ADVANTECH

Trusted ePlatform Services

Mission
Visionary Computing Empowers
eWorld Innovations

Growth Model
Segmented Business Units
Powered by a Global Trusted Brand

Focus & Goal
The Global Leader of ePlatform
Services for eWorld Solution Integrators

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Dusseldorf (eAutomation) — 49-211-97477-0
Amberg (Design Center) — 49-9621-9732-100

France
Paris (ePlatform) — 33-1-41-19-46-66
Grenoble (eAutomation) — 33-4-76-70-47-00

Italy
Arezzo (ePlatform) — 39-0575-98661
Milano (eAutomation) — 39-02-9544-961

Netherlands
Breda (ePlatform) — 31-76-523-1270
Roosendaal (eAutomation) — 31-165-550-505

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Berkshire — 44-1344-989500

Czech
Brno (Design Center) — 420-543-213-396

Poland
Warsaw (Service Center) — 48-22-33-23-730

Russia
Moscow — 8-800-555-01-50 / 7-495-232-1692

Americas

North America
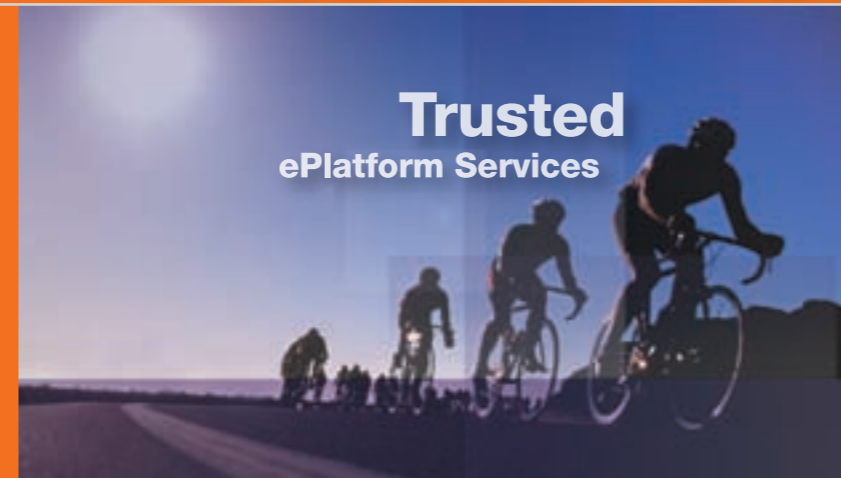ePlatform — 1-888-576-9668
eAutomation — 1-800-205-7940

Cincinnati, OH (Industrial Automation) — 1-800-800-6889 / 1-513-742-8895
Irvine, CA (Embedded & Industrial Computing) — 1-800-866-6008 / 1-800-557-6813 / 1-949-789-7178
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Product Selection Guide 2008 - 2009

Product Selection Guide

Trusted
ePlatform Services

- ■ **Embedded & Industrial Computing**
- ■ **Communications & Networking**
- ■ **Applied Computing**
- ■ **Medical Computing**
- ■ **eServices Solutions**
- ■ **eAutomation Solutions**

25th Anniversary
ADVANTECH

Trusted ePlatform Services

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About Advantech

Trusted ePlatform Services

Founded in 1983, Advantech is a leader in providing innovative ePlatform products and services. Advantech offers comprehensive system integration, hardware, software, customer-centric design services and global logistics support, as well as industry-leading front and back office e-business infrastructure solutions. Advantech cooperates closely with solution partners to help provide complete solutions for a wide array of applications in diverse industries and everyday life. Advantech's mission is to empower these innovations by offering trustworthy ePlatform products and services. Advantech has always been an innovator in the development and manufacturing of high-quality, high-performance computing platforms. With Advantech, there are no limits to the applications its products can make possible.

Advantech's Good to Great 3-Circle Principle

The Advantech 3-Circle Principle is based on the book *Good to Great* by Jim Collins. According to the author, a company looking for long-term success should clearly address these three fundamental principles, while committing to long-term solid execution of them. Advantech is fully convinced by this philosophy and has defined "Advantech's Good to Great 3-Circle Principle" as a means of adhering to it.

Mission
Visionary Computing Empowers eWorld Innovations

Growth Model
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Focus & Goal
The Global Leader of ePlatform Services for eWorld Solution Integrators

Advantech's Good to Great 3-Circle Principle

World-Class Recognition

Advantech is an authorized alliance partner with both Intel® and Microsoft®. Our customers will find the technologies we use inside our products to be widely compatible with other products in the global marketplace. In 2004, Interbrand, the world renowned brand consulting firm, recognized Advantech as one of the Top 10 Taiwanese Global Brands. To Advantech, this was a milestone that supported our efforts to build a trusted, global brand; it also symbolized a promise we gave to our business partners, which was to do our best to keep building a trustworthy brand that is recognized everywhere in the world.

Market & Product Coverage

Business Groups	Solution Sectors	Product Lines
Embedded ePlatform Organization	• General Embedded Computing • General Industrial Computers • Gaming • Telecommunication • Network Security	• Computer On Modules • Embedded Single Board Computers • Industrial Motherboards • Slot Single Board Computers • Compact Embedded Computers • Industrial Computer Chassis & System • Embedded Software • Network Application Platforms • Blade Computing Platforms
eServices & Applied Computing Group	• Medical Solutions • Self-service and Retail Intelligence • Vehicle & Fleet Management • Real Estate Intelligence	• Medical Computing • Panel PCs • Display Solutions • Self-service System Modules • Digital Signage • Digital Video Surveillance • Vehicle Mounted Computers • Portable Computers • M2M Modules • UbiQ Scenario Controller
Industrial Automation Group	• Machine Automation • Power Management • Intelligent Transportation • Building Automation • Factory Automation • Environmental and Facility Management	• Human Machine Interface • Embedded Automation Computers • Industrial Communication • Data Acquisition & Control • Programmable Automation Controller & Software • Remote I/O Modules • Building Automation Systems

Timely Support at Your Convenience

Advantech has over 15 regional toll-free hotlines and offices throughout 36 cities in 18 countries, with more than 3,400 employees to efficiently provide professional services for customer care, product selection, technical support, and order handling. Through our call centers and online stores, customers worldwide can now enjoy the convenience of Advantech's multi-service channels to reduce business turnaround time. Together with the four customer service centers in Taiwan, China, the Netherlands, and the United States, our global service network offers an extensive spectrum of services that includes warehousing, logistics, peripheral certification, sourcing & purchasing, and RMA & support services.

Model Corporate Citizen

Advantech is committed to being a model corporate citizen by helping to preserve the environment and by giving back to society. Our environmental program focuses on reducing, reusing, and recycling materials used in our manufacturing operations. Advantech's environmental compliance effort includes:

❖ ISO14001 Certification
❖ OHSAS18001 Certification
❖ RoHS Directive Compliance
❖ WEEE Directive Compliance
❖ Authorized SONY Green Partner

Advantech in Brief

Advantech Co., Ltd. (TAIEX: 2395) – Founded in 1983, Advantech is a global leading ePlatform services provider of web-based technology, computing platforms and customization services to empower innovations in the connected eWorld. Advantech cooperates closely with solution partners to help provide complete solutions for a wide array of applications in diverse industries. Advantech delivers more than a thousand products and solutions in 3 business Categories Embedded ePlatform Organization, eServices & Applied Computing and Industrial Automation. With more than 3,400 talented people, Advantech operates an extensive support, sales and marketing network in 18 countries and 36 major cities to deliver fast time-to-market services to our worldwide customers. (Corporate Website: www.advantech.com).

Global Services

Advantech Global Services

Advantech Global Services is a comprehensive service model that integrates the three main elements of Advantech's customer initiation process, from the product design phase, to manufacturing and after-sales support. In order to create the maximum value for our customers, we will focus on vertical market applications, to broaden our domain know-how to create outstanding solutions to satisfy customer demands. With an existing network of local operations, Advantech has gathered all of our strength to offer an integrated Global Services model for our premium customers.

Configure To Order Services

Build Your Own System with a Few Simple Clicks
Advantech CTOS is an eBusiness services consisting of web-based configuration tools, manufacturing services and Advantech global services for the ultimate in system configuration solutions.

Design To Order Services

A Comprehensive Customization Service to Meet Your Requirements
Advantech DTOS includes a full range of customization services, and is a one-stop solution for customizing boards and system platforms.

Global Manufacturing Services

Designing the right product is only half of the job. Advantech's well-established manufacturing facilities and quality assurance systems transform your ideas into reality.
- Manufacturing Capability
- Quality Management
- Quality Assurance System
- Environmental Policy

Global Support

To complete the package, Advantech offers one integrated solution for global back-end support. This global support model offers:
- Custom Assembly & System Integration
- Global Logistics
- Global Peripheral Procurement
- Customer Support

AASC:
Advantech America
Service Center

AESC:
Advantech Europe
Service Center

ACSC:
Advantech China
Service Center

ATSC:
Advantech Taiwan
Service Center

APSC:
Advantech Poland
Service Center

AdvantechCare Service Packages
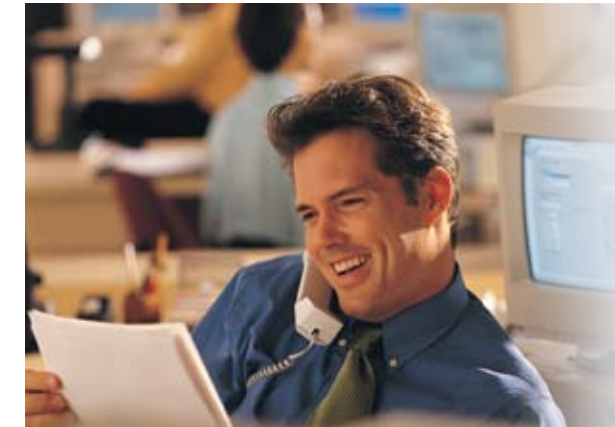
We understand how much you care about your hardware investment.

Whether it's an issue with efficiency, budget control, or after-sales support, AdvantechCare Service is here to help!

Extended Warranty Service

Advantech's extended warranty can be purchased along with your product order or within 90 days of your purchase. Advantech provides 3 to 6-month, and 1 to 3-years extended warranty service to help customers manage their maintenance budget in advance. Please contact your local distributor or sales representative if you wish to purchase extended warranty after 90 days of your product purchase.

Advantech's Onsite Service

Advantech provides the option to call for service when needed, or to get a 1, 2, or 3- year coverage plan with a much better service rate. We will arrange for an engineer to bring repair parts the next day, and check the defective unit onsite at the customer's appointed place.

Pickup Service

From now on there is no need to deal with deliveries for products that need repair. Advantech's new Pickup Service will help you to sort it all out. Advantech provides a one-time, or a 1 to 3-year next-day Pickup Service.
Customers can simply call the Advantech Repair Center to arrange a pickup of the defective unit, which also reduces the risk of damage during transportation.

Fast Repair Service

After receiving the defective unit, the product is guaranteed a repair turnaround time between 24 and 48 hours, allowing you to resume normal operations in the shortest possible time, and minimizing system downtime.

Advanced Replacement Service

Advantech provides 1 to 3-year next-day Advanced Replacement Service. It's a fast and easy replacement service that provides a cost effective alternative to Advantech's Onsite service.

Data Security Service

No longer worry about confidential company data being compromised when returning a defective hard disk for repair! Advantech provides a 1 to 3-year Data Security Service where you maintain total control over your confidential HDD data. You keep any defective HDD during the replacement process.

Upgrade Service

Good News! Advantech now provides an Upgrade Service which allows you to upgrade old hardware without paying the full price for new replacements. The hardware upgrade specifications will be evaluated, and compatibility and stability will be tested.

Embedded, Industrial & Network Computing

Embedded ePlatform

Comprehensive and High-performance Computing

Advantech Embedded ePlatform Group is committed to providing a full line-up of products that extend from board-level solutions and semi-customized modules, to fully customized solutions and compact embedded computers. We deploy cutting-edge technology in industrial grade computing platforms to satisfy all mission critical embedded and industrial applications. We offer complete solutions featuring next-generation high performance/scalable/low power platforms with Dual and Quad-Core processing, PCI Express technology, dual channel DDR2 memory and enhanced system management mechanisms.

Computer On Modules

Advantech's SOM products permit embedded integrators to focus on application solutions that save up to 80% on regular development time and costs. Scalable product lines are available: high performance SOM-Express, high integration SOM-ETX/SOM-XTX, compact SOM-144 and RISC-based COM.

Embedded Single Board Computers

Advantech offers a complete selection of standard PC/104-stackable SBC's as well as 3.5" and 5.25" SBC's. All these form factors are designed to ensure compatibility, easy expansion, plus the ability to operate in the most demanding environments.

Industrial Motherboards

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

Slot Single Board Computers

Advantech's slot CPU card family delivers a variety of solutions for embedded applications. Half-sized CPU cards with standard ISA, PCI or PCI-Express edge connectors and full-sized CPU cards provide a full range of features to meet customers' needs and demands.

Compact Embedded Computers

Advantech's Compact Embedded Computers are intended to give developers quick, convenient and simplified solutions for their industrial and embedded applications. From ultra-compact, all-in-one solutions to full-size MiniATX CPU systems, Compact Embedded Computers supply developers with the best selection of high performance computing platforms.

Industrial Computer Chassis

Advantech offers a complete selection of industrial computer chassis from 1U to 7U rackmount and wall-mountable solutions, designed to support ATX, MicroATX or Mini-ITX motherboards, and single board computers. Chassis features range from redundant power supply, hot-swappable accessories, storage and cooling options, or remote system monitoring.

Pre-Configured Systems

Advantech Pre-configured systems are industrial computer platforms that are put together from a wide selection of Advantech motherboards, SBC's and chassis to create a total system solution. They are integrated with strictly selected components and undergo rigorous testing, so Advantech can deliver quality pre-configured systems with guaranteed compatibility and reliability.

Flight Information Display System at Shanghai Airport

Introduction

Since its opening in 1999, Shanghai Pudong International Airport has seen massive increases in air traffic; it handled over 17 million international passengers in 2006. To manage heavy, and ever-increasing, passenger traffic the airport needed a reliable, low-maintenance Flight Information Display System (FIDS). This comprehensive system helps passengers by serving information from a constantly updating database to multiple screens that are strategically placed around the airport. It can supply timely information on flight arrivals and departures, gate assignments, waiting halls, baggage area assignments, even destination weather forecasts. The FIDS database, input terminals, and display monitors are all connected via a TCP/IP compliant LAN for real time display.

Solution

Advantech, along with Shanghai systems integrator Fujitsu Frontech, quickly formed a team to work out a tender bid based on Advantech's ARK-5280 compact embedded computer. Management at Pudong International liked ARK-5280's strong feature set and expandability. ARK-5280 receives information from the airport's central FIDS server on flight schedules, luggage claim locations, weather reports, and other public information. Depending on the location, the embedded computer displays information on a 16:9 or a 4:3 monitor, in either vertical or horizontal orientation. Because of its compact and integrated design, the ARK-5280 is easily installed behind each LCD display without concern for exposed cables and wires. ARK-5280's fanless and low power consumption design ensures highest reliability, keeping passengers always updated on their flight information. And in case of possible power outage, the built-in Ethernet chipset supports remote reboot as soon as the power comes back on. ARK-5280's power switch and system indicator lights are also designed to make maintenance super easy.

System

Advantech's ARK-5280 is a high performance, fanless, compact embedded computer, expandable by half-size single board computers. Its onboard Intel® 82551 Ethernet chipset comes with robust network ability, and supports Preboot Execution Environment (PXE) for remote reboot. ARK-5280 can also operate over a power range from 9VDC to 32VDC. The embedded system is equipped with mounting brackets to complement its compact design: 137 x 189 x 221 mm (W x H x D), which makes ARK-5280 easily mounted just about anywhere. The dual independent VGA/SVGA/DVI displays, and anti-vibration features (cushioned HDD bay, rubber expansion card holder), plus a rich selection of I/O's (four USB 2.0 ports, four serial ports, two PCI slots), and support for up to 2 GB RAM, all make ARK-5280 a suitable solution for many embedded applications.
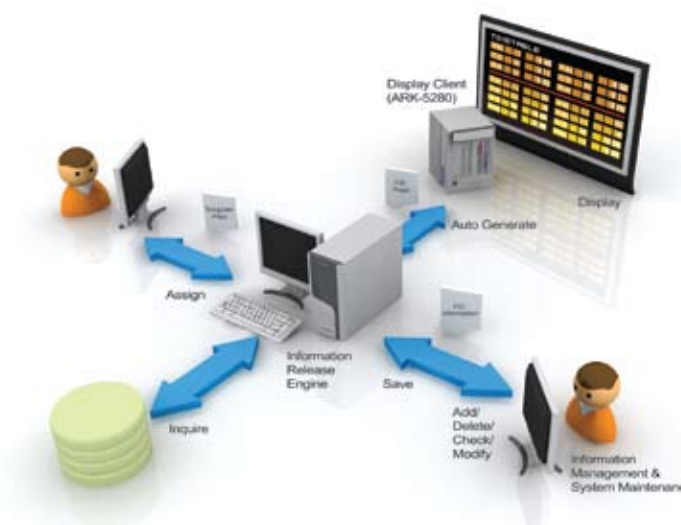
Benefits

◆ Flexible solution with customer's choice of PCI expansion boards
◆ Fanless and low power consumption for high system reliability
◆ Integrated, sealed chassis - no exposed cables
◆ Compact body design for easy installation
◆ Anti-vibration and shock resistance for operation under harsh conditions
◆ Worldwide service centers and support provide customers with maximum value

Smooth Integration for SMT Machine

Introduction

Prodrive, a system integrator based in the Netherlands, specializes in delivering high-quality solutions in electronics design, and manufacturing for OEMs and ODMs operating in industrial markets. In 2006 Prodrive were contacted by an industrial machine manufacturing customer who needed a multiple control solution for their SMT (Surface Mount Technology) machines. Being a business partner with Advantech for a long time, Prodrive contacted Advantech to provide them with an SOM (System On Module) ETX solution which would integrate with their own carrier board design for the controllers of the SMT machines.

Solution

After integrating the SOM with the carrier board, the LAN performance of the customer's machine was not ideal. The inefficiency caused a delayed message relay which could significantly decrease the machine's performance. Advantech's SOM Design-in Services were then offered to solve the problem as quickly as possible. Advantech's SOM team reviewed the customer's schematic design, board layout and component placement of the carrier board in detail, and performed extensive tests to analyze the LAN performance for Prodrive. Backed by highly experienced R&D engineers, the solution was quickly found. It was recommended that certain components on the carrier board be removed, and others be relocated and modified. SOM Design-in services significantly reduced the debugging time for Prodrive, and the customer was very satisfied with the result.

SOM Design-in Services

Because Advantech has accumulated expert knowledge in designing SOM carrier boards, we are better able to offer SOM Design-in Services to help customers integrate Advantech's SOM products with specially designed carrier boards. The services include debugging, reviewing and advising on designs for the CPU module, carrier board, heatsink, firmware and software settings, to achieve a perfect integrated solution. These services are collectively called "SOM Design-in Services", and they are offered to all customers who purchase SOM boards from Advantech.
Visit SOM Design-in Services online: **www.advantech.com.tw/SOM-Design-in-service/**

Benefits

◆ Minimizing design risks for customer carrier board
◆ Reduced design effort and technical complexity
◆ Faster development time/ Time-to-Market
◆ Cost savings and reduced business risks

2-degree Motion Simulation Game

Introduction

As we move further into the 21st century, high-tech gaming and entertainment solutions get better and more advanced. Today, the typical arcade gamer expects much more exciting and immersive experiences with high quality graphics, audio and game play that transports them right into the game world. Today's arcade games are literally a world away from their predecessors only 10 years ago, with advanced AI, force-feedback and incredibly realistic graphics. Today's gaming arcade machines are highly advanced and complex systems that take huge resources to develop.

Solution

IMON develops and integrates motion simulation technology with a focus on the entertainment and leisure industry. IMON wanted to develop a Battle Tank Warfare Simulation Game for arcades that features advanced motion and immersive experiences for the user. The system allows the game user to physically climb into the machine and sit in a special seat fixed to a platform that simulates the movements of a modern battle tank allowing motion along a single axis with 2 degrees of freedom (rotation and translation). The high end display monitor slides down in front of the user to help conclude the immersive experience.

System

The general trend in the arcade market is to use universal gaming platforms that reduce development costs, and allow simpler upgrades. IMON needed not only an industrial motherboard with special security, reliability and longevity features, but also a solution that offered very specific software integration and support. Advantech's AIMB-562 micro-ATX motherboard was chosen as the base platform, integrated with their own USB I/O module to control joystick, money mechanism, dynamic display movement and other devices. Advantech helped IMON implement an Enhanced Write Filter security feature in Windows XPe that protects against improper disk write operations.

Benefits

◆ OS integration services with unique security features
◆ Reduce project development effort and cost
◆ Faster time to market

Urban Community Information Kiosk

Introduction

Information kiosks are publicly accessible self-service platforms that offer customers a variety of on-line services. The distinguishing feature of kiosks is a touch screen design that creates a convenient and user-friendly experience for people of all ages and levels of education. Users can easily navigate on-screen menus by the touch of a finger, and perform a variety of activities such as printing high-quality digital photos, checking real-time product and service information, making on-line orders, dealing with bills and ticket payment. The booming kiosk market satisfies higher living standards that require real-time and individualized services.

Solution

Shanghai municipal government has incorporated community information kiosks into key practical projects in the city. These projects, together with other community resources such as the "payment and charging service", provide residents with convenient and efficient payment, information and business services. Integrated business and payment services are fundamental functions of this information kiosk. The machine uses two displays: one for advertising and the other one for payment queries. Additionally, there are other peripherals such as a bar code reader, infrared interface and I/O interface. The core of the machine is an Advantech Mini-ITX AIMB-240 motherboard, which is employed for display, control and communication.

System

The AIMB-240 has a Mini-ITX form factor with a footprint of only 6.69" x 6.69". Equipped with the Intel 82852GME chipset, the AIMB-240 supports Intel Pentium 4 and Celeron processors at up to 2.8 GHz, a 400/533 MHz FSB and up to 1 GB of DDR 266/333 SDRAM. The AIMB-240 provides dual displays with a variety of display types, such as LVDS, DVI, TV-out and CRT. Additional multimedia features include 5.1 multi-channel audio and DVI transmission at up to 135 megapixels per second. Six COM ports and six high-speed USB 2.0 ports offer superb connectivity for drives, keyboards, mice and other peripherals. This motherboard also supports dual 10/100Base-Tx Ethernet for high speed networking.

Benefits

◆ Compact 17 x 17 cm size is designed to support small devices.
◆ Powers dual displays with a variety of display types, such as VGA, DVI, 2 channel LVDS and TV OUT
◆ Various I/O connectors are particularly suitable for the insides of equipment such as media player platforms and financial facilities.

Automatic Train Supervision Subsystem

Introduction

The Shanghai Metro is one of the newest and most rapid expanding subway systems in the world. With its continuous expansion of rail lines and the increase of customers, it is important that it operates with safety & reliability. The Automatic Train Supervision system is a subsystem of the Automatic Train Control (ATC) that is designed for the management and control of train movement on the subway system. Based on a distributed real-time computer control system and a modern data communication network, ATS coordinates with ATP (Automatic Train Protection) and ATO (Automatic Train Operation) to achieve automatic management of high-density rail transportation signals and fully automatic dispatch and control of trains.

Solution

The Shanghai Metro is looking for a solution that is suitable for ATS application which can handle the distributed system networks. To act as a host machine, the system should be able to link and manage signals from distributed sites. The signals are then communicated over serial links and gathered into the host machine that is attached to a relay. Based on the collected signals, the control program in the host machine is able to control the relay, and thus the speed of the trains.

To act as a host machine, the system should be able to hold up to 8 serial cards to manage the signals from each site. The system should also be easily manageable and maintainable to ensure smooth operation at all times. Advantech has just the solution, the Advantech ACP-4000 4U Rackmount Chassis was selected to build the host machine for Shanghai Metro ATS.

System

The ACP-4000 chassis can support up to 14 cards in its 4U height exterior. The shock-proof disk bracket can hold three 5.25" and one 3.5" drives to store traffic data and is accessible from the front. Front accessible USB and PS/2 ports allow quick system control and maintenance. For optimized system maintenance, the air filters and filtered cooling fans are also accessible from the front. To ensure system reliability, the chassis has front LEDs that monitor and report status on power supply, fans, machine temperature and hard disk operations. With special anti-vibration rubber fixtures, it can effectively protect the computing boards from shock and/or vibration in the operating environment.

Benefits

◆ Offers a range of expansion options, ideal for networked system applications
◆ Advantech chassis in general offers a 10 year MTBF in normal environments and up to 5 years warranty.
◆ Experience in board and system level design, can greatly assist customers with system integration

Computer On Modules

Model Name	SOM-5786	SOM-5782	SOM-5781	SOM-5780
Form Factor	COM-Express	COM-Express	COM-Express	COM-Express
CPU Type	Intel Core 2 Duo up to 2.2 GHz	Intel Core 2 Duo/Core Duo/Celeron M up to 2.16 GHz	AMD Turion/Sempron S1g1 type CPU	Intel Pentium M / Celeron M up to 2.0 GHz
System Chipset	Intel GME965 + ICH8M	Intel 945GM + ICH7M	AMD M690E + SB600	Intel 915GM + ICH6M
System Memory	DDR2 SODIMM Socket up to 4 GB	DDR2 SODIMM Socket up to 2 GB	DDR2 SODIMM Socket up to 4 GB	DDR2 SODIMM Socket up to 2 GB
Watchdog Timer	256 levels 0 ~ 255 sec/min	256 levels 0 ~ 255 sec/min	256 levels 0 ~ 255 sec/min	256 levels 0 ~ 255 sec/min
SSD	-	-	-	-
VGA/LCD/DVI/TV-out	Yes/48-bit LVDS/No/No	Yes/36-bit LVDS/No/No	Yes/48-bit LVDS/Yes/No	Yes/36-bit LVDS/No/No
Audio	HD/AC97 Audio interface (Codec on Carrier board)	HD/AC97 Audio interface (Codec on Carrier board)	HD/AC97 Audio interface (Codec on Carrier board)	HD/AC97 Audio interface (Codec on Carrier board)
Ethernet	1 x port 10/100/1000 Mbps	1 x port 10/100 Mbps or 1 x port 10/100/1000 Mbps	1 x port 10/100/1000 Mbps	1 x port 10/100 Mbps or 1 x port 10/100/1000 Mbps
Drivers	1 x EIDE	1 x EIDE	1 x EIDE	1 x EIDE
SATA	3 x SATA II	2 x SATA II	4 x SATA II	2 x SATA
Parallel	-	-	-	-
Serial	-	-	-	-
USB	8 x USB 2.0	8 x USB 2.0	8 x USB 2.0	8 x USB 2.0
IrDA	-	-	-	-
Expansion Bus	PCIe, PCI, LPC	PCIe, PCI, LPC	PCIe, PCI, LPC	PCIe, PCI, LPC
Operating Temperature	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)
Dimensions	95 x 125 mm (3.74" x 4.92")	95 x 125 mm (3.74" x 4.92")	95 x 125 mm (3.74" x 4.92")	95 x 125 mm (3.74" x 4.92")

Model Name	SOM-4780	SOM-4486	SOM-4481
Form Factor	XTX	ETX	ETX
CPU Type	Intel Core 2 Duo/Core Duo/Celeron M up to 2.16 GHz	Intel Celeron M up to 1 GHz	Intel Pentium M / Celeron M up to 1.8 GHz
System Chipset	Intel 945GM + ICH7M	Intel 852GM + ICH4	Intel 855GME + ICH4
System Memory	DDR2 SODIMM Socket up to 2 GB	DDR SODIMM Socket up to 1 GB	DDR SODIMM Socket up to 1 GB
Watchdog Timer	256 levels 0 ~ 255 sec/min	256 levels 0 ~ 255 sec/min	256 levels 0 ~ 255 sec/min
SSD	-	-	-
VGA/LCD/DVI/TV-out	Yes/36-bit LVDS/No/No	Yes/36-bit LVDS/No/No	Yes/36-bit LVDS/No/No
Audio	HD Audio interface and onboard AC97 Audio	AC97 Audio	AC97 Audio
Ethernet	1 x port 10/100 Mbps	1 x port 10/100 Mbps	1 x port 10/100 Mbps
Drivers	1 x EIDE, 2 x FDD	2 x EIDE, 2 x FDD	2 x EIDE, 2 x FDD
SATA	2 x SATA	-	-
Parallel	1 x SPP/EPP/ECP	1 x SPP/EPP/ECP	1 x SPP/EPP/ECP
Serial	2 x RS-232	2 x RS-232	2 x RS-232
USB	6 x USB 2.0	4 x USB 2.0	4 x USB 2.0
IrDA	115 Kbps	115 Kbps	115 Kbps
Expansion Bus	PCIe, PCI, LPC	PCI, ISA	PCI, ISA
Operating Temperature	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)
Dimensions	95 x 114 mm (3.75" x 4.5")	95 x 114 mm (3.75" x 4.5")	95 x 114 mm (3.75" x 4.5")

Computer On Modules

Model Name	SOM-4455	SOM-4430	SOM-2355
Form Factor	ETX	ETX	SOM-144
CPU Type	AMD LX800 500 MHz	Advantech EVA X4300 300 MHz	AMD LX800 500 MHz
System Chipset	AMD LX800 + CS5536	Advantech EVA X4300	AMD LX800 + CS5536
System Memory	DDR SODIMM Socket up to 1 GB	Onboard 64/128 MB DDR2	Onboard 128 MB DDR
Watchdog Timer	256 levels 0 ~ 255 sec/min	24bits, 30.5µ sec ~ 512 sec	256 levels 0 ~ 255 sec/min
SSD	Yes	-	-
VGA/LCD/DVI/TV-out	Yes/24-bit LVDS/No/No	Yes/18-bit TTL/No/No	Yes/24-bit TTL/No/No
Audio	AC97 Audio	-	AC97 interface (Codec on Carrier board)
Ethernet	1 x port 10/100 Mbps	1 x port 10/100 Mbps	1 x port 10/100 Mbps
Drivers	2 x EIDE, 2 x FDD	1 x EIDE	1 x EIDE, 2 x FDD
SATA	2 x SATA	-	-
Parallel	1 x SPP/EPP/ECP	1 x SPP/EPP/ECP	1 x SPP/EPP/ECP
Serial	2 x RS-232	2 x RS-232	2 x RS-232
USB	4 x USB 2.0	4 x USB 2.0	2 x USB 2.0
IrDA	115 Kbps	-	115 Kbps
Expansion Bus	PCI, ISA	PCI, ISA	PCI
Operating Temperature	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)
Dimensions	95 x 114 mm (3.75" x 4.5")	95 x 114 mm (3.75" x 4.5")	68 x 114 mm (2.68" x 3.94")

RISC-based Solutions

Model Name	SOM-A2709	SOM-A9315
Software Support		
Microsoft	Windows CE 6.0	Windows CE 5.0
GUI Middleware	Adobe Flash player and Java Virtual Machine (JVM) support on project basis	Adobe Flash player and Java Virtual Machine (JVM) support on project basis
Kernel		
SoC	Marvell PXA270 312/520 (default) MHz	Cirrus ARM9 EP9315 200 MHz
Graphic chip	PXA270 internal	EP9315 internal
ARM Bus (system bus)	Yes (thru X1 100pins B-B conn.)	-
SRAM	-	1 MB (default)/512 KB/0 KB
SDRAM	64 MB (default)/128 MB	64 MB
Boot Flash	1 MB NOR flash	1 MB NOR flash
On-board Storage Flash	64 MB (default) NOR flash, 0 MB/32 MB as option (Boot from CF or SD memory card when 0 MB)	0 MB (default)/256 MB flash (Boot from CF memory card when 0 MB)
Floating Point Accelerator	-	Yes (EP9315 built-in)
Watchdog	PXA270 internal	EP9315 internal
Power Management	Normal, idle & suspend	Normal & idle (no suspend mode)
JTAG	Yes	-
RTC	HT-1381	HT-1381
System Control	SW/HW reset	HW reset
I/O		
LAN (10/100-T)	1 x (thru Davicom DM9000)	1 x (EP9315 built-in)
USB	2 x 1.1 host, 1 x 1.1 client	2 x 2.0 (full) host. No USB client
COM	5 x COMs	7 x COMs
CAN 2.0b	-	1x (thru NXP SJA1000)
PS/2 KB & MS	-	-
PCMCIA/CF	2 x (supports IO and memory mode, and hot plug and play)	1 x (supports memory mode only, and hot plug and pay)
ATA-6 IDE	-	1 x (EP9315 built-in)
I2C	1 x (SM bus as default)	-
Buzzer Control	Yes	Yes
DI/DO	4DI/4DO	4DI/4DO
LCD w/Pwr, BRI, Con. Control	Yes	Yes
MMC/SD	1 x (supports memory & SDIO mode)	-
Expansion Bus		
System Bus	Yes (ARM bus, ISA-like.)	-
Multimedia		
LCD Resolution	320 x 240 / 640 x 480 (default) / 800 x 600	320 x 240 / 640 x 480 / 800 x 600 (default)
Audio Codec	AC97 codec	AC97 codec
T/S I/F	4-wire resistive type	4 (default)/5/7/8 wire resistive type
Others		
DC-input	3.3 V+-3%, 5.0 V+-3%	3.3 V+-3%, 5.0 V+-3%
Power Consumption*	Normal mode : ~ 2.0 W Suspend mode : ~ 20m W	Normal mode : ~ 2.2 W Suspend mode : No support
Wide Temperature**	0° C ~ 60° C as standard	0° C ~ 60° C as standard -40° C/-20° C ~ 70° C/85° C as option
Dimensions	68 x 68 mm (2.68" x 2.68")	68 x 68 mm (2.68" x 2.68")
Form Factor	Advantech RTX	Advantech RTX
RoHS	Yes	Yes
Certification	CE/FCC/UL	CE/FCC/UL
Evaluation Kit		
Evaluation Kit PN***	SOM-ADK-2709-B00E	SOM-ADK9315-B00E
Compatible LCD Kit PN****	LCD-A064-TTV1-0 (6.4" Primeview TFT LCD 640 x 480) -already included in Evaluation Kit.	LCD-A104-TTS1-0 (10.4" AUO TFT LCD 800 x 600)

Note

* Power consumption information is for SOM's only, NOT the carrier board, peripherals, LCD, or inverter. "Normal mode" means the system boots up into the Windows CE environment with no special AP running.

** Please contact Advantech sales for details of special optional "Extended Temperature" requests.

*** Evaluation kit includes: SOM, CSB (carrier board), cable sets, testing fixtures, power adaptor, CDROM and related necessary peripherals for evaluation. Also including the Advantech RISC design-in zone account information (but, evaluation kits don't include the LCD kit.)

**** The LCD kit includes the LCD, 4-wire resistive type T/S glass, inverter and cable set. The boot loader and default image supports the target LCD kit.

Embedded Single Board Computers

	Model Name	PCM-4153	PCM-3386	PCM-3380
	Module Type	PC/104 CPU Module	PC/104 CPU Module	PC/104 CPU Module
Processor System	CPU	AMD Geode™ LX800	Intel Celeron M 600 MHz / 1 GHz	Intel Pentium-M 1.1/1.4/1.6 GHz Celeron-M 600 MHz
	Front Side Bus	-	400 MHz	400 MHz
	L2 Cache	128 KB	512 KB / 0	1 / 2 / 1 MB, 512 KB
	Chipset	AMD Geode LX800 + CS5536	Intel 852GM + ICH4	Intel 855GME + ICH4
	BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory	Technology	-	DDR 200/266 MHz	DDR 200/266/333 MHz
	Max. Capacity	Onboard 256 MB	1 GB	1 GB
	Socket	-	1 x 200-pin SODIMM	1 x 200-pin SODIMM
SSD	CompactFlash	Onboard 128 MB Flash	Card Type I / II	Card Type I / II
I/O Interface	LPT	1	1 (share w/ FDD)	1 (share w/ FDD)
	FDD	-	1 (share w/ LPT)	1 (share w/ LPT)
	RS-232	3	2	2
	RS-232/422/485	1	-	-
	K/B	1	1	1
	Mouse	1	1	1
	USB	4 x USB 2.0	6 x USB 2.0	6 x USB 2.0
	Audio	AC97, Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in
	IrDA	-	-	-
	GPIO	8-bit	-	-
	SMBus	Supported	-	-
EIDE	Mode	UDMA 33	UDMA 33	UDMA 33
	Channel	1	1	1
SATA	Max. Data Transfer Rate	-	-	-
	Channel	-	-	-
Expansion Slot	PCI-104	-	1	1
	PC/104	-	-	-
	PCI/104-Plus	1	-	-
Ethernet	Interface	2 x 10/100Base-T	1 x 10/100Base-T	1 x 10/100Base-T
Display	CRT Interface	1	1	1
	LCD / LVDS	1 x 24-bit TFT LCD, 1 x 18bit LVDS	1 x 36-bit LVDS (1 x 48-bit LVDS optional)	1 x 36-bit LVDS (1 x 48-bit LVDS optional)
	DVI	-	-	-
	Dual Display	CRT + LCD Simultaneous display	CRT + LVDS Independent Display	CRT + LVDS Independent Display
Power	Type	AT	ATX	ATX
	Consumption: Typical	Typical: 1.35 A @ 5 V, 0.1 A @ 12 V	+5 V @ 2.06 A (Celeron M 600 MHz)	+5 V @ 1.80 A (Celeron M 600 MHz), +5 V @ 2.30 A (Pentium M 1.1 GHz), +5 V @ 1.74 A (Pentium M 1.1 GHz, SpeedStep function), +5 V @ 2.64 A (Pentium M 1.4 GHz)
	Consumption: Max (Test in HCT)	Max: 1.51A @ 5 V, 0.1 A @ 12 V	+5 V @ 2.16 A (Celeron M 600 MHz)	+5 V @ 2.16 A (Celeron M 600 MHz), +5 V @ 3.68 A (Pentium M 1.1 GHz), +5 V @ 3.10 A (Pentium M 1.4 GHz)
Watchdog Timer	Output	Interrupt, system reset	System reset	System reset
	Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Physical Characteristics	Dimensions (L x W)	96 x 115 mm (3.8" x 4.5")	108 x 115 mm (4.3" x 4.5")	108 x 115 mm (4.3" x 4.5")
	Weight	0.162 kg (0.357 lb)*	0.279 kg (0.62 lb)*	0.279 kg (0.62 lb)*
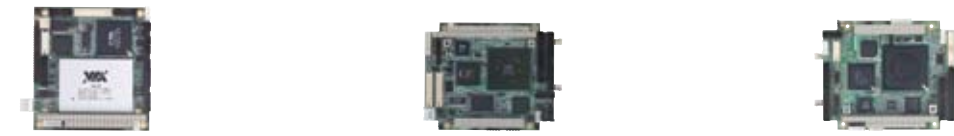
Model Name	PCM-3375	PCM-3372	PCM-3353
Module Type	PC/104 CPU Module	PC/104 CPU Module	PC/104 CPU Module
CPU	Onboard VIA MARK 533 MHz	VIA Eden (V4) 400/600 MHz & ULV 1.0 GHz	AMD Geode LX800, up to 500 MHz
Front Side Bus	-	-	-
L2 Cache	64 KB	128 KB	128 KB
Chipset	VIA VT82C686B	VIA CX700	AMD LX800 + CD5536
BIOS	Award 2 Mbit	Award 4 Mbit	Award 4 Mbit
Technology	PC/100/133 SDRAM	DDR2 400/533 MHz	DDR 333/400 MHz
Max. Capacity	512 MB	1 GB	1 GB
Socket	1 x 144-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM
CompactFlash	Card Type I	Card Type I	Card Type I
LPT	1	-	1
FDD	1	-	-
RS-232	2	1	3
RS-232/422/485	-	1	1
K/B	1	1	1
Mouse	1	1	1
USB	2 x USB 1.1	6 x USB 2.0	4 x USB 2.0
Audio	AC97, Lin-in, Lin-out, Mic-in	HD Audio stereo sound	AC97, Lin-in, Lin-out, Mic-in
IrDA	1 x 115 kbps	-	-
GPIO	-	8-bit	8-bit
SMBus	-	-	-
Mode	UDMA 33	UDMA 33/66	UDMA 33
Channel	1	1	1
Max. Data Transfer Rate	-	150	-
Channel	-	2	-
PCI-104	-	-	-
PC/104	1	-	-
PCI/104-Plus	-	1	1
Interface	1 x 10/100Base-T	1 x 10/100Base-T	1 x 10/100Base-T
CRT Interface	1	1	
LCD / LVDS	1 x 36-bit LVDS, 1 x 24-bit TTL	2 x 48-bit LVDS	1 x 18-bit LVDS, 1x 24-bit TTL
DVI	-	-	-
Dual Display	-	CRT + LVDS, LVDS + LVDS Independent display	CRT + TTL, CRT + LVDS Simultaneous display
Type	AT	AT / ATX	AT
Consumption: Typical	+5 V @ 1.94 A	+5 V, 1.45 A; +12 V, 0.02 A	+5 V @ 1.35 A, +12 V @ 0.1 A
Consumption: Max (Test in HCT)	+5 V @ 2.06 A	+5 V, 2.63 A; +12 V, 0.03 A (Eden ULV 1.0 GHz)	+5 V @ 1.51 A, +12 V @ 0.1 A
Output	System reset	System reset	System reset
Interval	62 lever time	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")	96 x 115 mm (3.8" x 4.5")	96 x 115 mm (3.8" x 4.5")
Weight	0.097 kg (0.214 lb)	0.162 kg (0.357 lb)	0.162 kg (0.357 lb)*

* Weight of total package

△More information available on www.Advantech.com

Embedded Single Board Computers

Model Name		PCM-9388	PCM-9387	PCM-9386
Module Type		3.5" Single Board Computers	3.5" Single Board Computers	3.5" Single Board Computers
Processor System	CPU	Onboard Intel Celeron M 600 MHz/ 1 GHz	Onboard intel Celeron 600 MHz / 1 GHz	Intel ULV Celeron M 600 MHz / 1 GHz
	Front Side Bus	400 MHz	400 MHz	400 MHz
	L2 Cache	Up to 512 KB	Up to 512 KB	Up to 512 KB
	Chipset	Intel 852GM GMCH + ICH4	Intel 852GM GMCH + ICH4	Intel 852GM + ICH4
	BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory	Technology	DDR 266 MHz	DDR 266 MHz	DDR 200/266 MHz
	Max. Capacity	1 GB	1 GB	1 GB
	Socket	1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM
SSD	CompactFlash	Card Type I	Card Type I	Card Type I
Rear I/O	VGA	1	1	1
	COM	1	1	1
	RJ-45	1	1	1
	USB	-	1	1
	K/B, Mouse	1	1	1
I/O Interface	LPT	1 (share w/ FDD)	1	1
	FDD	1 (share w/ LPT)	-	-
	RS-232	1	1	1
	RS-232/422/485	1	1	1
	K/B	1	1	1
	Mouse	1	1	1
	USB	2 x USB 2.0	3 x USB 2.0	3 x USB 2.0
	Audio	AC97, Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in
	IrDA	115 kbps	115 kbps	115 kbps
	GPIO	8-bit	4-bit	8-bit
	SMBus	Supported	Supported	Supported
EIDE	Mode	UDMA 33	UDMA 33	UDMA 33
	Channel	1	1	1
SATA	Max. Data Transfer Rate	-	-	-
	Channel	-	-	-
Expansion Slot	PCI-104	-	1	-
	PC/104	1	-	-
	MIO 160	-	-	1
Ethernet	Speed	1 x 10/100Base-T	1 x 10/100Base-T 10/100/1000Base-T (optional)	1 x 10/100Base-T 10/100/1000Base-T (optional)
Display	CRT	1	1	1
	LCD / LVDS	1 x 18-bit TTL 1 x 36-bit LVDS (48-bit LVDS optional)	1 x 36-bit LVDS (48-bit LVDS optional)	1 x 36-bit LVDS (48-bit LVDS optional)
	DVI	-	-	-
	Dual Display	CRT + LVDS, CRT + TTL Independent display	CRT + LVDS, CRT + DVI, LVDS + DVI Independent Display	CRT + LVDS Independent display
Power	Type	AT / ATX	AT / ATX	AT / ATX
	Consumption: Typical	1.56 A @ 5 V, 0.16 A @ 12 V (Celeron M 600)	-	-
	Consumption: Max (Test in HCT)	2.11 A @ 5 V, 0.17 A @ 12 V (Celeron M 600)	+5 V @ 2.0 A, +12 V @ 0.02 A (ULV Celeron M 600)	Max. : +5 V @ 2.0 A +12 V @ 0.02 A (Celeron M 600)
Watchdog Timer	Output	System reset	System reset	System reset
	Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")	146 x 102 mm (5.7" x 4")	146 x 102 mm (5.7" x 4")
	Weight	0.85 kg (1.87 lb)	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*

* Weight of total package

Model Name	PCM-9382	PCM-9381	PCM-9380	PCM-9375
Module Type	3.5" Single Board Computers	3.5" Single Board Computers	3.5" Single Board Computers	3.5" Single Board Computers
CPU	Intel Core Duo LV 1.66 GHz, Celeron M ULV 1.06 GHz, Socket 478 up to 2.16 GHz	Intel Pentium M /LV/ULV/Celeron M 600 MHz / 1.0 GHz	Intel Pentium M/LV/ULV Celeron M Socket 478 or 373 1.0 GHz / 600 MHz	AMD Geode LX800 up to 500 MHz
Front Side Bus	533 / 667 MHz	400 MHz	400 MHz	-
L2 Cache	1 MB ~ 2 MB	512 KB ~ 2 MB	512 KB ~ 2 MB	128 KB
Chipset	Intel 945GM + ICH7M	Intel 855GME + ICH4	Intel 855GME + ICH4	AMD Geode LX800
BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Technology	DDR2 333/400/533 MHz	DDR 200/266/333 MHz	DDR 200/266/333 MHz	DDR 333/400 MHz
Max. Capacity	1 GB	1 GB	1 GB	512 MB
Socket	1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM
CompactFlash	Card Type I	Card Type I	Card Type I	Card Type I
VGA	1	1	1	1
COM	1	1	1	1
RJ-45	1	1	1	1
USB	1	1	1	-
K/B, Mouse	1	1	1	1
LPT	-	1	1	-
FDD	-	-	-	1 (optional)
RS-232	1	1	1	3
RS-232/422/485	1	1	1	1
K/B	1	1	1	1
Mouse	1	1	1	1
USB	5 x USB 2.0	3 x USB 2.0	3 x USB 2.0	4 x USB 2.0
Audio	High Definition Audio (HD), Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in	AC97, Lin-in, Lin-out, Mic-in
IrDA	-	115 kbps	115 kbps	-
GPIO	8-bit	4-bit	8-bit	8-bit
SMBus	Supported	Supported	Supported	Optional
Mode	N/A	UDMA 33	UDMA 33	UDMA 33/66
Channel	-	1	1	1
Max. Data Transfer Rate	300	-	-	-
Channel	2	-	-	-
PCI-104	-	1	-	-
PC/104	-	-	-	1
MIO 160	1	-	1	-
Speed	1 x 10/100Base-T 10/100/1000Base-T (optional)	1 x 10/100Base-T 10/100/1000Base-T (optional)	1 x 10/100Base-T 10/100/1000Base-T (optional)	2 x 10/100Base-T
CRT	1	1	1	1
LCD / LVDS	1 x 48-bit LVDS	1 x 36-bit LVDS (48-bit LVDS optional)	1 x 36-bit LVDS (48-bit LVDS optional)	1 x 24-bit TTL LCD / 1 x 18-bit LVDS
DVI	-	1	-	-
Dual Display	CRT + LVDS Independent display	CRT + LVDS, CRT + DVI, LVDS + DVI Independent Display	CRT + LVDS Independent display	-
Type	AT / ATX	AT / ATX	AT / ATX	AT / ATX
Consumption: Typical	+5 V @ 4.64 A, +12 V @ 0.09 A	+5 V @ 3.0 A, +12 V @ 0.04 A	-	+5 V @ 1.29 A, +12 V @ 0.09 A
Consumption: Max (Test in HCT)	+5 V @ 5.14 A, +12 V @ 0.16 A	+5 V @ 4.26 A, +12 V @ 0.13 A	+5 V @ 4.26 A +12 V @ 0.13 A	+5 V @ 1.52 A, +12 V @ 0.12 A
Output	System reset	System reset	System reset	System reset
Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Dimensions (L x W)	146 x 102 mm (5.7" x 4")	146 x 102 mm (5.7" x 4")	146 x 102 mm (5.7" x 4")	146 x 102 mm (5.7" x 4")
Weight	0.85 kg (1.87 lb) *	0.85 kg (1.87 lb) *	0.85 kg (1.87 lb) *	0.85 kg (1.87 lb) *

Embedded Single Board Computers

Model Name	PCM-4372	PCM-4380	PCM-4381
Module Type	EPIC SBC	EPIC SBC	EPIC SBC
Processor System — CPU	VIA Eden (V4) 400 / 600 MHz, ULV 1.0 GHz	Intel Pentium M / Celeron M	910GMLE: Intel Celeron M 600 MHz/ 1.0 GHz 915GME: Socket type
Front Side Bus	400 MHz	400 / 533 MHz	400 / 533 MHz
L2 Cache	128 KB	512 KB ~ 2 MB	512 KB/ 0 KB
Chipset	VIA CX700	Intel 855GME + ICH4	Intel 910GMLE/915GME + ICH6M
BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory — Technology	DDR2 400/533 MHz	DDR 200/266/333 MHz	DDR2 400/533 MHz
Max. Capacity	2 GB	1 GB	2 GB
Socket	1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM
SSD — CompactFlash	Card Type I, UDOM (SSD supported)	Card Type I, UDOM	Card Type I / II
I/O Interface — LPT	1	1	1
FDD	-	-	-
RS-232	3	3	3
RS-232/422/485	1	1	1
K/B	1	1	1
Mouse	1	1	1
USB	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0
Audio	HD, Line-in, Line-out, Mic-in (optional w/ PCM-410)	AC97, Line-in, Line-out, Mic-in (optional w/ PCM-410)	AC97, Line-in, Line-out, Mic-in
GPIO	8-bit	8-bit	16-bit
SMBus	Supported	Supported	Supported
IrDA	-	-	-
SATA — Max. Data Transfer Rate	150	-	150
Channel	2	-	2
EIDE — Mode	UDMA 33	UMA33	-
Channel	1	1	-
Expansion Slots — PCI/PCIe	-	-	-
miniPCI	-	-	-
PC/104-Plus	1	1	-
PC/104	-	-	-
PCI-104	-	-	1
Ethernet — Interface	2 x 10/100Base-T	2 x 10/100Base-T 10/100/1000Base-T (optional)	2 x 10/100/1000Base-T
Display — CRT	1	1	1
LCD / LVDS	2 x 24/48-bit LVDS	1 x 36-bit LVDS	1 x 36-bit LVDS 1 x 48-bit LVDS (optional)
DVI	-	-	-
Dual Display	CRT + LVDS, LVDS + LVDS Independent display	CRT + LVDS Independent display	CRT + LVDS, LVDS + LVDS Independent display
Power — Type	AT / ATX	AT / ATX	AT / ATX
Consumption: Typical	2.21A @ 5 V, 0.12 A @ 12 V, 0.54 @ 3.3 V	1.82 A @ 5 V, 0.08 A @ 12 V, 1.23 @ 3.3 V (Pentium M 1.4 GHz)	-
Consumption: Max (test in HCT)	3.25A @ 5 V, 0.14 A @ 12 V (VIA Eden ULV 1.0 GHz)	2.38 A @ 5 V, 0.08 A @ 12 V, 1.82 @ 3.3 V (Pentium M 1.4 GHz)	-
Watchdog Timer — Output	System reset	System reset	System reset
Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Physical Characteristics — Dimensions (L x W)	115 x 165 mm (4.5" x 6.5")	115 x 165 mm (4.5" x 6.5")	115 x 165 mm (4.5" x 6.5")
Weight	0.35 kg (0.77 lb) *	0.35 kg (0.77 lb) *	0.35 kg (0.77 lb) *

Model Name	PCM-4386	PCM-4390	PCM-9590	PCM-9587
Module Type	EPIC SBC	EPIC SBC	EBX SBC	EBX SBC
Processor System — CPU	Intel ULV Celeron M 600 MHz/ 1.0 GHz	Embedded Intel Core Duo up to 1.66 GHz	Socket Intel Core 2 Duo/ Core Duo/ Core Solo/Celeron M Core Duo 1.2 GHz onboard	Intel ULV Celeron M 600 MHz/ 1.0 GHz
Front Side Bus	400 MHz	533 / 667 MHz	533 / 667 MHz	400 MHz
L2 Cache	512 KB/ 0 KB	up to 2 MB	512 KB ~ 4 MB	512 KB/ 0 KB
Chipset	Intel 852GM + ICH4	Intel 945GM + ICH7M	Intel 945GM + ICH7M	Intel 852GM + 6300ESB
BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory — Technology	DDR 200/266	DDR2 400/533/667	DDR2 400/533/667	DDR 200/266 ECC registered
Max. Capacity	1 GB	2 GB	4 GB	1 GB
Socket	1 x 200-pin SODIMM	1 x 200-pin SODIMM	2 x 200-pin SODIMM	1 x 184-pin DIMM
SSD — CompactFlash	Card Type I, UDOM (Shared 2nd IDE Channel)	UDOM (SSD supported)	Card Type I / II (shared 2nd IDE Channel)	Card Type I / II (shared 2nd IDE Channel)
I/O Interface — LPT	1	1	1	1
FDD	-	-	-	1
RS-232	3	3	3	3
RS-232/422/485	1	1	1	1
K/B	1	1	1	1
Mouse	1	1	1	1
USB	6 x USB 2.0	8 x USB 2.0	6 x USB 2.0	4 x USB 2.0
Audio	AC97, Line-in, Line-out, Mic-in (optional w/ PCM-410)	AC97, Line-in, Line-out, Mic-in (optional w/ PCM-410)	HD Audio, 7.1 channel: Speaker out, CD-input, Line-in, Line-out, Mic-in	AC97, Speaker out, CD-input, Line-in, Line-out, Mic-in
GPIO	8-bit	8-bit	16-bit	8-bit
SMBus	Supported	Supported	Supported	Supported
IrDA	-	-	-	-
SATA — Max. Data Transfer Rate	-	150	150	150 (RAID 0/1)
Channel	-	2	2	2
EIDE — Mode	UDMA 33	UDMA 33	UDMA 100	UDMA 100
Channel	1	1	1	1
Expansion Slots — PCI/PCIe	-	-	1 x PCIe x16	1 x PCI
miniPCI	-	-	1	1
PC/104-Plus	1	-	-	1 (8-bit ISA)
PC/104	-	-	-	1 (8-bit ISA)
PCI-104	-	1	1	1
Ethernet — Interface	2 x 10/100Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	1 x 10/100Base-T
Display — CRT	1	1	1	1
LCD / LVDS	1 x 36-bit LVDS	1 x 36-bit LVDS 1 x 48-bit LVDS (optional)	1 x 36-bit LVDS	1 x 36-bit LVDS
DVI	-	-	-	-
Dual Display	CRT + LVDS Independent display	CRT + LVDS, LVDS + LVDS (optional) Independent display	CRT + LVDS Independent display	CRT + LVDS, DVI + LVDS, TV-out + LVDS, CRT + DVI Independent display
Power — Type	AT / ATX	ATX	AT / ATX	AT / ATX
Consumption: Typical	2.62 A @ 5 V, 0.03 A @ 12 V, 0.49 A @ 3.3 V, 1.08 A @ 5 VSB (Celeron M 600)	3.75 A @ 5 V, 0.49 A @ 3.3 V, 1.08 A @ 5 VSB, 0.48 A @ 12 V (Core Duo 1.2 GHz)	0.96 A @ 5 V, 0.81 A @ 12 V (CPU T7400 2.16 GHz) 1.01 A @ 5 V, 0.76 A @ 12 V (CPU U2500 1.2 GHz)	2.62 A @ 5 V, 0.03 A @ 12 V (Celeron M 600)
Consumption: Max (test in HCT)	2.63 A @ 5 V, 0.03 A @ 12 V (Celeron M 600)	-	1.03 A @ 5 V, 2.09 A @ 12 V (CPU T7400 2.16 GHz) 1.05 A @ 5 V, 0.98 A @ 12 V (CPU U2500 1.2 GHz)	2.63 A @ 5 V, 0.03 A @ 12 V (Celeron M 600)
Watchdog Timer — Output	System reset	System reset	System reset	System reset
Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Physical Characteristics — Dimensions (L x W)	115 x 165 mm (4.5" x 6.5")	115 x 165 mm (4.5" x 6.5")	203 x 146 mm (8" x 5.75")	203 x 146 mm (8" x 5.75")
Weight	0.35 kg (0.77 lb) *	0.35 kg (0.77 lb) *	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*

* Weight of total package

△More information available on www.Advantech.com

Embedded Single Board Computers

Model Name	PCM-9586	PCM-9584	PCM-9582
Module Type	5.25" SBC	EBX SBC	EBX SBC
Processor System — CPU	Intel ULV Celeron M 600 MHz/1.0 GHz	Embedded Intel Pentium M 1.4 GHz, Celeron M 1.0 GHz, Socket type	Embedded Intel Pentium M 1.4/1.8 GHz, Celeron M 600 MHz/1.0 GHz, Socket type
Front Side Bus	400 MHz	400 / 533 MHz	400 / 533 MHz
L2 Cache	512 KB/ 0 KB	512 KB ~ 2 MB	512 KB ~ 2 MB
Chipset	Intel 852GM + ICH4	Intel 915GME + ICH6M	Intel 855GME + 6300ESB
BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory — Technology	DDR 200/266 ECC registered	DDR2 400/533 MHz	DDR 200/266/333
Max. Capacity	1 GB	2 GB	1 GB
Socket	2 x 184-pin DIMM	2 x 200-pin SODIMM	1 x 184-pin DIMM, ECC registered
SSD — CompactFlash	Card Type I / II (shared 2nd IDE Channel)	Card Type I / II (shared 2nd IDE Channel), USB-DOM optional	Card Type I / II (shared 2nd IDE Channel)
I/O Interface — LPT	1	1	1
FDD	1 (optional)	-	1
RS-232	3	3	3
RS-232/422/485	1	1	1
K/B	1	1	1
Mouse	1	1	1
USB	6 x USB 2.0	6 x USB 2.0	4 x USB 2.0
Audio	AC97, Speaker out, CD-input, Line-in, Line-out, Mic-in	AC97, Speaker out, CD-input, Line-in, Line-out, Mic-in	AC97, Speaker out, CD-input, Line-in, Line-out, Mic-in
GPIO	8-bit	8-bit	8-bit
SMBus	Supported	-	Supported
IrDA	115 kbps	-	-
SATA — Max. Data Transfer Rate	-	150	150 (RAID 0,1)
Channel	-	2	2
EIDE — Mode	UDMA 100	UDMA 100	UDMA 100
Channel	2	1	1
Expansion Slots — PCI/PCIe	1 x PCI	1 x PCI	1 x PCI
miniPCI	1	1	1
PC/104-Plus	-	1	1 (8-bit ISA)
PC/104	-	1	1 (8-bit ISA)
PCI-104	-	1	1
Ethernet — Interface	1 x 10/100Base-T	2 x 10/100/1000Base-T	1 x 10/100Base-T (PCM-9582F) 10/100/1000Base-T, optional (PCM-9582FG)
Display — CRT	1	1	1
LCD / LVDS	1 x 36-bit LVDS	1 x 36-bit LVDS 1 x 48-bit LVDS	1 x 36-bit LVDS
DVI	-	-	1
Dual Display	CRT + LVDS Independent display	CRT + LVDS, LVDS + LVDS Independent display	CRT + LVDS, DVI + LVDS, TV-out + LVDS, CRT + DVI Independent display
Power — Type	AT / ATX	AT / ATX	AT / ATX
Consumption: Typical	+5 V @ 1.75 A, +12 V @ 0.2 A (Celeron M 600)	1.86 A @ 5 V, 0.48 A @ 12 V (Pentium M with 1.4 GHz) 1.87 A @ 5 V, 0.75 A @ 12 V (Pentium M with 2.0 GHz)	2.1 A @ 5 V, 0.03 A @ 12 V (Celeron M 600) 2.3 A @ 5 V, 0.13 A @ 12 V (Pentium M 1.1) 2.54 A @ 5 V, 0.14 A @ 12 V (Pentium M 1.6)
Consumption: Max (test in HCT)	+5 V @ 2.1 A, +12 V @ 0.22 A	2.42 A @ 5 V, 1.01 A @ 12 V (Pentium M with 1.4 GHz) 2.43 A @ 5 V, 1.65 A @ 12 V (Pentium M with 2.0 GHz)	2.63 A @ 5 V, 0.04 A @ 12 V (Celeron M 600) 3.1 A @ 5 V, 0.15 A @ 12 V (Pentium M 1.1) 4.8 A @ 5 V, 0.15 A @ 12 V (Pentium M 1.6)
Watchdog Timer — Output	System reset	System reset	System reset
Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
Physical Characteristics — Dimensions (L x W)	203 x 146 mm (8" x 5.75")	203 x 146 mm (8" x 5.75")	203 x 146 mm (8" x 5.75")
Weight	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*

Model Name	PCM-9581	PCM-9580	PCM-9576	POD-6552
Module Type	5.25" SBC	5.25" SBC	5.25" SBC	5.25" SBC
Processor System — CPU	Embedded Intel Pentium M 1.1 GHz, LV Pentium M 1.4 GHz, Celeron M 600 MHz, Socket type	Intel Celeron / Pentium 4 up to 3.06 GHz, Socket 478	Intel Celeron / Pentium III, Socket 370	Intel ULV Celeron M 600 MHz/1.0 GHz, Socket 479
Front Side Bus	400 / 533 MHz	400 / 533 MHz	100 MHz	400 MHz
L2 Cache	512 KB ~ 2 MB	512 KB ~ 1 MB	128 KB/ 256 KB	Up to 512 KB
Chipset	Intel 855GME/GMCH + ICH4	Intel 845GV + ICH4	Intel 440BX AGPset	Intel 852GM + ICH4
BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory — Technology	DDR 200/266/333	DDR 200/266/333	2 x SDRAM	DDR 200/266
Max. Capacity	2 GB	2 GB	512 MB	1 GB
Socket	2 x 184-pin DIMM	2 x 184-pin DIMM	2 x 144-pin DIMM	1 x 200-pin SODIMM
SSD — CompactFlash	Card Type I / II (shared 2nd IDE Channel)	Card Type I / II	Card Type I / II	Card Type I / II
I/O Interface — LPT	1	1	1	1
FDD	1 (optional)	1	1	1 (optional)
RS-232	3	3	3 (PCM- 9576FV only) 2 (PCM-9576F only)	3
RS-232/422/485	1	1	1 (PCM-9576FV only)	1
K/B	1	1	1	1
Mouse	1	1	1	1
USB	6 x USB 2.0	4 x USB 2.0	2 x USB 1.1	6 x USB 2.0
Audio	AC97, Speaker out, CD-input, Line-in, Line-out, Mic-in	AC97, Line-in, Line-out, MIC-in, CD-in, Line-out, Speaker-out	-	AC97, Speaker out, CD-input, Line-in, Line-out, Mic-in
GPIO	8-bit	8-bit	3-bit	-
SMBus	-	-	-	-
IrDA	115 kbps	-	115 Kbps	115 Kbps
SATA — Max. Data Transfer Rate	-	-	-	-
Channel	-	-	-	-
EIDE — Mode	UDMA 100	UDMA 100	UDMA 33	UDMA 100
Channel	2	2	1	2
Expansion Slots — PCI/PCIe	1 x PCI	1 x PCI	1 x PCI slot	2 x PCI, 1 x 8-bit ISA
miniPCI	1	-	-	-
PC/104-Plus	-	-	-	-
PC/104	-	-	1 x ISA slot (PCM-9576FV only)	-
PCI-104	-	-	-	-
Ethernet — Interface	1 x 10/100Base-T 10/100/1000Base-T (optional)	1 x 10/100Base-T 10/100/1000Base-T (optional)	3 x 10/100Base-T	1 x 10/100Base-T
Display — CRT	1	1	1	1
LCD / LVDS	1 x 36-bit LVDS	1 x 48-bit LVDS	1 x 36-bit TTL, 1 x 24-bit DSTN	1 x 18-bit LVDS 1 x 18-bit TTL
DVI	-	-	-	-
Dual Display	CRT + LVDS, CRT + DVI Independent display	-	-	CRT + LVDS, CRT + TV-out, LVDS + TV-out Independent display
Power — Type	AT / ATX	ATX	AT / ATX	AT / ATX (Optional)
Consumption: Typical	+5 V @ 3.22 A, +12 V @ 0.2 A (Pentium M 1.6)	+12 V_CPU @ 1.95 A, +5 V @ 0.37 A, +3.3 V @ 3.2 A, +12 V @ 0.1 A	5.1 A @ +5 V (Intel Celeron 466)	(Win2000, Kpower) 1.9 A @ +5 V (Celeron M 600) 0.10 A @ +12V V (Celeron M 600 MHz)
Consumption: Max (test in HCT)	+5 V @ 3.8 A, +12 V @ 0.4 A (Pentium M 1.6)	+12 V_CPU @ 6.15 A, +5 V @ 0.41 A, +3.3 V @ 3.46 A, +12 V @ 0 A (In HCT) +12 V_CPU @ 5.62 A, +5 V @ 0.41 A, +3.3 V @ 4.28 A, +12 V @ 0.11 A (QAPlus) (Pentium 4 3.06 GHz)	8 A @ +5 V	(Win2000, Kpower) 2.8 A @ +5 V (Celeron M 600) 0.25 A @ +12 V (Celeron M 600 MHz)
Watchdog Timer — Output	System reset	System reset	Interrupt, system rest	System reset
Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 62 sec	Programmable 1 ~ 255 sec
Physical Characteristics — Dimensions (L x W)	203 x 146 mm (8" x 5.75")	203 x 146 mm (8" x 5.75")	203 x 146 mm (8" x 5.75")	203 x 146 mm (8" x 5.75")
Weight	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*

* Weight of total package
△More information available on www.Advantech.com

Compact Embedded Computers

Model Name		ARK-1370	ARK-1380	ARK-1382	ARK-3380	ARK-3381
Features		PC Card slot, 4 x USB, 2 x COM, CRT/LVDS, 1 x LAN	PC Card slot, 4 x USB, 2 x COM, CRT/LVDS, 1 x LAN	WLAN, Dual DVI-I, 4 x USB, 2 x COM, 1 x Giga LAN, 1 x eSATA	Multiple video interface	7 x COM, 2 x printer ports
Processor System	Processor	AMD Geode LX800 500 MHz	Intel ULV Celeron M 600 MHz/1.0 GHz	Intel Celeron ULV 423 1.06 GHz	Intel ULV Celeron M 1.0 GHz, Intel LV Pentium M 1.4 GHz	Intel ULV Celeron M 1.0 GHz, Intel LV Pentium M 1.4 GHz
	System Memory	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR2 SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM
Graphics	CRT	Yes	Yes	Yes	Yes	Yes
	LVDS	18-bit LVDS	36-bit LVDS	-	36-bit LVDS	36-bit LVDS
	DVI	-	-	Dual DVI-I	DVI 1.0 Compliant	-
	TV Out	-	-	-	S-video, Composite video	-
I/O Interface	Audio	AC97 Audio, Line-in, Spk-out, Mic-in	Line-out (Left and Right)	AC97 Audio, Line-in, Spk-out, Mic-in	-	
	Ethernet	1 x 10/100Base-T	1 x 10/100Base-T	1 x 10/100/1000Base-T	1 x 10/100Base-T (Supports WOL)	1 x 10/100Base-T (Supports WOL)
	Keyboard/ Mouse	1 x PS/2	1 x PS/2	-	1 x PS/2	1 x PS/2
	USB	4 x USB 2.0	4 x USB 2.0	5 x USB 2.0	1 x USB 2.0	1 x USB 2.0
	Serial Port/ Parallel Port	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485	1 x RS-232, 1 x RS-232/422/485	2 x RS-232, 5 x RS-232/422/485, 2 x LPT
	Expansion	1 x PC Card Slot (PCMCIA/Card Bus)	1 x PC Card Slot (PCMCIA/Card Bus)	-	-	-
	Wireless	-	-	1 x 802.11 b/g WLAN support (miniPCI)	-	-
Storage System	Solid State Disk	One socket supports Type I/II CompactFlash card				
	HDD	-	-	1 x eSATA	1 x 2.5" HDD bay (PATA)	1 x 2.5" HDD bay
Power	Input Voltage	DC 9 V ~ 35 V, ATX	DC 9 V ~ 35 V, ATX	DC 9 V ~ 35 V, ATX	DC 12 V ~ 24 V, ATX	DC 12 V ~ 24 V, ATX
Certifications	EMC	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
	Safety	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI
Dimensions (W x H x D)		189 x 41 x 137.8 mm (7.44" x 1.61" x 5.42")	189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")	189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")
Ordering Information		ARK-1370-1J0A1E ARK-1370-2J0A1E ARK-1370-3J0A1E	ARK-1380-1M0A1E ARK-1380-2M0A1E ARK-1380-1S0A1E ARK-1380-2S0A1E	ARK-1382-S0A1E ARK-1382W-S0A1E	ARK-3380-1S0A2E ARK-3380-1S4A2E	ARK-3381-2S0A2E ARK-3381-2S4A2E

Model Name		ARK-3382	ARK-3383	ARK-3384	ARK-3389	ARK-3399
Features		4 x LAN ports	7 x USB 2.0, 4 x COM, 2 x LAN, Audio	Wireless, fanless, audio and 3 x USB 2.0	Base model with MIO/160 expansion socket	Base model with MIO 2.0 expansion socket
Processor System	Processor	Intel ULV Celeron M 1.0 GHz, Intel LV Pentium M 1.4 GHz	Intel ULV Celeron M 1.0 GHz, Intel LV Pentium M 1.4 GHz	Intel ULV Celeron M 1.0 GHz, Intel LV Pentium M 1.4 GHz	Intel ULV Celeron M 1.0 GHz, Intel LV Pentium M 1.4 GHz	Intel Core Duo LV 1.66 GHz/ULV, 1.2 GHz, Intel Celeron M ULV, 1.06GHz
	System Memory	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR2 SDRAM SODIMM
Graphics	CRT	Yes	Yes	Yes	Yes	Yes
	LVDS	36-bit LVDS	36-bit LVDS	36-bit LVDS	36-bit LVDS	48-bit * LVDS
	DVI	-	-	-	-	-
	TV Out	-	-	-	-	-
I/O Interface	Audio	-	AC97 Audio, Line-In, Spk-out, Mic-in	AC97 Audio, Line-In, Spk-out, Mic-in	-	-
	Ethernet	4 x 10/100Base-T (Supports WOL)	2 x 10/100Base-T (Supports WOL)	1 x 10/100Base-T (Supports WOL)	1 x 10/100Base-T (Supports WOL)	1 x 1000Base-T (Supports WOL)
	Keyboard/ Mouse	1 x PS/2	1 x PS/2	1 x PS/2	1 x PS/2	1 x PS/2
	USB	1 x USB 2.0	7 x USB 2.0	3 x USB 2.0	1 x USB 2.0	5 x USB 2.0
	Serial Port/ Parallel Port	1 x RS-232, 1 x RS-232/422/485	1 x RS-232, 3 x RS-232/422/485	1 x RS-232, 1 x RS-232/422/485	1 x RS-232, 1 x RS-232/422/485	1 x RS-232, 1 x RS-232/422/485
	Expansion	-	-	-	-	-
	Wireless	-	-	1x 802.11b/g WLAN support (by miniPCI)	-	-
Storage System	Solid State Disk	One socket supports Type I/II CompactFlash Card				One Type I CompactFlash Card
	HDD	1 x 2.5" HDD bay	1 x 2.5" HDD bay	1 x 2.5" HDD bay	1 x 2.5" HDD bay	1 x 2.5" HDD bay
Power	Input Voltage	DC 12 V ~ 24 V, ATX	DC 12 V ~ 24 V, ATX	DC 12 V ~ 24 V, ATX	DC 12 V ~ 24 V, ATX	DC 9 V ~ 35 V, ATX
Certifications	EMC	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
	Safety	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI
Dimensions (W x H x D)		264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")
Ordering Information		ARK-3382-1S0A2E ARK-3382-1S4A2E	ARK-3383-2S0A2E ARK-3383-2S4A2E	ARK-3384-1S0A2E ARK-3384-1S4A2E	ARK-3389-1S0A2E ARK-3389-1S4A2E	ARK-3399-1S0A1E ARK-3399-1S2A1E ARK-3399-1S6A1E

Compact Embedded Computers

Model Name		ARK-4180	ARK-4153	ARK-5280
Features		PC/104 Expansion, -40 ~ 75° C, 6 USB 2.0, LPT	PC/104 Expansion, -40 ~ 75° C, Dual LANs	PCI Slot Expansion, DVI, SATA HD
Processor System	Processor	Intel ULV Celeron M 600 MHz/1.0 GHz	AMD Geode LX800 500 MHz	Intel Pentium M/Celeron M up to 1.8 GHz
	System Memory	Industrial Grade 512 MB DDR SDRAM Industrial Grade 256 MB DDR SDRAM	Onboard 256 MB DDR SDRAM	Up to 2 GB DDR SDRAM (Dual 200-pin SODIMM)
Graphics	CRT	Yes	Yes	Yes
	LVDS	-	-	Optional 36-bit LVDS
	DVI	-	-	DVI 1.0 compliant
	TV Out	-	-	-
I/O Interface	Audio	Line-in, Line-out	Line-in, Line-out	AC97 audio, Line-in, Spk-out, Mic-in
	Ethernet	1 x 10/100Base-T	2 x 10/100Base-T	1 x 10/100Base-T
	Keyboard/ Mouse	1 x PS/2	1 x PS/2	1 x PS/2
	USB	6 x USB 2.0	4 x USB 2.0	2 x USB 2.0 + optional 2 x USB 2.0 via bracket-cable
	Serial Port/ Parallel Port	2 x RS-232 1 x LPT	4 x RS-232	3 x RS-232, 1 x RS-232/422/485
	Expansion	PCI-104	PC/104+	1 x PCI , and 1 PCI/ISA (shared) expansion slots
Storage System	Solid State Disk	One Type I CompactFlash Card	Onboard Flash	One socket supports type I/II CompactFlash Card
	HDD	-	-	1 x 2.5" HDD bay
Power	Input Voltage	DC 5 V AT	DC 5 V AT	DC 9 V ~ 32 V, ATX
Certifications	EMC	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
	Safety	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI
Dimensions (W x H x D)		137 x 189 x 221 mm (5.39" x 7.40" x 8.70")	137 x 189 x 221 mm (5.39" x 7.40" x 8.70")	137 x 189 x 221 mm (5.39" x 7.40" x 8.70")
Ordering Information		ARK-4180Y-AS0A1E ARK-4180Y-AM0A1E ARK-4180Y-1S0A1E ARK-4180Y-1M0A1E	ARK-4153Y-AL0A1E ARK-4153Y-BL0A1E	ARK-5280-1S5A2E ARK-5280-1S8A2E

High Performance Computing Systems

Model Name		HPC-1420-ISSE	HPC-2820-ISSE
Processor System	CPU	5000/5100/5300 family Xeon Processor	5000/5100/5300 family Xeon Processor
	Max. Speed	3.0 GHz	3.0 GHz
	Front Side Bus	667/1066/1333 MHz	667/1066/1333 MHz
	L2 Cache	2 x 2 MB or 4 MB L2 cache	2 x 2 MB or 4 MB L2 cache
	Chipset	Intel 5000P MCH Intel 6321 ICH Intel 6702 PXH	Intel 5000P MCH Intel 6321 ICH Intel 6702 PXH
Expansion Slot (via riser card)	PCI	1 x Full-Height/Half-Length 64-bit PCI-X	2 x Full-Height/Full-Length 64-bit PCI-X
	PCIe	1 x Low Profile PCIe x8 slot	1 x Full-Height/Full-Length PCIe x8 slot
Memory	Technology	Four Channel ECC Reg. DDR2 533/667 FBD	Four Channel ECC Reg. DDR2 533/667 FBD
	Max. Capacity	48 GB	48 GB
	Socket	12	12
Graphics	Controller	ATI ES1000 VGA Controller	ATI ES1000 VGA Controller
	VRAM	16 MB DDR SDRAM	16 MB DDR VRAM
Storage	SAS Controller	LSI 1068 PCI-X 8-port SAS controller: Supports RAID 0, 1, 1E and Raid 5 (optional ZCR)	LSI 1068 PCI-X 8-port SAS controller: Supports RAID 0, 1, 1E and Raid 5 (optional ZCR)
	HDD Bays	Supports 4 x Hotswap SAS/ SATA2 HDD	Supports 8 x Hotswap SAS/ SATA2 HDD
	Optical Drive	Slim Type DVD-ROM	Slim Type DVD-ROM
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T
	Controller	Intel 82563EB PCIe Dual-port GbE	Intel 82563EB PCIe Dual-port GbE
	Connector	2 x RJ-45	2 x RJ-45
I/O Connectors	Serial Port	1	1
	RJ-45	2	2
	USB	4 x USB 2.0 ports (Front x 2, Rear x 2)	4 x USB 2.0 ports (Front x 2, Rear x 2)
	VGA	1	1
	PS/2 Keyboard	1	1
	PS/2 Mouse	1	1
Power Supply	Power Supply	700 W Single ATX	750 W Single ATX
Environment	Temperature	Operating: 10 ~ 35° C Non-Operating: -40 ~ 70° C	Operating: 10 ~ 35° C Non-Operating: -40 ~ 70° C
	Humidity	Non-operational humidity: 20% ~ 90% (Non-Condensing)	Non-operational humidity: 20% ~ 90% (Non-Condensing)
Physical Characteristics	Dimensions	686 x 444 x 43.4 mm (27.00" x 17.48" x 1.70"), 1U	732 x 448 x 87.7 mm (28.82" x 17.64" x 3.45"), 2U
	Weight	15 kg	19.7 kg

Pre-configured Systems

Model Name	ARK-6310-3M01E	ARK-6310-3M02E	ARK-6620-6M01S	ARK-6610-2M01S
Form Factor	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop
Computing System — Chipset	Intel 82855GME + ICH4	Intel 82852GM + ICH4	Intel 945GM + ICH7M	Intel 852GME + ICH4
CPU	Intel LV Pentium M Max 1.4 GHz	Intel ULV Celeron Max 600 MHz	Intel Core 2 Duo Max 2.16 GHz	Intel Pentium 4 Max 2.8 GHz
Front Side Bus	400 MHz	400 MHz	533 / 667 MHz	400 / 533 MHz
L2 Cache	2 MB	512 KB	2 / 4 MB	256 / 512 KB
Memory	DDR 266/333 SDRAM (ECC/Non-ECC) Max 1 GB	DDR 200/266 SDRAM Max 1 GB	DDR2 533/667 SDRAM Max 2 GB	DDR 266/333 SDRAM Max 1 GB
Graphics — Controller	Intel 82855GME integrated	Intel 82852GM integrated	Intel 945GM integrated	Intel 852GME integrated
VRAM	Shared system memory Max 64 MB	Shared system memory Max 64 MB	Shared system memory Max 224 MB	Shared system memory Max 64 MB
Expansion Slot — ISA	-	-	-	-
PCI	-	-	-	1 x 32-bit
PCI Express	-	-	-	-
Mini-PCI	1	1	-	1
Storage — Optical Drive	-	-	-	Slim ROM drive
Floppy Disk	-	-	-	-
Hard Disk Drive	IDE	IDE	SATA	IDE
Drive Bay — Slim Optical Drive	-	-	-	1
5.25"	-	-	-	-
3.5" (front-accessible)	-	-	-	-
3.5" (internal)	1 x 2.5"	1 x 2.5"	1	1
3.5" (mobile rack)	-	-	-	-
CompactFlash	1	1	-	1
Ethernet — Interface	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100 Base-T Fast Ethernet
Controller	Realtek RTL8110S	Realtek RTL8110S	Intel 82573L	Realtek RTL8100C
Front I/O Port — USB	2	2	2	4 + 2 (cutouts)
PS/2	2	2	2	2
COM	1 + 2 (cutouts)	1 + 2 (cutouts)	1 + 2 (cutouts)	1 + 5 (cutouts)
Parallel	1	1	1	1
RJ-45	1	1	2	2
Audio	3	3	3	3
VGA	1	1	1	1
DVI/LVDS	1 (cutout)	1 (cutout)	1 (cutout)	1 (cutout)
S/C Video	1 (cutout)	1 (cutout)	1 (cutout)	1 (cutout)
WLAN Antenna	1 (cutout)	1 (cutout)	1 (cutout)	1 (cutout)
Rear I/O Port — USB	-	-	-	-
PS/2	-	-	-	-
COM	-	-	-	-
VGA	-	-	-	-
Parallel	-	-	-	-
RJ-45	-	-	-	-
Audio	-	-	-	-
Operating System	Microsoft Windows XP			
Watchdog Timer — Output	System Reset	System Reset	Interrupt, System Reset	System Reset
Interval	Programmable 1~255 sec	Programmable 1~255 sec	Programmable 1~255 sec	Programmable 1 ~ 255 sec
Power Supply — Output Wattage	75 W	75 W	180 W	180 W
Input Range	DC 14 ~ 24 V	DC 14 ~ 24 V	AC 100 ~ 240 V	AC 100 ~ 240 V
Cooling — Chassis Fan	-	-	2	1
Air Filter	-	-	Yes	Yes
Physical Characteristics — Color	Grey (body) Dark Blue (top cover)	Grey (body) Dark Blue (top cover)	Grey (body) Dark Blue (top cover)	Grey (body) Dark Blue (top cover)
Dimensions (W x H x D)	232 x 65 x 232 mm (9.1" x 2.6" x 9.1")	232 x 65 x 232 mm (9.1" x 2.6" x 9.1")	272 x 88 x 232 mm (10.7" x 3.5" x 9.1")	250 x 156 x 253 mm (9.8" x 6.1" x 10.0")
Weight	2.7 kg (6.0 lb)	2.7 kg (6.0 lb)	3.5 kg (7.7 lb)	4.8 kg (10.5 lb)

Model Name	SYS-4W5120-4U01	SYS-6W6606-2S02	SYS-8W6608-4S02	SYS-8W6908-4S01	SYS-7W7220-4A01
Form Factor	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop
Computing System — Chipset	Intel 945G + ICH7	Intel 915GV + ICH6	Intel Q965 + ICH8DO	Intel 945G + ICH7R	Intel Q965 + ICH8DO
CPU	Intel Core 2 Duo Max 2.66 GHz	Intel Pentium 4 Max 3.8 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz
Front Side Bus	800 / 1066 MHz	533 / 800 MHz	800 / 1066 MHz	800 / 1066 MHz	800/1066 MHz
L2 Cache	2 / 4 MB	1 / 2 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB
Memory	DDR2 533/667 SDRAM Max 4 GB	DDR2 400/533 SDRAM Max 4 GB	DDR2 533/667/800 SDRAM Max 8 GB	DDR2 533/667 SDRAM Max 4 GB	DDR2 533/667/800 SDRAM Max 8 GB
Graphics — Controller	Intel 945G integrated	Intel 915GV integrated	Intel Q965 integrated	Intel 945G integrated	Intel Q965 integrated
VRAM	Shared system memory Max 224 MB	Shared system memory Max 128 MB	Shared system memory Max 256 MB	Shared system memory Max 224 MB	Shared system memory Max 256 MB
Expansion Slot — ISA	-	2	2	-	-
PCI	2 x 32-bit	3 x 32-bit	4 x 32-bit	4 x 32-bit	5 x 32-bit
PCI Express	1 x PCIe x1, 1 x PCIe x16	-	-	1 x PCIe x4, 1 x PCIe x16	1 x PCIe x4, 1 x PCIe x16
Mini-PCI	-	-	-	-	-
Storage — Optical Drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive
Floppy Disk	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD
Hard Disk Drive	SATA	SATA	SATA (supports software RAID 0, 1, 5, 10)	SATA (supports software RAID 0, 1, 5, 10)	SATA (supports software RAID 0, 1, 5, 10)
Drive Bay — Slim Optical Drive	-	-	-	-	-
5.25"	1	1	2	2	2
3.5" (front-accessible)	1	1	1	1	1
3.5" (internal)	1	1	-	1	1
3.5" (mobile rack)	-	-	-	-	-
CompactFlash	-	-	-	-	-
Ethernet — Interface	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet
Controller	Intel 82573L	Broadcom 5721	Intel 82566DM	Intel 82573V	Intel 82573L 82566DM
Front I/O Port — USB	4	2	2	2	2
PS/2	2	-	-	-	1
COM	1	-	-	-	-
Parallel	1	-	-	-	-
RJ-45	1	-	-	-	-
Audio	3	-	-	-	-
VGA	1	-	-	-	-
DVI/LVDS	-	-	-	-	-
S/C Video	-	-	-	-	-
WLAN Antenna	-	-	-	-	-
Rear I/O Port — USB	-	4	4	4	4
PS/2	-	2	2	2	2
COM	-	2	2	3	2
VGA	-	1	1	1	1
Parallel	-	1	1	1	1
RJ-45	-	1	1	1	2
Audio	-	-	-	-	2
Operating System	Microsoft Windows XP				
Watchdog Timer — Output	Interrupt, System Reset	Interrupt, System Reset	System Reset	Interrupt, System Reset	-
Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	-
Power Supply — Output Wattage	300 W	300 W	400 W	400 W	400 W
Input Range	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
Cooling — Chassis Fan	1	1	1	2	1
Air Filter	Yes	Yes	Yes	Yes	Yes
Physical Characteristics — Color	Black (bezel) Silver (body)	Beige	Beige	Beige	Beige
Dimensions (W x H x D)	320 x 164 x 317 mm (12.6" x 6.5" x 12.5")	173 x 254 x 396 mm (6.8" x 10" x 15.6")	173 x 315 x 410 mm (6.8" x 12.4" x 16.1")	200 x 300 x 463 mm (7.9" x 11.8" x 18.2")	200 x 320 x 480 mm (7.9" x 12.6" x 18.9")
Weight	10 kg (22 lb)	11 kg (24.2 lb)	13 kg (28.6 lb)	15 kg (33 lb)	14 kg (30.8 lb)

Pre-configured Systems

		SYS-1U1320-4A01	SYS-2U2320-4U01	SYS-2U2000-4S02	SYS-4U4362-4A02
Form Factor		1U Rackmount	2U Rackmount	2U Rackmount	4U Rackmount
Computing System	Chipset	Intel Q965 + ICH8DO	Intel Q965 + ICH8DO	Intel Q965 + ICH8DO	Intel Q965 + ICH8DO
	CPU	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz
	Front Side Bus	800 / 1066 MHz	800/1066 MHz	800/1066 MHz	800/1066 MHz
	L2 Cache	2 / 4 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB
	Memory	DDR2 533/667/800 SDRAM Max 8 GB	DDR2 533/667/800 SDRAM Max 8 GB	DDR2 533/667/800 SDRAM Max 8 GB	DDR2 533/667/800 SDRAM Max 8 GB
Graphics	Controller	Intel Q965 integrated	Intel Q965 integrated	Intel Q965 integrated	Intel Q965 integrated
	VRAM	Shared system memory Max 256 MB	Shared system memory Max 256 MB	Shared system memory Max 256 MB	Shared system memory Max 256 MB
Expansion Slot	ISA	-	-	-	-
	PCI	-	2 x 32-bit	4 x 32-bit	5 x 32-bit
	PCI Express	1 x PCIe x4	1 x PCIe x16	-	1 x PCIe x4, 1 x PCIe x16
Storage	Optical Drive	Slim ROM drive	Slim ROM drive	Slim ROM drive	Slim ROM drive
	Floppy Disk	3.5" 1.44 MB FDD	-	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD
	Hard Disk Drive	SATA (supports software RAID 0, 1, 5)	SATA (supports software RAID 0, 1, 5, 10)	SATA (supports software RAID 0, 1, 5, 10)	SATA (supports software RAID 0, 1, 5, 10)
Drive Bay	Slim Optical Drive	1	1	1	1
	5.25"	-	-	-	-
	3.5" (front-accessible)	1	2	2	6
	3.5" (internal)	-	2	-	1
	3.5" (mobile rack)	2	-	-	-
Ethernet	Interface	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet
	Controller	Intel 82573L 82566DM	Intel 82566DM	Intel 82566DM	Intel 82573V 82566DM
Front I/O Port	USB	2	2	2	2
	PS/2	-	1	1	-
Rear I/O Port	USB	4	4	4	4
	PS/2	2	2	1	2
	COM	2	1	2	2
	VGA	1	1	1	1
	Parallel	1	1	1	1
	RJ-45	2	1	1	2
	Audio	2	3	-	2
Operating System		Microsoft Windows XP			
Watchdog Timer	Output	System Reset	System Reset	System Reset	-
	Interval	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	-
Power Supply	Output Wattage	300 W	300 W	300 W	500 W
	Input Range	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
Cooling	Chassis Fan	2	3	2	3
	Air Filter	-	Yes	Yes	Yes
Physical Characteristics	Color	Black	Black	Black	Black
	Dimensions (W x H x D)	480 x 44 x 620 mm (19" x 1.7" x 24.3")	482 x 88 x 480 mm (19" x 3.5" x 18.9")	482 x 88 x 450 mm (19" x 3.5" x 17.7")	482 x 177 x 480 mm (19" x 7" x 18.9")
	Weight	10 kg (22 lb)	16 kg (35 lb)	15 kg (33 lb)	22 kg (48.5 lb)

		SYS-4U4320-4S01	SYS-4U4000-4A02	SYS-4U630-4A01	SYS-4U610-4S01	SYS-4U510-4A01
Form Factor		4U Rackmount	4U Rackmount	4U Rackmount	4U Rackmount	4U Rackmount
Computing System	Chipset	Intel 945 G + ICH7R	Intel Q965 + ICH8DO	Intel 945 G + ICH7R	Intel Q965 + ICH8DO	Intel 945 G + ICH7R
	CPU	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz	Intel Core 2 Duo Max 2.66 GHz
	Front Side Bus	800/1066 MHz	800/1066 MHz	800/1066 MHz	800/1066 MHz	800/1066 MHz
	L2 Cache	2 / 4 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB
	Memory	DDR2 533/667 SDRAM Max 4 GB	DDR2 533/667/800 SDRAM Max 8 GB	DDR2 533/667 SDRAM Max 4 GB	DDR2 533/667/800 SDRAM Max 8 GB	DDR2 533/667 SDRAM Max 4 GB
Graphics	Controller	Intel 945G integrated	Intel Q965 integrated	Intel 945G integrated	Intel Q965 integrated	Intel 945G integrated
	VRAM	Shared system memory Max 224 MB	Shared system memory Max 256 MB	Shared system memory Max 224 MB	Shared system memory Max 256 MB	Shared system memory Max 224 MB
Expansion Slot	ISA	-	-	-	2	-
	PCI	4 x 32-bit, 6 x 64-bit	5 x 32-bit	5 x 32-bit	10 x 32-bit	5 x 32-bit
	PCI Express	1 x PCIe x16	1 x PCIe x4, 1 x PCIe x16	1 x PCIe x1, 1 x PCIe x16	-	1 x PCIe x1, 1 x PCIe x16
Storage	Optical Drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive
	Floppy Disk	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD	3.5" 1.44 MB FDD
	Hard Disk Drive	(supports software RAID 0, 1, 5, 10)	(supports software RAID 0, 1, 5, 10)	SATA	(supports software RAID 0, 1, 5, 10)	SATA
Drive Bay	Slim Optical Drive	-	-	-	-	-
	5.25"	2	3	3	3	3
	3.5" (front-accessible)	1	1	1	1	1
	3.5" (internal)	-	-	1	-	1
	3.5" (mobile rack)	2	-	-	-	-
Ethernet	Interface	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet	10/100/1000Base-T Gigabit Ethernet
	Controller	Intel 82573V	Intel 82573L 82566DM	Intel 82573	Intel 82566DM	Intel 82573
Front I/O Port	USB	2	2	2	2	2
	PS/2	-	1	-	1	1
Rear I/O Port	USB	4	4	4	4	4
	PS/2	2	2	2	1	2
	COM	3	2	2	2	2
	VGA	1	1	1	1	1
	Parallel	1	1	1	1	1
	RJ-45	1	2	1	1	1
	Audio	-	2	3	-	3
Operating System		Microsoft Windows XP				
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
Power Supply	Output Wattage	400 W	400 W	400 W	400 W	400 W
	Input Range	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
Cooling	Chassis Fan	2	2	1	2	1
	Air Filter	Yes	Yes	Yes	Yes	Yes
Physical Characteristics	Color	Black	Black	Silver	Beige	Beige
	Dimensions (W x H x D)	482 x 177 x 478 mm (19" x 7" x 18.8")	482 x 177 x 480 mm (19" x 7" x 18.9")	482 x 177 x 497 mm (19" x 7" x 19.6")	482 x 177 x 478 mm (19" x 7" x 18.8")	482 x 177 x 450 mm (19" x 7" x 17.7")
	Weight	20 kg (44 lb)	20 kg (44 lb)	20 kg (44 lb)	20 kg (44 lb)	16 kg (35.2 lb)

Mini-ITX Motherboards

Ultra Compact and Highly Integrated Mini-ITX

Mini-ITX motherboards are designed with rich functionality and reliable performance in a small footprint that measures just 170 mm by 170 mm (6.69" x 6.69" inches). The highly integrated platforms feature low power consumption of less than 100 Watts and have a single expansion slot. They're ideal platforms for fast-emerging markets in which compact size and power efficiency are required, such as information station kiosks, POS, lotteries, gaming systems and many others.

Model Name		AIMB-221	AIMB-256	AIMB-252	AIMB-240	AIMB-251
Processor System	CPU	AMD Turion TL-62 / AMD Sempron 3700+	Intel Core 2 Duo / Intel Celeron M	Intel Pentium M / Intel Celeron M	Intel Pentium 4 / Celeron	Onboard Intel ULV Celeron 600 MHz
	Socket	S1g1 Socket	µFC-PGA 478 Socket P / CPU on board	µFC-PGA 478 Socket / CPU on board	µFC-PGA 478 Socket	CPU on board
	Max. Speed	2.1 GHz / 2.0 GHz	2.2 GHz / 2.0 GHz	2.0 GHz / 1.5 GHz	2.8 GHz / 2.8 GHz	600 MHz
	Front Side Bus	800 MHz / 800 MHz	800 MHz / 533 MHz	533 MHz / 400 MHz	533 MHz / 400 MHz	400 MHz
	L2 Cache	1 MB / 512 KB	2 x 2 MB / 1 MB	2 MB / 1 MB	512 KB / 256 KB	512 KB
	Chipset	AMD M690E + SB600	Intel GME965 + ICH8M	Intel 915GME/910GMLE + ICH6M	Intel 852GME + ICH4	Intel 852GM + ICH4
	BIOS	Award 4 Mbit LPC	AMI 16 Mbit SPI	Award 4 Mbit FWH	Award 4 Mbit FWH	Award 4 Mbit FWH
Expansion Slot	PCI	32-bit/33 MHz, 1 slot	32-bit/33 MHz, 1 slot	32-bit/33 MHz, 1 slot	32-bit/33 MHz, 1 slot	32-bit/33 MHz, 1 slot
	Mini-PCI	32-bit/33 MHz, 1 slot	-	-	32-bit/33 MHz, 1 slot	32-bit/ 33 MHz, 1 slot
	PCIe	-	-	-	-	-
Memory	Technology	Dual Channel DDR2 800 SDRAM	Dual Channel DDR2 533/667/800 SDRAM	Dual Channel DDR2 400/533 SDRAM	DDR 266/333 SDRAM	DDR 200/266 SDRAM
	Max. Capacity	4 GB	4 GB	2 GB	1 GB	1 GB
	Socket	200-pin SODIMM x 2	200-pin SODIMM x 2	240-pin DIMM x 2	184-pin DIMM x 1	184-pin DIMM x 1
Graphics	Controller	AMD M690E integrated ATI Radeon X1250 based GFX Engine	Intel GMA X3100	Intel GMA 900	Chipset integrated	Chipset integrated
	VRAM	Shared system memory up to 512 MB	DVMT 4.0 supports shared system memory up to 384 MB	DVMT 3.0 supports shared system memory up to 128 MB	DVMT 2.1 supports shared system memory up to 64 MB	DVMT 2.1 supports shared system memory up to 64 MB
	LCD	Dual channel 36/48-bit LVDS	Dual channel 36/48-bit LVDS	LVDS 1: Dual channel 36-bit LVDS LVDS 2: Dual channel 48-bit LVDS (optional)	Dual channel 36-bit LVDS	Dual channel 36-bit LVDS
	TV-Out	-	-	-	Chrontel CH7009A TV encoder supports both NTSC/PAL	Chrontel CH7009A TV encoder supports both NTSC/PAL
	HDMI	1	-	-	-	-
	DVI	-	1	-	Chrontel CH7009A DVI transmitter up to 135M pixels/second	Chrontel CH7009A DVI transmitter up to 135M pixels/second
	Dual Display	CRT + LVDS; CRT+HDMI; HDMI+LVDS	CRT + LVDS; DVI + LVDS; CRT + DVI	CRT + LVDS; Dual LVDS	CRT + LVDS, or DVI/TV-out + LVDS or CRT + DVI	CRT + LVDS, or DVI/TV-Out + LVDS or CRT + DVI
Audio	SPDIF out	-	4-pin S/PDIF Out Header	-	-	-
	Amplifier	-	-	-	-	-
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T	10/100/1000Base-T	10/100Base-T	10/100/1000Base-T
	Controller	Dual Realtek RTL8111C	Dual Realtek RTL8111B	Dual Realtek RTL8111C	Dual Realtek RTL8100C	Realtek RTL8110S
	Connector	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 1
TPM 1.2	TPM IC	Infineon SLB9635 (Optional)	Infineon SLB9635 (Optional)	-	-	-
	Onboard	Yes	Yes	-	-	-
SATA	Max Data Transfer Rate	300 MB/s	300 MB/s	150 MB/s	-	-
	Channel	4	3	2	-	-
EIDE	Mode	EIDE (Ultra DMA 133)	EIDE (Ultra DMA 100)	EIDE (Ultra DMA 100)	EIDE (Ultra DMA 100)	EIDE (Ultra DMA 100)
	Channel	1	1	1	2	2
Rear I/O	VGA / DVI	1 / -	1 / 1	1 / -	1 / -	1/-
	Ethernet	2	2	2	2	1
	USB	4 (USB 2.0 compliant)	4 (USB 2.0 compliant)	4 (USB 2.0 ports)	4 (USB 2.0 compliant)	2 (USB 2.0 compliant)
	Audio	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out
	IEEE 1394	-	-	-	-	-
	Parallel	-	-	1	1	1
	Serial	2 (1 of RS-232; 1 of RS-232/422/485)	2 (RS-232, supply 5 V & 12 V)	1 (RS-232/422/485)	1 (RS-232)	1 (RS-232/422/485)
	PS/2	2 (1 x K/B and 1 x Mouse)	2 (1 x K/B and 1 x Mouse)	2 (1 x K/B and 1 x Mouse)	2 (1 x K/B and 1 x Mouse)	2 (1 x K/B and 1 x Mouse)
Internal Connector	LVDS & Inverter	1	1	2	1	1
	TV-Out	-	-	-	1	1
	DVI	-	-	-	1	1
	USB	4	6 (USB 2.0 ports)	4 (USB 2.0 compliant)	2 (USB 2.0 compliant)	4 (USB 2.0 compliant)
	Serial	4 (RS-232)	2 (2 x RS-232, supply 5 V & 12 V)	4 (RS-232)	5 (one of RS-232/422/485)	3 (RS-232)
	Parallel	1	-	-	-	-
	IDE	1	1	1	2	2
	SATA	4	3	2	-	-
	CompactFlash	1 Type I/II	1 Type I/II	1 Type I/II	1 Type I/II	1 Type I/II
	IrDA	-	-	-	115 kbps, IrDA 1.0 compliant	115 kbps, IrDA 1.0 compliant
	FDD	-	-	-	1	1
	DIO	8-bit General Purpose I/O for DI and DO	8-bit General Purpose I/O for DI and DO	16-bit General Purpose I/O for DI and DO	8-bit General Purpose I/O for DI and DO	16-bit General Purpose I/O for DI and DO
Watchdog Timer	Output	System reset	Interrupt, system reset	Interrupt, 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	Programmable,1 ~ 255 sec/ min

MicroATX Motherboards

Best Price / Performance MicroATX

These Industrial MicroATX motherboards are only 9.6" x 9.6" and are ideal for space/cost sensitive applications where less than 4 slots are required. They enable the same high integration of ATX but with a smaller footprint that fills the gap between Mini-ITX and full-sized ATX for balanced performance and expandability.

Model Name		AIMB-564	AIMB-556
Processor System	CPU	Intel Core 2 Quad/ Core 2 Duo/ Pentium 4/ Celeron D	Intel Core 2 Duo/Celeron M
	Socket	LGA775	uFC-PGA 478 Socket P / CPU on board
	Max. Speed	2.66/ 2.66/ 3.8/ 3.6 GHz	2.2 GHz/ 2.0 GHz
	L2 Cache	8 MB/ 4 MB/ 2M/ 512 KB	4 MB/ 1 MB
	Chipset	Intel Q965 + ICH8 DO	Intel GME965 + ICH8M
	BIOS	AMI 16 Mbit SPI	AMI 16 Mbit SPI
	Front Side Bus	533/800/1066 MHz	533/ 800 MHz
Expansion Slot	Graphic Expansion Slot	PCIe x16 4 GB/s per direction, 1 slot	PCIe x16 4 GB/s per direction, 1 slot
	PCI	32-bit/33 MHz, 2 slots	32-bit/33 MHz, 2 slot
	PCIe x4	1 GB/s per direction, 1 slot	1 GB/s per direction, 1 slot
	PCIe x1	-	-
Graphics	Controller	Intel GMA 3000	Intel GMA X3100
	VRAM	Share system memory up 256 MB	Share system memory up 384 MB
	LCD	-	Dual channel 48-bit LVDS
	TV-out	-	Yes
	DVI	-	-
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T
	Controller	Intel 82566DM	Intel 82566MM Intel 82573L
	Connector	RJ-45 x 1	RJ-45 x 2
TPM 1.2	TPM IC	-	-
	Onboard	TPM pin header for TPM module (Sold separately)	-
Memory	Technology	Dual channel DDR2 533/667/800 SDRAM	Dual channel DDR2 533/667 SDRAM
	Max. Capacity	8 GB	4 GB
	Socket	240-pin DIMM x4	240-pin DIMM x2
SATA	Max. Data Transfer Rate	300 MB	300 MB/s
	Channel	8 (1 x eSATA & 7 x internal)	3
EIDE	Mode	ATA 100/66/33	ATA 100/66/33
	Channel	1 (Max. two devices)	1 (Max. two devices)
I/O Interface	VGA	1	1
	USB	Max. 10 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)
	Serial	1 (RS-232)	4 (1 of RS-232/422/485, 3 of RS-232)
	Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
	FDD	1	1
	PS/2	2 (keyboard and mouse)	2 (keyboard and mouse)
	LAN	1	-
		-	2
	External SATA	1	-
	IEEE 1394	2 (1 x external & 1 x onboard)	-
	OBS (Hardware Monitor)	Yes	Yes
	Audio	Line-in, Line-out, Mic-in, CD-Audio in, 6 jacks	Mic-in,Line-out
Watchdog Timer	Output	System reset	System reset
	Interval	Programmable, 1~255 sec/ min	Programmable, 1 ~ 255 sec/ min
Miscellaneous	Advantech SNMP-1000-B	-	-
	Solid State Disk	-	-

Model Name	AIMB-552	AIMB-554	AIMB-562
CPU	Intel Pentium M/Celeron M	Intel Core 2 Duo/ Core Duo/ Celeron M	Intel Core 2 Duo/Pentium 4/Celeron D
Socket	uFC-PGA 478 Socket / CPU on board	uFC-PGA 478 Socket M/ CPU on board	LGA775
Max. Speed	2.0 GHz/1.5 GHz	2.16 GHz/2 GHz/1.86 GHz	2.66 GHz/ 3.8 GHz/3.06 GHz
L2 Cache	2 MB/1 MB/512 KB	4 MB/2 MB/1 MB	4 MB/2 MB/1 MB/512 KB
Chipset	Intel 910GMLE/915GME + ICH6M	Intel 945GME +ICH7M-DH	Intel 945G + ICH7
BIOS	Award 4 Mbit FWH	Award 4 Mbit FWH	AMI 4 Mb FWH
Front Side Bus	400/533 MHz	533/667 MHz	533/800/1066 MHz
Graphic Expansion Slot	-	PCIe x16 4 GB/s per direction, 1 slot	PCIe x16 4 GB/s per direction, 1 slot
PCI	32-bit/33 MHz, 3 slots	32-bit/33 MHz, 2 slots	32-bit/33 MHz, 2 slots
PCIe x4	-	1 GB/s per direction, 1 slot	-
PCIe x1	-	-	250 MB/s per direction, 1 slot
Controller	Intel GMA 900	Intel GMA 950	Intel GMA 950
VRAM	Shared system memory up 128 MB	Shared system memory up 224 MB	Shared system memory up 224 MB
LCD	Dual channel 36-bit LVDS	Dual channel 36-bit LVDS	-
TV-out	-	Yes	-
DVI	Chrontel 7307C transmitter	-	-
Interface	10/100/1000Base-T	10/100/1000Base-T	10/100/1000Base-T
Controller	Dual Realtek RTL8111C	Dual Intel 82573L	Intel 82573L
Connector	RJ-45 x 2	RJ-45 x 2	RJ-45 x 1
TPM IC	-	-	-
Onboard	-	-	-
Technology	Dual channel DDR2 400/533 SDRAM	Dual channel DDR2 533/667 SDRAM	Dual channel DDR2 533/667 SDRAM
Max. Capacity	2 GB	4 GB	4 GB
Socket	240-pin DIMM x2	240-pin DIMM x2	240-pin DIMM x4
Max. Data Transfer Rate	150 MB/s	300 MB/s	300 MB/s
Channel	2	2	4
Mode	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33
Channel	1 (Max. two devices)	1 (Max. two devices)	1 (Max. two devices)
VGA	1	1	1
USB	Max. 8 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)
Serial	10 (2 of RS-232/422/485)	2 (1 of RS-232/422/485, 1 of RS-232)	2 (RS-232)
Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
FDD	1	1	1
PS/2	2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)
LAN	1 (for VG version)	1 (for VG version)	1
	2 (for G2 version)	2 (for G2 version)	-
External SATA	-	-	-
IEEE 1394	-	-	-
OBS (Hardware Monitor)	Yes	Yes	Yes
Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-in, Line-out
Output	System reset	System reset	System reset
Interval	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min	Programmable, 1-255 sec/ min
Advantech SNMP-1000-B	-	Yes	-
Solid State Disk	Compact Flash type I/II	-	-

Full-size ATX Motherboards

Performance-rich Full-size ATX Motherboards

Full-size industrial ATX motherboards measure 305 by 244 mm (12" x 9.6") and support up to 7 expansion slots. Advantech's ATX motherboards offer a wide range of computing capacities from low power Intel Pentium M based solutions to the latest dual core processors.

Model Name		AIMB-764	AIMB-763
Processor System	CPU	Intel Core 2 Quad/Core 2 Duo/Pentium 4/ Celeron D	Intel Core 2 Duo/Pentium® D/Pentium 4/ Celeron® D
	Max. Speed	2.66 GHz/2.66 GHz/3.8 GHz/3.06 GHz	2.66 GHz/3.2 GHz/3.8 GHz/3.06 GHz
	L2 Cache (Depends on CPU)	8 MB/4 MB/2 MB/512 KB	4 MB/4 MB/2 M/512 KB
	Chipset	Intel Q965 + ICH8DO	Intel 945G + ICH7R
	BIOS	Award 16Mbit SPI	Award 8Mbit FWH
	FSB	533/800/1066 MHz	533/800/1066 MHz
Expansion Slot	Graphic Expansion Slot	PCIe x16 4 GB/s per direction, 1 slot	PCIe x16 4 GB/s per direction, 1 slot
	PCIe/ PCI	PCIe x4 1 GB/s per direction, 1 slot PCI 32-bit/33 MHz, 5 slots	PCIe x1 250 MB/s per direction, 1 slot PCI 32-bit/33 MHz, 5 slots
	ISA	-	-
Graphics	Controller	Intel GMA 3000	Intel GMA 950
	VRAM	Shared system memory up 256 MB	Shared system memory up 224 MB
	LCD	-	-
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T
	Controller	Intel 82573L & Intel82566DM	Dual Intel 82573L
Memory	Technology	Dual channel DDR2 533/667/800 SDRAM	Dual channel DDR2 533/667 SDRAM
	Max. Capacity	8 GB	4 GB
	Socket	240-pin DIMM x 4	240-pin DIMM x 4
SATA	Max. Data Transfer Rate	300 MB/s (SATA II)	300 MB/s (SATA II)
	Channel	5	4
EIDE	Mode	ATA 100/66/33	ATA 100/66/33
	Channel	1 (Max. one device)	1 (Max. two devices)
I/O Interface	VGA	1	1
	USB	Max. 10 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)
	Serial	2 (1 of RS-232/422/485, 1 of RS-232)	2 (for VG version); 4 (for G2 version) COM2 supports RS-232/422/285
	Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
	FDD	1	1
	PS/2	2 (keyboard and mouse)	2 (keyboard and mouse)
	LAN	2	1 (for VG version) 2 (for G2 version)
	OBS (Onboard Security) Hardware Monitor	Yes	Yes
	Audio	Mic-in, Line-out	Mic-in, Line-in, Line-out
Watchdog Timer	Output	System reset	System reset
	Interval	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min
Miscellaneous	Advantech SNMP/HTTP System Manager (SNMP-1000-B)	Yes	Yes
	Solid State Disk	-	-

Model Name	AIMB-762	AIMB-750	AIMB-744	AIMB-742
CPU	Intel Pentium D/Pentium 4/Celeron D LGA775	Intel Pentium M/CeleronM Socket 479	Intel Pentium 4/Celeron D/Celeron Socket 478	Intel Pentium 4/Celeron D/Celeron Socket 478
Max. Speed	3.2 GHz/3.8 GHz/3.06 GHz	2.1 GHz/1.5 GHz	3.4 GHz/3.06 GHz/256 KB/128 KB	3.4 GHz/3.06 GHz/2.8 GHz
L2 Cache (Depends on CPU)	4MB/2 MB/256 KB	2 MB/1 MB/512 KB	1 MB/512 KB/256 KB/128 KB	1 MB/512 KB/256 KB/128 KB
Chipset	Intel 945G + ICH7R	Intel 855GME + 6300ESB	Intel 875P + 6300ESB	Intel 865G + ICH5
BIOS	Award 4Mbit FWH	Award 4 Mbit FWH	Award 4 Mbit FWH	Award 4 Mbit FWH
FSB	533/800 MHz	400 MHz	400/533/800 MHz	400/533/800 MHz
Graphic Expansion Slot	PCIe x16 4 GB/s per direction, 1 slot	AGP 4x, 1 slot	AGP 8x, 1 slot	AGP 8x, 1 slot
PCIe/ PCI	PCIe x4 1 GB/s per direction, 1 slot PCI 32-bit/33 MHz, 5 slots	PCI-X 64-bit/66 MHz, 2 slots PCI 32-bit/33 MHz, 4 slots	PCI-X 64-bit/66 MHz, 2 slots PCI 32-bit/33 MHz, 4 slots	PCI 32-bit/33 MHz, 5 slots
ISA	-	-	-	2
Controller	Intel GMA 950	Chipset integrated	-	Intel Extreme Graphics 2
VRAM	Shared system memory up 224 MB	Shared system memory up to 64 MB	-	Shared system memory up to 64 MB
LCD	-	Dual channel 36-bit LVDS	-	-
Interface	10/100/1000Base-T	10/100/1000Base-T or 10/100Base-T	10/100/1000Base-T	10/100/1000Base-T or 10/100Base-T
Controller	Dual Intel 82573V	Intel 82541 & Intel 82551	Intel 82547 & Intel 82541	Intel 82547/82541 & Intel 82562/82551
Technology	Dual channel DDR2 533/667 SDRAM	Single channel DDR 200/266/333 SDRAM support ECC	Dual channel DDR2 266/333/400 SDRAM support ECC	Dual channel DDR 266/333/400 SDRAM
Max. Capacity	4 GB	2 GB	4 GB	4 GB
Socket	240-pin DIMM x 4	184-pin DIMM x 2	184-pin DIMM x 4	184-pin DIMM x 4
Max. Data Transfer Rate	300 MB/s (SATA II)	150 MB/s	150 MB/s	150 MB/s
Channel	4	2	2	2
Mode	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33
Channel	1 (Max. two devices)	2 (Max. two devices)	2 (Max. for devices)	2 (Max. for devices)
VGA	1	1	-	1
USB	Max. 8 (USB 2.0 compliant)	Max. 4 (USB 2.0 compliant)	Max. 4 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)
Serial	2 (1 of RS-232/422/485, 1 of RS-232)	4 (RS-232)	4 (RS-232)	2 (RS-232)
Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
FDD	1	1	1	1
PS/2	2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)
LAN	1 (for VG version) 2 (for G2 version)	1 (for VE, VG version) 2 (for E2, G2 version)	1 (for G version) 2 (for G2 version)	1 (for VE/VG version) 2 (for E2/G2 version)
OBS (Onboard Security) Hardware Monitor	Yes	Yes	Yes	Yes
Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
Output	System reset	System reset	System reset	Interrupt, System reset
Interval	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min
Advantech SNMP/HTTP System Manager (SNMP-1000-B)	Yes	Yes	Yes	Yes
Solid State Disk	-	Compact Flash type I/II (optional)	-	Compact Flash type I/II (optional)

Riser Cards
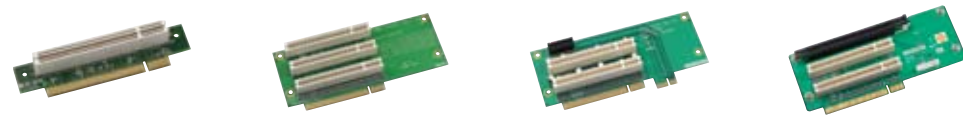
Model Name		AIMB-RP10P-01A1E	AIMB-RP30P-03A1E	AIMB-RH31P-12A1E	AIMB-RP3PF-21A1E
Interface		PCI	PCI	PCIe x1 + PCI	PCIe x16 + PCI
Expansion slots		1 PCI	3 PCI	1 PCIe x1 + 2 PCI	1 PCIe x16 + 2 PCI
Chassis	1U	Yes	-	-	-
	2U	-	Yes	Yes	Yes
ATX	AIMB-763	-	-	-	Yes
	AIMB-760	Yes	Yes	Yes	-
	AIMB-750	Yes	Yes	-	-
	AIMB-744	Yes	Yes	-	-
	AIMB-742	Yes	Yes	-	-
	AIMB-740	Yes	Yes	-	-
Micro ATX	AIMB-564	-	-	-	Yes
	AIMB-562	-	-	-	Yes
	AIMB-560	Yes	Yes	-	-
	AIMB-552	Yes	Yes	-	-
	AIMB-542	x	-	-	-
Mini ITX	AIMB-240	Yes	-	-	-
	AIMB-250-B	Yes	-	-	-
	AIMB-251	Yes	-	-	-
	AIMB-220	Yes	-	-	-

Model Name		AIMB-R4104-01A1E	AIMB-R430P-03A1E	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-764	Yes	Yes	Yes	Yes	Yes
	AIMB-762	Yes	Yes	△	△	Yes
Micro ATX	AIMB-556	Yes	Yes	Yes	Yes	Yes
	AIMB-554	Yes	Yes	△	△	Yes

Yes: Fully compatible
△: Means only one PCIe x1 (bottom slot) connector works.

System Host Boards

Model Name		Dual Xeon PICMG 1.3 System Host Board	Core 2 Quad PICMG 1.3 System Host Board	Core 2 Duo PICMG 1.3 System Host Board
		PCE-7210	PCE-5124	PCE-5120-A2
Processor System	CPU	Dual Intel Xeon /LV Xeon Socket 604 Processors	Intel Core 2 Quad/ Core 2 Duo/ Pentium Dual-Core/ Celeron 400 LGA775 Processors	Intel Core 2 Duo/ Pentium Dual-Core/ Celeron 400 LGA775 Processors
	Max. Speed	3.6 GHz	2.83 GHz/3.16 GHz/2.40 GHz/ 2 GHz	2.66 GHz/ 2 GHz/ 2 GHz
	L2 Cache	2 MB	12 MB/6 MB/1 MB/512 KB	4 MB/ 1MB / 512KB
	Chipset	Intel E7520+6300ESB	Intel Q35 + ICH9DO	Intel 945G + ICH7R
	BIOS	Award 4 Mb FWH	AMI 16Mb SPI Flash	Award 4 Mb FWH
Bus	FSB	800 MHz	1333/ 1066/ 800/ 533 MHz	1066/ 800/ 533 MHz
	PCIe Back Plane	Two x8 & one x4	One x16 & four x1	One x16 & four x1
	PCI	32bit/66 MHz PCI-X	32 bit/33 MHz PCI	32 bit/33 MHz PCI
Graphicss	Controller	ATI RADEON 7000M (PCI 32 bit/33 MHz)	Chipset integrated Intel Graphicss Media Accelerator 3100	Chipset integrated Intel Graphicss Media Accelerator 950
	VRAM	16 MB frame buffer memory	Shared with 256 MB system memory	Shared with 224 MB system memory
	LCD	-	-	-
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T	10/100/1000Base-T
	Controller	Broadcom 5715C	Intel 82566DM/82573V	Intel 82573V x 2
	Connector	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2
	Disable from BIOS	-	Yes	Yes
Memory	Technology	Dual-channel DDR2 400 MHz (ECC Registered DIMMs)	Dual-channel DDR2 667/800MHz DIMMs	Dual-channel DDR2 533/667 MHz DIMMs
	Max. Capacity	8 GB	8 GB	4 GB
	Socket	240-pin DIMM x 4	240-pin DIMM x 4	240-pin DIMM x 4
SATA	Max. Data Transfer Rate	150 MB/Sec.	300 MB/Sec. (SATA 2)	300 MB/Sec. (SATA 2)
	Channel	2	6	4
	RAID	0, 1	0, 1, 5, 10	0, 1, 5, 10
EIDE	Mode	ATA 100/66/33	-	ATA 100/66/33
	Channel	2 (Max. four devices)	-	1 (Max. two devices)
I/O Interface	USB	Max. 4 (USB 2.0 compliant) to backplane	Max. 12 (USB 2.0 compliant) 8 on SHB by Pin Header, 4 to Backplane	Max. 8 (USB 2.0 compliant) 4 on SHB by Pin Header, 4 to Backplane
	Serial	3 (RS-232) with Pin Header	6 (1 RS-485 and 5 RS-232) with Pin Header	4 (1 RS-485 and 3 RS-232) with Pin Header
	Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
	FDD	1	1	1
	PS/2	1	1	1
	LAN	2	1 (for VG version)	1 (for VG version)
		-	2 (for F and G2 versions)	2 (for G2 version)
	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	Programmable, 1~255 sec/min
Miscellaneous	Audio	PCA-AUDIO-00A1E	PCA-AUDIO-HDA1E	PCA-AUDIO-00A1E
	Advantech SNMP-1000	Yes	Yes	Yes
	IPMI	Optional	Optional	Optional
	Solid State Disk	-	-	Optional (CompactFlash Type I/II)

SHB Express Backplanes

Features

Advantech's SHB Express design policy provides clear solutions that ensure system compatibility. Clear product naming helps customers recognize specific solutions easily. Customers requiring a server grade solution choose the PCE-7000 series. For excellent graphics performance, customers can select the PCE-5000 series. Advantech's precise naming policy offers clear purchasing guidelines that help assure correct and compatible SHB and SHB Express backplane combinations.

PCE-7B13-64B1E

PCE-5B12-64B1E

Server Grade: Compatible with PCE-7xxx series CPU board

Yes: Supported/ - : Not supported

Model Name	PCIe				PCI-X			PCI	Rackmount Chassis						Rackmount Chassis										Wallmount Chassis			
	x16	x8	x4	x1	64/66	64/100	64/133	32/33	ACP-2000EBP	IPC-602EBP	IPC-510	IPC-610-E	IPC-610-L	IPC-610-H	IPC-610-F	IPC-611	IPC-630	ACP-4000	ACP-4320	ACP-4362	IPC-623	ACP-5260	IPC-622	ACP-7000	IPC-6606	IPC-6806	IPC-6608	IPC-6908
PCE-7B06V-04A1E	1							4	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B06V-30A1E	2					2	1		Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B06-04A1E	1							4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-7B06-40A1E	1			4					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-7B08-04A1E	2	1		Yes				4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
PCE-7B13-64B1E	2					4	2	4	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
PCE-7B10-04A1E		5						4	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
PCE-7B13D-04A1E	1, 2							4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-7B19-88A1E	2		8					8	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-
PCE-7B16Q-02A1E	1							2	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-

Desktop: Compatible with PCE-5xxx series CPU board

Yes: Supported/ - : Not supported

Model Name	PCIe				PCI-X			PCI	Rackmount Chassis						Rackmount Chassis											Wallmount Chassis			
	x16	x8	x4	x1	64/66	64/100	64/133	32/33	ACP-1000EBP	ACP-2000EBP	IPC-602EBP	IPC-510	IPC-610-E	IPC-610-L	IPC-610-H	IPC-610-F	IPC-611	IPC-630	ACP-4000	ACP-4320	ACP-4362	IPC-623	ACP-5260	IPC-622	ACP-7000	IPC-6606	IPC-6806	IPC-6608	IPC-6908
PCE-5B03V-01A1E	1							1	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B03V-00A1E	1	1							Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B06V-04A1E	1							4	-	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B05V-30A1E	1					2	1		-	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B06V-00A1E	1		4						-	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B06-04A1E	1							4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-5B06-00A1E	1		4						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-5B06-40A1E	1				4				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
PCE-5B07-04A1E	1	1						4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
PCE-5B08-02A1E	1		4					2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
PCE-5B12-64B1E	1					4	2	4	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
PCE-5B13-08A1E	1		3					8	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
PCE-5B10-04A1E	1		4					4	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
PCE-5B12D-04A1E	1							4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCE-5B18-88A1E	1					8		8	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-
PCE-5B16Q-02A1E	1							2	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-

PCI/ISA Full-size Single Board Computers

Model Name		PCA-6194	PCA-6008	PCA-6190
Processor System	CPU	Intel Core 2 Duo/ Pentium Dual-Core/ Celeron 400 Sequence/ Pentium D/ Pentium 4/ Celeron D	Intel Pentium M / Celeron M (G2 version only) On board Celeron M (VG version only)	Intel Pentium 4/Celeron D LGA775
	Max. Speed	2.66/ 2.0/ 2.0/ 3.6/ 3.8/ 3.33 GHz	2.26/ 1.7 GHz (G2 version only) 600 MHz (VG version only)	3.8/3.06 GHz
	Max. L2 Cache	4MB/ 1 MB /512 KB/ 2 MB+2 MB/ 2 MB/ 512 KB	512 KB, 1 MB, 2 MB	1 MB, 2 MB/256 KB
	Chipset	Intel Q965 + ICH8DO	Intel 915GME+ ICH6M (G2 version only) Intel 910GMLE+ ICH6M (VG version only)	Intel 915GV + ICH6
	BIOS	Award 16 Mbit SPI Flash	Award 4 Mbit FWH	Award 8 Mbit FWH
Bus	FSB	1066/ 800/ 533 MHz	533/ 400 MHz	533/800 MHz
	PCI	32-bit/ 33 MHz PCI	32-bit/33 MHz PCI	PCI 32-bit/33 MHz; 2 PCIe x1 for LAN chip
	ISA	HISA (ISA High Drive)	HISA (ISA High Driver)	HISA (ISA high drive)
Graphicss	Controller	Chipset integrated, up to 2048x1536 @ 75Hz refresh	Chipset integrated VGA controller	Chipset integrated
	VRAM	Shared with system memory up to 256MB	Shared with system memory up to 128 MB	Shared system memory up to 128 MB
	LCD	Video output, 15 pin CRT connector x1 (Optional DVI connector)	LVDS/ DVI (G2 version only)	DVI
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T	10/100/1000Base-T
	Controller	LAN1: Intel 82566DM LAN2: Intel 82573V	LAN1: RTL8111B LAN2: RTL8111B	Broadcom BCM5721 x 2
	Connector	RJ45 x 2	RJ45 x 2	RJ-45 x 2
	Disable from BIOS	Yes	Yes	Yes
Memory	Technology	Dual-channel DDRII 800/667/533 MHz DIMMs	Dual-channel DDRII 533/ 400 MHz DIMMs	Dual channel DDR2 400/533
	Max. Capacity	8 GB	2 GB	4 GB
	Socket	240-pin DIMM x 4	240-pin DIMM x 2	240-pin x 4
SATA	Max. Data Transfer Rate	300 MB/s	150 MB/s	150 MB/s
	Channel	6	2	4
EIDE	Mode	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33
	Channel	1 (Max. two devices)	1 (Max. two devices)	1 (Max. two devices)
I/O Interface	USB	6 (USB2.0)	8 (USB 2.0, for G2 version) 4 (USB 2.0, for VG version)	8 (USB 2.0)
	Serial	2 (RS-232)	G2 version: 5 (RS-232) / 1 (RS-232/ RS-422/RS-485) VG version: 2 (RS-232)	2 (RS-232)
	Parallel	1 (EPP/ ECP)	1 (EPP/ECP/SPP)	1 (SPP/EPP/ECP)
	FDD	1	1	1
	PS/2	1	1	1
	LAN	1 (for VG version) 2 (for G2 version)	1 (for VG version) 2 (for G2 version)	1 (for VG version) 2 (for G2 version)
	OBS (Hardware Monitor)	Yes	Yes	Yes
Watchdog Timer	Output	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
	Interval	Programmable 1~255 sec.	Programmable, 1~255 sec.	Programmable, 1~255 sec.
Miscellaneous	Audio (requires PCA-AUDIO-00A1E)	Yes (Interface to Hi-definition audio codec module PCA-AUDIO-HDA1E)	Yes	Yes
	Advantech SNMP-1000-B	Yes	Yes	Yes
	Solid State Disk	IDE flash Disk	IDE flash Disk (CompactFlash socket is optional)	IDE Flash Disk

Model Name	PCA-6187	PCA-6186-B	PCA-6178-C	PCA-6002-B
CPU	Intel Pentium 4/Celeron D/Celeron Socket 478	Intel Pentium 4/Celeron D/ Celeron Socket 478	Intel Pentium III/Celeron Socket 370	Intel Celeron (Ultra Low Voltage)
Max. Speed	3.4/3.06/2.8 GHz	3.06/3.06/2.8 GHz	1.0 GHz/1.1 GHz	650/400 MHz
Max. L2 Cache	256 KB, 512 KB, 1 MB/ 256 KB /128, 256 KB	256, 512 KB/256 KB/128 KB	256 KB/128 KB	256 KB
Chipset	Intel 865G + ICH5	Intel 845GV + ICH4	Intel 440BX	Intel 815E + ICH2
BIOS	Award 4 Mbit FWH	Award 4 Mbit FWH	Award 2 Mbit ISA	Award 4 Mbit FWH
FSB	400/533/800 MHz	400/533 MHz	66/100 MHz	100 MHz
PCI	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz
ISA	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)
Controller	Chipset integrated	Chipset integrated	ATI RAGE XL (AGP 2X)	Chipset integrated
VRAM	Shared system memory up to 64 MB	Shared system memory 8 ~ 64 MB	8 MB	Shared system memory up to 11 MB
LCD	-	-	-	-
Interface	10/100Base-T or 10/100/1000Base-T	10/100Base-T or 10/100/1000Base-T	10/100Base-T	10/100Base-T
Controller	Intel 82547/82541, Intel 82562 (FE)	Intel 82562/82551, Intel 82541 (GbE)	Intel 82551	Intel 82562/82551
Connector	RJ-45 x 2	RJ-45 x 2	RJ-45	RJ-45 x 2
Disable from BIOS	Yes	Yes for FE LAN NO for GbE	-	Yes
Technology	Dual channel DDR 266/333/400 SDRAM	DDR 200/266/333	PC-100 with ECC support	PC-133/100
Max. Capacity	4 GB	2 GB	768 MB	512 MB
Socket	184-pin DIMM x 4	184-pin DIMM x 2	168-pin DIMM x 3	168-pin DIMM x 2
Max. Data Transfer Rate	150 MB/s	-	-	-
Channel	2	-	-	-
Mode	ATA 100/66/33	ATA 100/66/33	ATA 33	ATA 100/66/33
Channel	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)
USB	6 (USB 2.0 compliant)	6 (USB 2.0 compliant)	2 (USB 1.1 compliant)	4 (USB 1.1 compliant)
Serial	2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)
Parallel	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
FDD	1	1	1	1
PS/2	1	1 (for LV, VE, VG versions) 2 (for E2 versions)	1	1 (for VE version) 2 (for E2 version)
LAN	1 (for VE, VG versions) 2 (for G2, versions)	1 (for VE, VG versions) 2 (for E2, G2 versions)	1 (for VE, versions)	1 (for VE versions) 2 (for E2 versions)
OBS (Hardware Monitor)	Yes	Yes	Yes	Yes
Output	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
Interval	Programmable, 1~255 sec/min	Programmable, 1 ~ 255 sec/min	Programmable, 1 ~ 63 sec.	Programmable, 1 ~ 255 sec./min
Audio (requires PCA-AUDIO-00A1E)	Yes	Yes	-	Yes
Advantech SNMP-1000-B	Yes	Yes	-	Yes
Solid State Disk	IDE Flash Disk	IDE Flash Disk	M-systems' DOC 2000 (144 MB)	CompactFlash socket (CompactFlash Type I/II)

PCI/ ISA Backplanes

Features

- Follows PICMG PCI/ISA specifications
- Versatile options for PCI and ISA slot combinations
- Supports both AT and ATX power supplies

PCA-6115QP2X-0A2E   PCA-6114P12-0B3E   PCA-6120P18-0A2E

Yes: supported / - : not supported / △ : optional

Category	Model Name	ISA	PCI	PICMG	PICMG/PCI	ISA/PCI	Segment	AT	ATX	ACP-1000 2-slot	ACP-1320 2-slot	ACP-2000 6-slot	ACP-2320 6-slot	IPC-602 6-slot	ACP-4362 15-slot	ACP-4320 15-slot	ACP-4010 15-slot	ACP-4000 15-slot	IPC-630 15-slot	IPC-610 15-slot	IPC-611 15-slot	IPC-623 20-slot	ACP-5260 20-slot	IPC-622 20-slot	ACP-7000 20-slot	IPC-6908 8-slot	IPC-6608 8-slot	IPC-6606 6-slot	IPC-6806 6-slot	IPC-644 4-slot	IPC-6006 6-slot
1U Butterfly BP	PCA-6103P2V-0A2E**	-	2	1	-	-	1	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCA-6103P2VX-B3E**	-	2	1	-	-	1	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2U Butterfly BP	PCA-6105P4V-0B3E**	-	4	1	-	-	1	-	Yes	-	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCA-6106P3V-0B2E**	1	3	2	-	-	1	Yes	Yes	-	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCA-6106P3VX-0A2E**	1	3	2	-	-	1	-	Yes	-	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	PCA-6106P5V-0A2E**	-	5	1	-	-	1	-	Yes	-	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/8 Slot BP	PCA-6106P4-0A2E	-	4	2	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
	PCA-6106P3-0D2E	2	2	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
	PCA-6106-0B2E	6	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
	PCA-6108P3X-0A2E	3	3	2	-	-	1	-	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
	PCA-6108E-0C2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
	PCA-6108P6-0B4E	1	5	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
	PCA-6108P4-0C2E	3	3	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
	PCA-6108-0B2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
14/15 Slot BP	PCA-6114P12X-0A2E	1	11	1	1	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6114P12-0B3E	1	11	1	1	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6114P10-0B2E	2	10	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6113P7XE	4	7	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6114P7-0D3E	4	6	3	-	1	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6114P4-0C2E	8	4	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6113P4R-0C2E	7	4	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6114-0B2E	14	-	-	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
	PCA-6115-0B2E	15	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-
20 Slot BP	PCA-6115QP2X-0A2E	-	2	2	-	-	4	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6119P16X-0A2E	1	16	2	-	-	1	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-	-	-
	PCA-6119P17-0B2E	-	16	1	1	-	1	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6120P18-0A2E	1	17	1	1	-	1	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6116QP2-0B2E	-	2	2	-	-	4	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6120P4-0B2E	14	4	2	-	-	1	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6120P12-0A2E	7	11	1	1	-	1	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6119P7-0B3E	10	7	2	-	-	1	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6120DP4-0B2E	3	3	2	1	-	2	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
	PCA-6120Q-0B2E	5	-	-	-	-	4	Yes	△	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
Pure PCI/ ISA BP	PCA-6105P5-0B2E*	-	5	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-
	PCA-6104P4-0B2E*	-	4	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-
	PCA-6104-0C2E	4	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-
	PCA-6108P8-0A2E*	-	8	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-

Remark

1. * : only compatible with half-size SBCs
2. ** : only sold with Advantech's 1U/2U chassis
3. IPC-622, IPC-623, ACP-7000 provides for reset buttons and four KB connectors. For more information regarding chassis, please refer to chapter 4.

Half-size Single Board Computers

Model Name	PCI-6873	PCI-6886	PCI-6881
CPU	AMD Geode LX800 500MHz on board type	Intel Celeron M processor on board type, up to 1GHz	Intel Pentium M processor (Banias/Dothan) Socket type, up to 2.0 GHz
	-	-	Celeron M 600 MHz (512 KB) on board type
BIOS	Award 4 Mb Flash ROM BIOS	Award 4 Mb Flash ROM BIOS	Award 4 Mb Flash ROM BIOS
System Chipset	AMD Geode™ LX800/CS5536	Intel 852GM + 6300ESB	Intel 855GME + ICH4
System Memory	1 x 200-pin DDR266/333 SODIMM supports up to 1 GB	2 x 200-pin DDR266/333 SODIMM supports up to 2 GB	2 x 200-pin DDR200/266 SODIMM supports up to 2GB
SSD	Compactflash socket (Type I/II)	Compactflash socket (Type I/II)	Compactflash socket (Type I/II)
Watchdog Timer	255 level timer interval, setup by software	255 level timer interval, setup by software	255 levels timer interval, setup by software
H/W Status Monitor	Monitoring temperatures, voltages	Monitoring temperatures, voltages	Monitoring temperatures, voltages
Expansion	-	-	-
I/O Interface	1 x EIDE, 1 x FDD, 1 x KB/MS, 1 x RS-232/422/485, 3 x RS232, 1 x LPT, 1 x CF	2 x EIDE, 1 x FDD, 1 x KB/MS, 2 x SATA, 1 x RS-232/422/485, 3 x RS232, 1 x LPT, 1 x CF	2 x EIDE, 1 x FDD, 1 x KB/MS, 1 x RS-232/422/485, 3 x RS232, 1 x LPT, 1 x CF
IrDA	115 kbps	-	-
USB	4 x USB2.0/1.1 ports	4 x USB2.0/1.1 ports	4 x USB2.0/1.1 ports
DIO	-	-	-
Dual Display	Dual simultaneous display: CRT + LCD	Dual simultaneous display: CRT + LVDS, CRT + DVI, LVDS + DVI	Dual independent display: CRT + LVDS
VGA/LCD Interface	1 x CRT	1 x CRT	1 x CRT
	1 x 18-bit LVDS/1 x 24-bit-TTL	2 channel LVDS (36-bit)	2 channel LVDS (36-bit)
Codec	AC97 audio interface (requires an audio extension module P/N: PCM-231A-00A1E)	AC97 audio interface (requires an audio extension module P/N: PCM-231A-00A1E)	AC97 audio interface (requires an audio extension module P/N: PCM-231A-00A1E)
Ethernet Interface	10/100Base-T Fast Ethernet	10/100Base-T Fast Ethernet	10/100Base-T Fast Ethernet
		10/100/1000 Base-T (optional)	10/100/1000 Base-T (optional)
Power Type	AT, ATX	AT, ATX	AT, ATX
Power Consumption Max: Test in HCT	MAX: 1.14 A @ 5 V, 0.01 A @ 12 V (512 MB/AMD LX800)	MAX: 2.42 A @ 5 V, 0.32 A @ 12 V (256 MB/Celeron M 600 MHz)	MAX: 6 A @ 5 V, 0.5 A @ 12 V (512 MB/P-M 1.6 GHz)
	Typical: 1.03 A @ 5 V, 0.01 A @ 12 V (512 MB/AMD LX800)	Typical: 1.91 A @ 5 V, 0.31 A @ 12 V (256 MB/Celeron M 600 MHz)	Typical: 5.2 A @ 5 V, 0.25 A @ 12 V (512 MB/P-M 1.6 GHz)
Size (L x W)	185 x 122 mm (7.3" x 4.8")	185 x 122 mm (7.3" x 4.8")	185 x 122 mm (7.3" x 4.8")
Weight	0.85 kg / 1.87 lb	0.85 kg / 1.87 lb	0.85 kg / 1.87 lb

Model Name	PCI-6870	PCA-6781	PCA-6775
CPU	Intel Socket 370 Celeron/Pentium III up to 1.0 GHz (does not support PPGA/FC-PGA2 CPU)	Intel Celeron M on board type (600 MHz and 1 GHz)	VIAMark 533/800 MHz CPU on board type
	-	-	-
BIOS	Award 4 Mb Flash ROM BIOS	Award 4 Mb Flash ROM BIOS	Award 4 Mb Flash ROM BIOS
System Chipset	Intel 815E	Intel 852GM+ICH4	VIA MarK 533/800 + 686B
System Memory	1 x SDRAM DIMM, Max. 512MB	1 x 200-pin SODIMM supports DDR 200/266 MHz SDRAM up to 1 GB	1 x 144-pin SODIMM SDRAM, 512 MB PC133 SDRAM
SSD	Compactflash socket (Type I/II)	Compactflash socket (Type I/II)	Compactflash socket (Type I/II)
Watchdog Timer	255 level timer interval, setup by software	255 level timer interval, setup by software	Programmable, 0 ~ 62 sec.
H/W Status Monitor	Monitoring temperatures, voltages	Monitoring temperatures, voltages	Monitoring temperatures, voltages
Expansion	-	1 x PC104	-
I/O Interface	2 x EIDE, 1 x FDD, 1 x KB/MS, 1 x RS-232/422/485, 1 x RS-232, 1 x LPT, 1 x CF	2 x EIDE, 1 x FDD, 1 x KB/MS, 1 x RS-232/422/485, 1 x RS-232, 1 x LPT, 1 x CF	2 x EIDE, 1 x FDD, 1 x KB/MS, 1 x RS-232/422/485, 1 x RS-232, 1 x LPT, 1 x CF
IrDA	115 kbps	115 kbps	115 kbps
USB	2 x USB 1.1 ports	4 x USB 1.1 ports	4 x USB 1.1 ports
DIO	-	8-bit General Purpose I/O for DI and DO	8-bit General Purpose I/O for DI and DO
Dual Display	-	Dual independent display: CRT + LVDS	Dual independent display: CRT + LVDS, CRT + TTL
VGA/LCD Interface	1 x CRT	1 x CRT	1 x CRT
	-	2 channel LVDS (36-bit)	2 channel LVDS (36-bit)/36-bit TTL
Codec	-	AC97 audio interface (requires an audio extension module P/N: PCM-231A-00A1E)	AC97 audio interface (requires an audio extension module P/N: PCM-231A-00A1E)
Ethernet Interface	10/100Base-T Fast Ethernet	10/100Base-T Fast Ethernet	10/100Base-T Fast Ethernet
Power Type	AT, ATX	AT, ATX	AT, ATX
Power Consumption Max: Test in HCT	MAX: 8 A @ 5 V (256 MB/PIII 850 MHz)	MAX: 2.42 A @ 5 V, 0.32 A @ 12 V (256 MB/Celeron M 600 MHz)	MAX: +5 V @ 2.20 A, +12 V @ 0.04 A (VIAMark 533 MHz with 256 MB SDRAM)
	Typical: 6.68 A @ 5 V, 250 mA @ 12 V (256 MB/PIII 850 MHz)	Typical: 1.91 A @ 5 V, 0.31 A @ 12 V (256 MB/CeleronM 600)	Typical: +5 V @ 1.64 A, +12 V @ 0.01 A (VIA Mark 533 MHz with 256 MB SDRAM)
Size (L x W)	185 x 122 mm (7.3" x 4.8")	185 x 122 mm (7.3" x 4.8")	185 x 122 mm (7.3" x 4.8")
Weight	0.85 kg / 1.87 lb	0.85 kg / 1.87 lb	0.85 kg / 1.87 lb

Industrial Computer Chassis

Wallmount/Desktop · Desktop · Wallmount/Desktop

Height (1U = 1.75")		Wallmount/Desktop					Desktop	Wallmount/Desktop
Model Name		EBPC-3500	EBPC-5250	ARK-6610/6620	IPC-5120	IPC-7120	AIMB-C600	IPC-7220
Form Factor Support		3.5" Biscuit SBC	5.25" Biscuit SBC	Mini-ITX	microATX	ATX/microATX	microATX	ATX/microATX
Drive Bay — Slim CD-ROM		-	1	1/-	-	-	-	-
3.5" Front		-	-	-	1	1	-	1
3.5" Internal		1 x 2.5"	1	1/1	1	1	2	1
5.25"		-	-	-	1	1	1	2
Front I/O — USB		Yes	Yes	Yes (on motherboard) + 2 cutouts	Yes (on motherboard)	Yes (on motherboard)	Yes	Yes
PS/2		Yes	Yes	Yes (on motherboard)	Yes (on motherboard)	Yes (on motherboard)	-	Yes
Cooling — No. of Fans		1	1	1/2	2	2	1	1
CFM		11.4	27.5	52.5 /27.72	1 x 85 / 1 x 10	1 x 85 / 1 x 10	17	85
Power — AC		-	180 W ATX	180 W ATX	250 W ATX/PFC 300 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC	300 W ATX	300 W ATX/PFC 400 W ATX/PFC
AC Redundant		-	-	-	-	-	-	300 W 1+1 400 W 1+1
DC		46 W	-	-	-	-	-	300 W ATX
No. of Slots / No. of Full-size Cards		-	2/0	1/0	4/0	7/0	4/0	7/7
Passive Backplane Options — PICMG 1.0		-	-	refer to page 39-47				
PICMG 1.3		-	-	refer to page 39-47				
System Fault Detection		-	-	Yes	-	-	-	Yes
Dimensions (W x H x D) — mm		230 x 70 x 175	248 x 118 x 298	250 x 156 x 253 (ARK-6610)/ 272 x 88 x 232 (ARK-6620)	320 x 164 x 316.5	380 x 164 x 316.5	326 x 134 x 348	200 x 320 x 480
inch		9.1 x 2.8 x 6.9	9.8 x 4.6 x 11.7	9.8 x 6.1 x 10 (ARK-6610)/ 10.7 x 3.5 x 9.1 (ARK-6620)	12.6 x 6.5 x 12.5	15 x 6.5 x 12.5	12.8 x 5.3 x 13.7	7.9 x 12.6 x 18.9
Weight — kg		1	2.5	4.8 (ARK-6610) / 3.5 (ARK-6620)	8	9	4.6	13.7
lb		2.2	5.5	10.5 (ARK-6610) / 7.7 (ARK-6620)	17.6	19.8	10.1	30.5

Desktop / Wallmount · 1U Rackmount

	Desktop / Wallmount						1U Rackmount	
Model Name	MBPC-641	IPC-644	IPC-6006	IPC-6806	IPC-6608/6606	IPC-6908	ACP-1320MB	ACP-1000/ ACP-1000MB
Form Factor Support	PICMG1.0	PICMG 1.0	PICMG 1.0	PICMG 1.0	PICMG 1.0/1.3	PICMG 1.0/1.3	ATX/MicroATX	PICMG 1.0/1.3 ATX/MicroATX
Slim CD-ROM	-	-	-	-	-	-	1	1
3.5" Front	-	1	-	1	1	1	2	1
3.5" Internal	-	1	-	1	-	1	1	1
5.25"	-	-	-	1 (IPC-6806W) 0 (IPC-6806/6806S)	2 (IPC-6608) 1 (IPC-6606)	2	-	-
USB	-	-	-	Yes	Yes	-	Yes	Yes
PS/2	-	-	-	-	-	-	-	Yes
No. of Fans	1	2	-	1	1	2	2	4
CFM	53	1 x 53 1 x 14	-	58 (IPC-6806W) 53 (IPC-6806/6806S)	85 (IPC-6608) 53 (IPC-6606)	53	24	10 (ACP-1000BP) 3 x 10 + 1 X 15 (ACP-1000MB)
AC	65W ATX	150 W ATX/PFC	-	150 W (IPC-6806S) 250 W (IPC-6806) 300 W (IPC-6806W)	250 W ATX/PFC 300 W ATX/PFC 400 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC 400 W ATX/PFC	250 W ATX/PFC 300 W ATX/PFC	200 W ATX/PFC
AC Redundant	-	-	-	-	-	300 W 1+1	-	-
DC	-	-	-	-	-	300 W ATX	-	180W ATX (ACP-1000BP)
No. of Slots / No. of Full-size Cards	4/0	4/0	6/6 (IPC-6006/6006P) 6/0 (IPC-6006S)	6/0 (IPC-6806S) 6/6 (IPC6806/6806W)	8/8 (IPC-6608) 6/6 (IPC-6606)	8/8	1/1	3/3
PICMG 1.0	refer to page 39-47							
PICMG 1.3	refer to page 39-47							
System Fault Detection	-	-	-	-	-	Yes	Yes	Yes (ACP-1000MB)
mm	114 x 197 x 245	135 x 209 x 305	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)	173 x 315 x 410 (IPC-6608) 173 x 254 x 396 (IPC-6606)	200 x 300 x 463	480 x 44 x 620	BP: 480 x 44 x 497 MB: 480 x 44 x 450
inch	4.5 x 7.8 x 9.6	5.3 x 8.2 x 12	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)	6.8 x 12.4 x 16.1	7.9 x 11.8 x 18.2	19 x 1.7 x 24.3	BP:19 x 1.7 x 19.6 MB:19 X 1.7 X 17.7
kg	2.8	5.4	2.5 (IPC-6006/6006P) 1.6 (IPC-6006S)	5.6 (IPC-6806S) 6.3 (IPC-6806) 7.8 (IPC-6806W)	11 (IPC-6608) 9 (IPC-6606)	12.9	8.8	7.5/8.0
lb	6	11.9	5.5 (IPC-6006/6006P) 3.5 (IPC-6006S)	12.3 (IPC-6806S) 13.9 (IPC-6806) 17.2 (IPC-6806W)	24.2 (IPC-6608) 19.8 (IPC-6606)	28.5	19.4	16.5/17.6

Industrial Computer Chassis

Height (1U = 1.75")		2U Rackmount			4U Rackmount		
Model Name		ACP-2010MB/ ACP-2320MB	ACP-2000/ IPC-602	IPC-603MB	ACP-4362/ ACP-4360	ACP-4010/ ACP-4320	ACP-4000/ IPC-610-H
Form Factor Support		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
Drive Bay	Slim CD-ROM	1 (ACP-2320MB)	1/-	1	1	-	-
	3.5" Front	1/2 (SATA)	2/1	-	6 (SATA) + 1	1	1
	3.5" Internal	2	-/1	1	-	1	-
	5.25"	1 (ACP-2010MB)	-/1	-	-	2	3
Front I/O	USB	Yes	Yes	Yes (on motherboard)	Yes	Yes	Yes
	PS/2	Yes	Yes	Yes (on motherboard)	-	-	Yes
Cooling	No. of Fans	2/3	2	2	3	2	2
	CFM	2 x 47 (ACP-2010MB) 2 x 47 + 1 x 28 (ACP-2320MB)	47/40	47	1 x 114 2 x 47	85/ 1 x 114 + 1 x 28	85
Power	AC	300 W ATX/PFC 400 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 500 W ATX/PFC	300 W ATX/PFC 400 W ATX/PFC	300 W ATX/PFC 400 W ATX/PFC
	AC Redundant	-	300 W 1+1 (ACP-2000)	-	400 W 1+1	300 W 1+1 400 W 1+1	300 W 1+1 400 W 1+1
	DC	-	-	-	-	300 W ATX	300 W ATX
No. of Slots / No. of Full-size Cards		3/3	6/6	3/0	15/9	15/15 (ACP-4010) 15/11 (ACP-4320)	15/11
Passive Backplane Options	PICMG 1.0	refer to page 39-47					
	PICMG 1.3	refer to page 39-47					
System Fault Detection		Yes	Yes/-	-	Yes	Yes	Yes
Dimensions (W x H x D)	mm	482 x 88 x 480	482 x 88 x 450	482 x 88 x 310	482 x 177 x 478	482 x 177 x 480	482 x 177 x 478
	inch	19 x 3.5 x 18.9	19 x 3.5 x 17.7	19 x 3.5 x 12.2	19 x 7 x 19.7	19 x 7 x 18.9	19 x 7 x 18.8
Weight	kg	10.7/11.7	11.5/11.3	6.4	19/19.5	16.6/17.6	15.2/15
	lb	23.5/25.7	25.3/24.9	14.1	41.8/42.9	36.5/38.7	33.5/33

	4U Rackmount					5U Rackmount	6U Rackmount	7U Rackmount
Model Name	IPC-630	IPC-610-F	IPC-610-L/ IPC-611	IPC-510	IPC-623	ACP-5260	IPC-622	ACP-7000
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	PICMG 1.0/1.3 ATX/microATX	PICMG 1.0	PICMG 1.0/1.3 ATX/microATX
Slim CD-ROM	-	-	-	-	-	1	-	1
3.5" Front	1	1	1	1	1	6 (SCSI) + 1	-	6 (SCSI) + 1
3.5" Internal	1	1	-	1	1	-	2	-
5.25"	3	3	3	3	3	1	4	2
USB	Yes	-	-	Yes	-	Yes	Yes	Yes
PS/2	-	-	-	Yes	-	Yes	-	Yes
No. of Fans	1	1	1	1	3	7	4	6
CFM	114	85	85	85	114	2 x 47 3 x 114 2 x 25	53	4 x 58 2 x 47
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	400 W ATX/PFC 500 W ATX/PFC	-	400 W ATX/PFC 500 W ATX/PFC	-
AC Redundant	300 W 1+1 400 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	300 W ATX	300 W ATX	-	-	-	-	-	-
No. of Slots / No. of Full-size Cards	15/10	15/10	15/11	14/8	20/20	20/20	20/20	20/20
PICMG 1.0	refer to page 39-47							
PICMG 1.3	refer to page 39-47							
System Fault Detection	Yes	-	-	-	Yes	Yes	Yes	Yes
mm	BP: 482 x 177 x 447 MB: 482 x 177 x 497	BP: 482 x 177 x 452 MB: 482 x 177 x 502	482 x 177 x 478	482 x 177 x 450	482 x 177 x 657	482 x 222 x 660	482 x 266 x 463	482 x 307 x 500
inch	BP:19 x 7 x 17.6 MB:19 x 7 x 19.6	BP: 19 x 7 x 17.8 MB: 19 x 7 x 19.8	19 x 7 x 18.8	19 x 7 x 17.7	19 x 7 x 25.9	19 x 8.75 x 26	19 x 10.5 x 18	19 x 12.1 x 19.7
kg	18	18	14.5/14.2	10.7	26	30	30	35
lb	39.6	39.6	31.9/31.2	23.5	57	66	66	77

6U CompactPCI Enclosures

Model Type		1U Enclosure	2U Enclosure	4U Enclosure			4U Enclosure			10U Enclosure	
Model Name		MIC-3039-BE	MIC-3056A/4-2RE	MIC-3043B/MIC-3043B-BE	MIC-3043C/MIC-3043C-BE	MIC-3043DE/MIC-3043D-BE	MIC-3042AE/MIC-3042A-xE	MIC-3042BE/MIC-3042B-xE	MIC-3043AE/MIC-3043A-BE	MIC-3081B/8-10AE	MIC-3081B/8-10RE
Height (1U = 1.75")		1 U	2 U	4 U	4 U	4 U	4 U	4 U	4 U	10 U	10 U
Backplane	6U Slot	2	4	6	6	6	8	8	6	8	8
	PCI Bus	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz
		64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz
	H.110 CT Bus	-	Yes	Yes	-	-	Yes	Yes	Yes	Yes	Yes
	PICMG 2.16	-	-	-	-	-	-	-	-	Yes	Yes
	VI/O Voltage	3.3 V/ 5V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V	3.3 V/5 V
Drive Bay	5.25"	-	-	-	-	-	-	-	-	3	2
	3.5" HDD Bracket	-	-	2 IDE removable	2 SCSI hot-swappable	2 SATA (IDE or SATA interface optional) hot-swappable	-	-	2 IDE removable	1	1
	Slim FDD	-	-	-	-	-	-	-	-	-	-
	Slim CD-ROM	-	-	1 USB	1 USB	1 USB	-	-	1 USB	-	-
Cooling	No. of Fans	5	3	2	2	2	2	2	2	6	6
	Fan Air Flow Rate	10 CFM each	21 CFM each	193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	80 CFM each	80 CFM each
Max. Power Supply	AC (100 ~ 240 V)	AC ATX 200 W	AC ATX 300 W + 300 W redundant (1+1)	Hot-swap AC cPCI 500 W + 250 W (2+1)	Hot-swap AC cPCI 500 W + 250 W (2+1)	Hot-swap AC cPCI 500 W + 250 W (2+1)	Hot-swap AC cPCI 500 W + 250 W (2+1)	Hot-swap AC cPCI 500 W + 250 W (2+1)	Hot-swap AC cPCI 500 W + 250 W (2+1)	AC ATX 500 W	AC ATX 560 W + 280 W redundant (2+1)
	DC (-48 V)	-	-	Hot-swap DC cPCI 500 W + 250 W (2+1)	Hot-swap DC cPCI 500 W + 250 W (2+1)	Hot-swap DC cPCI 500 W + 250 W (2+1)	Hot-swap DC cPCI 500 W + 250 W (2+1)	Hot-swap DC cPCI 500 W + 250 W (2+1)	Hot-swap DC cPCI 500 W + 250 W (2+1)	-	-
CPU Board	MIC-3392	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MIC-3390	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MIC-3369C	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RIO Card		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PCI Carrier Board	MIC-3961	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes	Yes	Yes
Media Carrier Board	MIC-3960	-	-	-	-	-	Yes	Yes	-	-	-
Dual PMC Carrier Board	MIC-3951	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
Chassis Management Module MIC-3927	MIC-3927AE	Yes	Yes (optional)	-	-	-	-	-	-	Yes (optional)	Yes (optional)
	MIC-3927BE	Yes	-	-	-	-	-	-	-	-	-
	MIC-3927CE	Yes	-	Yes	Yes	Yes	Yes (optional)	Yes (optional)	Yes (optional)	-	-
Dimensions (W x H x D)	mm	440 x 44.5 x 280	440 x 88 x 359	440 x 177 x 320	440 x 177 x 320	440 x 177 x 320	440 x 177 x 320	440 x 177 x 320	440 x 177 x 320	440 x 177 x 320	440 x 177 x 320
	inch	17.3 x 1.75 x 11.0	17.3 x 3.5 x 14.1	17.3 x 7 x 12.6	17.3 x 7 x 12.6	17.3 x 7 x 12.6	17.3 x 7 x 12.6	17.3 x 7 x 12.6	17.3 x 7 x 12.6	17.3 x 7 x 12.6	17.3 x 7 x 12.6
Weight	kg	4.5	7.5	18	18	18	18	18	18	16.5	18
	lb	9.9	16.5	39.7	39.7	39.7	39.7	39.7	39.7	36.34	39.65
RoHS Compliance		RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS

6U CompactPCI Boards

Model Name		MIC-3392MILS (Standard CompactPCI)	MIC-3392MILC (Conduction Cooled)	MIC-3392A
Slot Width		1	1	1
PICMG 2,16 Compliant		Yes	Yes	Yes
Chipset		Intel 945GME	Intel 945GME	Intel 945GME
CPU	CPU (Not Included)	Intel LV Core Duo Intel ULV Core 2 Duo	Intel ULV Core 2 Duo	Intel Core 2 Duo, Core Duo Intel LV Core 2 Duo, LV Core Duo
	No. of CPUs	1	1	1
	CPU Front Side Bus	533/667 MHz	533/667 MHz	533/667 MHz
	Max. CPU Speed	1.66 GHz	1.06 GHz	2.16 GHz
	L2 Cache	2 MB	2 MB	4 MB
Memory	Technology	DDR2 533/667 MHz non-ECC SDRAM	DDR2 533/667 MHz non-ECC SDRAM	DDR2 533/667 MHz SDRAM
	Max. Capacity	3 GB	2 GB	3 GB
	On-board	2 GB	2 GB	
	Socket	Optional 2 GB	-	onboard 1 GB / 2 GB DDR2 SODIMM
PCI-to-PCI Bridge	Bus Speed	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz
	Controller	PLX PCI 6540	PLX PCI 6540	PLX6254
	Mode	Universal (System/Peripheral)	Universal (System/Peripheral)	Universal (System/Peripheral)
Graphic	Controller	Intel 945GME Integrated	Intel 945 GME Integrated	Intel 945GME Integrated
	VRAM	Dynamic	Dynamic	Dynamic
Ethernet	Controller	Intel 82571EB/Intel 82546GB	Intel 82571EB/Intel 82546GB	Intel 82573E x 2
	Interface	10/100/1000Base-TX	10/100/1000Base-TX	10/100/1000Base-TX
	No. of Ports	2/2	2/2	2
	PCI Bus Speed	PCIe x4 / PCI 32-bit/33 MHz	PCIe x4 / PCI 32-bit/33 MHz	PCIe x1
	LAN3	-	-	Yes (FE, Intel 82562 GT)
Watchdog Timer	Output	System Reset	System Reset	System Reset
	Interval	Programmable 0 ~ 255 sec.	Programmable 0 ~ 255 sec	Programmable 0 ~ 255 sec.
EIDE	Mode	SATA/PATA	SATA/PATA	SATA/PATA
	Channel	1 (SATA)	1 (SATA)	1 (SATA)
		1 (PATA)	1 (PATA)	1 (PATA)
	CompactFlash Socket	1	1	1
	2.5" Drive Bay	1 (SATA)	-	1 (SATA)
Front Panel I/O	VGA	1	-	1
	LAN	-	-	2
	PMC Site	-	-	1
	Serial	-	-	1
	Parallel	-	-	-
	USB	2 (USB 2.0)	-	2 (USB 2.0)
	PS/2	-	-	-
	SCSI	-	-	-
	Audio Interface	-	-	Optional
Hardware Monitor	Controller	Winbond W83627HG	Winbond W83627HG	Winbond W83783G
	Monitor	CPU temperature	CPU temperature	CPU temp. +3.3/+5/+12 V
Rugged Conduction Cooling			Yes	
Pre-heating		-	Yes	
SODIMM Gluing Service		Optional (on SODIMM purchased from Advantech)	-	
SCSI Controller Option		-	-	Rear I/O
Miscella-neous	LED Indicator	HDD, BMC heartbeat, power, system/peripheral	-	HDD, power, hot swap, system/peripheral
	USB Channel	2 on RTM panel / 2 on RTM board	2 on RTM panel / 2 on RTM board	2 (USB 2.0)
	Real Time Clock	Built-in	Built-in	Built-in
	Audio Output	Reserved	Reserved	Optional
Compliant Standard	PICMG 2.0 R3.0 cPCI Spec.	Yes	Yes	Yes
	PICMG 2.1 R2.0 cPCI Hot Swap Spec.	Yes	Yes	Yes
	PICMG 2.9 R1.0 cPCI System Management Spec.	Yes (IPMI 1.5)	-	Yes
	PICMG 2.16 R1.0 cPCI Packet Switching Backplane Spec.	Yes	Yes	Yes
	ANSI/VITA30.1-2002	-	Yes	
	MIL-I-46058C and MIL-STD-810B	-	Yes	
Rear Transition Board		RIO-3392MIL-A1E (No Coating)	RIO-3392MIL-A1E (No Coating)	RIO-3310S-A1E
		RIO-3392MIL-A2E (Conformal Coating)	RIO-3392MIL-A2E (Conformal Coating)	RIO-3310S-A2E
				RIO-3310AE
Enclosure		MIC-3039-BE	-	MIC-3039-BE
		MIC-3056A/4-2RE	-	MIC-3056A/4-2RE
		MIC-3042AE, MIC-3042A-xE, MIC-3042BE, MIC-3042B-xE	-	MIC-3042AE, MIC-3042A-xE, MIC-3042BE, MIC-3042B-xE
		MIC-3043AE, MIC-3043BE, MIC-3043CE, MIC-3043DE, MIC-3043x-BE	-	MIC-3043AE, MIC-3043BE, MIC-3043CE, MIC-3043DE, MIC-3043x-BE
		MIC-3081B/8-10AE, MIC-3081B/8-10RE	-	MIC-3081B/8-10AE, MIC-3081B/8-10RE
PMC Module				MIC-3665-AE MIC-3665-BE
Note			Used on customized conduction cool enclosure	

Model Name		MIC-3392B	MIC-3390	MIC-3369C
Slot Width		1	1	1
PICMG 2,16 Compliant		Yes	Yes	Yes
Chipset		Intel 945GME	Intel 915GME	Intel E7501 + ICH4
CPU	CPU (Not Included)	Intel Core 2 Duo, Core Duo Intel LV Core 2 Duo, LV Core Duo	Intel Pentium M	Intel Pentium M
	No. of CPUs	1	1	1
	CPU Front Side Bus	533/667 MHz	400/533 MHz	400/533 MHz
	Max. CPU Speed	2.16 GHz	2.0 GHz	1.6/2.0 GHz (400/533 MHz FSB)
	L2 Cache	4 MB	1 MB/ 2 MB	1 MB / 2 MB
Memory	Technology	DDR2 533/667 MHz SDRAM	DDR2 400/533 MHz SDRAM	DDR 266 MHz SDRAM with ECC support
	Max. Capacity	3 GB	2 GB	2 GB
	On-board			
	Socket	onboard 1 GB / 2 GB DDR2 SODIMM	DDR2 SODIMM	Onboard 2 GB 512 MB /1 GB /2 GB
PCI-to-PCI Bridge	Bus Speed	64-bit/66 MHz	64-bit/66 MHz	64-bit/66 MHz
	Controller	PLX6254	PLX6254	PLX6254
	Mode	Universal (System/Peripheral)	Universal (System/Peripheral)	Universal (System/Peripheral)
Graphic	Controller	Intel 945GME Integrated	Intel 915GME Integrated	ATI RageXL
	VRAM	Dynamic	Dynamic	8 MB dedicated
Ethernet	Controller	Intel 82573E x 2	Intel 82573E x 2	Intel 82546GB
	Interface	10/100/1000Base-TX	10/100/1000Base-TX	10/100/1000Base-TX
	No. of Ports	2	2	2
	PCI Bus Speed	PCI Express x1	PCI Express x1	64-bit/133 MHz
	LAN3	Yes (FE, Intel 82562GT)	Yes (FE, Intel 82562GT)	Yes (FE, Intel 82562 GT)
Watchdog Timer	Output	System Reset	System Reset	System Reset
	Interval	Programmable 0 ~ 255 sec.	Programmable 0 ~ 255 sec.	Programmable 0 ~ 255 sec.
EIDE	Mode	SATA/PATA	SATA/PATA	ATA 33/66/100
	Channel	1 (SATA)	1 (SATA)	2
		1 (PATA)	1 (PATA)	
	CompactFlash Socket	1	1	1
	2.5" Drive Bay	-	1 (SATA)	1
Front Panel I/O	VGA	-	1	1
	LAN	1	2	1
	PMC Site	2	1	1
	Serial	1	1	1
	Parallel	-	-	-
	USB	-	2 (USB 2.0)	2 (USB 2.0)
	PS/2	-	-	-
	SCSI	-	-	-
	Audio Interface	Optional	-	-
Hardware Monitor	Controller	Winbond W83783G	Winbond W83782D	Winbond W83782D
	Monitor	CPU temp. +3.3/+5/+12 V	CPU temp. +3.3/+5/+12 V	CPU temp. +3.3/+5/+12 V
Rugged Conduction Cooling				
Pre-heating				
SODIMM Gluing Service				
SCSI Controller Option		Rear I/O	Rear I/O	Rear I/O
Miscella-neous	LED Indicator	HDD, power, hot swap, system/peripheral	HDD, power, hot swap, system/peripheral	HDD, power, hot swap
	USB Channel	2 (USB 2.0)	2 (USB 2.0)	2 (USB 2.0)
	Real Time Clock	Built-in	Built-in	Built-in
	Audio Output	Optional	-	-
Compliant Standard	PICMG 2.0 R3.0 cPCI Spec.	Yes	Yes	Yes
	PICMG 2.1 R2.0 cPCI Hot Swap Spec.	Yes	Yes	Yes
	PICMG 2.9 R1.0 cPCI System Management Spec.	Yes	Yes	-
	PICMG 2.16 R1.0 cPCI Packet Switching Backplane Spec.	Yes	Yes	Yes
	ANSI/VITA30.1-2002			
	MIL-I-46058C and MIL-STD-810B			
Rear Transition Board		RIO-3310S-A1E	RIO-3310S-A1E	RIO-3309C-AE
		RIO-3310S-A2E	RIO-3310S-A2E	RIO-3309S-A1E
		RIO-3310AE	RIO-3310AE	RIO-3309S-A2E
Enclosure		MIC-3039-BE	MIC-3039-BE	MIC-3039-BE
		MIC-3056A/4-2RE	MIC-3056A/4-2RE	MIC-3056A/4-2RE
		MIC-3042AE, MIC-3042A-xE, MIC-3042BE, MIC-3042B-xE	MIC-3042AE, MIC-3042A-xE, MIC-3042BE, MIC-3042B-xE	MIC-3042AE, MIC-3042A-xE, MIC-3042BE, MIC-3042B-xE
		MIC-3043AE, MIC-3043BE, MIC-3043CE, MIC-3043DE, MIC-3043x-BE	MIC-3043AE, MIC-3043BE, MIC-3043CE, MIC-3043DE, MIC-3043x-BE	MIC-3043AE, MIC-3043BE, MIC-3043CE, MIC-3043DE, MIC-3043x-BE
		MIC-3081B/8-10AE, MIC-3081B/8-10RE	MIC-3081B/8-10AE, MIC-3081B/8-10RE	MIC-3081B/8-10AE, MIC-3081B/8-10RE
PMC Module		MIC-3665-AE MIC-3665-BE	MIC-3665-AE MIC-3665-BE	MIC-3665-AE MIC-3665-BE
Note				

Network Security Platforms

Model Type	Network Processor Platform		x86 Processor Platforms	
Model Name	**NCP-5120**	**NCP-3108**	**FWA-6480**	**FWA-6280-C**
Processor System — CPU	Cavium OCTEON CN3860	Cavium OCTEON CN3860	Dual-Core/Quad-Core Dual Intel® Xeon™ 5200/5400	Dual Intel Xeon
Max. Speed	550 MHz	500 MHz	3.0 GHz/2.83 GHz	3.6 GHz
L2 Cache	2 MB	2 MB	6 MB/12 MB	2 MB
Memory — Technology	DDR2 400 ECC Registered	DDR2 400 ECC Registered	DDR2 DIMM, support ECC/ Registered, 533 MHz or 667 MHz	DDR2 400 ECC Registered
Max. Capacity	8 GB	4 GB	16 GB	12 GB
Ethernet — Interface	100/1000Base-T	100/1000BaseT	10/100/1000Base-TX	10/100/1000Base-TX
Controller	Cortina IXF1010 x 2	Cavium OCTEON CN3860	Intel 82571 x 4 Intel 82573	Intel 82571 x 4 Intel 82551ER x 1
Connector	RJ-45 x 20	RJ-45 x 4 SFP x 4	RJ-45 x 8 (SFP x 4)	RJ-45 x 8 (SFP x 4)
Console & Management Port — Connector	RJ-45 x 1	DB9 x 1	RJ-45 x 2	RJ-45 x 2
Miscellaneous — LCD	-	1	16 Characters, 2 Lines	16 Characters, 2 Lines
PCI Express	-	-	PCIe x8 x 2	PCIe x8 x 2
PCI	-	-	-	-
PCI-X	-	1	2	2
USB	-	2	2	2
Dimensions (W x H x D) — mm	426 x 44 x 456	426 x 44 x 403.6	430 x 88 x 515	430 x 88 x 515
inches	16.8 x 1.7 x 18	16.8 x 1.7 x 15.9	17 x 3.5 x 20.2	17 x 3.5 x 20.2
Weight — kg	10	5 kg	18	18
lb	22	11	40	40

Model Type	x86 Processor Platforms			
Model Name	**FWA-3800**	**FWA-3710**	**FWA-3300**	**FWA-3140**
Processor System — CPU	Intel Core 2 Duo /Pentium D / Pentium 4	Intel Pentium M/Celeron M	VIA C7	Intel Pentium 4/Celeron D
Max. Speed	2.66 GHz / 3.4 GHz /3.4 GHz	2.0 GHz/1.5 GHz	1.0 GHz	2.8 GHz
L2 Cache	2 MB/ 4 MB/ 2 MB	2 MB/512 KB	128 KB	512/256 KB
Memory — Technology	DDR2 533/667/800 DIMM	DDR2 533/400 SODIMM	DDR2 533/400 SODIMM	DDR-SDRAM 200/266/333
Max. Capacity	4 GB	2 GB	1 GB	2 GB
Ethernet — Interface	10/100/1000Base-TX	10/100/1000Base-TX	10/100/1000Base-TX	10/100/1000Base-TX
Controller	Intel 82573 x 6	Intel 52573 x 4	Marvell 8001 x 4	Intel 82551QM x 4 or Intel 82541PI x 4
Connector	RJ-45 x 6	RJ-45 x 4	RJ-45 x 4	RJ-45 x 4
Console & Management Port — Connector	RJ-45 x 1	DB9 x 1	DB9 x 1	DB9 x 1
Miscellaneous — LCD	16 Characters, 2 Lines	16 Characters, 2 Lines	16 Characters, 2 Lines	16 Characters, 2 Lines
PCI Express	PCIe x4	PCIe x4	-	-
PCI	MINI PCI	MINI PCI	2	2
PCI-X	-	-	-	-
USB	1	2	2	-
Dimensions (W x H x D) — mm	430 x 44 x 435	426 x 44 x 280	16 Characters, 2 Lines	430 x 44 x 369
inches	17 x 1.7 x 17.1	16.7 x 1.7 x 11	16.8 x 1.7 x 13.3	16.9 x 1.7 x 14.5
Weight — kg	4.5	4.5	4.5	4.5
lb	9.9	9.9	9.9	9.9

Applied Computing

Going Vertical

Advantech eServices & Applied Computing Group (SAG) is putting significant investment into developing application-specific technology for the retailing, hospitality, healthcare, fleet management, law enforcement, and public service markets. We've assembled a portfolio of application-ready and service ready computing platforms to offer customer-centric solutions that are flexible and scalable. Our application ready platforms serve as the building blocks for customers to shorten their time to market and generate best return on investment.

Panel PCs

Advantech Panel PCs series feature slim profiles, fanless design, high-brightness LCDs and user-friendly touch screens. Panel PCs are the ideal solutions for machine automation, process monitoring and control terminals, point of information terminals (POI), point of sale terminals (POS), interactive kiosks and gaming applications.

Display Solutions

Advantech display solutions range from LCD kits, open-frame and panel-mount displays, to industrial LCD monitors. We provide flexible options for LCD sizes, touch-screen modules, signal interfaces and chassis mounting. Both panel mounting and VESA mounting are supplied with four versatile mounting brackets for different integration scenarios.

Digital Video Solutions

Advantech digital video platforms provide a full range of products ranging from MPEG4 video capture cards, digital video motherboards, and video servers to a complete DVR system. Their flexible open architecture allows easy integration for vertical applications in video conferencing, surveillance, intelligent video analysis and mobile DVR.

Vehicle Mounted Computers

Equipped with the latest computing cores and rugged enclosures, Advantech TREK series Vehicle Mounted Computers are industrial-grade computing solutions for vehicles such as forklifts, trucks, trailers, and cranes. Various wireless communication modules such as WLAN, GPS, GSM/GPRS can be integrated to support real-time data exchange, navigation, and communications.

Portable Computers

Advantech provides a complete solution with two categories of industrial tablet PC's and ruggedized handheld terminals, MARS series are ideal for applications such as field services, factory maintenance, law enforcement, warehousing, logistics, and ordering services.

M2M Modules

Aimed at fleet management applications, the VITA-350 offers a 16-channel GPS engine, GSM/GPRS module, RS232 and programmable digital I/O ports to allow GPS location tracking, wireless data transmission and remote sensing and alarm notification. Advantech's M2M utility software provides the tools needed to integrate VITA-350's process and GPS data into third party or customers' own GIS programs.

Medical Computers

Advantech medical computers are ideal for hospitals where information must be accessible in real-time. All of these robust computing platforms pass UL 60601-1 and EN-60601-1 certification as well as ISO 13485:2003 standards of quality management.

Advantech Intelligent Services (SRP)
Self-service & Retail Intelligence

Transform the Customer Experience

Retailers face critical challenges as they attempt to build secure retail system solutions. Over time, stores have evolved to contain multiple proprietary networks, such as point-of-sale (POS), telephony, and security information systems. In today's competitive environment, retailers must increasingly rely on in-store technologies to help enhance customer service, differentiate their stores in the marketplace, streamline operations, and increase revenues. Technologies such as kiosks and interactive handheld devices provide more information to sales associates and customers, enabling better decision making and increasing satisfaction. Rich media displays that provide educational or branding reinforcement are becoming commonplace. Retailers are also working to differentiate themselves by offering customers self-service tools and personal shopping assistants. Once a fairly traditional industry, retail is rapidly approaching the forefront of interactive technologies.

In response to these challenges, Advantech has designed a retail system that seamlessly and securely links in-store operations networks. Advantech Self-service & Retail Intelligence is a service-ready platform that enables retailers to streamline business operations, accelerate decision making, and improve customer satisfaction.

- Boost productivity by connecting people, places, and information
- Improve customer satisfaction by enhancing the shopping experience
- Increase revenue by improving decision making through utilization and delivery of data
- Securely and reliably protect brand image and assets

Self-service Kiosks & Digital Signage

The ability to synchronize multiple sales and marketing channels (store, Web, catalog, etc.) to grow revenue and market share is a requirement in today's retail environment. Advantech helps you get there faster with retail-proven self-service applications that increase sales, lower operational costs, and build customer loyalty by enhancing the store experience. In-store multimedia systems that incorporate high-resolution digital signage, kiosks, personal digital assistants, and other devices play an increasingly important role in delivering advertising, marketing programs, brand awareness, pricing, and corporate communications.

Intelligent Surveillance

Loss prevention in the retail business is concerned with inventory shrinkage and cash shortages. An effective POS-DVR surveillance solution can help employers deal with these situations. The Advantech POS-DVR surveillance system provides visual contextual awareness to reduce shrinkage and protect assets against business losses. Working in conjunction with embedded video capture cards, the video surveillance system becomes a POS-DVR surveillance system, providing tools to remotely monitor the cashier area, associate POS transaction data with videos, record videos for retroactive analysis, and even output alarms for emergency events.

Application

Shelf-edge media

Sales-aid Interactive Kiosk

Intelligence Video Surveillance
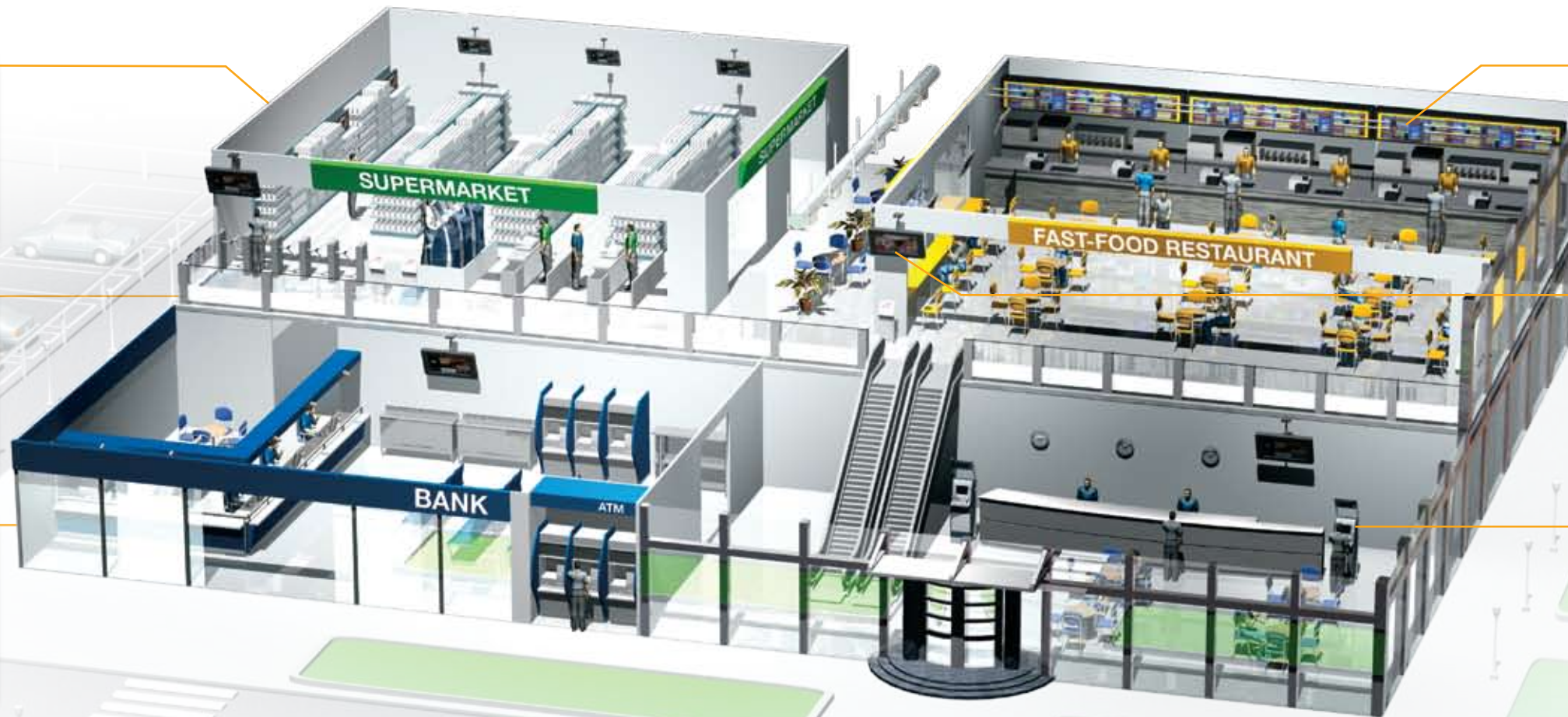
Digital Menu Board

Digital Signage

Self Check-in Kiosk

Real Estate Intelligence

Enjoy Smart Workstyle and Lifestyle

Real Estate Intelligence is a set of integrated technologies and solutions that aims to simplify the way people interact with technology in life. Communication, control and integration are the three main features in this booming market. Through a variety of integrated technologies, individual facilities are combined into a system which can be focused on specific interests in security, health, automation or entertainment. In intelligent life solutions, people can enjoy simple convenience, comfort and safe life. Nowadays, the concept of Real Estate Intelligence is popular in diverse applications such as home, conference room, hotel, and so on.

Advantech provides a reliable integrated Real Estate Intelligence service with up-to-date networking and control expertise offering a series of solution-driven ePlatforms. Advantech's 'Real Estate Intelligence' solutions aim to transform the places we work, live, and shop into smarter environments. Through the combination of automation control, infotainment, security, energy-savings, and communication, Advantech provides a series of solutions for homes, office buildings, hospitality and retailing environments, and delivers users a joyful, easier lifestyle and workstyle. Digital security control devices add convenience and comfort to life. Furthermore, comprehensive integration provides a total solution package for smart home and automated conference room concepts, simplifying installation and day-to-day usage, as well as maintenance and scalability.

Home Intelligence Solutions

Advantech Real Estate Intelligence solutions assist today's homeowners in managing a wide range of home electronics and create highly desirable living scenarios. Seamlessly integrated networking technology between wire and wireless facilities raises the efficiency and simplicity in communication.

- Scenario Control
  - Personalized lighting scenes can be created to set the mood for any occasion.
  - Homeowners can create a comfortable environment and help reduce their energy costs by using a control system to manage their heating, ventilation, and air conditioning systems.
- Home Theater Automation
  - Instead of dealing with complicated and boring AV settings before beginning to enjoy your home theater, Advantech offers you a single integrated controller which can dim the lights, close the curtains, deploy the screen, adjust ambient temperature, turn on required AV components, select inputs, set volume, and start DVD playback.
- Complete Remote Access to Home Systems
  - Homeowners can access their residences remotely over the Internet for direct communications and control.

Business Intelligence Solutions

Real Estate Intelligence brings business simplicity, efficiency, and productivity with reasonable cost through effective integrated automation and control technologies. Advantech uses leading data transfer and exchange technologies in AV and DV to provide a comprehensive integration service in Real Estate Intelligence that makes business operation easier and simpler. Through Advantech's Real Estate Intelligence solutions, businesses can have more efficient integration of communication and controls.

- Boardrooms / Conference Rooms
- Training Facilities / Distance Learning Centers
- Auditoriums

Smart Lifestyle

UbiQ-350 Series
Mobile A/V Control Panel
- Supports WiFi wireless protocol
- Equipped with 7" 16:9 touch screen
- Desk-top charging cradle and optional wall-mount cradle available
- Remote control for projector, HVAC, and A/V equipment

EH-7106
Residential Terminal
- Microsoft Windows XP Embedded
- CCD camera
- Handset
- 10.4' TFT LCD with Touchscreen
- Built-in Microphone & Speaker

UbiQ-230T
Scenario Control Panel
- Touch once to invoke your favorite Scenario setting via 7 programmable function keys
- Remote Manager tool for SI development
- Wall-box ready for field installation
- Compatible with UbiQ-310 Remote Control

Smart Workstyle

UbiQ-350 Series
Mobile A/V Control Panel
- Supports WiFi wireless protocol
- Equipped with 7" 16:9 touch screen
- Desk-top charging cradle and optional wall-mount cradle available
- Remote control for projector, HVAC, and A/V equipment

UbiQ-230T
Scenario Control Panel
- Touch once to invoke your favorite Scenario setting via 7 programmable function keys
- Remote Manager tool for SI development
- Wall-box ready for field installation
- Compatible with UbiQ-310 Remote Control

Enhancing Production Efficiency for Connector Manufactures

Introduction

The connector manufacturing process includes CAD design, injection molding, automatic assembly, and high-speed precision pressing. A leading global connector manufacturer needs to produce millions of connectors everyday and distribute them to warehouses worldwide. Because of the difficulty of producing small complex products in mass volumes whilst still keeping to precise production/delivery schedules, the customer wanted an integrated control system to help improve production efficiency and ease production administration.

Solution

The connector manufacturer decided to integrate the Advantech PPC-L60T 6.5" touchscreen panel. PPC-L60T is a compact x86-based fanless solution with hard-wearing stainless steel front bezel. The compact 6.5" size makes it an ideal Human Machine Interface solution in the production environment. The customer used PPC-L60T attached to an IR scanner to monitor, display and record information from the production line, giving real-time feedback and analysis. Windows XPe embedded OS provided a secure standard environment for the customers' own software application. During all steps in the manufacturing process, data is gathered from the IR scanner and sent to the central server via Ethernet. The data is stored in a database and analyzed to make efficiency improvements or fix problems on the production line.

System

PPC-L60T was connected to the server via Ethernet and connected to an IR scanner by USB interface. Operators could easily collect data and control the production process through the simple touchscreen interface. The highly reliable capacitive touchscreen possesses a unique coating that has a 225 million touch lifetime while transmitting 91% of light for a clear and vivid picture. This coating also reduces glare to enable PPC-L60T to be ideal for bright or dark light conditions.
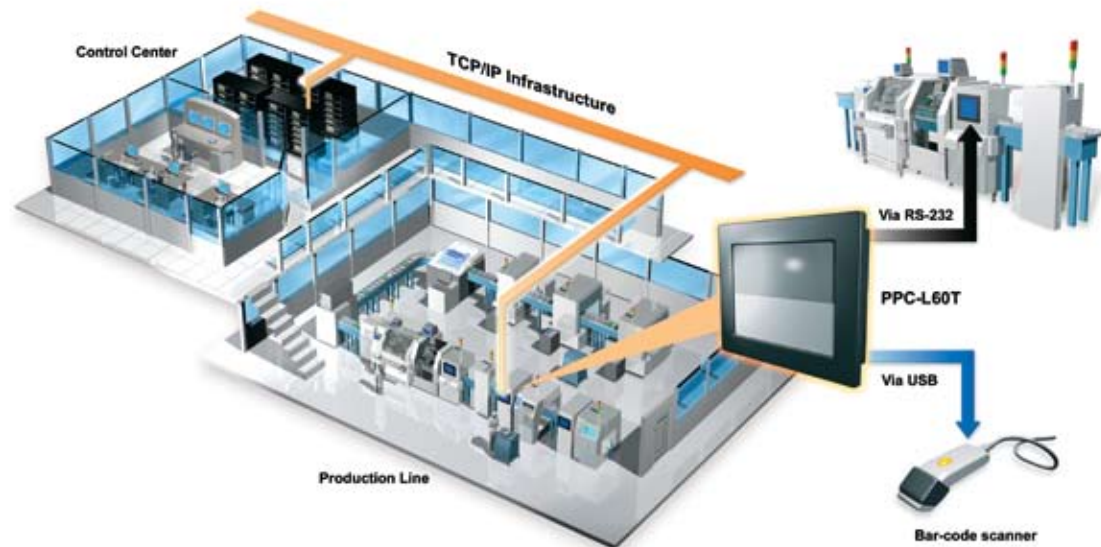
Benefits

◆ Fanless and low power consumption for high system reliability
◆ All-in-one design: compact size and space saving; anti-vibration and shock resistance for operation under harsh conditions
◆ XPE customization is available.
◆ Flexible mounting for all kinds of environments: panel mount, wall mount, swing arm and stand-alone

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Fleet Management System for Taiwan Bus

Introduction

Taiwan's buses and coaches are privatized and many operators run thousands of routes across the country every day. To manage the ever-increasing number of vehicles, operators need a reliable, low-maintenance Fleet Management System (FMS). This unique system helps coach operators by serving information from a constantly updating GPS location device that integrates with the back-end Geographical Information System (GIS) server.

Solution

A large coach operator made a request for a Fleet Management System, and Advantech, along with Taiwanese GIS integrator Majorsoft, quickly formed an alliance to work out a solution based on Advantech's VITA-350 compact M2M fleet management system. By integrating advanced technologies such as GPS (Global Satellite Positioning), GSM/GPRS mobile communication, and GIS, VITA-350 is able to provide fleet monitoring and dispatching services using GPS positioning data throughout the GPRS mobile network in Taiwan. To further enhance their Fleet Management service, Majorsoft acts as an application service provider offering a total solution with services such as dispatch, safety monitoring, fleet management and web based GIS (Geographical Information System) software for fleet operators.

System

VITA-350 is a RISC-based platform with multi-threaded engine designed for optimal performance. It provides GPS and tri-band GSM/ GPRS connectivity with other mobile and automation devices in truck fleets and other transports. Aimed at Fleet Management, the VITA-350 provides a 16-channel GPS engine, RS232 and programmable Digital I/O ports to allow GPS location tracking, wireless data transmission and remote sensing and alarm notification. With the M2M utility software, VITA-350 integrates GPS location and vehicle status data with Majorsoft's GIS data for a total Fleet Management System Solution.
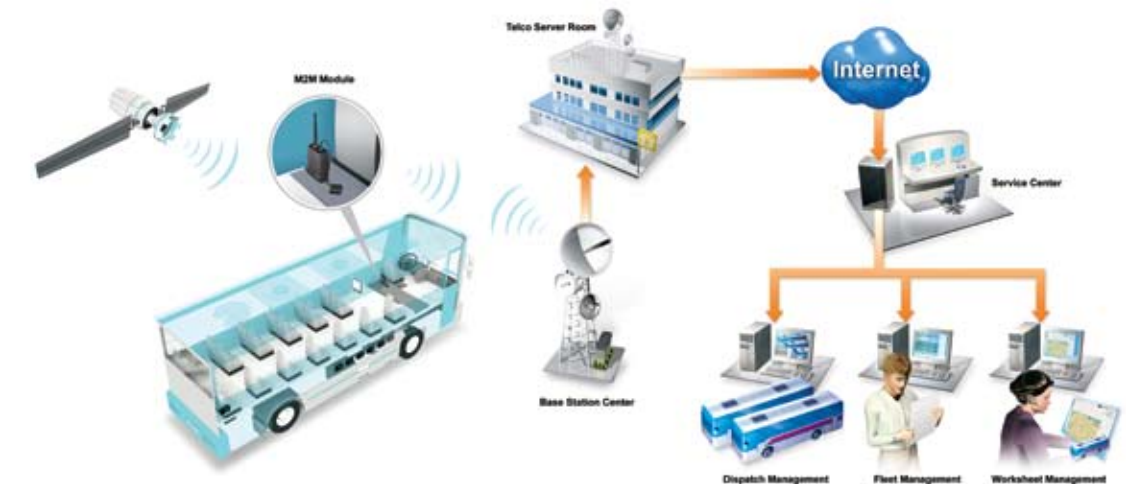
Benefits

◆ Along with real-time web-based GIS fleet status monitoring system, VITA-350 can transmit real-time information on longitude, latitude, timing, slope, date, and temperature for analyzing current location and vehicle status.
◆ Report frequency can be in seconds or minutes to maximize cost effectiveness.
◆ Comprehensive map view for fleet management, including location, direction, speed, stop & idle, geo-fencing, exception alerts, and other more customized features.
◆ Operators can easily track their vehicles; fewer operators are needed, and less effort is required to monitor and administer the whole system.

Vehicle Computing Solution in Law Enforcement

Introduction

Technology has transformed law enforcement & public safety applications. Report Management Systems have streamlined report taking, information retrieval, and crime mapping. Mobile Data Terminals have given officers the ability to access information centers and view state and local data from their vehicles. Officers in the field are capable of retrieving motor vehicle, license, and warrant information in a much shorter time period. Calls for service are dispatched more effectively through computer aided dispatch systems. One of the new tools in law enforcement is in-car video systems within police cars to enforce crime fighting efficiency.

Solution

Advantech Vehicle Computing Solutions provide a broad-range of products from M2M devices with GPS and rugged Vehicle Mounted Computers, to industrial grade tablet PC's and mobile Digital Video Systems. For this specific requirement in law enforcement, Advantech provided a complete in-vehicle video solution—DVS-355, a Vehicle Mounted Computer with wireless capability, so officers can record images and have real-time access to database information and GPS mapping systems. With MPEG video compression, DVS-355 allows daily operations to be easily recorded. Moreover, with special anti-dust and anti-shock features, it is an ideal in-vehicle product for this kind of environment. And, with the ES-2210 sunlight readable touch panel, officers have a simple and easy user interface.

System

DVS-355 is the ideal platform for in-vehicle computers powered by Intel® Core™ Duo processors and law enforcement software. The rich IO interface, COM's, and USB's make it easy to integrate with peripherals like radar, sirens, communication systems etc. The CardBus slot can be used with special mobile cellular cards to connect DVS-355 to the network. The integrated digital video supports 2 channel video, and D1 resolution at 60 fps which can be used for license plate recognition or as a general in-car video recording system.
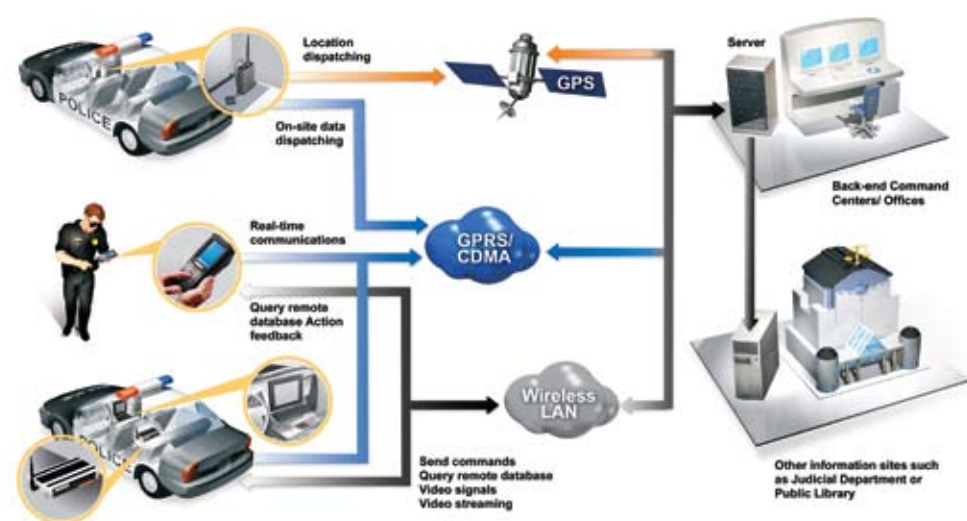
Benefits

◆ With the integration of digital video, wireless and GPS/GPRS technology, Advantech brings new and different solutions to the world of law enforcement to enhance safety and improve agency accountability
◆ Provides improved Community/Media perceptions and enhanced officer performance and professionalism
◆ Faster prosecution/case resolution
◆ Service calls are dispatched more effectively

A Fast Food Restaurant Chain Serves Up Digital Signage

Introduction

Fast food restaurant chains operate in a fast-paced industry focused on customer satisfaction. Restaurant patrons must be kept informed and continually provided with further customer opportunities such as group activities, price promotions and special events. So fast food restaurant chains are making ever greater use of digital signage technology to further connect with their customers, and to provide time-sensitive promotional information while entertaining them in the dining area or as they are killing time waiting in line.

One fast food chain in Southeast Asia adopted a network managed Digital Signage System two years ago for storefront digital media campaigns. Originally, this company used commercial grade PCs as their hardware platform. However, the commercial systems were unreliable and suffered frequent downtime. Advertising revenue was lost as a result, which caused intense frustration on the part of the end users. In addition, that signage system couldn't support the current market demand for playback of high-definition content.
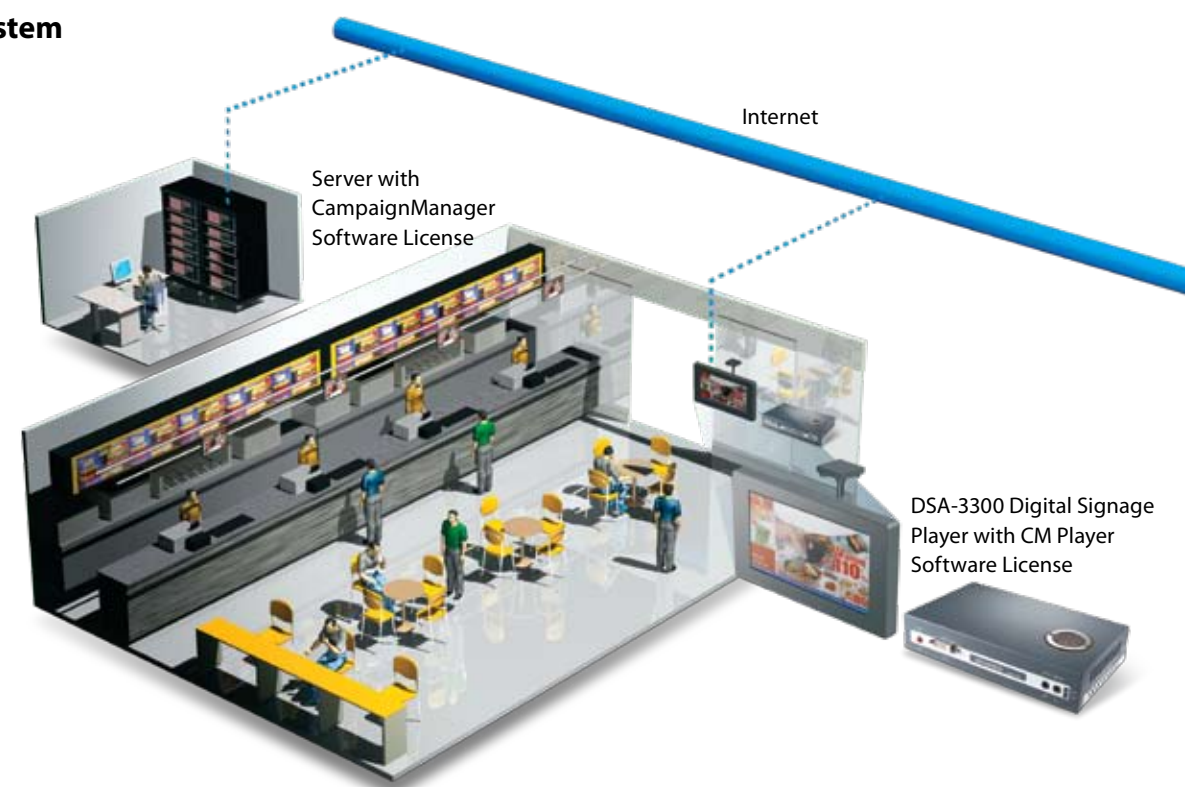
Solutions

As the previous signage system had fallen short in meeting expected reliability and stability, the fast-food chain decided to phase-in an Advantech Digital Signage solution. Advantech met and exceeded the customer's expectations by offering the following:
• Compact-size, industrial-grade digital signage player based on the DSA-3300 series. The DSA-3300 supports high-definition video (up to 720p) and is capable of integrating an optional TV-tuner to offer live TV content for digital signage
• Robust operating system based on Windows XP Embedded with Enhanced Write Filtering (EWF) and Watchdog Timer
• Powerful and cost efficient CampaignManager digital signage software developed by one of Advantech's software partners

Our client decided to apply their new digital signage network as a communications and entertainment tool; the main goals being to delight customers and help them to enjoy their meals inside the restaurant. Video content is narrowcast to the new digital signage network. The display media includes MPEG 2-based high-definition advertising clips, live TV programs, and sporting events. RSS feeds are also created from the content provider's dedicated RSS server. RSS content is useful for revenue-generating, text-based, classified advertisements, and is also wonderful for displaying important real-time messages like news clips or weather reports.

System

Internet

Server with CampaignManager Software License

DSA-3300 Digital Signage Player with CM Player Software License

Benefits

◆ Advantech offers lower total cost of ownership with long-term product support, and spare parts support
◆ Less worry about constant maintenance and reliability problems such as those plaguing commercial-grade PC systems
◆ Versatile high-definition playback

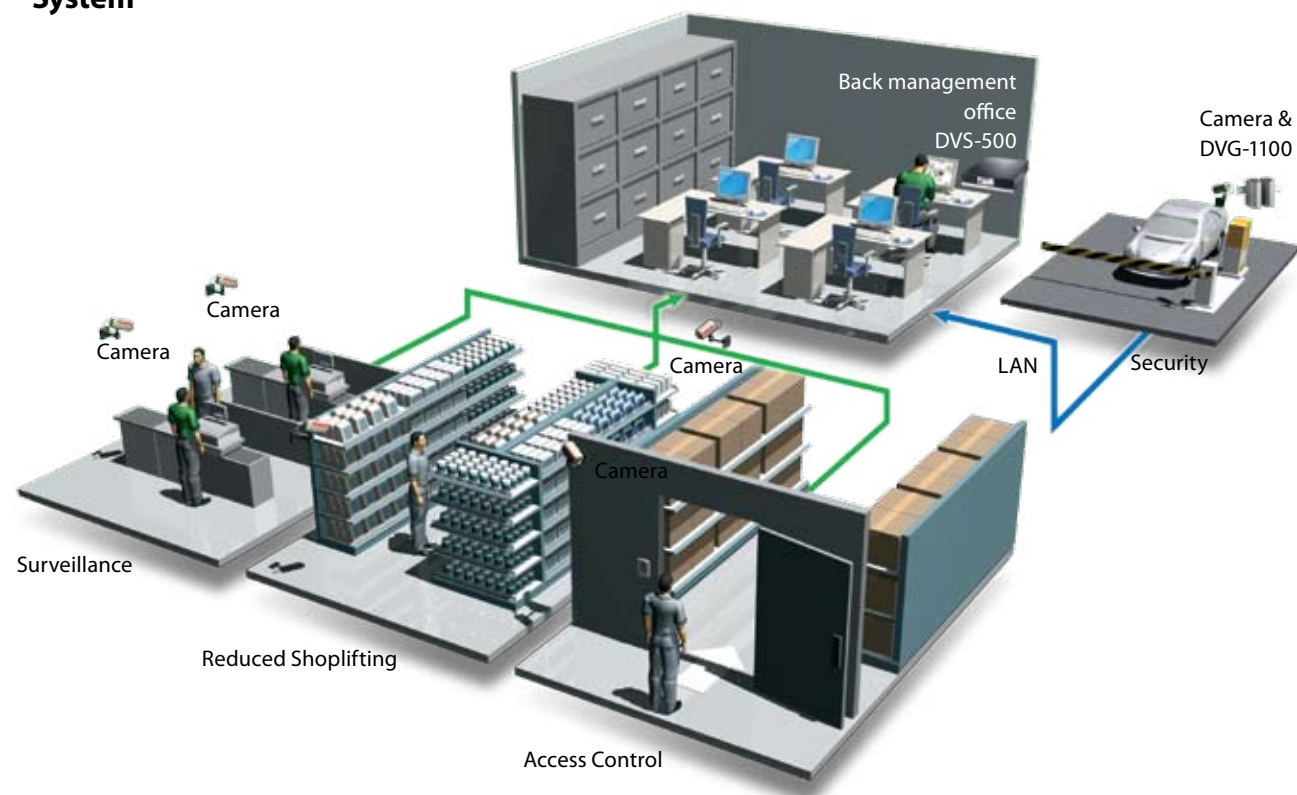# Video Solution in a Supermarket

Introduction

The concept of intelligent stores is widely accepted in today's retail business. Instead of traditional paper posters, digital signage has become a new communication tool that serves as a communications platform with customers. Point-of-sales systems (POS) increase daily-operational efficiency and stock management. And through the technology of data mining and automatic data collecting, retailers are closer to customers and more understanding of consumer behavior. Today, digital video applications have been adopted by store management as well. Besides offering normal security applications, digital video technology can lower shoplifting losses and costs of operation. Traditional video surveillance offers a wide array of security programs, but with no way to share information, few economies of scale, and little integration with critical business systems. Digital video, however, which can be analyzed and immediately shared, can organize and deliver images based on business-defined rules and behavioral triggers.

Solutions

By Integrating a digital video system with a digital video gateway, Advantech provided a comprehensive video solution to satisfy a large supermarket. The DVS-500 PC based video system can integrate with devices like access control, RFID, sensors and intelligent video software.

- In the back office, a retailer can monitor security conditions of an entire supermarket.
- Cameras on shelves or aisles prevent losses from shoplifting.
- With the integration of video systems and access control, managers can decrease door guard costs. Through a one-way control system, an alarm signal will be delivered to the DVS-500 system any time someone exits through the entrance door.
- For monitoring distributed-input, outdoor areas such as parking lots, the DVS-500 can receive digital imagery directly via the network from the DVG-1100, a video gateway.
- The compact, low-noise DVS-500 is easy to install in the retail environment.
- The advanced hard disk and capture card cooling designs increase DVS-500 reliability for 24/7 surveillance operations.

System

Back management office DVS-500

Camera & DVG-1100

Camera

Camera

Camera

LAN

Security

Camera

Surveillance

Reduced Shoplifting

Access Control

Benefits

The concept of intelligent stores has already expanded to include video solutions. Advantech video solutions help retail supervisors manage supermarket operations effectively. Advantech's highly integrated systems and intelligent video functions improve employee and customer safety, reduce shrinkage and improve risk management. In the future, the use of knowledge gained through video recording will continue to increase productivity and improve customer service. The video system is not only used for in-store security, but is also integrated with business equipment sensors in the stockroom, freezer, POS, parking areas, and digital signage.

Complete System Modules for Photo Kiosk Implementations

Introduction

Digital Cameras comprise 90 percent of new camera sales, and the average cost of a 4 x 6 print at a kiosk is $.29 versus $1.00 on a home printer! The photo kiosk is one of the most successful self-service devices ever made, especially when deployed in the retail environment. Consumers printing digital photos are driving growth in the retail digital photofinishing market. More and more consumers are using photo kiosk print stations with dedicated printers and online photo printing services. Analysts expect even greater adoption of retail digital print services as innovations are added, such as net-to-retail and one-hour processing options.

Solutions

For small-to-midsize photo kiosk manufacturers, Advantech aims to facilitate system integration by providing comprehensive system modules, with competitive end-to-end pricing. Advantech offers a self-service configuration that lets customers buy all necessary key components for their self-service devices directly from Advantech. With this one-stop-shopping, customers do not need to expend great efforts dealing with multiple vendors; Advantech takes care of everything concerning the key components for them.

- Industrial motherboard with DRAM modules.
- Industrial display kits with a variety of touchscreen options.
- Thermal printer for receipt printing.
- Card reader for credit card transaction processing.
- UPS
- Memory Card Reader for various media device interfaces such as CF, SD, MMC, XD, MS, etc.
- Supports CD and DVD formats.

System

Remote Uploading

Internet

Storage Device

CD/DVD ROM and Card

Photo Kiosk

Benefits

- Increases the average sale by incorporating support for more expensive products.
- Promotes the sale of products with higher margins.
- Allow operators to offer and sell a choice of speeds of service.
- Up-selling: Photo Kiosk can up-sell customers for additional prints, products and services.