



# DHA Series

H.264/SVC Next Generation PC Based Advanced Hybrid DVR/NVR

The DHA series PC-based digital video recorder is the latest from the Aventura laboratories, utilizing the most advanced technology in video/audio encoding/decoding, hard disk record and TCP/IP.

### Physical description

- Max 32 video in (NTSC/PAL)
- Max 32 audio in (linear in)
- IP camera support (up to 16)
- 1 line in (for voice talk)
- 1 10/100/1000M ethernet
- 3 HDD max 1.5 TB each (4.5 TB combined)
- 1 RS-485 for keyboard, 1 RS-485 for PTZ control (optional)
- 1 RS-232
- 4 USB
- 1 VGA/DVI
- 4U 19" rackmount case

### Function:

Aventura's DHA series PC-based digital video recorder adopts a high performance Windows 7 Professional real-time multi-tasking operating system with hyperthreading 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 30 FPS (NTSC) or 25 FPS (PAL) using H.264 algorithm. Both variable bit-rate and variable frame rate are supported
- Support max 32 channels audio in. Each channel can be compressed independently, using an OggVorbis audio standard. The output bit-rate is 16 kbps
- The output video and audio streams are integrated to generate the synchronized H.264 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
- Supports position configurable OSD & Logo. Supports watermarking

### 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 6 kinds of record trigger mode: Schedule mode, motion detection
- Continuous recording during playback
- Can install 3 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 VGA/DVI Monitor
- Supports PDA live viewing (Windows Mobile 5/6, iPhone, BlackBerry)
- Switches quickly to preview mode
- Supports partial zone masking
- Supports local file playback and time/date playback, supports fast forward, rewind, slow motion, pause, play frame by frame, etc.
- Supports OSD, Logo

### PTZ control:

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



- Real-time display & record
- Up to 32 channels of audio & video
- Supports up to 3 hard drives
- Resolution: 4CIF, DCIF, CIF
- IP camera support (up to 16)

### AVAILABLE MODELS

Part number	Description
DHA-04	H.264/SVC hybrid DVR/NVR, 4 analog video, 4 audio, 2 IP with 500 GB HDD, DVD Burner
DHA-08	H.264/SVC hybrid DVR/NVR, 8 analog video, 8 audio, 4 IP with 750 GB HDD, DVD Burner
DHA-12	H.264/SVC hybrid DVR/NVR, 12 analog video, 12 audio, 6 IP with 1 TB HDD, DVD Burner
DHA-16	H.264/SVC hybrid DVR/NVR, 16 analog video, 16 audio, 8 IP with 1.5 TB HDD, DVD Burner
DHA-20	H.264/SVC hybrid DVR/NVR, 20 analog video, 20 audio, 10 IP with 1.75 TB HDD, DVD Burner
DHA-24	H.264/SVC hybrid DVR/NVR, 24 analog video, 24 audio, 12 IP with 2 TB HDD, DVD Burner
DHA-32	H.264/SVC hybrid DVR/NVR, 32 analog video, 32 audio, 16 IP with 2.5 TB HDD, DVD Burner



- Ability to customize new PTZ protocols

**Others:**

- Support RS-485 interface keyboard
- User-friendly interface
- Multi-level user priority
- SDK and DEMO software source code can be provided to reduce application development time.

**SPECIFICATIONS**

<b>System</b>	
Motherboard & Chipset	Intel 865 Chipset
CPU	Core 2 Duo, 2.66GHz E7300 Socket 775 (3 MB Cache)
RAM	2 GB DDR2
Storage	Up to 4.5 TB SATA
Video Display	ATI Radeon HD3650 (512 MB PCI Express 2.0 x 16)
OS	Windows 7 Professional
Video Compression	H.264 Advanced Video Compression (SVC)
Audio Compression	OggVorbis 16 Kbps
Chassis Type	4U Rackmount
Storage Media	DVD-RW (20x)
Mouse	Optical USB
Keyboard	106-Key USB
LAN	10/100/1000 Base T Ethernet
Backup Storage	USB (not included)
Encoder/Decoder	PCI Hardware Encoder
Video Inputs	1~32 BNC (1.0Vp-p 75 Ω) Resistance 75Ω (NTSC/PAL)
Audio Inputs	1~32 BNC (1.0Vp-p 75 Ω) Linear Level 600Ω (NTSC/PAL)
<b>Hardware</b>	
Size	4U Chassis: 17" x 18" (20" w/ handle) x 7"
Weight	50 lb
Power Supply	500 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
UPS	External UPS (Optional)
<b>Monitoring</b>	
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)
<b>Recording</b>	
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 & 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>Authentication</b>	
Encrypted Watermark	AES/MD5 (Court Admissible)
<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
<b>Warranty (Effective Jan 1, 2009)</b>	
3 Years	