



Product Catalog 2012 - 2013

# Automation Devices and Computing

## Intelligent Automation, Seamless Integration

- Industry Solutions and Software
- Industrial HMI, Monitors and Panel Computers
- Industrial Communication
- Embedded Automation Computers
- Programmable Automation Controllers
- Distributed I/O Modules
- Data Acquisition and Control
- Motion Control

**ADVANTECH**

*Enabling an Intelligent Planet*

[www.advantech.com](http://www.advantech.com)

# Table of Contents

## Corporate Information

About Advantech	0-2
About Industrial Automation Group	0-4
Intelligent Automation, Seamless Integration	0-6
Global Certified and Focused Partner Network	0-8
Advantech iPlanet.Online Sales Force	0-10
Advantech iPlanet Care	0-12
One-Stop Global Services	0-13

## Star Product Highlights

Industrial HMI	0-14
Industrial Communication	0-16
Embedded Systems & Intelligent Platforms	0-18
Embedded Automation Computers	0-20
Programmable Automation Controllers	0-21
Distributed I/O Modules	0-22
Data Acquisition and Control	0-24
Automation Software	0-25
Motion Control	0-26
Intelligent Building Solutions	0-27
Application Specialized Solutions	0-28

## Solution Forums

Enabling an Intelligent Planet	0-30
Environmental Monitoring and Facility Management	0-32
Power and Energy	0-33
Machine Automation & Automatic Test Equipment	0-34
Intelligent Building Solutions	0-35
Intelligent Transportation Systems	0-36

## Industry Solutions and Software

### CH1

Motion Control	
Motion Control Overview	1-2
SoftMotion Introduction	1-5
Common Motion API Introduction	1-12
Selection Guide	1-13
Centralized Motion Control Solutions	1-15
Distributed Motion Control Solutions	1-21

### CH2

Hazardous Location Solutions	
Class I, Division 2 Certification Overview	2-2
Selection Guide	2-3
Class I, Division 2 Certified I/O Modules	2-6
Class I, Division 2 Certified Industrial Monitor	2-14
Class I, Division 2 Certified Embedded Automation Computers	2-16

### CH3

Energy Automation	
Energy Automation Overview	3-2
Selection Guide	3-4
Energy Controllers & I/O Modules	3-6
Energy PACs	3-14
Ethernet I/O Module	3-16

### CH4

Building Automation Systems	
Building Automation Systems Overview	4-2
Selection Guide	4-4
Building Energy Management System	4-8
BAS-3000 DDC Programming Tool	4-9
Web-enabled DDC Controller	4-10
BACNet MS/TP Remote I/O Module	4-12
Energy Data Concentrator	4-16
Energy & Power Meter	4-18

### CH5

Automation Software	
Advantech WebAccess	5-2
Advantech WebAccess Express	5-5
WebOP Designer	5-6
DiagAnywhere	5-8
KW MULTIPROG®	5-9
IDC Builder	5-10
ADAMView	5-11
DAQNavi	5-12
A-DAQ Pro	5-13
OPC Server	5-14

## Industrial HMI, Monitors and Panel Computers

### CH6

Intelligent Operator Panels	
WebOP-2000 Series Selection Guide	6-2
WebOP-2000 Series	6-4
Supported PLC Controllers	6-16

### CH7

Automation Panel PCs	
Touch Panel Computer Selection Guide	7-2
Touch Panel Computers	7-4
TPC Installation Accessories	7-18
Industrial Panel Computer Selection Guide	7-19
Industrial Panel Computers	7-20
IPPC Accessories	7-26

### CH8

Industrial Monitors	
Industrial Monitor Selection Guide	8-2
Industrial Grade Monitors	8-4
Domain-focus Platform	8-14
FPM Accessories	8-22

## Industrial Communication

### CH9

Industrial Ethernet Solutions	
Industrial Wireless Product Selection Guide	9-2
Industrial Ethernet Product Selection Guide	9-3
Wireless Access Points/CPE	9-11
EN50155 Ethernet Switches	9-17
Managed Redundant Industrial Ethernet Switches	9-19
Unmanaged Industrial Ethernet Switches	9-30
Industrial PoE Switches	9-39

**CH10****Serial Device Servers and IP Gateways**

Serial Device Server Selection Guide	10-2
Cellular IP Gateways	10-6
Programmable Cellular IP Gateways	10-10
Serial Device Servers	10-11
Programmable Device Servers	10-19
Modbus Gateways	10-21

**CH11****Serial Communication Cards**

Serial Communication Card Selection Guide	11-2
PCI & Universal Communication Cards	11-4
PCI Express Communication Cards	11-8
CAN Communication Cards	11-10
PC/104 & PCI-104 Communication Modules	11-12

**Automation Controllers****CH12****Embedded Automation Computers**

Embedded Automation Computer Overview	12-2
Embedded Automation Computer Selection Guide	12-5
DIN-rail Automation Computers	12-9
High Performance Automation Computers with PC/104+ Expansion	12-13
Wallmount Automation Computers with PCI/PCIe Expansion	12-17
Accessories	12-21

**CH13****Programmable Automation Controllers**

PAC Overview	13-2
SoftLogic Control Software	13-4
PC-based Programming Software	13-6
Batch Control Solution	13-7
APAX Series Overview & System Architecture	13-8
Redundancy Function Introduction	13-11
APAX Series Selection Guide	13-12
Remote I/O Solution Introduction	13-20
ADAM-5000 Series Overview	13-23
ADAM-5000 Selection Guide	13-25
ADAM-5000 Support Table	13-30

**Distributed I/O Modules****CH14****M2M I/O Modules**

M2M I/O Module Overview	14-2
M2M I/O Module Selection Guide	14-6
Wireless Router Nodes	14-8
Wireless Gateways	14-9
Wireless Sensor Nodes	14-10
Wireless I/O modules	14-11

**CH15****Distributed Nano Controllers**

Distributed Nano Controller Overview	15-2
Distributed Nano Controller Selection Guide	15-5
Distributed Nano Controllers	15-6

**CH16****RS-485 I/O Modules: ADAM-4000**

Remote Data Acquisition and Control Modules Overview	16-2
ADAM-4000 Series Selection Guide	16-4
Advanced Communication & I/O Modules	16-8
Communication & Controller Modules	16-12
Analog Input Modules	16-14
Analog Output Modules	16-17
Digital Input/Output Modules	16-18

**CH17****Ethernet I/O Modules: ADAM-6000**

EtherNet/IP & PROFINET I/O Module Introduction	17-2
ADAM-6100 Series Selection Guide	17-3
Ethernet I/O Modules Introduction	17-6
ADAM-6000 Series Selection Guide	17-9
Analog Input/Output Modules	17-10
Digital Input/Output Modules	17-11

**Data Acquisition and Control****CH18****Data Acquisition Boards**

Data Acquisition and Control Tutorial & Software	18-2
DAQNavi Introduction	18-4
A-DAQ Pro Introduction	18-6
Data Acquisition Board Selection Guide	18-8
PCI Express DAQ Cards	18-19
Multifunction Cards	18-23
Analog I/O Cards	18-30
Digital I/O & Counter Cards	18-36
GPIB Card	18-46
PC/104 & PCI-104 DAQ Modules	18-49

**CH19****Singal Conditioning Modules and Terminal Boards**

Terminal Board Selection Guide	19-2
Isolated Signal Conditioning Modules	19-4
Isolated Digital I/O Terminal Boards	19-8
I/O Wiring Terminal Boards	19-9

**CH20****Industrial USB I/O Modules**

USB Data Acquisition (DAQ) Series Overview	20-2
USB I/O Module Selection Guide	20-4
USB Hubs	20-6
USB DAQ Modules	20-7
USB GPBIB Modules	20-14

**CH21****CompactPCI Systems**

Advantech CompactPCI Introduction	21-2
Advantech CompactPCI	21-4

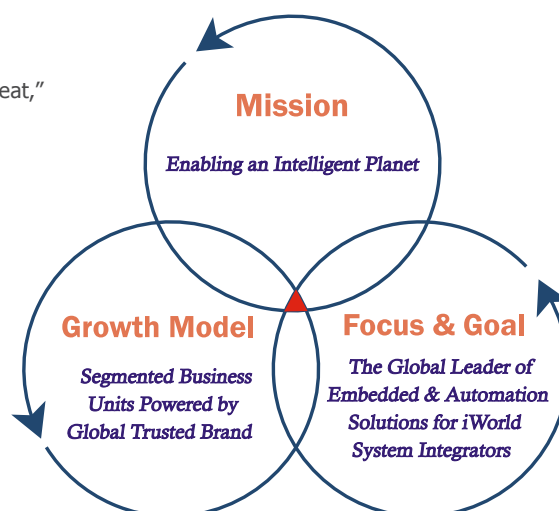
# About Advantech

## Advantech: Enabler of an Intelligent Planet

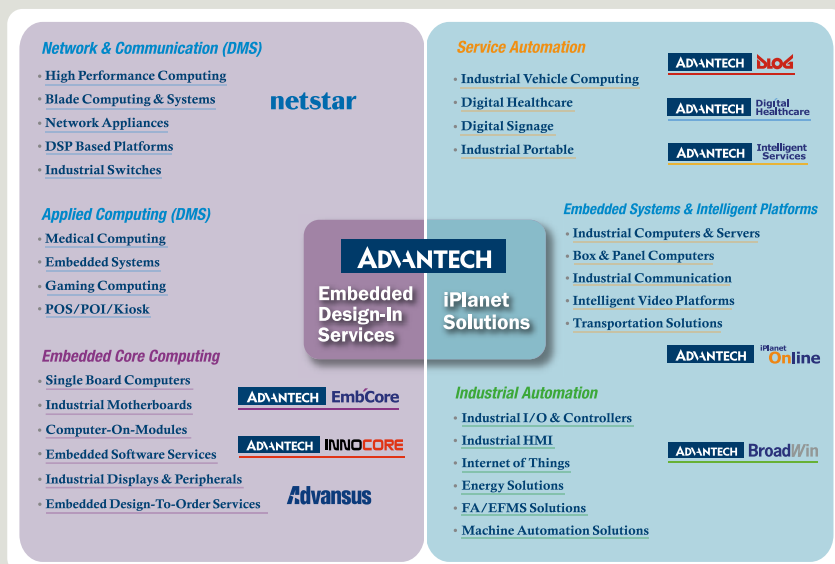
Founded in 1983, Advantech is a leader in providing trusted innovative embedded and automation products and solutions. Advantech offers comprehensive system integration, hardware, software, customer-centric design services, and global logistics support; all backed by industry-leading front and back office e-business solutions. We cooperate closely with our partners to help provide complete solutions for a wide array of applications across a diverse range of industries. Advantech has always been an innovator in the development and manufacture of high-quality, high-performance computing platforms, and our mission is to empower these innovations by offering trustworthy products and services that enable an intelligent planet. With Advantech, there is no limit to the applications and innovations our products make possible.

## Advantech's Good-to-Great 3-Circle Principle

The Advantech 3-Circle Principle is based on the book "Good to Great," by Jim Collins. According to the book, a company looking for long-term success should clearly address these three fundamental principles, and commit to their continuing, solid execution. Advantech is fully committed to this approach and has defined the Advantech "Good to Great 3-Circle Principle" as a means of adhering to it.



## Advantech Corporate Structure and Growth Engines



### • Networks & Communications DMS

Advantech's integrated DMS "StarFleet" Model provides OEMs and premier key accounts with customer-focused Design and Manufacturing Services (DMS), winning together through worldwide partnership and collaboration. DMS provides hardware and software integrated solutions. For the telecom and networking markets, Advantech provides mission-critical hardware to the leading equipment manufacturers. Advantech's standard and customized products are embedded in OEM equipment that the world's communications infrastructure depends upon. Through Advantech's premier Design & Manufacturing Services our customers get reliable, open-standard solutions from the leading innovator in network platform development and manufacturing – plus dedicated resources and support to back them up.

### • Applied Computing DMS

Advantech is a leading industrial computer systems manufacturer and customized solutions provider. Under Design & Manufacturing Services (DMS), our applied computing professionals develop vertically-driven, application-specific platforms and service-ready solutions for use in many sectors: gaming computing, eHealthcare computing, portable computing, and embedded systems. We specialize in designing and manufacturing the widest range of high quality and high performance industrial grade hardware and dedicated software tailored to the exact needs of each industry field. With a dedicated research & development team, a full range of customization capabilities, and a global sales/service organization, the Advantech DMS applied computing team has what it takes to fulfill customers' time-to-market requirements.





## World-Class Recognition

Advantech is an authorized alliance partner of both Intel® and Microsoft®. Our customers find the technologies we use inside our products to be widely compatible with other products in the global marketplace. In 2011, Interbrand, the world renowned brand consulting firm, once again recognized Advantech as one of the Top 10 Taiwanese Global Brands. Advantech appreciates this recognition of our efforts to build a trusted, global brand; it also symbolizes a promise we give to our business partners, which is to keep building a trustworthy brand that is recognized everywhere and improves the lives of all.

## 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 the following:

- ISO 9001 Certification
- ISO 14001 Certification
- ISO 13485 Certification
- OHSAS 18001 Certification
- TL9000 Quality Management System
- RoHS Directive Compliance
- WEEE Directive Compliance
- Authorized Sony Green Partner



## Timely Support at Your Convenience

Advantech has over 12 regional toll-free hotlines, and offices throughout 71 cities in 21 countries, with over 5,000 employees to provide efficient, professional services for customer care, product selection, technical support, and order handling. Through our call centers and online stores, customers worldwide enjoy the convenience of Advantech's multi-service channels to reduce business turnaround time. Together with over ten customer service centers in Taiwan, China, Japan, Korea, Singapore, Brazil, the Netherlands, Poland, and the United States, our global service network offers an extensive spectrum of services that includes warehousing, logistics, peripheral certification, sourcing and purchasing, and RMA and support services.

### • Embedded Core Computing

Embedded Core Computing Group provides a full range of embedded boards, systems, peripheral modules and innovative embedded software services with leading technologies to customers. With a range of specialist design-in services backed by our internal and global resources, Advantech is committed to working closely with embedded customers to ensure design success by helping them discover new business opportunities through advanced embedded technologies and services that empower smart applications for an intelligent planet.

### • Embedded Systems & Intelligent Platforms

With innovative technologies from cloud computing (industrial server, video server), edge computing (fanless, slim & portable devices), to high performance embedded systems (blade computing, network processor platforms, DSP processing), Advantech transforms embedded systems into intelligent systems with smart, secure, energy-saving features, built with Industrial Cloud Services and professional System Design-To-Order Services (System DTOS). Advantech's intelligent systems are designed to target vertical markets in transportation, industry (machine automation, equipment/machine building), digital signage, and video applications (video infrastructure and video surveillance).

### • Service Automation

Advantech's Service Automation & Applied Computing Group invests in developing vertically-driven, application-specific platforms and service-ready solutions for use in many sectors: industrial portable computing; digital logistics & fleet management; digital healthcare & medical computing; smart room & scenario control for home and office; and digital signage & self-service computing for retail, hospitality, enterprise, education, and public spaces. Service Automation & Applied Computing Group lets you enjoy the convenience, safety, and efficiency that smart applications deliver, and experience the best in interactive and innovative technologies and services.

### • Industrial Automation

With the theme of Intelligent Automation, Seamless Integration; the Industrial Automation Group (IAG) of Advantech Corporation is a pioneer in intelligent automation technology. By combining connectivity, flexibility, ruggedness and leading-edge "Internet of Things" technology, IAG offers product offerings for intelligent HMI platforms, the industrial Ethernet, wireless communications, automation controllers, automation software, embedded automation computers, distributed I/O modules, wireless sensor network solutions, motion I/O and plug-in I/O modules for a wide array of industries. With more than 20 years of experience in providing a full range of products to different vertical markets, IAG is a leading global automation product and services provider.

# About Industrial Automation Group

## Advantech, a Pioneer in Intelligent Automation Technology



Industrial automation accelerates the transformation of traditional industries, and improves their overall quality, then upgrades the industrial structure. In this industry, Advantech is a pioneer of intelligent industrial automation. By combining connectivity, flexibility, ruggedness and being at the leading-edge of IoT (Internet of Things) technology, Advantech Industrial Automation Group supplies products such as Intelligent HMI Platforms, Industrial Ethernet, Wireless Communication, Automation Controllers, Automation Software, Embedded Automation Computers, Distributed I/O Modules, Wireless Sensor Network Solutions, Plug-in I/O, and Industrial Communication solutions for a wide array of industries. With more than 20 years experience in providing a full range of products to different vertical markets, the Industrial Automation Group is a leading global Automation Product and Services provider.

## The Future of Industrial Automation

IoT is a massive new trend, capable of reshaping the industrial automation industry. The essence of IoT is that everything, including all devices and equipment, can connect to each other through the Internet. In order to make this happen, sensors and intelligence are needed for a variety of devices and physical objects on the device.

Traditional industrial automation and control systems mainly consist of three layers: device, control, and information. This three-layer structure also applies to the DCM (Device, Connect, and Manage) layers of the Internet of Things. Each level has evolved from the original features: devices are enhanced to become smart objects that users can use to identify or retrieve various data. The connection layer is about reliable delivery: by expanding the existing wired network to integrate with a variety of wireless networks. The management layer involves the original management functions and moves them towards intelligent processing, captured data processing and the presentation of more intelligence.

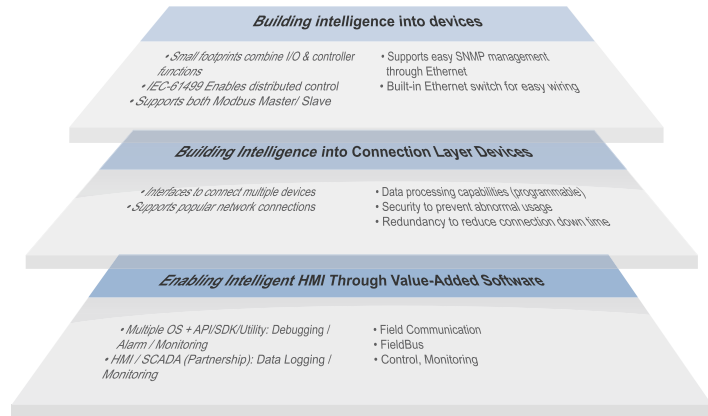


## Intelligent Automation, Seamless Integration

Echoing the new opportunities brought about by the Internet of Things, Advantech's industrial automation group has a new mission statement of "Intelligent Automation, Seamless Integration" thereby outlining the vision of promoting an intelligent world.

### Intelligent Automation

Use of smart technology is the inevitable development of the automation industry. Advantech, takes the lead and proposes the best solution. The new architecture is a substantial evolution of traditional industrial automation. With it, traditional equipment is capable of identifying or retrieving various data; data transmission now covers cable and a variety of wireless networks; management functions cover a range of data captured from the original management capabilities to progress to the intelligent processing, and rapid analysis with the correct response for remote monitoring purposes.



### Seamless Integration

System integration and seamless integration are key to the success of our customers' projects. In order to achieve this goal, Advantech is not only actively involved in the integration of a variety of hardware interfaces, consistent protocols, fully developed SCADA / HMI system from the tool library to the automation software, but has also set up a dedicated team for the research and development of vertical industry applications.

#### Device Integration

- Common UI among Product Lines
- Uses Industry Communication Standards e.g. Modbus RTU/TCP, Ethernet/IP, ProfiNet etc.
- Developed Plug-n-Play Mechanism into Intelligent Devices for Easy to Use
- OPC UA Technology Development for Cloud-enabled Devices

#### Monitoring & Management

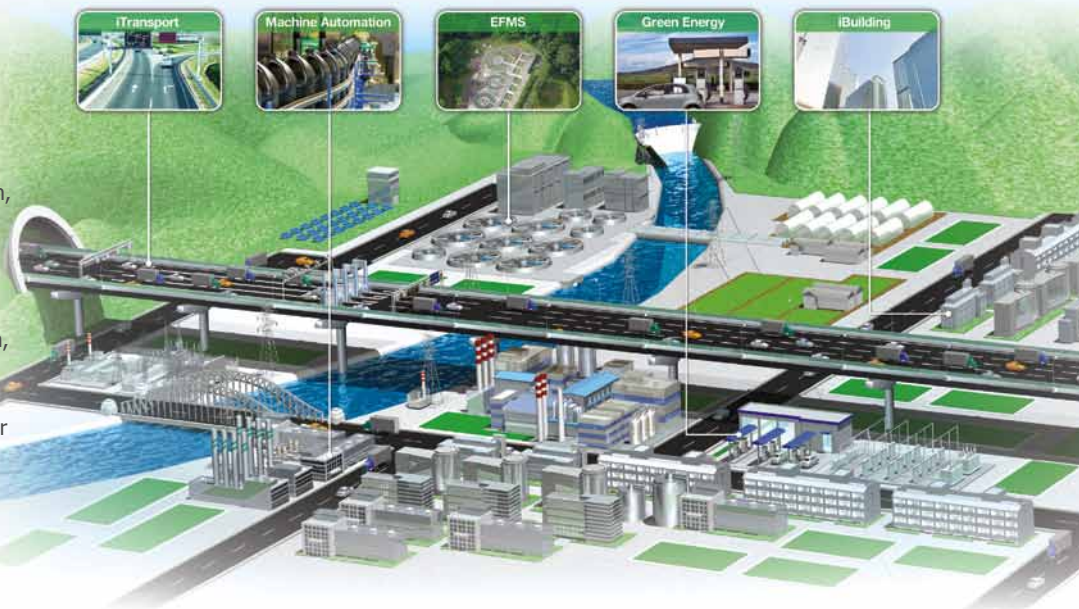
- Advantech Device Products Faceplate Development on WebAccess for Easy to Use
- WebAccess Gateway is Data Transparent for Heterogeneous Devices in Variable Fields for Backend IT System Integration, such as ERP, MES etc.
- Device Utility & Driver Integration for Easy Auto-Discovery, Installation & Configuration
- OPC UA & Web Services & HTML5 Technology Development for Cloud-enabled & Cross Platforms and Mobile Devices

#### Vertical Solutions

- Domain Focused Team (DFT) for Domain S/W Module Development on WebAccess on Selected Vertical Applications
- Leverage 3rd Parties' Products to Build Vertical Solutions on Top of WebAccess

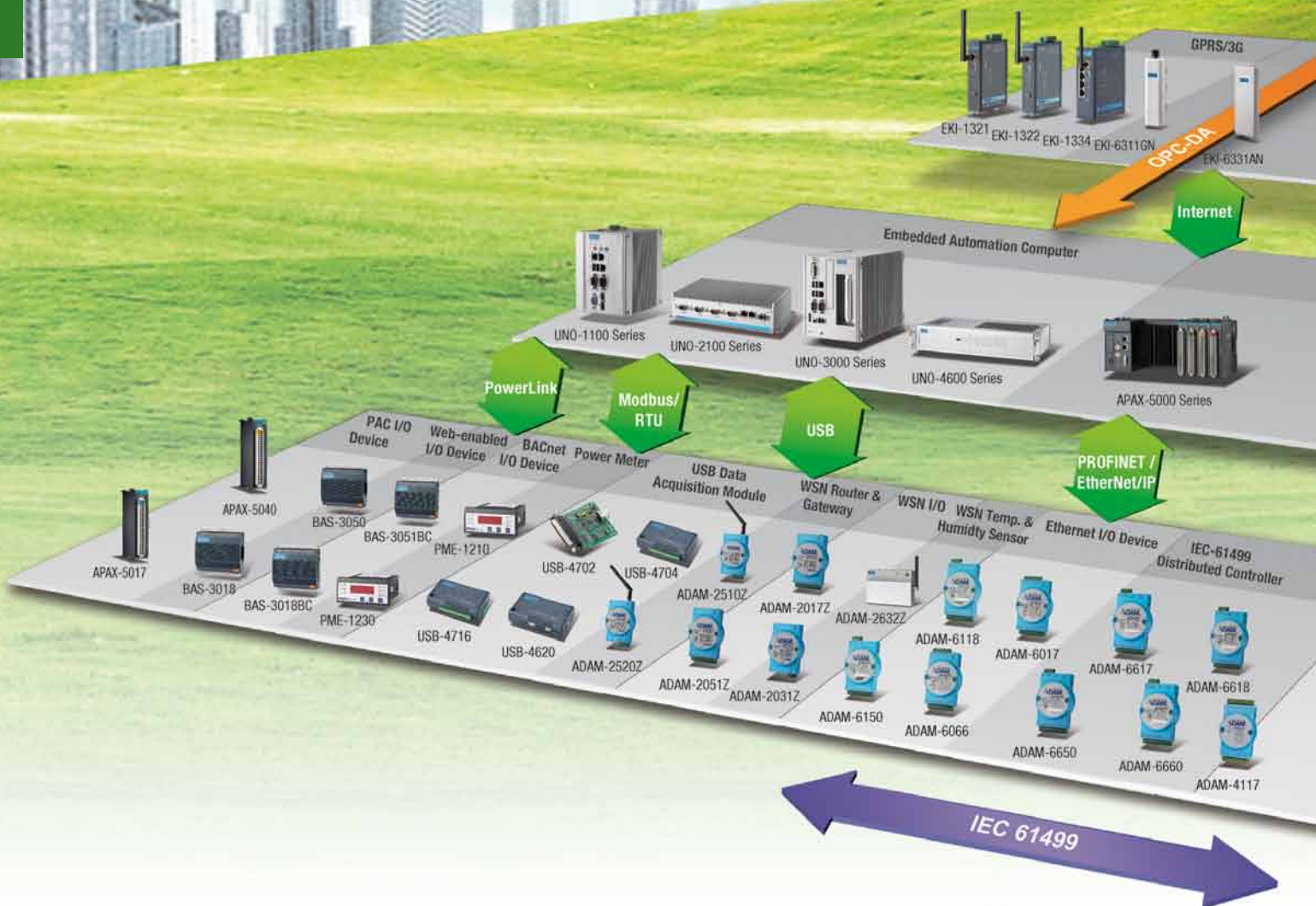
### Enabling a New Era of Intelligent Automation

The "Intelligent Automation, Seamless Integration" mission statement looks forward to the contribution that Advantech, together with its partners, can make to this new era of intelligent automation. Whether in public safety, building energy efficiency, environmental monitoring, industrial monitoring, smart transportation, smart grids, smart homes and other areas with our expertise and experience we can provide the best solution to create a better tomorrow.





# Intelligent Automation, Seamless Integration







# Global Certified and Focused Partner Network

Since 1983, Advantech has formed strong and lasting partnerships with many well-established channel partners and solution partners to deliver prompt and reliable local services for our customers. Currently, Advantech has over 300 partners in more than 60 countries worldwide to provide certified services and products anytime, anywhere.

## Certified Professionals Guarantee Outstanding Quality Services

Through rigorous training and validation, our partners are certified annually, guaranteeing a high standard of quality & service. With these dedicated and well-trained sales and technical support teams, Advantech customers can enjoy outstanding quality services and early access to latest industrial computing solutions.

- Value-added services: Many of our partners are distributors, value-added resellers, focused channels, system integrators, or independent software vendors specialized in specific industry segments or applications with years of experience in developing application ready platforms. Their profound knowledge in integrating Advantech's hardware platforms with peripherals and software can speed up your time-to-market.
- Quality technical support: All the partners have dedicated application engineers to provide pre-sales and post-sales technical support. Within Advantech, there's a group of hotline and field application engineers to back up our partners, ensuring the service level.
- Fast delivery with flexible global supply chain: With over 300 partners and 4 regional service centers worldwide, Advantech offers fast delivery and after-sales support to our customers.



## Strategic Focus Makes the Difference

As industrial and embedded computing applications become more diversified, customers are demanding to get solutions tailored for vertical applications and high-quality local support.

To fulfill such needs, Advantech strives to develop its global partner network with a strategic focus. We only partner with distributors, VARs, and system integrators who value quality services as we do and pride themselves with profound industry know-how and technical competency. Through our comprehensive training and certification programs, Advantech partners are expert consultants in our rich portfolio of product offerings and applications for various vertical segments.

Currently, Advantech has partners in the following categories:

### Distribution Channel Partners (DCP)



Advantech Distribution Channel Partners focus on industrial automation and general computing platform markets. With local inventory and logistic services, our DCPs can provide prompt delivery of system components for resellers and system integrators' control and automation applications. Aligned with our regional sales offices and service centers, Advantech DCPs have formed a strong service network to offer professional pre-sales and post-sales worldwide.

### Focused Channel Partners (FCP)

Advantech Focused Channel Partners (FCP) are application experts in specific vertical segments. They provide local value-added services for our customers, such as application development, technical consultation, design service, integration & installation, on-site services, technical training and project management. Currently Advantech offers application specialized solutions in 6 focused vertical segments, segments: factory & machine automation, power & energy, environmental monitoring & facility management, industrial mobile & in-vehicle computing, medical & health care, retail, hospitality & self-service. The FCPs for each segment are certified value-added resellers with expertise in application development and system integration.



### Solution Partners

Solution Partners are 3rd parties who integrate Advantech products and value-added software and peripherals to provide turn-key solutions. Advantech's Solution Partners offer our customers a full range of field proven integrated solutions in Medical, Telecom, Transportation, Gaming, Power & Energy, Building & Home Automation, Factory & Machine Automation, Environmental Monitoring & Facility Management, Retail, Hospitality & Self-service, and many more. Their solutions are validated with Advantech products for compatibility, quality, and service.

### Technology Partners

Advantech is the global premier partner of Intel Embedded Alliance and gold partner of Windows Embedded. We cooperate closely with many leading technology providers to develop the most cutting-edge products to meet stringent requirements from customers in a wide array of industries within a short development time.

# Advantech iPlanet.Online Sales Force

## Enabling an Intelligent Planet Far and Wide

To provide fast and convenient services to our customers and users, Advantech provides several easily-accessible web portals, including: the Advantech.com website, Buy.Advantech.com and an Online Support Portal to serve different requirements. To supplement our electronic contacts, we've also built up regional call centers to take care of customers who prefer human contact. These methods allow us to deliver our services by live chat, phone line and email anytime and anywhere.

## 16 Teams in 23 Cities Serve Global Inquiries



Milpitas



Cincinatti



Düsseldorf



Beijing



Taipei



Tokyo



Melbourne

## Advantech.com Website

Through [www.advantech.com](http://www.advantech.com), we not only offer comprehensive products, but also real-time updated information to our customers. In addition to product information, you also can find case studies of proven applications from diverse sectors. Furthermore, registered MyAdvantech members, can access the RMA service center, updated price lists, and various promotion programs.



## Online Store



### Buy.Advantech.com

To extend Advantech's services, we launched the Buy.Advantech online store which offers one-stop shopping for Human Machine Interfaces, Industrial Ethernet networking, Controller & I/O products, plus computing platforms. This eStore offers comprehensive product information to build systems easily, with live expert support to solve problems, online configurations providing easy system customization options, instant quotations, an extensive library of FAQs and all the latest up-to-date downloads and firmware.

## Personal Web Service

MyAdvantech is a quick access portal to your account information where you can view Advantech product and order information, order online, download data, and also a resource center keeping the viewed video, webcast, and much more materials you've been reached through Advantech portals. Login to begin enjoying your personalized Advantech portal and increase your ordering efficiency.

## Online Support

Providing superior self-support mechanisms is one of the most essential parts of being a top-tier automation company, and we take pride in the outstanding level of service that we offer. To best support our customers, we've created a suite of useful interactive online tools, including:

- Technical Documents: Manuals, datasheets, updated drivers and utilities all available for download through the Support Portal
- 3D Product Models: Simulated products in 3D format to provide detailed outlook for customer evaluation
- Online Training: Self-training documents and videos to provide trainees with integrated information
- Online Catalog: Comprehensive online catalogs to provide customers with extensive product information



## Call Center



To effectively respond to customers' questions, our regional call centers support inquiries about: purchasing, shipping, technical, and RMA issues among lots of general accounts. Contact your regional call center to get the support you need today.

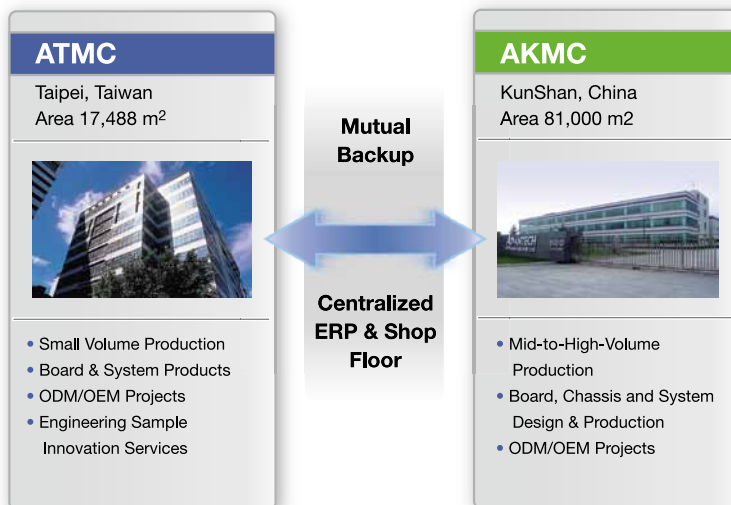
### Global Hotlines

US	1-888-576-9668	Taiwan	0800-777-111	Singapore	65-6442-1000
Europe	00800-2426-8080	Japan	0800-500-1055	Malaysia	1800-88-1809
Brazil	0800-770-5355	Korea	080-363-9494	Thailand	66-2-248-3140
China	800-810-0345	Australia	1300-308-531	India	1800-425-5070
Indonesia	6221-7690525	Mexico	52-55-6275-2777		

# Advantech iPlanet Care

## Manufacturing

Our dual, world-class manufacturing centers in Taiwan and China maintain precise quality control, and offer a full range of production in a timely and cost-effective manner. To maximize the efficiency of operational procedures, we have implemented a cluster manufacturing system within our segmented manufacturing service units. This unique approach enables a direct, simplified, and highly streamlined design-to-manufacturing process.



- In-house board, chassis, and system production
- Dual world-class manufacturing centers minimize business risks
- Advanced production capabilities and customizable processes
- Rigid quality assurance system
- Most complete ISO standard coverage

## Configure To Order Services

Advantech Configure To Order Services (CTOS) makes industrial computing solutions more accessible by offering web-based configuration tools, comprehensive, complex assembly services with high-mix, low-volume box build and customized assembly, modification, system integration and functional testing services.

- Online intelligent configuration
- Comprehensive approach to complex configuration solutions
- Local customized configuration services
- 2 year global warranty covering system & peripherals integrated

**ADVANTECH CTOS**  
Configure To Order Services

## Certified Quality Assurance System

Advantech has been designing and manufacturing industrial PCs according to our 3C Quality Statement:

- Always strive for overall customer satisfaction
- Continuous improvement
- Apply closed-loop mechanisms to resolve problems

At Advantech, quality is our main priority. A complete line of safety, EMC and reliability measures such as ESD, vibration, drop testing, temperature, humidity and HALT chambers are available to ensure our products meet the strictest standards. All facilities are at least ISO 9001 and 14001 certified while others hold additional certifications such as ISO 13485, 17025, TL9000 and OHSAS18001. An environmental program that focuses on reducing, reusing and recycling of materials throughout the manufacturing process is also applied at Advantech. All our products are 100% RoHS compliant and Environmental Management Systems such as QC080000 are applied to meet worldwide environmental requests. Advantech's efforts towards environmental protection have been recognized by Sony since 2004 (Sony Green Partner).

- Complete ISO coverage
- Green policies
- Constant quality and reliability monitoring
- Ease of access to quality contacts





# One-Stop Global Services

Advantech iPlanet Care combines exceptional business expertise, powerful design capacities, and a thorough global service network to provide one-stop global services and total solutions. Our broad range of global support packages adds maximum flexibility and efficiency to your projects.



## Global Logistics Services

With strong integrated ERP and SAP supply chain solutions, our worldwide logistics network offers a wide range of options for different delivery models including local and global solutions that meet your unique needs and budget requirements.

Advantech's Logistics Service gives you the flexibility to simplify your logistical networks, bring your products to market on time, and enjoy a timely return on your investment.

- Optimized and flexible shipping solutions
- Integrated ERP and SAP supply chain solution with global distribution network
- Centralized plants with local delivery

## Global Procurement Services

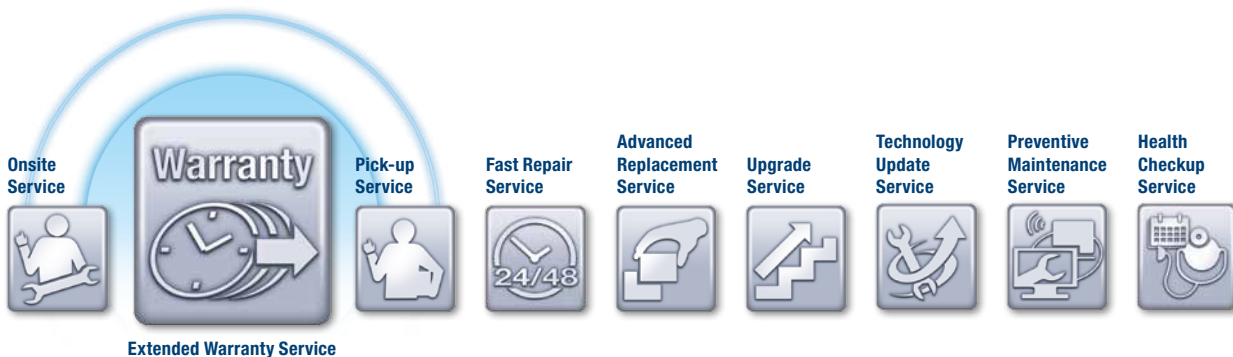
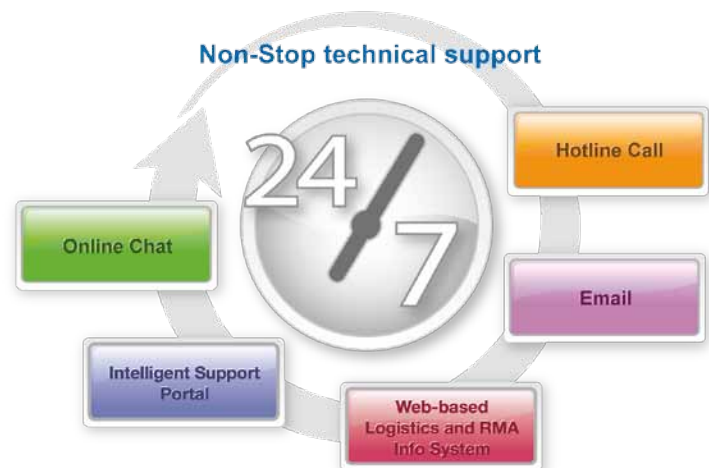
Advantech global procurement network consists of local teams that leverage strong, worldwide supplier relationships and strict vendor and product management to offer quality-guaranteed, compatible peripherals with short lead times and competitive prices.

- Localized procurement with worldwide network support
- Global standardization management; 100% compatible peripherals
- Trusted quality with revision control
- Short lead time and competitive price

## Global Customer Support Services

Our global presence provides localized reliable customer support services. We can create an optimized maintenance and support plan, leveraging the full power of our service portfolio to help reduce costs and proactively mitigate business risks to best meet your needs. In addition to our complete technical and repair support, we provide a variety of customizable after-sales services, including extended warranty, advance replacement, upgrade, fast repair, etc. With our knowledgeable local support groups, we enable a consistent support experience around the world and help keep your investment at peak performance and within your budget.

- 24/7 technical support: hotline AE & online chat support
- Global deployment with local full-line repair capability
- Easy-to-use web-based repair and tracking system (eRMA)
- Various value-added, after-sales service packages



# Industrial HMI

## Leading the Evolution of Intelligent Operator Panels and Panel PCs



As a leading provider of human machine interfaces, Advantech's HMI products are designed for a wide ranges of applications which can be applied in different industries. With Advantech's HMI, we provide an integrated and comprehensive range of HMI products including Intelligent Operator Panels (WebOP), Automation Panel PCs (TPC, IPPC), and Industrial Monitors (FPM) for automation markets and domain focused markets such as oil and gas and sunlight readable requirements. In addition, we offer an integrated I/O and control features with HMI/SCADA software which allows efficient integration and opens a new era of automation.

### Intelligent Operator Panels



NEW



P. 6-4

#### WebOP-2040T

##### 4.3" WQVGA Operator Panel

- 4.3" WQVGA 65,536 colors TFT LCD, ARM9-based CPUs
- Front panel flat-sealed with NEMA4/IP66 compliance
- 10W low power consumption
- Supports over 300 PLC communication protocols
- Communicates with up to four types of devices
- Flexible runtime download and maintenance



NEW

P. 6-6

#### WebOP-2050T

##### 5.6" QVGA Operator Panel

- 5.6" QVGA 65,536 colors TFT LCD, ARM9-based CPUs
- Front panel flat-sealed with NEMA4/IP66 compliance
- 10W low power consumption
- Supports over 300 PLC communication protocols
- Communicates with up to four types of devices
- Flexible runtime download and maintenance



NEW



P. 6-8

#### WebOP-2070T

##### 7" WVGA Operator Panel

- 7" WVGA 65,536 colors TFT LCD, ARM9-based CPUs
- Front panel flat-sealed with NEMA4/IP66 compliance
- 10W low power consumption
- Supports over 300 PLC communication protocols
- Communicates with up to four types of devices
- Flexible runtime download and maintenance



NEW

P. 6-10

#### WebOP-2080T

##### 8" SVGA Operator Panel

- 8" SVGA 65,536 colors TFT LCD, ARM9-based CPUs
- Front panel flat-sealed with NEMA4/IP66 compliance
- 10W low power consumption
- Supports over 300 PLC communication protocols
- Communicates with up to four types of devices
- Flexible runtime download and maintenance



NEW



P. 6-12

#### WebOP-2100T

##### 10.1" WSVGA Operator Panel

- 10.1" WSVGA 65,536 colors TFT LCD, ARM9-based CPUs
- Front panel flat-sealed with NEMA4/IP66 compliance
- 10W low power consumption
- Supports over 300 PLC communication protocols
- Communicates with up to four types of devices
- Flexible runtime download and maintenance



P. 6-14

#### WebOP-2121V

##### 12.1" SVGA Operator Panel

- 12.1" SVGA 65,536 colors TFT LCD, ARM9-based CPUs
- Front panel flat-sealed with NEMA4/IP66 compliance
- Supports over 300 PLC communication protocols
- Communicates with up to four types of devices
- Flexible runtime download and maintenance

### Automation Panel PCs



P. 7-24

#### IPPC-4001D/4008D

##### 5.7" VGA TFT LCD 4U 19"/19" Half-size Rack Industrial Panel PCs

- Slim keyboard & mouse pad drawer with lockable clip
- Supports high performance Intel® Core™ 2 Duo processors
- Offers 14/8 expansion slots for 2 PICMG, 10 PCI, 2 ISA/1 CPU PCI, 3 PCI, 4 SPCI
- Membrane function keys (F1~F5) for varied application access
- Front accessible USB is friendly to plug-in versatile USB devices



P. 7-20

#### IPPC-6192A/6172A/6152A

##### 19" SXGA/17" SXGA/15" XGA TFT LCD Core™2 Quad/Core™2 Duo Industrial Panel PCs

- Intel® Core™ 2 Quad CPU (up to 2.8 GHz)/Core™ 2 Duo CPU (up to 3.0 GHz)
- System memory supports dual channel DDR3 SDRAM up to 4GB
- Offers two expansion slots for PCI add-on cards
- Dual Gigabit Ethernet with Intel vPro technology
- Supports 2 x 2.5" SATA HDDs and RAID 0/1 compatibility



NEW

P. 7-22

#### IPPC-9151G/9171G

##### 15" XGA/17" SXGA Intel® Core™ i7/i5/i3 Celeron Mobile Processor Industrial Panel PCs

- 15" XGA/17" SXGA LED backlight with low power consumption
- Front access USB connector, supports 1 x PCIe x1 or 4 (Gen2)
- Heavy-duty stainless steel chassis with aluminum front panel and NEMA4/IP65 compliance
- Supports dual HDMI, LVDS, VGA displays; 1 x 2.5" SATA II or III HDD and 1 x CFast
- Hard anodic coating to prevent panel abrasion and acid corrosion



### TPC-671H

6.5" VGA TFT LCD Intel® Atom™  
Automation Control Panels

- 6.5" VGA TFT LED backlight LCD
- Intel® Atom™ Z510 1.1GHz processor
- Flexible expansion capability for WLAN, GPS and Bluetooth with external antenna
- Supports Microsoft® Windows® 7/XP/WES/WEC



### TPC-1071H/1271H

10.4" / 12.1" SVGA TFT LCD Intel® Atom™  
Dual-Core D525 Automation Control Panels

- Intel® Atom™ Dual-Core D525 1.8GHz processor
- 8 x DI/DO with isolation and backup 1MB SRAM
- Flexible expansion capability for field-bus control and IoT ready platform
- Serial port isolation protection
- Supports Microsoft® Windows® 7/XP/WES/WEC



### TPC-1571H

15" XGA TFT LCD Intel® Atom™  
Dual-Core D525 Automation Control Panels

- Intel® Atom™ Dual-Core D525 1.8GHz processor
- 8 x DI/DO with isolation and backup 1MB SRAM
- Flexible expansion capability for field-bus control and IoT ready platform
- Serial port isolation protection
- Supports Microsoft® Windows® 7/XP/WES/WEC



### TPC-650H/1250H/1550H

5.7" VGA/12.1" SVGA/15" XGA SXGA  
TFT LCD Thin Client Computers

- Ultra slim and compact design
- Intel® Atom™ N270 1.6GHz processor
- TFT LED backlight LCD
- Energy Star certified



### TPC-651H/1251H/1551H

5.7" VGA/12.1" SVGA/15" XGA TFT LCD  
Intel® Atom™ Thin Client Computers

- 3.5" QVGA/5.7" QVGA LCD with TI AM3517 processor
- Intel® Atom™ Z520 1.33GHz processor
- COM port isolation design
- Energy Star certified



### TPC-31T/61T

3.5"/5.7" QVGA TI AM3517 600MHz  
RISC- based Touch Panel Computers

- 3.5" QVGA/5.7" QVGA LCD with TI AM3517 processor
- Built-in Mini SD card with Windows® CE OS
- 1 x SD card slot for storage
- NEMA4/IP65 compliant front panel

## Industrial Monitors



### FPM-5152G/5172G/5192G

15" XGA/17" SXGA/19" SXGA  
Industrial Monitors with Resistive  
Touchscreens, Display port

- Display port video input interface
- Lockable OSD keys with 2 user-defined contrast/brightness settings
- Flat-sealed front panel
- Robust design with anti-rust chassis and aluminum die-cast front panel
- Combo RS-232 & USB interface for touchscreen function (optional)
- NEMA4/IP65 compliant front panel



### FPM-3151G/3171G/3191G

15" XGA/17" SXGA/19" SXGA Industrial  
Monitor with Resistive Touchscreen, Direct-  
VGA and DVI Ports

- Direct-VGA and DVI port input interface
- Robust design with stainless steel chassis and aluminum front panel
- Anti-reflective screen with tempered glass
- OSD control pad on front panel
- Supports industrial 24-48 V<sub>DC</sub> power input (optional)
- NEMA4/IP65 compliant front panel



### FPM-5151G/5171G/5191G

15" XGA/17" SXGA/19" SXGA  
Industrial Monitors with Resistive  
Touchscreens, Direct-VGA, and DVI Ports

- Direct VGA & DVI-D video input interface
- Lockable OSD keys with 2 user-defined contrast/brightness settings
- Flat-sealed front panel
- Robust design with anti-rust chassis and aluminum die-cast front panel
- Combo RS-232 & USB interface for touchscreen function (optional)
- NEMA4/IP65 compliant front panel

## Domain-focused Platforms



### TPC-1251SR/1551SR

12.1" SVGA/15" XGA High Brightness LCD  
Intel® Atom™ Touch Panel Computers

- 12.1" SVGA / 15" XGA high brightness LED backlight
- Intel® Atom™ processor 1.33 GHz
- -20 ~ 60°C wide operating temperature range
- Optical bonding enhances reflection rate of under 0.2%
- NEMA4/IP65 compliant front panel
- Energy Star certified



### FPM-3151SR

15" XGA High Brightness Industrial Monitor  
w/ Resistive Touchscreen

- 15" XGA high brightness LED backlight
- -20 ~ 60°C wide operating temperature range
- Direct-VGA and DVI port input interface
- Optical bonding enhances reflection rate of under 0.2%
- NEMA4/IP65 compliant front panel
- Energy Star certified



### IPPC-8151S

15" XGA TFT LCD Celeron® M Fanless  
Industrial Panel PC with Stainless Steel

- 15" XGA TFT LCD with chemical resistant touchscreen
- Supports Intel® Celeron® M 1 GHz/1 MB L2 processor with 1 GB memory
- 316L stainless steel and food-safe sealing materials
- Robust and fanless design for reliable operation
- Anti-corrosive and chemical resistant touchscreen
- NEMA4X/IP66 compliant front panel

# Industrial Communication

## Simplify the Way You Connect



Advantech's Industrial Communication products are designed with over 20 years of experience to provide reliable wired and wireless communication (3G, GPRS, and WLAN) for mission critical applications. These products include: Industrial Ethernet Switches, Industrial Wireless AP/CPE, Media Converters, Serial Device Servers, Cellular IP Gateways, Modbus Gateways, and Serial Communication Cards. They are also capable of securely transmitting critical and sensitive information, remotely monitoring and controlling networked devices and emphasizing high communication capabilities for industrial applications.

### Industrial Wireless AP/CPE



P. 9-13

NEW

#### EKI-6340 Series

802.11 a/b/g/n Outdoor Single to Triple Radio Wi-Fi Mesh AP

- Ultra-fast roaming (hand-over switch time  $\leq 20$  ms) provides mobile connectivity
- High throughput & multi-hopping (up to 100 Mbps @ 10 hops) saves devices & deployment cost
- Mesh technology with self-forming & self-healing empowers system's scalability plus flexibility
- EN50155 compliant



P. 9-15

NEW

#### EKI-6351 Series

802.11 a/b/g/n Wi-Fi Mesh AP/Station

- Ultra-fast roaming (hand-over switch time  $\leq 20$  ms) provides mobile connectivity
- High throughput & multi-hopping (up to 100 Mbps @ 10 hops) saves devices & deployment cost
- Mesh technology with self-forming & self-healing empowers system's scalability plus flexibility
- EN50155 compliant

### Industrial Ethernet Switches



P. 9-21



#### EKI-7758F

4G+4 SFP Gigabit Managed Redundant Industrial Ethernet Switch

- All Gigabit Ethernet ports for 4 copper and 4 SFP
- SFP sockets for easy and flexible fiber expansion
- Redundancy: X-Ring support (recovery time < 20 ms)
- Dual 12~48 V<sub>DC</sub> power input and one relay output



P. 9-26

#### EKI-7556M

16+2 SC Type Fiber Optic Managed Ethernet Switch with Wide Temp.

- 2 x SC type fiber ports, plus 16 Fast Ethernet ports
- Redundancy: X-Ring support (recovery time < 20 ms)
- Dual 12~48 V<sub>DC</sub> power input and one relay output



P. 9-28

#### EKI-2748CI

6G+2 Combo Gigabit Managed Ethernet Switch with Wide Temp. and Class 1, Division 2

- All Gigabit Ethernet ports for Copper and SFP/Combo interfaces
- SFP sockets for easy and flexible fiber expansion
- Redundancy: X-Ring support (recovery time < 20 ms)
- Dual 12 ~ 48 V<sub>DC</sub> power input and one relay output



P. 9-18



#### EKI-6528TI/6528TPI

EN50155 8-port M12 Unmanaged Switches with Wide Temp.

- 4-port IEEE 802.3af compliant PoE and Ethernet combo ports (EKI-6528TPI)
- Wide redundant power design and IP40 protection
- EN50155 certified for railway applications



P. 9-30

#### EKI-4524I/RI

24-port Unmanaged Industrial Ethernet Switch with Wide Temp.

- 1U 19" rack mount with 2 SFP and 24 Fast Ethernet ports (EKI-4524RI)
- Supports 100~240 V<sub>AC</sub>/V<sub>DC</sub> power input
- Front panel LEDs simplify monitoring and management



P. 9-35/9-37

#### EKI-2725/2728/2525/2528

5-port/8-port Unmanaged Industrial Ethernet Switches

- Super slim IP30 metal casing
- Advanced heat sink strong enough to operate in harsh environments
- Provides 3,000 V surge (EFT) protection and 4,000 V Ethernet ESD protection



## Industrial PoE Switches



P. 9-39

### EKI-7659CPI

8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temp.

- 2 Gigabit Copper/SFP combo ports, plus 8 PoE injector ports
- SFP socket for easy and flexible fiber expansion
- Redundancy: X-Ring support (recovery time < 20 ms)



P. 9-42

NEW

### EKI-2701HPI

IEEE 802.3af/at Gigabit PoE+ Injector with Wide Temp.

- Compliant IEEE 802.3af/at
- Supports wide operating temperature range -40 ~ 75°C
- Isolated power input from 24 ~ 48 V<sub>DC</sub>
- Power input (24 ~ 48 V<sub>DC</sub>), inject 30 W for each port

## Media Converter



P. 9-44



### EKI-2541M/S

10/100TX to Multi-Mode/Single-Mode SC Type Fiber Optic Industrial Media Converters

- 1 x 10/100 Mbps Ethernet port with RJ45 connector
- Provides internal jumper for Link Fault Pass-through (LFP) setting
- Supports full/half duplex flow control

## Cellular IP Gateways (iGateways)



P. 10-7

NEW

### EKI-1321/1322

1/2-port RS-232/422/485 to GPRS IP Gateways

- Universal quad-band GSM/GPRS 850/900/1800/1900 MHz
- Dual SIM slots for connection redundancy
- Extra SD slot for data buffering and auto recovery
- Provides NAT and VPN



P. 10-9

NEW

### EKI-1331/1332

1/2-port RS-232/422/485 to 3G IP Gateways

- Universal five-band UMTS & quad-band GSM
- Dual SIM slots for connection redundancy
- Extra SD slot for data buffering and auto recovery
- Provides NAT and VPN

## Serial Device Server



P. 10-14

NEW

### EKI-1528C

8-port RS-422/485 Serial Device Server with Isolation

- Provides 2 x 10/100/1000 Mbps Ethernet ports for LAN redundancy
- Supports up to 921.6 kbps, and any baud rate setting
- Dual SIM slots for connection redundancy

## Programmable Device Servers and iGateways



P. 10-20

NEW

### EKI-1528PC

8-port RS-422/485 Programmable Device Server with Isolation

- Provides 2 x 10/100/1000 Mbps Ethernet ports for LAN redundancy
- Supports up to 921.6 kbps, and any baud rate setting
- Dual SIM slots for connection redundancy
- Powerful computing engine in ARM base



P. 10-10

NEW

### EKI-1321P/1322P

1/2-port RS-232/422/485 to Programmable GPRS IP Gateways

- Universal quad-band GSM/GPRS 850/900/1800/1900 MHz
- Dual SIM slots for connection redundancy
- Extra SD slot for data buffering and auto recovery
- Powerful computing engine in ARM base

## WLAN Device Server



P. 10-12

NEW

### EKI-1361/1362

1/2-port RS-232/422/485 to 802.11b/g/n WLAN Serial Device Servers

- Links any serial device to an IEEE 802.11b/g/n network
- Provides 1/2 x RS-232/422/485 ports and 1 x 10/100/1000 Mbps port
- Secures data access with WEP, WPA/WPA2-Personal/Enterprise
- Supports WLAN Ad-Hoc and Infrastructure modes

## WLAN Device Server



P. 10-11



### EKI-1351/1352

1/2-port RS-232/422/485 to 802.11b/g WLAN Serial Device Servers

- Links any serial device to an IEEE 802.11b/g network
- Provides 1/2 x RS-232/422/485 port
- Secures data access with WEP, WPA, and WPA2
- Supports WLAN Ad-Hoc and Infrastructure modes

## Serial Communication Card



P. 11-8

NEW



### PCI-1620/1622

8-port RS-232/422/485 PCI Express Communication Cards

- Up to 921.6 kbps, support any baud rate setting
- 128-byte FIFO, hardware, software flow control
- Driver supported: 32-bit/64-bit Windows 2K/XP/Vista/7, CE 5.0/6.0, Linux, and QNX

## CAN Communication Card



P. 11-10/11-11

### PCI-1680U/1682U

2-port CAN-bus Universal PCI Communication Cards with CANopen

- Operates two separate CAN networks at the same time
- High speed transmission up to 1 Mbps
- Supports 32-bit/64-bit Windows 2K/XP/Vista/7, Windows CE 5.0/6.0, Linux, and QNX



# Embedded Systems & Intelligent Platforms

## Transforming the Industrial Cloud Era



With innovative technologies for cloud computing applications and services (industrial and video servers), edge computing applications (fanless, slim & portable devices), to high performance embedded systems (blade computing, network processor platforms, and DSP processing), Advantech is devoted to transforming our embedded systems into intelligent systems with smart, secured, energy-saving features. Designed by our Industrial Cloud Built-in Services and professional System Design-To-Order Services (System DTOS) teams, Advantech's intelligent systems are designed to target multiple vertical markets in transportation, industrial automation (machine automation, equipment/machine builders), digital signage, and also video applications (video infrastructure and video surveillance).

### Industrial Computers


[Online](#)

#### AIMB-781

LGA1155 Intel® Core™ i7/i5/i3/Pentium ATX with DVI/VGA, Dual Gb LAN, DDR3, SATA III

- Supports Intel® Core™ i7/i5/i3/Pentium processor with Q67/B65 chipset
- Four DIMM sockets support up to 16GB DDR3 1066/1333
- Supports dual display VGA and DVI and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, AMT7.0
- Supports Advantech LPC modules of TPM and additional RS-232/422/485 ports


[Online](#)

#### ACP-4320

Quiet 4U Chassis Ready with Dual SAS/ SATA HDD Trays

- Supports either an ATX motherboard or a PICMG backplane with up to 15 slots
- Advantech low noise solution
- Supports dual SAS/SATA HDD trays for data monitoring applications
- LED indicators and alarm notification for system fault detection and network connection
- Lockable front door prevents unauthorized access


[Online](#)

#### PCE-5126

LGA1155 Intel® Core™ i7/i5/i3 SHB with DDR3/Dual GbE/SATA III

- LGA 1155 Intel® Core™ i7/i5/i3/Xeon processors
- Dual Channel (ECC) DDR3 1333 MHz up to 8GB
- Supports SATA RAID 0, 1, 5, 10, AMT7.0, TPM 1.2 (optional)
- Out-of-band remote management with IPMI (optional by IPMI module)
- Supports embedded software APIs and utilities

### Server-Grade IPCs


[Online](#)

#### ASMB-781

Intel® Xeon® E3-1200 ATX Server Board with VGA, Quad LAN, DDR3, SATA III

- LGA 1155 Intel® Xeon® E3-1200 series processor with C206 chipset
- Four Dual Channel ECC/Non-ECC 1066/1333 unbuffered DIMM, up to 32 GB
- Supports 2 x PCIe x16 (x8 link) double-deck expansion cards
- Supports 2 x SATA 6.0 Gb/s, Quad LAN (optional), TPM (optional)


[Online](#)

#### ASMB-920IR

Intel® Xeon® E5-2600 EATX Server Board with 2 PCIe x16 + PME Expansion Slots

- Dual LGA 2011 Intel® Xeon® E5-2600 series processor with C602J chipset
- Eight Quad channel ECC/Non-ECC 1600/1333/1066 registered DIMM, up to 128 GB
- Supports 2 PCIe x16 and PME expansion slots for additional PCIe x16, PCIe x8, PCIe x4, PCIe x1, PCI-X, and PCI
- Supports 8 x SAS ports


[Online](#)

#### HPC-7280/7480

2U/4U Rackmount Server Chassis with 8 SAS/SATA Hot-swap Hard Drive Bays

- Supports dual/single Intel® processors ATX/CEB/EATX motherboard
- Lockable front bezel prevents unauthorized access
- 800 W (1+1) redundant / 665 W single power supply
- Supports 2 x PCI-X and 1 x PCIe x8 through riser card (HPC-7280)

## Embedded Box Computers


[Online](#)

NEW



### ARK-1120

Palm-size and Cost Effective Intel® Atom™ N455 Embedded Box Computer

- Intel® Atom™ processor N455 1.66 GHz
- One half mini-PCIe socket expansion for wireless application
- Ultra compact size, VESA mounted, robust construction with fanless operation


[Online](#)


### ARK-1503

Intel® Atom™ D525/D425 with DDR3 Support and Integrated Display Interface

- Intel® Atom™ D525/D425 processor up to 1.8 GHz
- Supports integrated LVDS interface, with LVDS / 2 x USB / Rx / Tx signal (compliant with ITM-5115)
- Supports 2 x Giga LAN and 4 x USB 2.0 ports
- Supports 1 x RS-232, 1 x RS-232/422/485 with auto-flow control


[Online](#)

NEW



### ARK-2120F

Intel® Atom™ N2600/D2700 with 3 GBE and 6 COM

- Intel® Atom™ N2600 1.6 GHz/ D2700 2.13 GHz with DDR3 memory support up to 4 GB
- Supports dual independent displays: VGA, HDMI or 48-bit LVDS display.
- DirectX 9 graphic engine, MPEG2 H/W acceleration, H.264/ VC1/ WMV9 (H/W Decode/Acceleration)
- Mini PCIe expansion with SIM holder for communication module

## Industrial Portable Computer


[Online](#)

### S10A

10.4" Semi-rugged Tablet PC with Intel® Atom™ Z530XL Processor

- Efficient Intel® Atom™ Z530 1.6 GHz processor
- IP54-certified, 3 ft drop resistance MIL-STD-810F
- Optional GPS / GPRS / barcode scanner / MSR / RFID
- Hot swap, Li-ion battery provides 6 hours of operation
- Lightweight, 1.2 kg


[Online](#)

NEW

### PPC-L158

15" Fanless Panel PC with Intel® Atom™ Dual-Core Processor

- Embedded Intel® Atom™ processor, dual-core D525 1.8G
- Supports one internal SATA 2.5" HDD, one Mini PCIe socket, Dual Gigabit Ethernet, and one more PCI or PCIe for expansion
- Fanless and ultra-low power consumption


[Online](#)

### PPC-179

17" Panel PC with Intel® Core™2 Duo Processor

- Intel® Core™2 Duo LGA775 Socket-based processor up to 3.0 GHz
- Supports 240-pin DDR3 1333/1066 DIMM x2 up to 4 GB
- Rugged die-cast aluminum housing with removable plastic front bezel
- One PCI and one PCIe expansion slot

## CompactPCI® Platforms


[Online](#)

### MIC-3395

6U CompactPCI® 2nd Generation Intel® Core™ i5/i7 Processor Blade with ECC support

- Supports 2nd Generation Intel® Core™ i5/i7 processors and Intel® QM67 PCH with embedded graphic (dual independent display)
- Up to 16 GB (DDR3 1066/1333) ECC memory (max 8GB on board, socket SO-UDIMM x1, max 8GB)
- Optimized single-slot SBC with 2.5" SATA-III HDD/CFast socket


[Online](#)

### MIC-3325

3U CompactPCI® Intel® Atom™ Dual Core D525/N455 Processor Blade

- Dual Core Intel® Atom™ D525 processor/single core N455 processor
- Intel® I/O Controller Hub 8-Mobile (ICH8M)
- 2 GB DDR3 onboard up to 800 MT/s
- Optimized CompactFlash socket on single board computer


[Online](#)

### MIC-3043

4U CompactPCI® Enclosure with cPCI Power Supply and Removable HDD Bay (CT Bus or Non-CT Bus)

- 6-slot 6U CompactPCI® backplane
- Supports removable HDD bays (up to 2 x 3.5" SATA or up to 4 x 2.5" SATA/SAS drives)
- Built-in SATA slim-type DVD-RW/RAM
- AC cPCI 250 W + 250 W redundant (1+1) or 500W+250W (2+1) power supplies

## Video Capture & Encoder Cards


[Online](#)

NEW

### DVP-8662BE

16-ch H.264 PCIe Video Encoder Card with SDK

- Powered by TMS320DM8168 SoC
- 16-channel composite video + audio inputs with H.264 H/W compression
- Up to 480 fps at D1 resolution for video recording and display
- One HDMI connector for up to 1080p video output
- Half-length PCIe board with low-power, fanless design
- Embedded digital signal processor for 3rd party program implementation
- SDK with VC++ sample codes


[Online](#)

NEW

### DVP-1612AE

1-ch H.264 USB Video Encoder Module with SDK

- Powered by TI TMS320DM365 SoC
- 1 channel composite video input with H.264 hardware compression
- Supports PCM/G.711 hardware audio compression
- 30/25 fps (NTSC/PAL) at full D1 resolution for recording
- High-speed USB 2.0 interface
- SDK with VC++ sample codes


[Online](#)

NEW

### DSPC-8681E

Half-length PCI Express Card with 4 TI 8-core DSPs

- On-board 4 TI TMS320C6678 DSPs with PCIe Gen 2 x8 interface
- 8 TMS320C66x™ DSP Core Subsystems @ 1.25 GHz per DSP
- 1 GB DDR-1333 memory per DSP
- Applications:
  - IPTV/Web TV/mobile TV video transcoder
  - Audio and video transcoding/transrating
  - Media gateways and accelerator
  - Medical applications
  - High Performance Computing

# Embedded Automation Computers

## Open and Robust Computing Power for Automation Applications



As a leading industrial automation provider, Advantech is dedicated to providing fanless, industrial-proven and application-ready platforms. With a robust design, they include built-in industrial I/O functions, isolated chassis grounds, multiple expansion solutions and multiple mounting methods. With its commitment to provide application-ready platforms, Advantech has introduced the Class I, Division 2 certified UNO-1100H Series, which extends use to hazardous applications, such as oil and gas fields. The UNO-4600 series are IEC 61850/ IEEE 1613 compliant products available for Power Substation applications.

### DIN-rail Automation Computers



P. 12-11

#### UNO-1170A/AE

Intel® Atom™ N270 DIN-rail PCs with 2 x LAN, 3 x COM, and PC/104+

- DIN-rail mounting, small footprint, front accessible
- 2 x RS-232 and 1 x RS-232/422/485 port with automatic flow control
- 3 x External and 1 x Internal USB for dongle & flash drive
- 512 KB battery-backup SRAM to keep critical data



P. 12-12

#### UNO-1172A/AE

Intel® Atom™ D510 DIN-rail PCs with 3 x GbE, 4 x USB, and System Diagnostic

- System diagnosis function with event trigger
- 3 x GbE for both teaming function & up/down stream networks
- Mini PCIe and PC/104+ expansion
- 1 MB battery-backup SRAM



P. 2-18

#### UNO-1172AH

Intel® Atom™ D510 DIN-rail PC with Class I, Division 2 Certification

- Class I, Division 2 certification
- System diagnosis function with event trigger
- 3 x GbE for both teaming function & up/down stream networks
- -10 ~ 60°C operating temperature range with IP40 rating

### Compact Automation Computers



P. 12-13

#### UNO-2173A/AF

Intel® Atom™ Automation Computers with 2 x GbE, 3 x COM, and Mini PCIe

- Energy Star certified green product with only 15W power consumption
- Intel® Atom™ N270 1.6 GHz CPU
- -20 ~ 70°C operating temperature with IP40 rating
- Supports Mini PCIe cards for WLAN/3G solution



P. 12-14

#### UNO-2174A/2178A

Intel® Atom™ Automation Computers with 6 x USB, 8 x COM, and 2 x Mini PCIe

- Intel® Atom™ N450/D510 1.66 GHz CPU
- 8 x COM, 6 x USB, 2 x Mini PCIe with SIM card support for WLAN/3G solution
- PCI-104 and PC/104+ expansion



P. 12-16

#### UNO-2184G

Intel® Core™ i7 Automation Computer with 6 x USB, 4 x LAN, and 2 x Mini PCIe

- Intel® Core™ i7 1.1/2.2 GHz CPU and 4/8 GB DDR3 RAM
- 4 x LAN, DVI-I/DP/HDMI for triple displays
- 2 x Mini PCIe with SIM card support for WLAN/3G solution
- PCI-104, PC/104+ and PoE module expansion

### Automation Computers with Fieldbus Support

P. 12-4



#### UNO-1172APN/PB UNO-2178APN/PB

Intel® Atom™ Automation Computers with Fieldbus Support

- Intel® Atom™ D510 1.66 GHz CPU
- Supports PROFIBUS and PROFINET
- Supports Hilscher SYCON.net Utility



P. 12-18

#### UNO-3072A/3074A

Intel® Atom™ Automation Computers with 2/4 x PCI, 2 x GbE, RAID and FireWire

- Intel® Atom™ D510 1.66 GHz CPU
- IEEE-1394 and GbE for vision
- Dual SATA HDD support RAID 0/1 and additional eSATA
- DI/DO and 512 KB battery-backup SRAM



P. 12-19

#### UNO-3082/3084

Intel® Core™ 2 Duo Automation Computers with Dual DVI, 2 x PCI / PCIe + 3 x PCI

- Intel® Core™ 2 Duo L7500 1.6 GHz CPU
- Dual DVI-I for triple displays and IEEE-1394 for vision
- Teaming function support on 2 x redundant GbE
- Dual SATA HDD support RAID 0/1 and additional eSATA

# Programmable Automation Controllers

## APAX: The New Generation of Programmable Automation Controllers



Advantech's Programmable Automation Controllers (PAC) combine a PLC's ruggedness with PC-based technology, an open architecture, high performance CPU, rich I/O modules and powerful software. These devices satisfy the market demand for integrating HMI, control logic, motion, vision and networking in a single platform. Furthermore, APAX series offers a unique system architecture, providing dual controllers for different tasks, redundant functionality for highly reliable control applications, same I/O with changeable controllers, remote and flexible I/O expansion with time-deterministic performance.

### Controllers



P. 3-14



NEW

#### APAX-5522PE/5017PE 5040PE/5060PE

IEC 61850-3 Compliant PAC

- Flexible I/O expansion: up to 32 modules
- IEC 61850-3 compliant
- Time stamp function support



P. 13-16

NEW

#### APAX-6572

PAC with Intel® Atom™ CPU

- High performance Intel® Atom™ D510 CPU
- C/C++, .NET and KW SoftLogic programming
- Built-in Modbus server to access connected APAX I/Os



Online

#### APAX-5570/5571

PAC with Intel® Celeron® M CPU

- High performance CPU with high-speed interface and SD card storage
- C/C++, .NET and KW SoftLogic programming
- Built-in Modbus server to access connected APAX I/O

### CANBus Controller



P. 13-17

NEW

#### APAX-5620

PAC with XScale® CPU and CANBus Master

- Compact controller with built-in CANBus Master
- C/C++, .NET and KW SoftLogic programming
- CompactFlash card slot for data logging

### Communication Modules



P. 13-22



#### APAX-5071/5073

PROFIBUS/PROFINET Communication Coupler

- Flexible I/O expansion to minimum used couplers
- Compliance to PROFIBUS and PROFINET International (PI) certification
- Easy to integrate with 3rd party PLCs



P. 13-21



#### APAX-5072

EtherNet/IP Communication Coupler

- Flexible I/O expansion to minimum used couplers
- Compliance to EtherNet/IP ODVA certification
- Easy to integrate with 3rd party PLCs

### I/O Modules



Online

#### APAX-5017H

12-ch High Speed Analog Input Module

- Voltage and current inputs including  $\pm 10$  V and 4 ~ 20 mA
- Each channel can be configured with different input type and range
- 1000 samples/second per channel



Online

#### APAX-5080

4/8-ch High Speed Counter Module

- 5 counter modes: Up, Up/Down, Pulse/Direction, A/B phase, Frequency
- 4 DI channels for counter gate inputs
- 4 DO channels for alarm outputs



P. 13-18

NEW

#### APAX-5082

8-ch PWM Module

- PWM frequency up to 500kHz
- Supports up to 8-ch, 4 independent group PWM output
- Supports Configurable DI/O



# Distributed I/O Modules

## Providing Remote I/O Connectivity from RS-485, Ethernet to Wireless Sensor Networks



While the "Internet of Things" is rapidly becoming a reality, customers can take advantage of Advantech's machine-to-machine I/O modules - ADAM-2000 series, RS-485 based ADAM-4000 & ADAM-4100 series and Ethernet-based ADAM-6000 I/O modules to monitor and manage field sites easily because the field site status can be identified, tracked, and eventually altered remotely. The remote data acquisition can build up a reliable and stable network for a variety of applications, such as industrial automation, environmental and facility management, intelligent transportation system, and so on.

### M2M (Machine to Machine) I/O Modules



NEW

P. 14-9

#### ADAM-2520Z

##### Wireless Modbus RTU Gateway

- 2.4 GHz IEEE 802.15.4 compliant RF
- Outdoor range up to 1,000 m
- Supports battery input with 2 x AA alkaline batteries
- Support Modbus RTU protocol
- Network capacity with 64 nodes (routers & end devices)



NEW

P. 14-8

#### ADAM-2510Z

##### Wireless Router Node

- 2.4 GHz IEEE 802.15.4 compliant RF
- 250 kbps RF data rate
- Outdoor range up to 1,000 m
- Extends network range and coverage
- Supports battery input with 2 x AA alkaline batteries



NEW

P. 14-12

#### ADAM-2051PZ

##### Wireless 8-ch Digital Input Node with Power Amplifier

- 2.4 GHz IEEE 802.15.4 compliant RF
- Low duty cycle and low power consumption
- With high RF output power
- Outdoor range up to 1,000 m
- Supports battery input with 2 x AA alkaline batteries
- 10K  $\Omega$  input resistance



NEW

P. 14-11

#### ADAM-2017Z

##### Wireless 6-ch Analog Input Node

- 2.4 GHz IEEE 802.15.4 compliant RF
- Low duty cycle and low power consumption
- Outdoor range up to 110 m
- Supports battery input with 2 x AA alkaline batteries
- Input Type mV, V, mA



NEW

P. 14-10

#### ADAM-2031Z

##### Wireless Temperature & Humidity Sensor Node

- 2.4 GHz IEEE 802.15.4 compliant RF
- Low duty cycle and low power consumption
- Outdoor range up to 110 m
- Supports battery input with 2 x AA alkaline batteries
- Built-in temperature / humidity sensor input



NEW

P. 14-12

#### ADAM-2051Z

##### Wireless 8-ch Digital Input Node

- 2.4 GHz IEEE 802.15.4 compliant RF
- Low duty cycle and low power consumption
- Outdoor range up to 110 m
- Supports battery input with 2 x AA alkaline batteries
- 10K  $\Omega$  input resistance

### Distributed Nano Controllers



NEW

P. 15-6

#### ADAM-6617/6618

##### Distributed Nano Controller with 8-ch Isolated Analog Input/ 7-ch Isolated Thermocouple Input

- IEC 61499 standard
- 2 x RJ-45 LAN (daisy chain)
- Isolation protection: 2,500 V<sub>DC</sub>
- High common mode voltage 200 V<sub>DC</sub>



NEW

P. 15-9

#### ADAM-6650

##### Distributed Nano Controller with 15-ch Isolated Digital Input/Output

- IEC 61499 standard
- 2 x RJ-45 LAN (daisy chain)
- 8-ch digital input and 7-ch digital output
- Isolation protection: 2,500 V<sub>DC</sub>
- DI supports dry contact and wet contact



NEW

P. 15-10

#### ADAM-6660

##### Distributed Nano Controller with 6-ch Relay

- IEC 61499 standard
- 2 x RJ-45 LAN (daisy chain)
- Isolation protection: 2,500 V<sub>DC</sub>
- 5-ch Form C and 1-ch Form A/B (selectable) relay
- Contact Rating: 5A @ 250 V<sub>AC</sub>; 5A @ 30 V<sub>DC</sub>



## Real-time Ethernet I/O Modules



P. 17-4

### ADAM-6117/6118

8-ch Isolated Analog Input Real-time Ethernet Module / 7-ch Isolated Thermocouple Input Real-time Ethernet Module

- ADAM-6117EI/6118EI: EtherNet/IP protocol; ADAM-6117PN/6118PN: PROFINET protocol
- High common mode voltage 200 V<sub>DC</sub>
- Isolation Protection: 2,500 V<sub>DC</sub>
- 2 x RJ-45 LAN (daisy chain)



P. 17-5

### ADAM-6150

15-ch Isolated Digital I/O Real-time Ethernet Module

- ADAM-6150EI: EtherNet/IP protocol; ADAM-6150PN: PROFINET protocol
- 8-ch digital input and 7-ch digital output (sink)
- Normal output current: 0.1 A (per channel)
- 2 x RJ-45 LAN (daisy chain)



P. 17-5

### ADAM-6160

6-ch Relay Output Real-time Ethernet Module

- ADAM-6160EI: EtherNet/IP protocol; ADAM-6160PN: PROFINET protocol
- 5-ch Form C and 1-ch Form A/B (selectable) relay
- Breakdown voltage: 500 V<sub>AC</sub> (50/60 Hz)
- 2 x RJ-45 LAN (daisy chain)
- Contact Rating: 5 A @ 250 V<sub>AC</sub>; 5 A @ 30 V<sub>DC</sub>

## Smart Ethernet I/O Modules



P. 17-10

### ADAM-6017/6018

8-ch Isolated Analog Input Modbus TCP Module / 8-ch Isolated Thermocouple Input Modbus TCP Module

- DO channel: ADAM-6017: 2-ch; ADAM-6018: 8-ch
- Modbus/TCP, TPC/IP, UDP and HTTP protocol
- Embedded web server
- Supports data stream and event trigger
- Supports GCL and Peer-to-Peer



P. 17-11

### ADAM-6050

18-ch Isolated Digital I/O Modbus TCP Module

- Modbus/TCP, TPC/IP, UDP and HTTP protocol
- 12-ch digital input and 6-ch digital output
- Embedded web server
- Supports data stream and event trigger
- Supports GCL and Peer-to-Peer



P. 17-12

### ADAM-6060/6066

6-ch Digital Input and 6-ch Relay Modbus TCP Module / 6-ch Digital Input and 6-ch Power Relay Modbus TCP Module

- Modbus/TCP, TPC/IP, UDP and HTTP protocol
- Embedded web server
- Supports data stream and event trigger
- Supports GCL and Peer-to-Peer

## Robust RS-485 I/O Modules



P. 16-10

### ADAM-4117/4118

Robust 8-ch Analog Input Module with Modbus / Robust 8-ch Thermocouple Input Module with Modbus

- Modbus RTU protocol
- Wide operating temperature -40 ~ 85°C (-40 ~ 185°F)
- 8 differential and independent configuration channels
- High common mode voltage 200 V<sub>DC</sub>
- 1 kV surge, 3 kV EFT and 8 kV ESD protection



P. 16-11

### ADAM-4150

Robust 15-ch Digital I/O Module with Modbus

- Modbus RTU protocol
- Wide operating temperature -40 ~ 85°C (-40 ~ 185°F)
- 7-ch digital input and 8-ch digital output
- 1 kV surge, 3 kV EFT and 8 kV ESD protection
- Broader power input range (10 ~ 48 V<sub>DC</sub>)



P. 16-11

### ADAM-4168

Robust 8-ch Relay Output Module with Modbus

- Modbus RTU protocol
- Wide operating temperature -40 ~ 85°C (-40 ~ 185°F)
- 8-ch Form A relay output
- 1 kV surge, 3 kV EFT and 8 kV ESD protection
- Broader power input range (10 ~ 48 V<sub>DC</sub>)

## RS-485 I/O Modules



P. 16-16

### ADAM-4017+/4018+

8-ch Analog Input Module with Modbus/ 8-ch Thermocouple Input Module with Modbus

- Modbus RTU protocol
- 8-ch AI (ADAM-4017+: all differential; ADAM-4018: 6 differential, 2 single-ended)
- Over Voltage Protection: ±35 V<sub>DC</sub>
- Built-in TVS/ESD protection
- Isolation Voltage: 3,000 V<sub>DC</sub>



P. 16-18

### ADAM-4051/4055

16-ch Isolated Digital Input Module with Modbus/ 16-ch Isolated Digital I/O Module with Modbus

- Modbus RTU protocol
- ADAM-4051: 16-ch DI; ADAM-4055: 8-ch DI & 8-ch DO
- Dry/ wet contact digital input level
- Isolation Voltage: 2,500 V<sub>DC</sub>
- Over Voltage Protection: 70 V<sub>DC</sub>



P. 16-20

### ADAM-4068

8-ch Relay Output Module with Modbus

- Modbus RTU protocol
- 8-ch Form C relay output
- Contact Rating: 0.5 A @ 120 V<sub>AC</sub>; 0.25 A @ 240 V<sub>AC</sub>; 1 A @ 30 V<sub>DC</sub>; 0.3 A @ 110 V<sub>DC</sub>
- Switch Time: relay on time (typical): 3 msec, relay off time (typical): 4 msec

# Data Acquisition and Control

## A Broad Selection of Form Factors to Satisfy All Your DAQ Needs



Advantech offers a wide range of industrial data acquisition and control devices with various interfaces and functions. Based on PC technology, from ISA to USB, and signal conditioning to graphical software tools, Advantech's industrial I/O products are reliable, accurate, affordable, and suitable for many industrial automation applications, such as test & measurement, laboratory applications, machine automation, and production testing. Moreover, with its brand new I/O driver DAQNAVI supports Windows 7, helping customers seamlessly integrate Advantech's data acquisition cards to existing platforms, improve performance, and reduce development time.

### PCI and PCI Express Data Acquisition and Control Cards



P. 18-20

**PCI EXPRESS** **NEW**

#### PCI-1730

32-ch TTL and 32-ch Isolated DI/O

PCI Express Card

- 16-ch TTL DI and 16-ch TTL DO with 5 V compatibility
- 16-ch isolated DI and 16-ch isolated DO with 24 V compatibility
- High-voltage isolation on all isolated DI/O channels (2,500 V<sub>DC</sub>)



P. 18-21

**PCI EXPRESS** **NEW**

#### PCI-1752/1754/1756

64-ch Isolated Digital I/O PCI Express Card

- PCI-1752: 64-ch DO
- PCI-1754: 64-ch DI
- PCI-1756: 32-ch DI, 32-ch DO
- High-voltage isolation on all channels (2,500 V<sub>DC</sub>)
- Keep the output setting and value after system hot reset
- Interrupt handling capacity



P. 18-22

**PCI EXPRESS** **NEW**

#### PCI-1760

8-ch Relay and 8-ch Isolated DI

PCI Express Card

- 8-ch isolated DI with programmable digital filter
- High-voltage isolation on input channels (2,500 V<sub>DC</sub>)
- 2-ch Form C and 6-ch Form A relay output
- 2 PWM output channels available



P. 18-23

**PCI EXPRESS** **NEW**

#### PCI-1706/1714/1714L

#### PCI-1744

Simultaneous Analog Input

PCI/PCI Express Card

- PCI-1706: 250 kS/s, 16-bit, 8-ch differential AI
- PCI-1714L: 10 MS/s, 12-bit, 4-ch single-ended AI
- PCI-1714: 30 MS/s, 12-bit, 4-ch single-ended AI
- PCI-1744: 30 MS/s, 12-bit, 4-ch single-ended AI
- Each channel has dedicated A/D converter



P. 18-24

#### PCI-1710U/HGU

100 kS/s, 12-bit, 16-ch Universal PCI Multifunction Card/ with High Gain

- 16-ch single-ended or 8-ch differential or a combination of AI
- Onboards FIFO memory (4,096 samples)
- 2-ch AO with 12-bit resolution
- 16-ch DI and 16-ch DO with 5V/TTL compatibility
- 1-ch counter with up to 1 MHz input frequency



P. 18-29

#### PCI-1742U

1 MS/s, 16-bit, 16-ch Universal PCI Multifunction Card

- 16-ch single-ended or 8-ch differential AI
- Onboard FIFO memory (1,024 samples)
- 2-ch AO with 16-bit resolution
- 16-ch DI and 16-ch DO with 5V/TTL compatibility
- 1-ch counter with up to 10 MHz input frequency

### USB Data Acquisition and Control Modules



P. 20-7

#### USB-4702/4704

10 kS/s, 12-bit / 48 kS/s, 14-bit

8-ch Multifunction USB Modules

- 2-ch AO with 12-bit resolution
- 8-ch DI, 8-ch DO, and one 32-bit counter
- USB-4702: DB37 connector; USB-4704: detachable screw terminal
- Suitable for DIN-rail mounting (USB-4704)



P. 20-8

#### USB-4711A/4716

150 kS/s, 12-bit / 200 kS/s, 16-bit

16-ch Multifunction USB Module

- 2-ch AO with 16-bit resolution
- 8-ch DI, 8-ch DO, and one 32-bit counter
- Detachable screw terminal on module
- Suitable for DIN-rail mounting
- Lockable USB cable for secure connection



P. 20-6

#### USB-4620

5-port Full-speed Isolated USB 2.0 Hub

- Compatible with USB 2.0 full-speed (12 Mbps)
- 3,000 V<sub>DC</sub> voltage isolation for each downstream port
- Suitable for DIN-rail mounting
- 10 ~ 30 V<sub>DC</sub> power input
- Lockable USB cable for secure connection

# Automation Software

## Shorten the Programming Time and Optimize the Performance at the Same Time



Advantech's automation software lineup includes SCADA software, SoftLogic programming tools, OPC Server, and other user-friendly programming tools and utilities. Advantech's WebAccess browser-based HMI/SCADA software is a shining example, helping customers view, control, configure systems remotely through the Internet and even through smart phones. Besides, the innovative DiagAnywhere software assists users to achieve complex remote maintenance tasks such as remote monitoring and control, remote screen snapshots and recording, and file uploading & downloading. The complete solutions that Advantech software and hardware products provide empower automation professionals to develop integrated automation system efficiently.



P. 5-2

WebAccess

### Advantech WebAccess

#### Browser-based HMI/SCADA Software

- View, control, configure system remotely over an intranet or the internet using ordinary Web browser
- Supports vector-based graphics
- Use the open programming TCL, JScript or VB script
- Control equipment based on pre-defined schedule (time, date, and holiday)



P. 5-5

WebAccess

### Advantech WebAccess Express

#### Automated Graphical Remote Control Application Program

- Just one click to get real-time ADAM I/O devices data from remote smart devices
- Auto-discover, auto-deliver, auto-deposit and auto-display functions
- Free for 75 Advantech I/O device points



P. 5-8

### DiagAnywhere

#### Remote Maintenance Software

- Remote screen snapshot & recording
- File transfer function
- Windows-based authentication
- Health check of CPU/memory/temperature/voltage
- Remote monitor up to 24 target devices
- Remote control shutdown and wake up



P. 5-6

WebOP Designer

### WebOP Designer

#### HMI Runtime Development Software

- Manage multiple HMI applications in one project
- Provides password protection of designs, macros and upload/download operations
- Provides index registers for modifying device addresses at runtime
- Collects data from many devices with various methods
- Supports over 300 industrial communication protocols



P. 5-9

KW SOFTWARE

### KW MULTIPROG®

#### IEC-61131-3 SoftLogic Control Software

- IEC-61131-3 programming languages
- Crossing-compiling: FBD, LD, and IL can be cross compiled to each other
- Multi-user functionality shortens programming time
- Powerful debugging tools
- Advantech batch control FBs support
- Advantech auto-tuning PID FB support



P. 5-10

### IDC Builder

#### IEC 61499 Function Block Development Software

- IEC 61499 programming languages
- Built-in dedicated function blocks
- Simulator for program checking
- On-line debugging tool
- Easily deploy programs to ADAM modules



P. 5-12

### DAQNav

#### Software Development Package for Advantech DAQ Products

- Supports Windows XP, 7, Vista, Linux, and Android
- Common language architecture makes the programming much easier within different programming tools
- Offers complete example codes for different common measurement scenario
- A full-functional user interface for configuration, device testing, and documentation reference



P. 5-13

### A-DAQ Pro

#### ActiveX Control-based Software for Data Acquisition

- Graphic user interface control components
- Supports all Advantech data acquisition devices with high speed functions
- Easy-to-use property sheet interface for configuring controls
- Default settings for immediate execution
- Supports all widely known development platforms



P. 5-14

### OPC Server

#### OPC Server for ADAM & Modbus Devices

- Supports Microsoft Windows XP/2000
- Supports Advantech ASCII, Modbus RTU, and Modbus/TCP protocol
- Compliant with the latest OPC Data Access 1.0, 2.04 and 3.0 standards
- Compliant with the latest OPC Alarm and Events 1.0 and 1.2 standards

# Motion Control

## Application-oriented Motion Control Platforms to Fulfill a Variety of Control Requirements



Supporting Advantech's PCI-1245/1265/1245E series, SoftMotion an important core technology in the machine automation field. Advantech independently developed its own SoftMotion control technology and uses the FPGA (Field Programmable Gate Array) and DSP (Digital Signal Processing) as the core-computing hardware platform. Meanwhile, based on the three motion control architectures - centralized, distributed, embedded. Advantech's comprehensive product offering helps our customers to continuously progress their technologies and optimize customer's devices control to minimize their needs for programming.

### Motion Control PCI Cards



NEW

P. 1-19

#### PCI-1245/PCI-1245E

DSP-based SoftMotion 4-axis Stepping and Servo Motor Control PCI Cards

- On-board DSP to carry SoftMotion algorithm inside & support Common Motion API programming
- Linear Interpolation and path table motion
- E-Gear & error check function
- Circular interpolation and path table motion (PCI-1245)
- Supports application-level functions, e.g. E-CAM & tangential following (PCI-1245)



NEW

P. 1-19

#### PCI-1265

DSP-based SoftMotion 6-axis Stepping and Servo Motor Control PCI Card

- On-board DSP to carry SoftMotion algorithm inside & support Common Motion API programming
- Linear, circular interpolation and path table motion
- E-Gear & error check function
- Supports application-level functions, e.g. E-CAM & tangential following



P. 1-21

#### PCI-1202U/PCM-3202P

2-port AMONet RS-485 PCI Master Card / 2-Port AMONet RS-485 PC/104+ Master Module

- Supports Common Motion API programming
- Up to 64 slave AMAX modules per ring
- Transmission (baud rate) can be up to 20 Mbps
- Communication distance is up to 100 M @ 10 Mbps

### Motion Control Modules



NEW

Online

#### AMAX-1220

Economic 2-axis AMONet Motion Slave Module

- Maximum transmission (baud rate) can be up to 20Mbps with master card
- Maximum pulse train output up to 6.5 MHz & equipped with encoder input
- 2-axis point-to-point & linear interpolation
- Compact design & easy wiring by transfer cable to Servo drives



NEW

Online

#### AMAX-1240

High-performanced 4-axis AMONet Motion Slave Module

- Maximum transmission (baud rate) can be up to 20Mbps with master card
- Maximum pulse train output up to 6.5 MHz & equipped with encoder input
- 2-axis point-to-point, linear & circular interpolation
- On-board DSP to carry application-level function library support (ex: high-speed triggering)



NEW

Online

#### AMAX-1752/1754/1756

Compact 32-ch Isolated Digital Input / Output Slave Module

- Maximum transmission (baud rate) can be up to 20 Mbps with master card
- On-board terminal for direct wiring & LED indicators
- 2,500 V<sub>RMS</sub> isolation voltage
- Compact design for horizontal placement

### PAC Motion Solutions



NEW

P. 13-16

#### APAX-6572

PAC with Intel® Atom™ CPU

- High performance Intel® Atom™ D510 CPU
- C/C++, .NET and KW SoftLogic programming
- Built-in Modbus server to access connected APAX I/Os



Online

#### APAX-5202P

2-port AMONet Master Module

- Supports up to 64 slave AMAX modules per ring
- The transmission speed can be up to 20 Mbps
- The communication distance can be up to 100 m @ 10 Mbps
- KW Multiprog support

### Embedded Motion Controller



P. 1-15

#### PEC-3240

Intel® Celeron® M 1.0 GHz 4-axis Embedded Motion Controller with 32-ch Digital I/O

- Onboard Intel® Celeron® M 1.0 GHz CPU
- 16-ch isolated DI and 16-ch isolated DO
- Independent 4-axis motion control



# Intelligent Building Solutions

## Increase Energy Efficiency with Open and Web-enabled Technologies



Advantech's Intelligent Building Solutions offer browser-based software and comprehensive hardware packages for a variety of applications. Advantech WebAccess can be integrated with Advantech's various Direct Digital controllers and remote I/O modules, energy data concentrators, and power meters. It enables engineers, system integrators and equipment manufacturers to maintain and upgrade their systems remotely. Advantech also offers rich energy consumption analytical charts for managers to analyze their entire energy usage and adopt new energy management policies. Furthermore, it supports free dynamic DNS services and web servers to optimize energy management efficiency.

### WebAccess HMI/SCADA Software



P. 5-2

#### Advantech WebAccess

##### Browser-based HMI/SCADA Software

- View, control, configure systems through a web browser
- Redundant SCADA and COM ports
- Supports dynamic DNS and acts as OPC server & client
- Supports LonWorks LNS and BACnet IP
- Video and audio integration
- Global access alarms, data, email alarms



P. 4-8

#### Advantech BEMS

##### Building Energy Management Software

- Browser-based energy management system provides convenience and accessibility
- Rich charts to view energy consumption from various perspectives
- Supports flexible report functions
- Various data analysis functions to generate energy consumption patterns
- Advanced demand limit control



P. 4-9

#### Advantech BASPro

##### BAS-3000 DDC Programming Tool

- Supports BACnet and Modbus modules
- Graphical programming environment
- Remote download and maintenance through Ethernet
- Scheduler and sequential control
- Auto-tuning PID and RAMP/SOAK control algorithm
- Supports building automation function block inside

### BACnet Controller & Remote I/O Modules



NEW

P. 4-11

#### BAS-3500BC

##### 20-ch BACnet Controller

- Standalone programmable BACnet controller
- Auto-tuning PID control
- Calendar schedule control
- Alarm and event notifications
- Provides RS-485 to connect with remote I/O devices
- Remote programming and maintenance through Ethernet
- BACnet MS/TP Server



NEW

P. 4-12

#### BAS-3018BC/3024BC

##### 8-ch UI/4-ch UI, 4-ch AO, 4-ch DO

##### BACnet MS/TP Remote I/O Modules

- 24 V<sub>DC</sub> or 24 V<sub>AC</sub> input; 3000 VDC isolation protection
- Analog output supports 0 ~ 10V, 0 ~ 20 mA, and 4 ~ 20 mA (BAS-3024BC)
- Supports PWM output (BAS-3024BC)
- BACnet MS/TP Server
- Supports Master and Slave mode



NEW

P. 4-13

#### BAS-3050BC/3051BC

##### 8-ch DI, 8-ch DO/16-ch DI BACnet MS/TP

##### Remote I/O Modules

- 24 V<sub>DC</sub> or 24 V<sub>AC</sub> input; 3000 VDC isolation protection
- Supports 1 kHz counter input and 1 kHz frequency input (2 channels)
- Supports PWM output (2 channels) (BAS-3050BC)
- BACnet MS/TP Server
- Supports Master and Slave mode

### Energy Data Concentrators



NEW

P. 4-16

#### BEMG-4110/4220

##### Energy Data Concentrator with 4 x COM, 1 x LAN/2 x LAN

- Built-in Windows CE with Advantech WinCE WebAccess
- Web-server function support customer with remote configuration, remote operation, remote maintenance
- 1G storage size for data store/restore after loss power
- Combine Advantech BEMS and power meter for energy saving solution

### Power Meter



NEW

P. 4-20

#### PME-1230

##### 3-phase Multi-function Power Meter

- 3-phase multi-function power meter for sub-metering applications
- Multi-function power measurement for individual current & voltage, KW, kWh, kvarh, PF and Kvar values
- Modbus RTU protocol over RS-485
- Local display

### Wireless I/O Module



NEW

P. 14-10

#### ADAM-2632Z

##### Wireless Temperature & Humidity & CO<sub>2</sub> Sensor Node

- 2.4 GHz IEEE 802.15.4 wireless protocol compliant
- More security with support for mesh network topology
- Embedded temperature, humidity & CO<sub>2</sub> sensor inside
- Supports 2 x AA Alkaline batteries

# Application Specialized Solutions

## Standard Offerings to Fit Specific Industry Needs



To meet a range of diverse requirements and certification needs, Advantech provides application specialized solutions in addition to a complete range of industrial devices and computing products. Our industrial certified products meet special requirements in a wide range of demanding applications such as in Class I, Division 2 certification for oil & gas, DNV certification for marine applications, EN50155 certification for railway automation and IEC 61850-3/IEEE 1613 for power substation automation applications. In addition, Advantech provides a complete range of solutions for industrial mobile computers, digital signage media players and interactive self-service terminals.

### DNV Certified Products for Marine ECDIS Applications



Online

#### FPM-8192V/8232V

19" SXGA / 23" UXGA Marine Grade

##### Monitors

- DNV standard 2.4 certified and IEC-60945 & IACS-E10 approved
- 19" SXGA / 23" UXGA TFT LCD with transfective technology for outdoor visibility
- Dimming knob controls backlight brightness from nearly 0% to 100%
- Front OSD control with PIP (picture in picture) function

### IEC 61850-3/ IEEE 1613 Compliant Products for Power & Energy Applications



NEW

P. 3-6/3-8

#### UNO-4671A/4673A/4683

IEC 61850-3/ IEEE 1613 Compliant

##### Automation Computers with 6 x LAN

- Intel® Atom™ D510 1.66 GHz CPU/ Intel® Core™ i7 620LE 2.0 GHz CPU
- Supports fiber optic, IRIG-B, LAN, and COM
- Supports PCI, Mini PCI, Mini PCIe, and PCI-104 expansions



NEW

P. 3-14/3-15

#### APAX-

5522PE/5017PE/5040PE/5060PE

IEC 61850-3 Compliant PAC

- Flexible I/O expansion up to 32 modules
- IEC 61850-3 Compliant
- Time stamp function support

### Class I, Division 2 (CID2) Certified Products for Oil & Gas Applications



P. 2-14

#### FPM-8151H

15" XGA LED Backlit Industrial Monitor with Resistive Touchscreen and CID2 Certification

- Direct VGA & DVI-D video input interfaces
- Lockable OSD keys with 2 user-defined contrast/brightness settings
- Front bezel & rear cover with stainless steel material
- -20 ~ 60°C wide operating temperature range



P. 2-16

#### UNO-1100H Series

DIN-rail PCs with CID2 Certification

- UL listed for Hazardous Locations: Class I, Division 2
- Wide range on-board CPUs selection, including Intel® Atom™, AMD Geode™ GX and 486SX-grade SoC
- Onboard versatile I/O interfaces and expansion slots
- System diagnosis through LED and digital outputs, and remote power control through digital inputs



P. 9-28/9-29

#### EKI-2548/2748 Series

Compact Switches with Wide Operating Temperature and CID2 Certification

- EKI-2748 series with DMI monitors parameter status of SFP modules
- EKI-2548 series features a DIP switch which instantly enables X-Ring Master



P. 2-10

#### ADAM-4060

4-ch Relay Output Module with CID2 Certification

- 2-ch Form A and 2-ch Form C reply output
- Breakdown voltage: 500 V<sub>AC</sub> (50/60 Hz)
- Insulation resistance: 1000 MΩ minimum at 500 V<sub>DC</sub>



P. 9-17

#### EKI-6558T1

EN50155 8-port M12 IP67 Managed Ethernet Switch with Wide Temperature

- Robust switch with M12, IP67 rating, wide temperature, and redundant power input
- Ideal for PIS, IP surveillance, in-seat video entertainment system



P. 12-13

#### UNO-2173A/AF

Intel® Atom™ N270 Automation Computers with 2 x LAN, 3 x COM, and Mini PCIe

- Energy Star certified green product with only 15W power consumption
- -20 ~ 70°C operating temperature range with IP40 rating
- Supports Mini PCIe cards for WLAN/3G solution

## Mobile Data Terminals



Online

NEW

### TREK-722/723

#### RISC All-in-one Mobile Data Terminal

- 5.7" WVGA LCD with TI Cortex A8 AM37x platform
- WinCE6.0 R3 & Android Gingerbread 2.3.4
- Supports 12V/24V with ISO7637-2, SAE J1113 & SAE J1455 compliant
- 24/7 monitoring mechanism by suspend/wakeup with WWAN, digital input or periodically
- 50 channel GPS w/ AGPS, CDMA/GPRS/HSPA+ & BT
- Sufficient IOs including CAN, RS-232, USB, isolated DIOs, audio & video input



Online

NEW

### TREK-668

#### In-vehicle Surveillance with Fleet Management Box

- 4/8/12 analog video input with power, 8 audio in, 30 frames D1 resolution per second per channel. Compression by H.264, MPEG4, MJPEG. One PSE for IP Camera
- 2 x mobile HDD/SSD with SAE J1455 vehicle grade shock & vibration
- Vehicle grade working temperature -30°C ~ 60°C
- Rich I/O : CAN(J1939), J1708, COMs, isolation DIO, Audio, USB
- Dual WWANs, GPS (AGPS, Dead reckoning), WLAN & Bluetooth



Online

### TREK-753

#### 7" All-in-one Mobile Data Terminal

- 7" WVGA LCD with 5 programmable adjustable brightness hot key
- Windows W.E.S. & WinCE6.0 & Linux Ubuntu
- Analog video input & J1708/CAN2.0b with J1939 supported
- Supports CDMA/HSDPA/GPRS/GPS/WLAN/BT wireless communications
- 12V/24V option: 6~36V input range compliant to IOS7637-2 & SAE J1113

## Vehicle Mount Terminals



Online

### MTC6

#### Vehicle Mount Terminal with Intel® Atom™ Processor

- 10.4" SVGA, 12.1" or 15.0" XGA LED
- -30 ~ 50°C operating capability
- Fully rugged, IP66 / IP67 for the complete system
- WLAN 802.11 a/b/g/n with integrated diversity antenna
- ADLoG voice kit for VoIP solution
- DLoG-specific rugged resistive touchscreen



Online

### XMT5

#### Vehicle Mount Terminal with Marvell® PXA 320 Processor

- 7" WVGA LED and 10.4" SVGA LED available
- Fully rugged, IP66 / IP67 for the complete system
- DLoG-specific resistive touchscreen
- WLAN 802.11 b/g with integrated diversity antenna
- GPS/GPRS/HSDPA, WLAN, WWAN, CAN (optionally)
- DLoG-specific rugged resistive touchscreen



Online

### IPC7

#### 15" with 2 x PCI Expansion Slot Terminal

- DLoG-specific rugged resistive touchscreen
- Fully rugged, IP66/ IP67 for the complete system
- WLAN 802.11 a/b/g/n
- More than 70 mounting variations (stationary + mobile use)
- 0~ 50°C operating capability

## Point-of-Care Terminals



Online

NEW

### AMiS-50

#### Advantech Computerized Medical Cart

- Highly integrated computerized medical cart for mobile healthcare solution
- Ergonomic design and great flexibility of customization
- Motor lifter to adjust height electrically
- Small bottom base (47 x 50 cm) to fit more places
- Large casters (125 mm) increase versatility on different floor Surfaces



Online

NEW

### POC-W211

#### Widescreen Point-of-Care Terminal with 21.5" Wide TFT LCD

- True flat front bezel panel
- Fanless and noiseless
- Front panel IP65 and whole system IPX1
- Intel® Core™ i7 platform and supports iAMT 7.0
- UL60601-1/EN60601-1 third edition certified
- 21.5" Full HD 1920 x 1080 (16:9) TFT LCD with 178°/178° wide viewing angle



Online

NEW

### iPS-M420

#### 420 Wh Industrial Power Storage System with Lithium-Iron Phosphate Cell

- Easy-swap battery pack design
- Safety protection circuit prevents over charge and discharge
- AMiS\_Link battery monitoring software
- Two system outputs: 15~19 V<sub>DC</sub>, Max. 6A & 12V<sub>DC</sub>, Max. 4A
- CE, FCC Class B certified; UL60601-1, EN60601-1 approved

## Infotainment & iService Platforms



Online

NEW

### PIT-1503W

#### 15.6" Patient Infotainment Terminal

- Intel® Atom™ D510 processors
- Specialized design focuses on healthcare application
- Easy cleaning touch panel complies with IP65 protection
- Programmable touch hotkeys & VESA 75/100 support
- Optional handset/ RFID/ smart card reader/ barcode scanner/ MSR
- ITE & medical dual certificate (EN-60950 & EN-60601-1)



Online

NEW

### HIT-W181

#### 18.5" Healthcare Infotainment Terminal

- Dual CPU support (Intel® Atom™ D525 Processors/ SandyBridge i7 processors)
- Support DDR3 up to 16G (i7)
- Support CFAST, speed fast as HDD
- Slim, fanless design with programmable touch hotkeys
- Multi-touch capability(Optional)
- Optional handset/ RFID/ smart card reader/ barcode scanner/ MSR



Online

NEW

### UTC-520 (AB)

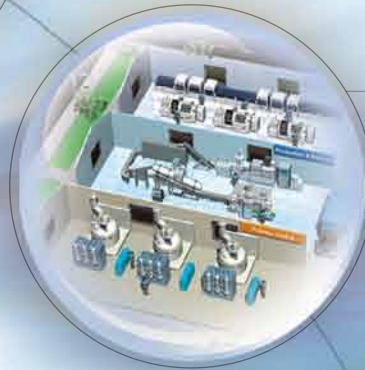
#### 21.5" Ubiquitous Touch Computer

- Widescreen touch screen with IP54 protection standard
- AMD G-Series T40E & Intel® Atom™ D2700 2. 13GHz processor
- All in one aluminum extrusion design, only 40 mm thickness
- Support landscape & portrait screen mode
- VESA 100 mm standard mounting holes support
- Attachable design for peripherals: MSR/ camera/ RFID/ smart card reader



# Enabling an Intelligent Planet

Advancements in technology have paved the way for modern civilization; allowing us to interconnect human lives in a way never before thought possible. Advantech, a global industrial computing and automation manufacturer, continues to explore what technology can bring into our lives. With over two decades of proven experience, we combine information, automation and communication technology with efficiency, energy conservation, minimized risk, cost-effectiveness, and environmental protection to create solutions to enable an intelligent planet.





## Environmental Monitoring & Facility Management

- Water & Wastewater Treatment
- Pipeline Monitoring
- Pumping Station Monitoring & Control
- River Disaster Monitoring



Water & Wastewater Treatment



Pipeline Monitoring



Pumping Station Monitoring & Control



River Disaster Monitoring

## Power and Energy

- Power Generation
- Smart Substations
- Renewable Energy
- Electric Car Charging Stations



Power Generation



Smart Substations



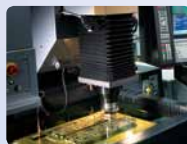
Renewable Energy



Electric Car Charging Stations

## Machine Automation & Automatic Test Equipment

- Automatic Testing Control
- Production Automation
- Packing Automation
- Process Control



Automatic Testing Control



Production Automation



Packing Automation



Process Control

## Intelligent Building Solutions

- Web-enabled Building Solutions
- HVAC System Management
- Energy Management Systems
- Integrated Facility Management Systems



Web-enabled Building Solutions



HVAC System Management



Energy Management Systems



Integrated Facility Management Systems

## Intelligent Transportation Systems

- Railway Stations
- Onboard Train and Rolling Stock
- Railway Wayside
- Road Traffic



Railway Stations



Onboard Train and Rolling Stock



Railway Wayside



Road Traffic

# Environmental Monitoring & Facility Management

## SCADA Software with Video Surveillance and Real-time I/O Solutions

Advantech has been dedicated to developing Environmental Monitoring & Facility Management Systems for many years, especially in dealing with the unique requirements for the water industry. Advantech's value-added systems and solutions through high-volume SCADA and advanced web-based technology allow users to monitor and operate processes anytime, anywhere. Moreover, Advantech offers a wide range of video surveillance, communication, and data acquisition modules with various interfaces. These systems are built with redundant topologies that can be reliably operated over a long distances and easily integrated with other GPRS systems.



### Water & Wastewater Treatment

- Redundant controller architectures
- IP-based video surveillance
- Professional WebAccess SCADA software
- Redundant fiber optic communication



### Pipeline Monitoring

- Intelligent pipeline RTU
- Powerful KW Softlogic software
- Remote I/O monitoring
- GPRS telecommunication
- Excellent pipeline leakage detection



### Pumping Station Monitoring & Control

- Intelligent RTU controller
- Flow/Pressure PID control
- WebAccess SCADA software for water management



### River Disaster Monitoring

- Powerful PAC controller
- Robust I/O devices
- Redundant ring communication
- IP-based video surveillance
- GPRS telecommunication
- Outdoor wireless LAN communication



## Product Solutions

### Software



**Advantech WebAccess**  
Browser-based HMI/  
SCADA Software

### Communication



**EKI-1322**  
RS-232/422/485 to  
GPRS IP Gateway



**EKI-6331AN**  
Wireless Access Point/  
Client Bridge

### Controller



**APAX-5620**  
PAC with Marvel  
XScale® CPU and CAN

### Video



**NVS-3520**  
H.264 IP Video Server



**ADAM-2000**  
Wireless I/O  
Modules



**ADAM-4000**  
RS-485 I/O  
Modules



# Power and Energy

## Build Reliable Power Automation Solutions with Trusted System Components

Power supply and demand is becoming more and more critical. Substation automation, T&D grid automation, renewable energy, power generation & transmissions, energy management systems and maintenance-free power backup systems with IEC 61850-3 compliance are the big trends in today's applications. Power Automation improves energy efficiency and intelligence while also implementing important environment protection and green powered features. Advantech is proud to develop reliable HMIs, Embedded Automation Computers, Industrial Managed Switches and Programmable Automation Controllers to serve this market.



### Power Generation

- Redundant Programmable Automation Controller architecture
- Simultaneous high-speed data acquisition modules
- Multi-port managed Ethernet switches



### Smart Substations

- IEC 61850-3/ IEEE 1613 compliant computing platforms, I/O modules and Ethernet switches
- Reliable redundant X-Ring networking communications



### Renewable Energy

- Reliable Programmable Automation Controllers with an open system
- Fiber optic managed switches for redundant X-ring networking topology
- Powerful SCADA software support



### Electric Car Charging Stations

- User friendly touch panel computers
- Multiple communication I/O modules to support real-time data acquisition and transmission

## Product Solutions



### HMI



**FPM-3151G**  
15" XGA Industrial Monitor



**APAX-5570**  
PAC with Intel® Celeron® M CPU



**APAX-5522PE**  
IEC 61850-3 Compliant PAC with Marvel XScale® CPU



**ECU-1801A**  
Intel® Atom™ D510 Energy Controller with 2 x LAN, 3 x COM, IRIG-B, and I/O Extension



**UNO-4673A**  
IEC 61850-3/IEEE 1613 Automation Computer



**EKI-4654R**  
IEC 61850-3/IEEE 1613 Industrial Ethernet Switch



**EKI-7559SI/MI**  
8+2 SC-type Fiber Optic Managed Ethernet Switches

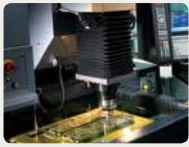


**APAX-5017PE**  
IEC 61850-3 Compliant 12-ch Analog Input Module

# Machine Automation & Automatic Test Equipment (ATE)

## Integrated Soft Computing to Enable Intelligent Manufacturing

Advantech prides itself on being a leading industrial solutions provider, with over 25 years experience creating robust and reliable industrial products. Rooted in factory and machine automation markets, from automatic testing machines and machine inspection, to production, packing and process automation, Advantech not only develops critical motion control technology for dedicated industries, but provides professional consulting services to help its suitable customers develop successful applications for a variety of different applications. By using SoftMotion and DAQNAVI as the two core software technologies, Advantech fulfills different value-added provider's needs to develop PC-based projects and also positions itself to provide different cost-effective system architectures with centralized and distributed topologies.



### Automatic Testing Control

- 100 kS/s AI sampling rate to acquire response audio signal
- High-speed waveform generated from AO
- Software package to perform a closed-loop frequency sweep



### Production Automation

- Helical interpolation and synchronized multi-axis of motion control
- Fast-response of digital I/O signal control
- High-speed and high-accuracy placement



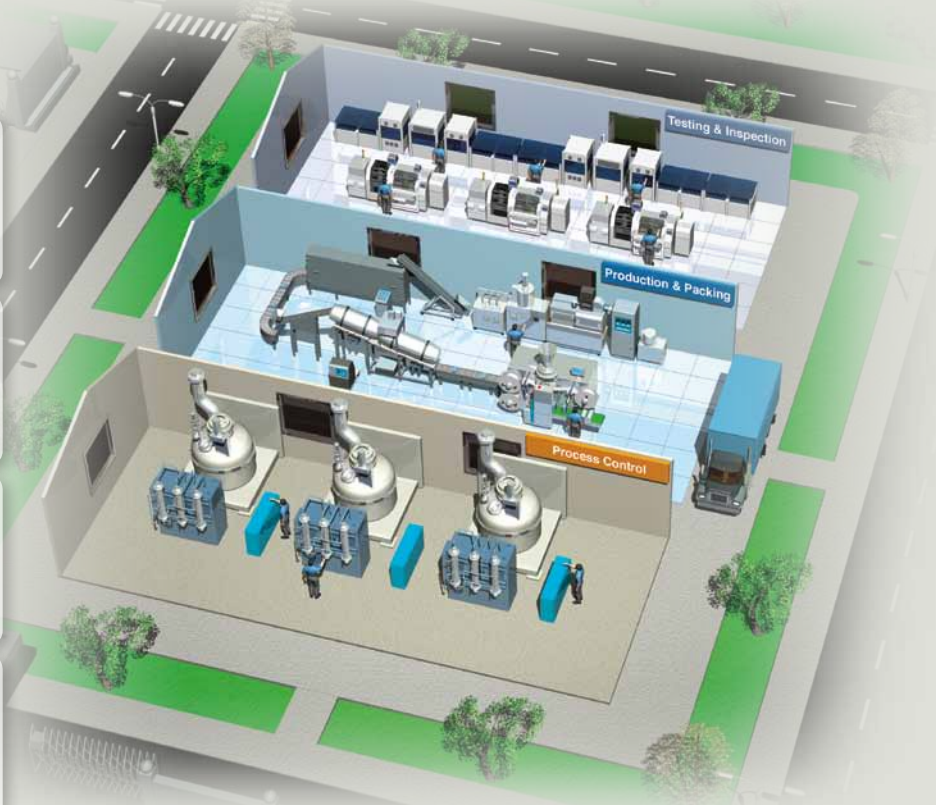
### Packing Automation

- High computing power for complex tasks
- Various development tools to satisfy different programmer's requirements
- Helical interpolation & position latch of motion control



### Process Control

- Long distance communication through AMONet protocol
- Easy extension and maintenance
- Complex functions integration
- Advanced, user-friendly software development tools



## Product Solutions

### HMI



**TPC-1571H**  
15" Touch Panel  
Computer

### Controller



**UNO-3084**  
Wallmount  
Automation  
Computer

### Motion Control



**AMAX-1240**  
High-performance  
AMONet Motion  
Slave Module



**AMAX-1752**  
Compact Isolated  
Digital Input /  
Output Slave  
Module

### Motion Card



**PCI-1265**  
Motion Control  
Universal PCI  
Card

### I/O



**PCI-1716**  
Multifunction PCI  
Card



**PCIE-1744**  
Simultaneous  
Analog Input PCI  
Express Card



# Intelligent Building Solutions

## Increase Energy Efficiency with Open and Web-enabled Technologies

Integrated facility management systems are becoming more popular as they help make building operations run more efficiently through advanced control and connectivity. In addition to integrated facility management, video surveillance systems offer advanced security for facility managers. Advantech's Building Automation and Energy Management Solutions offer browser-based software and comprehensive hardware packages for a variety of applications, including Advantech WebAccess, Advantech's BACnet controllers and remote I/O modules, energy data concentrators, and power meters. It enables engineers, system integrators and equipment manufacturers to maintain and upgrade their systems remotely.



### Web-enabled Building Solutions

- Browser-based HMI/SCADA software
- Web-enabled DDC controller
- View, control and configure remotely



### HVAC System Management

- Variable speed pumping system
- HVAC domain calculation function
- Time schedule and auto tune PID



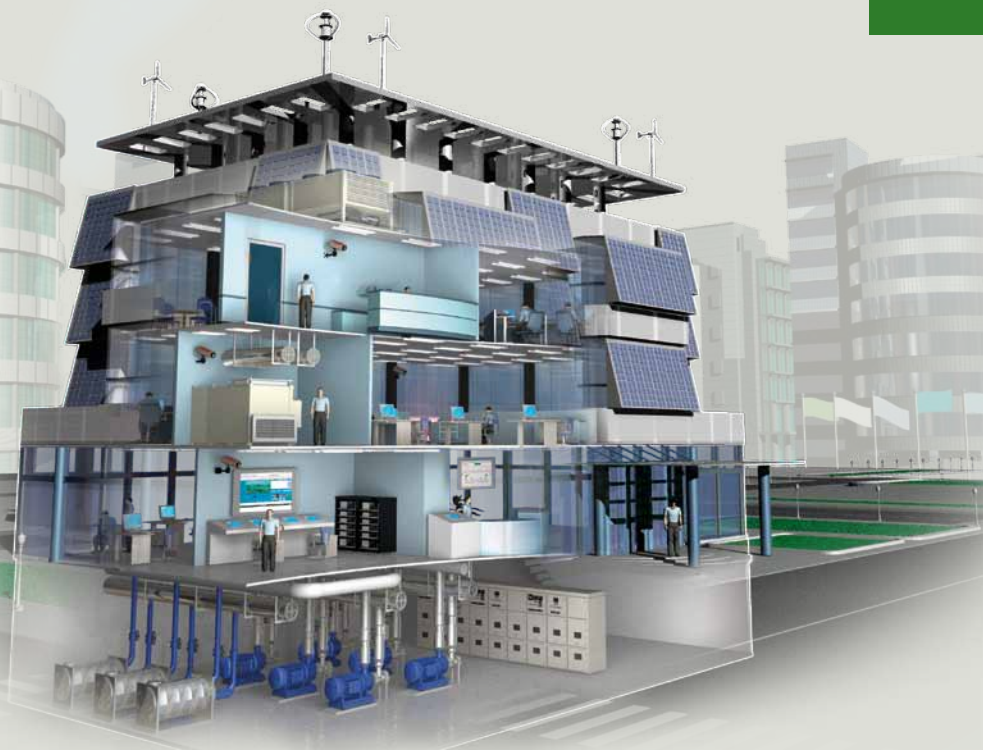
### Energy Management Systems

- Rich charts to monitor energy consumption status
- Various analysis reports for advanced improvement strategies
- Supports WebGIS, geographic information system function



### Integrated Facility Management Systems

- Open protocol, OPC, BACnet, Modbus
- Thirty party integration, PLC, Lighting, NVR
- Redundant SCADA & COM ports



## Product Solutions

### Software



**Advantech WebAccess**  
Browser-based HMI/SCADA Software



**Advantech BEMS**  
Building Energy Management Software

### Industrial PCs



**WebView-1212**  
Web Operator Terminal



**IPC-610**  
4U 14-Slot Rackmount Chassis

### Controller



**BAS-3500BC**  
BACnet & Modbus DDC Controller



**BAS-3018/24**  
**BAS-3050/51**  
BACnet & Modbus I/O Modules

### I/O



**ADAM-2000**  
Wireless I/O Modules

### Gateway



**BEMG-4110/4220**  
Energy Data Concentrator

# Intelligent Transportation Systems

## Solutions for Transportation Automation and Infrastructure

Transportation systems aim at providing communications and technology that allow safe, convenient, comfortable, efficient, and environmentally friendly travel for all commuters. Many cities worldwide are in the midst of improving their transportation system infrastructures, and Advantech is there to provide a helping hand, offering advanced product solutions for the transportation market. Advantech offers cost-effective solutions for traffic monitoring system for railway (station, onboard train, wayside control), freeway (dynamic weighing, tunnel monitoring, passenger information display, entrance control, electronic payment), and other transportation applications.



### Railway Stations

- Ethernet switch and PAC for fire alarm system (FAS)
- Trusted automatic fare collection (AFC) by using communication cards and data acquisition cards



### Onboard Train and Rolling Stock

- EN50155 Ethernet switches for backbone communication
- Train-to-ground wireless communication
- Display panel for subway trains



### Railway Wayside

- Non-stop operation with redundant Ethernet managed switches
- Rail civil structural monitoring with ADAM modules and UNO controllers



### Road Traffic

- PoE switches for video surveillance
- PAC distributed control system for tunnel monitoring
- Controllers and device servers for LED traffic information display



## Product Solutions

### HMI



**TPC-1250H**  
12" Touch Panel PC

### Communications



**EKI-6340**  
Wi-Fi Mesh AP



**EKI-1526**  
Serial Device Server



**EKI-6558TI**  
EN50155 Switch

### Controllers



**UNO-2173AF**  
Energy Efficient Automation Computer



**APAX-5520**  
Programmable Automation Controller

### I/O



**PEC-3710**  
Integrated I/O Controller



**ADAM-4000/ADAM-6000**  
Remote I/O Modules

# Advantech Headquarters

No. 1, Alley 20, Lane 26, Rueiguang Road Neihu District, Taipei Taiwan 11491, R.O.C.

Tel: 886-2-2792-7818 Fax: 886-2-2794-7301

www.advantech.com

## Greater China

### Regional Service Center, China Kunshan Manufacturing Center

No. 600, Han-Pu Road, Yu-Shan  
Kunshan, Jiang Su, China  
Tel: 86-512-5777-5666  
Fax: 86-512-5778-5388

### Regional Service Center, Taiwan Taipei Manufacturing Center

7F, No.1, Lane 169, Kang-Ning Street,  
Shejy City, Taipei, Taiwan  
Tel: 886-2-2692-6076  
Fax: 886-2-2692-2762

### Advantech China 800-810-0345 Beijing Office

6th Street No. 7, Shang Di Zone,  
Hai-Dian District  
100085 Beijing, China  
Tel: 86-10-6298-4346  
Fax: 86-10-6298-4342  
Email: sales@advantech.com.cn  
www.advantech.com.cn

#### Shanghai Office

136# Jiangchang Three Road Zhabei  
District 200436 Shanghai, China  
Tel: 86-21-36321616  
Fax: 86-21-36321616-3394

#### Shenzhen Office

B1811#-1812#, Tian An  
Cyber Park High-tech Tower, Futian  
District, 518040 Shenzhen, China  
Tel: 86-755-8212-4222  
Fax: 86-755-2586-7910

#### Chengdu Office

Room #708, #709, #710  
Bainaohui Information Plaza  
No. 118, Moziqiao New South Road,  
610041, Chengdu Sichuan, China  
Tel: 86-28-8545-0198  
Fax: 86-28-8543-5101

#### Hong Kong Office

Flat 1108, 11/F, No. 113 Argyle Street,  
Mong Kok, Kowloon, Hong Kong  
Tel: 852-2720-5118  
Fax: 852-2720-8013

### Advantech Taiwan 0800-777-111 Taipei Neihu Office

No. 1, Alley 20, Lane 26, Rueiguang Road,  
Neihu District, Taipei 11491, Taiwan, R.O.C.  
Tel: 886-2-2792-7818  
Fax: 886-2-2794-7302  
Toll Free: 0800-777-111  
Email: sales@advantech.com.tw  
www.advantech.com.tw

#### Taipei Xindian Office

4F No. 108-3, Minquan Road,  
Xindian Dist., New Taipei City,  
Taiwan 231, R.O.C.  
Tel: 886-2-2218-4567  
Fax: 886-2-2218-3650  
Toll Free: 0800-777-111  
Email: emarketing.aatw@advantech.com.tw

#### Taichung Office

13F-2, No. 497, Zhongming South Road,  
Taichung City, Taiwan 403, R.O.C.  
Tel: 886-4-2378-6250  
Fax: 886-4-2378-6260

#### Kaohsiung Office

11F-7, No.56, Minsheng 1st Rd., Xinxing Dist.,  
Kaohsiung City 800, Taiwan, R.O.C.  
Tel: 886-7-229-3600  
Fax: 886-7-227-0217

## Asia Pacific

### Advantech Japan 0800-500-1055 Tokyo Office

6-16-3, Asakusa Taito-Ku,  
Tokyo 111-0032, Japan  
Tel: 81-3-6802-1021  
Fax: 81-3-6802-1022  
Email: ajp\_sales@advantech.com  
http://www.advantech.co.jp

#### Osaka Office

6F, Minami Senba M21 Bldg.  
1-10-20 Minami Senba,  
Chuo-Ku, Osaka, 542-0081 Japan  
Tel: 81-6-6267-1887  
Fax: 81-6-6267-1886

### Advantech Korea 080-363-9494

#1202 Ace Techno Tower, 684-1  
Deungchon-3 Dong, Kangseo-Ku,  
Seoul 157-721, Korea  
Tel: 82-2-3663-9494  
Fax: 82-2-3663-4955  
Email: pros@advantech.co.kr  
www.advantech.co.kr

### Advantech Singapore

6 Serangoon North Ave 5, #03-08 East  
Lobby, Singapore 554910  
Tel: 65-6442-1000  
Fax: 65-6442-1001  
Email: sg@advantech.com  
www.advantechsg.com.sg

### Advantech Malaysia 1800-88-1809 Kuala Lumpur Office

L3-03 / 03A, Wisma BU8, No 11,  
Lebuh Bandar Utama,  
Bandar Utama, 47800 Petaling Jaya,  
Selangor Darul Ehsan, Malaysia  
Tel: 60-3-7724-3555  
Fax: 60-3-7728-1571  
Email: sales@advantech.com.my  
www.advantech.com.my

#### Penang Office

No.117 & 119 Ground Floor,  
Jalan Perniagaan Gemilang 1,  
Pusat Perniagaan Gemilang,  
14000 Bukit Mertajam, Penang  
Tel: 60-4-537-9188 (x.4512)  
Fax: 60-4-538-1571

### Advantech Thailand

24F, Chamnan Phenjati Business Center  
65/205 Rama IX Road, Huay-Kwang,  
Bangkok 10320 Thailand  
Tel: 66-2-248-3140  
Fax: 66-2-248-2424  
Email: sales-th@advantech.com  
http://www.advantech.com

### Advantech India 1800-425-5070 Bangalore Office

Krupa Arcade #438/14, 6th Main,  
17th Cross, Rajajinagar 2nd Stage,  
Malleshwaram West Post,  
Bangalore 560 055, India  
Tel: 91-80-2337-4567  
Fax: 91-80-2337-5898  
Toll Free: 180- 425-5070  
Email: Info.in@advantech.com  
www.advantech.in

### Advantech Australia 1300-308-531 Melbourne Office

Unit 1, 3 Southpark Close,  
Keysborough VIC 3173, Australia  
Tel: 61-3-9797-0100  
Fax: 61-3-9797-0199  
Email: info@advantech.net.au  
www.advantech.net.au

#### Sydney Office

Unit 1, 14 Leighton Place  
Hornsby NSW 2077, Australia  
Tel: 61-2-9476-9300  
Fax: 61-2-9477-2521

### Advantech Indonesia

Edugate Building, 1st Floor, Suite 1A Jl RS  
Fatmawati No.99, Cilandak Barat, Jakarta  
Selatan, 12430  
Tel: 62-21-769-0525  
Fax: 62-21-766-9127  
aid.ccs@advantech.com  
www.advantech.co.id

## Europe

### Advantech Europe B.V. 00800-2426-8080 Email: CustomerCare@advantech.eu www.advantech.eu

### Advantech European Head Office & Regional Service Center, Netherlands

Ekkersrijt 5708 Science Park Eindhoven  
5692 EP Son, The Netherlands  
Tel: 31-40-267-7000  
Fax: 31-40-267-7001  
Email: CustomerCare@advantech.eu

### Technical Support Center Embedded

Fuggerstr. 9, 92224 Amberg, Germany  
Tel: 49-9621-9732-355  
Fax: 49-9621-9732-199  
Email: CustomerService.aeu@advantech.com

### Regional Service Center, Poland

Ul. Matuszewska 14, Budynek C5,  
03-786, Warsaw, Poland  
Tel: 48-22-33-23-730  
Fax: 48-22-33-23-732  
Email: rma@advantech.pl

### Advantech Benelux & Nordics

**Breda Office**  
Bijster 20A, 4817 HX Breda,  
The Netherlands  
Tel: 31-76-5233100  
Fax: 31-76-5233119  
www.advantech.nl

#### Roosendaal Office

Vlierwerf 7A, 4704 SB Roosendaal  
The Netherlands  
Tel: 31-165-550-505  
Fax: 31-165-567-504  
www.advantech.nl

### Advantech France

**Paris Office**  
718 rue des Hautes Pâtures  
92737 Nanterre Cedex, France  
Tel: 33-1-4119-4666  
Fax: 33-1-4119-7929  
www.advantech.fr

### Advantech Germany

**Munich Office**  
Indusriestr. 17  
82110 Germering, Germany  
Tel: 49-89-12599-0  
Fax: 49-89-12599-1221  
www.advantech.de

#### Düsseldorf Office

Kolberger Str. 7  
Hochdahl Str. 14  
40724 Hilden, Germany  
Tel.: 49-2103-97-885-0  
Fax: 49-2103-97-885-19  
www.advantech.de

### Advantech Italy

**Milano Office**  
Via Roma, 74  
20060 Cassina de' Pecchi, Milano, Italy  
Tel: 39-02-9544-961  
Fax: 39-02-9544-9650  
www.advantech.it

### Advantech Poland

**Warsaw Office**  
Ul. Matuszewska 14, Budynek C5,  
03-786, Warsaw, Poland  
Tel: 48-22-33-23-740 / 41  
Fax: 48-22-33-23-732  
www.advantech.com.pl

### Advantech UK

Unit 13, Suttons Business Park  
Suttons Park Avenue  
Reading, Berkshire, RG6 1AZ  
United Kingdom  
Tel: 44-0118-929-4540  
Fax: 44-0118-929-4551  
www.advantech-uk.com

### Advantech Russia

Room 648, 6F, Profsoyuznaya Str., 108  
Moscow 117437, Russian Federation  
Tel: 7-495-232-1692  
Fax: 7-495-232-1693  
Toll Free: 8-800-555-01-50  
Email: info@advantech.ru  
www.advantech.ru

## Americas

### Regional Service Center, N. America

380 Fairview Way  
Milpitas, CA 95035, USA  
Tel: 1-408-519-3800  
Fax: 1-408-519-3801

### Advantech North America 1-888-576-9668 Cincinnati Office

11380 Reed Hartman Highway  
Cincinnati, OH 45241, USA  
Tel: 1-513-742-8895  
Fax: 1-513-742-8892  
Toll Free: 1-800-800-6889  
RMA/Tech Support: 1-877-451-6868  
Email: info@advantech.com  
www.advantech.com/ea

#### Milpitas Office

380 Fairview Way,  
Milpitas, CA 95035, USA  
Tel: 1-408-519-3898  
Fax: 1-408-519-3888  
Toll free: 1-888-576-9668  
mail: buy@advantech.com  
eStore Website: http://buy.advantech.com

#### Irvine Office

38 Tesla, Suite 100  
Irvine, CA 92618, USA  
Tel: 1-949-789-7178  
Fax: 1-949-789-7179  
Toll Free: 1-800-866-6008  
Toll Free: 1-800-557-6813  
Email: ECGinfo@advantech.com  
Email: CTinfo@advantech.com

### Advantech South America Mexico Office

Av. Baja California 245  
Colonia Hipódromo Condesa, Delegation  
Cuauhtémoc, 6100 ad de México, DF Mexico  
Tel: 52-55-6275-2777  
Fax: 52-55-6275-2727

### Advantech Brazil 0800-770-5355

Rua Fiação da Saúde, 145 – 12º  
andar – Conjunto 128  
Saúde – São Paulo  
CEP: 04144-020, Brazil  
Tel: 55-11-5592-5355  
Fax: 55-11-5592-5353  
Email: info@advantech.com.br



## Mission

Enabling an Intelligent Planet

## Growth Model

Segmented Business Units  
Powered by Global Trusted Brand

## Focus & Goal

The Global Leader of  
Embedded & Automation Solutions  
for iWorld System Integrators

[www.advantech.com](http://www.advantech.com)

## Regional Service & Customization Centers

### China

Kunshan  
86-512-5777-5666

### Taiwan

Taipei  
886-2-2792-7818

### Netherlands

Eindhoven  
31-40-267-7000

### Poland

Warsaw  
48-22-33-23-740 / 741

### USA

Milpitas, CA  
1-408-519-3898

## Worldwide Offices

### Greater China

**China** 800-810-0345  
Beijing 86-10-6298-4346  
Shanghai 86-21-3632-1616  
Shenzhen 86-755-8212-4222  
Chengdu 86-28-8545-0198  
Hong Kong 852-2720-5118

**Taiwan** 0800-777-111  
Rueiguang 886-2-2792-7818  
Yang Guang 886-2-2792-7818  
Xindian 886-2-2218-4567  
Taichung 886-4-2378-6250  
Kaohsiung 886-7-229-3600

### Asia Pacific

**Japan** 0800-500-1055  
Tokyo 81-3-6802-1021  
Osaka 81-6-6267-1887

**Korea** 080-363-9494  
Seoul 82-2-3663-9494

**Singapore**  
Singapore 65-6442-1000

**Malaysia** 1800-88-1809  
Kuala Lumpur 60-3-7724-3555  
Penang 60-4-397-3788  
60-4-397-4188

**Indonesia**  
Jakarta 62-21-769-0525

**Thailand**  
Bangkok 66-2-248-3140

**India** 1800-425-5070  
Bangalore 91-80-2337-4567

**Australia** 1300-308-531  
Melbourne 61-3-9797-0100  
Sydney 61-2-9476-9300

### Europe

**Europe** 00800-2426-8080

**Germany**  
Münich 49-89-12599-0  
Hilden 49-2103-97-885-0

**France**  
Paris 33-1-4119-4666

**Italy**  
Milano 39-02-9544-961

**Benelux & Nordics**  
Breda 31-76-5233-100  
Roosendaal 31-165-550-505

**UK**  
Reading 44-0118-929-4540

**Poland**  
Warsaw 48-22-33-23-740/741

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

### Americas

**North America** 1-888-576-9668  
Cincinnati 1-513-742-8895  
Milpitas 1-408-519-3898  
Irvine 1-949-798-7178

**South America**  
Mexico 52-55-6275-2777

**Brazil** 0800-770-5355  
São Paulo 55-11-5592-5355

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