

Industrial Computers

Total Integrated Solutions
for Industrial Automation 2013–2014

- Server-grade IPCs
- Industrial Computer Chassis
- PICMG Single Board Computers
- Passive Backplanes
- ATX Motherboards



ADVANTECH

Enabling an Intelligent Planet



www.advantech.com

Full Range of Industrial Computers and Integration Services for Automation Application

Overview

Advantech delivers a full range of industrial computers for versatile applications in the automation field. With sophisticated system integration services from customization, integration, validation, and certification, a one-stop solution is our commitment in providing rugged systems to customers who require a trusted partner to maximize their application solutions.

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Start your Business with an IPC Expert



Screw-less with thumb screws



Lockable door flexible with-or-without key



Easy replaced fan module



Front I/O design to facilitate ATE applications



Plug ring-lock securely fastens the power cord



Automatic Testing and Inspection

Quality control systems have become very expensive in recent years, creating the demand for more cost-effective alternatives. Along with automatic testing and inspection systems, Advantech's products help reduce human error and accelerate time to market.



Production Automation

Open, embedded architectures with excellent expansion capabilities and high compatibility, and flexible and scalable PACs allow Advantech's customers integrate equipment from a wide range of manufacturers into their systems, and help them meet ever-changing market demands.



PICMG Single Board Computers

Advantech's slot CPU cards deliver a variety of solutions for industrial and embedded applications. Offering a complete selection of standard PICMG 1.0/1.3 full-size as well as half-size SBCs, scalable product lines have flexible I/O capabilities and great expandability, from ISA to PCI and PCI Express. Ideal for industrial slot-hungry demands, they can be easily accommodated with Advantech full-range backplanes, chassis and peripheral support.



Passive Backplanes

A wide range of Advantech backplanes are available for PICMG 1.0/1.3 SBCs. They range from two to twenty slots and allow optimal system configurations with flexible combinations of ISA, 32-bit / 64-bit PCI and PCIe slots. With strict design policy, customers can easily recognize specific solutions so as to ensure system compatibility. Advantech also provides a low-cost, yet professional design service that tailors backplanes to meet expansion requirements within a short time frame.



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.



Server-grade IPCs

Advantech server-grade IPCs provide customers with complete solutions and value-added services rather than just a standard server product. Designed to deliver system integrator solutions for high-end applications, Advantech servers feature multi-processor computing power, hot swap, redundancy and rich storage capacity.

Industrial Computer Chassis

Advantech offers a complete selection of industrial computer chassis from 1U to 7U rackmount, to wall-mountable solutions, designed to support a variety of industrial-grade motherboard/single board computer (SBC) form factors, such as ATX, MicroATX, Mini-ITX, PICMG 1.0/1.3 full-size/half-size SBC, 3.5"/5.25" biscuit SBC, etc. Chassis include a range of features such as, redundant power supply, hot-swappable accessories, storage and cooling options, and system fault detection mechanisms.



Packing Automation

Delivering a high degree of durability with a low total cost of ownership is a key factor for efficient packaging. By integrating a high-precision motors and high-speed data acquisition cards, packaging machines are able to improve performance greatly, setting up flexible systems that can reduce costs at the same time.



Process Control

High-computing systems with scalable architectures and time-deterministic control are important factors for process control systems. Advantech's solutions allow customers to Integrate production information into MES and CIM systems, and fulfill discrete, batch and continuous process control.

SUSIAccess - Pioneering in Connected

About SUSIAccess

Remote Device Management

Poised to be a key player in the new generation of technologies enabling an intelligent planet, Advantech is now offering a cutting-edge, cloud-based service –SUSIAccess, a smart and unique remote device management software to help customers centralize monitoring and managing of remote embedded devices in real-time. By providing a ready-to-use remote access solution, system integrators can focus more on their own applications and let SUSIAccess do the rest – configure systems, monitor device health, and recover from any system failures.

Now, all Advantech Embedded Computing products come pre-loaded with SUSIAccess. It's cloud-based and provides on-demand software services so SIs can easily download and upgrade applications when they need.



Key Features

Device Monitoring



Remote Monitoring

Inspects the condition of embedded devices, such as device temperature, internet connection, CPU temperature, fan speed and voltage.



Automatic Alerts by Email/SMS

Sends alarms automatically so that administrators can get prompt notifications sent to their email inbox or cell phone.

System Security



System Recovery

Protects data and devices with a timely backup and recovery application (Powered by Acronis True Image).

Powered by
Acronis

- **Hot Backup:** Live backup of your system without rebooting the machine
- **Scheduled Backup:** Schedule system backups on a regular basis
- **One-Click Recovery:** Restore OS image with 1-click



System Protection

Helps system administrators ensure all remote devices are protected from cyber threats and attacks, enabling administrators to take actions promptly (Powered by McAfee Embedded Security solutions).

Powered by
McAfee

- **White List Protection:** Control what software is installed and run
- **Warning for any unauthorized activities:** Auto-notify administrators by eMail or SMS

Remote Control



Remote KVM

Quick access to remotely located, embedded devices for device diagnostics and repair, without the need for IP address, account and password information, significantly reducing the time required for maintenance.



Remote On/Off

Sets the power on /off schedule for remotely located, embedded devices in order to save power.

System Management

Building Up Customized Intelligent Systems for Any Scenario

- Stay in sync with device health status
- Automatically send alarm notifications

Unmanned Environments

Video Solutions

- Protect system from any threats
- Timely backup and recover systems

Factory Automation

Machine Automation

- Quick access to remote devices
- Save maintenance and energy cost

Metro Systems

Intelligent Transportation

Star Product Highlights

Industrial Computers

P29



PCE-5126

- LGA 1155 Intel® Core™ i7/i5/i3/Xeon® processors based PICMG1.3 full size SHB
- Dual Channel (ECC) DDR3 1066/1333 up to 16 GB
- Supports SATA RAID 0, 1, 5, 10, AMT7.0, TPM 1.2 (optional)
- Out-of-band remote management with IPMI (optional by IPMI module)
- Supports embedded software APIs and utilities

P30



PCE-5127

- LGA1155 Intel® Core™ i7/i5/i3 and Pentium® processors based PICMG1.3 full size SHB
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports USB3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Out-of-band remote management with iAMT8.0 and TPM 1.2 (optional)
- Supports embedded software APIs and utilities

P30



NEW

PCE-5128

- Intel Core i7/i5/i3 LGA1150 processors based PICMG1.3 full size SHB
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports PCIe 3.0, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports CRT and 2 x DVI-D(optional) display
- Supports out-of-band remote management with AMT9.0 and IPMI
- Supports Advantech TPM module (LPC I/O)
- Supports SUSIAccess and Embedded Software APIs

P31



PCA-6011

- Compliant with PICMG 1.0
- Supports LGA 775 Intel® Core™2 Quad FSB 1333 MHz processors
- Supports Dual Channel DDR3 1066 SDRAM up to 4 GB
- Dual GbE LAN via two PCIe x1 lane
- 2 COM ports, 4 SATA ports, 8 USB ports

P30



NEW

PCE-3026

- Complies with PICMG 1.3
- Supports LGA 1155 Intel® Core™ i7/i5/i3 processor half-size SHB
- Intel® H61
- Dual channel 1066/1333 MHz SO-DIMM up to 16 GB
- Three SATA 2.0 ports
- Supports dual 10/100/1000 Mbps Ethernet
- Support one VGA and one DVI

P39



AIMB-782

- 3rd generation Intel® Core™ processor-based platform
- Supports Intel® Core™ i7/i5/i3/Pentium processor with Q77 chipset
- Four DIMM sockets support up to 32 GB DDR3 1066/1333/1600
- Supports dual display VGA/DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, AMT8.0, USB 3.0
- Supports Advantech LPC modules of TPM

P39



NEW

AIMB-784

- LGA1150 4th generation Intel® Core™ i7/i5/i3/Pentium ATX
- Four DIMM sockets support up to 32 GB DDR3 1333/1600
- Supports triple display VGA/2 DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, AMT9.0, USB 3.0
- Supports Advantech LPC modules of TPM

P27



ACP-4320

- Quiet 4U Rackmount Chassis Ready with Dual SAS/SATA HDD Trays
- Supports either an ATX motherboard or a PICMG backplane with up to 15 slots
- Quiet Version provides low-noise solution
- ACP-4320 supports dual SAS/SATA HDD trays for data monitoring applications
- LED indicators and alarm notification for system fault detection and network connection
- Lockable front door prevents unauthorized access

P28



IPC-623

- 4U rackmount chassis supports up to 4 multi-systems
- Front-accessible redundant power supply
- Shockproof disk drive bay design can hold up to three front-accessible 5.25" and one 3.5" disk drives, and one internal 3.5" HDD
- Three 12 cm / 114 CFM ball-bearing cooling fans
- Front LEDs and audible alarm notifications for system power status, fan operation, HDD status, and in-chassis temperature monitoring
- Dual top cover designed for easy maintenance
- Five easily replaceable air filters provide good airflow
- Redundant power supplies are all with dual AC inputs

P26



IPC-6025

- 5-Slot Desktop/Wallmount Chassis with Scalability for 5U Multi-system Solution
- Ultra compact chassis with scalability to be 5U rackmount chassis
- Support 5-slot PICMG 1.3/1.0 backplane
- Shockproof drive bay for two 3.5" HDDs
- Equipped 80 plus 300W FLEX ATX power supply
- Optional rackmount carrier for multi-system solution

P26



IPC-3026

- 6-Slot Desktop/Wallmount Chassis for Half-Size SBC
- Support 6-slot PICMG 1.3/1.0 backplane
- Shockproof drive bay for one 3.5" HDD
- Support two 2.5" HDDs by hot-swap tray
- LED indicators for system fault detection
- Lockable front door prevent unauthorized access

P22



NEW

AiMC-2100

- Micro Computer, Intel® Core™ i7/i5/i3 CPU, 1 Expansion, 250W 80Plus PSU
- Compact, well-thought-out design
 - Two internal, shock-resistant, 2.5" SATA HDD bays
 - Front accessible I/O: VGA+HDMI+Display port, 2 GbE LAN, 4 USB3.0, 2 COM
 - Ruggedized handle for convenient maintenance
 - Easy-to-maintain system fan and reusable filter

P22



NEW

AiMC-3200

- Micro Computer, Intel® Core™ i7/i5/i3 CPU, 2 Expansion, 250W 80Plus PSU
- Compact, well-thought-out design
 - Two internal, shock-resistant, 2.5" SATA HDD bays
 - Front accessible I/O: VGA+DVI-D, 2 GbE LAN, 3 USB2.0, 2 COM
 - Easy-to-maintain system fan and reusable filter
 - Alert to chassis intrusion

P22



NEW

AiMC-3420

- Micro Computer, Intel® Core™ i7/i5/i3 CPU, 3 Expansion, 300W 80Plus PSU
 - One internal 3.5" SATA HDD bays with shock-resistant
 - Optional front removable 2.5" HDD bay
 - VGA, 2 GbE LAN, 8 USB2.0, 2 COM
 - Easy-to-maintain system fan and reusable filter

P22



NEW

AIIS-1240

- PoE Control Box, Support Intel® Core™ i7/i5/i3 CPU
- 4-CH GbE PoE (Power over Ethernet), IEEE 802.3af compliant
 - Powered Device auto detection and classification
 - Support IEEE 1588 & GigE Vision device
- Compact & thoughtful design
 - Volume less than 3 Liter
 - Easier Fan filter maintenance
 - Internal USB Type-A with lock design
 - Wall or DIN Rail mounting kit (optional)
 - G-sensor

Server-grade IPC

P24



ASMB-584

- LGA 1150 Intel® Xeon® E3 V3 processors
- Two PCIe x16 slots (x8 link), one PCIe x4 and one PCI slots
- DDR3 1600 MHz ECC UDIMM up to 32GB
- Rackmount optimized placement with positive air flow design
- Support iAMT 9.0 or IPMI (optional) and Embedded software APIs and utilities

P24



ASMB-782

- ATX server board with Intel® 3rd gen core i processor, quad LANs
- LGA 1155 Intel® Xeon® E3 / E3 v2 / 2nd and 3rd Core™ i3 / Pentium processors
- DDR3 1600 MHz ECC UDIMM up to 32GB
- Two PCIe x16 slots (x8 link) and two PCIe x4 slots
- Quad LANs with teaming function
- Four USB 3.0 ports

P24



NEW

ASMB-784

- LGA 1150 Intel® Xeon® E3 V3 processors
- One Gen 3.0 PCIe x16 link or two PCIe x16 slots with x8 link, two PCIe x1 and three PCI slots
- DDR3 1600 MHz ECC/Non-ECC UDIMM up to 32GB
- Rackmount optimized placement with positive air flow design
- Support iAMT 9.0 or IPMI (optional) and Embedded software APIs and utilities

P24



NEW

ASMB-822

- ATX Server Board with Intel Xeon® E5-2600(v2) processor
- DDR3 1333 MHz RDIMM up to 96 GB
- 5 x Gen 3.0 PCIe x16 slots
- 0 ~ 60° C ambient operation temperature range

P24



NEW

ASMB-922I

- EATX Server Board with dual Xeon® E5-2600(v2) processor, PME flexible expansion and 128GB memory capacity
- DDR3 1600MHz RDIMM up to 128GB
- Three PCIe x16 slot(Gen3.0) + one PCIe x8 slot(Gen3.0) slots and PME expansion slot
- 0~40° C ambient operation temperature range

P23



HPC-7480

- 4U Rackmount/Tower Chassis for EATX Server Board with 8 Hot-swap Drive Bays, Single PSU and 7 Expansion Slots
- Eight hot swap SAS/SATA drive bays
- Hot swap fan module design facilitates maintenance
- 2+1 760W Redundant Power Supply
- Lockable front bezel prevents unauthorized access

P23



HPC-7242 **NEW**

- 2U Rackmount Chassis with Up to 4 SAS/ SATA HDD Trays
- New stylish design 2U chassis, supporting both AiMB and ASMB Serverboard
- Up to 4 mobile SAS/SATA HDD trays for high storage demand
- Two internal 2.5" drive bays and one slim optical drive bay
- Front-accessible system fan without opening top cover for easy maintenance
- LED indicators and audible alarm notification for system fault detection
- Smart fan speed control for system fans

P23



HPC-7442 **NEW**

- 4U Rackmount/Tower Chassis with Up to 8 SAS/SATA HDD Trays
- New stylish design 4U chassis, supporting both AiMB and ASMB Serverboard
- Up to 8 mobile SAS/SATA HDD trays for high storage demand
- One internal 3.5" drive bay and one slim optical drive bay
- Front-accessible system fan without opening top cover for easy maintenance
- LED indicators and audible alarm notification for system fault detection
- Smart fan speed control for system fans

Automatic Wafer/LED Defect Inspection Improves Efficiency

Project

For high-tech electronics productions like semiconductors which often deal with tiny components, human visual and manual operations more than often fail to meet this trade's high standards for speed and precision. For example, there could be over one hundred grain-sized dies on a post-sawing LED wafer. Using human inspection to detect defects is time-consuming and cannot avoid misjudgment due to human fatigue, and the remove of defective LED dies with tweezers has to risk a mishap due to shaky human hands. Therefore, automatic optical inspection (AOI) systems accompanied with robotic applications are now massively used by hi-tech manufacturers for wafer defect inspection in order to conduct more reliable operations, and to reduce personnel cost, improve quality and enhance competitiveness. Advantech AIMC-3420 is designed to address the automatic needs for both visual and motion controls. Featuring a powerful computing core, rich I/O yet with a small form factor, AIMC-3420 is a robust compact system that delivers great space and cost efficiency.

Requirements

- More than 2 expansion slots in addition to motion/vision card
- Compact size to be built in system
- Higher speed interface
- Fully validated with compatibility and safetyimage inspection software.



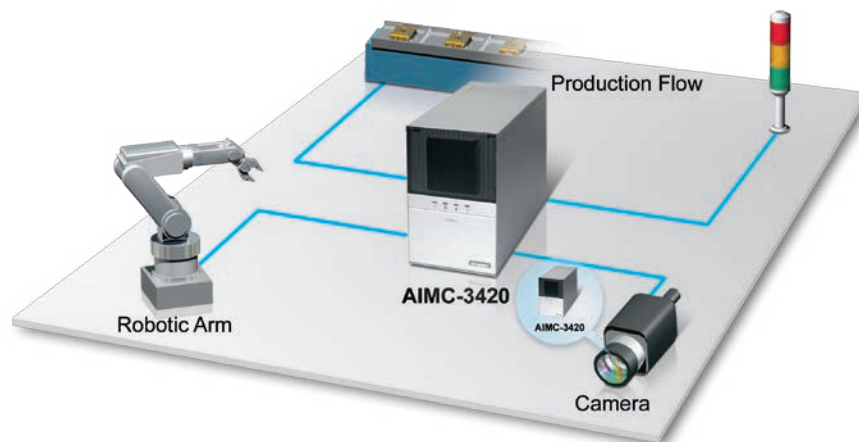
System

An automatic system combining vision and motion controls usually needs a robust computing core and more than two expansion slots—for vision card and motion card, and for connecting with machine or other devices. These requirements usually mean a larger system in size, but Advantech, the world's biggest industrial computer supplier with decades of accumulated expertise, employs outstanding thermal designs and fulfills aforementioned functionalities with a system merely as small as a set-top box. The AIMC-3420 is a bare bone system which can be configured with optional CPUs, memories and HDDs—all depending on our customers' needs and budget. Compatible CPUs run at a speed ranging from 1.6-3.4GHz (Intel's quad-core Core i7 3.4GHz). It is provisioned with 4 expansion slots, including 1 PCIe x 16 and 3 PCIe x 1. The PCIe x 16 is a broad bandwidth interface for connecting with a frame grabber (graphic card) which can link to 2-4 digital cameras. The motion control card for enabling robotic applications takes another PCIe expansion slot, and the rest two slots go to USB port or COM port to link with other devices. In addition to thermal and I/O designs, as an industrial computer AIMC-3420 also puts special emphasis on safety issues of the workplace, including ergonomic considerations to facilitate easy and safe maintenance such as round angle design of edges to avoid cutting worker's hands, and easy access to swap HDD with removable top cover. This embedded system also addresses other safety requirements such as electromagnetic compatibility and explosion-proof capability, guaranteed with CE/FCC and UL/CB certifications.

Conclusion

In the world of hi-tech manufacturing, speed and precision decide competitiveness. As human eyes and hands often fail short to implement precise operations based on quantifiable repeatability, machinery vision and motion system is a must for achieving consistent quality and faster operations.

AIMC, which stands for Advantech Intelligent Micro Computer, is an array of bare bone products aiming to address production efficiency for quality-minded manufacturers. The AIMC provides a series of fully-validated compact systems with great flexibility and rich options for integrators to develop their applications. Many designs of the products are meant to maximize our customers' convenience and safety as well as their competitiveness and serviceability in marketplace.



Implemented Products

AIMC-3420

- Advantech Intelligent Micro Computer
- Intel® H61 Platform
 - Intel® 3rd /2nd gen Core™ i7/i5/i3 CPU (LGA1155)
 - One PCIe x16 & two PCIe x1 Expansion Slots
- Compact & Rich I/O Configuration
 - One internal 3.5" SATA HDD bays with shock-resistant
 - Optional front removable 2.5" HDD bay
 - VGA, 2 GbE LAN, 8 USB2.0, 2 COM
 - Easy-to-maintain system fan and reusable filter
- Energy Savings
 - 300W 80Plus PSU

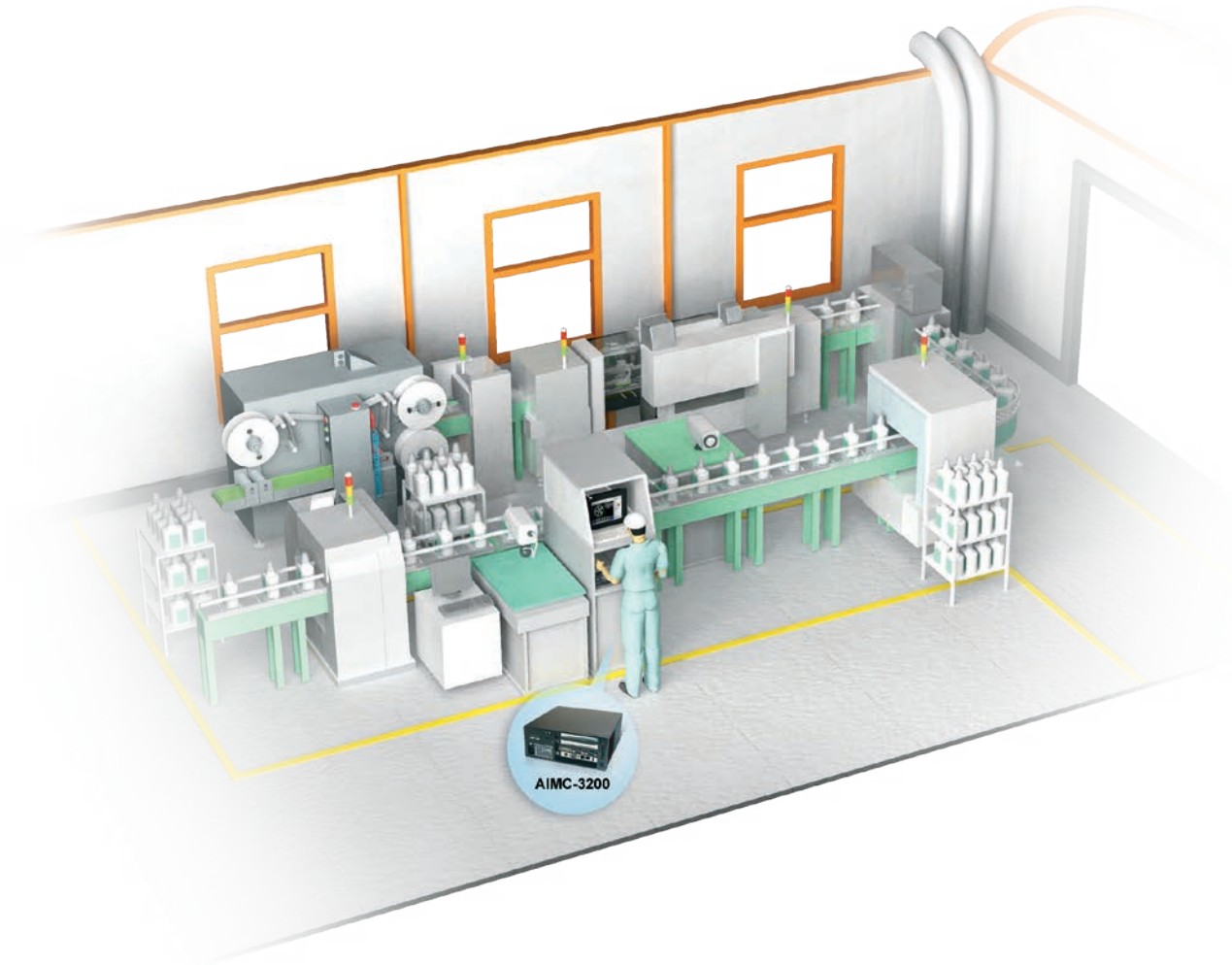
Automatic Optical Inspection Ensuring Label Accuracy

Project

For high-tech electronics productions like semiconductors which often deal with tiny components, human visual and manual operations Accurate labeling is essential for today's food, beverage or pharmaceutical packaging, as mislabeling would pose threat to customer health and safety and usually result in costly product recalls and associated law suits. However, many of the world's packaging facilities still rely heavily on human inspection which is likely to miss labeling errors when manual inspections fail to keep up with production line speeds. Human inspection becomes inefficient and costly in today's globalized business world considering that, for example, a European pharmaceutical manufacturer operates many production bases around the world which proceed over 300,000 medication packaging in total per day and need to maintain quality consistency. Therefore, more and more manufacturers are using IPC-based automatic inspection system for more accurate, reliable and cost-saving label inspection and quality control. Good IP connectivity is also a requirement to enable remote monitoring from administration offices and business headquarters that might locate as far as at the other end of the Earth to establish product traceability and electronic pedigree.

Requirements

- 2 expansion slots
- Including a high speed PCIe interface for frame-grabber
- Compact size for built-in system
- IP connectivity to link with corporate network
- Fully validated system



System

A typical label inspection solution with higher automatic degree includes a vision system connected to digital cameras that detect missing or torn labels, or, if set up with OCR and/or OCV software, recognize and/or verify label content, and a motion system connected to robotic arm(s) that will take products with mislabeling off the line for correction. Advantech AIMC-3200 is a robust and compact IPC platform suited for

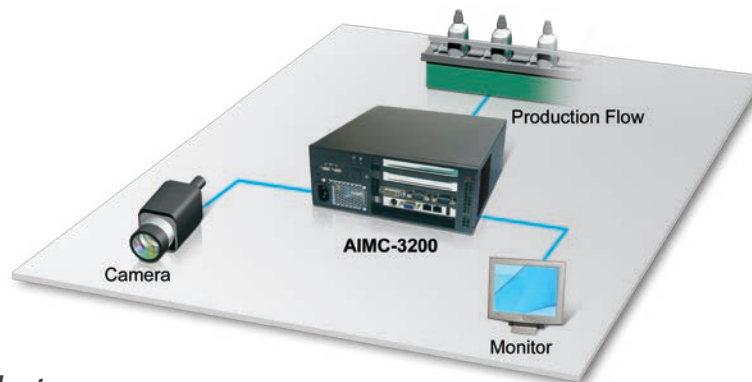
such vision plus motion applications, a bare bone system that can be configured according to customer's needs with an array of compatible processors, hard disks and memories of different grade for options (CPU options range from 1.6GHz to 3.4GHz, dual or quad core). Two expansion slots are provided, including 1 PCIe x 16 for frame grabber card to connect with up to 4 digital cameras and 1 PCIe x 4 for motion card to enable robotic applications or for connection with another automatic device. All I/O interfaces provisioned on the system are fully tested and validated to ensure compatibility with major brands of peripherals in the marketplace.

The AIMC-3200 comes in a form factor as small as a set-top box, which can be installed easily and neatly at production line as an embedded system with great space efficiency. Yet it does not compromise computing performance and graphic performance: it supports Intel 2 or 4 core processors with a speed range up to 3.4 GHz (Intel® Core i7), and with Advantech's industrial-grade thermal design it delivers rich graphic features without getting overheated. The whole AIMC families are certified with CE/FCC and UL/CB to meet international safety requirements including electromagnetic compatibility (EMC) and explosion-proof. Ergonomic considerations are also put in our product designs to ensure more convenient and safer maintenance, such as round angle design of edges and removable top cover to facilitate easy access to swap HDD. All these features and validations come in a product only available with Advantech.

Conclusion

For today's manufacturers whose product distribution seems to be going global, IPC-based automatic product and label inspection is absolutely needed for quality production with electronic traceability. The Advantech AIMC-3200 is suitable for those who seek to reduce cost, improve quality and ensure accuracy in their packaging process in order to meet with increased customer expectations.

The AIMC, abbreviated from Advantech Intelligent Micro Computer, is unique not only because of its small form factor, but also many compelling features and benefits it delivers to maximize our customers' convenience, comfort, cost-efficiency and market competitiveness. For more simplified or complicated applications associated with factory or machinery automation the AIMC series provides an array of bare-bone products with differentiated I/O richness to facilitate system development with greatest flexibility.



Implemented Products

AiMC-3200

- Advantech Intelligent Micro Computer
- Intel® H61 Platform
 - Intel® 3rd /2nd gen Core™ i7/i5/i3 CPU (LGA1155)
 - One PCIe x16 & one PCIe x4 Expansion Slots*
- Compact, well-thought-out design
 - Two internal, shock-resistant, 2.5" SATA HDD bays
 - Front accessible I/O: VGA+DVI-D, 2 GbE LAN, 3 USB2.0, 2 COM
 - Easy-to-maintain system fan and reusable filter
 - Alert to chassis intrusion
- Energy Savings
 - 250W 80Plus PSU

LED Die Bonding Machine Solution

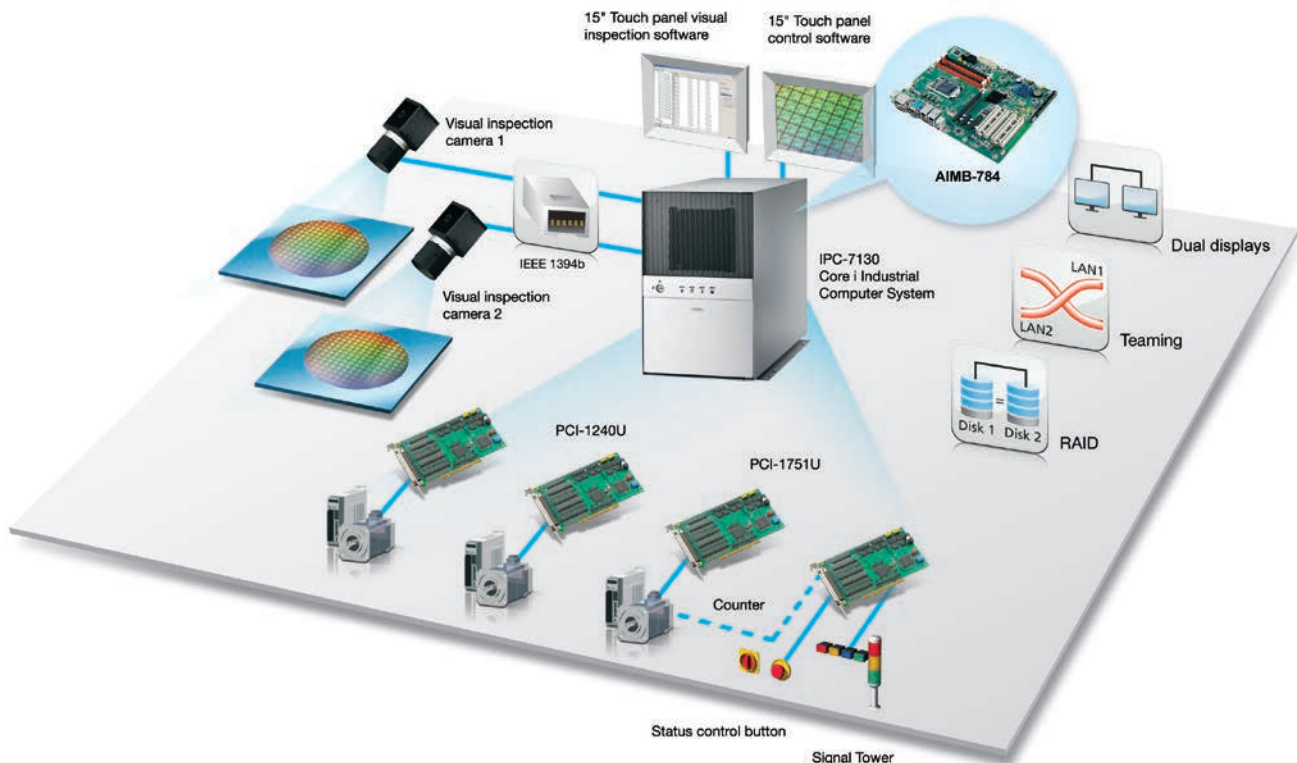
Project

The world's environmental protection and energy conservation trends have spurred the emergence of the LED industry. LEDs are widely used in many fields, including streetlights, advertising signs, traffic signals, consumer electronic products, and transportation vehicles. Because of these burgeoning applications, suppliers are currently finding it extremely difficult to meet demand, and therefore seek faster LED production equipment that will maintain a high level of product quality. Because LED production requires numerous high-tech processes, the development of LED production equipment that meets manufacturers' needs while striking an optimal balance between performance, cost, and reliability is a great challenge. In particular, the LED die bonding process is the manufacturing step most dependent on close coordination between machine vision and multiple-axis motion control; this process requires the aggregation and processing of production condition data with millisecond precision.

Requirements

Several years ago, when the LED industry was still at an early stage of development, ordinary LED equipment manufacturers used computer-based inspection systems which relied on image comparison, and pursued integration with motion control and digital signal monitoring PLC systems. However, maintaining synchronized real-time communications between these two subsystems ran into severe problems when customers attempted to increase their production rates; problems were chiefly due to skewed LED legs during the movement process and the resulting loss of system positioning precision. As a result, manufacturers encountered lower production yield rates. Accordingly, manufacturers have been searching for new system solutions with good cost-performance ratios and the following attributes:

- High-performance embedded industrial computers must employ Intel® processors, and integrate powerful image acquisition cards, cameras, and motion control cards able to accommodate up to 12 axes.
- The embedded industrial computers must provide a RAID 0, 1 storage array and redundant backup data storage.
- The embedded industrial computer must possess a 2-channel Gigabit Ethernet teaming function providing manufacturing execution system (MES) feedback.
- The embedded industrial computer must provide a dual-display interface, allowing the simultaneous display of control software and image inspection software.
- Must employ a high-accuracy, high-speed motion chip to dramatically improve bonding speed.
- Must use a PC-based image acquisition card to achieve even higher speeds and more precise machine vision and image acquisition.
- System volume must be optimized to enable embedding within equipment.



System

Advantech offers mid-level and introductory solutions aimed at the LED industry. The mid-level system combines multiple-axis servo motors and stepping motors to achieve high-speed production and the high-accuracy manufacture of high-quality LEDs. Advantech's IPC-7130 chassis + AIMB-781 embedded computer offers numerous interfaces, collects data feedback, and performs Raid 0,1 data storage. The introductory system is aimed specifically at integrated applications involving multiple-axis stepping motors; it can enable manufacturers to competitively produce large quantities of standard LEDs. Both systems contain Advantech's IPC-7130 + AIMB-781 IPC platform, and employ 1394b PCI interface cards linked to high-speed 1394b CCD cameras to perform image acquisition and quality analysis. Both systems also provide PCIe or PCI expansion slots able to accommodate image acquisition, motion control, analog data, and digital data cards. In addition, the AIMB-781 supports dual-display output, enabling the simultaneous monitoring of visual inspection software and test equipment control software.

Both systems include PCI-1751U cards with digital I/O and 2-channel counters; these cards bear responsibility for digital data, status monitoring, and action counter feedback. The mid-level system contains three embedded 4-axis PCI-1240U motion control cards with high speed stability to perform synchronization and servo motor control duties. This system provides 2/3-axis linear, 2-axis annular, and continuous interpolation functions, and can control complex, precise motions. The introductory system contains two embedded introductory-grade PCI-1245E 4-axis synchronization and servo motor control cards; this system offers 2-axis point-to-point and linear interpolation functions, and also has an embedded 4-axis PCI-1243U stepping motor control card to control basic transport functions, etc.

Conclusion

Advantech's embedded industrial computers provide all-round solutions for all types of industrial applications. Users can freely select different configurations of introductory or mid-level products, and can add appropriate control interface cards in order to strike an optimal balance between performance and cost, and meet their specific microelectronic element assembly needs.



Implemented Products

IPC-7130	<ul style="list-style-type: none"> • Desktop chassis, supports standard ATX motherboard • Equipped with 7 expansion slots and anti-vibration optical drive bracket • Can support one 5.25" and three 3.5" HDDs, where two 3.5" HDDs are hot swappable • Smart system LED indicator lights allow monitoring of temperature, voltage, fan, and hard drives for abnormalities • An audio alarm module beeps to provide early warning of problems affecting system operating status • Uses hand-turned screws to greatly shorten system assembly time
AIMB-784	<ul style="list-style-type: none"> • ATX Industrial Mother Board, supports 4th generation Intel® Core™ processor • Supports Intel® Core™ i7/i5/i3 processor with Q87 chipset • Four DIMM sockets support up to 32 GB DDR3 1333/1600 • Supports triple display VGA/2 DVI-D and dual GbE LAN • Supports SATA RAID 0, 1, 5, 10, AMT9.0, USB 3.0 • Supports Advantech LPC modules of TPM
PCI-1751U	<ul style="list-style-type: none"> • 48-channel TTL digital I/O multifunctional PCI card with two-channel counter
PCI-1240U	<ul style="list-style-type: none"> • 4-axis stepping/pulse servo motor control PCI card

Solar Cell Solution

Project

Today's steadily growing environmental protection energy conservation trends are creating rapidly increasing demand for low-power household devices, and energy-efficient public transportation signals and lighting, LCD TVs, and personal computers. In parallel with this trend, there has been a surge in development of electronic product production equipment. The most indispensable steps in the solar cell production process include pick-and-place; high-speed movement, accurate positioning, and attachment of insertion elements; these processes all require motion control mechanisms. However, companies often encounter great difficulties when they attempt to measure the minute dislocations of high-precision parts and inspect for defective soldering points. The key to enhancing the efficiency of these inspection processes is the use of high-speed multi-axis motion control systems in conjunction with machine vision.

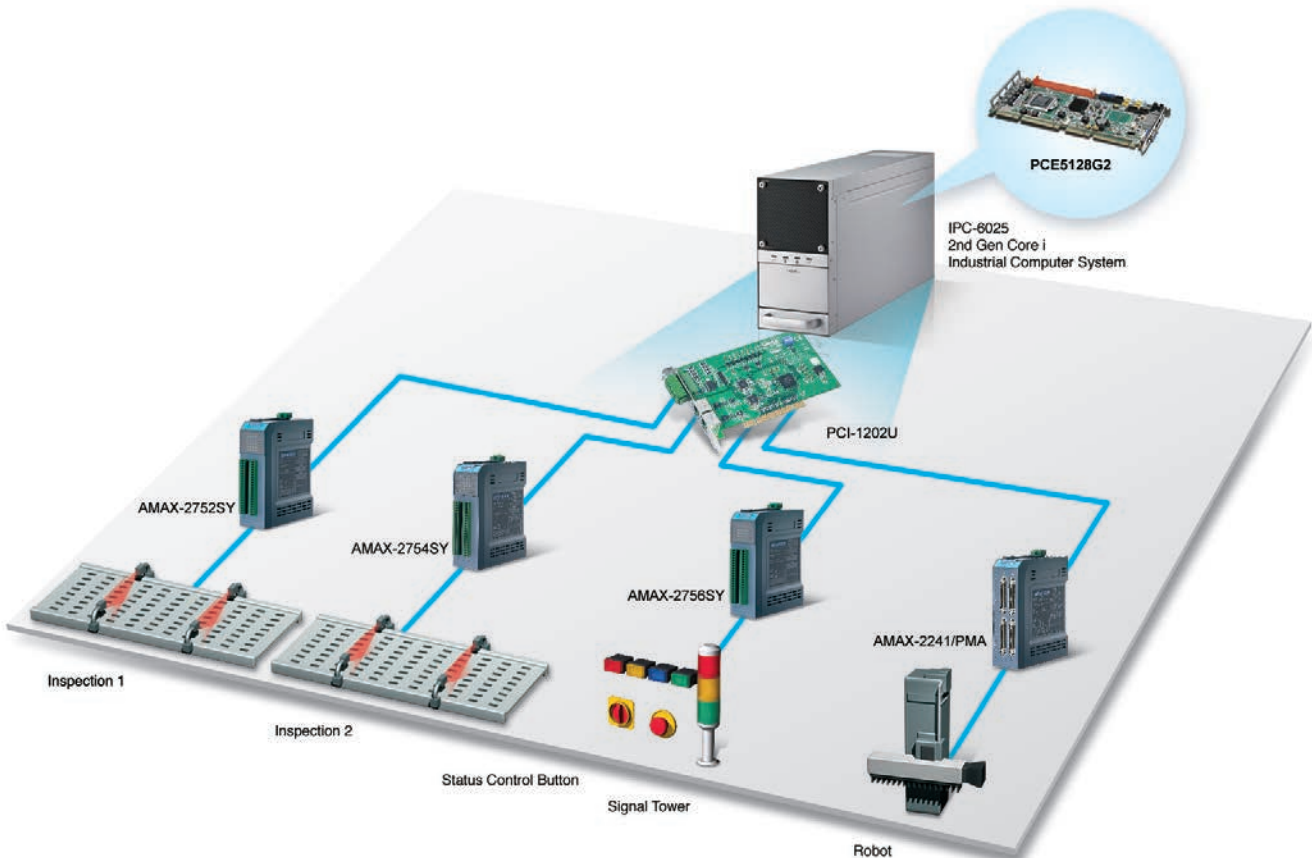
Requirements

The system employs pick-and-place technology to place solar cells on a conveyor device that uses a belt to move the cells. After sensors inspect the cells, they are placed either in a prepared device or a carrying box. As the efficiency of capacity utilization and production processes improves, and manufacturers demand increasingly rapid inspection and higher resolution imaging, the development of systems providing high operating performance and optimal spatial arrangement have become leading goals for manufacturers. Accordingly, this solution responds to the following customer needs:

- High performance operation can provide even faster motion control and more accurate image processing.
- Compact systems allow customers to use their equipment space even more effectively.
- An expanded backplane supports different interfaces.

System

The PCE-5126QG2 has an Intel® Core™ i7-2600 processor, which is currently Intel® newest quad-core processor. It can support up to 8G DDR3 1333 memory, and can provide the fastest operating performance of any system in the mainstream market. Hard drives storing inspection data can use the newest SATA3 interface, which can double data transmission speed. The system supports two network interfaces and dual displays, providing a complete, all-in-one platform. Equipped with a PCI-1202U AMONet communication control card providing a 20MHZ data transmission rate (can update 1024 digital quantity I/O channels in 1.04 ms or manage up to

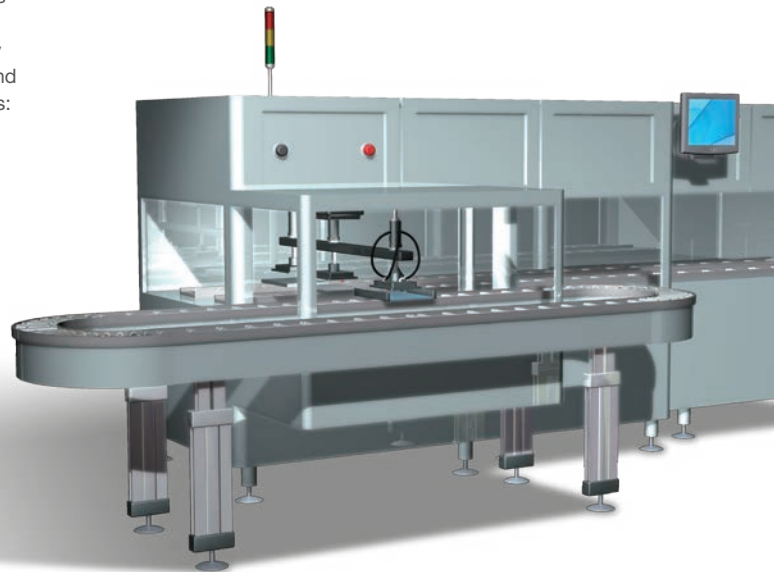


256 control devices), the system enables real-time control of pick-and-place mechanisms. The industrial cases consist of the IPC-6025 small-form-factor, 5-slot chassis, which allows equipment space to be used and arranged in the most effective manner. It uses AMONet communications and Advantech's AMAX-2752SY/ 2754SY/ 2756 SY digital control module to transmit I/O control signals from equipment to the control end for analysis and control operations. Each AMAX product serves as a control intermediary between equipment and the main controller; the controller can transmit all production information in real-time, and can simultaneously accept precision control needs from the operation control center in order to adjust status of the entire line in order to satisfy customer needs.

Conclusion

Employing Advantech's new-generation, Intel® Core™ i-series compact IPC, this system provides even higher operating performance and uses space more efficiently. In conjunction with the AMONet module, different operating procedures can be applied to multiple validity zones. The entire system boosts production inspection efficiency and reduces the error rate, effectively cutting production and maintenance costs. Factory personnel can conveniently implement production changes and updates. Advantech's solution offers the following advantages:

- Can be applied to high-precision equipment such as photovoltaic and LCD automatic production systems.
- High operating performance, compact layout.
- Integrates Advantech's SUSIAccess remote monitoring and management software, which enables central control and remote operation.
- Full-sized card system speeds spare replacement time, improves equipment assembly performance.



Implemented Products

IPC-6025	<ul style="list-style-type: none"> • Compact industrial chassis, supports standard PICMG 1.3 slot SBC • Equipped with four expansion slots and a vibration-proof optical drive bracket • Can support one 5.25" and one 3.5" HDD and intelligent system LED indicator lights, monitors temperature, voltage, fan, and normal hard drives operation • Audio warning module can emit alarm beeps; monitors entire system operation • Designed with hand-turned screws for dramatically lower customer system assembly time
PCE-5128G2	<ul style="list-style-type: none"> • PICMG 1.3 full-size single board computer, Supports Intel Core i7/i5/i3 LGA1150 processors with Q87 • Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB • Supports USB3.0, SATA3.0, SW Raid 0, 1, 5, 10 • Supports out-of-band remote management with AMT9.0 and IPMI • Supports Advantech TPM module (LPC I/O)
PCI-1202U	<ul style="list-style-type: none"> • AMONet communication control card
AMAX-2241/PMA	<ul style="list-style-type: none"> • AMONet 4-axis servo motion control module
AMAX-2752SY	<ul style="list-style-type: none"> • AMONet 32-channel digital input module
AMAX-2754SY	<ul style="list-style-type: none"> • AMONet 32-channel digital output module
AMAX-2756SY	<ul style="list-style-type: none"> • AMONet 16-channel digital output and 16-channel digital output module

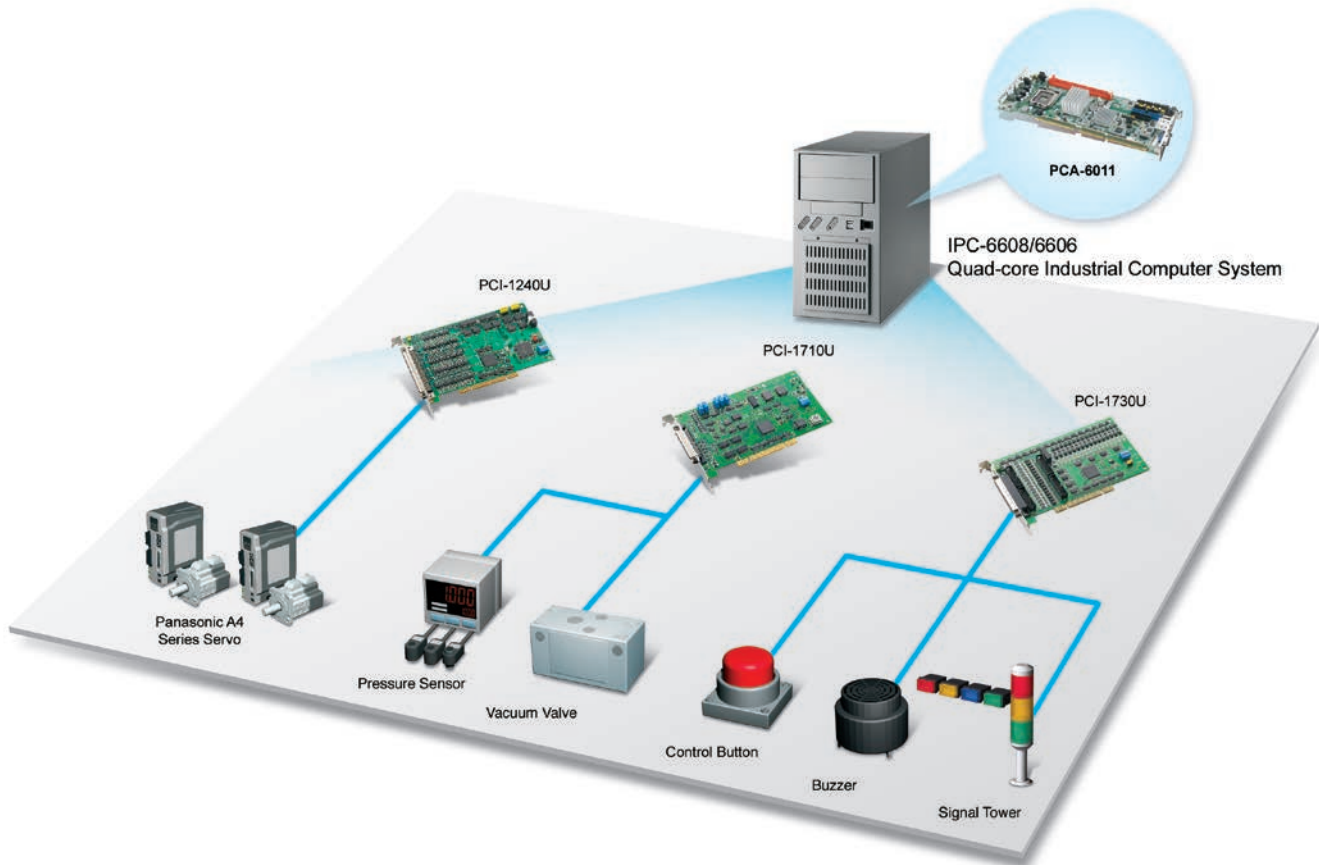
Touch Panel Inspection & Testing Solution

Project

The growing need for touch panels due to the emergence of products such as smart phones and tablets has also spurred a large and growing demand for control equipment and testing machines. As a result, equipment manufacturers are working hard to improve their product technology and quality. Although many equipment firms employ programmable logic controllers (PLCs) to perform relevant functions, when there are too many axes, the amount of data to be transmitted and corresponding transmission speeds grow exponentially; the limited processing capacity of conventional PLCs puts them at a disadvantage versus PC-based systems. As a result, in the testing process, panel data acquisition, storage, and processing speed and performance play extremely important roles in the testing process. Advantech has supplied industrial computers for a long time, and can offer stable testing and inspection processes. In addition, in conjunction with data capture cards and motion control cards, our touch panel testing equipment is the ideal solution for equipment manufacturers.

Requirements

Customers consist of touch panel testing equipment firms. This equipment must perform data access, must be able to process large quantities of graphic data, and must have large storage capacity. The equipment tests each panel by pressing down on its surface and dragging, then analyzing the resultant data output. While early customers hoped that commercial PCs could be used to control test machines, the development process requires at least 6 to 8 months, and the ordinary commercial PC has a product life cycle of two years at most. As a result, hardware and software developed at great customer effort quickly becomes outdated and difficult to maintain. In addition, Advantech's global service team can provide the fastest local service, enabling customers to avoid the nightmare of work stoppages caused by the need to maintain equipment. Customers also demand a high level of product compatibility. Because Advantech offers a full line of computers, control cards, and driver programs, there is no need to use products from different manufacturers, which can result in jury-rigged combinations or even outright incompatibility.

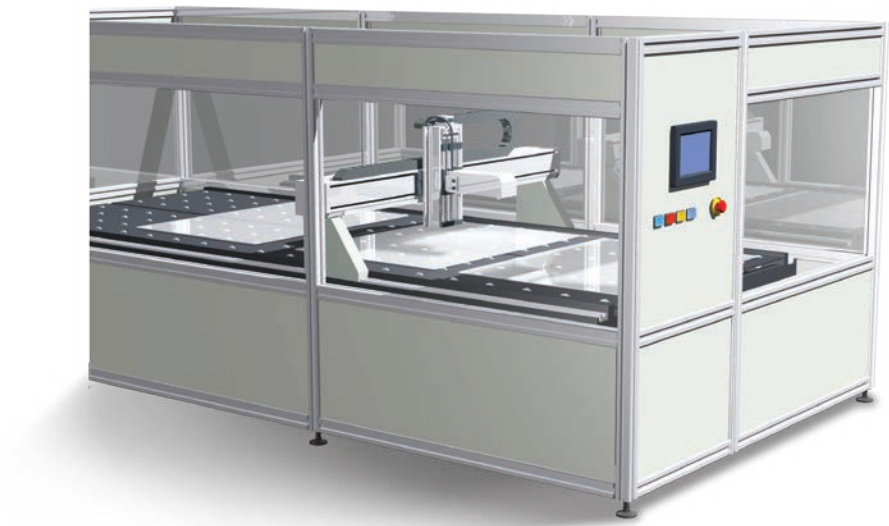


System

In keeping with the trend toward more compact equipment, Advantech's IPC-6608/IPC6606 is a vertical industrial computer that can be used with a highly compact machine. This computer's fast recovery function is indispensable on plant equipment, and can enable normal operation to be restored in the shortest possible time after a system crash or interruption. The PCA-6011's quad-core processor and DDR3 memory allow it to support large quantities of high-speed graphic computations; this lets the system respond rapidly to the vast amounts of data from multiple axes and restore itself quickly. Furthermore, the PCA-6011's embedded Intel® 4500 graphic accelerator and up to 352 MB of shared memory provide optimal graphics rendering ability. The system can effectively lower costs while reducing energy consumption and heat output, enabling increasingly compact main PC systems to achieve the highest cost effectiveness.

Conclusion

Apart from satisfying touch panel equipment manufacturers' need for powerful compact PC systems, Advantech's products also provide customers with the finest service and safeguards in connection with product compatibility, equipment space, troubleshooting, and after-sales service. In addition, Advantech's global maintenance network ensures that Advantech product service is highly dependable, enabling equipment manufacturers to reduce their system maintenance costs, and making sure that factory operations continue without interruptions.



Implemented Products

IPC-6608/IPC-6606	<ul style="list-style-type: none"> • 8/6-slot desktop/wallmount chassis • Equipped with PS/2 and backup power supply • Two/one front-end 5.25" hard drive, one 3.5" FDD and two front-end USB interfaces
PCA-6011	<ul style="list-style-type: none"> • Quad-core single board computer • Possesses ultra-powerful I/O ability • Can support LGA775 series processors • Support up to 1333 MHz FSB, up to 4GB DDR3 800/1066MHz SDRAM • High cost / performance ratio with mainstream platform and components
PCI-1710U	<ul style="list-style-type: none"> • 100 kS/s, 12-bit, 16-channel general-purpose PCI multifunctional data capture card
PCI-1730U	<ul style="list-style-type: none"> • 32-channel isolated digital I/O data capture card
PCI-1240U	<ul style="list-style-type: none"> • 4-axis stepping and servo motor control card

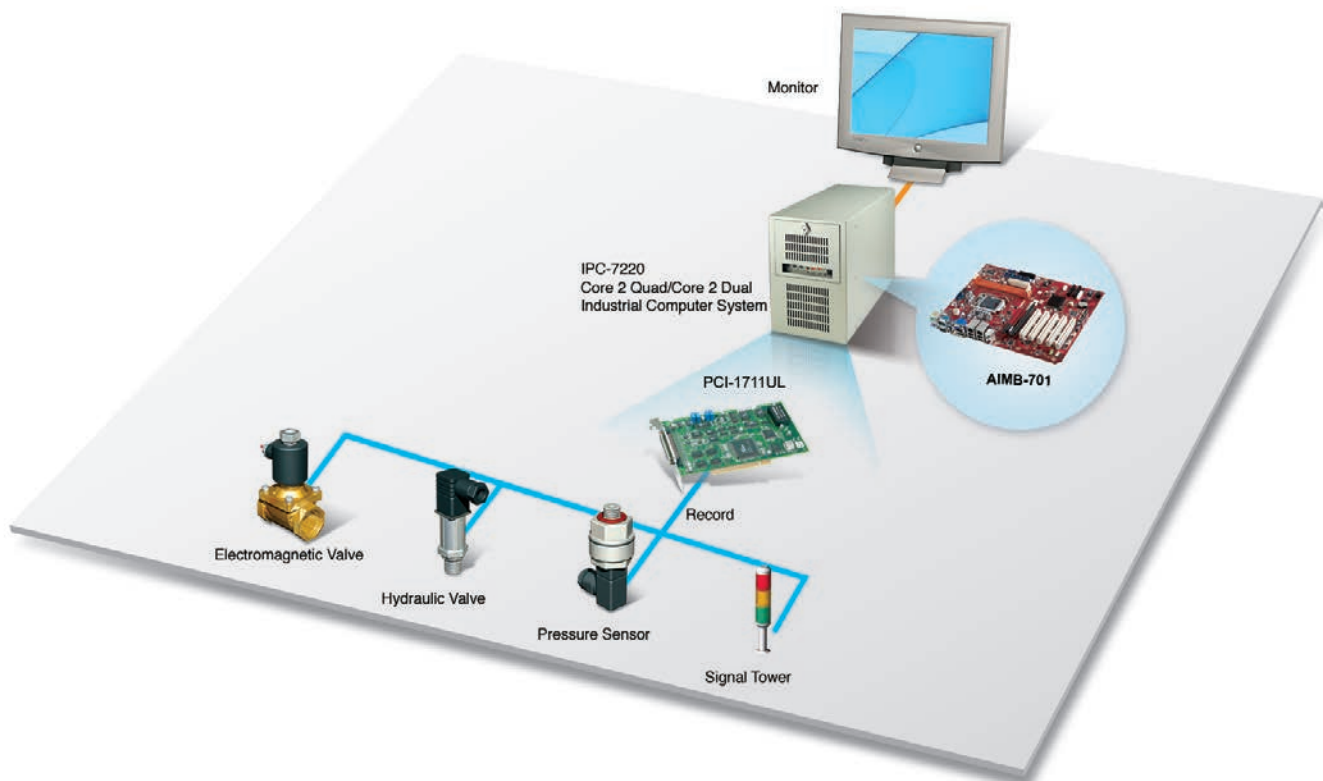
Auto Safety Airbag High-Pressure Tank Testing Machine

Project

When an airbag-equipped vehicle is involved in a collision, a storage tank full of compressed air causes airbags in the center of the steering wheel and on the sides of the instrument panel to rapidly inflate, preventing people in the vehicle from suffering injury. In line with maintaining the safety of the driver and passengers, an airbag system with a safety and quality guarantee must assure the quality of its air storage tank. If an air storage tank ruptures, the gas escaping at high velocity causes the container to shatter, and may cause great injury to nearby objects and persons. Because of this, manufacturing, quality, and inspection guidelines have been drafted for high-pressure steel tanks. In addition, specialized air-container-failure-limitation-test machines that test the containers are a necessary means of ensuring product quality and safety during the manufacturing process.

Requirements

Various types of steel tanks require container verification testing during the manufacturing process. The high-pressure tanks used in auto airbags are only the size of two fingers. The main test items for these tanks are fatigue and rupture testing. First, a test machine's fatigue testing system must automatically pressurize containers to the specified test pressure for a preset number of cycles. In addition, the rupture testing system must monitor tanks subjected to high pressures in order to find out at what pressure level they do rupture. Afterwards, the system must also record the test process and calculate pressure-time curves, which facilitate the acquisition of detailed information concerning the pressure that can be withstood by the tanks, allowing analysis and revision of the product. In the past, this kind of test equipment employed a PC and programmable logic controller (PLC) to perform processing of test data. However, because PLCs have insufficient analog signal sampling speed, data distortion could occur. As a result, when a correct sample cannot be obtained, the tank's tolerance cannot be precisely analyzed. Furthermore, Taiwan currently does not produce this type of standard test machine, and our customers must therefore develop and assemble their own air container failure limitation test machines. These customers require immediate local support in order to resolve technical issues quickly. Customers may also feel concern about whether they can purchase all parts and components from one source, and whether products from different suppliers will have compatibility problems.



System

Advantech provides IPC-7220, AIMB-767 and PCI-1711L I/O cards to quickly acquire data. Other features include IEC 61 131-3 control software, which can reduce customer R&D time, APAX I/O modules for controlling various valves and equipment, and the WebOP-2057V programmable user interface for real-time display of data. These features ensure that a test machine can accurately measure and record data and provide reports. The AIMB-767 is Advantech's basic industrial motherboard, and can support an Intel® Core™ 2 Quad processor, DDR3 memory, 5 PCI slots, and 2 PCIe slots. It also allows customers to install various types of I/O cards and interface cards. Apart from greatly increasing the sampling rate, the system offers a speed roughly ten times faster than that of PLC products. As for customer need to obtain accurate pressure data, the PCI-1711L can perform rapid data acquisition 100 times faster than a PLC. This can resolve the problem of data distortion encountered by customers using PCs in conjunction with PLCs.

Conclusion

Advantech's wide range of products can satisfy most customer hardware and software needs. From the most basic embedded industrial computers to all types of I/O modules and software, customers no longer have to settle for cobbled solutions involving different configurations of individual products. Our nearby professional technicians can provide real-time assistance throughout customers' R&D and assembly processes, assisting with the resolution of problems and bottlenecks, and shortening test machine completion time.



Implemented Products

IPC-7220	<ul style="list-style-type: none"> • Desktop chassis, supports standard ATX motherboard, with anti-vibration optical drive bracket • Supports two 5.25" and two 3.5" HDDs, smart system LED lights; monitor temperature, voltage, fan, and hard drives for abnormalities • An audio alarm module beeps to provide early warning of problems affecting system operating status • Fan and filters are easy to replace, reducing system down-time due to maintenance • The power module design facilitates easy operation and assembly
AIMB-701	<ul style="list-style-type: none"> • ATX industrial motherboard supports Intel® Core™ i7/i5/i3/Pentium® processor with H61 chipset • Two DIMM sockets support up to 16 GB DDR3 1066/1333/1600 • Supports dual display VGA/DVI-D and dual GbE LAN • Supports RS232/422/485 with auto flow control • Supports One PCIe x16 and 5 PCI expansion slots
PCI-1711L	<ul style="list-style-type: none"> • PCI multifunction card

Integrated IC Packaging Machine Solution

Project

As semiconductor firms race to introduce ever faster and better-performing chips, process line width has been shrinking steadily and is now at the nanometer level. In addition, in view of the great diversity of semiconductor products, which include flash memory, logic chips, analog chips, etc., semiconductor manufacturers are requiring an increasing output rate per unit time and shorter production cycles. Responding to technological and market trends, the integration of multiple processes in individual machines during back-end semiconductor processes is employed as a strategy for simplifying production line equipment, while also greatly shortening process cycles. Integrated production machines must therefore accommodate ever more control cards, motion cards, and image acquisition cards in order to accommodate high-speed image pickup and testing actions, and reduce the error rate, as well as the cost of manual inspection.

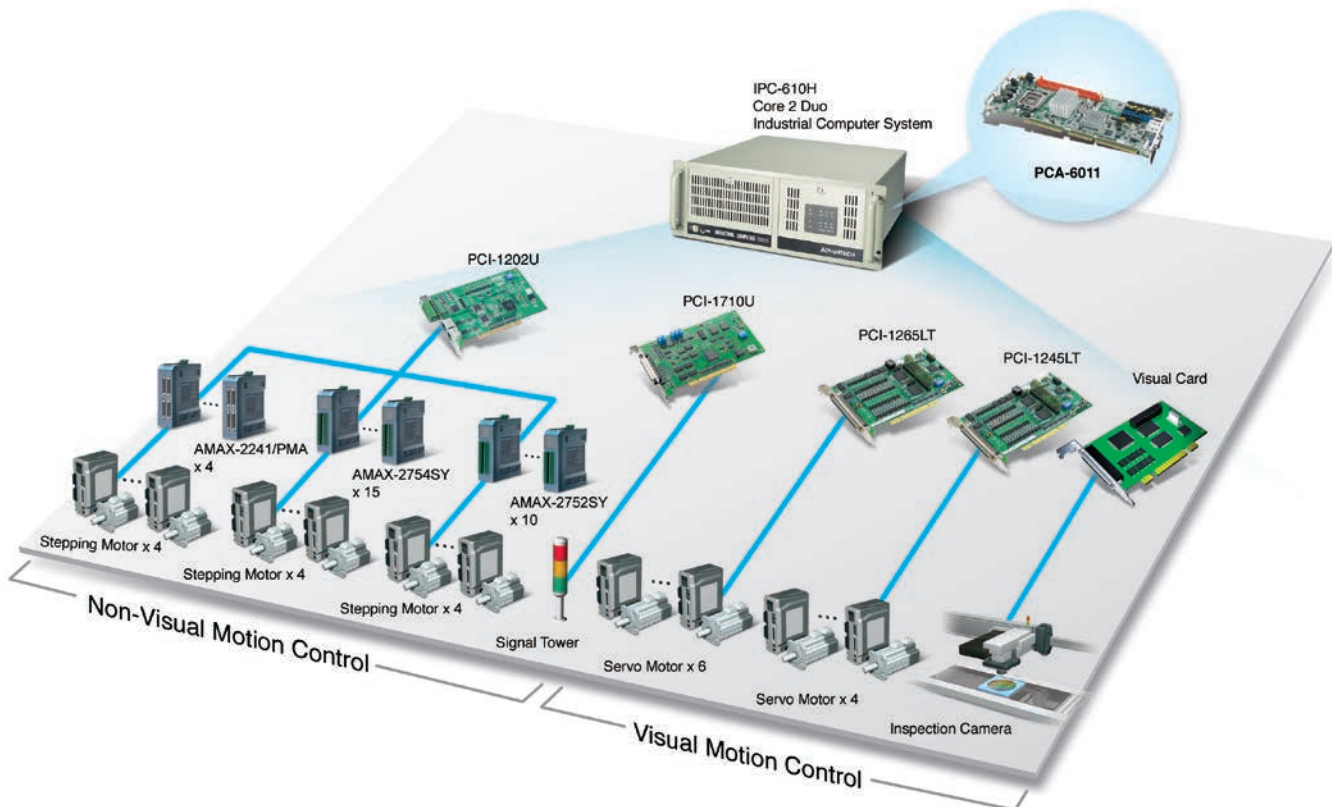
Requirements

While in the past machines were usually designed to perform individual specific functions, the need to achieve integration and accommodate high-speed production has led to the incorporation of multiple functions in single machines. This trend toward integrated machines has increased structural complexity, and caused the number of control axes in a machine to increase dramatically. Accordingly, this solution responds to the following customer needs:

- Must employ at least a dual-core industrial computer in order to achieve high processing speeds and shorten control cycle time.
- Because several processes are integrated within a single piece of equipment, there may be as many as 30 control axes, and there must be support for numerous external card slots.
- Must have a high level of expandability and support a PCI interface backplane.
- Since space may be limited, machine volume must not be greatly increased by the integration of functions.

System

In view of the fact that customers may need to integrate several work stations in a single machine, Advantech provides integrated systems consisting of highly expandable single board computer and backplane combinations equipped with control axis cards, high-speed motion pick-up cards, and image acquisition cards. A dual-core Intel® LGA775 PCA-6011 single-board computer meets



customers' high-speed processing needs, and a PCA-6114P12 backplane is integrated with an Advantech control card and motion card. The use of Advantech industrial control cards avoids the possible incompatibilities that may occur when using products from different companies. The use of a backplane solution enables better use of space than ordinary commercial motherboard systems, and also provides customers with the expandability needed to accommodate more external cards, ensuring an effective structure and optimal control performance. In addition, the IPC-610H panel and warning functions can accurately pinpoint system problems, greatly shortening system troubleshooting time.

Conclusion

Advantech can provide all-round solutions allowing customers to select applications' product configurations meeting their own particular needs, and striking an optimal balance between cost and performance. Apart from providing secure, reliable platforms, Advantech's sturdy industrial computer systems also offer the newest multi-core technology, and can process and analyze data and images from multiple work points. The system backplane ensures accurate processing and a high degree of expandability, while offering diverse transmission interface options, and maintaining compatibility with various control cards, data acquisition cards, and image cards.



Implemented Products

IPC-610H	<ul style="list-style-type: none"> • 4U frame-type industrial chassis, supports standard PICMG 1.0 slot SBCs • Equipped with 12 expansion slots and anti-vibration optical drive bracket • Supports two 5.25" and one 3.5" HDDs • Dual fan module not only optimizes system cooling, but also facilitates maintenance and reduces system stoppage • Front panel has a lockable hatch boosting system security
PCA-6011	<ul style="list-style-type: none"> • PICMG 1.0 full-size card, supports Intel® Core 2 Duo /Quad processors • Supports up to 4GB DDR3-1066 memory • Dual network interfaces • Equipped with PCI backplane • Provides an optimal, all-in-one platform.
PCA-6114P12	<ul style="list-style-type: none"> • 14-slot backplane, 12 PCI slots
PCI-1202U	<ul style="list-style-type: none"> • AMONet motion communication card
AMAX-2241/PMA	<ul style="list-style-type: none"> • AMONet can support a Panasonic Minus A3/A4 distributed motion module
AMAX-275xSY Series	<ul style="list-style-type: none"> • AMONet digital I/O module
PCI-1265LT	<ul style="list-style-type: none"> • SoftMotion 6-axis motion control card

Automatic Optical Inspection (AOI) – A Solution for PCB Inspection

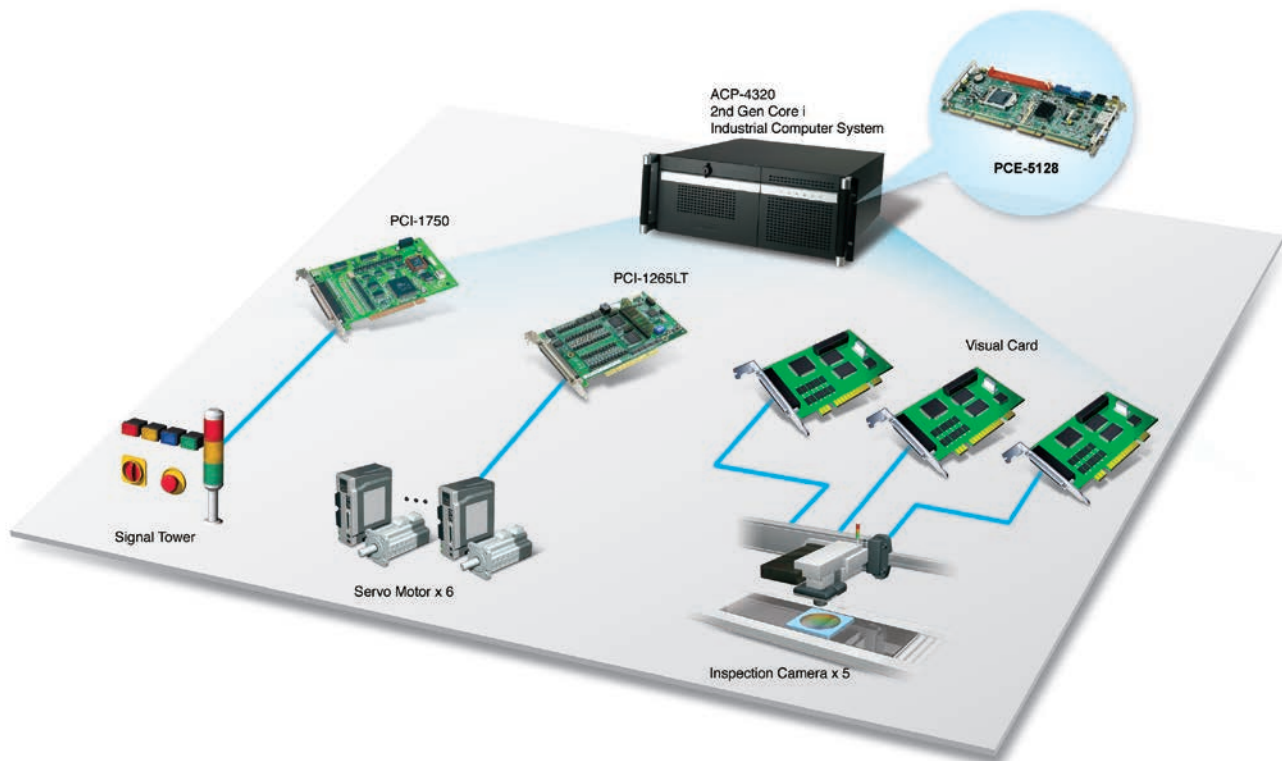
Project

As application devices in the market continue to increase in multi-functionality, integration, mobility, and miniaturization, the built-in printed circuit boards (PCBs) on these devices will contain more components than in the past. High density PCB components are a necessity, which raises the importance of automatic optical inspection (AOI). AOI has evolved from 2D to 3D inspection, where it is capable of effectively detecting whether components have been successfully soldered, the condition of those solder joints, and whether component placement is skewed or not. In order to increase inspection efficiency, a high-performance, highly-expandable industrial computer needs to be built with a motion control card capable of position comparing and triggering an output signal, so that on-the-fly capturing and on-the-fly-inspection are both possible. There is a growing trend to use AOI in PCB inspection applications. This project explains how Advantech's new generation industrial computers and Softmotion image capture and detection software technology can be combined in order to quickly carry out detection and inspection of soldering processes.

Requirements

In the past image detection relied heavily on a non-read, "on-the-fly" method. By comparison, today's continuous process, high-speed capture and inspection is very important in improving inspection efficiency. At the computing core, and one of the factors that best determine overall performance is a high performance industrial computer combined with a motion control card and frame grabber. Image capture from multiple CCD detectors builds the base for 3D inspection; therefore, selection of the light source and control of the exposure time determines the speed and quality of the image capture. High performance industrial computers with quad-core computing capability offer a stable and reliable computing platform further shortening the time required for image recognition. The requirements for this project can be defined as:

- Industrial computers with quad-core and above processors to achieve high-speed computing and shorten the image recognition cycle.
- PCIe and PCI interface expansion capability to allow sufficient motion control cards and frame grabbers to be installed.
- Motion control that provides position comparison using table Interval compare methods, and also triggers signal output.
- Simultaneous start and simultaneous stop (STA/STP) functions.
- Visual capture and detection compatibility from other card manufacturers in the inspection process.



System

Advantech industrial-grade systems with quad-core processors which are highly expandable and very stable were selected to meet customer requirements. Advantech delivers the best platform for the integration of visual data and motion. The inclusion of a SoftMotion 6-axis motion control card allows the system to use customized algorithms and high-speed position comparison. It also can trigger output functions which enables other brand's frame grabbers to capture images on-the-fly and promptly use them without stopping.

Conclusion

Advantech offers high performance industrial computers with motion control technology for AOI making integration with third party brands possible via a frame grabber or through a standard digital interface (eg: GigaLAN or others). Since Advantech's motion control technology uses SoftMotion technology, it can be customized to control axis motion in order to fine tune mechanism and control, providing the best solution to fit specific functional needs. Advantech's rugged industrial computers make a safe and reliable platform and utilize the newest multi-core technologies that facilitate multi-tasking of data processes and image analysis, delivering precise computation. The highly expandable backplate offers diverse transmission interfaces, and is compatible with various kinds of control cards, data acquisition cards, and video cards.



Implemented Products

ACP-4320	<ul style="list-style-type: none"> • 4U rack-mount industrial chassis; supports a standard PICMG 1.3 slot SBC • Equipped with 12 expansion slot, anti-shock CD-ROM tray • Supports two 5.25" and two 3.5" hot plugging disc drives • Smart LCD indicators monitor temperature, voltage, and proper functioning of the fan and hard drives • Thumbscrew design drastically shortens assembly time for customers • Frontplate is provided with a lockable door to increase system security control
PCE-5128	<ul style="list-style-type: none"> • PICMG 1.3 full-size single board computer supports Intel® 4th Generation Intel® Core™ processor • Supports Intel Core i7/i5/i3 LGA1150 processors with Q87 • Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB • Supports USB3.0, SATA3.0, SW Raid 0, 1, 5, 10 • Supports out-of-band remote management with AMT9.0 and IPMI • Supports Advantech TPM module (LPC I/O)
PCE-5B12-07	<ul style="list-style-type: none"> • High expandability PICMG1.3 backplane, provided with 1 PCIe x16, 3 PCIe x4, and 7 PCI expansion slots
PCI-1265LT	<ul style="list-style-type: none"> • SoftMotion 6-Axis motion control card

Compact Systems

NEW



NEW



NEW



NEW



Model Name		AiMC-2100	AiMC-3200	AiMC-3420	AIIS-1240
Form Factor		Compact	Compact	Compact	Compact
Processor System	Chipset	QM77	H61	H61	H61
	CPU	Intel core i7/ i5/ i3 PGA988 Max. 2.3 GHz	Intel core i7/ i5/ i3 LGA1155 Max. 3.4 GHz	Intel core i7/ i5/ i3 LGA1155 Max. 3.4 GHz	Intel core i7/ i5/ i3 LGA1155 Max. 3.4 GHz
	Core	Max. 4	Max. 4	Max. 4	Max. 4
	Cache	Max. 6 MB	Max. 8 MB	Max. 8 MB	Max. 8 MB
	Memory	DDR3 1333/1600 MHz Max. 16 GB	DDR3 1066/1333 MHz Max. 16 GB	DDR3 1066/1333 MHz Max. 16 GB	DDR3 1066/1333 MHz Max. 16 GB
Graphic	Controller	Integrated Gfx Gen 7	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics
	VRAM	Shared system memory max. 2GB	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	-
	PCIE x8	-	-	-	-
	PCIE x4	-	1	-	-
	PCIE x1	-	-	2	-
	PCI	-	-	-	-
HDD Bay	Slim ODD	-	-	-	-
	5.25"	-	-	-	-
	3.5"	-	-	1 Internal	-
	2.5"	2 Internal	2 Internal	-	2 Internal
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN 1: Intel 82579LM; LAN 2: Intel 82583V	LAN1: Intel 82579V; LAN2: Intel 82583V	LAN1: Intel 82579V; LAN2: Intel 82583V	LAN1: Intel 82579V; LAN2: Intel 82583V
PoE	Interface	-	-	-	10/100/1000 Mbps
	Controller	-	-	-	LAN1~4: Intel i210
Front I/O	Display	VGA + DB + HDMI	VGA+DVI	-	VGA+DVI
	LAN	2	2	-	6
	USB	4 USB3.0	4 USB2.0	2 USB2.0	4 USB3.0
	COM	2 RS-232	2 RS-232	-	2 RS-232/422/485
	PS/2	2	1	-	-
	Audio	3 (Mic-in, Line-out, Line-in)	-	-	3 (Mic-in, Line-out, Line-in)
Rear I/O	Display	-	-	VGA	-
	LAN	-	-	2	-
	USB	-	-	5 USB2.0	4 US2.0
	COM	-	-	2 RS-232	4 RS-232
	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 sec/min	Programmable 1 ~ 255 sec/min
Power Supply	Output Wattage	250W	250W	250W	-
	Input Range	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	DC 19~24V
Cooling	System Fan	2 (6 cm / 27.7 CFM, each)	2 (6 cm / 27.7 CFM, each)	1 (9 cm / 53 CFM)	1 (6 cm / 27.7 CFM)
	Air Filter	Yes	Yes	Yes	Yes
Physical Characteristics	Dimensions (W x H x D)	272 x 88 x 232 mm (10.7" x 3.5" x 9.1")	232 x 90 x 232 mm (9.1" x 3.5" x 9.1")	150 x 222 x 270 mm (5.9" x 8.7" x 10.6")	232 x 70 x 175 mm (9.06" x 2.76" x 6.89")
	Weight	3.49 kg (7.68 lb)	4.5 kg (9.9 lb)	5 kg (11 lb)	2.5 kg (5.5 lb)

Server-grade IPCs

NEW



NEW



Server Chassis

Model Name		HPC-7242		HPC-7442		HPC-7480	
Form Factor Support		ATX/MicroATX		EATX/ATX		4U chassis support for max. motherboard size - 12" x 13" EATX	
Expansion Slots						7 x Full-height, Full-length PCI expansion slots	
Drive Bay	Slim ODD Bay	1		1		-	
	5.25" (front-accessible)	-		-		3	
	3.5" (front-accessible)	4 (SAS/SATA)		4 (SAS/SATA)		8	
	3.5" (internal)	2 (2.5")		1		-	
	2.5" (front-accessible)	-		-		-	
	2.5" (internal)	-		-		-	
Cooling	Chassis Fan	1 (8 cm/47CFM) + 2 (6 cm/28CFM) for SAS/SATA storage unit		1 (8 cm/47CFM) + 2 (6 cm/28CFM) for SAS/SATA storage unit		4 (8 cm / CFM)	
	Air Filter	Yes		Yes		Yes	
System Monitoring						Chassis intrusion switch	
Front I/O Interface	USB	2		2		2	
	PS/2	-		-		-	
Miscellaneous	LED Indicators	Power, HDD, temperature, fan, LAN1, and LAN2		Power, HDD, temperature, fan, LAN1, and LAN2		Power, HDD activity, LAN	
	Rear Panel	Two 9-pin D-Sub		Five 9-pin D-Sub and one 68-pin SCSI openings		-	
Environment		Operating	Non-Operating	Operating	Non-Operating	Operating	Non-Operating
	Temperature	0 ~ 40° C (32 ~ 104° F)	-40 ~ 70° C (-40 ~ 156° F)	0 ~ 40° C (32 ~ 104° F)	-40 ~ 70° C (-40 ~ 156° F)	0 ~ 40° C (32 ~ 104° F)	-40 ~ 70° C (-40 ~ 158° F)
	Humidity	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing	10 ~ 95% @ 40° C, non-condensing	10 ~ 95% @ 60° C, non-condensing	10 ~ 85% @ 40° C non-condensing	10 ~ 95% @ 40° C non-condensing
	Vibration (5~500 Hz)	1 Grms	2 G	1 Grms	2 G	1 Grms	2 G
	Shock	10 G (with 11 ms duration, half sine wave)		10 G (with 11 ms duration, half sine wave)		10 G	30 G (with 11 ms duration, half sine wave)
Physical Characteristics	Dimensions (W x H x D)	482 x 88 x 525 mm (19" x 3.46" x 20.67")		482 x 177 x 600 mm (19" x 7.0" x 23.6")		452 x 178 x 648 mm (4U)	
	Weight	13.7 kg		18.5 kg		29.94 kg	

Server-grade IPCs

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Server Boards

Model Name		ASMB-584	ASMB-782	ASMB-784	ASMB-822I	ASMB-922I
Form Factor		Micro ATX	ATX	ATX	ATX	EATX
Processor System	CPU	Intel Xeon E3 V3 and 4th Gen. Core i5 Series	Intel Xeon E3/E3 V2/ 2nd and 3rd Gen. Core i3 Series	Intel Xeon E3 V3 and 4th Gen. Core i5 Series	Intel Xeon E5-2600 Series	Intel Xeon E5-2600 Series
	Socket	1 x socket 1150	1 x socket 1155	1 x socket 1150	1 x socket 2011	2 x socket 2011
	Max. Speed	3.5 GHz	3.4 GHz/3.5 GHz/3.3 GHz/3.3 GHz	3.5 GHz	2.1 GHz	2.1 GHz
	Front Side Bus	-	-	-	-	QPI 8 GT/s
	L3 Cache	8 MB	8 MB/8 MB/3 MB/3 MB	8MB	20 MB	20 MB
	Chipset	Intel C226	Intel C216	Intel C226	Intel C602J	Intel C602J
BIOS		AMI 128Mbitm, SPI	AMI 64 Mbit, SPI	AMI 128Mbitm, SPI	AMI 64 Mbit, SPI	AMI 64 Mbit, SPI
Expansion Slot	PCI	1	3	3	1	-
	PCIe x16	-	-	1 (auto switch to two x8)	-	4 (1 for PME)
	PCIe x8	2 (x16 slot with x8 link)	2 (x16 slot with x8 link)	2 (auto switch to one x16)	5	1
	PCIe x4	1	2	-	1	-
	PCIe x1	-	-	2	-	-
Memory	Technology	DDR3 ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR3 ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR3 ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR3 Reg/ECC/non-ECC Unbuffer 1066/1333/1600 MHz	DDR3 Reg/ECC/non-ECC Unbuffer 1066/1333/1600 MHz
	Max. Capacity	32 GB ECC/Non-ECC UDIMM	32 GB ECC/Non-ECC UDIMM	32 GB ECC/Non-ECC UDIMM	96 GB/Non-ECC/ECC/REG DIMM	128 GB/Non-ECC/ECC/REG DIMM
	Socket	4 x 240-pin DIMM	4 x 240-pin DIMM	4 x 240-pin DIMM	6 x 240-pin DIMM	8 x 240-pin DIMM
Graphics	Controller	Intel GT2-HD Graphics	Intel HD Graphics	Intel GT2-HD Graphics	AST1300/AST2300	AST1300/AST2300
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed	1 GB maximum shared memory with 2 GB and above system memory installed	1 GB maximum shared memory with 2 GB and above system memory installed	DDR3 64MB	DDR3 64MB
	LCD	-	-	-	-	-
	TV-Out	-	-	-	-	-
	HDMI	-	-	-	-	-
	DVI	1	Yes (pin header)	2	-	-
Dual Display		Yes	Yes (pin header for DVI)	Yes	-	-
Ethernet	Interface	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet
	Controller	1 x Intel I217-LM, 1 x Intel I210-AT	1 x Intel 82579LM + 3 x Intel 82574L (G4 SKU only)	1 x Intel I217-LM + 3 x Intel I210-AT (G4 SKU only)	1 x Intel 82579LM + 1 x Intel I210AT 1 x Realtek 8201EL (ASMB-822I SKU only)	1 x Intel 82579LM + 1 x Intel I210AT 1 x Realtek 8201EL (ASMB-922I SKU only)
	Connector	RJ-45 x 2 (G2 SKU) / RJ-45 x1 (VG SKU)	RJ-45 x 4 (G4 SKU) / RJ-45 x 2 (G2 SKU)	RJ-45 x 4 (G4 SKU) / RJ-45 x2 (G2 SKU)	RJ-45 x 3 (1 for IPMI function)	RJ-45 x 3 (1 for IPMI function)
TPM		Optional	Optional	Optional	optional	optional
SATA	Max. Data Transfer Rate	600 MB/s	300MB/s for SATA2 600 MB/s for SATA3	600 MB/s	300MB/s for SATA2 600 MB/s for SATA3	300MB/s for SATA2 600 MB/s for SATA3
	Channel	6	4 for SATA2, 2 for SATA3	6	4 for SATA2, 2 for SATA3	4 for SATA2, 2 for SATA3
SAS	Max. Data Transfer Rate	-	-	-	-	-
	Channel	-	-	-	-	-
Rear I/O	VGA/DVI/HDMI/DP	1 / 1 / - / 2	1 / - / - / -	1 / 2 / - / -	1 / - / - / -	1 / - / - / -
	Ethernet	2 for G2 SKU and 1 for VG SKU	4 for G4 SKU and 2 for G2 SKU	4 for G4 SKU and 2 for G2 SKU	2	2
	USB	4 (2 USB 3.0; 2 USB 2.0)	4 (2 USB 3.0; 2 USB 2.0)	4 (2 USB 3.0; 2 USB 2.0)	6(2 x USB 3.0)	4 (2 x USB 3.0)
	Audio	Mic-in, Line-out	-	-	-	-
	Parallel	-	-	-	-	-
	Serial	-	1 (RS-232)	1 (RS-232)	1(RS-232)	1 (RS-232)
	PS/2	-	2	1	2	2
Internal Connector	LVDS & Inverter	-	-	-	-	-
	TV-Out	-	-	-	-	-
	DVI	-	Yes (pin header)	-	-	-
	USB	9 (2 USB 3.0; 6 USB 2.0; 1 USB 2.0 Type-A)	10 (2 USB 3.0; 6 USB 2.0; 2 USB 2.0 Type-A)	9 (2 USB 3.0; 6 USB 2.0; 1 USB 2.0 Type-A)	8 (6 USB 2.0, 2 USB 2.0 Type-A)	9 (8 USB 2.0, 1 USB 2.0 Type-A)
	Serial	2	1	1	1	1
	Parallel	1	1	1	1	-
	IDE	-	-	-	-	-
	SATA	6	6	6	6	6
	SAS	-	-	-	-	-
	Compact Flash	-	-	-	-	-
GPIO		8 bit GPIO	1 (SATA SGPIO)	8 bit GPIO	1 (SATA SGPIO)	1 (SATA SGPIO)
Watchdog Timer	Output	System reset	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	Programmable, 1 ~ 255 sec

Industrial Wallmount Chassis



Height (1U = 1.75")								
Model Name		ARK-6610 / ARK-6620	ARK-6622H/L	IPC-5120/7120	IPC-5122	IPC-7130	IPC-7132	
Form Factor Support		Mini-ITX	Mini-ITX	MicroATX/ATX	MicroATX	ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	
Drive Bay	Slim Optical Drive	1/-	-	-	1	-	-	
	3.5"	Front	-	-	1	1	2	2
		Internal	1/1	2 x 2.5"	1	1	1	1
	5.25"	-	-	1	-	1	1	
Front I/O	USB	Yes (on motherboard) + 2 cutouts	Yes (on motherboard)	Yes (on motherboard)	Yes	Yes	Yes	
	PS/2	Yes (on motherboard)	Yes (on motherboard)	Yes (on motherboard)	-	-	-	
Cooling	No. of Fans	1/2	2/1	2	1	2	1	
	CFM	52.5 /27.72	27.7/15.5	1 x 85 1 x 10	85	1 x 85 1 x 27.7	85	
Power	AC	180 W ATX/PFC 270 W ATX/PFC	180 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC	300 W ATX/PFC 400 W ATX/PFC	300 W ATX/PFC 400 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC 400 W ATX/PFC	
	AC Redundant	-	-	-	-	300W 1+1	-	
	DC	-	-	-	-	-	-	
No. of Slots / No. of Full-size Cards		1 for ARK-6610	1	7/0	4/0	7/7	7/10	
Passive Backplane Options	PICMG 1.0	-	-	-	-	-	-	
	PICMG 1.3	-	-	-	-	-	PCE-5B09-04 PCE-5B09-06	
System Fault Detection		Yes	Yes	-	Yes	Yes	-	
Dimensions (W x H x D)	mm	250 x 156 x 253 (ARK-6610) / 272 x 88 x 232 (ARK-6620)	272 x 88 x 232	380 x 164 x 316.5	157 x 360 x 340	200x320x480	200 x 330 x 430	
	inch	9.8 x 6.1 x 10 (ARK-6610) / 10.7 x 3.5 x 9.1 (ARK-6620)	10.7 x 3.5 x 9.1	15 x 6.5 x 12.5	6.2 x 14.2 x 13.4	7.87x12.59x18.89	7.87 x 12.99 x16.92	
Weight	kg	4.8 (ARK-6610) / 3.5 (ARK-6620)	3.49	9	6.5	14	9.96	
	lb	10.5 (ARK-6610) / 7.7 (ARK-6620)	7.68	19.8	14.3	30.8	21.9	

Industrial Wallmount Chassis



Height (1U = 1.75")		IPC-7220	IPC-6006	IPC-6806	IPC-6908	IPC-3026	IPC-6025	IPC-6606/6608
Model Name		IPC-7220	IPC-6006	IPC-6806	IPC-6908	IPC-3026	IPC-6025	IPC-6606/6608
Form Factor Support		ATX/MicroATX	PICMG 1.0	PICMG 1.0	PICMG 1.0/1.3	PICMG1.0/1.3	PICMG 1.0/1.3	PICMG 1.0/1.3
Drive Bay	Slim Optical Drive	-	-	-	-	-	-	-
	3.5"	Front	1	-	1	1	-	1
		Internal	1	-	1	1	1	1
5.25"		2	-	1 (IPC-6806W) 0 (IPC-6806/6806S)	2	-	-	1 (IPC-6606) 2 (IPC-6608)
Front I/O	USB	Yes	-	Yes	-	Yes	Yes	Yes
	PS/2	Yes	-	-	-	-	-	-
Cooling	No. of Fans	1	-	1	2	1	1	1
	CFM	85	-	58 (IPC-6806W) 53 (IPC-6806/6806S)	53	53	53	53 (IPC-6606) 85 (IPC-6608)
Power	AC	300 W ATX/PFC 400 W ATX/PFC	-	150 W ATX/PFC (IPC-6806S) 250 W ATX/PFC (IPC-6806) 300 W ATX/PFC (IPC-6806W)	250 W ATX/PFC 300 W ATX/PFC 400 W ATX/PFC	150W ATX/PFC	270 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC 400 W ATX/PFC
	AC Redundant	300 W 1+1 400 W 1+1	-	-	300 W 1+1	-	-	-
	DC	300 W ATX	-	-	300 W ATX	-	-	-
No. of Slots / No. of Full-size Cards		7/7	6/6 (IPC-6006/6006P) 6/0 (IPC-6006S)	6/0 (IPC-6806S) 6/6 (IPC-6806/6806W)	8/8	6/0	5/5	6/6 (IPC-6606) 8/8 (IPC-6608)
Passive Backplane Options	PICMG 1.0	-	refer to Page 34-37					
	PICMG 1.3	-	refer to Page 34-37					
System Fault Detection		Yes	-	-	Yes	Yes	-	-
Dimensions (W x H x D)	mm	200 x 320 x 480	158 x 186 x 368 (IPC-6006/6006P) 158 x 186 x 215 (IPC-6006S)	191 x 170 x 285 (IPC-6806S) 166 x 170 x 393 (IPC-6806) 198 x 213 x 393 (IPC-6806W)	200 x 300 x 463	150 x 222 x 270	111 x 212 x 420	173 x 254 x 396 (IPC-6606) 173 x 315 x 410 (IPC-6608)
	inch	7.9 x 12.6 x 18.9	6.2 x 7.3 x 14.5 (IPC-6006/6006P) 6.2 x 7.3 x 8.4 (IPC-6006S)	7.7 x 6.7 x 11.2 (IPC-6806S) 6.5 x 6.7 x 15.4 (IPC-6806) 7.8 x 8.4 x 15.4 (IPC-6806W)	7.9 x 11.8 x 18.2	5.9 x 8.7 x 10.6	4.4 x 8.3 x 16.5	6.8 x 12.4 x 16.1
Weight	kg	13.7	2.5 (IPC-6006/6006P) 1.6 (IPC-6006S)	5.6 (IPC-6806S) 6.3 (IPC-6806) 7.8 (IPC-6806W)	12.9	4.4	4.7	9 (IPC-6606) 11 (IPC-6608)
	lb	30.5	5.5 (IPC-6006/6006P) 3.5 (IPC-6006S)	12.3 (IPC-6806S) 13.9 (IPC-6806) 17.2 (IPC-6806W)	28.5	9.7	10.3	19.8 (IPC-6606) 24.2 (IPC-6608)

Industrial Rackmount Chassis



Height (1U = 1.75")		1U Rackmount		2U Rackmount			4U Rackmount				
Model Name		IPC-100-60SE	ACP-1010/1320	ACP-2000/IPC-602	ACP-2010MB/ACP-2320MB	IPC-603MB	ACP-4000	ACP-4010/ACP-4320	ACP-4360	IPC-510	
Form Factor Support		Mini-ITX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3	ATX/MicroATX	ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0 ATX/MicroATX	
Drive Bay	Slim Optical Drive	1	1	1/-	-/1	1	-	-	1	-	
	3.5"	Front	-	1/2 (SAS/SATA)+1	2/1	1/2 (SAS/SATA)	-	1	1/2 (SAS/SATA) + 1	6 (SAS/SATA) + 1	1
		Internal	-	1/-	-/1	2	1	-	1/-	-	1
5.25"		-	-	-/1	1/-	-	3	2	-	3	
Front I/O	USB	Yes	Yes	Yes	Yes	-	Yes	Yes	Yes	Yes	
	PS/2	-	-	Yes	Yes	-	Yes	-	-	Yes	
Cooling	No. of Fans	0	2 (MB), 4 (BP)	2	2/3	2	2	2/2	3	1	
	CFM	-	2 x 24 (MB)/ 3 x 24 + 1 x 15 (BP)	2 x 47/ 2 x 40	2 x 47/ 2 x 47 + 1 x 28	47	85	2 x 85/ 1 x 114 + 1 x 28	1 x 114 + 2 x 47	77	
Power	AC	-	250 W ATX/ PFC 300 W ATX/ PFC	250 W ATX/ PFC (IPC-602) 300 W ATX/ PFC 400 W ATX/ PFC	300 W ATX/ PFC 400 W ATX/ PFC	300 W ATX/ PFC	300 W ATX/ PFC 400 W ATX/ PFC	300 W ATX/ PFC 400 W ATX/ PFC	400 W ATX/ PFC 500 W ATX/ PFC	250 W ATX/ PFC 300 W ATX/ PFC	
	AC Redundant	-	-	300 W 1+1 (ACP-2000)	-	-	300 W 1+1 400 W 1+1	300 W 1+1 400 W 1+1	400 W 1+1	-	
	DC	60W	-	-	-	-	-	-	-	-	
No. of Slots / No. of Full-size Cards		2/0	MB: 1/1 BP: 3/2	6/6	3/3	3/0	15/11	15/15 (ACP-4010) 15/10 (ACP-4320)	15/9	14/8	
Passive Backplane Options	PICMG 1.0	-	refer to Page 34-37			-	-	refer to Page 34-37			
	PICMG 1.3	-	refer to Page 34-37			-	-	refer to Page 34-37			
System Fault Detection		-	Yes	Yes	Yes	-	Yes	Yes	Yes	-	
Dimensions (W x H x D)	mm	480 x 44 x 288	1010: 480 x 44 x 497 1320: 480 x 44 x 617	482 x 88 x 451	482 x 88 x 480	482 x 88 x 308	482 x 177 x 479	482 x 177 x 479	482 x 177 x 501	482 x 177 x 446	
	inch	19 x 1.7 x 11.3	1010: 19 x 1.7 x 19.6 1320: 19 x 1.7 x 24.3	19 x 3.5 x 17.8	19 x 3.5 x 18.9	19 x 3.5 x 12.1	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7 x 19.8	19 x 7 x 17.6	
Weight	kg	2.2	8	11.5/11.3	10.7/11.7	6.4	15.2	16.6/17.6	19.5	10.7	
	lb	4.8	17.6	25.3/24.9	23.5/25.7	14.1	33.5	36.5/38.7	42.9	23.5	

Industrial Rackmount Chassis



Height (1U = 1.75")		4U Rackmount					5U Rackmount	6U Rackmount	7U Rackmount		
Model Name		IPC-610-F	IPC-610-H	IPC-610-L	IPC-611	IPC-619/619S	IPC-623	ACP-5360	IPC-622	ACP-7360	
Form Factor Support		PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX	PICMG 1.0/1.3	PICMG 1.0/1.3	PICMG 1.0	PICMG 1.0/1.3	
Drive Bay	Slim Optical Drive	-	-	-	-	-	-	1	-	1	
	3.5"	Front	1	1	1	1	-	1	6 (SAS/SATA) + 1	-	6 (SAS/SATA) + 1
		Internal	1	-	-	-	1	1	-	2	-
5.25"		3	3	3	3	2/1	3	1	4	2	
Front I/O	USB	-	Yes	Yes	Yes	Yes	-	Yes	Yes	Yes	
	PS/2	-	Yes	-	-	-	-	Yes	-	Yes	
Cooling	No. of Fans	1	2	1	1	1	3	7	4	6	
	CFM	85	85	85	85	85	114	3 x 114 + 2 x 47 + 2 x 25	58	4 x 58 + 2 x 47	
Power	AC	300 W ATX/PFC 400 W ATX/PFC	300 W ATX/PFC 400 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC 400 W ATX/PFC	400 W ATX/PFC 500 W ATX/PFC	-	400 W ATX/PFC 500 W ATX/PFC	-	
	AC Redundant	300 W 1+1	300 W 1+1	-	-	-	460 W 1+1 570 W 2+1 810 W 3+1	460 W 1+1 570 W 2+1 810 W 3+1	460 W 1+1	460 W 1+1 570 W 2+1 810 W 3+1	
	DC	-	-	-	-	-	-	-	-	-	
No. of Slots / No. of Full-size Cards		15/10	15/11	15/11	15/11	15/10 10/0	20/20	20/20	20/20	20/20	
Passive Backplane Options	PICMG 1.0	refer to Page 34-37									
	PICMG 1.3	refer to Page 34-37									
System Fault Detection		-	-	-	-	-	Yes	Yes	Yes	Yes	
Dimensions (W x H x D)	mm	BP: 482 x 177 x 449 MB: 482 x 177 x 499	482 x 177 x 479	482 x 177 x 479	482 x 177 x 479	482 x 177 x 430 / 482 x 177 x 275	482 x 177 x 657	482 x 222 x 662	482 x 266 x 464	482 x 307 x 502	
	inch	BP: 19 x 7 x 17.8 MB: 19 x 7 x 19.6	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7 x 16.9 / 19 x 7 x 10.8	19 x 7 x 26	19 x 8.75 x 26	19 x 10.5 x 18.3	19 x 12.1 x 19.7	
Weight	kg	18	15	14.5	14.2	15 / 8	26	30	30	35	
	lb	39.6	33	31.9	31.2	33/17.6	57	66	66	77	

PICMG 1.3 System Host Boards

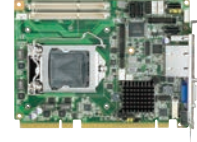


Model Name		LGA1155 PICMG 1.3 SHB	LGA1155 PICMG 1.3 SHB
		PCE-5026	PCE-5126
Processor System	CPU	Intel Core™i7/Core™i5/Core™i3/Pentium/Celeron LGA1155 processors	Intel Xeon/Core™ i7/Core™ i5/Core™ i3 LGA1155 Processors
	Max. Speed	3.4/ 3.1 /3.3 GHz	3.4 /3.1/3.3 GHz
	Cache	L3: 8 MB/ 6 MB/ 3 MB	L3: 8 MB/8 MB/6 MB/3 MB
	Chipset	Intel H61	QG2: Intel Q67 WG2: Intel C206 QVG: Intel B65
	BIOS	AMI 64 Mbit SPI Flash	AMI 64 Mbit SPI Flash
Backplane Bus	PCIe	One x16 & Four x1	One PCIe x16/ Two x8(WG2) & Four PCIe x1
	PCI(32bit/33 MHz)	4	4
Memory	Technology	Dual-channel (Non-ECC) DDR3 1066/1333	Dual-channel (ECC) DDR3 1066/1333 (Only WG2 version supports ECC memory)
	Max. Capacity	16 GB	16 GB
	Socket	240-pins DIMM x 2	240-pins DIMM x 2
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 Out	VGA	VGA/DVI-D (Optional DVI-D cable)
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps
	LAN1/LAN2 Controller	Intel 82579V	QVG: Intel 82579LM; QG2: Intel 82579LM/82583V; WG2: Intel 82579LM/82574L
	Connector	RJ45 x 1	QG2/WG2: RJ45 x 2 QVG: RJ45 x 1
	Disable in BIOS	Yes	Yes
SATA	Max. Data Transfer Rate	300 MB/s SATA2	300 MB/s SATA2.0 & 600 MB/s SATA3.0
	Channel	4 x SATA2.0	QG2 & WG2: 2 x SATA3.0; 4 x SATA2.0 QVG: 1 x SATA3.0; 5 x SATA2.0
	S/W Raid	-	QG2/WG2: 0, 1, 5, 10
Rear I/O	VGA	1	1
	Ethernet	1	QG2/WG2: 2 QVG:1
	USB2.0	-	QG2/WG2: 1 QVG: 0
	USB3.0	-	-
	PS/2	1	1
	Serial	1	QG2/WG2: 0 QVG: 1
Internal I/O	USB 2.0	10 USB2.0 (Pin-header x 4+Vertical USB A type x 2+ 4 on backplane)	WG2/QG2: 12 USB2.0 (Pin-header x 8 + 4 on backplane) QVG: 10 USB2.0 (Pin-header x 6 + 4 on backplane)
	USB 3.0	-	-
	SATA	4	6
	Serial	2 RS-232(Pin-Header)	2 RS-232(Pin-Header)
	Parallel	1(SPP/EPP/ECP)	1(SPP/EPP/ECP)
	PS/2	1	1
	OBS (Onboard Security Hardware Monitor)	Yes	Yes
Watchdog Timer	Output	System reset	System reset
	Interval	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min
Miscellaneous	Advantech Audio Module	PCA-Audio-HDA1E	PCA-Audio-HDA1E
	Advantech SNMP-1000	Yes	Yes
	Advantech SAB-2000	Yes	Yes
	Advantech IPMI Module	-	WG2: Yes
	AMT	-	QG2/WG2: Yes

PICMG 1.3 System Host Boards

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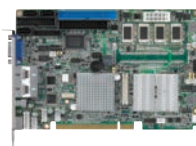
Model Name		LGA1155 PICMG 1.3 SHB	LGA1150 PICMG 1.3 SHB	PCIe Half-Size SBC
		PCE-5127	PCE-5128	PCE-3026
Processor System	CPU	Intel Core™ i7/Core™ i5/Core™ i3 LGA1155 Processors	Intel Core™ i7/Core™ i5/Core™ i3 LGA1150 Processors	Intel Core i7/i5/i3/Pentium/Celeron LGA1155 processor
	Max. Speed	3.4 GHz/3.4 GHz/3.1 GHz/3.3 GHz	3.1/2.9 GHz	up to 3.4 GHz
	Cache	L3: 8/8/6/3/3 MB	L3: 8/6 MB	up to 8MB
	Chipset	Intel Q77	Intel Q87	H61
	BIOS	AMI 64 Mbit SPI Flash	AMI 128 Mbit SPI Flash	AMI 64 Mbit SPI Flash
Backplane Bus	PCIe	One x16 & Four PClex1	One x16 & Four x1	One PCIe x16, Four PCIe x1
	PCI(32bit/33 MHz)	4	4	-
Memory	Technology	Dual-channel (Non-ECC) DDR3 1333/1600	Dual-channel (Non-ECC) DDR3 1333/1600	Dual-Chnnel DDR3 1066/1333 MHz
	Max. Capacity	16 GB	16 GB	16 GB
	Socket	240-pins DIMM x 2	240-pins DIMM x 2	204-pin SO-DIMM x 2
Graphics	Controller	Chipset integrated Intel HD Graphics	Chipset integrated Intel HD Graphics	Chipset integrated graphics with Intel HD
	VRAM	Shared system memory is subject to OS	Shared system memory is subject to OS	Shared with system memory is subject to OS
	Video Out	VGA/DVI-D (Optional DVI-D cable)	VGA/DVI-D/DVI-D (Optional DVI-D cable)	D-sub VGA port, DVI
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000Mps
	LAN1/LAN2 Controller	Intel 82579LM/ 82583V	Intel I217LM/I210AT	Intel 82579V Intel 82583V
	Connector	RJ45 x 2	RJ45 x 2	RJ-45*2
	Disable in BIOS	Yes	Yes	Yes
SATA	Max. Date Transfer Rate	300 MB/s SATA2.0 & 600 MB/s SATA3.0	600 MB/s SATA3.0	300 MB/s
	Channel	2 x SATA3.0; 4 x SATA2.0	6 x SATA3.0	3
	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
	USB3.0	1	1	-
	PS/2	1	1	1
	Serial	-	-	-
Internal I/O	USB 2.0	9 USB2.0 (Pin-header x 4+USB Type A x 1+ 4 on backplane)	9 USB2.0 (Pin-header x 4+USB Type A x 1+ 4 on backplane)	7
	USB 3.0	2 USB3.0 (Pin-Header x 2)	2 USB3.0 (Pin-Header)	-
	SATA	6	6	3
	Serial	2 RS-232(Pin-Header)	2 RS-232(Pin-Header)	2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow or 4 RS-232 by COM module
	Parallel	1(SPP/EPP/ECP)	1(SPP/EPP/ECP)	1
	PS/2	1	1	1
	OBS (Onboard Security Hardware Monitor)	Yes	Yes	Yes
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-HDA1E	PCA-Audio-HDA1E	PCA-AUDIO-HDA1E
	Advantech SNMP-1000	Yes	Yes	-
	Advantech SAB-2000	Yes	Yes	-
	Advantech IPMI Module	-	Yes	-
	AMT	Yes	Yes	-

PICMG 1.0 Single Board Computers



Model Name		Atom N455/D525 PICMG 1.0 SBC	Core 2 Quad PICMG 1.0 SBC
		PCA-6012	PCA-6011
Processor System	CPU	Onboard Intel Atom N455 (VG version only) Onboard Intel Atom D525 (G2 version only)	Intel Core 2 Quad/Core 2 Duo/Pentium dual-core/Celeron LGA775 processors
	Max. Speed	1.66 GHz/1.8 GHz	3.0 GHz/3.16 GHz/2.93 GHz/2.2 GHz
	Max. L2 Cache	512 KB/1MB	12 MB/6 MB/8 MB/512 KB
	Chipset	Intel ICH8M	Intel G41 + ICH7 (VG version only) Intel G41 + ICH7R (G2 version only)
	BIOS	AMI 16Mb SPI Flash	AMI 16 Mb SPI Flash
	FSB	-	1333/1066/800 MHz
Bus	PCI	32-bit/33 MHz PCI	32-bit/33 MHz PCI
	ISA	HISA (ISA High Drive)	HISA (ISA High Drive)
Graphics	Controller	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant	Chipset integrated Intel Graphics Media Accelerator X4500
	VRAM	Shared with system memory up to 224 MB	Shared with system memory up to 352 MB
	LCD/DVI	LVDS (G2 version only)	DVI (Optional)
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel 82567V LAN2: Intel 82583V	LAN1: Intel 82583V LAN2: Intel 82583V
	Connector	RJ-45 x 2	RJ-45 x 2
	Disabled in BIOS	Yes	Yes
Memory	Technology	Dual-channel DDR3 800 MHz	Dual-channel DDR3 1066/800 MHz
	Max. Capacity	2 GB (VG version only) 4 GB (G2 version only)	4 GB
	Socket	204-pin SODIMM x 2	240-pin DIMM x 2
SATA	Max. Data Transfer Rate	300 MB/s	300 MB/s
	Channel	3	4
	RAID	-	0, 1, 5, 10 (G2 version only)
EIDE	Mode	ATA 100/66/33	ATA 100/66/33
	Channel	1 (Max. two devices)	1 (Max. two devices)
I/O Interface	USB	8 (USB 2.0, for VG version) 9 (USB 2.0, for G2 version)	8 (USB 2.0, for VG version) 7 (USB 2.0, for G2 version)
	Serial	2 (RS-232)	2 (RS-232)
	Parallel	1 (EPP/ECP)	1 (SPP/EPP/ECP)
	FDD	1	1
	PS/2	1	1
	LAN	1 (for VG version) 2 (for G2 version)	1 (for VG version) 2 (for G2 version)
	OBS (Hardware Monitor)	Yes	Yes
Watchdog Timer	Output	System reset	System reset
	Interval	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min
Miscellaneous	Audio	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E
	Advantech SNMP-1000-B	Yes	Yes
	Advantech SAB-2000	Yes	Yes
	Solid State Disk	CompactFlash Type I/II (G2 version only)	(Optional)

Half-Size Single Board Computers



Specifications		PCI Half-Size SBC	ISA Half-Size SBC	ISA Half-Size SBC
		PCI-7031	PCA-6782	PCA-6743
Processor System	CPU	Intel Atom D510/N450	Intel Atom D525/N455	DM&P Vortex86DX
	Speed	1.66 GHz	D525 1.8 GHz/N455 1.6 GHz	800 MHz
	L2 Cache	512 KB (N450)/1 MB (D510)	512 KB (N455)/1 MB (D525)	256 KB
	Chipset	Intel Atom D510/N450+ICH8M	Intel Atom D525/N455+ICH8M	DM&P Vortex86DX
	BIOS	AMI 16 MB SPI Flash	AMI 16 MB SPI Flash	Award integrated 256 KB ROM in Vortex86DX
	FSB	-	-	-
Bus	PCIe	-	-	-
	PCI	32-bit/33 MHz PCI	-	-
	ISA	-	16-bit ISA Bus	16-bit ISA Bus
Graphics	Controller	Embedded Gen3.5+ GFX Core technology	Embedded Gen3.5+ GFX Core technology	SMI 712 graphic controller
	VRAM	Shared with system memory up to 224 MB	Shared with system memory up to 224 MB	4 MB display memory
	Video output	D-Sub VGA port, LVDS	D-sub VGA port, 18 bit LVDS	D-Sub VGA port, up to 24 bit TTL or 18 bit LVDS (optional)
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100 Mbps
	Controller	LAN1: Intel 82567V LAN2: Intel 82583V	Intel 82567V	LAN on Vortex86DX
	Connector	RJ-45 x 2	RJ-45 x 1	RJ-45 x 1
	Disabled in BIOS	Yes	Yes	Yes
Memory	Technology	Onboard 1G DDR2 667 MHz (for PCI-7031N) Single Channel DDR2 667 MHz (for PCI-7031D)	Single-Channel DDR2 667 MHz (for PCA-6782N) Single-Channel DDR2 667/800 MHz (for PCA-6782D)	Default onboard DDR2 (for VE SKU) Default onboard DDR2 (for F SKU)
	Max. Capacity	1 GB (for PCI-7031N) 2 GB (for PCI-7031D)	2 GB	256 MB (for VE SKU) 512 MB (for F SKU)
	Socket	200-pin SODIMM x 1	200-pin SODIMM x 1	-
SATA	Max. Data Transfer Rate	300 MB/s	300 MB/s	150 MB/s
	Channel	3	3	1 (for F SKU)
	RAID	-	-	-
EIDE	Mode	ATA 100/66/33	ATA 100/66/33	UDMA 100
	Channel	1 (Max. 2 devices)	1 (Max. 2 devices)	1 (Max. 2 devices)
I/O Interface	USB	7	8	4
	Serial	2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow by COM module	2 X RS-232 Optional: 4x RS-422/485 w/Auto-flow by COM module	2 x RS-232/422/485 2 x RS-232 (F SKU)
	Parallel	1	1	1
	FDD	1	1	1
	PS/2	1	1	1
	LAN	2	1	1
	OBS (Onboard Security Hardware Monitor)	Yes	Yes	Yes
Watchdog Timer	Output	System reset	System reset	System reset/IRQ11
	Interval	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min	Programmable, 1~255 sec/min
Miscellaneous	Audio	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	-
	Advantech SNMP-1000	-	-	-
	IPMI	-	-	-
	Solid State Disk	CompactFlash Type I/II	CompactFlash Type I/II	CompactFlash Type I/II



Specifications		PCIe Half-Size SBC	PCI Half-Size SBC	PCI Half-Size SBC
		PCE-3026	PCI-7020	PCI-7030
Processor System	CPU	Intel Core i7/i5/i3/Pentium/Celeron LGA1155 processor	Intel Core 2 Duo/Pentium/Celeron 4xx/Pentium 4/Celeron D LGA775 processors	Intel Atom N270 processor onboard
	Speed	up to 3.4 GHz	up to 2.13 GHz	1.6 GHz
	L2 Cache	up to 8MB	Up to 4 MB	512 KB
	Chipset	H61	Intel 945GC + ICH7R	Intel 945GSE+Intel ICH7M
	BIOS	AMI 64 Mbit SPI Flash	Award 8 MB SPI Flash	Award SPI 8 MB SPI Fash
	FSB	N/A	533/800/1066 MHz	400/533 MHz
Bus	PCIe	One PCIe x16, Four PCIe x1	-	-
	PCI	-	32-bit/33 MHz PCI	32-bit/33 MHz PCI
	ISA	-	-	-
Graphics	Controller	Chipset integrated graphics with Intel HD	Chipset integrated Intel Graphics Media Accelerator 950	Chipset integrated
	VRAM	Shared with system memory is subject to OS	Shared with system memory up to 224 MB	Shared with system memory up to 224 MB
	Video output	D-sub VGA port, DVI	D-sub VGA port, DVI (Optional)	D-sub VGA port, 18/36 bit LVDS, DVI (G2 SKU)
Ethernet	Interface	10/100/1000Mps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	Intel 82579V Intel 82583V	Intel 82574L	Intel 82574L
	Connector	RJ-45*2	RJ-45 x 1	RJ-45 x 1 (VG SKU) RJ-45 x 2 (G2 SKU)
	Disabled in BIOS	Yes	Yes	D-Sub VGA port, 18/36 bit LVDS, DVI(G2 SKU)
Memory	Technology	Dual-Chnnel DDR3 1066/1333 MHz	Dual-channel DDR2 533/667 MHz	Single-Channel DDR2 400/533 MHz
	Max. Capacity	16 GB	4 GB	2 GB
	Socket	204-pin SO-DIMM x 2	200-pin SODIMM x 2	200-pin SODIMM x 1
SATA	Max. Data Transfer Rate	300 MB/s	300 MB/s	150 MB/s
	Channel	3	3	2
	RAID	-	-	-
EIDE	Mode	-	-	Ultra ATA 100/66/33
	Channel	-	-	1 (Max. 2 devices)
I/O Interface	USB	8	6	6 (VG SKU) or 5 (G2 SKU)
	Serial	2 x RS-232 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 or 4 x RS-232 by COM module	2 x RS-232 Optional: 4 x RS-422/485 w/Auto-flow or 4 x RS-232 by COM module
	Parallel	1	1	1
	FDD	-	-	1
	PS/2	1	1	1
	LAN	2	1	1 (VG SKU) 2 (G2 SKU)
	OBS (Onboard Security Hardware Monitor)	Yes	Yes	Yes
Watchdog Timer	Output	System reset	System reset	System reset
	Interval	programmable 1-255 sec/min	Programmable, 1~255 sec/min	1 min/sec or Max 65535 min/sec
Miscellaneous	Audio	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E	PCA-AUDIO-HDA1E
	Advantech SNMP-1000	-	-	-
	IPMI	-	-	-
	Solid State Disk	-	CompactFlash Type I/II	CompactFlash Type I/II

PICMG1.3 Full-Size SHB Backplanes

Server Grade: Compatible with PCE-7XXX Series CPU Boards

Yes: Supported/-: Not supported

Model Name	PCIe				PCI-X			PCI	Rackmount Chassis					
	x16	x8	x4	x1	64/66	64/100	64/133	32/33	ACP-1010	ACP-1320	ACP-2000EBP	IPC-602EBP	IPC-510	IPC-610
PCE-7B03V-01A1E	-	1	-	-	-	-	-	1	Yes	Yes	-	-	-	-
PCE-7B03V-00A1E	-	2	-	-	-	-	-	-	Yes	Yes	-	-	-	-
PCE-7B06V-04A1E	-	1	-	-	-	-	-	4	-	-	Yes	Yes	-	-
PCE-7B06V-30A1E	-	2	-	-	-	2	1	-	-	-	Yes	Yes	-	-
PCE-7B05-20A1E	-	2	-	-	-	-	2	-	-	-	-	-	-	-
PCE-7B06-04A1E	-	1	-	-	-	-	-	4	-	-	-	-	-	-
PCE-7B06-40A1E	-	1	-	-	-	4	-	-	-	-	-	-	-	-
PCE-7B08-04A1E	-	2	1	-	-	-	-	4	-	-	-	-	-	-
PCE-7B13-64B1E	-	2	-	-	4	2	-	4	-	-	-	-	-	Yes
PCE-7B13-07A1E	-	2	3	-	-	-	-	7	-	-	-	-	-	Yes
PCE-7B10-04A1E	-	-	5	-	-	-	-	4	-	-	-	-	-	Yes
PCE-7B13D-04A1E	-	1, 2	-	-	-	-	-	4	-	-	-	-	-	-
PCE-7B17-00A1E	-	5	12	-	-	-	-	-	-	-	-	-	-	-
PCE-7B19-88A1E	-	2	-	-	8	-	-	8	-	-	-	-	-	-
PCE-7B16Q-02A1E	-	1	-	-	-	-	-	2	-	-	-	-	-	-

Model Name	Rackmount Chassis											Wallmount/Desktop Chassis			
	IPC-611	IPC-630	ACP-4000	ACP-4010	ACP-4320	ACP-4360	IPC-623	ACP-5360	IPC-622	ACP-7360	IPC-6025	IPC-6606	IPC-6806	IPC-6608	IPC-6908
PCE-7B03V-01A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B03V-00A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B06V-04A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B06V-30A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B05-20A1E	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-
PCE-7B06-04A1E	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-7B06-40A1E	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-7B08-04A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
PCE-7B13-64B1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-7B13-07A1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-7B10-04A1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-7B13D-04A1E	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-
PCE-7B17-00A1E	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-
PCE-7B19-88A1E	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-	-
PCE-7B16Q-02A1E	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-	-

Desktop: Compatible with PCE-5000 Series CPU Boards

Yes: Supported/-: Not supported

Model Name	PCIe				PCI-X			PCI	Rackmount Chassis					
	x16	x8	x4	x1	64/66	64/100	64/133	32/33	ACP-1010	ACP-1320	ACP-2000	IPC-602	IPC-510	IPC-610
PCE-5B03V-01A1E	1	-	-	-	-	-	-	1	Yes	Yes	-	-	-	-
PCE-5B03V-00A1E	1	-	1	-	-	-	-	-	Yes	Yes	-	-	-	-
PCE-5B06V-04A1E	1	-	-	-	-	-	-	4	-	-	Yes	Yes	-	-
PCE-5B05V-30A1E	1	-	-	-	-	2	1	-	-	-	Yes	Yes	-	-
PCE-5B06V-00A1E	1	-	-	4	-	-	-	-	-	-	Yes	Yes	-	-
PCE-5B05-02A1E	1	-	1	-	-	-	-	2	-	-	-	-	-	-
PCE-5B05-04A1E	-	-	-	-	-	-	-	4	-	-	-	-	-	-
PCE-5B04-20A1E	1	-	-	-	-	-	2	-	-	-	-	-	-	-
PCE-5B06-04A1E	1	-	-	-	-	-	-	4	-	-	-	-	-	-
PCE-5B06-00A1E	1	-	-	4	-	-	-	-	-	-	-	-	-	-
PCE-5B06-40A1E	1	-	-	-	-	4	-	-	-	-	-	-	-	-
PCE-5B07-04A1E	1	-	1	-	-	-	-	4	-	-	-	-	-	-
PCE-5B08-02A1E	1	-	-	4	-	-	-	2	-	-	-	-	-	-
PCE-5B12-64B1E	1	-	-	-	4	2	-	4	-	-	-	-	-	Yes
PCE-5B12-07A1E	1	-	3	-	-	-	-	7	-	-	-	-	-	Yes
PCE-5B13-08A1E	1	-	-	3	-	-	-	8	-	-	-	-	-	Yes
PCE-5B10-04A1E	1	-	-	4	-	-	-	4	-	-	-	-	-	Yes
PCE-5B12D-04A1E	1	-	-	-	-	-	-	4	-	-	-	-	-	-
PCE-5B18-88A1E	1	-	-	-	8	-	-	8	-	-	-	-	-	-
PCE-5B16Q-02A1E	1	-	-	-	-	-	-	2	-	-	-	-	-	-
PCE-5B12-00A1E	10	-	1	-	-	-	-	-	-	-	-	-	-	-

Model Name	Rackmount Chassis										Wallmount/Desktop Chassis				
	IPC-611	IPC-630	ACP-4000	ACP-4010	ACP-4320	ACP-4360	IPC-623	ACP-5360	IPC-622	ACP-7360	IPC-6025	IPC-6606	IPC-6806	IPC-6608	IPC-6908
PCE-5B03V-01A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B03V-00A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B06V-04A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B05V-30A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B06V-00A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B05-02A1E	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-
PCE-5B05-04A1E	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-
PCE-5B04-20A1E	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-
PCE-5B06-04A1E	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-5B06-00A1E	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-5B06-40A1E	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-5B07-04A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
PCE-5B08-02A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
PCE-5B12-64B1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-5B12-07A1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-5B13-08A1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-5B10-04A1E	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
PCE-5B12D-04A1E	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-
PCE-5B18-88A1E	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-	-
PCE-5B16Q-02A1E	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-	-
PCE-5B12-00A1E	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-

PCI/ISA Backplanes

Yes: Supported/-: Not supported

Category	Model Name	Slot per segment					Segment	AT	ATX	1U Chassis		2U Chassis		4U Chassis	
		ISA	PCI	PICMG	PICMG/PCI	ISA/PCI				ACP-1010 2-slot	ACP-1320 2-slot	ACP-2000 6-slot	IPC-602 6-slot	ACP-4360 15-slot	ACP-4320 15-slot
1U Butterfly BP	PCA-6103P2V-0A2E*	-	2	1	-	-	1	-	Yes	Yes	Yes	-	-	-	-
2U Butterfly BP	PCA-6105P4V-0B3E*	-	4	1	-	-	1	-	Yes	-	-	Yes	Yes	-	-
	PCA-6106P3V-0B2E*	1	3	2	-	-	1	Yes	Yes	-	-	Yes	Yes	-	-
5 Slot BP	PCA-6105P3-5A1E	1	2	1	-	1	1	-	Yes	-	-	-	-	-	-
6/8 Slot BP	PCA-6106P4-0A2E	-	4	2	-	-	1	Yes	Yes	-	-	-	-	-	-
	PCA-6106P3-0D2E	2	2	1	1	-	1	Yes	Yes	-	-	-	-	-	-
	PCA-6106-0B2E	6	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-
	PCA-6108E-0C2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-
	PCA-6108P6-0B4E	1	5	1	1	-	1	Yes	Yes	-	-	-	-	-	-
	PCA-6108P4-0C2E	3	3	1	1	-	1	Yes	Yes	-	-	-	-	-	-
14/15 Slot BP	PCA-6108-0B2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-
	PCA-6114P12-0B3E	1	11	1	1	-	1	Yes	Yes	-	-	-	-	Yes	Yes
	PCA-6114P10-0B2E	2	10	2	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes
	PCA-6114P7-0D3E	4	6	3	-	1	1	Yes	Yes	-	-	-	-	Yes	Yes
	PCA-6114P4-0C2E	8	4	2	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes
	PCA-6113P4R-0C2E	7	4	2	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes
	PCA-6114-0B2E	14	-	-	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes
20 Slot BP	PCA-6115-0B2E	15	-	-	-	-	1	Yes	Yes	-	-	-	-	Yes	Yes
	PCA-6113DP4-0A2E	1	3,4	1,2	1,0	-	2	Yes	Yes	-	-	-	-	-	-
	PCA-6119P17-0B2E	-	16	1	1	-	1	Yes	optional	-	-	-	-	-	-
	PCA-6120P18-0A2E	1	17	1	1	-	1	Yes	optional	-	-	-	-	-	-
	PCA-6116QP2-0B2E	1,0	2	1,2	-	-	4	Yes	optional	-	-	-	-	-	-
	PCA-6120P4-0B2E	14	4	2	-	-	1	Yes	optional	-	-	-	-	-	-
	PCA-6120P12-0A2E	7	11	1	1	-	1	Yes	optional	-	-	-	-	-	-
	PCA-6119P7-0B3E	10	7	2	-	-	1	Yes	optional	-	-	-	-	-	-
PCA-6120DP4-0B2E	3,4	3	2	1	-	2	Yes	optional	-	-	-	-	-	-	
PCA-6120Q-0B2E	5	-	-	-	-	4	Yes	optional	-	-	-	-	-	-	

Category	Model Name	4U Chassis						5U Chassis	6U Chassis	7U Chassis	Wallmount/Desktop Chassis						Cage
		ACP-4010	ACP-4000	IPC-630	IPC-610	IPC-611	IPC-623	ACP-5360	IPC-622	ACP-7360	8-slot	8-slot	6-slot	6-slot	5-slot	6-slot	
		15-slot	15-slot	15-slot	15-slot	15-slot	20-slot	20-slot	20-slot	20-slot	IPC-6908	IPC-6608	IPC-6606	IPC-6806	IPC-6025	IPC-6006	
1U Butterfly BP	PCA-6103P2V-0A2E*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2U Butterfly BP	PCA-6105P4V-0B3E*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PCA-6106P3V-0B2E*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5 Slot BP	PCA-6105P3-5A1E	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	
6/8 Slot BP	PCA-6106P4-0A2E	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes	
	PCA-6106P3-0D2E	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes	
	PCA-6106-0B2E	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes	
	PCA-6108E-0C2E	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	
	PCA-6108P6-0B4E	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	
	PCA-6108P4-0C2E	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	
14/15 Slot BP	PCA-6108-0B2E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PCA-6114P12-0B3E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
	PCA-6114P10-0B2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
	PCA-6114P7-0D3E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
	PCA-6114P4-0C2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
	PCA-6113P4R-0C2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
	PCA-6114-0B2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
20 Slot BP	PCA-6115-0B2E	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	
	PCA-6113DP4-0A2E	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	PCA-6119P17-0B2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	
	PCA-6120P18-0A2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	
	PCA-6116QP2-0B2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	
	PCA-6120P4-0B2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	
	PCA-6120P12-0A2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	
PCA-6119P7-0B3E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-		
PCA-6120DP4-0B2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-		
PCA-6120Q-0B2E	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-		

Remarks:

- * : only sold with Advantech's 1U/2U chassis
- IPC-622, IPC-623, ACP-7360 provides four reset buttons for quad-system. For more information regarding chassis, please refer to Page 20-23

Backplanes Compatible with Half-Size SBCs

Yes : Supported / - : Not supported

Category	Model Name	Slots per segment						Segment
		ISA	PCI	PCIe x16	PCIe x4	PCIe x1	PICMG	
Pure ISA Backplane	PCA-6104-0C2E	3	-	-	-	-	1	1
	PCA-6106-0B2E	5	-	-	-	-	1	1
	PCA-6108-0B2E	7	-	-	-	-	1	1
	PCA-6108E-0C2E	7	-	-	-	-	1	1
Pure PCI Backplane	PCA-6104P4-0B2E	-	3	-	-	-	1	1
	PCA-6105P5-0B2E	-	4	-	-	-	1	1
	PCA-6108P8-0A2E	-	7	-	-	-	1	1
	PCA-6110P10-0A1E *	-	9	-	-	-	1	1
PCI/ISA Backplane	PCI-7110P3S6-00A1E	6	3	-	-	-	1	1
PICMG1.3 Half-Size Backplanes	PCE-3B03-00A1E	-	-	1	1	-	1	1
	PCE-3B06-00A1E	-	-	1	-	4	1	1
	PCE-3B06-03A1E	-	3	1	-	1	1	1

Category	Model Name	AT	ATX	IPC-619S	IPC-6908	IPC-6608	IPC-6606	IPC-6806S*	IPC-6006S	IPC-3026
				Rackmount	Wallmount	Wallmount	Wallmount	Wallmount	Wallmount	Wallmount
				10-slot	8-slot	8-slot	6-slot	6-slot	6-slot	6-slot
Pure ISA Backplane	PCA-6104-0C2E	Yes	Yes	-	-	-	-	-	-	-
	PCA-6106-0B2E	Yes	Yes	-	-	-	Yes	Yes	Yes	Yes
	PCA-6108-0B2E	Yes	Yes	-	-	-	-	-	-	-
Pure PCI Backplane	PCA-6108E-0C2E	Yes	Yes	-	Yes	Yes	-	-	-	-
	PCA-6104P4-0B2E	Yes	Yes	-	-	-	-	-	-	-
	PCA-6105P5-0B2E	Yes	Yes	-	-	-	Yes	Yes	Yes	Yes
	PCA-6108P8-0A2E	Yes	Yes	-	Yes	Yes	-	-	-	-
PCI/ISA Backplane	PCA-6110P10-0A1E*	-	Yes	-	-	-	-	-	-	-
Half-Size Backplanes	PCI-7110P3S6-00A1E	-	Yes	Yes	-	-	-	-	-	-
	PCE-3B03-00A1E	-	Yes	-	-	-	-	-	Yes	Yes
	PCE-3B06-00A1E	-	Yes	-	-	-	-	-	Yes	Yes
	PCE-3B06-03A1E	-	Yes	-	-	-	-	-	Yes	Yes

* Not suitable for Advantech Chassis

ATX Motherboards

NEW



Model Name		AIMB-701	AIMB-766	AIMB-767
Processor System	CPU	Core i7 3xxx/2xxx / Core i5 3xxx/2xxx Core i3 3xxx/2xxx / Pentium G8xx	Intel Core 2 Quad/Core 2 Duo/Pentium dual-core/Celeron	Intel Core 2 Quad/Core 2 Duo/Pentium dual-core/Celeron
	Socket	LGA1155	LGA775	LGA775
	Max. Speed	3.4 GHz/ 3.4/3.3 GHz/ 3.4 GHz/ 3.0 GHz	3.0 GHz/ 3 GHz/ 2.6 GHz/ 2.2 GHz	3.0 GHz/ 3.16 GHz/ 2.93 GHz/ 2.2 GHz
	Front Side Bus	-	1333/1066/800 MHz	1333/1066/800 MHz
	Cache	8 MB/ 6 MB/ 3 MB/ 3 MB	L2: 6 MB/ 6 MB/ 2 MB/ 512 KB	L2: 12 MB/ 6 MB/ 8 MB/ 512 KB
	Chipset	H61	Intel Q35 + ICH9 D0	Intel G41 + ICH7R
	BIOS	AMI 64 Mbit SPI	AMI 32 Mbit, SPI	AMI 32 Mbit, SPI
Expansion Slot	PCI	5	4	5
	PCIe x16	1	1	1
	PCIe x1	1(G2 version)	2	-
	PCIe x4	1(VG version)	-	1
Memory	Technology	Dual Channel DDR3 1066/1333/1600	Dual Channel DDR2 667/ 800 MHz	Dual channel DDR3 800/1066 MHz
	Max. Capacity	16 GB	8 GB	8 GB
	Socket	2 x 240-pin DIMM	4 x 240-pin DIMM	2 x 240-pin DIMM
Graphics	Controller	Intel HD Graphics	Intel GMA 3100	Intel GMA X4500
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed	Shared system memory up to 384 MB	Shared system memory up to 352 MB
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	GbE LAN1: Intel 82579V GbE LAN2: Intel 82583V	GbE LAN1: 82566DM GbE LAN2: 82573L	Dual Intel 82583V
SATA	Max. Data Transfer Rate	300 MB/s	300 MB/s	300 MB/s
	Channel	4	6 (SW RAID)	4 (SW RAID)
EIDE	Mode	-	ATA 100/66/33	-
	Channel	-	1	-
I/O Interface	VGA	1	1	1
	DVI	1(G2 version)	-	1
	USB	10	12	8
	Serial	2 (VG version)/6 (G2 version)	4	4
	Parallel	1	1	1
	FDD	-	1	1
	PS/2	2 (1 x keyboard and 1 x mouse)	2 (1 x keyboard and 1 x mouse)	2 (1 x keyboard and 1 x mouse)
	Ethernet (GbE)	2 for G2 version; 1 for VG version	2	2
	Audio	2 (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/min	Programmable, 1 ~ 255 sec/min	Programmable, 1 ~ 255 sec/min

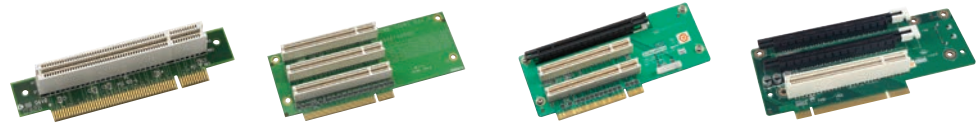


NEW



AIMB-769	AIMB-781	AIMB-782	AIMB-784
Intel Core 2 Quad/Core 2 Duo/ Pentium dual-core/Celeron	2nd Gen Intel Core i7/i5/i3/ Pentium	2nd/3rd Gen Intel Core i7/i5/i3/Pentium	4th Gen Intel Core i7/i5/i3
LGA775	LGA1155	LGA1155	LGA1150
3.0 GHz/3.16 GHz/ 2.93 GHz/2.2 GHz	3.4 GHz/3.1 GHz/3.3 GHz/2.9 GHz	3.4 GHz/3.0 GHz/3.3 GHz/3.1 GHz	3.1 GHz/ 2.9 GHz
1333/1066/800 MHz	-	-	-
L2: 12 MB/6 MB/8 MB/512 KB	L3: 8 MB/6 MB/3 MB/3 MB	L3: 8 MB/6 MB/3 MB/3 MB	L3: 8 MB/6 MB
Intel G41 + ICH7	Q67 for QG2 version; B65 for QVG version	Q77	Q87
AMI 16 Mbit, SPI	AMI 64 Mbit SPI	AMI 64 Mbit SPI	AMI 128 Mbit SPI
1	1 (Gen2)	1 (Gen3)	1 (Gen3)
-	1 (Gen2)	1 (Gen2)	1 (Gen2)
1	1 (Gen2)	1 (Gen2)	1 (Gen2)
5	4	4	4
Dual channel DDR3 800/1066 MHz	Dual Channel DDR3 1066/1333	Dual Channel DDR3 1066/1333/1600	Dual Channel DDR3 1333/1600
8 GB	32 GB	32 GB	32 GB
2 x 240-pin DIMM	4 x 240-pin DIMM	4 x 240-pin DIMM	4 x 240-pin DIMM
Intel GMA X4500	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics
Shared system memory up to 352 MB	Shared system memory up to 1 GB	Shared system memory up to 1 GB	Shared system memory up to 1 GB
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
GbE LAN: Realtek RTL8111DL	GbE LAN1: Intel 82579LM, GbE LAN2: Intel 82583V	GbE LAN1: Intel 82579LM, GbE LAN2: Intel 82583V	GbE LAN1: Intel I217LM, GbE LAN2: Intel I211AT
300 MB/s	600 MB/s; 300 MB/s	600 MB/s; 300 MB/s	600 MB/s
4	6 (SW RAID for QG2 version)	6 (SW RAID)	6 (SW RAID)
-	-	-	-
-	-	-	-
1	1	1	1
-	1 for QG2 version	1	2
8	14 for QG2 version; 12 for QVG version	14 (4 USB 3.0 and 10 USB 2.0)	13 (4 USB 3.0 and 9 USB 2.0)
2	6 for QG2 version	6	6
-	1	1	1
1	-	-	-
2 (1 x keyboard and 1 x mouse)	2 (1 x keyboard and 1 x mouse)	2 (1 x keyboard and 1 x mouse)	2 (1 x keyboard and 1 x mouse)
1	2	2	2
Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
System reset	System reset	System reset	System reset
Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec

Riser Cards



Selection Guide

Model Name		AIMB-RP10P-01A1E	AIMB-RP30P-03A1E	AIMB-RP3PF-21A1E	AIMB-RP3P8-12A1E
Interface		PCI	PCI	PCIe x16/PCI	PCIe x16/PCI
Expansion Slots		1 PCI	3 PCI	1 PCIe x16 + 2 PCI	2 PCIe x8 + 1 PCI
Chassis	1U	Yes	-	-	-
	2U	-	Yes	Yes	Yes
MicroATX	AIMB-780	Yes	Yes	Yes	Yes (WG2 Only)*
	AIMB-767	Yes	Yes	Yes	-
	AIMB-766	Yes	Yes	Yes	-
	AIMB-763	-	-	Yes	-
MicroATX	AIMB-582	Yes	Yes	Yes	Yes (WG2 Only)*
	AIMB-581	Yes	Yes	Yes	Yes (WG2 Only)*
	AIMB-580	Yes	Yes	Yes	Yes (WG2 Only)*
	AIMB-567	Yes	Yes	Yes	-
	AIMB-566	Yes	Yes	-	-
	AIMB-564	-	-	Yes	-
	AIMB-562	-	-	Yes	-
AIMB-501 KIOSK	Yes	Yes	Yes	-	

*Note: AIMB-RP3P8-12A1E is not compatible with ACP-2010MB/2320MB chassis unless change special bracket to special bracket 1950014302N001 for riser card AIMB-RP3P8-12A1E



Selection Guide

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	Yes	-	-	-	-
	2U	-	Yes	Yes	Yes	Yes
ATX	AIMB-782	-	Yes	-	-	Yes
	AIMB-781	Yes	Yes	Yes	Yes	Yes
	AIMB-769	Yes	Yes	△	-	-
	AIMB-764	Yes	Yes	Yes	Yes	Yes
	AIMB-762	Yes	Yes	△	△	Yes
MicroATX	AIMB-562 KIOSK	-	Yes	-	-	-
	AIMB-556	Yes	Yes	Yes	Yes	Yes
	AIMB-554	Yes	Yes	△	-	Yes

Yes : Fully compatible

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

Power Supplies

Redundant Power Supplies



Model Name	RPS-300ATX-ZE	RPS-400ATX-ZE	1757001757 1757001760	1757001758 1757001761	1757001759 1757001677
Wattage	300 W	400 W	460 W	570 W 2+1	810 W 3+1
Input Range	100 ~ 240 VAC 60 ~ 50 Hz 6 ~ 3 A	100 ~ 240 VAC 47 ~ 63 Hz 8 ~ 4 A	100 ~ 240 VAC 47 ~ 63 Hz 8 ~ 4 A	115 ~ 230 VAC 60 ~ 50 Hz 12 ~ 6 A	115 ~ 230 VAC 60 ~ 50 Hz 15 ~ 7.5 A
Outputs	+5 V @ 25 A (3 A min) +3.3 V @ 18 A (1 A min) +12 V @ 16 A (2 A min) -12 V @ 0.5 A, -5 V @ 0.5 A +5 Vsb @ 2 A	+5 V @ 35 A (3 A min) +3.3 V @ 25 A (1 A min) +12 V @ 28 A (2 A min) -12 V @ 1.2 A, -5 V @ 0.5 A +5 Vsb @ 2 A	+5 V @ 40 A (5 A min) +3.3 V @ 30 A (1 A min) +12 V @ 32 A (2.5 A min) -12 V @ 1 A, -5 V @ 0.8 A +5 Vsb @ 2 A	+5 V @ 50 A (6 A min) +3.3 V @ 40 A (2 A min) +12 V @ 34 A (3 A min) -12 V @ 1 A, -5 V @ 1 A +5 Vsb @ 1.2 A	+5 V @ 75 A (9 A min) +3.3 V @ 60 A (3 A min) +12 V @ 51 A (4.5 A min) -12 V @ 1.5 A, -5 V @ 1.5 A +5 Vsb @ 1.6 A
MTBF (hrs)	100,000 @ 25C	100,000 @ 25C	100,000 @ 25C	100,000 @ 25C	100,000 @ 25C
Dimensions (H x W x D)	86 x 150 x 185 mm (3.39" x 5.91" x 7.28")	86 x 150 x 185 mm (3.39" x 5.91" x 7.28")	1757001757: 106 x 354 x 185.8 mm (4.17" x 13.94" x 7.31") 1757001760: 183 x 167 x 187.8 mm (7.20" x 6.57" x 7.39")	1757001758: 95 x 356 x 230 mm (3.74" x 14.02" x 9.06") 1757001761: 200.6 x 164 x 230 mm (7.90" x 6.46" x 9.06")	1757001758: 95 x 356 x 230 mm (3.74" x 14.02" x 9.06") 1757001677: 200.6 x 164 x 230 mm (7.90" x 6.46" x 9.06")
Safety	UL, TUV, CB, CCC	UL, TUV, CB, CCC	UL, TUV, CB, CCC	UL, TUV, CB, CCC	UL, TUV, CB, CCC
Compatible Chassis	ACP-2000, ACP-4000, ACP-4010, ACP-4320, IPC-610, IPC-611, IPC-6908, IPC-7220, IPC-7143	ACP-4000, ACP-4010, ACP-4320, ACP-4360, IPC-610, IPC-611, IPC-6908, IPC-7220, IPC-7143	1757001757: ACP-7360, IPC-622 1757001760: ACP-5360, IPC-623	1757001758: ACP-7360 1757001761: ACP-5360, IPC-623	1757001759: ACP-7360 1757001677: ACP-5360, IPC-623
Single Power Module P/N	1757930060G	1757000227G	1757946008G: ACP-7360, IPC-622 1757000228G: ACP-5360, IPC-623	1757930057G: ACP-7360 1757000126G: ACP-5360, IPC-623	1757930057G: ACP-7360 1757000126G: ACP-5360, IPC-623

80 Plus Bronze Power Supply



Model Name	PS8-300ATX-ZBE	PS8-400ATX-ZE	PS8-500ATX-ZE	PS8-700ATX-ZE
Wattage	300 W	400 W	500 W	700 W
Input Range	100 ~ 240 VAC 47 ~ 63 Hz 8 ~ 4 A	100 ~ 240 VAC 60 ~ 50 Hz 8 ~ 4 A	100 ~ 240 VAC 60 ~ 50 Hz 8 ~ 4 A	100 ~ 240 VAC 60 ~ 50 Hz 12 ~ 6 A
Outputs	+3.3 V @ 16 A (0 A min) +5 V @ 19 A (0.5 A min) +12 V @ 11 A (0.1 A min) +12 Vcpu @ 11.5 A (0.1 A min) -12 V @ 0.3 A -5 V @ 0.3 A +5 Vsb @ 2 A	+3.3 V @ 21 A (0.1 A min) +5 V @ 20 A (0.2 A min) +12 V1 @ 16 A (0.1 A min) +12 V2 @ 16 A (0.5 A min) -12 V @ 0.5 A -5 V @ 0.3 A +5 Vsb @ 3 A	+3.3 V @ 24 A (0.1 A min) +5 V @ 20 A (0.2 A min) +12 V1 @ 16 A (0.1 A min) +12 V2 @ 16 A (0.5 A min) -12 V @ 0.5 A -5 V @ 0.3 A +5 Vsb @ 3 A	+3.3 V @ 24 A (1.5 A min) +5 V @ 30 A (1 A min) +12 V1 @ 16 A (1 A min) +12 V2 @ 16 A (1 A min) 12 V3 @ 16 A (1 A min) 12 V4 @ 16 A (0.5 A min) -12 V @ 0.5 A -5 V @ 0.5 A +5 Vsb @ 4 A
MTBF (hrs)	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C	100,000 @ 25° C
Dimensions (H x W x D)	86 x 150 x 140 mm (3.39" x 5.91" x 5.51")	86 x 150 x 140 mm (3.39" x 5.91" x 5.51")	86 x 150 x 140 mm (3.39" x 5.91" x 5.51")	86 x 150 x 140 mm (3.39" x 5.91" x 5.51")
Safety	UL, TUV, CB, CCC	UL, TUV, CB, CCC	UL, TUV, CB, CCC	UL, TUV, CB, CCC
Compatible Chassis	IPC-602, IPC-510, IPC-610, IPC-611, IPC-619(S) ACP-2000, ACP-4000, ACP-4010, ACP-4320, ACP-4360 IPC-6606, IPC-6608, IPC-5122 IPC-7130, IPC-7132	IPC-602, IPC-510, IPC-610, IPC-611, IPC-619(S) ACP-2000, ACP-4000, ACP-4010, ACP-4320, ACP-4360 IPC-6606, IPC-6608, IPC-5122 IPC-7130, IPC-7132	IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, ACP-4360	IPC-610, IPC-611, ACP-4000, ACP-4010, ACP-4320, ACP-4360

Regional Service & Customization Centers

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Indonesia	
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