NVR-MX08POE-1U-4KM1

8 Channel 1U 8PoE 4K & H.265 Network Video Recorder

- Built-in 8 Port PoE, Smart H.265+/H.265 Support
- Supports IP cameras with a resolution up to 12 MP
- Up to 4 channels of Intelligent Motion Detect by NVR
- Supports Perimeter Protection, Face Detect and Face Recognition by camera
- 4K HDMI output; 16TB HDD Support

System Overview

IC Realtime's NVR-MX08POE-1U-4KM1 packs features like 8MP/4K resolution support and output as well as H.265 encoding technology in a compact form factor, boasting excellent performance at an affordable price. This 8 channel NVR has a built in 8 port PoE for easy plug-and-play install with IC Realtime cameras as well as Bridge mode for more complex installations.

The NVR also supports a variety of Intelligence features by camera, such as Perimeter Protection and Intelligent Motion Detect for Human and Vehicle Recognition, as well as Face Detect. These features can be utilized by the NVR's AI search.

Functions

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.

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.

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.

Intelligent Video System
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 – Facial Detection, People Counting, and Heat Map – from IP cameras with built-in Intelligent Business Analytics.

NVR Technical Specification

System

Main Processor	Industrial-grade embedded processor
Operating System	Embedded LINUX, ICR 4.0

Video

Max IP Channels	8 Channels
Throughput	**Access**: 160 Mbps/ 80 Mbps when AI is enabled
	Storage: 160 Mbps/ 80 Mbps when AI is enabled
	Forward: 80 Mbps/ 60 Mbps when AI is enabled
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264
Image Resolution	12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF; QCIF
Record Mode	General, motion detection; intelligent; alarm

Audio

Interface	1 Channel Input, 1 Channel Output, RCA
Two-way Talk	Supported
Audio Compression	G.711a; G.711u; PCM; G726

Display

Interface	**1 HDMI, 1 VGA, Simultaneous**: HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720
	Different Outputs: HDMI: 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720
Resolution	HDMI: 3840 × 2160; 1920 × 1080; 1280 × 1024; 1280 × 720
	VGA: 1920 × 1080; 1280 × 1024; 1280 × 720
Display Decode	**AI disabled:** 1-channel 12 MP@30 fps; 2-channel 8 MP@30 fps; 3-channel 5 MP@30 fps; 4-channel 4 MP@30 fps; 8-channel 1080p@30 fps
	AI enabled: 1-channel 12 MP@30 fps; 1-channel 8 MP@30 fps; 2-channel 5 MP@30 fps; 3-channel 4 MP@30 fps; 7-channel 1080p@30 fps
Display Split	**Main Screen:** 1/4/8/9 **Sub Screen:** 1/4/8/9
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Playback & Backup

Multi-channel Playback	1/4/8
Record Mode	Manual record; alarm recording; iMD recording; smart recording
Playback Functions	1. Play/pause/stop/slow/quick/backward/by frame 2. Full screen, backup (video clip/file), partial zoom in, and audio on/off
Backup Mode	USB Device, Network

Intelligence

IVS	People Counting, Heat Map, Smart Sound and Smart Object Detection, Tripwire & Intrusion (AI by Camera)
Perimeter Protection	6 Channels (AI by Camera)
	Tripwire & intrusion; Recognition of human and vehicle
Intelligent Motion Detect	4 Channels (**AI by NVR**)
	6 Channels (AI by Camera)
	Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
Face Detection	6 Channels (AI by Camera)
Face Recognition	6 Channels (AI by Camera)

Network

Ethernet	1 (10/100/1000 Mbps Ethernet port, RJ-45)
PoE	8 Ports, 10/100 Mbps, IEEE 802.3 af/at
Bridge Mode	Supported
Network Functions	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; IP Search(Supports IC Realtime IP cameras, NVR, NVS, etc.); P2P; auto register
Smart Phone	Android, iOS, iPhone (IC VIew+)
Interoperability	ONVIF (Profile T; Profile S; Profile G); CGI; SDK
Browser Compatibility	Chrome, IE 9 or later, Edge, Safari, Firefox

Alarm

Alarm Input / Output	N/A
General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm
Anomaly Alarm	Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception
Intelligent Alarm	Face detection; face recognition; perimeter protection; iMD; people counting; stereo analysis; heat map
Alarm Linkage	Recording, snapshot, audio, buzzer, log, preset, and email

Storage

Internal HDD	Equipped with 1 SATA III Ports, supporting up to max 16 TB capacity

Auxiliary Interface

USB	2 (1 × front USB2.0; 1 × back USB2.0)
RS232	N/A
RS485	N/A

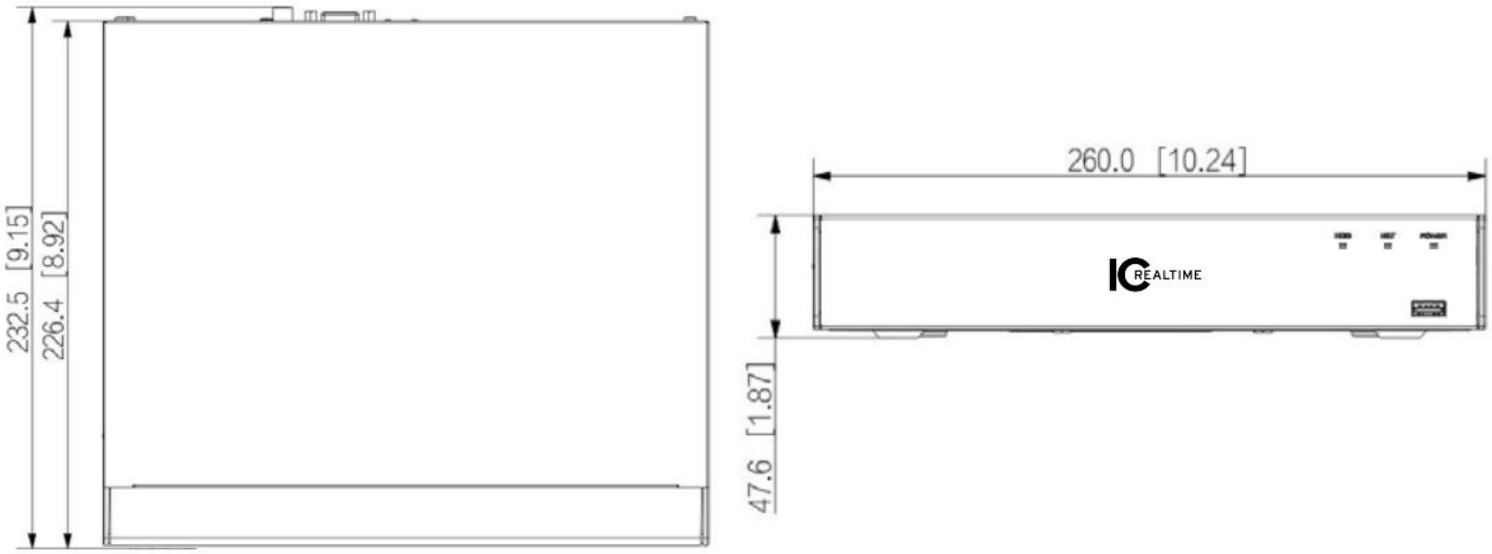
General

Power Supply	53 VDC, 1.81 A
Power Consumption	≤ 10W (idling, without HDD)
	Total output power of PoE: 72W, Maximum output power of a single port is 25.5W
Operating Humidity	10%–93% (RH)
Operating Conditions	+14 °F to +131 °F (–10 °C to +55 °C)
Storage Conditions	–4 °F to +140 °F (–20 °C to +60 °C)
Installation Type	Rack or Desktop mount
Dimensions (W×D×H)	10.24" × 9.15" × 1.87" (260 mm × 232.5 mm × 47.6 mm)
Weight	2.03 lb (0.92 kg) (without HDD)
Gross Weight	4.52 lb (2.05 kg) (without HDD)

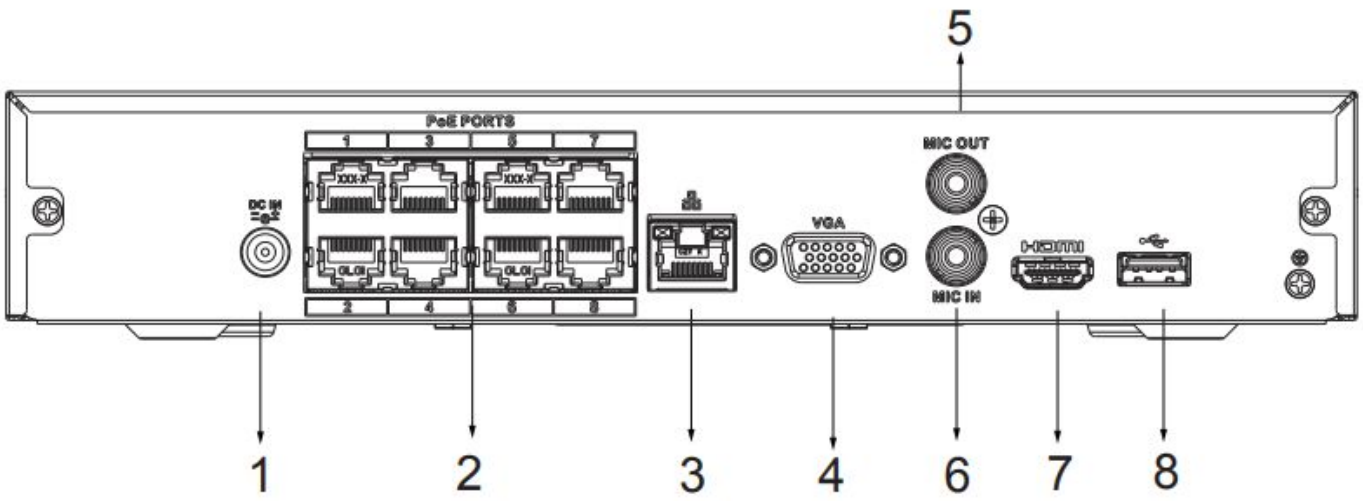
Certifications

Certifications	FCC: Part 15 Subpart B, UL Certified

NVR Dimensions (mm/in)



NVR Panels



1	DC Power Input	2	PoE Ports
3	Network Port	4	VGA Port
5	AUDIO IN, RCA Connector	6	AUDIO OUT, RCA Connector
7	HDMI Port	8	USB Port