DHI-EVS8224X

Dahua 1024CH 24-bay 4U Embedded Video Storage

· Dual 64-bit High-performance multi-core processor.
· Max 1024-ch IP camera inputs.
· Max 2048 Mbps incoming/recording/outgoing bandwidth.
· 24 bays, SAS/SATA, Hot-Swap.
· Supports RAID 0/1/5/6/10/50/60,JBOD, global and private hot standby.
· Supports video stream/picture direct storage mode and IPSAN storage mode.
· Supports Automatic Network Replenishment (ANR).
· Modular and drawer-like design.
· 1+1 redundant 80PLUS platinum power supply.

System Overview

The EVS82X Series provides centralized video storage services for surveillance systems in enterprises. This highly reliable series has a modular and redundant design, uses RAID 5/6 technology and offers dual 64-bit multi-core processors, 16 GB cache (scalable to 256 GB) and N+M hot standby. Devices in this series are easy to expand, highly reliable, provide data security and perform optimally.

Functions

Modular Design

The hard disk and the main controller have a modular hardware design, and key modules such as the fan and power supply have a redundant design that improve the reliability of the overall hardware. The hard disk, fan, power supply and other modules are pluggable, and can be replaced for quick and easy maintenance.

RAID 0/1/5/6/10/50/60

Offering a balance between storage performance, storage capacity, and data integrity, the EVS features fruitful RAID 0/1/5/6/10/50/60 for faster and safer recording.

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.

Automatic Network Replenishment (ANR)

Videos are recorded and saved to the SD card of cameras when the network breaks down. When the network recovers, the videos will be transferred to EVS and then recorded through it.

Technical Specification

System

Main Processor	Dual 64-bit high-performance multi-core processor
Operating System	Embedded LINUX OS
Operating Interface	Web (PCAPP)
Controller	Single controller
Cache	16 GB by default (extendable to 256 GB)

AI Applications

AI by Camera	Face detection, face recognition, IVS (abandoned object, missing object, loitering, crowd gathering, parking, fence-crossing, fast moving, tripwire and intrusion), video metadata (human, vehicle, non-motor vehicle), vehicle recognition, people counting (fisheye or people counting camera required),face & body detection, crowd distribution, smart thermal (call detection, visible channel- smoking detection, thermal channel-smoking detection)

Camera Compatibility

Thermal	Works with camera for fire alarm, temperature alarm, temperature difference alarm, hot spot, cold spot, smoking and calling
People Counting	Works with camera for tripwire people counting, regional people counting and queue people counting
Bullet-PTZ Smart Track	Works with camera for manual tracking, auto tracking, click positioning and select positioning
Fisheye Dewarp	Supports dewarping for fisheye cameras

Cluster

Cluster	N+M

Audio and Video

Access Channel	1024

Multi-screen Display	Customized display, max 16-channel PCAPP live view
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; MJPEG
Audio Compression	G.711A; G.711U; PCM; G726

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; iSCSI; FTP; SMB; NFS; UPnP; SNMP; IPv6
Interoperability	ONVIF (Profile S); 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	Web playback, max. 16-channel playback
Record Mode	Auto record; manual record; motion detection; IO alarm
Storage Method	Internal HDD
Backup Method	Peripheral eSATA storage device; peripheral USB storage device
Playback Function	1. Play, pause, stop, fast forward, fast backward, reverse play, frame by frame 2. Full-screen, backup (clip; file), snapshot, digital zoom, audio on; off

Storage

Video Direct Storage (Private Protocol)	Incoming: 1024-channel (bandwidth: 2048 Mbps) Recording: 1024-channel (bandwidth: 2048 Mbps) Outgoing: 1024-channel (bandwidth: 2048 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
Video Direct Storage (Onvif)	Incoming: 1024-channel (bandwidth: 2048 Mbps) Recording: 1024-channel (bandwidth: 2048 Mbps) Outgoing: 1024-channel (bandwidth: 2048 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
Video Direct Storage (Auto Register)	Incoming: 1024-channel (bandwidth: 2048 Mbps) Recording: 1024-channel (bandwidth: 2048 Mbps) Outgoing: 1024-channel (bandwidth: 2048 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
Picture Direct Storage	Incoming: 400-channel (550 KB/picture) Recording: 400-channel (550 KB/picture) Outgoing: 400-channel (550 KB/picture)
Disk Group	Yes
RAID	RAID0; RAID1; RAID5; RAID6; RAID10; RAID50; RAID60
Record Management	Supports record control (continuous, event-based, scheduled, scheduled & event-based)
Storage Pool	Yes

IPSAN

IPSAN Performance	400-channel × 2 Mbps video stream writing and 24-channel × 2 Mbps video playback (I/O size of VMS is 64 KB)

Alarm

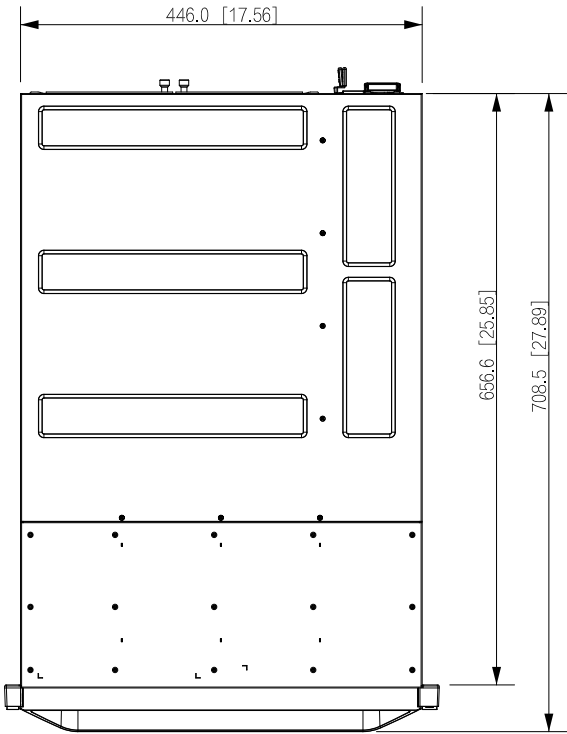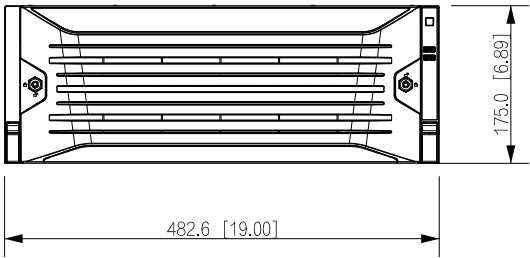|	
General Alarm	Motion detect; tampering; IPC external alarm
Anomaly Alarm	IPC offline alarm; storage error; HDD full; video frame loss; SSD exception; IP conflict; MAC conflict; login lock; fan malfunction; no HDD; network security exception; power exception; disk health exception; RAID exception; low quota space; storage pool exception; temperature alarm; share service
Alarm Linkage	Record; snapshot (full image); alarm uploading; remote device alarm output; camera audio; buzzer; log; preset; email, smart tracking and warning light. Disarming alarm linkage action by period or one-click sync disarm configuration with channels

Port

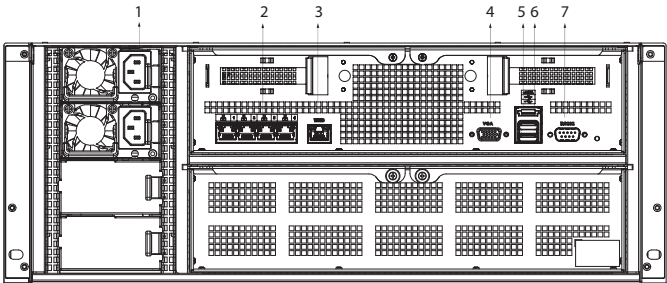|	
HDD Interface	24 slots, SATA; SAS Max.18 T/HDD hot swapping CMR support enterprise-grade HDD
eSATA	1 port
RS-232	1 port
USB	2 × USB3.0 and 2 × USB2.0
VGA	1 port, only for debug
Network Port	1 × 1-GbE management port; 4 × 1-GbE LAN ports
Power	1+1 redundant power supply
Network Port Extension	4×10-GbE optical fiber ports (optional)

General

Disk Bay	24
Form Factor	4U
Power Supply	100–127 VAC/200–240 VAC, 50/60 Hz
Power Consumption	<130 W (without HDD, idling) <600 W (all HDDs connected)
Fan	Intelligent speed regulation fan
Net Weight	31 kg (79.37 lb)
Gross Weight	46 kg (101.41 lb)
Product Dimensions	737 mm × 483 mm (with hanger) × 175 mm (29.02" × 19.02" × 6.89") (L × W × H)
Operating Temperature	0 °C to 45 °C (+32 °F to +113 °F)
Operating Humidity	10%–80% (RH), non-condensing
Operating Altitude	5000 m (16404.20 ft)
Installation	Standard 19 inch rack
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

Ordering Information

Type	Model	Description
Embedded Video Storage	DHI-EVS8224X	Dahua 1024CH 4U Embedded Video Storage

Dimensions (mm [inch])

175.0 [6.89]

482.6 [19.00]

446.0 [17.56]

656.6 [25.85]

708.5 [27.89]

Panels

1   2   3   4   5 6   7

1	Power Input	2	Network Port
3	WEB Port	4	VGA Port
5	eSATA Port	6	USB Port
7	RS-232 Port		