

# DH-XVR1B16H-I

16CH Penta-brid 5MP Value/1080P 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-I Series featuring max.full-channel SMD Plus to benefit customers from AI upgrade (The number of channels differs depending on the model. Please refer to the specifications below for information on the number of channels.). This series has been developed to reduce false-alarm rates and the cost of human surveillance, 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

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

### AI Coding-ABR

Compared with H.265, AI coding-ABR can save 50% on storage costs, and save bit rate for complex scenes, which can prioritize image quality in dynamic scenes.

- 16-channel SMD Plus for analog channels or 24-channel SMD by camera which allows the device to trigger accurate alarms for humans and vehicles.
- 16-channel AI Coding saves on storage and bandwidth while maintaining the details of targets in videos.
- Supports HDCVI, AHD, TVI, CVBS and IP video input.
- Supports up to 24-channel IP camera input and each channel can be up to 6 MP. The incoming bandwidth reaches 128 Mbps.
- Smart H.265+ and H.265 dual-stream video compression.



### Irregular Black Block Masking

Dahua's black block masking function supports the use of irregular shapes for masking, ensuring privacy in public and private locations.

## Technical Specification

### System

Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web; Local GUI

### SMD Plus

SMD Plus by Recorder	16 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
SMD Plus by Camera	24 channels

### Irregular Black Block Masking

Irregular Black Block Masking by Recorder	1 channel
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### Audio and Video

Analog Camera Input	16 BNC ports, supports HDCVI/AHD/TVI/CVBS auto-detect
Camera Input	1. CVI: 5 MP@25 fps; 5 MP@20 fps; 5 MP@10/12.5 fps; 4 MP@25/30 fps; 1080p@25/30 fps; 720p@50/60 fps; 720p@25/30fps. 2. TVI: 5 MP(2560 x 1944)@20 fps; 5 MP(2960 x 1665)@20 fps; 4 MP@25/30 fps; 1080p@25/30 fps; 720p@25/30 fps. 3. AHD: 5 MP@20 fps; 4 MP@25/30 fps; 1080p@25/30 fps; 720p@25/30 fps.
IP Camera Input	Up to 24 channels of IPC access 8 IP channels by default + 16 channels (analog channels are converted to IP channels) incoming bandwidth: 128 Mbps, recording bandwidth: 128 Mbps and outgoing bandwidth: 128 Mbps *After IP channels are added beyond the existing channels, the AI Function SMD will be disabled.
Encoding Capacity	Main stream: 5 MP Mode: 4-ch 5 MP@(1 fps-6 fps); others 5M-N@(1 fps-12 fps) 5M-N Mode: 5M-N@(1 fps-12 fps); 4M-N/1080p@(1 fps-15 fps); 1080N/720p/960H/D1/CIF@(1 fps-25/30 fps) Sub stream: D1/CIF@(1 fps-15 fps)
Dual-stream	Yes
Video Bit Rate	32 kbps-6144 kbps
Audio Sampling	8 kHz, 16 bit
Audio Bit Rate	64 kbps
Video Output	1 HDMI, 1 VGA VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI: 3840 × 2160, 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
Third-party Camera Access	Panasonic; Sony; Hanwha; Axis; Arecont; ONVIF

### Compression Standard

Video Compression	AI Coding; Smart H.265+; H.265; Smart H.264+; H.264
Audio Compression	G.711a; G.711u; PCM

### Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; IPv6; RTSP; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; FTP; DDNS; SNMP; Alarm Server; P2P; Auto Registration; IP Search (Supports IP camera, DVR, NVS, etc.)
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 24.06 (Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome; IE; Safari; Edge; Firefox

### Recording Playback

Record Mode	General; alarm; motion detection
Recording Playback	1/4/9/16
Backup Method	USB device and network
Playback Mode	Instant playback; general playback; event playback; tag playback; smart playback

### Alarm

General Alarm	Motion detection; HDCVI alarm; camera external alarm; network alarm; PIR alarm
Anomaly Alarm	Error (no disk, disk error, low space, low quota space; network disconnection; IP conflict; MAC conflict); video loss; video tampering; camera offline
Intelligent Alarm	SMD Plus
Alarm Linkage	Record; snapshot (panoramic); IPC external alarm output; audio; buzzer; log; preset; email

### Ports

Audio Input	1-channel RCA 16-channel BNC (Coaxial Audio)
Audio Output	1-channel RCA
Two-way Talk	Yes (share the same audio input with the first channel)
Disk Interface	1 SATA port, up to 16 TB. This limit varies depending on the environment temperature.
USB	2 (2 rear USB 2.0 ports)
HDMI	1
VGA	1
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)

### General

Power Supply	12 VDC, 2 A
Power Consumption	<12 W(without HDD)
Net Weight	0.93 kg (2.05 lb)
Gross Weight	1.43 kg (3.16 lb)
Product Dimensions	260.0 mm × 231.4 mm × 47.6 mm (10.24" × 9.11" × 1.87") (W × D × H)
Packaging Dimensions	333.0 mm × 89.0 mm × 315.0 mm (13.11" × 3.50" × 12.40") (W × D × H)
Operating Temperature	-10 °C to +45 °C (+14 °F to +113 °F)
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Operating Humidity	10%-90% (RH), non-condensing

Installation	Desktop
Certifications	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 FCC: Part 15 Subpart B

Ordering Information		
Type	Model	Description
DIGITAL VIDEO RECORDER	DH-XVR1B16H-I	16CH Penta-brid 5MP Value/1080P Compact 1U 1HDD WizSense Digital Video Recorder

## Accessories

Optional:



DHI-SSD-V800S256G  
SSD

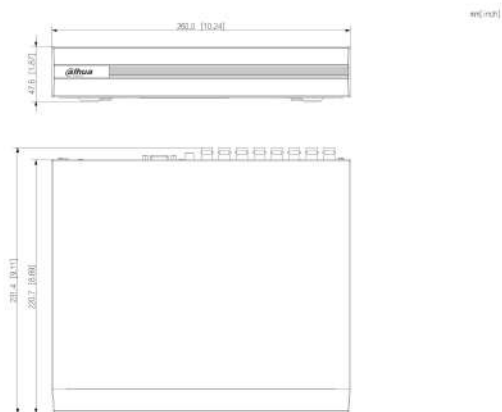


DHI-SSD-V800S512G  
SSD

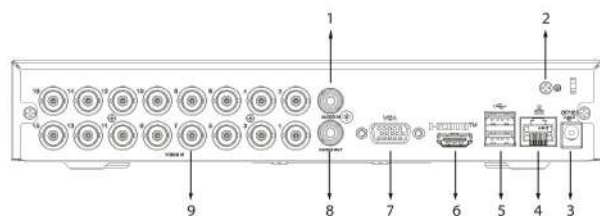


DHI-SSD-V800S1TB  
SSD

## Dimensions (mm[inch])



## Panels



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