# CSP-XTRNVR128-4KS

## 128 Channel 2U 8HDDs Ultra series Network Video Recorder

- New 4.0 user interface
- 16-channel decoding@1080p (30 fps); self-adaptive decoding capability
- Access, storage or forwarding at 384 Mbps
- Simultaneous video output for VGA and HDMI1; 4K heterogeneous output for the 2 HDMI ports
- Multiple data mode such as Raid0, Raid1, Raid5, Raid6, and Raid10
- Remote configuration and management of IPCs, such as setting pa rameters, acquiring information and upgrading IPCs of the same model in batches
- AI-by-camera functions such as perimeter protection, face detection and recognition, SMD Plus, video metadata, ANPR and 3D behavior analysis
- N+M cluster. When the host fails, the standbydevice will continue to record; once the host recovers,video recorded on the standby device will be transmitted back

### Series Overview

CSP-XTRNVR64-4KS 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. Additionally, the NVR features a mouse shortcut operation menu, remote management and control, centre storage, edge storage, and back up storage.

This NVR 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.

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.

### Functions

#### Perimeter Protection by Camera
Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.
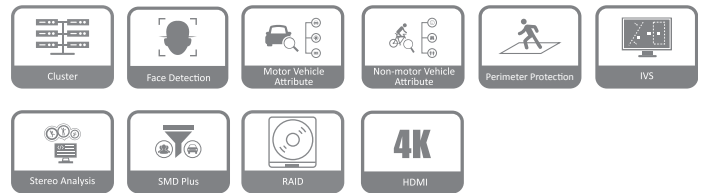
#### SMD Plus by Camera
With intelligent algorithm, Smart motion detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

#### Video Metadata by Camera
With deep learning algorithm, Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes.

| Cluster | Face Detection | Motor Vehicle Attribute | Non-motor Vehicle Attribute | Perimeter Protection | IVS |
| --- | --- | --- | --- | --- | --- |

| Stereo Analysis | SMD Plus | RAID | 4K HDMI |
| --- | --- | --- | --- |

#### ANPR by Camera
With deep learning algorithm, ANPR technology can recognize the number plate information of vehicles in the image with ANPR cameras. Support block/allowlist mode, searching target vehicles from recorded video.

#### Stereo Analysis by Camara
With deep learning algorithm and scene 3-dimensional information, Stereo Analysis technology can recognize people's behaviors, such as fall detection, violence detection, strand detection, and space exception, and then generates alarm signals and triggers linkage.

#### 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 instantly takes over the main ensuring no data is lost.

#### RAID
Support RAID 0,RAID 1,RAID 5,RAID 6,RAID 10 (optional). It can Improve your storage speed, while ensuring data security.

# CSP-XTRNVR128-4KS

## Technical Specification

### System

| | |
|---|---|
| Main Processor | Industrial embedded micro-processor |
| Operating System | Embedded Linux |
| Operation Interface | Web/local GUI |

### Perimeter Protection by Camera

| | |
|---|---|
| Performance | 24 channels |
| AI Search | Search pictures by channel, time, event type |

### Face Recognition by Camera

| | |
|---|---|
| Performance | 24 channels |
| Face Attributes | 6 attributes: Gender, age, glasses, expression, mouth mask, and beard |
| AI Search | Search pictures by channel, time and face attributes |

### SMD Plus By Camera

| | |
|---|---|
| Performance | 32 channels |
| AI Search | Search by target classification (Human, Vehicle) |

### Video Metadata By Camera

| | |
|---|---|
| Performance | 12 channels |
| Human Body | Top, top color, bottom, bottom color, hat, bag, gender, age, umbrella |
| Vehicle | Plate No., type, color, vehicle type, logo, plate color, ornament, calling, seatbelt, region |
| Non-motor Vehicle | Type, color, number of passengers, helmet |
| AI Search | Support search target video by metadata |

### ANPR by Camera

| | |
|---|---|
| Performance | 8 channels |

### Stereo Analysis by Camera

| | |
|---|---|
| Performance | 32 channels |
| AI Search | Search by target classification (Fall Detection, People Approach Detection, People No. Exception Detection, People Staying Detection, Violence Detection) |

### Video

| | |
|---|---|
| Access Channel | 64/128 |
| Network Bandwidth | 384 Mbps for access, 384 Mbps for storage and 384 Mbps for forwarding |
| Resolution | 12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/ 1080p/960p/720p/D1/CIF/QCIF |
| Decoding Capability | 16-ch@1080p (30 fps) |
| Video Output | VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI1/HDMI2: 3840 × 2160@30 fps, 3840 × 2160@25fps,  1920 × 1080, 1280 × 1024, 1280 × 720 1 channel VGA output, 2 channels HDMI output, VGA and HDMI 1 homologous output, double HDMI heterogeneous output. Support 4K display for both HDMI1 and HDMI2 |
| Multi-screen Display | 1st Screen: 1/4/8/9/16/25/36/64 |
| | 2nd Screen: 1/4/8/9/16 |

### Third Party Camera Access

| | |
|---|---|
| Third Party Camera Access | Panasonic, Sony, Samsung, Axis, Pelco, Arecont, Onvif, Canon and more |

### Compression

| | |
|---|---|
| Video | Smart H.265+/H.265/Smart H.264+/H.264/MPEG4/ MJPEG |
| Audio | MP2/G726/G729/G722/G723/G711A/G711U/PCM |

### Network

| | |
|---|---|
| Network Protocol | HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search (Support ONVIF IP camera, DVR, NVS, etc.), P2P, iSCSI |
| Mobile Phone Access | iOS, Android |
| Interoperability | ONVIF (profile T/S/G), CGI, SDK |
| Browser | Chrome, IE9 or later, Firefox |

### Record Playback

| | |
|---|---|
| Multi-channel Playback | 1/4/9/16 |
| Record Mode | Manual, Schedule (General, MD (Motion Detection), Alarm, MD & Alarm, Intelligent, POS) |
| Storage Method | Local HDD and network |
| Backup | Hard drive, USB device, eSATA device |
| Playback Function | 1. Play, pause, stop, fast forward, fast backward, rewind, play by frame 2. Full screen, backup (cut/file), partially enlarge, audio on/off |

### Storage

| | |
|---|---|
| Disk Group | Support |
| Raid Support | RAID 0/1/5/6/10 |

### Alarm

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|---|---|
| General Alarm | Motion detection, privacy masking, video loss, local alarm, PIR alarm, IPC alarm |
| Anomaly Alarm | Camera offline, storage error, full storage, IP conflict, MAC conflict, login lock, network security anomaly |
| Intelligent Alarm | Perimeter protection, face detection, face recognition, SMD, video metadata (human, motor-vehicle, non-motor vehicle), ANPR, people counting, stereo analysis, crowd distribution, heatmap, video quality diagnosis |
| Alarm Linkage | Record, snapshot, IPC external alarm output, buzzer, log, preset, email |

### External Port

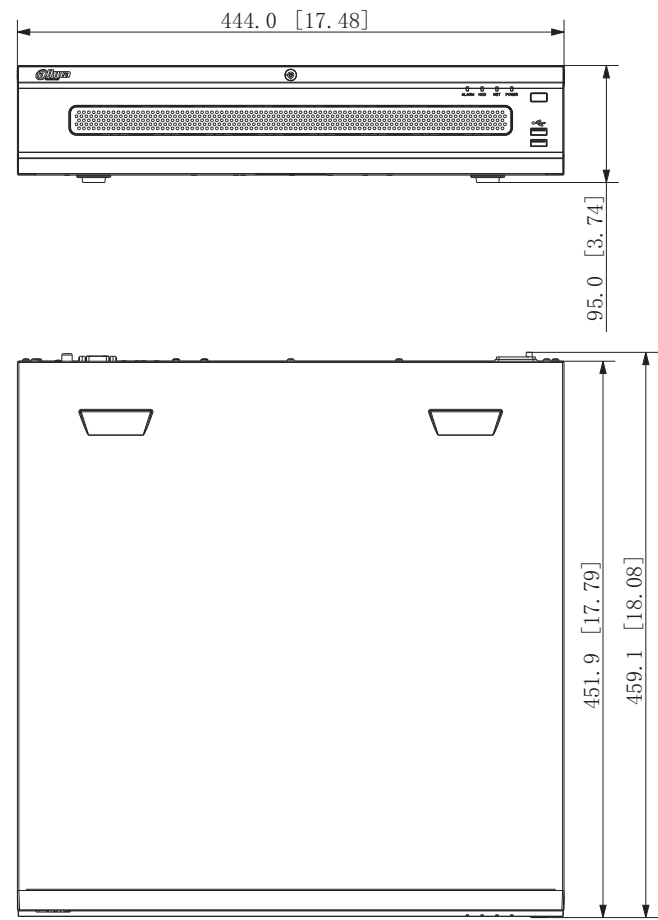| | |
|---|---|
| Audio Input | 1 channel, RCA connector |
| Audio Output | 1 channel, RCA connector |
| HDD | 8 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature. Supports Hot-swap. |
| Alarm Input | 16 channels |
| Alarm Output | 8 channels |
| eSATA | 1 eSATA |
| RS-232 | 1 channel, used to debug and pass through serial data |

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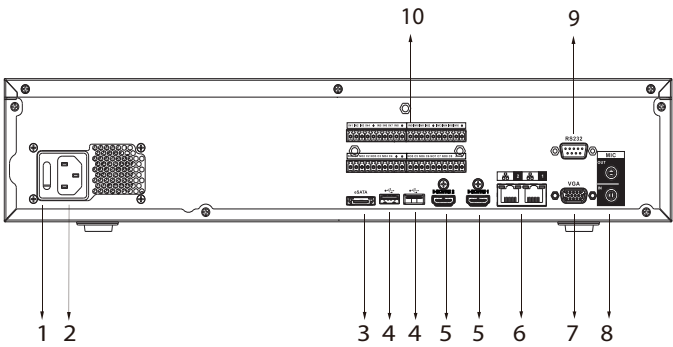| | |
|---|---|
| RS-485 | 1 channel, used to control PTZ, and it supports multiple protocols |
| USB | 2 front USB 2.0 ports, 2 rear USB 3.0 ports |
| HDMI | 2 |
| VGA | 1 |
| Network | 2 RJ-45 10/100/1000 Mbps self-adaptive Ethernet ports |

## General Parameter

| | |
|---|---|
| Power Supply | Single, AC100V–240V, 50–60 Hz |
| Power Consumption | < 20 W (Without HDD) |
| Net Weight | 9 kg (19.8 lb) (Without HDD) |
| Gross Weight | 10.5 kg (23.1 lb) (Without HDD) |
| Product Dimensions | 444 mm × 459.1 mm × 95 mm (W × L × H)<br>17.48 inch × 18.08 inch × 3.74 inch (W × L × H) |
| Package Dimensions | 570 mm × 570 mm × 226 mm (W × L × H)<br>22.44 inch × 22.44 inch × 8.90 inch (W × L × H) |
| Operating Conditions | −10°C to +55°C (+14°F to +131°F), +35°C (+95°F) when raid enabled |
| Storage Conditions | 0°C to +40°C (+32°F to +104°F) |
| Operating Humidity | 10%–93% (RH) |
| Storage Humidity | 30%–85% (RH) |
| Operating Altitude | 3000 m (9843 ft) |
| Certifications | CE: EN55022, EN55024, EN50130-4, EN60950-1<br>FCC: Part 15 Subpart B, ANSI C63.4-2014<br>UL: UL 60950-1 and CAN/CSA C22.2 No.60950-1 |

## Dimensions (mm[inch])



## Panels



| | | | |
|---|---|---|---|
| 1 | Power Switch | 2 | Power Input |
| 3 | eSATA Port | 4 | USB Ports |
| 5 | HDMI Ports | 6 | Network Ports |
| 7 | VGA Port | 8 | AUDIO IN/OUT, RCA Connector |
| 9 | RS-232 Port | 10 | Alarm In/Out |