DH-XVR5116HS-I3

16 Channel Penta-brid 5M-N/1080P Compact 1U 1HDD WizSense Digital Video Recorder



- H.265+/H.265 dual-stream video compression
- Supports Full-channel AI Coding
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs
- Max 24 channels IP camera inputs, each channel up to 6MP; Max 128 Mbps incoming bandwidth
- Up to 2 channels video stream (analog channel) Perimeter Protection
- Up to 16 channels video stream (analog channel) SMD Plus
- Up to 2 channels video stream (analog channel) human face recognition
- IoT & POS functionalities



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, XVR5000-I3 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

Real Time Face Recognition

Video stream real time face recognition. Facial attributes analysis features including gender, age, expression, glasses, moustache, face mask. Identify people and also capture, record faces with metadata. Facial feature filtering while real time display, only show faces with target features.

*Face Recognition takes effect when Face is selected in AI Mode.

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

*Perimeter Protection takes effect when IVS&SMD is selected in AI Mode.

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.

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

AI Coding

Compared with H.265/H.264, AI coding can reduce more than 50% bit rate and storage requirements while have no loss of decoding compatibility, providing clear human and vehicle details.

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

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.

AI Search

Support AI seach by metadata of different targets or uploading face pictures to device and comparing them with recorded faces by similarity. Enable operators to quickly and easily search through multi channels and long duration, efficiently find out when and where a person of interest appeard.

Technical Specification

System

Main Processor	Embedded processor
Operating System	Embedded Linux

Perimeter Protection

Perimeter Performance AI by Recorder (Number of Channels)	2 channels

Face Detection

Face Attributes	6 attributes: Gender, age groups (6), glasses, expressions (8), face mask, beard, with up to four detection panels displayed at the same time.
Face Detection Performance of AI by Recorder (Number of Channels)	2 channels, and a single channel can detect up to 12 faces.

Face Recognition

Face Database Capacity	Up to 10 face databases and 10,000 pictures.
Face Recognition Performance of AI by Recorder (Number of Channels)	2 channels

SMD Plus

SMD Plus by Recorder	Full-channel SMD Plus (AI by recorder), secondary filtering for human and motor vehicle SMD Plus, reducing false alarms caused by leaves, rain and lighting condition change

Audio and Video

Analog Camera Input	16 channels, BNC: adaptive access by default; HDCVI, AHD, TVI and CVBS access can be configured.
Camera Input	1. CVI: 5MP, 4MP, 1080p@25/30 fps, 720p@50/60 fps, 720p@25/30 fps. 2. TVI: 5MP, 4MP, 3MP, 1080p@25/30, 720p@25/30 fps. 3. AHD: 5MP, 4MP, 3MP, 1080p@25/30, 720p@25/30 fps.
IP Camera Input	16+8 channels, each channel up to 6MP
Encoding Capacity	All channel 5M-N (1 fps–10 fps); 4M-N/1080p (1 fps–15fps); 1080N/720p/960H/D1/CIF (1fps–25/30 fps)
Dual-stream	Supported (D1/CIF (1 fps–15 fps)).
Video Frame Rate	PAL: 1 fps–25 fps. NTSC: 1 fps–30 fps.
Video Bit Rate	32 Kbps–6144 Kbps Per Channel
Audio Sampling	8 KHz, 16 bit Per Channel
Audio Bit Rate	64 Kbps Per Channel
Bit Rate Type	Video stream and composite stream.
Video Output	1 HDMI ,1 VGA VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 It changes to 1920 × 1080, 1280 × 1024, 1280 × 720 when Face or IVS&SMD is selected in AI Mode.
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	Onvif, RTSP, Panasonic, Sony, Axis, Arecont, Pelco, Canon, Samsung;

Compression Standard

Video Compression	AI Coding/H.265+/H.265/H.264+/H.264
Audio Compression	G.711A/G.711u/PCM

Network

Network Protocol	HTTP, HTTPS, TCP / IP, IPv4, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, P2P
Mobile Phone Access	iPhone, iPad, Android
Interoperability	ONVIF 16.12, CGI Conformant
Browser	Chrome, IE9 or above, Firefox
Network Mode	Single-address mode

Recording Playback

Record Mode	Manual, Schedule (General, Continuous), MD (Video detection: Motion Detection, Video Loss, Tampering), Alarm, Stop
Recording Playback	1/4/9/16 It changes to 1/4/9 split when Face or IVS&SMD is selected in AI Mode.
Backup Method	USB Device/Network
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)

Alarm

General Alarm	Motion detection, Video Loss, tampering, and local alarm
Anomaly Alarm	No disk, disk error, low space, offline, ip conflict, MAC conflict
Intelligent Alarm	Face detection, face recognition, perimeter protection
Alarm Linkage	Record, snapshot (panoramic), IPC external alarm output, access controller, voice prompt, buzzer, log, preset, email

Ports

Audio Input	1, RCA (external) 16, BNC (coaxial)
Audio Output	1, RCA
Two-way Talk	Yes (share the same audio input with the first channel)
HDD Interface	1 SATA Port, up to 16TB for a single HDD, the maximum HDD capacity varies with environment temperature
RS-485	1 Port, for PTZ Control
USB	2 USB Ports (1 USB 2.0 , 1 USB 3.0)
HDMI	1
VGA	1
Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)

General

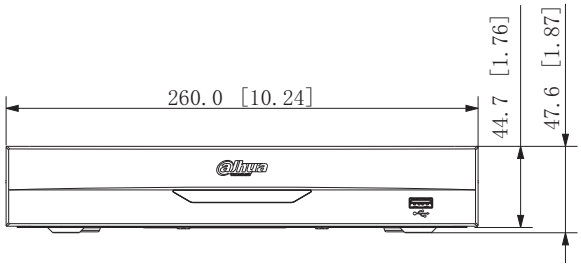
Power Supply	DC12V, 2A
Power Consumption	Lower than 12 W

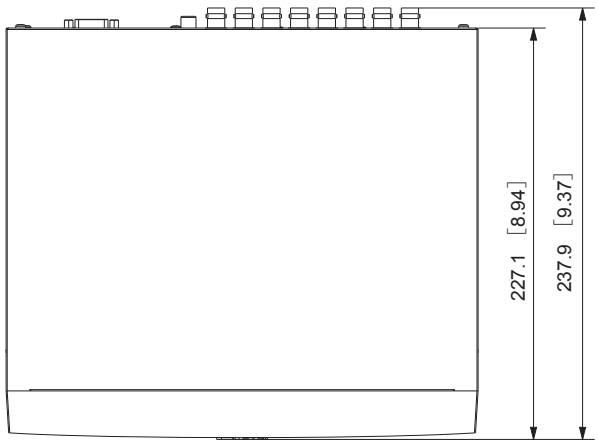
Net Weight	1.17 kg (2.58 lb)
Gross Weight	1.57 kg (3.46 lb)
Product Dimensions	Compact 1U, 260.0 mm × 237.4 mm × 47.6 mm (W × D × H) 10.24" × 9.35" × 1.87" (W × D × H)
Packaging Dimensions	333.0 mm × 89.0 mm × 315.0 mm (L × W × H) 13.11" × 3.50" × 12.40" (L× W × H)
Operating Temperature	–10 °C to +55 °C (+14 °F to +131 °F)
Operating Humidity	10%–90%
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

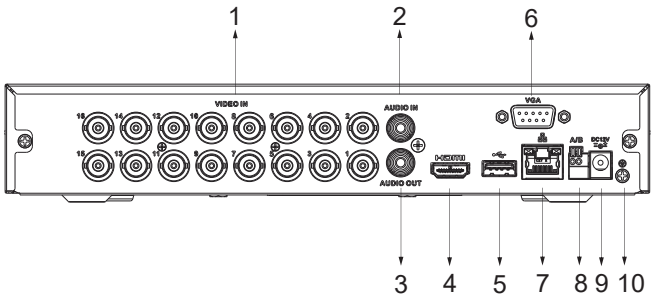
Type	Model	Description
16 Channels WizSense XVR	DH-XVR5116HS-I3	Compact 1U DIGITAL VIDEO RECORDER

Dimensions (mm[inch])





Panels



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

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