

NVR-EL128-4U12MP1

128 Channel 3U 4K Network Video Recorder



- Max 128 IP Camera Inputs
- Intel Quad Core Processor, 384Mbps Incoming Bandwidth
- IVS, Face Detect, People Counting and Heat Map
- Up to 12MP Resolution for Preview and Playback
- iSCSI and Mini SAS for Expanded Storage Space
- Four Gigabit Network ports, Supports RAID 0/1/5/6/10
- Redundant Power, Built-in 7-inch HD LCD Monitor



System Overview

IC Realtime's NVR-EL128-4U12MP1 offers next generation unparalleled recording technology for IP video surveillance applications. This enterprise-level, rack mountable 128 channel NVR is equipped with a powerful Intel quad core processor that supports up to 12MP cameras as well as 384 Mbps total bandwidth and up to 4K resolution display support. Additionally, the NVR features a built-in 7 inch LCD monitor, four gigabit ethernet ports, remote management and control, RAID 0/1/5/6/10 support, 160TB total hard drive storage, edge storage, and backup storage. This NVR is ideal for a wide range of applications where expansion flexibility, high reliability and centralized storage management is desired.

Made in South Korea and conforms to the Trade Agreements Act (TAA).

Functions

4K Resolution

4K resolution is a revolutionary breakthrough in image processing technology. 4K delivers four times the resolution of standard HDTV 1080p cameras and offers superior picture quality and image details. 4K resolution improves the clarity of a magnified scene to view or record crisp forensic video from large areas.

IVS

Working with IVS-enabled IP cameras, the NVR recognizes and records video that contains IVS data on all IP channels. The NVR records standard intelligence at-the-edge features, as well as premium IVS features that detect abandoned or missing objects, Tripwire violations, and intrusion violations. The NVR is also capable of recording advanced IVS - Facial Detection, People Counting, and Heat Map - from supported IP cameras.

Automatic Network Replenishment (ANR)

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.

Fisheye Dewarp

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

RAID 0/1/5/10

Offering a balance between storage performance, storage capacity, and data integrity, the NVR features RAID 0/1/5/10 for faster and safer recording.

Technical Specification

System

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|------------------|-------------------------------|
| Main Processor | Multi-core embedded processor |
| Operating System | Embedded LINUX, ICR 4.0 |

Video

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|-------------------|--|
| Max IP Channels | 128 Channels |
| Throughput | 384 Mbps for access, 384 Mbps for storage and 384 Mbps for forwarding |
| Video Compression | Smart H.265+/H.265/Smart H.264+/H.264/MJPEG |
| Image Resolution | 12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 960p, 720p, D1, CIF, QCIF |
| Bit Rate | 16Kbps ~ 20Mbps Per Channel |
| Record Mode | Manual, Schedule (Regular, Motion Detection, Alarm, IVS), Stop |
| Record Interval | 1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec |

Audio

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|-------------------|--|
| Interface | 1 Channel Input, 1 Channel Output, RCA |
| Two-way Talk | Supported |
| Audio Compression | MP2, G726, G729, G722, G723, G711A, G711U, PCM |

Display

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|----------------|---|
| Interface | 2 HDMI (Different Sources), 1 VGA |
| Resolution | HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768 |
| Display Decode | 64 channels 2 MP Cameras @4Mbps 64 channels 3 MP Cameras @4Mbps 42 channels 6 MP Cameras @6Mbps 42 channels 12 MP Cameras @6Mbps |
| Display Split | Screen 1: 1/4/8/9/16/25/36/64 Screen 2: 1/4/8/9/16 |
| OSD | Camera title, Time, Video loss, Camera lock, Motion detection, Recording |

Playback & Backup

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|------------------------|--|
| Multi-channel Playback | 1/4/9/16 |
| Record Mode | General, motion detection; intelligent; alarm; POS |
| Playback Functions | Play, pause, stop, fast forward, fast backward, rewind, play by frame, Full screen, backup (cut/file), partially enlarge, audio on/off |
| Backup Mode | USB Device/Network/eSATA Device |

Alarm

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|----------------------|---|
| Alarm Input / Output | Input: 16 Channel Output: 8 Channel, NO/NC Programmable |
| General Alarm | Motion detection; privacy masking; local alarm |
| Anomaly Alarm | Camera offline, storage error, full storage, IP conflict, MAC conflict, login lock, network security anomaly |
| Intelligent Alarm | Face detection; perimeter protection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); iMD; stereo analysis; crowd distribution; people counting; ANPR |
| Alarm Linkage | Record, snapshot, IPC external alarm output, buzzer, log, preset, email |

Network

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|-------------------------|--|
| Interface | 4 RJ45 Ports (10/100/1000Mbps) |
| Ethernet Port | 4 Ethernet Ports Joint Working or 4 Independent 1000Mbps Ethernet Ports |
| Network Functions | HTTP, HTTPS, TCP/IP, IPv4, IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search |
| Optical Fiber Interface | 2 Giga Optical Fiber Interface |
| Max User Access | 128 users |
| Smart Phone | Android, iOS, iPhone |
| Interoperability | ONVIF (profile T/S/G), CGI, SDK |

Storage

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|--------------|---|
| Internal HDD | 16 SATA III Ports, Up to 10TB capacity for each HDD |
| HDD Mode | Single, Raid 0/1/5/6/10 (Enterprise-level HDDs are recommended), Support Global HDD Hot-spare |
| eSATA | 1 eSATA Port (Please contact technical support to confirm the compatible device) |
| SAS | 1 Mini SAS Port, for Storage Expansion |
| External HDD | iSCSI support |

Auxiliary Interface

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|-------------|---|
| Front Panel | Supports Hot-swap, 7-inch HD LCD screen supports (1920 × 1080, 1280 × 1024, 1024 × 768) |
| USB | 4 USB Ports (2 USB 2.0, 2 USB 3.0) |
| RS232 | 1 Port, for PC Communication and Keyboard |
| RS485 | 1 Port, for PTZ Control |

General

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|---------------------|--|
| Power Supply | AC100V ~ 240V, 50 ~ 60 Hz, Redundant |
| Power Consumption | <51W (Without HDD) |
| Working Environment | +14°F ~ +131°F (-10°C ~ +55°C), 86 ~ 106kpa |
| Dimensions (WxDxH) | 19.1" × 20.9" × 5.2" (3U, 485mm × 529.9mm × 133.2mm) |
| Installation | Rack-mounted |
| Weight | 43.2 lb (19.6kg) (without HDD) |
| Gross Weight | 63.9 lb (29kg) |

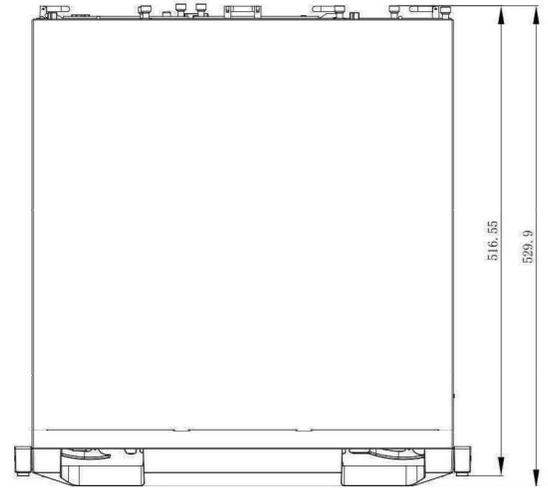
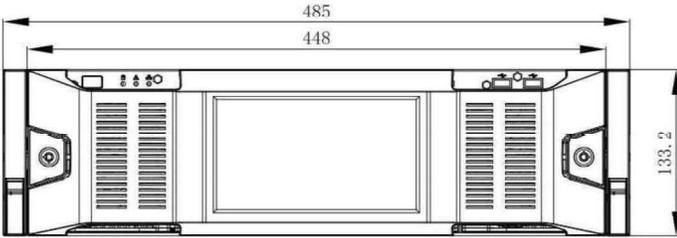
Certifications

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|----------------|--------------------------------------|
| Certifications | FCC: Part 15 Subpart B, UL Certified |
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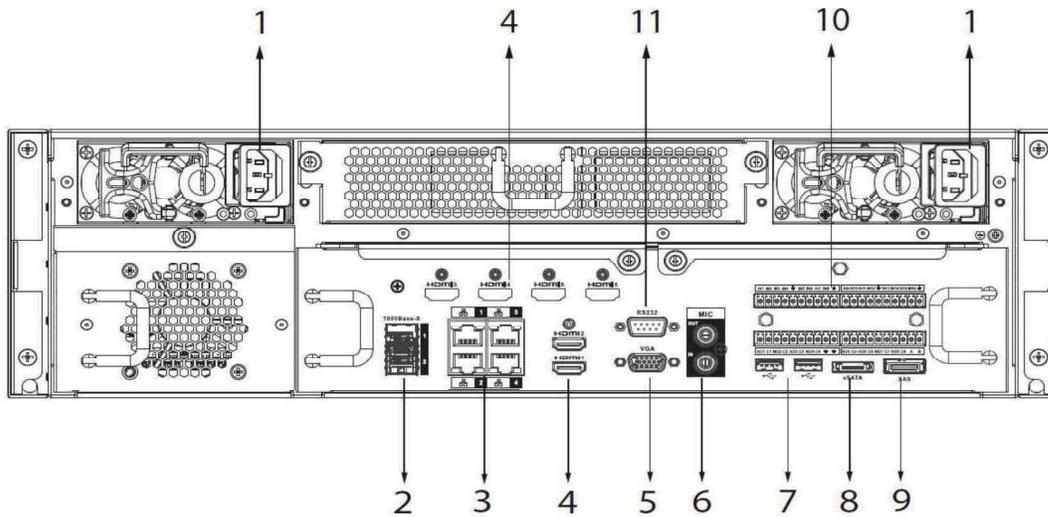
Intelligence

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|---|--|
| IVS | |
| Capabilities(AI by Recorder) | Fisheye Dewarping |
| Capabilities (AI by Camera) | Tripwire, Intrusion, Abandoned/ Missing Object, Fast Moving, Parking Detection, Crowd Gathering, Loitering Detection |
| Perimeter Protection | |
| Capabilities | Tripwire & intrusion; Recognition of human and vehicle |
| Performance (AI by Camera) | 24 channels |
| AI Search | Search by target classification (Human, Vehicle) |
| Intelligent Motion Detect (iMD) | |
| Capabilities | Secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change |
| Performance (AI by Camera) | 32 channels |
| AI Search | Search by target classification (Human, Vehicle) |
| Face Detection | |
| Capabilities | Gathers Face attributes : Gender; age group; glasses; expressions; face mask; beard |
| Performance (AI by Camera) | 24 channels |
| Face Recognition | |
| Capabilities | Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image. |
| Performance (AI by Camera) | 24 channels |
| Stranger Mode | Detect strangers' faces (not in device's face database). Similarity threshold can be set manually. |
| AI Search | Search pictures by channel, time, event type. Similarity threshold can be set for each target face image during search. |
| Database Management | By camera |
| Video Metadata | |
| Capabilities | Gathers Human attributes : Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella Gathers Motor Vehicle attributes : License Plate, type, color, vehicle type, logo, plate color, ornament, calling, seatbelt, region Gathers Non-Motor attributes : Vehicle model, vehicle color, number of persons, helmet. |
| Performance (AI by Camera) | 12 Channels |
| AI Search | Supports search target video by metadata |
| Vehicle License Plate Comparison | |
| Capabilities | Compares License Plates captured from motor Vehicles |
| Performance (AI by Camera) | Supported |
| Database Management | 8 channels |

Dimensions (mm/in)



Panels



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|----|---------------|----|-----------------------------|
| 1 | Power Input | 2 | Optical Fiber Ports |
| 3 | Network Ports | 4 | HDMI Ports |
| 5 | VGA Port | 6 | AUDIO IN/OUT, RCA Connector |
| 7 | USB Ports | 8 | eSATA Port |
| 9 | SAS Port | 10 | Alarm In/Out |
| 11 | RS-232 Port | | |