

DH-XVR1B16-I

16 Channel Penta-brid 1080N/720p Compact 1U 1HDD WizSense Digital Video Recorder



WizSense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

Series Overview

Dahua Technology, a world-leading video-centric smart IoT solution and service provider, debuted its new XVR series, Cooper Series featuring SMD Plus to benefit customers from AI upgrade. The series are designated to reduce false-alarm rates and human surveillance costs, thus bringing great value to customers in search of products with accurate human/vehicle alarm to raise the security level of various indoor and outdoor facilities.

Functions

SMD Plus

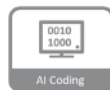
SMD Plus, referred to as Smart Motion Detection Plus, which is an upgrading version of SMD that greatly improves the alarm accuracy by loading deep-learning algorithm. It analyzes person and vehicle shapes based on motion detection and send alarms only when person and vehicle intrudes.

*SMD Plus takes effect when SMD or IVS&SMD is selected in AI Mode.

AI Coding

Compared with H.265, AI codec can reduce up to 50% bit rate and storage requirements while have no loss of decoding compatibility, providing clear human and vehicle details.

- H.265+/H.265 dual-stream video compression
- Supports Full-channel AI-Coding
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs
- Max 18 channels IP camera inputs, each channel up to 6MP; Max 64 Mbps Incoming Bandwidth
- Long transmission distance over coax cable
- Up to 8 channels video stream (analog channel) SMD Plus



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 1080p 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

The HDCVI system supports long distance transmission over coaxial cable and UTP, max. 700 m for 4K/4MP, 800 m for 1080p and 1200 m for 720p.

Technical Specification

System

Main Processor	Embedded processor
Operating System	Embedded linux

SMD Plus

Performance	8 channels
AI Search	Search by target classification (Human, Vehicle)

Video and Audio

Analog Camera Input	16 channels, BNC
HDCVI Camera	1080p@ 25/30 fps, 720p@ 25/30 fps
AHD Camera	1080p@ 25/30 fps, 720p@ 25/30 fps
TVI Camera	1080p@ 25/30 fps, 720p@ 25/30 fps
CVBS Camera	PAL/NTSC
IP Camera Input	16+2 channels, each channel up to 6MP
Audio In/Out	1/1, RCA
Two-way Talk	Reuse audio in/out, RCA

Recording

Video Compression	AI Coding/H.265+/H.265/H.264+/H.264
Resolution	1080N; 720p; 960H; D1; HD1; BCIF; CIF; QCIF
Record Rate	Main Stream: the 1st channel 1080N/720p (1 fps–25/30 fps), others 1080N/720p (1 fps–15 fps); 960H/D1/HD1/BCIF/CIF/QCIF (1 fps–25/30 fps) Sub stream: CIF/QCIF (1 fps–7 fps)
Video Bit Rate	32 kbps–4096 kbps per channel
Record Mode	Manual; Schedule (General, Continuous); MD (Video detection: Motion Detection, Video Loss, Tampering); Alarm; Stop
Record Interval	1 min–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
Resolution	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
OSD	Camera title; Time; Video loss; Camera lock; Motion detection; Recording

Network

Interface	1 RJ-45 Port (100 MB)
Network Function	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; 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	1 SATA port, up to 6 TB capacity
eSATA	N/A

Auxiliary Interface

USB	2 USB ports (USB 2.0)
RS232	N/A
RS485	N/A

Electrical

Power Supply	DC 12V/2A
Power Consumption (Without HDD)	< 10W

Construction

Dimensions	Compact 1U, 260.0 mm × 231.4 mm × 47.6 mm (10.24" × 9.11" × 1.87")
Net Weight (without HDD)	0.89 kg (1.96 lb)
Gross Weight	1.42 kg (3.13 lb)
Installation	Desktop installation

Environmental

Operating Conditions	-10°C to +45°C (+14°F to +113°F), 10%–90% (RH)
Storage Conditions	-20°C to +70°C (-4°F to +158°F), 0%–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
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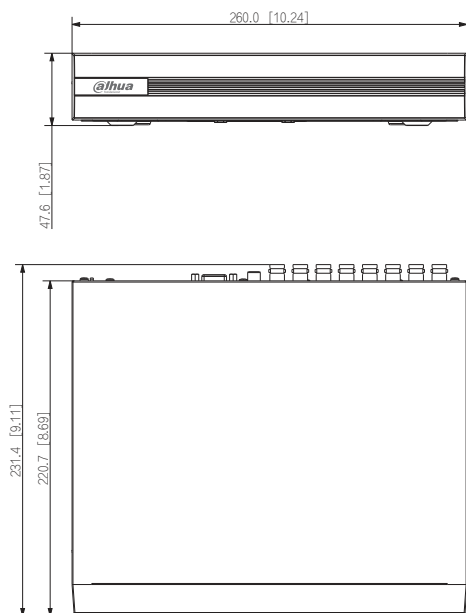
Certifications

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
	UL: UL 60950-1

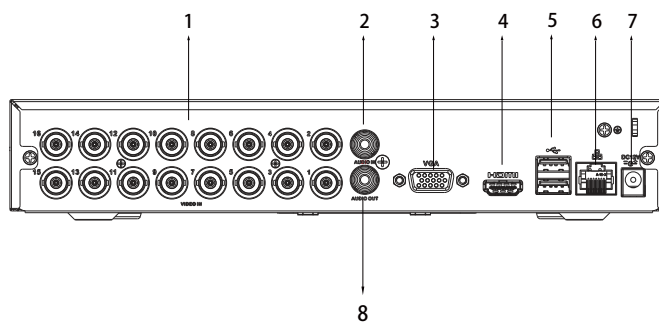
Ordering Information

Type	Part Number	Description
16 Channel WizSense XVR	DH-XVR1B16-I	16 Channel Penta-brid 1080N/720p Compact 1U WizSense Digital Video Recorder

Dimensions (mm[inch])



Panels



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|---------------|----------------------------|
| 1 VIDEO IN | 2 AUDIO IN, RCA Connector |
| 3 VGA Port | 4 HDMI Port |
| 5 USB Ports | 6 Network Port |
| 7 Power Input | 8 AUDIO OUT, RCA Connector |