

DH-XVR5116H-I2

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



Wiz Sense

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.

System Overview

Dahua Technology, a world-leading video-centric smart IoT solution and service provider, debuted its new XVR series, XVR5000-I2 featuring full-channel SMD Plus (except for 32-channel devices) 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

Real Time Face Recognition

Video stream real time face recognition. Facial attributes analysis features including gender, age, expression, glasses, moustache, mouth 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

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

- H.265+/H.265 dual-stream video compression
- 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



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.

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. 700m for 4K/4MP, 800m for 1080P and 1200m for 720P.

AI Search

Extract and classify person and vehicles from massive video data, easy for end users to trace historical information and analyze. Person & Vehicle optional for playback to achieve quick target search, saving event retrieval time.



Technical Specification		Audio Compression	G.711A, G.711U, PCM
System		Audio Sample Rate	8 KHz, 16 bit Per Channel
Main Processor	Embedded Processor	Audio Bit Rate	64 Kbps Per Channel
Operating System	Embedded LINUX		
Perimeter Protection		Display	
Performance	2 channels, 10 IVS for each channel	Interface	1 HDMI, 1 VGA
Object classification	Human/Vehicle secondary recognition for tripwire and intrusion	Resolution	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.
AI Search	Search by target classification (Human, Vehicle)	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
Face Recognition		OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording
Performance	Max 12 face pictures/sec processing	Network	
Stranger Mode	Detect strangers' faces (not in device's face database). Similarity threshold can be set manually.	Interface	1 RJ-45 Port (1000 MB)
AI Search	Up to 8 target face images search at same time, similarity threshold can be set for each target face image.	Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, Wi-Fi, 3G/4G, SNMP, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPoE, DDNS, FTP, Alarm Server, P2P, IP Search (Supports Dahua IP camera, DVR, NVS, etc.)
Database Management	Up to 10 face databases with 10,000 face images in total. Name, gender, birthday, address, certificate type, certificate No., countries®ions and state can be added to each face picture.	Max. User Access	128 users
Database Application	Each database can be applied to video channels independently.	Smart Phone	iPhone, iPad, Android
Trigger Events	Buzzer, Voice Prompts, Email, Snapshot, Recording, Alarm Out, PTZ Activation, etc.	Interoperability	ONVIF 16.12, CGI Conformant
SMD Plus		Video Detection and Alarm	
Performance	16 channels	Trigger Events	Recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
AI Search	Search by target classification (Human, Vehicle)	Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering and Diagnosis
Video and Audio		Alarm input	N/A
Analog Camera Input	16 channels, BNC	Relay Output	N/A
HDCVI Camera Input	5MP, 4MP, 1080P@25/30fps, 720P@50/60fps, 720P@25/30fps	Playback and Backup	
AHD Camera Input	5MP, 4MP, 1080P@25/30, 720P@25/30fps	Playback	1/4/9/16 It changes to 1/4/9 split when Face or IVS&SMD is selected in AI Mode.
TVI Camera Input	5MP, 4MP, 1080P@25/30, 720P@25/30fps	Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)
CVBS Camera Input	PAL/NTSC	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
IP Camera Input	16+8 channels, each channel up to 6MP	Backup Mode	USB Device/Network
Audio In/Out	1/1, RCA	Storage	
Two-way Talk	Reuse audio in/out, RCA	Internal HDD	1 SATA Port, up to 10TB capacity
Recording		eSATA	N/A
Compression	AI Coding/H.265+/H.265/H.264+/H.264	Auxiliary Interface	
Resolution	5M-N, 4M-N, 1080P, 1080N, 720P, 960H, D1, CIF	USB	2 USB Ports (1 USB 2.0, 1 USB 3.0)
Record Rate	Main stream: All channel 5M-N (1fps~10fps); 4M-N/1080P (1fps~15fps); 1080N/720P/960H/D1/CIF (1fps~25/30fps) Sub stream: D1/CIF (1fps~15fps)	RS485	1 Port, for PTZ Control
Bit Rate	32 Kbps~6144 Kbps Per Channel	RS232	N/A
Record Mode	Manual, Schedule (General, Continuous), MD (Video detection: Motion Detection, Video Loss, Tampering), Alarm, Stop	Electrical	
Record Interval	1 – 60 min (default: 60 min), Pre-record: 1 s~30 s, Post-record: 10 s~300 s	Power Supply	DC 12V/2A
		Power Consumption (Without HDD)	<12W

Construction

Dimensions	Mini 1U, 325 mm × 257 mm × 55 mm (12.80" × 10.10" × 2.17")
Net Weight (without HDD)	1.2 kg (2.6 lb)
Gross Weight	2.0 kg (4.4 lb)
Installation	Desktop installation

Environmental

Operating Conditions	-10°C to +55°C (+14°F to +131°F), 0–90% RH
Storage Conditions	-20°C to +70°C (-4°F to +158°F), 0–90% RH

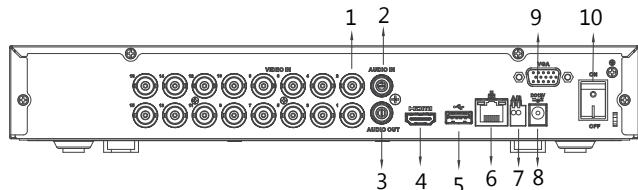
Third-party Support

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
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Panels



1	VIDEO IN	6	Network Interface
2	AUDIO IN, RCA Connector	7	RS485 Interface
3	AUDIO OUT, RCA Connector	8	DC 12V Power Input
4	HDMI Interface	9	VGA Interface
5	USB Interface	10	Power Switch

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Ordering Information

Type	Model	Description
16 Channel WizSense XVR	DH-XVR5116H-I2	Mini 1U WizSense Digital Video Recorder

Dimensions (mm[inch])

