Digital Video Solutions

Hardware Platforms

Chassis

Industrial I/O

AIMB Motherboards

Chapter 1~5

System-based Solutions

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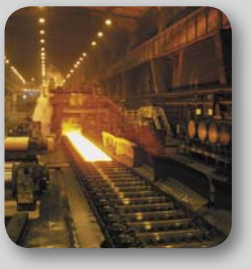
Software Development Kit

Scenaptic Video Management Software P13-13

Software Development Kit

System Integrators / Value Added Resellers



DVS-610-D

4U Digital Video Open Platform

Features

- Special design for DVR System
- Front-accessible USB connectors
- Visible LED indicators and audible alarm notification improves system availability and is easy to maintain.
- Advanced cooling system with two 85 CFM and one 25 CFM blower optimally placed, to cool system's key components
- Shock-resistant disk drive bay holds three 5.25" and one 3.5" front-accessible disk drives
- Flexible mechanical design supports 300 W ATX PFC PS/2 power supply and 300 W ATX PFC redundant power supply
- Built-in 16 channel BNC connectors on backplane (optional up to 32 channels)

Specifications

Drive Bay		Front-accessible	
	3.5"	1	
	5.25"	3	
Cooling	Fan & Blower	2 (85 CFM/each)+Blower	
	Air Filter	Yes	
I/O Interface	USB	2 (Front-accessible)	
	PS/2	PS/2 keyboard and mouse , or PS/2 keyboard, depends on the enclose motherboard	
Miscellaneous	LED indicators	System status notifivation for Power , Fan, HDD and TempPower status notification for +5 V, +12 V, -5 V, -12 V and +3.3 V	
	Switches	Power, system reset, alarm reset	
	Hold-down Clamp	Hold-down clamp with rubber pad underneath and accessory rubber cushions	
Environment		Operating	Non-operating
	Temperature	0 ~ 40 °C (32 ~ 104 °F)	-20 ~ 60 °C (-4 ~ 140 °F)
	Humidity	10 -85 % @ 40 °C, non-condensing	10 -95 % @ 40 °C, non-condensing
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 480 mm (19" x 7" x 18.9")	
	Weight	12.4 kg (27.3 lb)	

Ordering Information

Part Number	Description
DVS-610-D	DVR chassis barebone w/o M/B, power supply, capture card
DVA-211	16 channel BNC Board

DVS-610-A

Industrial H.264 Enterprise-level Digital Video System

Features

- Supports up to 32 channels video and audio
- H.264 (MJPEG-4/part 10) compliant hardware compression
- Provides up to 30 fps/channel real-time video quality in display and recording mode
- Supports up to 2 CIF display and recording resolution, 704 x 240 (NTSC)/ 704 x 288 (PAL) in each channel.
- Supports up to 4 HDD
- Built-in 16 channel BNC connectors on backplane (optional up to 32 channels)

Introduction

DVS-610-A Digital Video System (DVS) sets the standard for advanced industrial surveillance products. DVS-610 uses H.264 (MPEG-4/part 10) hardware compression technology, and provides real full D1 recording resolution at 30 fps (NTSC)/25 fps (PAL) per channel simultaneously. DVS-610 series supports up to 4 hard disk drives for video data. Also, the storage capacity can be extended through external storage devices. DVS-610 series is the solution for any real-time, high-resolution surveillance system in any security-critical environment.

Specifications

Video in		8 channels, supports up to 32 channels (4 card)
Display speed (fps) for each card		240 fps @ 2 CIF
Recording speed (fps) for each card		240 fps @ 2 CIF
Audio in		8 channels, supports up to 32 channels (4 card)
Resolution		Up to 704 x 240 (NTSC)/704 x 288 (PAL)
Compression Format		H.264 (MPEG-4/Part10) hardware compression
Host Interface		PCI v2.2
Video-in Interface	BNC	16 Video-In (standard), 32 Video-in (optional), 16 Video-in +16 Audio-in (optional), 16 Video-in + 16 Video-loop (optional)
Computing System	Chipset	Intel® 945G+ICH7R
	Processor	Support Intel® Pentium® D/Pentium® 4/Celeron® D/Celeron®
	Front Side Bus	533/800 MHz
	L2 Cache	P4: 2 MB/1 MB, Celeron D 512 KB/256 KB
	Memory	Support up to 4G Dual channel DDR2 533/667 MHz
Graphic	Embedded	Chipset integrated VGA controller sharing 128 MB system memory
	Add-on	PCI-Express x 16 slot
VGA		Onboard
Expansion Slot	PCIe x 16	4.0 GB/s per direction, 1 slot
	PCIe x 4	1.0 GB/s per direction, 1 slot
	PCI	32-bit/33 MHz, 5 slots
Drive Bay	5.25”	3
	3.5”	1
Ethernet	Interface Controller Connector	10/100/1000Base-TX, dual LAN ports
SATAII	Max. Data Transfer Rate	300 MB/s
	Channel	4 (support RAID 0, 1 or 10, TBD)
EIDE	Mode / Channel	ATA 100/66/331/(max. 2 devices)
I/O Interface	VGA	1
	USB	Max. 8 (USB 2.0 compliant), 4 ports on board
	Audio	2 (line-out and mic-in)
	Serial	2 (1 of RS-232/422/485, 1 of RS-232)
	Parallel	1 (SPP/EPP/ECP)
	FDD	1
	PS/2	2

Watchdog Timer	Output	Interrupt, System reset	
	Interval	Programmable 1~ 255 sec	
Power Requirement		300 W AC	
Cooling	Fan	2 (85 CFM each)	
	Air Filter	Yes	
	Blower	1	
Environment		Operating	Non-operating
	Temperature	0 ~ 40 °C (32 ~ 104 °F)	20 °C ~ 60 °C (-4 ~ 140 °F)
	Humidity	10 ~ 85% 40 °C,, non-condensing	10 ~ 95% 40 °C,, non-condensing
Physical Characteristics	Dimensions (W x H x D)	482 x 177 x 480 mm (19" x 7" x 18.9")	
	Weight	14.8 kg (32.6 lb)	

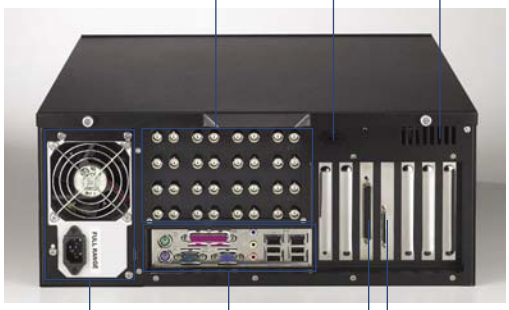
Ordering information

Part Number	Description
DVS-610-A131	DVR chassis with motherboard, 300 W power, 8 channels H.264 Compliant H/W compression capture card

Accessories

Part Number	Description
9680001264	8 channel H.264 capture card English version
2052000300	DVR Software English version
PS-300ATX-ZB	300 W power

- Up to 32 channel video-in
- Up to 16 channel video-in and 16 channels loop-through
- Up to 16 channel video-in and 16 channels audio-in



DVS-300

Embedded/Mobile Digital Video System

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
- Four Conexant Fusion 878A video capture chip on board
- X86 architecture for easy application development & integration
- Wide power source (12 ~ 24 V DC)
- 4 isolated DI and 4 relay DO
- Optional video management software

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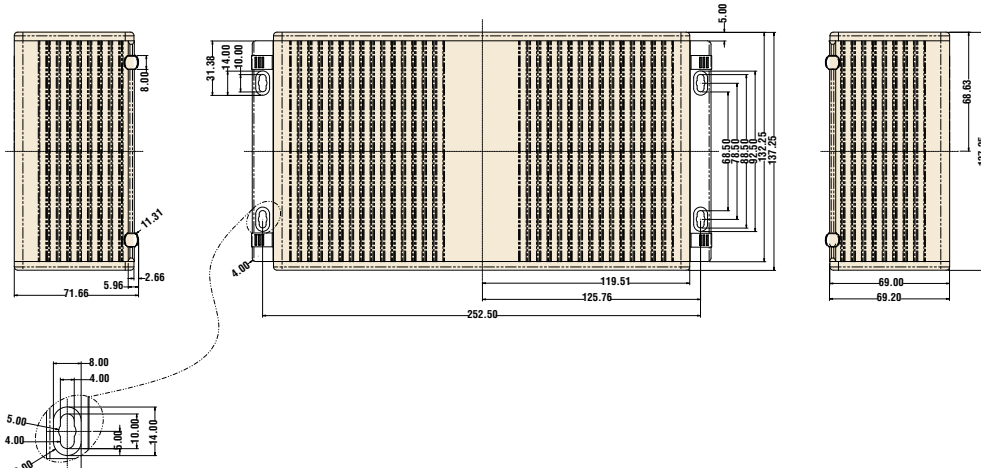
Introduction

The DVS-300 is an Embedded/Mobile digital video system and provides the digital video market a perfect solution for applications in harsh environments. The DVS-300 is the smallest industrial grade PC-based system that supports 16 camera inputs. The X86 open platform eases application software integration. It is ideally designed for installation in any mission-critical environment with its fanless, anti-vibration and anti-shock protection.

Specifications

		DVS-300-S1	DVS-300-M0	DVS-300S-M0
Video Capture	Video Standard	Composite for NTSC/PAL		
	Video Input	4 ~ 16	4 ~ 16	1 ~ 4
	Capture Resolution	CIF (320 x 240), 2CIF (640 x 240), VGA (640 x 480)		
	Total Frame Rate (NTSC/PAL)	120/100 fps	120/100 fps	30/25 fps
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness		
	Data Output Format	Multiple YCrCb, RGB, and YUV planar formats supported		
Software Develop Kit	Operation System	Supports Microsoft Windows® XP with SP2, XP embedded and Win2K with SP4,		
	DirectX Support	Version 9 or above		
	Demo Program	Complete demo program with C++ source code for reference		
Processor System	CPU	Pentium® M LV 1.1 GHz	Intel® Celeron® ULV 600 MHz	Intel Celeron ULV 600 MHz
	L2 Cache	1 MB	512 KB	No L2 cache
	Chipset	Intel 855GME GMCH ICH4 chipset	Intel 855GME GMCH ICH4 chipset	Intel 852GM GMCH ICH4 chipset
	BIOS	AWARD 4 M bit BIOS		
Memory	Technology	ECC DDR 200/266/333 modules		
	Max. Capacity	1 GB		
	Socket	200-pin SODIMM		
Graphic	Chipset	Chipset integrated VGA controller		
	Memory Size	Shared system memory up to 64MB		
	Resolution	up to 1600 x 1200 @ 85 Hz and 2048 x 536 @ 75 H		
Ethernet	Interface	10/100 Base-T		
	Controller	Intel 82551ER		
	Connector	RJ-45		
Storage	IDE-0	Drive bay space for 2.5" HDD		
	IDE-1	CompactFlash socket for type I/II		
I/O Interface	VGA	1 (D-sub 15-pin)		
	USB	3 (USB 2.0, 480Mbps)		
	Serial	COM1 – RS-232, COM2 – RS-485/RS-422		
	Audio	AC97 (line-in, line-out, mic-in)		
	LAN	1 (RJ-45)		
	PS/2	1 (keyboard and mouse with Y cable)		
	DIO	4 x Isolated DI + 4 x Relay DO		
Watchdog Timer	Output	Interrupt, system reset		
	Interval	Programmable 1 ~ 255 sec.		

Dimensions



Unit: mm

Power requirement	Management	APM 1.2, ACPI supported
	Power Consumption	Maximum 46 W
	Input Voltage	12 V DC ~ 24 V DC, Typical 12 V DC @ 4.5 A, 16 V DC @ 3.4 A, 19 V DC @ 2.9 A, 24 V DC @ 2.3 A
Environment	Temperature	-10 ~ 45 °C, Operating
	Humidity	-95% @ 40 °C (non-condensing), Operating
	Vibration Resistance	1 Grms, IEC 60068-2-64, Random, 5 ~ 500 Hz, 1 Oct/min, 1 hr/axis., Operating
	Shock Resistance	20 G, IEC 60068-2-27, half sine, 11 ms, Operating
Physical Characteristics	Construction	Aluminum housing
	Mounting	Din-Rail mounting and desk / wall mounting
	Dimensions (W x H x D)	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.4")
	Weight	2.1 kg (4.62 lb)

Ordering Information

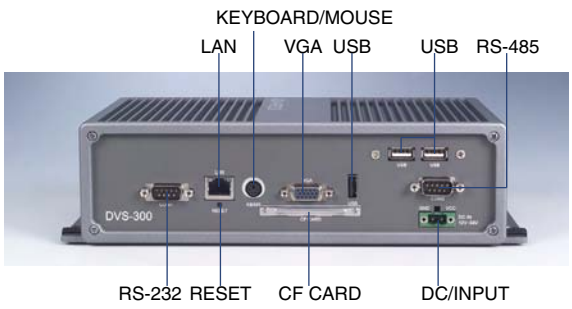
Part Number	Video Inputs	CPU	L2 Cache
DVS-300-S1	4~16 channels	Intel LV Pentium M 1.1 GHz	1 MB
DVS-300-M0	4~16 channels	Intel ULV Celeron M 600 MHz	512 KB
DVS-300S-M0*	1~4 channels	Intel ULV Celeron M 600 MHz	No L2 Cache

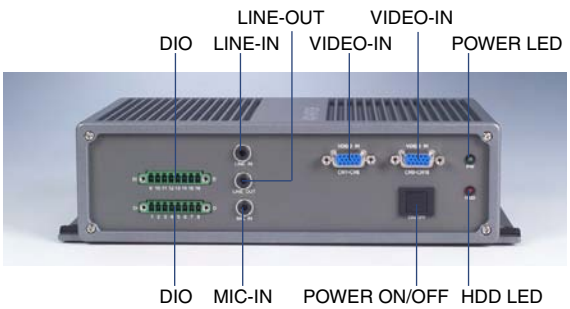
*Total Frame Rate for DVS-300S-M0 is 30 fps(NTSC)/25 fps (PAL) only
Note: HD and RAM are not included in all models

Part Number	Description
2062300304	4 channels video surveillance software
2062300308	8 channels Video surveillance software
2062300316	16 channels video surveillance software

Packing List

Part Number	Description	Quantity
1997001110 1997001120 1997001130 1997001140	DIN-rail mounting accessory	x 1
2062S30000	Utility CD	x 1
1700001394	DC Jack with 2-pin pluggable terminal block	x 1
1652000180	Pluggable terminal block for DI and DO	x 2
1700060202	Y cable of KB and PS/2 Mouse	x 1
1700001618	Video Cable (D-sub 15P to BNC)	x 2 for DVS-300-M0/S1 x 1 for DVS-300S-M0





Embedded/Mobile Digital Video Modules

Selection Guide

Product Model		DVP-2420	DVP-1412	DVP-1020
Host Interface Interface		PC-104	USB 2.0	PC/104-Plus
Video system	Video Standard	Composite for NTSC/PAL	Composite for NTSC/PAL	Composite for NTSC/PAL
	Video Input	2 (BNC connector)	1 (BNC connector)	4-16 (BNC connector)
	Capture Resolution	D1/VGA/QVGA/CIF	D1/VGA/QVGA/CIF	VGA/QVGA/CIF
	Total Frame Rate	60/50 fps at NTSC/PAL	30/25 fps at NTSC/PAL	120/100 fps at NTSC/PAL
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	Hardware adjustment of hue, contrast, saturation, and brightness	Hardware adjustment of hue, contrast, saturation, and brightness
	Video Encoding	MPEG-1/2/4 H.263	MPEG-1/2/4	-
	Video Output	2 (BNC connector), for decoding	-	-
Audio	Audio Input	2 stereo inputs	1 stereo input (phone jack)	-
	Audio Output	2 stereo outputs	PCM format data stream	-
	Audio Encoding	MPEG-L1/L2	ADPCM with default MUX support for MP4 @ Windows	-
Software Develop Kit	Operation System	Supports Microsoft Windows® XP and Win2K	Supports Microsoft Windows® XP and Win2K	Supports Microsoft Windows® XP and Win2K
	DirectX Required	Version 9 or above	Version 9 or above	Version 9 or above
	Demo Program	Complete demo program with C++ sample code for reference	Complete demo program with C++ sample code for reference	Complete demo program with C++ sample code for reference
	Max. Card	1 module only	4 modules only set by on-board DIP switch	3 modules only set by on-board DIP switch
	EEPROM	128 bytes for programming	128 bytes for programming	128 bytes for programming
	DIO	4 DI and 4 DO, TTL/CMOS 3.3V		8-bit TTL/CMOS level 3.3V DIO
	Power Consumption	Max. 3.3V at 2.3A and 5V at 0.5A, 10 watt	Max. 5V DC at 500mA from Standard USB port	Max. 5V DC input by PC/104-Plus bus, max. 800mA
Environment	Operating	-0 ~ 60 °C	-0 ~ 60 °C	-0 ~ 60 °C
	Non-operating	-20 ~ 70 °C	-20 ~ 70 °C	-20 ~ 70 °C
Reference Page		13-7	13-9	13-11

DVP-2420

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

Features

- Up to D1 resolution at 30/25 fps each channel
- Real-time simultaneously video/audio capture and MPEG-1/2/4 hardware compression
- Support 2 channel real-time video/audio preview
- PC/104-Plus Interface
- SDK supports Windows2K/XP with C++ source codes
- 4DI and 4DO

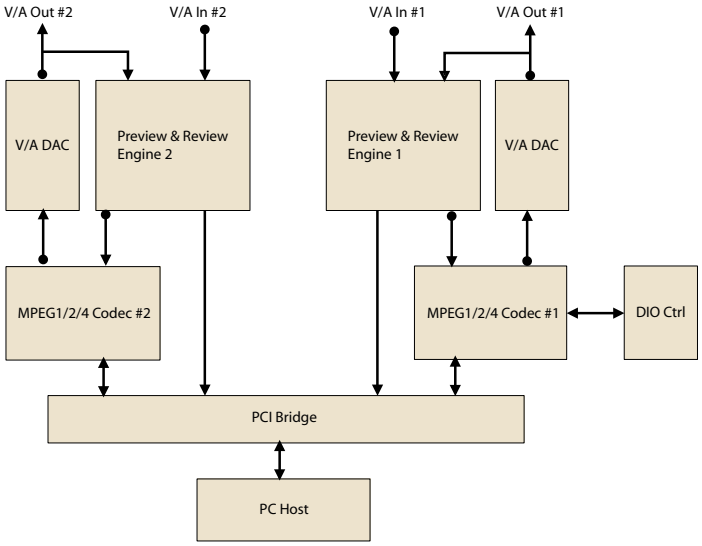
Introduction

The DVP-2420 is a PC-104 module which supports 2 channel real-time simultaneous video/audio capture and compression/de-compression. It adopts VWEB 2010 as the hardware codec engine to provide the high performance MPEG-1/2/4 video codec on D1 resolution at 30/25 fps and the MPEG L1/L2 audio codec. Combined with an additional 2 channel real-time preview and codec engine, the DVP-2420 is an ideal platform for high quality embedded video applications such as digital video surveillance, video conferencing, digital signage, set-top-box and and IP video.

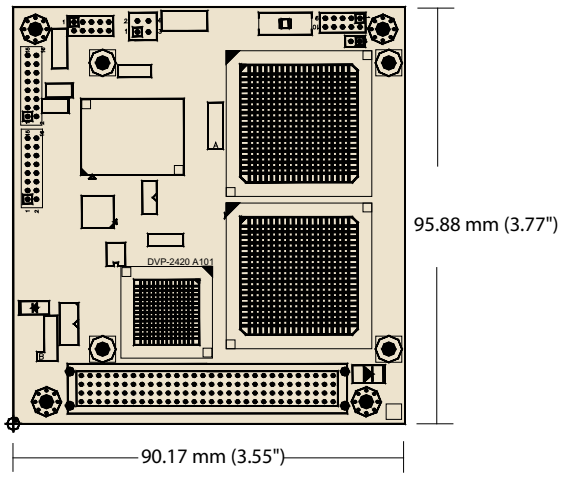
Specifications

Video system	Video Standard	Composite for NTSC/PAL	
	Video Input	2 (BNC type)	
	Capture Resolution	D1/VGA/QVGA/CIF	
	Frame Rate	30/25 fps at NTSC/PAL for each channel	
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	
	Video Encoding	MPEG-1/2/4 H.263	
	Video Output	2 (BNC type), for decoding playback	
Audio System	Audio Input	2 stereo inputs (AI_1_R, AI_1_L, AI_2_R, AI_2_L)	
	Audio Output	2 stereo outputs (AO_1_R, AO_1_L, AO_2_R, AO_2_L) to speaker	
	Audio Encoding	MPEG L1/L2	
Software Develop Kit	Operation System	Supports Microsoft Windows® XP and Win2K	
	DirectX Required	Version 9 or above	
	Demo Program	Complete demo program with C++ source code for reference	
Hardware	Host interface	PC-104	
	Max. Card	1 module only	
	DIO	4 DI and 4 DO, TTL/CMOS 3.3V	
	Power Consumption	Max. 3.3 V at 2.3 A and +5 V at 0.5 A, 10 watt	
Environment		Operating	Non-Operating
	Temperature	-10 ~ 60°C	-20 ~ 70°C
Physical Characteristics	Dimensions (W x L)	95.88 x 90.17mm (3.77" x 3.55")	

Block Diagram



Dimensions



Unit: mm (inch)

Packing list

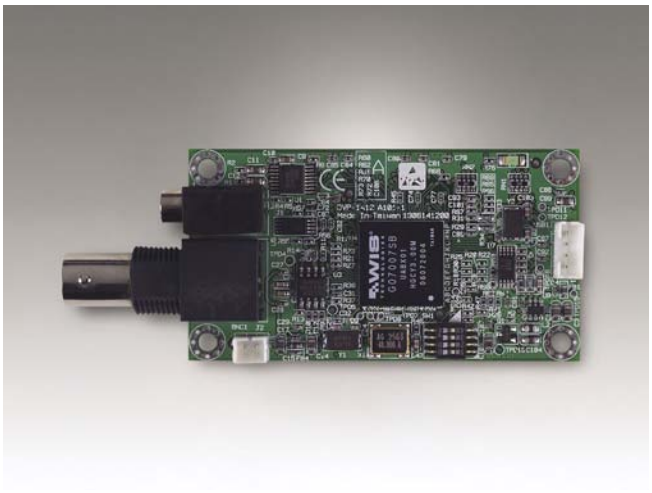
Part Number	Description	Quantity
9696P24200	DVP-2420 video codec board	x 1
2062242000	Utility CD	x 1
1700001970	16 pin housing to D-sub 15 ping flat cable	x 2
1960004872	Card Bracket for DVP-2420	x 1
1700001618	D-sub 15P to BNC cable	x 2

Ordering Information

Part Number	Description
DVP-2420	2 Channel PC-104 MPEG-1/2/4 Video Codec Module
DVA-200	DVP series DIO to isolated DI and relay DO extension kit

DVP-1412

1 Channel USB MPEG-1/2/4 Video Encoding Module



Features

- Supports NTSC/PAL MPEG-1/2/4 real-time video/audio encoding up to D1 resolution at 30/25 fps
- Hardware video encoding engine on board
- Audio data fingerprint embedded in video stream for perfect S/W synchronization
- Up to 4-modules can be installed into one PC system, set by onboard DIP switch
- High speed USB 2.0 interface
- Supports MS Windows® 2000/XP with driver and SDK

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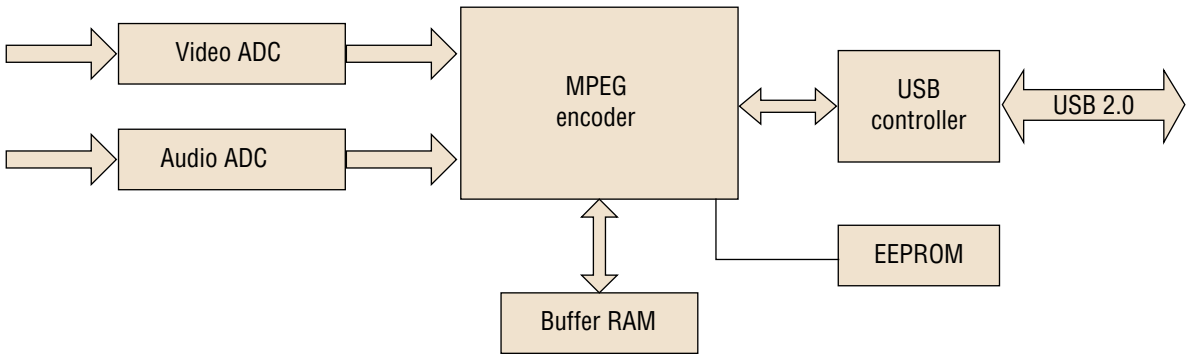
Introduction

Designed for embedded video/audio applications and simple digital video upgrade solutions, the DVP-1412 is a compact-sized, hardware MPEG-1/2/4 Video encoder module that can be easily integrated into many different types of equipment such as Panel PCs, ATM machines, and embedded PCs etc. The DVP-1412 is capable of delivering streaming video up to full D1 resolution at a full-motion frame rate. By using a standard high-speed USB 2.0 interface, the DVP-1412 easily integrates with most Single Board Computers or PC-based systems. Using the 128-byte EEPROM, programmers can write protection code or set system parameters via the SDK. DVP-1412 delivers standard composite video and audio input through BNC connectors and comes complete with SDK and driver for MS Windows 2000 or XP OS environments, making DVP-1412 very easy for system integrators to develop applications. DVP-1412 is an ideal compact embedded digital video and audio solution for multiple applications.

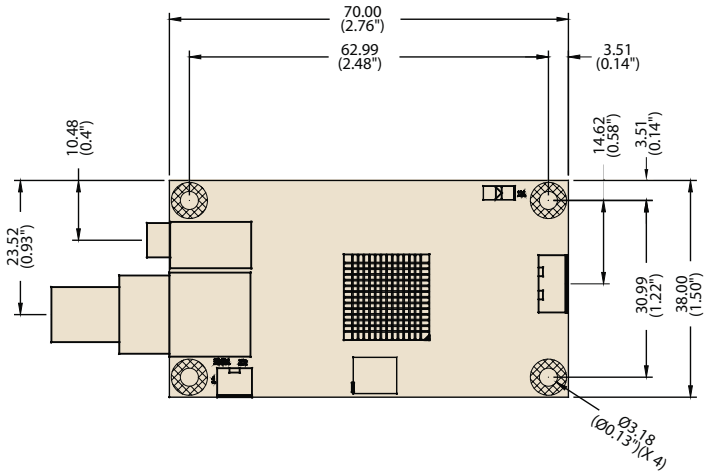
Specifications

Video system	Video Standard	Composite for NTSC/PAL	
	Video Input	1 (BNC connector)	
	Capture Resolution	D1/VGA/QVGA/CIF	
	Frame Rate	30/25 fps at NTSC/PAL	
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	
	Video Encoding	MPEG-1/2/4	
	Video encoding format	MPEG-1/2 and MPEG-4 Simple Profile	
Audio System	Audio Input	1 stereo input (phone jack)	
	Audio encode format	ADPCM with default mux supported at windows	
Software Develop Kit	Operation System	Supports Microsoft Windows® XP and Win2K	
	DirectX Required	Version 9 or above	
	Demo Program	Complete demo program with C++ sample code for reference	
Hardware	Host interface	USB 2.0	
	Max. Card	4 modules only set by on-board DIP switch	
	EEPROM	128 bytes, includes SDK for programming	
	Power Consumption	Max. 5.0 V DC at 500 mA from Standard USB port	
Environment		Operating	Non-operating
	Temperature	-0 ~ 60°C	-20 ~ 70°C
Physical Characteristics	Dimensions (W x L)	70 x 38 mm (2.75" x 1.49")	

Block Diagram



Dimensions



Unit: mm (inch)

Packing List

Part Number	Description	Quantity
1700000292	USB 30 cm wire pitch 2.0 mm	x 1
2062141200	Utility CD	x 1
9696141200	DVP-1412 MPEG-1/2/4 video encoding module	x 1

Ordering Information

Part Number	Description
DVP-1412	1 channel USB MPEG-1/2/4 video encoding module

DVP-1020

4 ~ 16 Channel PC/104-Plus Video Capture Module

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Features

- 4 channel composite input, captures up to D1 resolution at 30/25 fps frame rate
- 4 Conexant fusion 878A video capture chips on board
- Built-in 128-byte user programmable EEPROM
- Up to 3 modules installed in one PC, set by onboard DIP switch
- 8-bit TTL/CMOS level Digital I/O
- Watchdog timer
- Programmable software protection key

Introduction

DVP-1020 is a 4 ~ 16 channel video input PC/104-Plus video capture module that supports up to D1 resolution with 120/100 total frame rate. DVP-1020 allows installation of up to 3 modules in one PC system by utilizing an onboard DIP switch setting that identifies card ID by LED indicators. DVP-1020 supports NTSC/PAL signals and digitalizes data to PC through PC/104-Plus interface. DVP-1020 also has a built-in watchdog timer to reset the system and prevent crashes when an unknown error occurs. DVP-1020 is also designed with a programmable software protection key for anonymous user software copy protection.

Specifications

Video system	Video Standard	Composite for NTSC/PAL	
	Video Input	16 (BNC connector)	
	Capture Resolution	D1/VGA/QVGA/CIF	
	Selectable pixel density	8, 16, 24, and 32 bits per pixel	
	Total Frame Rate	120/100 fps at NTSC/PAL	
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness	
	Video Output format	Multiple YCrCb, RGB and YUV planar formats supported	
Software Develop Kit	Operation System	Supports Microsoft Windows® XP and Win2K	
	DirectX Required	Version 9 or above	
	Demo Program	Complete demo program with C++ sample code for reference	
Hardware	Host interface	PC/104-Plus	
	Max. Card	3 modules only set by on-board DIP switch	
	EEPROM	128 bytes for programming	
	GPIO	8-bit TTL/CMOS level 3.3 V DIO	
	Power Consumption	+5 V DC input by PC/104-Plus bus, max. 800 mA	
Environment		Operating	Non-operating
	Temperature	-0 ~ 60 °C	-20 ~ 70 °C
	Dimensions (W x L)	90.17 x 96.01 mm (3.55" x 3.78")	

Advantech Scenaptic - Intelligent Video Management Software

Security on Demand

Professional Digital Surveillance Integration Solution

Complete full functions integrated with digital recording, network monitoring, video backup, alarm notification and security control.

Scenaptic is a complete advanced real-time video surveillance system , designed to meet the requirements of modern security. High compression rates and image quality, real-time video plus audio recording and monitoring makes it a dependable first choice for professionals needing an all-in-one state of the art solution that is ready for continuous 24 hours a day operation and prepared for integration into large networks with centralized control.

Furthermore, easy installation, simple operation, advanced functions and remote management makes Scenaptic the answer to many security needs in any industry, including banks, government agencies, airports, railways, highways, factories, hospitals, hotels, department stores, supermarkets, hospitals, schools and office buildings.

Features

- **High Expandability and Integration**

  Scenaptic is flexible, you can easily expand this series up to 24 channels to cut down on hardware costs. Furthermore, you can integrate the DVR with security, fire, and ATM systems etc.

- **User Friendly Interface**

  Designed with simplicity in mind, the clear layout of the user-friendly interface gives you total control of all features.

- **Smart Search and Simple Playback**

  You can search video by date, time, and event, or filter by type of recording. You can play back one camera at a time or multiple cameras. A smart search function enables you to search archives for incidents.

- **Stabilization through Watchdog Function**

  The system will automatically reset if it hangs or becomes unstable.

- **Scheduled or Manual Backup**

  Scheduled or manual backup of certain cameras at particular times is possible. The recorded file can be saved in various image formats (including AVI and MPEG-4), and burnt onto an auto-run CD-ROM.

- **Alarm Notification and Easy Security System Integration**

  The recording time frame can be adjusted and a notification can be sent before or after this time frame. Notifications can be sent to a phone (voice), an e-mail address, or an IP address. All functions are easily integrated with alarm and detection systems for seamless security.

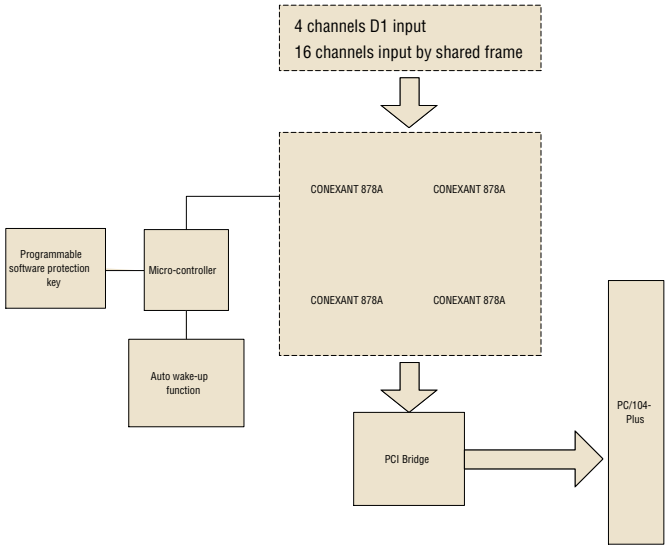
- **Complete Remote Monitoring and Control (optional)**

  Scenaptic has live video views with PTZ control, remote recording, playback, configuration, e-map, and remote snapshot functions using the IE browser. Up to 64 cameras can be monitored with Scenaptic Professional combined with e-map on a twin view screen. Scenaptic also supports PDA remote viewing.

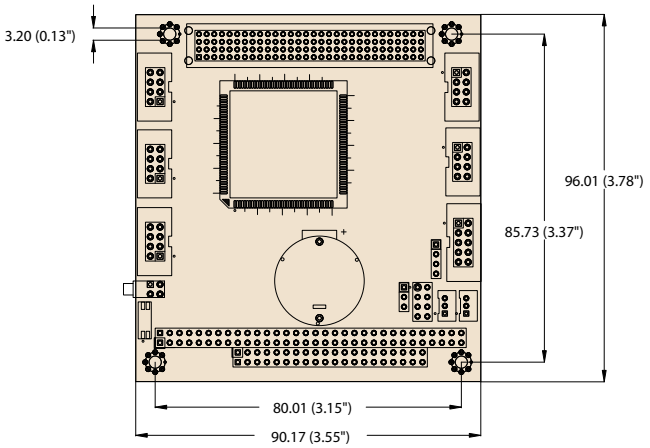
Specifications

Recording	Compression format	MJPG, MPEG series and high Quality H.264 compression
Play back	Resolutions	Selectable recording resolutions
	Recording modes	Circular Recording Event Triggered Recording, Scheduled Recording
	Recording Quality	Allowing to adjust recording quality
	Recording Frame	Allowing to adjust the recording frames of each camera and event
	Motion Detection	Allowing to set unlimited detection area and schedulable, able to adjust motion detection sensitivity (100 degrees) and alarm delay time
	Audio Monitor	Supports 1-16 ports (depends on product line)
	Playback Speed	Single frame, 1x, 2x, 4x, 6x, 8x, 10x, fast forward and rewind
Data Storage	Playback mode	Allowing to show up to 16 (24) camera's playback image simultaneously
	Search Mode	Allowing to search images by data, time, camera, and event
	Smart Search	Able to search archives for incidents
	Image Transfer	Able to save image as BMP, JPG, AVI and MPEG4 format
Alarm	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/DAT/CD-RW/DVD-RW selectable/external USB HDD Backup mode: Auto and Manual to backup video file Supports CD-Burning function : CD-Burning function Built-In
	Pre & Post Alarm Recording	Able to adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 300 seconds)
Network Monitor - Scenaptic Center (optional)	Alarm Notification	Able to e-mail event list and event images to e-mail receiver Phone, Mobile phone notification Alarm notification when illegal login over three times
	Remote control, remote playback, and remote backup (optional)	Able to view live video via Ethernet/Internet Able to make remote playback and setup Live and playback viewing Able to connect 16 different recording servers (IP) through the remote surveillance software (Scenaptic Center). Through Scenaptic Center-Professional remote surveillance software, allow to connect 64 local camera's image
Operation	View by IE browser	Able to view live video , PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot by IE browser Support 1, 4, 9, 16 screen split
	View by PDA	Able to view live video by PDA (Pocket PC 2003)
	Multiple Task	Playback, record, backup, transmit and remote control simultaneously
	PTZ Control	Pan, Tilt, Zoom (PTZ) display
	Display screen	1024 x 768 Pixel
	Screen Split	1, 4, 9, 10,13, 16,17,(25), Sequencer (Change time interval and camera layout; picture in picture - PIP, to view playback and live feeds in single or multiple split screens)
	Event Log	Able to record event in the log file (system login and logout, motion detection and video loss)
	User Authority	Allowing to set authority of all user to each camera (local monitor, local playback, PTZ control, remote surveillance, and remote playback)
	Screen Split	1, 4, 9, 10,13, 16,17,(25), Sequencer (Changes time interval and camera layout; the ability to view playback and live feeds in single or multiple split screens)
	Language	English, Traditional Chinese, Simplified Chinese, French, Spanish, Italian, Japanese, German, Russia
	Watermark	Save as picture with unchangeable water mark

Block Diagram



Dimensions



Unit: mm (inch)

Packing List

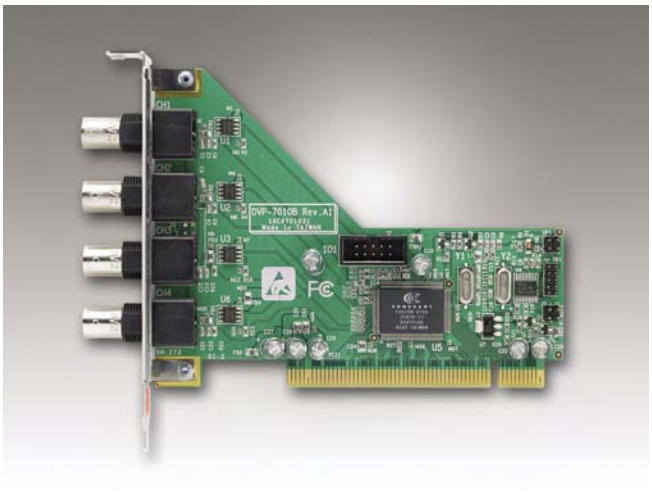
Part Number	Description	Quantity
9696P10200	DVP-1020 PC/104-Plus video capture module	x 1
2062102000	Utility CD	x 1
1700000575	Standby power wire	x 1
1703020303	Connection wire for WDT	x 1
1703020303	Connection wire for power switch	x 1
1700000860	Wire for video input	x 4
9696NC2000	BNC board	x 4

Ordering Information

Part Number	Description
DVP-1020	4 ~16 Channel PC/104-Plus Video Capture Module

DVP-7010B

4 Channel PCI-Bus Surveillance Software-ready Kit



Features

- 4 channel composite inputs that can share a total frame rate of 30/25 fps, up to VGA resolution
- Complete remote control and monitoring
- Smart search and simple playback
- Stabilization through watchdog function
- Various backup functions
- Alarm notification and auto security

Introduction

The DVP-7010B is an application-ready digital video surveillance card with Scenaptic DVR application software, which provides user high expansion and integration capability with user friendly interface. It has live video views with PTZ control, remote recording, playback and settings functions, an e-map function and remote snapshot feature using the IE browser. You can search video by date, time and event or filter by type of recording. You can playback on one camera at a time or multiple cameras. A smart search function enables you to search archives for incidents. With watchdog function, the system will automatically reset if it hangs or becomes unstable, it also provides various backup functions and auto alarm notification.

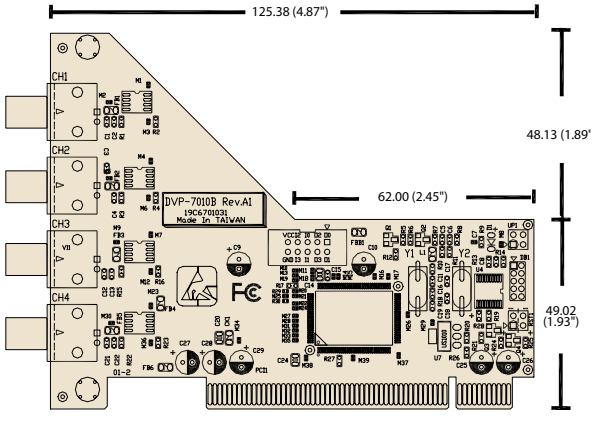
Specifications

Video system	Video Standard	Composite for NTSC/PAL
	Video Input	4 channels
	Capture Resolution	Up to VGA resolution - 640 x 480 (NTSC)/640 x 576 (PAL)
	Total Frame Rate	30/25 fps (NTSC/PAL)
	Image Processing	Hardware adjustment of hue, contrast, saturation, and brightness
	Data Output Format	Multiple YCrCb, RGB, and YUV planar formats supported
Hardware	Host Interface	PCI v2.2
	Dimensions (W x L)	125.4 x 97.2 mm (4.93" x 3.82")
	Temperature	-10 ~ 60 °C, Operating
	Max Installation	4 cards in a computer system

Ordering Information

Part Number	Description
DVP-7010B	4 Channel PCI-Bus Surveillance Software-ready Kit
PowerCenter	Remote Control and Central Monitoring System

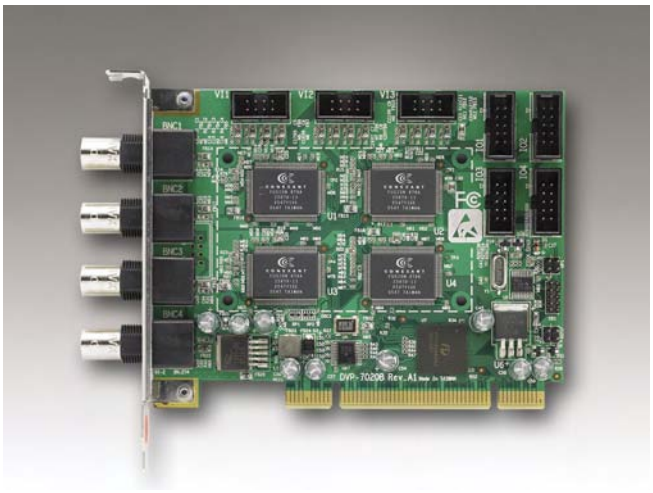
Dimensions



Unit: mm (inch)

DVP-7020B

16 Channel PCI-Bus Surveillance Software-ready Kit



Features

- 16 channel composite inputs that can share a total frame rate of 120/100 fps, up to VGA resolution
- Complete remote control and monitoring
- Smart search and simple playback
- Stabilization through watchdog function
- Various backup functions
- Alarm notification and auto security

Introduction

The DVP-7020B is an application-ready digital video surveillance card with Scenaptic DVR application software, which provides user high expansion and integration capability with user friendly interface. It has live video views with PTZ control, remote recording, playback and settings functions, an e-map function and remote snapshot feature using the IE browser. You can search video by date, time and event or filter by type of recording. You can playback one camera at a time or multiple cameras. A smart search function enables you to search archives for incidents. With the watchdog function, the system will automatically reset if it hangs or becomes unstable, it also provides various backup functions and auto alarm notification.

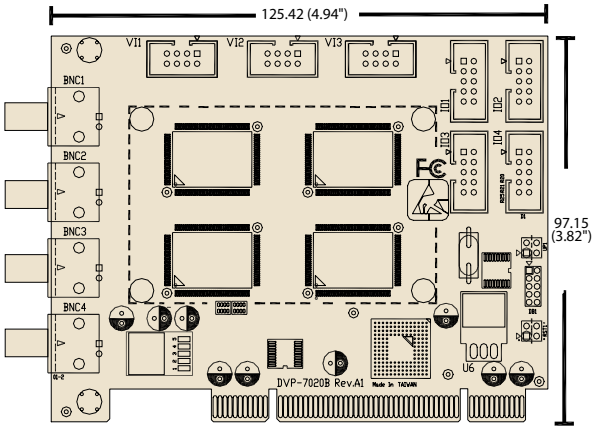
Specifications

Video system	Video Standard	Composite for NTSC/PAL
	Video Input	16 channels
	Capture Resolution	Up to VGA resolution - 640 x 480 (NTSC)/640 x 576(PAL)
	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
Hardware	Host Interface	PCI v2.2
	Dimensions (W x L)	125.3 x 89.8mm (4.93" x 3.53")
	Temperature	-10 ~ 60 °C, Operating

Ordering Information

Part Number	Description
DVP-7020B	16 Channel PCI-Bus Surveillance Software-ready Kit
PowerCenter	Remote Control and Central Monitoring System

Dimensions



Unit: mm (inch)

Stand-alone Digital Video Recorder

DVR-520

DVR-530

Selection Guide

Model Names		DVR-520	DVR-530
		Stand-alone Digital Video Recorder	Stand-alone Digital Video Recorder
Video	Input Format	NTSC/PAL	NTSC/PAL
	Input Channel	4 channel Composite	16 BNC
	Output Channel	2 channel Composite & 1 Ch S-Video	2 BNC and 1 S-video, 4 Quad Video Looping
	Loop-Through	4 channel composite	4 channel composite
Audio	Input	1 channel RCA	1 channel RCA
	Output	1 channel RCA	1 channel RCA
Remote Control Interface		PC Client through Lan or Internet	PC Client through Lan or Internet
Built-in Buzzer		Video Lost, HDD Failure	Video Lost, HDD Failure
Display Frame	NTSC	120 fps	120 fps
	PAL	100 fps	100 fps
Recording Frame Rate (quad mode)	NTSC	Max. 30 fps (quad)	Max. 30 fps (quad)
	PAL	Max. 25 fps (quad)	Max. 25 fps (quad)
Recording Frame Rate (each mode)	NTSC	Max. 7.5 fps	Max. 7.5 fps
	PAL	Max. 6.25 fps	Max. 6.25 fps
Recording Mode		Continuous, manual, event programmed	Continuous, manual, event programmed
Resolution	Display	NTSC: 720 x 480	NTSC: 720 x 480
		PAL: 720 x 576	PAL: 720 x 576
	Recording	NTSC: 640 x 224	NTSC: 640 x 224
		PAL: 640 x 272	PAL: 640 x 272
Compression Format	Modified MJPEG (12 ~ 20 KBs/frame)	Low: 12 KB/frame	Low: 12 KB/frame
		Normal:15 KB/frame	Normal: 15 KB/frame
		High:20 KB/frame	High: 20 KB /frame
Drive Bay		One removable HDD bay	1 master, 1 slave, each with capacity up to 250 G
Search Mode		Time, date, camera	Time, date, camera
Network Protocol		TCP/IP	TCP/IP
Ethernet		RJ-45 10 M/100 M	RJ-45 10 M/100 M
Watchdog Function		Auto-recovery capability after power outage	Auto-recovery capability after power outage
Power Requirement	AC Input	100 - 240 V 1.8A, 50 - 60 Hz	12 V/4.1A, 50 W 2.5Φ DC Jack
	DC Output	12 V, 4.2 A	
Dimension (W x H x D)	(mm)	352 x 70 x 300	352 x 70 x 300
	(inch)	13.9 x 2.76 x 11.8	13.9 x 2.76 x 11.8
Weight	(kg)	3.2	4.5
	(lb)	7.04	9.9
Reference Page		13-18	13-19

DVR-520

4 Channel Smart DVR Series with Removable HDD Bay

Features

- Concurrent 4 channel real-time digital video recorder
- Smart digital surveillance system with high quality live display
- Hardware video codec engine on board
- Easy Plug & Play installation
- User friendly function control from push button of front panel
- Remote surveillance management by networking
- One removable HDD bay
- Option for IDE HDD

Specifications

Video Input		NTSC/PAL 4 Channel Composite	
Video Output Channel		2 channel composite & 1 channel S-Video	
Video Loop-Though		4 channel composite	
Audio Input / Output		1 channel RCA / 1 x RCA	
Remote Control Interface		PC Client through LAN or Internet	
Built-in Buzzer		Video Lost, H.D.D Failure	
Display Frame	NTSC	120 fps	4 x 30 fps
	PAL	100 fps	4 x 25 fps
Recording Frame Rate	NTSC	Max. 30 fps (quad), Max. 7.5 fps (each)	
	PAL	Max. 25 fps (quad), Max. 6.25 fps (each)	
Recording Mode		Continuous, manual, event programmed	
Resolution	Display	NTSC: 720 x 480 PAL: 720 x 576	
	Recording	NTSC: 640 x 224 PAL: 640 x 272	
Compression Format	Modified MJPEG (12-20Kb/frame)	Low: 12 KB/frame Normal: 15KB/frame; High: 20KB/frame	
Drive Bay		One removable HDD bay	
Search Mode		Time, date, camera	
Ethernet		RJ-45 10M/100M	
Watchdog Function		Auto-recovery capability after power outage	
Software Main Feature Setup		Camera select, Record select, Record mode, Record frame, Video Quality, Record schedule, H.D.D drive setup, Sensor setup, Networking setup, others setup	
Power Requirement		AC Input: 100-240 V ~ 1.8 A , 50-60 Hz	
		DC Output : 12 V, 4.2 A	
Environment		Operating	Non-Operating
	Temperature	5 °C ~ 45 °C	-10 °C ~ 60 °C
Physical Characteristics	Dimension (W x H x D)	352 x 70 x 300 mm (13.8" x 2.7" x 11.8")	
	Weight	3.2 kg (7.04lb)	

Ordering Information

Part Number	Description
DVR-520	4 channel smart DVR series with removable HDD bay

DVR-530

16 Channel Stand-alone Network & USB DVR

Features

- High quality real time monitoring in D1 resolution
- Up to 16 channel Mux mode recording with frame rate up to 30fps
- Auto detecting video signal loss and HDD failure
- Built-in 4 channel motion detection
- Easy Plug & Play installation
- User friendly function control from push button of front panel
- Remote surveillance management by networking
- Retrieve and backup digital video via USB link to PC

CE FCC

Specifications

Video Input		NTSC/PAL 16BNC	
Video Output Channel		2 BNC and 1 S-video, 4 Quad Video Looping	
Audio Input / Output		1 Channel RCA / 1 Channel RCA	
Remote Control Interface		PC Client through Lan or Internet	
Built-in Buzzer		Video Lost , H.D.D Failure	
Display Frame	NTSC	120 fps	4 x 30 fps
	PAL	100 fps	4 x 25 fps
Recording Frame Rate	NTSC	Max. 30 fps(quad), Max. 7.5 fps (each)	
	PAL	Max. 25 fps(quad), Max. 6.25 fps (each)	
Recording Mode		Continuous, manual, event programmed	
Resolution	Display	NTSC: 720 x 480 PAL: 720 x 576	
	Recording	NTSC: 640 x 224 PAL: 640 x 272	
Compression Format	Modified MJPEG (12-20 Kb/frame)	Low: 12 KB/frame Normal: 15 KB/frame High: 20 KB/frame	
Drive Bay		1 master, 1 slave, each with capacity up to 250 G	
Search Mode		Time, date, camera	
Ethernet		RJ-45 10M/100M	
Watch-dog Function		Auto-recovery capability after power outage	
Software Main Feature Setup		Camera select, Record select, Record mode, Record frame, Video Quality, Record schedule, H.D.D drive setup, Sensor setup, Networking setup, others setup	
Power Requirement		12 V/4.1 A, 50 W 2.5 DC Jack	
Physical Characteristics	Dimension (W x H x D)	352 x 70 x 300 mm (13.8" x 2.7" x 11.8")	
	Weight	4.5 kg (9 lb)	

Ordering Information

Part Number	Description
DVR-530	16 channel Stand-alone Network & USB DVR