

Advantech Headquarters

No. 1, Alley 20, Lane 26, Rueiguang Road
Neihu District, Taipei, Taiwan, 114 R.O.C.
Tel: 886-2-2792-7818
Fax: 886-2-2794-7304
email: MKT.ACG@advantech.com.tw

Worldwide Offices

Americas

USA

Milpitas, CA 1-408-519-1788
Irvine, CA 1-949-789-7818

Brazil

San Paulo 55-11-5592-5355

Greater China

China

Beijing 86-1-6298-4346
Shanghai 86-21-6294-9911
Shenzhen 86-755-8212-4222

Asia Pacific

Singapore

65-6442-1000

Malaysia

Kuala Lumpur 603-8075-7035

Penang 60-4-397-3788

Japan

Tokyo 81-3-5212-5789

Osaka 81-6-6267-1887

Korea

Seoul 82-2-3663-9494

Thailand

Bangkok 66-2-248-3140

India

Bangalore 91-80-2337-4567

Australia

Sydney 61-2-9482-2999

Melbourne 61-3-9797-0100

Europe

Germany

Dusseldorf 49-211-97477-0

Munich 49-89-12599-0

France

Paris 33-1-4119-4666

Italy

Milan 39-0209544-961

Arezzo 39-0575-98661

UK

Milton Keynes 44-1344-989500

Russia

Moscow 7-495-232-1692

Benelux & Nordics

Breda 31-76-523-1270

ADVANTECH

Digital Video Solutions

Empowering Digital Video Possibilities



- ✓ Digital Video Motherboards
- ✓ Video Capture Cards
- ✓ Digital Video System Platforms
- ✓ Video Gateways
- ✓ Full DVR Systems

Digital Video Solutions



Trusted ePlatform Services

ADVANTECH

www.advantech.com

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About Advantech

Trusted ePlatform Services

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

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



Advantech's Good to Great 3-Circle Principle



World-class Recognition

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

Timely Support at Your Convenience

Advantech has over 15 regional toll-free hotlines and offices throughout 36 cities in 18 countries, with more than 3,400 employees to efficiently provide professional services for customer care, product selection, technical support, and order handling. Through our call centers and online stores, customers worldwide can now enjoy the convenience of Advantech's multi-service channels to reduce business turnaround time. Together with the 4 customer service centers in Taiwan, China, the Netherlands, and the United States, our global service network offers an extensive spectrum of services that includes warehousing, logistics, peripheral certification, sourcing & purchasing, and RMA & support services.

Global Services

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

Global Manufacturing Services

Designing the right product is only half of the job. Advantech's well-established manufacturing facilities and quality assurance systems transform your ideas into reality.

- Manufacturing Capability
- Quality Assurance System
- Quality Management
- Environmental Policy

Global Support

To complete the package, Advantech offers one integrated solutions for global back-end support. This global support model offers:

- Custom Assembly & System Integration
- Global Peripheral Procurement
- Global Logistics
- Customer Support



Advantech Digital Video Solutions

Introduction

Advantech provides an open yet highly integrated hardware platform for video solutions. In addition, we also provide software support from device drivers and software development kits to application software. The flexible open architecture allows easy integration of cameras, video signal processing, storage, and video management/security software without compromising scalability and expandability. With our professional customization and integration services, our total solutions can be used in mission critical applications such as in factories, vehicles, police stations, vehicle dispatch centers, or building control rooms. Designed with Advantech's durable chassis and scalable hardware platforms, digital video solution products easily integrate with video surveillance systems. Taking into account special requirements such as long term supply, reliability, deployment, after-sales support, and expandable storage, Advantech Digital Video Platforms can save system integrators and end users tremendous time, effort and unnecessary cost.

Digital Video Solutions

Advantech Digital Video Platforms provides total solutions which can be used in any mission critical applications such as in factories, vehicles, police stations, vehicle dispatch centers, or building control rooms. With a wide range of platform modules, Advantech is proud to launch a comprehensive set of digital video solutions to satisfy a wide range of applications, such as intelligent traffic control systems, video surveillance systems, or environment monitoring. Some of the applications include:



- Video surveillance
- Access control
- Video gateway
- Mobile surveillance
- Intelligent video surveillance
- Object tracking
- Remote monitoring



Product Line Introduction

✧ Digital Video Motherboards

The Advantech Digital Video Motherboard series has adopted a standard form factor which easily accommodates with general DVR, POS-DVR, ATM-DVR, video analysis boxes for IVS, or Hybrid DVR platforms. Compared with traditional PCs, specific functions like a low power processor, compact size, and on-board video can benefit the system integrator for vertically oriented video applications.

✧ Video Capture Cards

Advantech's digital video capture card modules plug directly into expansion slots and provide analogue/digital video signal conversion from cameras for use in surveillance applications.

✧ Video Gateways

Advantech provides a network based video gateway/ server solution which aims to integrate camera interfaces and video signals. Through an IP network, the Advantech video gateway can easily convert analog video signals into a digital video stream and transfer this data to a monitoring center.

✧ Digital Video System Platforms

Advantech DVS series is a high performance video surveillance platform in desktop, wall mount or industrial rackmount form factors. It includes an optimized cooling system design to improve the thermal condition when installing multiple video capture cards and hard drives. Combined with industrial main boards with longevity support, the DVS- series provides a wide range performance requirement to meet video surveillance applications.

✧ Full DVR Systems

Advantech also provides full DVR systems which are integrated with PowerView video surveillance software. PowerView can integrate with Power Center Professional, Backup Center, video integration systems and other access control systems via a network.



Application Focus

Digital video solutions have been widely used in a variety of industries. Advantech offers a wide range of embedded video platforms including an MPEG-4 encoder module, a rugged video system, and a video gateway to DVR main board. According to different needs from different industries, Advantech demonstrates high flexibility to satisfy environmental and application demands. Combined with a rugged embedded platform, Advantech provides an ideal solution for video applications in harsh environments, such as outdoor surveillance, in factory security and in-vehicle video systems.



■ Self-service

■ Transport Systems

■ Gaming

■ Video Surveillance

■ Factory Automation

■ Home Security

■ Traffic Monitoring



Intelligent Video Surveillance Box

Introduction

As more attention is being focused on safety and security issues, requirements for video surveillance analysis and functionality has become more popular. Applications that perform data analysis such as intelligent video analysis, object tracking, and customized integration, require systems with strong processing capabilities. As a result, instead of standalone systems, PC-based video platforms have become the primary choice in the surveillance market for integration and high-end applications. One software company, whose main business focus is on intelligent video surveillance, wanted a hardware platform to develop an "object tracking" solution based on their software.

The company expressed the following concerns:

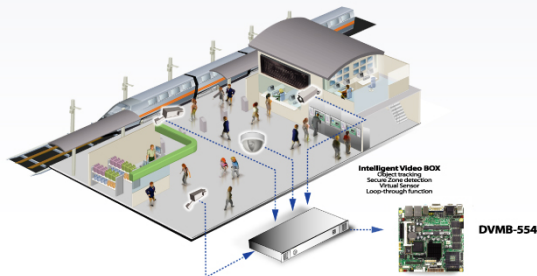
- Traditional motherboards and video capture card solutions waste space and are difficult to install.
- The performance of standard Pentium-based platforms is not adequate for high-quality video analysis and object tracking.
- PCI bandwidth cannot support 4 channels of video capture at DQ resolution.

The software company was looking for a new platform to develop an x86-based IP video surveillance system that combined intelligent video and standard video streaming functions.

Solution

The Advantech DVS-510 Digital Video Platform integrates a mini-ITX motherboard with built-in PCIe video capture and a DVMB-554 digital video motherboard, to provide a small footprint system required for DVR solutions. The Intel Core Duo processor offers cooler thermal performance, while providing high-power computing. The DVMB-554 is the only embedded Mini-ITX motherboard that combines an Intel Core Duo processor with integrated video capture. The DVS-510 is optimized for processor-intensive video analysis and object tracking applications, and provides a central storage location for video data. The PCIe interface delivers more than enough bandwidth to drive four channels of integrated video capture at D1 high resolution. The low power consumption of the Intel Core Duo processor helped the software company design a very stable video solution. A complete SDK with certification program helped them customize the application for the new platform. They were able to take the hardware platform and add software to provide advanced video functions like automated PTZ tracking, unattended operations, and multi-camera tracking.

System



Benefits:

- ❖ Develop a new intelligent video product line that leveraged their software expertise to expand their PC based solutions.
- ❖ Build an "Intelligent Video Server" with four-channel network video streaming and multiple intelligent functions.
- ❖ Focus on their core video surveillance software business by using Advantech's digital surveillance platform.

Public Transport Video Surveillance

Introduction

The aim of public transport security is to protect the public, prevent assaults on passengers and staff, as well as to protect key infrastructure. Public transport security works closely with police agencies in providing video evidence for a range of incidents, from anti-social behavior to helping prevent serious terrorist attacks. It is also very useful in recording evidence at accident sites, or during disagreements, and even to monitor a driver's behavior. However, video surveillance on moving vehicles can be problematic, due to vibration, limited space, and dirt and dust in vehicles. Traditional DVR systems cannot provide the right solution. The typical PC is too large, susceptible to power spikes, and is exposed to vibration and dust. What is needed is an x86-based system where in-vehicle systems can be integrated with back-end IT systems and other software applications, to increase operational efficiency. The ability to integrate and expand functions in an open video system is very important.

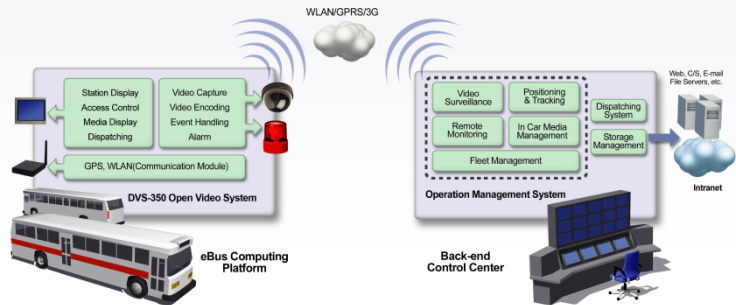


Solution

The Advantech DVS-350 Embedded/Mobile Digital Video System was chosen as the perfect solution for the video computing center on buses and trains. With four video capture chips to support 16 camera inputs and a special design for mobile environments, the complete system was easily implemented. The x86 platform made it easy to implement other applications such as e-maps, GPS tracking systems, and modern telecommunications. The DVS-350 is compact, with a maximum mounting height of only 69 mm, and it can resist shock of up to 40G, and vibration of up to 1G.

Advantech supplies rock-solid digital video systems to meet real-world application needs, with optional surveillance software to speed the time-to-market. After detailed discussion and integration, the DVS-350 emerged as the perfect platform for computing power, expandability, number of video channels, video quality, and solution for optional software modules.

System



Benefits

- ❖ Anti-shock and anti-vibration features are perfect for rough and moving environments.
- ❖ DVS-350's compact size fits well in space constrained applications.
- ❖ Fanless design that keeps DVS-350 running quietly and avoids drawing dust into the chassis.
- ❖ The DVS-350 is an x86-based platform, which makes other applications easier to integrate.
- ❖ The optional surveillance software helps customers shorten their development time to the market.



Prison Security Total Solution

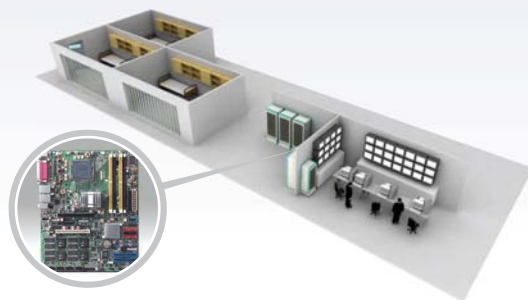
Introduction

With high concern over security, prisons have special requirements for high-end and reliable video surveillance systems. Traditional VHS or standalone systems have problems with video quality and are not easily integrated. One system integrator received a local project to design a prison surveillance system with video capability that supports full D1 resolution and real time frame rates. The surveillance system was designed with high quality Speed Dome cameras, which enable prison officers to easily see and control any situations that might arise. Officers could easily monitor all the environments in the buildings; especially the aisles or cells. The systems also would need to integrate with access control devices to strictly implement high level security measures. Based on high resolution video and integrated event recording, officers could retrieve and watch old video data. Smart search and playback were important functions in such a specific environment, and motion detection and additional digital I/O devices would be able to detect prisoners entering any unauthorized security zones.

Solution

Advantech's DVMB-764 digital video motherboard was chosen for this project. It's an all-in-one DVR motherboard supporting 16-channel video previews and MPEG-4 compression in D1 resolution and full frame rates. Combined with 16-channel audio recording, digital I/O and onboard RS-485 port, the DVMB-764 is an ideal platform for software companies working on high-end, high-demanding projects. Furthermore, the solid capacitor design on the motherboard provides extra reliability for 24/7 DVR operations. The PowerView software completes the solution. Functions, such as scheduled recording, motion detection, and event logging satisfy the security requirements of prison management, while CMS and backup server enable full-situation-control and efficient data storage management. All video data is transported via the network, and the remote control function enables administrators to reboot the client DVR should the system require it.

System



Benefits

- Reliable, cost-effective solution with high quality video display.
- High integration and flexible expansion allows more external devices.
- PowerView software provides full functionality.

Web-based Video Monitoring for Traffic Control

Introduction

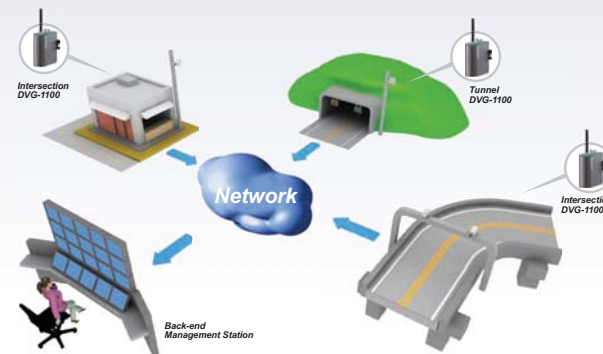
Video surveillance is widely used on streets and roads for increasing the operational efficiency of traffic control systems and reducing potential car accidents. Many video surveillance solutions provide automation functions for traffic control systems in urban areas, expressways, freeways, rail or tunnels. Components, like traffic signs, height control systems, signaling systems, RFID devices, digital/analog sensors, and data acquisition or multi-function computing platforms, are widely used by traffic control systems. However, during the development process for video surveillance projects, integrating the components from the many video platform companies and system integrators can cause big challenges. In order to increase management efficiency, a network-based video system is the best solution as it can be more easily integrated with all components.

A major city in Taiwan had a budget of about US\$ 165K, to implement video monitoring/ surveillance systems for communities or traffic intersections. Many projects need to distribute cameras to different intersections and areas, while concentrating the video and control at a central back-end police station. The major challenge for this distributed video application was the cabling or network architecture. One system integrator installed the Advantech DVG-1100G, a network based full motion D1 video gateway with real-time monitoring, at urban intersections to solve this problem.

Solution

The network based video gateway, DVG-1100, helped to solve the problem. With one or two DVG-1100 gateways installed at different intersections, the video from the CCTV camera was able to be transferred to an MPEG-4 D1 video stream and sent to the police station across the network. Digital input/output and RS-485 ports were also required to integrate the system with on-site traffic sensors. The DVG-1100 is din-rail ready for easy installation in a small rack with a rugged aluminum enclosure to endure the harsh environment at intersections. A system integrator can integrate the back-end management system with Advantech's OCX components for a complete back-end monitoring solution. With the DVG-1100, the back-end station can now easily check an on-site event with real-time high resolution video and send back the recorded video to the back-end to improve traffic and security management operations.

System



Benefits

- Transfer and convert analog images to digital data from different camera interfaces.
- Digital data can easily be managed and analyzed.
- Space saving - No need for digital video encoding machines.



Police In-Car Video System

Introduction

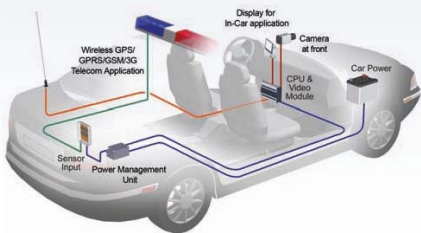
Advantech's Digital Video Solution Division applied its industrial design expertise to an in-vehicle police computing and surveillance system. Advantech used its vehicle computing know-how to deliver a complete solution based on its compact and rugged open digital video computing platform, sunlight readable LCD and control module, mobile UPS, cameras, and SDK. The end-customer is a police department that has equipped patrol cars with an x86-based open digital video computing platform to help collect fines and resolve allegations made against officers. This open platform has enabled police application software to be easily integrated with digital video functions. Events such as un-holstering a gun and notes typed by the officer are recorded with digital video and then uploaded to a server at the end of the officer's shift. These videos can then be seen instantly by searching for the associated event or note. Vehicle mounted computers must endure unstable power, tolerate dust and vibration, fit into confined spaces, and withstand a wide range of temperatures, while being fast enough to process multiple events and video inputs simultaneously. They also need excellent integration with the vehicle, including user interfaces that are made for moving vehicles; qualities that industrial-grade open platforms deliver.

Solution

The customer needed an open, compact, rock-solid, and fully integrated in-vehicle police surveillance system. Intel x86 mobile processors provide ample computing performance for existing applications, and dedicated codecs provide MPEG-2 and MPEG-4 video support. These devices have low thermal emissions, a sealed metal chassis that easily dissipates excess heat to enable operation in a small spaces. A specially designed mobile UPS provides stable power. All components, including the cameras, LCD, and control module are built to resist shock, and the whole system has an ergonomic mechanical design. Dedicated and experienced engineers and project managers produced this integrated thermal, electrical, and mechanical design for excellent system stability backed by Advantech global service and long-term support.

System

Advantech Video-Integrated Vehicle Computing Platform



Benefits

- The SDK support helped integrate existing in-vehicle and back-end applications.
- Hardware and software stability and integration have resulted in reduced maintenance costs, a 90% reduction in lawsuits, increased police department efficiency, and high customer satisfaction.

Mass Rapid Transit Mobile Security System

Introduction

These days, public security has become an important issue worldwide. Public transportation systems, such as city buses, railways, subways and other city transit systems, represent one of the main public security concerns. As a result, many intelligent video applications are being adapted for use in vehicles to increase security. Mobile solutions are becoming a vital element of transportation security. Public cameras and full motion previews act as a deterrent and create a level of reassurance for passengers. Wireless capabilities mean video can automatically be downloaded from a central depot.

Over 1 million passengers per day use the Mass Rapid Transit (MRT) system as their primary means of transportation. Facing such a high volume of traffic, it is imperative that the MRT takes security seriously. The Taipei Rapid Transit Corporation (TRTC) has installed a CCTV system for use at each MRT station. However, some blind spots still remain, presenting safety issues, especially given the highly mobile nature of the MRT cabs. To improve service and increase public safety, the company needs a high performance mobile platform to integrate video and computing for in-cab monitoring, surveillance and integration functions. Moreover, system integration between the MRT cars and central control is also a key requirement.



Solution

TRTC needed a solid system to fit into limited space whilst able to endure the dust, shock, and vibration of harsh environments. It also needed a system which consisted of interior cameras and video recorders for video surveillance purposes. The Advantech DVS-355, an Intel Core 2 Duo based mobile DVR, was installed in cabs to allow the driver to perform full motion monitoring. The compact, fanless and shock-resistant design of the DVS-355 makes it a reliable video computing device for this in-vehicle application. It aims to provide a means to eliminate assaults on passengers and staff, and address vandalism. Intelligent software functions combined with a DIO module automatically detect potential threats or objects on the tracks to enhance emergency management and response. At the same time, these functions serve to improve operational efficiency and performance. The x86 architecture of the DVS-355 makes it an open multi-function platform in vehicle environments, allowing easier integration with other systems. For example, the serial ports can be connected to station displays or announcement systems. The PCMCIA interface enables a modern telecommunication card to be used for real-time communication applications. In addition, the DVS-355 can be an ideal digital signage platform for public information, entertainment or advertisements.

System



Benefits

- With Advantech's open video platform, the TRTC now has a solid in-cab video surveillance platform that is readily expandable for future applications.
- The anti-vibration and fanless design of the DVS-355 has brought maximum reliability and reduced maintenance efforts to TRTC's in-cab applications.
- Integrated video capture and wide expansion options (serial, DIO, WLAN and PCMCIA) in one solid box enabled TRTC to successfully complete this project.
- The TRTC has greatly improved safety on the station platform and in the MRT cab by using Advantech's open video platform to easily integrate the systems on the station platform with those in the MRT cab.



ATM Security Total Solutions

Introduction

In 2007, at the ADT Financial Security Symposium, Automated Teller Machine (ATM) card skimming, and ATM attacks were the top-ranked ATM security and risk concerns, irrespective of machine or user. Digital Video Recorder (DVR) system performance has grown more than 28%, echoing the fast growth of IT technology and PC performance. The main function of ATM surveillance systems is to record images for every transaction from start to finish in the area surrounding the ATM machine. ATM surveillance systems have relatively stringent requirements with regard to image resolution, timing of recording, image retrieval, system stability, and system intelligence. The images recorded can be used to settle disputes about transactions or intentional overdrawn, and provide evidence in cases of theft or intentional damage to the ATM. Security surveillance systems are required to guard against criminal activities.

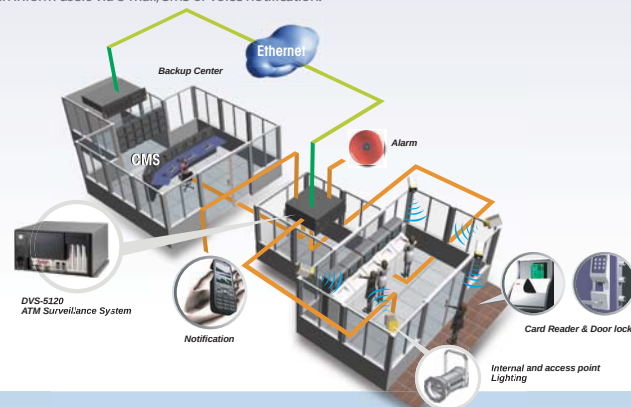
Many banks plan to upgrade ATM surveillance systems from analog CCTV systems to advanced DVR systems because DVR systems:

1. Enable video to be stored in a high quality format.
2. Integrate easily into bank infrastructures, offering long term reliability with smaller data size for easy inspection and analysis.
3. Are designed especially for ATM systems.
4. Produce digitized recordings that can be sent and checked via the Internet from anywhere in the world.
5. Use dedicated ATM application software.

Solution

The DVS-5120 is a high performance industrial grade platform able to link into many types of access control, anti-skimming lighting, and fire and security systems, using digital I/O or RS-232 ports. The DVS-5120 supports H.264 (MPEG-4 Part 10) or MPEG-4 with resolutions up to full D1. Furthermore, the DVS-5120-945G-4H and the DVS-5120-945G-8H both produce excellent DVD video quality without affecting overall system performance. The DVS-5120 series is an industrial grade H.264 (MPEG-4 Part 10) or MPEG-4 DVR system that can be used with PowerView (surveillance application software) or Software Development Kits. When an event comes up, PowerView can inform users via e-mail, SMS or voice notification.

System



Benefits

- Wall mount and front I/O access design. All I/O interfaces are located in the front to facilitate cable routing. This is convenient for long-term maintenance and system upgrades.
- Long-term product and spare parts support
- Compact (320 x 164 x 307 mm), robust, flexible configuration and high expandability
- Excellent DVD level quality Audio/Video quality via powerful codec engine (choose model DVS-5120-945G-4H or DVS-5120-945G-8H)

Rugged Information System in Public Transport

Introduction

These days, digital video technology has been widely adapted for use in various industrial applications, such as retail, education, hospital and transportation environments. One of the newest and quickest growing applications is the integration with Digital signage. Digital signage is a new form of advertising in which content and messages displayed on an electronic screen, or digital sign, can be changed without modification to the physical sign; typically with the goal of delivering targeted messages to specific locations at specific times. Some stand-alone signage applications are used just for video playback or information listings, while others are integrated with existing environments or functions. Although, in the past, companies have questioned the need for computers on buses, today new signage applications built on advanced technologies like GPS and CDMA have driven these same companies to look for solid vehicle computing platforms.

An international airline company, runs a city-to-airport transit bus service. In order to increase service advantage and create new income streams, It decided to provide 3G (WCDMA) based signage services on city transit buses.

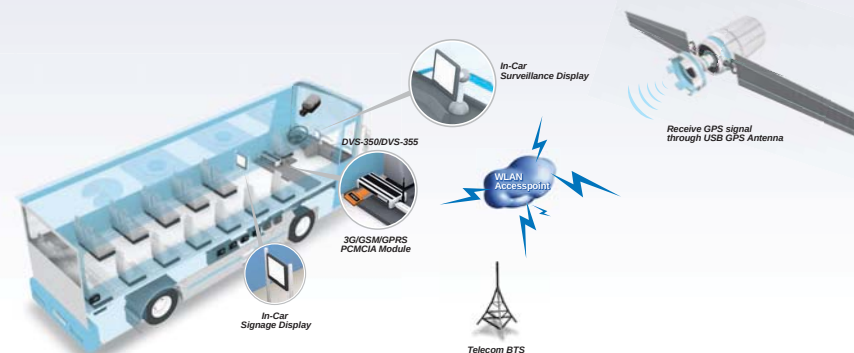
The company needed:

- A rugged vehicle computer with a fanless and vibration-resistant design.
- A powerful and open platform for easy software and peripheral integration.
- Easy communications expansion with GPS, GPRS, CDMA and WLAN modules.

Solution

Each bus had an Advantech DVS-350 installed with an integrated PCMCIA WCDMA module. The DVS-350 drives two displays: one large VGA panel for playing multimedia videos, advertisements or online information, and a 7" LCD that can be used for the driver's GIS and dispatch functions. A USB or CF based GPS module is optional. Integrated WLAN is used to download video and audio signage content when the bus is in the station. The WCDMA module is used to receive real-time information, such as flight arrival and departure times, news, and promotional plans.

System



Benefits

The company Transit has gained new advertising income from this digital signage system. With the advantage of live content updates over a 3G network, it also has built a great communication channel with customers. Passenger services such as WLAN Web access are now possible with the integrated 3G and WLAN modules. A single, integrated solid platform serving multiple functions has reduced component costs.

Additional benefits for EVV* Transit:

- The DVS-350 is reliable, reducing the need for after sales service.
- The DVS-350 has a long service life, protecting the hardware and software investment, the result of Advantech's commitment to the vehicle platform business.
- The DVS-350 is compact enough for easy installation in buses, has built-in WLAN, a card bus slot for a 3G module and USB, COM, CF and DIO ports for peripheral integration. The Pentium M processor is fast enough to run multiple simultaneous applications, like device control, digital signage and GIS functions with an option for integrated video capture.



The concept of an intelligent store is widely used today by retail businesses. Instead of traditional paper posters, new generation signage has become electronic; bringing stores more flexibility and efficiency. Point-of-sale systems (POS) increase daily operational and stock management efficiency. Additionally, through the use of data mining and automatic data collection, retailers are closer than ever to the customer with a deeper understanding of consumer behavior. Today, digital video applications have been adopted in store management as well, providing normal security applications, deterring shoplifting and reducing the cost of operations. Traditional video surveillance has offered an array of security programs but with no way to share information, few economies of scale, and little integration with critical business systems. In contrast, digital video which can be analyzed and immediately shared can organize and deliver images based on business-defined rules and behavioral triggers.

Through integrating digital video systems and digital video gateways, Advantech provides a comprehensive video solution to satisfy large supermarkets or hypermarkets. With video analysis software, the DVS-500 PC based video system can be integrated with video cameras and access control systems.

1. From the management center, a store owner can control the entire security operation of the supermarket or hypermarket. Cameras on merchandise shelves or aisles can serve to reduce shoplifting.
2. By integrating video and access control systems, a store manager can decrease the cost of monitoring door entries and exits. Through a one-way control system, an alarm signal will be sent to the DVS-500 system when a customer attempts to exit through an entrance door.
3. In remote areas, such as parking lots, the DVS-500 can immediately receive digital images using the DVG-1100 Video Gateway.

Diagram illustrating the integration of various security systems in a retail environment. The diagram shows a 3D perspective view of a store layout with different security zones and their corresponding systems. A central 'Back management office DVS-500' is connected via a 'LAN' to various security components. These include 'Surveillance' cameras, 'Reduced Shoplifting' sensors, 'Access Control' systems, and a 'Camera & DVS-1100' unit. A 'Security' line connects the LAN to the Camera & DVS-1100 unit.

Video solutions are being actively developed to meet the concepts of the Intelligent Store. Through Advantech's video solutions, store owners can manage supermarket operations more effectively. Advantech's highly integrated system and intelligent video functions improve employee and customer safety, reduce shrink, and improve risk management.

In the near future, the information gained through video recordings will increase productivity and improve customer service. Video systems will not only be used for in-store security, but will also be integrated with business equipment monitoring sensors, stockrooms, freezers, POS systems, parking areas, and digital signage.

Motherboards/ Capture Cards



Selection Guide

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



Selection Guide

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

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

Selection Guide



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

DVMB-764

16 CH D1 480 FPS MPEG4 Hardware Encoding ATX Main Board with Intel® Q965 Platform

NEW



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Features

- 16 Channel D1 480 FPS MPEG4 Hardware Encoding on board
- 16 Channel Audio Encoding on board
- Intel Q965 533/800/1066 MHz FSB
- Dual video stream MPEG4 , MJPEG
- Integrates with 12 DI, 8DO and 2 RS-485
- Supports 6 SATA HD with RAID 0, 1, 5
- Supports Dual GbE Ethernet LAN
- 1 x PCI-E x16, 1 x PCI-E x4 and 1 x PCI
- Supports Windows® 2000/XP driver and video development SDK
- All solid capacitor design

Introduction

DVMB-764 is a high performance video surveillance main board built with Intel Q965 Core 2 duo/Quad Core platform and 16 channel MPEG4 hardware encoding engine. It supports 16 channel video encoding at D1 resolution and a total of 480 frames per second. The audio/video codec integrates multiple functions like real time preview, encoding, smart quad, motion detection, OSD and video playback. It can generate multiple video streams, two high resolution video MPEG4, using MJPEG for storage. In addition to the on board graphic engine and the 6 SATA RAID support, an additional graphics card and hardware RAID card can also be used via the PCIe interface. The standard ATX form factor and the rugged design of duo LAN, duo IDE and all solid capacitors, make the DVMB-764 the ideal platform for high performance digital video applications like intelligent video analysis, video conference, and PC based DVR or hybrid DVR.

Specifications

Processor System	CPU	LGA775 socket for Intel Quad-core / Core 2 Extreme/Core 2 Duo / Pentium D / Pentium 4 / Celeron D processor
	Chipset	Intel Q965+ICH8DO
	BIOS	Award 16Mbit SPI
	Front Side Bus	533/800/1066 MHz
Video System	Video Standard	Composite NTSC/PAL
	Video Input	16 Channel @ 480/400 FPS
	Capture Resolution	CIF/2CIF/D1
	Live Preview	16 Channel @ 480 FPS
	Video Codec	ISO/IEC 1496-2 MPEG4 Advanced Simple Profile
	Video Encode Performance	480/400 fps @ D1
	Video output	1 Smart Quad TV output (Preview or Playback)
	Audio Input /Encoder	16 Channel/ADPCM
	Digital Input/Output	12 isolated inputs/ 8 relay outputs
	Video Stream	MPEG4, MJPEG
	OSD	Yes, with encoding video
	Motion Detection	Motion detection & motion trace
Expansion Slot	Software Development Kits	Support Windows XP DVP Suite SDK with Sample program and C++ Source code
	PCIe x16	4.0 GB/s per direction, 1 slot
	PCIe x4	1 GB/s per direction, 1 slot
	PCI	32-bit/33MHz, 1 slots
Memory	Technology	Dual channel DDR2 533/667/800 MHz
	Max. Capacity	8 GB
	Socket	240-pin DIMM x 4
Graphics	Embedded	Intel Graphics Media Accelerator 3000 integrated High Definition Video Processing with max. resolutions to 2048 x 1536 bpp (@ 75 Hz)
	Add-on	PCIe x 16 slot, ADD2 on PCIe x 16 for 2nd Display
Ethernet	Interface	10/100/1000 Base-T
	Controller	G-LAN: Intel 82566DM and Marvell 88E8053
	Connector	RJ45 with LED connector x 2
SATA II	Max. Data Transfer Rate	300 MB/s
	Channel	6 (with RAID 0, 1, 5 and hot plug support)
EIDE	Mode	ATA 100/66/33
	Channel	2

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Part Number	Description
DVMB-764-16D1E	Socket LGA775; 16 CH D1 480FPS MPEG4 Hardware Encoding Digital Video Motherboard
DVMB-764-08D1E	Socket LGA775; 8 CH D1 240FPS MPEG4 Hardware Encoding Digital Video Motherboard
DVMB-764-16CFE	Socket LGA775; 16 CH CIF 480FPS MPEG4 Hardware Encoding Digital Video Motherboard

Accessories

Module	Description
9692A21000E	4 channels Video-In module with BNC connectors
9692080400E	4 x DO + 4 x DI (2 x RS-485; jumper selectable) module
9698080500E	8 x DI module
9698080600E	16 channels Audio-In/Video-In Combo module with D-Sub connectors (default module)

ADD2 Card	Description
AIMB-DVI-00A1E	ADD2 DVI Card (PCIe)
AIMB-VGA-00A1E	ADD2 VGA Card (PCIe)

* Only DVA-806 is inside DVMB-764 box as default module. Others accessories are optional items.

Full function SDK and demo program with complete C++ source code

DVMB-764 comes with a 16 channel SDK and C++ based demo program which helps the system integrator speed up application development or integration. It includes multi functions like video encode, decode, preview, GPIO control, hardware motion detection control, smart quad data preview and all the parameter setting.



Optional Items

CPU

Item	Socket LGA775 Core 2 Duo Processor	
P/N	96MP2DD-26FA-4M7T	INTEL CR2 DUO DT 2.66G 4M, 775-pin, 1066 MHz
	96MP2DD-24FA-4M7T	INTEL CR2 DUO DT 2.40G 4M, 775-pin, 1066 MHz

Item	Socket LGA775 Pentium D Processor	
P/N	96MPPD-3.4F8-4M7T	INTEL P-D 3.4G 800F 4M, 775-pin, 800 MHz
	96MPPD-3.2F8-4M7T	INTEL P-D 3.2G 800F 4M, 775-pin, 800 MHz

Item	Socket LGA775 Pentium 4 Processor	
P/N	96MPP4-3.8F8-2M7T	INTEL P4 3.8G 800F 2M 775-pin, 800 MHz
	96MPP4-3.4F8-2M7T	INTEL P4 3.4G 800F 2M 775-pin, 800 MHz

Item	Socket LGA775 Celeron D Processor	
P/N	96MPCD-3.2F5-5K7T	INTEL CEL-D 3.2G 512K 775-pin, 533 MHz
	96MPCD-2.9F5-2K7T	INTEL CEL-D 2.93G 256K 775-pin, 533 MHz

Memory

Item	Long-DIMM DDRII 667 RAM	
P/N	96D2-2G667FB-TR	TRANSCEND 2G DDR2-667 240P 128 x 4 (G)
	96D2-1G667NN-TR	TRANSCEND 1G DDR2-667 240P 64 x 8 (G)
	96D2I-1G667NN-TR	TRANSCEND 1G DDR2-667 240P 64 x 8, I GRD (G)
	96D2I-512M667NN-TR	TRANSCEND 512M DDR2-667 240P 64 x 8, I GRD (G)

Item	Long-DIMM DDRII 533 RAM	
P/N	96D2-1G533NN-AP	APACER 1G DDR2-533 240P 64 x 8 (G)
	96D2-1G533NN-TR1	TRANSCEND 1G DDR2-533 240P 64 x 8 (G)
	96D2-512M533NN-AP	APACER 512M DDR2-533 240P 64 x 8 (G)
	96D2-512M533NN-TR1	TRANS 512M DDR2-533 240P 64 x 8 SAMSUNG (G)

Others

P/N	1750000334	Cooling LGA775 CPU with fan up to 3.8G w/BP
	1960014558T000	Cooling LGA775 CPU DUCTSINK-P4

DVMB-554E

Intel® Core™ 2 Duo Based Digital Video Main Board with 4 Channel Video Input

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Features

- Supports Intel® Core™ 2 Duo, Core™ Solo and Celeron® M processors
- Four channel PCIe based video input at 120/100 (NTSC/PAL) frames per second
- Supports DDR2 Dual channel memory
- Dual display output, DVI + VGA, or LVDS + VGA
- Supports Windows® 2000/XP driver and MPEG4 encoder SDK

Description

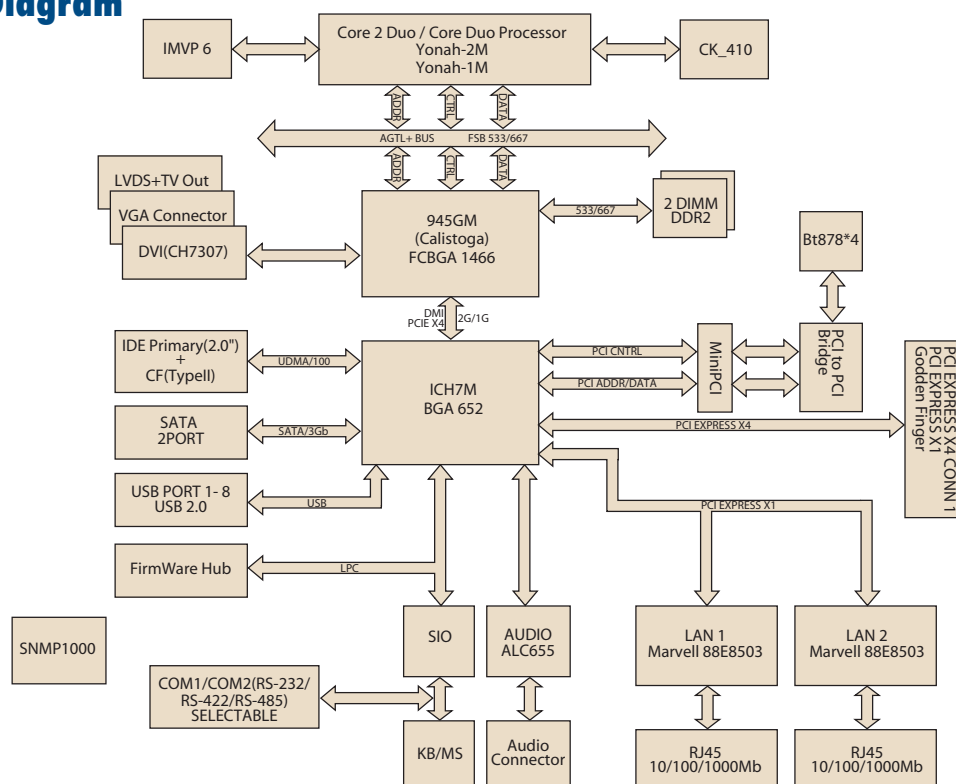
DVMB-554 is the first digital video main board to be built with the Intel Core 2 Duo platform, PCIe technology and four channel video input driven by the onboard video capture chip. Intel Core Duo technology offers great performance for video analysis or video compression. The new PCIe interface for four Video chips relieves the usual limitations on PCI bandwidth. The practical result is that the DVMB-554 can capture four channels of video data (D1) at full motion frame rates. The small MINI-ITX form factor and its low power CPU combine to establish the DVMB-554 as the ideal platform for POS integration DVRs, ATM integration DVRs, vehicle computers and the intelligent video surveillance platforms.

Specifications

CPU	Supports Intel µFC-PGA 478/µFC-BGA 479 Core Duo with 65 nm process technology
FSB	400/533/667 MHz
System Chipset	Intel 945GM, Intel ICH7M
I/O Chipset	Winbond W83627HF-AW
Memory	Dual channel memory architecture 2 x SODIMM. 2 GB DDR2 667/533/400 non-ECC, unbuffered memory
BIOS	4 MB Flash ROM, AWARD BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.3
Power Management	Supports ACPI specification and OS Directed Power Management Wake-On-Events include: - Wake-On-PS/2 Keyboard/Mouse - Wake-On-USB Keyboard - Wake-On-LAN - RTC timer to power-on the system System power management supported Supports PXE function CPU stopped clock control Hardware supports SMI green mode Microsoft/Intel APM 1.2 compliant Soft Power supported - ACPI v1.0a specification AC power failure recovery
HDD interface	1 x Enhanced IDE interface supports up to 2 x IDE devices. Ultra DMA 100 mode up to 100 MB/sec. 2 x SATA ports support up to 150 MB/sec.
Serial Ports	COM1: RS-232, COM2: RS-232/422/485
USB	8 x USB host interfaces, USB 2.0/1.1 compliant 2 x 2 ports on board (with LAN connector) 2 x 2 ports pin header (2 x set: 5 x 2, 2.0 mm pin header w/ idiot-proof, front-end)
PS/2	1 x (keyboard and mouse with Y cable)
I2C/SMBus	4-pin Wafer box 2.0 mm
VGA/LCD Interface	Intel Graphics Media Accelerator 950
Display	VGA/LVDS/DVI/composite
Ethernet Interface	Dual Marvell 88E8053 PCIe Gigabit LAN Controller, featuring AI NET2
Audio Interface	AC97 2.3 compliant 5.1 Channel audio supported (internal connector) (Pin assignment will provide later)
CF	Optional CF socket on the solder side accepts Type I/II CF Card
Mini PCI	1
PCIe	PCIe (x1) Gold finger + PCIe (x4)

Internal I/O Connector	2 x connectors for 4 additional USB 2.0/1.1 ports 1 x LVDS LCD panel connector 1 x LCD/inverter power connectors 1 x Digital I/O connector 1 x CD Audio-in connector 1 x IrDA connector 1 x 44-pin IDE 1 connector
Internal I/O Connector	1 x ATX power supply connector 1 x front panel connector 3 x fan connectors 2 x SATA connectors 1 x video input connectors (optional) 1 x video loop through connectors (optional)
External I/O Connector	1 x VGA 2 x COM 1 x PS/2 keyboard and mouse Y cable 1 x Audio I/O 2 x RJ-45 4 x USB 2.0/1.1 1 x DVI 1 x composite
Digital Video	4 x BT-878 on board with box header
Operating Temperature	0° C ~ 60° C (32° F ~ 140° F)
External Power Terminal	ATX power connector

Block Diagram



Ordering Information

Part Number	Form Factor	Description	Chipset
DVMB-554E	mini-ITX (170 x 170 mm)	Socket 479 Intel Core Duo/Core Solo processor based with 4 channels video capture/PCI-E/Dual Giga LAN	Intel 945GM

DVP-7421BE

Four Channel Triplex Function MPEG-1/2/4 Video Capture Card

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Features

- Excellent DVD level Audio/Video quality using VW2010 codec engine
- Four channel 120/100 fps concurrent hardware encode/decode
- 120/100 fps at D1 resolution for live preview, encode and decode
- Supports MPEG-1/2/4 video compression
- Supports MPEG1 Layer II audio compression
- SDK supports Windows® XP/2000 with VC++ sample code
- Four DI and Four DO
- Supports 16 channels via four interconnected DVP-7421BE cards

Introduction

The DVP-7421BE is a high-end video capture board with a hardware codec engine. It supports 4-channel live preview, video/audio compression and playback at D1 resolution and 120/100 fps. Up to four DVP-7421BE boards can be installed in one PC for concurrent live viewing, compression and playback of up to 16 channels at D1 resolution and 480 fps. The programmer can use the comprehensive SDK to load protection code or system parameters into the on-board 128 byte EEPROM. The SDK comes with sample code for reference. The hardware codec engine makes the DVP-7421BE the ideal platform for applications like network video servers, video conferencing, video training systems, and high-end digital video surveillance.

Specifications

Video	Video Standard	Composite for NTSC/PAL
	Video Input	4 x BNC connectors
	Capture Resolution	D1 (NTSC: 720 x 480; PAL: 720 x 576)
	Frame Rate	30/25 fps (NTSC/PAL) for each channel (total 120/100 fps @ D1 resolution)
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness
	Video Encoding/Decoding	MPEG-1/2/4 (CBR/VBR 128 kbps to 15 Mbps)
	Video Output	PCI preview/playback stream Analog video out from Smart Quad with composite connector
Audio	Video Loop-through	4 x BNC Connectors or 5-pin internal connector
	Audio Input	4 x stereo inputs (4 mono x BNC connectors or 2 x 5-pin internal connectors)
	Audio Output	4 x stereo outputs from decoder (4 mono x BNC connectors or 2 x 5-pin internal connectors)
	Audio Encoding	Supports MPEG1-Layer II
Software Development Kit	Operating System	Supports Microsoft Windows XP and Windows 2000
	DirectX Required	Version 9 or above
	Demo Program	Complete demo program with VC++ sample code for reference
Hardware	Host Interface	PCI bus
	Max. Card	4
	DIO	TTL/CMOS level 3.3 V, 4 DI/4 DO
	Power Consumption	5 V DC @ 3 A , 12 V DC @ 0.5 A
Environment	Temperature	Operating: -10 ~ 60° C (14 ~ 140° F) Non-operating: -20 ~ 70° C (-4 ~ 158° F)
	Dimensions (W x L)	182.6 x 106.9 mm (7.2" x 4.2")

Release CPU power for more functions

With the MPEG4 hardware codec engine, the DVP-7421BE supports triple functions-for video encoding, decoding, and live preview. This frees up CPU computing power for other integrated functions. For an existing system, the DVP-7421BE is an ideal way to expand the video functions without a major hardware upgrade.

- Performance Test on Pentium IV 2.4 GHz
- Encoding/Decoding Setting per channel: D1(720x480), 30 FPS, MPEG4

Testing Condition	CPU consumption
1 x DVP-7421BE Card for 120 FPS D1	
4 CH Encode Only	0 ~ 5 %
4 CH Encode + Preview	15 %
4 CH Encode + Preview + Decode	15 ~ 20 %
4 x DVP-7421BE Card for 480 FPS D1	
16 CH Encode Only	10 %
16 CH Encode + Preview	40 %
16 CH Encode + Preview + Decode	40 ~ 50 %

Ordering Information

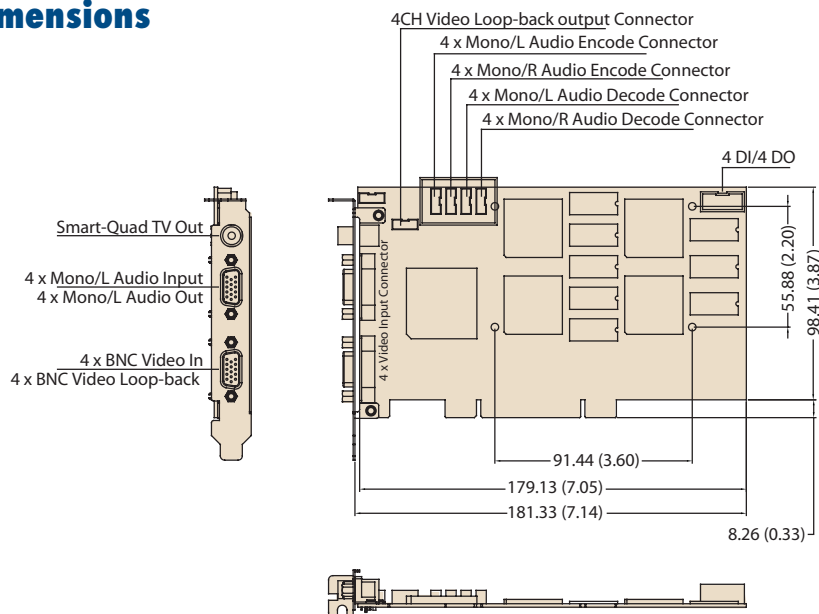
Part Number	Description
DVP-7421BE	4 Channel MPEG-1/2/4 Video Capture Card
9692080400E	4 x DO + 4 x DI module

Packing List

Part Number	Description	Quantity
9692742100E	DVP-7421BE video codec board	x 1
2062742110	Utility CD	x 1
2190000902	Board product warranty card	x 1
1700001618	VGA D-sub Cable 15-pin to 8 x BNC 15 cm	x 1
1700007562	VGA D-sub Cable 15-pin to Phone Jack 8 x 15 cm	x 1

Dimensions

Unit: mm (inch)



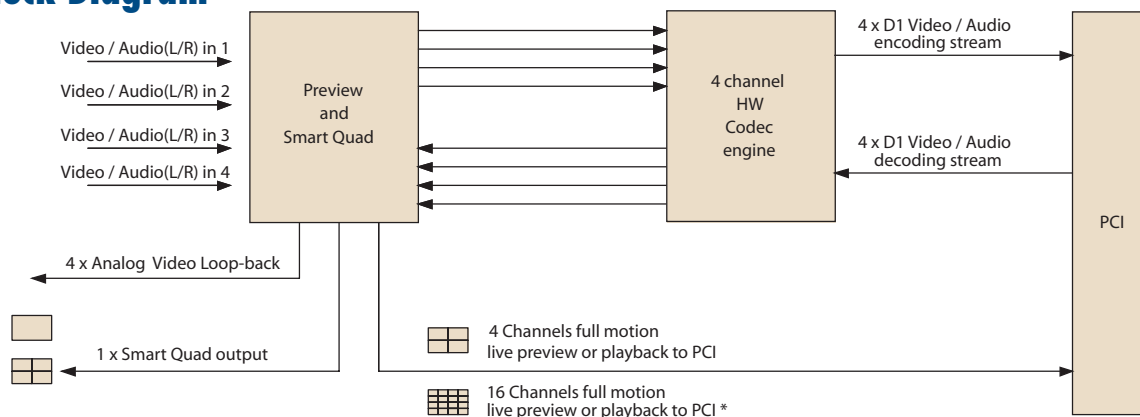
Audio Pig-tail cable

No 1: CH1 Mono/L Audio Encode in
 No 2: CH2 Mono/L Audio Encode in
 No 3: CH3 Mono/L Audio Encode in
 No 4: CH4 Mono/L Audio Encode in
 No 5: CH1 Mono/L Audio Decode out
 No 6: CH2 Mono/L Audio Decode out
 No 7: CH3 Mono/L Audio Decode out
 No 8: CH4 Mono/L Audio Decode out

Video Pig-tail cable

No 1: CH1 Video in
 No 2: CH2 Video in
 No 3: CH3 Video in
 No 4: CH4 Video in
 No 5: CH1 Video Loop-back
 No 6: CH2 Video Loop-back
 No 7: CH3 Video Loop-back
 No 8: CH4 Video Loop-back

Block Diagram



* 16 channel application consists of 4 x DVP-7421BE capture cards

Full function SDK and demo program with complete C++ source code

DVP-7421BE comes with a 16 channel SDK and C++ based demo program which helps the system integrator speed up the application development or integration. It includes multi functions like video encode, decode, preview, DIO control, hardware motion detection control, smart quad data preview, and all parameter settings.



DVP-2420E

2 Channel PCI-104 MPEG-1/2/4 Video Codec Module

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Features

- Video/audio MPEG-1/2/4 hardware compression and decompression
- Full-motion video/audio preview
- Simultaneous two channel preview, encoding and decoding
- Up to D1 resolution at 30/25 fps per channel
- SDK supports Windows® 2000/XP with VC++ sample code
- Four DI and four DO

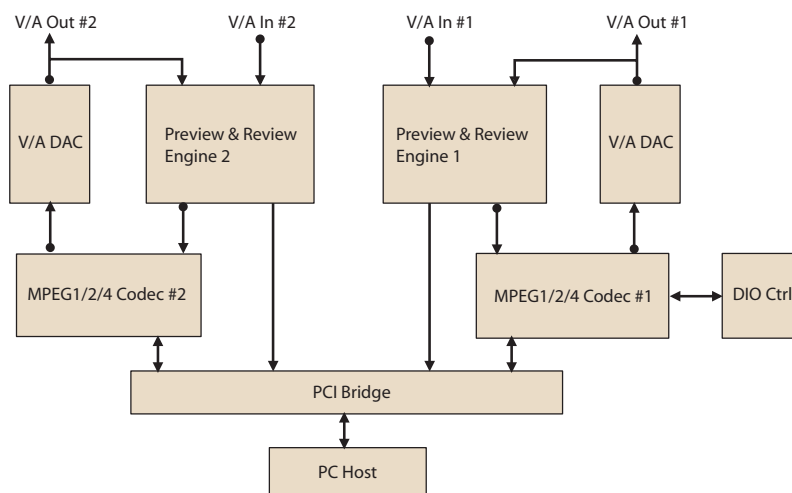
Introduction

The DVP-2420E is a PCI-104 module that supports two channel full-motion simultaneous video/audio capture and compression/decompression. It adopts a high performance MPEG-1/2/4 hardware codec to provide video with D1 resolution at 30/25 fps and MPEG-1 Layer II audio. Combined with an additional two channel full-motion preview and codec engine, the DVP-2420E is an ideal platform for high quality embedded video applications such as digital video surveillance, video conferencing, digital signage, set-top-box and IP video.

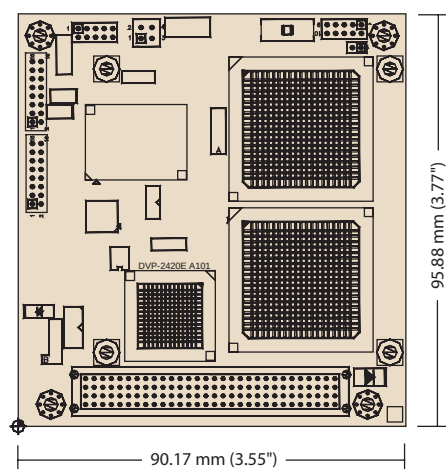
Specifications

Video System	Video Standard	Composite for NTSC/PAL	
	Video Input	2 x BNC connectors	
	Capture Resolution	D1/VGA/QVGA/CIF	
	Frame Rate	30 fps for NTSC and 25 fps for PAL on each channel	
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	
	Video Encoding	MPEG-1/2	
	Video Output	2 x BNC connectors for decoded playback	
Audio System	Audio Input	2 x stereo inputs	
	Audio Output	2 x stereo speaker outputs	
	Audio Encoding	MPEG-1 Layer II	
Software Development Kit	Operating System	Supports Microsoft Windows XP and Windows 2000	
	DirectX Required	Version 9 or above	
	Demo Program	Complete demo program with VC++ sample code for reference	
Hardware	Host Interface	PCI-104	
	Max. Card	1	
	DIO	TTL/CMOS, level 3.3 V, 4 DI/4 DO	
	Power Consumption	2.3 A @ 3.3 V, and 0.5 A @ 5 V, 10 watt	
Environment		Operating	Non-Operating
	Temperature	-10 ~ 60° C	-20 ~ 70° C
Physical Characteristics	Dimensions (W x L)	95.88 x 90.17 mm (3.77" x 3.55")	

Block Diagram



Dimensions



Unit: mm (inch)

Packing list

Part Number	Description	Quantity
9696P24200E	DVP-2420E video codec module	X 1
2062242000	Utility CD	X 1
1700001970	16-pin housing to D-sub 15 pin flat cable	X 2
1960004872	Card bracket for DVP-2420E	X 1
1700002014	15 cm DB-15 to BNC x 6 cable	X 2

Ordering Information

Part Number	Description
DVP-2420E	2 channel PCI-104 MPEG-1/2/4 video codec module
9696A20000E	DVP series DIO to isolated 4 DI and relay 4 DO extension kit

DVP-1412E

DVP-1412WE

1 Channel USB MPEG-4 Video Encoding Module

1 Channel USB MPEG-4 Video Encoding Module, -20 ~ 80° C (-4 ~ 176° F)

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Digital Video Motherboards
Video Capture Cards
Digital Video System Platforms
Video Gateways
Full DVR Systems

Appendix-Software



Features

- Supports NTSC/PAL MPEG-4 full-motion video/audio encoding up to D1 resolution at 30/25 fps
- Hardware video/audio encoding engine onboard
- 16 x 16 OSD text of up to 96 characters
- Up to eight modules can be installed into one PC
- High speed USB 2.0 interface
- Supports MS Windows® 2000/XP with driver, DLL SDK and DirectShow SDK
- -20 ~ 80° C (-4 ~ 176° F) wide operating temperature (optional)

Introduction

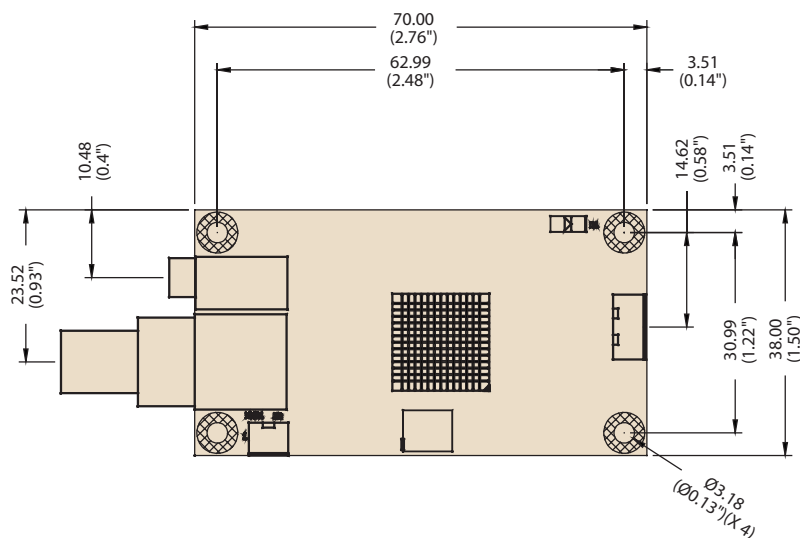
The DVP-1412E is a compact-sized, hardware MPEG-4 video encoder module that is designed for embedded video/audio applications and simple digital video upgrade solutions. It can be easily integrated into many different types of hardware, like Panel PCs, ATMs, and embedded PCs. The DVP-1412E is capable of delivering streaming video up to full D1 resolution at full-motion frame rates. By using a standard high-speed USB 2.0 interface, the DVP-1412E easily integrates with most Single Board Computers or PC-based systems. Using 128-byte EEPROM, programmers can write protection codes or set system parameters via the SDK. DVP-1412E delivers standard composite video and audio input through BNC connectors and comes complete with SDK and driver for MS Windows 2000 or XP. All these great features make the DVP-1412E very easy for system integrators to develop applications. DVP-1412E is the ideal compact embedded digital video and audio solution for multiple applications.

Specifications

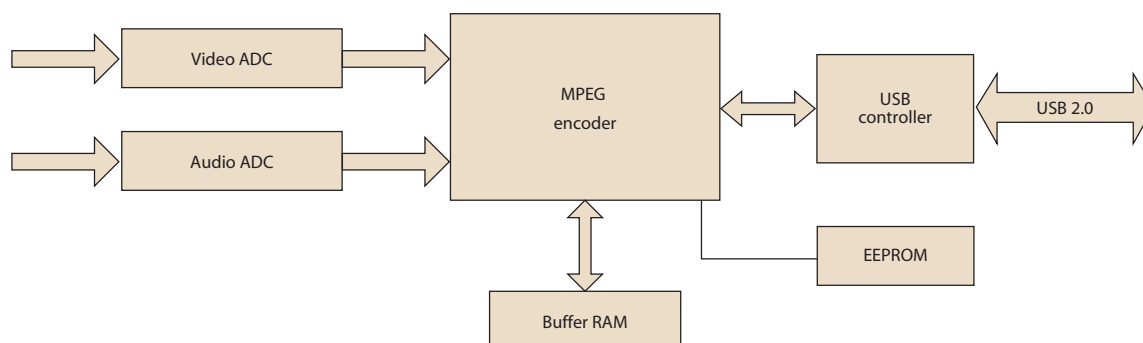
Video System	Video Standard	Composite for NTSC/PAL	
	Video Input	1 x BNC connector	
	Capture Resolution	D1/VGA/QVGA/CIF	
	Frame Rate	30/25 fps for NTSC/PAL	
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	
	Video Encoding	MPEG-4	
	Video Encoding Format	MPEG-4 Simple Profile	
Audio System	Audio Input	1 x Mono input (phone jack)	
	Audio Encoding Format	ADPCM with default mux supported in Windows	
Software Development Kit	Operating System	Supports Microsoft Windows XP and Windows 2000	
	DirectX Required	Version 9 or above	
	Demo Program	Complete demo program with VC++ sample code for reference	
	Program Function	Video capture, encode and playback, sensor control , OSD, EEPROM read/write. Sample program with source code	
Hardware	Host Interface	USB 2.0	
	Max. Card	8 x modules only set by on-board DIP switch	
	EEPROM	128 bytes, includes SDK for programming	
	OSD	This function sets a 16x16 OSD text of up to 96 characters	
	Power Consumption	Max. 0.5 A @ 5 V from standard USB port	
Temperature	DVP-1412E DVP-1412WE	Operating	Non-operating
		-10 ~ 60° C (14 ~ 140° F)	-20 ~ 70° C (-4 ~ 158° F)
		-20 ~ 80° C (-4 ~ 176° F)	-20 ~ 80° C (-4 ~ 176° F)
Physical Characteristics	Dimensions (W x L)	70 x 38 mm (2.75" x 1.49")	

Dimensions

Unit: mm (inch)



Block Diagram



Packing List

Part Number	Description	Quantity
1700000292	USB 30 cm wire pitch 2.0 mm	x 1
2062141200	Utility CD	x 1
9696141200E	DVP-1412E MPEG-4 video encoding module	x 1

Ordering Information

Part Number	Description
DVP-1412E	1 channel USB MPEG-4 video encoding module
DVP-1412WE	1 channel USB MPEG-4 video encoding module, -20 ~ 80° C (-4 ~ 176° F)

DVP-7020BE

16 Channel PCI-Bus Video Capture Card

Introduction

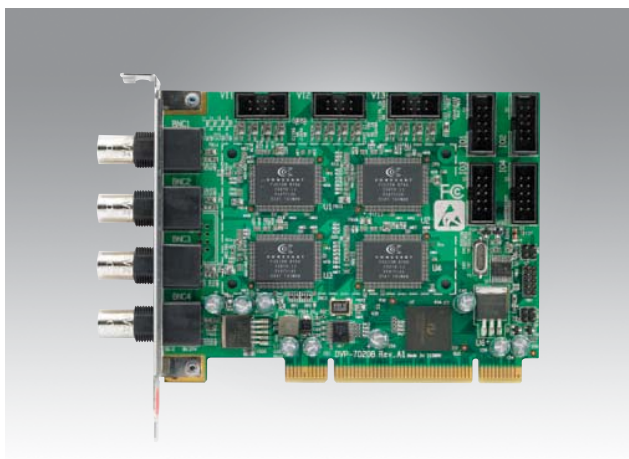
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Appendix-Software



Features

- 16 channel composite inputs that can share a total frame rate of 120/100 fps, up to D1 resolution
- Four Conexant fusion 878A video capture chips on board
- SDK supports Windows® XP/Windows 2000 with VC++ sample codes

Introduction

The DVP-7020BE is a 16 channel input, PCI-bus video capture card. It supports up to 16 channels of input using share-frame technology and captures up to D1 resolution at 120/100 frames per second. DVP-7020BE supports NTSC/PAL composite video input through BNC connectors and digitizes the data to PC through PCI bus. The DVP-7020BE can be used for video capture applications or video surveillance. It comes with SDK support for software encoding and capture functions.

Specifications

Video system	Video Standard	Composite for NTSC/PAL
	Video Input	16 channels
	Compression format	MPEG-4
	Capture/Compression Resolution	Up to D1 for video capture (VGA for software encoding function)
	Total Frame Rate	120/100 fps (NTSC/PAL)
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness
	Data Output Format	Multiple YCrCb, RGB, and YUV planar formats supported
Physical Characteristics	Host Interface	PCI v2.2
	Power Consumption	+5 V DC input by PCI bus, max 330 mA
	Dimensions (W x L)	125.42 x 97.15mm(4.94" x 3.82")
	DIO	TTL/CMOS level 5V , 16 DI/16 DO
	Temperature	-10 ~ 60° C, Operating
Software Development Kit	Operating System	Supports Microsoft Windows XP and Windows 2000
	DirectX Required	Version 9 or above
	Demo Program	Complete demo program with VC++ sample code for reference
	Program Function	Video capture, video encoder and video playback

Ordering Information

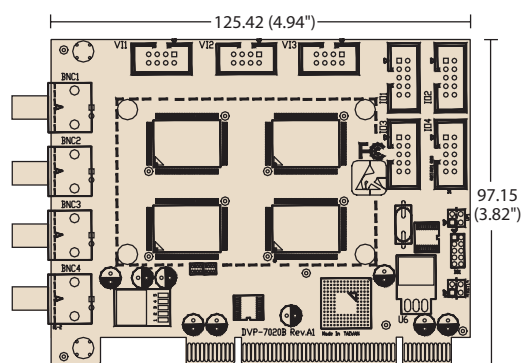
Part Number	Description
DVP-7020BE	16 Channel PCI-Bus Digital Video Capture Card

Packing list

Part Number	Description	Quantity
1700000860	Expend video board FLAT Cable	X 3
9692A21000E	Expansion video board	X 3
2062702010	Utility CD	X 1

Dimensions

Unit: mm (inch)



DVS-350

Embedded/Mobile Digital Video Platform



Features

- Up to 16 channel composite inputs that can share a total frame rate of 120/100 fps
- Anti-vibration, anti-shock design to ensure maximum reliability
- Fanless design within sealed construction
- x86 architecture for easy application development & integration
- TV-out and WLAN module support
- Wide power source (9 ~ 30 V DC)
- CardBus interface for optional mobile communication module
- Supports Windows® 2000/XP with driver and SDK

Introduction

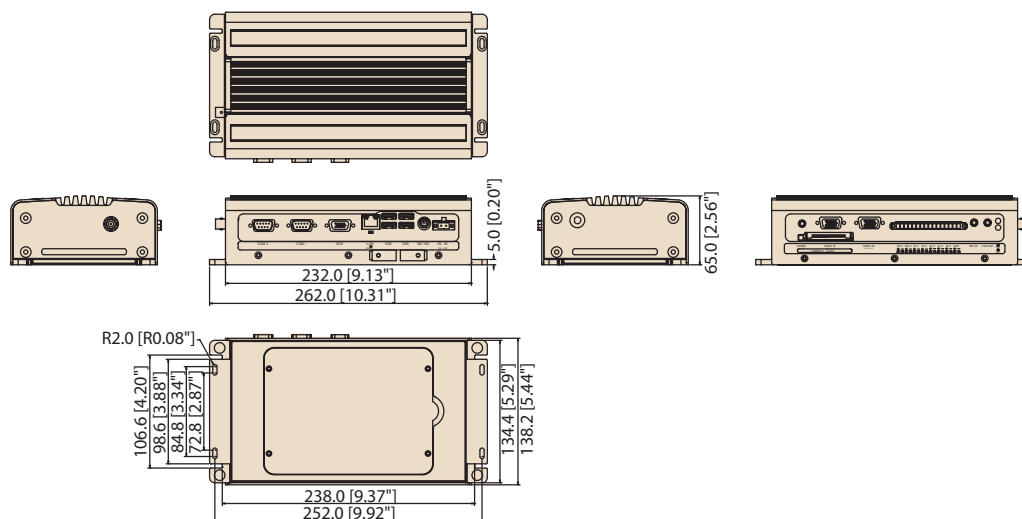
The DVS-350 series provide the digital video market with a perfect solution for applications in harsh environments. The DVS-350 series are the smallest industrial grade PC-based systems that support 4-16 camera inputs. The x86 open platform eases application software integration. They are designed for installation in any mission-critical environment with their fanless, anti-vibration and anti-shock protection. A wide power range of 9 to 30 V DC can protect these systems from power surges while used on vehicles. Among the whole series, the DVS-350 series comes with the highest cost/performance value. These features combined with TV-out, WLAN, isolated DI and relay DO, make the DVS-350 series the best solution for embedded/mobile applications.

Specifications

Video System	Video Standard	Composite for NTSC/PAL	
	Video Input	4 ~ 16 channels share a total of 120 fps	
	Encoding	Up to 120 fps @ CIF resolution with software encoding	
	Capture Resolution	Up to D1 resolution: 720 x 480 (NTSC)/768 x 576 (Full PAL)	
	Total Capture Frame Rate (NTSC/PAL)	120/100 fps	
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	
Software Development Kit	Data Output Format	YUY2 planar formats supported	
	Operating System	Supports Microsoft Windows XP with SP2, Windows XP Embedded and Windows 2000 with SP4	
	DirectX Support	Version 9 or above	
	Demo Program	Complete demo program with VC++ sample code for reference	
Processor System	Function	Video capture, preview, DIO control, encoding and decoding	
	CPU	Intel® Pentium® M LV 1.4 GHz	Intel Celeron® M ULV 600 MHz
	Chipset	Intel 852GME/ICH4	
	L2 Cache	2 MB	512 KB
Memory	BIOS	AWARD® 4 Mbit BIOS	
	Technology	DDR 200/266/333 modules, ECC support	
	Max. Capacity	1 GB	
Graphic	Socket	200-pin SODIMM	
	Chipset	Chipset integrated VGA controller	
	Memory Size	Shared system memory up to 64 MB	
	Resolution	Up to 1600 x 1200 @ 85 Hz and 2048 x 536 @ 75 Hz	
Ethernet	TV-out	Composite out (BNC type)	
	Interface	10/100Base-T	
	Controller	Intel 82551QM	
	Connector	1 x RJ-45	
Storage	WLAN	802.11b/g	
	IDE-0	2.5" HDD Tray	
	IDE-1	Type I/II CompactFlash socket	
	TV-out	1 x Composite Out with BNC connector	
I/O Interface	VGA	1 x D-sub 15-pin	
	LAN	1 x RJ-45	
	USB	4 x USB 2.0, 480 Mbps	
	Audio	AC97: LINE-OUT, MIC-IN	
	Serial	COM1: RS-232; COM2: RS-485/RS-422	
	PS/2	1 x keyboard and mouse with Y cable	
	DIO	5 x Isolated DI, 2 x Relay DO, 1 x Remote SW control	
	MiniPCI	1 x (for Integrated WLAN module)	
	CardBus	1 slot	
	Power Switch	External Power Switch Connector	

Dimensions

Unit: mm (inch)



Power Requirement	Management	APM 1.2, ACPI supported
	Power Consumption	Average 15 W
	Power Adapter	9 ~ 30 V DC, Typical 9 V DC @ 5.4 A, 19 V DC @ 2.9 A
Watchdog Timer	Output	Interrupt, system reset
	Interval	Programmable 1 ~ 255 sec.
Physical Characteristics	Construction	Aluminum housing
	Mounting	Din-Rail mounting and desk/wall mounting
	Dimensions (W x H x D)	232.0 x 65.0 x 138.4 mm (9.1" x 2.5" x 5.4")
	Weight	2.3 kg (5.06 lb)
Environment	Temperature	Operating: -10 ~ 50° C
	Temperature (with industrial grade components)	Operation: -15 ~ 55° C
	Relative Humidity	Operating: 95% @ 40° C (non-condensing)
	Vibration Resistance	Operating: 1 Grms, IEC 60068-2-64, Random, 5 ~ 500 Hz, 1 oct/min, 1 hr/axis
	Shock Resistance	Operating: 40 G, IEC 60068-2-27, half sine, 11 ms

Ordering Information

Part Number	HDD Support	Video Inputs	CPU	Memory	L2 Cache
DVS-350-18S4E	1.8" HDD included	4~16 channels	Intel Pentium M LV 1.4GHz	512 MB	2 MB
DVS-350-25S4E	2.5" HDD Tray	4 ~ 16 channels	Intel Pentium M LV 1.4 GHz	N/A	2 MB
DVS-350-ZPS4E	2.5" HDD Tray	N/A	Intel Pentium M LV 1.4GHz	N/A	2 MB
DVS-350-35S4E	3.5" HDD Tray	4~16 channels	Intel Pentium M LV 1.4GHz	N/A	2 MB

* All above items with Intel Celeron M ULV 600 MHz with 512 MB L2 cache are available upon request

Optional Items

2.5" Hard Drive Options

Part Number	RPM	Type	Capacity
96ND60G-I-FJ4K1	4200	IDE Parallel-ATA	60 GB
96ND80G-I-FJ4K1	4200	IDE Parallel-ATA	80 GB

Power Adapter Options

Part Number	Description
1757000222	AC-to-DC Adapter DC 19 V/3.42 A/65 W, with Phoenix Power Plug

Power Cord Options

Part Number	Description
1700001947	2-pin 180 cm, USA
1700001948	2-pin 180 cm, Europe
1700001949	2-pin 180 cm, UK

Industrial-grade CompactFlash Card Options

Part Number	Capacity	Operation Temperature
96FMCFI-512M-ET-AP	512 MB	-40° C (-40° F) ~ 85° C (185° F)
96FMCFI-1G-ET-AP	1 GB	-40° C (-40° F) ~ 85° C (185° F)

Packing List

Part Number	Description	Qty
2013000000	2 year warranty card	X 1
2062S35000	Driver CD	X 1
1700001394	DC Jack with 2-pin pluggable terminal block	X 1
1652000209	Pluggable terminal block for DI and DO	X 1
1700060202	Y cable of KB and PS/2 Mouse	X 1
1700001618	Video Cable D-sub 15P to BNC (It doesn't need for DVS-350-ZPS4E)	X 2

DVS-355M

Embedded/Mobile Digital Video Platform with Intel Core Duo Mobile Processor



Features

- Up to 6 channel composite inputs that can share a total frame rate of 60/50 fps
- Fanless design within sealed construction
- Supports Intel® Core™ Duo Mobile Processor
- x86 architecture for easy application development & integration
- Anti-vibration, anti-shock design to ensure maximum reliability
- Wide power source (9 ~ 30V DC)
- CardBus interface for optional mobile communication module
- Supports Window® 2000/XP with driver and SDK

Introduction

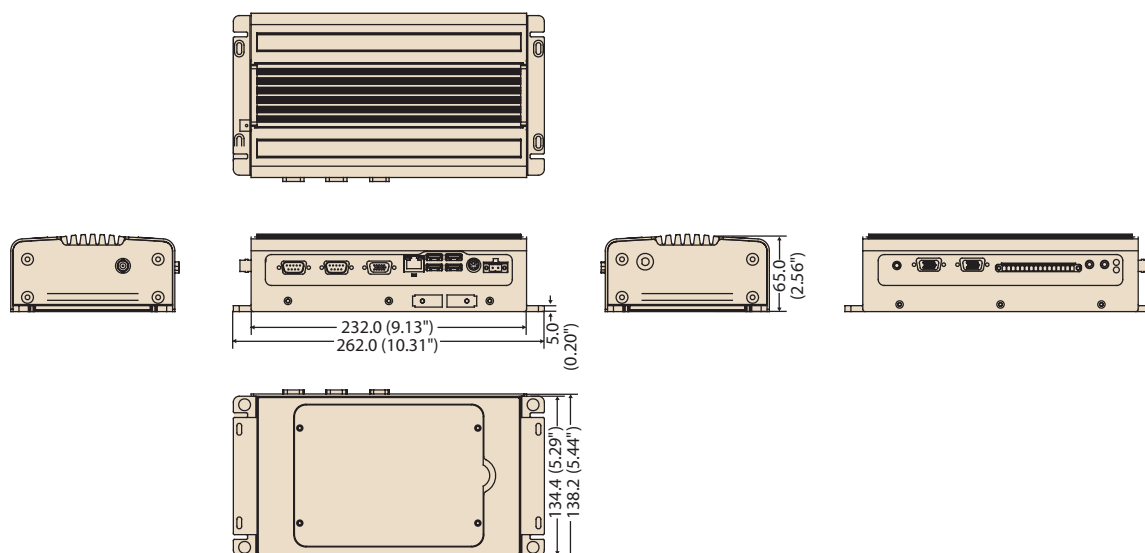
The DVS-355M provides the digital video market a perfect solution for applications in harsh environments. The DVS-355M is the smallest industrial grade PC-based system that supports 6 camera inputs. The x86 open platform eases application software integration. It is designed for installation in any mission-critical environment with its fanless, anti-vibration and anti-shock protection. A wide power range of 9 to 30 V DC can protect the system from power surges while used on vehicles. These features combined with TV-OUT, WLAN, CardBus interface make the DVS-355M the best solution for embedded/mobile applications.

Specifications

Video System	Video Standard	Composite for NTSC/PAL
	Video Input	6 channels share a total of 60 fps
	Encoding	Up to 60 fps@D1 resolution with software encoding
	Capture Resolution	Up to D1 resolution - 720 x 480 (NTSC) / 768 x 576 (Full PAL)
	Total Capture Frame Rate	60/50 fps (NTSC/PAL)
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness
Processor & System	Data Output Format	YUY2 planar formats supported
	CPU	Intel Core Duo U2500 1.2GHz Mobile Processor
	Chipset	Intel 945GM / ICH7M-DH
	L2 Cache	2 MB
	BIOS	AWARD 4-Mbit BIOS
	Front Side Bus	667 MHz
Memory	Technology	Dual channel DDR2 533/667
	Max. Capacity	2 GB
	Socket	2 x 200-pin SODIMM
Graphics	Chipset	Intel Graphics Media Accelerator 950
	Memory Size	Shared system memory up to 224 MB
	Resolution	Up to 2048 x 1536 at 75 Hz
Ethernet	Interface	Gigabit LAN Controller
	Controller	Marvell 88E8053
	Connector	2 x RJ-45
Storage	IDE-0	2.5" HDD Tray
	IDE-1	CompactFlash socket for type I/II
I/O Interface	DVI	1 (DVI - I connector , digital signal output only)
	VGA	1 (D-sub 15-pin)
	LAN	Dual Gigabit LAN (RJ-45)
	USB	4 (USB 2.0 compliant, 480Mbps)
	Audio	AC97 - Line-out, Mic-in, Line-in
	Serial	COM1 - RS-232, COM2 - RS-232
	PS/2	1 (For keyboard and mouse with Y cable)
	CardBus	1 x slot
	Mini-PCI	1 (For Integrated WLAN module)
	TV Out	S-video and Composite video
Power Requirement	Management	APM 1.2, ACPI supported
	Power Consumption	Average 15 W, maximum 49 W
	Input Voltage	9 ~ 30 V _{DC} , typical 9 V _{DC} @ 5.4 A, 19 V _{DC} @ 2.9 A
	Others	Supports boot on power failure and schedule boot up function
Watchdog Timer	Output	Interrupt, system reset
	Interval	Programmable 1 ~ 255 sec.

Dimensions

Unit: mm (inch)



Specifications

Physical Characteristics	Mounting	DIN-rail mounting and desk / wall mounting
	Dimensions (W x H x D)	232 x 65 x 138.4 mm (9.1" x 2.5" x 5.4")
	Weight	2.3 kg / 5.07 lb
Environment	Temperature	-10 ~ 45° C (14 ~ 113° F), Operating
	Temperature (with industrial grade components)	-15 ~ 55° C (5 ~ 131° F), Operating
	Relative Humidity	95% @ 40° C (non-condensing), Operating
	Vibration Resistance	1 Grms, IEC 60068-2-64, Random, 5-500 Hz, 1 Oct/min, 1hr/axis
	Shock Resistance	40G, IEC 60068-2-27, half sine, 11 ms, Operating
Software Development Kit	Operation System	Supports Microsoft Windows XP with SP2, XP embedded and Win2000 with SP4.
	Demo Program	Complete demo program with VC++ sample code for reference

Ordering Information

Part Number	Memory	WLAN	Video Input
DVS-355-MU25E	N/A	N/A	6 channels
DVS-355-ZU25E	N/A	802.11 b/g	N/A
DVS-355-SU25E	N/A	N/A	N/A

Optional Items

2.5" Hard Drive Options

Part Number	RPM	Type	Capacity
96ND60G-I-FJ4K1	4200	IDE Parallel-ATA	60 GB
96ND80G-I-FJ4K1	4200	IDE Parallel-ATA	80 GB

Power Adapter Options

Part Number	Description
1757000222	AC-to-DC Adapter 2-pin DC 19 V/3.42 A/65 W, with Phoenix Power Plug
9689000450	AC-to-DC Adapter 3-pin DC 19 V/3.16 A/ 60 W

Power Cord Options

Part Number	Description
1700001947	2-pin 180 cm, USA
1700001948	2-pin 180 cm, Europe
9689071001	3-pin 180 cm, USA
9689071002	3-pin 180 cm, Europe

Industrial-Grade CompactFlash Card Options

Part Number	Capacity	Operating Temperature
96FMCFI-512M-ET-AP	512 MB	-40 ~ 85° C (-40 ~ 185° F)
96FMCFI-1G-ET-AP	1 GB	-40 ~ 85° C (-40 ~ 185° F)

Packing List

Part Number	Description	Qty
2013000000	2 year warranty card	x 1
2062S35000	Driver CD	x 1
1700001394	DC Jack with 2-pin pluggable terminal block	x 1
1700060202	Y cable of KB and PS/2 Mouse	x 1
1700005791	Video In Cable D-Sub to BNC (DVS-355-MU25E only)	x 1

DVS-500

Industrial Compact Platform for PC Based DVR

NEW



Features

- Cost-effective advanced performance platform supports Intel® Core™ 2 Duo/ Pentium® D/Pentium® 4/Celeron® D Processors
- Compact, robust, and flexible, with ATX/Micro ATX/Mini-ITX motherboard
- Compatibility and certification test for various video capture cards
- Advanced thermal and acoustic design for DVR
- Optional remote control module with direct keyboard mapping
- Supports 4/8/16 MPEG-4/H.264 video capture

Introduction

The DVS-500 is a high performance video surveillance platform with a compact industrial chassis. It includes an optimized cooling system design that improves the thermal environment when installing multiple video capture cards and hard drives, along with lowered acoustic impact. Combined with long-life industrial main boards, the DVS-500 provides a wide range of performance levels from Celeron D to Core 2 Duo processors. The optional remote control module helps the system integrator integrate this convenient interactive functionality with DVR applications. Advantech's quality assurance integration tests and certifications for different video capture cards assure system reliability even for 24/7 operation. The compact size, low sound profile, and rugged design make it the ideal platform for retail, community, factory, or small and medium enterprise applications.

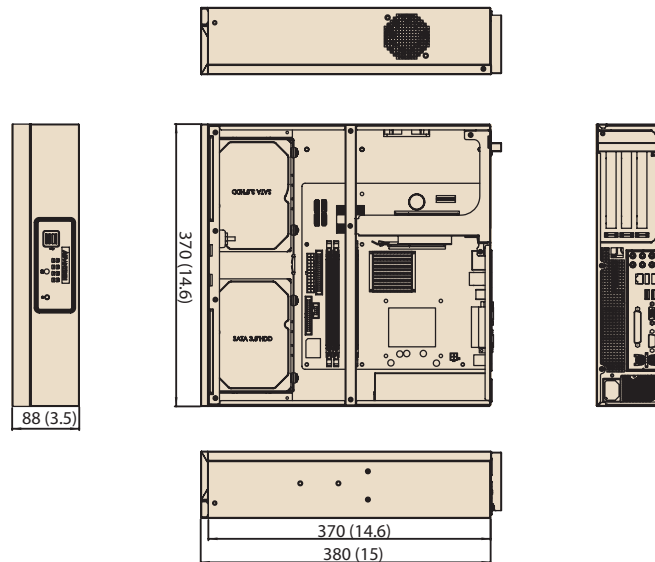
Specifications

Computing System	Chipset	Intel 945G + ICH7	
	CPU* (configurable)	LGA775 Intel Core 2 Duo/Pentium D/Pentium 4/Celeron D	
	Front Side Bus	533/800/1066 MHz	
	L2 Cache	4 MB/2 MB (Core 2 Duo), 4 MB/2 MB (Pentium D), 2 MB/1 MB (Pentium 4), 512 KB/256 KB (Celeron D)	
	Memory* (configurable)	Supports up to 4 GB Dual Channel 240-pin, DIMM x 4, DDR2 667/533 MHz	
Graphics	Controller	Intel 82945G GMCH integrated Graphics Media Accelerator 950	
	VRAM	Intel DVMT 3.0 dynamically shared system memory up to 224 MB memory	
Expansion Slots	PCI	2 x 32-bit /33 MHz PCI, 1 extra slot reserved for DIO module	
Storage	Hard Disk Drive* (configurable)	3.5" SATA HDD, with advanced thermal design	
	Capacity	2 HDD	
Ethernet	Interface	10/100/1000Base-T Gigabit Ethernet	
	Controller	G-LAN: Intel 82573L	
I/O Ports	Front I/O Ports	2 x USB, IR remote control (upon request), 8 x Configurable Notification LEDs (upon request)	
	Rear I/O Ports	1 x VGA, 1x RJ45 with LED connector, 1 x COM (RS-232), 4 x USB2.0, 1 x Parallel(SPP/EPP/ECP), 1 x PS/2 Keyboard, 1 x PS/2 Mouse, 3 x Audio I/O (MIC-In, Line-In, Line-Out)	
Power Supply*	Power Output Wattage	220 W	
	Type	Single ATX power supply with full range	
Cooling	Chassis Fan	1 (18.15 CFM)	
	Air Filters	2 (110 x 44 mm)	
Acoustic Noise		Less than 39 dB sound pressure at 5 ~ 28° C (41 ~ 82° F)	
Environment	Temperature	Operating 0 ~ 40° C (32 ~ 104° F)	Non-Operating -20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40°C non-condensing	10 ~ 95% @ 40°C non-condensing
Physical Characteristics	Color	Black	
	Dimensions (W x H x D)	370 x 88 x 370 mm (14.6" x 3.5" x 14.6")	
	Weight	8.3 kg (18.3 lb)	
Operating System*	Microsoft Windows XP/2000, Windows XP Embedded		

* Configurations vary by region. Please contact the Advantech sales force or refer to the CTOS DVR Platform for more details.

Dimensions

Unit: mm (inch)



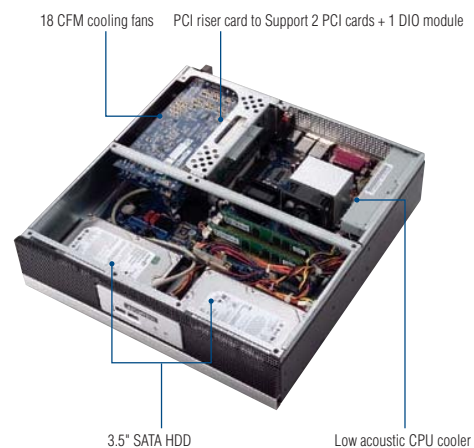
Configure to Order Services

Please visit Advantech CTOS portal for order entry
<http://www.advantech.com.tw/CTOS>

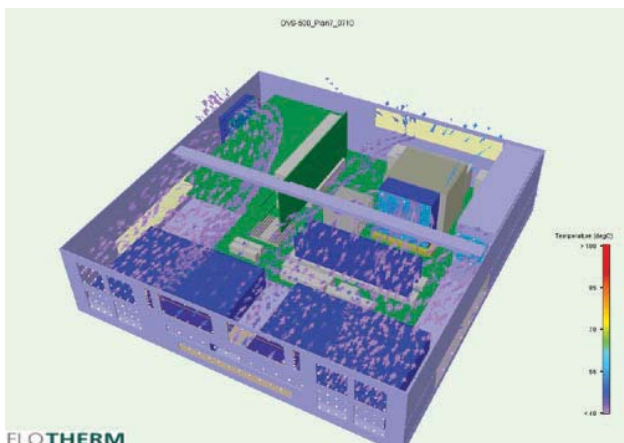
System Content

Item	Description
Chassis	Compact PC Based Chassis
Motherboard	Intel 945G + ICH7 Motherboard*
Power system	220 W ATX
CPU cooler	LGA775 UP to Pentium-4 3.0 GHz (90 nm, 85 W, L2: 2 MB)

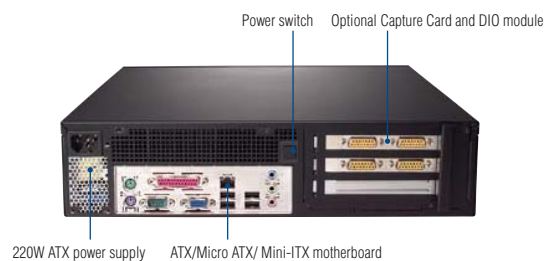
* Configurations vary by region. Please contact the Advantech sales force or refer to the CTOS DVR Platform for more details.



The inside view of DVS-500



Advanced thermal design for better reliability



The Rear view of DVS-500

Optional Certified Video Capture Card and DIO module

Part Number	Description
DVP-7010BE	4 CH D1 @ 30 fps PCI MPEG4 Software Encode Video Capture Card with SDK
DVP-7020BE	4 CH D1 @ 120 fps PCI MPEG4 Software Encode Video Capture Card with SDK
DVP-7421BE	4 CH D1 @ 120 fps PCI MPEG1/2/4 Hardware Codec Video/Audio Capture Card with SDK
960T-DS-4004HCI	4 CH 2CIF @ 120 fps/D1 @ 60 fps PCI H.264 Hardware Encode Video/Audio Capture Card with SDK
960T-DS-4008HCI	8 CH 2CIF @ 240 fps/D1 @ 120 fps PCI H.264 Hardware Encode Video/Audio Capture Card with SDK
9692080400E	4 x DO + 4 x DI module for DVP-7010BE, DVP-7020BE and DVP-7421BE
9698080500E	8 x DI module for DVP-7010BE, DVP-7020BE
9658050000E	Direct Keyboard Mapping IR Remote Control Module Kit (upon request)

Ordering Information

Model name	Description	Configuration	Key Parts (configurable)
DVS-500-945G-4SB1	4 CH D1 @ 30 fps MPEG4 S/W Encode DVR Platform with SDK	DVS-500-945G 1 x DVP-7010BE	1 x 3.0 GHz Pentium 4 (Default) 2 x 512 DDR2 RAM (Default) 1 x 500 GB SATA HDD (Default)
DVS-500-945G-4SB	4 CH D1 @ 120 fps MPEG4 S/W Encode DVR Platform with SDK	DVS-500-945G 1 x DVP-7020BE	
DVS-500-945G-8SB1	8 CH D1 @ 60 fps MPEG4 S/W Encode DVR Platform with SDK	DVS-500-945G 2 x DVP-7010BE	
DVS-500-945G-4H	4 CH D1 @ 120 fps MPEG4 H/W Video/Audio Codec DVR platform with SDK	DVS-500-945G 1 x 7421BE	
DVS-500-945G-8H	8 CH D1 @ 240 fps MPEG4 H/W Video/Audio Codec DVR platform with SDK	DVS-500-945G 2 x 7421BE	
DVS-500-945G-4HK	4 CH 2CIF @ 120 fps/D1 @ 60 fps H.264 H/W Video/Audio Encode DVR Platform with SDK	DVS-500-945G 1 x 960T-DS-4004HCI	
DVS-500-945G-8HK	8 CH 2CIF @ 240 fps/D1 @ 120 fps H.264 H/W Video/Audio Encode DVR Platform with SDK	DVS-500-945G 1 x 960T-DS-4008HCI	
DVS-500-945G-16HK	16 CH 2CIF @ 480 fps/D1 @ 240 fps H.264 H/W Video/Audio Encode DVR Platform with SDK	DVS-500-945G 2 x 960T-DS-4008HCI	N/A
DVS-500-945GE	Compact Size DVR Platform with 945G Motherboard, Advanced CPU Cooler, 220W Power and 1 x System Fan		

DVS-510

1U Compact Size Digital Video Platform

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Appendix - Software



Features

- Supports Intel® Core™ Duo and Core™ Solo mobile processors
- 4-channel PCI-E video input with D1 and 120/100 FPS
- Supports Video Loop through function
- Six inputs and 7 outputs for GPIO alarm
- Dual Display support for VGA, DVI and TV-OUT
- Supports Windows® 2000/XP with drivers and SDK

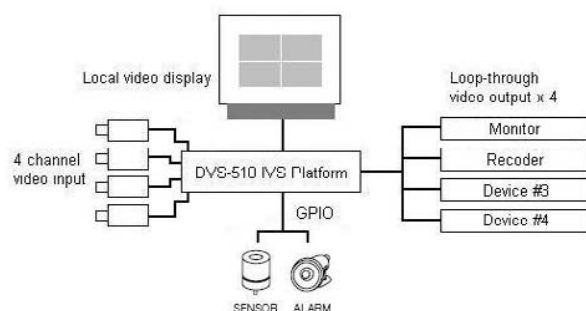
Introduction

The DVS-510 is a PC-Based Digital Video platform built into a 1U, compact industrial grade chassis. The platform integrates four Conxant BT-878 video capture chips with a PCIe interface that supports 4D1 and 100/120 full frame rates. The Intel Core Duo technology gives it excellent computing power for video encoding, streaming, or intelligent video analysis. The addition of 4-channel loop through video, dual Giga LAN, and GPIO make it the ideal platform for an intelligent video surveillance box (IVS BOX), high-end video server, Network Video Recorder (NVR), POS integrated DVR, signage integrated DVR, or any other advanced video-integrated application.

Specifications

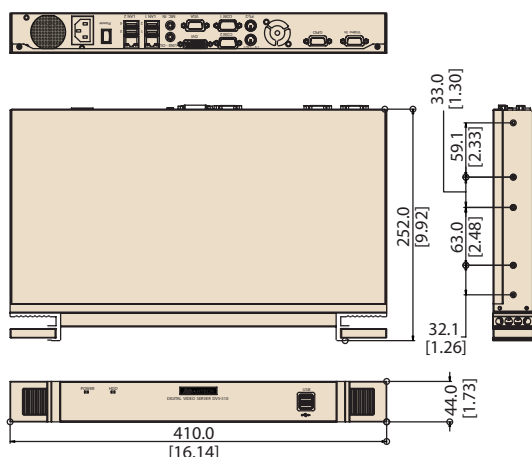
CPU	Supports Intel µFC-PGA 478 Core Duo/Celeron M with 65nm process technology
FSB	400/533/667 MHz
System Chipset	Intel 945 GM Intel ICH7M-DH
Video input	D-Sub connector with 4-channel video inputs and 4 video loop through outputs
Memory	Dual channel memory architecture 2 x SO-DIMM. 2GB DDR2 667/533/400 non-ECC, unbuffered memory
HDD interface	One Enhanced IDE interface supports up to 2 IDE devices. Ultra DMA 100 mode up to 100 MB /sec. 2 SATA ports support up to 150 MB/sec.
Serial ports	2 serial ports; COM1: RS-232, COM2: RS-232/422/485
USB	6 USB 2.0 compliant (front panel x2 and rear panel x4)
Keyboard/Mouse connector	6-pin miniDIN connector for PS/2 Keyboard connector
GPIO	15-bit GPIO; D-Sub connector with 6 inputs and 7 outputs
VGA/LCD Interface	Intel Graphics Media Accelerator 950
DVI	1 Digital DVI
TV out	Supports composite video output
Dual Display Combination	VGA; DVI; TV out
Ethernet Interface	Dual Marvell 88E8053 PCIe Gigabit LAN Controller, featuring AI NET2
Audio Interface	AC97 2.3 compliant
Mini PCI	1
External I/O connector	1 x VGA; 1 x DVI; 1 x TV-out 2 x COM1 x mini DIN PS/2 connector for Keyboard and mouse 1 x MIC IN; 1 x LINE out 2 x RJ452 x USB 2.0/1.1 (front panel) 4 x USB 2.0/1.1 (rear panel) 1 x Video IN (D-Sub connector) 1 x GPIO (D-Sub connector)
Operating temperature	-15° C ~ 50° C (5 ~ 122° F)
External Power Terminal	ATX power connector
Software OS support	Windows 2000, XP Windows CE.Net 5.0, XPe, Linux
Vibration	0.002G²/Hz, 1 Grms, 5-500Hz
Dimensions (W x H x D)	410 x 44 x 252 mm (16.14" x 1.73" x 9.92")
Certificate	CE / FCC part 15 Class A / UL

Application Reference for Intelligent Video Surveillance



Dimensions

Unit: mm (inch)



Ordering Information

Part Number	HDD Support	Video Input	CPU Support
DVS-510-35IKE	3.5" HDD Tray	4	Intel 478-pin Micro FCPGA Core Duo/Celeron M up to 2.0 GHz

Optional Items

CPU

Part Number	Description	TDP	FSB	L2
96MPDM-20F6-2M4T	Core Duo T2500 2 GHz, 478-pin Micro FCPGA	31.0W	667 MHz	2 MB
96MPDM-18F6-2M4T	Core Duo T2400 1.83 GHz, 478-pin Micro FCPGA	31.0W	667 MHz	2 MB
96MPDM-16F6-2M4T	Core Duo T2300 1.66 GHz, 478-pin Micro FCPGA	31.0W	667 MHz	2 MB
96MPSM-16F6-2M4T	Core Solo T1300 1.66 GHz, 478-pin Micro FCPGA	27.0W	667 MHz	2 MB

Memory

Part Number	Description	Clock
96SD2I-512M66NN-AP	512 MB SODDDR2 200P 64 x 8 I GRD(G)	667 MHz
96SD2I-1G667NN-AP	1 GB SODDDR2 200P 64 x 8 I GRD(G)	667 MHz
96SD2I-512M53NN-AP	512 MB SODDDR2 200P 64 x 8 I GRD(G)	533 MHz
96SD2I-1G533NN-TR	1 GB SO-DDR2200P 64 x 8 I GRD(G)	533 MHz

Power Cord

Part Number	Description
1702002600	POWER Cable UL/CSA (USA) 180D 125V/10A 1.83M
1702002605	POWER CABLE 90D 220VEUROPEAN 250V/6A (FRANCE)1.8M

CPU Load Performance

4 channel video encoding and preview

Display Resolution	Frames Per Second		
	30 Core Duo 2.0 Ghz/2 MB	15 Core Duo 2.0 Ghz/2 MB	10 Core Duo 2.0 Ghz/2 MB
D1 (720 x 480)	-	60% ~ 70%	-
VGA (640 x 480)	-	55% ~ 65%	-
QVGA (320 x 240)	25% ~ 35%	-	-
SubVGA (160 x 120)	5% ~ 15%	-	-

2 channel video encoding and preview

Display Resolution	Frames Per Second		
	30 Core Duo 2.0 Ghz/2 MB	15 Core Duo 2.0 Ghz/2 MB	10 Core Duo 2.0 Ghz/2 MB
D1 (720 x 480)	60% ~ 70%	-	-
VGA (640 x 480)	55% ~ 65%	-	-
QVGA (320 x 240)	-	-	-
SubVGA (160 x 120)	-	-	-

1 channel video encoding and preview

Display Resolution	Frames Per Second		
	30 Core Duo 2.0 Ghz/2 MB	15 Core Duo 2.0 Ghz/2 MB	10 Core Duo 2.0 Ghz/2 MB
D1 (720 x 480)	30% ~ 40%	-	-
VGA (640 x 480)	25% ~ 35%	-	-
QVGA (320 x 240)	-	-	-
SubVGA (160 x 120)	-	-	-

DVS-5120

Industrial Robust & Compact Desktop/ Wallmount PC based DVR with Front Accessible I/O

Introduction

Application
Stories

Product Selection
Guide

Datasheets

Digital Video Motherboards
Video Capture Cards
Digital Video System Platforms
Video Gateways
Full DVR Systems

Appendix-Software



Features

- Cost effective to advanced performance platform supports Intel Core™ 2 Duo/Pentium D/Pentium 4/Celeron D Processors
- Compact, robust and flexibility configure with Micro ATX Motherboard
- All I/O interfaces are located in the front to facilitate cable routing
- Shock-resistant drive bay configure to hold one 5.25" and two 3.5" drives (one external & one internal)
- Streamlined in-chassis airflow design
- Compatibility and certification test for various video capture card
- Supports 4/8/16 MPEG-4/H.264 video capture
- Built-in CD-ROM/RW or DVD-ROM/±RW and HDD
- PCIe x 16 slot for VGA card

Introduction

The DVS-5120 industrial PC based DVR is specifically designed for factory floors and other harsh industrial environments. It is a wall-mountable/desktop unit that is ideal for system integrators or users who require a compact and rugged surveillance platform for industrial or specific applications. The DVS-5120 supports a wide range computing peripherals to be integrated with the chassis. Micro ATX motherboards with up to three add-on cards and one or more DIO modules may be installed in the DVS-5120. Unlike the classical industrial computer, DVS-5120 has an innovated appearance for industrial outlook chassis. It can be placed on the desk or mounted bi-directionally by the supplied brackets. It can be easily bottom or right mounted onto most surfaces, such as walls or workbenches. The shockproof disk drive housing design protects the system against harsh industrial environments or unexpected shock. The front access I/O interfaces and expansion slots make it much easier to operate and maintain while it is installed in the ATM, POS, Gaming and other applied machine. All these outstanding features make DVS-5120 the best solution for price, performance and total cost of ownership.

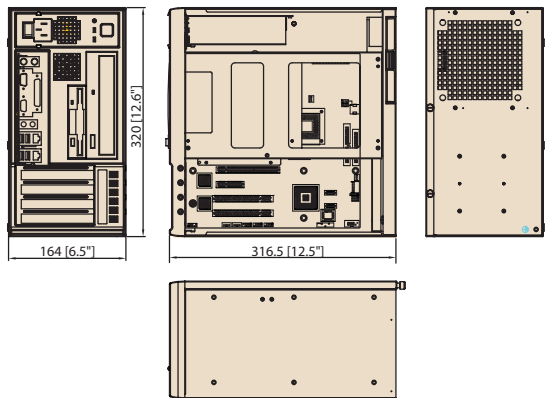
Specification

Computing System	Chipset	Intel® 945G + ICH7	
	CPU* (configurable)	LGA775 Intel® Core™ 2 Duo/Pentium® D/Pentium® 4/Celeron® D	
	Front Side Bus	533/80/1066 MHz	
	L2 Cache	4 MB/2 MB (Core 2 Duo), 4 MB/2 MB (Pentium D), 2 MB/1 MB (Pentium 4), 512 KB/256 KB (Celeron D)	
	Memory* (configurable)	Support up to 4 GB Dual Channel 240-pin, DIMM x 4, DDR2 667/533 MHz	
Graphics	Controller	Intel® 82945G GMCH integrated Graphics Media Accelerator 950	
	VRAM	Intel DVMT 3.0 dynamically shared system memory up to 224 MB memory	
Expansion Slots	PCI	2 x 32-bit/33 MHz PCI	
	PCIe x 16	1 x 4.0 GB/s per direction	
	DIO	1 x DIO module	
Storage	Optical Drive* (configurable)	Supports CD-ROM/DVD-ROM/CD-RW/DVD±RW DL	
	Floppy Disk (configurable)	Supports 3.5" 1.44 MB FDD	
	Hard Disk Drive* (configurable)	3.5" SATA HDD	
Drive Bay	5.25" (front-accessible)	1	
	3.5" (front-accessible)	1	
	3.5" (internal)	1	
Ethernet	Interface	10/100/1000Base-T Gigabit Ethernet	
	Controller	G-LAN: Intel 82573L	
I/O Ports*	Front I/O Ports	1 x VGA, 1x RJ45 with LED connector, 1 x COM, 4 x USB2.0, 1 x Parallel (SPP/EPP/ECP), 1 x PS/2 Keyboard, 1 x PS/2 Mouse, 3 x Audio I/O (MIC-In, Line-In, Line-Out)	
Power Supply	Power Output Wattage	300 W	
	Type	Single ATX power supply	
Cooling	Chassis Fan	1 (85 CFM) + 1 (10 CFM)	
	Air Filters	1 (133 x 112 mm)	
Environment	Temperature	Operating	Non-Operating
		0 ~ 40° C (32 ~ 104° F)	-20 ~ 60° C (-4 ~ 140° F)
	Humidity	10 ~ 85% @ 40° C non-condensing	
Physical Characteristics	Color	Black	
	Dimensions (W x H x D)	320 x 164 x 307 mm (12.6" x 6.5" x 12.1")	
	Weight	8.3 kg (18.3 lb)	
Operating System*	Microsoft® Window® XP/2000/XP Embedded		

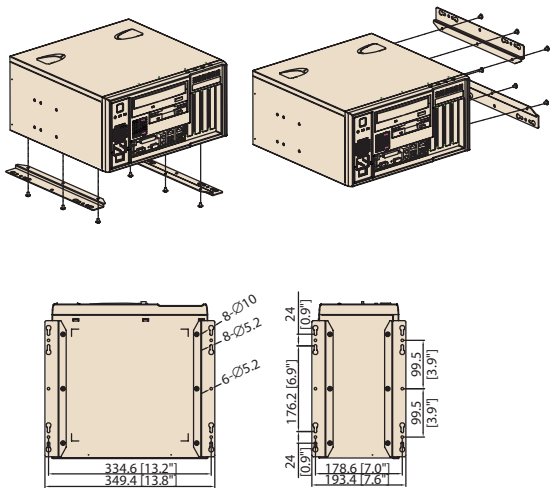
* Configurations are variable upon regions. Please contact Advantech sales force or refer CTOS DVR Platform for more details

Dimension

Unit: mm (inch)



Installation



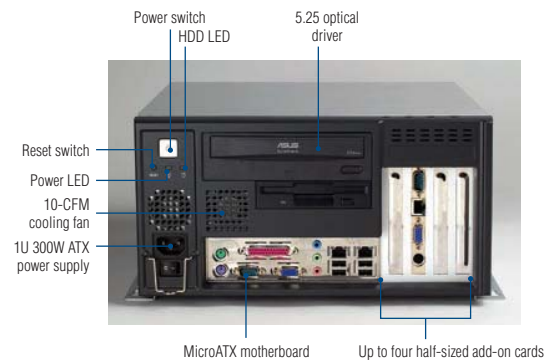
Configure to Order Services

Please visit Advantech CTOS portal for order entry
<http://www.advantech.com.tw/CTOS>

System Content

Item	Description
Chassis	Wallmount solution
Motherboard	Intel 945G Micro ATX Main board
Power system	300 W ATX
CPU Cooler	Suitable 95 W LGA775 UP to Intel Core 2 Duo 2.4 GHz thermal design

Front View



The front view of DVS-5120

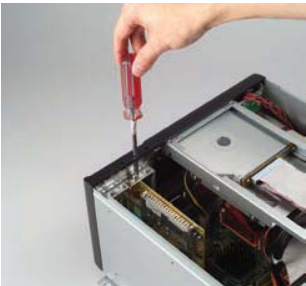
Inside View



Plug ring-lock securely fastens the power cord



Solid disk drive housing & easy-to-maintain fan filter



User-friendly mechanical desing for installing an add-on card



Shock-resistant drive bay for holding an internal 3.5" HDD

Optional Certificate Video Capture Card and DI0 module

Part Number	Description
DVP-7010BE	4 CH D1 @ 30 fps PCI MPEG4 Software Encode Video Capture Card with SDK
DVP-7020BE	4 CH D1 @ 120 fps PCI MPEG4 Software Encode Video Capture Card with SDK
DVP-7421BE	4 CH D1 @ 120 fps PCI MPEG1/2/4 Hardware Codec Video/Audio Capture Card with SDK
960T-DS-4004HCI	4 CH 2CIF @ 120 fps/D1 @ 60 fps PCI H.264 Hardware Encode Video/Audio Capture Card with SDK
960T-DS-4008HCI	8 CH 2CIF @ 240 fps/D1 @ 120 fps PCI H.264 Hardware Encode Video/Audio Capture Card with SDK
9692080400E	4 x DO + 4 x DI module for DVP-7010BE, DVP-7020BE and DVP-7421BE
9698080500E	8 x DI module for DVP-7010BE, DVP-7020BE

Ordering Information

Model Name	Description	Configuration	Key Parts (default configurable)
DVS-5120-945G-4SB1	4 CH D1 @ 30 fps MPEG4 S/W Encode DVR Platform with SDK	DVS-5120-945G 1 x DVP-7010BE	1 x 3.0 GHz Pentium 4 2 x 512 DDR2 RAM 1 x 500 GB SATA HDD
DVS-5120-945G-8SB1	8 CH D1 @ 60 fps MPEG4 S/W Encode DVR Platform with SDK	DVS-5120-945G 2 x DVP-7010BE	
DVS-5120-945G-4SB	4 CH D1 @ 120 fps MPEG4 S/W Encode DVR Platform with SDK	DVS-5120-945G 1 x DVP-7020BE	
DVS-5120-945G-4H	4 CH D1 @ 120 fps MPEG4 H/W Video/Audio Codec DVR platform with SDK	DVS-5120-945G 1 x 7421BE	
DVS-5120-945G-8H	8 CH D1 @ 240 fps MPEG4 H/W Video/Audio Codec DVR platform with SDK	DVS-5120-945G 2 x 7421BE	
DVS-5120-945G-4HK	4 CH 2CIF @ 120 fps/D1 @ 60 fps H.264 H/W Video/Audio Encode DVR Platform with SDK	DVS-5120-945G 1 x 960T-DS-4004HCI	
DVS-5120-945G-8HK	8 CH 2CIF @ 240 fps/D1 @ 120 fps H.264 H/W Video/Audio Encode DVR Platform with SDK	DVS-5120-945G 1 x 960T-DS-4008HCI	
DVS-5120-945G-16HK	16 CH 2CIF @ 480 fps/D1 @ 240 fps H.264 H/W Video/Audio Encode DVR Platform with SDK	DVS-5120-945G 1 x 960T-DS-4008HCI	

DVS-640

Industrial grade 4U, Core™ 2 Duo DVR Platform with Optional Video Capture Card



Features

- 4U industrial grade DVR Platform
- Advanced cooling design for capture card and hard drive
- Performance Core™2 Duo DVR platform
- Compatibility and certification test for various video capture cards
- Dual Gigabit Ethernet delivers excellent network performance
- Visible LED indicators and audible alarm notification improves system availability and is easy to maintain with air filter
- Shock-resistant disk drive bay holds three 5.25" and one 3.5" front-accessible disk drives
- 8/16/24/32 channels video input
- H.264 , MPEG4 Hardware Compression / MPEG-4 Software Compression

Introduction

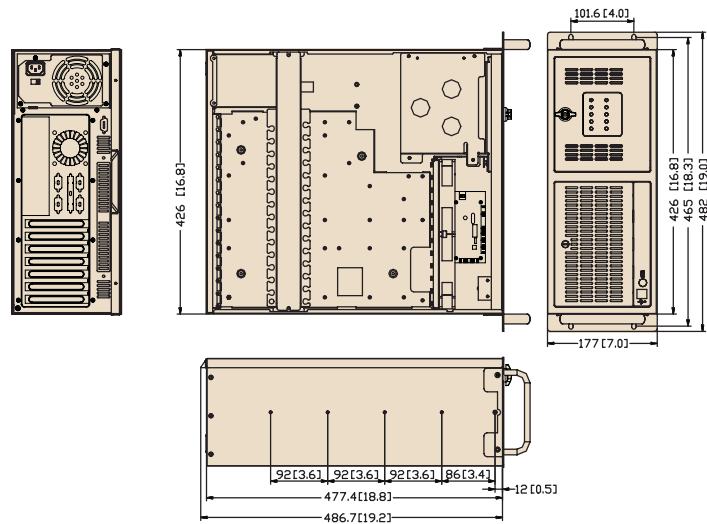
The DVS-640 is a high performance video surveillance platform with 4U industrial chassis. It includes an optimized cooling system to improve the thermal performance when installing multiple video capture cards and hard drives. Combined with industrial main boards with longevity support, the DVS-640 offers a wide range performance requirement from Celeron D to Core 2 Duo processors. Advantech's quality assurance integration tests and certifications for different video capture cards ensures best reliability for 24/7 operation.

Specifications

Computing System	Chipset	Intel® 945G + ICH7R
	Processor (configurable)	Core 2 Duo/ Pentium 4/ Celeron D Processor
	Front Side Bus	533/800/1066 MHz
	L2 Cache	4MB (Core 2 Duo), 2MB/1MB (P-4), 512KB/256KB(Celeron-D)
	Memory (configurable)	Supports up to 4GB DDR2 667 Dual Channel
Graphics	Controller	Intel® 945G Integrated
	VRAM	Chipset integrated VGA controller sharing 224 MB system memory
Expansion Slots	PCI	32-bit/33MHz, 5 slot
	PCI Express x1	1.0 GB/s per direction, 1 slot
	PCI Express x16	4.0 GB/s per direction, 1 slot
Storage	Optical Drive (configurable)	1 x 5.25" SATA DVD+/-RW
	Hard Disk Drive (configurable)	3 x SATA HDD
Drive Bays	5.25" (front -accessible)	3 (reserved for Optical Drive and HDD mobile rack)
	3.5" (front-accessible)	1 (reserved for FDD)
Ethernet	Interface	10/100/1000Base-T Gigabit Ethernet
	Controller	G-LAN1: Intel 82573, G-LAN2: Intel 82573
I/O Ports	Front I/O Ports	2 x USB, 1 x PS/2
	Rear I/O Ports	4 x USB, 2 x PS/2, 2 x COM, 1 x Parallel, 1 x VGA, 2 x RJ-45, 1 x LINE-Out, 1 x MIC-In, 1 x LINE-In
Power Supply	Power Output Wattage	400 W
	Type	Single or Redundant ATX Auto-Switching with Power Factor Correction (PFC)
Cooling	Chassis Fan	3
	Air Filter	Yes
Environment	Temperature	Operating 0 ~ 40°C (32°F ~ 104°F), Non-Operating -20 ~ 60°C (-4°F ~ 140°F)
	Humidity	Operating 10 ~ 85% @ 40°C non-condensing, Non-Operating 10 ~ 95% @ 40°C non-condensing
Physical Characteristics	Color	Black
	Dimensions (W x H x D)	482 x 177 x 480 mm (19" x 7" x 18.9")
Slide Rail	(Optional and configurable)	20" to 28"
Operating Systems	(Optional and configurable)	Microsoft® Windows® XP Professional version, Microsoft® Windows® XP Embedded (upon request)
Watchdog Timer	Output	Interrupt, system reset
	Interval	Programmable 1 ~ 255 sec

Dimensions

Unit: mm (inch)



Configure to Order Services

Please visit Advantech CTOS portal for order entry
<http://www.advantech.com.tw/CTOS>

System Content

Item	Description
Chassis	Industrial 4U DVR Chassis
Motherboard	Intel 945G ATX Main board
Power system	400W ATX
CPU cooler	LGA775 UP TO 3.8GHz

Front View



Two 85-CFM Cooling Fans



Inside View



Rear View



DVG-1100

DVG-1100W

1 Channel MPEG-4 Video Server/Encoder



Features

- Audio/Video stream up to 30 FPS at D1 resolution
- Real-time monitor via Internet Explorer without extra software
- Proactive surveillance with multi-region motion detect and DI/DO
- RS-485 half-duplex communication with other device
- Free 16-channel PC surveillance software
- Complete DVG SDK for easy develop customized application
- Support Wireless LAN access for easy installation
- Ruggedized aluminum chassis and Din-Rail / Wall-mount fixture
- Optional model for wide temperature application (-20 ~ 70° C / -4 ~ 158° F)

Introduction

The DVG-1100 is a high resolution network based video gateway / server. It converts analog video signals to a digital video stream over an IP network, including: LAN, Intranet or Internet. Traditional CCTV cameras can upgrade easily to an IP video network via DVG-1100. The RS-485 and digital IO simplifies integration with other devices like alarm, access control or other peripherals. Combining DVG-1100 with SDK/OCX and the bundled video management software creates the ideal platform for a distributed surveillance application suited to a variety of vertical markets: public utility, banking, education, healthcare, transportation, manufacturing and environmental monitoring.

Specifications

System	32-bit RISC CPU / Embedded OS, Hardware ASIC MPEG-4 Encoder
Video	Max. frame rate: NTSC 30 fps @ D1 720 x 480 Max. frame rate: PAL 25 fps @ D1 720 x 576 MPEG-4 simple profile / ISO IEC 14496 compression Supports JPEG format snapshot OSD (Text over Video) Adjustable MPEG-4 compress P/I ratio Resolution: D1 / Half-D1 / CIF / QCIF Built-in 2D de-interlacing / scaling
Audio	Internal microphone & 3.5 mm audio Line-in (mono), Audio compression / ADPCM 40 kbps
Surveillance & Alarm	Video loss detection Multi-region motion detection (15 Regions) Selectable alarm trigger action E-mail attachment with snapshot FTP upload pre/post alarm video clip(2Mbit buffer)
Software	Web UI for live audio/video monitor & Record On-Line firmware upgrade Two level user management (admin / guest) DVG_Finder utility for device IP search 16-channel surveillance software Browser: Internet Explorer 5.0 or above
Network	RJ-45 10/100 Mbps Ethernet, auto-sensed Protocols: ARP, TCP, UDP, IP, HTTP, SMTP, FTP, DHCP Client, NTP, DDNS, uPnP, PPPoE, TFTP Supports Dial-up ADSL with PPPoE Two sets free DDNS server option Two sets DNS server setting Two sets SMTP server setting Time zone setting / NTP server Adjustable transmission bit rate (CBR or VBR) Supports UPnP Protocol for easy device discovery Max. 15 user concurrent access
Wireless LAN (optional)	Standard : Mini-PCI 802.11 b/g; Output power: 13 ~ 16 dBm (20 ~ 40 mw)
I/O Interface	1 x BNC video input / video loop connector 1 x Half-duplex RS-485 port 3 x Digital isolated input (5V DC max.) 1 x Relay output (1A 240 V _{AC} / 30 V _{DC} / 2 A 125 V _{AC})
Power / LED	DC 12V/1A, Power LED (orange), Ethernet status: Link/Active (green)
PTZ Control Protocol	Pelco-P / Pelco-D
Operating Temperature	Standard 0 ~ 50° C (32 ~ 122° F); Phoenix -20 ~ 70° C (-4 ~ 158° F)
Dimensions (H x W x D)	92.3 x 11.4 x 45 mm (3.64" x 4.49" x 1.77")
Weight	600 g / 1.32 lb
Certification	CE/FCC Class B, UL
Installation	DIN-Rail Kit, Wall-mount kit

Unit: mm (inch)



PVS-1004E

4-Channel Real Time H.264 Video Server



Features

- 4 CH. Video and 4 CH. Audio inputs
- Display Speed: Real time 120/100 FPS (NTSC/PAL)
- Recording Speed: 120/100 FPS (NTSC/PAL)
- Compression: H.264 (Hardware Compression)
- Resolution: CIF
- Multi-zone Motion Detection
- RS 232, RS485, and DIO
- Supports dual-stream with CIF/QCIF

Introduction

PVS-1004E is a new video server which utilizes H.264 video compression technologies. It is the best choice IP video solution for the highest picture quality and real time video performance. PVS-1004E is an application-ready video server with PowerView NVR application software, which provides users with high expansion and integration capability and user friendly interface. PowerView NVR series are advanced and extensive digital video surveillance systems with complete functions integrated with digital recording, network monitoring, video backup, alarm notification and security control. Also, it can optionally provide Power Center Professional and Backup Center application software.

Specifications

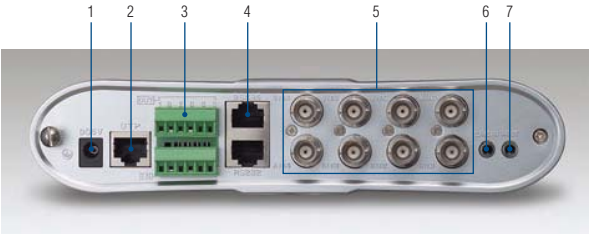
Video Inputs	4 CH
Video Input Connector	BNC (1.0 Vp-p / 75Ω)
Video Resolution	CIF/QCIF*
Compressing format	H.264 (Hardware Compressing)
Frame Rate	NTSC: 1/16 30 FPS PAL: 1/16 25 FPS
Stream Type	Video Stream or Video & Audio Stream
Bit Rate	32 Kbps ~ 2 Mbps (Self definition)
Recording Rate	120/100 FPS (NTSC/PAL)
Display Rate	120/100 FPS (NTSC/ PAL)
Audio Input	4 CH
Aideo Input Connector	BNC (2.0 Vp-p / 1KΩ)
Audio Output	1 CH (2.0 Vp-p / 1KΩ , RCA Type)
Audio Compression	OggVorbis, 16 kbps
Voice Interface	1 RCA input
LAN Port	1x RJ45 10/100 Mbps
Protocol	TCP, UDP, RTP, Multicast, DHCP, PPPoE, HTTP
Access from Web	Camera Live View, recording, change video quality, PTZ, Audio, signal Lost alarm
DI / DO	4 DI/ 2 DO
Serial Port	1x RS232 (RJ-45 to DB9), 1x RS485 (RJ-45 to DB9)
Power	DC 5V
Power Consumption	7 W
Dimensions	220 x 138 x 44 (mm)
Weight	2 Kg
Temperature	-10 ~ 55 °C, Operating
Working humidity	10%~90%
Application Solution (Optional Selection)	CMS Server Support: Power CenterNetwork Storage: Powerview-NVR

Note:*

CIF = 352*240 / 352*288 (NTSC / PAL)

QCIF = 176*120 / 176*144 (NTSC / PAL)

Hardware Interface



1. 5V DC power input interface

2. UTP network interface (the same as
ETHERNET network interface)

3. IN alarm input interface, OUT alarm
output interface

4. RS-485 serial interface, RS-232 serial
interface
5. VIN video input interface, AIN audio
input interface

6. LINE IN voice talk input interface

7. AOUT audio output interface

Ordering Information

Part Number	Description
PVS-1004E	Real Time H.264 4-CH Video Server

Option Items

Powerview-NVR	16 Channel NVR software
PVS-650E	8/12 bay Hot swappable Raid 5 NVR system

Packing List

Video Server	x 1
User manual	x 1
RS232 cable	x 1
Power Adaptor	x 1
Power Cord	x 1
Utility CD	x 1

PVS-640

Advanced Industrial 4U Rackmount DVR System



Features

- 3 year warranty
- 8/16/24/32-channel video input
- MPEG-4 S/W compression and H.264 (MPEG4-Part10) H/W compression
- Resolution: CIF / half D1 / 4CIF
- Up to 4CIF resolution in display and recording mode with half the number of channels (hardware compression)
- Embedded system design for the highest stability
- Multiple backup options: external USB HD / CD-RW / DVD-RW
- Multiple remote surveillance and control functions
- Industrial-grade system platform with high efficiency cooling fan system

Introduction

PVS-640 series is the advanced industrial-grade digital video surveillance system designed to meet the requirements of modern security markets. PVS-640 series uses MJPEG/MPEG-4 software compression technology/ H.264 hardware compression technology, and provides configurable display/recording frame rates (from 7.5 fps to 30 fps) and configurable resolutions (from CIF to D1) to meet various user requirements. The system supports up to 3 hard disk drives and external storage devices can be added for extra video data storage capacity. Embedded system design is used to prevent virus attack and provide the highest stability. Easy installation, simple operation, high scalability, advanced functions and strong remote management support make PVS-640 series the right choice for any security-critical environment.

Specifications

Model	PVS-640-16SA	PVS-640-8HP	PVS-640-16HP	PVS-640-24HP	PVS-640-32HP
Video Channels	16	8	16	24	32
Audio Channels	16	8	16	24	32
Chipset	Intel® 945G + ICH7				
CPU	Intel® Pentium® 4, 3.0 GHz, 800 MHz FSB				
RAM	DDR2 667/533 MHz 1GB (512 MB x 2) Dual Channel				
VGA	Intel® Graphics Media Accelerator 950				
Storage	1 x 3.5" 500GB SATA HDD (default), Support up to 3 SATA HDDs				
Operating System	Microsoft® Windows® XP Embedded (DOM)				
Power Supply	400W, Single ATX power supply with full range				
Temperature	0 ~ 50° C (32 ~ 122° F)				
Humidity	10 ~ 85% @ 40°C non-condensing				
Dimensions	482 (W) X 177 (H) x 480 (D) mm (19" x 7" x 18.9")				

Video Function Description

Function	Specification	Description
Monitoring	Status Display	▪ Prompt status displaying and event lists of systems login/logout, video lose, cameras status, web and remote connection, storage space, backup, sensors, and DO status..
	E-map	▪ E-map layout shows the locations of video cameras, sensors and alarm devices that allow you to control them and simultaneously link to surveillance system. Also provide the free tool for e-map edition
	Event Log display	▪ Real time displaying for event list and automatic refresh of video event list in ViewLog.
	Screen Split	▪ Full screen, 1, 4, 9, 10, 13, 16, 17, and 24 Sequencer, (Able to change time interval)
	Camera Layout	▪ Ability to assign private to each cameras' name and adjustable font displaying size and color
	Quality Adjustment	▪ Adjustable color control of Hue, Contrast, Brightness, and Saturation for preview, record and playback.
Recording	Resolutions	▪ Selectable recording resolutions (CIF, half D1, 4CIF) ▪ PAL: CIF (352 x 288), half D1 (704 x 288), 4CIF (704 x 576) / NTSC: CIF (352 x 240), half D1 (704 x 240), 4CIF (704 x 480)
	Compression Format	▪ MPEG-4 / H.264 (MPEG4-Part10)
	Recording Modes	▪ Cyclic Recording, Non-Cyclic recording, Event Triggered Recording(motion, alarm), and Scheduled Recording (provides 7 Record modes for assigning private setup)
	Recording Quality	▪ Ability to adjust recording quality
	Recording Frame	▪ Adjustable recording frames of each camera and event

Recording	Motion Detection	Allowing setting multi-zone motion detection and schedulable, Able to adjust motion detection sensitivity (100 degrees), alarm delay time and do scheduling.
	Audio recording	Support 1-32 live audio recording (depend on product line)
	Pre & Post Alarm Recording	Able to adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 100 seconds)
	Video format	Adjustable Video format(NTSC, PAL)
	Record File Length	Adjustable file length for record searching segment
Search & Playback	Playback Speed	Single frame, 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x, fast forward and rewind
	Playback Mode	Show up to 16 camera's playback image simultaneously
	Search Mode	Allows searching of images by date, time, camera, and event. Calendar and time segment for day and time search
	Smart Search	- Selectable event time, event type, and camera IDs for event search - Search archives for incidents. Smart search list
	Image Transfer	- Able to save images as BMP, JPG and AVI format. - Adjust picture brightness, contrast and font before saving and printing. - Selectable day and time for video saving or using bookmark time record list directly.
	Bookmark	Add time links into bookmark for searching.
Data Storage	Recording time	- Recording length varies depending on recording quality, resolution, mode and activity - Auto continuous recording-- oldest recorded data will automatically be overwritten when hard drive is full - Local: HDD/CD-RW/DVD-RW selectable/ External USB HDD/CD-RW/DVD-RW
	Backup	- Backup mode: Auto(schedulable) and Manual to backup video file - CD-Burning function Built-In (Needs Nero Burning ROM): able to burn on to an auto run CD/DVD - Able to option Backup Center for remote backup.
	Storage Path	- Adjust each storage path of each camera and reserve size. - Setup each storage path to automatically delete the oldest file records
Alarm Notification	Event Action Plan	- Flexible and multiple event action plan. Able to define multi action taken for event source. - Event source: motion detected, sensor triggered, video signal breaks, login failed, system abnormal and backup disk full etc. - Event action: DO output, PTZ Control, e-mail sending, SMS notify, video file record, snapshots, phone/mobiles notification, warning sound playing, video group playing and execute certain programs etc
	E-mail and Phone notification	- E-mail notification with attached recording files or snapshot images on any event source like event triggers. - E-mail and phone notification on multi event source. (with voice modem option)
	PTZ Activation	Supports setup of Alarm related with PTZ preset location.
	Sensor and DO	Adjustable Sensor and DO layout and schedulable
PowerView RX	Remote Control	- View live video via Ethernet/ Internet - Make remote event search, playback, e-map and setup. - Monitor 32 cameras from DVRs.
Network Control	IE Remote Control	- Able to view live video, event list , PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot by IE browser - Supports 1, 4, 9, 10, 13, 16, 17, and 24 screen split
	View by PDA	Able to view live video by PDA (Pocket PC 2003 or Windows Mobile 5.0 Pocket PC)
Operation	User Authority	Multi-level passwords protection and unlimited user accounts for logins and passwords.
	Authority Setting	Allowing to set authority of all user to each camera (local and remote monitor, playback, PTZ control, DO and e-map control, Network connecting user numbers and time limited, print and save function control etc.)
	Multi-Tasking	Playback, record, backup, transmit and remote control simultaneously
	PTZ Control	- Embedded PTZ control panel: pan & tilt, zoom control and preset function. - Support most popular PTZ protocol
	Dynamic IP Support	Built in web server supports dynamic IP.
	Language	English, Traditional Chinese
	Watermark	Save as picture with unchangeable digital watermark
Others	Windows lockup	Windows lockup
	Auto DVR login	Auto DVR login
	Auto reboot	Auto reboot

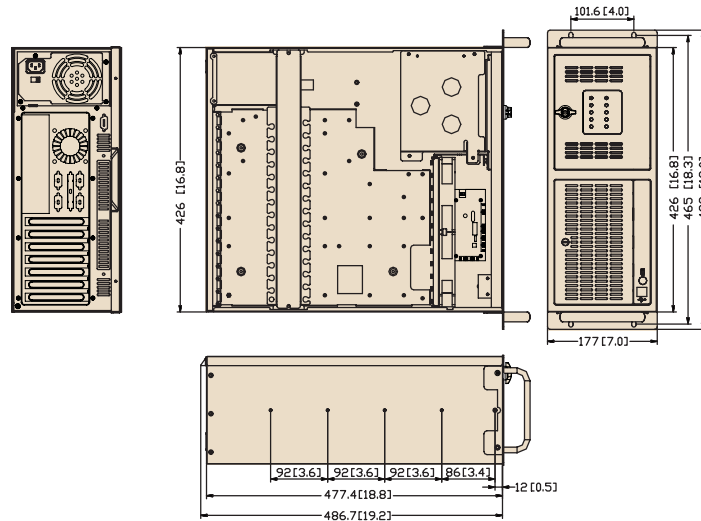
Configure to Order Services

Please visit Advantech CTOS portal for order entry and see "Video Surveillance Solutions".

<http://buy.advantech.com>

Dimensions

Unit: mm (inch)



System Content



Real Time Status Display and Notification



Quick Search by Calendar and Time segment



Intelligent eMap Function



Powerful Remote Control Functions via IE Browser

Ordering Information

Model name	Description	Configuration	Key Parts (default configuration)
PVS-640-945G-16SA	16CH CIF@480 fps or D1@120 fps MPEG4 S/W DVR Platform with Application software	PVS-640-945G 1 x PV-1000E	1 x 3.0 GB Pentium 4 2 x 512 MB DDR2 RAM 1 x 500 GB SATA HDD 1 x DVD±RW DL
PVS-640-945G-8HP	8CH 2CIF@240 fps or D1@120 fps H.264 H/W Encode DVR Platform with Application software	PVS-640-945G 1 x PV-2100E	
PVS-640-945G-16HP	16CH 2CIF@480 fps or D1@240 fps H.264 H/W Encode DVR Platform with Application software	PVS-640-945G 2 x PV-2100E	
PVS-640-945G-24HP	24CH 2CIF@720 fps or D1@360 fps H.264 H/W Encode DVR Platform with Application software	PVS-640-945G 3 x PV-2100E	
PVS-640-945G-32HP	32CH 2CIF@960 fps or D1@480 fps H.264 H/W Encode DVR Platform with Application software	PVS-500-945G 4 x PV-2100E	

Note: Based on your ordering information, you can change key parts; please refer to CTOS portal: <http://buy.advantech.com>

PVS-610E Series

Advanced Industrial 4U Rackmount DVR System

NEW



Features

- 8/16/24 -channel video input*
- MPEG-4 H.264 (MPEG4-Part10) Hardware compression
- Resolution: CIF / half D1 / 4CIF
- Up to 4CIF resolution in display and recording mode with half the number of channels (hardware compression)
- Embedded system design for the highest stability
- Multiple backup options: external USB HD / CD±RW / DVD±RW DL
- Multiple remote surveillance and control functions
- Watchdog function

Introduction

PVS-610 series is the advanced industrial-grade digital video surveillance system designed to meet the requirements of modern security markets. PVS-610 series uses MPEG-4 H.264 hardware compression technology, and provides configurable display/recording frame rates (up to 30 fps) and configurable resolutions (from CIF to 4CIF) to meet various user requirements. The system supports up to 3 hard disk drives and external storage devices can be added for extra video data storage capacity. Embedded system design is used to prevent virus attack and provide the highest stability. Easy installation, simple operation, high scalability, advanced functions and strong remote management support make PVS-610 series the right choice for any security-critical environment.

Specifications

Resolution	CIF/half D1/4CIF
CPU	Intel Pentium 4, 3.0 GHz LGA 775
RAM	1GB DDR2 533
HDD	Optional (supports up to 3 SATA HDDs)
Chipset	Intel 945G
PCI Slots	5
Backup Device	DVD±RW DL
Operating System	Windows XP embedded OS License (DOM)
Storage Space	1 x 3.5" and 3 x 5.25" IDE drive bay
Power Supply	400 W power supply
Form Factor	4U
Dimensions (W x H x D)	482 x 177 x 478 mm (19" x 7" x 18.9")
Temperature Range	0 ~ 45° C (32 ~ 113° F)

* Channel number reduced to half when recording with 4CIF resolution

IO Module Options

Part Number	Description
Adam 4520	Isolated RS232 to 422/485 Converter
Adam 4055	8 -channel Isolated Digital Input and Output Module

Ordering Information

Part Number	Video Capture Cards	Application Software Version
PVS-610E	PC-based DVR system	

Option (Capture Card)

PVS-610-SE16-A1E	PV-1000 x 1	Powerview6000
PVS-610-HB8-A1E	PV-2100 x 1	Powerview6000
PVS-610-HB16-A1E	PV-2100 x 2	Powerview6000
PVS-610-HB24-A1E	PV-2100 x 3	Powerview6000

Note: All above mentioned software versions support software compression

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System Function Description

Function	Specification	Description
Monitoring	Status Display	Prompt status displaying and event lists of systems login/logout, video lose, cameras status, web and remote connection, storage space, backup, sensors, and DO status..
	E-map	E-map layout shows the locations of video cameras, sensors and alarm devices that allow you to control them and the action will link to surveillance system simultaneously. Also provide the free tool for e-map edition
	Event Log Display	Real time displaying for event list and automatic refresh of video event list in ViewLog.
	Screen Split	Full screen, 1, 4, 9, 10,13, 16,17, 24, Sequencer, (Able to change time interval)
	Camera Layout	Ability to assign private to each cameras' name and adjustable font displaying size and color
	Quality Adjustment	Adjustable color control of Hue, Contrast, Brightness, and Saturation for preview, record and playback.
Recording	Resolutions	- Selectable recording resolutions (CIF, half D1, 4CIF) - PAL: CIF (352 x 288), half D1 (704 x 288), 4CIF (704 x 576) / NTSC: CIF (352 x 240), half D1 (704 x 240), 4CIF (704 x 480)
	Compression Format	MPEG-4 / H.264 (MPEG4-Part10)
	Recording Modes	Cyclic Recording, Non-Cyclic recording, Event Triggered Recording (motion, alarm), and Scheduled Recording (provides 7 Record modes for assigning private setup)
	Recording Quality	Ability to adjust recording quality
	Recording Frame	Adjustable recording frames of each camera and event
	Motion Detection	Allowing setting multi-zone motion detection and schedulable, Able to adjust motion detection sensitivity (100 degrees), alarm delay time and do scheduling.
	Audio recording	Support 1-16 live audio recording (depend on product line)
	Pre & Post Alarm Recording	Able to adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 100 seconds)
	Video Format	Adjustable Video format (NTSC, PAL)
	Record file length	Adjustable file length for record searching segment
	Playback Speed	Single frame, 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x,16x, fast forward and rewind
	Playback Mode	Allowing to show up to 16 (24) camera's playback image simultaneously
Search & Playback	Search Mode	- Allows searching images by date, time, camera, and event. - Calendar and time segment for day and time search. - Selectable event time, event type, and camera IDs for event search
	Smart Search	Able to search archives for incidents. Smart search list
	Image Transfer	- Able to save image as BMP, JPG and AVI format. - Adjust picture brightness, contrast and font before saving and printing. - Selectable day and time for video saving or using bookmark time record list directly.
	Bookmark	Able to add plenty time links into bookmark for searching.
	Recording Time	- Recording length varies depending on recording quality, resolution, mode and activity - Auto continuous recording: oldest recorded data will automatically be overwritten when hard drive is full
	Backup	- Local: HDD/CD-RW/DVD-RW selectable/ External USB HDD/CD-RW/DVD-RW - Backup mode: Auto (schedulable) and Manual to backup video file - CD-Burning function Built-In (Needs Nero Burning ROM): able to burn on to an auto run CD/DVD. - Able to option Backup Center for remote backup.
Data Storage	Storage Path	- Allow to adjust each storage path of each camera and reserve size. - Setup each storage path to automatically delete the oldest file records.
	Event Action Plan	- Flexible and multiple event action plan. Able to define multi actions taken for event source. - Event source: motion detected, sensor triggered, video signal breaks, login failed, system abnormal and backup disk full etc. - Event action: DO output, PTZ Control, e-mail sending, SMS notify, video file record, snapshots, phone/mobiles notification, warning sound playing, video group playing and execute certain programs etc
	E-mail and Phone notification	- E-mail notification with attached recording files or snapshot images on any event source like event triggered. - E-mail and phone notification on multi event source. (with voice modem option)
	PTZ Activation	Supports setup of Alarm related with PTZ preset location.
	Sensor and DO	Adjustable Sensor and DO layout and schedulable
PowerView RX	Remote Control	- View live video via Ethernet/ Internet - Remote event search, playback, e-map and setup. - Monitor 32 cameras from DVRs.
Network Control	IE Remote Control	- View live video, event list , PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot by IE browser - Supports 1, 4, 9, 10,13, 16,17, 24 screen split - Able to view live video by PDA (Pocket PC 2003 or Windows Mobile 5.0 Pocket PC)
	View by PDA	
Operation	User Authority	Multi-level passwords protection and unlimited user accounts for logins and passwords.
	Authority Settings	Set authorities by user and by camera (local and remote monitor, playback, PTZ control, DO and e-map control, Network connecting user numbers and time limited, print and save function control etc.)
	Multi-Tasking	Playback, record, backup , transmit and remote Control simultaneously
	PTZ Control	- Embedded PTZ control panel: pan & tilt, zoom control and preset function. - Supports most popular PTZ protocols
	Dynamic IP support	Built in web server, supports dynamic IP.
	Language	English, Traditional Chinese
	Watermark	Save as picture with unchangeable digital watermark
	Others	- Windows lockup - Auto DVR login - Auto reboot

PVS-5120

16 Channel H.264 PC Based Wall-mount DVR

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Features

- H.264 (MPEG4-Part10) hardware compression
- Supports up to 16 channel video input
- Embedded system design for the highest stability
- Real-time display and playback
- All I/O interfaces are in the front
- 3 year warranty
- Powerful remote control functions via IE browser

Introduction

PVS-5120 is an all-in-one PC based DVR with advanced functions. Wall-mount design offers the flexibility of installation in a rack or on the wall. The high shock resistance helps PVS-5120 endure against adverse circumstances. Up to 16 channel video input with PowerView surveillance kits is an ideal combination for complete high performance video surveillance solutions. The embedded OS on DOM provides better reliability and resistance against virus attack. It supports up to 16ch 480 FPS preview and playback with motion detection, PTZ control, and backup video by HDD or DVD $\pm$ RW DL. It also supports TCP/IP (DHCP/DDNS compatible) for preview and playback with full software functions via Internet/Intranet. The front access I/O interface and expansion slots make it much easier to operate, replace air filter, and maintain while it is installed in an ATM, POS, gaming and other appliances.

Specifications

Model	PVS-5120-16HP	PVS-5120-8HP
Video Channels	16	8
Audio Channels	16	8
Chipset	Intel® 945G + ICH7	
CPU	Intel® Pentium® 4, 3.0 GHz, 800 MHz FSB	
RAM	DDR2 667/533 MHz 1 GB (512 MB x 2) Dual Channel	
VGA	Intel® Graphics Media Accelerator 950	
Storage	1 x 3.5" 500 GB SATA HDD (default), Support up to 2 SATA HDDs	
Backup Device	1 x 5.25" SATA DVD $\pm$ RW DL	
Operating System	Microsoft® Windows® XP Embedded (DOM)	
Power Supply	300 W, Single ATX power supply with full range	
Acoustic	Low Noise design on 52db	
Temperature	0 ~ 40° C (32 ~ 104° F)	
Humidity	10 ~ 85% @ 40°C non-condensing	
Dimensions	320 (W) X 164 (H) x 307 (D) mm (12.6" x 6.5" x 12.1")	
Weight	8.3 kg (18.3 lb)	

Video Function Description

Function	Specification	Description
Monitoring	Status Display	Prompt status display and event lists of systems login/logout, lost frames, camera status, web and remote connection, storage space, backup, sensors, and DO status.
	E-map	E-map layout shows the locations of video cameras, sensors, and alarm devices allowing you to control them; the action simultaneously links to surveillance system. Also provides free tool for e-map edition.
	Event Log Display	Real time display for event list and automatic refresh of video event list in ViewLog.
	Screen Split	Full screen, 1, 4, 9, 10, 13, 16 Sequencer, (Able to change time interval)
	Camera Layout	Ability to assign private to each cameras' name and adjustable font displaying size and color
	Quality Adjustment	Adjustable color control of Hue, Contrast, Brightness, and Saturation for preview, record and playback.
Recording	Resolutions	- Selectable recording resolutions (CIF, half D1, 4CIF) - PAL: CIF (352 x 288), half D1 (704 x 288), 4CIF (704 x 576)/NTSC: CIF (352 x 240), half D1 (704 x 240), 4CIF (704 x 480)
	Compression Format	H.264 (MPEG4-Part10)
	Recording Modes	Cyclic Recording, Non-Cyclic recording, Event Triggered Recording (motion, alarm), and Scheduled Recording (provides 7 Record modes for assigning private setup)
	Recording Quality	Adjust recording quality
	Recording Frame	Adjustable recording frames of each camera and event
	Motion Detection	Schedule multi-zone motion detection and adjust motion detection sensitivity (100 degrees), alarm delays and DO scheduling.
	Audio recording	Supports 1-8 live audio recording (depending on product line)
	Pre & Post Alarm Recording	Able to adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 100 seconds)
	Video Format	Adjustable Video format (NTSC, PAL)
	Record file length	Adjustable file length for record searching segment
Search & Playback	Playback Speed	Single frame, 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x, fast forward and rewind
	Playback Mode	Show up to 16 camera's playback image simultaneously
	Search Mode	- Search images by date, time, camera, and event. - Calendar and time segment for day and time search. - Select event time, event type, and camera IDs for event search
	Smart Search	- Able to search archives for incidents. Smart search list - Save image in BMP, JPG and AVI format.
	Image Transfer	- Adjust picture brightness, contrast and font display before saving and printing. - Selectable day and time for video saving or bookmark time to record directly.
	Bookmark	Add time links into bookmark for searching.
Data Storage	Recording time	- Recording length varies depending on recording quality, resolution, mode and activity - Auto continuous recording-- oldest recorded data will automatically be overwritten when hard drive is full
	Backup	- Local: HDD/CD-RW/DVD-RW selectable/External USB HDD/CD-RW/DVD-RW - Backup mode: Auto (schedulable) and Manual to backup video file - CD-Burning function Built-In (Needs Nero Burning ROM): able to burn on to an auto run CD/DVD. - Able to option Backup Center for remote backup.
	Storage Path	- Adjust each storage path of each camera and reserve size. - Setup each storage path to automatically delete the oldest file records
Alarm Notification	Event Action Plan	- Flexible and multiple event action plan. Able to define multi action taken for event source. - Event source: motion detected, sensor triggered, video signal breaks, login failed, system abnormal and backup disk full etc. - Event action: DO output, PTZ Control, e-mail sending, SMS notify, video file record, snapshots, phone/mobiles notification, warning sound playing, video group playing and execute certain programs etc
	E-mail and Phone Notification	- E-mail notification with attached recording files or snapshot images on any event source like event triggered. - E-mail and phone notification on multi event source. (with voice modem option)
	PTZ activation	Supports setup of Alarm related with PTZ preset location.
	Sensor and DO	Adjustable Sensor and DO layout and schedulable
PowerView RX	Remote Control	- View live video via Ethernet/Internet - Make remote event search, playback, e-map and setup. - Monitor 32 cameras from DVRs.
Network Control	IE Remote Control	- View live video, event list, PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot by IE browser - Supports 1, 4, 9, 10, 13, 16 screen split
	View by PDA	View live video on PDA (Pocket PC 2003 or Windows Mobile 5.0 Pocket PC)

Video Function Description

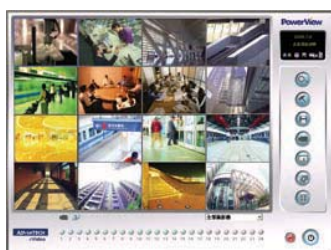
Operation	User Authority	Multi-level passwords protection and unlimited user accounts for logins and passwords.
	Authority Settings	Set authority by user and by camera (local and remote monitor, playback, PTZ control, DO and e-map control, network connection, user numbers and time limits, print and save function controls etc.)
	Multi-Tasking	Playback, record, backup , transmit and remote Control simultaneously
	PTZ Control	- Embedded PTZ control panel: Pan & Tilt, zoom control and preset function. - Supports most popular PTZ protocol
	Dynamic IP support	Built-in Web server, supports dynamic IP.
	Language	English, Traditional Chinese
	Watermark	Save as picture with unchangeable digital watermark
	Others	- Windows lockup - Auto DVR login - Auto reboot

Configure to Order Services

Please visit Advantech CTOS portal for order entry and see "Video Surveillance Solutions".

<http://buy.advantech.com>

System Content



Real Time Status Display and Notification



Quick Search by Calendar and Time segment



Intelligent eMap Function



Powerful Remote Control Functions via IE Browser

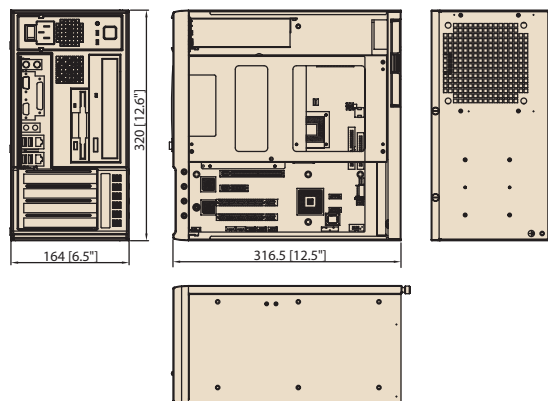
Ordering Information

Model name	Description	Configuration	Key Parts (default configuration)
PVS-5120-945G-16HP	16CH 2CIF @ 480 fps or D1 @ 240 fps H.264 H/W Encode DVR Platform with Application software	PVS-5120-945GE 2 x PV-2100E	1 x 3.0 GHz Pentium 4 2 x 512 MB DDR2 RAM 1 x 500 GB SATA HDD 1 x DVD±RW DL
PVS-5120-945G-8HP	8CH 2CIF @ 240 fps or D1 @ 120 fps H.264 H/W Encode DVR Platform with Application software	PVS-5120-945GE 1 x PV-2100E	

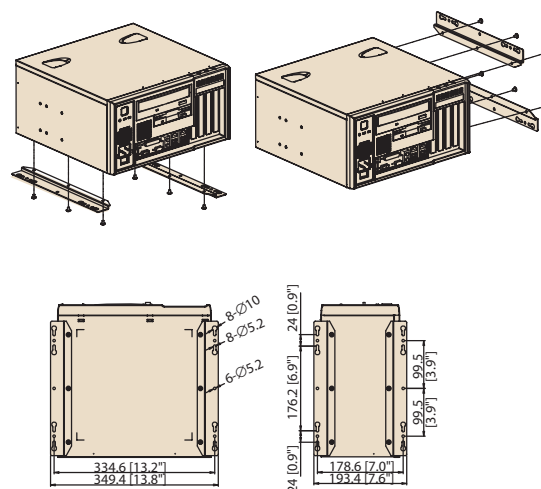
Note: Based on your ordering information, you can change key parts; please refer to CTOS portal: <http://buy.advantech.com>

Dimensions

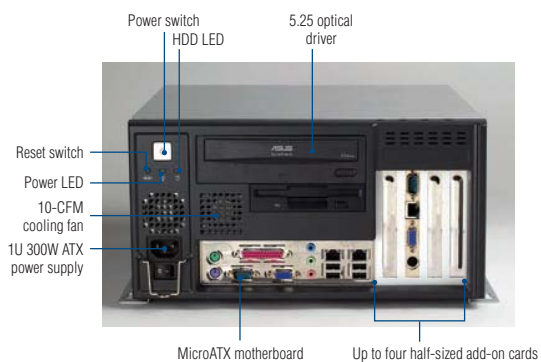
Unit: mm (inch)



Installation



Front View



The front view of PVS-5120

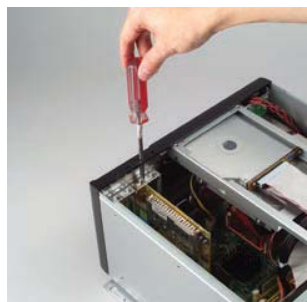
Inside View



Plug ring-lock securely fastens the power cord



Solid disk drive housing & easy-to-maintain fan filter



User-friendly mechanical design for installing an add-on card



Shock-resistant drive bay for holding an internal 3.5" HDD

PVS-500

16 Channel H.264 PC Based DVR System

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Features

- H.264 (MPEG4-Part10) Hardware compression
- Supports up to 16 channel video input
- Embedded system design for the highest stability
- Real time display and playback
- Industrial compact platform with advanced thermal design
- Real time status display and notification
- 3-year Warranty
- Powerful remote control functions via IE browser

Introduction

PVS-500 is a desktop H.264 PC based DVR with compact size and low noise design. It integrates up to 16 channel video input with PowerView surveillance kits for high performance complete video surveillance solutions. The embedded OS on DOM provide excellent reliability and protection against virus attack. It supports up to 16ch 480 FPS preview and playback with motion detection, PTZ control, and HDD video backup. It also supports TCP/IP (DHCP/DNS compatible) for preview and playback with full software functions via Internet/Intranet. Advantech's Quality Assurance, and Configure To Order Services, provide the best reliability for 24/7 operations. The compact size, advanced thermal design, low acoustic noise, and easy to operate user interface make the PVS-500 the ideal PC based surveillance solution for retail, and small and medium size enterprises.

Specifications

Model	PVS-500-16HP	PVS-500-8HP
Video Channels	16	8
Audio Channels	16	8
Chipset	Intel® 945G + ICH7	
CPU	Intel® Pentium® 4, 3.0 GHz, 800 MHz FSB	
RAM	DDR2 667/533 MHz 1GB (512 MB x 2) Dual Channel	
VGA	Intel® Graphics Media Accelerator 950	
Storage	1 x 3.5" 500 GB SATA HDD, supports up to 2 SATA HDDs	
Operating System	Microsoft® Windows® XP Embedded (DOM)	
Power Supply	220 W, Single ATX power supply with full range	
Acoustic	Ultra Low Noise design on 39.5db	
Temperature	0 ~ 40° C (32 ~ 104° F)	
Humidity	10 ~ 85% @ 40°C non-condensing	
Dimensions	370 (W) X 88 (H) x 370 (D) mm (14.6" x 3.5" x 14.6")	
Weight	8.3 kg (18.3 lb)	

Video Function Description

Function	Specification	Description
Monitoring	Status displaying	Prompt status display and event lists of systems login/logout, video lose, cameras status, web and remote connection, storage space, backup, sensors, and DO status.
	e-Map	E-map layout shows the locations of video cameras, sensors and alarm devices that allow you to control them and the action will link to surveillance system simultaneously. Also provides free tool for e-map edition
	Event log displaying	Real time display for event list and automatic refresh of video event list in ViewLog.
	Screen Split	Full screen, 1, 4, 9, 10, 13, 16 Sequencer, (Able to change time interval)
	Camera layout	Assign name and adjustable font to each camera
	Quality adjustment	Adjustable color control of Hue, Contrast, Brightness, and Saturation for preview, record and playback.
Recording	Resolutions	- Selectable recording resolutions (CIF, half D1, 4CIF) - PAL: CIF (352 x 288), half D1 (704 x 288), 4CIF (704 x 576)/NTSC: CIF (352 x 240), half D1 (704 x 240), 4CIF (704 x 480)
	Compression format	H.264 (MPEG4-Part10)
	Recording modes	Cyclic Recording, Non-Cyclic recording, Event Triggered Recording (motion, alarm), and Scheduled Recording (provides 7 Record modes for assigning private setup)
	Recording Quality	Adjustable recording quality
	Recording Frame	Adjustable recording frames of each camera and event
	Motion Detection	Allows setting multi-zone motion detection, schedulable, adjustable motion detection sensitivity (100 degrees), alarm delay time.
	Audio recording	Supports 1-8 live audio recording (depends on product line)
	Pre & Post Alarm Recording	Adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 100 seconds)
	Video format	Settable Video format (NTSC, PAL)
Search & Playback	Record file length	Adjustable file length for record searching segment
	Playback Speed	Single frame, 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x, fast forward and rewind
	Playback Mode	Can show up to 16 cameras' playback images simultaneously
	Search Mode	- Allows image searching by date, time, camera, and event. - Calendar and time segment for day and time search. - Selectable event time, event type, and camera IDs for event search
	Smart Search	Able to search archives for incidents. Smart search list
	Image Transfer	- Able to save image as BMP, JPG and AVI format. - Adjust picture brightness, contrast and font before saving and printing. - Selectable day and time for video saving or using bookmark time record list directly.
	Bookmark	Stores many bookmarks to facilitate searching.
Data Storage	Recording Time	- Recording length varies depending on recording quality, resolution, mode and activity - Auto continuous recording-- oldest recorded data will automatically be overwritten when hard drive is full
	Backup	- Local: HDD/CD-RW/DVD-RW selectable/External USB HDD/CD-RW/DVD-RW - Backup mode: Auto (schedulable) and Manual to backup video file - CD-Burning function Built-In (Needs Nero Burning ROM): able to burn on to an auto run CD/DVD. - Able to option Backup Center for remote backup.
	Storage Path	- Adjust each storage path of each camera and reserve size. - Setup each storage path to automatically delete the oldest file records
Alarm Notification	Event Action Plan	- Flexible, multiple event action plan. Able to define multiple actions taken for event source. - Event source: motion detected, sensor triggered, video signal breaks, login failed, system abnormal and backup disk full etc. - Event action: DO output, PTZ Control, e-mail sending, SMS notify, video file record, snapshots, phone/mobiles notification, warning sound playing, video group playing and execute certain programs etc
	E-mail and Phone notification	- E-mail notification with attached recording files or snapshot images on any event source like event triggered. - E-mail and phone notification on multi event source. (with voice modem option)
	PTZ Activation	Supports alarm setup with PTZ preset location.
	Sensor and DO	Adjustable Sensor, DO layout, schedulable
PowerView RX	Remote Control	- View live video via Ethernet/Internet - Remote event search, playback, e-map and setup. - Monitor 32 cameras from DVRs.
Network Control	IE Remote Control	- View live video, event list, PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot through IE browser - Supports 1, 4, 9, 10, 13, 16 screen split
	View by PDA	Live video viewable via PDA (Pocket PC 2003 or Windows Mobile 5.0 Pocket PC)

Video Function Description

Operation	User Authority	Multi-level password protection and unlimited user accounts for logins and passwords.
	Authority setting	Allows authority settings of each user to each camera (local and remote monitor, playback, PTZ control, DO and e-map control, network connecting user numbers, with time limits, print and save function, control, etc.)
	Multi-Tasking	Playback, record, backup, transmit and remote control simultaneously
	PTZ Control	- Embedded PTZ control panel: Pan & Tilt, zoom control and preset function. - Support most popular PTZ protocol
	Dynamic IP support	Built-in Web server. Supports dynamic IP.
	Language	English, Traditional Chinese
	Watermark	Save as picture with unchangeable digital watermark
	Others	- Windows lockup - Auto DVR login - Auto reboot

Configure to Order Services

Please visit Advantech CTOS portal for order entry and see "Video Surveillance Solutions".

<http://buy.advantech.com>

System Content



Real Time Status Display and Notification



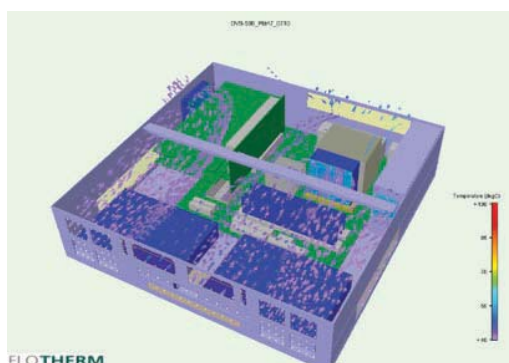
Quick Search by Calendar and Time segment



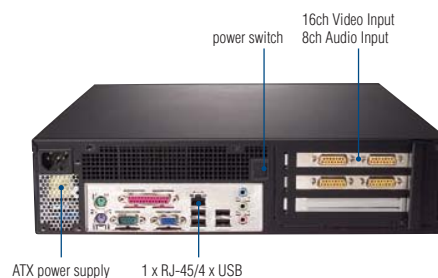
Intelligent eMap Function



Powerful Remote Control Functions via IE Browser



Airflow Simulation of PVS-500

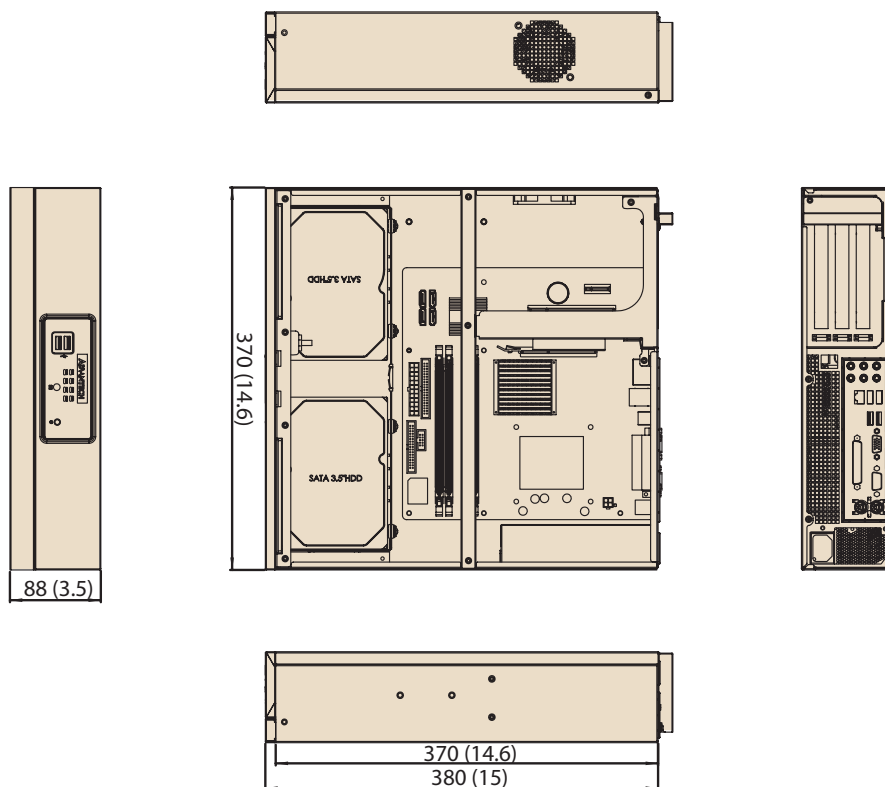


ATX power supply 1 x RJ-45/4 x USB

Rear View of PVS-500

Dimensions

Unit: mm (inch)



Ordering Information

Model name	Description	Configuration	Key Parts (default configuration)
PVS-500-945G-16HP	16 CH 2CIF @ 480 fps or D1 @ 240 fps H.264 H/W Encode DVR Platform with Application software	PVS-500-945GE 2 x PV-2100E	1 x 3.0 Ghz Pentium 4 2 x 512 DDR2 RAM 1 x 500 GB SATA HDD
PVS-500-945G-8HP	8 CH 2CIF @ 240 fps or D1 @ 120 fps H.264 H/W Encode DVR Platform with Application software	PVS-500-945GE 1 x PV-2100E	

Note: Based on your ordering information, you can change key parts; please refer to CTOS portal: <http://buy.advantech.com>



Digital Video Surveillance Integration System PowerView

Security on Demand

PowerView is a complete advanced digital surveillance system, designed to meet the requirements of modern security. High compression rates and image quality, real-time video plus audio recording, and monitoring, make it a dependable first choice for professionals needing an all-in-one state of the art solution that is ready for continuous 24 hour a day operation in large networks with centralized control. PowerView integrates with Power Center Professional, Backup Center, Video Integration System and other access control systems via a network.

Easy installation, simple operation, advanced functions and remote management makes PowerView the answer to many security needs including those in business, public, industrial, consumer, and government sectors. PowerView can be applied to:

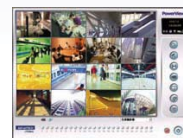
- Banks, schools, factories and office buildings
- Airports, railways and highways
- Hospitals, hotels, department stores and supermarkets

PowerView System Structure



PowerView 6000

System



Real Time Status Display and Notification

Instantly view system, video, event, alarm, network connection, and backup status.



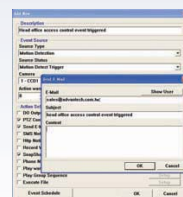
Intelligent eMap Function

Enables you to use an electronic map to easily find cameras, sensors and digital outputs, then control or read them by simply clicking on the eMap.



Flexible Recording Modes

Seven recording modes enable you to schedule recordings or trigger recordings based on camera and sensor input.



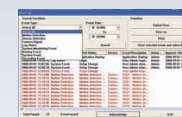
Advanced Event Action Plan

Digital outputs such as e-mail or SMS notification, PTZ control, recording, warnings or program actions can be configured for events such as motion detection, sensor triggers, signal failures, or full disks.



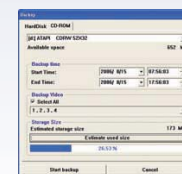
Quick Search by Calendar and Time Segment

Three playback search modes are available: search by time, search by event, and smart search.



Comprehensive Log View Function

View the event log by event categories and save or print the event list for security.



Full Backup Functions

Backup video from each camera, then burn a backup file onto an auto-run CD/DVD, or backup to other storage devices. The software will also estimate the storage size.



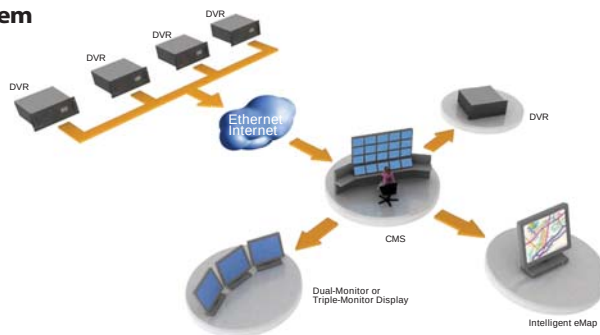
Powerful Remote Control Functions via IE Browser

Perform remote playback, recording, camera configuration, eMap and event search; and view local or remote event logs using the IE browser without special client programs. The built-in Web server supports dynamic IP addressing.



Central Monitoring System

System



Features

✦ Dual-Monitor or Triple-Monitor Display

Users can simultaneously view live video displays, eMap, and camera events.

✦ Intelligent eMap Function

Enable users to control cameras and events by locating them on the eMap.

✦ Remote Control via Internet

Administrators can access the full functions of the CMS via the Internet. Different users have different authority in order to enhance the safety of the central monitoring system.

✦ Remote PTZ Control, Playback and Set Up

Administrators can access the playback, PTZ Control, and configuration of client DVR systems.

✦ Onscreen PTZ Control

Users can operate the speed dome on-screen using the mouse, including direction and zoom-in/out.

✦ Flashing Window

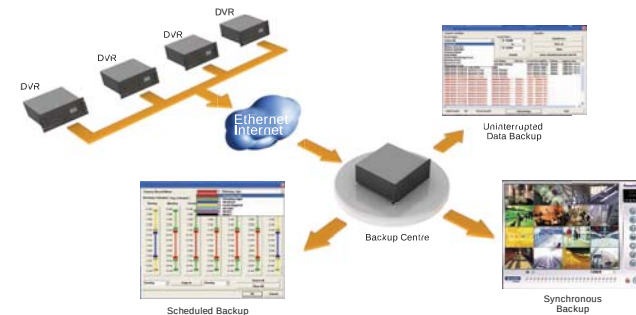
System enables a notification once an event is triggered on the client side DVR.

Specifications

Remote Monitoring & Control	Network Monitoring	◆ View live video via PSTN, ISDN, LAN, and Internet ◆ Connect 16 different recording servers and 128 cameras
	Screen Split	Sequencer with configurable time interval and 1, 4, 9, 16, 25, 36, 49, 64, and 128 camera layouts
	Remote Control	Remote PTZ control, playback and setup
	Twin-view Screen Design	One main monitor in remote control mode and another monitor in eMap mode
	Triple-view Screen Design	One main monitor in remote control mode, one monitor in eMap mode, and one screen with camera event logs
System Management	Display Screen	View and playback live images in single or multiple split screens
	Event Log	Record up to 500 remote DVR events, including event trigger, motion detection and video loss
Remote Playback	Image Transfer	Save images as BMP, JPG or AVI or PV-MPEG4 format
	Playback Speed	Single frame, 1x, 2x, 4x, 6x, 8x, 10x, fast forward and rewind
Alarm Notification	Search Mode	Search images by data, time, camera, and event
	Notify Mode	Alarm notification for over three illegal logins
Operation	Language	English, Traditional Chinese, and Simplified Chinese
	Multitasking	Remote DVR record, backup, playback and control
	Watermark	Save as picture with unchangeable watermark

Backup Center System

System



Features

Scheduled Backup Function:

Users can schedule automatic backup by exact time and date.

Synchronous Backup with Client DVR

Up to 16 DVRs can be connected and all video data will be backed-up simultaneously once the client DVR starts recording.

Uninterrupted Data Backup

All video data will be transmitted to the Backup Center continuously, if the transmission is interrupted by Internet problems, the Backup Center program will continue transmitting video data from the last incomplete file.

Fully Compatible with Powerview 6000

Backup Center is fully compatible with Powerview 6000 because this is a total solution software framework. Powerview 6000 and Powerview Backup Center are a great choice to build a total surveillance solution.

Specifications

Backup and Playback	◆ Backup video data from 16 DVR simultaneously ◆ Manual and scheduled backup ◆ Circular backup to save storage space ◆ Data archive and local playback
System Management	Event log of system login and remote DVR connection status
Security Management	User access authority management
Data Storage	Support multiple backend storage devices, such as Disk Array
Multiple Language	English, Traditional Chinese, Simple Chinese