

## Next Generation PC Based Enterprise Hybrid RAID5 DVR/NVR

- Real-time display & record
- Up to 32 channels of audio & video
- RAID5 redundant storage
- Supports up to 16 hard drives
- Resolution: 4CIF, DCIF, CIF
- IP camera support (up to 32)



### Physical description

- Max 32 video in (NTSC/PAL)
- Max 32 audio in (linear in)
- IP camera support (up to 32)
- (1) line in (for voice talk)
- (2) 10/100/1000 ethernet
- (16) HDD max 2 TB each (32 TB total) RAID5
- (8) or (16) alarm in (optional internal/external)
- (8) alarm out (optional internal/external)
- (1) RS-485 port for keyboard, 1 RS-485 port for PTZ control
- (1) RS-232 port
- (6) USB ports
- (4) DVI
- Triple redundant power supply
- 3U 19" case (optional larger case for systems above 32 channels)

### Function:

Aventura's PC-based digital video recorders adopt a high performance Windows real-time, fault tolerant and redundant operating system with hyperthreading dual redundant CPU, to perfectly implement all the functions needed to build a surveillance system.

### Compression Function:

- Support maximum 32 channels video in. Each channel can be compressed independently in 30FPS (NTSC) / 25FPS (PAL) using H.264/SVC algorithm. Both variable bit-rate and variable frame rate are supported
- Support max 32 channels audio in. Each channel can be compressed independently, using OggVorbis audio standard
- The output video and audio streams are integrated to generate the synchronized H.264/SVC stream. Video and audio coincide with each other from beginning to end when the stream is played back
- Supports following resolution:  
NTSC: 4CIF (704x480), DCIF(528x320), CIF(352x240)  
PAL: 4CIF (704x576), DCIF(528x384), CIF(352x288)
- Supports multi-zone motion detection

### **Network Functions:**

- Supports TCP/IP (ARP, RARP, IP, ODP, TCP, PPP, PPPoE, DHCP, SNMP, etc)
- Supports broadband transmission (ADSL, etc)
- Supports narrow-band transmission (PSTN, etc)
- Remote viewing of one or more channels
- DVR's parameters can be set through the network
- Supports remote control of PTZ
- Streams can be recorded in a remote host PC
- Files in DVR can be downloaded to or remotely played in a remote host PC
- Supports DVR remote upgrading
- PC hosts can gain direct control of DVR's RS-232 or RS-485 port
- Supports voice talk between host in surveillance center (back end) and Net DVR (front end)
- Supports embedded web server. Browser can be used to access Net DVR

### **Storage Functions:**

- Supports 16 kinds of record trigger mode: Schedule mode, motion detection
- Continuous recording during playback
- Can install 16 HDDs and standard system and can be configured with external HDD boxes and RAID array
- Supports cyclic and non-cyclic record mode
- Supports network access storage (NAS)
- Supports USB flash disk, USB hard disk, USB DVDRW/CDRW for backup

### **Preview & Playback Functions:**

- Supports 4 DVI Monitors
- Supports PDA live viewing (Windows Mobile 5/6, iPhone, BlackBerry)
- Supports partial zone masking
- Supports local file playback and time/date playback, supports fast forward, rewind, slow motion, pause, play frame by frame, etc.

### **PTZ control:**

- Supports Pan-Tilt-Zoom control and preset through software/firmware
- Supports most popular PTZ protocols
- Ability to customize new PTZ protocols

### **Alarm Functions:**

- Supports Motion detection alarm, sensor alarm, video loss alarm, exception alarm, etc.
- Supports setup of alarm related with PTZ preset

### **Security:**

- Federal Desktop Core Compliance
- FIPS 140-2 Certified Encryption (Windows Server 2008/Vista)
- Authentication (CRC32/MD5)
- Multi-level user priority

### **Others:**

- Support RS-485 interface keyboard
- User-friendly interface
- Hybrid IP Support
- SDK and DEMO software source code can be provided to reduce application development time

## SPECIFICATIONS

### System

Motherboard & Chipset	Intel Q35 chipset
CPU/DSP	Intel Core 2 Quad 2.4 GHz Q6600 Socket 775 (8 MB Cache) / Texas instruments DM642
RAM	4 GB DDR2 800
Storage	Up to 32 TB SATA RAID5
Hot Swappable	Yes
Video Display	Matrox M9140 Quadhead (512 MB PCI Express 2.0 x 16)
OS	Windows Server 2008
Video Compression	H.264 Scalable Video Coding (SVC)
Audio Compression	OggVorbis 16 Kbps
Chassis Type	3U Rackmount (Optional 4U)
Storage Media	DVDRW
Mouse	Optical USB
Keyboard	106-Key USB
LAN	Redundant 10/100/1000 Base T Ethernet
Backup Storage	(Optional) DAT- Supports IDE, SCSI, NAS, DDS3/4, RAID
Encoder	PCI Hardware
Decoder	PCI Hardware
Video Inputs	1- 32 BNC Primary and Redundant Channels (1.0Vp-p 75 Ω) Resistance 75Ω (NTSC/PAL)
Video Outputs	(Optional up to 16)
Audio Inputs	1- 32 BNC (1.0Vp-p 75 Ω) Linear Level 600Ω

### Hardware

Size	3U Chassis: 17" x 18" (20" w/ handle) x 5.25"
Weight	100 lb
Power Supply	Triple Redundant 650 W, 90-264 V(47 Hz-65 Hz)
Power	110/220 VAC, 60/50 Hz (non condensing) at 40°C
Operating Temperature	25°F - 110°F
Power Management	Programmable Auto-Reboot in Case of Power Loss
RAID Controller	3ware 9650SE
UPS	External UPS (Optional)

### Monitoring

Interface	Web Graphical User Interface
Display Rate	Real-Time All Channels Simultaneous (30 FPS/NTSC 25 FPS/PAL)
Display Resolution	4CIF (704 x 480)
Disconnection Detection	Watchdog Function
POS Terminal Display	Video Text Inserter (Optional)
PTZ Control	PTZ GUI Interface (RS-232/422 Interface)

### Recording

Time Stamp	Image Embedded with Date/Time Information
Recording Resolution	NTSC: 4CIF (704x480) DCIF(528x320) CIF(352x240)

	PAL:4CIF (704x576), DCIF(528x384), CIF(352x288)
Record Rate	30 FPS/NTSC 25 FPS/PAL (All Channels Simultaneous)
Mode	Watch, Normal, Motion Detection, Sensor, Pre-Post Alarm/Scheduled Multi-Channel
<b>Playback</b>	
Search Mode	By Channel, Date and Time, Motion Detection, Sensor Events
Playback Mode	Play, Pause, Frame by Frame, 1 - 2048 Times Fast Forward/Rewind, Scrub Bar
Image Adjustment	Brightness, Contrast, Saturation, Hue, Zooming
<b>Alarm</b>	
Alarm Output	Email with Screen Shot
<b>Security</b>	
Compliance	Federal Desktop Core
Encryption	FIPS 140-2 Certified (Windows Server 2008/Vista)
Authentication	CRC32/MD5 - Frame Level on DVR and exported on player
<b>Remote</b>	
Monitoring	Full Remote Control PSTN, ISDN, ADSL, LAN and TCP/IP
<b>Standard</b>	
Safety Standards	EN60950, UL1459
<b>Approvals</b>	
EMC Standards	EN55022 Class-B, EN50082-1
FCC	Part 15 Class-B, VCCI Class-2

## Warranty

5 Years