



NVR16P16-2IV

32MP 16 Channel 16 PoE 1U NVR with Analytics



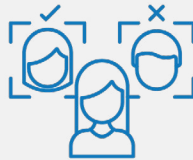
Perimeter Protection

Combine Tripwire & Intrusion with object detection (people or vehicles) for advanced motion detection.



ANPR

Automatic Number Plate Recognition available for convenient entrance/exit management.



Face Recognition

Detect & Recognize faces that are and are not (stranger mode) in a database. Pair with Access Control.



AI Quick Search

Find persons or vehicles of interest faster and with even more accuracy both in live view and playback.



32MP 4K IP

Up to 32MP Resolution for Preview and Playback

PERIMETER PROTECTION

Combine multiple tripwire and intrusion IVS rules with object (people or vehicle) detection to enable advanced motion detection alarms and alerts. Ideal for crosswalks, parking lots, communities, lawns, schools, and more.

REAL TIME FACE RECOGNITION

The NVR16P16-2IV comes fully equipped with advanced facial attributes analysis. Identify, capture and record people based on gender, age, expression, glasses, mustache, face mask. With real time facial feature filtering, you can display faces with targeted features.

AI QUICK SEARCH

This technology uses deep learning to quickly locate target videos of specific people and vehicles and reduce video search time by up to 99%. By analyzing video data and extracting detailed information about the people and vehicles captured and comparing it to data in its database, allowing you to find your target faster and with even more accuracy. Easily select the target directly or the area an event occurred either in live view or in playback. This allows you to search for video clips during playback to quickly and easily identify targets and then see all video events that target was captured in.

PEOPLE COUNTING

The NVR16P16-2IV detects and tracks target by using advanced image processing technology and deep learning algorithm. You can draw 4 polygon areas, and count people in each area; When the number of the people in the area is greater than or equal to/lower than or equal to the defined threshold, the alarm will be triggered.

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ID+

Intelligent Motion Detection Plus, or ID+, is an upgraded version of ID that greatly improves the alarm accuracy only triggering motion detect when people or vehicles are detected, filtering out tree movement, lighting changing, and more.

FACE DATABASE MANAGEMENT

With access to configurable, multiple databases, this powerful face database can be applied to video channels independently. Name, gender, birthday, nationality, address, ID information can be added to each face picture.

VEHICLE DENSITY

With deep learning algorithm, the NVR16P16-2IV analyzes vehicle situations in the image, such as vehicle number in selected area. You can set threshold to trigger a linkage on higher or lower parameters.

ANR TECHNOLOGY

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.

PRODUCT SPECIFICATIONS

SYSTEM	
Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web, Local GUI

AI	
AI by Recorder	Face Detection; Face Recognition; Perimeter Protection; ID+

AUTOMATIC NUMBER PLATE RECOGNITION (ANPR)

Automatic Number Plate Recognition available for convenient entrance/exit management. Support license plate recognition, black/white list import/export, add/delete B/W list number, search result from recorded video. This feature requires a supported license plate recognition camera and may require a license fee.

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.

POINT OF SALE (POS)

Ideal for grocery and retail stores, the optional POS solution allows the NVR to receive a POS transaction via corresponding video. This feature allows merchants to analyze specific transactions via the search algorithm.

AI CONT.	
AI by Camera	Face Detection; Face Recognition; Video Metadata (Human, Motor Vehicles, And Non-Motor Vehicles); Perimeter Protection; Id+; Stereo Analysis; Crowd Distribution; People Counting; ANPR; Vehicle Density; Heat Map
AI Quick Search by Camera + Recorder	Max. 16-channel, 1 combined event per channel/s



PRODUCT SPECIFICATIONS CONT.

PERIMETER PROTECTION	
Perimeter Performance AI by Recorder	4 channels, 10 IVS rules for each channel
Perimeter Performance of AI by Camera	16 channels

FACE RECOGNITION	
Face Database Capacity	Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.
Face Recognition Performance of AI by Recorder	1. 16-channel FD (by camera) + FR (by recorder), image stream: 16 face images/s 2. 2-channel FD (by recorder) + FR (by recorder), video stream: 12 face images/s
Face Recognition Performance of AI by Camera	16 channels

ID+	
ID+ by Recorder	8 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
ID+ by Camera	16 channels

VIDEO METADATA	
Metadata Performance of AI by Camera	8 channels
Human Attributes	Top Color, Top Type, Bottom Color, Bottom Type, Hat, Bag, Age, Gender And Umbrella
Motor Vehicle Attributes	License Plate, Plate Color, Vehicle Body, Vehicle Model, Vehicle Logo, Calling, Seatbelt, Vehicle Interior, Vehicle Registration Location.
Non-motor Vehicle Attributes	Vehicle Model, Vehicle Color, Number Of Persons, Helmet.

VEHICLE LICENSE PLATE COMPARISON	
ANPR by Camera	8 channels
License Plate Database Capacity	1. Create up to 20,000 plate numbers. 2. Blocklist and allowlist

AUDIO AND VIDEO	
Access Channel	16
Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing
Resolution	32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 5 MP; 4 MP; 1080p; 720p; D1; CIF; QCIF
Multi-screen Display	Main screen: 1 / 4 / 8 / 9 / 16 Sub screen: 1 / 4 / 8 / 9 / 16
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Samsung
Decoding Capability	AI disabled: 2-channel 32 MP@20 fps; 2-channel 24 MP@20 fps; 4-channel 16 MP@30 fps; 5-channel 12 MP@30 fps; 8-channel 8 MP@30 fps; 12-channel 5MP@30 fps; 16-channel 4 MP@30 fps AI enabled: 1-channel 32 MP@20 fps; 1-channel 24 MP@20 fps; 2-channel 16 MP@30 fps; 4-channel 12 MP@30 fps; 4-channel 8 MP@30 fps; 8-channel 5 MP@30 fps; 12-channel 4 MP@30 fps
Video Output	1 VGA, 1 HDMI VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 Heterogeneous video source output for HDMI and VGA

COMPRESSION STANDARD	
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG
Audio Compression	G.711a; G.711u; PCM; G726

NETWORK	
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports Dahua IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration; iSCSI
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 22.06 (Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome; IE; Safari; Edge; Firefox

RECORDING PLAYBACK	
Multi-Channel Playback	Up to 16 channels



PRODUCT SPECIFICATIONS CONT.

RECORDING PLAYBACK	
Record Mode	General, Motion Detection; Intelligent; Alarm; POS
Backup Method	USB device and network
Playback Mode	Instant Playback, General Playback, Event Playback, Tag Playback, Smart Playback (Face and Motion Detection)

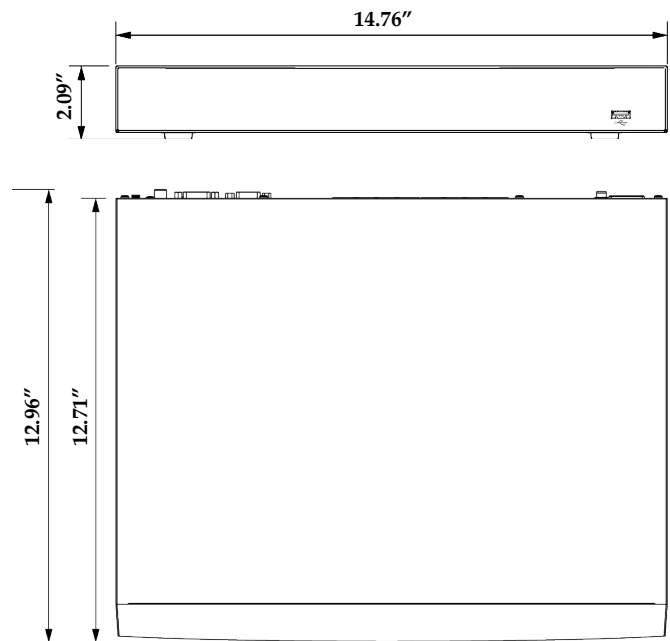
STORAGE	
Disk Group	Yes

ALARM	
General Alarm	Motion Detection; Privacy Masking; Local Alarm
Anomaly Alarm	Camera Offline; Storage Error; Disk Full; IP Conflict; Mac Conflict; Login Lock; Abnormal Behavior Of Fan; Cybersecurity Exception
Intelligent Alarm	Face Detection; Perimeter Protection; Face Recognition; Video Metadata (Human, Motor Vehicles, And Non-Motor Vehicles); ID+; Stereo Analysis; Crowd Distribution; People Counting; ANPR; Vehicle Density; Heat Map
Alarm Linkage	Record; snapshot (panoramic); local alarm output; IPC external alarm output; access controller; audio; buzzer; log, preset; email

PORT	
Audio Input	1-channel RCA
Audio Output	1-channel RCA
Alarm Input	4 channels
Alarm Output	2 channels
HDD Interface	2 SATA ports, each disk can contain up to 16 TB. This limit varies depending on the environment temperature.
RS-232	1
RS-485	1
USB	2 (1 front USB 2.0 port, 1 rear USB 3.0 port)
HDMI	1
VGA	1
Network Port	1(10/100/1000 Mbps Ethernet port, RJ-45)
PoE Port	16 ports, 10/100 Mbps, IEEE 802.3 af/at, 1-8 ports support ePoE

GENERAL	
Power Supply	100–240 VAC, 47-63 Hz
Power Consumption	Total output of NVR is $\leq 10W$ (without HDD) Total output power of PoE is 130W, the maximum output power of a single port is 25.5W
Net Weight	5.86 lb
Gross Weight	8.42 lb
Product Dimensions	14.76" × 12.96" × 2.09" (W × D × H)
Packaging Dimensions	17.68" × 6.69" × 16.57" (W × D × H)
Operating Temperature	14 °F to +131 °F
Storage Temperature	-4 °F to +140 °F
Operating Humidity	10%–93% (RH)
Installation	Rack or desktop
Certifications	FCC: 47 CFR FCC Part15, SubpartB, Class A CE-EMC: EN 55032: 2015+A1: 2020; EN IEC 61000-3-2: 2019+A1: 2021; EN 61000-3-3:2013+A1: 2019+A2: 2021; EN 55035: 2017+A1: 2020; EN 50130-4: 2011+A1: 2014 CE-LVD: EN 62368-1: 2014

DIMENSIONS



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BACKPLATE



- | | |
|----------------------------|-----------------|
| 1. Power Input | 2. PoE Ports |
| 3. Alarm In/Out | 4. HDMI Port |
| 5. USB Port | 6. Network Port |
| 7. MIC IN, RCA Connector | 8. Power Switch |
| 9. VGA Port | 10. RS-232 Port |
| 11. MIC OUT, RCA Connector | |

ADDITIONAL PRODUCTS



OPTIVIEW'S VIDEO MONITORING SOFTWARE
Remote Monitoring



SURVEILLANCE DRIVES
4TB / 8TB / 10TB



IP8MIBC-212-AI
8MP IP Varifocal Bullet Camera w/ Analytics



IP8MIAB-212-ZAM
8MP IP Varifocal Armor Ball Camera w/ Analytics



LPRIP4M-ANPR-832DL
4MP Starlight ANPR Network Bullet Camera