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Product Selection Guide
2008 - 2009

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

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.



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 Assurance System
- ◆ Quality Management
- ◆ 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 Peripheral Procurement
- ◆ Global Logistics
- ◆ Customer Support



AASC:
Advantech America
Service Center



AESC:
Advantech Europe
Service Center



ACSC:
Advantech China
Service Center

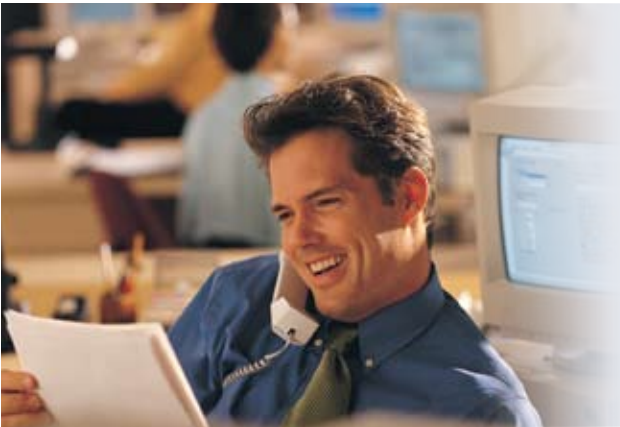


ATSC:
Advantech Taiwan
Service Center



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 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

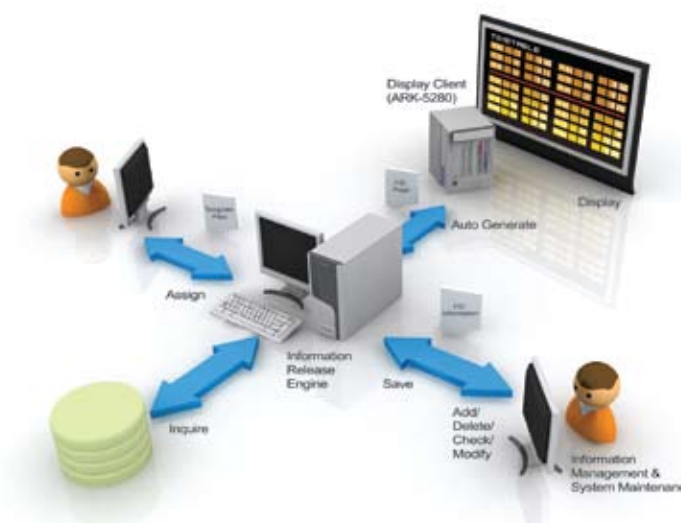
Since its opening in 1999, Shanghai Pudong International Airport has seen massive increases in air traffic; it handled over 17 million international passengers in 2006. To manage heavy, and ever-increasing, passenger traffic the airport needed a reliable, low-maintenance Flight Information Display System (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	-	-
EIDE	SMBus	Supported	-	-
	Mode	UDMA 33	UDMA 33	UDMA 33
SATA	Channel	1	1	1
	Max. Data Transfer Rate	-	-	-
Expansion Slot	Channel	-	-	-
	PCI-104	-	1	1
	PC/104	-	-	-
Ethernet	PCI/104-Plus	1	-	-
	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)*

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



PCM-3375	PCM-3372	PCM-3353
PC/104 CPU Module	PC/104 CPU Module	PC/104 CPU Module
Onboard VIA MARK 533 MHz	VIA Eden (V4) 400/600 MHz & ULV 1.0 GHz	AMD Geode LX800, up to 500 MHz
-	-	-
64 KB	128 KB	128 KB
VIA VT82C686B	VIA CX700	AMD LX800 + CD5536
Award 2 Mbit	Award 4 Mbit	Award 4 Mbit
PC/100/133 SDRAM	DDR2 400/533 MHz	DDR 333/400 MHz
512 MB	1 GB	1 GB
1 x 144-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM
Card Type I	Card Type I	Card Type I
1	-	1
1	-	-
2	1	3
-	1	1
1	1	1
1	1	1
2 x USB 1.1	6 x USB 2.0	4 x USB 2.0
AC97, Lin-in, Lin-out, Mic-in	HD Audio stereo sound	AC97, Lin-in, Lin-out, Mic-in
1 x 115 kbps	-	-
-	8-bit	8-bit
-	-	-
UDMA 33	UDMA 33/66	UDMA 33
1	1	1
-	150	-
-	2	-
-	-	-
1	-	-
-	1	1
1 x 10/100Base-T	1 x 10/100Base-T	1 x 10/100Base-T
1	1	
1 x 36-bit LVDS, 1 x 24-bit TTL	2 x 48-bit LVDS	1 x 18-bit LVDS, 1x 24-bit TTL
-	-	-
-	CRT + LVDS, LVDS + LVDS Independent display	CRT + TTL, CRT + LVDS Simultaneous display
AT	AT / ATX	AT
+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
+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
System reset	System reset	System reset
62 lever time	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
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")
0.097 kg (0.214 lb)	0.162 kg (0.357 lb)	0.162 kg (0.357 lb)*

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



PCM-9382	PCM-9381	PCM-9380	PCM-9375
3.5" Single Board Computers	3.5" Single Board Computers	3.5" Single Board Computers	3.5" Single Board Computers
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
533 / 667 MHz	400 MHz	400 MHz	-
1 MB ~ 2 MB	512 KB ~ 2 MB	512 KB ~ 2 MB	128 KB
Intel 945GM + ICH7M	Intel 855GME + ICH4	Intel 855GME + ICH4	AMD Geode LX800
Award 4 Mbit	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
DDR2 333/400/533 MHz	DDR 200/266/333 MHz	DDR 200/266/333 MHz	DDR 333/400 MHz
1 GB	1 GB	1 GB	512 MB
1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 200-pin SODIMM
Card Type I	Card Type I	Card Type I	Card Type I
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	-
1	1	1	1
-	1	1	1
-	-	-	1 (optional)
1	1	1	3
1	1	1	1
1	1	1	1
1	1	1	1
5 x USB 2.0	3 x USB 2.0	3 x USB 2.0	4 x USB 2.0
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
-	115 kbps	115 kbps	-
8-bit	4-bit	8-bit	8-bit
Supported	Supported	Supported	Optional
N/A	UDMA 33	UDMA 33	UDMA 33/66
-	1	1	1
300	-	-	-
2	-	-	-
-	1	-	-
-	-	-	1
1	-	1	-
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
1	1	1	1
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
-	1	-	-
CRT + LVDS Independent display	CRT + LVDS, CRT + DVI, LVDS + DVI Independent Display	CRT + LVDS Independent display	-
AT / ATX	AT / ATX	AT / ATX	AT / ATX
+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
+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
System reset	System reset	System reset	System reset
Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
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")
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	910GML: 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 910GML/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
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	-	-	-
Ethernet	Interface	2 x 10/100Base-T	2 x 10/100Base-T 10/100/1000Base-T (optional)	2 x 10/100/1000Base-T
	CRT	1	1	1
Display	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) *



PCM-4386	PCM-4390	PCM-9590	PCM-9587
EPIC SBC	EPIC SBC	EBX SBC	EBX SBC
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
400 MHz	533 / 667 MHz	533 / 667 MHz	400 MHz
512 KB/ 0 KB	up to 2 MB	512 KB ~ 4 MB	512 KB/ 0 KB
Intel 852GM + ICH4	Intel 945GM + ICH7M	Intel 945GM + ICH7M	Intel 852GM + 6300ESB
Award 4 Mbit	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
DDR 200/266	DDR2 400/533/667	DDR2 400/533/667	DDR 200/266 ECC registered
1 GB	2 GB	4 GB	1 GB
1 x 200-pin SODIMM	1 x 200-pin SODIMM	2 x 200-pin SODIMM	1 x 184-pin DIMM
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)
1	1	1	1
-	-	-	1
3	3	3	3
1	1	1	1
1	1	1	1
1	1	1	1
6 x USB 2.0	8 x USB 2.0	6 x USB 2.0	4 x USB 2.0
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
8-bit	8-bit	16-bit	8-bit
Supported	Supported	Supported	Supported
-	-	-	-
-	150	150	150 (RAID 0/1)
-	2	2	2
UDMA 33	UDMA 33	UDMA 100	UDMA 100
1	1	1	1
-	-	1 x PCIe x16	1 x PCI
-	-	1	1
1	-	-	1 (8-bit ISA)
-	-	-	1 (8-bit ISA)
-	1	1	1
2 x 10/100Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	1 x 10/100Base-T
1	1	1	1
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
-	-	-	-
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
AT / ATX	ATX	AT / ATX	AT / ATX
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)
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)
System reset	System reset	System reset	System reset
Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
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")
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
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 1.1) 2.54 A @ 5 V, 0.14 A @ 12 V (Pentium M 1.6)	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)*

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



PCM-9581	PCM-9580	PCM-9576	POD-6552
5.25" SBC	5.25" SBC	5.25" SBC	5.25" SBC
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
400 / 533 MHz	400 / 533 MHz	100 MHz	400 MHz
512 KB ~ 2 MB	512 KB ~ 1 MB	128 KB/ 256 KB	Up to 512 KB
Intel 855GME/GMCH + ICH4	Intel 845GV + ICH4	Intel 440BX AGPset	Intel 852GM + ICH4
Award 4 Mbit	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
DDR 200/266/333	DDR 200/266/333	2 x SDRAM	DDR 200/266
2 GB	2 GB	512 MB	1 GB
2 x 184-pin DIMM	2 x 184-pin DIMM	2 x 144-pin DIMM	1 x 200-pin SODIMM
Card Type I / II (shared 2nd IDE Channel)	Card Type I / II	Card Type I / II	Card Type I / II
1	1	1	1
1 (optional)	1	1	1 (optional)
3	3	3 (PCM- 9576FV only) 2 (PCM-9576F only)	3
1	1	1 (PCM-9576FV only)	1
1	1	1	1
1	1	1	1
6 x USB 2.0	4 x USB 2.0	2 x USB 1.1	6 x USB 2.0
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
8-bit	8-bit	3-bit	-
-	-	-	-
115 kbps	-	115 Kbps	115 Kbps
-	-	-	-
-	-	-	-
UDMA 100	UDMA 100	UDMA 33	UDMA 100
2	2	1	2
1 x PCI	1 x PCI	1 x PCI slot	2 x PCI, 1 x 8-bit ISA
1	-	-	-
-	-	-	-
-	-	1 x ISA slot (PCM-9576FV only)	1
-	-	-	-
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
1	1	1	1
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
-	-	-	-
CRT + LVDS, CRT + DVI Independent display	-	-	CRT + LVDS, CRT + TV-out, LVDS + TV-out Independent display
AT / ATX	ATX	AT / ATX	AT / ATX (Optional)
+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)
+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)
System reset	System reset	Interrupt, system rest	System reset
Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 62 sec	Programmable 1 ~ 255 sec
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")
0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*	0.85 kg (1.87 lb)*

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



ARK-3382	ARK-3383	ARK-3384	ARK-3389	ARK-3399
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
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
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
Yes	Yes	Yes	Yes	Yes
36-bit LVDS	36-bit LVDS	36-bit LVDS	36-bit LVDS	48-bit * LVDS
-	-	-	-	-
-	-	-	-	-
-	AC97 Audio, Line-In, Spk-out, Mic-in	AC97 Audio, Line-In, Spk-out, Mic-in	-	-
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)
1 x PS/2	1 x PS/2	1 x PS/2	1 x PS/2	1 x PS/2
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
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
-	-	-	-	-
-	-	1x 802.11b/g WLAN support (by miniPCI)	-	-
One socket supports Type I/II CompactFlash Card				One Type I CompactFlash Card
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
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
CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI	CE, UL, CCC, BSMI
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")
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)
Rear I/O Port	WLAN Antenna	1 (cutout)	1 (cutout)	1 (cutout)	1 (cutout)
	USB	-	-	-	-
	PS/2	-	-	-	-
	COM	-	-	-	-
	VGA	-	-	-	-
	Parallel	-	-	-	-
	RJ-45	-	-	-	-
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)



SYS-4W5120-4U01	SYS-6W6606-2S02	SYS-8W6608-4S02	SYS-8W6908-4S01	SYS-7W7220-4A01
Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop	Wallmount / Desktop
Intel 945G + ICH7	Intel 915GV + ICH6	Intel Q965 + ICH8DO	Intel 945G + ICH7R	Intel Q965 + ICH8DO
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
800 / 1066 MHz	533 / 800 MHz	800 / 1066 MHz	800 / 1066 MHz	800/1066 MHz
2 / 4 MB	1 / 2 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB
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
Intel 945G integrated	Intel 915GV integrated	Intel Q965 integrated	Intel 945G integrated	Intel Q965 integrated
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
-	2	2	-	-
2 x 32-bit	3 x 32-bit	4 x 32-bit	4 x 32-bit	5 x 32-bit
1 x PCIe x1, 1 x PCIe x16	-	-	1 x PCIe x4, 1 x PCIe x16	1 x PCIe x4, 1 x PCIe x16
-	-	-	-	-
5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive
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
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)
-	-	-	-	-
1	1	2	2	2
1	1	1	1	1
1	1	-	1	1
-	-	-	-	-
-	-	-	-	-
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
Intel 82573L	Broadcom 5721	Intel 82566DM	Intel 82573V	Intel 82573L 82566DM
4	2	2	2	2
2	-	-	-	1
1	-	-	-	-
1	-	-	-	-
1	-	-	-	-
3	-	-	-	-
1	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	4	4	4	4
-	2	2	2	2
-	2	2	3	2
-	1	1	1	1
-	1	1	1	1
-	1	1	1	2
-	-	-	-	2
Microsoft Windows XP				
Interrupt, System Reset	Interrupt, System Reset	System Reset	Interrupt, System Reset	-
Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	-
300 W	300 W	400 W	400 W	400 W
AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
1	1	1	2	1
Yes	Yes	Yes	Yes	Yes
Black (bezel) Silver (body)	Beige	Beige	Beige	Beige
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")
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



Model Name		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
4U Rackmount	4U Rackmount	4U Rackmount	4U Rackmount	4U Rackmount
Intel 945 G + ICH7R	Intel Q965 + ICH8DO	Intel 945 G + ICH7R	Intel Q965 + ICH8DO	Intel 945 G + ICH7R
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
800/1066 MHz	800/1066 MHz	800/1066 MHz	800/1066 MHz	800/1066 MHz
2 / 4 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB	2 / 4 MB
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
Intel 945G integrated	Intel Q965 integrated	Intel 945G integrated	Intel Q965 integrated	Intel 945G integrated
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
-	-	-	2	-
4 x 32-bit, 6 x 64-bit	5 x 32-bit	5 x 32-bit	10 x 32-bit	5 x 32-bit
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
5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive	5.25" ROM drive
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
(supports software RAID 0, 1, 5, 10)	(supports software RAID 0, 1, 5, 10)	SATA	(supports software RAID 0, 1, 5, 10)	SATA
-	-	-	-	-
2	3	3	3	3
1	1	1	1	1
-	-	1	-	1
2	-	-	-	-
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
Intel 82573V	Intel 82573L 82566DM	Intel 82573	Intel 82566DM	Intel 82573
2	2	2	2	2
-	1	-	1	1
4	4	4	4	4
2	2	2	1	2
3	2	2	2	2
1	1	1	1	1
1	1	1	1	1
1	2	1	1	1
-	2	3	-	3
Microsoft Windows XP				
System Reset	System Reset	System Reset	System Reset	System Reset
Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec	Programmable 1 ~ 255 sec
400 W	400 W	400 W	400 W	400 W
AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V	AC 100 ~ 240 V
2	2	1	2	1
Yes	Yes	Yes	Yes	Yes
Black	Black	Silver	Beige	Beige
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")
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
Processor System	CPU	AMD Turion TL-62 / AMD Sempron 3700+	Intel Core 2 Duo / Intel Celeron M
	Socket	S1g1 Socket	µFC-PGA 478 Socket P / CPU on board
	Max. Speed	2.1 GHz / 2.0 GHz	2.2 GHz / 2.0 GHz
	Front Side Bus	800 MHz / 800 MHz	800 MHz / 533 MHz
	L2 Cache	1 MB / 512 KB	2 x 2 MB / 1 MB
	Chipset	AMD M690E + SB600	Intel GME965 + ICH8M
	BIOS	Award 4 Mbit LPC	AMI 16 Mbit SPI
Expansion Slot	PCI	32-bit/33 MHz, 1 slot	32-bit/33 MHz, 1 slot
	Mini-PCI	32-bit/33 MHz, 1 slot	-
	PCIe	-	-
Memory	Technology	Dual Channel DDR2 800 SDRAM	Dual Channel DDR2 533/667/800 SDRAM
	Max. Capacity	4 GB	4 GB
	Socket	200-pin SODIMM x 2	200-pin SODIMM x 2
Graphics	Controller	AMD M690E integrated ATI Radeon X1250 based GFX Engine	Intel GMA X3100
	VRAM	Shared system memory up to 512 MB	DVMT 4.0 supports shared system memory up to 384 MB
	LCD	Dual channel 36/48-bit LVDS	Dual channel 36/48-bit LVDS
	TV-Out	-	-
	HDMI	1	-
	DVI	-	1
	Dual Display	CRT + LVDS; CRT+HDMI; HDMI+LVDS	CRT + LVDS; DVI + LVDS; CRT + DVI
Audio	SPDIF out	-	4-pin S/PDIF Out Header
	Amplifier	-	-
Ethernet	Interface	10/100/1000Base-T	10/100/1000Base-T
	Controller	Dual Realtek RTL8111C	Dual Realtek RTL8111B
	Connector	RJ-45 x 2	RJ-45 x 2
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
	Channel	4	3
EIDE	Mode	EIDE (Ultra DMA 133)	EIDE (Ultra DMA 100)
	Channel	1	1
Rear I/O	VGA / DVI	1 / -	1 / 1
	Ethernet	2	2
	USB	4 (USB 2.0 compliant)	4 (USB 2.0 compliant)
	Audio	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out
	IEEE 1394	-	-
	Parallel	-	-
	Serial	2 (1 of RS-232; 1 of RS-232/422/485)	2 (RS-232, supply 5 V & 12 V)
	PS/2	2 (1 x K/B and 1 x Mouse)	2 (1 x K/B and 1 x Mouse)
Internal Connector	LVDS & Inverter	1	1
	TV-Out	-	-
	DVI	-	-
	USB	4	6 (USB 2.0 ports)
	Serial	4 (RS-232)	2 (2 x RS-232, supply 5 V & 12 V)
	Parallel	1	-
	IDE	1	1
	SATA	4	3
	CompactFlash	1 Type I/II	1 Type I/II
	IrDA	-	-
	FDD	-	-
	DIO	8-bit General Purpose I/O for DI and DO	8-bit General Purpose I/O for DI and DO
Watchdog Timer	Output	System reset	Interrupt, system reset
	Interval	Programmable,1 ~ 255 sec/ min	Programmable, 1~255 sec/ min



AIMB-252	AIMB-240	AIMB-251
Intel Pentium M / Intel Celeron M	Intel Pentium 4 / Celeron	Onboard Intel ULV Celeron 600 MHz
µFC-PGA 478 Socket / CPU on board	µFC-PGA 478 Socket	CPU on board
2.0 GHz / 1.5 GHz	2.8 GHz / 2.8 GHz	600 MHz
533 MHz / 400 MHz	533 MHz / 400 MHz	400 MHz
2 MB / 1 MB	512 KB / 256 KB	512 KB
Intel 915GME/910GMLE + ICH6M	Intel 852GME + ICH4	Intel 852GM + ICH4
Award 4 Mbit FWH	Award 4 Mbit FWH	Award 4 Mbit FWH
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
-	-	-
Dual Channel DDR2 400/533 SDRAM	DDR 266/333 SDRAM	DDR 200/266 SDRAM
2 GB	1 GB	1 GB
240-pin DIMM x 2	184-pin DIMM x 1	184-pin DIMM x 1
Intel GMA 900	Chipset integrated	Chipset integrated
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
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
-	Chrontel CH7009A TV encoder supports both NTSC/PAL	Chrontel CH7009A TV encoder supports both NTSC/PAL
-	-	-
-	Chrontel CH7009A DVI transmitter up to 135M pixels/second	Chrontel CH7009A DVI transmitter up to 135M pixels/second
CRT + LVDS; Dual LVDS	CRT + LVDS, or DVI/TV-out + LVDS or CRT + DVI	CRT + LVDS, or DVI/TV-Out + LVDS or CRT + DVI
-	-	-
-	-	-
10/100/1000Base-T	10/100Base-T	10/100/1000Base-T
Dual Realtek RTL8111C	Dual Realtek RTL8100C	Realtek RTL8110S
RJ-45 x 2	RJ-45 x 2	RJ-45 x 1
-	-	-
-	-	-
150 MB/s	-	-
2	-	-
EIDE (Ultra DMA 100)	EIDE (Ultra DMA 100)	EIDE (Ultra DMA 100)
1	2	2
1 / -	1 / -	1/-
2	2	1
4 (USB 2.0 ports)	4 (USB 2.0 compliant)	2 (USB 2.0 compliant)
Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out
-	-	-
1	1	1
1 (RS-232/422/485)	1 (RS-232)	1 (RS-232/422/485)
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	1
-	1	1
-	1	1
4 (USB 2.0 compliant)	2 (USB 2.0 compliant)	4 (USB 2.0 compliant)
4 (RS-232)	5 (one of RS-232/422/485)	3 (RS-232)
-	-	-
1	2	2
2	-	-
1 Type I/II	1 Type I/II	1 Type I/II
-	115 kbps, IrDA 1.0 compliant	115 kbps, IrDA 1.0 compliant
-	1	1
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
Interrupt, system reset	System reset	System reset
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	-	-
	Controller	Intel GMA 3000	Intel GMA X3100
Graphics	VRAM	Share system memory up 256 MB	Share system memory up 384 MB
	LCD	-	Dual channel 48-bit LVDS
	TV-out	-	Yes
	DVI	-	-
	Interface	10/100/1000Base-T	10/100/1000Base-T
Ethernet	Controller	Intel 82566DM	Intel 82566MM Intel 82573L
	Connector	RJ-45 x 1	RJ-45 x 2
	TPM IC	-	-
TPM 1.2	Onboard	TPM pin header for TPM module (Sold separately)	-
	Technology	Dual channel DDR2 533/667/800 SDRAM	Dual channel DDR2 533/667 SDRAM
Memory	Max. Capacity	8 GB	4 GB
	Socket	240-pin DIMM x4	240-pin DIMM x2
	Max. Data Transfer Rate	300 MB	300 MB/s
SATA	Channel	8 (1 x eSATA & 7 x internal)	3
	Mode	ATA 100/66/33	ATA 100/66/33
EIDE	Channel	1 (Max. two devices)	1 (Max. two devices)
	VGA	1	1
I/O Interface	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
	Output	System reset	System reset
	Interval	Programmable, 1~255 sec/ min	Programmable, 1 ~ 255 sec/ min
	Advantech SNMP-1000-B	-	-
	Solid State Disk	-	-



AIMB-552	AIMB-554	AIMB-562
Intel Pentium M/Celeron M	Intel Core 2 Duo/ Core Duo/ Celeron M	Intel Core 2 Duo/Pentium 4/Celeron D
uFC-PGA 478 Socket / CPU on board	uFC-PGA 478 Socket M/ CPU on board	LGA775
2.0 GHz/1.5 GHz	2.16 GHz/2 GHz/1.86 GHz	2.66 GHz/ 3.8 GHz/3.06 GHz
2 MB/1 MB/512 KB	4 MB/2 MB/1 MB	4 MB/2 MB/1 MB/512 KB
Intel 910GMLE/915GME + ICH6M	Intel 945GME +ICH7M-DH	Intel 945G + ICH7
Award 4 Mbit FWH	Award 4 Mbit FWH	AMI 4 Mb FWH
400/533 MHz	533/667 MHz	533/800/1066 MHz
-	PCIe x16 4 GB/s per direction, 1 slot	PCIe x16 4 GB/s per direction, 1 slot
32-bit/33 MHz, 3 slots	32-bit/33 MHz, 2 slots	32-bit/33 MHz, 2 slots
-	1 GB/s per direction, 1 slot	-
-	-	250 MB/s per direction, 1 slot
Intel GMA 900	Intel GMA 950	Intel GMA 950
Shared system memory up 128 MB	Shared system memory up 224 MB	Shared system memory up 224 MB
Dual channel 36-bit LVDS	Dual channel 36-bit LVDS	-
-	Yes	-
Chrontel 7307C transmitter	-	-
10/100/1000Base-T	10/100/1000Base-T	10/100/1000Base-T
Dual Realtek RTL8111C	Dual Intel 82573L	Intel 82573L
RJ-45 x 2	RJ-45 x 2	RJ-45 x 1
-	-	-
-	-	-
Dual channel DDR2 400/533 SDRAM	Dual channel DDR2 533/667 SDRAM	Dual channel DDR2 533/667 SDRAM
2 GB	4 GB	4 GB
240-pin DIMM x2	240-pin DIMM x2	240-pin DIMM x4
150 MB/s	300 MB/s	300 MB/s
2	2	4
ATA 100/66/33	ATA 100/66/33	ATA 100/66/33
1 (Max. two devices)	1 (Max. two devices)	1 (Max. two devices)
1	1	1
Max. 8 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)
10 (2 of RS-232/422/485)	2 (1 of RS-232/422/485, 1 of RS-232)	2 (RS-232)
1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
1	1	1
2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)
1 (for VG version)	1 (for VG version)	1
2 (for G2 version)	2 (for G2 version)	-
-	-	-
-	-	-
Yes	Yes	Yes
Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-in, Line-out
System reset	System reset	System reset
Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min	Programmable, 1-255 sec/ min
-	Yes	-
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	-	-



AIMB-762	AIMB-750	AIMB-744	AIMB-742
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
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
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
Intel 945G + ICH7R	Intel 855GME + 6300ESB	Intel 875P + 6300ESB	Intel 865G + ICH5
Award 4Mbit FWH	Award 4 Mbit FWH	Award 4 Mbit FWH	Award 4 Mbit FWH
533/800 MHz	400 MHz	400/533/800 MHz	400/533/800 MHz
PCIe x16 4 GB/s per direction, 1 slot	AGP 4x, 1 slot	AGP 8x, 1 slot	AGP 8x, 1 slot
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
-	-	-	2
Intel GMA 950	Chipset integrated	-	Intel Extreme Graphics 2
Shared system memory up 224 MB	Shared system memory up to 64 MB	-	Shared system memory up to 64 MB
-	Dual channel 36-bit LVDS	-	-
10/100/1000Base-T	10/100/1000Base-T or 10/100Base-T	10/100/1000Base-T	10/100/1000Base-T or 10/100Base-T
Dual Intel 82573V	Intel 82541 & Intel 82551	Intel 82547 & Intel 82541	Intel 82547/82541 & Intel 82562/82551
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
4 GB	2 GB	4 GB	4 GB
240-pin DIMM x 4	184-pin DIMM x 2	184-pin DIMM x 4	184-pin DIMM x 4
300 MB/s (SATA II)	150 MB/s	150 MB/s	150 MB/s
4	2	2	2
ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	ATA 100/66/33
1 (Max. two devices)	2 (Max. two devices)	2 (Max. for devices)	2 (Max. for devices)
1	1	-	1
Max. 8 (USB 2.0 compliant)	Max. 4 (USB 2.0 compliant)	Max. 4 (USB 2.0 compliant)	Max. 8 (USB 2.0 compliant)
2 (1 of RS-232/422/485, 1 of RS-232)	4 (RS-232)	4 (RS-232)	2 (RS-232)
1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
1	1	1	1
2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)
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)
Yes	Yes	Yes	Yes
Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
System reset	System reset	System reset	Interrupt, System reset
Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min	Programmable, 1 ~ 255 sec/ min
Yes	Yes	Yes	Yes
-	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	-	-	-	-
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 PCE-7210	Core 2 Quad PICMG 1.3 System Host Board PCE-5124	Core 2 Duo PICMG 1.3 System Host Board 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
Bus	BIOS	Award 4 Mb FWH	AMI 16Mb SPI Flash	Award 4 Mb FWH
	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)
Watchdog Timer	OBS (Onboard Security Hardware Monitor)	Yes	Yes	Yes
	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					
	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
PCE-7B06V-04A1E		1						4	Yes	Yes	-	-	-	-
PCE-7B06V-30A1E		2				2	1		Yes	Yes	-	-	-	-
PCE-7B06-04A1E		1						4	-	-	-	-	-	-
PCE-7B06-40A1E		1				4			-	-	-	-	-	-
PCE-7B08-04A1E		2	1					4	-	-	-	-	-	-
PCE-7B13-64B1E		2			4	2		4	-	-	-	-	Yes	Yes
PCE-7B10-04A1E			5					4	-	-	-	-	Yes	Yes
PCE-7B13D-04A1E		1, 2						4	-	-	-	-	-	-
PCE-7B19-88A1E		2			8			8	-	-	-	-	-	-
PCE-7B16Q-02A1E		1						2	-	-	-	-	-	-

Desktop: Compatible with PCE-5xxx series CPU board

Yes: Supported/ - : Not supported

Model Name	PCIe				PCI-X			PCI	Rackmount Chassis					
	x16	x8	x4	x1	64/66	64/100	64/133	32/33	ACP-1000EBP	ACP-2000EBP	IPC-602EBP	IPC-510	IPC-610-E	IPC-610-L
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	-	-	-	-	-	-
PCE-5B06-00A1E	1			4					-	-	-	-	-	-
PCE-5B06-40A1E	1					4			-	-	-	-	-	-
PCE-5B07-04A1E	1		1					4	-	-	-	-	-	-
PCE-5B08-02A1E	1			4				2	-	-	-	-	-	-
PCE-5B12-64B1E	1				4	2		4	-	-	-	-	-	Yes
PCE-5B13-08A1E	1			3				8	-	-	-	-	-	Yes
PCE-5B10-04A1E	1			4				4	-	-	-	-	-	Yes
PCE-5B12D-04A1E	1							4	-	-	-	-	-	-
PCE-5B18-88A1E	1				8			8	-	-	-	-	-	-
PCE-5B16Q-02A1E	1							2	-	-	-	-	-	-

Rackmount Chassis										Wallmount Chassis			
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
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-
-	-	-	-	-	-	Yes	-	-	-	-	-	-	-

Rackmount Chassis											WallmountChassis			
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
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	Yes	Yes	-	Yes	-	-	-	-
-	-	-	-	-	-	-	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 Interval	Interrupt, system reset Programmable 1~255 sec.	Interrupt, system reset 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



PCA-6187	PCA-6186-B	PCA-6178-C	PCA-6002-B
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)
3.4/3.06/2.8 GHz	3.06/3.06/2.8 GHz	1.0 GHz/1.1 GHz	650/400 MHz
256 KB, 512 KB, 1 MB/ 256 KB /128, 256 KB	256, 512 KB/256 KB/128 KB	256 KB/128 KB	256 KB
Intel 865G + ICH5	Intel 845GV + ICH4	Intel 440BX	Intel 815E + ICH2
Award 4 Mbit FWH	Award 4 Mbit FWH	Award 2 Mbit ISA	Award 4 Mbit FWH
400/533/800 MHz	400/533 MHz	66/100 MHz	100 MHz
32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz	32-bit/33 MHz
HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)	HISA (ISA high drive)
Chipset integrated	Chipset integrated	ATI RAGE XL (AGP 2X)	Chipset integrated
Shared system memory up to 64 MB	Shared system memory 8 ~ 64 MB	8 MB	Shared system memory up to 11 MB
-	-	-	-
10/100Base-T or 10/100/1000Base-T	10/100Base-T or 10/100/1000Base-T	10/100Base-T	10/100Base-T
Intel 82547/82541, Intel 82562 (FE)	Intel 82562/82551, Intel 82541 (GbE)	Intel 82551	Intel 82562/82551
RJ-45 x 2	RJ-45 x 2	RJ-45	RJ-45 x 2
Yes	Yes for FE LAN NO for GbE	-	Yes
Dual channel DDR 266/333/400 SDRAM	DDR 200/266/333	PC-100 with ECC support	PC-133/100
4 GB	2 GB	768 MB	512 MB
184-pin DIMM x 4	184-pin DIMM x 2	168-pin DIMM x 3	168-pin DIMM x 2
150 MB/s	-	-	-
2	-	-	-
ATA 100/66/33	ATA 100/66/33	ATA 33	ATA 100/66/33
2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)	2 (Max. four devices)
6 (USB 2.0 compliant)	6 (USB 2.0 compliant)	2 (USB 1.1 compliant)	4 (USB 1.1 compliant)
2 (RS-232)	2 (RS-232)	2 (RS-232)	2 (RS-232)
1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)	1 (SPP/EPP/ECP)
1	1	1	1
1	1 (for LV, VE, VG versions) 2 (for E2 versions)	1	1 (for VE version) 2 (for E2 version)
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)
Yes	Yes	Yes	Yes
Interrupt, system reset	Interrupt, system reset	Interrupt, system reset	Interrupt, system reset
Programmable, 1~255 sec/min	Programmable, 1 ~ 255 sec/min	Programmable, 1 ~ 63 sec.	Programmable, 1 ~ 255 sec./min
Yes	Yes	-	Yes
Yes	Yes	-	Yes
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

Yes: supported / - : not supported / Δ : optional

Category	Model Name	Slots per segment					Segment	AT	ATX	1U Chassis		2U Chassis			4U Chassis	
		ISA	PCI	PICMG	PICMG/ PCI	ISA/ PCI				ACP-1000	ACP-1320	ACP-2000	ACP-2320	IPC-602	ACP-4362	ACP-4320
										2-slot	2-slot	6-slot	6-slot	6-slot	15-slot	15-slot
1U Butterfly BP	PCA-6103P2V-0A2E**	-	2	1	-	-	1	-	Yes	Yes	Yes	Yes	-	-	-	-
	PCA-6103P2VX-B3E**	-	2	1	-	-	1	-	Yes	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	-	-	-	-	-	-	-
	PCA-6106P3-0D2E	2	2	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6106-0B2E	6	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108P3X-0A2E	3	3	2	-	-	1	-	Yes	-	-	-	-	-	-	-
	PCA-6108E-0C2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108P6-0B4E	1	5	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108P4-0C2E	3	3	1	1	-	1	Yes	Yes	-	-	-	-	-	-	-
14/15 Slot BP	PCA-6108-0B2E	8	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6114P12X-0A2E	1	11	1	1	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6114P12-0B3E	1	11	1	1	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6114P10-0B2E	2	10	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6113P7XE	4	7	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6114P7-0D3E	4	6	3	-	1	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6114P4-0C2E	8	4	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6113P4R-0C2E	7	4	2	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
20 Slot BP	PCA-6114-0B2E	14	-	-	-	-	1	Yes	Yes	-	-	-	-	-	Yes	Yes
	PCA-6115-0B2E	15	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6115QP2X-0A2E	-	2	2	-	-	4	Yes	Yes	-	-	-	-	-	-	-
	PCA-6119P16X-0A2E	1	16	2	-	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6119P17-0B2E	-	16	1	1	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6120P18-0A2E	1	17	1	1	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6116QP2-0B2E	-	2	2	-	-	4	Yes	Δ	-	-	-	-	-	-	-
	PCA-6120P4-0B2E	14	4	2	-	-	1	Yes	Δ	-	-	-	-	-	-	-
Pure PCI/ ISA BP	PCA-6120P12-0A2E	7	11	1	1	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6119P7-0B3E	10	7	2	-	-	1	Yes	Δ	-	-	-	-	-	-	-
	PCA-6120DP4-0B2E	3	3	2	1	-	2	Yes	Δ	-	-	-	-	-	-	-
	PCA-6120Q-0B2E	5	-	-	-	-	4	Yes	Δ	-	-	-	-	-	-	-
Pure PCI/ ISA BP	PCA-6105P5-0B2E*	-	5	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6104P4-0B2E*	-	4	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6104-0C2E	4	-	-	-	-	1	Yes	Yes	-	-	-	-	-	-	-
	PCA-6108P8-0A2E*	-	8	-	-	-	1	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.



PCA-6115QP2X-0A2E



PCA-6114P12-0B3E



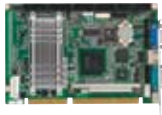
PCA-6120P18-0A2E

4U Chassis						5U Chassis	6U Chassis	7U Chassis	Wall mount					Cage
ACP-4010	ACP-4000	IPC-630	IPC-610	IPC-611	IPC-623	ACP-5260	IPC-622	ACP-7000	IPC-6908	IPC-6608	IPC-6606	IPC-6806	IPC-644	IPC-6006
15-slot	15-slot	15-slot	15-slot	15-slot	20-slot	20-slot	20-slot	20-slot	8-slot	8-slot	6-slot	6-slot	4-slot	6-slot
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
-	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-
-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-
-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-

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, 1x 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



PCI-6870	PCA-6781	PCA-6775
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
-	-	-
Award 4 Mb Flash ROM BIOS	Award 4 Mb Flash ROM BIOS	Award 4 Mb Flash ROM BIOS
Intel 815E	Intel 852GM+ICH4	VIA Mark 533/800 + 686B
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
Compactflash socket (Type I/II)	Compactflash socket (Type I/II)	Compactflash socket (Type I/II)
255 level timer interval, setup by software	255 level timer interval, setup by software	Programmable, 0 ~ 62 sec.
Monitoring temperatures, voltages	Monitoring temperatures, voltages	Monitoring temperatures, voltages
-	1 x PC104	-
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
115 kbps	115 kbps	115 kbps
2 x USB 1.1 ports	4 x USB 1.1 ports	4 x USB 1.1 ports
-	8-bit General Purpose I/O for DI and DO	8-bit General Purpose I/O for DI and DO
-	Dual independent display: CRT + LVDS	Dual independent display: CRT + LVDS, CRT + TTL
1 x CRT	1 x CRT	1 x CRT
-	2 channel LVDS (36-bit)	2 channel LVDS (36-bit)/36-bit TTL
-	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)
10/100Base-T Fast Ethernet	10/100Base-T Fast Ethernet	10/100Base-T Fast Ethernet
AT, ATX	AT, ATX	AT, ATX
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)
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")
0.85 kg / 1.87 lb	0.85 kg / 1.87 lb	0.85 kg / 1.87 lb

Industrial Computer Chassis



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
		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	
MBPC-641	IPC-644	IPC-6006	IPC-6806	IPC-6608/6606	IPC-6908	ACP-1320MB	ACP-1000/ ACP-1000MB
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
-	-	-	-	-	-	1	1
-	1	-	1	1	1	2	1
-	1	-	1	-	1	1	1
-	-	-	1 (IPC-6806W) 0 (IPC-6806/6806S)	2 (IPC-6608) 1 (IPC-6606)	2	-	-
-	-	-	Yes	Yes	-	Yes	Yes
-	-	-	-	-	-	-	Yes
1	2	-	1	1	2	2	4
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)
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
-	-	-	-	-	300 W 1+1	-	-
-	-	-	-	-	300 W ATX	-	180W ATX (ACP-1000BP)
4/0	4/0	6/6 (IPC-6006/6006P) 6/0 (IPC-6006S)	6/0 (IPC-6806S) 6/6 (IPC-6806/6806W)	8/8 (IPC-6608) 6/6 (IPC-6606)	8/8	1/1	3/3
refer to page 39-47							
refer to page 39-47							
-	-	-	-	-	Yes	Yes	Yes (ACP-1000MB)
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
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
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
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
		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
IPC-630	IPC-610-F	IPC-610-L/ IPC-611	IPC-510	IPC-623	ACP-5260	IPC-622	ACP-7000
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
-	-	-	-	-	1	-	1
1	1	1	1	1	6 (SCSI) + 1	-	6 (SCSI) + 1
1	1	-	1	1	-	2	-
3	3	3	3	3	1	4	2
Yes	-	-	Yes	-	Yes	Yes	Yes
-	-	-	Yes	-	Yes	-	Yes
1	1	1	1	3	7	4	6
114	85	85	85	114	2 x 47 3 x 114 2 x 25	53	4 x 58 2 x 47
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	-
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
300 W ATX	300 W ATX	-	-	-	-	-	-
15/10	15/10	15/11	14/8	20/20	20/20	20/20	20/20
refer to page 39-47							
refer to page 39-47							
Yes	-	-	-	Yes	Yes	Yes	Yes
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
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
18	18	14.5/14.2	10.7	26	30	30	35
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		
Model Name		MIC-3039-BE	MIC-3056A/4-2RE	MIC-3043B/MIC-3043B-BE	MIC-3043C/MIC-3043C-BE	MIC-3043DE/MIC-3043D-BE
Height (1U = 1.75")		1 U	2 U	4 U	4 U	4 U
Backplane	6U Slot	2	4	6	6	6
	PCI Bus	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
	H.110 CT Bus	-	Yes	Yes	-	-
	PICMG 2.16	-	-	-	-	-
	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
Drive Bay	5.25"	-	-	-	-	-
	3.5" HDD Bracket	-	-	2 IDE removable	2 SCSI hot-swappable	2 SATA (IDE or SATA interface optional) hot-swappable
	Slim FDD	-	-	-	-	-
	Slim CD-ROM	-	-	1 USB	1 USB	1 USB
Cooling	No. of Fans	5	3	2	2	2
	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
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)
	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)
CPU Board	MIC-3392	Yes	Yes	Yes	Yes	Yes
	MIC-3390	Yes	Yes	Yes	Yes	Yes
	MIC-3369C	Yes	Yes	Yes	Yes	Yes
RIO Card		Yes	Yes	Yes	Yes	Yes
PCI Carrier Board	MIC-3961	Yes	Yes	Yes	Yes	Yes
Media Carrier Board	MIC-3960	-	-	-	-	-
Dual PMC Carrier Board	MIC-3951	Yes	Yes	Yes	Yes	Yes
Chassis Management Module	MIC-3927	MIC-3927AE	Yes	Yes (optional)	-	-
		MIC-3927BE	Yes	-	-	-
		MIC-3927CE	Yes	-	Yes	Yes
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
	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
Weight	kg	4.5	7.5	18	18	18
	lb	9.9	16.5	39.7	39.7	39.7
RoHS Compliance		RoHS	RoHS	RoHS	RoHS	RoHS



4U Enclosure			10U Enclosure	
MIC-3042AE/MIC-3042A-xE	MIC-3042BE/MIC-3042B-xE	MIC-3043AE/MIC-3043A-BE	MIC-3081B/8-10AE	MIC-3081B/8-10RE
4 U	4 U	4 U	10 U	10 U
8	8	6	8	8
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
Yes	Yes	Yes	Yes	Yes
-	-	-	Yes	Yes
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	2
-	-	2 IDE removable	1	1
-	-	-	-	-
-	-	1 USB	-	-
2	2	2	6	6
193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	193 CFM, 61.3 CFM	80 CFM each	80 CFM each
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)
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)	-	-
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
-	Yes	Yes	Yes	Yes
Yes	Yes	-	-	-
Yes	Yes	Yes	Yes	-
-	-	-	Yes (optional)	Yes (optional)
-	-	-	-	-
Yes (optional)	Yes (optional)	Yes (optional)	-	-
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
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
18	18	18	16.5	18
39.7	39.7	39.7	36.34	39.65
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	2.16 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 (PATA)	1 (SATA) 1 (PATA)	1 (SATA) 1 (PATA)
	CompactFlash Socket	1	1	1
	2.5" Drive Bay	1 (SATA)	-	1 (SATA)
	VGA	1	-	1
Front Panel I/O	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 Man- agement 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-A2E (Conformal Coating)	RIO-3392MIL-A1E (No Coating) RIO-3392MIL-A2E (Conformal Coating)	RIO-3310S-A1E 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)
Memory	L2 Cache	4 MB	1 MB/ 2 MB	1 MB/ 2 MB
	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
Watchdog Timer	LAN3	Yes (FE, Intel 82562GT)	Yes (FE, Intel 82562GT)	Yes (FE, Intel 82562 GT)
	Output	System Reset	System Reset	System Reset
EIDE	Interval	Programmable 0 ~ 255 sec.	Programmable 0 ~ 255 sec.	Programmable 0 ~ 255 sec.
	Mode	SATA/PATA	SATA/PATA	ATA 33/66/100
	Channel	1 (SATA) 1 (PATA)	1 (SATA) 1 (PATA)	2
	CompactFlash Socket	1	1	1
	2.5" Drive Bay	-	1 (SATA)	1
Front Panel I/O	VGA	-	-	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-A2E RIO-3310AE	RIO-3310S-A1E RIO-3310S-A2E RIO-3310AE	RIO-3309C-AE RIO-3309S-A1E RIO-3309S-A2E
				MIC-3039-BE
Enclosure		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 & Man- agement 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 & Man- agement 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

eServices & Applied Computing

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.

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



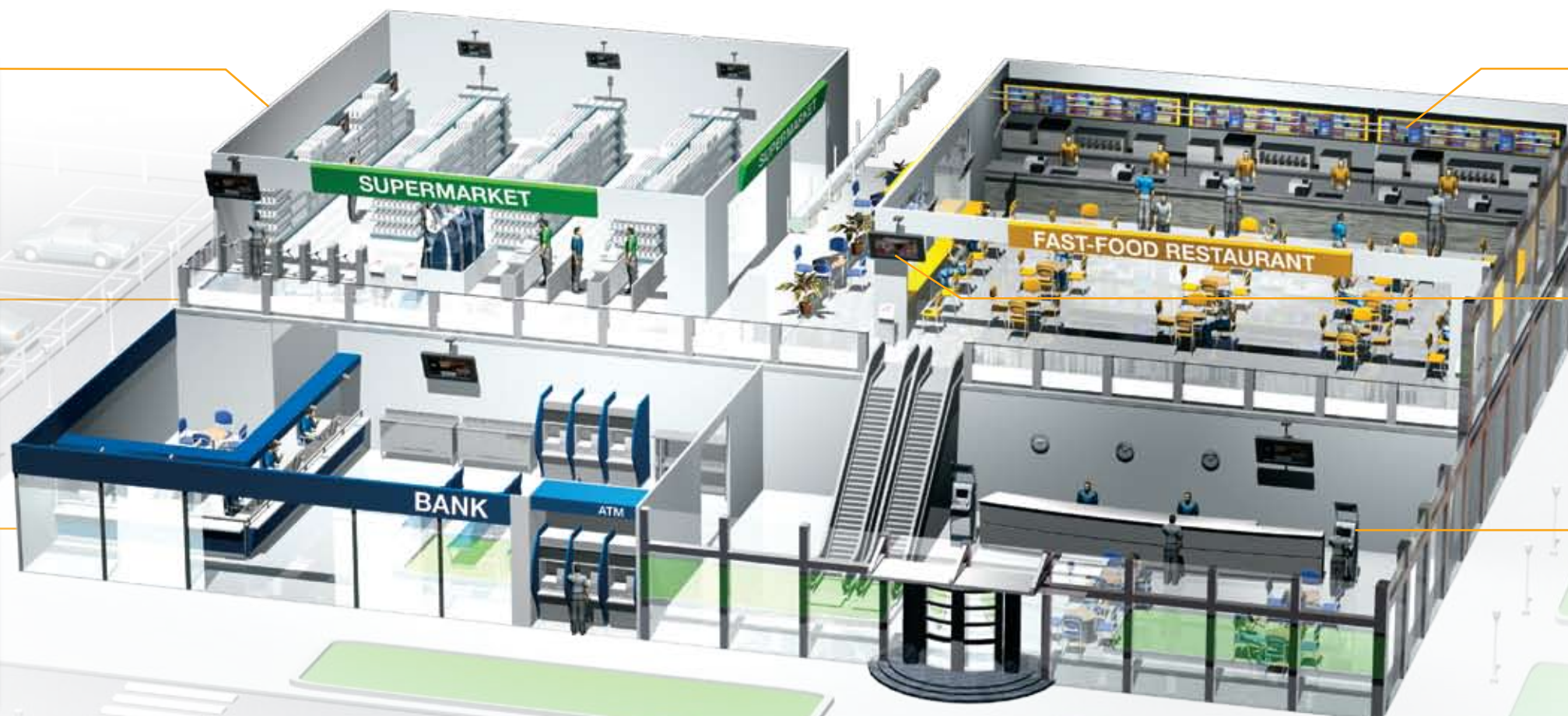
Shelf-edge media



Sales-aid Interactive Kiosk



Intelligence Video Surveillance



Digital Menu Board



Digital Signage



Self Check-in Kiosk

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.

Smart Lifestyle



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

- 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

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.

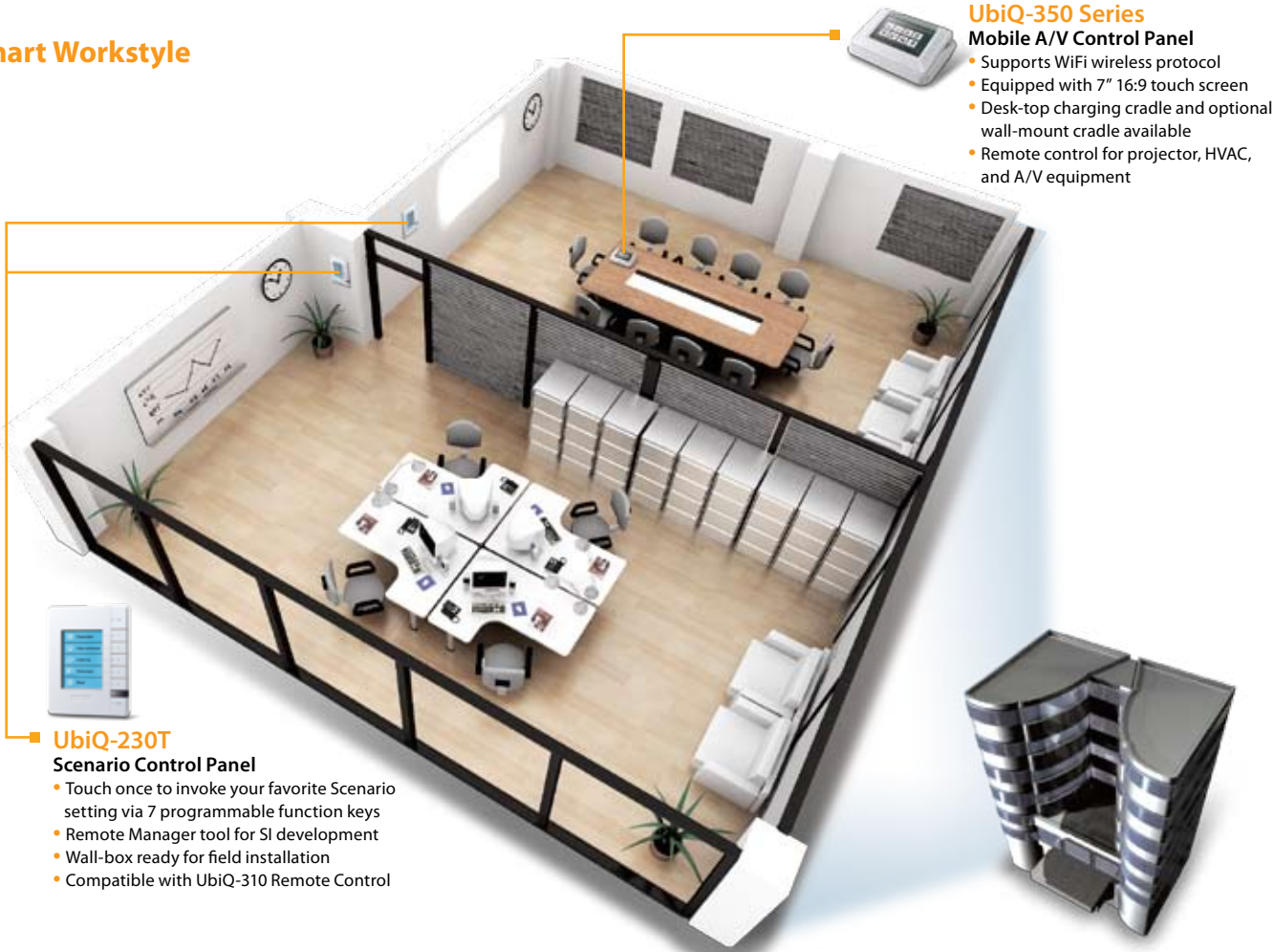
- **Scenario Control**
 - Personalized lighting scenes can be created to set the mood for any occasion.
 - Homeowners can create a comfortable environment and help reduce their energy costs by using a control system to manage their heating, ventilation, and air conditioning systems.
- **Home Theater 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 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

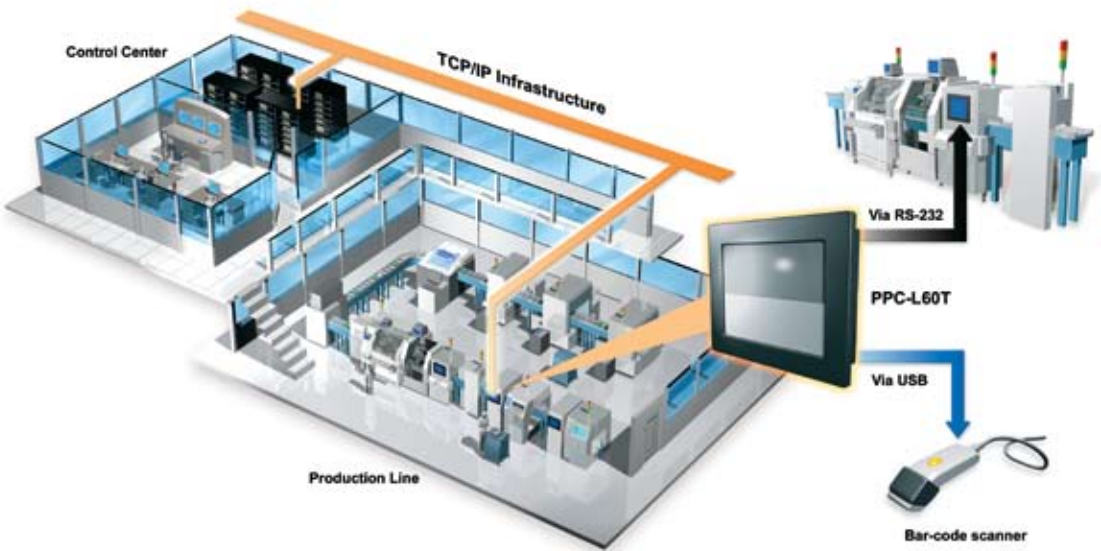
The connector manufacturing process includes CAD design, injection molding, automatic assembly, and high-speed precision pressing. A leading global connector manufacturer needs to produce millions of connectors everyday and distribute them to warehouses worldwide. Because of the difficulty of producing 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 XP 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

Fleet Management System for Taiwan Bus



Introduction

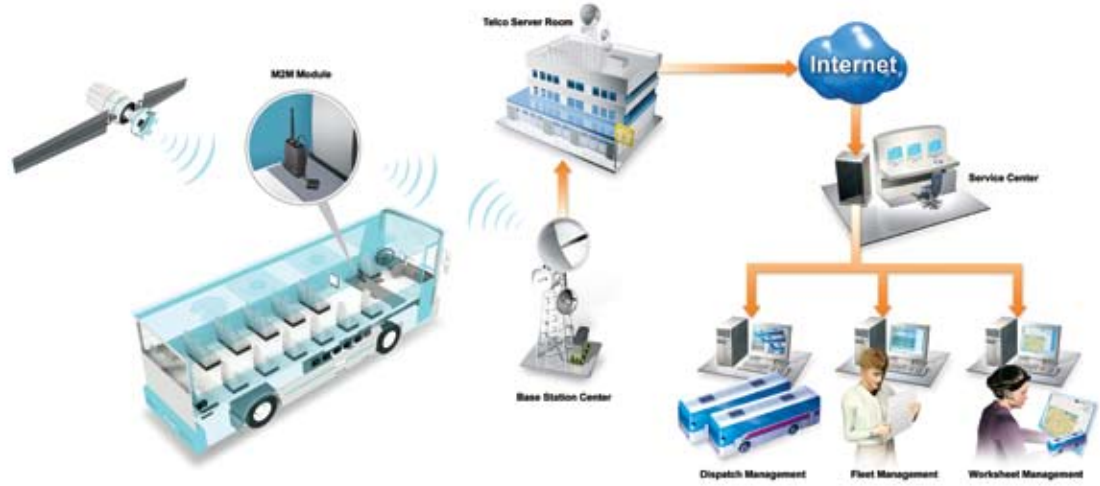
Taiwan's buses and coaches are privatized and many operators run thousands of routes across the country every day. To manage the ever-increasing number of vehicles, operators need a reliable, low-maintenance Fleet Management System (FMS). This unique system helps coach operators by serving information 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

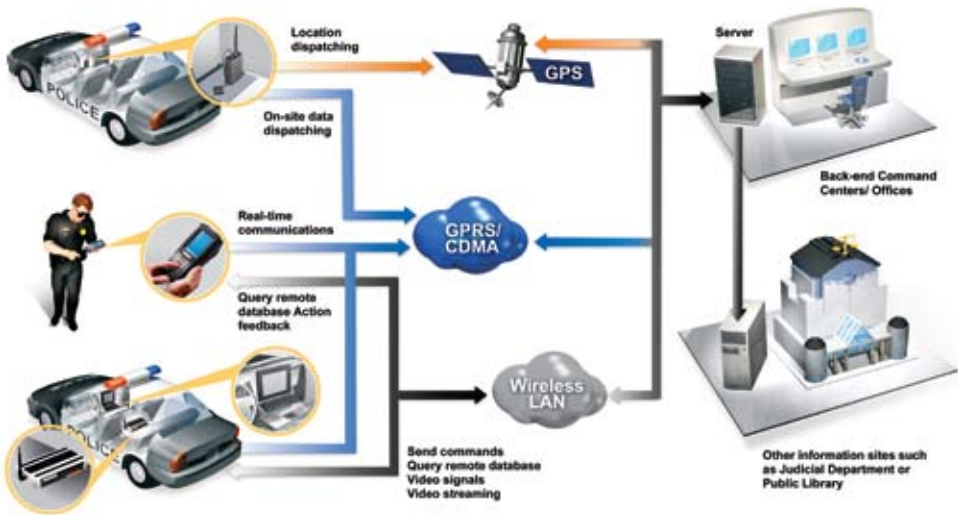
Technology has transformed law enforcement & public safety applications. Report Management Systems have streamlined report taking, information retrieval, and crime mapping. Mobile Data Terminals have given officers the ability to access information centers and view state and local data from their vehicles. 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.

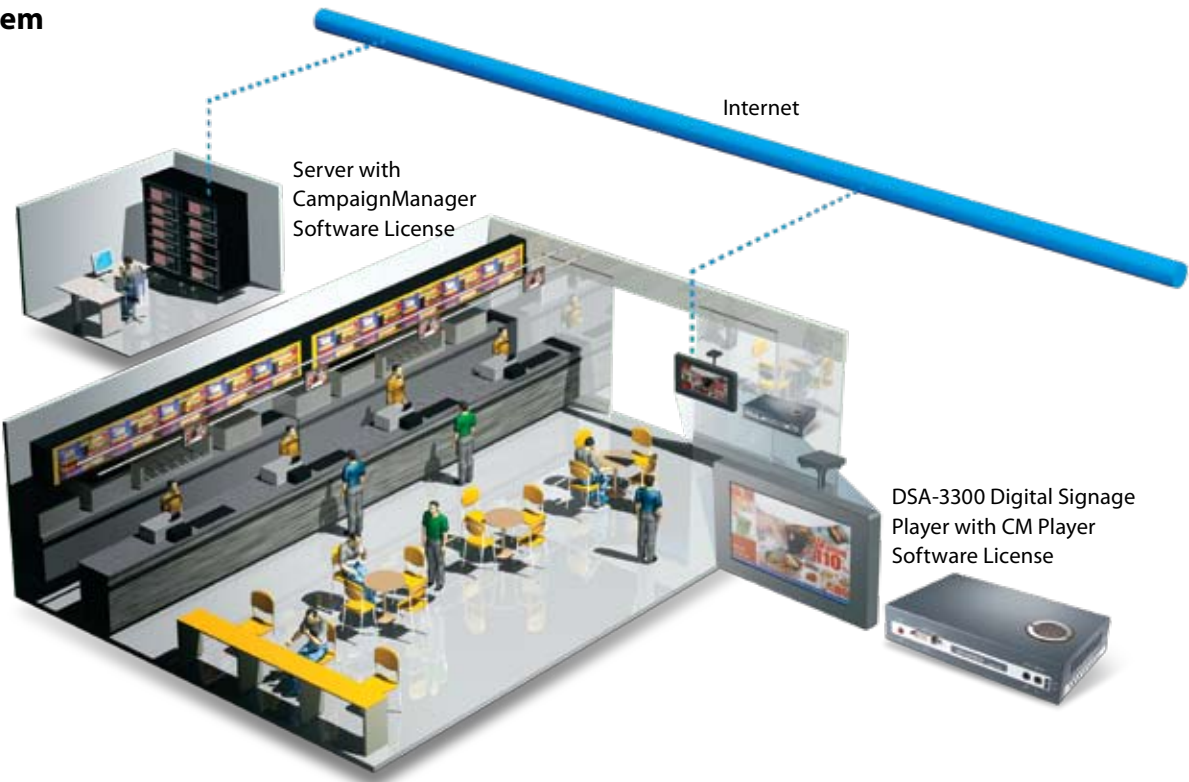
Solutions

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



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

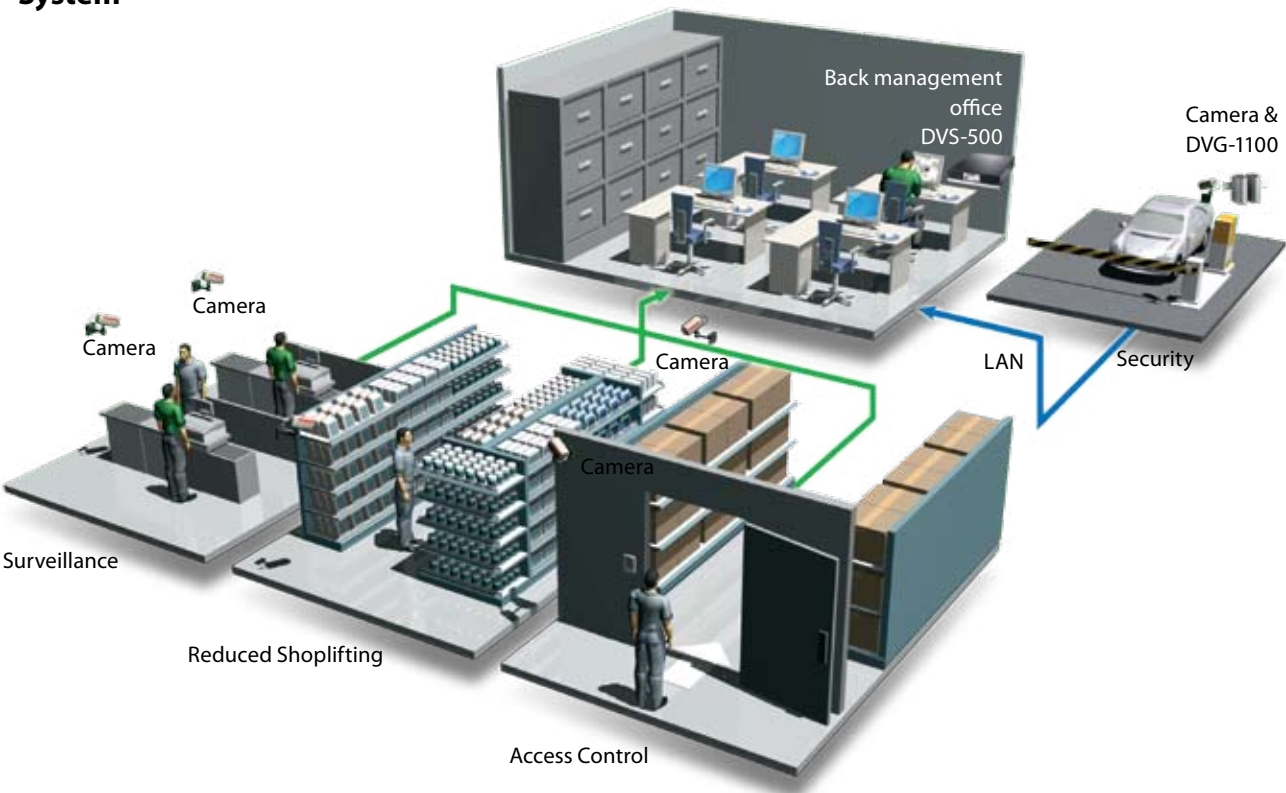
The concept of intelligent stores is widely accepted in today's retail business. Instead of traditional paper posters, digital signage has become a new communication tool that serves as a communications platform with customers. Point-of-sales systems (POS) increase daily-operational efficiency and stock 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



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



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.

Intelligent Home Automation

Introduction

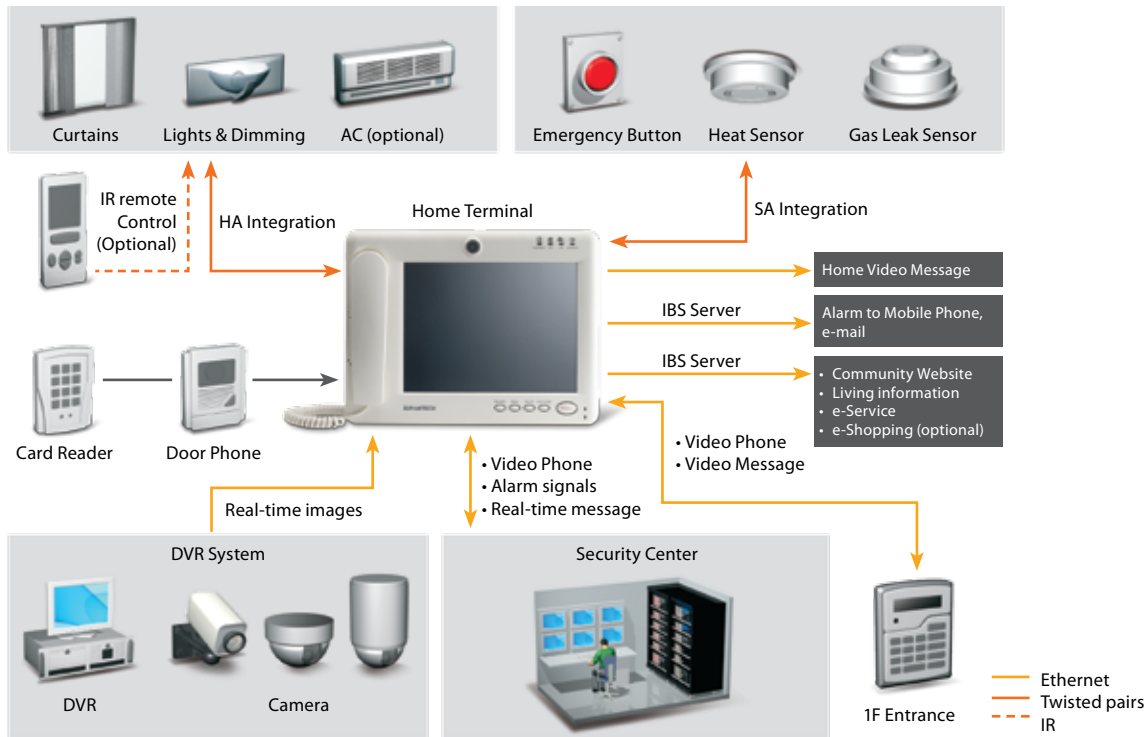
In recent years, the application of digital technology has advanced to include links between various home appliances. The case presented here is a comprehensive solution designed for a luxury apartment located in Taipei's upscale Xinyi District. Equipment such as lighting, electronics, electric curtains, multimedia devices and so forth were all connected and integrated according to users' needs to create the desired atmosphere and environment.

Bao Lai Garden Square is situated amid the cluster of luxury housing in Xinyi District. While the architecture boasts ample elegance typical of luxury apartments through its spatial design, the builder expressed his desire to provide futuristic lifestyle conveniences that rival those of Tokyo's Ronppongi Hills for the building's residents. In order to achieve this vision, Advantech combined the concepts of "Intelligent House", "Intelligent Building", and "Intelligent Community" and came up with the three-in-one "Intelligent Building System".

Solutions

- **Community video phone functionality:**
Integrated intercom system functions including video intercom set installed at the front door of every apartment, and sub unit in master bedrooms.
- **"One-Touch" home scenario control:**
Residents can control home lighting circuits and related devices through the 10.4" touchscreen terminal. Residents are able to control their lighting, electric appliance circuits, and home scenario modes via PC, PDA, or laptop over the network.
- **Integrated home security functions:**
Every household's security and detection devices, such as hidden reed switches at main entrances, gas detectors, emergency help buttons, and so forth, have been integrated. In the event of an emergency, the touchscreen terminal generates alert messages to the building management center. Moreover, real time video imagery captured by all surveillance cameras positioned in the community's public areas can be accessed from anywhere within the community via the integrated digital surveillance system.

System



Benefits

The trend today is to blend digital technology into people's everyday lives, combining user-friendly, touch-control interfaces with customizable scenario selections that integrate the operation of household equipment with electronic devices to simplify and improve the quality of life.

Intelligent Office Automation

Introduction

The ABC Company is a large international company with over 1000 employees. It has over 25 meeting rooms of varying sizes. Even so, meeting space requirements were not well met, and caused constant problems. Inefficient use of existing meeting space created pressure for the ABC Company to purchase additional conference facilities. In order to raise the efficiency of meeting room usage and save facility and energy cost, ABC Company decided to integrate common facilities in their conference rooms.

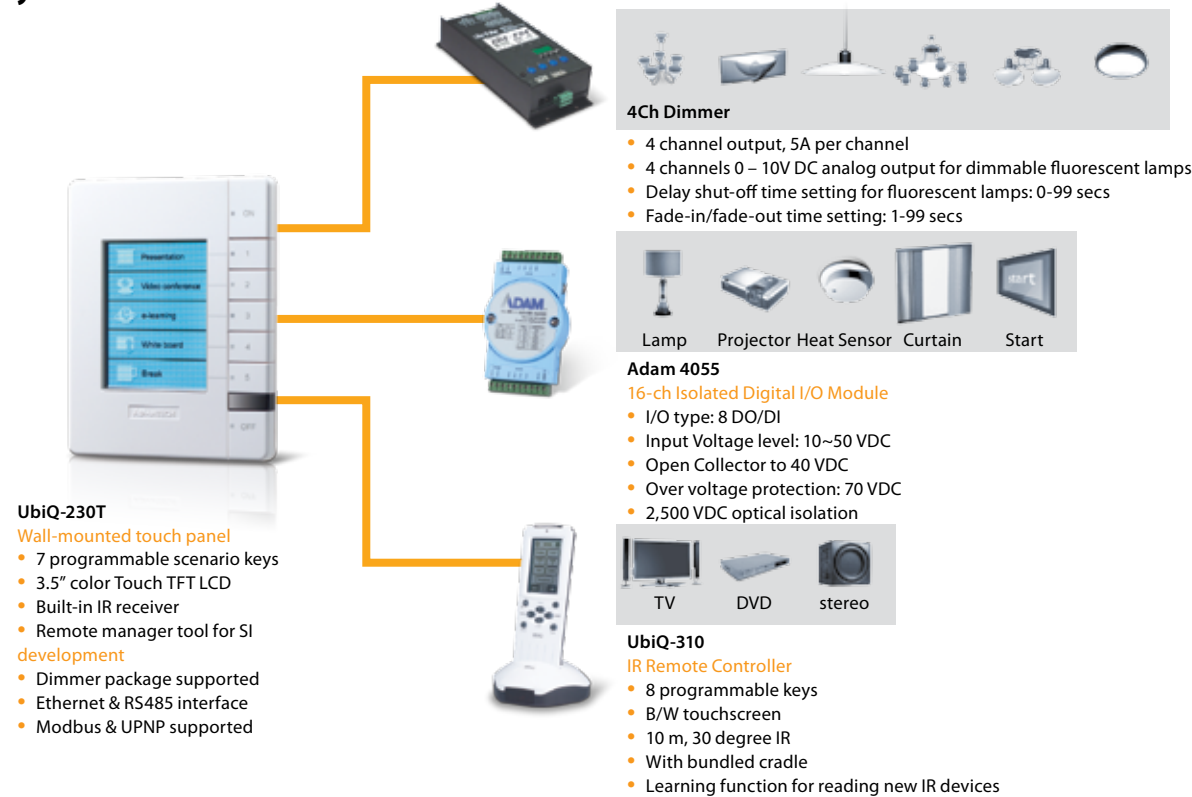
After reviewing users' needs and conference room facilities, there were five systems which needed to be integrated:

- Video conferencing
- Audio conferencing
- Lighting systems
- Presentation systems
- Distant training systems

Solutions

After reviewing the ABC company's requirements, Advantech provided a scenario solution, multi-function conference room. This solution adapts four main devices to integrate with the existing systems: UbiQ-230, dimmer, Adam 4050 and an IR remote controller. Dimmer-controlled lighting creates a variety of lighting effects using adjustments in overall lighting intensity, plus fading, and delay. Adam 4050 controls the switching of electronic devices such as the projection screen, projector, camera, and video- and audio- conferencing facilities. The UbiQ-230T, a 3.5" scenario-control touch panel, features seven programmable keys for five scenarios: presentation, break, theater, e-learning, and video conference. Users can set scenarios with the UbiQ-230T, controlling lighting effects and switching electronic devices. When they are in a meeting, ABC company users can also use the IR remote controller, which has the same interface as the UbiQ-230T, to control all related devices as well, without touching the UbiQ-230T.

System



Benefits

At the conclusion of this construction project, the versatile conference room demonstrated highly integrated functions. UbiQ-230T replaced many remote controls with different interfaces. Integrated facilities, and the unified, user-friendly interface, have reduced the previously steep learning curve. Now with improved integration, this conference room plays different roles for different users, and the room now enjoys a much increased usage rate. With this solution the company has also realized huge maintenance and energy savings.

Panel PCs



Model Name		Multi-functional Panel Computer			
		PPC-175T	PPC-174T	PPC-155T	PPC-S155T
CPU Board		PCM-9687	PCM-9680	PCM-9687	PCM-9691
Processor		Socket 478 Pentium M/ Celeron M CPU up to 1.8 GHz/1.5 GHz	Socket 478 Intel Pentium 4 CPU up to 3.06 GHz	Socket 478 Pentium M/ Celeron M CPU up to 1.8 GHz/1.5 GHz	Socket 478 support Celeron M/Pentium M up to 2.0 GHz
Memory	Size	128 MB ~ 1 GB DDR DRAM	128 MB ~ 2 GB DDR SDRAM	128 MB ~ 1 GB DDR DRAM	128 MB ~ 2 GB DDR SDRAM (Standard is built-in 256 MB)
	Module Type	184-pin DIMM x 2	184-pin DIMM x 2	184-pin DIMM x 2	200-pin SODIMM x 2
2nd Cache Memory		On-die 512 KB	On-die 512 KB	On-die 512 KB	On-die 1-2 MB
SSD/Type		-	Optional 6-in-1 Card Reader (MS, SD, SM, MC, and CF Type I/II sockets)	-	Supports 1 x internal CompactFlash Type II socket
Display	Size/Type	17" TFT LCD	17" TFT LCD	15" TFT LCD	15" TFT-LCD
	Max. Resolution	1280 x 1024	1280 x 1024	1024 x 768	1024 x 768
	Max. Colors	16.7 M	16.7 M	262 K	262 K
	Pixel Pitch (mm)	0.297 x 0.297	0.264 x 0.264	0.297 x 0.297	0.297 x 0.297
	Brightness (cd/m²)	300	300	350	350
	Viewing Angle	140°	140°	120°	120°
	Brightness Control	Yes	Yes	Yes	Yes
	Simultaneous Mode	Yes	Yes	Yes	Yes
Backlight MTBF		50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs
VGA	Chipset	855GM	Intel 845GV	855GM	Intel 915GM
VRAM		32 MB	32 ~ 64 MB (DVMT)	32 MB	up to 128 MB (DVMT)
HDD/Type		1 x 2.5" drive	1 x 3.5" drive	1 x 2.5" drive	1 x 2.5" drive
FDD/Type		Optional	1 x built-in 3.5" drive	Optional	1 x built-in 3.5" drive
PCMCIA Slot		Supports Type II x 1	Supports Type II x 2 or Type III x 1	Supports Type II x 1	-
CD-ROM/Combo Drive		Optional 24X or above	1 x built-in drive, 24X or above for CD-ROM; 8D/24W/24E/24R or above for Combo	Optional 24X or above	Optional 24X or above for CD-ROM; 8D/24W/24E/24R or above for Combo
DVD-ROM, DVD+/- RW Drive Option		Yes	Yes	Yes	Yes
I/O Port		3 x COM ports, 4 x USB ports (V2.0), PS/2 mouse & KB, Mic-in/Line-in/Line-out, VGA port, 2 IEEE 1394 ports	3 x COM ports, 1 x Parallel port, 4 x USB ports (V2.0), PS/2 mouse & KB, Mic-in/Line-in/Line-out, VGA port, S-Video port	3 x COM ports, 4 x USB ports (V2.0), PS/2 mouse & KB, Mic-in/Line-in/Line-out, VGA port, 2 IEEE 1394 ports	2 x COM ports (Optional 1 x Parallel port for OEM), 4 x USB ports (V2.0), PS/2 mouse & K/B, Mic-in/Line-in/Line-out, VGA port, S-Video port for option
Bus Expansion		1 x PCI Slot	2 x PCI slots	1 x PCI Slot	1 x MINI PCI Socket
Network (LAN)		2 Ports 10/100Base-T Ethernet interface	10/100Base-T Ethernet (Gigabit Optional)	2 Ports 10/100Base-T Ethernet interface	Gigabit LAN
IrDA Transmission		-	-	-	Yes
Power	Output Rating	100 W	180 W	100 W	72 W
	Input Voltage	100 ~ 250 VAC @ 50 ~ 60 Hz	100 ~ 240 VAC @ 50 ~ 60 Hz	100 ~ 250 VAC @ 50 ~ 60 Hz	19 Vdc
Touch screen	Technology	Resistive/Capacitive/SAW/ Infrared/Projected capacitive	Resistive/Capacitive/SAW/IR	Resistive/Capacitive/SAW	Resistive/Capacitive
	Control Port	RS-232	RS-232 (COM 4)	RS-232	RS-232 (COM 4)
	Light Transmission	80% (Resistive)/ 91% (Capacitive)/ 91% (SAW)/Infrared (91%)/ Projected Capacitive(91%)	75% (Resistive)/ 91% (Capacitive)/ 91% (SAW)/ 91% (IR)	80% (Resistive)/ 91% (Capacitive)/ 91% (SAW)	80% (Resistive)/ 91% (Capacitive)
	OS Support	Windows 95/98/ME/2000/XP/ DOS/XPE	Windows ME/2000/XP, DOS/ XPE	Windows 95/98/ME/2000/XP/ DOS/XPE	Windows 95/98/ME/2000/XP/ DOS/XPE
	Durability (Touches)	35 million (Resistive)/ 225 million (Capactive)/ 50 million (SAW)/100,000 hrs (Infrared)/unlimited (Projected Capacitive)	10 million (Resistive)/ 225 million (Capacitive)/ 50 million (SAW)/ 100,000 hrs (Infrared)	35 million (Resistive)/ 225 million (Capacitive)/ 50 million (SAW)	35 million (Resistive)/ 225 million (Capacitive)
Watchdog Timer		255 Level	62 level, 1 ~ 62 seconds	255 Level	62 level, 1 ~ 62 seconds
Working Temperature		0 ~ 45° C (32 ~ 113° F)	0 ~ 45° C (32 ~ 113° F)	0 ~ 45° C (32 ~ 113° F)	0 ~ 45° C (32 ~ 113° F)
Front Panel Protection		NEMA 4 / IP65 compliant	NEMA 4/IP65 compliant (systems with SAW T/S excluded)	NEMA 4 / IP65 compliant	NEMA4/IP 65 compliant
Certificate		BSMI, VCCI, UL, CE, FCC Class B, CCC	BSMI, VCCI, UL, CE, FCC Class B, CCC	BSMI, VCCI, UL, CE, FCC Class B, CCC	UL, CE, FCC Class B, CB, BSMI, VCCI, CCC
Dimensions (W x H x D)		442 x 362 x 111.5 mm (17.40" x 14.25" x 4.39")	446 x 382 x 127 mm (17.56" x 15.04" x 5")	420 x 223.3 x 130.5 mm (16.54" x 12.72" x 5.12")	375 x 299 x 49 mm (14.76" x 11.77" x 1.93")
Weight		7.6 kg (16.74 lb)	10.5 kg (23 lb)	6 kg (13.22 lb)	4.9 kg (10.78 lb)

Multi-functional Panel Computer			
PPC-154T	PPC-S154T	PPC-S123T	PPC-103T
PCM-9683	PCM-9681	PCM-9573	PCM-9573
Socket 478 Intel Pentium 4 CPU up to 3.06 GHz	Socket 478 Mobile Intel Pentium 4 Processor-M CPU up to 2.2 GHz (built-in 1.7 GHz)	Socket 370 Pentium III & Celeron CPU to 850 MHz	Socket 370 Pentium III & Celeron CPU to 850 MHz
128 MB ~ 2 GB DDR SDRAM	64 MB ~ 1 GB DDR SDRAM (standard is built-in 256 MB)	32 ~ 512 MB SDRAM	32 ~ 512 MB SDRAM
184-pin DIMM x 2	200-pin SODIMM x 2	144-pin SODIMM x 2	144-pin SODIMM x 2
On-die 512 KB	On-die 512 KB	On-die 256 KB	On-die 256 KB
Optional 6-in-1 Card reader (MS, SD, SM, MC, ad CF Type I/II sockets)	Supports 1 internal CompactFlash Type II socket	Supports 1 x Internal CompactFlash Type I socket	Supports 1 x Internal CompactFlash Type I socket
15" TFT LCD	15" TFT LCD	12.1" TFT LCD	10.4" TFT LCD
1024 x 768	1024 x 768	800 x 600	800 x 600
262 K	262 K	262 K	262 K
0.297 x 0.297	0.297 x 0.297	0.3075 x 0.3075	0.264 x 0.264
350	350	400	230
120°	120°	140°	100°
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
50,000 hrs	50,000 hrs	50,000 hrs	20,000 hrs
Intel 845GV	Intel 845GV	SMI721	SMI721
32 ~ 64 MB (DVMT)	32 ~ 64 MB (DVMT)	8 MB	4 MB
1 x 2.5" drive	1 x 2.5" drive	1 x 2.5" drive	1 x 2.5" drive
1 x built-in 3.5" drive	1 x built-in 3.5" drive	1 x external FDD connector	Supports 1 x external FDD connector
Supports Type II x 2 or Type III x 1	-	-	-
1 x built-in drive, 24X or above for CD-ROM; 8D/24W/24E/24R or above for Combo	1 x built-in drive, 24X or above for CD-ROM; 8D/24W/24E/24R or above for Combo	1 x external IDE connector	1 x external IDE connector
Yes	Yes	1 x external IDE connector	1 x external IDE connector
2 x COM ports, 1 x Parallel port, 4 x USB ports (V2.0), PS/2 mouse & K/B, Mic-in/Line-in/Line-out, VGA port, S-Video port, 2 x IEEE 1394 ports	2 x COM ports, 4 x USB V2.0 ports, PS/2 mouse & K/B, Mic-in/Line-in/Line-out, VGA port, S-Video port (optional)	4 x COM ports, 1 x parallel port, 2 x USB, PS/2 mouse & K/B, Line-in/Line-out	4 x COM ports, 1 x parallel port, 2 x USB, PS/2 mouse & K/B, Mic-in/Line-out
1 x PCI Slot	1 x MINI PCI Socket	1 x PCI/ISA slot	1 x PCI/ISA slot
10/100Base-T Ethernet (Gigabit Optional)	10/100Base-T Ethernet (Gigabit Optional)	10/100Base-T Ethernet	10/100Base-T Ethernet
-	Yes	-	-
180 W	70 W	60 W	65 W/75 W; 60 W
100 ~ 240 VAC @ 50 ~ 60 Hz	24 Vdc	24 Vdc	(100 ~ 250 Vac @ 50 ~ 60 Hz); 12/24 Vdc
Resistive/Capacitive/SAW/IR	Resistive	Resistive	Resistive/IR
USB	RS-232 (COM 4)	RS-232 (COM 4)	RS-232 (COM 4)
80% (Resistive)/ 91% (Capacitive)/ 91% (SAW)/ 91% (IR)	80%	75%	75% (Resistive)/91% (IR)
Windows 95/98/ME/2000/XP, DOS/XPE	Windows 95/98/ME/2000/ XP/DOS/XPE	Windows 95/98/ME/NT/2000/DOS/XP/XPE	Windows 95/98/ME/NT/2000/XP, DOS/ XPE
35 million (Resistive)/ 225 million (Capacitive)/ 50 million (SAW)/ 100,000 hrs (IR)	35 million	10 million	10 million (Resistive)/ 100,000 hrs (IR)
62 level, 1 ~ 62 seconds	62 level, 1 ~ 62 seconds	62 level, 1 ~ 62 seconds	62 level, 1 ~ 62 seconds
0 ~ 45° C (32 ~ 113° F)	0 ~ 45° C (32 ~ 113° F)	0 ~ 45° C (32 ~ 113° F)	0 ~ 45° C (32 ~ 113° F)
NEMA 4/IP65 compliant (systems with SAW T/S excluded)	NEMA4/IP 65 compliant	NEMA 4/IP65 compliant	NEMA 4/IP65 compliant
BSMI, VCCI, UL, CE, FCC Class B, CCC	UL, CE, FCC Class B, CB, CCC, BSMI	UL, CE, FCC Class B	VCCI, UL, CE, FCC Class B
420 x 223.3 x 130.5 mm (16.54" x 12.72" x 5.12")	375 x 299 x 49 mm (14.76" x 11.77" x 1.93")	311 x 237 x 54.5 mm (12.24" x 9.33" x 2.15")	342 x 265 x 92.4 mm (13.5" x 10.4" x 3.64")
7 kg (15.4 lb)	4.9 kg (10.78 lb)	2.6 kg (5.8 lb)	3.5 kg (7.7 lb)

Panel PCs



NEW

Model Name		Fanless Panel Computer			
		PPC-L156T	PPC-L127T	PPC-L106T	PPC-L61T
CPU Board		PCM-9685	PCM-9693	PCM-9679	PCM-9697
Processor		Intel Celeron M 1.0 GHz Intel Pentium M 1.1 GHz	Intel Celeron M 1.0 GHz	AMD Geode LX 800 (500 MHz)	AMD Geode LX 800 (500MHz)
Memory	Size	128 MB ~ 1 GB DDR (Standard: 256 MB built-in)	128 MB ~ 1GB DDR DRAM	128 MB ~ 1 GB DDR SDRAM (Standard: 256 MB built-in)	128 MB ~ 1 GB DDR
	Module Type	200-pin SODIMM x 2	184-pin DIMM x 1	200-pin SODIMM x 1	200-pin SODIMM x 1
2nd Cache Memory		NA / 1 G	NA	128 KB	128 KB
SSD/Type		Supports 1 internal Compact Flash Type I/II socket			
Display	Size/Type	15" TFT LCD	12.1" TFT LCD	10.4" TFT LCD	6.5" TFT LCD
	Max. Resolution	1024 X 768	800 x 600	800 x 600	640 X 480
	Max. Colors	262 K	262 K	262 K	262 K
	Pixel Pitch (mm)	0.297 x 0.297	0.3075 x 0.3075	0.264 x 0.264	0.207 x 0.207
	Brightness (cd/m2)	350	400	230	400
	Viewing Angle	130°/120° C	140°/110° C	120°/100° C	140°/120° C
	Brightness Control	Yes	Yes	Yes	Yes
	Simultaneous Mode	-	Yes	Yes	Yes
	Backlight MTBF	50,000 hrs	50,000 hrs	20,000 hrs	50,000 hrs
VGA	Chipset	Intel 852GM/Intel 855GME	Intel 852GM	AMD CS 5536	AMD CS5536
VRAM		64 MB (DVMT)	64 MB (DVMT)	32 MB	32 MB
HDD/Type		1 x 2.5" drive	1 x 2.5" drive	1 x 2.5" drive	1 x 2.5" drive Optional
FDD/Type		-	-	-	-
PCMCIA Slot		Supports Type II x 2 or Type III x1	-	-	-
CD-ROM/Combo Drive		Optional	Optional	-	-
DVD-ROM, DVD+/- RW Drive Option		Optional	Optional	-	-
I/O Port		3 x COM ports, 1 x Parallel port, 2 x USB ports, 1 x VGA port, 1 x PS/2 mouse and keyboard port	4 x COM ports, 1 x Parallel port, 6 x USB (4x external, 2 x internal) K/B, VGA port, Mic-in/ Line-in/Line-out	4 x COM ports, 1 x Parallel port, 4 x USB (2 x external, 2 internal), Mic-in/ Line-out, PS/2 mouse & K/B, VGA port	2 x Com ports , VGA port, 2 x USB
Bus Expansion		1 x PCI slot, 1 x MINI PCI	1 x PCI/ISA slot, 1 x MINI PCI	1 x PCI/ISA slot, 1 x MINI PCI	1 X MINI PCI
Network (LAN)		10/100Base-T Ethernet (Gigabit Optional)	10/100Base-T Ethernet	10/100Base-T Ethernet (Dual LAN Optional)	10/100 Base-T Ethernet
IrDA Transmission		-	-	-	-
Power	Output Rating	60 W	60 W	65 W	60 W
	Input Voltage	18 ~ 25 VDC	18 ~ 25 VDC	100 ~ 250 VAC/50 ~ 60 Hz	12~30 VDC
Touch screen	Technology	Resistive/Capacitive/IR	Resistive	Resistive	Resistive
	Control Port	RS-232	USB	RS-232 (COM 4)	RS-232
	Light Transmission	80% (Resistive) 91% (Capacitive) 91% (Infrared)	80%	80%	80%
	OS Support	Windows CE, XPE, 2000, XP	Windows CE, XPE, XP, 2000	Windows CE, XPE, XP	Windows CE, XPE, XP
	Durability (Touches)	35 million (Resistive) 225 million (Capacitive) 100,000 hrs (IR)	35 million	35 million	10 million
Watchdog Timer		255 Level	255 Level	255 Level	255 Level
Working Temperature		0 ~ 45° C (32 ~ 113 ° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 45° C (32 ~ 113° F)	0 ~ 50° C (32 ~ 122° F)
Front Panel Protection		NEMA/IP65 compliant	NEMA 4/IP65 compliant	NEMA 4/IP65 compliant	NEMA 4/IP65 compliant
Certificate		CE, FCC Class B, UL, BSMI, CCC			
Dimensions (W x H x D)		415 x 333 x 76.5 mm (16.3" x 13.1" x 3")	340.5 x 269.3 x 70.5 mm (13.41" x 10.6" x 2.78")	342 x 265 x 92.4 mm (13.5" x 10.4" x 3.64")	202 x 148 x 49 mm (7.9" x 5.82" x 1.92")
Weight		6 kg (13.2 lb)	3.25 kg (7.15 lb)	3.2 kg (7.1 lb)	1.2 kg (2.66 lb)

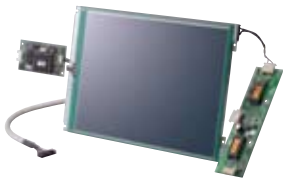
RISC-based Panel PCs



Model Name		RISC-based Panel PC		
		SPC-58A/ SPC-58C	SPC-65A/ SPC-65C	SPC-101A/ SP-101C
CPU Board		-	-	-
Processor		Marvell PXA-270 312 MHz (520 MHz as option)	Marvell PXA-270 312 MHz (520 MHz as option)	Marvell PXA-270 312 MHz (520MHz as option)
Memory	Size	128 MB/ 256 MB	128 MB/ 256 MB	128 MB/ 256 MB
	Module Type	On-board Flash	On-board Flash	On-board Flash
2nd Cache Memory		-	-	-
SSD/Type		Supports 1 x Compact Flash Type I/II slot, 1 x SD/MMC slot	Supports 1 x Compact Flash Type I/II slot, 1 x SD/MMC slot	1 x SD/MMC slot
Display	Size/Type	5.6" 18-bits TFT LCD	6.4"	10.4"
	Max. Resolution	320 x 234	640 x 480	800 x 600
	Max. Colors	18 bits	18 bits	18 bits
	Pixel Pitch (mm)	0.118 (W) x 0.362 (H)	0.0675 x 0.203	0.264 x 0.264
	Brightness (cd/m2)	500 (typ)	150 (typ)	230 (typ)
	Viewing Angle	20°/40°/50°/50°	15°/35°/45°/45°	70°/70°/55°/65°
	Brightness Control	-	-	-
	Simultaneous Mode	-	-	-
	Backlight MTBF	-	-	-
VGA	Chipset	-	-	-
VRAM		-	-	-
HDD/Type		-	-	-
FDD/Type		-	-	-
PCMCIA Slot		-	-	-
CD-ROM/Combo Drive		-	-	-
DVD-ROM, DVD+/- RW Drive Option		-	-	-
I/O Port		1 x RS-232/1 x Selectred RS-485/422/232/1 x USB 1.1 host	1 x RS-232/1 x Selectred RS-485/422/232/1 x USB 1.1 host/ 1x CF type II slot/1x SD/MMC slot	1 x RS-232/1 x Selectred RS-485/422/232/2 x USB 1.1 host/ 1x Line-out
Bus Expansion		50-pin box header with: SM bus, Mic-in, Line-in, Line-out, 2-wire RS-232, 1 x USB 1.1 Host, 4 x TTL-Level DI, 4 x TTL-Level DO	50-pin box header with: SM bus, Mic-in, Line-in, Line-out, 2-wire RS-232, 1 x USB 1.1 Host, 4 x TTL-Level DI, 4 x TTL-Level DO	50-pin box header with: SM bus, Mic-in, Line-in, Line-out, 2-wire RS-232, 1 x USB 1.1 Host, 4 x TTL-Level DI, 4 x TTL-Level DO
Network (LAN)		10/100Base-T Ethernet	10/100Base-T Ethernet	10/100Base-T Ethernet
IrDA Transmission		-	-	-
Power	Output Rating	-	-	-
	Input Voltage	10 ~ 28 Vdc	10 ~ 28 Vdc	10 ~ 28 Vdc
Touch screen	Technology	Resistive	Resistive	Resistive
	Control Port	-	-	-
	Light Transmission	80%	80%	80%
	OS Support	Windows CE 5.0	Windows CE 5.0	Windows CE 5.0
Touch screen	Durability (Touches)	10 million	10 million	10 million
	Watchdog Timer	-	-	-
Working Temperature		0~50° C (32~ 122° F)	0~50° C (32~ 122° F)	0~50° C (32~ 122° F)
Front Panel Protection		IP65 compliant	IP65 compliant	IP65 compliant
Certificate		UL, FCC, CE	UL, FCC, CE	UL, FCC, CE
Dimensions (W x H x D)		165 x 218 x 46.6 mm (6.5" x 8.6" x 1.8")	165 x 218 x 46.6 mm (6.5" x 8.6" x 1.8")	220 x 286 x 40 mm (8.66" x 11.26" x 1.57")
Weight		1.4 kg/ 1.5 kg (3.08 lb/ 3.3 lb)	1.4 kg/ 1.5 kg (3.08 lb/ 3.3 lb)	1.7/1.9 kg (3.74 lb/ 4.18 lb)

LCD Kits

LCD kits (ES-1000 series) provide the most cost effective and proven display solutions that are seamlessly compatible with all Advantech SBC/AIMB boards. They also come with inverter, cables and the assurance of long-term industrial component support.



ES-1000 Series

	LVDS Interface Series (Wide Temperature Range)								
Model Name	ES-1106N-LVAE	ES-1108N-LSAE	ES-1110N-LSA-WE	ES-1112N-LXC-WE	ES-1112N-LSME	ES-1112N-LSAE	ES-1115N-LXAE	ES-1117N-LEAE	ES-1119N-LEAE
Description	6.5" VGA TFT-LCD kit	8.4" SVGA TFT-LCD kit	10.4" SVGA TFT-LCD kit	12.1" XGA TFT-LCD kit	12.1" SVGA TFT-LCD kit	12.1" SVGA TFT-LCD kit	15" XGA TFT-LCD kit	17" SXGA TFT-LCD kit	19" SXGA TFT-LCD kit
Display Size	6.5"	8.4"	10.4"	12.1"	12.1"	12.1"	15"	17"	19"
Resolution (pixels)	640 x 480, 16.2M	800 x 600, 262K	800 x 600, 262K	1024 x 768, 262K	800 x 600, 262K	800 x 600, 262K / 16.2M	1024 x 768, 262K / 16.2M	1280 x 1024, 16.2K	1280 x 1024, 16.7M
View Angle (L/R/U/D)	70°/70°/60°/60°	60°/60°/60°/40°; 65°/65°/65°/45°	60°/60°/35°/65°	80°/80°/80°/80°	65°/65°/75°/45°	70°/70°/50°/60°	60°/60°/40°/60°; 0°/70°/70°/50°	70°/70°/70°/60°	89°/89°/89°/89°
Brightness (cd/m2)	400	450 (Standard)/ 220 (OEM)	230 (Standard)/ 400 (OEM)	450	350	400	350 (Standard)/ 550 (OEM)	300	300
Contrast Ratio	600:1	500:1	500:1	700:1	500:1	500:1	500:1	500:1	1300:1
Signal Interface	18-bit LVDS	18-bit LVDS	18-bit LVDS	18-bit LVDS	18-bit LVDS	18-bit LVDS	18-bit LVDS	24-bit LVDS	24-bit LVDS
Supply Voltage (V)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	5	5
Backlight (hrs.)	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 20,000 hrs/50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs/ 4-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 4-tubes, 50,000 hrs
Operating Temperature	-20 ~ 70° C	0 ~ 50° C (-20 ~ 70° C)	0 ~ 50° C (-20 ~ 70° C)	-30 ~ 70° C	-20 ~ 70° C	-10 ~ 65° C (-20 ~ 70° C)	0 ~ 50° C	0 ~ 50° C	0 ~ 50° C
Power Consumption (W)	4.26	5.8	3.3 / 8.3	4	6	7.3	11.5 / 21	25.8	28
Response Time (ms) (at 25° C)	25	35	35	6	10	35	12	8	8
Standard LCD Cable Length (mm)	500	500	500	500	500	500	500	500	500
Weight (g)	200	260 / 215	280/485	720	720	640	1100 / 1350	1900	2500
Outline Dimensions (W x H x D)	153 x 118 x 10.7	203 x 142.5 x 8/ 203 x 142.5 x 5.7	236 x 174.3 x 5.6 / 243 x 184 x 10.6	260.5 x 204 x 12.2	280 x 210 x 12	279 x 209 x 11	326.5 x 253.5 x 12	358.5 x 296.5 x 17	396 x 324 x 17.5
4 Wire Res. Touch	OEM	ES-1108R-LSA-WE	ES-1110R-LSA-WE	OEM	OEM	ES-1112R-LSAE	ES-1115R-LXAAE	OEM	OEM
5 Wire Res. Touch	OEM	OEM	OEM	OEM	OEM	OEM	OEM		
Advantech Touch Control Board (Combo)	OEM	OEM	OEM	OEM	OEM	OEM	OEM	OEM	OEM

Ordering Information

LVDS Cable Category vs. CPU Board

LCD Series	LVDS Cable	Advantech CPU Card To match
ES-1106N-LVA ES-1108R-LSA ES-1108N-LS ES-1110R-LSA ES-1110N-LSA ES-1112N-LXM ES-1112N-LSA ES-1112N-LSM ES-1115N-LXA ES-1117N-LEA ES-1119N-LEA	- 01E or -W1E	PCI-6872/6871, PCA-6774/6773, PCM-9371/9372/9373/9375E/9377, PCM-9579/9577/9575, PCM-3370E/3353/4153
	- 03E or -W3E	PCM-9388/9387/9386/9381/9380, PCM-4390/4386/4381/4381/4373/4372, PCM-3372/3386/3380, PCM-9590/9587/9586/9584/9582/9581/9580, AIMB-641/640/350/330V/330G/340/750/554/240/556, PCI-6886/6882/6881/6880/6872/6870/6780
	- 06E or -W6E	AIMB-250/251

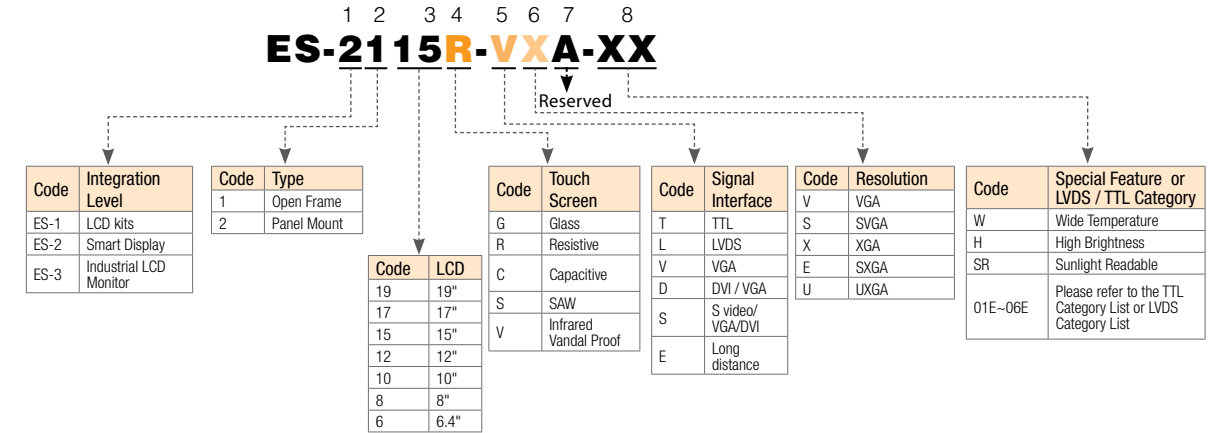
	TTL Interface Series				Outdoor Application				
Model Name	ES-1106N-TVPE	ES-1108N-TVME	ES-1110N-TVME	ES-1112N-TSME	ES-1108N-TVM-SRE	ES-1110N-TVM-HE	ES-1112N-LSM-HE	ES-1112N-LXM-HE	ES-1115N-LXM-HE
Description	6.4" VGA TFT LCD	8.4" VGA TFT LCD kit	10.4" VGA TFT LCD kit	12.1" SVGA TFT-LCD kit	8.4" SVGA TFT-LCD kit	10.4" SVGA TFT-LCD kit	12.1" XGA TFT-LCD kit	12.1" SVGA TFT-LCD kit	15" XGA TFT LCD kit
Display Size	6.4"	8.4"	10.4"	12.1"	8.4"	10.4"	12.1"	12.1"	15"
Display Size Resolution (pixels)	VGA, 262K	VGA, 262K	800 x 600, 260K	800 x 600, 260K	640 x 480, 262K	640 x 480. 262K	800 x 600, 262K	1024 x 768, 262K	1024 x 768, 262K
View Angle (L/R/U/D)	60°/60°/40°/35°	65°/65°/50°/60°	65°/65°/65°/45°	65°/65°/75°/45°	65°/65°/60°/50°	70°/70°/60°/60°	65°/65°/75°/45°	60°/60°/75°/45°	75°/75°/60°/50°
Brightness (cd/m2)	400	480	430	400	480	1000	1000	1000	1500
Contrast Ratio	400:1	450:1	500:1	500:1	500:1	700:1	500:1	700:1	650:1
Signal Interface	18-bit TTL	18-bit TTL	18-bit TTL	18-bit TTL	18-bit TTL	18-bit TTL	18-bit LVDS	18-bit LVDS	18-bit LVDS
Supply Voltage (V)	5	3.3	3.3/5.0	3.3/5.0	3.3	3.3	3.3	3.3	5
Backlight (hrs.)	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 4-tubes, 50,000 hrs	CCFL, 4-tubes, 50,000 hrs	CCFL, 4-tubes, 50,000 hrs	CCFL, 6-tubes, 50,000 hrs
Operating Temperature	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C	-20 ~ 70° C
Power Consumption (W)	4.32	4	6.5	6	7	26.2	27	29.2	25.6
Response time (ms)(at 25° C)	15	6	10	10	6	4	10	6	6
Standard LCD Cable Length (mm)	500	500	500	500	500	500	500	500	500
Weight (g)	340	360	540	720	360	650	990	990	TBD
Outline Dimensions (W x H x D)	175 x 126 x 12 mm (6.89" x 4.96" x 0.47")	199.5 x 149 x 11.5 mm (7.85" x 5.87" x 0.45")	243 x 181.6 x 12.2 mm (9.57" x 7.15" x 0.48")	280 x 210 x 12 mm (11.02" x 8.27" x 0.47")	199.5 x 149 x 11.5 mm (7.85" x 5.57" x 0.45")	241 x 181.6 x 16 mm (9.45" x 7.15" x 0.63")	280 x 219 x 17.8 mm (11.02" x 8.62" x 0.70")	280 x 219 x 17.8 mm (11.02" x 8.62" x 0.70")	326 x 267 x 20.5 mm (12.83" x 10.51" x 0.81")

Ordering Information

TTL Cable Category vs. CPU Board

LCD Kits	TTL Category	Advantech CPU Card To match
ES-1106N-TVP ES-1108N-TVM ES-1110N-TVM ES-1112N-TSM	- 01E	
	- 02E	PCA-6740, PCI-6872, PCA-6775/6774/6773
	- 03E	PCM-9375F, PCI-6871, PCM-3341/3353/3370F/3375/4141/4153, SOM-2353 w/SOM-DB2300
	- 04E	PCM-9576/9572

Display Product Naming Rule



Open Frame Monitor

ES-2000 series is a new type of display designed to meet the needs of customers who want to quickly and easily integrate their solutions with Advantech Embedded Box Computers such as ARK, EPBC, DVS and DSA.



ES-2100 Series

Model Name		ES-2106 series	ES-2108 series	ES-2110 series	ES-2112 series	ES-2115 series	ES-2117 series	ES-2119 series
Description		6.5" Open Frame Monitor	8.4" Open Frame Monitor	10.4" Open Frame Monitor	12.1" Open Frame Monitor	15" Open Frame Monitor	17" Open Frame Monitor	19" Open Frame Monitor
Interface		VGA/LVDS	VGA/LVDS	VGA/LVDS	VGA	VGA/LVDS	VGA/LVDS	VGA/LVDS
Display (Standard)	Display Size (")	6.5	8.4	10.4	12.1	15	17	19
	Panel Type	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD
	Resolution	640 x 480 VGA	800 x 600 SVGA	800 x 600 SVGA	800 x 600 SVGA/ 1024x768 XGA	800 x 600 SVGA	1280 x 1024 SVGA	1280 x 1024 SVGA
	Number of Colors	16.2 M	262 K	262 K	262 K/ 260K	262 K	16.2 M	16.2 M
	Contrast Ratio	600:1	350:1	350:1	500:1 / 550:1	400:1	500:1	500:1
	Brightness	400	350	230	400 / 320	350	300	300
	Response Time	25	35	35	35 / 6	16	8	8
	Backlight MTBF	CCFL, 2-tubes,50,000 hrs	CCFL, 2-tubes,50,000 hrs	CCFL, 2-tubes,50,000 hrs	CCFL, 2-tubes,50,000 hrs	CCFL, 2-tubes,50,000 hrs	CCFL, 2-tubes,50,000 hrs	CCFL, 2-tubes,50,000 hrs
	Viewing Angle L/R/U/D	70°/70°/60°/60°	60°/60°/60°/40°	60°/60°/40°/60°	65°/65°/75°/45° 65°/65°/75°/45°	65°/65°/75°/45°	60°/60°/70°/70°	89°/89°/89°/89°
OSD Key Function	Brightness	Yes	Yes	Yes	Yes	-	Yes	Yes
	Contrast							
	Clock							
	Phase							
	Horizontal							
	Vertical							
Sharpness	Sharpness							
Power Input		AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in
Operating Temperature (Standard)		-20 ~ 70° C	0 ~ 50° C (-20 ~ 70° C optional)	0 ~ 50° C (-20 ~ 70° C optional)	-10 ~ 50° C (-20 ~ 70° C optional)	0 ~ 50° C	0 ~ 50° C	0 ~ 50° C
Dimensions (W x H x D)		190 x 142 x 40 mm (7.48" x 5.59" x 1.57")	256 x 193 x 47.3 mm (10.08" x 7.60" x 1.86")	203 x 184 x 45 mm (7.99" x 7.24" x 1.77")	352 x 251x 49 mm (13.86" x 9.88" x 1.93")	326.5 x 253.3 x 50 mm (12.85" x 9.97" x 1.97")	402.1 x 320.4 x 56.24 mm (15.83" x 12.61" x 2.21")	446 x 364 x 56.58 mm (17.56" x 14.33" x 2.23")
Weight		1.3 kg (2.86 lb)	2.2 kg (4.84 lb)	2.5 kg (5.50 lb)	3 kg (6.60 lb)	3.4 kg (7.48 lb)	TBD	TBD
Touchscreen	Tempered Glass	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	5-Wire Resistive	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Capacitive	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SAW	-	Yes	Yes	Yes	Yes	Yes	Yes
	Infrared (Vandal Proof)	-	-	Yes	Yes	Yes	Yes	Yes
Interface for Touch Screen		RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB

Ordering Information

LVDS Series

Open Frame (LVDS) Series	LVDS Cable	Advantech CPU Card To Match
ES-2106R-LVA ES-2108R-LSA ES-2110R-LSA ES-2112R-LSA ES-2115R-LXA ES-2117R-LEA ES-2119R-LEA	- 01	PCA-6774, PCM-6773, PCI-6886, PCI-6881, PCI-6880, PCI-6872, PCM-9371, PCM-9373, PCM-9375, PCM-9575, PCM-9577, PCM-9579, PCM-3370E
	- 02	POS-761F, SOM-4450, SOM-4451, SOM-4475, SOM-4481, SOM-4486 w/SOM-DB4400, SOM-5780 w/SOM-DB5700
	- 03	PCM-9387, PCM-9386, PCM-9381, PCM-9380, PCM-3386, PCM-3380, PCM-9586, PCM-9582, PCM-9580, PCM-9581, AIMB-641, AIMB-640, AIMB-350, AIMB-340, AIMB-330G/V, POS-760, POS-7680
	- 05	ARK-1000 & ARK-3000 series

Rugged Panel Mount Monitor



ES-2200 Series

Model Name		ES-2206 Series	ES-2208 Series	ES-2210 Series	ES-2212 Series	ES-2215 Series	ES-2217 Series	ES-2219 Series
Description		6.5" panel mount monitor	8.4" panel mount monitor	10.4" panel mount monitor	12.1" panel mount monitor	15" panel mount monitor	17" panel mount monitor	19" panel mount monitor
Interface		VGA	VGA	VGA	VGA	VGA	VGA	VGA
Display (Standard)	Display Size (")	6.5	8.4	10.4	12.1	15	17	19
	Panel Type	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD
	Resolution	640 x 480 VGA	800 x 600 SVGA	800 x 600 SVGA	800 x 600 SVGA/1024 x 768 XGA	800 x 600 SVGA	1280 x 1024 SVGA	1280 x 1024 SVGA
	Number of Colors	16.2 M	262 K	262 K	262 K / 260 K	262 K	16.2 M	16.2 M
	Contrast Ratio	600:1	350:1	350:1	500:1 / 550:1	400:1	500:1	500:1
	Brightness	400	350	230	400 / 320	350	300	300
	Response Time	25	35	35	35 / 6	16	8	8
	Backlight MTBF	CCFL 2-tubes, 50,000 hrs	CCFL 2-tubes, 50,000 hrs	CCFL 2-tubes, 50,000 hrs	CCFL 2-tubes, 50,000 hrs	CCFL 2-tubes, 50,000 hrs	CCFL 2-tubes, 50,000 hrs	CCFL 2-tubes, 50,000 hrs
	Viewing Angle L/R/U/D	70°/70°/60°/60°	60°/60°/60°/40°	60°/60°/40°/60°	65°/65°/75°/45° 65°/65°/75°/45°	65°/65°/75°/45°	60°/60°/70°/70°	89°/89°/89°/89°
OSD Key Function	Brightness	Yes	Yes	Yes	Yes	N/A	Yes	Yes
	Contrast							
	Clock							
	Phase							
	Horizontal							
	Vertical							
Sharpness	Sharpness							
Power Input		AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in
Operating Temperature (Standard)		-20 ~ 70° C	0 ~ 50° C (-20 ~ 70° C optional)	0 ~ 50° C (-20 ~ 70° C optional)	-10 ~ 50° C (-20 ~ 70° C optional)	0 ~ 50° C	0 ~ 50° C	0 ~ 50° C
Dimensions (W x H x D)		190 x 142 x 40 mm (7.48" x 5.59" x 1.57")	256 x 193 x 47.3 mm (10.08" x 7.60" x 1.86")	203 x 184 x 45 mm (7.99" x 7.24" x 1.77")	352 x 251x 49 mm (13.86" x 9.88" x 1.93")	326.5 x 253.3 x 50 mm (12.85" x 9.97" x 1.97")	402.1 x 320.4 x 56.24 mm (15.83" x 12.61" x 2.21")	446 x 364 x 56.58 mm (17.56" x 14.33" x 2.23")
Weight		1.3 kg (2.86 lb)	2.2 kg (4.84 lb)	2.5 kg (5.50 lb)	3 kg (6.60 lb)	3.4 kg (7.48 lb)	TBD	TBD
Touch Screen	Tempered Glass	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	5-Wire Resistive	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Capacitive	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SAW	-	Yes	Yes	Yes	Yes	Yes	Yes
	Infrared (Vandal Proof)	-	-	Yes	Yes	Yes	Yes	Yes
Interface for Touch Screen		RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB

Power Code Options

1702002600	Power Cable UL/CSA (USA) 180 cm
1702031801	Power Cable (UK) 5A-Fuse 180 cm
1702002605	Power Cable 220 V EUROPEAN 250 V/6 A (FRANCE) 180 cm

Outdoor Open Frame/Panel Mount Monitor



Model Name		ES-2106/2206 Series	ES-2108/2208 Series	ES-2110/2210 Series	ES-2112/2212 Series	ES-2115/2215 Series	ES-2117/2217 Series	ES-2119/2219 Series
Description		6.5" Open Frame Monitor	8.4" Open Frame Monitor	10.4" Open Frame Monitor	12.1" Open Frame Monitor	15" Open Frame Monitor	17" Open Frame Monitor	19" Open Frame Monitor
Interface		VGA/LVDS	VGA/LVDS	VGA/LVDS	VGA	VGA/LVDS	VGA/LVDS	VGA/LVDS
Display (Standard)	Display Size (")	6.5	8.4	10.4	12.1	15	17	19
	Panel Type	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD
	Resolution	640 x 480 VGA	800 x 600 SVGA	640 x 480 VGA	800 x 600 SVGA/ 1024x768 XGA	1024 x 768 XGA	1280 x 1024 SXGA	1280 x 1024 SXGA
	Number of Colors	16.2M	262 K	262 K	262 K/260 K	262 K	16.2 M	16.2 M
	Contrast Ratio	600:1	350:1	700:1	500:1/700:1	400:1	500:1	500:1
	Response Time	25	35	4	10/6	6	8	8
	Backlight MTBF	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 4-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs	CCFL, 2-tubes, 50,000 hrs
	Viewing Angle L/R/U/D	70°/70°/60°/60°	60°/60°/60°/40°	70°/70°/60°/60°	65°/65°/75°/45°	75°/75°/60°/50°	60°/60°/70°/70°	89°/89°/89°/89°
Display (Ultra High Brightness)	Brightness	-	-	1000	1000	1500	ODM	ODM
	Anti-Reflection	-	-	Yes	Yes	Yes	ODM	ODM
Display (Sunlight Readable + AR)	Brightness	600	450	500	450	550	450	450*
	Anti-Reflection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OSD Key Function	Brightness	Yes	Yes	Yes	Yes	-	Yes	Yes
	Contrast							
	Clock							
	Phase							
	Horizontal							
	Vertical							
	Sharpness							
Power Input		AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in	AC 100 ~ 240 V/ 12V DC in
Operating Temperature (Standard)		-20 ~ 70° C (-4 ~ 158° F)	-20 ~ 70° C (-4 ~ 158° F)	-20 ~ 70° C (-4 ~ 158° F)	-20 ~ 70° C (-4 ~ 158° F)	-20 ~ 70° C (-4 ~ 158° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Dimensions (W x H x D)		190 x 142 x 40 mm (7.48" x 5.59" x 1.57")	256 x 193 x 47.3 mm (10.08" x 7.60" x 1.86")	203 x 184 x 45 mm (7.99" x 7.24" x 1.77")	352 x 251x 49 mm (13.86" x 9.88" x 1.93")	326.5 x 253.3 x 50 mm (12.85" x 9.97" x 1.97")	402.1 x 320.4 x 56.24 mm (15.83" x 12.61" x 2.21")	446 x 364 x 56.58 mm (17.56" x 14.33" x 2.23")
Weight		1.3 kg (2.86 lb)	2.2 kg (4.84 lb)	2.5 kg (5.50 lb)	3 kg (6.60 lb)	3.4 kg (7.48 lb)	TBD	TBD
Touch Screen	Tempered Glass	V	V	V	V	V	V	V
	5 wire Resistive	V	V	V	V	V	V	V
	Capacitive	V	V	V	V	V	V	V
	SAW	-	V	V	V	V	V	V
	Infrared (Vandal Proof)	-	-	V	V	V	V	V
Interface for Touchscreen		RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB
Sunlight Readable (Semi-Outdoor)		ES-2106C-VVA-SRE	ES-2108C-VSA-SRE	ES-2110C-VSA-SRE	ES-2112C-VSA-SRE	ES-2115C-VXA-SRE	ES-2117C-VEA-SRE	ES-2119C-VEA-SRE
Sunlight Readable (Pure-Outdoor)		-	ES-2108C-VSM-SRE	ES-2110C-VVM-HE	ES-2112C-VSM-HE	ES-2115C-VXM-HE	ODM	ODM

Industrial LCD Monitors



This industrial LCD monitor (ES-3000 series) has a highly integrated embedded LCD touchscreen with EMI safety certification. The front bezel is designed to protect against water and dust penetration. It has a steel enclosure designed to integrate easily with embedded industrial display applications.

Model Name		ES-3112R-VSAE	ES-3112C-VSS-SRE	ES-3115R-VXAE	ES-3115C-VXA-SRE	ES-3117R-VEAE	ES-3117C-VEA-SRE
Description		12.1" industrial LCD monitor with resistive touch screen	12.1" industrial Sunlight readable LCD monitor w/ vandal proof infrared touch screen	15" industrial LCD monitor with resistive touch screen	15" industrial Sunlight readable LCD monitor w/ vandal proof infrared touch screen	17" industrial LCD monitor with resistive touch screen	17" industrial Sunlight readable LCD monitor w/ vandal proof infrared touch screen
Display	Display Size	12"	12"	15"	15"	17"	17"
	Panel Type	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD
	Resolutions	SVGA 800 x 600	SVGA 800 x 600	XGA 1024 x 768	XGA 1024 x 768	SXGA 1280 x 1024	SXGA 1280 x 1024
	Number of Colors	262 K	262 K	262 K	262 K	16.2 M	16.2 M
	Contrast Ratio	500:1	400:1	400:1	400:1	500:1	500:1
	Brightness	400 cd/m2	200 cd/m2	350 cd/m2	350 cd/m2	300 cd/m2	300 cd/m2
	Response Time	35 ms	35 ms	12 ms	12 ms	8 ms	8 ms
	Backlight MTBF	50,000 hrs.	50,000 hrs.	50,000 hrs.	50,000 hrs.	50,000 hrs.	50,000 hrs.
	Viewing Angle L/R/U/D	70°/70°/50°/60°	40°/40°/35°/35°	60°/60°/40°/60°	60°/60°/40°/60°	70°/70°/70°/60°	70°/70°/70°/60°
I/O Port	VGA Port	Yes	Yes	Yes	Yes	Yes	Yes
	S-Video	Optional	Optional	Optional	Optional	Optional	Optional
	Audio Port	Optional	Optional	Optional	Optional	Optional	Optional
	OSD Key Function	Brightness/Contrast/ Clock/Phase/ Horizontal/ Vertical/Sharpness	Brightness/Contrast/ Clock/Phase/ Horizontal/ Vertical/Sharpness	Brightness/ Contrast/ Clock/Phase/ Horizontal/ Vertical/Sharpness	Brightness/Contrast/ Clock/Phase/ Horizontal/ Vertical/Sharpness	Brightness/ Contrast/ Clock/Phase/ Horizontal/ Vertical/Sharpness	Brightness/Contrast/ Clock/Phase/ Horizontal/ Vertical/Sharpness
	Power Input	AC 100 ~ 240 V / 12V DC in	AC 100 ~ 240 V / 12V DC in	AC 100 ~ 240 V / 12V DC in	AC 100 ~ 240 V / 12V DC in	AC 100 ~ 240 V / 12V DC in	AC 100 ~ 240 V / 12V DC in
Operating Temperature		0 ~ 60° C (32 ~ 140° F)	-30 ~ 80° C (-22 ~ 176° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)
Storage Temperature		-20 ~ 70° C (-4 ~ 158° F)	-30 ~ 80° C (-22 ~ 176° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Dimensions (W x H x D)		390 x 297 x 49 mm (15.35" x 11.69" x 1.93")		414 x 232 x 50 mm (16.30" x 12.68" x 1.97")		448 x 358 x 51.8 mm (17.64" x 14.09" x 2.023")	
Weight		3.4 kg (7.48 lb)	3.4 kg (7.48 lb)	4.1 kg (9.02 lb)	4.1 kg (9.02 lb)	4.5 kg (9.90 lb)	4.5 kg (9.90 lb)
Certifications		CE, FCC, UL	CE, FCC, UL	CE, FCC, UL	CE, FCC, UL	CE, FCC, UL	CE, FCC, UL
Touchscreen	Tempered Glass	Yes	Yes	Yes	Yes	Yes	Yes
	5-Wire Resistive	Yes	Yes	Yes	Yes	Yes	Yes
	Capacitive	Yes	Yes	Yes	Yes	Yes	Yes
	SAW	Yes	Yes	Yes	Yes	Yes	Yes
	Infrared (Vandal Proof)	Yes	Yes	Yes	Yes	Yes	Yes
Interface for Touchscreen		RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB	RS-232/USB

Note: The model numbers shown above are only applicable to resistive and Capacitive touchscreen options. Please refer to the selection wizard website for other options and detailed specifications.

Ordering Information

ES-3112R-VSAE	12" Embedded resistive touch monitor, 800 x 600 resolution
ES-3112R-VXME	12" Embedded resistive touch monitor, 1024 x 768 resolution
ES-3112C-VSS-SRE	12" Embedded sunlight readable capacitive touch monitor, 800 x 600 resolution
ES-3115R-VXAE	15" Embedded resistive touch monitor, 1024 x 768 resolution
ES-3115C-VXA-SRE	15" Embedded sunlight readable capacitive touch monitor, 1024 x 768 resolution
ES-3117R-VEAE	17" Embedded resistive touch monitor, 1280 x 1024 resolution
ES-3117C-VEA-SRE	17" Embedded sunlight readable capacitive touch monitor, 1280 x 1024 resolution

Note: ultra high brightness touch monitor is available by OEM/ODM.

Power Code Options

1702002600	Power Cable UL/CSA (USA) 180 cm
1702031801	Power Cable (UK) 5A-Fuse 180 cm
1702002605	Power Cable 220 V EUROPEAN 250 V/6 A (FRANCE) 180 cm

Medical Computing Platforms



Model Name		POC-195	POC-175	POC-174	POC-155
CPU		Socket 479 Intel Pentium M processor up to 2.0 Ghz	Socket 479 Intel Pentium M processor up to 2.0 Ghz	Socket 478 Intel Pentium 4 Mobile processor up to 2.2 GHz	Socket 479 Intel Pentium M processor up to 2.0 Ghz
System Chipset		915GM GMCH/ICH6-M Chipset 533 MHz FSB	915GM GMCH/ICH6-M Chipset 533 MHz FSB	845GV GMCH/ICH4 Chipset 400 MHz FSB	915GM GMCH/ICH6-M Chipset 533 MHz FSB
Display	Size/Display Type	19" TFT color LCD	17" TFT color LCD	17" TFT color LCD	15" TFT color LCD
	Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1024 x 768
	Max. Colors	16.7M	16.7M	16.7M	262 K
	Pixel Pitch (mm)	0.294 x 0.294	0.264 x 0.264	0.264 x 0.264	0.297 x 0.297
	Viewing Angle	178°	160°	160°	120°
	Luminance	300 cd/m2	300 cd/m2	300 cd/m2	350 cd/m2
	Backlight Lifetime	50,000 hours	50,000 hours	50,000 hours	50,000 hours
Contrast Ratio		1300 : 1	800 : 1	800 : 1	500 : 1
Memory		Supports up to 2GB DDR2 533 DRAM	Supports up to 2GB DDR2 533 DRAM	Supports up to 2GB DDR 333 DRAM	Supports up to 2GB DDR2 533 DRAM
HDD/Type		One 2.5" IDE HDD/One SATA 2.5" HDD	One 2.5" IDE HDD/One SATA 2.5" HDD	One 2.5" IDE HDD	One 2.5" IDE HDD/One SATA 2.5" HDD
FDD/Type		-	-	1.44 MB	-
Optical Device		Slim type	Slim type	Slim type	Slim type
PCMCIA Slot		-	-	2 x Type II	-
CF		-	-	-	-
I/O Port &Speakers	Serial	3: RS-232 x 2, RS-232/422/485 x 1	3: RS-232 x 2, RS-232/422/485 x 1	4: RS-232 x 3, RS-232/422/485 x 1	3: RS-232 x 2, RS-232/422/485 x 1
	USB port	6	6	2	6
	IEEE1394a Port	3	3	-	3
	PS/2 mouse and keyboard interface	1	1	1	1
	D-sub VGA port	1	1	1	1
	Parallel port	1	1	1	1
	Mic-in/Line-in/Line-out	Yes	Yes	Yes	Yes
	Speakers (1W)	2	2	2	2
Network (LAN)		Gigabit LAN x 2	Gigabit LAN x 2	10/ 100 Base-T Ethernet x 2	Gigabit LAN x 2
Bus Expansion		PCI 2.2 expansion slot x 1, mini-PCI slot x 1	PCI 2.2 expansion slot x 1, mini-PCI slot x 1	PCI 2.2 expansion slot x 1	PCI 2.2 expansion slot x 1, mini-PCI slot x 1
Optional	WLAN	802.11b/g	802.11b/g	802.11 b	802.11b/g
	Touchscreen: Analog resistive	Yes	Yes	Yes	Yes
	Li-ion battery pack	-	-	-	-
Power Supply		AC model: 180 Watts Input voltage: 100~250 VAC,4/2A max. @ 50~60 Hz	AC model: 180 Watts Input voltage: 100~250 VAC,4/2A max. @ 50~60 Hz	AC model: 180 Watts Input voltage: 100~240 VAC,4/2A max. @ 50~60 Hz	AC model: 180 Watts Input voltage: 100~240 VAC,4/2A max. @ 50~60 Hz
Cooling		Yes	Yes	Yes	Yes
Front Panel		IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant
Whole System		IPX1 compliant	IPX1 compliant	IPX1 compliant	IPX1 compliant
Mounting		VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm
Certification		CE, FCC, CCC approved;EN60601-1, UL60601-1 approved	CE, FCC, CCC approved;EN60601-1, UL60601-1 approved	CE, FCC, VCCI, BSMI approvedUL60950, UL60601-1, EN60950,EN60601-1 approved	CE, FCC, CCC approved;EN60601-1, UL60601-1 approved
Dimensions (W x H x D)		472 x 416 x 124 mm	437 x 377 x 131 mm	437 x 377 x 131 mm	418 x 342 x 115 mm
Weight		10.5 Kg (23.15 lb)	10.5 Kg (23.15 lb)	10 Kg (22.05 lb)	6.5Kg (14.33 lb)



POC-154	POC-125
Socket 478 Intel Pentium 4 Mobile processor up to 2.2 GHz	Soldered type Celeron Mprocessor 600 MHz
845GV GMCH/ICH4 Chipset400 MHz FSB	855GME GMCH/ICH4 Chipset400 MHz FSB
15" TFT color LCD	12.1" TFT color LCD
1024 x 768	800 x 600
262 K	262 K
0.297 x 0.297	0.307 x 0.307
120°	140°
350 cd/m2	400 cd/m2
50,000 hours	50,000 hours
500 : 1	500 : 1
Supports up to 2GB DDR2 333 DRAM	Supports up to 2GB DDR2 333 DRAM
One 2.5" IDE HDD	One 2.5" IDE HDD
1.44 MB	-
-	-
2 x Type II	-
-	1 x Type I/II
4: RS-232 x 3, RS-232/422/485 x 1	2: RS-232 x 1, RS-232/422/485 x 1
2	4
-	1
1	1
1	-
Yes	Yes
2	2
10/100Base-T Ethernet x 2	10/100Base-T Ethernet x 2
PCI 2.2 expansion slot x 1	PCI 2.2 expansion slot x 1, mini-PCI slot x 1
802.11 b	802.11b/g
Yes	Yes
-	2200 mAh (Optional)
AC model: 180 Watts Input voltage: 100~240 VAC,4/2A max. @ 50~60 Hz	DC model: 50 Watts Input voltage: +24 VDC, 2A max
Yes	Fanless
IP65/NEMA 4 compliant	IP65/NEMA 4 compliant
IPX1 compliant	IPX1 compliant
VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm
CE, FCC, VCCI, BSMI approvedUL60950, UL60601-1, EN60950,EN60601-1 approved	CE, FCC, CCC approved;EN60601-1, UL60601-1 approved
418 x 342 x 115 mm	348 x 287 x 92 mm
6.5Kg (14.33 lb)	4.5Kg (9.92 lb)



Model Name		MT-100-TE	MT-100-AE
CPU		AMD Geode LX 800@0.9W 1Ch., UDMA-66	AMD Geode LX 800@0.9W 1Ch., UDMA-66
Front Side Bus		500 MHz	500 MHz
System Chipset		AMD Geode LX 800 & CS5536	AMD Geode LX 800 & CS5536
Memory		1GB DDR400 DRAM	512 MB DDR400 DRAM
Storage	HDD	One 1.8" IDE HDD	One 1.8" IDE HDD
	CF	Option, Type I/II x 1 (Trade-o, HDD)	Option, Type I/II x 1 (Trade-o, HDD)
Display	Size/Display Type	10.4" TFT color LCD	10.4" TFT color LCD
	Max. Resolution	1024 x 768	800 x 600
	Viewing Angle	90/90/50/50 (L/R/U/D)	60/60/35/65 (L/R/U/D)
	Luminance	170 cd/m2	230 cd/m2
TouchScreen	Contrast Ratio	250:1	500:1
	Type	Analog Resistive	Analog Resistive
	Light transmission	75%	75%
	Controller	USB interface	USB interface
I/O Port	Durability	30 million touches	30 million touches
	USB port	2	2
	Speaker (1W)	1	1
Network	WLAN	802.11 b/g wireless LAN	802.11 b/g wireless LAN
Bus Expansion		mini-PCI slot x 1, accept the type IIIB (for LWAN)	mini-PCI slot x 1, accept the type IIIB (for LWAN)
Li-ion battery pack		4800 mAh	4800 mAh
Power Supply		AC/DC Adapter: 100 Watts, Input voltage: 100~240 VAC,1.25~0.5A @ 47~63 Hz, Output voltage: +15 VDC,6.6A max	AC/DC Adapter: 100 Watts, Input voltage: 100~240 VAC,1.25~0.5A @ 47~63 Hz, Output voltage: +15 VDC,6.6A max
Optional	Li-ion battery pack	4800 mAh	4800 mAh
	Blue Tooth	Blue Tooth module	Blue Tooth module
	Trimb Knob	USB interface	USB interface
	Cradle	USB x 4, VGA x 1, Gigabit LAN x 1, RS-232 x 2, DC in x 1, Docking connector x 1, Smart Card Reader x 1	USB x 4, VGA x 1, Gigabit LAN x 1, RS-232 x 2, DC in x 1, Docking connector x 1, Smart Card Reader x 1
Cooling		Fanless	Fanless
Mounting		VESA 75 x 75 mm	VESA 75 x 75 mm
Certification		CE, FCC approved;UL60601-1, EN60601-1 approved	CE, FCC approved;UL60601-1, EN60601-1 approved
Dimensions (W x H x D)		261 x 211 x 36 mm (10.27" x 8.3" x 1.42")	261 x 211 x 36 mm (10.27" x 8.3" x 1.42")
Weight		2 Kg (4.41 lb)	2 Kg (4.41 lb)

Medical Computing Platforms



Model Name		POC-S196	POC-S195	POC-S175	POC-S155
CPU		Soldered type Intel Core Duoprocessor 1.66 GHz	Soldered type Intel Pentium M Processor 1.4 GHz/Celeron M Processor 1.0 GHz	Soldered type Intel Pentium M Processor 1.4 GHz/ Celeron M Processor 1.0 GHz	Soldered type Intel Pentium M Processor 1.4 GHz/ Celeron M Processor 1.0 GHz
System Chipset		945GME GMCH/ICH7M Chipset667 MHz FSB	855GME GMCH/ICH4 Chipset400 MHz FSB	855GME GMCH/ICH4 Chipset400 MHz FSB	855GME GMCH/ICH4 Chipset400 MHz FSB
Display	Size/Display Type	19" TFT color LCD	19" TFT color LCD	17" TFT color LCD	15" TFT color LCD
	Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1024 x 768
	Max. Colors	16.7M	16.7M	16.7M	262 K
	Pixel Pitch (mm)	0.294 x 0.294	0.294 x 0.294	0.264 x 0.264	0.297 x 0.297
	Viewing Angle	178°	178°	160°	120°
	Luminance	300 cd/m2	300 cd/m2	300 cd/m2	350 cd/m2
	Backlight Lifetime	50,000 hours	50,000 hours	50,000 hours	50,000 hours
Memory		Supports up to 4GBDDR2 533/667 DRAM	Supports up to 2GB DDR 333 DRAM	Supports up to 2GB DDR 333 DRAM	Supports up to 2GB DDR 333 DRAM
HDD/Type		One 2.5" SATA HDD	One 2.5" IDE HDD	One 2.5" IDE HDD	One 2.5" IDE HDD
FDD/Type		-	-	-	-
Optical Device		-	-	-	-
PCMCIA Slot		-	-	-	-
CF		-	1 x Type I/II	1 x Type I/II	1 x Type I/II
I/O Port & Speakers	Serial	RS-232/422/485 x 1	2: RS232 x 1, RS232/ 422/ 485 x 1	2: RS232 x 1, RS232/ 422/ 485 x 1	2: RS232 x 1, RS232/ 422/ 485 x 1
	USB port	4	2	2	2
	IEEE1394a Port	-	-	-	-
	PS/2 mouse and keyboard interface	-	1	1	1
	D-sub VGA port	1 (DVI-I)	1	1	1
	Parallel port	-	-	-	-
	Mic-in/Line-in/ Line-out	Mic-in/Line-out	Mic-in/ Speaker-out	Mic-in/ Speaker-out	Mic-in/ Speaker-out
	Speakers (1W)	2	2	2	2
Network (LAN)		Gigabit LAN x 2	10/100Base-T Ethernet x 2	10/100Base-T Ethernet x 2	10/100Base-T Ethernet x 2
Bus Expansion		mini PCI-e slot, mini-PCI slot x 1	mini-PCI slot x 1	mini-PCI slot x 1	mini-PCI slot x 1
Optional	WLAN	802.11b/g	802.11b/g	802.11b/g	802.11b/g
	Touchscreen: Analog resistive	Yes	Yes	Yes	Yes
	Li-ion battery pack	-	-	4400 mAh	4400 mAh
Power Supply		DC model: 100 Watts, Input: +18 VDC, 5.55A max	DC model:100 Watts, Input:+24 VDC, 4.16 A max	DC model:80 Watts, Input: +24 VDC, 3.33 A max	DC model:50 Watts, Input: +24 VDC, 3.08 A max
Cooling		Fanless	Fanless	Fanless	Fanless
Front Panel		IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant
Whole System		IPX1 compliant	IP54 compliant	IPX1 compliant	IPX1 compliant
Mounting		75 x 75 mm; 100 x 100 mm	75 x 75 mm; 100 x 100 mm	75 x 75 mm; 100 x 100 mm	75 x 75 mm; 100 x 100 mm
Certification		CE, FCC approved; UL60601-1,EN60601-1 approved	CE, FCC approved; UL60601-1,EN60601-1 approved	CE, FCC approved; UL60601-1,EN60601-1 approved	CE, FCC approved; UL60601-1,EN60601-1 approved
Dimensions (W x H x D)		472 x 416 x 111 mm	472 x 416 x 111 mm	437 x 377 x 84 mm	418 x 342 x 115 mm
Weight		10kg (22.05 lb)	10kg (22.05 lb)	7.2kg (15.87 lb)	6.5Kg (14.33 lb)



Model Name		PIN - M106
CPU		Soldered type Intel Celeron M processor 1.06 GHz
System Chipset		945 GME GMCH/ICH7 Chipset 533 MHz FSB
Graphic Chipset		Intel 945GME with Intel Graphics Media Accelerator 950 engine
Max. Resolution (per display)		1600 x 1200 at 60Hz
Memory		Supports up to 4GB DDR2 533 DRAM
HDD/Type		One 2.5" SATA HDD
I/O Port & Speakers	Serial port	RS-232 x2
	USB port	4
	DVI port	DVI-I port x 1, DVI-D port x 1
	Mic-in/Line-in/Line-out	Mic-in/Line-out
Network (LAN)		Gigabit LAN x 3
Bus Expansion		mini-PCI slot x 1, mini PCI-e slot x 1
Whole System		IPX1 compliant
VESA Mount		100 x 100 mm
Certification		CE, FCC approved;UL60601-1, EN60601-1 approved
Power Supply		DC model: 80 Watts, Input: +18 VDC, 4.44A maxDC model: 100 Watts, Input: +18 VDC, 5.55A max
Cooling		Fanless
Dimensions (W x H x D)		261 x 185 x 67 mm (10.27" x 7.26" x 2.63")
Weight		4.0kg (8.82 lb)



Model Name		PDC-190	PDC-170
Panel Size/Type		19" TFT Color LCD	17" TFT Color LCD
Display Size (mm)		376.32 (H) x 301.056 (V)	337.92 (H) x 270.336 (V)
Pixel Pitch Size (mm)		0.294 x 0.294	0.264 x 0.264
Max. Resolution		1280 x 1024 (SXGA)	1280 x 1024 (SXGA)
Contrast Ratio		1000:1	800:1
Brightness (cd/m2)		600 cd/m2 (DICOM preset at 400 cd/m2)	300 cd/m2
Colors		16.7M (8-bit data per R, G, B each)	16.2M Colors (RGB 6-bit + FRC data)
View Angle (H/V)		170°	160°
I/O Port & Speakers	RS-232 port	-	1 (Touchscreen model only)
	USB port	Type A x2, Type B x 1	Type A x2, Type B x 1
	VGA port	1	1
	DVI port	DVI-D x 1	DVI-D x 1
	Audio Line in	Yes	Yes
		Speaker (1 W)	2
VESA Mount		75 x 75 mm, 100 x 100 mm	75 x 75 mm
Optional		Touchscreen panel Trim knob via USB	
Power Supply		DC Adapter: 100 Watts, Input: 100~240 VAC, 47~63 Hz, Output: +12 VDC, 8.33A max	DC Adapter: 45 Watts, Input: 100~240 VAC, 47~63 Hz, Output: +12 VDC, 3.75A max
Certification		CE, FCC approved;UL60601-1, EN60601-1 approved	CE, FCC approved;UL60601-1, EN60601-1 approved
Dimensions (W x H x D)		472 x 416 x 104 mm (18.56" x 16.38" x 4.13")	437 x 377 x 84 mm (17.18" x 14.82" x 3.29")
Weight		6.5 Kg (14.32 lb)	6.4 Kg (14.11 lb)

Portable Computing Platforms



Model Name		MARS-1030 Numeric Keypad Version	MARS-1030 Full Keypad Version	MARS-1031 Numeric Keypad Version	MARS-1031 Full Keypad Version
Processor		Intel Xscale PXA255 400 MHz			Intel Xscale PXA270 520 MHz
OS		Supports Windows CE .NET 5.0 Professional			
Memory		128 MB SDRAM			
Storage		64 MB NAND flash		128 MB NAND flash	
Graphics	Size/Type	3.5" transfective TFT LCD			
	Max. Resolution	240 x 320			
	Max. Colors	256 K			
	Viewing Angle (degree)	50/50			
	Touchscreen	4-wire resistive			
VGA	Chipset	nVidia 2D graphic accelerator			
	RAM	Internal 256 KB SRAM			
Brightness Control		Software control or hotkey control			
I/O Port		DC-in jack LIF connector (supports RS-232, USB v1.1 host/client)			
Keypad & Button	Keypad	16 Alphanumeric keys	44 Alphanumeric keys	16 Alphanumeric keys	44 Alphanumeric keys
	Button	Power button Three barcode scanner buttons Four application buttons Application hotkey (programmable) Four buttons for navigation (left, right, up, down)			
Expansion		1 x CF type II slot or PCMCIA slot 1 x SD/MMC slot			
Audio	Speaker	mono speaker			
	Microphone	-			
	Earphone	2.5 mm stereo earphone jack with microphone			
LED Indicator		1 x triple-color LED for charger indicator and alarm notification 1 x bi-color LED for scanner indicator			
Wireless Module	WLAN	802.11b (Optional)		802.11b/g (Optional)	
	Bluetooth	Bluetooth v1.2 (Optional)			
	WAN	Tri-band GSM/GPRS (Optional)			
Add-on Module		1D Barcode scanner (Optional) 2D Barcode scanner (Optional)			
Power	Battery	Li-ion battery pack 3.7 V, 3000 mAh			
	Battery Life	8 hours			
	Charging Time	4 hours			
	Adapter	Auto-switching 100 ~ 240 V AC, 50/60 Hz input; 5 V DC 2.6 A output			
Operating Temperature		-10 ~ 50° C			
Storage Temperature		-20 ~ 70° C			
IP Rating		IP54		IP65	
Drop Rating		5 ft free drop to concrete			
Certification		UL/cUL, CE, FCC Class B			
Dimensions (L x W x D)		192.5 x 91.3/78 x 42.2/60.6 mm (7.58" x 3.6"/3.7" x 1.66"/2.39")	220 x 91.3/78 x 42.2/60.6 mm (8.66" x 3.6"/3.7" x 1.66"/2.39")	192.5 x 91.3/78 x 42.2/60.6 mm (7.58" x 3.6"/3.7" x 1.66"/2.39")	220 x 91.3/78 x 42.2/60.6 mm (8.66" x 3.6"/3.7" x 1.66"/2.39")
Weight		560 g with standard battery	660 g with standard battery	560 g with standard battery	660 g with standard battery



Model Name		MARS-3100R	MARS-3100R with Sunlight Readable Solution	MARS-3100S
Processor		Intel Core Duo Ultra Low Voltage U2500 @ 1.2 GHz		AMD LX800 500 MHz
OS		Supports Windows XP compatible		Supports Windows XP Embedded
Memory		1 GB DDR2 533, 200-pin SODIMM		512 MB DDR 400, 200-pin SODIMM
Storage		Default 2.5" 40 GB shock mounted HDD		Default 4 GB CF for storage
Graphics	Size/Type	10.4" TFT LCD		10.4" TFT LCD
	Max. Resolution	XGA, 1024 x 768		SVGA, 800 x 600
	Max. Colors	256 K		256 K
	Viewing Angle (Degree)	50/90		120/100
	Touchscreen	Dual mode, digitizer and resistive touchscreen	Dual mode, digitizer and resistive touchscreen with sunlight readable solution	Resistive touchscreen
VGA	Chipset	Intel 945GME chipset		AMD CS5536 chipset
	RAM	64~224 MB shared memory		8~254 MB shared memory
Brightness Control		8-level brightness by software control		-
I/O Port		RS-232 Two USB v2.0 15-pin D-Sub for VGA out RJ-45 jack for 10/100 Ethernet DC in jack		RS-232 USB v2.0 15-pin D-Sub for VGA out RJ-45 jack for 10/100 Ethernet DC in jack
Keypad & Button	Button	Power button Logon button Rotation key (for display) WLAN ON/OFF button Three application hotkeys (programmable) 5-way navigation buttons (left, right, up, down, enter)		
Expansion		1 x internal MiniPCI for WLAN		
Audio	Speaker	Mono speaker		
	Microphone	3.5 mm microphone jack		
	Earphone	3.5 mm headset jack		
LED Indicator		1 x Power LED 1 x Charging LED 1 x HDD status LED 1 x WLAN ON/OFF LED		
Wireless Module	WLAN	802.11a/b/g		802.11a/b/g
	Bluetooth	Bluetooth V2.0/EDR module		Bluetooth V2.0/EDR module (Optional)
	WAN	GSM/GPRS (Optional) EDGE (Optional) CDMA (Optional) EVDO (Optional) UMTS (Optional)		
Add-on Module (Optional)		SiRFIII GPS module Smart card reader 1.3 Megapixel Autofocus CMOS camera Fingerprint scanner		
Power	Battery	Warm-swappable 11.1 V @ 3600 mAh Li-ion battery pack		
	Battery Life	2.5 ~ 3.5 hours		
	Charging Time	2.5 hours to 90%		
	Adapter	Auto-switching 100 ~ 240 V AC, 50/60 Hz input 19 V DC 3.16 A output		
Operating Temperature		-10 ~ 55° C		0 ~ 50° C
Storage Temperature		-40 ~ 60° C		-40 ~ 60° C
IP Rating		IP54		
Drop Rating		3 ft free drop to steel during operation		
Certification		UL/cUL, CE, FCC Class B, CB		
Dimensions (L x W x H)		299 x 224 x 37 mm (11.77" x 8.82" x 1.46")		
Weight		2.1 kg (4.63 lb) with standard battery		

Vehicle Mounted Computers



Model Name		TREK-775	TREK-775 Anti freeze model	TREK-776	TREK-776 Anti freeze model	TREK-743
Processor		Onboard Intel ULV Celeron M 600 MHz / LV Pentium M 1.1 GHz				Onboard AMD LX800 500 MHz
2nd Cache Memory (L2 cache)		Celeron M 512k cache / Pentium M 1 MB cache				128 KB
OS		Supports Windows 2000/XP; Windows CE.NET; Windows XP Embedded and Linux compliant				WinCE 5.0; Windows XP Embedded
Memory	Size	Up to 2 GB DDR SDRAM				Up to 1 GB DDR SDRAM
	Module Type	184 pin DIMM x 2				200 pin SODIMM x 1
Storage		One internal CompactFlash type I/II socket for CF card or one IDE interface for HDD				One internal CompactFlash type I/II socket for CF card
Graphics	Size/Type	10.4" TFT LCD		12.1" TFT LCD		7" TFT LED LCD
	Max. Resolution	800 x 600		1024 x 768		800 x 480
	Max. Colors	256 K or above				262 K
	Brightness (cd/m²)	400		450		400
	Viewing Angle (degrees)	140/110		160/160		140/120
	Backlight MTBF	50,000 hrs.		50,000 hrs.		Min. 10,000 hrs.
VGA	Chipset	Intel 855GME				AMD LX800
	VRAM	64 MB (SMA)				32 MB
Touchscreen	Technology	Analog Resistive				Analog Resistive
	Control Port	USB				RS-232 (COM3)
Brightness Control		Brightness control buttons				
I/O Port		2 x RS-232 (COM3, COM4) 2 x RS-232/422/485 (COM3, COM4) 2 x USB v2.0, 1 x PS/2 KB, 1 x PS/2 Mouse				3 x USB v2.0, 2 x RS-232/422/485, 1 x CAN, 4 x DI/DO
Expansion		One Mini PCI Type III A/B slot				
		PCMCIA Type II x 2 / III x 1				N/A
Network (LAN)		10/100 Base-T Ethernet				
GPS		Option (COM3)				Option
Power		9 ~ 58 VDC				9 ~ 36 VDC
		AC-to-DC adapter (optional)				N/A
Operating Temperature		0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)	0 ~ 40° C (32 ~ 104° F)	-30 ~ 60° C (-22 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Certification		UL, CE, FCC Class B, CSA				UL, CE, FCC Class B, CCC, CSA
Dimensions (W x H x D)		310 x 255 x 80 mm (12.20" x 10.04" x 3.15")		310 x 255 x 90 mm (12.20" x 10.04" x 3.54")		255 x 160 x 50 mm (10.04" x 6.30" x 1.97")
Weight		3.8 kg (8.38 lb)		4.8 kg (10.58 lb)		1.7 kg (3.7 lb)

UbiQ Scenario Control



Model Name		Scenario Control UbiQ-230T	In-Wall Touch Panel UbiQ-470	Residential Terminal EH-7106	Mobile A/V Control Panel UbiQ-350
CPU		ARM9 32-bit, 200 MHz	Intel Xscale PXA270 312 MHz (520 MHz as option)	Intel Celeron M 800 MHz	Intel Xscale PXA270 312 MHz (520 MHz as option)
LCD		3.5" QVGA	7.0" 16:9, 800 x 480	10.4" TFT, SVGA	7.0" 16:9 800 x 480
Touchscreen		-	Resistive	Resistive	Resistive
Memory (SDRAM/Flash)		64/128 MB	64/128 MB	256 MB/2 GB (Optional)	64/128 MB
VGA Accelerator		-	Intel 2700G	-	Intel 2700G
Power Management		-	-	-	On/ Idle/ Suspend/ Off
Hard Disk		-	-	20 GB (Optional)	-
Expansion		-	1 x SD/MMC	1 x MiniPCI	1 x SD (Memory & SDIO)
Hot Keys		7 x Scenario	-	4 x programmable/ 1 x emergency	5 x volume/ channel/ start/ mute
Status LED		7 x	4 x	4 x	3 x (batt./ docking/ wireless)
I/O Ports		1 x RS-232 console, 1 x RS-485, 1 x expansion (RS-232, SPI)	1 x RS-485, 1 x RS-232, 1 x power switch, 2 x USB host 1.1	2 x USB2.0, 1 x RS-485, 1 x RS-232, 4 x DI/DO, 1 x DC-in jack, 1 x Video-in, 1 x Audio port	1x USB1.1
Audio		1 x 1W SPK	Mic. 1.5W SPK, Line-out	1 x 1W, SPK, Mic.	1 x Mic; 1x SPK (HiFi)
Expansion I/O		-	50-pin box header 1 x RS-232, 1 x USB host 1.1, Line-in, Mic-in, 4 x DI, 4 x DO, I2C & power (3.3V & 5V)	-	1 x USB host 1.1 (on cradle)
Network (LAN)		10/100Base-Tx	10/100Base-Tx	10/100Base-Tx	Wi-Fi thru SD
IR	Device #	IR Receiver	IR Receiver	--	N/A
Power DC-in		10 ~ 28 V	10 ~ 28 V	19 V	12V DV-in (on cradle)
Front Bezel		Plastic	Plastic	Plastic	Plastic
Water/Dust Resistance		-	-	-	--
Battery		-	-	-	3S1P-3.7 V, 2100 mAH rechargable (6 ~ 12 hr. operating)
Cradle		-	-	-	Table top (included), Wall-mount (optional)
OS		Windows CE 5.0 core ver.	Windows CE 5.0 core ver.	Windows XP Embedded	Windows CE 5.0 Professional
Dimension (W x H x D)		105 x 135 x 26.5 mm (4.13" x 5.31" x 1.04")	188 x 152 x 43.6 mm (7.40" x 5.98" x 1.72")	315 x 240 x 60 mm (12.40" x 9.45" x 2.36")	230 x 149 x 30 mm (9.06" x 5.87" x 1.18")
Weight		260 g (0.57 lb)	0.8 kg (1.76 lb)	2.5 kg (5.50 lb)	0.8 kg (1.76 lb)
Certification		UL/FCC/ CE/CCC	UL/FCC/CE	UL/FCC/CE/CCC	UL/FCC/CE

RISC-based Digital Signage Platforms



Model Name		DSA-2102V	DSA-2102	DSA-2101	DSA-5110D
Media Formats	Video	MPEG-1, MPEG-2 MP @ ML up to 14 Mbps, MPEG-4 ASP			MPEG-1, MPEG-2 MP @ ML up to 14 Mbps, MPEG-4 ASP
	Audio	2 channels, MPEG-1 and MPEG-2 Layers I, II and III (MP3), 16-bit PCM, bit rate up to 384 kbps, sample rate up to 48 kHz			2 channels, MPEG-1 and MPEG-2 Layers I, II and III (MP3), 16-bit PCM, bit rate up to 384 kbps, sample rate up to 48 kHz
	Graphics	32-bit color with transparency BMP, JPEG			32-bit color with transparency BMP, JPEG
	Text	Variable scrolling speed and position			Variable scrolling speed and position
	Playlist	Scheduling playback, endless loop playback, auto play after power on			Scheduling playback, endless loop playback, auto play after power on
Video-Out	Digital and Analog	VESA DVI-I connector x 1, up to 720p, 1280 x 720 @ 60 Hz			Built-in LCD displ., 10.2", 800 x 480 pixels (wide VGA)
	Composite	RCA jack x 1			-
	S-Video	Mini-DIN 4-pin connector x 1			-
Audio-Out	R / L Channel Analog	Unbalanced stereo RCA jack x 2			3.5 Ø Stereo phone jack x 1 Embedded 3 watt stereo speakers
	S/PDIF	Coaxial digital audio output	-	-	-
Video-In	Composite	RCA jack x 1	-	-	-
Audio-In	R / L Channel Analog	Unbalanced stereo RCA jack x 2	-	-	-
Network	10/100 Mbps	RJ-45 x 1			RJ-45 x 1
Serial	RS-232	D-Sub 9-pin (male) x 1			-
USB	USB 2.0 Host	USB Type A connector x 2			USB Type A connector x 2
Network Portocol		HTTP, DHCP			HTTP, DHCP
IDE		40 GB HDD	40 GB HDD	512 MB Flash Memory	1 GB Flash Memory
Power Consumption		Approx. 15 W	Approx. 15 W	Approx. 7 W	Approx. 15 W
Power Supply		DC 12 V input			DC 12 V input
Operating Temperature		0 to 40° C (32 to 140° F)			0 to 40° C (32 to 140° F)
Relative Humidity		5-85% @ 40° C			5-85% @ 40° C
Dimensions		211 x 153 x 43 mm (8.31" x 6.02" x 1.69")			256 x 195 x 52 mm (10.08" x 7.68" x 2.05")
Weight		Approx. 1.7 kg (3.75 lb) (for DSA-2102); Approx. 1.1 kg (2.42 lb) (for DSA-2101)			Approx. 2.9 kg (6.39 lb)

x86-based Digital Signage Platforms



Model Name		DSA-3300	DSA-3400	DSA-3610	DSA-3710
Processor & System	CPU	Intel Pentium M/ Celeron M processor	Intel Core 2 Duo Mobile Processor	Intel Core 2 Duo Mobile Processor	Intel Core 2 Duo Desktop Processor
	Chipset	Intel 852GME/ICH4	Intel 945GM / ICH7M	Intel GME965 / ICH8M	Intel Q965 / ICH8M
	L2 Cache	Depends on CPU type	2 MB	4 MB	4 MB
	BIOS	AWARD 4-Mbit BIOS	AWARD 4-Mbit BIOS	AMI 16MB SPI BIOS	AWARD 16MB bit BIOS
	Front Side Bus	533/400 MHz	400/533/667 MHz	533/800 MHz	533/800/1066 MHz
Memory	Technology	DDR 200/266/333 MHz	DDR2 400/533/667 MHz	DDR2 533/667 MHz	DDR 2 533/667/800 MHz
	Max. Capacity	1 GB	2 GB	4 GB	4 GB
	Socket	200-pin SODIMM x 1	200-pin SODIMM x 2	200-pin SODIMM x 2	240-pin DIMM x 2
Graphics	Chipset	Chipset integrated VGA controller	Intel Graphics Media Accelerator 950	Intel Graphics Media Accelerator X3100	Intel Graphics Media Accelerator 3000
	Memory Size	Shared system memory up to 64 MB	Shared system memory up to 224 MB	Shared system memory up to 384 MB	Shared system memory up to 256 MB
	Resolution	up to 1600 x 1200 @ 85 Hz and 2048 x 1536 @ 75 Hz	Up to 2048 x 1536 @ 75 Hz	Up to 2048 x 1536 @ 75 Hz	Up to 2048 x 1536 @ 75 Hz
I/O Ports	DVI	DVI-D x1			-
	VGA	D-Sub 15-pin x 1			-
	Audio	AC97 - LINE-OUT, MIC-IN			-
	Network	RJ-45 x 1, 10/100 Base-T	RJ-45 x 1, 1 Gbit Lan x 1	RJ-45 x 2, 1 Gbit LAN x 2	RJ-45 x 2, 1 Gbit Lan x 1
	Mini-PCI	Mini-PCI x1 (for optional WLAN module or TV tuner module)		-	-
	USB 2.0	USB connector x 4 (480 Mbps)			-
	Serial	COM1 - RS-232 COM2 - RS-232	COM1 - RS-232 COM 2 - RS-232/485	RS-232	RS-232
	PSW	External power switch connector			-
	CardBus	-	PCMCIA slot x1	-	-
	TV Out	-	S-Video and Compsite video	-	-
Storage	IDE-0	2.5" HDD (40 GB default)		-	-
	IDE-1	-	CompactFlash socket for type I/II		-
	SATA	-		3.5" HDD (80 GB default)	3.5" HDD (80 GB default)
Power	Power Consumption	Average 29 W, Maximum 45 W	Average 33 W, Maximum 49 W	Power Output Wattage AC 120 W	Power Output Wattage AC 180 W
	Power Supply	12V DC ~ 24V DC, 12V DC@4.14 A , 24V DC@2.07 A		Type AC 100 ~ 240 V	Type AC 100 ~ 240 V
Environment	System Alarm	Schedule boot up function			-
	Temperature	-10 ~ 45° C (14 ~ 113° F) , Operating			-
	Relative Humidity	95% @ 40 °C (non-condensing). Operating			-
	Vibration Resistance	1 Grms ,IEC 60068-2-64,Random,5~500 Hz, 1hr/axis			-
Physical	Dimensions	222 x 135 x 43 mm (8.7" x 5.3" x 1.7")	222 x 135 x 47 mm (8.7" x 5.3" x 1.85")	272 x 232 x 78 mm (9.1" x 7.7" x 2.6")	250 x 253 x 156 (9.84" x 9.96" x 6.14")
	Weight	1.25 kg (0.57 lb)	1.47 kg (0.67 lb)	4 kg (8.8lb)	6.2 kg (13.64lb)
Watchdog Timer	Output	Interrupt, system reset			-
	Interval	Programmable 1~255 sec.			-
Certification	Electromagnetic	CE, FCC			-
	Safety	UL, CB, CCC			-
	Environmental Protection	RoHS, WEEE			-

Motherboards/ Capture Cards



Model Name	DVMB-764-16D1E	DVMB-764-16CFE	DVMB-554E
Form Factor	ATX		Mini-ITX
Processor	Intel Quad / C2D / Pentium 4 / Celeron D LGA 775		Intel Core 2 Duo / Core Duo Socket 479
Chipset	Intel Q965 + ICH8DO		Intel 945GM + ICH7
Memory(Max Capacity)	Dual channel DDR2 533/667/800 MHz (Max 8G)		Dual Channel DDR2 533/667 (Max 4G)
Graphics	Intel GMA 3000		Intel GMA 950
Ethernet	Dual Gigabit LAN	Single Gigabit LAN	Dual G-LAN: Intel 82566DM and Marvell 88E8053
Expansion Slot	PCIe x 16, PCIe x 4, PCI		PCIe x 4
SATA	6 channels 300 MB/s with Matrix RAID & Hot plug		2 channels 300 MB/s
EIDE	2 ATA 100/66/33		1 ATA 100/66/33
IO Interface	2 x RS-232, 10 x USB (4 on back IO), Parallel port, VGA, PS2, Audio		1 x VGA,2 x COM,1 x PS/2 Keyboard, 1 x PS/2 Mouse,1 x Audio I/O,2 x RJ45, 4 x USB 2.0/1.1,1 x DVI,1 x Composite
WDT & CPLD	WDT & Software protection key		WDT
Video Standard	Composite NTSC/PAL		Composite NTSC/PAL
Video Input	16 Channel @ 480/400 FPS		4 Channel @ 120/100 FPS
Live Preview	16 Channel @ 480 FPS (up to D1)		4 Channel @ 120 FPS (up to D1)
Video Codec	ISO/IEC 1496-2 MPEG4 Advanced Simple Profile		MPFG4 SW
Video Encoder Performance	480/400 fps @ D1	480/400 fps @ CIF	120/100 fps @ D1
Video output	1 Smart Quad TV output	N/A	Composite TV-out
Audio Input /Encoder	16 Channel/ADPCM		No
Digital Input/Output	12 Isolate Input/8 Relay output		20-pin GPIO (SDK supports 7 input and 8 output)
Dual Video Stream	MPEG4, MJPEG		MPEG4
OSD	Yes, with encoding video		-
Motion Detection	Motion detection & motion trace		-
Software Development Kits	Supports Windows XP DVP Suite SDK with Sample program and C++ Source code		



Model Name	DVP-1412E	DVP-2420E	DVP-7421BE	DVG-1100
Host Interface	USB 2.0	PCI-104	PCI bus	Network (LAN)
Video Standard	Composite NTSC/PAL	Composite NTSC/PAL	Composite NTSC/PAL	Composite NTSC/PAL
Video Input	1	2	4 (with 4 video loop through)	1 (with 1 video loop through)
Capture Resolution	Up to D1	Up to D1	Up to D1	Up to D1
Total Frame Rate	30/25 fps	60/50 fps	120/100 fps	30/25 fps
Video Encoding	MPEG-4 HW encoding	MPEG-4 HW codec	MPEG-4 HW codec	MPEG-4 HW encoding
Video Output	-	2	1 smart quad Composite output	1 loop through
Audio Input/Output	1 mono input	2 stereo inputs/outputs	4 stereo/mono inputs/outputs	1 mono
Audio Encoding	ADPCM	MPEG-1 Layer II	MPEG-1 Layer II	ADPCM G.726
Software Development Kits	Complete demo program with VC++ sample code for reference	Complete demo program with VC++ sample code for reference	Complete demo program with VC++ sample code for reference	Supports Windows XP DVP Suite SDK with Sample program, source code and OCX component
Environment	0 ~ 60° C (32 ~ 140° F), -20 ~ 80° C (-4 ~ 176° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	-20 ~ 70 °C (-4 ~ 158° F)

Digital Video Systems/ Full DVR Systems



Model Name	DVS-350	DVS-355	DVS-510	DVS-500	DVS-5120	DVS-640
Form Factor	Rugged Mobile Platform	Rugged Mobile Platform	Compact 1 U	Desktop	Wallmount	4U Rack mount
Process System	Intel Penium M	Intel Core Duo Mobile	Intel Core Duo Mobile	Intel Core 2 Duo/ Pentium 4	Intel Core 2 Duo/ Pentium 4	Intel Core 2 Duo/ Pentium 4
Video Input	4 - 16 Channel	6 Channel	4 Channel	4 - 16 Channel	4 - 16 Channel	4 - 32 Channel
Video Encoding	MPEG 4 SW Compression	MPEG 4 SW Compression	MPEG 4 SW Compression	MPEG-4 SW/HW or H.264 HW	MPEG-4 SW/HW or H.264 HW	MPEG-4 SW/HW or H.264 HW
Video Performance	120/100 fps	60/50 fps	120/100 fps	Up to 480 fps	Up to 480 fps	Up to 960 fps
I/O Interface	USB, Card bus, DIO, COM, WLAN, VGA, TV-OUT	USB, Card bus, COM, WLAN, DVI, VGA	USB, COM, VGA, DVI, PS2	1 x VGA, 1x RJ45, 1 x COM (RS-232), 4 x USB2.0, 1 x Parallel , 2 x PS/2 , 1 x MIC-In, 1 x Line-In, 1 x Line-Out		
Storage	1 x 2.5" HD	1 x 2.5" HD	1 x 3.5" HD	2 x 3.5" HD	3 x 3.5" HD	4 x 3.5" HD
Dimensions	232 x 138.4 x 65 mm (9.13" x 5.43" x 2.56")	232 x 138.4 x 65 mm (9.13" x 5.43" x 2.56")	410 x 44 x 252 mm (16.14" x 1.73" x 9.92")	370 X 88 x 370 mm (14.57" x 3.46" x 14.57")	320 x 164 x 307 mm (12.60" x 6.46" x 12.09")	482 x 177 x 480 mm (18.98" x 6.97" x 18.90")
Software Development Kits	Support Windows XP DVP Suite SDK with Sample program and C++ Source code			Follow capture card SDK		
Temperature	0 ~ 60° C (32 ~ 140° F)	-15 ~ 60° C (5 ~ 140° F)	0 ~ 60° C (32 ~ 140° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 50° C (32 ~ 122° F)



Model Name	PVS-500	PVS-5120	PVS-640
Form Factor	Desktop	Wallmount	4U Rack mount
Process System	Core 2 Duo / Pentium 4	Core 2 Duo / Pentium 4	Core 2 Duo / Pentium 4
Video Input	8 - 16 channel	8 - 16 channel	8 - 32 channel
Video Encoding	H.264 HW	H.264 HW	MPEG-4 SW / H.264 HW
Video Performance	up to 480 fps	up to 480 fps	up to 960 fps
General Function for PowerView Surveillance Solutions	Real Time Display and Playback		
	Quick Search by Calendar and Time Segment		
	Intelligent e-Map Function		
	Comprehensive Log View in Function		
	Powerful Remote Control Functions via IE Browser		
Language	E / TC / SC / SP		
Temperature	0 ~ 40° C (32 ~ 104° F)	0 ~ 40° C (32 ~ 104° F)	0 ~ 50° C (32 ~ 122° F)

Embedded Motherboards

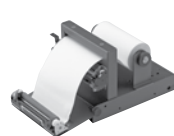


Model Name		AIMB-542	AIMB-251	i865G2-IGM
Processor System	Processor (90nm)	Intel Pentium 4/Intel Celeron D	Onboard Intel ULV Celeron 600 MHz	Intel Core 2 Duo/Core Duo/Pentium 4/ Celeron Processor
	Max. Speed	3.8 GHz (800FSB)/3.06 GHz	600 MHz	
	Chipset	Intel 865G + ICH5	Intel 82852GM + ICH4	Intel 82865G GMC/ICH5
	BIOS	AMI 4 Mbit FWH	Award 4 Mbit FWH	AMI 4 Mbit FWH
	Front Side Bus	533/800 MHz	400 MHz	533/800 MHz
Expansion Slot	AGP	AGP 8X	-	AGP 8X
	PCI	32-bit/33 MHz, 3 slots	32-bit/33 MHz, 1 slot	32-bit/33 MHz, 3 slots
	ISA	-	32-bit/33 MHz, 1 slot	-
Memory	Technology	Dual channel DDR 333/400 SDRAM	DDR 200/266 SDRAM	DDR 400/333/266 SDRAM
	Max. Capacity	4 GB	1 GB	2 GB
	Socket	184-pin DIMM x 4	184-pin DIMM socket x 1	184-pin DIMM x 2
Graphics	Controller	Chipset integrated VGA controller	Chipset integrated VGA controller	Intel 82865G GMCH integrated Extreme Graphics 2
	VRAM	Dynamically shared system memory up to 64 MB	Shared system memory up to 64 MB video memory	Dynamically shared system memory up to 64 MB
	LVDS	-	Single Channel 18-bit/ Dual-channel 36-bit LVDS	Through LVDS Card
	TV-Out	-	Supports both S-video and composite video Chrontel CH7009A TV encoder supports both NTSC/PAL	Through TV-Out Card
	DVI	-	Chrontel CH7009A DVI transmitter up to 135M pixels/second	Through DVI Card
	Dual Display	-	CRT + LVDS, or DVI/TV-out + LVDS, or CRT + DVI	-
Ethernet	Interface	10/100Base-T	10/100/1000Base-T	10/100/1001Base-T
	Controller	Realtek RTL 8100C	LAN 1 Realtek RTL 8100S Gigabit LAN (PCI)	Marvell 88E8001 PCIe Gigabit LAN
	Connector	1 (RJ45)	1 (RJ45)	1 (RJ45)
SATA	Max. Data Transfer Rate	150 MB/s	-	150 MB/s
	Channel	2	-	2
EIDE	Mode	ATA 100/66/33	2 x EIDE (Ultra DMA 100)	Ultra DMA 100/66
	Channel	2 (Max. 4 devices)	2	2
I/O Interface	VGA	1	1	1
	USB	8 (USB 2.0, 480Mbps; 4 external ports and 4 onboard pin headers)	2 (USB 2.0 ports)	4 (USB 2.0/1.1 ports)
	Audio	3 (Mic-In, Line-In, Line-Out)	Mic-In, Line-In, Line-Out (VIA VT1616 supports 5.1 CH AC97 Audio)	Mic in, line in, CD Audio in, Line out, S/PDIF
	Serial	1	1 (RS-232/422/485), supply 5 V or 12 via jumper	1
	Parallel	1 (SPP/EPP/ECP)	1	1
	FDD	1	1	1
	PS/2	2 (keyboard and mouse)	2 (keyboard and mouse)	2 (keyboard and mouse)
Internal Connector	LVDS	-	1	-
	TV-Out	-	1	-
	DVI	-	1	-
	USB	2 x USB 2.0 connector supports additional 4 USB 2.0 ports	2 x USB 2.0 connector supports additional 4 USB 2.0 ports	2 x USB 2.0 connector supports additional 4 USB 2.0 ports
	Serial	1 (RS-232)	3 (RS-232)	-
	IDE	2 connector supports 4 devices	1 connector supports 2 devices	2 connectors supports 4 devices
	CompactFlash	-	1	-
	IrDA	-	115k bps, IrDA 1.0 compliant	-
	FDD	1	1	1
	DIO	-	16-bit General Purpose I/O for DI and DO	-
Watchdog Timer	Output	-	System reset	System reset
	Interval	-	Reset: 1 sec. ~ 255 min. and 1 sec. or 1 min./step	1 sec. ~ 255 sec. and 1 sec. or 1 min./step
Physical Characteristics	Form Factor	Micro ATX	Mini ITX	Micro ATX
	Dimensions	244 mm x 244 mm (9.6" x 9.6")	170 mm x 170 mm (6.69" x 6.69")	244 mm x 244 mm (9.6" x 9.6")

Embedded Box Computer/ Thermal Printer



Model Name		ARK-3381	ARK-3383
Features		7 x COM, 2 x printer ports	7 x USB 2.0, 4 x COM, 2 x LAN, Audio
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
	System Memory	Up to 1 GB DDR SDRAM SODIMM	Up to 1 GB DDR SDRAM SODIMM
Display Interface	CRT	Yes	Yes
	LVDS	36-bit LVDS	36-bit LVDS
	DVI	-	-
	TV Out	-	-
I/O Interface	Audio	-	AC97 Audio, Line-In, Spk-out, Mic-in
	Ethernet	1 x 10/100Base-T (Supports WOL)	2 x 10/100Base-T (Supports WOL)
	Keyboard/Mouse	1 x PS/2	1 x PS/2
	USB	1 x USB 2.0	7 x USB 2.0
	Serial Port	2 x RS-232, 5 x RS-232/422/485	1 x RS-232, 3 x RS-232/422/485
Storage System	Expansion	-	-
	Solid State Disk	One socket supports Type I/II CompactFlash Card	One socket supports Type I/II CompactFlash Card
	HDD	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
Certifications	EMC	CE, FCC	CE, FCC
	Safety	UL, CCC	UL, CCC
Dimensions		264.5 x 69.2 x 137.26 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.28 mm (10.41" x 2.72" x 5.40")
Ordering Information		ARK-3381-2S0A2E ARK-3381-2S4A2E	ARK-3383-2S0A2E ARK-3383-2S4A2E



Model Name	FTP-637	WP-K833
Printing Method	Thermal-line dot method	Thermal-line dot method
Dot Structure	576 dots/line	12 x 24, 9 x 17 dots
Dot Pitch (Horizontal)	0.125 mm (8 dots/mm)-Dot density	1/203 Inch (0.125 mm)
Dot Pitch (Vertical)	0.125 mm (8 dots/mm)-Line feed pitch	1/203 Inch (0.125 mm)
Effective Printing Area	72 mm	80 mm
Number Of Columns	ANK 48 columns/line (maximum 12 x 24 dot font)	40 columns
Paper Width	80 mm	82 ± 0.5 mm
Paper Thickness	60 ~ 100 gsm (some paper in this range may not be used because of paper characteristics)	0.05 ~ 0.15 mm
Printing Speed Maximum	100 mm/sec. (800 dot line/sec.)	120 ~ 220 mm/sec.
Interface	Conforms to RS-232C/Centronics	RS-232C, USB with option
Head Life	Pulse resistance: 500 million pulses/dot (under standard conditions); abrasion resistance: paper traveling distance 50 km (print ratio: 12.5% or less)	100 km
Cutter Life	500,000 cuts	1,000,000 Time
Operating Temperature	0~50° C (32 ~ 122° F)	0~40° C (32 ~ 104° F)
Operating Humidity	20 ~ 85% Relative Humidity (no condensation)	10~90 RH
Storage Temperature	-20 ~ 60° C (-4 ~ 140° F) (paper not included)	-20 ~ 60° C (-4 ~ 140° F)
Storage Humidity	5 ~ 95%	10 ~ 90 RH
Head Temperature Detection	Detected by thermistor	80° C
Paper Out/Mark Detection	Detected by photo-interrupter	Paper out detector (No Paper Out mark detector).

About Industrial Automation Group

Open eAutomation, Boundless Integration

Founded in 1983, the Industrial Automation Group has grown into a global business organization with more than 30 branch offices in 17 countries and a worldwide partner network comprised of leading Automation corporations. As a pioneer in Open Automation technology, we are proud of our efforts as global stewards; providing vertical-focused products, solutions and value-added services.

As a leading Industrial Automation provider, IAG combines connectivity, flexibility and ruggedness with today's most reliable PC-based automation technologies. Aligned with the Open architecture movement, we empower our customers with fully integrated platforms, Open system Components and solution competence. In this way, we help our customers realize streamlined and customized solutions that improve efficiency & productivity. Our high quality services are proven through Focused Sales Units, Channel Partners, Global Direct & Unified Marketing and Certified Technical Support, all of which help grow our partners business.

Through systematic training and workshops our partners are certified annually, guaranteeing a high standard of quality in the Automation industry. These dedicated and well-trained sales and technical support teams provide outstanding quality services to all of our industrial automation customers everyday.

With more than 20 years experience in providing a full range of products to various vertical markets, we are now fully dedicated to our slogan of "Open eAutomation, Boundless Integration", and are committed to this direction by stretching the boundaries of technology and service with cutting-edge Open Automation products and solutions.

As Advantech shifts into becoming a Globally Integrated Enterprise (GIE), we can operate seamlessly on a global scale as a single entity, by integrating internal operations and collaborating with external partners to maximize value from a worldwide point of view which transcends national boundaries.

Product Offerings

Broad Product Range to Fulfill eAutomation Market Needs

Programmable Automation Controllers & Software

Advantech's Programmable Automation Controllers (PAC) feature the PC's openness, high performance CPU, rich memory and powerful software functionality as well as the PLC's reliability and robustness to satisfy the market demand for the integration of HMI, control logic, motion and enterprise networking in a single platform. Advantech's PAC series offers one control engine and one development environment on multiple hardware platforms such as ADAM-5550, UNO, AMAX and TPC to meet the requirements of multiple application domains.

Remote I/O Modules

With field-proven industrial-grade noise immunity features, the rugged ADAM-4000/4100 and ADAM-6000 Remote I/O Modules are designed specially for reliable operation in harsh environments. The built-in microprocessors, encased with industrial-grade plastic, independently provide intelligent signal conditioning, Analog I/O, data display and Serial/Ethernet/Wireless communications. Additionally, the ADAM-5000 Distributed DA&C system allows remote control via Ethernet or RS-485 for efficient management.

Data Acquisition & Control

With over 22 years of Plug-in I/O card design and manufacturing experience, Advantech has become a global leader, providing a full range of industrial data acquisition and control products. There are six major categories - CompactPCI, PCI-bus, ISA-bus, USB-bus, PC/104 modules and motion control products. With rich wiring terminal modules and software support, Advantech provides high-speed, high quality, yet cost-saving products for industrial requirements. Moreover, bundled with a versatile industrial PC Chassis, backplane, CPU module, panel monitors and embedded controllers, Advantech offers a one-stop shopping solution to serve all your needs.

Building Automation

Advantech offers complete Web-enabled BAS systems ranging from Web-enabled BA SCADA software and Direct Digital Controllers to Video Surveillance Systems. Adopting Open building networking standards - Modbus, BACNet, LonWorks and up-to-date information technology, such as Open database management and IE browser interfaces, Advantech's BAS solutions allow many building facilities to be integrated into one complete BA system. Moreover, Advantech's WebAccess SCADA also offers energy management functions and detailed analysis to save utility rate charges.

Embedded Automation Computers

Advantech's Embedded Automation Computers (UNO) are designed to fulfill the needs of mission-critical automation applications. Their embedded design, rugged features and powerful computing technology deliver reliability and flexibility. These computers are targeted to satisfy customers looking for a robust and compact computing platform with an industrial design and built-in I/O to handle diverse automation applications.

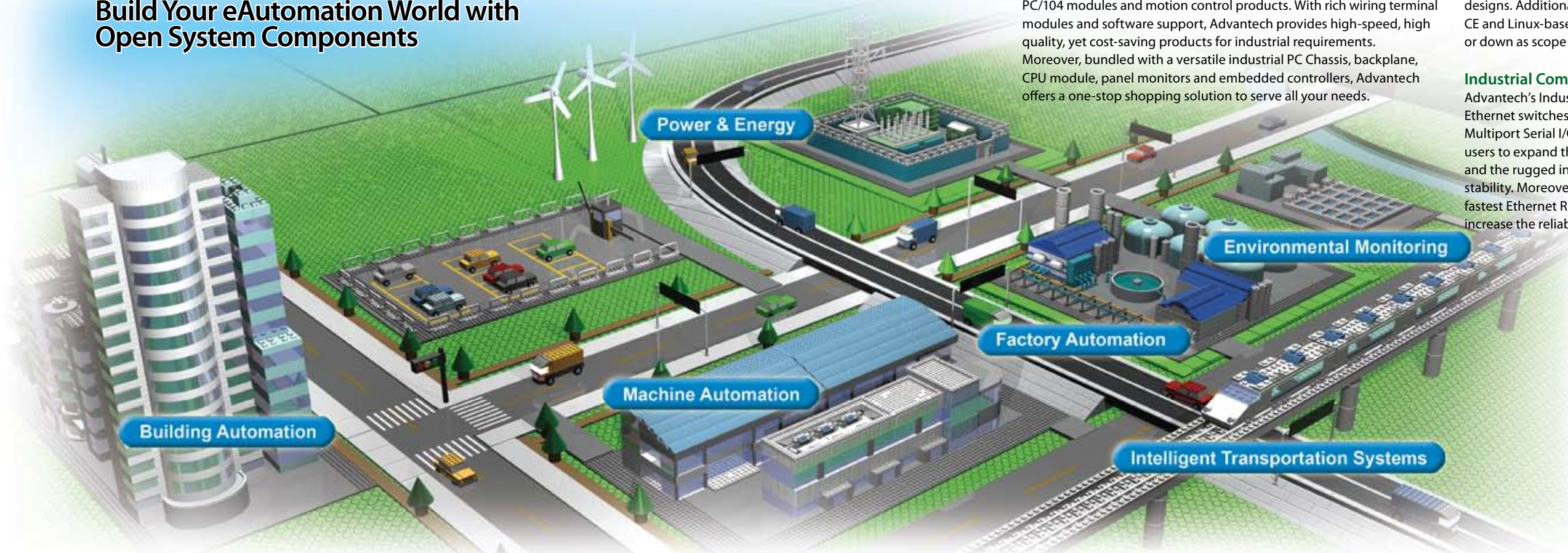
Human Machine Interface

Advantech's Open HMI platforms are scalable, open, and rugged platforms that offer advanced functionality over traditional HMI. They provide not only high performance computing, standard I/O interfaces and advanced communications, but also fanless, diskless designs. Additionally, Advantech also offers powerful Windows XP/CE and Linux-based HMI solutions to easily migrate applications up or down as scope changes.

Industrial Communication

Advantech's Industrial Communication series includes Industrial Ethernet switches, Serial Device Servers, Media Converters, and Multiport Serial I/O Cards. Advantech's Ethernet technology allows users to expand their industrial network fast and cost-effectively, and the rugged industrial-grade design assures reliability and stability. Moreover, Advantech's X-Ring technology offers the fastest Ethernet Ring Redundancy (recovery time < 10 ms) to increase the reliability and speed of network infrastructures.

Build Your eAutomation World with Open System Components



Building Automation

Empower BA Systems with Open & Web-enabled Technologies

Advantech offers complete Web-enabled BAS systems ranging from Web-enabled BA SCADA software and Direct Digital Controllers to Video Surveillance Systems.

Adopting Open building networking standards - Modbus, BACNet, LonWorks and up-to-date information technology, such as Open database management and IE browser interfaces, Advantech's BAS solutions allow many building facilities to be integrated into one complete BA system. Moreover, Advantech's WebAccess SCADA also offers energy management functions and detailed analysis to save utility rate charges.

Product Solutions

Software


WebAccess
HMI/SCADA


WebAccess/EMS
Energy Management


PowerView
Video Surveillance

HMI


WebView-1261
Web-enabled HMI

Controller


BAS-3520
DDC Controller

Communication


EKI-2725
Ethernet Switch

I/O


BAS-3050
DI/O Module



Facility Management



Energy Management



Video Surveillance

Machine Automation

Advance Automatic Machinery into the Next Generation with Open PACs

Advantech offers the open system components which based on PAC, IEC 61131-3 SoftLogic, PLCOpen motion control function block and remote diagnostic utility, providing the solution in both centralized and decentralized motion control architectures to fits the demand for both electronics manufacturing and packaging applications. With the new PAC-based automation solution from Advantech, all the operation, runtime and downtime information can be well integrated into MES/ CIM system to improve the production yield rate and optimized usage of all the facilities

Product Solutions

Software


IEC 61131-3 SoftLogic
Software

HMI


TPC-66SN
Touch Panel PC

Controller


AMAX-2050KW
Motion Control Box


ADAM-5550KW
Open PAC

Communication


EKI-2525
Ethernet Switch

Motion Control

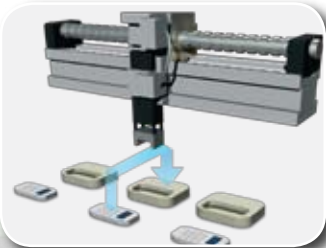

AMAX-2241
Motion Module

I/O

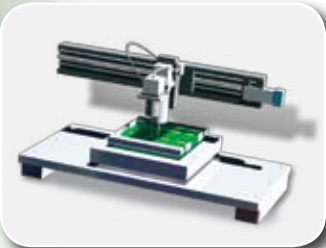

AMAX-2756
I/O Module



Loader/Unloader



Packaging Machine



PCB Separator

Intelligent Transportation Systems

Construct ITS Infrastructures with Open eAutomation Components

Intelligent Transportation Systems provide the components and communications required for safe, convenient, comfortable, efficient, and environmentally protected highway travel. These systems have already become an integral part of the traffic policies for many countries worldwide.

Advantech offers a full-range of open system components in the transportation market (especially in traffic control & management). Products such as Touch Panel Computers (TPC series), Industrial Controllers (UNO & ADAM), Device I/O (USB), and Industrial Managed Switches (EKI) are all highly customized for the transportation market, and provide total solutions with easy integration.

Product Solutions

HMI


TPC-660E
Touch Panel PC


TPC-1070H
Touch Panel PC

Controller


UNO-2172
Embedded
Automation Computer


ADAM-5510 KW
SoftLogic Controller

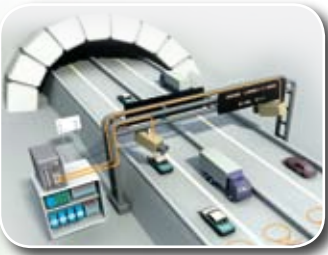
Communication


EKI-7659C
Ethernet Switch


EKI-2526M
Ethernet Switch

I/O


ADAM-5017P
AI Module



Traffic Management



Auto-Parking System



Carrier Management

Power & Energy

Build Reliable Power Automation Solutions with Trusted System Components

Energy supply and demand is getting more critical. Renewable power generation equipment, IEC-61850-based power substations, energy management systems and maintenance-free power backup systems are rapidly growing and becoming more mainstream. This trend helps make energy usage much more efficient while also protecting our environment and natural resources. Advantech is proud to develop reliable Embedded Automation Computers (UNO series), Industrial Managed Switches (EKI series) and Programmable Automation Controllers (ADAM series) to serve the market.

Product Solutions

HMI


TPC-1070H
Touch Panel PC

Controller


ADAM-5510 KW
SoftLogic Controller

Communication


UNO-4678
Communication
Gateway


EKI-4654R
Ethernet Switch

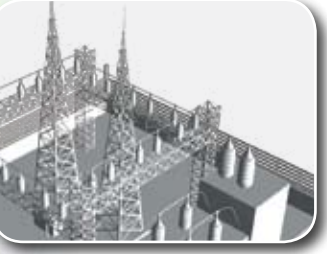

EDG-4516+
Device Server

I/O


ADAM-5017P
AI Module



Renewable Energy



Power Substation



Energy Management

Touch Panel Computers



Model Name		TPC-1570H	TPC-1270H	TPC-1261H	TPC-1070H	TPC-870H
CPU		Intel Pentium M 1.4 GHz Intel Celeron M 1 GHz Intel Celeron M 600 MHz	Intel Pentium M 1.4 GHz Intel Celeron M 1 GHz	AMD Geode LX800 500 MHz	Intel Pentium M 1.4 GHz Intel Celeron M 1 GHz	Intel Celeron M 1 GHz
Memory		512 MB DDR SDRAM (up to 1 GB DDR SDRAM)	512 MB DDR2 SDRAM (up to 1 GB DDR2 SDRAM)	256 MB DDR SDRAM (up to 1 GB DDR SDRAM)	512 MB DDR SDRAM	512 MB DDR SDRAM
Display	Type	XGA TFT LCD	SVGA TFT LCD	SVGA TFT LCD	SVGA TFT LCD	VGA TFT LCD
	Size	15"	12.1"	12.1"	10.4"	8"
	Max. Resolution	1024 x 768	800 x 600	800 x 600	800 x 600	640 x 480
	Max. Colors	262 K	262 K	262 K	260 K	64 K
	Luminance (cd/m²)	350	350	340	400	350
	Viewing Angle (H/V°)	120/100	140/120	100/60	140/100	130/120
	Backlight Life (hrs)	50,000	50,000	50,000	50,000	50,000
Touchscreen		Resistive	Resistive	Resistive	Resistive	Resistive
Flash Memory		N/A	N/A	N/A	N/A	N/A
HDD		1 x Internal 2.5" PATA (optional)	1 x Internal 2.5" SATA (optional)	1 x Internal 2.5" PATA (optional)	1 x Internal 2.5" PATA (optional)	1 x Internal 2.5" PATA (optional)
Network (LAN)		TPC-1570H-P1E/C1E,A1E 10/100Base-T x 1 10/100/1000Base-T x 1 TPC-1570H-B1E 10/100Base-T x 2	TPC-1270H-P1E/P2E 10/100Base-T x 1 10/100/1000Base-T x 1 TPC-1270H-C1E 10/100Base-T x 2	1 x 10/100Base-T	TPC-1070H-P1E 10/100Base-T 10/100/1000Base-T x 2 TPC-1070H-C1E 10/100Base-T x 2	10/100Base-T x 2
I/O Ports		Serial Port x 3 (RS-232 x 2 and RS-232/485/422 x 1) Parallel Port x 1 VGA x 1 USB x 2 Audio x 3 (MIC-in x 1, Line-in x 1, Line-out x 1) PS/2 x 1	Serial Port x 4 (RS-232 x 3 and RS-232/485/422 x 1) VGA x 1 USB x 4 Audio x 2 (MIC-in x 1, Line-out x 1)	Serial Port x 4 (RS-232 x 3 and RS-232/485/422 x 1) Parallel Port x 1 USB x 2 PS/2 x 1	Serial Port x 3 (RS-232 x 2 and RS-232/485/422 x 1) USB x 2 PS/2 x 1	Serial Port x 3 (RS-232 x 2 and RS-232/485/422 x 1) USB x 2 PS/2 x 1
CompactFlash Slots		Type II x 1	Type II x 1	Type II x 1	Type II x 1	Type II x 1
PCMCIA Slots		Type II x 1	N/A	N/A	N/A	N/A
Expansion Slots		N/A	PCI-104 x 1	PCI-104 x 1	PCI-104 x 1	PCI-104 x 1
Power Input Voltage		18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc
Dimensions (W x D x H)		383 x 307 x 64.5 mm (15.08" x 12.09" x 2.54")	311 x 237 x 52.3 mm (12.24" x 9.33" x 2.06")	311 x 237 x 56 (12.24" x 9.33" x 2.2")	286 x 226 x 58 mm (11.26" x 8.9" x 2.28")	286 x 226 x 58 mm (11.26" x 8.9" x 2.28")
Weight (Net)		5 kg (11.02 lbs)	3.3 kg (7.28 lbs)	2.2 kg (4.85 lbs)	3.5 kg (7.72 lbs)	3.5 kg (7.72 lbs)
Front Cover		Al-Mg	Al-Mg	Al-Mg	Die-Cast Aluminum Alloy	Die-Cast Aluminum Alloy
Operating Temperature		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Ingress Protection (Front Panel)		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Certifications		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Operating System		Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0



TPC-660E	TPC-662G	TPC-120H	TPC-66SN	TPC-66T/TPC-68T	TPC-30T/32T
AMD Geode LX800 500 MHz		Intel PXA270 520 MHz	Intel PXA270 416 MHz		Intel PXA270 312 MHz
256 MB DDR SDRAM (up to 1 GB DDR SDRAM)		64 MB SDRAM on board	64 MB SDRAM on board		64 MB SDRAM on board
VGA TFT LCD		SVGA TFT LCD	QVGA CSTN LCD	QVGA TFT LCD	QVGA TFT LCD
5.7"	6.4"	12.1"	5.7"	5.6"	3.5"
640 x 480	640 x 480	800 x 600	320 x 240	320 x 234	320 x 240
262 K	262 K	262 K	64 K	64 K	64 K
220	150	340	400	500	200
140/100	90/50	100/60	100/55	100/60	120/110
50,000	20,000	50,000	60,000	30,000	30,000
Resistive		Resistive	Resistive		Resistive
N/A		64 MB on board	64 MB on board		32 MB on board
1 x Internal 2.5" PATA (optional)		N/A	N/A		N/A
10/100Base-T x 1		10/100Base-T x 2	10/100Base-T x 1		10/100Base-T x 1
Serial Port x 2 (RS-232 x 1 and RS-232/485/422 x 1) USB x 2		Serial Ports x 3 (Full RS-232 x 2 and 4-pin RS-232/485 x 1) VGA x 1 USB x 2 CAN Bus x 1 (optional)	Serial Port x 3 (Full RS-232 x 2 and 4-pin RS-232/485 x 1) USB x 2 (Host x 1, Client x 1)	TPC-66T Serial Port x 3 (Full RS-232 x 2 and 4-pin RS-232/485 x 1) USB x 2 (Host x 1, Client x 1) TPC-68T Serial Port x 2 (Full RS-232 x 2) CAN-Bus/RS-485 x 1 USB x 2 (Host x 1, Client x 1)	USB x 1 (Host) TPC-30T: RS-232/485 x 1 TPC-32T: CAN-Bus/RS-232 x 1
Type II x 1		Type II x 1	Type II x 1		N/A
N/A		N/A	N/A		N/A
PC-104 x 1		N/A	N/A		N/A
18 ~ 32 Vdc		18 ~ 32 Vdc	18 ~ 32 Vdc		8 ~ 28 Vdc
195 x 148 x 44.4 mm (7.68" x 5.83" x 1.75")		311 x 237 x 52 mm (12.24" x 9.33" x 2")	195 x 148 x 44.4 mm (7.68" x 5.83" x 1.75")		120.8 x 85.5 x 26.5 mm (4.76" x 3.37" x 1.04")
1 kg (2.2 lbs)		2.2 kg (4.85 lbs)	0.8 kg (1.76 lbs)		0.25 kg (0.55 lbs)
ABS		Al-Mg	ABS		ABS
0 ~ 50° C (32 ~ 122° F)		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)		0 ~ 50° C (32 ~ 122° F)
NEMA4/IP65		NEMA4/IP65	NEMA4/IP65		NEMA4/IP65
BSMI, CCC, CE, FCC, UL		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL		BSMI, CCC, CE, FCC, UL
Windows XP Windows XP Embedded Windows CE 5.0		Windows CE 5.0	Windows CE 5.0/4.2		Windows CE 5.0

Industrial Panel PC



Model Name		IPPC-6172A	IPPC-6152A	IPPC-9171G	IPPC-9151G/F	IPPC-7157A
LCD Display	Type	SXGA TFT LCD	XGA TFT LCD	SXGA TFT LCD	XGA TFT LCD	XGA TFT LCD
	Size	17"	15"	17"	15"	15"
	Max. Resolution	1280 x 1024	1024 x 768	1280 x 1024	1024 x 768	1024 x 768
	Max. Colors	16.2 M (RGB 6-bit + FRC data)	16.2 M (RGB 6-bit + FRC data)	16.2 M (RGB 6-bit + FRC data)	262 K,144 K	16.2 M (RGB 6-bit + FRC data)
	Viewing Angle (H, V°)	160, 160	140, 120	160, 160	120, 100	140, 120
	Luminance (cd/m²)	300	250	300	350	250
	Backlight Life (hrs)	50,000	50,000	50,000	50,000	50,000
	Contrast Ratio	800 : 1	500 : 1	800 : 1	400 : 1	500 : 1
CPU		Socket 478 Pentium M (up to 2 GHz)/ Celeron M 1.6 GHz	Socket 478 Pentium M (up to 2 GHz)/ Celeron M 1.6 GHz	Socket 478 Pentium 4 (up to 2.8 GHz)/ Celeron 2.4 GHz	Socket 478 Pentium 4 (up to 2.8 GHz)/ Celeron 2.4 GHz	Socket 775 PentiumR D (up to 3.2 GHz) Socket 775 PentiumR 4 (up to 3.8 GHz) Socket 775 CeleronR D (up to 3.06 GHz)
Memory		Up to 2 GB DDR2 SDRAM 400/533 MHz	Up to 2 GB DDR2 SDRAM 400/533 MHz	Up to 2 GB DDR SDRAM (DDR-DIMM 184 pin)	Up to 2 GB DDR SDRAM (DDR-DIMM 184 pin)	Up to 4 GB DDR2 SDRAM (Dual Channel DDR2 DIMM 240 pin)
IEEE 1394 (Firewire) Ports		-	-	Two	Two	N/A
Serial Ports		1 x RS-232	1 x RS-232	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
Parallel Ports		One	One	One	One	One
Video Ports		VGA	VGA	VGA/S-Video	VGA/S-Video	VGA
USB Ports		5 x USB 2.0 (one at front)	5 x USB 2.0 (one at front)	5 x USB 2.0 (one at front)	5 x USB 2.0 (one at front)	1 x USB2.0 on front panel 4 x USB2.0 on rear I/O
Network (LAN)		10/100Base-T x1 10/100/1000Base-T x 1	10/100Base-T x1 10/100/1000Base-T x 1	10/100Base-T	10/100Base-T	Dual 10/100/1000Base-T
Floppy Disk Drive (Optional)		-	-	One	One	3.5"
CD-ROM Drive (Optional)		Slim Type x 1	Slim Type x 1	Slim Type x 1	Slim Type x 1	5.25" half length
Hard Disk Drive (Optional)		1 x 2.5" SATA	1 x 2.5" SATA	1 x 3.5"	1 x 3.5"	2 x 3.5" SATA
PCMCIA Slot		-	-	Type II x 2	Type II x 2	N/A
Expansion Slots		2 x PCI	2 x PCI	2 x PCI	2 x PCI	5 x PCI 2 x PCIe
Touchscreen Type (Optional)		Resistive	Resistive	Resistive	Resistive	Resistive
Power Supply (AC)		180 W	180 W	180 W	180 W	300 W
Operating Temperature		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Certifications		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC
Dimensions (W x H x D)		481.92 x 355.87 x 146 mm (18.97" x 14.01" x 5.75")	449.92 x 315.63 x 141.7 mm (17.73" x 12.44" x 5.58")	482 x 354.8 x 162 mm (18.97" x 13.96" x 6.37")	428 x 310 x 162 mm (16.85" x 12.2" x 6.37")	482 x 354.8 x 162 mm (18.97" x 13.96" x 6.37")

Industrial Workstation



Model Name		IPPC-7158B	AWS-8259	AWS-8248V	AWS-8129H
Model Type		15" Industrial Panel PC	Modular Workstation	Modular Workstation	Workstation with 9 expansion slots
LCD Display	Diagonal	15"	15"	15"	12.1"
	Type	XGA TFT LCD	XGA TFT LCD	XGA TFT LCD	SVGA TFT LCD
	Resolution	1024 x 768	1024 x 768	1024 x 768	800 x 600
	Colors	16.2 M (RGB 6-bit + FRC data)	262 K	262 K	262 K
	Viewing Angle (H, V°)	140, 120	120, 100	120, 100	140, 120
	Luminance (cd/m²)	250	350	350	350
	Backlight Lifetime (hrs)	50,000	50,000	50,000	50,000
	Interface	VGA	VGA	VGA	VGA
Other		Detachable display module	Detachable display module	-	-
OSD (Optional Display)		Yes	Yes	Yes	Yes
Backplane	Slot Number	14	9	14	9
	CPU, PCI, ISA, PCI/ISA	0, 10, 2, 2 (PICMG)	1, 0, 8, 0 (AWS-8259T) 1, 4, 4, 0 (AWS-8259TP)	0, 0, 14, 0 (AWS-8248VT) 1, 4, 9, 0 (AWS-8248VTP)	2, 4, 3, 0 (AWS-8129H1-X(R)AE)
Storage Device	FDD (Standard)	1	1	1	Slim Type x 1
	HDD Housing	3.5" x 1	3.5" x 1	3.5" x 2	3.5" x 1
	CD-ROM (Optional)	5.25" x 1/ 3.5" HDD x 1	Slim Type x 1	5.25" x 1	Slim Type x 1
Key Pad	Data Entry Keys	31	39	39	60
	Function Keys	12	10	10	10
	Macro Function Keys	10	10	10	10
Touchscreen (Optional)		USB Resistive	Analog Resistive	Analog Resistive	Analog Resistive
Power Supply (AC)		300 W	300 W	250 W	250 W
Front Panel Compliance		NEMA 4/IP65	NEMA 4/IP65	NEMA 4/IP65	NEMA 4/IP65
Operating Temperature		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Certifications		CE,FCC, BSMI, CCC	CE, FCC, BSMI, CCC	CE, FCC, BSMI, CCC	CE, FCC, BSMI, CCC
Dimensions (W x H x D)		482 x 354.8 x 162 mm (18.97" x 13.96" x 6.37")	482 x 356 x 229 mm (18.98" x 14" x 9")	482 x 356 x 465 mm (18.98" x 14" x 18.32")	482 x 266 x 317 mm (18.98" x 10.5" x 12.5")
Weight		18 kg	22 kg	25.5 kg	17 kg
CPU Card Suggestion		PCA-6186VE PCA-6186LV PCA-6003VE	PCA-6186VE PCA-6186LV PCA-6003VE	PCA-6186VE PCA-6186LV PCA-6003H	PCA-6186 PCA-6187

Model Name		IACP-4000D
LCD Display	Diagonal	5.7"
	Type	QVGA TFT LCD
	Max. Resolution	640 x 480
	Max. Colors	262 K (RGB 6-bit)
	Viewing Angle (H,V°)	140, 100
	Luminance (cd/m²)	220
	Backlight Life (hrs)	50,000
	Contrast Ratio	300:1
CPU		Intel® µFC-LGA 775 socket Supports Pentium® 4/Celeron® D with 65nm process technology
Memory		Up to 4 GB DDR2 SDRAM (Dual Channel DDR2 DIMM 240 pin)
IEEE 1394 (Firewire) Ports		N/A
Serial Ports		1
Parallel Ports		1
Video Ports		VGA
USB Ports		6 (2 at front)
Network (LAN)		Dual 10/100/1000Base-T
Drive Bay	3.5"	1
	5.25"	3
PCMCIA Slot		N/A
Expansion Slots		1 PCI Express x 16, 5 PCI slots (PCI Rev. 2.2 compliant), 2 ISA slots
Touchscreen Type (Optional)		N/A
Power Supply (AC)		300 W
Operating Tempature		0 ~ 50° C (32 ~ 122° F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140° F)
Certifications		BSMI, CCC, CE, FCC
Dimensions (W x H x D)		482 x 177 x 480 mm (19" x 7" x 18.9")
Weight		18 kg (39.7 lb)

Industrial Monitor



Model Name		FPM-5171G	FPM-5151G	FPM-3190G/3191G	FPM-3170G/3171G
LCD Display	Size (diagonal)	17"	15"	19"	17"
	Resolution	1280 x 1024	1024 x 768	1280 x 1024	1280 x 1024
	Colors	16.7 M	16.2 M	16.2M	16.2 M
	Viewing Angle (H,V)	160, 160	140, 120	178, 178	140, 130
	Luminance (cd/m²)	300	250	300	300
	Backlight Life (hrs)	50,000	50,000	50,000	40,000
	Contrast Ratio	800 : 1	500 : 1	1000 : 1	700 : 1
Direct VGA Input		Yes	Yes	Yes	Yes
DVI Input		Yes	Yes	FPM-3190G	FPM-3170G
S-Video		-	-	FPM-3190G	FPM-3170G
Video Input		-	-	FPM-3190G	FPM-3170G
Touchscreen (optional)		Resistive	Resistive	Resistive	Resistive
OSD (onscreen display)		Yes	Yes	Yes	Yes
Touchscreen Sensor		AMT	AMT	ELO	ELO
Inverter		TDK	TDK	TDK	TDK
Power Adapter (voltage, AC)		100-240 V	100-240 V	100-240 V	100-240 V
DC Power Input (voltage)		10-30 V	10-30 V	N/A	N/A
Front Panel Ingress Protection		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Operating Temperature		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Certifications		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC
Dimensions (W x H x D)		481.9 x 355.9 x 58.5 mm (18.9" x 14" x 2.3")	449.92 x 315.63 x 52.5mm (17.7" x 12.4" x 2")	482 x 399 x 66 mm (18.9" x 15.7" x 2.6")	482 x 354 x 68 mm (18.9" x 13.9" x 2.7")



FPM-3150G	FPM-2150G	FPM-3120G	FPM-3060G
15"	15"	12.1"	6.5"
1024 x 768	1024 x 768	800 x 600	640 x 480
16.2 M	16.2 M	262 k	262 k
140, 120	140, 125	140, 120	140, 120
550	250	350	300
50,000	50,000	50,000	50,000
500 : 1	500 : 1	200 : 1	500 : 1
Yes	Yes	Yes	Yes
Yes	-	-	-
-	-	-	-
-	-	-	-
Resistive	Resistive	Resistive	Resistive
Yes	Yes	Yes	Yes
AMT	AMT	AMT	AMT
TDK	TDK	TDK	TDK
100-240 V	100-240 V	100-240 V	100-240 V
N/A	N/A	N/A	N/A
NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC
422 x 310 x 86 mm (16.6" x 12.2" x 3.4")	383 x 307 x 48 mm (15" x 12" x 1.89")	312 x 244 x 44.6 mm (12.28" x 9.61" x 1.76")	220 x 150 x 46 mm (8.7" x 5.9" x 1.8")

UNO Series



Model Name	UNO-1019	UNO-1150	UNO-1170	UNO-1170E	UNO-2050E	UNO-2052E	UNO-2053E	UNO-2059E	UNO-2170
CPU	XScale PXA 255 200 MHz	GX2-400 MHz	Celeron M 1.0 GHz, Pentium M 1.4	Celeron M 1.0 GHz, Pentium M 1.4	GX2-400 MHz				Celeron M 600 MHz, Celeron M 1.0 GHz
Onboard RAM	64 MB SDRAM	256 MB DDR SDRAM	512 MB/1 GB DDR SDRAM	512 MB/1 GB DDR SDRAM	256 MB DDR SDRAM				256 MB/512 MB DDR SDRAM
Battery-Backup SRAM	-	-	512 KB	512 KB	-				512 KB
Display/Mouse/ Keyboard	-	VGA							
Audio	-	Yes	Yes	Yes	-	-	Yes	-	-
Serial Ports	2 x RS-232 2 x RS-232/422/485	1 x RS-232, 2 x RS-232/422/485 with DB9 connectors	2 x RS-232, 1 x RS-232/422/485 with DB9 connectors	2 x RS-232, 1 x RS-232/422/485 with DB9 connectors	2 x RS-232 2 x Isolated RS-232/422/485	2 x CAN 1 x RS-232	2 x RS-232	2 x RS-232/485 2 x RS-232/422/485	2 x RS-232 2 x RS-232/422/485
Ethernet Ports	2 x 10/100Base-T	2 x 10/ 100 Base-T	2 x 10/ 100 Base-T	2 x 10/ 100 Base-T	2 x 10/100Base-T	1 x 10/100Base-T	2 x 10/100Base-T	1 x 10/100Base-T	2 x 10/100Base-T
USB Ports	-	Two	Four	Four	-	One	Two	Two	Two
PC Card Slots	-	-	-	-	-	-	One	One	One
Printer Ports	-	-	-	-	-	-	-	-	One
PC/104 Expansion	-	-	-	PC/104+	-	-	-	-	PC/104
PCI Expansion	-	-	-	-	-	-	-	-	-
Onboard I/O	2-ch DI 2-ch DO	-	-	-	8-ch isolated DI 8-ch isolated DO	-	-	-	-
Watchdog Timer	Yes								
CompactFlash Slots	One External	One internal	One external	One external	One internal				
2.5" HDD Expansion	-	No	No	Yes	Option				Yes
Operating Systems	Windows CE 4.2 & 5.0	Windows XP Embedded, Windows CE 6.0, Windows 2000/XP, Linux	Windows XP Embedded, Windows CE 6.0, Windows 2000/XP, Linux	Windows XP Embedded, Windows CE 6.0, Windows 2000/XP, Linux	Windows XP Embedded, Windows CE 5.0 & 6.0 Windows 2000/XP, Linux				
Programming Runtime Library	Yes								
Software Development Kit	Yes								
Activesync	Yes								
Web server/ Email service	Yes								
Modem Dial-in (RAS)/Dial-up Function	Yes								
Mounting	DIN-rail/Wall								Wall
Anti-Vibration	-	2G w/CF @ IEC 68 section 2-64, sine, 5-500 Hz, 1 Oct./min, 1hr/axis.	2G w/CF @ IEC 68 section 2-64, sine, 5-500 Hz, 1 Oct./min, 1hr/axis.	2G w/CF, 0.5G w/ HDD @ IEC 68 section 2-64, sine, 5-500 Hz, 1 Oct./min, 1hr/axis.	2 G w/CF, 1 G w/HDD @ IEC 68 section 2-6, sine, 12 ~ 300 Hz, 1 Oct./min, 1hr/axis.				2 G w/CF, 0.5 G w/HDD @ IEC 68 section 2-64, sine,5 ~ 500 Hz, 1 Oct./min, 1hr/ axis.
Anti-Shock	-	50 G w/CF @ IEC 68 section 2-27, half sine, 11 ms	50 G w/CF @ IEC 68 section 2-27, half sine, 11 ms	50G w/CF, 20G w/ HDD @ IEC 68 section 2-27, half sine, 11 ms	20 G w/CF @ DIN IEC 68 section 2-27, half sine, 11ms 50 G w/CF @ Wall/Panel 68 section 2-27, half sine, 11 ms				20 G w/HDD @ IEC 68 section 2-27, half sine, 11 ms 50 G w/CF @ IEC 68 section 2-27, half sine, 11 ms
Power Input Range	10 ~ 30 VDC	9 ~ 36 VDC						10 ~ 48 VDC	9 ~ 36 VDC
Operating Temperature	0 ~ 70° C @ 5 ~ 85% RH	-10 ~ 55° C	-10 ~ 60° C	-10 ~ 60° C	-10 ~ 55° C @ 5 ~ 85% RH				-20 ~ 50° C @ 5 ~ 85% RH
Relative Humidity	95% @ 40° C (non-condensing)								
Power Consumption Typical	8.5 W	15 W (typical)	24 W (typical)	24 W (typical)	15 W				24 W
Power Requirement	Min. 13 W	Min. 24 W +24 V @ 1 A power input	Min. 48 W +24 V @ 2 A power input	Min. 48 W +24 V @ 2 A power input	Min. 24 W, +24 V @ 1 A power input				Min. 48 W, +24 V @ 2 A power input
Dimensions (W x D x H)	46 x 162 x 126 mm (1.8" x 6.4" x 5")	85 x 155 x 140 mm (3.4" x 6.1" x 5.6")	85 x 155 x 140 mm (3.4" x 6.1" x 5.6")	110 x 155 x 140 mm (4.4" x 6.1" x 5.6")	188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")				255 x 152 x 50 mm (10" x 6.0" x 2.0")
Weight	0.4 kg	1.6 KG	1.6 KG	2.0 KG	0.8 kg				1.6 kg



Model Name	UNO-2171	UNO-2172	UNO-2176	UNO-2182	UNO-3072L	UNO-3072	UNO-3074	UNO-3282	UNO-4678
CPU	Celeron M 1.0 GHz, Pentium M 1.4	Celeron M 1.0 GHz, Celeron M 1.5 GHz, Pentium M 1.6 GHz	Celeron M 1.0 GHz, Pentium M 1.4 GHz	Core 2 Duo 1.5 GHz	Celeron M 1.0 GHz, Celeron M 1.5 GHz	Pentium M 1.4 GHz	Pentium M 1.4 GHz, Pentium M 1.8 GHz	Core 2 Duo 1.5 GHz	Celeron M 1 GHz
Onboard RAM	512 MB/1 GB DDR SDRAM	512 MB/1 GB DDR2 SDRAM	512 MB DDR SDRAM	1 GB DDR2 SDRAM	512 MB/1 GB DDR SDRAM	512 MB DDR SDRAM	512 MB/1 GB DDR SDRAM	1 GB DDR2 SDRAM	512 MB DDR SDRAM
Battery-Backup RAM	512 KB	512 KB	512 KB	512 KB	-	512 KB			-
Display/Mouse/Keyboard	VGA	DVI-I	VGA	DVI-I	VGA			VGA+ DVI-D	VGA
Audio	Yes	Yes	-	Yes	-	-	-	Yes	-
Serial Ports	2 x RS-232, 2 x RS-232/422/485 with DB9 connectors	2 x RS-232, 2 x RS-232/422/485 with DB9 connectors	2 x RS-232, 2 x Isolated RS-232/422/485 with DB9 connectors, 2 x Isolated RS-232/422/485 with 5-pin screw terminal	2 x RS-232, 2 x RS-232/422/485 with DB9 connectors	2 x RS-232, 2 x RS-232/422/485				2 x isolated RS-232, 6 x isolated RS-232/422/485 with screw terminal
Ethernet Ports	2 x 10/100Base-T	2 x 10/100/1000Base-T	2 x 10/100Base-T	2 x 10/100/1000Base-T	2 x 10/100Base-T			2 x 10/100/1000Base-T	3 x 10/100 Base-T
USB Ports	Two	Two	Two	Two	Four			Four	Two
PC Card Slots	One	One	-	One	-	One		-	-
Printer Ports									-
PC/104 Expansion	PC/104+	PCI-104	PC/104	PCI-104	-			-	PC/104
PCI Expansion	-				Two		Four	Two	-
Onboard I/O	-	-	8-ch Isolated DI 8-ch Isolated DO	-	4-ch isolated DI, 4-ch isolated DO			-	-
Watchdog Timer	Yes								
CompactFlash Slots	Two internal	One internal	One internal	One internal	One internal	One internal, One external		One internal, One external	One internal
2.5" HDD Expansion	Yes								
Operating Systems	Windows XP Embedded, Windows CE 5.0 & 6.0 Windows 2000/XP, Linux	Windows XP Embedded, Windows 2000/XP	Windows XP Embedded, Windows CE 5.0 & 6.0 Windows 2000/XP, Linux	Windows XP Embedded, Windows 2000/XP	Windows XP Embedded, Windows CE 5.0 & 6.0 Windows 2000/XP, Linux			Windows XP Embedded, Windows 2000/XP/ Vista, Linux	Windows XP Embedded, Windows CE 5.0 & 6.0 Windows 2000/XP, Linux
Programming Runtime Library	Yes								
Software Development Kit	Yes								
Activesync	Yes								
Web server/Email service	Yes								
Modem Dial-53 (RAS)/Dial-up Function	Yes								
Mounting	Wall			Wall	Wall/Panel/Stand			Wall/Stand	Rack Mount
Anti-Vibration	2 G w/CF, 1 G w/HDD (for X and Y Axis), 1 G w/HDD @ IEC 68 section 2-64, sine, 5 ~ 500 Hz, 1 Oct./min, 1hr/ axis	2 G w/CF, 1 G w/HDD @ IEC 68 section 2-64, sine, 5 ~ 500 Hz, 1 Oct./min, 1hr/axis.							
Anti-Shock	20 G w/HDD @ IEC 68 section 2-27, half sine, 11 ms, 50 G w/CF @ IEC 68 section 2-27, half sine, 11 ms							20 G w/HDD @ IEC 68 section 2-27, half sine, 11ms	20 G w/HDD @ IEC 68 section 2-27, half sine, 11 ms, 50 G w/CF @ IEC 68 section 2-27, half sine, 11 ms
Power Input Range	10 ~ 53 VDC	9 ~ 36 VDC			16 ~ 36 VDC		20 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC
Operating Temperature	-20 ~ 65° C @ 5 ~ 85% RH	-20 ~ 50° C @ 5 ~ 85% RH	-20 ~ 65° C @ 5 ~ 85% RH	-20~ 60° C @ 5 ~ 85% RH	-20 ~ 60° C @ 5 ~ 85% RH	-20 ~ 55° C @ 5 ~ 85% RH		-20 ~ 60° C	-10 ~ 55° C
Relative Humidity	95% @ 40° C (non-condensing)				95% @ 40° C	95% @ 40° C (non-condensing)			
Power Consumption Typical	24 W	45 W	24 W	35 W	24 W			100 W	24 W (typical)
Power Requirement	Min. 48 W, +24 V @ 2 A power input						Min. 96 W, +24 V @ 4 A power input	Min. 120 W +24 V @ 5 A power input	Min. 48 W +24 V @ 2 A power input
Dimensions (W x D x H)	265 x 152 x 59 (10" x 6" x 2.3")	255 x 152 x 69 mm (10" x 6.0" x 2.7")	255 x 152 x 59 mm (10" x 6.0" x 2.3")	255 x 152 x 69 mm (10" x 6.0" x 2.7")	140 x 237 x 179 mm/ 153 x 237 x 179 mm (5.5" x 9.3" x 7.0"/ 6" x 9.3" x 7.0")	140 x 237 x 179 (5.5" x 9.3"x 7")	180 x 237 x 177 mm/ 193 x 237x 177 mm (7.1" x 9.3" x 7.0"/ 7.6" x 9.3" x 7.0")	200 x 240 x 130 (7.9" x 9.4"x 5")	440 x 220 x 44 mm (17.3" x 8.6" x 1.7")
Weight	2.4 kg	3 kg	2.4 kg	3 kg	4.2 kg/6 kg	4.4 kg	5.0 kg/6.0 kg	5.5 Kg	3.6 kg

Industrial Ethernet Solutions

Managed Ethernet Switches

Model Name		EKI-4654R	EKI-7758F	EKI-7656C	EKI-7659C/EKI-7659CI	EKI-7654C
Description		24+2 SFP Port Managed Redundant Industrial Ethernet Switch	8-port Gigabit Managed Redundant Industrial Ethernet Switch	16+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch	8+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch	4+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch
Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab				
	LAN	10/100/1000Base-TX, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX				
	Transmission Distance	Ethernet: Up to 100m (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) Gigabit Fiber: Up to 110 km (depends on SFP)				
	Transmission Speed	Ethernet: 10/100Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps				
Interface	Ethernet Connectors	24 x RJ-45 + 2 x SFP ports or 12 x SC type fiber optic connector + 8 x RJ-45 + 2 x SFP ports	4 x RJ-45 + 4 x SFP (mini-GBIC) ports	16 x RJ-45 + 2 x RJ-45/SFP (mini-GBIC) combo ports	8 x RJ-45 + 2 x RJ-45/SFP (mini-GBIC) combo ports	4 x RJ-45 + 2 RJ-45/SFP (mini-GBIC) combo ports
	Power Connector	10-pin screw terminal	6-pin removable screw terminal			
	LED Indicators	System: PWR, PWR1, PWR2, PWR3, R.M., P-Fail 10/100 TX: Link/Activity, Duplex/ Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity	System: PWR, R.M., PWR1, PWR2, P-Fail Gigabit Copper: Link/Activity, SpeedSFP: Link/Activity	System: PWR, PWR1, PWR2, R.M., P-Fail10/100TX: Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity		
	Console	RS-232 (RJ-45)				
Network Management	Redundancy	ADVANTECH X-Ring (Recovery time< 10 ms at 50 pcs full loading ring structure), Dual Homing, Couple Ring, 802.1w/D RSTP/STP				
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON				
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN				
	Configuration	Web browser, Telnet, Serial console, Windows Utility, TFTP, SNMP v1/v2c/v3, Port Speed/Duplex Configuration				
	SNMP	SNMPv1, V2c, V3 and X-Ring Utility				
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control				
	Traffic Control	IGMP Snooping/Query for multicast group management Port Trunking, Static/802.3ad LACP Rate limit and storm control IEEE 802.1p QoS CoS/TOS/DSCP priority queuing IEEE 802.3x flow control				
Power	Power Consumption	Max. 36 W	Max. 17 W	Max. 10.7 W	Max. 10.7 W	Max. 10.7 W
	Power Input	2 x 100 ~ 240 VAC/ 100 ~ 240 V _{dc} (Redundancy)	2 x Unregulated 12~ 48 V _{dc}	2 x Unregulated 12~ 48 V _{dc}	2 x Unregulated 12~ 48 V _{dc}	2 x Unregulated 12~ 48 V _{dc}
	Power Fault Output	1 Relay Output				
Mechanism	Dimensions (W x H x D)	440 x 44 x 280 mm	79 x 152 x 105 mm	79 x 152 x 105 mm	79 x 152 x 105 mm	79 x 152 x 105 mm
	Enclosure	IP30, metal shell with solid mounting kits				
	Mounting	1U 19" Rack mount	DIN-rail, wall			
Protection	ESD (Ethernet)	4,000 V _{dc}				
	Surge (EFT for power)	3,000 V _{dc}				
	Power Reverse	Yes				
	Overload	3.15 A @ 110 V (Fuse)	3.5 A @ 12 V _{dc} (Fuse)			1.6 A @ 12 V _{dc} (Re-settable Fuse)
Environment	Operating Temperature	-40 ~ 85° C (-40 ~ 185° F)	-10 ~ 60° C (14 ~ 140° F), Wide temp. model -40 ~ 75° C (-40 ~ 167° F)			
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)				
	Operating Humidity	5 ~ 95% (non-condensing)				
	Storage Humidity	0 ~ 95% (non-condensing)				
	MTBF	284,409 hours	289,777 hours	295,000 hours	284,409 hours	284,409 hours
Certifications	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMC	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024 IEC61000-4-2/3/4/5/6/8 EN61000-6-2/4 IEC-61850-3, IEEE1613	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022Class A, EN61000-3-2/3 EN55024 IEC61000-4-2/3/4/5/6/8 EN61000-6-2/4

Unmanaged Ethernet Switches

Model Name		EKI-7626C	EKI-7629C	EKI-2725/2728	EKI-2525/2528
Description		16+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	5/8-port Gigabit Unmanaged Industrial Ethernet Switches	5/8-port Unmanaged Industrial Ethernet Switch
Communications	Standard	IEEE 802.3, 802.3ab, 802.3u, 802.3x, 802.3z	IEEE 802.3, 802.3ab, 802.3u, 802.3x, 802.3z	IEEE 802.3, 802.3u, 802.3x, 802.3ab	IEEE 802.3, 802.3u, 802.3x
	LAN	10/100/1000Base-TX, Optional 100Base-FX, 1000Base-SX/LX/LHX/ XD/ZX/EZX	10/100/1000Base-TX, Optional 100Base-FX, 1000Base-SX/LX/LHX/ XD/ZX/EZX	10/100/1000Base-TX	10/100Base-TX
	Transmission Distance	Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) Gigabit Fiber: Up to 110 km (depending on SFP)	Ethernet : Up to 100 m (4- wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) Gigabit Fiber : Up to 110 km (depending on SFP)	Up to 100 m (4- wire Cat.5e, Cat.6 RJ-45 cable)	Up to 100 m
	Transmission Speed	Ethernet: 10/100Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps	Ethernet: 10/100Mbps Auto-Negotiation Gigabit Copper:10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps	Up to 1000 Mbps	Up to 100 Mbps
Interface	Ethernet Connectors	16 x RJ-45+ 2 x RJ-45/SFP (mini-GBIC) combo ports	8xRJ-45 + 2xRJ-45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power & Relay)	5 x RJ-45 (EKI-2725) or 8 x RJ-45 (EKI-2728)	5 x RJ-45 (EKI-2525) or 8 x RJ-45 (EKI-2528)
	Power Connector	6-pin removable screw terminal			
	LED Indicators	System: PWR1, PWR2, P-Fail Gigabit Copper: Link/Activity, Speed (1000 Mbps) Gigabit SFP: Link/Activity	System: PWR1, PWR2, P-Fail Gigabit Copper: Link/Activity, Speed (1000 Mbps) Gigabit SFP: Link/Activity	P1, P2, P-Fail10/100/1000 TX: Link/Activity, Duplex/Collision	P1, P2, P-Fail 10/100 TX: Link/Activity, Duplex/Collision
	Console	N/A			
Power	Power Consumption	Max. 6.5 W	Max. 6.5 W	EKI-2728: W EKI-2725: W	EKI-2528: Max. 5 W EKI-2525: Max. 3 W
	Power Input	2 x Unregulated 12 ~ 48 Vdc			
	Power Fault Output	1 Relay Output			
Mechanism	Dimensions (W x H x D)	79 x 152 x 105 mm	79 x 152 x 105 mm	37 x 140 x 95 mm	37 x 140 x 95 mm
	Enclosure	IP30, metal shell with solid mounting kits			
	Mounting	DIN-rail, Wall			
Protection	ESD (Ethernet)	4,000 Vdc			
	Surge (EFT for power)	3,000 Vdc			
	Power Reverse	Yes			
	Overload	3.5 A @ 12 Vdc (Fuse)	1.6 A @ 12 Vdc (Re-settable Fuse)	EKI-2725: 0.9 A @ 12 Vdc (Re-settable Fuse) EKI-2728: 1.6 A @ 12 Vdc (Re-settable Fuse)	0.9 A @ 12 Vdc (Re-settable Fuse)
Environment	Operating Temperature	-10 ~ 60° C (14 ~ 140° F) Wide temp. model -40 ~ 75° C (-40 ~ 167° F)			
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)			
	Operating Humidity	5 ~ 95% (non-condensing)			
	Storage Humidity	0 ~ 95% (non-condensing)			
	MTBF	295,000 hrs	295,000 hrs	627,958 hrs	689,000 hrs (EKI-2528) 1,260,000 hrs (EKI-2525)
Certifications	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMC	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024 IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024 IEC61000-4-2/3/4/5/6/8 EN61000-6-2

Industrial Ethernet Solutions

Unmanaged Ethernet Switches

Model Name		EKI-2525M	EKI-2526M/S	ADAM-6520 Series	ADAM-6521 Series
Description		4+1 100FX Port Multi-mode Unmanaged Industrial Ethernet Switch	4+2 100FX Port Unmanaged Industrial Ethernet Switch	5-port Unmanaged Industrial Ethernet Switches	4 x 10/100TX Ports and 1 x 100FX Fiber Optic Port Industrial Ethernet Switches
Communications	Standard	IEEE 802.3, 802.3u, 802.3x	IEEE 802.3, 802.3u, 802.3x	IEEE 802.3, 802.3u, 802.3x	IEEE 802.3, 802.3u, 802.3x
	LAN	10/100Base-TX, 100Base-FX	10/100Base-TX, 100Base-FX	10/100Base-TX	10/100Base-T, 100Base-FX
	Transmission Distance	Ethernet: Up to 100 m Multi-mode Fiber: Up to 2 km	Ethernet: Up to 100 m Multi-mode Fiber: Up to 2 km (EKI-2526M) Single-mode Fiber: Up to 30 km (EKI-2526S)	Up to 100 m	Ethernet: Up to 100 m Multi-mode Fiber: Up to 2 km (ADAM-6521, ADAM-6521/ST) Single-mode Fiber: Up to 15 km (ADAM-6521S)
	Transmission Speed	Up to 100 Mbps	Up to 100 Mbps	Up to 100Mbps	Up to 100 Mbps
Interface	Ethernet Connectors	4 x RJ-45 ports + 1 x SC type fiber connector	4 x RJ-45 ports 2 x SC type fiber connector	5 x RJ-45	4 x RJ-45 +1 x SC type fiber connector (ADAM-6521, ADAM-6521S) or 1 x ST type fiber connector (ADAM-6521/ST)
	Power Connector	6-pin removable screw terminal		2-pin removable screw terminal	
	LED Indicators	P1, P2, P-Fail10/100 TX: Link/Activity, Duplex/Collision	P1, P2, P-Fail10/100 TX: Link/Activity, Duplex/Collision	Power, Link/Speed	Power, Link (100Base-FX), 100/10M (Ethernet)
	Console	N/A			
Power	Power Consumption	Max. 5 W	EKI-2526M: Max. 6.41 W EKI-2526S: Max. 6.45 W	ADAM-6520L: Max. 3 W ADAM-6520/6520L: Max. 2.4 W	ADAM-6521, ADAM-6521/ST: Max. 3 W ADAM-6521S: Max. 4 W
	Power Input	2 x Unregulated 12 ~ 48 VDC	2 x Unregulated 12 ~ 48 VDC	1 x Unregulated 10 ~ 30 VDC	1 x Unregulated 10 ~ 30 VDC
	Power Fault Output	1 Relay Output	1 Relay Output	N/A	N/A
	Dimensions (W x H x D)	37 x 140 x 95 mm	37 x 140 x 95 mm	70 x 102 x 27 mm	70 x 112 x 27 mm
Mechanism	Enclosure	IP30, metal shell with solid mounting kits	IP30, metal shell with solid mounting kits	IP30, ABS+PC with solid mounting kits	IP30, ABS+PC with solid mounting kits
	Mounting	DIN-rail, Wall	DIN-rail, Wall	DIN 35 rail, Wall, Stack	DIN 35 rail, Wall, Stack
Protection	ESD (Ethernet)	4,000 VDC	4,000 VDC	4,000 VDC (ADAM-6520L not equipped)	4,000 VDC
	Surge (EFT for power)	3,000 VDC	3,000 VDC	3,000 VDC (ADAM-6520L not equipped)	3,000 VDC
	Power Reverse	Present	Present	N/A	N/A
Environment	Operating Temperature	-10 ~ 60° C (14 ~ 140° F) Wide temp. model -40 ~ 75° C (-40 ~ 167° F)	-10 ~ 60° C (14 ~ 140° F) Wide temp. model -40 ~ 75° C (-40 ~ 167° F)	ADAM-6520: -10 ~ 70° C (14 ~ 158° F), Stack: -10 ~ 60° C (14 ~ 140° F) ADAM-6520L: 0 ~ 60° C (32 ~ 140° F), Stack: 0 ~ 50° C (32 ~ 122° F) ADAM-6520L: -40 ~ 85° C (-40 ~ 185° F), Stack: -40 ~ 75° C (-40 ~ 167° F)	-10 ~ 65° C (14 ~ 149° F) stack: -10 ~ 60° C (14 ~ 140° F)
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)	-40 ~ 85° C (-40 ~ 185° F)	ADAM-6520: -20 ~ 80° C (-4 ~ 176° F) ADAM-6520L: -10 ~ 70° C (14 ~ 158° F) ADAM-6520L: -50 ~ 95° C (-58 ~ 203° F)	-20 ~ 80° C (-4 ~ 176° F)
	Operating Humidity	5 ~ 95% (non-condensing)	5 ~ 95% (non-condensing)	20 ~ 95 % (non-condensing)	20 ~ 95 % (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)	0 ~ 95% (non-condensing)	0 ~ 95 % (non-condensing)	0 ~ 95 % (non-condensing)
	MTBF	610,453 hrs	610,453 hrs	1,580,000 hrs	1,150,000 hrs
	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950
Certifications	EMC	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024 IEC61000-4-2/3/4/5/6/8 EN61000-6-2/4	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024 IEC61000-4-2/3/4/5/6/8 EN61000-6-2/4	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2

Ethernet Media Converters

Model Name		EKI-2741F/SX/LX	EKI-2541M/S	ADAM-6541 Series
Description		10/100/1000TX to Fiber Optic Gigabit Industrial Media Converters	10/100TX to Multi-mode/Single-mode Fiber Optic Industrial Media Converters	Ethernet to Fiber Optic Converters
Communications	Standard	IEEE802.3, 802.3u, 802.3ab, 802.3x, IEEE 802.3z	IEEE 802.3, 802.3u, 802.3x	IEEE 802.3, 802.3u, 802.3x
	LAN	10/100/1000Base-TX, 1000Base-SX or 1000Base-LX	10/100Base-TX, 100Base-FX	10/100Base-TX, 100Base-FX
	Transmission Distance	Ethernet: Up to 100 m Fiber: Multi-mode: Up to 550 m (EKI-2741SX) Single-mode: Up to 10 km (EKI-2741LX) SFP: Up to 110 km (2741F)	Ethernet: Up to 100m Fiber: Multi-mode: up to 2 km Fiber: Single-mode: up to 30 km	Ethernet: Up to 100 m Fiber: Multi-mode: Up to 2 km Single-mode: Up to 20 km
	Transmission Speed	Up to 1000 Mbps	Up to 100 Mbps	Up to 100 Mbps
Interface	Ethernet Connectors	1 x RJ-45 + 1 x SC type fiber connector (EKI-2741SX/LX) or 1 x SFP type fiber connector (EKI-2741F)	1 x RJ-45 1 x SC type fiber connector	1 x RJ-45 1 x SC type fiber connector (ADAM-6541) or 1 x ST type fiber connector (ADAM-6541/ST) 2-pin removable screw terminal (power)
	Power Connector	6-pin removable screw terminal		2-pin removable screw terminal
	LED Indicators	P1, P2, P-Fail Fiber: LNK/ACT Ethernet: 1000M, LNK/ACT	P1, P2, P-Fail Ethernet: 10/100M, LNK/ACT Fiber: HDX/FDX, LNK/ACT	ADAM-6541, ADAM-6541/ST: Power, Full/Link (100BASE-FX), 100/10M (Ethernet)
	DIP Switch	Port Alarm, LFP	Port/Power Alarm, LFP Fiber: HDX/FDX, Converter/Switch	N/A
Power	Power Consumption	5.28 W (EKI-2741F) 5.18 W (EKI-2741SX) 5.30 W (EKI-2741LX)	Max. 5 W	ADAM-6541, ADAM-6541/ST: Max. 3 W
	Power Input	2 x Unregulated 12 ~ 48 VDC	2 x Unregulated 12 ~ 48 VDC	1 x Unregulated 10 ~ 30 VDC
	Power Fault Output	1 Relay Output	1 Relay Output	N/A
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm	37 x 140 x 95 mm	70 x 112 x 27 mm
	Enclosure	IP30, metal shell with solid mounting kits	IP30, metal shell with solid mounting kits	IP30, ABS+PC with solid mounting kits
	Mounting	DIN-rail, Wall	DIN-rail, Wall	DIN 35 rail, Wall, Stack
Protection	ESD (Ethernet)	4,000 VDC	4,000 VDC	4,000 VDC
	Surge (EFT for Power)	3,000 VDC	3,000 VDC	3,000 VDC
	Power Reverse	Present	Present	N/A
	Overload	0.9 A @ 12 VDC (Re-settable Fuse)	0.9 A @ 12 VDC (Re-settable Fuse)	N/A
Environment	Operating Temperature	-10 ~ 60° C (14 ~ 140° F) Wide temp. model -40 ~ 75° C (-40 ~ 167° F)	-10 ~ 60° C (14 ~ 140° F) Wide temp. model -40 ~ 75° C (-40 ~ 167° F)	0 ~ 60° C (32 ~ 140° F) Stack: 0 ~ 55° C (32 ~ 131° F)
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)	-40 ~ 85° C (-40 ~ 185° F)	-10 ~ 70° C (-14 ~ 158° F)
	Operating Humidity	5 ~ 95% (non-condensing)	5 ~ 95% (non-condensing)	20 ~ 95 % (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)	0 ~ 95% (non-condensing)	0 ~ 95 % (non-condensing)
	MTBF	515,600 hrs (EKI-2741F) 525,300 hrs (EKI-2741SX/LX)	577,175 hrs	550,000 hrs
Certifications	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMC	U.S.A.: FCC Part 15 CISPR 22 EU:EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU:EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2	U.S.A.: FCC Part 15 CISPR 22 EU:EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024, IEC61000-4-2/3/4/5/6/8 EN61000-6-2

Serial Device Server

Serial Device Servers

Model Name	Interface	Serial Port	Serial Type	Baud Rate	Connector		Operation Mode	Driver
					Network	Serial		
EKI-1521	10/100 Mbps	1	RS-232/422/485	50 ~ 921K bps	RJ45 x 2	DB9	Virtual COM, Data Mode, Control Mode	Window 2000/XP Socket or WinSocket
EKI-1522	10/100 Mbps	2	RS-232/422/485	50 ~ 921k bps	RJ45 x 2	DB9	Virtual COM, Data Mode, Control Mode	Window 2000/XP Socket or WinSocket
EKI-1524	10/100 Mbps	4	RS-232/422/485	50 ~ 921k bps	RJ45 x 2	DB9	Virtual COM, Data Mode, Control Mode	Window 2000/XP Socket or WinSocket
ADAM-4571	10/100 Mbps	1	RS-232/422/485	50 ~ 230k bps	RJ45	RJ48	Virtual COM	Window 2000/XP
ADAM-4571L	10/100 Mbps	1	RS-232	50 ~ 230k bps	RJ45	RJ48	Virtual COM	Window 2000/XP
ADAM-4570	10/100 Mbps	2	RS-232/422/485	50 ~ 230k bps	RJ45	RJ48	Virtual COM	Window 2000/XP
ADAM-4570L	10/100 Mbps	2	RS-232	50 ~ 230k bps	RJ45	RJ48	Virtual COM	Window 2000/XP
EDG-4504	10/100 Mbps	4	RS-232/422/485	50 ~ 230k bps	RJ45	DB9	Virtual COM	Window 2000/XP
EDG-4508(R)+	10/100 Mbps	8	RS-232/422/485	50 ~ 230k bps	RJ45	RJ48	Virtual COM, Data Mode, Control Mode	Window 2000/XP Socket or WinSocket
EDG-4516(R)+	10/100 Mbps	16	RS-232/422/485	50 ~ 230k bps	RJ45	RJ48	Virtual COM, Data Mode, Control Mode	Window2000/XP Socket or WinSocket
ADAM-4572	10/100 Mbps	1	RS-232/422/485	50 ~ 115.2k bps	RJ45	Screw terminal	Modbus/TCP	Socket or WinSocket
ADAM-4579	10/100 Mbps	2	RS-232/422/485	50 ~ 230k bps	RJ45	RJ48	Data Mode, Control Mode	Socket or WinSocket

Wireless Serial Device Servers

Model Name	Interface	Serial Port	Serial Type	Baud Rate	Connector	Operation Mode	Driver
EK-1351	802.11b/g	1	RS-232/422/485	50 ~ 921k bps	DB9	Virtual COM, Data Mode, Control Mode	Window2000/XP Socket or WinSocket
EKI-1352	802.11b/g	2	RS-232/422/485	50 ~ 921k bps	DB9	Virtual COM, Data Mode, Control Mode	Window2000/XP Socket or WinSocket
ADAM-4571W	802.11b	1	RS-232/422/485	50 ~ 230k bps	RJ48	Virtual COM,	Window 2000/XP
ADAM-4570W	802.11b	2	RS-232/422/485	50 ~ 230k bps	RJ48	Virtual COM,	Window 2000/XP

USB to Serial Data Converters

Model Name	Interface	Serial Port	Serial Type	Baud Rate	Connector		Protection		Driver
					USB	Serial	Isolation	Surge	
ADAM-4561	USB 1.1	1	RS-232/422/485	50 ~ 115.2k bps	Type B	Screw terminal	3000 V _{DC} (RS-232/422/485)	3000 V _{DC} (RS-485)	Windows 2000/XP
ADAM-4562	USB 1.1	1	RS-232	75 ~ 115.2k bps	Type B	DB9	2500 V _{DC}	-	Windows 2000/XP
USB-4602B	USB2.0	2	RS-232	50 ~ 921k bps	Type B	DB9	-	2500 V _{DC}	Windows 2000/XP/2003, CE5.0
USB-4602BM	USB2.0	2	RS-232/422/485	50 ~ 921k bps	Type B	DB9	-	2500 V _{DC}	Windows 2000/XP/2003, CE5.0
USB-4604B	USB2.0	4	RS-232	50 ~ 921k bps	Type B	DB9	-	2500 V _{DC}	Windows 2000/XP/2003, CE5.0
USB-4604BM	USB2.0	4	RS-232/422/485	50 ~ 921k bps	Type B	DB9	-	2500 V _{DC}	Windows 2000/XP/2003, CE5.0

Serial Communication Card

Bus	Model Name	Ports	Communication Interfaces					Protection		Cable
			Current Loop	RS-232	RS-422	RS-485	CAN	Surge	Isolation	Connector Type
Universal Low Profile PCI	PCI-1602UP	2			V	V		2500 V _{DC}	2500 V _{DC}	DB9 Male
	PCI-1604UP	2		V				2500 V _{DC}		DB9 Male
	PCI-1610UP	4		V				2500 V _{DC}		DB9 Male
	PCI-1610AUP	4		V						DB9 Male
PCI & Universal PCI	PCI-1601A	2			V	V				-
	PCI-1601B	2			V	V		2500 V _{DC}		-
	PCI-1602A	2			V	V			3000 V _{DC}	-
	PCI-1602B	2			V	V		2500 V _{DC}	3000 V _{DC}	-
	PCI-1603	2	V	V	-				3000 V _{DC}	-
	PCI-1610A	4		V						DB25 Male
	PCI-1610A/9	4		V						DB9 Male
	PCI-1610B	4		V				3000 V _{DC}		DB25 Male
	PCI-1610B/9	4		V				3000 V _{DC}		DB9 Male
	PCI-1610CU	4		V				2500 V _{DC}	2500 V _{DC}	DB25 Male
	PCI-1610CU/9	4		V				2500 V _{DC}	2500 V _{DC}	DB9 Male
	PCI-1611U	4			V	V		2500 V _{DC}	2000 V _{DC}	DB25 Male
	PCI-1611U/9	4			V	V		2500 V _{DC}	2000 V _{DC}	DB9 Male
	PCI-1612A	4		V	V	V				DB25 Male
	PCI-1612A/9	4		V	V	V				DB9 Male
	PCI-1612B	4		V	V	V		2500 V _{DC}		DB25 Male
	PCI-1612B/9	4		V	V	V		2500 V _{DC}		DB9 Male
	PCI-1612AU	4		V	V	V				DB25 Male
	PCI-1612AU/9	4		V	V	V				DB9 Male
	PCI-1612BU	4		V	V	V		2500 V _{DC}		DB25 Male
	PCI-1612BU/9	4		V	V	V		2500 V _{DC}		DB9 Male
	PCI-1612CU	4		V	V	V		2500 V _{DC}	2500 V _{DC}	DB25 Male
	PCI-1612CU/9	4		V	V	V		2500 V _{DC}	2500 V _{DC}	DB9 Male
	PCI-1620A	8		V						Optional
	PCI-1620B	8		V				3000 V _{DC}		Optional
	PCI-1620AU	8		V						Optional
	PCI-1620BU	8		V				2500 V _{DC}		Optional
	PCI-1622CU	8			V	V		2500 V _{DC}	2500 V _{DC}	Optional
	PCI-1625U *	8		V	V**					Optional
	PCI-1680U	2					V		2500 V _{DC}	-
ISA	PCL-740	1	V	V	V	V				-
	PCL-741	2	V	V					2500 V _{DC}	-
	PCL-743B	2			V	V				-
	PCL-743S	2			V	V		2500 V _{DC}		-
	PCL-745B	2			V	V			3000 V _{DC}	-
	PCL-745S	2			V	V		2500 V _{DC}	3000 V _{DC}	-
	PCL-841	2					V		1000 V _{DC}	-
	PCL-746+	4		V	V	V				DB25 Male
	PCL-746+/9	4		V	V	V				DB9 Male
	PCL-846A	4			V	V			1000 V _{DC}	DB9 Male
	PCL-846B	4			V	V		2000 V _{DC}	1000 V _{DC}	DB9 Male
	PCL-849A	4		V						DB25 Male
	PCL-849A/9	4		V						DB9 Male
	PCL-849B	4		V				3000 V _{DC}		DB25 Male
	PCL-849B/9	4		V				3000 V _{DC}		DB9 Male
	PCL-849+	4		V				3000 V _{DC}		DB25 Male
	PCL-849+/9	4		V				3000 V _{DC}		DB9 Male
	PCL-849L	4		V						DB25 Male
	PCL-849L/9	4		V						DB9 Male
	PCL-844+*	8		V	V**					Optional
	PCL-858A	8		V						Optional
	PCL-858B	8		V				3000 V _{DC}		Optional
PC/104	PCM-3610	2		V	V	V			1000 V _{DC}	-
	PCM-3612	2			V	V				-
	PCM-3680	2					V		1000 V _{DC}	-
	PCM-3614	4			V	V		1000 V _{DC}		-
	PCM-3640/3641	4		V						-
	PCM-3618	8			V	V		1000 V _{DC}		-
PCI-104	PCM-3614I	4		V	V	V				-
	PCM-3641I	4		V						-
	PCM-3642I	8		V						-

Accessories

Model Name	Connectors Side 1	Connectors Side 2	Length	Type	Use With
OPT8AP	1 x DB62 Male	8 x DB25 Female	1.5 m	Connection Box	PCI-1620A/B/AU/BU PCI-1625U PCL-844+ PCL-858A/B
OPT8BP	1 x DB62 Male	8 x DB25 Male	1.5 m	Connection Box	
OPT8C	1 x DB62 Male	8 x DB25 Male	1 m	Cable	
OPT8H	1 x DB62 Male	8 x DB9 Male	1 m	Cable	
OPT8I	1 x DB78 Male	8 x DB25 Male	1 m	Cable	PCI-1622CU
OPT8J	1 x DB78 Male	8 x DB9 Male	1 m	Cable	

*Intelligent Communication Card, **Firm with OPT8EP can support RS-422

Analog I/O & Multifunction Cards

Category			Multifunction						
Bus			PCI						
Model Name			PCI-1710/1710L	PCI-1710HG/1710HGL	PCI-1711/1711L	PCI-1712/1712L	PCI-1716/1716L	PCI-1718HDU/HGU	PCI-1741U
Analog Input	General Spec.	Resolution	12 bits	12 bits	12 bits	12 bits	16 bits	12 bits	16 bits
		Channels	16 SE/8 Diff.	16 SE/8 Diff.	16 SE	16 SE/8 Diff.	16 SE/8 Diff.	16 SE/8 Diff.	16 SE/8 Diff.
		Onboard FIFO	4096 samples	4096 samples	1024 samples	1024 samples	1024 samples	1024 samples	1024 samples
		Smapling Rate	100 kS/s	100 kS/s	100 kS/s	1 MS/s	250 kS/s	100 kS/s	200 kS/s
		Auto Channel Scanning	✓	✓	✓	✓	✓	✓	✓
	Input Ranges	Unipolar Inputs (V)	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	0 ~ 10, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01	-	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01 (PCI-1718HGU)	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25**
		Bipolar Inputs (V)	±10, 5, 2.5, 1.25, 0.625	±10, 5, 1, 0.5, 0.1, 0.05, 0.01, 0.005	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625 (PCI-1718HDU) ±10, 5, 1, 0.5, 0.1, 0.05, 0.01, 0.005 (PCI-1718HGU)	±10, 5, 2.5, 1.25, 0.625**
		Configurable Per-Channel	✓	✓	✓	✓	✓	✓	-
	Trigger Mode	Pacer/Software/ External Pulse	✓	✓	✓	✓	✓	✓	✓
		Analog Slope	-	-	-	✓	-	-	-
		Pre-trigger	-	-	-	✓	-	-	-
		Post-trigger	-	-	-	✓	-	-	-
		About-trigger	-	-	-	✓	-	-	-
	Data Transfer Mode	Software	✓	✓	✓	✓	✓	✓	✓
		DMA	-	-	-	Bus-mastering	Bus-mastering	-	-
Analog Output	Resolution	12 bits	12 bits	12 bits	12 bits	16 bits	12 bits	16 bits	
	Number of Channels	2 (PCI-1710 only)	2 (PCI-1710HG only)	2 (PCI-1711 only)	2 (PCI-1712 only)	2 (PCI-1716 only)	1	1	
	Onboard FIFO	-	-	-	32 K samples	-	-	-	
	Output Range (V)	0 ~ 5, 0 ~ 10	0 ~ 5, 0 ~ 10	0 ~ 5, 0 ~ 10	0 ~ 5, 0 ~ 10, ±5, ±10	0 ~ 5, 0 ~ 10, ±5, ±10	0 ~ 5, 0 ~ 10	±5, ±10	
	Throughput	Static update	Static update	Static update	1 MS/s	Static update	Static update	Static update	
	DMA transfer	-	-	-	✓	-	-	-	
Digital I/O	Input Channels	16	16	16	16 (mixed)	16	16	16	
	Output Channels	16	16	16		16	16		
Timer/Counter	Channels	1	1	1	3	1	1	1	
	Resolution	16-bit	16-bit	16-bit	16-bit	16-bit	16-bit	16-bit	
	Time Base	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz	
Isolation Voltage		-	-	-	-	-	-	-	
Auto Calibration		-	-	-	✓	✓	-	✓	
BoardID Switch		✓	✓	-	-	✓	✓	✓	
Dimensions (mm)		175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	
Connector		68-pin SCSI-II	68-pin SCSI-II	68-pin SCSI-II	68-pin SCSI-II	68-pin SCSI-II	DB-37	68-pin SCSI-II	
Windows 98/2000/XP DLL Driver		✓	✓	✓	✓	✓	✓	✓	
Windows 98/2000/XP Test Utility		✓	✓	✓	✓	✓	✓	✓	
VC++, VB & delphi Examples		✓	✓	✓	✓	✓	✓	✓	
Advantech ActiveDAQ/ActiveDAQ Pro		✓	✓	✓	✓	✓	✓	✓	
Labview I/O Drivers (Ver. 6i and 7.0)		✓	✓	✓	✓	✓	✓	✓	
Mathworks MATLAB Data Acquisiton Tool Box 2.5.1		✓	✓	✓	✓	-	-	-	
KW Win33 Driver		✓	✓	-	-	✓	-	-	

* Note: SS = Single DMA channel, Single A/D channel scan SM = Single DMA channel, Multiple A/D channel scan
** Note: All channels should be set to the same range.

Multifunction									AI		
PCI	ISA					PC/104			PCI		
PCI-1742U	PCL-711B	PCL-812PG	PCL-818L	PCL-818HD	PCL-818HG	PCM-3718H	PCM-3718HG	PCM-3718HO	PCI-1713	PCI-1714U	PCI-1714UL
16 bits	12 bits	12 bits	12 bits	12 bits	12 bits	12 bits	12 bits	12 bits	12 bits	12 bits	12 bits
16 SE/8 Diff.	8 SE	16 SE	16 SE/8 Diff	16 SE/8 Diff	16 SE/8 Diff	16 SE/8 Diff.	16 SE/8 Diff.	16 SE/8 Diff.	32 SE/16 Diff. (Isolation)	4 SE	4 SE
1024 samples	-	-	-	1024 samples	1024 samples	-	-	1024 samples	4096 samples	32,768 samples	8,192 samples
1 MS/s	40 kS/s	30 kS/s	40 kS/s	100 kS/s	100 kS/s	100 kS/s	100 kS/s	100 kS/s*	100 kS/s	30 MS/s	10 MS/s
✓	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 0.125	-	-	-	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	0 ~ 10, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 0.125	0 ~ 10, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 0.125	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	-	-
±10, 5, 2.5, 1.25, 0.625	±5, 2.5, 1.25, 0.625, 0.3125	±10, 5, 2.5, 1.25, 0.625, 0.3125	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625	±10, 5, 1, 0.5, 0.1, 0.05, 0.01, 0.005	±10, 5, 2.5, 1.25, 0.625	±10, 5, 1, 0.5, 0.1, 0.05, 0.01, 0.005	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625	±5, 2.5, 1, 0.5	±5, 2.5, 1, 0.5
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-	-	-	-	-	-	-	-	-	-	✓	✓
-	-	-	-	-	-	-	-	-	-	✓	✓
-	-	-	-	-	-	-	-	-	-	✓	✓
-	-	-	-	-	-	-	-	-	-	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bus-mastering	-	SS*	SM*	SM*	SM*	SS*	SS*	SS*	-	Bus-mastering	Bus-mastering
16 bits	12 bits	12 bits	12 bits	12 bits	12 bits	-	-	12 bits	-	-	-
2	1	2	1	1	1	-	-	1	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
0 ~ 5, 0 ~ 10 ±5, ±10	0 ~ 5, 0 ~ 10	0 ~ 5, 0 ~ 10	0 ~ 5, 0 ~ 10	0 ~ 5, 0 ~ 10, ±10	0 ~ 5, 0 ~ 10, ±10	-	-	0 ~ 5, 0 ~ 10	-	-	-
Static Update	Static update	Static update	Static update	Static update	Static update	-	-	Static update	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
16	16	16	16	16	16	16	16	16	-	-	-
16	16	16	16	16	16				-	-	-
1	-	1	1	1	1	1	1	1	-	-	-
16 bits	-	16-bit	16-bit	16-bit	16-bit	16 bits	16 bits	16 bits	-	-	-
10 MHz	-	2 MHz	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz	10 MHz	-	-	-
-	-	-	-	-	-	-	-	-	2,500 V _{oc}	-	-
✓	-	-	-	-	-	-	-	-	-	✓	✓
✓	-	-	-	-	-	-	-	-	-	✓	✓
175 x 100	175 x 100	185 x 100	155 x 100	185 x 100	185 x 100	96 x 90	96 x 90	96 x 90	175 x 100	175 x 100	175 x 100
68-pin SCSI-II	3 x 20-pin	5 x 20-pin	DB-37	DB-37	DB-37	2 x 20-pin	2 x 20-pin	2 x 20-pin	DB-37	4 BNC	4 BNC
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	-	-	-	✓	-	-
-	-	-	-	-	-	-	-	-	-	-	-

* 80kHz on P4-based (or upper) system
** Note: System-dependent

Analog I/O & Multifunction Cards

Category			AI			AO								
Bus			PCI		ISA	PCI					ISA			PC./104
Model Name			PCI-1715U	PCI-1747U	PCL-813B	PCI-1720U	PCI-1721	PCI-1723	PCI-1724	PCI-1727U	PCL-726	PCL-727	PCL-728	PCM-3712
Analog Input	General Spec.	Resolution	12bits	16 bits	12 bits	-	-	-	-	-	-	-	-	-
		Channels	32 SE/16 Diff.	64 SE/32 Diff.	32 SE	-	-	-	-	-	-	-	-	-
		Onboard FIFO	1024 samples	1024 samples	-	-	-	-	-	-	-	-	-	-
		Smapling Rate	500 kS/s	250 kS/s	25 kS/s	-	-	-	-	-	-	-	-	-
		Auto Channel Scanning	✓	✓	-	-	-	-	-	-	-	-	-	-
	Input Ranges	Unipolar Inputs (V)	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 0.125	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25	-	-	-	-	-	-	-	-	-
		Bipolar Inputs (V)	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625	±10, 5, 2.5, 1.25, 0.625	-	-	-	-	-	-	-	-	-
		Configurable Per-Channel	✓	✓	✓	-	-	-	-	-	-	-	-	-
	Trigger Mode	Pacer/Software/ External Pulse	✓	Pacer/ Software	Software only	-	-	-	-	-	-	-	-	-
		Analog Slope	-	-	-	-	-	-	-	-	-	-	-	-
		Pre-trigger	-	-	-	-	-	-	-	-	-	-	-	-
		Post-trigger	-	-	-	-	-	-	-	-	-	-	-	-
		About-trigger	-	-	-	-	-	-	-	-	-	-	-	-
	Data Transfer Mode	Software	✓	✓	Software only	-	-	-	-	-	-	-	-	-
		DMA	Bus-mastering	Bus-mastering	-	-	-	-	-	-	-	-	-	-
	Analog Output	Resolution	-	-	-	12 bits	12 bits	16 bits	14 bits	14 bits	12 bits	12 bits	12 bits	12 bits
		Number of Channels	-	-	-	4 (Isolation)	4 (Waveform Output)	8	32	12	6	12	2 (Isolation)	2
Onboard FIFO		-	-	-	-	1K samples	-	-	-	-	-	-	-	
Output Range (V)		-	-	-	0 ~ 5, 0 ~ 10, ±5, ±10, 0 ~ 20 mA, 4 ~ 20 mA	0 ~ 5, 0 ~ 10, ±5, ±10, 0 ~ 20 mA, 4 ~ 20 mA	-10 ~ 10 0 ~ 20 mA, 4 ~ 20 mA	±10, 0 ~ 20 mA	0 ~ 5, 0 ~ 10 ±5, ±10, 4 ~ 20 mA	0 ~ 5, 0 ~ 10, ±5, ±10, 4 ~ 20 mA	-0 ~ 5, 0 ~ 10, ±5, 4 ~ 20 mA	0 ~ 5, 0 ~ 10, ±5, ±10, 0 ~ 20 mA, 4 ~ 20 mA	0 ~ 5, 0 ~ 10, ±5, ±10, 4 ~ 20 mA	
Throughput		-	-	-	Static update	10M	Static update	Static update	Static update	Static update	Static update	Static update	Static update	
DMA Transfer		-	-	-	-	Bus-mastering	-	-	-	-	-	-	-	
Digital I/O	Input Channels	-	-	-	-	16	16	-	16	16	16	-	-	
	Output Channels	-	-	-	-				16	16	16	-	-	
Timer/Counter	Channels	-	-	-	-	1	-	-	-	-	-	-	-	
	Resolution	-	-	-	-	16-bit	-	-	-	-	-	-	-	
	Time Base	-	-	-	-	10 MHz	-	-	-	-	-	-	-	
Isolation Voltage			2,500 Vdc	-	500 Vdc	2,500 Vdc	-	-	-	-	-	500 Vdc	-	
Auto Calibration			-	✓	-	-	✓	✓	-	-	-	-	-	
BoardID Switch			✓	✓	-	✓	✓	✓	✓	✓	-	-	-	
Dimensions (mm)			175 x 100	175 x 100	219 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	337 x 112	337 x 112	185 x 120	96 x 90
Connector			DB-37	68-pin SCSI-II	DB-37	DB-37	68-pin SCSI-II	68-pin SCSI-II	DB-62	2 x 20-pin, DB-37	4 x 20-pin	2 x 20-pin, DB-37	2 x DB-9	1 x 10-pin box header
Windows 98/2000/XP DLL Driver			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows 98/2000/XP Test Utility			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VC++, VB & delphi Examples			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Advantech ActiveDAQ/ActiveDAQ Pro			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Labview I/O Drivers (Ver. 6i and 7.1)			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mathworks MATLAB Data Acquisiton Tool Box 2.5.1			-	-	✓	✓	-	-	-	-	✓	✓	✓	-
KW Win33 Driver			-	-	-	-	-	-	-	-	-	-	-	-

*Note: SS=Single DMA channel, Single A/D channel scan
SM=Single DMA channel, Multiple A/D channel scan

Digital I/O & Counter Cards

Category			Non-Isolated DI/O								
Bus			PCI							ISA	
Model Name			PCI-1735U	PCI-1737U	PCI-1739U	PCI-1751	PCI-1753/1753E	PCI-1755	PCI-1757UP	PCL-720+	PCL-722
TTL DI/O	Input Channels		32	24	48	48	96	32	24	32	144
	Output Channels		32							32	
	Output Channel	Sink Current	0.5 V @ 24 mA	0.5 V @ 24 mA	0.5V @ 24 mA	24 mA @ 0.4 V	24 mA @ 0.44 V	48 mA @ 0.5 V	0.5 V @ 24 mA	24 mA @ 0.5 V	24 mA @ 0.5 V
		Source Current	2.0 V @ 15 mA	2.0 V @ 15mA	2.0 V @ 15 mA	15 mA @ 2.4 V	24 mA @ 3.76 V	15 mA @ 2.4 V	2.0 V @15 mA	3 mA @ 2.4 V	15 mA @ 2.4 V
Isolated DI/O	Input	Channels	-	-	-	-	-	-	-	-	-
		Isolation Voltage	-	-	-	-	-	-	-	-	-
		Input Range	-	-	-	-	-	-	-	-	-
	Output	Channels	-	-	-	-	-	-	-	-	-
		Isolation Voltage	-	-	-	-	-	-	-	-	-
		Output Range	-	-	-	-	-	-	-	-	-
		Max. Sink Current	-	-	-	-	-	-	-	-	-
Timer/Counter	Channels		3	-	-	3	-	3	-	3	-
	Resolution		16 bits	-	-	16-bit	-	16-bit	-	16-bit	-
	Time Base		10 MHz	-	-	10 MHz	-	10 MHz	-	1 MHz	-
Advanced Function	Pattern Match		-	-	-	-	✓	✓	-	-	-
	Change of State		-	-	-	-	✓	✓	-	-	-
	BoardID Switch		✓	✓	✓	✓	✓	✓	✓	-	-
	Channel-Freeze Function		-	-	-	-	-	✓	-	-	-
	Output Status Read Back		✓	✓	✓	✓	✓	-	✓	-	-
	Dry/Wet Contact		-	-	-	✓	✓	-	✓	-	-
Dimensions (mm)			175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	120 x 65	185 x 100	334 x 100
Connectors			5 x 20-pin	1 x 50-pin	2 x 50-pin	68-pin SCSI-II	100-pin SCSI-II	100-pin SCSI-II	1 x DB-25	5 X 20-pin	6 x 50-pin
Windows 98/2000/XP DLL Driver			✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows 98/2000/XP Test Utility			✓	✓	✓	✓	✓	✓	✓	✓	✓
VC++, VB & delphi Examples			✓	✓	✓	✓	✓	✓	✓	✓	✓
Advantech ActiveDAQ/ActiveDAQ Pro			✓	✓	✓	✓	✓	-	✓	✓	✓
Labview I/O Drivers (Ver. 6i and 7.0)			✓	✓	✓	✓	✓	✓	✓	✓	✓
Mathworks MATLAB & Simulink Data Acquisiton Tool Box 2.5.1			-	-	-	✓	✓	-	-	✓	✓
KW Win33 Driver			-	-	-	-	-	-	-	-	-

* Dry/wet contact can be mixed at the same time within one group.

Digital I/O & Counter Cards

Category			Non-Isolated DI/O			Isolated DI/O								
Bus			ISA		PC/104	PCI								
Model Name			PCL-724	PCL-731	PCM-3724	PCI-1730	PCI-1733	PCI-1734	PCI-1750	PCI-1752U	PCI-1754	PCI-1756	PCI-1758UDI	PCI-1758UDO
TTL DI/O	Input Channels		24	48	48	16	-	-	-	-	-	-	-	-
	Output Channels					16	-	-	-	-	-	-	-	-
	Output Channel	Sink Current	24 mA @ 0.4 V	24 mA @ 0.4 V	0.5 V @ 24 mA	8 mA @ 0.5 V	-	-	-	-	-	-	-	-
		Source Current	15 mA @ 2.4 V	15 mA @ 2.4 V	2.0 V @ 15 mA	0.4 mA @ 2.4 V	-	-	-	-	-	-	-	-
Isolated DI/O	Input	Channels	-	-	-	16 (Sink)	32 (Sink)	-	16 (Sink)	-	64 (Sink)	32 (Sink)	128	-
		Isolation Voltage	-	-	-	2,500 V _{DC}	2,500 V _{DC}	-	2,500 V _{DC}	-	2,500 V _{DC}	2,500 V _{DC}	2500 VRMS	-
		Input Range	-	-	-	5 ~ 30 V _{DC}	5 ~ 30 V _{DC}	-	5 ~ 50 V _{DC}	-	10 ~ 50 V _{DC}	10 ~ 50 V _{DC}	5 ~ 25 V _{DC}	-
	Output	Channels	-	-	-	16 (Sink)	-	32 (Sink)	16 (Sink)	64 (Sink)	-	32 (Sink)	-	128
		Isolation Voltage	-	-	-	2,500 V _{DC}	-	2,500 V _{DC}	2,500 V _{DC}	2,500 V _{DC}	-	2,500 V _{DC}	-	2500 VRMS
		Output Range	-	-	-	5 ~ 40 V _{DC}	-	5 ~ 40 V _{DC}	5 ~ 40 V _{DC}	5 ~ 40 V _{DC}	-	5 ~ 40 V _{DC}	-	5 ~ 40 V _{DC}
		Max. Sink Current	-	-	-	200 mA	-	200 mA	200 mA	200 mA	-	200 mA	-	90 mA
Timer/Counter	Channels		-	-	-	-	-	-	1	-	-	-	-	-
	Resolution		-	-	-	-	-	-	16-bit	-	-	-	-	-
	Time Base		-	-	-	-	-	-	1 MHz	-	-	-	-	-
Advanced Function	Pattern Match		-	-	-	-	-	-	-	-	-	-	-	-
	Change of State		-	-	-	-	-	-	-	-	-	-	-	-
	BoardID Switch		-	-	-	✓	✓	✓	-	✓	✓	✓	✓	✓
	Channel-Freeze Function		-	-	-	✓	-	-	-	✓	-	✓	-	-
	Output Status Read Back		-	-	-	✓	-	✓	-	✓	-	✓	-	✓
	Dry/Wet Contact		-	-	-	✓	✓	-	✓	-	-	-	-	-
Dimensions (mm)			125 x 100	185 x 100	96 x 90	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100	175 x 100
Connectors			1 x 50-pin	2 x 50-pin	2 x 50-pin	1 x DB-37 4 x 20-pin	1 x DB-37	1 x DB-37	1 X DB-37	100-pin SCSI-II	100-pin SCSI-II	100-pin SCSI-II	dual 100-pin mini-SCSI	dual 100-pin mini-SCSI
Windows 98/2000/XP DLL Driver			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windows 98/2000/XP Test Utility			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VC++, VB & delphi Examples			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Advantech ActiveDAQ/ ActiveDAQ Pro			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Labview I/O Drivers (Ver. 6i and 7.0)			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mathworks MATLAB & Simulink Data Acquisition Tool Box 2.5.1			✓	✓	-	✓	✓	✓	✓	✓	✓	✓	-	✓
KW Win33 Driver			-	-	-	✓	✓	✓	-	✓	✓	✓	✓	✓

Isolated DI/O											Counter		
PCI				ISA					PC/104		PCI	ISA	PC/104
PCI-1758UDIO	PCI-1760U	PCI-1761	PCI-1762	PCL-725	PCL-730	PCL-733	PCL-734	PCL-735	PCM-3725	PCM-3730	PCI-1780U	PCL-836	PCM-3780
-	-	-	-	-	16	-	-	-	8	16	8	16	24
-	-	-	-	-	16	-	-	-	8	16	8	16	
-	-	-	-	-	8 mA @ 0.5 V	-	-	-		0.5 V @ 8 mA	24 mA @ 0.5 V	8 mA @ 0.5 V	24 mA @ 0.5 V
-	-	-	-	-	0.4 mA @ 2.4 V	-	-	-		-0.4 mA @ 2.4 V	15 mA @ 2.4 V	0.4 mA @ 2.4 V	15 mA @ 2.0 V
64	8 (Sink)	8 (Sink)	8 (Sink)	8 (Sink)	16 (Sink)	32 (Sink)	-	-	8	8	-	-	-
2,500 V _{DC}	2,500 V _{DC}	2,500 V _{DC}	2,500 V _{DC}	1,500 V _{DC}	2,500 V _{DC}	2,500 V _{DC}	-	-	2,500 V _{DC}	2,500 V _{DC}	-	-	-
5 ~ 25 V _{DC}	5 ~ 12 V _{DC}	10 ~ 50 V _{DC}	10 ~ 50 V _{DC}	5 ~ 24 V _{DC}	5 ~ 24 V _{DC}	5 ~ 24 V _{DC}	-	-	10 ~ 50 V _{DC}	5 ~ 24 V _{DC}	-	-	-
64	8 x Form C	4 x Form A 4 x Form C	16 x Form C	4 x Form A 4 x Form C	16 (Sink)	-	32 (Sink)	12 x Form C	8 x Form C	8	-	-	-
2,500 V _{DC}	2,500 V _{DC}	2,500 V _{DC}	2,500 V _{DC}	1,000 V _{DC}	1,000 V _{DC}	-	1,000 V _{DC}	1,000 V _{DC}	2,000 V _{DC}	2,500 V _{DC}	-	-	-
5 ~ 40 V _{DC}	120 V _{AC} @ 0.5 A 30 V _{DC} @ 1 A	250 V _{AC} @ 3 A 24 V _{DC} @ 3 A	120 V _{AC} @ 0.5 A 30 V _{DC} @ 1 A	120 V _{AC} @ 0.5 A 30 V _{DC} @ 1 A	5 ~ 40 V _{DC}	-	5 ~ 40 V _{DC}	0.6 A @ 100 V _{DC} 0.6 A @ 125 V _{DC}	240 V _{AC} @ 0.25 A 30 V _{DC} @ 1 A	5 ~ 40 V _{DC}	-	-	-
90 mA					200 mA	-	200 mA		30 V _{DC} @ 1 A	200 mA		-	-
-	Up CTR for DI 2 X PWM	-	-	-	-	-	-	-	-	-	8 x CTR	6 x CTR 3 x PWM	2
-	16-bit (2,500 Isolation)	-	-	-	-	-	-	-	-	-	16-bit	16-bit	16 bits
-	500 Hz for Up CTR	-	-	-	-	-	-	-	-	-	20 MHz	10 MHz	20 MHz
-	✓	-	-	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	-	-	-	-	-
✓	✓	✓	✓	-	-	-	-	-	-	-	✓	-	-
-	-	-	✓	-	-	-	-	-	-	-	-	-	-
✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
175 x 100	175 x 100	175 x 100	175 x 100	147 x 95	185 x 100	185 x 100	185 x 100	155 x 100	96 x 90	96 x 90	175 x 100	185 x 100	96 x 90
dual 100-pin mini-SCSI	1 X DB-37	1 X DB-37	1 x DB-62	1 x DB-37	1 x DB-37 4 x 20-pin	1 x DB-37	1 x DB-37	1 x DB-37	1 x 20-pin 1 x 50-pin	3 x 20-pin	68-pin SCSI-II	1 x DB-37 2 x 20-pin	1 x 50-pin 1 x 20-pin
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	✓	-
✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-

Terminal Board

Recommended Cables, I/O Wiring Terminal Boards and Isolated DI/O Terminals for Connecting to PCI-bus/CompactPCI DA&C Cards

DA&C Card	Cable	I/O Wiring Terminal Board	Cable	Isolated DI/O Terminal
PCI-1710/1710L/1710HGL/1710HG/1711/1711L/1716/1716L/1741U/1742U	PCL-10168	PCLD-8710	PCL-10120	PCLD-782
PCI-1712/1712L	PCL-10168	PCLD-8712		
PCI-1721/1723/PCI-1780U MIC-3716/3780	PCL-10168	ADAM-3968		PCLD-782B
PCI-1751	PCL-10168	ADAM-3968		PCLD-785
		ADAM-3968/50	PCL-10150	
		ADAM-3968/20	PCL-10120	
PCI-1713/1715U	PCL-10137	ADAM-3937		PCLD-785B
		PCLD-881B		
PCI-1720U/1727/1730/1733/1734/1750/1760U/1761 MIC-3761	PCL-10137	ADAM-3937		
PCI-1784U	PCI-10137H			PCLD-885
PCI-1753/1753E	PCL-10268	PCLD-8751/8761/8762		PCLD-786
		ADAM-3968		
		ADAM-3968/50	PCL-10150	
		ADAM-3968/20	PCL-10120	
PCI-1752U/1752USQ/1754/1756	PCL-10250	ADAM-3951		
PCI-1724/1762	PCL-10162	ADAM-3962		
PCI-1240U	PCL-10251	ADAM-3952		
		ADAM-3952M		
PCI-1241/1242	PCL-10168	ADAM-3968M		
PCI-1261	PCL-101101	ADAM-39100M		
PCI-1714/1714UL/MIC-3714	PCL-10901	ADAM-3909		
	PCL-1010B			
PCI-1755	PCL-101100	ADAM-39100		
MIC-3753/3756	PCL-10178	ADAM-3978		PCLD-7216

Recommended Cables, I/O Wiring Terminal Boards and Isolated DI/O Terminals for Connecting to ISA-bus DA&C Cards

ISA-bus DA&C Card	Cable	I/O Wiring Terminal Board	Isolated DI/O Terminal
PCL-711B/S	PCL-10120	PCLD-7115	PCLD-782
	PCL-10120		
PCL-818L/818HD/818HG	PCL-10137	PCLD-8115	PCLD-782B
	PCL-10120		
PCL-818H	PCL-10120	PCLD-8115	PCLD-785
	PCL-10120		
PCL-812PG	PCL-10120		PCLD-785B
	PCL-10120		
PCL-813B	PCL-10137	PCLD-881B	PCLD-885
PCL-726	PCL-10120	PCLD-780	
PCL-727/730/836/839	PCL-10137	PCLD-880	PCLD-786
	PCL-10120		
PCL-720+	PCL-10120		PCLD-7216
PCL-722/724/731	PCL-10150		
PCL-725/733/734/735	PCL-10137	PCLD-880	

Industrial USB I/O Modules

Category			Multifunction		Analog Input
Bus			USB	USB	USB
Model Name			USB-4711A	USB-4716	USB-4718
Analog Input	General Spec.	Resolution	12 bits	16 bits	16 bits
		Channels	16 S.E./8 Diff.	16 S.E./8 Diff.	8 Diff.
		Onboard FIFO	1024 samples	1024 samples	-
		Sampling Rate	150 kS/s	200 kS/s	10 S/s
		Auto Channel Scanning	v	v	-
	Input Ranges	Unipolar Inputs (V)	-	-	J,K,T,E,R,S,B types
		Bipolar Inputs (V)	±10, 5, 2.5, 1.25, 0.625 V	±10, 5, 2.5, 1.25, 0.625 V 0 ~ 10 V, 0 ~ 5 V, 0 ~ 2.5 V, 0 ~ 1.25 V	-
		Configurable Per-Channel	v	v	v
	Trigger Mode	Pacer/Software/External Pulse	v	v	Software
	Data Transfer Mode	Software	v	v	v
		DMA	-	-	-
Analog Output		Resolution	12 bits	16 bits	-
		Channels	2	2	-
		Output Range (V)	0 ~ 5, 0 ~ 10, ±5, ±10	0 ~ 5, 0 ~ 10, ±5, ±10	-
		Throughput	Static update	Static update	-
Digital I/O		Input Channels	8	8	8 (Isolated)
		Output Channels	8	8	8 (Isolated)
Timer/Counter		Channels	1	1	-
		Resolution	32 bits	32 bits	-
		Time Base	1 kHz	1 kHz	-
Isolation Voltage			-	-	2,500 V _{dc}
Auto Calibration			v	v	v
BoardID Switch			Software	Software	Software
Dimensions (mm)			132 x 80 x 32	132 x 80 x 32	132 x 80 x 32
Connector			Onboard screw terminal	Onboard screw terminal	Onboard screw terminal
Windows 2000/XP DLL Driver & Windows CE 5.0 Driver			v	v	v
Windows 2000/XP Test Utility			v	v	v
VC++, VB & Delphi Examples			v	v	v
Advantech ActiveDAQ/ActiveDAQ Pro			v	v	v
Labview I/O Drivers (Ver. 6i and 7.0)			v	v	v

Catagory			Non-Isolated DI/O		Isolated DI/O		
Bus			USB	USB	USB	USB	
Model Name			USB-4751	USB-4751L	USB-4750	USB-4761	
TTL DI/O	Input Channels		48	24	-	-	
	Output Channels				-	-	
	Output Channel	Sink Current	0.4 V @ 8 mA	0.4 V @ 8 mA	-	-	
		Source Current	2.4 V @ 4 mA	2.4 V @ 4 mA	-	-	
Isolated DI/O	Input	Channels	-	-	16	8	
		Isolation Voltage	-	-	2,500 Vdc	2,500 Vdc	
		Input Range	-	-	5 ~ 50 Vdc	5 ~ 30 Vdc	
	Output	Channels	-	-	16	8 x Form C	
		Isolation Voltage	-	-	2,500 Vdc	2,500 Vdc	
		Output Range	-	-	5 ~ 40 Vdc	-	
		Max. Sink Current	-	-	100 mA max. per channel	30 VDC @ 1A, 240 VAX @ 0.25 A	
	Timer/Counter		Channels	2	2	2	-
			Resolution	32 bits	32 bits	32 bits	-
			Time Base	10 MHz	10 MHz	1 MHz	-
Advanced Function	Output Status Read Back		v	v	v	v	
Dimensions			132 x 80 x 32	132 x 80 x 32	132 x 80 x 32	132 x 80 x 32	
Connectors			2 x opto-22 compatible box header	1 x opto-22 compatible box header	Onboard screw terminal	Onboard screw terminal	
Windows 2000/XP DLL Driver & WinCE 5.0 Driver			v	v	v	v	
Windows 2000/XP Test Utility			v	v	v	v	
VC++, VB & Delphi Examples			v	v	v	v	
Advantech ActiveDAQ/ActiveDAQ Pro			v	v	v	v	
Labview I/O Drivers (Ver. 6 AND 7.0)			v	v	v	v	
Mathworks Matlab & Simulink Data Acquisition Tool Box x 2.5.1			-	-	-	-	
KW Win32 Driver			-	-	-	-	

ADAM-5500 Series Controller

System	ADAM-5510M ADAM-5510E	ADAM-5510/TCP ADAM-5510E/TCP	ADAM-5510KW ADAM-5510EKW	ADAM-5510KW/TCP ADAM-5510EKW/TP	ADAM-5550KW ADAM-5550CE
CPU	80188				AMD Geode GX533 (GX2)
RAM	640 KB			768KB	128 MB DDR SDRAM
Flash ROM	256 KB				-
Flash Memory	256 KB	256 KB	768 KB	768 KB	-
Flash Disk	1 MB	1 MB	512 KB	512 KB	-
OS	ROM-DOS				WinCE 5.0
Real-time Clock	Yes				
Watchdog Timer	Yes				
COM1	RS-232 (ADAM-5510M) RS-232/485 (ADAM-5510E)	RS-232 (ADAM-5510/TCP) RS-232/RS-485 (ADAM-5510E/TCP)	RS-232 (ADAM-55510KW) RS-232/485 (ADAM-5510EKW)	RS-232/485	RS-232/485
COM2	RS-485				
COM3 (Programming)	RS-232 (TX, RX, GND)	RS-232 (TX, RX, GND)	RS-232 (TX, RX, GND)	RS-232 (TX, RX, GND)	RS-232
COM4	RS-232/485				
I/O Slots	4/8				8
Power Consumption	4 W				12 W
Isolation					
Communication	2500Vdc (COM2 RS-485)				2500Vdc (COM2 RS-485) 1000Vdc (COM4 RS-485)
Communication Power	3000 Vdc				
I/O Module	3000 Vdc				
Diagnosis					
Status Display	Power, CPU, Communication, Battery				Power, User define
Self Test	Yes, while ON				
Software Diagnosis	Yes				
Communication					
Network	RS-232/485	Ethernet (RJ-45)	RS-232/485	Ethernet (RJ-45)	Ethernet (2 x RJ-45)
Speeds	1200 bps ~ 115.2 kbps	10/100 Mbps	9600, 38400, 57600 bps and 115.2 kbps	10/100 Mbps	10/100 Mbps
Max. Distance	4000 feet (1.2 km)	150 m	4000 feet (1.2 km)	150 m	150 m
Data Format	N, 8, 1, 1	-	N, 8, 1, 1	-	-
Max. Nodes	32	256 for Ethernet, 32 for RS-485	32	32	-
Protocol	User Defined Modbus/RTU	User Defined Modbus/RTU Modbus/TCP	Modbus/RTU	Modbus/RTU, Modbus/TCP	Modbus/RTU, Modbus/TCP
Remote I/O	Modbus Device				
Power Requirements	+10 ~ +30 Vdc				
Environment					
Operating Temperature	-10 ~ 70° C (14 ~ 158° F)				0 ~ 55° C (32 ~ 131° F)
Storage Temperature	-25 ~ 85° C (-13 ~ 185° F)				
Humidity	5 ~ 95%				

System	ADAM-5000/485	ADAM-5000E	ADAM-5000L/TCP	ADAM-5000/TCP
CPU	80188	80188	RISC CPU	
RAM	-	-	4 MB	
Flash ROM (User AP)	-	-	512 KB	
Flash Memory (Data Storage)	-	-	-	
Flash Disk	-	-	-	
OS	-	-	real-time OS	
Timer BIOS	-	-	-	
Real-time Clock	-	-	-	
Watchdog Timer	Yes			
COM1/COM2	RS-485	RS-485	RS-485 (Modbus)	
COM3 (Programming)	TX, RX, GND			
I/O Slots	4	8	4	8
Power Consumption	3 W		4.0 W	5.0 W
Isolation				
Communication	2500 Vdc	3000 Vdc	RS-485: 1500 Vdc Ethernet: 3000 Vdc	
Communication Power	3000 Vdc			
I/O Module	3000 Vdc			
Diagnosis				
Status Display	Power, CPU, Communication		Power, CPU, Error Diagnostic, Communication	
Self Test	Yes, while ON			
Software Diagnosis	Yes			
Communication				
Interface	RS-232/485 (2-wire)	RS-232/485 (2-wire)	Ethernet	
Speeds (bps)	1200, 2400, 4800, 9600, 192 K, 38.4 K, 57.6 K, 115.2 K	1200, 2400, 4800, 9600, 19.2 K, 38.4 K, 57.6 K, 115.2 K	10 M, 100 M	
Max. Distance	4000 feet (1.2 km)	4000 feet (1.2 km)	100 m without repeater	
Data Format	Advantech protocol: N,8,1 Modbus protocol: N,8,1 N,8,2 E,8,1 O,8,1	Advantech protocol: N,8,1 Modbus protocol: N,8,1 N,8,2 E,8,1	TCP/IP	
Max. Nodes	128	128	Depend on IP address	
Protocols	ADAM ASCII/Modbus Protocol	ADAM ASCII/Modbus Protocol	Modbus/TCP	
Remote I/O	-	-	20 nodes Modbus devices	
Power Requirements	+10 ~ +30 Vdc			
Environment				
Operating Temperature	-10 ~ 70° C (14 ~ 158° F)			
Storage Temperature	-25 ~ 85° C (-13 ~ 185° F)			
Humidity	5 ~ 95%			

ADAM-5000 I/O Module

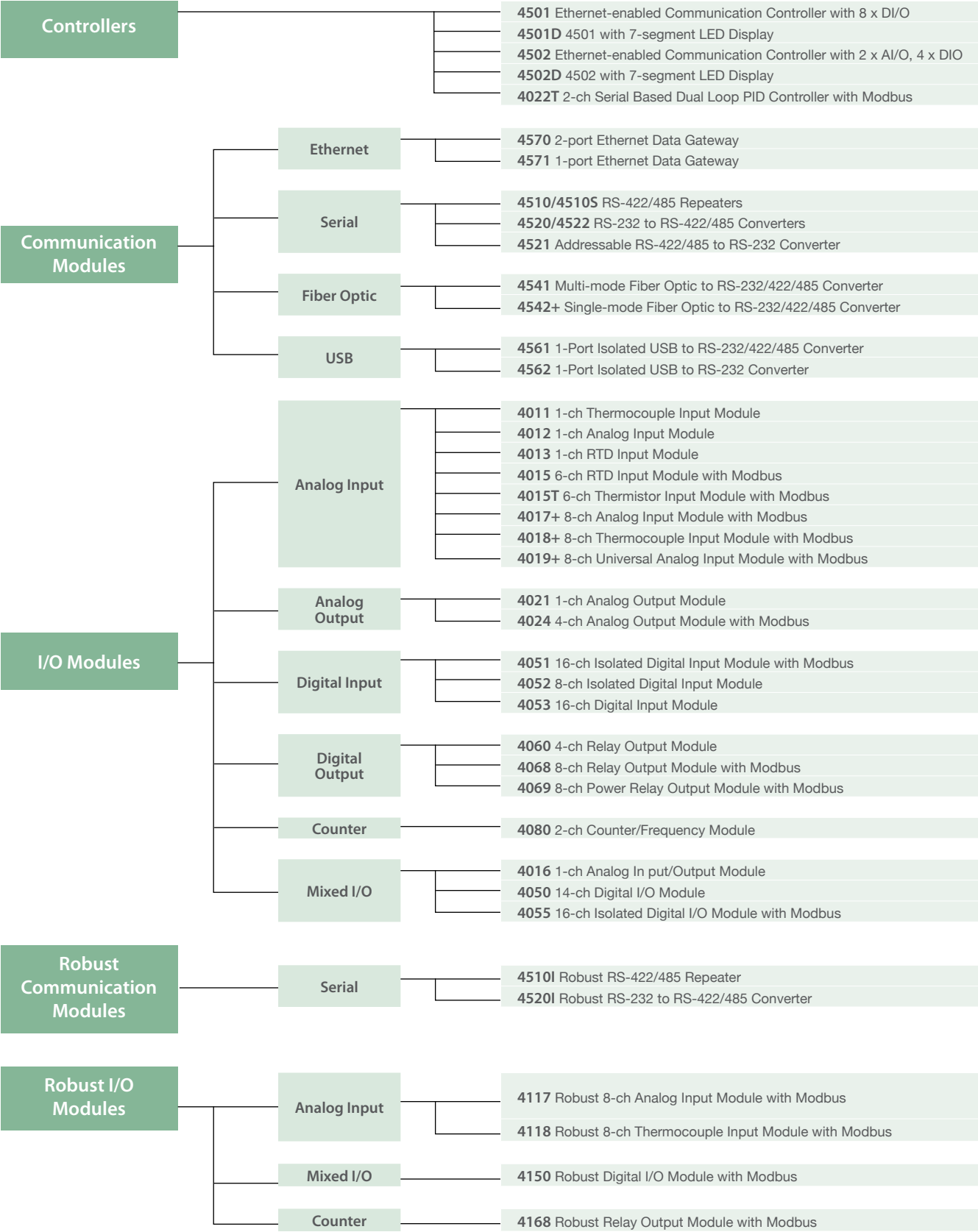
Module		ADAM-5013	ADAM-5017	ADAM-5017P	ADAM-5017UH	ADAM-5018	ADAM-5018P	ADAM-5024	ADAM-5050	ADAM-5051/ ADAM-5051D/ ADAM-5051S	ADAM-5052	ADAM-5053S
Analog Input	Resolution	16 bit	16 bit	16 bit	12 bit	16 bit	16 bit	-	-	-	-	-
	Input Channel	3	8	8	8	7	7	-	-	-	-	-
	Sampling Rate	10	10	10	200K	10	10	-	-	-	-	-
	Voltage Input	-	±150 mV ±500 mV ±1 V ±5 V ±10 V	±150 mV ±500 mV ±15V ±10V ±5 V ±1 V 0 ~ 150mV 0 ~ 500mV 0 ~ 1V 0 ~ 5V 0 ~ 10V 0 ~ 15V	±10 V 0 ~ 10 V	±15 mV ±50 mV ±100 mV ±500 mV ±1 V ±2.5 V	±15 mV ±50 mV ±100 mV ±500 mV ±1 V ±2.5 V	-	-	-	-	-
	Current Input	-	±20 mA	±20 mA, 4 ~ 20mA	0 ~ 20 mA 4 ~ 20 mA	±20 mA	4 ~ 20 mA	-	-	-	-	-
	Direct Sensor Input	Pt or Ni RTD	-		-	J, K, T, E, R, S, B	J, K, T, E, R, S, B	-	-	-	-	-
Analog Output	Resolution	-	-		-	-	-	12 bit	-	-	-	-
	Voltage Output	-	-		-	-	-	0~10 V	-	-	-	-
	Current Output	-	-		-	-	-	0~20 mA 4~20 mA	-	-	-	-
Digital Input and Digital Output	Digital Input Channels	-	-		-	-	-	-	16 DIO (bit-wise selectable)	16 16w/LED (5051D/5051S)	-	32
	Digital Output Channels	-	-		-	-	-	-		-	8	-
Counter (32-bit)	Channels	-	-		-	-	-	-	-	-	-	-
	Input Frequency	-	-		-	-	-	-	-	-	-	-
	Mode	-	-		-	-	-	-	-	-	-	-
COMM	Channels	-	-		-	-	-	-	-	-	-	-
	Type	-	-		-	-	-	-	-	-	-	
Isolation		3000 Vdc	3000 Vdc	3000 Vdc	3000 Vdc	3000 Vdc	3000 Vdc	3000 Vdc	-	2500 Vdc (5051S)	5000 VRMS	2500 Vdc

Module		ADAM-5055S	ADAM-5056/ ADAM-5056D	ADAM-5056S/ ADAM-5056SO	ADAM-5057S	ADAM-5060	ADAM-5068	ADAM-5069	ADAM-5080	ADAM-5081	ADAM-5090/ ADAM-5091
Digital Input and Digital Output	Digital Input Channels	8 w/LED	-	-	-	-	-	-	-		-
	Digital Output Channels	8 w/LED	16 16 w/LED (5056D)	16 w/LED	32	6 relay (2 form A/ 4 form C)	8 relay (8 form A)	8 power relay (form A)	-		-
Counter (32-bit)	Channels	-	-	-	-	-	-	-	4	8	-
	Input Frequency	-	-	-	-	-	-	-	5000 Hz (max)	5 Hz ~ 1 MHz max. (frequency mode) 1 MHz max. (counter mode)	-
	Mode	-	-	-	-	-	-	-	Frequency, Up/Down Counter, Bi-direction Counter	Frequency, up/down, Bi- direction, up, A/B Phase, Counter	-
COMM	Channels	-	-	-	-	-	-	-	-		4
	Type	-	-	-	-	-	-	-	-		RS-232
Isolation		2500 Vdc	-	2500 Vdc	2500 Vdc	-	-	4000 VRMS	1000 VRMS	2500Vdc	-

Model		ADAM-5202	ADAM-5240	ADAM-5030
Axes	Number of Axes	-	4	-
	Linear Interpolation	-	v	-
	2-Axis Circle Interpolation	-	v	-
Advanced Functions	Encoder Channels	-	4	-
	Limit switch Input Channel	-	8	-
	Home Input Channel	-	4	-
	Emergency stop Input Channel	-	1	-
	Slow Down Limit Switch	-	8	-
	General Purpose DI Channel	-	-	-
	Servo On Output Channel	-	4	-
	General Purpose DO Channel	-	4	-
	Position Compare Event	-	V	-
	Remote Motion	V	-	-
	Remote I/O	V	-	-
	Board ID	-	-	-
Connectors		2 x RJ-45,	100-PinSCSI-II	-
Wiring Board		AMAX-3752F, AMAX-3754F, AMAX-3756F,	ADAM-3952, ADAM-3952J2S	-
Remote Motion Wiring Board		AMAX-3210, AMAX-3211/PMA, AMAX-3212/J2S, AMAX-3213/YS2	-	-
Storage	Type	-	-	SD (Secure Digital Card)
	Channel	-	-	2
	Size	-	-	2 GB (Max)
USB	Type	-	-	V2.0 (compliant)
	Channel	-	-	2
Supported Controller		ADAM-5550KW		

RS-485 I/O Modules: ADAM - 4000

Module Selection Chart



Communication and Controller Module

	Controllers			Repeaters	Converters & Data Gateways				
Module	ADAM-4501 ADAM-4501D	ADAM-4502 ADAM-4502D	ADAM-4022T	ADAM-4510 ADAM-4510S	ADAM-4520 ADAM-4522	ADAM-4521	ADAM-4541 ADAM-4542+	ADAM-4561 ADAM-4562	ADAM-4570 ADAM-4571
Network	Ethernet, RS-232, RS-485		RS-485	RS-422 RS-485	RS-232 to RS-422/485		Fiber Optic to RS-232/422/485	USB to RS-232/485/422	Ethernet to RS-232/422/485
Comm. Protocol	Modbus/RTU, Modbus/TCP TCP/IP, UDP, ICMP, ARP, DHCP		ASCII Command/ Modbus	-					
Comm. Speed (bps)	Ethernet: 10/100M Serial: From 1200 to 115.2 kbps		Serial: From 1200 to 115.2 k						Ethernet: 10/100 M Serial: up to 230.4 k
Comm. Distance	Ethernet: 100 m Serial: 1.2 Km		Serial: 1.2 km	Serial: 1.2 km	Serial: 1.2 km	Serial: 1.2 km	ADAM-4541: 2.5 km ADAM-4542: 15 km	Serial: 1.2 km	LAN: 100 m Serial: 1.2 km
Interface Connectors	Ethernet: RJ-45 RS-485: plug-in screw terminal RS-232: RJ-48		RS-485: plug-in screw terminal	RS-422/485: plug-in screw terminal	RS-232: female DB9 RS-422/485: plug-in screw terminal	RS-232: female DB9 RS-422/485: plug-in screw terminal	RS-232/422/485: plug-in screw terminal Fiber: ADAM-4541: ST connector ADAM-4542: SC connector	USB: type A client connector Serial: ADAM-4561: plug-in screw terminal (RS-232/422/485) ADAM-4562: DB9 (RS-232)	Ethernet: RJ-45 RS-232/422/485: RJ-48
LED Indicators	Communication & Power		Power	Communication & Power					Network: Tx/ Rx Link, Speed, Power
Data Flow Control	Yes		Yes	-	-	Yes	-	Yes	Yes
Watchdog Timer	Yes		Yes	-	-	Yes	-	Yes	Yes
Isolation Voltage	-	1000 Vdc	3000 Vdc	3000 Vdc (ADAM-4510S)	3000 Vdc (ADAM-4520)	1000 Vdc	-	ADAM-4561: 3000 Vdc ADAM-4562: 2500 Vdc	-
Special Features	Email function Built-in HTTP and FTP Server		PID Control	-	-	-	-	-	-
Built-in I/O	4DI/4DO	1AI/1AO/2DI/2DO	-	-	-	-	-	-	-
Power Requirement	+10 ~ +30 Vdc								
Operating Temperature	-10 ~ 70° C		-10 ~ 50° C	-10 ~ 70° C					0 ~ 60° C
Humidity	5 ~ 95% RH								20 ~ 95% RH
Power Consumption	4 W @ 24 Vdc			1.4 W @ 24 Vdc	1.2 W @ 24 Vdc	1 W @ 24 Vdc	1.5 W @ 24 Vdc	ADAM-4561: 1.5 W @ 5 Vdc ADAM-4562: 1.1 W @ 5 Vdc	4 W @ 24 Vdc

I/O Module

		Analog Input							
Module		ADAM-4011	ADAM-4012	ADAM-4013	ADAM-4015 ADAM-4015T	ADAM-4016	ADAM-4017+	ADAM-4018+	ADAM-4019+
Resolution		16 bit							
Analog Input	Input Channels	1 differential			6 differential	1 differential	8 differential	8 differential	8 differential
	Sampling Rate	10 Hz							
	Voltage Input	±15 mV ±50 mV ±100 mV ±500 mV ±1 V ±2.5 V	±150 mV ±500 mV ±1 V ±5 V ±10 V	-	-	±15 mV ±50 mV ±100 mV ±5 V ±500 mV	±150 mV ±500 mV ±1 V ±5 V ±10 V	-	± 100 mV ± 500 mV ± 1 V ± 2.5 V ± 5 V ± 10 V
	Current Input	±20 mA	±20 mA	-	-	±20 mA	4 ~ 20 mA ±20 mA	4 ~ 20 mA ±20 mA	4 ~ 20 mA ± 20 mA
	Direct Sensor Input	J, K, T, E, R, S, B Thermocouple	-	RTD	ADAM-4015: RTD ADAM-4015T: Thermistor	-	-	J, K, T, E, R, S, B Thermocouple	J, K, T, E, R, S, B Thermocouple
	Burn-out Detection	Yes	-	-	Yes	-	-	Yes	Yes (4~20 mA & All T/C)
	Channel Independent Configuration	-	-	-	Yes	-	Yes	Yes	Yes
Analog Output	Output Channels	-	-	-	-	1	-	-	-
	Voltage Output	-	-	-	-	0 - 10 V	-	-	-
	Current Output	-	-	-	-	30 mA	-	-	-
Digital Input and Output	Digital Input Channels	1	1	-	-	-	-	-	-
	Digital Output Channels	2	2	-	-	4	-	-	-
	Alarm Settings	Yes	Yes	-	-	-	-	-	-
Counter (32-bit)	Channels	-	-	-	-	-	-	-	-
	Input Frequency	-	-	-	-	-	-	-	-
Isolation		3000 Vdc							
Digital LED Indicator		-							
Watchdog Timer		Yes (System)	Yes (System)	Yes (System)	Yes (System & Comm.)	Yes (System)	Yes (System & Comm.)	Yes (System & Comm.)	Yes (System & Comm.)
Safety Setting		-							
Modbus Support *		-	-	-	Yes	-	Yes	Yes	Yes

*: All ADAM-4000 I/O Modules support ASCII Commands

Analog Output		Digital Input/Output					Relay Output			Counter
ADAM-4021	ADAM-4024	ADAM-4050	ADAM-4051	ADAM-4052	ADAM-4053	ADAM-4055	ADAM-4060	ADAM-4068	ADAM-4069	ADAM-4080
12 bit	12 bit	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
1	4	-	-	-	-	-	-	-	-	-
0 ~ 10 V	±10 V	-	-	-	-	-	-	-	-	-
0 ~ 20 mA 4 ~ 20 mA	0 ~ 20 mA 4 ~ 20 mA	-	-	-	-	-	-	-	-	-
-	4	7	16	8	16	8	-	-	-	-
-	-	8	-	-	-	8	4-ch relay	8-ch relay	8-ch power relay	2
-	Yes	-	-	-	-	-	-	-	-	Yes
-		-		-	-		-	-	-	2
-	-	-	-	-	-	-	-	-	-	50 kHz
3,000 Vdc	3,000 Vdc	-	2,500 Vdc	5,000 VRMS	-	2,500 Vdc	-	-	-	2,500 VRMS
-	-	-	Yes	-	-	Yes	-	-	-	-
Yes (System)	Yes (System & Comm.)	Yes (System)	Yes (System & Comm.)	Yes (System)	Yes (System)	Yes (System & Comm.)	Yes (System)	Yes (System & Comm.)	Yes (System & Comm.)	Yes (System)
-	Yes	-	-	-	-	Yes	Yes	Yes	Yes	-
-	Yes	-	Yes	-	-	Yes	-	Yes	Yes	-

Robust RS-485 I/O Module

Module		ADAM-4117	ADAM-4118	ADAM-4150	ADAM-4168
Resolution		16 bit		-	-
Analog Input	Input Channels	8 differential		-	-
	Sampling Rate	10/100 Hz (total)		-	-
	Voltage Input	0 ~ 150 mV, 0 ~ 500 mV, 0 ~ 1 V, 0 ~ 5 V, 0 ~ 10 V, 0 ~ 15 V, ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±15V	±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5V	-	-
	Current Input	0 ~ 20 mA, ±20 mA, 4 ~ 20 mA	±20 mA, 4 ~ 20 mA	-	-
	Direct Sensor Input	-	J, K, T, E, R, S, B Thermocouple	-	-
	Burn-out Detection	Yes (mA)	Yes (mA and All T/C)	-	-
	Channel Independent Configuration	Yes		-	-
Digital Input and Output	Digital Input Channels	-	-	7	-
	Digital Output Channels	-	-	8	8-ch relay
Counter	Channels	-	-	7	-
	Input Frequency	-	-	3 kHz	-
Isolation Voltage		3000 Vdc			
Digital LED Indicator		Communication and Power			
Watchdog Timer		Yes (System & Communication)			
Safety Setting		-		Yes	
Communication Protocol		ASCII Command/Modbus			
Power Requirement		10 ~ 48 Vdc			
Operating Temperature		-40 ~ 85° C			
Storage Temperature		-40 ~ 85° C			
Humidity		5 ~ 95% RH			
Power Consumption		1.2 W @ 24 Vdc	0.5 W @ 24 Vdc	0.7 W @ 24 Vdc	1.8 W @ 24 Vdc

Module	ADAM-4510I	ADAM-4520I
Network	RS-422/485	RS-232 to RS-422/485
Communication Speed (bps)	From 1200 to 115.2k	
Communication Distance	Serial: 1.2 km	
Interface Connectors	RS-422/485: plug-in screw terminal	RS-232: female DB9 RS-422/485: plug-in screw terminal
Digital LED Indicators	Communication and Power	
Auto Data Flow Control	Yes	
Isolation Voltage	3000 Vdc	
Power Requirement	10 ~ 48 Vdc	
Operating Temperature	-40 ~ 85° C	
Storage Temperature	-40 ~ 85° C	
Humidity	5 ~ 95%	
Power Consumption	1.4 W @ 24 Vdc	1.2 W @ 24 Vdc

Ethernet I/O Modules: ADAM-6000

Module Spec.		ADAM-6015	ADAM-6017	ADAM-6018	ADAM-6022	ADAM-6024	ADAM-6050	ADAM-6051	ADAM-6052	ADAM-6060	ADAM-6066	ADAM-6050W	ADAM-6051W	ADAM-6060W
Interface		10/100 Mbps Ethernet										802.11b wireless LAN		
Peer-to-Peer*		Yes			No	Receiver Only**	Yes							
GCL*		Yes			No	Receiver Only**	Yes					No		
Resolution		16 bit			16 bit for AI 12 bit for AO		-	-	-	-	-	-	-	-
Analog Input	Channels	7	8	8	6	6	-	-	-	-	-	-	-	-
	Sampling Rate	10 sample/second					-	-	-	-	-	-	-	-
	Voltage Input	-	±150 mV ±500 mV ±1 V ±5 V ±10 V	-	±10 V	±10 V	-	-	-	-	-	-	-	-
	Current Input	-	0 ~ 20 mA 4 ~ 20 mA	-	0 ~ 20 mA 4 ~ 20 mA	0 ~ 20 mA 4 ~ 20 mA	-	-	-	-	-	-	-	-
	Direct Sensor Input	Pt, Balco and Ni RTD	-	J.K.T.E.R.S.B. Thermocouple	-	-	-	-	-	-	-	-	-	-
	Burn-out Detection	Yes	-	Yes	-	-	-	-	-	-	-	-	-	-
	Math. Functions	Max. Min. Avg.	Max. Min. Avg.	Max. Min. Avg.	-	-	-	-	-	-	-	-	-	-
Analog Output	Channels	-	-	-	2	2	-	-	-	-	-	-	-	-
	Current Output	-	-	-	0 ~ 20 mA, 4 ~ 20 mA with 15 VDC	0 ~ 20 mA, 4 ~ 20 mA with 15 Vdc	-	-	-	-	-	-	-	-
	Voltage Output	- -	-	-	0 ~ 10 VDC with 30 mA	0 ~ 10 Vdc with 30 mA	-	-	-	-	-	-	-	-
Digital Input and Output	DI Channels	-	-	-	2	2	12	12	8	6	6	12	12	6
	DO Channels	-	2 (Sink)	8 (Sink)	2 (Sink)	2 (Sink)	6 (Sink)	2 (Sink)	8 (Source)	6-channel relay	6-channel power relay	6 (Sink)	2 (Sink)	6-channel relay
	Extra Counter Channels	-	-	-	-	-	-	2	-	-	-	-	2	-
	Counter Input	-	-	-	-	-	3 kHz	4.5 kHz	3 kHz			4.5 kHz	3 kHz	
	Frequency Input	-	-	-	-	-	3 kHz	4.5 kHz	3 kHz			4.5 kHz	3 kHz	
	Pulse Output	-	-	-	-	-	Yes							
	High/Low Alarm Settings	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-
Isolation Protection		2000 Vdc			2000 VDC***		2000 VDC							
Remark		-	-	-	Built-in Dual Loop PID Control Algorithm	-	-	-	-	-	-	-	-	-

* : Peer-to-Peer and GCL cannot run at the same time, only one feature is enabled at one time.
** : ADAD-6024 can only play the receiver and generate analog output when using Peer-to-Peer or GCL.
*** : Only for analog input and analog output channels.

Motion Control I/O Modules

Centralized Motion Control Cards

Bus		PCI			ISA		
Category		Pulse Type		Encoder Card	Pulse Type		Encoder Card
Model		PCI-1240U	PCI-1243U	PCI-1784U	PCL-839+	PCM-3240	PCL-833
Axes	Number of Axes	4	4	-	3	4	-
	Linear Interpolation	✓	-	-	-	✓	-
	2-axis Circle Interpolation	✓	-	-	-	✓	-
	Helical Interpolation	-	-	-	-	-	-
Advanced Functions	Encoder Channels	4	-	4	-	4	3
	Limit Switch Input Channels	8	8	-	6	8	-
	Home Input Channels	4	4	-	3	4	-
	Emergency Stop Input Channels	1	1	-	-	1	-
	Slow Down Limit Switches	8	8	-	6	8	-
	General Purpose DI Channels	-	8	4	16	-	2
	Servo On Output Channels	4	-	-	-	4	-
	General Purpose DO Channels	4	8	4	16	4	-
Dimensions (mm)		175 x 100	175 x 100	175 x 100	185 x 100	96 x 90	185 x 100
Connectors		100-pin SCSI-II	DB-62	DB-37	1 x DB-37 2 x 20-pin	2 x 50-pin IDC	1 x DB-25
Wiring Boards		ADAM-3952 ADAM-3952/J2S ADAM-3952/PMA	ADAM-3962 ADAM-3943	ADAM-3937	ADAM-3937 ADAM-3920	ADAM-3950 ADAM-3952 ADAM-3952/PMA ADAM-3952/J2S	ADAM-3925

AMONet Distributed Motion Control Cards

Bus		PCI	PC/104+
Category		Remote Card	Remote Card
Model		PCI-1202U	PCM-3202P
Advanced Functions	General Purpose DI Channels	8	-
	General Purpose DO Channels	4	-
	Remote Motion	✓	✓
	Remote I/O	✓	✓
Dimensions (mm)		175 x 100	96 x 90
Connectors		2 x RJ45	4 x RJ45
Digital I/O Slave Modules		AMAX-2730 AMAX-2752 AMAX-2754 AMAX-2756	AMAX-2730 AMAX-2752 AMAX-2754 AMAX-2756
Motion Slave Modules		AMAX-2210 AMAX-2211/PMA AMAX-2212/J2S AMAX-2213/YS2 AMAX-2241/PMA AMAX-2242/J2S AMAX-2243/YS2	AMAX-2210 AMAX-2211/PMA AMAX-2212/J2S AMAX-2213/YS2 AMAX-2241/PMA AMAX-2242/J2S AMAX-2243/YS2

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