DHI-EVS5016S-R-V2

16-bay Embedded Video Storage



- 64-bit high-performance multi-core processor.
- Max 320-ch IP camera inputs.
- Max 800 Mbps incoming/recording/forwarding bandwidth.
- 16 bays, SATA, 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 ideal for a wide range of applications such as public safety, transportation stations, government institutions, hotel resorts, shopping malls, city centers, and financial institutions, where demand expansion flexibility, high reliability and centralized storage management.

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

Main Processor	64-bit high-performance multi-core processor
Operating System	Embedded Linux OS
Operating Interface	Web (PCAPP)
Controller	Single controller
Cache	8 GB by default (extendable to 32 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

Third-party Camera Access	Onvif, Onvifs, RTSP, Sony, Panasonic, Axis, Arecont, Pelco, Canon, Samsung, Hikvision

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; P2P; GAT1400; iSCSI; FTP ; SMB ; NFS
Mobile Phone Access	DMSS
Interoperability	ONVIF (Profile S); CGI; SDK
Browser	Chrome; PCAPP; IE9 or higher; Firefox
Network Mode	NIC binding mode such as multiple-address mode, load balance, fault-tolerance, 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
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: 320-channel (bandwidth: 800 Mbps) Recording: 320-channel (bandwidth: 800 Mbps) Outgoing: 320-channel (bandwidth: 800 Mbps) Playback: 32-channel (bandwidth: 64 Mbps)
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)
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)
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)
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)
Disk Group	Yes
iSCSI	Supports client and Server
Network Disk	Supports client
RAID	RAID 0/1/5/6/10/50/60; (with enterprise-grade HDD)
Record Management	Supports record control (continuous, event-based, scheduled, scheduled & event-based).
Storage Pool	Yes

IPSAN

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)

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; 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 config with channels

Port

HDD Interface	16 slots, SATA Max.20 T/HDD hot swapping CMR support enterprise-grade HDD
eSATA	1 port

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

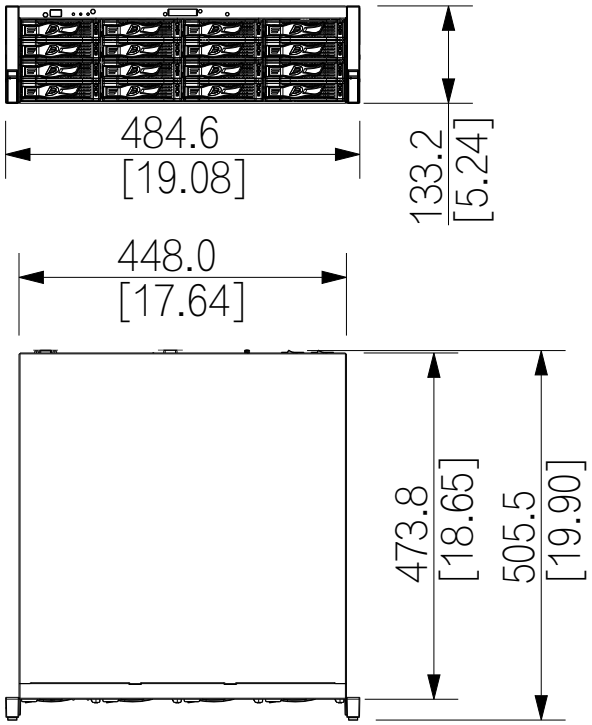
General

Power Supply	100-240 VAC 50-60 Hz, 6.3A-3.5A
Power Consumption	<60 W (without HDD, idling) <220 W (all HDDs connected)
Fan	Intelligent speed regulation fan
Net Weight	15.5 kg (34.17 lb)
Gross Weight	17.2 kg (37.92 lb)
Product Dimensions	Chassis: 484.6 mm × 133.2 mm × 473.6 mm (19.08" × 5.24" × 18.65") (W × L × H)
Packaging Dimensions	With packaging: 589mm × 619 mm × 290 mm (23.19" × 24.37" × 11.42") (W × L × H) Protection box: 605 mm × 635 mm × 312 mm (23.82" × 25.00" × 12.28") (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

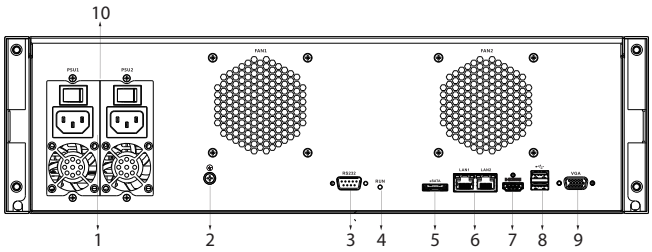
Ordering Information

Type	Model	Description
16-bay EVS	DHI-EVS5016S-R-V2	16-bay Embedded Video Storage

Dimensions (mm[inch])



Panels



1	Power Input	2	Ground
3	RS-232 Port	4	Operation Indicator Light
5	eSATA Port	6	Network Ports
7	HDMI Port	8	USB Ports
9	VGA Port	10	Power Switches

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