- Smart H.265+/H.265/Smart H.264+/H.264
- Up to 8MP Resolution for Preview and Playback
- Supports IVS, iMD by camera
- Up to 2ch@ 4K/8ch@1080P/ 16ch@ 720P decoding
- HDMI/VGA simultaneous video output
- Supports up to 2 8TB HDDs, 16 PoE ports
- Rack-mountable, TAA Compliant

System Overview

IC Realtime's NVR-FX16POE-1U4K1 is a compact, rack mountable 16 channel NVR with a 16 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 16 cameras at 720P, 8 cameras at 1080P or 2 cameras at 4K resolution. Up to 2 8TB HDDs can be installed for maximum storage. The NVR also supports IVS and iMD equipped IC Realtime cameras. It features an open architecture that supports for multi-user access and is compatible with ONVIF 2.4 protocol, enabling interoperability with numerous third-party devices making it the perfect solution for surveillance systems that work independently of video management system (VMS).

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	16 Channel
Network Bandwidth	128 Mbps for access, 128 Mbps for storage and 64 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	1 HDMI, 1 VGA
Resolution	HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720 VGA: 1920×1080, 1280×1024, 1280×720
Display Split	1/4/9/16
Decoding Capacity	2ch-4K@30fps, 8ch-1080P@30fps, 16ch-720p@30fps

Intelligence

IVS	Heat Map, Tripwire and Intrusion, Missing, and Abandon object (by camera)
Advanced IVS	Perimeter Protection (by camera), People Counting (Line crossing, dual lens support）
Intelligent Motion Detect (iMD)	Supported (by camera)
Other	Audio Detection (by camera)

Recording

Video Compression	Smart H.265+/H.265/Smart H.264+/H.264
Image Resolution	8MP/ 5MP/ 4MP/ 3MP/ 1080P/ 720P/ D1/ CIF
Record Mode	Priority of record mode: Manual recording > alarm recording > motion detection recording > timed recording

Alarm

General Alarm	Motion detection, privacy masking, video loss, IPC alarm
Anomaly Alarm	Front-end device going offline, storage error, full storage, IP conflict, MAC conflict, login lock, network security anomaly
Alarm Linkage	Video recording, snapshot, log, preset point, tour
Alarm Input	4 Channel
Alarm Output	2 Channel

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	16 RJ–45 ports with PoE power supply (10/100 Mbps)
Network Functions	HTTP, HTTPS, TCP/IP, IPv4, RTSP, UDP, NTP, DHCP, DNS, FTP, P2P
Web Access	Chrome, IE9 or above, Firefox
Smart Phone	Android, iOS, iPhone
Interoperability	ONVIF (profile S), CGI, SDK

Storage

Internal HDD	2 SATA III Ports, Up to 8TB capacity for each HDD
External HDD	N/A

Auxiliary Interface

USB	2 USB Ports (Front: 1 USB 2.0 , Back: 1 USB 2.0)
RS232	N/A
RS485	N/A

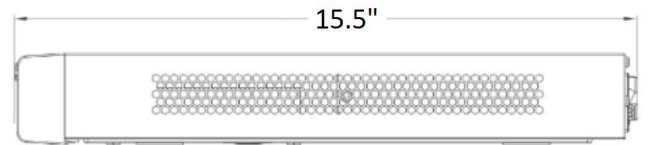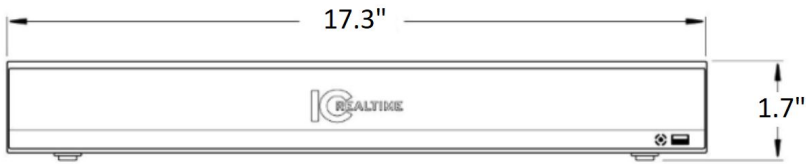### General

Power Supply	AC100V ~ 240V, 47Hz–63HZ, 3.5A
Power Consumption	Total output of NVR is ≤ 10W (without HDD) Total output power of PoE is 117W, the maximum output power of a single port is 25.5W
Working Environment	+14°F to +131°F (-10°C to +55°C)
Operating Humidity	10%–90%
Dimensions (W×D×H)	17.3" x 15.5" x 1.7" (439mm x 393mm x 43mm)
Weight	5.80 lb (2.63kg) (without HDD)
Installation	Rack mountable

Certifications

Certifications	FCC: Part 15 Subpart B, UL Certified

Dimensions (mm/in)

17.3"

1.7"

15.5"

Panels