

# NVR 128CH RAID INT 4K 16 SATA

## 128 Channel Super 4K Network Video Recorder



- Intel Processor
- Max 128 IP Camera Inputs with IVS Recording
- Max 384 Mbps Incoming Bandwidth
- Up to 12 MP Resolution for Preview and Playback
- 16 Hot-swap HDDs, Up to 96 TB
- Supports RAID 0 /1/5 /6/10 /50 /60
- iSCSI and Mini SAS for Expanded Storage Space
- Smart Tracking
- Intelligent Video System with Business Analytics (two IP channels)



### System Overview

Dahua's next generation network video recorder offers unparalleled recording technology for IP video surveillance applications. For applications where details are critical for identification, this enterprise-level NVR provides a powerful Intel processor with up to 4K resolution. It supports 128 channels of IP camera inputs, and 16 playback channels. Additionally, the NVR features a mouse shortcut operation menu, remote management and control, centre storage, edge storage, and back up storage.

Designed as a low-cost, easy installation, this NVR is ideal for a wide range of applications such as public safety, water conservancy, transportation, city centers, education, and financial institutions. The NVR 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, enabling interoperability when combined with 4K cameras

### Functions

#### RAID 0/1/5/6/10/50/60

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.

#### Fisheye Dewarping

The NVR features multiple fisheye dewarping modes to make viewing video easy whether its live or during playback.

#### 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.

### 4K Resolution

The NVR supports 4K Ultra HD resolution (3840 x 2160) for recording, live viewing and playback.

### Intelligent Video System (IVS)

With built-in intelligent video analytics (on two IP channels), the NVR has the ability to detect and analyze moving objects for improved video surveillance. The NVR provides standard intelligence features allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, Heat Map, ideal for business intelligence, and Facial Detection, for searching or identification of individuals.

### Heat Map

The NVR's Heat Map option highlights the areas with the highest concentration of people. This information can then be exported into a customized report to assist in business or forensic analysis.

### Point of Sale (POS)

Ideal for grocery and retail stores, the optional POS solution allows the NVR to receive a POS transaction via corresponding video. This feature allows merchants to analyze specific transactions via the Fuzzy search Algorithm.

### Smart Tracking

The auto tracking PTZ feature automatically tracks a moving target throughout the camera's field of view. This function is ideal for following an object as it moves through airports, parking lots, city centers, or other applications.

### Automatic Network Replenishment (ANR) Technology

Network Video Recorders with the ANR function automatically store video data on an IP camera SD card when the network is disconnected. After recovery of the network, the NVR automatically retrieves the video data stored on the camera.



## Technical Specification

### System

|                  |                           |
|------------------|---------------------------|
| Main Processor   | Intel Quad-core Processor |
| Operating System | Embedded LINUX            |

### Display

|                      |                                                                          |
|----------------------|--------------------------------------------------------------------------|
| Interface            | 2 HDMI (up to 3840 × 2160 , Different Source), 1 VGA                     |
| Resolution           | 3840 × 2160 , 1920 × 1080 , 1280 × 1024, 1280 × 720 , 1024 × 768         |
| Multi-screen Display | 1st Screen: 1/4/8/9/16/25/36<br>2nd Screen: 1/4/8/9/16                   |
| OSD                  | Camera title, Time, Video loss, Camera lock, Motion detection, Recording |

### Video Detection and Alarm

|                        |                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------|
| Trigger Events         | Recording, PTZ, Tour, Alarm Out, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips |
| Video Detection        | Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Camera Blank                    |
| Alarm input            | 16 Channel, Low Level Effective, Green Terminal Interface                                 |
| Relay Output           | 8 Channel, NO/NC Programmable, Green Terminal Interface                                   |
| Tracking Trigger Event | Targeting, Zoom, Tracking, Recording, Snapshot, Alarm, etc.                               |

### Playback and Backup

|                   |                                                                                                                                                                       |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Playback          | 128 Mbps in Raid 5 Mode<br>64 Mbps in single HDD Mode                                                                                                                 |
| Search Mode       | Time /Date, Alarm, MD and Exact Search (accurate to a second)                                                                                                         |
| Playback Function | Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom |
| Backup Mode       | USB Device/Network/Internal SATA burner/eSATA Device                                                                                                                  |

### Storage

|              |                                                              |
|--------------|--------------------------------------------------------------|
| Internal HDD | 16 SATA III Ports, Up to 96 TB                               |
| HDD Mode     | Single, Raid 0/1/5/6/10/50/60 (Support Global HDD Hot-spare) |
| eSATA        | 1 eSATA Port                                                 |

### Auxiliary Interface

|             |                                                                                             |
|-------------|---------------------------------------------------------------------------------------------|
| Front Cover | Support Hot-swap, 7-inch HD LCD (1920 x 1080 / 1280 x 1024 / 1024 x 768) (Model – D and DR) |
| USB         | 4 USB Ports (3 USB 2.0 , 1 USB 3.0 )                                                        |
| SAS         | 1 Mini SAS Port, for Storage Expansion                                                      |
| RS232       | 1 Port for PC Communication and Keyboard                                                    |
| RS485       | 1 Port for PTZ Control                                                                      |

### Third-party Support

|                     |                                                                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Third-party Support | Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and more |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|

### Audio and Video

|                 |                                        |
|-----------------|----------------------------------------|
| IP Camera Input | 128 Channel                            |
| Two-way Talk    | 1 Channel Input, 1 Channel Output, RCA |

### Recording

|                 |                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------|
| Compression     | H.265/H.264/MJPEG                                                                                                    |
| Resolution      | 12 MP, 8 MP, 6 MP, 5 MP, 4 MP, 3 MP, 1080p, 1.3 MP, 720p                                                             |
| Record Rate     | 384 Mbps                                                                                                             |
| Bit Rate        | 1 Kbps to 20 Mbps per Channel                                                                                        |
| Record Mode     | Manual, Schedule (Regular, Continuous), MD (Video detection: Motion Detection, Camera Blank Video Loss), Alarm, Stop |
| Record Interval | 1 to 120 min (default: 60 min),<br>Pre-record: 1 to 30 sec, Post-record: 10 to 300 sec                               |

### Network

|                         |                                                                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet                | 4 RJ-45 Ports (10/100/1000 Mbps)                                                                                                                               |
| Network Function        | HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search (Support Dahua IP camera, DVR, NVS, etc.) |
| Optical Fiber Interface | 2 Giga Optical Fiber Interface                                                                                                                                 |
| Max. User Access        | 128 users                                                                                                                                                      |
| Smart Phone             | iPhone, iPad, Android                                                                                                                                          |
| Interoperability        | ONVIF 2.4, CGI Conformant                                                                                                                                      |

### Electrical

|                   |                                     |
|-------------------|-------------------------------------|
| Power Supply      | 100 to 240 VAC, 50/60 Hz, Redundant |
| Power Consumption | < 51 W, without HDD                 |

### Environmental

|                      |                                                 |
|----------------------|-------------------------------------------------|
| Operating Conditions | -10°C to +55°C (+14°F to +131°F), 86 to 106 kpa |
| Storage Conditions   | -20°C to +70°C (-4°F to +158°F), 0 to 90% RH    |

Construction

|              |                                                                     |
|--------------|---------------------------------------------------------------------|
| Dimensions   | 543.40 mm x 485.0 mm x 133.20 mm<br>(21.4 in. x 19.1 in. x 5.2 in.) |
| Net Weight   | 17.50 kg (38.60 lb), without HDD                                    |
| Gross Weight | 28.0 kg (61.70 lb)                                                  |
| Installation | Rack-mounted                                                        |

Certifications

|     |               |
|-----|---------------|
| FCC | SEFD1411089-B |
|-----|---------------|

Intelligence

IVS triggers an alarm and takes a defined action for the following events:

Premium Features

|                          |                                                                                                            |
|--------------------------|------------------------------------------------------------------------------------------------------------|
| Motion                   | An object moves through any part of the scene.                                                             |
| Tripwire                 | A target crosses a user-defined line.                                                                      |
| Intrusion                | A target enters or exits a defined perimeter.                                                              |
| Scene Change             | A person or object moves the camera to change the scene or covers the camera to obscure the scene.         |
| Abandoned/Missing Object | A target leaves an object in designated area, or a target removes an object from the same designated area. |

Advanced Features

|                  |                                                                                   |
|------------------|-----------------------------------------------------------------------------------|
| Facial Detection | Detects and captures a snapshot of a human face in a defined area within a scene. |
| Heat Map         | Generates a visual representation of data.                                        |

Accessories

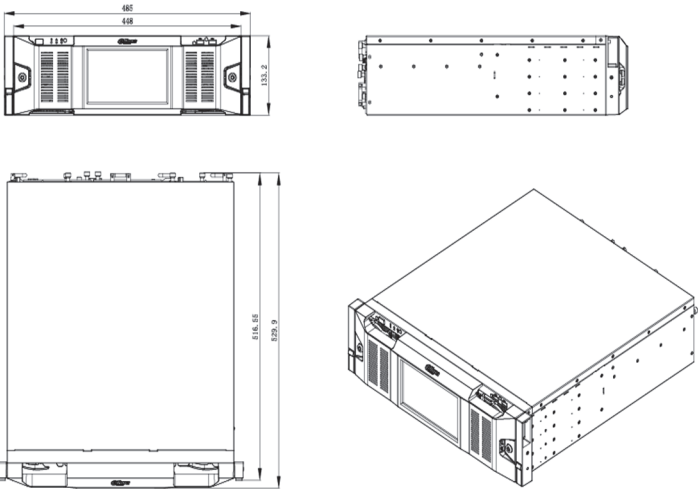


ESS1504C



ESS1508C

Dimensions (mm)



Ordering Information

| Type            | Part Number            | Description                                                                      |
|-----------------|------------------------|----------------------------------------------------------------------------------|
| 128 Channel NVR | DHI-NVR6A16DR-128-4KS2 | 128 Channel Super 4K Network Video Recorder with redundant power and LCD monitor |
| Accessories     | ESS1504C               | External HDD accessories                                                         |
|                 | ESS1508C               | External HDD accessories                                                         |