Processor System	CPU	LGA1200 10th Generation Intel® Core™ i9/i7/i5/i3/Pentium/Celeron Processors	LGA1200 10th Generation Intel® Core™ i9/i7/i5/i3/Pentium/Celeron Processors	LGA1200 10th Generation Intel® Xeon® W/Core™ i9/i7/i5/i3/Pentium® Processors
	Max. Speed	3.8 GHz	3.8 GHz	3.7 GHz
	Cache	Up to 20 MB (Depends on CPU)	Up to 20 MB (Depends on CPU)	Up to 20 MB (Depends on CPU)
	Chipset	Intel H420E	Intel Q470E	Intel W480E
Backplane Bus	BIOS	AMI 128 Mbit SPI	AMI 256 Mbit SPI	AMI 256 Mbit SPI
	PCIe	1 x16, 1 x4	1 x16, 1 x4	1 x16 or 2 x8, 1 x4
	PCI (32bit/33 MHz)	4	4	4
Memory	Technology	Dual-channel (non-ECC) U-DIMM DDR4 2666/2933 MHz	Dual-channel (non-ECC) U-DIMM DDR4 2666/2933 MHz	Dual-channel (non-ECC/ECC) U-DIMM DDR4 2666/2933 MHz
	Max. Capacity	64 GB (Depends on CPU)	64 GB (Depends on CPU)	64 GB (Depends on CPU)
	Socket	2 x DDR4 288-pin DIMM	2 x DDR4 288-pin DIMM	2 x DDR4 288-pin DIMM
Graphics	Controller	Chipset integrated with Intel® HD Graphics	Chipset integrated with Intel® HD Graphics	Chipset integrated with Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS
	Video Out	VGA + DP/DVI-D	VGA + DP/DVI-D + DP/DVI-D	VGA + DP/DVI-D + DP/DVI-D
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	LAN1/LAN2 Controller	LAN 1: Intel® I219-V LAN 2: Intel® I211-AT	LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT	LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT
	Connector	RJ45 x 2	RJ45 x 2	RJ45 x 2
	Disable in BIOS	✓	✓	✓
SATA	Max. Data Transfer Rate	600 MB/s SATA3.0	600 MB/s SATA3.0	600 MB/s SATA3.0
	Channel	4	6	6
	S/W Raid	-	0, 1, 5, 10	0, 1, 5, 10
Rear I/O	VGA	1	1	1
	Ethernet	2	2	2
	USB2.0	1	1	1
	USB3.2	2	2	2
	PS/2	0	0	0
	Serial	0	0	0
Internal I/O	USB 2.0	5 (USB Type A * 1 + 4 on backplane)	5 (USB Type A * 1 + 4 on backplane)	5 (USB Type A * 1 + 4 on backplane)
	USB 3.2	2	6	6
	SATA	4	6	6
	M.2 (2280 Type M)	0	1	1
	Serial	2	2	2
	Parallel	0	0	0
	PS/2	0	0	0
	OBS (Onboard Security Hardware Monitor)	✓	✓	✓
Watchdog Timer	Output	System reset	System reset	System reset
	Interval	Programable, 1~255 sec/min	Programable, 1~255 sec/min	Programmable, 1~255 sec/min
Miscellaneous	Advantech Audio Module	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E
	Advantech SAB-2000	-	✓	✓
	AMT	-	✓	✓

✓: supported, -: not supported, △: optional

## PICMG 1.3 Full-Size Single Board Computers



Model		LGA1151 PICMG 1.3 SHB	LGA1151 PICMG 1.3 SHB	LGA1151 PICMG 1.3 SHB
		☛ PCE-5031	☛ PCE-5131	☛ PCE-7131
Processor System	CPU	Intel® Core™ i7/Core™ i5/Core™ i3/Pentium/Celeron LGA1151 Processors	Intel® Core™ i7/Core™ i5/Core™ i3 LGA1151 Processors	Intel® Xeon® E Family/Core™ i7/i5/i3 LGA1151 processor with C246 chipset
	Max. Speed	3.7 GHz	3.7 GHz	3.7 GHz
	Cache	Up to 12 MB (Depends on CPU)	Up to 12 MB (Depends on CPU)	Up to 16 MB (Depends on CPU)
	Chipset	Intel H310	Intel Q370	Intel C246
	BIOS	AMI 256 Mbit SPI	AMI 256 Mbit SPI	AMI 256 Mbit SPI
Backplane Bus	PCIe	1 x16, 1 x4	1 x16, 1 x4	1 x16 or 2 x8, 1 x4
	PCI (32bit/33 MHz)	4	4	4
Memory	Technology	Dual-channel (non-ECC) DDR4 2400/2666	Dual-channel (non-ECC) DDR4 2400/2666	Dual-channel (non-ECC) DDR4 2400/2666
	Max. Capacity	64 GB (Depends on CPU)	64 GB (Depends on CPU)	64 GB (Depends on CPU)
	Socket	2 x DDR4 288-pin DIMM	2 x DDR4 288-pin DIMM	2 x DDR4 288-pin DIMM
Graphics	Controller	Chipset integrated with Intel® HD Graphics	Chipset integrated with Intel® HD Graphics	Chipset integrated with Intel® HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared system memory is subject to OS
	Video Out	VGA + DP/DVI-D	VGA + DP/DVI-D + DP/DVI-D	VGA + DP/DVI-D + DP/DVI-D
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	LAN1/LAN2 Controller	LAN 1: Intel® I219-V LAN 2: Intel® I211-AT	LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT	LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT
	Connector	RJ45 x 2	RJ45 x 2	RJ45 x 2
	Disable in BIOS	✓	✓	✓
SATA	Max. Data Transfer Rate	600 MB/s SATA3.0	600 MB/s SATA3.0	600 MB/s SATA3.0
	Channel	4 x SATA3.0	5 x SATA3.0	5 x SATA3.0
	S/W Raid	–	0, 1, 5, 10	0, 1, 5, 10
Rear I/O	VGA	1	1	1
	Ethernet	2	2	2
	USB2.0	0	0	0
	USB3.2	1	1	1
	PS/2	1	1	1
	Serial	0	0	0
Internal I/O	USB 2.0	7 USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane)	7 USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane)	7 USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane)
	USB 3.2	2	6	6
	SATA	4	5	5
	M.2 (2280 Type M)	0	1	1
	Serial	2	2	2
	Parallel	1	1	1
	PS/2	1	1	1
	OBS(Onboard Security Hardware Monitor)	✓	✓	✓
Watchdog Timer	Output	System reset	System reset	System reset
	Interval	Programable, 1~255 sec/min	Programable, 1~255 sec/min	Programmable, 1~255 sec/min
Miscellaneous	Advantech Audio Module	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E
	Advantech SAB-2000	–	✓	✓
	AMT	–	✓	✓

✓: supported, – : not supported, △: optional

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# Slot SBCs and Passive Backplanes

## PICMG 1.3 Half-Size Single Board Computers



Model		PCIe Half-Size SBC			
		PCE-3032	PCE-4132	PCE-3029	PCE-4129
Processor System	CPU	Intel® Core™ i9/i7/i5/i3/Celeron®/Pentium® LGA 1200 Processor	Intel Xeon W Family series, Core i9/i7/i5/i3 LGA1200 Processors	Intel Core i7/i5/i3/Pentium LGA 1151 Processor	Intel Xeon E3-1200v5 series, Core i7/i5/i3 LGA1151 processors
	Speed	Up to 3.8 GHz	Up to 3.5 GHz	Up to 3.7 GHz	Up to 3.7 GHz
	Cache	Up to 20 MB	Up to 20 MB	Up to 8 MB	Up to 8 MB
	Chipset	Intel H420E	Intel W480E	Intel H110	Intel C236
Bus	BIOS	AMI 128 Mbit SPI Flash	AMI 256 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 128 Mbit SPI Flash
	PCIe	1 x16, 4 x1	1 x16 or 2 x8, 4 x1	1 x16, 4 x1	1 x16 or 2 x8, 4 x1
Graphics	Controller	Chipset integrated with Intel HD graphics			
	VRAM	Shared with system memory is subject to OS	Shared with system memory is subject to OS	Shared with system memory is subject to OS	Shared with system memory is subject to OS
	Video Output	VGA + DVI-D/DP	VGA + DVI-D + DP	VGA + DVI-D/DP	VGA + DVI-D + DP
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN 1: Intel I211-AT LAN 2: Intel I211-AT	LAN 1: Intel I210-AT LAN 2: Intel I210-AT	LAN1: Intel® I219-V LAN2: Intel® I211-AT	LAN1: Intel® I219-LM LAN2: Intel® I210-AT
	Connector	RJ-45 x2	RJ-45 x2	RJ-45 x2	RJ-45 x2
	Disabled in BIOS	✓	✓	✓	✓
Memory	Technology	Dual channel (Non-ECC) DDR4 2666/2933 MHz	Dual channel DDR4 ECC 2666/2933 MHz (ECC function depends on processor)	Dual-channel DDR4 1866/2133 MHz	Dual channel DDR4 ECC 1866/2133 MHz (ECC function depends on processor)
	Max. Capacity	64 GB	64 GB	32 GB	32 GB
	Socket	260-pin SO-DIMM x2	260-pin SO-DIMM x2	260-pin SODIMM x2	260-pin SO-DIMM X2
SATA	Max. Data Transfer Rate	600MB/s	600MB/s	600MB/s	600MB/s
	Channel	3	4	4	4
	RAID	–	0,1,5,10	–	0,1,5,10
I/O Interface	USB	4 USB 3.2 + 6 USB 2.0	6 USB 3.2 + 7 USB 2.0	3 USB 3.2 + 7 USB 2.0	3 USB 3.2 + 7 USB 2.0
	mSATA	0	0	1	1
	Serial	2 x RS-232 Optional: 4x RS-422/485 w/ Auto-flow or 4 x RS-232 by COM module	2 x RS-232 Optional: 4x RS-422/485 w/ Auto-flow or 4 x RS-232 by COM module	2 x RS-232 Optional: 4x RS-422/485 w/ Auto-flow or 4 x RS-232 by COM module	2 x RS-232 Optional: 4x RS-422/485 w/ Auto-flow or 4 x RS-232 by COM module
	Parallel	0	0	1	1
	PS/2	0	0	1	1
	LAN	2	2	2	2
	OBS (Onboard Security Hardware Monitor)	✓	✓	✓	✓
Watchdog Timer	Output	System reset	System reset	System reset	System reset
	Interval	Programmable 1-255 sec	Programmable 1-255 sec	Programmable 1-255 sec	Programmable 1-255 sec
Miscellaneous	Advantech Audio Module	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E

✓: supported, – : not supported, △: optional

## PICMG 1.0 Single Board Computers



Model		PICMG 1.0 Full-Size SBC	PICMG 1.0 Half-Size SBC
		PCA-6029	PCI-7032
Processor System	CPU	Intel® Core™ i7/i5/i3/Pentium/Celeron LGA1151 Processors	Intel® Celeron J1900/N2930 Processors
	Max. Speed	3.9 GHz	2.0GHz
	Cache	Up to 8MB	Up to 2MB
	Chipset	Intel H110	–
	BIOS	AMI 128Mbit SPI Flash	AMI 64Mb SPI Flash
Bus	PCI	32 bit/33 MHz PCI	32 bit/33 MHz PCI
	ISA	HISA (ISA High Driver)	–
Graphics	Controller	Chipset integrated Intel HD Graphics	Chipset integrated Intel HD Graphics
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS
	Video Output	VGA + DVI-D/DP	Dual independent display: choosing two interfaces from VGA, LVDS, and DVI
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN 1: Intel® I219-V LAN 2: Intel® I211-AT	LAN 1: Intel® I211 LAN 2: Intel® I211 (G2)
	Connector	RJ45 x 2	RJ45 x 2
	Disabled in BIOS	✓	✓
Memory	Technology	Dual-channel (non-ECC) U-DIMM DDR4 2133/2400	G2: Dual channel DDR3L-1333 VG: DDR3L-1333
	Max. Capacity	64 GB	8 GB (4GB per DIMM)
	Socket	2 x DDR4 288-pin DIMM	DDR3 204-pin SO-DIMM x1 (VG); x2 (G2)
SATA	Max. Data Transfer Rate	600 MB/s	300 MB/s (SATA2.0)
	Channel	4	2
	RAID	–	–
I/O Interface	USB	1 USB 3.2 + 7 USB 2.0	G2: 1 x USB 3.0 + 6 x USB 2.0 VG: 1 x USB 3.0 + 5 x USB 2.0
	Serial	2 RS-232	G2: 4 x RS-232/422/485 VG: 2 x RS-232/422/485
	Parallel	1	–
	M.2	1	–
	PS/2	1	1
	LAN	2	G2: 2 VG: 1
Watchdog Timer	OBS (Hardware Monitor)	✓	G2: ✓ VG: –
	Output	System reset	System reset
Miscellaneous	Interval	Programmable, 1~255 sec	Programmable, 1~255 sec
	Advantech Audio Module	PCA-AUDIO-HDB1E	PCA-AUDIO-HDB1E
	Advantech SAB-2000	–	–

✓: supported, –: not supported, △: optional

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# Slot SBCs and Passive Backplanes

## PICMG1.3 Full-Size SBC Backplanes

**Server Grade: Compatible with PCE-7000 Series CPU Boards**

Category	Part Number	PCIe				PCI-X			PCI
		x16	x8	x4	x1	64/66	64/100	64/133	32/33
8 slots BP	PCE-7B08-04A1E	–	2	1	–	–	–	–	4
14 slots BP	PCE-7B13-64C1E	–	2	–	–	4	2	–	4
	PCE-7B13-07A2E	–	2	3	–	–	–	–	7

Category	Part Number	Wallmount/Desktop Chassis			
		IPC-6025	IPC-6606	IPC-6806(W)	IPC-6608
8 slots BP	PCE-7B08-04A1E	–	–	–	✓
14 slots BP	PCE-7B10-04A1E	–	–	–	–
	PCE-7B13-64C1E	–	–	–	–
	PCE-7B13-07A2E	–	–	–	–

Category	Part Number	Rackmount Chassis			
		ACP-2000EBP	IPC-510	IPC-610	IPC-611
		3 slot / 2U	14 slot / 4U		
8 slots BP	PCE-7B08-04A1E	–	–	–	–
14 slots BP	PCE-7B10-04A1E	–	✓	✓	✓
	PCE-7B13-64C1E	–	✓	✓	✓
	PCE-7B13-07A2E	–	✓	✓	✓

Category	Part Number	Rackmount Chassis				
		ACP-4000	ACP-4010	ACP-4320	ACP-4340	IPC-623
		14 slot / 4U				20-slot/ 4U
8 slots BP	PCE-7B08-04A1E	–	–	–	–	–
14 slots BP	PCE-7B10-04A1E	✓	✓	✓	✓	–
	PCE-7B13-64C1E	✓	✓	✓	✓	–
	PCE-7B13-07A2E	✓	✓	✓	✓	–

✓: supported, –: not supported, △: optional

## PICMG1.3 Full-Size SBC Backplanes

### Desktop: Compatible with PCE-5000 Series CPU Boards

Category	Part Number	PCIe				PCI-X			PCI	Wallmount/Desktop Chassis				
		x16	x8	x4	x1	64/66	64/100	64/133	32/33	IPC-6025	IPC-6606	IPC-6806	IPC-6806W	IPC-6608
2U Butterfly BP	PCE-5B06V-00A1E	1	–	–	4	–	–	–	–	–	–	–	–	–
	PCE-5B06V-04A1E	1	–	–	–	–	–	–	4	–	–	–	–	–
5 Slot BP	PCE-5B05-02A1E	1	–	1	–	–	–	–	2	✓	–	–	–	–
	PCE-5B05-03A1E	1	–	–	–	–	–	–	3	✓	–	–	–	–
6 Slot BP	PCE-5B06-00A1E	1	–	–	4	–	–	–	–	–	✓	–	✓	–
	PCE-5B06-03A1E	1	–	1	–	–	–	–	3	–	✓	–	✓	–
	PCE-5B06-04A1E	1	–	–	–	–	–	–	4	–	✓	–	✓	–
8 Slot BP	PCE-5B07-04A1E	1	–	1	–	–	–	–	4	–	–	–	–	✓
	PCE-5B08-02A1E	1	–	–	4	–	–	–	2	–	–	–	–	✓
10 Slot BP	PCE-5B09-04A1E	1	–	3	–	–	–	–	4	–	–	–	–	–
	PCE-5B09-06A1E	1	–	1	–	–	–	–	6	–	–	–	–	–
14 Slot BP	PCE-5B10-04A1E	1	–	–	4	–	–	–	4	–	–	–	–	–
	PCE-5B12-07A2E	1	–	3	–	–	–	–	7	–	–	–	–	–
	PCE-5B12-64C1E	1	–	–	–	–	4	2	–	4	–	–	–	–
	PCE-5B13-08A2E	1	–	–	3	–	–	–	8	–	–	–	–	–
	PCE-5B12D-04A1E	1	–	–	–	–	–	–	4	–	–	–	–	–
20 Slot BP	PCE-5B16Q-02A1E	1	–	–	–	–	–	–	2	–	–	–	–	–
	PCE-5B18-88B1E	1	–	–	–	8	–	–	8	–	–	–	–	–
	PCE-5B19-00A1E	17	–	1	–	–	–	–	–	–	–	–	–	–

Category	Part Number	Rackmount Chassis									
		ACP-2000	IPC-510	IPC-610	IPC-611	ACP-4000	ACP-4010	ACP-4320	ACP-4360	IPC-623	
		3 slot / 2U		14 slot / 4U							20 slot / 4U
2U Butterfly BP	PCE-5B06V-00A1E	✓	–	–	–	–	–	–	–	–	–
	PCE-5B06V-04A1E	✓	–	–	–	–	–	–	–	–	–
5 Slot BP	PCE-5B05-02A1E	–	–	–	–	–	–	–	–	–	–
	PCE-5B05-03A1E	–	–	–	–	–	–	–	–	–	–
6 Slot BP	PCE-5B06-00A1E	–	–	–	–	–	–	–	–	–	–
	PCE-5B06-03A1E	–	–	–	–	–	–	–	–	–	–
	PCE-5B06-04A1E	–	–	–	–	–	–	–	–	–	–
8 Slot BP	PCE-5B07-04A1E	–	–	–	–	–	–	–	–	–	–
	PCE-5B08-02A1E	–	–	–	–	–	–	–	–	–	–
10 Slot BP	PCE-5B09-04A1E	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PCE-5B09-06A1E	–	✓	✓	✓	✓	✓	✓	✓	✓	–
14 Slot BP	PCE-5B10-04A1E	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PCE-5B12-07A2E	–	✓	✓	✓	✓	✓	✓	✓	✓	–
	PCE-5B12-64B1E	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PCE-5B13-08A2E	–	✓	✓	✓	✓	✓	✓	✓	✓	–
	PCE-5B12D-04A1E	–	–	–	–	–	–	✓	–	–	–
20 Slot BP	PCE-5B12-00A1E	–	–	–	–	–	–	–	–	–	✓
	PCE-5B16Q-02A1E	–	–	–	–	–	–	–	–	–	✓
	PCE-5B18-88A1E	–	–	–	–	–	–	–	–	–	✓

✓: supported, –: not supported, △: optional



# Slot SBCs and Passive Backplanes

## PCI/ISA Backplanes

Category	Part Number	Slot per segment					Segment	AT	ATX	2U Chassis	4U Chassis		
		ISA	PCI	PICMG	PICMG/PCI	ISA/PCI				ACP-2000	IPC-510	IPC-610	IPC-611
										3 slot	14 slot	14 slot	14 slot
5 Slot BP	PCA-6105P3-5A1E	1	2	1	–	1	1	–	✓	–	–	–	–
6/8 Slot BP	PCA-6106P4-0A2E	–	4	2	–	–	1	✓	✓	–	–	–	–
	PCA-6106P3-0D2E	2	2	1	1	–	1	✓	✓	–	–	–	–
14/15 Slot BP	PCA-6108P6-0C1E	1	5	1	1	–	1	✓	✓	–	–	–	–
	PCA-6108P4-0C2E	3	3	1	1	–	1	✓	✓	–	–	–	–
	PCA-6108-B2E	8	–	–	–	–	1	✓	✓	–	✓	✓	✓
	PCA-6114P12-0B3E	1	11	1	1	–	1	✓	✓	–	✓	✓	✓
	PCA-6114P10-0B2E	2	10	2	–	–	1	✓	✓	–	✓	✓	✓
	PCA-6114P7-0E1E	4	6	3	–	1	1	✓	✓	–	✓	✓	✓
20 Slot BP	PCA-6114P4-0C2E	8	4	2	–	–	1	✓	✓	–	✓	✓	✓
	PCA-6113P4R-0C2E	7	4	2	–	–	1	✓	✓	–	✓	✓	✓
	PCA-6114-0B2E	14	–	–	–	–	1	✓	✓	–	–	–	–
	PCA-6113DP4-0A2E	1	3,4	1,2	1,0	–	2	✓	✓	–	–	–	–
	PCA-6120P18-0A2E	1	17	1	1	–	1	✓	△	–	–	–	–
	PCA-6120P4-0B2E	14	4	2	–	–	1	✓	△	–	–	–	–
20 Slot BP	PCA-6120P12-0A2E	7	11	1	1	–	1	✓	△	–	–	–	–
	PCA-6119P7-0C2E	10	7	2	–	–	1	✓	△	–	–	–	–
	PCA-6120Q-0B3E	5	–	–	–	–	4	✓	△	–	–	–	–

Category	Part Number	4U Chassis					Wallmount/Desktop Chassis				
		ACP-4000	ACP-4010	ACP-4320	ACP-4340	IPC-623	IPC-6608	IPC-6606	IPC-6806/IPC-6806W	IPC-6025	IPC-6006
		14 slot	14 slot	14 slot	14 slot	20-slot	8-slot	6-slot	6-slot	5-slot	6-slot
5 Slot BP	PCA-6105P3-5A1E	–	–	–	–	–	–	–	–	✓	–
6/8 Slot BP	PCA-6106P4-0A2E	–	–	–	–	–	–	✓	✓	–	✓
	PCA-6106P3-0D2E	–	–	–	–	–	–	✓	✓	–	✓
14/15 Slot BP	PCA-6108P6-0C1E	–	–	–	–	–	✓	–	–	–	–
	PCA-6108P4-0C2E	–	–	–	–	–	✓	–	–	–	–
	PCA-6114P12-0B3E	✓	✓	✓	✓	–	–	–	–	–	–
	PCA-6114P10-0B2E	✓	✓	✓	✓	–	–	–	–	–	–
	PCA-6114P7-0E1E	✓	✓	✓	✓	–	–	–	–	–	–
	PCA-6114P4-0C2E	✓	✓	✓	✓	–	–	–	–	–	–
20 Slot BP	PCA-6113P4R-0C2E	✓	✓	✓	✓	–	–	–	–	–	–
	PCA-6114-0B2E	✓	✓	✓	✓	–	–	–	–	–	–
	PCA-6113DP4-0A2E	–	✓	–	–	–	–	–	–	–	–
	PCA-6120P18-0A2E	–	–	–	–	✓	–	–	–	–	–
	PCA-6120P4-0B2E	–	–	–	–	✓	–	–	–	–	–
20 Slot BP	PCA-6119P7-0C2E	–	–	–	–	✓	–	–	–	–	–
	PCA-6120Q-0B3E	–	–	–	–	✓	–	–	–	–	–

✓: supported, –: not supported, △: optional

## Backplanes Compatible with Half-Size SBCs

Interface	Category	Part Number	Slots per segment							Segment
			ISA	PCI	PCIe x16	PCIe x 8	PCIe x4	PCIe x1	PICMG	
Pure ISA Backplane	-	PCA-6104-0C2E	3	-	-	-	-	-	1	1
	6-Slot	PCA-6106-0B2E	5	-	-	-	-	-	1	1
	-	PCA-6108-0B2E *	7	-	-	-	-	-	1	1
	8-Slot	PCA-6108E-0C2E	7	-	-	-	-	-	1	1
Pure PCI Backplane	-	PCA-6104P4-0B2E	-	3	-	-	-	-	1	1
	6-Slot	PCA-6105P5-0B2E	-	4	-	-	-	-	1	1
PICMG1.3 Half-Size Backplanes	6-Slot	PCE-3B03-00A1E	-	-	1	-	1	-	1	1
	6-Slot	PCE-3B06-00A1E	-	-	1	-	-	4	1	1
	6-Slot	PCE-3B06-03A1E	-	3	1	-	-	1	1	1
	6-Slot	PCE-3B06-02A1E	-	2	1	-	-	2	1	1
	3-Slot	PCE-3B03A-00A1E	-	-	1	-	1	-	1	1
	3-Slot	PCE-3B03-01A1E	-	1	1	-	-	-	1	1
	14-Slot	PCE-3B12-08A1E	-	8	1	-	-	2	1	1
	14-Slot	PCE-4B13-08A1E	-	8	-	2	-	2	1	1
	14-Slot	PCE-4B12-03A1E	-	3	-	1	4	3	1	1
	14-Slot	PCE-4B13-00A1E	-	-	-	1	11	-	-	-

Interface	Part Number	AT	ATX	ACP-4020	IPC-6806S	IPC-6006S
				Rackmount	Wallmount	Wallmount
				14-slot	6-slot	6-slot
Pure ISA Backplane	PCA-6104-0C2E	✓	✓	-	-	-
	PCA-6106-0B2E	✓	✓	-	✓	✓
	PCA-6108-0B2E	✓	✓	-	-	-
	PCA-6108E-0C2E	✓	✓	-	-	-
Pure PCI Backplane	PCA-6104P4-0B2E	✓	✓	-	-	-
	PCA-6105P5-0B2E	✓	✓	-	✓	✓
Half-Size Backplanes	PCE-3B06-00A1E	-	✓	-	✓	✓
	PCE-3B06-03A1E	-	✓	-	✓	✓
	PCE-3B06-02A1E	-	✓	-	✓	✓
	PCE-3B03A-00A1E	-	✓	-	-	-
	PCE-3B03-01A1E	-	✓	-	-	-
	PCE-3B12-08A1E	-	✓	✓	-	-
	PCE-4B13-08A1E	-	✓	✓	-	-
	PCE-4B12-03A1E	-	✓	✓	-	-
	PCE-4B13-00A1E	-	✓	✓	-	-

✓: supported, - : not supported, △: optional

# Slot SBCs and Passive Backplanes

## ☞ Extension Modules for Slot SBCs



### PCA-COM232-ESPA1

- 4 RS-232 series ports extension module by eSPI connector on CPU card
- Dimensions (L x H): 30 x 42 mm (1.18" x 1.65")
- Support Model: PCE-5033/5133



### PCA-COM485-ESPA1

- 4 RS-422/485 series ports extension module by eSPI connector on CPU card
- Dimensions (L x H): 30 x 42 mm (1.18" x 1.65")
- Support Model: PCE-5033/5133



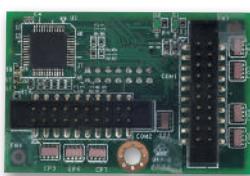
### PCA-TPMSPI-00A1

- Trusted platform module compliant with TCG 2.0 specification and TCG software stack 2.0 via SPI connector on CPU card
- Hardware based data protection solution for storage device encryption and decryption
- Dimensions (L x H) : 20 x 22 mm (0.79" x 0.87")
- Support Model: PCE-5033/5133



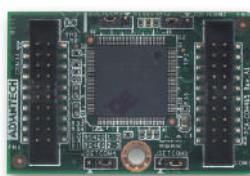
### PCA-AUDIO-HDB1E

- HD Audio Extension Module
- Line-out, Mic-in, Line-in, Surround-out, Speak-out, S/PDIF
- Dimensions (L x H): 68 x 125 mm (2.67"inch x 4.92")
- Support Model: PCE-5029/5031/5032/5033/5129/5131/5132/ 5133/7129/7131/7132/7133; PCE-3029/3032/4129/4132



### PCA-COM232-00A1E

- 4 RS-232 series ports extension module by LPC connector on CPU card.
- Dimensions (L x H): 31.5 x 48 mm (1.24" x 1.88")
- Support Model: PCE-5029/5031/5032/5129/5131/5132/7129/7131/7132; PCE-3029/3032/4129/4132



### PCA-COM485-00A1E

- 4 RS-422/485 series ports extension module by LPC connector on CPU card.
- With Auto-flow control function
- Dimensions (L x H): 31.5 x 48 mm (1.24" x 1.88")
- Support Model: PCE-5029/5031/5032/5129/ 5131/5132/7129/7131/7132; PCE-3029/3032/4129/4132



### PCE-SA01-00A1E

- I/O extension stack board
- 1 DP, 2 USB 3.0, MIC-in, LINE-out
- Dimensions (L x H) : 68 x 125 mm (2.67" x 4.92")
- Supports Model: PCE-3029, PCE-4128, PCE-4129
- Support Model: PCE-5029/5031/5032/5033/5129/5131/5132/5133/7129/7131/7132/7133; PCE-3029/3032/4129/4132



### PCA-TPM-00B1E

- Trusted platform module compliant with TCG 2.0 specification and TCG software stack 2.0 via LPC connector on CPU card
- Hardware based data protection solution for storage device encryption and decryption
- Dimensions (L x H) : 31.5 x 30.5 mm (1.24" x 1.2")
- Support Model: PCE-5029/5031/5032/5033/ 5129/5131/5132/5133/7129/7131/7132/7133; PCE-3029/3032/4129/4132

# Industrial Computer Peripherals

## CPU Coolers

### Intel® LGA1700/1200/1151



Part Number		1960049408N001	1960050255N001	1960052651N021	1960047669N001
Thermal Dispatch Performance	LGA1700 65W	Intel LGA1151/1200 84W	Intel LGA1151/1200 95W	Intel LGA1151/1200 80W	Intel LGA1151/1200 95W
Fan	9.5 cm/87.7 CFM 5300±10% RPM	–	7 cm/35.5CFM 5400 ± 10% RPM	6 cm/28.77 CFM 5800 ± 10% RPM	8 cm/57.5 CFM 4500 ± 10% RPM
Heatsink Material	Aluminum & Copper heart	Copper	Copper	Aluminum	Aluminum & Copper heart
Heatsink Dimensions	117.5 x 117.5 x 38 mm (4.63" x 4.63" x 1.5")	85 x 85 x 26 mm (3.35" x 3.35" x 1.02")	83 x 83 x 39.26 mm (3.27" x 3.27" x 1.54")	90x 90x 68 mm (3.54" x 3.54" x 2.68")	90 x 90 x 35 mm (3.54" x 3.54" x 1.38")
Dimensions	117.5 x 117.5 x 63.5 mm (4.63" x 4.63" x 2.5")	–	83 x 83 x 55.73 mm (3.27" x 3.27" x 2.17")	90x 90x 68 mm (3.54" x 3.54" x 2.68")	120 x 120 x 77 mm (4.72" x 4.72" x 3.03")
Weight	496 g	611 g	582 g	417g	500 g
Minimum Chassis Height	2U	1U	2U	2U/4U	4U
Recommended Chassis	Motherboard/backplane version of chassis	ACP-1010/1320 HPC-7140/7180	Backplane version of chassis	Motherboard/ backplane version of chassis	Motherboard version of chassis
Supported Boards	AIMB-708/788; PCE-5033/5133	AIMB-705/706/707/785/ 786/787; PCE-5029/5031/ 5032/5129/5131/5132/ 7129/7131/7132; ASMB-585/586/587/ 785/786/787	PCE-5029/5031/5032/ 5129/5131/5132/7129/ 7131/7132	AIMB-705/706/707/785/ 786/787; PCE-5029/5031/ 5032/5129/5131/5132/ 7129/7131/7132; ASMB-585/586/587/785/ 786/787	AIMB-705/706/707/785/786/787

Note: CPU cooler's thermal dispatch performance may vary between CPU generations. Please refer to each product's datasheet.



Part Number	1970004537N001	1960053207N001
Thermal Dispatch Performance	Intel LGA1151/1200 55W Up to Core i3	Intel LGA1151/1200 65W Up to Core i7
Fan	77 x 75 x 15.4 mm/11.83 CFM 5500 ± 10% RPM	9 cm/45.09 CFM 4400 ± 10% RPM
Heatsink Material	Copper	Aluminum & Copper
Heatsink Dimensions	84 x 84 x 13 mm (3.32" x 3.32" x 0.51")	92.9 x 92.2 x 46 mm (3.67" x 3.67" x 1.82")
Dimensions	84 x 84 x 28 mm (3.32" x 3.32" x 1.11")	92.9 x 92.2 x 46 mm (3.67" x 3.67" x 1.82")
Weight	382g	250g
Minimum Chassis Height	1U	1.5U
Recommended Chassis	IPC-3012	IPC-3012
Supported Boards	PCE-3029/3032/4129/4132	PCE-3029/3032/4129/4132

Note: CPU cooler's thermal dispatch performance may vary between CPU generations. Please refer to each product's datasheet.

✓: supported, – : not supported, △: optional

**1**  
IIoT Software Solutions

**2**  
Intelligent Systems

**3**  
SKY Servers

**4**  
AI & Advanced Computer Vision

**5**  
Intelligent HMI and Monitors

**6**  
Automation Computers

**7**  
Intelligent Transportation Platforms

**8**  
Mission Critical CompactPCI Platforms

**9**  
Utility and Energy Solutions

**10**  
EtherCAT Solutions and Automation Controllers

**11**  
Intelligent Motion Control Solutions

**12**  
High Speed DAQ Solutions

**13**  
Industrial Communication

**14**  
Intelligent Edge DAQ Devices

**15**  
Remote I/O, Wireless I/O & Sensors

**16**  
Serial Communication

# Industrial Computer Peripherals

## Intel® Xeon® LGA2011



Part Number	1960055362N001	1960065684N001	1960063011N001	1960063011N011	1960065593N001	1960065591N001	1960057226N001
Thermal Dispatch Performance	Up to 145W	Up to 160W	Up to 135W	Up to 120W	Up to 135W	Up to 135W	Up to 95W
Fan	6cm / 38.8CFM 6800 ± 10% RPM	9cm/108.08CFM 5000 ± 10% RPM	6cm/50.40CFM 9000± 10% RPM	6cm/50.40CFM 9000+/- 10% RPM(Puller Fan)	-	-	-
Heatsink Material	Aluminum Fins & Cu Block with 3 Heat Pipes	Aluminum Fins & Copper base with 3 Heat Pipes	Aluminum fins soldered Copper base with Heatpipe	Aluminum fins soldered Copper base with Heatpipe	Copper with vapor chamber	Copper with vapor chamber	Aluminum fins soldered Copper base with Heatpipe
Heatsink Dimensions (L x W x H)	90.0 x 90.0 x 63.9 mm (3.54" x 3.54" x 2.51")	88.2 x 88.2 x 112.15 mm (3.47" x 3.47" x 4.41")	107 x 70 x 64.0 mm (4.21" x 2.75" x 2.51")	107 x 70 x 64.0 mm (4.21" x 2.75" x 2.51")	106 x 82 x 27 mm (4.17" x 3.22" x 1.06")	106 x 82 x 27 mm (4.17" x 3.22" x 1.06")	90 x 90 x 25.5 mm (3.54" x 3.54" x 1")
Dimensions	90.0 x 90.0 x 65.6 mm (3.54" x 3.54" x 2.58")	88.2 x 88.2 x 112.15 mm (3.47" x 3.47" x 4.41")	94.0 x 70.0 x 64.0 mm (3.7" x 2.75" x 2.51")	94.0 x 70.0 x 64.0 mm (3.7" x 2.75" x 2.51")	106 x 82 x 27 mm (4.17" x 3.22" x 1.06")	106 x 82 x 27 mm (4.17" x 3.22" x 1.06")	90 x 90 x 25.5 mm (3.54" x 3.54" x 1")
Weight	413g	583g	319g	319g	405g	385g	197g
Minimum Chassis Height	2U	4U	2U	2U	1U	1U	1U
Supported Boards	ASMB-823/913/ 920/923	ASMB-823/913/ 920/923	ASMB-822/922/ 813	PCE-9228	ASMB-822/813 & 922 (For CPU1)	ASMB-922 (For CPU0)	ASMB-823/913/ 920/923
Remark	Square Type	Square Type	Narrow Type	Narrow Type	Narrow Type	Narrow Type	Square Type

## Intel® Xeon® LGA3647



## Intel® Xeon® LGA-4189



Part Number	1960081603N101	1960088272T001	1960081155N001	1960081155N101	Part Number	1970004902T000	1970004565N001
Fan	6 cm/63.3 CFM 12000 ± 10% RPM	6 cm/50.4 CFM 9000 ± 10% RPM	-	-	Fan	6 cm/43.08 CFM 8400 ± 10% RPM	-
Thermal Dispatch Performance	Up to 205W	up to 205W	Up to 165W	Up to 165W	Thermal Dispatch Performance	Up to 205W	Up to 165W
Heatsink Material	Aluminum stack fin & CU block with heatpipe	Aluminum stack fin & fan	Aluminum stack fin & CU block with heatpipe	Aluminum stack fin & CU block with heatpipe	Heatsink Material	Aluminum stack fin & CU block with heatpipe	Aluminum stack fin & CU block with heatpipe
Heatsink Dimensions (L x W x H)	115 x 78 x 64 mm (4.52" x 3.07" x 2.51")	108 x 79.8 x 63.8 mm (4.26" x 3.15" x 2.52")	108 x 78 x 25.5 mm (4.25" x 3.07" x 1")	108 x 78 x 25.5 mm (4.25" x 3.07" x 1")	Heatsink Dimensions (L x W x H)	113 x 78 x 64 mm (4.25" x 3.07" x 2.51")	113 x 78 x 24 mm (4.44" x 3.07" x 0.94")
Dimensions	138x115x85 mm (5.43" x 4.52" x 3.34")	108 x 79.8 x 63.8 mm (4.26" x 3.15" x 2.52")	124 x 100 x 50 mm (4.88" x 3.93" x 1.9")	124 x 100 x 50 mm (4.88" x 3.93" x 1.9")	Dimensions	183 x 132 x 86 mm (7.36" x 5.35" x 3.54")	130 x 100 x 47 mm
Weight	464g	250g	257.6g	209.2g	Weight	470g	255g
Minimum Chassis Height	2U	2U	1U	1U	Minimum Chassis Height	2U	1U
Supported Boards / Systems	ASMB-815/825/ 925/935/975	ASMB-815/825/ 925/935/975	ASMB-815/825/ 925/935/975 SKY-6100/6200	SKY-6200/6420	Supported Boards / Systems	ASMB-622 ASMB-816/976 SKY-640V2	ASMB-816
Remark	Narrow Type	Narrow Type	Narrow Type / Full Fin	Narrow Type / Cut Fin	Remark		

✓: supported, - : not supported, △: optional

## ☞ Accessories

### Slide Rails



#### For 1U rackmount chassis

- 26" P/N: 9680009153
- Maximum acceptable load: 25kg
- 1 pair included



#### For 2U and higher rackmount chassis

- 26" P/N: 9680006905
- Maximum acceptable load: 45kg
- 1 pair included

### Industrial Disk Trays/Bays



#### IPC-DT-5121 / IPC-DT-5121B

**Shockproof industrial hard disk drive tray with cooling fan and optional front USB and PS/2 interfaces**

- Accepted Device: 1 x 3.5" HDD (only for 9.5mm thickness)
- Cooling Fan: 1 x 4 cm
- Color (Codes): Gray (414U), Black (4C2X)
- Dimensions (W x H x D): 148.5 x 42.6 x 171 mm<sup>3</sup> (5.84" x 1.67" x 6.73")



#### 989K008733

**A frame to securely fix a 3.5" HDD in a 5.25" drive bay**

- Accepted Device: 3.5" HDD x 1



#### IPC-DT-3120E

**Mobile rack for converting a 3.5" drive bay to dual 2.5" SATA HDD/SSD trays**

- Accepted Device: 2 x 2.5" SATA HDD/SSD (only for HDD/SSD thickness less than 9.6 mm)
- Dimensions (W x H x D): 101.6 x 25.4 x 139 mm<sup>3</sup> (4" x 1" x 5.47")



#### 989K008734

**A frame to securely fix two 2.5" HDDs/SSDs in a 3.5" drive bay**

- Accepted Device: 2.5" SATA HDD/SSD x 2 (only for HDD thickness less than 9.6 mm)



#### 9892200013E

**Module to convert a 5.25" drive bay to a slim ODD and a 3.5" drive bay**

- Accepted Device: 3.5" device x 1, slim ODD x 1



#### 98R1BTOS000

**A frame to securely fix four 2.5" HDD in a 5.25" drive bay**

- Accepted Device : 2.5" SATA HDD/SSD x 4 (Device thickness less than 9.6mm); OR 2.5" SATA HDD/SSD x 2 (Device thickness less than 15 mm)



#### IPC-DT-5230E

**Mobile rack for converting dual 5.25" drive bays to three 3.5" SATA HDD trays**

- Accepted Device: 3.5" SATA HDD x 3 or 2.5" SATA HDD/SSD x3
- Cooling Fan: 1 x 8 cm
- Dimensions (W x H x D): 146.5 x 86 x 225 mm<sup>3</sup> (5.76" x 3.38" x 8.85")



#### 96RACK-5SS-CAGE-CR

**Mobile rack for converting one 5.25" drive bay to four 2.5" SAS/SATA HDD/SSD trays**

- Accepted Device: 2.5" SAS/SATA HDD/SSD x 4
- Dimension (W x H x D): 146 x 41 x 170 mm<sup>3</sup> (5.74" x 1.61" x 6.69")

### Add-on Card Hold Down Kits



#### 98RKBTOS09E

**Add-on card hold down kit (short)**

- Bracket Q'ty of each kit : 5 pcs
- For PCI add-on card with height 72.3mm ~ 87.3mm and PCIe add-on card with height 81.7mm ~ 91.8mm



#### 98RKBTOS10E

**Add-on card hold down kit (long)**

- Bracket Q'ty of each kit : 5 pcs
- For PCI add-on card with height 54.8mm ~ 75.7mm and PCIe add-on card with height 59.3mm ~ 80.2mm



# Industrial Computer Peripherals

## USB Cables



Part Number	1700008461	1700003195	1700002204	1700014398	1700028292-01
Description	USB 2.0 cable with 4 ports	USB 2.0 cable with 2 ports	USB 2.0 cable with 2 ports	USB 2.0 cable with 4 ports	USB 3.0 cable with 2 ports
Cable Length	30.5 cm (12.01")	17.5 cm (6.89")	27 cm (11.92")	30.5 cm (12.01")	30 cm (11.81")
Remark	For ATX/Micro-ATX MB, full-sized SBC			For half-sized SBC	For ATX/Micro-ATX MB, full/half-sized SBC

## SATA Cables



Part Number	96CB-SATAPOWER-6P2	1700022749-11	1700019381	1700007351	1700003194
Description	SATA power cable for slim ODD	SATA power cable for HDD/SSD	SATA data cable (right angle)	SATA data cable (right angle)	SATA data cable
Cable Length	10 cm (3.94")	10 cm (3.94")	55 cm (21.65")	40 cm (15.75")	60 cm (23.62")
Remark	Big 4 P to SATA power cable for Slim ODD	Big 4 P to SATA power cable for HDD/SSD	SATA data cable with 1 right angle and 1 vertical connectors	SATA data cable with 1 right angle and 1 vertical connectors	SATA data cable with vertical connectors with locks

## COM and Printer Ports Cables



Part Number	1701092300	1701090401	1700020294-01	1700008762
Description	COM cable with 2 ports	COM cable with 1 port	Printer (Parallel) port cable	COM cable with 2 ports
Cable Length	28.5 cm (11.22")	40 cm (15.75")	42.0 cm (16.54")	22.5 cm (8.86")
Remark	For ATX/Micro-ATX MB, full-sized SBC			For half-sized SBC

## Accessories

### Video Cables



Part Number	PCE-DP10-00A1E	1700021831-01
Description	Display port cable	DP to DVI port cable
Cable Length	25 cm (9.84")	30 cm (11.81")
Remark	Video cable for converting on board DP connector to external DP port supporting DP 1.1a/1.2 signaling For full-sized SBC	Video cable for converting on board DP connector to external DVI-D port For full/half-sized SBC

### Other Cables



Part Number	1700029268-01	1700024754-01
Description	Power cable for GPU card (Primary) (Two 4-pin 12V connectors to one 6+2 pins PCIe power connector)	Power cable for GPU card (Secondary) (Two B4P Molex connectors to one 6+2 pins PCIe power connector)
Cable Length	10 cm (3.93")	10 cm (3.93")
Remark	For GPU card with 2 power connectors, use 1700029268-01 x1 + 1700024754-01 x1. For GPU card with 1 power connector, use 1700029268-01. Suggest to use Advantech 500W or higher wattage power supply for GPU built-in system.	

### Industrial I/O Expansion Module



Model	AIIS-1750	AIIS-1882	AIIS-DIO32
Signal Interface	PCI Express	PCI Express	USB
Connecting Type	Board to Board	Board to Board	Onboard pin header
Lighting Trigger	N/A	4 Channels	N/A
Trigger Input Voltage	N/A	Logic 0: 2V max. Logic 1: 5V min. (24V max.)	N/A
Digital Input	16 Channels	12 Channels	16 Channels
Input Voltage	Logic 0: 2V max. Logic 1: 5V min. (50V max.)	Logic 0: 3V max. Logic 1: 10V min. (40V max.)	Logic 0: 2V max. Logic 1: 5V min. (60V max.)
Digital Output	16 Channels	16 Channels	16 Channels
Load Voltage	5~40V <sub>DC</sub>	10~40V <sub>DC</sub>	5~40V <sub>DC</sub>
Response Time	<1ms	≈50μs	>1ms
Output Type	Sink type (NPN)	Selectable Sink (NPN) or Source (PNP)	Sink type (NPN)
Isolation	2,500V <sub>DC</sub>	2,500V <sub>DC</sub>	2,500V <sub>DC</sub>
Compatible System	AIIS-3400/3410	AIIS-3411	AIIS-3400/AIIS-3410/MIC-7500/MIC-770

# 👉 Industrial GPU Solutions



## High Performance

- New Ampere Architecture
- 2nd Generation RT Cores
- 3rd Generation TENSOR Cores



## Industrial-grade Design

- Supports 100+ Professional Software certified by NVIDIA
- Supports Error-Correcting Code Memory
- Multi-GPU Technical Support
- More Memory Capacity



## Longevity and Support

- Supports 5-years life cycle
- Strict revision and engineering change control

### Edge AI computing IPC



IPC-7130



ACP-2020G



MIC-770 V2+MIC-75G20



MIC-770 V2+MIC-75GF10



ITA-3650G

### NVIDIA MXM GPU cards



SKY-MXM-A2000  
SKY-MXM-A2000-4SDA



SKY-MXM-A1000



SKY-MXM-RTX3000  
SKY-MXM-R3000-6SDA



SKY-MXM-T1000  
SKY-MXM-T1000-4SDB

### NVIDIA Quadro GPU cards

NVIDIA RTX A6000  
SKY-QUAD-RTXA6000B



NVIDIA RTX A5000  
SKY-QUAD-RTXA5000B



NVIDIA RTX A4500  
SKY-QUAD-RTXA4500B



NVIDIA RTX A4000  
SKY-QUAD-RTXA4000B



NVIDIA RTX A2000  
SKY-QUAD-RTXA2000B



NVIDIA T1000 8GB  
SKY-QUAD-T1000-8-B



NVIDIA T1000  
SKY-QUAD-T1000-AB

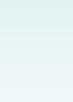


NVIDIA T400 4GB  
SKY-QUAD-T400-4-B



### NVIDIA Tesla GPU cards

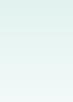
NVIDIA A100  
SKY-TESL-A100-40P



NVIDIA A30  
SKY-TESL-A30-24P



NVIDIA A40  
SKY-TESL-A40-48P



NVIDIA A16  
SKY-TESL-A16-64P



NVIDIA A2  
SKY-TESL-A2-16P

#### 👉 NVIDIA MXM GPU cards

Advantech MXM series are compact in size and rugged in design with a small form factor and low power consumption. They fit perfectly in the limited spaces of applications such as surgery, gaming, and autonomous driving.

#### 👉 NVIDIA Quadro GPU cards

Designed and built to accelerate any professional workflow, NVIDIA RTX and NVIDIA Quadro® professional desktop GPU cards feature large memory, advanced enterprise features, optimized drivers, and certification for industrial applications.

#### 👉 NVIDIA Tesla GPU cards

Accelerating the most demanding HPC and hyperscale data center workloads, this series delivers the horsepower needed to run bigger simulations faster than ever before, and for supporting the highest performance and user density applications.

