Intelligent Video Surveillance Solutions

Enabling Video Intelligence through Embedded Systems & Intelligent Platforms

⟋ **Vertical Solutions**

⟋ **Industrial Computers & Server-grade IPCs**

⟋ **In-Vehicle Embedded IPCs**

⟋ **Fleet Management with In-vehicle Surveillance Computing Boxes**

⟋ **Capture, Encoder & Decoder Cards**

⟋ **Intelligent Video Analytics**

ADVANTECH

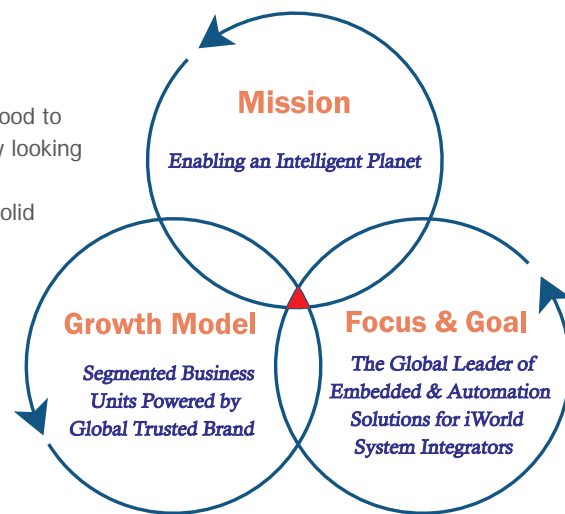*Enabling an Intelligent Planet*

www.advantech.com

About Advantech

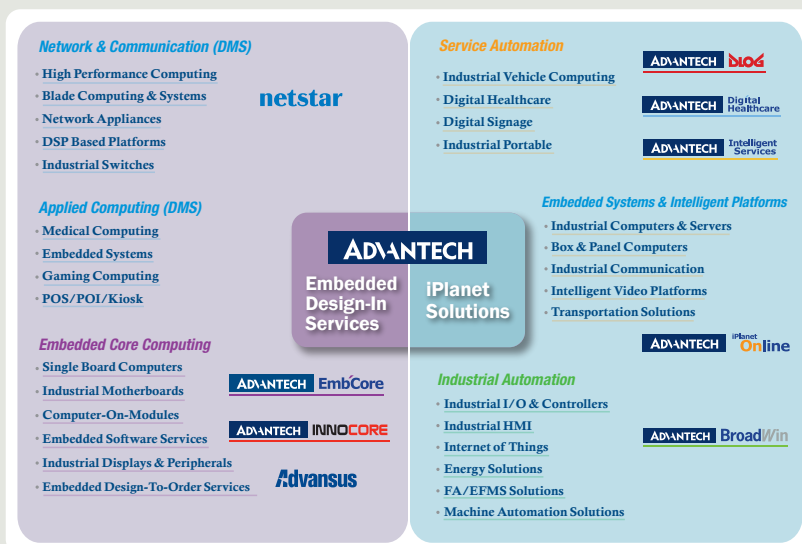## Advantech: Enabler of an Intelligent Planet

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.

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

Advantech Corporate Structure and Growth Engines

Network & Communication (DMS)
- High Performance Computing
- Blade Computing & Systems
- Network Appliances
- DSP Based Platforms
- Industrial Switches

netstar

Applied Computing (DMS)
- Medical Computing
- Embedded Systems
- Gaming Computing
- POS/POI/Kiosk

Embedded Core Computing
- Single Board Computers
- Industrial Motherboards
- Computer-On-Modules
- Embedded Software Services
- Industrial Displays & Peripherals
- Embedded Design-To-Order Services

ADVANTECH EmbCore

ADVANTECH INNOCORE

Advansus

ADVANTECH
Embedded Design-In Services

iPlanet Solutions

Service Automation
- Industrial Vehicle Computing
- Digital Healthcare
- Digital Signage
- Industrial Portable

ADVANTECH DLoG

ADVANTECH Digital Healthcare

ADVANTECH Intelligent Services

Embedded Systems & Intelligent Platforms
- Industrial Computers & Servers
- Box & Panel Computers
- Industrial Communication
- Intelligent Video Platforms
- Transportation Solutions

ADVANTECH iPlanet Online

Industrial Automation
- Industrial I/O & Controllers
- Industrial HMI
- Internet of Things
- Energy Solutions
- FA/EFMS Solutions
- Machine Automation Solutions

ADVANTECH BroadWin

● Networks & Communications DMS

Advantech 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).
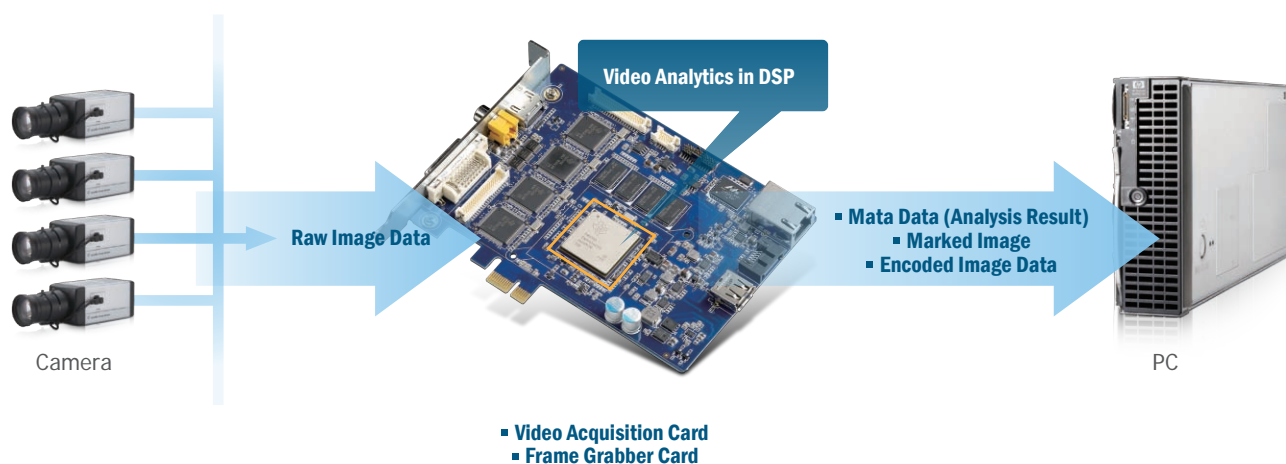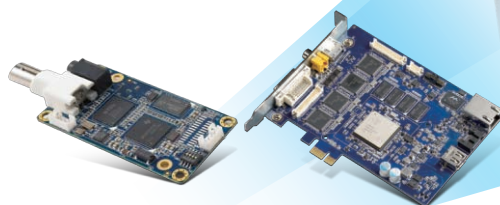
● Service Automation

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.
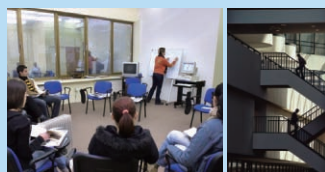
● Industrial Automation

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.
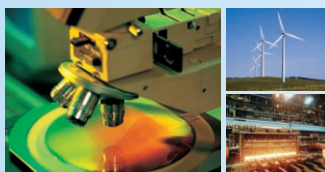
DSP-based Intelligent Video Solutions

Advantech provides highly integrated Intelligent Video Platforms for video surveillance systems. Designed with Advantech's latest DSP-based product offerings from Video Capture, Encoder and Decoder boards fully compatible with Advantech's long-lasting chassis and scalable hardware platforms, we also provide DSP-based embedded Intelligent Video Analytics (IVA) technology, targeting various video surveillance applications with a number of advantages differentiated from traditional PC-based IVA, including:

- Saves PC computing resources and costs
- Reduces device response time
- Real-time on-line (instead of off-line) analysis
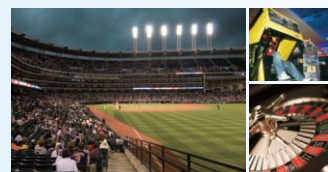- Integration flexibility
- Stability & reliability

Video Analytics in DSP

Raw Image Data

- **Mata Data (Analysis Result)**
- **Marked Image**
- **Encoded Image Data**

Camera

PC

- **Video Acquisition Card**
- **Frame Grabber Card**

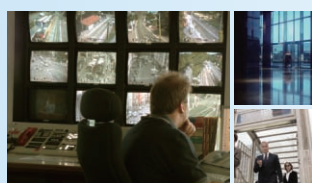Education

Testing & Automation
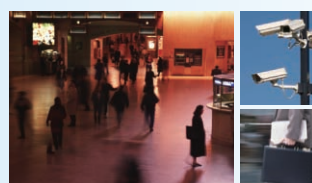
Finance

Entertainment & Hospitality

Retail

Transportation & Travel

Homeland Security

Enforcement & Government

Embedded Intelligent Analytics Ready

Image Enhancement

Object / Motion Detection

Face Recognition

Loitering / Dwell Time

Missing / Unattached Object

Forbidden Zone

ED-0219

License Plate Recognition

Intrusion Detection

Object Tracking

Retail

Retail stores, from small scale convenience stores to big scale supermarket chains, are constantly looking to increase customer safety, optimize operational performance and enhance asset protection. In this sector, surveillance systems with specific IVA are also required to increase the ROI on their surveillance networks, provide valuable data and analytics that offer real benefits to the operations and customers they serve.

Selection Fits the Requirements

Cost Effective Surveillance Systems

For this price sensitive market, Advantech's value ATX desktop/wallmount system with Intel® Core™2 Quad computing power, dual VGA/DVI, and 4 COM ports gives the best solution for cost-effectiveness with great expendability. Fully compatible with the selected platforms, Advantech's 4-ch software or hardware compression cards are ideal for system integration specifically geared for retail markets.

Compact & Integrated

Advantech's good-looking surveillance systems are designed with small footprints for today's space-efficient markets.
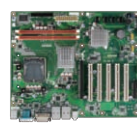
Product Solutions

Video Card		Industrial Motherboard	Industrial Computer
DVP-7042AE 4-ch PCI video capture card	**DVP-7642AE** 4-ch PCI video encoder card	**AIMB-767G2** Cost-effective ATX MB with 5 PCI slots, 4 COM ports, and dual GbE	**IPC-7132** Cost-effective & compact wallmount chassis

Banking & Finance

Large financial institutions and banks face continuous threats, from minor customer service issues to serious robberies. And with various sensitive areas requiring coverage, including entrance doors, teller stations, teller transactions, ATM vestibules, and vault access, the amount of video data to analyze is tremendous. To meet the risk management and market intelligence needs of the banking industry, these intelligent devices work with existing CCTV systems to provide both business intelligence and 24/7 surveillance for bank safety as well as security of customers, employees and bank assets.

Selection Fits the Requirements

Wallmount/4U Medium-to-large-scale Surveillance Systems

Advantech's Intel® Core™ i7/i5/i3/Pentium ATX wallmount system with front I/O design, high computing power with 3 PCIe, 4 COM ports, dual display and TPM, is designed to fulfill customer requirements for the ideal ATM system. It supports multiple devices: dual display in VGA and DVI, and provides financial encryption. As to a surveillance system, Advantech's Intel® Xeon® E3/Core™ i3 ATX 4U rackmount system is designed to target voice/screen recording servers and mission-critical applications that need greater PCIe slot expandability for capture and decoder cards and massive storage up to 6 SATA/SAS 3.5" hot-swap HDDs in RAID mode.

Video Intelligence for Loss Prevention

Capable of running on-board DSP-based video analytics, Advantech's video capture cards not only process video streams for surveillance purposes, but also analyze customer behavior and video content to protect property, prevent losses and improve sales and customer experience.

Product Solutions

Video Card		Industrial Motherboard	Server Board	Industrial Computer	
DVP-1612AE	**DVP-8642AE**	**AIMB-781QG2**	**ASMB-781G4**	**IPC-7120**	**ACP-4360**
1-ch USB video encoder board	4-ch PCIe video encoder card	High performance ATX MB with 3 PCIe, 4 PCI slots, 6 COM ports, dual display and TPM	Workstation ATX MB with 4 PCIe and quad-LANs & IPMI	Compact wallmount chassis with front I/O design	4U rackmount chassis with six SAS/SATA HDD trays

Gaming

With the increasing popularity of gaming and gambling, there are a growing number of casinos worldwide. Casino machines, known variously as slots, video poker, fruit machines, etc., offer people a chance to participate in gaming entertainment, with its lure of possible payouts, for a very modest investment. Gaming institutions present unique business and security challenges.

Selection Fits the Requirements

4U Large Scale High Performance Surveillance Systems

Featuring dual Intel® Xeon® E5 2600 series processors and supporting up to eight SAS and six SATA HDDs, Advantech's 4U tower/rackmount system for EATX Serverboard is equipped with dual PCIe x16 with PME expansion to have a maximum of 5 PCI Express slots, which can support large scale casino cameras and Intelligent Video Analytics to ensure security, and help both prevent and detect fraudulent behavior.

### 3H (High Density, High Definition & High Performance) Encoder Cards

Equipped with a high-performance Digital Signal Processor (DSP), Advantech's low-power, fanless PCI Express card supporting 8/16-channel composite video plus audio inputs with H.264 hardware compression can offload a system's host processor by executing 3rd party programs, including vision analytics functions, thereby enhancing the overall capabilities of a video surveillance system.

Product Solutions
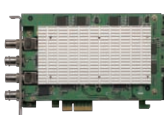
Video Card		Server-grade IPC	
DVP-8662BE	**DVP-8642HAE**	**ASMB-920IR**	**HPC-7480**
16-ch PCIe video encoder card	4-ch PCIe full HD video encoder card	Dual Xeon server class EEB MB with dual PCIe x 16, PME expansion, dual-LANs & IPMI	4U rackmount chassis with eight SAS/SATA HDD trays

Education & Government (Public Safety)

The major challenges that educational facilities face nowadays include escalating vandalism, violence and burglary. How to increase the security for students and staff by preventing violence and theft and minimizing the costs of vandalism by investigating incidents and identifying suspects are major concerns.

Public safety and security is an important issue for governments at all levels. Both citizens and government officials wish for a daily life without having to face immediate threats and criminal actions not only in schools but in all public areas, including government halls, offices and ministries, museums, libraries, court buildings, prisons, etc.

Selection Fits the Requirements

4U Large Scale High Performance Surveillance Systems

Featuring dual Intel® Xeon® E5 2600 series processors support up to eight SAS and six SATA HDDs; Advantech's 4U tower/rackmount system for EATX Serverboard is equipped with dual PCIe x16 with PME expansion up to 5 PCI Express slots plus Advantech's high-channel-number encoder card. The system can support huge numbers of cameras and performs Intelligent Video Analytics to detect and prevent illegal actions and terrorist attacks.
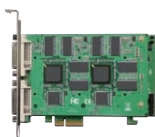
Scalability & Stability

All Advantech video cards are stackable, which provides great scalability and flexibility for system integrators to design and deploy their projects easily in various environments.
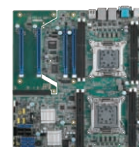
Product Solutions

Video Card		Server-grade IPC	

| **DVP-8682AE**	**DVP-8662AE**	**ASMB-920IR**	**HPC-7480**
8-ch PCIe video encoder card	16-ch PCIe Video encoder card	Dual Xeon server class EEB MB with dual PCIe x 16, PME expansion, dual-LANs & IPMI	4U rackmount chassis with eight SAS/SATA HDD trays

Transportation

In-vehicle video systems help with safety and security by monitoring and recording passenger activities–everything from medical events, to accidents, to violent behavior. They also help enforce passenger regulations. They record accidents, and are very useful to police during accident investigations. Driving safety is improved; drivers drive better when they know they are being monitored, and driving records are an aid to driver management. In-vehicle systems play a role with vehicle diagnostics and preventative maintenance too. Advantech in-vehicle video surveillance systems have a vehicle-friendly power design, and are vibration and shock resistant. With in-vehicle certification, these models fit a variety of vertical markets such as police cars, taxis, buses, trucks, trains and emergency vehicles.
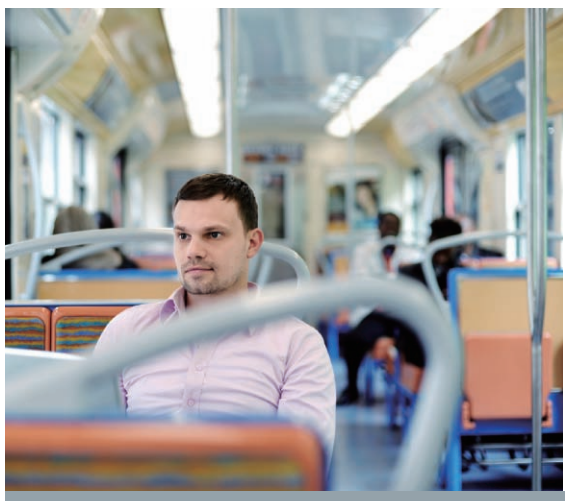
Selection Fits the Requirements

Mobile Data Terminal

Advantech Intel® Atom™ industrial in-vehicle computing box and dual-core computing box are designed to provide high-quality video surveillance and fleet management for police cars, ambulances, fire engines, buses and trains.

In-vehicle Surveillance Computing Boxes

Advantech in-vehicle surveillance with fleet management systems target police cars, ambulances, fire engines, buses and trains; all have passed vehicle certifications: power (ISO7637-2, SAEJ1113), shock, vibration and temperature (complaint with SAE J1455, MIL-810G). TREK-668 supports up to 12-ch analog cameras, one PSE for an IP camera, and 2 MHD/SSD. For IP camera, TREK-550 also pairs with EKI-2526PI, which is an industrial 6 Fast LAN switch (4 PSE ports switch). Both support dual display/audio, rich I/Os and good RF communications, such as WWAN, GPRS, WLAN, and Bluetooth.

Product Solutions

Video Card		In-vehicle Surveillance with Fleet Management Computing Box		

| **DVP-2642AE** 4-ch PCI-104 video encoder board | **DVP-5642AE** 4-ch Mini-PCI video encoder board | **ARK-VH200** 4-ch analog video | **TREK-668** 12-ch analog video 1 PSE for IP camera | **TREK-550 with EKI-2526 PI** 4-ch for IP camera |

Homeland Security

Recognizing that in this sector a single staff person may monitor several hundred cameras, and that these cameras must be monitored 24/7, a high performance, real-time video analytics solution can boost efficiency and decrease operation costs by reducing staffing requirements. These solutions relay automatic detections and alerts for all kinds of areas, including dams, seaports, energy plants, laboratories, oil & chemical storage, government buildings, military areas, etc.

Selection Fits the Requirements

4U Large Scale High Performance Surveillance System

Featuring dual Intel® Xeon® E5 2600 series processors and supporting up to eight SAS and six SATA HDDs, Advantech's 4U tower/rackmount system for EATX Serverboard is equipped with dual PCIe x16 with PME expansion for up to 5 PCI Express slots plus Advantech's high-channel-number encoder card. The system can support a huge number of cameras along a borderline, performing Intelligent Video Analytics to detect trespasser action.

Rich Video Product Portfolio with Multiple Form Factors

Advantech's complete video card offering and quality designs ensure the highest performance and stability for crime prevention, law enforcement, traffic monitoring, and surveillance, including military as well as that of critical infrastructures.
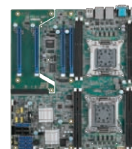
Product Solutions

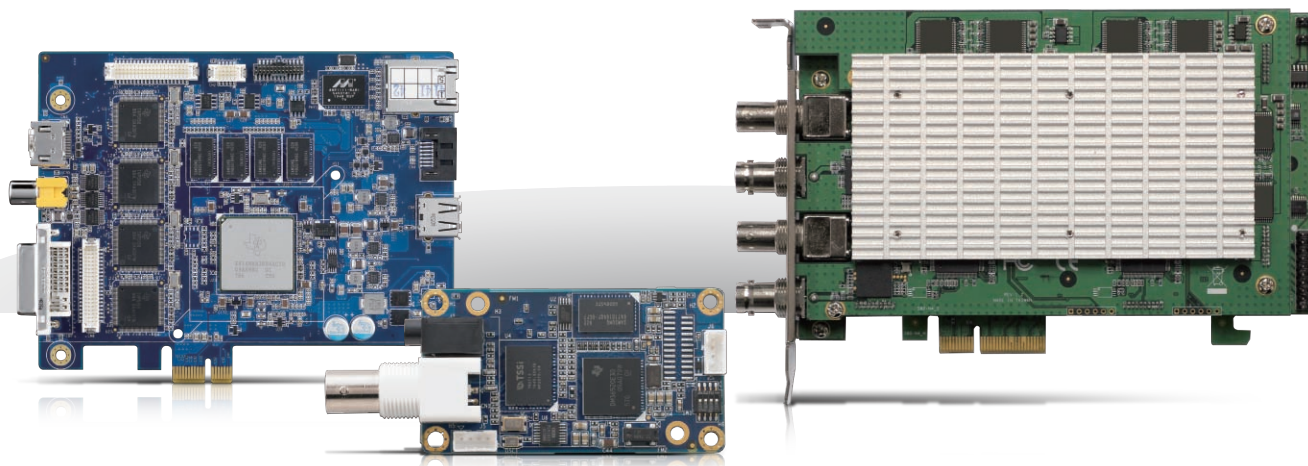| Video Card		Server-grade IPC	
DVP-1612AE 1-ch USB video encoder board	**DVP-8662BE** 16-ch PCIe bideo encoder card	**ASMB-920IR** Dual Xeon® server class EEB MB with dual PCIe x 16, PME expansion, dual-LANs & IPMI	**HPC-7480** 4U rackmount chassis with eight SAS/SATA HDD trays

Capture, Encoder, Decoder Cards

From USB, PCI-104, mini-PCI, PCI to PCIe host interface, the DVP-series offers a complete array of industrial-grade analog video capture, encoder and decoder boards, to support a wide variety of SD (Standard-Definition) and HD (High-Definition) video applications.

Specifications

| Model		DVP-1612AE	DVP-8642HAE	DVP-8662BE
Bus		USB 2.0	PCIe x1	PCIe x1
Video	Video Standard	Composite for NTSC/PAL	Composite for NTSC/PAL	Composite for NTSC/PAL
	Video Inputs	1	4	16
	Compression	HW H.264/RAW	HW H.264	HW H.264/MPEG4/MJPEG/RAW
	Display Rate	30/25 fps (NTSC/PAL)@D1	120/100 fps (NTSC/PAL)@CIF	480/400 fps (NTSC/PAL)@D1
	Max. Rec Rate	30/25 fps (NTSC/PAL)@D1	480/400 fps (NTSC/PAL)@D1	480/400 fps (NTSC/PAL)@D1
	Dual Stream	Yes	-	Yes
	Bit Rate Control	CBR & VBR	CBR / VBR / HBR	CBR / VBR
	OSD	Graphic OSD	Graphic OSD	Graphic OSD
	Connector	BNC, Male / 1.0Vp-p / 75Ω	BNC, Male / 1.0Vp-p / 75Ω	DVI
	Video Outputs	-	-	HDMI x 1
Audio	Audio Inputs	1	4	16
	Compression	PCM / G.711	PCM	ADPCM/MP2/MP3/G.711
	Connector	Phone jack, female	DVI	DVI
Card Stackable		8	∞	4
GPIO		-	Yes	Yes
Watchdog		-	Yes	Yes
Physical Characteristics	Operating Temperature	0 ~ 70° C (32 ~ 158° F)	0 ~ 70° C (32 ~ 158° F)	-20 ~ 70° C (-4 ~ 158° F)
	Storing Temperature	-10 ~ 80° C (14 ~ 176° F)	-40 ~ 85° C (-40 ~ 185° F)	-30 ~ 80° C (-22 ~ 176° F)
	Dimensions (W x D)	70 x 38 mm	110 x 105 mm	140 x 111 mm
	Safety	CE/FCC	CE/FCC/RoHS	CE/FCC/RoHS
System Requirement	CPU (Display)	Intel® Pentium® 4 2.0GHz	Intel® Pentium® 4 2.0GHz	Intel® Atom®
	CPU (Recording)	Intel® Pentium® 4 2.0GHz	Intel® Pentium® 4 2.0GHz	Intel® Atom®
	Memory	512MB	512MB	1GB
	VGA	DirectX 9.0c or above	DirectX 9.0c or above	DirectX 9.0c or above
	Operating System	Windows XP/Vista/7, Linux	Windows XP/Vista/7, Linux	Windows XP/Vista/7, Linux
SDK	Supported Language	VC++	VC++ / .NET/ BCB / VB / V4L2	VC++

In-Vehicle Embedded IPCs

The ARK-VH200 is an industrial-grade mobile surveillance solution platform that includes fanless design, high computing power, multiple I/O and a low-noise operating system. It supports a vehicle-friendly power design (compliant with ISO-7637-2), wireless communications, GPS receiver, in-vehicle certification (E-Mark, EN50155). Its anti-vibration, shock resistant design (MIL-810), H.264 4CH D1 supports real time recording and installs easily. ARK-VH200 with industrial grade Compact Flash (optional) operates under an extended temperature range, from -20 up to 60° C; in addition, these rugged designs endure 20/50 G shock and up to 5G vibration. ARK-VH200 fits a variety of vertical, in-vehicle markets such as police cars, taxis, buses, emergency vehicles, trucks, and trains. The application-ready system designs are ideal solutions to speed up system integrators' time-to-market and reduce costs in space-critical applications.

Specifications

Model	ARK-VH200A-D5A1E
Operating System	WES
CPU	Intel® Atom® D510 1.6GHz
Memory	1x DDR2 SODIMM DRAM up to 2GB
Video Input	4CH @BNC
Audio Input	4CH
Video FPS	D1: 120 FPS
Video Resolution	CIF/2CIF/D1
Video Format	H.264
Video Compression	HW Compression
HDD/CF	1x 2.5" HDD bay and 1x CF slot
Display	VGA & LVDS(18-bits)
Ethernet	2 x GLAN
USB	4 x USB2.0
Serial	3 x RS-232
In-vehicle PWR	DC Input 9V-32V, compliant with ISO-7637-2
Operating Temperature	CompactFlash: -20 ~ 60° C (no capture card) / 2.5 inch HDD: 0 ~ 45° C (no capture card)
Weight	3kg (6.6lb)
Dimensions (W x D x H)	260 x 134 x 77mm

Industrial Motherboards & Server Boards
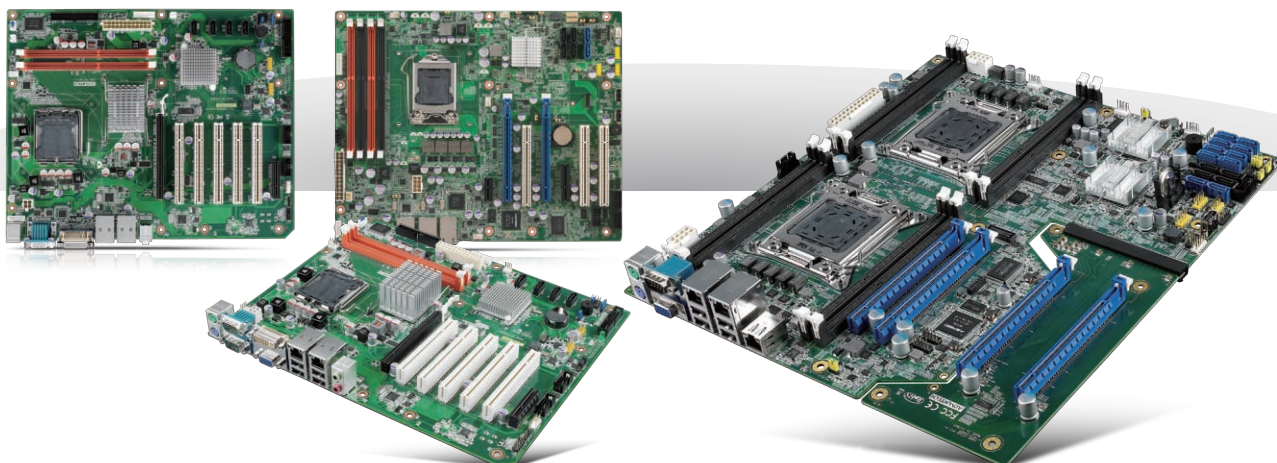
Advantech industrial motherboards are designed to meet mission-critical surveillance requirements by offering advanced computing power for image analysis, rich I/O interface such as multiple expansion slots for accommodating DSP cards, COM ports for integrating legacy devices, large storage capacity to save high volume video data, and high reliability for non-stop operation.

Specifications

Model	AIMB-767G2-00A1E	AIMB-781QG2-00A1E	ASMB-781G4-00A1E	ASMB-920IR-00A1E
Product Position	Value	Mainstream	Workstation	High End Server
CPU	Intel® Core™ Duo/Quad	Intel® Core™ i7/i5/i3	Intel® Xeon™ E3 1200	Intel® Dual Xeon™ E5 2600
Memory	4GB DDR3 1066MHz	16GB DDR3 1333MHz	32GB ECC DDR3 1333MHz	128GB ECC & REG DDR3 1600MHz
Slot	PCIe x16: 1 PCIe x4: 1 PCI: 5	PCIe x16: 1 PCIe x4: 1 PCIe x1: 1 PCI: 4	PCIe x16: 1 (or PCIe x8: 2) PCIe x4: 1 PCIe x1: 1 PCI: 3	PCIe x16: 2 PME expansion
Storage	SATA: 4	SATA: 6 with RAID 0, 1, 5, 10	SATA: 6 with RAID 0, 1, 5, 10	SATA: 6 with RAID 0, 1, 5, 10 SAS: 8 with RAID 0, 1, 1E, 10
LAN	Dual GbE	Dual GbEs	Quad GbEs	Dual GbEs
Serial	4	6	2	2
TPM	-	Optional	Optional	Optional
Remote Management	In Band: Cloud Center S/W	In Band: Cloud Center S/W Out of Band: iAMT	In Band: Cloud Center S/W Out of Band: IPMI	In Band: Cloud Center S/W Out of Band: IPMI
Form Factor	ATX	ATX	ATX	EEB
Dimensions (W x D)	304.8 x 244mm (12" x 9.6")	304.8 x 244mm (12" x 9.6")	304.8 x 244mm (12" x 9.6")	304.8 x 330.2mm (12" x 13")
Target Application	Small Scale Surveillance	ATM Security / Small to Medium Scale Surveillance with Image Analysis	Medium Scale Surveillance with Image Analysis	Large Scale Surveillance with Image Analysis

Scalable & Server-grade IPCs

Advantech offers industrial chassis in various form-factors, such as compact wall-mount chassis with front I/O design for ATM applications, 2U chassis with dual hot swap drive bays for small scale surveillance as in small shops, and high end 4U chassis with eight hot swap drive bays for large scale surveillance, like for border security. Beside flexibility and functionality, the chassis also features high reliability with redundant power supply, hot swap fan, fan filter and robust design to meet high-performance, non-stop surveillance requirements.

Specifications

Model	IPC-7132	IPC-7120	ACP-2320	ACP-4360	HPC-7480
Product Position	Compact Value IPC	Compact IPC with Front I/O	High End 2U Chassis	High End 4U Chassis	Server Class 4U Chassis
Form Factor	Wallmount	Wallmount	2U Rackmount	4U Rackmount	4U Rackmount
Dimensions (W x D x H)	200 x 330 x 430mm	380 x 164 x 316.5mm	482 x 88 x 480mm	482 x 177 x 501mm	452 x 178 x 648mm
External Drive Bay	5.25": 1 3.5": 1	5.25": 1 3.5": 1	Slim ODD: 1 3.5": 2 (Hot swap)	Slim ODD: 1 3.5": 6 (Hot swap)	5.25": 3 3.5": 8 (Hot swap)
Internal Drive Bay	3.5": 2	3.5": 1	3.5": 2	-	-
Slot	7 Full Height Cards	7 Full Height Cards	3 Full Height Cards	7 Full Height Cards	7 Full Height Cards
Alarm Board	No	No	Yes	Yes	No
Recommanded Motherboard	AIMB-769VG	AIMB-781QG2	ASMB-781G4 AIMB-781QG2	ASMB-781G4 AIMB-781QG2	ASMB-920IR
Target Application	Cost Sensitive, Medium Scale Surveillance	ATM Security / Small to Medium Scale Surveillance with Image Analysis	Small to Medium Scale Surveillance	Medium Scale Surveillance	Large Scale Surveillance

In-Vehicle Surveillance with Fleet Management

TREK-668 is an industrial-grade, dual-core computing box designed to provide high-quality video surveillance and fleet management for police cars, ambulances, fire engines, buses and trains. TREK-668 delivers tracking and positioning and also supports dead-reckoning, which allows a truck to be traced even if the vehicle is in a tunnel. It supports the J1939 protocol for vehicle diagnostics and driver behavior management, and also supports high-quality, MPEG-4, MJPEG, H.264 recording and transmission for up to 12 camera inputs. It has one PSE for an IP camera, and dual display/dual audio interfaces which support different resolutions. Each camera input provides motion detection capabilities; there are 8 audio inputs. The TREK-668 provides reliable on-board recording and can transmit images or alarms for remote monitoring over a wireless, GPRS, 3G, or HSDPA network connection.

Specifications

Model	TREK-668
Operating System	Windows WES7/Win7
CPU	Cedar View, Intel® Atom® N2600 1.6Ghz (Dual core)
Memory	1 x industrial DDR3, up to 2GB
IP Camera Input	Giga LAN 10/100/1000 Mbps Ethernet controller, supports 1 x POE IP camera
Video Compression Format	MJPEG, H.264, MPEG4, 30 frame per channel per second
Max. Rec. Capacity	100GB HDD x 2 or 256GB SSD x 2
RF communication	GPS, HSDPA/CDMA, (Dual WWAN, Dual SIM), BT, WLAN
Audio Input	Up to 8 mono Audio Input
Audio Compression Format	Audio format G.711
Storage	2 x SSD (Option: SATA 2.5" MHD) for Video file storage. Type I/II CompactFlash card for O.S storage
Display	Supports one LVDS and one VGA
J1708 / CAN bus	J1708: 1 x by DB15 female connector, integrated with CAN bus in single one connector CAN bus: 1 x (Protocol: J1939)
USB	4 x USB (2 on rear I/O panel, 2 on front panel, one for TREK-303)
Serial	RS232: 2 x RS-232 Full function 2-wire RS-232 via Smart display port (Default for TREK-303's T/S and GPIO) RS485: 1 x RS485 with auto flow control by Extended I/O port;
Power Requirement	+12 V / 2 A via DVI-I per port; +12V / 1.5A and 5V/1.1A via Extended I/O port; DB9 Pin 9 (option with 5 V / 0.5 A by jumper); +12 V / 1.5 A via Smart Display port; (Default for TREK-303) DC Input 6-36 VDC (12/24V), car power compliant with SAE J1113, ISO7637-2
Operating Temperature	-30 ~ 60° C
Weight	5kg
Dimensions (W x D x H)	346 x 97 x 196.2 mm

The TREK-550 is a dedicated box computer for industrial vehicle fleets, transport trucks, buses and taxis. TREK-550 combines a variety of I/O connectors. Dual display/dual audio interfaces supporting different resolutions can deliver different signals to different displays; e.g.: one application to a fleet driver and an advertisement to a potential customer. For an additional surveillance feature, you can connect EKI-2526, 6 Fast Ethernet ports with a 4 PoE port switch with wide temperature range. EKI-2526 PI via LAN port on TREK-550 can expand recording channels.

Specifications

Model	TREK-550 + EKI-2526 PI
Operating System	Win CE 6.0, XPE, XP and Linux (Ubuntu 10.04/2.6.34)
CPU	Intel® Atom® XL Z510PT 1.1GHz (Z520PT 1.3GHz as option)
Memory	1 x industrial DDR2, Supports up to 2GB
Analog camera input	-
IP Camera Input	1 x 10/100/1000 Ethernet for 1 x IP camera. For 4 IP cameras support, you can connect with EKI-2526PI for 4 PSE support.
Video Compression Format	Depends on IP camera
Audio Input	Depends on IP camera
Audio Compression Format	Depends on IP camera
GPS	GPS 50 channels (GPS+ Galileo) L1 frequency, LEA-5S (Option: Dead reckoning)
WWAN	GPRS, HSDPA/CDMA
WLAN and BT	1 x 802.11b/g/n (by MiniPCle) 1 x Bluetooth Bluetooth Class II, version 2.0 + EDR, antenna built in
Storage	1 x internal SSD
Display	Supports one LVDS and one VGA
J1708 / CAN bus	J1708: 1 x DB9 connector (integrate with 4 wire RS232, 1x RS485 port) CAN bus: 1 x (Protocol: J1939)
USB	4 x USB (front I/O panel x1; rear I/O panel x2; one on TREK smart display)
Serial	2 x Full function RS-232, 5 V @ 500 mA, 12 V @ 250 mA, ping9, by jumper selected
Power Requirement	+ 12V/250mA, +5V/500mA (by jumper select) x 2 Full RS232 Supports 12/24V car power system by ISO7637-2 & SAEJ1113 (6V ~ 36V wide DC input)
Operating Temperature	-30 ~ 70° C, (Note: EKI-2526PI -40 ~ 75° C)
Weight	2kg
Dimensions (W x D x H)	266 x 149 x 69.7 mm

Memo

Innovations of DSP-based Video Solutions

Enabling Embedded Intelligent Analytics
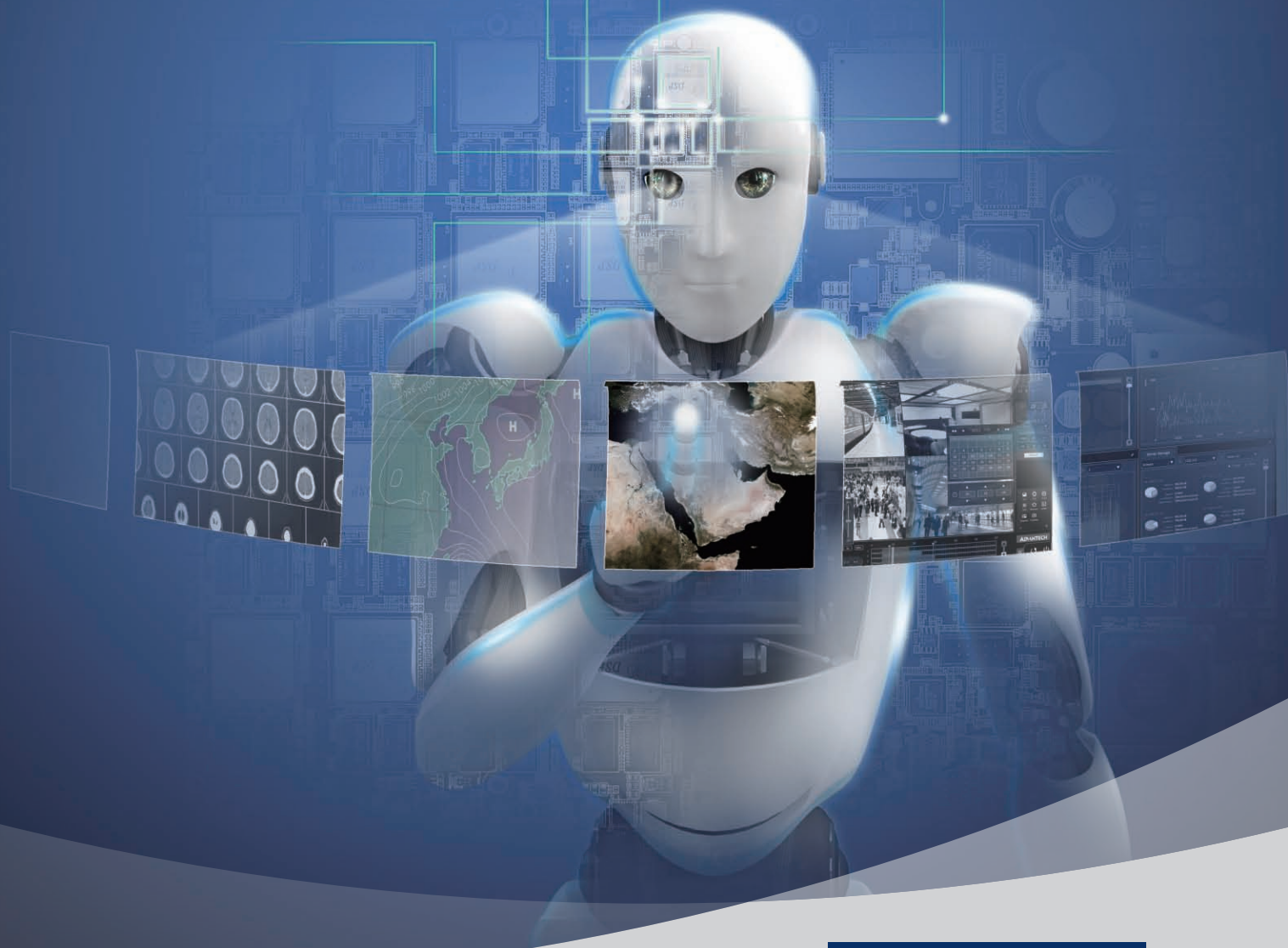
ADVANTECH

Enabling an Intelligent Planet

DSP-based Intelligent Video Analytics

As video sensors for the intelligent planet, Advantech's DSP-based Intelligent Video Platforms are designed for reliable, real-time response, while at the same time providing flexible system integration and saving system resources.

Smart Algorithms in High Gear

Video software algorithms are smart. Those same algorithms implemented in hardware are both smart and *fast*. Advantech's DSP-based PC video encoder and decoder solutions, IP video encoder solutions, and frame grabber solutions address numerous video-related vertical markets including video broadcast, video surveillance, and automatic optical inspection (AOI).

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