DH-XVR1B16-I

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



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.

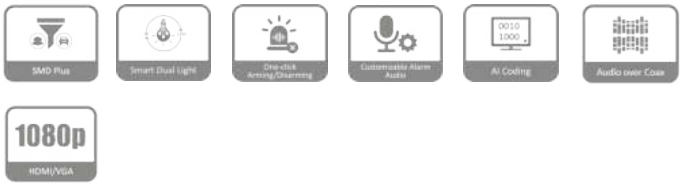
Functions

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.

* *The information below only applies to hardware version 2.0 of the product.*

- 8-channel SMD Plus for analog channels 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 18-channel IP camera input and each channel can be up to 6 MP. The incoming bandwidth reaches 64 Mbps.
- Smart H.265+ and H.265 dual-stream video compression.



Smart Dual Light

With Smart Dual Light technology, you can select Smart Illumination Mode for the system to automatically switch between IR mode and white light mode. It allows white light to be turned on when a target is detected by the SMD Plus/Perimeter Protection function of AI-enabled XVR. This significantly reduces light pollution at night. Together with other modes, including IR Mode and White Light Mode, the smart dual light technology can meet the requirements of a wide variety of scenes.

One-click Arming/Disarming

With just one click, you can enable or disable alarm linkages to show messages, send emails, output audio alarms and more, through the mobile app and platform.

Customizable Alarm Audio

Designed for your convenience, the TiOC alarm can be customized to meet your needs. It is flexible, allowing you to directly upload your customized audio through the mobile app and XVR.

AI Coding

Compared with H.265/H.264, AI coding can reduce more than 50% bit rate and storage requirements without loss of decoding compatibility, providing clear human and vehicle details.

Audio over Coax

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

Technical Specification

System

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

SMD Plus

SMD Plus by Recorder	8 channels: Secondary filtering for human and vehicle, reducing false alarms caused by leaves, rain and lighting condition change

Audio and Video

Analog Camera Input	16 BNC ports, supports HDCVI/AHD/TVI/CVBS auto-detect
Camera Input	1. CVI: 1080p@25/30 fps; 720p@25/30 fps. 2. TVI: 1080p@25/30 fps; 720p@25/30 fps. 3. AHD: 1080p@25/30 fps; 720p@25/30 fps.
IP Camera Input	Up to 18 channels of IPC access 2 IP channels by default + 16 channels (analog channels are converted to IP channels) Incoming bandwidth: 64 Mbps, recording bandwidth: 64 Mbps and outgoing bandwidth: 64 Mbps *After IP extension is enabled, the AI Function (SMD) will be disabled.
Encoding Capacity	Main stream: the 1st channel 1080N/720p@(1 fps–25/30 fps), others 1080N/720p@(1 fps–15 fps); 960H/D1/CIF@(1 fps–25/30 fps) Sub stream: CIF@(1 fps–7 fps)
Dual-stream	Yes
Video Bit Rate	32 kbps–4096 kbps
Audio Sampling	8 kHz, 16 bit
Audio Bit Rate	64 kbps
Video Output	1 HDMI, 1 VGA HDMI: 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
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 22.12 (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 Mbps Ethernet port, RJ-45)

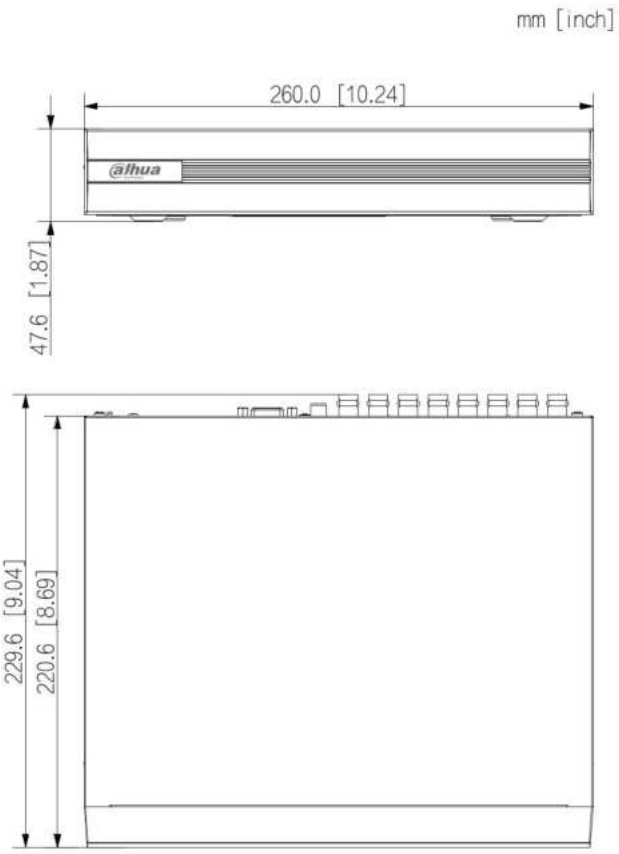
General

Power Supply	12 VDC, 2 A
Power Consumption	<10 W (without HDD)
Net Weight	0.89 kg (1.96 lb)
Gross Weight	1.42 kg (3.13 lb)
Product Dimensions	260.0 mm × 229.6 mm × 47.6 mm (10.24" × 9.04" × 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-LVD: IEC 62368-1:2014 CE-EMC: EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019, EN 55032:2015+A11:2020, EN 55035:2017+A11:2020, EN 55024:2010+A1:2015, EN 50130-4:2011+A1:2014 FCC: 47 CFR Part 15, Subpart B

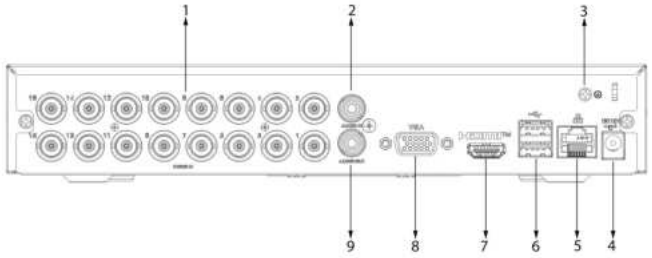
Ordering Information

Type	Part Number	Description
DIGITAL VIDEO RECORDER	DH-XVR1B16-I	16CH Penta-brid 1080N/ 720P Compact 1U 1HDD WizSense Digital Video Recorder

Dimensions (mm[inch])



Panels



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

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