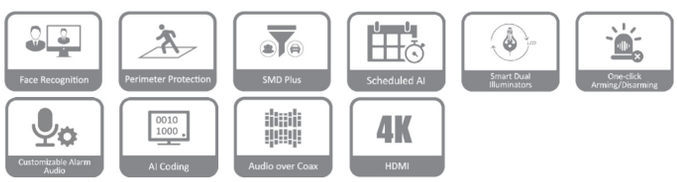
OS-XVR16FN8-5H2-4K-V4 | 16CH Penta-brid 4K Value/5MP 1U 2HDDs WizSense Digital Video Recorder

**** The parameters and datasheets below can only be applied to Hardware Version 2.0.***

- H.265+/H.265 dual-stream video compression.
- Supports Full-channel AI Coding.
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs.
- Max 16 channels IP camera inputs, each channel up to 8MP; Max 128 Mbps incoming bandwidth.
- Up to 8 channels video stream (analog channel) Perimeter Protection.
- Up to 8 channels video stream (analog channel) SMD Plus.
- Up to 2 channels video stream (analog channel) human face recognition.
- IoT & POS functionalities

Launched by Osiris 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 Osiris's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.



Series Overview

Osiris Technology, a world-leading video-centric smart IoT solution and service provider, debuted its new XVR series, XVR5000-4KL-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

Face Recognition
Osiris Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.
*Face Recognition conflicts with SMD Plus and Perimeter Protection.

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

SMD Plus
With intelligent algorithm, Osiris 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.

Scheduled AI
This technology allows multiple AI functions to be set for one channel based on time frames, eliminating the need to manually configure the system to switch between functions each time. Scheduled AI greatly increases efficiency and widens the number of scenarios that the device can be used in.

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.

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.

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

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Technical Specifications

System	
Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web; Local GUI
Perimeter Protection	
Perimeter Performance AI by Recorder (Number of Channels)	Advanced Model: 2 channels, 10 IVS for each channel General Model: 8 channels, 10 IVS 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 each channel)
Face Recognition	
Face Database Capacity	Up to 10 face databases with 20,000 face images in total. Name, gender, birthday, address, certificate type, cerificate No., countries & regions and state can be added to each face image
Face Recognition Performance of AI by Recorder (Number of Channels)	2 channels
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
Audio and Video	
Analog Camera Input	16 BNC ports, supports HDCVI/AHD/TVI/CVBS autodetect
Camera Input	1. CVI: 4K@25/30 fps; 6 MP@20 fps; 5 MP@20 fps; 5 MP@25 fps; 4 MP@25/30 fps; 1080p@25/30 fps; 720p@25/30 fps; 720p@50/60 fps.2. TVI: 4K@15 fps; 5 MP@20 fps; 4 MP@25/30 fps; 3 MP@25/30 fps; 1080p@25/30 fps; 720p@25/30 fps.3. AHD: 4K@15 fps; 5 MP@20 fps; 4 MP@25/30 fps; 3 MP@25/30 fps; 1080p@25/30 fps; 720p@25/30 fps
IP Camera Input	Up to 32 channels of IPC access 16 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 (IVS, SMD, FACE) will be disabled.*
Encoding Capacity	Main stream: 4K@(1fps-7fps); 6 MP@(1fps-10fps); 5 MP@(1fps-12fps); 4K-N, 4 MP, 3 MP@(1fps-15fps); 4M-N, 1080p, 720p, 960H, D1,CIF@(1fps–25/30fps); Sub stream: 960H@(1fps–15fps); D1/CIF@(1 fps–25/30fps)
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 HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 ** Simultaneous/heterogeneous video sources output for VGA and HDMI is configurable.*
Multi-screen Display	When IP extension mode not enabled: 1/4/8/9/16 When IP extension mode enabled: 1/4/8/9/16/25/36
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Samsung
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; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P
Mobile Phone Access	IOS; Android
Interoperability	ONVIF 22.12(Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome, IE9 or later, Firefox
Network Mode	Single-address mode
Recording Playback	
Record Mode	General, motion detection; intelligent; alarm; POS
Recording Playback	1/4/9/16
Backup Method	USB device and network
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)
Storage	
Disk Group	Yes

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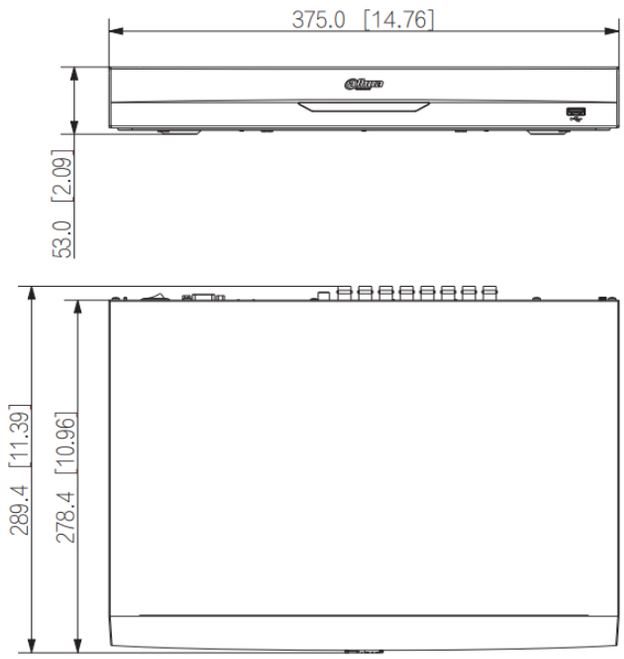
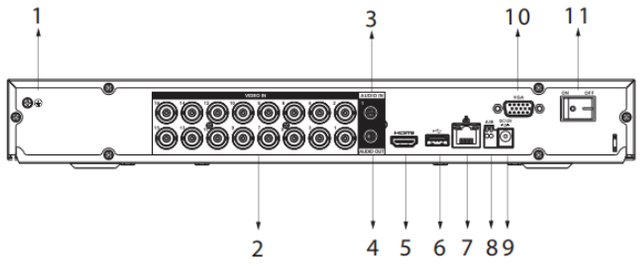
Technical Specifications (2)

Alarm	
General Alarm	Motion detection; video loss; tampering
Anomaly Alarm	No disk; storage error; disk full; camera 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-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)
HDD Interface	2 SATA ports, up to 16TB capacity for each disk. 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 port, RJ-45)
General	
Power Supply	DC 12V, 2A
Power Consumption	<15 W (without HDD)
Net Weight	1.80 kg (3.97 lb)
Gross Weight	3.10 kg (6.84 lb)
Product Dimensions	375.0 mm × 289.4 mm × 53.0 mm (14.76" × 11.39" × 2.09") (W × D × H)
Packaging Dimensions	433.0 mm × 141.0 mm × 366.0 mm (17.05" × 5.56" × 14.41") (W × D × H)
Operating Temperature	–10 °C to +55 °C (14 °F to +131 °F)
Operating Humidity	10%–90% (RH)
Installation	Rack or 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

Dimensions (mm[inch])



Panels



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