

# DHI-NVR608RH-128-XI

128CH 2U 8HDDs WizMind Network Video Recorder



#### Wiz Mind

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, IVSS,NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

#### Series Overview

As a new generation of network video recorders, NVR600-XI series offers high-grade recording technology and has AI capabilities that are ideal for IP video surveillance applications. This enterprise-level NVR has a powerful processor, built-in deep learning modules, and video metadata technology. It also comes with high-precision human face recognition, perimeter protection and 4K resolution, which together shorten the response time to events and provide critical information that allows surveillance personnel to take immediate action. This NVR is compatible with numerous third-party devices, making it a perfect solution for surveillance systems with or without a video management system.

#### Functions

#### AcuPick

This industry-leading search technology effectively utilizes both frontend and back-end intelligence to help with searching through massive video data to quickly and conveniently locate targets with greater precision.

#### **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.

- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. decoding capability: 32 × 1080p@30 fps.
- Max. 1280/1280/1024 Mbps incoming/recording/outgoing bandwidth.
- Supports AcuPick with up to 64 channels.
- AI by Recorder supports 8-channel face detection and recognition, up to 40 face databases and 300,000 face images; 8-channel metadata; 32-channel perimeter protection; 32-channel SMD Plus.
- Al by Camera supports face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, stereo analysis, heat map, and people counting.
- Supports redundant power, N+M cluster, Raid 0/1/5/6/10, ISCSI, Drawer-like chassis design allows for HDD hot swapping.
- Supports EPTZ, One-click Arming & Disarming.
- Security baseline 2.3.



#### **Face Recognition**

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

#### Video Metadata

With deep learning algorithm, Dahua Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

#### Heat Map by Camera

Dahua heat map technology is used to display the crowd density and people appearance probability. Export and display the crowd status by different colors. Generally, the crowd status is the statistics of people quantity in space and time dimensions.

#### ANPR by Camera

With deep learning algorithm, Dahua ANPR technology can recognize the number plate information of vehicles in the image with ANPR cameras. Support blocklist/allowlist mode, searching target vehicles from recorded video.

#### 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.

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### **Technical Specification**

Performance of AI by

Camera (Number of Channels)

64 channels

Technical Specification		
System		
Main Processor	Industrial-grade processor	
Operating System	Embedded Linux	
Operating Interface	Web, Local GUI	
AI		
AI by Recorder	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD Plus	
Al by Camera	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; object monitoring	
AcuPick AI by Camera + Recorder	Max. 64-channel, 1 combined event per channel	
Perimeter Protection		
Perimeter Performance Al by Recorder (Number of Channels)	Simultaneous mode: 32 channels, 10 IVS rules for each channel Heterogeneous mode: 24 channels, 10 IVS rules for each channel Refer to the information on video output for details on the mode	
Perimeter Performance of Al by Camera (Number of Channels)	All channels (64 targets/s)	
Face Detection		
Face Attributes	Gender; age group; glasses; expressions; face mask; beard	
Face Detection Performance of AI by Recorder (Number of Channels)	Simultaneous mode: 8 channels (up to 12 face images/s each channel) Heterogeneous mode: 5 channels (up to 12 face images/s each channel) Refer to the information on video output for details on the mode	
Face Detection Performance of AI by Camera (Number of Channels)	64 channels	
Face Recognition		
Face Database Capacity	Up to 40 face databases with 300,000 images, with a total capacity of 48 G.	
Face Recognition Performance of AI by Recorder (Number of Channels)	Simultaneous mode: 32-channel FD (by camera) + FR (by recorder),image stream: 32 face images/s; 8- channel FD (by recorder) + FR (by recorder), video stream: 16 face images/s Heterogeneous mode: 16-channel FD (by camera) + FR (by recorder),image stream: 16 face images/s; 5- channel FD (by recorder) + FR (by recorder), video stream: 10 face images/s Refer to the information on video output for details on the mode	
Face Recognition		

## SMD Plus

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SMD Plus by Recorder	32-channel: Secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change			
SMD Plus by Camera	All channels (128 targets/s)			
Video Metadata				
Metadata Performance of Al by Recorder (Number of Channels)	8 channels			
Metadata Performance of Al by Camera (Number of Channels)	64 channels			
People Attributes	9 human body attributes			
Human Attributes	Top color, top type, hat, bag, age, gender and umbrella			
Motor Vehicle Attributes	License plate, plate color, vehicle model, vehicle logo, plate color, ornament, calling,			
Non-motor Vehicle Attributes	Vehicle model, vehicle color, number of persons, helmet.			
Vehicle License Plate Comparison				
ANPR by Camera (Number of Channels)	All channels (64 targets/s)			
License Plate Database Capacity	Blocklist and allowlist: 20,000			
Audio and Video				
Access Channel	128 channels			
Network Bandwidth	Al disabled: 1280 Mbps incoming, 1280 Mbps recording and 1024 Mbps outgoing Al enabled: 640 Mbps incoming, 640 Mbps recording and 512 Mbps outgoing			
Resolution	32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF			
Decoding Capability	Al disabled: 2-channel 32 MP@30 fps; 2-channel 24 MP@30 fps; 4-channel 16 MP@30 fps; 5-channel 12 MP@30 fps; 8-channel 8 MP@30 fps; 11-channel 6 MP@30 fps; 12-channel 5 MP@30 fps; 16-channel 4 MP@30 fps; 32-channel 1080p@30 fps; 128-channel D1@30 fps Al enabled: 1-channel 32 MP@30 fps; 1-channel 24 MP@30 fps; 2-channel 16 MP@30 fps; 2-channel 12 MP@30 fps; 4-channel 8 MP@30 fps; 5-channel 6 MP@30 fps; 6-channel 5 MP@30 fps; 8-channel 4 MP@30 fps; 16-channel 1080p@30 fps; 80-channel D1@30 fps			

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Video Output	2 VGA, 4 HDMI; VGA: 1920 × 1080, 1280 × 1024, 1280 × 720; HDMI1&2: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720; HDMI3: 7680 × 4320, 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720; HDMI4: 1920 × 1080, 1280 × 1024, 1280 × 720 Simultaneous mode (simultaneously outputs video sources for all the HDMI1-4 and VGA1-2 ports) Max. resolution of VGA1 and VGA2 is 1080p; max. resolution of HDMI1 and HDMI2 is 4K; max. resolution of HDMI3 is 8K; max. resolution of HDMI4 is 1080p Heterogeneous mode (simultaneously outputs video sources for the VGA1 and HDMI1, or VGA2 and HDMI2. It also outputs heterogeneous video sources for HDM11-4) Max. resolution of VGA1 and VGA2 is 1080p; max. resolution of HDMI1, HDMI2 and HDMI3 is 4K; max. resolution of HDMI4 is 1080p			
Multi-screen Display	Main screen: 1/4/8/9/16/25/36/64 Sub screen: 1/4/8/9/16/25/36			
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Hanwha			
Compression Standard				
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MPEG4; MJPEG			
Audio Compression	G.711a; G.711u; PCM; G726			
Network				
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration; iSCSI			
Mobile Phone Access	iOS; Android			
Interoperability	ONVIF (Profile S/profile T/Profile G); CGI; SDK			
Browser	Chrome IE 9 or later Firefox			
Network Mode	Multi-address mode, load balance, fault tolerance and other network port binding modes			
Recording Playback				
Multi-channel Playback	Up to 16 channels			
Record Mode	Manual; alarm; motion detection; scheduled			
Backup Method	Portable hard drive, eSATA disk, burner, USB device and network			
Playback Mode	<ol> <li>Play, pause, stop, fast forward, fast backward, rewind, play by frame</li> <li>Full screen, backup (cut/file), partially enlarge, audio on/off</li> </ol>			
Storage				
Disk Group	Yes			
RAID	RAID 0/1/5/6/10			
Hot Swapping	Yes			
Alarm				
General Alarm	Motion detection; video tampering; video loss; scene changing, PIR alarm, IPC external alarm			
Anomaly Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behavior of fan			

Intelligent Alarm	Face detection; face recognition; perimeter protection (intrusion and tripwire); SMD Plus alarms; ANPR; people counting; stereo analysis; crowd distribution; heat map	
Alarm Linkage	Record; snapshot; IPC external alarm output; buzzer; log, preset; email	
Port		
Audio Input	1-channel RCA	
Audio Output	2-channel RCA	
Alarm Input	16 channels	
Alarm Output	8 channels	
Disk Interface	8 SATA ports. Each disk can contain up to 20 TB. This limit varies depending on the environment temperature.	
eSATA	1	
RS-232	1	
RS-485	$1 \times A/B$	
USB	4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports)	
HDMI	4	
VGA	2	
Network Port	2 (10/100/1000/2500 Mbps Ethernet port, RJ-45)	
General		
Power Supply	100–240 VAC, 50/60 Hz	
Redundant Power	Yes	
Power Consumption	<18 W (without HDD)	
Net Weight	8.14 kg (17.95 lb) (without HDD )	
Gross Weight	12.24 kg (26.98 lb) (without HDD)	
Product Dimensions	444.0 mm × 476.0 mm x 95.0 mm (17.48" × 18.74" × 3.74") (W × D × H)	
Packaging Dimensions	571.0 mm × 618.0 mm × 219.0 mm (22.48" × 24.33" × 8.62")(W × D × H)	
Operating Temperature	-10 °C to +55 °C (14 °F to +131 °F)	
Storage Temperature	0 °C to +40 °C (+32 °F to +104 °F)	
Operating Humidity	10%–93% (RH), non-condensing	
Installation	Rack or desktop	
Certifications	FCC: 47 CFR FCC Part15, SubpartB, Class A CE-EMC: EN 55032:2020, Class A; EN IEC 61000-3-2:2019; EN 61000-3-3:2013+A1:2019; EN 55024:2010+A1:2015; EN 55035:2020; EN 50130-4:2011+A1:2014 CE-LVD: EN 62368-1:2014+A11:2017	

# Ordering Information

Туре	Model	Description
Al Network Video Recorder	DHI-NVR608RH-128-XI	128CH 2U 8HDDs WizMind Network Video Recorder

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### Dimensions (mm[inch])





#### Panels



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