

NVR-FX24POE-15U4K1

24 Channel 1.5U 24PoE 4K & H.265 Network Video Recorder



- Smart H.265+/Smart H.264+/H.265/H.264/ MJPEG support
- Up to 12MP Resolution for Preview and Playback
- Supports IVS, Intelligent Motion Detect, Face Recognition and Perimeter Protection by camera
- 320Mbps throughput, Built-in 24 port PoE
- 2 HDMI/1 VGA video output
- Supports up to 4 10TB HDDs

System Overview

IC Realtime's NVR-FX24POE-15U4K1 combines performance with ease of use with its suite of AI features and a 24 port built-in PoE. This NVR supports both H.264 and H.265 encoding as well as 4K HDMI output. It is capable of up to 24 cameras up to 12MP resolution. Up to 4 10TB HDDs can be installed for maximum storage.

This rack mountable NVR also supports Perimeter Protection, Intelligent Motion Detect, People Counting, and Face Recognition equipped IC Realtime cameras. Its open architecture supports multi-user access and is compatible with ONVIF 2.4 protocol, making it compatible with most third party cameras.

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

Functions

IVS (Intelligent Video System) by camera

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 business analysis data – People Counting and Heat Map – from IP cameras with built-in Intelligent Business Analytics.

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.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

iMD (Intelligent Motion Detect) by camera

This is an upgraded version of motion detection currently known as Intelligent Motion Detection (iMD). The upgraded Plus version greatly improves alarm accuracy by pre-loading a deep learning algorithm that recognizes people and vehicles. Motion detection alerts containing a human and/or vehicle intrusion event are now possible with up to 95% accuracy. Eliminate false alarms, save time and keep stress levels low knowing you're protected.

Technical Specification

System

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

Video

Max IP Channels	24 Channels
Throughput	320Mbps
Video Compression	Smart H.265+/H.265/Smart H.264+/H.264/MJPEG
Image Resolution	12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1
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	G.711a; G.711u; PCM; G726

Display

Interface	2 HDMI (Different Source), 1 VGA
Resolution	HDMI1: 3840 × 2160 , 1920 × 1080 , 1280 × 1024, 1280 × 720 , 1024 × 768 HDMI2/VGA: 1920 × 1080 , 1280 × 1024, 1280 × 720 , 1024 × 768
Display Decode	4x 8MP cameras @10Mbps 8x 4MP cameras @10Mbps 16x 1080P cameras @10Mbps
Display Split	Screen1: 1/4/8/9/16/25 Screen2: 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, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Backup Selection, Digital Zoom
Backup Mode	USB Device/Network/eSATA Device

Alarm

Alarm Input / Output	Input: 16 Channel Output: 6 Channel
General Alarm	Motion detection; privacy masking; local alarm
Anomaly Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; cybersecurity exception
Alarm Linkage	Recording, PTZ, Tour, Alarm Out, Video Push, Email, Snapshot, Buzzer and Screen Tips

Network

Ethernet	1 RJ-45 Port (10/100/1000Mbps)
PoE	24 ports (IEEE802.3af/at)
Network Functions	HTTP; HTTPS; TCP/IP; IPv4/IPv6; RTSP; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports IC Realtime IP cameras, DVR, NVS, etc.); Multicast; P2P; Auto Registration
Max. User Access	128 users
Smart Phone	Android, iOS, iPhone
Interoperability	ONVIF 2.4, SDK, CGI
Browser Compatibility	Chrome, IE 9 or later, Edge, Safari, Firefox

Storage

Internal HDD	4 SATA III Ports, Up to 10 TB capacity for each HDD
eSATA	1 eSATA
External HDD	N/A
RAID	N/A

Auxiliary Interface

USB	3 Ports (2 Rear USB 3.0 , 1 Front USB 2.0)
RS232	1 Port, for PC Communication and Keyboard
RS485	1 Port, for PTZ Control

General

Power Supply	Single, AC100V ~ 240V, 50 ~ 60 Hz
Power Consumption	≤ 18 W (without HDD) PoE: Max 25.5W for single port 210W total rated power, 80% control for protection
Operating Humidity	0 ~ 90% RH
Operating Conditions	+14°F ~ +131°F (-10°C ~ +55°C), 86 ~ 106kpa
Storage Conditions	-4°F ~ +158°F 9-20°C ~ +70°C)
Installation Type	Rack mountable
Dimensions (WxDxH)	1.5U, 7.3" x 16.3" x 3.0" (1.5U, 440mm x 413.3mm x 76mm)
Weight	10.4lb (4.7kg) (without HDD)
Gross Weight	15.1lb (6.84kg) (without HDD)

Certifications

Certifications	FCC: Part 15 Subpart B, UL Certified
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Intelligence

IVS

Capabilities(AI by Recorder)	Fisheye Dewarping
Capabilities (AI by Camera)	Tripwire, Intrusion, Abandoned/ Missing Object

Perimeter Protection

Capabilities	Tripwire & intrusion; Recognition of human and vehicle
Performance (AI by Camera)	20 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)	24 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)	14 channels

Face Recognition

Capabilities	Up to face databases with 20,000 images, with a total capacity of 2.5 GB. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.
Performance (AI by Camera)	14 channels
Stranger Mode	Detect strangers' faces (not in device's face database).Similarity threshold can be set manually.
AI Search	Similarity threshold can be set for each target face image during search.
Database Management	By camera

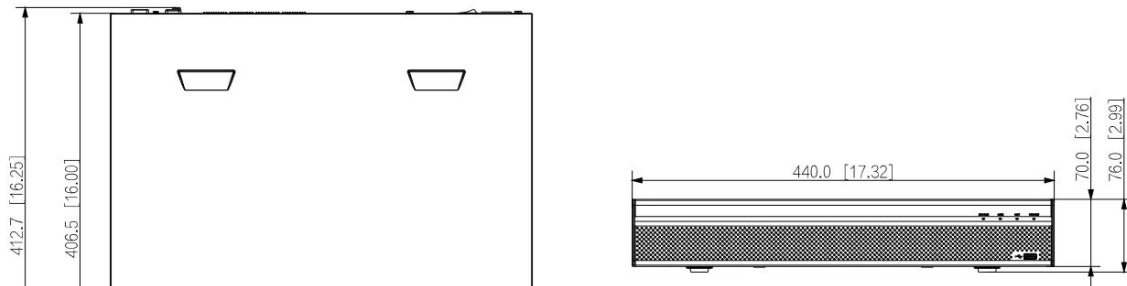
Video Metadata

Capabilities	Gathers Human attributes : Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella
	Gathers Motor Vehicle attributes : License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle interior, vehicle registration location.
	Gathers Non-Motor attributes : Vehicle model, vehicle color, number of persons, helmet.
Performance (AI by Camera)	16 channels

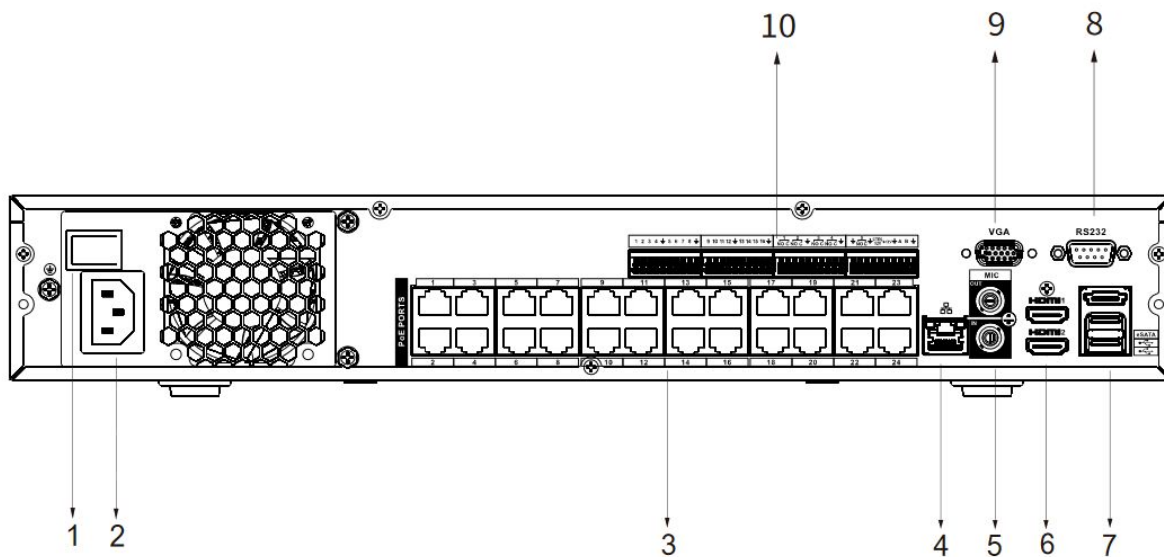
Vehicle License Plate Comparison

Capabilities	Compares License Plates captured from motor Vehicles
Performance (AI by Camera)	4 channels
Database Management	By camera

Dimensions (mm/in)



Panels



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