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

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

Video

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

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

Display

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 @6Mbp 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

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

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

Interface	4 RJ-45 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

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	iSCI support

Auxiliary Interface

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

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 (W×D×H)	19.1" x 20.9" x 5 .2" (3U, 485mm x 529.9mm x 133.2mm)
Installation	Rack-mounted
Weight	43.2 lb (19.6kg) (without HDD)
Gross Weight	63.9 lb (29kg)

Certifications

Certifications	FCC: Part 15 Subpart B , UL Certified

Intelligence

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

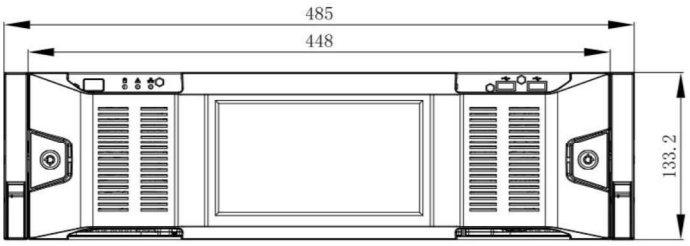
Video Metadata

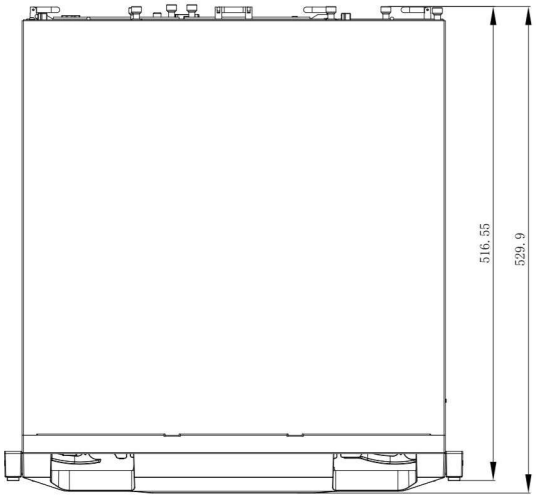
Capabilities	Gathers **Human attributes:** Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella
	Gathers **Motor Vehicle attributes:** License Plate, type, color, vehicle type, logo, plate color, ornament, calling, seatbelt, region
	Gathers **Non-Motor attributes:** Vehicle 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

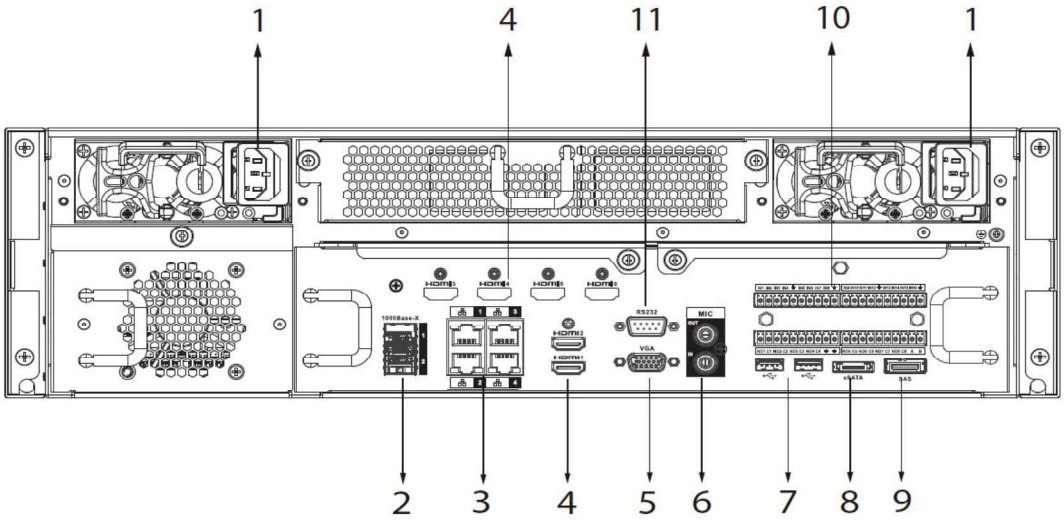
Capabilities	Compares License Plates captured from motor Vehicles
Performance (AI by Camera)	Supported
Database Management	8 channels

Dimensions (mm/in)





Panels



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		