



## 16CH 1.5U 4HDDs eVMS-PRO Network Video Recorder



### Features:

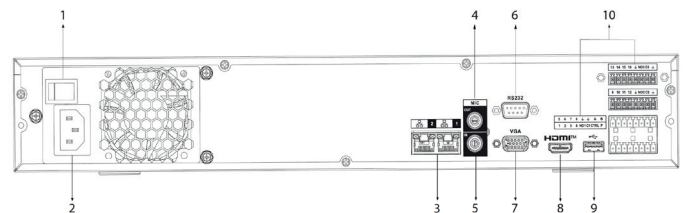
- Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format.
- Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled).
- Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding.
- AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel SMD Plus.
- AI by Camera: Face detection and recognition, perimeter protection; SMD Plus; ANPR; people counting; stereo analysis; heat map.
- Connected to the third-party network cameras.
- Security baseline 2.3.

**VMS-PRO**  
Enterprise Class VMS Solution

ONVIF

CE FCC

EN-16AI series is a new generation of network recorders that offers powerful decoding capabilities, and strong bandwidth. It features high-precision face recognition, perimeter protection, and SMD (Smart Motion Detection), which can distinguish target vehicles and humans from other types in real time. When connected with select IPC cameras, Quick Pick technology becomes available, allowing human and vehicle targets to be easily searched for and picked out. This network recorder is not only cost-effective, but also compatible with a wide variety of third-party devices, making it a great choice for small and medium-sized businesses.



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

### PRODUCT OVERVIEW

EN-16AI is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on WatchNET's advanced technologies, EN-16AI provides intelligent, simple and inclusive products and solutions.

### SYSTEM FUNCTIONS

#### Face Detection

Face detection is to detect if there is any human face appearing in the video. This technology adopts a deep learning algorithm to support face detection, tracking, optimization and capturing, and then output the best face snapshot.

#### Face Recognition

WatchNET's Face Recognition technology extracts the features of captured faces and compares them with those in face database to recognize the person identity.

#### Fenced Area Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to perform secondary recognition for the targets. Improving alarm accuracy.

#### Smart Motion Detection

With intelligent algorithm, WatchNET's Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

#### AI Search

Support AI search by metadata of different targets or uploading face pictures to device and comparing them with recorded faces by similarity. Enable operators to quickly and easily search through multi channels and long duration, efficiently find out when and where a person of interest appeared.

#### Smart Fan

The NVR is equipped with a smart fan to achieve high cooling efficiency. It automatically turns on or turns off according to CPU and ambient temperature. The fan is long-lasting and low noise, reducing maintenance costs and improving the user experience.

#### Quick Pick

eVMS-PRO Quick Pick technology can enable users to quickly pick up the human/vehicle targets that they are interested in, which facilitates retrieval from SMD events.

#### ANPR by Camera

With deep learning algorithm, eVMS-PRO ANPR technology can recognize the number plate information of vehicles in the image with ANPR cameras. Support blacklist/allowlist mode, searching target vehicles from recorded video.

#### Heat Map by Camera

WatchNET's heat map technology is used to display the crowd density and people appearance probability. Export and display the crowd status by different colors. Generally, the crowd status is the statistics of people quantity in space and time dimensions.

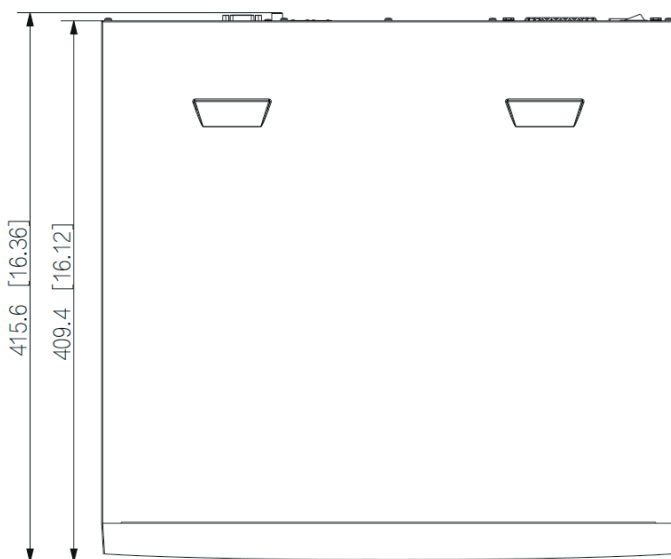
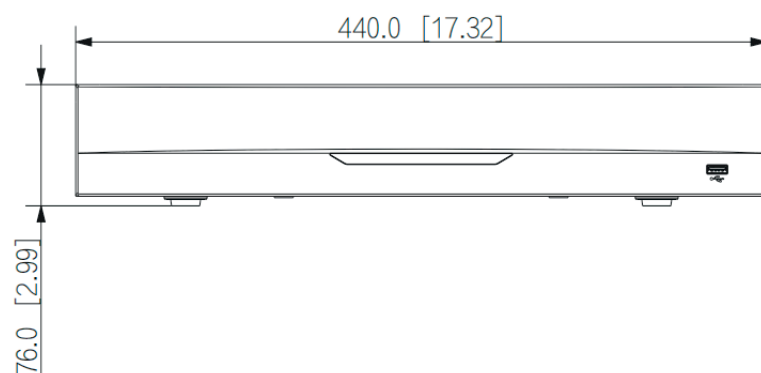
Model	EN-16AI
<b>System</b>	
Main Processor	Industrial-grade embedded processor
Operating System	Embedded LINUX
<b>AI</b>	
AI by Camera	Face detection; face recognition; fenced area protection; Smart Motion Detection, LPR; people counting; stereo analysis; heat map
AI by Device	Face detection; face recognition; fenced area protection; Smart Motion Detection
<b>Fenced Area Protection</b>	
Fenced Area Performance AI by device (Number of hannels)	2
Fenced Area Performance AI by camera (Number of channels)	8
<b>Face Detection</b>	
Face Attributes	6 attributes:Gender; age group (6); glasses; expressions (8); mouth mask; beard
Face Detection Performance of AI by Device (1080P) (Number of channels)	1 (up to 12 face images/second)
Face Detection Performance of AI by Camera (Number of Channels)	8
<b>Face Recognition</b>	
Face Database Capacity	Up to 10 face databases with 200,000 images
Face Recognition Performance of AI by Device (1080P) (Number of Channels)	1 (up to 4 face images/second)
Face Recognition Performance of AI by Camera (Number of Channels)	8
<b>Motion Detection</b>	
Motion Detection by device	4
AMotion Detection by Camera	16-channel SMD Plus (AI by camera): Detects line crossing and intrusion of human or vehicle; filters false alarms caused by leaves, raindrops and change of brightness away
<b>LPR</b>	
LPR by Camera	4
<b>Video</b>	
Access Channel	16 channels
Network Bandwidth	AI off: Access: 256 Mbps; Storage: 256 Mbps; Forward: 256 Mbps AI on: Access: 160 Mbps; Storage: 160 Mbps; Forward: 160 Mbps
Resolution	16MP; 12MP; 8MP; 5MP; 4MP; 3MP; 2MP; 720p; D1
Decoding Capability	<b>AI off:</b> 1 CH × 16MP@20 fps; 1 CH × 12MP@20 fps; 2 CH × 8MP@30 fps; 4 CH × 5MP@30fps; 5 CH × 4MP@30 fps; 10 CH × 1080p@30fps <b>AI on:</b> 1 CH × 16MP@20 fps; 1 CH × 12MP@20fps; 2 CH × 8MP@30 fps; 3 CH × 5MP@30 fps; 4 CH × 4MP@30 fps ; 8 CH × 1080p@30 fps
Video Output	1-ch VGA output and 1-ch HDMI output; simultaneous/heterogeneous video sources output for VGA and HDMI is configurable
Multi-screen Display	1st Screen: 1/4/8/9/16
	2nd Screen: 1/4/8/9

<b>Third-party Support</b>	
Third-party Support	Panasonic, Sony, Samsung, Axis, Pelco, Arecont, ONVIF, Canon, RTSP
<b>Compression</b>	
Video	Smart H.265+; Smart H.264+; H.265; H.264; MJ
Audio	PCM; G.711A; G.711U; G.726
<b>Network</b>	
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; Alarm Server; IP Search (Support IP camera; DVR; NVS; etc.); P2P; auto register
Mobile Phone	iOS, Android
Interoperability	ONVIF (profile T/S/G); CGI; SDK
Browser	Chrome, IE9 or later, Firefox
<b>Record Playback</b>	
Multi-channel Playback	Up to 16 channels
Record Mode	Manual; schedule (general; MD; alarm; MD & alarm; intelligent)
Storage Method	Local HDD; network
Backup	USB device
Playback Function	1. Play; pause; stop; fast forward; fast backward; rewind; play by frame 2. Full screen; backup (cut/file); partially enlarge; audio on/of
<b>Alarm</b>	
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 exceptio
Intelligent Alarm	Face detection; face recognition; fenced area protection; SMD Plus; people counting; stereo analysis; heat map
Alarm Linkage	Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email
<b>External Port</b>	
HDD	4 SATA ports, up to 16 TB. The maximum HDD capacity varies with environment temperature
USB	1 front USB 2.0 port, 1 rear USB 3.0 ports
HDMI	1 (max. resolution: 4K)
VGA	1
Network	2 (10/100/1000 Mbps Ethernet port, RJ-45)
PCI	10 × PCIe ports
RCA Input	1
RCA Output	1
RS-232	1 channel, used to debug and pass through serial data
VGA	1
RS-485	1 channel, used to control PTZ, and it supports multiple protocols

General Parameter	
Power Supply	Single, 100 V–240 V AC, 50 Hz–60 Hz Total output of NVR is $\leq 10$ W (without HDD)
Power Consumption	power of a single port is 25.5W
Net Weight	4.25 kg (10.63 lb)
Gross Weight	5.35 kg (14.00 lb)
Product Dimensions	440.0 mm $\times$ 415.6 mm $\times$ 76.0 mm (17.32" $\times$ 16.36" $\times$ 2.99") (W $\times$ L $\times$ H)
Package Dimensions	529.0 mm $\times$ 499.0 mm $\times$ 211.0 mm (20.83" $\times$ 19.65" $\times$ 9.31") (W $\times$ L $\times$ H)
Operating Conditions	-10°C to +55°C (+14°F to +131°F)
Storage Conditions	-20°C to +60°C (+32°F to +104°F)
Operating Humidity	10%–93% (RH)
Storage Humidity	30%–85% (RH)
Operating Altitude	3000 m (9843 ft)
Installation	Desktop/Rack mount
Certifications	CE, FCC

Audio Output	1 channel RCA
Alarm Input	16 channels
Alarm Output	4 channels

#### Dimensions:



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