

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
- 1-channel fisheye dewarping support
- 2 HDMI/1 VGA video output
- Supports up to 4 10TB HDDs, 24 PoE ports

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).

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 – Audio Detect, 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	Industrial-grade embedded processor
Operating System	Embedded LINUX

Video

Max IP Channels	24 Channel
Network Bandwidth	320 Mbps for access, 320 Mbps for storage and 320 Mbps for forwarding
Third Party IPC Support	ONVIF, RTSP

Audio

Two-way Talk	1 Channel Input, 1 Channel Output, RCA
Audio Compression	G.711A/G.711U/PCM/G726

Display

Interface	2 HDMI, 1 VGA
Resolution	HDMI 1: 3840×2160, 1920×1080, 1280×1024, 1280×720 VGA 1: 1920 × 1080; 1280 × 1024; 1280 × 720 HDMI 2: 1920 × 1080
Display Split	1st Screen: 1/4/8/9/16/25 2nd Screen: 1/4/8/9/16 *HDMI 1+ VGA 1 are mirrored, HDMI 1/VGA 1 + HDMI 2 are independent
Display Output Max Decode	16-ch@1080P / 4-ch@8MP

Recording

Video Compression	Smart H.265+; Smart H.264+; H.265; H.264; MJPEG
Image Resolution	12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 1.3MP, 720p, D1, and more
Record Mode	Manual; schedule (general; MD; alarm; MD & alarm; AI intelligent)
Target Resources	4x 8MP cameras @10Mbps 8x 4MP cameras @10Mbps 16x 1080P cameras @10Mbps

Alarm

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
Alarm Linkage	Record; snapshot; IPC external alarm output; buzzer; log; preset; email
Intelligent Alarm	Perimeter protection; face detection; face recognition; iMD; video metadata (human; motor-vehicle; non-motor vehicle); ANPR; people counting; stereo analysis; crowd distribution; heat map

Playback & Backup

Sync Playback	1/4/9/16
Playback Functions	1. Play, pause, stop, fast forward, fast backward, rewind, play by frame 2. Full screen, backup (cut/file), partially enlarge, audio on/off
Backup Mode	USB Device/Network

Network

Ethernet	1 RJ-45 Ports (10/100/1000Mbps)
PoE	24 ports (IEEE802.3af/at)
PoE Budget	220 Watts
Network Functions	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; Alarm Server; IP Search, P2P
Web Access	Chrome, IE9 or above, Firefox
Smart Phone	Android, iOS, iPhone
Interoperability	ONVIF (profile T/S/G); CGI; SDK

Storage

Internal HDD	4 SATA III Ports, Up to 10TB capacity for each HDD
External HDD	N/A
Disk Group	Support

Auxiliary Interface

USB	3 (1 front USB 2.0 port, 2 rear USB 3.0 ports)
RS232	1 channel, for debug and pass through serial data
RS485	1 channel, used to control PTZ, supports multiple protocols
eSATA	1 port
Alarm Input	16 Channel
Alarm Output	6 Channel

General

Power Supply	100V–240V AC, 50 Hz–60 Hz
Power Consumption	< 20W (without HDD)
Working Environment	+14°F to +131°F (-10°C to +55°C)
Operating Humidity	10%–93% (RH)
Dimensions (W×D×H)	1.5U: 17.3" × 16.3" × 3.0" (440 mm × 412.7 mm × 76.0 mm)
Net Weight	10.4 lb (4.7 kg) (without HDD)
Gross Weight	15.9 lb (7.2 kg) (without HDD)
Installation	Desktop and Rack Mountable

Certifications

Certifications	FCC: Part 15 Subpart B, UL Certified
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AI Features

Perimeter Protection

Capabilities	AI IVS by Camera: Detection alarm for human and vehicle. Filters misinformation such as leaves and light. Function configuration: Set up to 10 rules such as area intrusion and tripwire intrusion.
Performance	Up to 20 channels
AI Search	Search conditions: Search for pictures by channel, time and event type

Intelligent Motion Detect (iMD)

Capabilities	AI by Camera: Motion detection alarm for human and vehicle. Filters misinformation such as leaves and light.
Performance	Up to 24 channels
AI Search	Playback: Search by target classification (human, vehicle)

Face Recognition

Capabilities	AI by Camera: 6 attributes: Gender; age; glasses; expression; face mask; beard
Performance	Up to 14 channels human face recognition.
AI Search	Search for pictures by channel, time and face attributes

3D Analysis

Capabilities	3D 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
Performance	3D Analysis by Camera: Up to 16 channels
AI Search	Search by target classification (fall detection; people approach detection; people No. exception detection; people staying detection; violence detection)

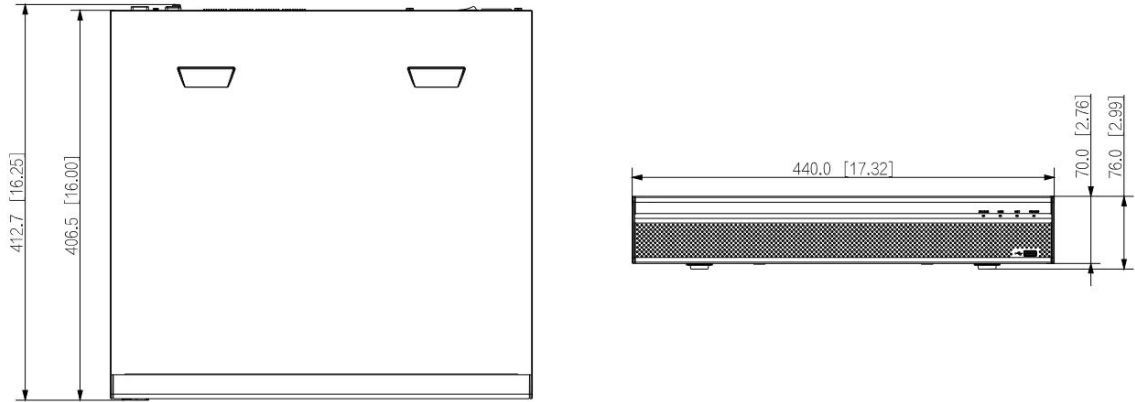
ANPR

Performance	4 channels * ANPR by camera
AI Search	Search by License Plate number, vehicle color, types, etc

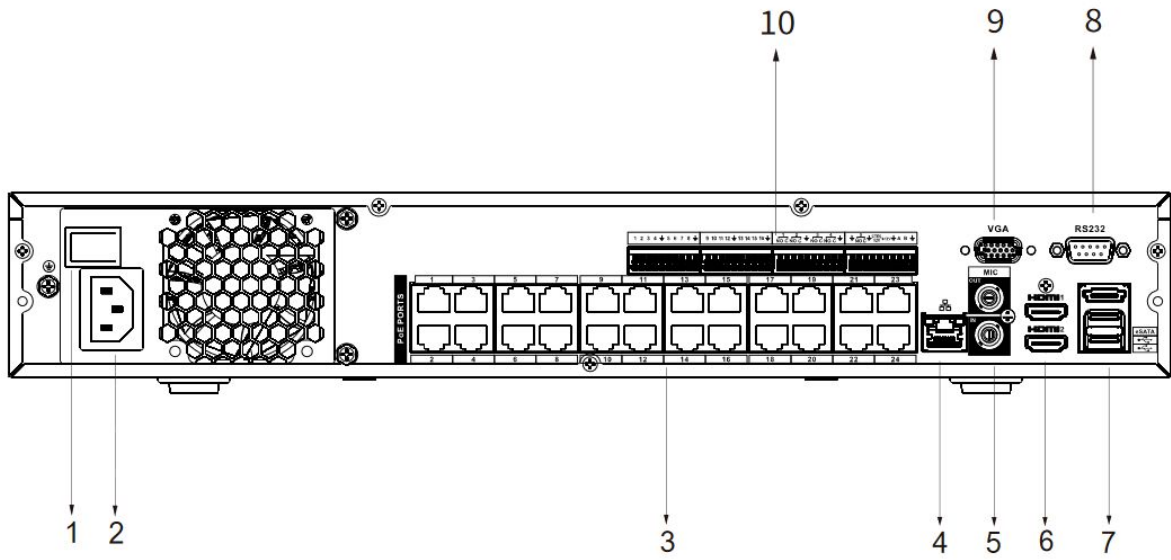
Metadata

Capabilities	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
Performance	16 channels * Metadata by camera
AI Search	Supports searching for target video by metadata

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 |