DHI-IVSS7112

128CH 2U Intelligent Video Surveillance Server

WizMind

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

Dahua IVSS goes beyond ordinary NVR products. It is an Intelligent Video Surveillance Server that combines video management features with traditional video storage functions in one device. Aside from the basic functions of a network video recorder, IVSS also has a variety of powerful AI features, such as face recognition, video metadata and industrial algorithms to meet the needs of different scenes.

Functions

Face Recognition (with AI Camera)

Real-time Face Detection & Recognition with AI cameras, with results for real-time face detection and recognition being displayed on the AI camera. Faces are recorded through the use of video metadata, and facial features are filtered during real-time display, focusing on only displaying faces with target features. Facial features include gender, age, expression, and more. The linkage actions for face detection and recognition events are customizable, including alarm, buzzer, snapshot, video recording, and more.

- · 64-bit High-performance multi-core processor
- · 128-channel IP video access
- · Max 768 Mbps/768 Mbps incoming/recording bandwidth
- · 12 bays, supports RAID 0/1/5/6/10/50/60
- · 4 HDMI/1 VGA video output

AI IVS (with AI Camera)

With deep learning algorithms, AI IVS technology can recognize humans and vehicles accurately. In restricted areas (such as pedestrian and vehicle areas), there is a great reduction in the generation of false alarms of intelligent detection based on target type (such as tripwire, intrusion, parking detection, loitering detection, crowd gathering estimation and more).

Video Metadata (with AI Camera)

Video Metadata is attribute information extracted from a target for data retrieval. Currently, there are 4 main kinds of metadata in the security industry: Human face, human body, motor vehicle and non-motor vehicle metadata.

ANPR

Automatic Number Plate Recognition is available for convenient entrance and exit management. This feature provides license plate recognition (working with Dahua ITC cameras), license plate comparison with blocklist and allowlist, vehicle database management, and vehicle records search.

N+M Hot Standby

The highly reliable redundancy N+M Hot Standby design provides a secure, failover technique, ensuring immediate backup. In the event of a system failure, the sub server instantly takes over the main server to ensure no data is lost.

Smart Tracking

The automatic tracking PTZ feature automatically tracks moving targets in the field of view of the camera. This function is ideal for following objects as they move through airports, parking lots, city centers, and other scenes.

Technical Specification

System

Main Processor	64-bit multi-core processor
Operating System	Embedded Linux OS
Operating Interface	Web (PCAPP), local GUI

AI Applications

AI by Camera	Face detection; face recognition; video metadata (human; vehicle; non-motor vehicle); IVS; license plate comparison; tripwire people counting; regional people counting; abnormal number of people in queue; smoking detection; call detection; face & body detection; SMD

Face Detection

Face Detection	1. AI by Camera: 80-channel 2 MP or 60-channel 4 MP resolution with face detection IP camera; 2. Supports 6 properties: Gender, age, glasses, expression, face mask, and beard

Face Recognition

Face Recognition	1. AI by Camera: 80-channel 2 MP or 60-channel 4 MP face recognition with face recognition IPC; 2. Supports entries frequency alarm

Vehicle License Plate Comparison

Vehicle License Plate Comparison	Supports 80-channel 2 MP or 60-channel 4 MP resolution with ITC

Video Metadata

Video Metadata	1. AI by Camera: Supports 80-channel 2 MP or 60-channel 4 MP resolution 2. Object type: Human body: Gender, age, sleeves length, top color, bottom type, bottom color, bag, rain coat, umbrella, hat, hairstyle, direction, hold a baby, face mask Vehicle: Vehicle type, vehicle color, plate color, logo, calling, seatbelt, ornament Non-motorized Vehicle: Non-motor vehicle type, non-motor vehicle color, number of passengers, umbrella, rain coat, bag , sleeve, length, top color, hat, hair style, face mask

IVS Analytics

IVS	1. AI by camera: Supports 80-channel 2 MP or 60-channel 4 MP 2. Rules: AI by Camera: tripwire, intrusion, abandoned object, missing object, fast moving, crowd gathering, loitering, parking, and fence-crossing

Video Diagnosis

Video Diagnosis	1. Supports 1-channel tour detection 2. Supports 13 detection items: blurry video, low contrast, video tampering, video jitter, abrupt image change, image freeze, overexposure detection, video loss, noise detection, scene changing, static noise, interference fringe and color cast

Audio and Video

Access Channel	128-channel
Network Bandwidth	Incoming bandwidth: 768 Mbps; Recording bandwidth: 768 Mbps; Outgoing bandwidth: 768 Mbps

Resolution	32 MP;24 MP;16 MP;12 MP;8 MP;6 MP;5 MP;4 MP;3 MP;1080p;720p
Decoding Capability	1-channel 32 MP@30 fps; 1-channel 24 MP@30 fps；2-channel 24 MP@25 fps; 2-channel 16 MP@30 fps; 5-channel 12 MP@20 fps; 6-channel 12 MP @15 fps; 5-channel 8 MP@30 fps; 10-channel 8 MP@15 fps; 6-channel 6 MP@30 fps; 8-channel 5 MP@30 fps; 9-channel 5 MP@25 fps; 10-channel 4 MP@30 fps; 15-channel 4 MP@20 fps; 16-channel 3 MP @25 fps; 10-channel 1080p@60 fps; 20-channel 1080p@30 fps; 30-channel 720p@30 fps
Video Output	1-channel VGA output, 4-channel HDMI output, VGA 1/HDMI 1 outputs the same video source.
Multi-screen Display	1st Screen: Max.64-channel 2nd Screen: Max.16-channel 3rd Screen: Max.1-channel 4th Screen: Max.1-channel
Third-party Camera Access	Onvif, RTSP, Sony, Panasonic, Axis, Arecont, Pelco, Canon, Samsung

Compression Standard

Video Compression	Smart H.265+;H.265;Smart H.264+;H.264
Audio Compression	G.711a;G.711u;PCM;G.726

Network

Network Protocol	HTTP;HTTPS;TCP/IP;IPv4;RTSP;UDP;SMTP;NTP;DHCP;DNS;DDNS;P2P;iSCSI;IPv6;UPnP;SNMP
Mobile Phone Access	DMSS
Interoperability	ONVIF (Profile S, T and G); CGI; SDK
Browser	Chrome; PCAPP; IE9 or higher; Firefox
Network Mode	Multiple-address mode;Load balance;Fault-tolerance;Link aggregation

Recording Playback

Multi-channel Playback	Max. 16-channel playback
Record Mode	Search video detection; IO alarm; thermal imaging; intelligent event; all record file
Storage Method	Internal HDD
Backup Method	HDD, peripheral USB storage device
Playback Function	1. Play; Pause; Stop; Fast forward; Fast backward; Reverse play; Frame by frame; 2. Full-screen; Backup (clip and file); Snapshot; Digital zoom; Audio on and off

Storage

Disk Group	Yes
Network Disk	iSCSI
RAID	RAID0;RAID1;RAID5;RAID6;RAID10;RAID50;RAID60
Record Management	Supports record control (continuous, event-based, scheduled, scheduled & event-based).

Alarm

General Alarm	Motion detection; tampering; local alarm; IPC external alarm; fire alarm; temperature alarm; temperature difference alarm; hot spot alarm; cold spot 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; no HDD; power exception
Alarm Linkage	Record; snapshot (full image); alarm uploading; remote device alarm output; camera audio; buzzer; log; preset; email, and smart tracking. Disarming alarm linkage action by period or one-click sync disarm config with channels

Port

Audio Input	1 channel
Audio Output	1 channel
Alarm Input	16 channels
Alarm Output	8 channels
Disk Interface	12 slots, SATA. Max.20 TB/HDD,hot swapping, CMR, support enterprise-grade HDD
eSATA	1 port
RS-232	1 port, for debug or COM data transmission
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 a the rear panel.
HDMI	4 ports. HDMI 1 supports 4K output.
VGA	1 port
Network Port	4 RJ-45 10/100/1000/2500Mbps self-adaptive Ethernet ports
Power	Single supply
Network Port Extension	4 RJ-45 ports 10/100/1000/2500Mbps self-adaptive Ethernet ports; 2 × 10-GbE optical fiber ports (optional)

General

Disk Bay	12
Form Factor	2U
Power Supply	100–127/200–240VAC, 50/60Hz, 7/3.5A
Power Consumption	Working(all HDDs connected): ≤ 250 W (853 BTU/hr) Working(without HDD): ≤ 120 W (410 BTU/hr) Rated: ≤ 550 W (1877 BTU/hr)
Fan	Intelligent speed regulation fan
Net Weight	12.50 kg (27.56 lb)
Gross Weight	18.84 kg (41.54 lb)
Product Dimensions	Chassis: 447.6 mm × 604.3 mm × 87 mm (17.62" × 23.79" × 3.43") (W × L × H) Max. size: 482.59 mm (with hanger) × 604.3 mm × 97 mm (with feet mat) (19.00" × 23.79" × 3.43") (W × L × H)
Packaging Dimensions	With packaging: 654 mm × 834 mm × 201 mm (22.13" × 23.58" × 9.25") (W × L × H) Protection box: 625 mm × 895 mm × 271 mm (19.33" × 22.99" × 24.84") (W × L × H)
Operating Temperature	0 °C to +45 °C (+32 °F to +113 °F)
Operating Humidity	10%–90% (RH), non-condensing

Operating Altitude	5,000 m (16,404.20 ft)
Installation	Desktop; Rack
Certifications	CE-LVD：EN 62368-1 CE-EMC：EN IEC 61000-3-2，EN 61000-3-3，EN 55032，EN 50130-4，EN 55035

Ordering Information

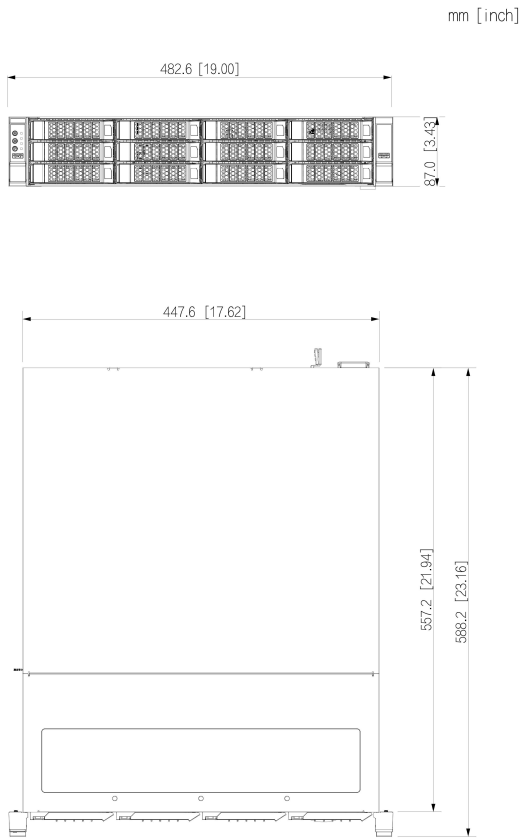| Type	Model	Description
Intelligent Video Surveillance Server	DHI-IVSS7112	128CH 2U Intelligent Video Surveillance Server
Accessories (Optional)	DHI-RB60	Server Cabinet Rail Bracket For 12-bay IVSS

Accessories

Optional:

DHI-RB60
Server Cabinet Rail
Bracket For 12-bay IVSS

Dimensions (mm[inch])

mm [inch]

482.6 [19.00]

87.0 [3.43]

447.6 [17.62]

557.2 [21.94]

588.2 [23.16]

Panels

1 2 3 4

11 10 9 8 7 6 5

1	Power Input	2	AUDIO OUT
3	eSATA Port	4	RS-232 Port
5	Ground	6	Networt Ports
7	Alarm In/Alarm Out	8	VGA Ports
9	HDMI Ports	10	USB Ports
11	AUDIO IN		