DH-XVR5216AN-X-16P

16 Channel Penta-brid 1080P Digital Video Recorder

- H.265+/H.265 dual-stream video compression
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs
- Max 24 channels IP camera inputs, each channel up to 6MP; Max 96Mbps Incoming Bandwidth
- Supports SMD, human face detection, IVS
- All-channel support HDCVI PoC AT & AF camera

System Overview

With the surveillance operators pursuing to HD/UHD which further adds the storage and transmission cost, HDCVI H.265+/H.265 has been released to incredibly decrease the required bitrate while ensuring the video quality in realizing high resolution surveillance such as 4MP/4K.

The Lite Series is designed for high cost performance and quality. The range offers a great solution for users facing budget constraints who both require quality and performance. And with the adoption of Smart H.265+/H.265, the series improves encoding efficiency, saving on bandwidth/storage costs, and significantly reducing the Total Cost of Ownership (TCO).

Functions

PoC

This series product supports PoC (Power over Coax) function. All-channel support PoC AT & AF camera: AT camera power consumption is less than 12W, AF power consumption is less than 6W.
PoC power auto limitation. PoC over current/short circuit auto protection, auto power off after unplug the cable.
Auto recognize the PoC camera of different power consumptions.
Display PoC camera information such as current power consumption status, remaining power capability.
Manually disable PoC function, compatible with the UTP transmission. Disable PoC function before connecting to balun.

Smart H.265+

Smart Codec, H.265+ can reduce up to 90% bit rate and storage requirements compared with H.264 without having to invest in new cameras.

HDCVI/AHD/TVI/CVBS Auto-detect

The XVR can auto recognize the signal of front-camera without any setting. It makes operation more friendly and convenient.

High Definition Camera Input

The XVR supports up to 5MP HDCVI camera and 6MP IP camera input.

Coaxial Audio/Upgrade/Alarm

The integrated design can reduce wiring troubles which makes it much more cost-effective and convenient for installation.

Long Distance Transmission

Non-PoC mode:The HDCVI system supports video no-loss long distance transmission and coaxial cable control, min. 500m for 720P camera (HDCVI, AHD, TVI), min.300m for 1080P or higher camera (HDCVI, AHD, TVI).
PoC mode: The HDCVI system supports video no-loss long distance transmission and coaxial cable control for 5MP, 4MP, 1080P, 720P camera (HDCVI, AHD, TVI). Min. 100m for AT camera,min. 200m for AF camera.

Smart Fan Design

The smart fan can automatically turn on or turn off according to the CPU temperature. This function can effectively reduce the fan noise to provide a better user experience.

Intelligent Video System (IVS)

With built-in intelligent video analytics, the XVR has the ability to detect and analyze moving objects for improved video surveillance. The XVR provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed.

Face Detection

It is a typical technology being used in a variety of applications for searching or identification of individuals.

Smart Search

This function helps you get more motion detect video during a short time through drawing a region when playback. It is very useful when an emergency occurs.

Technical Specification

System

Main Processor	Embedded Processor
Operating System	Embedded LINUX

Video and Audio

Analog Camera Input	16 Channel, BNC
HDCVI Camera	5MP, 4MP, 1080P@25/30fps, 720P@50/60fps, 720P@25/30fps
AHD Camera	5MP, 4MP, 1080P@25/30, 720P@25/30fps
TVI Camera	5MP, 4MP, 1080P@25/30, 720P@25/30fps
CVBS Camera	PAL/NTSC
IP Camera Input	16+8 Channel, each channel up to 6MP
Audio In/Out	1/1, RCA
Two-way Talk	Reuse audio in/out, RCA

Recording

Compression	H.265+/H.265/H.264+/H.264
Resolution	5M-N, 4M-N, 1080P, 1080N, 720P, 960H, D1, CIF
Record Rate	Main stream: 5M-N(1~10fps), 4M-N/1080P(1~15fps); 1080N/720P/960H/D1/CIF (1~25/30fps) Sub stream: D1/CIF(1~15fps)
Bit Rate	32 kbps–6144 kbps Per Channel
Record Mode	Manual, Schedule (General, Continuous), MD (Video detection: Motion Detection, Video Loss, Tampering), Alarm, Stop
Record Interval	1min–60 min (default: 60 min), Pre-record: 1 sec–30 sec, Post-record: 10 sec–300 sec
Audio Compression	G.711A, G.711U, PCM
Audio Sample Rate	8 KHz, 16 bit Per Channel
Audio Bit Rate	64 kbps Per Channel

Display

Interface	1 HDMI, 1 VGA, 1 TV
Resolution	HDMI:3840×2160, 2560×1440, 1920×1080, 1280×1024, 1280×720 VGA: 1920×1080, 1280×1024, 1280×720
Multi-screen Display	When IP extension mode not enabled: 1/4/8/9/16 When IP extension mode enabled: 1/4/8/9/16/25
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Network

Interface	1 RJ-45 Port (1000M)
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, Wi-Fi, 3G/4G, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE,DDNS, FTP, Alarm Server, P2P,IP Search (Supports Dahua IP camera, DVR, NVS, etc.)
Max. User Access	128 users
Smart Phone	iPhone, iPad, Android
Interoperability	ONVIF 16.12, CGI Conformant

Video Detection and Alarm

Trigger Events	Recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering and Diagnosis
Alarm input	N/A
Relay Output	N/A

Playback and Backup

Playback	1/4/9/16
Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)
Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom
Backup Mode	USB Device/Network

Storage

Internal HDD	2 SATA Ports, up to 10TB capacity
eSATA	N/A

Auxiliary Interface

USB	1 USB 2.0 , 1 USB 3.0
RS232	N/A
RS485	1 Port, for PTZ Control

Electrical

Power Supply	100V–250V AC 190W
Power Consumption (without HDD)	≤12W

Construction

Dimensions (W × L × H)	1U, 375.0 mm × 328.0 mm × 50.0 mm (14.8" × 12.9" × 2.0")
Net Weight (without HDD)	2.75 kg (6.0 lb)
Gross Weight	3.98 Kg (8.8 lb)
Installation	Desktop installation

Environmental

Operating Conditions	-10 °C to +55 °C (+14 °F to +131 °F), 10%RH–90%RH
Storage Conditions	-20 °C to +70 °C (-4 °F to +158 °F), 0%RH–90%RH

Third-party Support

Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and more

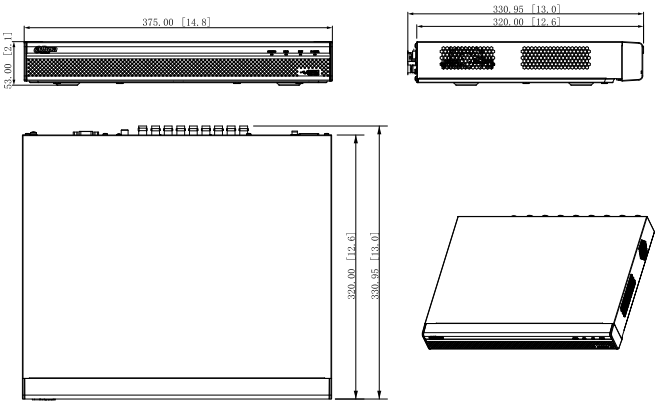
Certifications

Certifications	FCC: Part 15 Subpart B
	CE: CE-LVD: EN 60950-1/IEC 60950-1
	CE-EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 50130, EN 55024

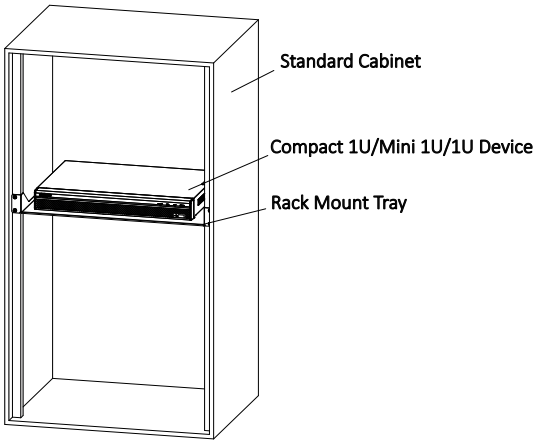
Ordering Information

Type	Part Number	Description
16 Channel XVR	DH-XVR5216AN-X-16P	16 Channel Penta-brid 1080P 1U Digital Video Recorder
Accessory, optional	DH-PFH101	Rack Mount Tray

Dimensions (mm[inch])



Installation on Rack Mount Tray



Rear Panel

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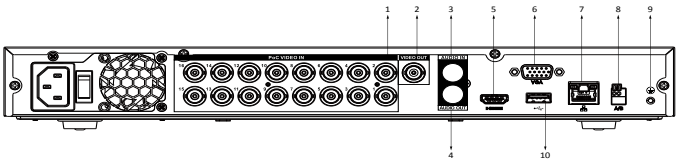

1	VIDEO IN	6	VGA Interface
2	VIDEO OUT	7	Network Interface
3	AUDIO IN, RCA Connector	8	RS-485 Interface
4	AUDIO OUT, RCA Connector	9	GND
5	HDMI Interface	10	USB Interface

Appendix

AT/AF Mode

Based on PoE standards, Dahua introduces AT and AF mode for PoC to distinguish the power level of PoC cameras: the max. operating power of AT and AF are 12 W and 6 W respectively. These two modes are not related to IEEE 802.3 IP standard.

PoC Access Capability

PoC Device	Allowed AT/AF Camera Access
4-ch PoC device	4 AT cameras
8-ch PoC device	8 AT cameras
16-ch PoC device	16 AT cameras