# 3

# Intelligent Systems

Vertrieb durch AMC

**AMC – Analytik & Messtechnik GmbH Chemnitz**

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AMC

ADVANTECH iAutomation
**Premier Partner**

# 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 (fan-less, 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

The modular computers aim at machine automation applications such as vision inspection, AOI, packaging inspection, process automation and intelligent monitoring. Modular IPC is beneficial to service and maintenance and this compact system, with POE and latest Intel Core processor, can used in the application of edge intelligent, such as edge computing, delivers enhanced computing and graphic performance.

### Industrial chassis

Advantech offers a complete selection of industrial computer chassis from 1U to 6U 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/halfsize 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-PaaS/ RMM 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 follows PICMG 1.0 and PICMG 1.3 standards that achieve flexibility and performance. Assembled with backplanes, slot SBCs and embedded PCs are the I/O and processing elements. We also provide customizable passive backplanes which include PCI boards, ISA boards, PICMG 1.3 full-sized, 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.

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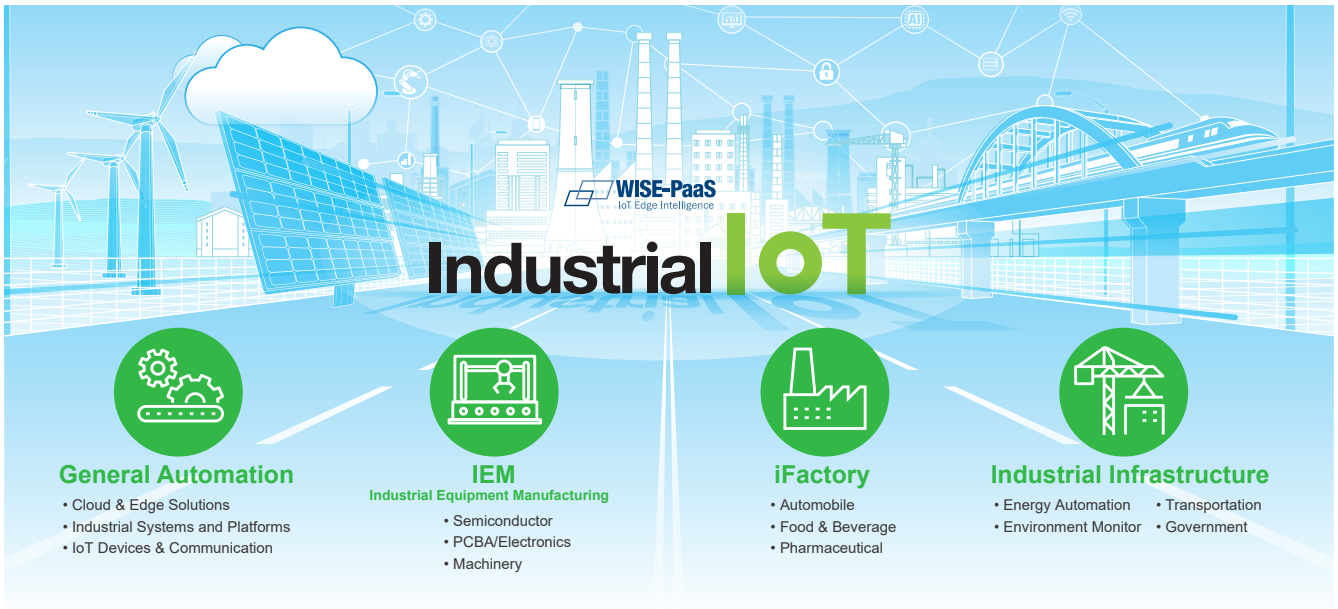Heinrich-Lorenz-Str. 55     Tel.: +49/371/38388-0
09120 Chemnitz            Fax: +49/371/38388-99
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**WISE-PaaS**
IoT Edge Intelligence

# Industrial IoT

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

### IEM
**Industrial Equipment Manufacturing**
- Semiconductor
- PCBA/Electronics
- Machinery

### iFactory
- Automobile
- Food & Beverage
- Pharmaceutical

### 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, flexible with-or-without key

Front-accessible fan without opening top cover

Small footprint chassis design for better work field layout arrangement

# Modular IPCs

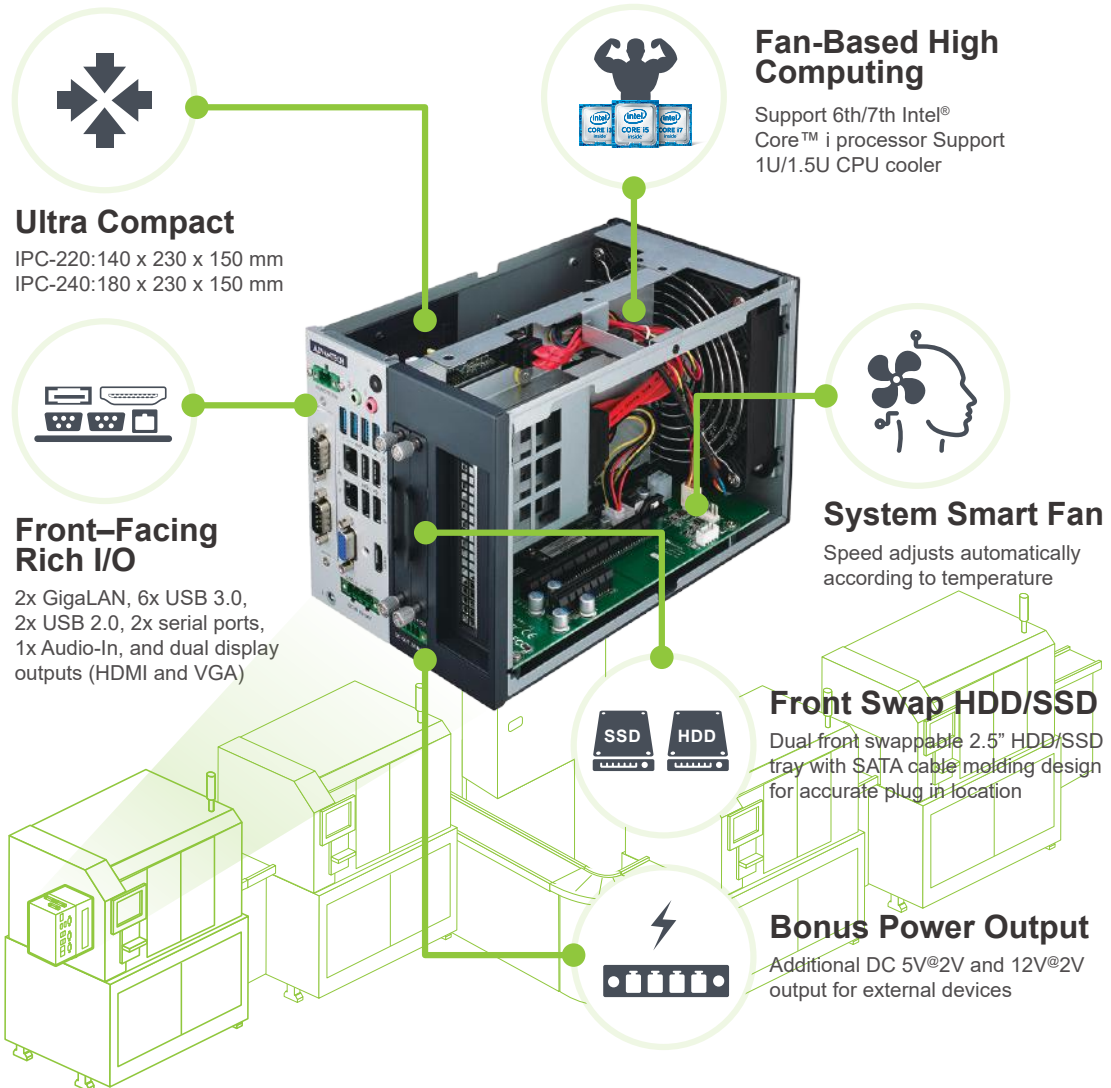## Ultra Compact IPC Introduction

**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 IPC-220/240 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 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 reduces the time-to-market for machine builders and accelerates the realization of Industry 4.0.

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### Ultra Compact
IPC-220:140 x 230 x 150 mm
IPC-240:180 x 230 x 150 mm

### Fan-Based High Computing
Support 6th/7th Intel®
Core™ i processor Support
1U/1.5U CPU cooler

### Front–Facing Rich I/O
2x GigaLAN, 6x USB 3.0,
2x USB 2.0, 2x serial ports,
1x Audio-In, and dual display
outputs (HDMI and VGA)

### System Smart Fan
Speed adjusts automatically
according to temperature

### Front Swap HDD/SSD
Dual front swappable 2.5" HDD/SSD
tray with SATA cable molding design
for accurate plug in location

### Bonus Power Output
Additional DC 5V@2V and 12V@2V
output for external devices

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

LEARN MORE

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

# Modular IPCs Selection Guide

## Ultra Compact IPC

| Model name | | ☞ IPC-220 | ☞ IPC-240 | ☞ AiMC-3202 | ☞ AiMC-3422 |
|---|---|---|---|---|---|
| Form Factor | | Compact | Compact | Compact | Compact |
| **Processor System** | Chipset | Q170/H110 | Q170/H110 | H110 | H110 |
| | CPU | Intel® 6th/7th Gen Core™ i CPU socket-type (LGA1151) | Intel® 6th/7th Gen Core™ i CPU socket-type (LGA1151) | Intel® 6th/7th Gen Core™ i (LGA1151) | Intel® 6th/7th Gen Core™ i (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 DDR4 2133/2400 MHz Max. 32 GB | Dual DDR4 2133/2400 MHz Max. 32 GB | DDR4 2133/2400 MHz (non-ECC) Max. 32 GB | DDR4 2133/2400 MHz (non-ECC) Max. 32 GB |
| **Graphic** | Graphics Controller | Intel® HD 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 | 1 | 1 | 1 | 1 |
| | PCIe x8 | - | - | - | - |
| | PCIe x4 | 1 | IPC-240-00A1: 2 IPC-240-01A1: 1 | AIMC-3202-00A1E: 1 | - |
| | PCIe x1 | - | IPC-240-00A1: 1 IPC-240-01A1: 0 | - | AIMC-3422-00A1E: 1 |
| | PCI | - | IPC-240-00A1: 0 IPC-240-01A1: 2 | AIMC-3202-01A1E: 1 | AIMC-3422-00A1E: 2 AIMC-2422-01A1E: 3 |
| | Mini PCIe | 1 | 1 | - | - |
| **Storage** | Storage Bay | 2 x 2.5" HDD/SSD (Max 9.5mm Height) | | 2 x 2.5" internal HDD bay | 1 x 3.5" or 2 x 2.5" internal HDD bay |
| | M.2 | - | - | - | - |
| | mSATA | 1 | 1 | 1 | 1 |
| | CFast | - | - | - | - |
| | RAID | 0/1/5/10 (Q170 only) | 0/1/5/10 (Q170 only) | - | - |
| **Ethernet** | Ethernet Interface | 2 x RJ45 | 2 x RJ45 | 10/100/1000 Mbps | 10/100/1000 Mbps |
| | Controller | Q170 LAN1: Intel® I219LM, LAN2: Intel® i210AT H110 LAN1: Intel® I219V, LAN2: Intel® i210AT | | LAN 1: Intel® I219V LAN 2: Intel® I211AT | LAN 1: Intel® I219V LAN 2: Intel® I211AT |
| **Front I/O** | Display | VGA + HDMI | | VGA+DVI-D | VGA |
| | LAN | 2 | 2 | 2 | 2 |
| | USB | Q170: 6 x USB 3.0, 2 x USB 2.0, 2 x Internal USB 2.0 H110: 4 x USB 3.0, 4 x USB 2.0, 2 x Internal USB 2.0 | | 3 x USB 3.0 | 1 x USB 3.0 |
| | COM | 2 x RS-232/422/485 support auto flow control | | 2 x RS-232 | 2 x RS-232 |
| | Audio | 2 (1 x line out and 1 x mic in) | | - | - |
| **Rear I/O** | Display | - | - | - | - |
| | LAN | - | - | - | - |
| | USB | - | - | - | 2 x USB 2.0 |
| | COM | - | - | - | - |
| | PS/2 | - | - | - | - |
| | Audio | - | - | - | - |
| **Watchdog Timer** | Output | System reset | System reset | System reset | System reset |
| | Interval | Programmable 1 ~ 255 sec/min | Programmable 1 ~ 255 sec/min | Programmable 1 ~ 255 s/min | Programmable 1~ 255 s/min |
| **Power Supply** | System Power Consumption | 150W(Without Add on Card)~220W (With Add on card | 150W(Without Add on Card)~220W (With Add on card | 250W | 300W |
| | DC output range | 5V_DC, 2A MAX | 5V_DC, 2A MAX | - | - |
| | Input Range | 19 ~ 24 V_DC, 8A ~ 6.5A | 19 ~ 24 V_DC, 8A ~ 6.5A | 100 ~ 240 V_AC | 100 ~ 240 V_AC |
| | Remote Power Switch | ✓ | ✓ | - | - |
| **Cooling** | System Fan | 1 (12cm/ 82 CFM) | 1 (12 cm/82 CFM) | 2 (6 cm/14.1 CFM) | 1 (9 cm/44.6 CFM) |
| | Air Filter | Yes | Yes | Yes | Yes |
| **Physical Characteristics** | Dimensions (W x H x D) | 140 x 230 x 150 mm (5.51" x 9.05" x 5.9") | 180 x 230 x 150 mm (7.08" x 9.0"" x 5.9") | 232 x 90 x 232 mm (9.13" x 3.54" x 9.13") | 150 x 222 x 270 mm (5.9" x 8.74" x 10.62") |
| | Weight | 3.0kg | 3.2Kg | 4.5 kg | 5 kg |

✓ : 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 gateway and industrial controller. Moreover, when integrated with an intelligent i-Module, various add-on cards can be installed for machine automation applications.

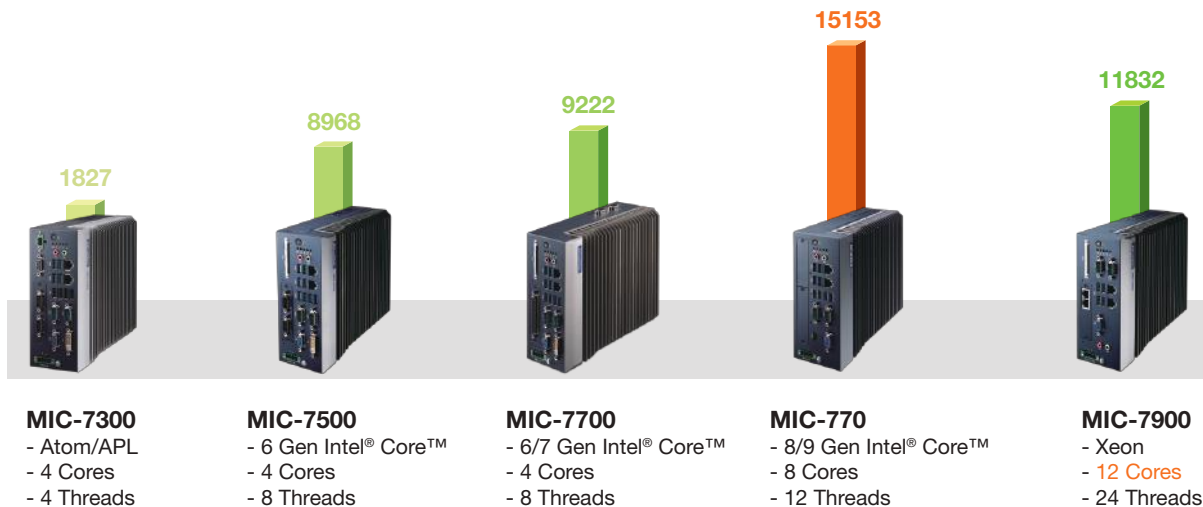### CPU Diverse selection of CPUs for customized performance



| | MIC-7300 | MIC-7500 | MIC-7700 | MIC-770 | MIC-7900 |
|---|---|---|---|---|---|
| Score | 1827 | 8968 | 9222 | 15153 | 11832 |
| | - Atom/APL | - 6 Gen Intel® Core™ | - 6/7 Gen Intel® Core™ | - 8/9 Gen Intel® Core™ | - Xeon |
| | - 4 Cores | - 4 Cores | - 4 Cores | - 8 Cores | - 12 Cores |
| | - 4 Threads | - 8 Threads | - 8 Threads | - 12 Threads | - 24 Threads |

### Various expansion I/O for flexible communication



### Innovative slot expansion for enhanced control

**Learn More:** http://select.advantech.com/edge-intelligent-modular-ipc-mic-7-series/

# Modular IPCs Selection Guide

## Fanless Modular System: MIC-7 Series

| Model name | | ☞ MIC-770 | ☞ MIC-7700 | ☞ MIC-7500 |
|---|---|---|---|---|
| Form Factor | | Compact | Compact | Compact |
| Processor System | Chipset | Q370/H310 | Q170/H110 | QM170 |
| | CPU | Intel® 8th/9th Gen Core™ i socket-type (LGA1151) | Intel® 6th/7th Gen Core™ i socket-type (LGA1151) | Intel® Core™ i7-6820EQ/ i7-6822EQ/ i5-6442EQ/ i3-6102E/ Celeron® G3900E |
| | Core | Max. 8 | Max. 4 | Max. 4 |
| | Cache | Max. 12 MB | Max. 8 MB | Max. 8 MB |
| | Memory | Dual DDR4 2400/2666 MHz SODIMM Max. 64 GB | Dual DDR4 2400 MHz SODIMM Max. 32 GB | Dual DDR4 2400 MHz SODIMM Max. 32 GB |
| Graphic | Graphics Controller | 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 |
| Expansion | PCIe x16 | Supported via i-Module | Supported via i-Module | Supported via i-Module |
| | PCIe x8 | | | |
| | PCIe x4 | | | |
| | PCIe x1 | | | |
| | PCI | | | |
| | Mini PCIe | 2 (Q Sku) 1 (H Sku) | 2 (Q Sku) 1 (H Sku) | 2 |
| 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 |
| | M.2 | - | - | - |
| | mSATA | 1 | 1 | 1 |
| | CFast | - | 1 | 1 |
| | RAID | 0/1/5/10 (Q SKU only) | 0/1/5/10 (Q SKU only) | 0/1/5/10 |
| Ethernet | Ethernet Interface | 2 x RJ45 10/100/1000 Mbps | 2 x RJ45 10/100/1000 Mbps | 2 x RJ45 10/100/1000 Mbps |
| | Controller | 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 | LAN 1: Intel® I219LM LAN 2: Intel® I210IT |
| Front I/O | Display | VGA+HDMI | VGA+DVI-D | VGA+DVI-D |
| | LAN | 2 | 2 | 2 |
| | USB | 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 | 8 x USB 3.0 1 x internal 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 | 2 x RS-232/422/485 supports auto flow control + 4 x RS-232 |
| | PS/2 | - | - | - |
| | Audio | Line out/mic in | Line out/mic in | Line out/mic in |
| Rear I/O | Display | - | - | - |
| | LAN | - | - | - |
| | USB | - | - | - |
| | COM | - | - | - |
| | PS/2 | - | - | - |
| | Audio | - | - | - |
| 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 | - | - | - |
| | Input Range | 9 ~ 36 V$_{DC}$ | 9 ~ 36 V$_{DC}$ | 9 ~ 36 V$_{DC}$ |
| | 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") | 73 x 192 x 230 mm (2.91" x 7.55" x 9.05") |
| | Weight | 2.9 kg | 2.9 kg | 2.9 kg |

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

# Modular IPCs Selection Guide

## Fanless Modular System: MIC-7 Series

| Model name | | ☞ MIC-7900 | ☞ MIC-7300 | ☞ MIC-7420 |
|---|---|---|---|---|
| Form Factor | | Compact | Compact | 19" 2U Rack Mount |
| **Processor System** | Chipset | - | - | QM170 |
| | CPU | Intel® Xeon® D-1559/D-1539 BGA-type | Intel® Celeron® N3350/ Atom™ x7-E3950 BGA-type | Intel® Core™ i7-6822EQ/i3-6100E |
| | Core | Max. 12 | Max. 4 | Max. 4 |
| | Cache | Max. 18 MB | 2 MB | Max. 8 MB |
| | Memory | Dual DDR4 2400 MHz SODIMM (supports ECC) Max. 32 GB | Dual DDR3L 1867 MHz SODIMM Max. 8 GB | Dual DDR4 2400 MHz Onboard 8GB & 1 SODIMM slot Max. 24GB |
| **Graphic** | Graphics Controller | ASPEED AST1400 with 256 MB VGA memory provides basic 2D VGA function | 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 |
| **Expansion** | PCIe x16 | | - | - |
| | PCIe x8 | | - | - |
| | PCIe x4 | Supported via i-Module | - | 2 |
| | PCIe x1 | | Supported via i-Module | - |
| | PCI | | Supported via i-Module | 2 |
| | Mini PCIe | 1 | 1 | 1 |
| **Storage** | Storage Bay | 1 x 2.5" internal HDD/SSD bay | 1 x 2.5" internal HDD/SSD bay | 2 x 3.5" internal HDD bay |
| | M.2 | 22110 (2280 w/ bracket), M-Key | - | 2260, M-Key |
| | mSATA | 1 | 1 | - |
| | CFast | 1 | - | - |
| | RAID | - | - | 0/1 |
| **Ethernet** | Ethernet Interface | 2 x RJ45 10/100/1000 Mbps | 2 x RJ45 10/100/1000 Mbps | 10/100/1000 Mbps |
| | Controller | 4 x Intel® i210IT | 2 x Intel® i210AT | LAN 1: Intel® i219LM LAN 2: Intel® i210IT |
| **Front I/O** | Display | VGA | VGA+DVI-D | - |
| | LAN | 4 | 2 | - |
| | USB | 4 x USB 3.0 | 2 x USB 3.0 6 x USB 2.0 | 2 x USB 2.0 |
| | COM | 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 | - |
| | PS/2 | - | - | - |
| | Audio | Line out/mic in | Line out/mic in | - |
| **Rear I/O** | Display | - | - | DVI-I + DVI-D |
| | LAN | - | - | 2 |
| | USB | - | - | 2 x USB 3.0 4 x USB 2.0 |
| | COM | - | - | 2 x RS-232/422/485 supports auto flow control |
| | PS/2 | - | - | 1 |
| | Audio | - | - | 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 | - | - | 150W |
| | Input Range | 9 ~ 36 $V_{DC}$ | 9 ~ 36 $V_{DC}$ | 100 ~ 240 $V_{AC}$ |
| | Remote Power Switch | - | 1 | - |
| **Cooling** | System Fan | - | - | - |
| | Air Filter | - | - | - |
| **Physical Characteristics** | Dimensions (W x H x D) | 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") | 427 x 88 x 325 mm (16.81" x 3.46" x 12.79") |
| | Weight | 2.9 kg | 2.9 kg | 10 kg |

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

# 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 x4 | - |
| 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 x16 | - |
| 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** | 1** | 1** | 2 | 2 x Swappable + 2 x Internal | 2 x Swappable | 2 x Swappable | 2 x 2.5" swappable |
| N.W. (kg) | 0.64 | 0.87 | 0.87 | 0.87 | 1.16 | 1.60 | 2.99 | 2.99 | 5 |
| G.W. (kg) | 1.71 | 2.02 | 2.02 | 2.02 | 2.47 | 2.98 | 4.79 | 4.79 | 7 |
| i-Module (W x H x D) | 24 x 192 x 230 | 50 x 192 x 230 | 50 x 192 x 230 | 50 x 192 x 230 | 90 x 192 x 230 | 90 x 192 x 230 | 110 x 192 x 350 | 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 | 123 x 192 x 230 | 123 x 192 x 230 | 163 x 192 x 230 | 163 x 192 x 230 | 184 x 192 x 350 | 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 | 127 x 192 x 230 | 127 x 192 x 230 | 167 x 192 x 230 | 167 x 192 x 230 | 187 x 192 x 350 | 187 x 192 x 350 | 280 x 192 x 385 |
| System Fan | - | 98R1752000E (Optional)*** | 98R1752000E (Optional)*** | 98R1752000E (Optional)*** | 98R1751300E (Optional)*** | 98R1751300E (Optional)*** | Embedded | Embedded | Embedded |
| 12V$_{DC}$ Conn | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 12V$_{DC}$ Conn. for GPU | - | - | - | - | - | - | - | 2 | 4 |
| PCI/PCIe Card Max. Length (with system fan) | 190.2 mm | 190.2 mm | 190.2 mm | 190.2 mm | 184.75 mm | 184.75 mm | 287.35 mm | 287.35 mm | 331 mm |
| PCI/PCIe Card Max. Length (without system fan) | 210.4 mm | 210.4 mm | 210.4 mm | 210.4 mm | 210.4 mm | 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 / MIC-7 System | 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-7300 | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | - | - |
| MIC-7500 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MIC-770Q/7700Q | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MIC-770H/7700H | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | ✓ | ✓ |
| MIC-7900 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# Modular IPC Selection Guide

## 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



Default MIC-770         Small Flex I/O
Remote Switch         After Assembly

### Regular Flex I/O



Default MIC-770         Regular Flex I/O
DVI         After Assembly



Default MIC-770         Small Flex I/O
Remote Switch         Regular Flex I/O
DVI         After Assembly

### Advanced Flex I/O



Default MIC-770         Advanced Flex I/O
NVME + 4x LAN         After Assembly



Default MIC-770         Regular Flex I/O
DVI         Advanced Flex I/O
NVME + 4x LAN         After Assembly



Default MIC-770         Advanced Flex I/O
4 x PoE         After Assembly

## Compatible Table

| ☞ Flex I/O | Function | Part Number | MIC-7300 | MIC-7500 | MIC-7700 | | MIC-770 | | MIC-7900 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIC-7700Q | MIC-7700H | MIC-770Q | MIC-770H | |
| **Small FIO** | | | | | | | | | |
|  | Remote Switch | 98R1750070E | - | - | - | - | ✓ | ✓ | - |
| **Regular FIO** | | | | | | | | | |
|  | DVI | 98R1750000E | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
|  | HDMI & Remote Switch | 98R1750010E | - | ✓ | ✓ | ✓ | ✓ | ✓ | - |
|  | HDMI | 98R1750030E | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
|  | Remote Switch | 98R1750040E | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|  | COM Port | 98R1750060E | - | - | - | - | ✓ | ✓ | - |
|  | Reset & Remote Switch & 5VDC | 98R1750080E | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|  | 8 bit GPIO | 98R1750090E | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|  | Dual LAN | 9891790040E | - | - | ✓ | - | - | - | - |
|  | GPIO module (32bit) | AIIS-DIO32-00A1E | - | ✓ | ✓ | ✓ | - | - | ✓ |
|  | TPM module | PCA-TPM-00B1E | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| **Advanced FIO** | | | | | | | | | |
|  | NVME+ 4x LAN | 98910770300 | - | - | - | - | ✓ | - | - |
|  | NVME | 98910770400 | - | - | - | - | ✓ | - | - |
|  | POE | 98910770500 | - | - | - | - | ✓ | - | - |

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Vertrieb durch AMC

**AMC – Analytik & Messtechnik GmbH Chemnitz**

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# Industrial Chassis Selection Guide

| Model Name | | | ☞ IPC-6806S | ☞ IPC-6806/6806W | ☞ IPC-6606/6608 | ☞ IPC-7132 | ☞ IPC-5120/7120 |
|---|---|---|---|---|---|---|---|
| Form Factor Support | | | PICMG 1.0/1.3 Half-size SBC | PICMG 1.0 Full-size SBC / PICMG 1.0/1.3 Full-size SBC | PICMG 1.0/1.3 Full-size SBC | ATX / Micro ATX | Micro ATX / ATX |
| Drive Bay | Slim Optical Drive | | - | - | - | - | - / - |
| | 2.5" | | - | - | - | - | - |
| | 3.5" | External | 1 | 1 / 1 | 1 / 1 | 1 | 1 / 1 |
| | | Internal | 1 | 1 / 1 | 1 / 1 | 2 | 1 / 1 |
| | 5.25" | | - | 0 / 1 | 1 / 2 | 1 | 1 / 1 |
| Front I/O | USB | | 2 | 2 / 2 | 2 / 2 | 2 | Front I/O chassis |
| | PS/2 | | - | - / - | - / - | - | - |
| Cooling | No. of Fans | | 1 | 1 / 1 | 1 / 1 | 1 | 1 + 1 |
| | CFM | | 51.5 | 51.5 / 58 | 51.5 / 82 | 82 | 82 / 11 |
| Power Supply | AC | | 250W Flex ATX | 250W Flex ATX 350W Flex ATX | 300W PS/2 | 300W PS/2 500W PS/2 | 250W Flex ATX 350W Flex ATX |
| | AC Redundant | | - | - | - | - | - |
| | DC | | - | - | - | - | - |
| No. of Slots for add-on cards | | | 4 | 5 / 5 | 5 / 7 | 7 | 4 / 7 |
| No. of Full-size Cards | | | - | 6 / 6 | 6 / 8 | 7 | - |
| Passive Backplane Options | PICMG 1.0 | | ✓ | ✓ | ✓ | - | - |
| | PICMG 1.3 | | ✓ | - / ✓ | ✓ | ✓ | - |
| Intelligent System Module | | | - | - | - | - | - |
| Dimensions (W x H x D) | mm | | 191 x 178 x 290 | 166 x 178 x 398/ 198 x 221 x 398 | 173 x 254 x 396/ 173 x 315 x 410 | 200 x 330 x 430 | 320 x 164 x 316.5/ 380 x 164 x 316.5 |
| | 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 | 6.8 x 10 x 15.6 / 6.8 x 12.4 x 16.1 | 7.9 x 13 x 16.9 | 12.6 x 6.5 x 12.5/ 15 x 6.5 x 12.5 |
| Weight | kg | | 5.6 | 6.3 / 8 | 9 / 11 | 9.96 | 6.54 / 7.01 |
| | lb | | 12.3 | 13.9 / 17.6 | 19.8 / 24.2 | 21.93 | 14.42 / 15.45 |

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

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| Model Name | | ☞ IPC-6025 | ☞ IPC-5122 | ☞ IPC-7130 / IPC-7130L | ☞ IPC-7220 |
|---|---|---|---|---|---|
| Form Factor Support | | PICMG 1.0/1.3 Full-size SBC | Micro ATX | ATX / Micro ATX | ATX / Micro ATX |
| Drive Bay | Slim Optical Drive | - | 1 | - | - |
| | 2.5" | - | - | - | - |
| | 3.5" External | 1 | 1 | 2 ( hot-swap ) / 2 | 1 |
| | 3.5" Internal | 1 | 1 | 1 / 1 | 1 |
| | 5.25" | - | - | 1 / 1 | 2 |
| Front I/O | USB | 2 | 2 | 2 / 2 | 2 |
| | PS/2 | - | - | - | - |
| Cooling | No. of Fans | 1 | 1 | 1 + 1 | 1 |
| | CFM | 51.5 | 82 | 82 / 27.72 | 82 |
| Power Supply | AC | 350W Flex ATX | 300W PS/2 500W PS/2 | 300W PS/2 500W PS/2 | 300W PS/2 500W PS/2 |
| | AC Redundant | - | - | 500W Mini RPS | - |
| | DC | - | - | - | - |
| No. of Slots for add-on cards | | 4 | 4 | 7 | 7 |
| No. of Full-size Cards | | 5 | - | 7 | 7 |
| Passive Backplane Options | PICMG 1.0 | ✓ | - | - | - |
| | PICMG 1.3 | ✓ | - | - | - |
| Intelligent System Module | | ✓ | ✓ | ✓/- | ✓ |
| Dimensions (W x H x D) | mm | 111 x 212 x 420 | 157 x 360 x 340 | 200 x 320 x 480 | 200 x 320 x 480 |
| | inch | 4.4 x 8.3 x 16.5 | 6.2 x 14.2 x 13.4 | 7.9 x 12.6 x 18.9 | 7.9 x 12.6 x 18.9 |
| Weight | kg | 4.7 | 6.5 | 12.8 | 14 |
| | lb | 10.3 | 14.3 | 28.2 | 30.8 |

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

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# Industrial Chassis Selection Guide

|  |  | 1U Rackmount | 2U Rackmount | | | | 4U Rackmount | | |
|---|---|---|---|---|---|---|---|---|---|
| **Model Name** | | ☞ ACP-1010 | ☞ IPC-603 | ☞ ACP-2000 | ☞ ACP-2010/ 2320 | ☞ ACP-2020 | ☞ IPC-510 | ☞ IPC-610-L/ IPC-611 | ☞ IPC-631 |
| **Form Factor Support** | | ATX/MicroATX | ATX/MicroATX | PICMG 1.0/1.3 Full-Size SBC | ATX/MicroATX | ATX / MicroATX | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | ATX/Micro-ATX |
| **Drive Bay** | Slim Optical Drive | 1 | 1 | 1 | -/1 | 1 | - | - | 1 |
| | 2.5" | 1 x 3.5" or 2 x 2.5" | - | - | - | 2 external (optional hot-swap module) 2 internal | - | - | 4 (2 external optional hot-swap) |
| | 3.5" Hot-swap | - | - | - | - / 2 (SATA) | - | - | - | - |
| | 3.5" External | 1 | - | 2 | 1 / - | - | 1 | 1 | - |
| | 3.5" Internal | 1 x 3.5" or 2 x 2.5" | 1 | - | 2 | - | 1 | - | - |
| | 5.25" | - | - | - | 1 / - | - | 3 | 3 | - |
| **Front I/O** | USB | 2 | Front I/O chassis | 2 | 2 | 2 (USB 3.0) | 2 | 2 | Front I/O chassis |
| | PS/2 | - | | 1 | 1 | - | 1 | - | |
| **Cooling** | No. of Fans | 2 (MB) | 2 | 2 | 2 / 3 | 1 | 1 | 1 | 2 |
| | CFM | 2 x 24 (MB) | 2 x 47 | 2 x 47 | 2 x 47/ 2 x 47 + 1 x 28 | 41 | 77 | 82 | 2 x 82 |
| **Power Supply** | AC | 250W Flex ATX 350W Flex ATX | 350W Flex ATX | 300W PS/2 500W PS/2 | 250W Flex ATX 350W Flex ATX | 350W Flex ATX 850W Flex ATX | 300W PS/2 | 300W PS/2 500W PS/2 | 500W PS/2 700W PS/2 |
| | AC Redundant | - | - | - | - | 500W 2U redundant | - | - | - |
| | DC | - | - | - | - | - | - | - | - |
| **No. of Slots** | | 1 | 3 | 6 | 3 / 3 | 7 | 14 | 15 | 7 |
| **No. of Full-size Cards**[Note] | | 0 | 0 | 4 | 3 / 3 | 7 | 8 | 11 | 0 |
| **Passive Backplane Options** | PICMG 1.0 | ✓ | - | ✓ | - | - | ✓ | ✓ | - |
| | PICMG 1.3 | ✓ | - | ✓ | - | - | ✓ | ✓ | - |
| **Intelligent System Module** | | - | - | ✓ | ✓ | ✓ | - | - | - |
| **Dimensions (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 177 x 348 | 482 x 177 x 446 | 482 x 177 x 480 | 482 x 177 x 348 |
| | inch | 19 x 1.7 x 19.6 | 19 x 3.46 x 12.1 | 19 x 3.5 x 17.8 | 19 x 3.5 x 18.9 | 19 x 7.0 x 13.7 | 19 x 7 x 17.6 | 19 x 7 x 18.9 | 19 x 7.0 x 13.7 |
| **Weight** | kg | 8 | 6.4 | 11.5 | 10.7/11.7 | 8 | 10.7 | 14.5 | 8 |
| | lb | 17.6 | 14.1 | 25.3 | 23.5/25.7 | 17.6 lb | 23.5 | 31.9 | 17.6 |

Note: Depending on system configuration. Board component or CPU cooler mechanical interference might reduce supported full-size card number.
✓: supported, - : not supported, △: optional

| Model Name | | | ☞ IPC-610-H | ☞ ACP-4020 | ☞ ACP-4D00 | ☞ ACP-4000 | ☞ ACP-4010/ ACP-4320 | ☞ ACP-4340 | ☞ ACP-4360 | ☞ IPC-623 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **4U Rackmount** | | | | |
| Form Factor Support | | | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | PICMG1.3 Half-size SBC ATX/Micro-ATX | PICMG 1.3/PCI Half-size SBC | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | PICMG1.0/1.3 Full size SBC ATX/Micro-ATX | PICMG 1.0/1.3 Full size SBC |
| Drive Bay | Slim Optical Drive | | - | 1 | - | - | - | 1 | 1 | - |
| | 2.5" | | - | 1 (Internal) | - | - | - | 1 (Internal) | - | - |
| | 3.5" | Hot-swap | - | - | | - | - / 2 (SATA) | 4 (SATA) | 6 (SATA) | - |
| | | External | 1 | 2 | 1 / each node | 1 | 1 / - | - | 1 | 1 |
| | | Internal | - | - | - | - | 1 / - | - | - | - |
| | 5.25" | | 3 | - | - | 3 | 2 | - | - | 2 |
| Front I/O | USB | | 2 | 2 (USB 3.0) | 2 (USB 2.0) + 2 (USB 3.0) / each node | 2 | 4 / 2 | 2 (USB 3.0) | 2 | - |
| | PS/2 | | 1 | - | - | 1 | - | - | - | - |
| Cooling | No. of Fans | | 2 | 2 | 1 / each node | 2 | 2 / 2 | 2 | 3 | 3 |
| | CFM | | 2 x 82 | 2 x 51.5 | 1 x 58 per node | 2 x 82 | 2 x 82/ 1 x 82 + 1 x 28 | 1 x 82 + 1 x 56 | 1 x 114 + 2 x 47 | 3 x 150 |
| Power Supply | AC | | 300W PS/2 500W PS/2 | 300W PS/2 500W PS/2 700W PS/2 | 250W Flex ATX 300W Flex ATX | 300W PS/2 500W PS/2 700W PS/2 | 300W PS/2 500W PS/2 700W PS/2 | 300W PS/2 500W PS/2 700W PS/2 | 500W PS/2 700W PS/2 | 500W 1200W |
| | AC Redundant | | - | - | - | 500W Mini RPS | 500W Mini RPS | - | 500W Mini RPS | - |
| | DC | | - | - | - | - | - | - | - | - |
| No. of Slots | | | 15 | 15 | 6 / each node | 15 | 15 / 15 | 15 | 15 | 20 |
| No. of Full-size Cards[Note] | | | 11 | 0 | 0 | 11 | 15 / 10 | 11 | 8 | 20 |
| Passive Backplane Options | PICMG 1.0 | | ✓ | - | ✓ (PCI BP only) | ✓ | ✓ | ✓ | ✓ | ✓ |
| | PICMG 1.3 | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Intelligent System Module | | | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| Dimensions (W x H x D) | mm | | 482 x 177 x 479 | 482 x 177 x 348 | 430 x 177 x 350 | 482 x 177 x 479 | 482 x 177 x 479 | 482 x 177 x 478 | 482 x 177 x 501 | 482 x 177 x 657 |
| | inch | | 19 x 7 x 18.9 | 19 x 7.0 x 13.7 | 19 x 7.0 x 13.8 | 19 x 7 x 18.9 | 19 x 7 x 18.9 | 19 x 7.0 x 18.8 | 19 x 7.0 x 19.8 | 19 x 7 x 26 |
| Weight | kg | | 15 | 8.5 | 15 | 15.2 | 16.6/17.6 | 12.5 | 19 | 26 |
| | lb | | 33 | 18.7 | 33 | 33.5 | 36.5/38.7 | 27.5 | 41.8 | 57 |

Note: Depending on system configuration. Board component or CPU cooler mechanical interference might reduce supported full-size card number.
✓: supported, - : not supported, △: optional

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# Industrial Motherboards
# Selection Guide

## ATX Motherboards

| Model Name | | ☞ AIMB-706 | ☞ AIMB-786 |
|---|---|---|---|
| **Processor System** | CPU | 8/9th Gen Intel Core i7/i5/i3/Pentium | |
| | Socket | LGA1151 | |
| | Max. Speed | 3.7 GHz | |
| | Cache | L3: up to 12 MB (depends on CPU) | |
| | Chipset | Intel® H310 | Intel® Q370 |
| | BIOS | AMI 128 Mbit SPI Flash | AMI 256 Mbit SPI flash |
| **Expansion Slot** | PCIe x16 | 1 (Gen3) | |
| | PCIe x4 | 1 (Gen2) | 4 (Gen3) |
| | PCIe x1 | - | - |
| | PCI | 5 | 2 |
| **Memory** | Technology | Dual DDR4 2400/2666 MHz | |
| | Max. Capacity | 64 GB | 128 GB |
| | Socket | 2 x 288-pin DIMM | 4 x 288-pin DIMM |
| **Graphics** | Controller | Intel HD Graphics | |
| | VRAM | Shared system memory is subject to OS | |
| **Ethernet** | Interface | 10/100/1000 Mbps | |
| | Controller | GbE LAN1: Intel® I219V<br>GbE LAN2: Intel® I211AT (for G2 version) | GbE LAN1: Intel® I219LM<br>GbE LAN2: Intel® I211AT |
| **SATA** | Max. Date Transfer Rate | 600MB/s | |
| | Channel | 4 | 5 (SW RAID) |
| **I/O Interface** | VGA | 1 | |
| | DVI | 1(for G2 version) | 1 |
| | DP | - | 1 |
| | USB | 9<br>(4 x USB 3.1 Gen 1, and 5 x USB 2.0) | 13<br>(2 x USB 3.1 Gen 2, 4 x USB 3.1 Gen 1, and 7 x USB 2.0) |
| | Serial | 6 (for G2 version)<br>2 (for VG version) | 6 |
| | Parallel | 1 | |
| | PS/2 | 2 (1 x rear I/O and 1 x wafer box) | 1 (internal wafer box) |
| | Ethernet (GbE) | 2 for G2 version<br>1 for VG version | 2 |
| | Audio | Mic-in, Line-out | |
| **Watchdog Timer** | Output | System reset | |
| | Interval | Programmable, 1-255 Sec | |

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

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| Model Name | | ☞ AIMB-784 | ☞ AIMB-705 | ☞ AIMB-785 |
|---|---|---|---|---|
| **Processor System** | CPU | 4th Gen Intel Core i7/i5/i3/Pentium | 6th/7th Gen Intel Core i7/i5/i3/Pentium | 6th/7th Gen Intel Core i7/i5/i3/Pentium |
| | Socket | LGA1150 | LGA1151 | LGA1151 |
| | Max. Speed | 3.7 GHz | 3.9 GHz | 3.9 GHz |
| | Cache | L3: up to 8 MB (depends on CPU) | L3: up to 8 MB (depends on CPU) | L3: up to 8 MB (depends on CPU) |
| | Chipset | Intel Q87 | Intel H110 | Intel Q170 |
| | BIOS | AMI 128 Mbit SPI | AMI 128 Mbit SPI | AMI 128 Mbit SPI |
| **Expansion Slot** | PCIe x16 | 1 (Gen3) | 1 (Gen3) | 1 (Gen3) |
| | PCIe x4 | 1 (Gen2) | 1 (Gen2) | 3 (Gen3) |
| | PCIe x1 | 1 (Gen2) | - | - |
| | PCI | 4 | 5 | 3 |
| **Memory** | Technology | Dual Channel DDR3 1333/1600 MHz | Dual Channel DDR4 1866/2133 MHz | Dual Channel DDR4 1866/2133 MHz |
| | Max. Capacity | 32 GB | 32 GB | 64 GB |
| | Socket | 4 x 240-pin DIMM | 2 x 288-pin DIMM | 4 x 288-pin DIMM |
| **Graphics** | Controller | Intel HD Graphics | Intel HD Graphics | Intel HD Graphics |
| | VRAM | Shared system memory up to 1 GB | Shared system memory is subject to OS | Shared system memory is subject to OS |
| **Ethernet** | Interface | 10/100/1000 Mbps | 10/100/1000 Mbps | 10/100/1000 Mbps |
| | Controller | GbE LAN1: Intel I217LM GbE LAN2: Intel I211AT | GbE LAN1: Intel I219V GbE LAN2: Intel I211AT (for G2 version) | GbE LAN1: Intel I219LM GbE LAN2: Intel I211AT |
| **SATA** | Max. Date Transfer Rate | 600 MB/s | 600 MB/s | 600 MB/s |
| | Channel | 6 (SW RAID) | 4 | 6 (4 w/ SW RAID) |
| **I/O Interface** | VGA | 1 | 1 | 1 |
| | DVI | 2 | 1(for G2 version) | 2 |
| | USB | 13 ( 4 USB 3.0 and 9 USB 2.0) | 9 (4 USB 3.0 and 5 USB 2.0) | 13 (6 USB 3.0 and 7 USB 2.0) |
| | Serial | 6 | 6 (for G2 version) 2 (for VG version) | 6 |
| | Parallel | 1 | 1 | 1 |
| | PS/2 | 2 (1 x keyboard and 1 x mouse) | 2 (1 x rear I/O and 1 x wafer box) | 1 (internal wafer box) |
| | Ethernet (GbE) | 2 | 2 for G2 version; 1 for VG version | 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

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# Slot SBCs and Passive Backplanes Selection Guide

## PICMG 1.3 System Host Boards

| Model Name | LGA1151 PICMG 1.3 SHB ☞ PCE-5029 | LGA1151 PICMG 1.3 SHB ☞ PCE-5031 | LGA1150 PICMG 1.3 SHB ☞ PCE-5128 | LGA1151 PICMG 1.3 SHB ☞ PCE-5129 |
|---|---|---|---|---|
| **Processor System** — CPU | Intel® Core™ i7/Core™ i5/Core™ i3 LGA1151 Processors | Intel® Core™ i7/Core™ i5/Core™ i3 LGA1151 Processors | Intel® Core™ i7/Core™ i5/Core™ i3 LGA1150 Processors | Intel® Core™ i7/Core™ i5/Core™ i3 LGA1151 Processors |
| Max. Speed | 3.4 GHz | 3.7 GHz | 3.1 GHz | 3.4 GHz |
| Cache | Up to 8 MB (Depends on CPU) | Up to 12 MB (Depends on CPU) | Up to 8 MB (Depends on CPU) | Up to 8 MB (Depends on CPU) |
| Chipset | Intel H110 | Intel H310 | Intel Q87 | Intel Q170 |
| BIOS | AMI 128 Mbit SPI Flash | AMI 256Mbit SPI Flash | AMI 128 Mbit SPI Flash | AMI 128 Mbit SPI Flash |
| **Backplane Bus** — PCIe | PICMG1.3: One x16 & Four x1 | PICMG1.3" One x16 & Four x1 | PICMG1.3: One x16 & Four x1 | PICMG1.3: One x16 & Four x1 |
| PCI (32bit/33 MHz) | 4 | 4 x PCI master to backplane, 32-bit, 33 MHz | 4 | 4 |
| **Memory** — Technology | Dual-channels (Non-ECC) DDR4 1866/2133 | Dual-channel (non-ECC) U-DIMM DDR4 2400/2666 MHz | Dual-channel (Non-ECC) DDR3 1333/1600 | Dual-channels (Non-ECC) DDR4 1866/2133 |
| Max. Capacity | 32 GB | 32 GB (depends on CPU) | 16 GB | 32 GB |
| Socket | 2 x 288-pin DIMM | 2 x DDR4 288-pin DIMM | 240-pin DIMM x 2 | 2 x 288-pin DIMM |
| **Graphics** — Controller | Chipset integrated Intel® HD Graphics | Chipset integrated with Intel® HD Graphics | 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 | Shared system memory is subject to OS | Shared system memory is subject to OS |
| Video Out | G2: VGA+DP/DVI (Optional DVI-D/DP cable) VG: VGA | VGA+DP/DVI-D+DP/DVI-D | VGA/DVI-D/DVI-D (Optional DVI-D cable) | VGA+DP/DVI-D+DP/DVI-D |
| **Ethernet** — Interface | 10/100/1000 Mbps | 10/100/1000 Mbps | 10/100/1000 Mbps | 10/100/1000 Mbps |
| LAN1/LAN2 Controller | LAN1: I219-V LAN2: I211-AT (G2 only) | LAN 1: Intel® I219-V LAN 2: Intel® I211-AT | Intel® I217LM/I211AT | Intel I219LM/I211 |
| Connector | G2: 2 VG: 1 | RJ45 x 2 | RJ45 X 2 | RJ45 x 2 |
| Disable in BIOS | ✓ | ✓ | ✓ | ✓ |
| **SATA** — Max. Date Transfer Rate | 600 MB/s SATA3.0 | 600 MB/s SATA3.0 | 600 MB/s SATA3.0 | 600 MB/s SATA3.0 |
| Channel | 4 x SATA3.0 | 4 x SATA3.0 | 6 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 | 1 |
| Ethernet | G2: 2 VG: 1 | 2 | 2 | 2 |
| USB2.0 | - | 0 | 0 | 0 |
| USB3.0 | G2: 1 VG: - | 1 | 1 | 1 |
| PS/2 | 1 | 1 | 1 | 1 |
| Serial | G2: - VG: 1 | 0 | | - |
| **Internal I/O** — USB 2.0 | 7 USB 2.0 (Pin-header x 2+USB Type A x 1+ 4 on backplane) | 7 USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane) | 9 USB 2.0 (Pin-Header x 4 + USB Type A x 1 + 4 on backplane) | 7 USB 2.0 (Pin-header x 2+USB Type A x 1+ 4 on backplane) |
| USB 3.0 | 2 USB3.0 (Pin header) | 2 USB3.0 (Pin header) | 2 USB3.0 (Pin-Header) | 4 USB3.0 (Pin header) |
| SATA | 4 | 4 | 6 | 5 |
| M.2 (2280 Type M) | - | 0 | - | 1 (Shared w/ SATA0 port) |
| Serial | G2: 2 VG: 1 | 2 | 2 RS-232 (Pin-Header) | 2 RS-232 (Pin-Header) |
| Parallel | 1 | 1 | 1(SPP/EPP/ECP) | 1 |
| PS/2 | 1 | 1 | 1 | 1 |
| OBS(Onboard Security Hardware Monitor) | ✓ | ✓ | ✓ | ✓ |
| **Watchdog Timer** — Output | System reset | System reset | System reset | System reset |
| Interval | Programable, 1~255 sec | Programable, 1~255 sec/min | Programable, 1~255 sec/min | Programable, 1~255 sec/min |
| **Miscellaneous** — Advantech Audio Module | PCA-AUDIO-HDB1E | PCA-AUDIO-HDB1E | PCA-AUDIO-HDA1E | PCA-AUDIO-HDB1E |
| Advantech SNMP-1000 | - | - | ✓ | ✓ |
| Advantech SAB-2000 | G2: ✓ VG: - | ✓ | ✓ | ✓ |
| Advantech IPMI Module | - | - | - | - |
| AMT | - | ✓ | ✓ | ✓ |

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

Vertrieb durch **AMC**

**AMC – Analytik & Messtechnik GmbH Chemnitz**

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| Model Name | | LGA1151 PICMG 1.3 SHB ☞ PCE-5131 | LGA1150 PICMG 1.3 SHB ☞ PCE-7128 | LGA1151 PICMG 1.3 SHB ☞ PCE-7129 | LGA1151 PICMG 1.3 SHB ☞ PCE-7131 |
|---|---|---|---|---|---|
| Processor System | CPU | Intel® Core™ i7/Core™ i5/Core™ i3 LGA1151 Processors | Intel® Xeon® and Core™ i7/Core™ i5/Core™ i3 LGA1150 Processors | Intel® Xeon and 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 | 3.5 GHz | 3.6 GHz | 3.7 GHz |
| | Cache | Up to 12 MB (Depends on CPU) | Up to 8 MB (Depends on CPU) | Up to 8 MB (Depends on CPU) | Up to 16 MB (Depends on CPU) |
| | Chipset | Intel Q370 | Intel® C226 | Intel C236 | Intel® C246 |
| | BIOS | AMI 256 Mbit SPI | AMI 128 Mbit SPI Flash | AMI 128 Mbit SPI Flash | AMI® SPI Flash 256 Mbit |
| Backplane Bus | PCIe | One x16 & Four x1 | One x16/ Two x8 & Four x1 | PICMG1.3: One x16 / Two x8 & Four x1 | 1 x PCIe x16/2 x PCIe x8 and 1 x PCIe x4 to backplane |
| | PCI (32bit/33 MHz) | 4 x PCI master to backplane, 32-bit, 33 MHz | 4 | 4 | 4 x PCI master to backplane, 32-bit, 33 MHz |
| Memory | Technology | Dual-channel (non-ECC) DDR4 2400/2666 | Dual-channel (ECC) DDR3 1333/1600 | Dual-channels (ECC) DDR4 1600/1866/2133 | Dual-channel (non-ECC) DDR4 2400/2666 (Note: Intel ECC-supported processor must be selected to enable ECC function) |
| | Max. Capacity | 32 GB (depends on CPU) | 16 GB | 32 GB | 32 GB (depends on CPU) |
| | Socket | 2 x DDR4 288-pin DIMM | 2 x 240-pin DIMM | 2 x 288-pins DIMM | 2 x DDR4 288-pin DIMM |
| Graphics | Controller | Chipset integrated with Intel® HD Graphics | Chipset integrated Intel® HD Graphics | Chipset integrated 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 | Shared system memory is subject to OS |
| | Video Out | VGA+DP/DVI-D+DP/DVI-D | VGA/DVI-D/DVI-D (Optional DVI-D cable) | 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 | 10/100/1000 Mbps |
| | LAN1/LAN2 Controller | LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT | Intel® I217LM/I210AT | Intel I219LM/I210AT | LAN 1: Intel® I219-LM LAN 2: Intel® I210-AT |
| | Connector | RJ45 x 2 | RJ45 x 2 | RJ45 x 2 | RJ45 x 2 |
| | Disable in BIOS | ✓ | ✓ | ✓ | ✓ |
| SATA | Max. Date Transfer Rate | 600 MB/s SATA3.0 | 600 MB/s SATA3.0 | 600 MB/s SATA3.0 | 600 MB/s SATA3.0 |
| | Channel | 5 x SATA3.0 | 6 x SATA3.0 | 5 x SATA3.0 | 5 x SATA3.0 |
| | S/W Raid | 0, 1, 5, 10 | 0, 1, 5, 10 | 0, 1, 5, 10 | 0, 1, 5, 10 |
| Rear I/O | VGA | 1 | 1 | 1 | 1 |
| | Ethernet | 2 | 2 | 2 | 2 |
| | USB2.0 | 0 | 0 | 0 | 0 |
| | USB3.0 | 1 | 1 | 1 | 1 |
| | PS/2 | 1 | 1 | 1 | 1 |
| | Serial | 0 | - | - | 0 |
| Internal I/O | USB 2.0 | 7 USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane) | 9 USB 2.0 (Pin-Header x 4 + USB Type A x 1 + 4 on backplane) | 7 USB2.0 (Pin-header x 2+USB Type A x 1+ 4 on backplane) | 7 USB 2.0 (pin header*2 + USB Type A*1 + 4 on backplane) |
| | USB 3.0 | 6 | 2 USB3.0 (Pin-Header) | 4 USB3.0 (Pin header) | 6 |
| | SATA | 5 | 6 | 5 | 5 |
| | M.2 (2280 Type M) | 1 | - | 1 (Shared w/ SATA0 port) | 1 |
| | Serial | 2 | 2 RS-232(Pin-Header) | 2 RS-232(Pin-Header) | 2 |
| | Parallel | 1 | 1(SPP/EPP/ECP) | 1 | 1 |
| | PS/2 | 1 | 1 | 1 | 1 |
| | OBS(Onboard Security Hardware Monitor) | ✓ | ✓ | ✓ | ✓ |
| Watchdog Timer | Output | System reset | System reset | System reset | System reset |
| | Interval | Programable, 1~255 sec/min | Programable, 1~255 sec/min | Programable, 1~255 sec/min | Programable, 1~255 sec/min |
| Miscellaneous | Advantech Audio Module | PCA-AUDIO-HDB1E | PCA-AUDIO-HDA1E | PCA-AUDIO-HDB1E | PCA-AUDIO-HDB1E |
| | Advantech SNMP-1000 | ✓ | ✓ | ✓ | ✓ |
| | Advantech SAB-2000 | ✓ | ✓ | ✓ | ✓ |
| | Advantech IPMI Module | - | ✓ | - | - |
| | AMT | ✓ | ✓ | ✓ | ✓ |

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

# Slot SBCs and Passive Backplanes Selection Guide

## PICMG 1.0 Single Board Computers

| Model Name | | LGA1150 PICMG 1.0 SBC |
|---|---|---|
| | | ☞ PCA-6028 |
| **Processor System** | CPU | Intel Core i7/i5/i3/Pentium LGA 1150 Processors |
| | Max. Speed | 3.2GHz |
| | Max. L2 Cache | Up to 8MB |
| | Chipset | Intel H81 |
| | BIOS | AMI 128Mbit SPI Flash |
| | FSB | - |
| **Bus** | PCI | 32 bit/33 MHz PCI |
| | ISA | HISA (ISA High Driver) |
| **Graphics** | Controller | Chipset integrated Intel HD Graphics |
| | VRAM | Shared system memory is subject to OS |
| | LCD/DVI | DVI (G2 version only) |
| **Ethernet** | Interface | 10/100/1000 Mbps |
| | Controller | LAN 1: Intel I217V<br>LAN 2: Intel I211 (Only in G2 Sku) |
| | Connector | RJ45 x 1 (VG sku); RJ45 x 2 (G2 sku) |
| | Disabled in BIOS | ✓ |
| **Memory** | Technology | Dual channel (Non-ECC) DDR3 1333/1600 MHz |
| | Max. Capacity | 16 GB (8 GB per DIMM) |
| | Socket | DDR3 240-pin DIMM x 2 |
| **SATA** | Max. Data Transfer Rate | 600 MB/s |
| | Channel | 4 (1x SATA2.0, 2x SATA3.0, 1x mSATA) |
| | RAID | - |
| **EIDE** | Mode | - |
| | Channel | - |
| **I/O Interface** | USB | Up to 8 x USB2.0 (6x pin header, 1x type A, 1x rear in G2 sku only)<br>2 x USB3.0 (Pin header) |
| | Serial | 2 RS-232 (Pin-Header) |
| | Parallel | 1 |
| | FDD | - |
| | PS/2 | 1 |
| | LAN | 1 (for VG version)<br>2 (for G2 version) |
| | OBS (Hardware Monitor) | ✓ |
| **Watchdog Timer** | Output | System reset |
| | Interval | Programmable, 1~255 sec |
| **Miscellaneous** | Audio | PCA-AUDIO-HDA1E |
| | Advantech SNMP-1000-B | ✓ |
| | Advantech SAB-2000 | ✓ |
| | Solid State Disk | mSATA |

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

# Half-Size Single Board Computers

| Specifications | | PCIe Half-Size SBC | |
|---|---|---|---|
| | | ☞ PCE-3028 | ☞ PCE-4128 |
| **Processor System** | CPU | Intel Core i7/i5/i3/Pentium LGA 1150 Processor | Intel Xeon E3 1200v3 series, Core i7/i5/i3 LGA1150 processors |
| | Speed | Up to 3.5 GHz | up to 3.5GHz |
| | L2 Cache | Up to 8MB | up to 8MB |
| | Chipset | Intel H81 | Intel C226 |
| | BIOS | AMI 128 Mbit SPI Flash | AMI 128Mbit SPI Flash |
| | FSB | - | - |
| **Bus** | PCIe | One PCIex16, Four PCIex1 | One PCIe x16/Two PCIe x8, Four PCIe x1 |
| | PCI | - | - |
| | ISA | - | - |
| **Graphics** | Controller | Chipset integrated graphics with Intel HD | GT2 P4600/GT2 4600/GT1 HD graphics |
| | VRAM | Shared with system memory is subject to OS | Shared system memory is subject to OS |
| | Video output | D-sub VGA port, DVI | VGA, DP, CRT |
| **Ethernet** | Interface | 10/100/1000 Mbps | 10/100/1000 Mbps |
| | Controller | LAN1: Intel® I217V LAN2: Intel® I211AT | LAN1: Intel I217LM, LAN2: I210AT |
| | Connector | RJ-45 x2 | RJ-45 x2 |
| | Disabled in BIOS | ✓ | - |
| **Memory** | Technology | Dual-channel DDR3 1066/1333/1600 MHz | Dual channel DDR3 ECC 1066/1333/1600 MHz(ECC function enable depends on processor support) |
| | Max. Capacity | 16 GB | 16 GB |
| | Socket | 204-pin SODIMM x2 | DDR3 204-pin SO-DIMM x2 |
| **SATA** | Max. Data Transfer Rate | 600 MB/s, 300 MB/s | 600 MB/sec |
| | Channel | 4 | 4 |
| | RAID | - | 0,1,5,10 |
| **EIDE** | Mode | - | - |
| | Channel | - | - |
| **I/O Interface** | USB | 2 USB 3.0 + 7 USB 2.0 | 3 USB 3.0, 7 USB 2.0 |
| | 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: RS-422/485 x4 or RS-232 x4 via module. |
| | Parallel | 1 | 1 |
| | FDD | - | 0 |
| | PS/2 | 1 | 1 |
| | LAN | 2 | 2 |
| | OBS (Onboard Security Hardware Monitor) | - | - |
| **Watchdog Timer** | Output | System reset | System reset |
| | Interval | Programmable 1-255 sec | Programmable 1-255 sec |
| **Miscellaneous** | Audio | PCA-AUDIO-HDA1E | PCA-AUDIO-HDA1E |
| | Advantech SNMP-1000 | - | - |
| | IPMI | - | - |
| | Solid State Disk | - | - |

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

1 — IIoT Software Solutions
2 — Edge AI and SKY Servers
3 — Intelligent Systems
4 — Machine Vision Solutions
5 — Intelligent HMI and Monitors
6 — Automation Computers
7 — DAQ and Communication Gateways
8 — Industrial Communication
9 — Remote I/O, Wireless Sensing Modules and Converters
10 — Intelligent Motion Control Solutions
11 — EtherCAT Solutions and Automation Controllers
12 — Industrial I/O Solutions
13 — Intelligent Transportation Platforms
14 — Utility and Enery Solutions

Vertrieb durch **AMC**

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# Slot SBCs and Passive Backplanes Selection Guide

## Half-Size Single Board Computers

| Specifications | | PCIe Half-Size SBC | |
|---|---|---|---|
| | | ☞ PCE-3029 | ☞ PCE-4129 |
| **Processor System** | CPU | Intel Core i7/i5/i3/Pentium LGA 1151 Processor | Intel Xeon E3-1200v5 series, Core i7/i5/i3 LGA1151 processors |
| | Speed | Up to 3.7 GHz | Up to 3.7 GHz |
| | L2 Cache | Up to 8 MB | Up to 8 MB |
| | Chipset | Intel H110 | Intel C236 |
| | BIOS | AMI 128 Mbit SPI Flash | AMI 128 Mbit SPI Flash |
| | FSB | - | - |
| **Bus** | PCIe | One PCIe x16, Four PCIe x1 | One PCIe x16 or Two PCIe x8, Four PCIe x1 |
| | PCI | - | - |
| | ISA | - | - |
| **Graphics** | Controller | Chipset integrated graphics with Intel HD | Chipset integrated graphics with Intel HD |
| | VRAM | Shared with system memory is subject to OS | Shared with system memory is subject to OS |
| | Video output | VGA, DVI, DP | VGA, DVI, DP |
| **Ethernet** | Interface | 10/100/1000 Mbps | 10/100/1000 Mbps |
| | Controller | LAN1: Intel® I219V LAN2: Intel® I211AT | LAN1: Intel® I219LM LAN2: Intel® I210AT |
| | Connector | RJ-45 x2 | RJ-45 x2 |
| | Disabled in BIOS | ✓ | ✓ |
| **Memory** | Technology | Dual-channel DDR4 1866/2133 MHz | Dual channel DDR4 ECC 1866/2133 MHz (ECC function enable depends on processor support) |
| | Max. Capacity | 32 GB | 32GB |
| | Socket | 260-pin SODIMM x2 | 260-pin SO-DIMM X2 |
| **SATA** | Max. Data Transfer Rate | 600MB/s | 600MB/s |
| | Channel | 4 | 4 |
| | RAID | - | 0,1,5,10 |
| **EIDE** | Mode | - | - |
| | Channel | - | - |
| **I/O Interface** | USB | 3 USB 3.0 + 7 USB 2.0 | 3 USB 3.0 + 7 USB 2.0 |
| | 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 RS232 by COM module |
| | Parallel | 1 | 1 |
| | FDD | - | - |
| | PS/2 | 1 | 1 |
| | LAN | 2 | 2 |
| | OBS (Onboard Security Hardware Monitor) | ✓ | ✓ |
| **Watchdog Timer** | Output | System reset | System reset |
| | Interval | Programmable 1-255 sec | Programmable 1-255 sec |
| **Miscellaneous** | Audio | PCA-AUDIO-HDB1E | PCA-AUDIO-HDA1E |
| | Advantech SNMP-1000 | - | - |
| | IPMI | - | - |
| | Solid State Disk | mSATA x 1 | mSATA x 1 |

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

Vertrieb durch **AMC**

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| Specifications | | PCI Half-Size SBC | ISA Half-Size SBC |
|---|---|---|---|
| | | ☞ PCI-7032 | ☞ PCA-6763 |
| Processor System | CPU | Intel Celeron J1900/N2930 | AMD G-Series APU T16R/T40E |
| | Speed | 2.00/1.83 GHz | 615 MHz/1GHz |
| | L2 Cache | 2MB/2MB | 512 KB |
| | Chipset | Intel Celeron J1900/N2930 SOC | AMD A55E |
| | BIOS | AMI 64 Mbit SPI Flash | AMI 32 Mbit SPI Flash |
| | FSB | - | - |
| Bus | PCIe | One PCIe x 1 (F SKU) Only | - |
| | PCI | 32-bit/33 MHz PCI | - |
| | ISA | - | 16-bit ISA Bus |
| Graphics | Controller | Chipset integrated graphics with Intel® HD | Radeon HD 6250 |
| | VRAM | Shared with system memory is subject to OS | Shared with system memory up to 384MB |
| | Video output | D-sub VGA port, 48-bit LVDS, DVI | D-sub VGA port, LVDS (48-bit for G2 SKU, 18-bit for VG SKU), DVI |
| Ethernet | Interface | 10/100/1000 Mbps | 10/100/1000 Mbps |
| | Controller | LAN1: Intel® I211 LAN2: Intel® I211 | LAN1: Realtek RTL8111E-VL-CG LAN2: Realtek RTL8111E-VL-CG |
| | Connector | RJ-45 x 2 | RJ-45 x 2 |
| | Disabled in BIOS | ✓ | ✓ |
| Memory | Technology | Dual-Chnnel DDR3L 1333 | Onboard 1GB DDR3 1066 MHz SODIMM DDR3 1066 MHz up to 4GB |
| | Max. Capacity | 8GB (for G2/F SKU) 4GB (for VG SKU) | 5GB |
| | Socket | 204-pin SODIMM x 2 (for G2/F SKU) 204-pin SODIMM x 1 (for VG SKU) | 204-pin SODIMM x 1 |
| SATA | Max. Data Transfer Rate | 300 MB/s | 300 MB/s |
| | Channel | 2 (SATA 2 can change mSATA) | 4 |
| | RAID | - | - |
| EIDE | Mode | - | - |
| | Channel | - | - |
| I/O Interface | USB | 1 USB 3.0 + 6 USB 2.0 (for G2/F SKU) 1 USB 3.0 + 5 USB 2.0 (for VG SKU) | 7 USB 2.0 (for G2 SKU) 6 USB 2.0 (for VG SKU) |
| | Serial | 4 x RS-232/422/485 (for G2/F SKU) 2 x RS-232/422/485 (for VG SKU) Optional: 4 x RS-422/485 w/Auto-flow or 4 RS-232 by COM module | 2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow by COM module |
| | Parallel | 1 | 1 |
| | FDD | - | 1 |
| | PS/2 | 1 | 1 |
| | LAN | 2 (for G2/F SKU) 1 (for VG SKU) | 2 (for G2/F SKU) 1 (for VG SKU |
| | OBS (Onboard Security Hardware Monitor) | ✓ (G2 SKU only) | - |
| Watchdog Timer | Output | System reset | System reset |
| | Interval | Programmable, 1~255 sec/min | Programmable, 1~255 sec/min |
| Miscellaneous | Audio | PCA-AUDIO-HDB1E | PCA-AUDIO-HDA1E |
| | Advantech SNMP-1000 | - | - |
| | IPMI | - | - |
| | Solid State Disk | mSATA x 1 | mSATA x 1 |

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

1 IIoT Software Solutions
2 Edge AI and SKY Servers
3 Intelligent Systems
4 Machine Vision Solutions
5 Intelligent HMI and Monitors
6 Automation Computers
7 DAQ and Communication Gateways
8 Industrial Communication
9 Remote I/O, Wireless Sensing Modules and Converters
10 Intelligent Motion Control Solutions
11 EtherCAT Solutions and Automation Controllers
12 Industrial I/O Solutions
13 Intelligent Transportation Platforms
14 Utility and Enery Solutions

# Slot SBCs and Passive Backplanes Selection Guide

## PICMG1.3 Full-Size SHB Backplanes

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

| Category | Model Name | PCIe | | | | PCI-X | | | PCI |
|---|---|---|---|---|---|---|---|---|---|
| | | x16 | x8 | x4 | x1 | 64/66 | 64/100 | 64/133 | 32/33 |
| 2U Butterfly BP | PCE-7B06V-04A1E | - | 1 | - | - | - | - | - | 4 |
| 8 slots BP | PCE-7B08-04A1E | - | 2 | 1 | - | - | - | - | 4 |
| 14 slots BP | PCE-7B09R-04A1E | - | 1 | 3 | - | - | - | - | 4 |
| | PCE-7B10-04A1E | - | - | 5 | - | - | - | - | 4 |
| | PCE-7B13-64C1E | - | 2 | - | - | 4 | 2 | - | 4 |
| | PCE-7B13-07A1E | - | 2 | 3 | - | - | - | - | 7 |
| | PCE-7B13D-04A1E | - | 1, 2 | - | - | - | - | - | 4 |
| 20 slots BP | PCE-7B17-00A1E | - | 5 | 11 | - | - | - | - | - |

| Category | Model Name | Wallmount/Desktop Chassis | | | |
|---|---|---|---|---|---|
| | | IPC-6025 | IPC-6606 | IPC-6806(W) | IPC-6608 |
| 2U Butterfly BP | PCE-7B06V-04A1E | - | - | - | - |
| 8 slots BP | PCE-7B08-04A1E | - | - | - | ✓ |
| 14 slots BP | PCE-7B09R-04A1E | - | - | - | - |
| | PCE-7B10-04A1E | - | - | - | - |
| | PCE-7B13-64C1E | - | - | - | - |
| | PCE-7B13-07A1E | - | - | - | - |
| | PCE-7B13D-04A1E | - | - | - | - |
| 20 slots BP | PCE-7B17-00A1E | - | - | - | - |

| Category | Model Name | Rackmount Chassis | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ACP-1010 | ACP-2000EBP | IPC-510 | IPC-610 | IPC-611 | ACP-4000 | ACP-4010 | ACP-4320 | ACP-4340 | ACP-4360 | IPC-623 |
| | | 2-slot / 1U | 6-slot / 2U | 15-slot / 4U | | | | | | | | 20-slot/ 4U |
| 2U Butterfly BP | PCE-7B06V-04A1E | - | ✓ | - | - | - | - | - | - | - | - | - |
| 8 slots BP | PCE-7B08-04A1E | - | - | - | - | - | - | - | - | - | - | - |
| 14 slots BP | PCE-7B09R-04A1E | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| | PCE-7B10-04A1E | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| | PCE-7B13-64C1E | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| | PCE-7B13-07A1E | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| | PCE-7B13D-04A1E | - | - | - | - | - | - | ✓ | - | - | - | - |
| 20 slots BP | PCE-7B17-00A1E | - | - | - | - | - | - | - | - | - | - | ✓ |

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

| Category | Model Name | PCIe | | | | PCI-X | | | PCI |
|---|---|---|---|---|---|---|---|---|---|
| | | x16 | x8 | x4 | x1 | 64/66 | 64/100 | 64/133 | 32/33 |
| 1U Butterfly BP | PCE-5B03V-01A1E | 1 | - | - | - | - | - | - | 1 |
| | PCE-5B03V-00A1E | 1 | - | 1 | - | - | - | - | - |
| 2U Butterfly BP | PCE-5B05V-30B1E | 1 | - | - | - | - | 2 | 1 | - |
| | PCE-5B06V-00A1E | 1 | - | - | 4 | - | - | - | - |
| | PCE-5B06V-04A1E | 1 | - | - | - | - | - | - | 4 |
| 5 slot BP | PCE-5B04-20B1E | 1 | - | - | - | - | - | 2 | - |
| | PCE-5B05-02A1E | 1 | - | 1 | - | - | - | - | 2 |
| | PCE-5B05-03A1E | 1 | - | - | - | - | - | - | 3 |
| | PCE-5B05-04A1E | - | - | - | - | - | - | - | 4 |
| 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-5B12-07A1E | 1 | - | 3 | - | - | - | - | 7 |
| | PCE-5B12-64C1E | 1 | - | - | - | 4 | 2 | - | 4 |
| | PCE-5B13-08A1E | 1 | - | - | 3 | - | - | - | 8 |
| | PCE-5B12D-04A1E | 1 | - | - | - | - | - | - | 4 |
| 20 slot BP | PCE-5B12-00A1E | 10 | - | 1 | - | - | - | - | - |
| | PCE-5B16Q-02A1E | 1 | - | - | - | - | - | - | 2 |
| | PCE-5B18-88B1E | 1 | - | - | - | 8 | - | - | 8 |
| | PCE-5B19-00A1E | 17 | - | 1 | - | - | - | - | - |

| Category | Model Name | Wallmount/Desktop Chassis | | | | |
|---|---|---|---|---|---|---|
| | | IPC-6025 | IPC-6606 | IPC-6806 | IPC-6806W | IPC-6608 |
| 1U Butterfly BP | PCE-5B03V-01A1E | - | - | - | - | - |
| | PCE-5B03V-00A1E | - | - | - | - | - |
| 2U Butterfly BP | PCE-5B05V-30B1E | - | - | - | - | - |
| | PCE-5B06V-00A1E | - | - | - | - | - |
| | PCE-5B06V-04A1E | - | - | - | - | - |
| 5 slot BP | PCE-5B04-20B1E | ✓ | - | - | - | - |
| | PCE-5B05-02A1E | ✓ | - | - | - | - |
| | PCE-5B05-03A1E | ✓ | - | - | - | - |
| | PCE-5B05-04A1E | ✓ | - | - | - | - |
| 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-5B12-07A1E | - | - | - | - | - |
| | PCE-5B12-64C1E | - | - | - | - | - |
| | PCE-5B13-08A1E | - | - | - | - | - |
| | PCE-5B12D-04A1E | - | - | - | - | - |
| 20 slot BP | PCE-5B12-00A1E | - | - | - | - | - |
| | PCE-5B16Q-02A1E | - | - | - | - | - |
| | PCE-5B18-88B1E | - | - | - | - | - |
| | PCE-5B19-00A1E | - | - | - | - | - |

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

Vertrieb durch **AMC**

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# PCI/ISA Backplanes

| Category | Model Name | Slot per segment | | | | | Segment | AT | ATX | 1U Chassis ACP-1010 2-slot | 2U Chassis ACP-2000 6-slot | 4U Chassis IPC-510 15-slot | IPC-610 15-slot | IPC-611 15-slot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ISA | PCI | PICMG | PICMG/PCI | ISA/PCI | | | | | | | | |
| 1U Butterfly BP | PCA-6103P2V-0A2E* | - | 2 | 1 | - | - | 1 | - | ✓ | ✓ | - | - | - | - |
| 2U Butterfly BP | PCA-6105P4V-0B3E* | - | 4 | 1 | - | - | 1 | - | ✓ | - | ✓ | - | - | - |
| | PCA-6106P3V-0B2E* | 1 | 3 | 2 | - | - | 1 | ✓ | ✓ | - | ✓ | - | - | - |
| 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 | ✓ | ✓ | - | - | - | - | - |
| | PCA-6108P6-0C1E | 1 | 5 | 1 | 1 | - | 1 | ✓ | ✓ | - | - | - | - | - |
| | PCA-6108P4-0C2E | 3 | 3 | 1 | 1 | - | 1 | ✓ | ✓ | - | - | - | - | - |
| | PCA-6108-0B2E | 8 | - | - | - | - | 1 | ✓ | ✓ | - | - | ✓ | ✓ | ✓ |
| 14/15 Slot BP | PCA-6114P12-0B3E | 1 | 11 | 1 | 1 | - | 1 | ✓ | ✓ | - | - | ✓ | ✓ | ✓ |
| | PCA-6114P10-0B2E | 2 | 10 | 2 | - | - | 1 | ✓ | ✓ | - | - | ✓ | ✓ | ✓ |
| | PCA-6114P7-0E1E | 4 | 6 | 3 | - | 1 | 1 | ✓ | ✓ | - | - | ✓ | ✓ | ✓ |
| | 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 | ✓ | ✓ | - | - | - | - | - |
| 20 Slot BP | PCA-6120P18-0A2E | 1 | 17 | 1 | 1 | - | 1 | ✓ | △ | - | - | - | - | - |
| | PCA-6120P4-0B2E | 14 | 4 | 2 | - | - | 1 | ✓ | △ | - | - | - | - | - |
| | PCA-6120P12-0A2E | 7 | 11 | 1 | 1 | - | 1 | ✓ | △ | - | - | - | - | - |
| | PCA-6119P7-0C1E | 10 | 7 | 2 | - | - | 1 | ✓ | △ | - | - | - | - | - |
| | PCA-6120Q-0B2E | 5 | - | - | - | - | 4 | ✓ | △ | - | - | - | - | - |

| Category | Model Name | 4U Chassis ACP-4000 15-slot | ACP-4010 15-slot | ACP-4320 15-slot | ACP-4340 15-slot | ACP-4360 15-slot | IPC-623 20-slot | Wallmount/Desktop Chassis IPC-6608 8-slot | IPC-6606 6-slot | IPC-6806/IPC-6806W 6-slot | IPC-6025 5-slot | Cage IPC-6006 6-slot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1U Butterfly BP | PCA-6103P2V-0A2E* | - | - | - | - | - | - | - | - | - | - | - |
| 2U Butterfly BP | PCA-6105P4V-0B3E* | - | - | - | - | - | - | - | - | - | - | - |
| | PCA-6106P3V-0B2E* | - | - | - | - | - | - | - | - | - | - | - |
| 5 Slot BP | PCA-6105P3-5A1E | - | - | - | - | - | - | - | - | - | ✓ | - |
| 6/8 Slot BP | PCA-6106P4-0A2E | - | - | - | - | - | - | - | ✓ | ✓ | - | ✓ |
| | PCA-6106P3-0D2E | - | - | - | - | - | - | - | ✓ | ✓ | - | ✓ |
| | PCA-6108P6-0C1E | - | - | - | - | - | - | ✓ | - | - | - | - |
| | PCA-6108P4-0C2E | - | - | - | - | - | - | ✓ | - | - | - | - |
| 14/15 Slot BP | PCA-6114P12-0B3E | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | PCA-6114P10-0B2E | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | PCA-6114P7-0E1E | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | PCA-6114P4-0C2E | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | PCA-6113P4R-0C2E | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | PCA-6114-0B2E | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| | PCA-6113DP4-0A2E | - | ✓ | - | - | - | - | - | - | - | - | - |
| 20 Slot BP | PCA-6120P18-0A2E | - | - | - | - | - | ✓ | - | - | - | - | - |
| | PCA-6120P4-0B2E | - | - | - | - | - | ✓ | - | - | - | - | - |
| | PCA-6119P7-0C1E | - | - | - | - | - | ✓ | - | - | - | - | - |
| | PCA-6119P7-0B3E | - | - | - | - | - | ✓ | - | - | - | - | - |
| | PCA-6120Q-0B2E | - | - | - | - | - | ✓ | - | - | - | - | - |

Remarks:
* : only compatible with Advantech's 1U/2U chassis

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

# Slot SBCs and Passive Backplanes Selection Guide

## Backplanes Compatible with Half-Size SBCs

| Interface | Category | Model Name | 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 | Model Name | AT | ATX | ACP-4020 Rackmount 14-slot | ACP-4D00 Rackmount 6-slot | IPC-6806S* Wallmount 6-slot | IPC-6006S Wallmount 6-slot | IPC-3012 Wallmount 3-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 | ✓ | ✓ | - | ✓ | ✓ | ✓ | - |
| | PCA-6108P8-0A2E | ✓ | ✓ | - | - | - | - | - |
| Half-Size Backplanes | PCE-3B03-00A1E | - | ✓ | - | ✓ | ✓ | - | - |
| | 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

# ☞ Extension Modules for Slot SBCs

### 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")

### 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")

### 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")

### 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

### PCA-5650-00A1E

- 2 VGA output Mini PCI Express Graphic card
- GPU: Silicon Motion SM750
- VGA output: 1920 x 1080, up to 75Hz vertical rate
- 16 Mb of embedded DDR memory

### IPMI-1000-00A1E

- IPMI2.0 Server-grade remote control solution
- OS independent hardware-based solution
- Real-time and centralized management
- KVM over IP remote control function
- User friendly UI and utility
- Supports Model: PCE-5126WG2, PCE-7127, PCE-5128

### 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")

# Industrial Computer Peripherals Selection Guide

## ☞ GPU Cards

### Quadro RTX Series

- Turing GPU Technology
- Revolutionary Realtime Ray Tracing Acceleration
- Enhanced Tensor Cores for deep learning
- H.264 and HEVC Encode/Decode Engines

### Quadro P Series

- Pascal GPU Technology
- Huge Frame Buffer and Memory Bandwidth
- Pascal Dynamic Load Balancing
- H.264 and HEVC Encode/Decode Engines

| Part Number | Description |
| --- | --- |
| SKY-QUAD-GV100 | QUADRO GV100  32GB  PCI-Ex16 DP*4 FS |
| SKY-QUAD-P1000R | QUADRO P1000 4GB PCI-Ex16 MDP*4 FS (PG178) |
| SKY-QUAD-P1000R-B | QUADRO P1000 4GB PCI-Ex16 MDP*4 FS BULK (PG178) |
| SKY-QUAD-P2200 | QUADRO P2200 5GB PCI-Ex16 DP*4 FS |
| SKY-QUAD-P2200-BLK | QUADRO P2200 5GB PCI-Ex16 DP*4 FS BULK |
| SKY-QUAD-P400R | QUADRO P400 2GB PCI-Ex16 MDP*3 FS (PG178) |
| SKY-QUAD-P400R-B | QUADRO P400 2GB PCI-Ex16 MDP*3 FS BULK (PG178) |
| SKY-QUAD-P620R | QUADRO P620 2GB  PCI-Ex16 MDP*4 FS (PG178) |
| SKY-QUAD-P620R-B | QUADRO P620 2GB  PCI-Ex16 MDP*4 FS BULK (PG178) |
| SKY-QUAD-RTX4000 | QUADRO RTX4000 8GB PCI-Ex16 DP*3 FS |
| SKY-QUAD-RTX5000 | QUADRO RTX5000 16GB PCI-Ex16 DP*4 FS |
| SKY-QUAD-RTX6000 | QUADRO RTX6000 24GB PCI-Ex16 DP*4 FS |
| SKY-QUAD-RTX8000 | QUADRO RTX8000 48GB PCI-Ex16 DP*4 FS |
| SKY-QUAD-RTX4000-B | QUADRO RTX4000 8GB PCI-Ex16 DP*3 FS BULK |
| SKY-QUAD-RTX5000-B | QUADRO RTX5000 16GB PCI-Ex16 DP*4 FS BULK |
| SKY-QUAD-RTX6000-B | QUADRO RTX6000 24GB PCI-Ex16 DP*4 FS BULK |
| SKY-QUAD-RTX8000-B | QUADRO RTX8000 48GB PCI-Ex16 DP*4 FS BULK |

# Riser Cards



| Model Name | | AIMB-RP10P-01A1E | AIMB-RF10F-01A1E | AIMB-RP30P-03A1E | AIMB-RP3PF-21A1E | AIMB-RP3P8-12A1E |
|---|---|---|---|---|---|---|
| Interface | | PCI | PCIe x 16 | PCI | PCIe x16/PCI | PCIe x16/PCI |
| Expansion Slots | | 1 PCI | 1 PCIe x 16 | 3 PCI | 1 PCIe x16 + 2 PCI | 2 PCIe x8 + 1 PCI |
| Chassis | 1U | ✓ | ✓ | - | - | - |
| | 2U | - | - | ✓ | ✓ | ✓ |
| ATX | AIMB-785 | - | ✓ | - | - | - |
| | AIMB-784 | - | ✓ | - | - | - |
| | AIMB-782 | - | - | - | - | - |
| | AIMB-781 | - | ✓ | - | - | - |
| | AIMB-780 | ✓ | ✓ | ✓ | ✓ | ✓ (WG2 Only)* |
| | AIMB-705 | ✓ | - | ✓ | ✓ | - |
| | AIMB-701 | - | ✓ | - | - | - |
| | AIMB-769 | - | ✓ | - | - | - |
| | AIMB-767 | ✓ | ✓ | ✓ | ✓ | - |
| | AIMB-766 | ✓ | - | ✓ | ✓ | - |
| | AIMB-763 | - | ✓ | - | ✓ | - |

*Note: AIMB-RP3P8-12A1E is not compatible with ACP-2010MB/2320MB, IPC-603MB chassis unless riser card bracket is changed to P/N: 1950014302N001.



| Model Name | | AIMB-R4104-01A1E | AIMB-R430P-03A2E | AIMB-R4301-03A1E | AIMB-R431F-21A1E | AIMB-R43PF-21A1E |
|---|---|---|---|---|---|---|
| Interface | | PCIe x4 | PCIe x4 | PCIe x4 | PCIe x16/PCIe x4 | PCIe x16/PCIe x4 |
| Expansion Slots | | 1 PCIe x4 | 3 PCI | 3 PCIe x1 | 1 PCIe x16 + 2 PCIe x1 | 1 PCIe x16 + 2 PCI |
| Chassis | 1U | ✓ | - | - | - | - |
| | 2U | - | ✓ | ✓ | ✓ | ✓ |
| ATX | AIMB-785 | ✓ | ✓ | △ | □ | ✓ |
| | AIMB-784 | - | - | - | □ | ✓ |
| | AIMB-782 | - | ✓ | - | □ | ✓ |
| | AIMB-781 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | AIMB-780 | - | - | - | - | - |
| | AIMB-701 | ✓ | ✓ | △ | - | - |
| | AIMB-769 | ✓ | ✓ | △ | - | - |
| | AIMB-767 | - | - | - | - | - |
| | AIMB-766 | - | - | - | - | - |
| | AIMB-763 | - | - | | | |

✓: Fully compatible
□: Only the PCIe x 16 and PCIe x1 (bottom slot) connectors work.
△: Only one PCIe x1 connector works (top slot).

# Industrial Computer Peripherals Selection Guide

## ☞ Power Supplies

### 80 Plus PS/2 Single Power Supplies

| Part Number | PS8-300ATX-ZBE | PS8-500ATX-BB | PS8-700ATX-BB |
|---|---|---|---|
| Form Factor | PS/2 | PS/2 | PS/2 |
| Wattage | 300W | 500W | 700W |
| 80 Plus Grade | Bronze | Bronze | Bronze |
| Input Range | 90 ~ 264 $V_{AC}$ | 90 ~ 264 $V_{AC}$ | 90 ~ 264 $V_{AC}$ |
| Output Range | +3.3V @ 11.12 A<br>+5 V @ 13.2 A<br>+12 V @ 7.64 A<br>+12 VCPU @ 8 A<br>-12 V @ 0.1 A<br>-5V @ 0.05 A<br>+5 Vsb @ 1.39 A | +3.3V @ 19 A<br>+5 V @ 16 A<br>+12 V1 @ 17 A<br>+12 V2 @ 17 A<br>-12 V @ 0.3 A<br>-5V @ 0.3 A<br>+5 Vsb @ 2.5 A | +3.3V @ 24 A<br>+5 V @ 30 A<br>+12 V1 @ 16 A<br>+12 V2 @ 16 A<br>+12 V3 @ 16 A<br>+12 V4 @ 16 A<br>-12 V @ 0.5 A<br>-5V @ 0.5 A<br>+5 Vsb @ 4 A |
| MTBF(hrs) | 100,000 @ 25° C | 100,000 @ 25° C | 100,000 @ 25° C |
| Dimensions (W x H x D) | 150 x 86 x 140 mm (5.91" x 3.39" x 5.51") | 150 x 86 x 140 mm (5.91" x 3.39" x 5.51") | 150 x 86 x 140 mm (5.91" x 3.39" x 5.51") |
| Safety | CE, FCC, UL, CB, TUV, CCC, KC, BSMI | CE, FCC, UL, CB, TUV, CCC, KC | CE, FCC, UL, CB, TUV, CCC, KC |
| Compatible Chassis | ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320,  ACP-4340, ACP-4360, IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-7132, IPC-7220, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, IPC-611, IPC-619, HPC-5000 | ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320,  ACP-4340, ACP-4360, IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-7132, IPC-7220, IPC-510, IPC-610-F, IPC-610-H, IPC-610-L, IPC-611, IPC-619, IPC-631, HPC-7442 | ACP-2000/IPC-602, ACP-4000, ACP-4010, ACP-4020, ACP-4320,  ACP-4340, ACP-4360, HPC-7442 |

Remark: Only 500W or higher wattage PSUs support 1700029268-01 and 1700024754-01 PCIe power cables for high end GPU cards. If GPU card has 2 power connectors, please use 1700029268-01 x 1 + 1700024754-01 x 1; if GPU card has 1 power connector, please use 1700029268-01 instead of 1700024754-01.

### PS/2 DC Power Supplies

| Model Name | 96PS-D500WPS2 |
|---|---|
| Wattage | 500W |
| Input Range | 93.5 ~ 253 $V_{DC}$ |
| Outputs | +3.3 V @ 20 A<br>+5 V @ 20 A<br>+12 V1 @ 16 A<br>+12 V2 @ 16 A<br>+12 V3 @ 16 A<br>-12 V @ 0.5 A<br>-5 V @ 0.3 A<br>+5 Vsb @ 3 A |
| MTBF (hrs) | 100,000 @ 25° C |
| Dimensions (W x H x D) | 150 x 86 x 140 mm (5.91" x 3.39" x 5.51") |
| Safety | CE, CB |
| Compatible Chassis | ACP-2000, ACP-4000, ACP-4010, ACP-4320,ACP-4360, IPC-6606, IPC-6608, IPC-5122, IPC-7130, IPC-7130L, IPC-7132, IPC-7220, IPC-510, IPC-610-H,IPC-610-L, IPC-611 |

## 80 Plus Flex ATX Power Supplies



| Part Number | PS8-250FATX-BB | PS8-350FATX-GB | PS8-500FATX-GB |
|---|---|---|---|
| Form Factor | Flex ATX | Flex ATX | Flex ATX |
| Wattage | 250W | 350W | 500W |
| 80 Plus Grade | Bronze | Gold | Gold |
| Input Range | 90 ~ 264 $V_{AC}$ | 90 ~ 264 $V_{AC}$ | 90 ~ 264 $V_{AC}$ |
| Output Range | +3.3V @ 13 A<br>+5 V @ 15 A<br>+12 V1 @ 17 A<br>+12 V2 @ 17 A<br>-12 V @ 0.3 A<br>+5 Vsb @ 2.5 A | +3.3V @14 A<br>+5 V @ 16 A<br>+12 V @ 29 A<br>-12 V @ 0.3A<br>+5 Vsb @ 3 A | +3.3V @14 A<br>+5 V @ 16 A<br>+12 V @ 41 A<br>-12 V @ 0.3A<br>+5 Vsb @ 3 A |
| MTBF(hrs) | 100,000 @ 25° C | 100,000 @ 25° C | 100,000 @ 25° C |
| Dimensions (W x H x D) | 81.5 x 40.5 x 150 mm (3.2" x 1.59" x 5.9") | 81.5 x 40.5 x 150 mm (3.2" x 1.59" x 5.9") | 81.5 x 40.5 x 150 mm (3.2" x 1.59" x 5.9") |
| Safety | CE, FCC, UL, CB, TUV, CCC, KC, BSMI | CE, FCC, UL, CB, TUV, CCC, KC | CE, FCC, UL, CB, TUV, CCC, KC |
| Compatible Chassis | ACP-1010/ACP-1320, ACP-2010/ACP-2320, ACP-4D00,  IPC-3012, IPC-6806S, IPC-6806S-D, IPC-6806, IPC-5120, IPC-7120 | ACP-1010/ACP-1320, ACP-2010/ACP-2320, ACP-4D00, IPC-603, IPC-3012, IPC-6806S, IPC-6806S-D, IPC-6806, IPC-5120, IPC-7120, ACP-2020 | ACP-1010 , ACP-2010/ACP-2320, ACP-4D00 |

## 80 Plus Redundant Power Supplies



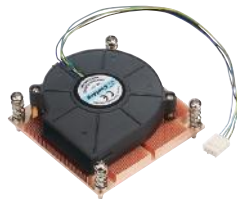| Part Number | RPS8-500ATX-GB | RPS8-750ATX-XE | RPS8-500U2-XE |
|---|---|---|---|
| Form Factor | Mini Redundant | Mini Redundant | 2U Redundant |
| Wattage | 500W 1+1 | 750W 1+1 | 500W 1+1 |
| 80 Plus Grade | Gold | Gold | Bronze |
| PMBus | Ver. 1.2 | Ver. 1.2 | - |
| Input Range | 90 ~ 264 $V_{AC}$ | 90 ~ 264 $V_{AC}$ | 90 ~ 264 $V_{AC}$ |
| Output Range | +3.3V @ 20 A<br>+5 V @ 20 A<br>+12 V @ 40 A<br>-5 V @ 0.3 A<br>-12 V@ 0.5 A<br>+5 Vsb @3 A | +3.3V @ 24 A<br>+5 V @ 30 A<br>+12 V @ 60.9 A<br>-12 V@ 0.5 A<br>+5 Vsb @ 4 A | +3.3V @ 20 A<br>+5 V @ 25 A<br>+12 V @ 40.2 A<br>-12 V@ 0.5 A<br>+5 Vsb @3.52 A |
| MTBF(hrs) | 100,000 @ 25° C | 100,000 @ 25° C | 100,000 @ 25° C |
| Dimensions (W x H x D) | 150 x 84 x 190 mm (5.9" x 3.3" x 7.48") | 150 x 84 x 200 mm (5.9" x 3.3" x 7.87") | 85 x 86.6 x 217 mm (3.34" x 3.4" x 8.54") |
| Safety | CE , FCC, UL , CB, TUV, CCC, KC | CE , FCC, UL , CB, TUV, CCC, KC | CE , FCC, UL , CB, TUV, CCC, KC |
| Compatible Chassis | IPC-7130, IPC-7130L, IPC-7220, IPC-610, IPC-611,ACP-4000, ACP-4010, ACP-4320, ACP-4340, ACP-4360, IPC-622, HPC-7442, IPC-631 | ACP-4000, ACP-4010, IPC-622, HPC-7442 | HPC-7242, HPC-7282, HPC-7320, HPC-8316, ACP-2020 |
| Single Module Part Number | 96PSRM-A500WMING | 96PSRM-A750W1U | 96PSRM-A500WFX |

# Industrial Computer Peripherals Selection Guide

## ☞ CPU Coolers

### Intel® LGA1150/1151/1155/1156

| Model Name | 1960049408N001 | 1960047831N001 | 1960077101N001 | 1960052651N021 | 1960047669N001 |
|---|---|---|---|---|---|
| Thermal Dispatch Performance | Intel LGA1156/1155/1150/1151 84W | Intel LGA1156/1155/1150/1151 95W | Intel LGA1156/1155/1150/1151 95W | Intel LGA 1156/1155/1150/1151 80W | Intel LGA1156/1155/1150/1151 95W |
| Fan | - | 7 cm/35.5CFM 5400 ± 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 | Copper | Copper | Aluminum & Copper heart | Aluminum | Aluminum & Copper heart |
| Heatsink Dimensions | 85 × 85 × 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") | 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 | - | 83 x 83 x 55.73 mm (3.27" x 3.27" x 2.17") | 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 | 611 g | 582 g | 245g | 417g | 500 g |
| Minimum Chassis Height | 1U | 2U | 2U | 2U/4U | 4U |
| Recommended Chassis | ACP-1010/1320 HPC-7140/7180 | Backplane version of chassis | Backplane version of chassis | Motherboard/ backplane version of chassis | Motherboard version of chassis |
| Supported Boards | AIMB-580/701/780/781/ 782/784; PCE-5125/5126/5127/ 7127/5026 ASMB-584/585/781/782/ 784/785 | AIMB-580/581/582; PCE-5125/5126/5127/ 5026/7127/5128/7128 | AIMB-580/581/582; PCE-5125/5126/5127/ 5026/7127/5128/7128 | AIMB-705/785 PCE-5029/5129/7129/ 3029/4129 ASMB-584/585/781/782/ 784/785 | AIMB-580/581/582/ 701/780/781/782/784 |

| Model Name | 1960053065N001 | 1960053207N001 |
|---|---|---|
| Thermal Dispatch Performance | Intel LGA1155/1150/1151 55W Up to Core i3 | Intel LGA1155/1150/1151 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-3026, IPC-3012 | IPC-3026, IPC-3012 |
| Supported Boards | PCE-3026/3028/3029/4128/4129 AIMC-3200/3201/3420/3421/3202/3422 | PCE-3026/3028/3029/4128/4129 AIMC-3200/3420/3201/3421/3202/3422 |

Vertrieb durch **AMC**

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## 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

| Part number | 1960081603N001 | 1960081155N001 |
|---|---|---|
| Thermal Dispatch Performance | Up to 205W | Up to 165W |
| Fan | 6 cm/50.4 CFM 9000 ± 10% RPM | - |
| Heatsink Material | Aluminum Stack Fin & CU Block with heatpipe | Aluminum Stack Fin & CU Block with Heatpipe |
| Heatsink Dimensions (L x W x H) | 108 x 78 x 64 mm (4.25" x 3.07" x 2.51") | 107.75 x 78 x 25.5 mm (4.24" x 3.07" x 1") |
| Dimensions | 108 x 78 x 64 mm (4.25" x 3.07" x 2.51") | 107.75 x 78 x 25.5 mm (4.24" x 3.07" x 1") |
| Weight | 464g | 257.6g |
| Minimum Chassis Height | 2U | 1U |
| Supported Boards | ASMB-815/825/925/975 | ASMB-815/825/925/975 |
| Remark | Narrow Type | Narrow Type |

# Industrial Computer Peripherals Selection Guide

## ☞ 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 mm³ (5.84" x 1.67" x 6.73")

#### 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 mm³ (4" x 1" x 5.47")

#### 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

#### 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 mm³ (5.76" x 3.38" x 8.85")

#### 989K008733

**A frame to securely fix a 3.5" HDD in a 5.25" drive bay**
- Accepted Device: 3.5" HDD x 1

#### 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)

#### 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 mm³ (5.74" x 1.61" x 6.69")

#### 96RACK-5-SS-CR-B2

**Mobile rack for converting one 5.25" drive bay to one slim ODD and two 2.5" SAS/SATA HSS/SSD trays**
- Accepted Device : slim ODD x 1 , 2.5" SAS/SATA HDD/SSD x 2
- Dimension (W x H x D): 146 x 41.3 x 170 mm³ (5.74" x 1.62" 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

## USB Cables

| Part Number | 1700008461 | 1700003195 | 1700002204 | 1700014398 | 1700020277-01 |
|---|---|---|---|---|---|
| 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 ATX/Micro-ATX MB, full-sized SBC | For half-sized SBC |

# Industrial Computer Peripherals Selection Guide

## ☞ Accessories

### Video Cables

| Part Number | PCE-DP10-00A1E | 1700021831-01 | 1700008822-11 |
|---|---|---|---|
| Description | Display port cable | DP to DVI port cable | DVI to DVI port cable |
| Cable Length | 25 cm (9.84") | 30 cm (11.81") | 30 cm (11.81") |
| Remark | Video cable for converting on board DP connector to external DP port supporting DP 1.1a/1.2 signaling | Video cable for converting on board DP connector to external DVI-D port | Video cable for converting on board DVI connector to external DVI-D port |

### Other Cables

| Part Number | 1700006915 | 1700006916 | 1700029268-01 | 1700024754-01 |
|---|---|---|---|---|
| Description | Cable for ACP-4000MB front LED board | Cable for IPC-610MB-H front LED board | 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 | 60 cm (23.62") | 60 cm (23.62") | 10 cm (3.93") | 10 cm (3.93") |
| Remark | For those Advantech motherboards with VOLT1 connector too far away from the chassis LED board | | If GPU card has 2 power connectors, please use 1700029268-01 x 1 + 1700024754-01 x 1; if GPU card has 1 power connector, please use 1700029268-01 instead of 1700024754-01. Only 500W or higher wattage PSUs support 1700029268-01 and 1700024754-01 for high end GPU cards All product | |