

# DHI-EVS7148D

## 48-bay Embedded Video Storage



- Dual-controller, Active-Active
- 64-bit High-performance multi-core processor
- Max 512-ch IP camera inputs
- Max 1024 Mbps incoming/recording/forwarding bandwidth
- 48 HDDs, SAS disk, Hot-Swap
- Supports RAID0/1/5/6/10/50/60, JBOD, Hot spare
- Supports video stream direct storage mode
- Supports Automatic Network Replenishment (ANR)
- Modular and drawer-like design
- 1+1 redundant 80PLUS platinum power supply

### System Overview

DHI-EVS7148D offers unparalleled storage technology. It is designed and developed to meet the needs of medium-range to high-end IP video surveillance applications. It supports 512 channels of IP camera inputs, and 1024Mbps incoming/recording/forwarding bandwidth.

Combined with hot-swap power supplies, fans and hard disk drives, the EVS offers real Enterprise Class availability. The EVS supports dual-controller Active-Active mode, ensuring no video loss during main-sub switch. 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

All key modules are hot-swap and redundant configuration. Redundant fans, redundant power, and multi-redundant design ensure stability. The brand new design for disk carrier ensures good cooling, stability and safety for hard disks.

#### Storage Extension Capacity

Local extension, connecting to expansion storage cabinet by mini SAS interface. Extension storage supports redundant power and RAID.

#### 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.

#### Dual-controller

There is a main controller and a standby controller (hardware redundancy). The standby controller is always active, and will automatically take over the business when the main controller goes wrong.

In the Active-Active mode, after standby-controller real-time transmission service is enabled, the standby server pulls streams and there is no video loss during main-sub switch.

#### ANR (Automatic Network Replenishment)

Video is recorded in SD card in IP cameras when the network breaks down, and after the network is recovered, the video will be transferred to EVS and then recorded on it.

### Technical Specification

#### System

Main Processor	64-bit multi-core processor
Operating System	Embedded Linux
Operating Interface	Web
Controller	Dual-controller
Cache	16 GB by default (extendable to 64 GB)/controller
Power Redundancy	1+1

#### Port

SAS	2 × SAS (up to 12 Gbps)/controller
Network Port	1 × 1 GbE management port/controller; 4 × 1 GbE LAN ports/controller
Network Port Extension	4×1-GbE LAN ports/controller and 2×10-GbE optical fiber ports/controller are optional
eSATA	1 × eSATA/controller
RS-232	1 × DB9/controller
HDMI	1 × HDMI/controller

#### Internal Interface

M.2 SSD Port	2 × NVMe SSD ports/controller
PCI-E Port	1 × PCI-E X8/controller; 1 × PCI-E X4/controller
Drive Bay	1 × 2.5 inch SATA/controller

#### Disk

Number of Disk	48
Disk Compatibility	1 TB; 2 TB; 3 TB; 4 TB; 5 TB; 6 TB; 8 TB; 10 TB; 12 TB; 14 TB; 16 TB; 2.5-inch and 3.5-inch HDD Support simultaneously connecting to SAS/SSD
Disk installation	Independent disk tray
Hot Swapping	Yes
Disk Mode	RAID0;RAID1;RAID5;RAID6;RAID10;RAID50;RAID60; JBOD;Hot-Spare
Disk Management	Non-working disks automatic sleep
Disk Processing	Bad sector mapping
Disk Status Detection	Inspection before use and during use

#### Performance

Video Direct Storage (Private Protocol)	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback
Video Direct Storage (Onvif)	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback
Video Direct Storage (Auto Register)	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback
Picture Direct Storage	Up to 512-channel access, storage, and forwarding (250 KB/Picture)
IPSAN Performance	Write-through: 900 Mbps Write-back: 1200 Mbps

### Function

IPSAN Mode	Yes
IPSAN Function	Dynamic online extension of logic volumes
Video Stream Mode	Direct storage
Network Protocol	HTTP; RTSP; UDP; NTP; iSCSI; SNMP; RTCP; RTP
Streaming Media Protocol	ONVIF
Automatic Network Replenishment (ANR)	Yes
Network Mode	Multiple-address, Link aggregation, Fault-tolerance, Load balance
Quick RAID	Yes
RAID Instant Use	Yes
RAID Rebuild	Self-adaptive rebuilding
RAID-Write Synchronization	Yes
Record Mode	Scheduled, manual, motion-triggered and alarm triggered recording
Recording Playback	Web playback Search video by second Adjustable playback speed
Recording Backup	Back up videos through USB, network, and eSATA
AI by Camera	MPEG4; MJPEG; H.264; H.265; SVAC camera access

### General

Power Supply	100–127/200–240 VAC, 50/60 Hz, 5/2.5 A
Fan	Dual ball-bearing fans
Power Consumption	< 500 W (include disks)
Operating Temperature	0 °C to +45 °C (+32 °F to +113 °F)
Operating Humidity	10%–80% (RH), non-condensing
Storage Temperature	–20 °C to +70 °C (–4 °F to +158 °F)
Storage Humidity	5%–90% (RH), non-condensing
Operating Altitude	≤ 5,000 m (16404.20 ft)
Certifications	CE: EN 55024; EN 55032; EN 55035; EN 50130-4; EN 61000-3-2; EN 61000-3-3; EN 62368 FCC: ANSI C63.4, 47 CFR PART 15B Subpart B
Case	1.2 mm hot dip galvanized steel plate Independent developed pull-out disk tray
Product Dimensions	With hanger: 482.6 mm × 261.4 mm × 736.5 mm (19.00" × 10.29" × 29.00") (W × H × D) Without hanger: 446 mm × 261.4 mm × 736.5 mm (17.56" × 10.29" × 29.00") (W × H × D)
Net Weight	36 kg (79.37 lb)
Gross Weight	75 kg (165.34 lb)
Installation	Standard 19 inch rack

### Ordering Information

Type	Model	Description
48-bay EVS	DHI-EVS7148D	48-bay Embedded Video Storage
24-bay ESS	ESS3124D-JR	24-bay Expansion Storage Cabinet

### Expansion Storage Cabinet

