

DH-XVR5116HS-I3

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 action 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 5MP Mode

This mode can enhance live preview and playback resolution to Real 5MP, enable more clarity image experience.

Face Recognition

Dahua Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

Face Recognition does not affect other functions except in AI mode.

Perimeter Protection

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

Perimeter Protection does not affect other functions except in AI mode.

SMD Plus

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the

- H.265/H.265 dual-stream video compression
- Supports Full-channel AI Coding
- Supports HDV/AHD/TVI/CVBS/IP video inputs
- Max 24 channels IP camera inputs, each channel up to 8MP, Max 128 video incoming bandwidth
- Up to 4 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



motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

Face Recognition does not affect other functions except in AI mode.

Smart Dual Illuminators

With Smart Dual Illuminators 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 illumination 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. Images to show messages, send emails, output audio alarms and more, through the mobile app and platform.

Customisable Alarm Audio

Designed for your convenience, the TPOC 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 Embedded processor

Operating System Embedded Linux

Operating Interface Web, local GUI

Perimeter Protection

Perimeter Performance of AI by Recorder (Number of Channels) Advanced Mode: 2 channels, 10/15 FPS for each channel
General Mode: 4 channels, 10/15 FPS for each channel

Face Detection

Face Attributes Gender, age group, glasses, expressions, face mask, beard

Face Detection Performance of AI by Recorder (Number of Channels) 2 channels (up to 12 face images/s)

Face Recognition

Face Database Capacity Up to 10 face databases with 10000 face images in total. Name, gender, birthday, address, certificate type, certificate ID, countries/regions and store can be added to each face picture

Face Recognition Performance of AI by Recorder (Number of Channels) 2 channels

SMD Plus

SMD Plus by Recorder 16 channels Recorder / filtering for human and motion enable SMD Plus, reducing false alarms caused by leaves, rain and lighting condition change

Audio and Video

Analog Camera Input 16 BNC ports, On access by default, supports HDCVI/ AHD/TVI/VI/CS auto-detect

Camera Input
 1. CVI: 8MP@30fps, 4MP@25fps, 4MP@10/12/15fps, 4MP@15/20fps, 1080p@25/30fps, 720p@30/40fps, 720p@33/30fps
 2. TVI: 8MP@30fps, 4MP@25/30fps, 1080p@25/30fps, 720p@33/30fps
 3. AHD: 8MP@30fps, 4MP@25/30fps, 1080p@25/30fps, 720p@33/30fps

IP Camera Input
 Up to 24 channels of IP access
 8-IP channels by default + 16 channels (analog channels are converted to IP channels)
 Incoming bandwidth: 128 Mbps, recording bandwidth: 128 Mbps and output bandwidth: 128 Mbps
 *After IP channels are added beyond the analog channel, the AI function (i.e. SMD Plus) will be disabled

Encoding Capacity
 Main stream:
 8MP@1080p: 4 or 8MP@1-2Mbps, other channels 8MP@1-1.5Mbps
 6MP@1080p
 6MP@1080p
 AI channel: 8MP@1-1.5Mbps, 4MP@1000p@1-1.5Mbps, 1080p, 720p, 360p, 0.1MP@1-0.5Mbps
 Sub stream: 0.1, 0.2MP@1-1.5Mbps

Dual-stream Yes

Video Frame Rate Full: 1 fps-25 fps
 (720p: 1 fps-30 fps)

Video Bit Rate 60 Kbps-6.144 Kbps Per Channel

Audio Sampling 8 KHz, 16-bit

Audio Bit Rate 64 Kbps

Video Output
 1 HDMI 1.4/BA
 VGA: 1920 x 1080, 1280 x 1024, 1280 x 720
 HDCP: 1080 x 1080, 1920 x 1080, 1280 x 1024, 1280 x 720
 It changes to 1920 x 1080, 1280 x 1024, 1280 x 720 when Face or HSSD/ID is selected in AI mode

Multi-screen Display When IP extension mode not enabled: 1/4/8/9/16
 When IP extension mode enabled: 1/4/8/9/16/32

Third-party Camera Access Onvif, Panasonic, Sony, Axis, Arecont, Pezco, Genet, Benlucy

Compression Standard

Video Compression H.265/H.264/H.264+H.264

Audio Compression G.711/G.711.1/PCM

Network

Network Protocol HTTP, HTTPS, TCP/IP, ICMP, FTP, SFTP, NTP, DHCP, DNS, SMTP, LDAP, IP Filter, FTP, DDNS, Alarm Server, P2P, Auto Registration, IP Search (Supports IP camera, DVR, NVR, etc.)

Mobile Phone Access iPhone, PDA, Android

Interoperability Onvif 2.2/2.4 (Profile T, Profile S, Profile G), GC, SDK

Browser Chrome, IE8 or above, Firefox

Network Mode Single-address mode

Recording Playback

Record Mode General, motion detection, intelligent alarm, FDS

Recording Playback 1/4/8/16
 It changes to 1/4/8 split when Face or HSSD/ID is selected in AI mode

Backup Method USB Device/Network

Playback Mode Instant playback, general playback, smart playback, 16:9 playback, smart playback (face and motion detection)

Alarm

General Alarm Motion detection, video loss, tampering

Abnormal Alarm Video loss, disk abnormal space, offline, abnormal I/O, abnormal

Intelligent Alarm Face detector, face recognition, perimeter protection

Alarm Linkage Record, snapshot, panoramic, IP camera alarm output, access controller, voice prompt, buzzer, log, email, email

Ports

Audio Input 1-channel RCA (external)
 16-channel BNC (internal audio)

Audio Output 2-channel RCA

Two-way Talk Yes (share the same audio input with the first channel)

HDD Interface 1 SATA Port, up to 16TB, the maximum HDD capacity, varies with environment temperature

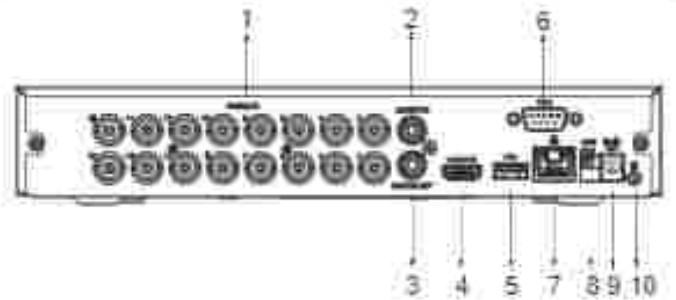
RS-485 1 Port for PTZ Control

USB 2 (1 front USB 2.0 port; 1 rear USB 3.0 port)

HDMI 1

VGA	1
Network Port	1 (10/100/1000 Mbps Ethernet ports, RJ-45)
General	
Power Supply	DC12V 2A
Power Consumption	Lesser than 12W
Net Weight	1.17kg (2.58lb)
Gross Weight	1.67kg (3.68lb)
Product Dimensions	Compact I/O, 282.0 mm x 271.8 mm x 47.8 mm (11.10" x 10.71" x 1.88" (H x D x W))
Packaging Dimensions	333.0 mm x 222.0 mm x 218.0 mm (13.11" x 8.74" x 8.58" (H x D x W))
Operating Temperature	-10 to 55 °C (14 to 131 °F)
Operating Humidity	20%-90%
Installation	Desktop
Certifications	CE, CE-EMC, EN 60950-1/EN 60950-2, CE-EMC, EN 61000-5-1, EN 61000-5-2, EN 61001, EN 60110, EN 60524, FCC, FCC Part 15 Subpart B

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 |

Ordering Information

Type	Model	Description
16 Channel WizSense XVR	DH-XVR5116HS-I3	16CH Remote-IoD 5MP (max) 1080P Compact I/O 14DD WizSense Digital Video Recorder

Dimensions (mm[inch])

