

EVS7048S-R

48-HDD Enterprise Video Storage



- Intel Processor
- Max 768 IP Camera Inputs
- Max 1536Mbps Incoming/recording Bandwidth
- 48 HDDs, SAS/SATA, Hot-Swap
- Supports RAID 0/1/3/4/5/6/10/50/60/ JBOD, Hotspare
- iSCSI and Mini SAS for Expanded Storage Space
- Support standard iSCSI Protocol Storage
- Modular&Cableless Design
- Redundant Power

System Overview

EVS7048S-R 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 768 channels of IP camera inputs, and 1536Mbps incoming/recording/forwarding bandwidth.

Combined with hot-swap power supplies, fans 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

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

Storage Extension Capacity

Local extension, connect to ESS extension storage by mini SAS interface. Extension storage support redundant power and RAID.

RAID 0/1/3/4/5/6/10/50/60

Offering a balance **between** storage performance, storage capacity, and data integrity, the NVR features fruitfull 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 slave instantly takes over the master ensuring no data is lost.

ANR (Automatic Network Replenishment Technology)

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

Technical Specification

System

| | |
|------------------|---|
| Main Processor | 64-bit high-performance Intel processor |
| Controller | Single controller |
| Memory | 8GB by default(up to 16GB) |
| Operating System | Embedded LINUX |
| User Interface | Web |

Working Mode

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|-------------------|---|
| Video Stream Mode | Max 768 channel 1536Mbps for incoming/recording/forwarding 64 channel(128Mbps) network playback |
| Transfer Mode | 4096Mbps front-end connection 4096Mbps network transfer |
| IP SAN Mode | Storage bandwidth shall not be less than 3.6Gbps |

Storage

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|------------------|--|
| HDD Amount | 48 HDDs, Up to 6 TB capacity for each HDD SAS/SATA HDD composite connection |
| miniSAS | 2 miniSAS ports, for storage extension |
| HDD Installation | Additional HDD bracket, HDD hot-swap, HDD online replacement |
| HDD Mode | Single, RAID 0/1/3/4/5/6/10/50/60/JBOD, hotspare |

Storage Management

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|------------------------|--|
| HDD Manager | Non-working HDD hibernation to guarantee sound ventilation, reduce power consumption and enhance HDD life span HDD bad track mapping to enhance HDD life span |
| RAID Rebuild | Dynamically adjust RAID rebuild speed to guarantee system load balance |
| Logic Volume Manager | Support iSCSI volume management, NAS(SMB/NFS/FTP) volume management |
| Snapshot | Support snapshot function, create user volume to back data. |
| Extract Frame | Support extracting P frame function. Customized extracting period and frame rate setup. |
| Cluster Service | N+M cluster service |
| ANR | After disconnection, system can download the record file from the SD card on the network camera to maintain the full record file. |
| Shortcut RAID Creation | Click one button to create RAID conveniently. |

Playback and Backup

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| Search Mode | Time/Date, Channel, Alarm, MD and Exact Search (accurate to second) |
| Playback Function | Play, Pause, Stop, Fast play, Slow play, Full screen, Backup selection, Digital zoom |
| Backup Mode | USB Device/Network/eSATA Device |

Third-party Support

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|---------------------|---|
| Third-party Support | Dahua, AEBell, Arecont, AXIS, Dynacolor, HIKVISION, LG, Panasonic, PSIA, Samsung, Sony, Vivotec, and more |
|---------------------|---|

Recording

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|-----------------|---|
| IP Camera Input | 768 Channel |
| Record Rate | 1536Mbps |
| Record Mode | Manual, Schedule(Regular, Continuous), Motion Detection, Alarm |
| Record Interval | 1 ~ 120 min(default 60 min) Pre-record 1 ~ 30 sec, Post-record 10 ~ 300 sec. 1 frame storage by period. |

Auxiliary Interface

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| USB | 1 USB 3.0 |
| Multiplex Interface | 1 USB 2.0 & eSATA multiplex interface |
| RS232 | 1 Port, for PC communication and Keyboard |
| RS485 | 1 Port, for PTZ control |

Network

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|---------------------|---|
| Interface | 1 management RJ-45 ports (10/100/1000Mbps) 4 data RJ-45 ports (10/100/1000Mbps) |
| Network Mode | Multi-address, Fault-tolerance, Load balance, Link aggregation |
| Network Function | HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTP, RTCP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, iSCSI, SMB, NFS, FTP, Alarm Server, IP Search (Support Dahua IP camera, DVR, NVS, etc.) |
| Expansion Interface | 2 Giga Optical Fiber Interface |
| Max. User Access | 128 users |
| Smart Phone | iPhone, iPad, Android |
| Interoperability | ONVIF 2.4, CGI Conformant |

Electrical

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|-------------------|--|
| Power Supply | AC100V ~ 240V, 47 ~ 63 Hz 2 + 2 Redundant power, Hot-swap |
| Power Consumption | <1000W (With HDD) |
| Fan | DC12V, 1.5A, Diameter 80mm MTBF > 100,100 hours, Hot-swap |

Environmental

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|--------------------|--|
| Working Conditions | 0°C ~ +40°C (+32°F ~ +104°F), 10% ~ 80% RH |
| Storage Conditions | -20°C ~ +70°C (-4°F ~ +158°F), 5% ~ 90% RH |
| Working Altitude | -60m ~ 5000m |

Construction

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|-----------------------|---|
| Chassis | 1.2mm extra-thickness hot-dip galvanized steel. High accuracy aluminum alloy slider. Self-developed patent removable HDD bracket. |
| Dimensions(W x D x H) | 8U, 482.6mm x 558.5mm x 352.8mm ; (19.0" x 22.0" x 13.9") |
| Net Weight | 50kg (110.2 lb) (without HDD) |
| Gross Weight | 70kg (154.3 lb) |
| Installation | Standard 19-inch rack installation |

Certifications

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|-----|---|
| CE | EN55022, EN55024, EN50130-4, EN60950-1 |
| FCC | Part 15 Subpart B, ANSI C63.4-2009 |
| UL | UL 60950-1 and CAN/CSA C22.2 No.60950-1 |

Ordering Information

| Type | Part Number | Description |
|-------------|-------------|---------------------------------|
| 48-HDD EVS | EVS7048S-R | 48-HDD Enterprise Video Storage |
| Accessories | ESS3124S-JR | 24 HDDs SAS Storage Cabinet |
| | ESS3148S-JR | 48 HDDs SAS Storage Cabinet |

Accessories



ESS3124S-JR



ESS3148S-JR