

DHI-EVS5148S-KS1

Dahua 320CH 48-bay 6U Embedded Video Storage



- 64-bit high-performance multi-core processor.
- Max 320-ch IP camera inputs.
- Max 800 Mbps incoming/recording/forwarding bandwidth.
- 48 bays, SATA (3.5/2.5), Hot-Swap.
- Supports RAID 0/1/5/6/10/50/60, Hot spare.
- Supports video stream direct storage mode and IPSAN storage mode.
- Supports N+M cluster.
- Supports Automatic Network Replenishment (ANR).
- Modular and drawer-like design.
- 1+1 redundant 80PLUS platinum power supply.

System Overview

EVS5 Series offers unparalleled storage technology. It is designed and developed to meet the needs of medium-range to high-end IP video surveillance applications. Combined with hot-swap power supplies and hard disk drives, the EVS offers real Enterprise Class availability. This EVS is compatible with numerous third-party devices making it the perfect solution for surveillance systems with or without a video management system (VMS). Its open architecture supports multi-user access and is compatible with ONVIF 2.4.

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		Playback Function	
Main Processor	64-bit high-performance multi-core processor	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	
Operating System	Embedded Linux OS	Storage	
Operating Interface	Web (PCAPP)	Video Direct Storage (Private Protocol)	Incoming: 320-channel (bandwidth: 800 Mbps) Recording: 320-channel (bandwidth: 800 Mbps) Outgoing: 320-channel (bandwidth: 800 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
Controller	Single controller	Video Direct Storage (Onvif)	Incoming: 320-channel (bandwidth: 800 Mbps) Recording: 320-channel (bandwidth: 800 Mbps) Outgoing: 320-channel (bandwidth: 800 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
Cache	8 GB by default (extendable to 64 GB)	Video Direct Storage (Auto Register)	Incoming: 320-channel (bandwidth: 800 Mbps) Recording: 320-channel (bandwidth: 800 Mbps) Outgoing: 320-channel (bandwidth: 800 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
AI Applications		Video Direct Storage (International Protocol)	Incoming: 320-channel (bandwidth: 800 Mbps) Recording: 320-channel (bandwidth: 800 Mbps) Outgoing: 320-channel (bandwidth: 800 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
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)	Picture Direct Storage	Incoming: 120-channel (550 KB/picture) Recording: 120-channel (550 KB/picture) Outgoing: 120-channel (550 KB/picture) Playback: 32-channel (550 KB/picture)
Camera Compatibility		Disk Group	Yes
Thermal	Works with camera for fire alarm, temperature alarm, temperature difference alarm, hot spot, cold spot, smoking and calling	iSCSI	Supports client and Server
People Counting	Works with camera for tripwire people counting, regional people counting and queue people counting	Network Disk	Supports client
Bullet-PTZ Smart Track	Works with camera for manual tracking, auto tracking, click positioning and select positioning	RAID	RAID 0/1/5/6/10/50/60; (with enterprise-grade HDD)
Fisheye Dewarp	Supports dewarping for fisheye cameras	Record Management	Supports record control (continuous, event-based, scheduled, scheduled & event-based).
Cluster		Storage Pool	Yes
Cluster	N+M	IPSAN	
Audio and Video		IPSAN Performance	280-channel × 2 Mbps video stream writing and 24-channel × 2 Mbps video playback(I/O size of VMS is 64 KB) 400-channel × 2 Mbps video stream writing and 24-channel × 2 Mbps video playback(I/O size of VMS is 512 KB)
Third-party Camera Access	Onvif, Onvifs, RTSP, Sony, Panasonic, Axis, Arecont, Pelco, Canon, Samsung, Hikvision	IPSAN Function	Dynamic online extension of logic volumes
Compression Standard		IPSAN Mode	Yes
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG	Alarm	
Audio Compression	G.711A; G.711U; PCM; G726	General Alarm	Motion detect; tampering; IPC external alarm
Network		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; storage pool exception; temperature alarm; share service
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P; GAT1400; iSCSI; FTP ; SMB ; NFS	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 config with channels
Mobile Phone Access	DMSS	Port	
Interoperability	ONVIF (Profile S, T and G); CGI; SDK	HDD Interface	48 slots, SATA, Max.20 T/HDD, hot swapping CMR support enterprise-grade HDD
Browser	Chrome; PCAPP; IE9 or higher; Firefox	eSATA	1 port
Network Mode	NIC binding mode such as multiple-address mode, load balance, fault-tolerance, link aggregation, etc		
Recording Playback			
Multi-channel Playback	Max. 16-channel playback		
Record Mode	Auto record; manual record; search video detection; IO alarm; thermal imaging; intelligent event; all record file		
Storage Method	Internal HDD and network disk		
Backup Method	HDD, peripheral USB storage device, eSATA		

RS-232	1 port, for debug or COM data transmission
USB	4 ports. 2 USB2.0 ports at the front panel and 2 USB3.0 ports at the rear panel
HDMI	1 port, only for debug
Network Port	4 RJ-45 10/100/1000 Mbps self-adaptive Ethernet ports. (gigabit electrical port) 1 RJ-45 10/100 Mbps self-adaptive Ethernet ports. (100 Mbps electrical port)
Power	1+1 redundant power
Network Port Extension	4 × 1-GbE LAN ports (optional) 2 × 10-GbE optical fiber ports (optional)

General

Power Supply	100-240 VAC 50-60 Hz
Power Consumption	<100 W (without HDD, idling) <500 W (all HDDs connected)
Fan	Intelligent speed regulation fan
Net Weight	35.2 kg (77.60 lb)
Gross Weight	76.5 kg (168.65 lb)
Product Dimensions	Chassis: 446 mm × 261.4 mm × 736.5 mm (17.56" × 10.33" × 29.00") (W × L × H) Max. size: 482.6 mm (with hanger) × 264.1 mm × 736.5 mm (19.00" × 10.33" × 29.00") (W × L × H)
Packaging Dimensions	With packaging: 682 mm × 795 mm × 957mm (26.85" × 31.30" × 37.68") (W × L × 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
48-bay EVS	DHI-EVS5148S-KS1	48-bay Embedded Video Storage

Dimensions (mm [inch])

