



DHI-IVSS7024DR-8I

4U 24HDD WizMind Intelligent Video Surveillance Server





Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, 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.

System Overview

Dahua IVSS goes beyond the ordinary NVR products. It is an Intelligent Video Surveillance Server that combines video management features with traditional video storage functions in one device. Besides the basic functions as a network video recorder, IVSS is integrated with features such as face detection and face recognition for different business and industrial applications.

With the build-in deep learning module, IVSS series products adopt video image metadata technology based on deep learning algorithms, offering high-precision human face recognition and perimeter protection. By applying deep learning artificial intelligence, IVSS allows users to focus on what matters most, to improve event response time and help make video actionable.

An all new UI design supports device operation and maintenance management, improving the value and experience of surveillance view, and serving the era of security big data.

Functions

Face Recognition

Supports recording faces by metadata and real-time crosscheck with incredible accuracy to figure out the face with target features. With the Regular and Stranger face mode, IVSS triggers various kinds of alarm actions for different applications.

Perimeter Protection

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

- Industry embedded micro-controller
- · Max 512Mbps incoming bandwidth
- · 256-channel IP video access
- Up to 128-channel perimeter protection
- Up to 64-channel face recognition with normal IPC
- Up to 160-channel face recognition with face detection IPC
- Up to 32-channel video metadata
- Up to 50 face databases with 300,000 face pictures in total
- · Supports RAID 0/1/5/6/10
- · 3 HDMI/1 VGA video output
- · Redundant power

















Video Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Currently, there are four main kinds of metadata in the security industry: Human face, human body, and motor vehicle and non-motor vehicle metadata.

Supports search by metadata of human and vehicles. Supports uploading face pictures to IVSS and compare them with recorded faces in IVSS by similarity. IVSS enables operators to quickly and easily search through multiple channels and long duration, to efficiently find out when and where a person of interest appeared.

Automatic Number Plate Recognition available for convenient entrance/ exit management. This feature provides number plate recognition (working with Dahua ITC camera), number plate comparison with black/ white list, vehicle database management, and vehicle record search.

N+M Hot Standby

The highly reliable redundancy N+M Hot Standby design provides a secure failover technique to ensure immediate backup. In the event of a system failure, the slave device instantly takes over the master device to ensure no data loss.

Fisheye Dewarp

Supports multiple fisheye dewarp modes to make viewing video easy whether its live or during playback.

Smart Tracking

The automatic tracking PTZ feature automatically tracks a moving target throughout the camera's field of view. This function is ideal for following an object as it moves through airports, parking lots, city centers, or other scenes.

Technical Specification		Metadata Performance (AI by camera) (Channel	64-channel
System		Number)	
Main Processor	Industry embedded micro-controller	Video Parameters	
Operating System	Embedded Linux OS	Remote Connection	256-channel
Operation Interface	WEB (PCAPP), local GUI	Network Bandwidth	Incoming bandwidth: 512Mbps recording bandwidth: 384Mbps outgoing bandwidth: 128Mbps
Al Applications		Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080P/960P/720P/
Al by Camera	Supports AI by camera function: Human face detection, human face recognition, video metadata (human/vehicle/non-motorized vehicle), perimeter protection	Decoding Capability	D1/CIF/QCIF 6-channel12MP (20fps)/7-channel12MP (15fps)/6-channel8MP (30fps)/12-channel8MP (15fps)/7-channel6MP(30fps)/9-channel5MP(30fps)/11-channel5MP (25fps)/12-channel4MP (30fps)/18-
Al by Device	Supports Al by IVSS function: Human face detection, human face recognition, video metadata (human/ vehicle/non-motorized vehicle), perimeter protection		channel4MP (20fps)/19-channel3MP (25fps)/12-channel1080P (60fps)/24-channel1080P (30fps)/36-channel720P (30fps)
Perimeter Protection Perimeter Function (AI by		Video Output	1-channel VGA output, 3-channel HDMI output, VGA 1/ HDMI 1 outputs the same video source Supports 4K output
Device) Perimeter Function (Al by	128-channel 256-channel	Multi-screen Display	Customized display Max. 36-channel local live view Max.16-channel PCAPP live view
camera) Human Face Detection		Third-party Support	Onvif, RTSP, Sony, Panasonic, Axis, Arecont, Pelco, Canon, Samsung
Human Face Properties	Supports 6 properties: Gender, age range (6 levels),	Operating System	Embedded Linux OS
Face Detection	glasses, expression (8 types), mouth mask, and beard	Operation Interface	WEB(PCAPP), local GUI
Performance (AI by Device) (1080P) (Channel	64-channel	Compression	
Number)		Video Compression	Smart H.265+/Smart H.264+/H.265/H.264
Face Detection Performance (AI by camera) (Channel	160-channel	Audio Compression	G.711A/G.711U/PCM/G726
Number)		Network	
Human Face Recognit	tion	Protocol	HTTP, HTTPS, TCP/IP, IPv4, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, P2P
Face Database Capacity	50 face databases with 300,000 face pictures in total	Mobile Phone	DMSS
Human Face Recognition Performance (AI by	64-channel with normal IP camera 160-channel with face detection IP camera (Totally 160 face pictures analyzed per second)	Interoperability	ONVIF (Profile S, T and G), CGI, SDK
Device) (1080P)(Channel Number)		Browser	Chrome, PCAPP, IE9 or higher, Firefox
Human Face Recognition Performance (AI by	400	Network Mode	NIC binding mode such as multiple-address mode, load balance, fault-tolerance, etc
camera) (Channel Number)	160-channel	Record Playback	
ANPR		Multiple-channel Playback	Max. 16-channel playback
	50 plate databases with 300,000 plate numbers in total Supports black list/white list	Record Search	Search video detection/manual record/IO alarm/ intelligent event/all record file
Plate Database Capacity		Storage Medium	Internal HDD, SAS disk array enclosure
Plate Detection Performance by ITC	64-channel	Backup Method	HDD, peripheral USB storage device
Camera (Channel Number) Video Metadata		Playback Function	Play, pause, stop, fast forward, fast backward, reverse play, frame by frame play Full-screen, backup (clip/file), snapshot, digital zoom,
Human Body Properties	Top color, top type, bottom color, bottom type, cap, bag, age, gender, and umbrella	Storage	audio on/off
Vohielo Dropoutis	Supports 9 properties: Plate, plate color, vehicle body, vehicle brand, driver calling, seatbelt status, decoration object in the vehicle, and vehicle registration place	HDD Group	24
Vehicle Properties		RAID	RAID 0/1/5/6/10
Non-motorized Vehicle Properties	Supports 4 properties: Vehicle type, vehicle color, people amount, and helmet	Storage Pool	N/A
Metadata Performance (AI by Device) (1080P) (Channel Number)	32-channel	Alarm	
		General Alarm	Motion detect, tampering, local alarm



Anomaly Alarm	IPC offline alarm, storage error, HDD full, IP conflict, MAC conflict, login lock, AI module temperature alarm, AI module offline, fan malfunction
Intelligent Alarm	Human face detection, human face recognition, video metadata (person/vehicle/non-motorized vehicle), perimeter protection (intrusion, tripwire), plate recognition
Alarm Linkage	Record, snapshot (full image), local external alarm output, IPC external alarm output, access & control, audio prompt, buzzer, log, preset, email

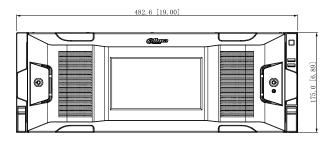
Peripheral Interface

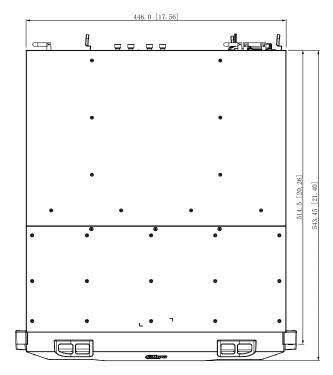
Audio Input	1-channel (reserved)
Audio Output	1-channel, speaker output, audio linkage output
Alarm Input	16-channel
Alarm Output	8-channel
Internal HDD	24 slots, SATA3.0/SAS. Max.10T/HDD
eSATA	1 port (reserved)
SAS	2 SAS3.0 ports
RS-232	1 port, for debug or transparent COM data
RS-485	1 port, control peripheral PTZ and so on Supports various protocols
USB	4 ports 2 USB2.0 port at the front panel and 2 USB3.0 port at the rear panel
HDMI	3 ports; support 4K output
VGA	1 port
Network	4 RJ-45 10/100/1000Mbps self-adaptive Ethernet ports
Power	2 ports
PoE	N/A

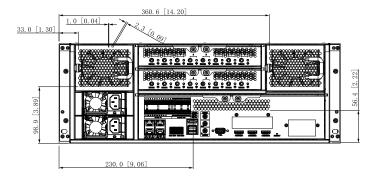
General Parameters

Power Supply	100V AC-240V AC 50±2%Hz
Power Consumption	120W (Without HDD, idling)
Net Weight	17 kg (37.48 lb)
Gross Weight	18 kg (39.68 lb)
Dimensions (W × L × H)	Chassis: 446 mm × 543.4 mm × 175 mm (17.56 " × 21.39 " × 6.89 ") Max. size: 482.6 mm (with hanger) × 543.4 mm × 175 mm (with feet mat) (19.00 " × 21.39 " × 6.89 ")
Packaging Dimensions (W × L × H)	689 mm × 779 mm × 552 mm (27.13 " × 30.67 " × 21.73 ")
Operating Conditions	0 °C to +45 °C (+32 °F to +113 °F)/10%RH-90% RH
Strorage Conditions	0 °C to +40 °C (+32 °F to +104 °F)/30%RH–85% RH
Operating Altitude	5000 m (16404.20 ft)
Installation Mode	Desktop/rack
Certifications	CE: CE-LVD: EN 60950-1/IEC 60950-1 CE-EMC: EN55024,EN55035, EN50130-4,EN60950-1 FCC: Part 15 Subpart A UL: 60950-1 and CAN/CSA C22.2 No. 60950-1-07

Dimensions(mm[inch])









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