NVR-8256DR-V2
256 Channel 4U 4K Network Video Recorder

IC REALTIME

- Max 256 IP Camera Inputs

- 768 Mbps Incoming Bandwidth

- ANPR, IVS + AI Support (By camera)

- Up to 24MP Resolution for Preview and Playback

- 24 port HDD bay (16TB max per port), 3 HDMI + 1 VGA Output

- Four 10/100/1000 Network ports, Supports RAID 0/1/5/6/10/50/60, iSCSi support

- Redundant Power, Built-in 7-inch HD LCD Monitor

System Overview

IC Realtime's biggest and most powerful NVR, yet, the NVR-8256DR-V2 boasts 256 channel capacity, AI support by camera and an incredible 768 Mbps of bandwidth! This rack-mounted 4U unit is purpose built for large scale industrial projects with IP camera support up to 24MP and includes its own built-in NVRSS Pro software for monitoring and playback. This powerhouse also packs a huge, 24 port, hot swappable hard drive bay supporting up to 16TB per Hard Drive and built in redundancy with RAID 0/1/5/6/10/50/60 support and dual power supplies.

The NVR can also utilize IC Realtime's AI enabled cameras with IVS, Perimeter protection, Face Detect and Recognition, and even ANPR (license plate recognition) cameras.

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 (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.

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 0/1/5/6/10/50/60
Offering a balance between storage performance, storage capacity, and data integrity, the NVR features RAID 0/1/5/6 as well as 1+0, 5+0 and 6+0 for faster and safer recording.

Technical Specification

System

Main Processor	Industrial Embedded Processor
Operating System	Embedded LINUX

Video

Max IP Channels	256 Channels

Audio

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

Display

Interface	3 HDMI (up to 4K), 1 VGA, 1 LCD Built in Front Panel Screen (VGA mirrors HDMI1 and Front Panel)
Decoding Capacity	2-channel 24MP/ 3-channel 16MP/ 6-channel12MP (20fps)/ 7-channel 12MP (15fps)/ 6-channel 8MP (30fps)/ 12-channel 8MP (15fps)/ 7-channel 6MP (30fps)/ 9-channel 5MP(30fps)/ 11-channel 5MP (25fps)/12-channel 4MP (30fps)/ 18-channel 4MP (20fps)/ 19-channel 3MP (25fps)/ 12-channel 1080P (60fps)/ 24-channel 1080P (30fps)/36-channel 720P (30fps)
Display Split	Customized display. Local live view max channels: **HDMI1**: Max. 36; **HDMI2**: 16; **HDMI 3,4**: 1 channel Max.16-channel NVRSS-Pro software live view
Fisheye Dewarp	Supported (Live view and playback)

Recording

Video/Audio Compression	Smart H.265+/Smart H.264+/H.265/H.264
Image Resolution	24MP/16MP/12MP/8MP/6MP/5MP/4MP/3MP/1080P/ 960P/720P/D1/CIF/QCIF

Alarm

General Alarm	Motion detect, tampering, local alarm
Abnormality Alarm	IPC offline alarm, storage error, HDD full, IP conflict, MAC conflict, login lock, fan malfunction
Intelligent Alarm	Human face detection, human face recognition, video metadata (person/vehicle/non-motor vehicle), IVS, plate recognition, people counting,
Alarm Linkage	Record, picture storage (full image), local external alarm output, IPC external alarm output, access & control, audio prompt, buzzer, log, preset, email
Alarm Input	16-channel
Alarm Output	8-channel

Playback & Backup

Playback Split View	Max 16-channel playback
Search Mode	Search video detection/ manual record/ IO alarm/ all recorded files
AI Search	Supported (Search for AI Events such as human, vehicle recognition or ANPR plate search)
Playback Functions	1. Play/pause/stop/fast forward/fast backward/reverse play/frame by frame play. 2. Full-screen, backup (clip/file), snapshot, digital zoom, audio on/off
Backup Mode	HDD, peripheral USB storage device

Third-party Support

Third-party Support	ONVIF, RTSP, Sony, Panasonic, Axis, Arecont, Pelco,Canon, Samsung

Network

Interface	4 RJ-45 10/100/1000Mbps self-adaptive Ethernet ports
Network Modes	Multi-address mode, load balance, fault-tolerance, etc
Network Functions	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P; iSCSI; UPnP; SNMP; IPv6
Smart Phone	IC View+ (Android, iOS, iPhone)
Management Software	NVRSS-Pro (downloadable via NVR web GUI)
Interoperability	ONVIF (Profile S, T and G), CGI, SDK
Network Bandwidth	**RAID** Incoming bandwidth: **768Mbps** Recording bandwidth: **768Mbps** Outgoing bandwidth: **768Mbps** Single HDD Incoming bandwidth: **768Mbps** Recording bandwidth: **512Mbps** Outgoing bandwidth: **768Mbps**

Storage

Internal HDD	24 SATA III Ports, Up to 16TB capacity for each HDD (Max **384TB total** HDD space)
RAID Support	RAID 0/1/5/6/10/50/60
eSATA	1 eSATA Port (Please contact technical support to confirm compatible devices)
SAS	2x SAS3.0 ports

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 debug or transparent COM data
RS485	1 Port, for PTZ Control

General

Power Supply	AC100-127V/AC 200-240V 50/60Hz, Redundant
Power Consumption	120W (idling without HDD) 408W (all HDDs connected)
Working Environment	+32 °F to +113 °F (0 °C to +45 °C)/10%RH-90% RH
Dimensions (W×D×H)	Chassis: 17.56 " ×21.39 " × 6.89 " (446 mm × 543.4 mm × 175 mm) Max. size: (With Hanger and feet mat) 19.00 " × 21.39 " × 6.89 " (482.6 mm × 543.4 mm × 175mm)
Packaging Dimensions (W×D×H)	27.13 " × 30.67 " × 21.73" (689 mm × 779 mm × 552 mm)
Installation	Rack-mountable
Weight	37.48 lb (17 kg) (without HDD)
Gross Weight	39.68 lb (18 kg) (without HDD)

Certifications

Certifications	FCC: Part 15 Subpart B

Intelligence and AI Features

IVS

Performance	Up to **256** channels **(Supported by camera)**
Capabilities	**By NVR:** Fisheye Dewarp. **By Camera:** Tripwire, intrusion, abandoned object, missing object, fast moving, parking detection, crowd gathering, loitering, parking, fence-crossing, and people counting

Perimeter Protection

Performance	Up to **256** channels **(Supported by camera)** Max 10 rules such as area intrusion and tripwire intrusion per channel.
Capabilities	Human/Vehicle recognition for tripwire and intrusion

ANPR

Performance	Up to **64** channels of LPR **(Supported by camera)**
Capabilities	50 plate databases with 300,000 plate numbers in total Supports allowlist and blocklist

Face Detection/ Recognition

Performance	Up to **128** channels **(Database & AI supported by camera)**
Capabilities	Supports 6 properties: Gender, age range (6-types), glasses, expression (8 types), mouth mask, and beard

Video Metadata

Performance		Up to **64** channels **(Supported by camera)**
Capabilities	Human body	Gender, age, sleeves length, top color, bottom type, bottom color, bag, rain coat, umbrella, hat, direction, mouth cover
	Vehicle Detection	Vehicle type, vehicle color, plate color,
	Non-motor Vehicle	Non-motor vehicle type, non-motor vehicle color, number of passengers, umbrella, rain coat, bag , sleeve length, top color, hat, hair style, mouth cover

Dimensions (mm/in)

482.6 [19.00]

175.0 [6.89]

360.6 [14.20]

1.0 [0.04]

33.0 [1.30]

2.3 [0.09]

56.4 [2.22]

98.9 [3.89]

230.0 [9.06]

446.0 [17.56]

514.5 [20.26]

543.45 [21.40]