



DHI-IVSS7108-2M

2U 8HDDs 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.

Series 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.

AI IVS

With deep learning algorithm, AI IVS technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, parking detection, loitering detection and crowd gathering estimation) are largely reduced.

- · Industry embedded micro-controller
- · Max 400 Mbps incoming bandwidth
- · 128-channel IP video access
- Up to 24-channel AI IVS
- Up to 24-channel face recognition with normal IPC
- Up to 80-channel face recognition with face detection IPC
- Up to 24-channel video metadata
- Up to 50 face databases with 500,000 face pictures in total
- Supports RAID 0/1/5/6/10/50/60
- · 4 HDMI/1 VGA video output



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.

AI Search

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.

ANPR

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 blocklist/allowlist, 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 sub device instantly takes over the main device to ensure no data loss.

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.

Number)

Technical Specification		Metadata Performance (Al by camera) (Channel	32-channel	
System		Number)	Number)	
Main Processor	Industry embedded micro-controller	Video Parameters		
Operating System	Embedded Linux OS	Remote Connection	128-channel	
Operation Interface	WEB (PCAPP), local GUI	Network Bandwidth	Incoming bandwidth: 400 Mbps recording bandwidth: 320 Mbps outgoing bandwidth: 96 Mbps	
Al Applications		Resolution	32MP/24MP/16MP/12MP/8MP/6MP/5MP/4MP/3MP/10	
Al by Camera	Face detection, face recognition, video metadata, IVS (tripwire, intrusion, abandoned object, missing object, fast moving, parking detection, crowd gathering, loitering, parking, and fence-crossing), people counting, smoking detection, call detection		80p/960p/720p/D1/CIF/QCIF 1-channel 32MP/1-channel 24MP/2-channel 16MP/5-channel 12MP (20 fps)/6-channel 12MP (15 fps)/5-channel 8MP (30 fps)/10-channel 8MP (15 fps)/6-channel 6MP(30 fps)/8-channel 5MP(30 fps)/9-channel	
Al by Device	face detection, face recognition, video metadata, IVS (tripwire, intrusion,crowd gathering, loitering detection, parking detection), plate comparison	Decoding Capability	5MP (25 fps)/10-channel 4MP (30 fps)/15-channel 4MP (20 fps)/16-channel 3MP (25 fps)/10-channel 1080p (60 fps)/20-channel 1080p (30 fps)/30-channel 720p (30 fps)	
IVS			1-channel VGA output, 4-channel HDMI output, VGA 1/	
IVS Performance (AI by Device) (Channel Number)	24-channel 2 MP or 16-channel 4 MP with normal IP camera	Video Output	HDMI 1 outputs the same video source. Supports 4K output	
IVS Performance (Al by Camera) (Channel Number)	64-channel	Multi-screen Display	1st Screen: Max.64-channel 2nd Screen: Max.16-channel 3rd Screen: Max.1-channel 4th Screen: Max.1-channel	
Human Face Detection		Third-party Support	Onvif; RTSP; Sony; Panasonic; Axis; Arecont; Pelco; Canon; Samsung	
Human Face Properties	Supports 6 properties: Gender, age, glasses, expression, mouth mask, and beard	Operating System	Embedded Linux OS	
Face Detection Performance (Al by	24-channel 2 MP or 16-channel 4 MP with normal IP	Operation Interface	WEB (PCAPP), local GUI	
Device) (Channel Number)	camera	Compression	Compression	
Face Detection Performance (AI by	80-channel	Video Compression	Smart H.265+; Smart H.264+; H.265; H.264	
camera) (Channel Number)		Audio Compression	G.711a; G.711u; PCM; G.726	
Human Face Recognit	tion	Network		
Face Database Capacity	50 face databases with 500,000 face pictures in total	Protocol	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P; iSCSI; UPnP; SNMP; IPv6	
Human Face Recognition	24-channel 2 MP or 16-channel 4 MP with normal IP camera 80-channel with face detection IP camera (Totally 80 face pictures analyzed per second)	Mobile Phone	DMSS	
Performance (AI by Device)(Channel Number)		Interoperability	ONVIF (Profile S, T and G); CGI; SDK	
Human Face Recognition	80-channel	Browser	Chrome; PCAPP; IE9 or higher; Firefox	
Performance (Al by camera) (Channel		Network Mode	NIC binding mode such as multiple-address mode, load balance, fault-tolerance, etc	
Number)		Record Playback		
ANPR	50 plate databases with 500,000 plate numbers in total	Multiple-channel Playback	Max. 16-channel playback	
Plate Database Capacity Plate Detection	Supports allowlist and blocklist	Record Search	Search video detection/manual record/IO alarm/intelligent event/all record file	
Performance by ITC	32-channel	Storage Medium	Internal HDD	
Camera (Channel Number) Video Metadata		Backup Method	HDD, peripheral USB storage device	
Human Body Properties	ender, age, sleeves length, top color, bottom type, bottom color, bag, rain coat, umbrella,hat, hairstyle, direction, hold a baby, mouth mask	Playback Function	Play, pause, stop, fast forward, fast backward, reverse play, frame by frame play Full-screen, backup (clip/file), snapshot, digital zoom, audio on/off	
Vehicle Properties	Vehicle type, vehicle color, plate color, logo, calling, seatbelt, ornament, region	Storage		
Non-motorized Vehicle	Non-motor vehicle type, non-motor vehicle color,	HDD Group	8	
Properties	number of passengers, umbrella, rain coat, bag , sleeve length, top color, hat, hair style, mouth mask	RAID	RAID 0/1/5/6/10/50/60	
Metadata Performance (AI by Device)(Channel Number)	24-channel 2 MP or 16-channel 4 MP with normal IP camera	Storage Pool	N/A	



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, entries frequency, video metadata (person/vehicle/non-motor vehicle), IVS, plate recognition, people counting, smoking, call
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, RCA port (reserved)
Audio Output	2-channel, RCA port, speaker output, audio linkage output
Alarm Input	16-channel
Alarm Output	8-channel
Internal HDD	8 slots, SATA3.0. Max. 16T/HDD
eSATA	1 port
SAS	N/A
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 ports at the front panel and 2 USB3.0 ports at the rear panel
HDMI	4 ports; support 4K output
VGA	1 ports
Network	4 RJ-45 10/100/1000 Mbps self-adaptive Ethernet ports
Power	1 port
PoE	N/A

General Parameters

Power Supply	100V AC-240V AC 50-60Hz
Power Consumption	38W (without HDD, idling) 105W (all HDDs connected)
Net Weight	7.66 kg (16.89 lb)
Gross Weight	10.24 kg (22.58 lb)
Dimensions (W × L × H)	Chassis: 439.7 mm × 446.2 mm × 89.0 mm (17.31 " × 17.57 " × 3.50 ") Max. size: 481.7 mm (with hanger) × 446.2 mm × 90.8 mm (with feet mat) (18.96 " × 17.57 " × 3.57 ")
Packaging Dimensions (W × L × H)	With Packaging: 562 mm × 599 mm × 235 mm (22.13 " × 23.58 " × 9.25 ") Protection box: 491 mm × 584 mm × 631 mm (19.33 " × 22.99 " × 24.84 ")
Operating Conditions	0 °C to +45 °C (+32 °F to +113 °F)/10%RH-90% RH
Strorage Conditions	−20 °C to +70 °C (−4 °F to +158 °F)
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])





