

# DHI-EVS8248X

Dahua 1024CH 48-bay 6U Embedded Video Storage



- Dual 64-bit High-performance multi-core processor.
- Max 1024-ch IP camera inputs.
- Max 2048 Mbps incoming/recording/outgoing bandwidth.
- 48 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.
- 2+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<br>2. Full-screen, backup (clip; file), snapshot, digital zoom, audio on; off |

Storage

|                                         |                                                                                                                                                                                               |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video Direct Storage (Private Protocol) | Incoming: 1024-channel (bandwidth: 2048 Mbps)<br>Recording: 1024-channel (bandwidth: 2048 Mbps)<br>Outgoing: 1024-channel (bandwidth: 2048 Mbps)<br>Playback: 32-channel (bandwidth: 64 Mbps) |
| Video Direct Storage (Onvif)            | Incoming: 1024-channel (bandwidth: 2048 Mbps)<br>Recording: 1024-channel (bandwidth: 2048 Mbps)<br>Outgoing: 1024-channel (bandwidth: 2048 Mbps)<br>Playback: 32-channel (bandwidth: 64 Mbps) |
| Video Direct Storage (Auto Register)    | Incoming: 1024-channel (bandwidth: 2048 Mbps)<br>Recording: 1024-channel (bandwidth: 2048 Mbps)<br>Outgoing: 1024-channel (bandwidth: 2048 Mbps)<br>Playback: 32-channel (bandwidth: 64 Mbps) |
| Picture Direct Storage                  | Incoming: 400-channel (550 KB/picture)<br>Recording: 400-channel (550 KB/picture)<br>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; 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.<br>Disarming alarm linkage action by period or one-click sync disarm configuration with channels                       |

Port

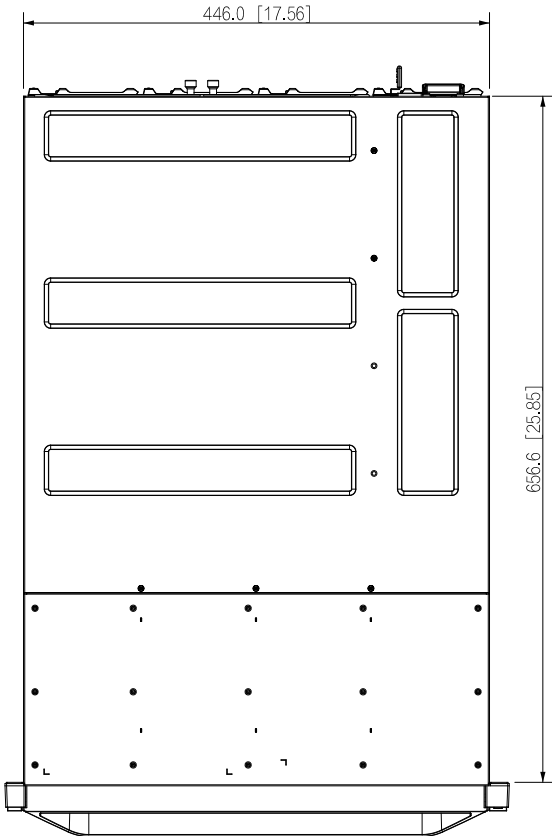
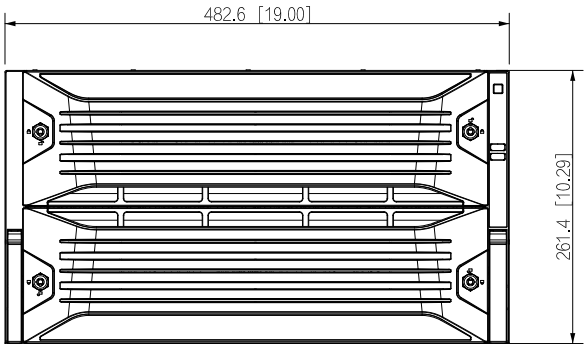
|                        |                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------|
| HDD Interface          | 48 slots, SATA; SAS<br>Max.20 TB/HDD<br>hot swapping<br>CMR<br>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                  | 2+1 redundant power supply                                                                  |
| Network Port Extension | 4×10-GbE optical fiber ports (optional)                                                     |

General

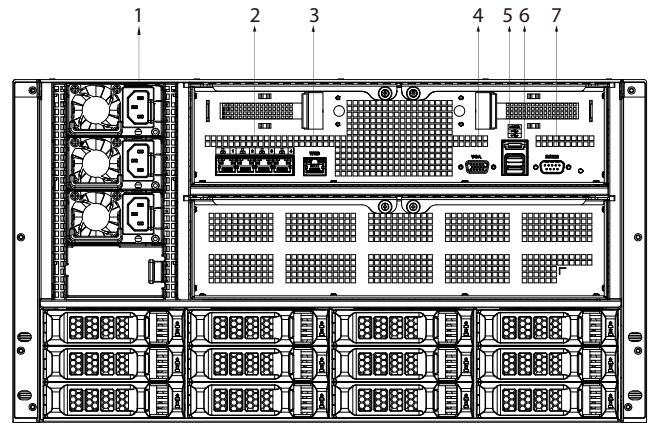
|                       |                                                                                                                                  |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Disk Bay              | 48                                                                                                                               |
| Form Factor           | 6U                                                                                                                               |
| Power Supply          | 100–127 VAC/200–240 VAC, 50/60 Hz                                                                                                |
| Power Consumption     | Working(all HDDs connected): ≤ 600W(2048 BTU/hr)<br>Working(without HDD): ≤ 200W(682 BTU/hr)<br>Rated: ≤ 1200W(4095 BTU/hr)      |
| Fan                   | Intelligent speed regulation fan                                                                                                 |
| Net Weight            | 38 kg (83.78 lb)                                                                                                                 |
| Gross Weight          | 77 kg (169.76 lb)                                                                                                                |
| Product Dimensions    | 737 mm × 483 mm (with hanger) × 262 mm (29.02" × 19.02" × 10.31") (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<br>CE-EMC: EN 61000-3-2, EN 61000-3-3, EN 55032, EN 50130, EN 55024<br>FCC: Part 15 Subpart B |

| Ordering Information   |              |                                               |
|------------------------|--------------|-----------------------------------------------|
| Type                   | Model        | Description                                   |
| Embedded Video Storage | DHI-EVS8248X | Dahua 1024CH 36-bay 4U Embedded Video Storage |

Dimensions (mm [inch])



Panels



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