PoE 16 Channel H.265 12MP NVR with 4HDD Bays, Facial Recognition and LPR

WNVR416P5OAI

Quick Start Guide

Please read these instructions carefully before operating the unit and keep for further reference.

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Intro Section

Please read this instruction carefully before operating the product and keep it for further reference. All examples and pictures used here are for reference only.
The contents of this manual are subject to change without notice.

CAUTION:

- Please check the device and the accessories after getting the device. If there are any damages, shortages or defects, please contact your dealer immediately.

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Contents

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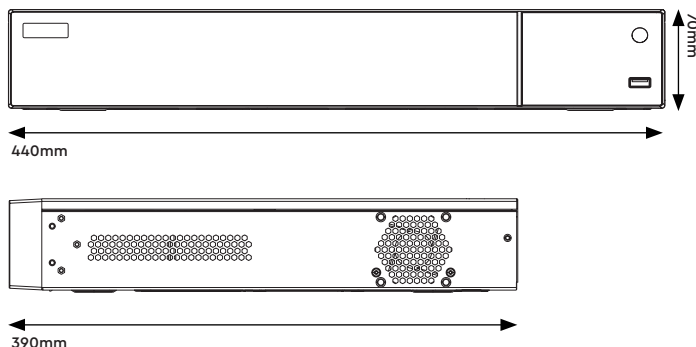
The Genie WNVR416P5OAI is a 16 channel high definition 12MP network video recorder with 4HDD bays. The WNVR416P5OAI also supports face recognition when used in conjunction with any "Xpert" range of face recognition and LPR IP cameras. The WNVR416P5OAI features up to 16 channel simultaneous playback as well as 16 PoE network ports which supports direct connection from the IP camera to the NVR. The NVR can support the latest H.265 and H.264 encoding streams. The WNVR416P5OAI NVR has a dedicated iPhone and Android app (Super Live Plus) and are supplied with free Windows / MAC CMS software.

1.1 Product Features

- Support 16CH 12MP/8MP/6MP/5MP/4MP/3MP
- 1080p/1280×1024/960p/720p/960H/D1/CIF IPC Input
- H.265S/H.265+/H.265/H.264
- Intuitive and user-friendly Graphic User Interface (GUI), Windows style operation by mouse
- Multi-type recording: manual / timed / motion / sensor / POS / AI recording
- Playback : 16 CH simultaneous playback
- Search : time slice, time, event, tag and smart search
- Support face detection and comparison
- Support POS information overlay on live view and playback
- Support multiple VCA (Video Content Analytics) events, such as object abandoned/missing, region intrusion, tripwire, video exception, etc.
- Support license plate recognition
- Pentaplex : preview, record, playback, backup and remote access
- DHCP, DDNS, PPPoE network protocol
- Compatible with third-party IPCs, such as ONVIF, etc.
- Remote control via Web Client or CMS : preview, playback, backup, PTZ and configuration
- Support 16CH PoE IPC direct connection to NVR via PoE ports
- Multi-user online simultaneously
- Authorisation management, log view and device status view
- 4K output, true high resolution display
- Support PTZ preset and auto cruise, up to 255 presets and 8 cruises
- Support NAT function and QRCode scanning by mobile phones
- Powerful mobile surveillance by smart phones with iOS and Android OS

1.2 Product Dimensions

70mm

440mm

390mm

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1.3 Specification

	Model	WNVR416P5OAI
System	OS	Embedded Linux
	Mobile OS	iOS, Android
Video	Compression	H.265S/H.265+/H.265/H.264
	IP Video Input	16CH IPC input
	Resolution	12MP/8MP/6MP/5MP/4MP/3MP/1080p / 1280×1024/960p/720p/960H/D1/CIF
	Network Bandwidth	160Mbps/160Mbps (incoming/outgoing)
	Output	HDMI: 3840×2160/1920×1080/1280×1024/1024×768 HDMI2 : 1920×1080/1280×1024/1024×768 VGA ×1: 1920×1080/1280×1024/1024×768 VGA and HDMI1 output the same video source
Audio	Network Input	16 CH IPC audio input
	Two-Way Audio	RCA × 1
	Local Output	RCA × 1
	Compression	G.711 (A/U)
Record	Record Stream	Dual stream recording
	Resolution	12MP/8MP/6MP/5MP/4MP/3MP/1080p/ 1280×1024/960p/720p/960H/D1/CIF
	Frame Rate	NTSC: 30fps, PAL: 25fps
Face Recognition	Face Detection Performance (AI by IPC)	16CH
	Face Detection Performance (AI by Device)	2 CH (2MP)
	Face Match Performance	6 CH
	Comparison Capability	18 pictures / second
	Face Picture Database	32 libraries 10000 Face Pictures
	Face Picture Search	Search by picture is supported
	Database Management	Add, modify, delete and search face pictures
	Face Picture Adding	Add face pictures through APP, WEB and external import
	Face Picture Comparison	Support allow list, block list and stranger match alarm
	Track	Track display on a map
	Statistical Graph of Information	Bar graph
	Statistical Mode of Information	Statistics by day, week, month, quarter as well as customised time period
Playback	Simultaneous Playback	Max 16 CH
	Search	Time slice / Time / Event / Tag / Smart search
	Smart Search	Highlighted colour to display the camera record in a certain period of time, different colours refers to different record events
	Function	Play, pause, FF, FB, digital zoom, etc.
	Decoding Capability	Live View / Playback: 1CH 8MP / 4CH 1080p
Alarm	Mode	Manual, Sensor, Motion, Exception, Smart events etc.
	Input	16CH local alarm input, supports IPC alarm input
	Output	4 CH
	Triggering	Record, Snap, Preset, E-mail, etc.

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1.3 Specification

	Model	WNVR416P5OAI
Network	Interface	RJ45 1000 Mbps × 2
	PoE Port	RJ45 × 16 (IEEE802.3at output power: ≤ 150W)
	Protocol	TCP / IP, PPPoE, DHCP, DNS, DDNS, UPnP, NTP, SMTP, HTTP, HTTPs, 802.1x, RTSP, SNMP, ONVIF
	Web Client	Max. 10 users access
Remote Monitoring	Immix	Compatible with Immix via RTSP only (2-way audio not supported)
	Sentinel	Yes, Firmware 1.2.0 or later
	Remote Access	Internet Explorer (ActiveX), HTML5 compatible browser support with firmware version 1.4.5 and above
Backup & Storage	Local Backup	USB stick, USB mobile HDD
	Network Backup	Yes
	Storage	HDD: SATA × 4, max 10TB for each HDD, E-SATA × 1
Port	RS485	Yes (Full-duplex), Connect to PTZ or keyboard
	USB	USB 3.0 × 1, USB 2.0 × 2
	Remote Controller	Optional
Video Structure Analysis	Human/Vehicle Classification	Yes
Others	Other Functions	Fisheye: Supports fisheye dewarping via Web Client and mobile App Plate Recognition: Yes
	Power Supply	ATX, 300W (PoE)
	Consumption	≤ 20W (Without HDD and PoE power supply)
	Working Environment	-10~50°C, 10%~90% (Humidity)
	Dimensions	440 × 390 × 70 mm
	Certificate	CE, FCC
	Environmental Protection	Complies with Directive EU RoHS, REACH and WEEE

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2.0 HDD Installation

This series of the product supports 4 SATA hard drives. Please make sure that the device is powered off before the installation. The pictures of the installation are for reference only.

1. Loosen the screws to open the cover.
2. Screw the screws into the HDD but do not tighten them.
3. Turn over the machine and place the HDD with two screws onto the bottom of the case. Then lock the screws according to the order of the marks.
4. Install the other three HDDs according to above-mentioned method.
5. Connect the power and data cables.

6. Install back the cover and secure it with the screws.

Note: Please check the inside structure of the device and make sure that the cables are connected well before installing the cover back. Please format the HDD before using.

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3.0 Rear Panel Instruction

The interfaces of the rear panel are for reference only.
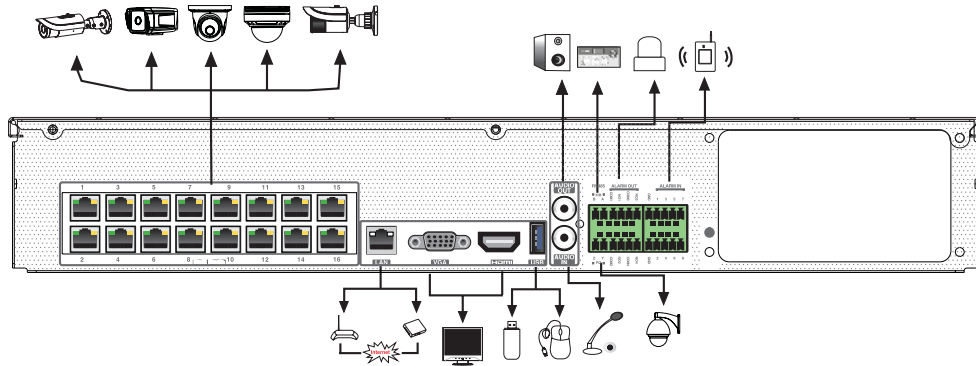
Name	Description
PoE Ports	PoE network ports, connect to PoE IP camera
LAN	Network port
VGA	Connect to monitor
HDMI	Connect to high definition display device
USB	Connect to USB storage device or USB mouse
AUDIO OUT	Audio output
AUDIO IN	Audio input
P/Z	P/Z; Connector for PTZ
K/B	K/B; Connector for keyboard
ALARM IN	Alarm input, connectors for sensors
ALARM OUT	Alarm inutput
GND	Ground

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4.0 Start Up and Shut Down
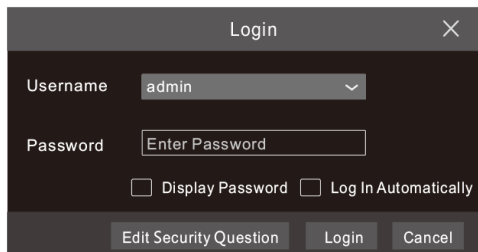
Startup

1. Connect the monitor and the power.
2. The device will boot and the power indicator will display blue.
3. A wizard window will pop up.

Shutdown

Click "Start" and then select "Shutdown" icon. This will bring up a shutdown window. The device will shut down by clicking "OK" button. Then disconnect the power.

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5.0 Login

The default username is admin and the default password is 123456. You must configure the wizard if you start the NVR for the first time and you may change the password when you configure the wizard for the first time. You can skip the settings wizard next time.
Click "Start" and select "Login". This will take you to see a login box. Enter the default username and password you set. Then you will see the live image.

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6.1 Network Configuration & Adding IP Camera

After you finish adding IP cameras, you can see the live images through the monitor of the NVR. The following will mainly introduce how to add the IP cameras via LAN/WAN.

LAN
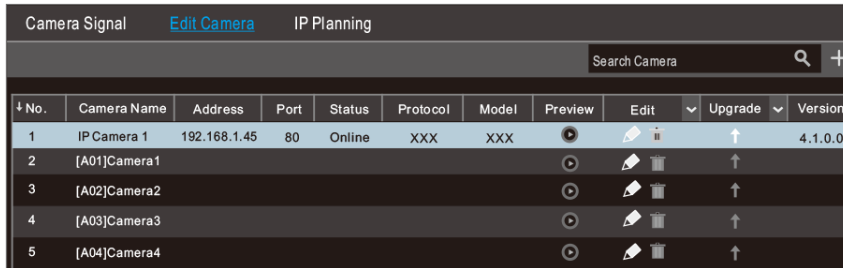
1. Set the network of the NVR. Go to Start → Settings → Network → TCP/IP. Enter IP address, subnet mask, gateway, etc. If using DHCP, please enable DHCP in both the NVR and the router.
2. Go to Start → Settings → Network → Port. Enter HTTP port (the default value is 80), server port (the default port is 6036).
3. The internal ethernet port is the port which connects all the PoE ports with the NVR system. The PoE ports are available if the internal ethernet port is online. If it is offline, all the PoE ports will be unavailable. The IP address and subnet mask of the internal ethernet port can be changed to make the port in the same network segment with the IP cameras which directly connect to the PoE ports of the NVR.
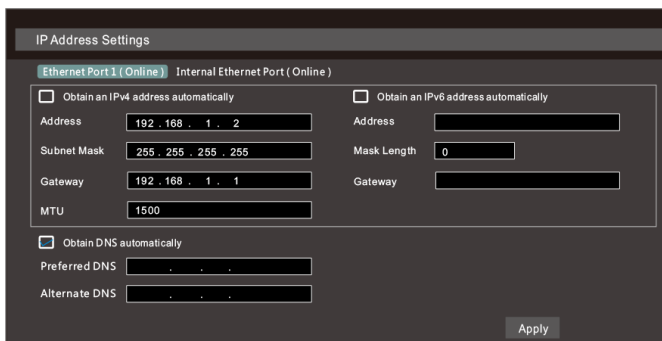
4. Go to Start → Settings → Camera → Add Camera. The NVR will automatically refresh the cameras searched. The IPC which supports the Onvif protocol may be added manually. If the IPC searched is not in the same local network as the NVR, you should select the device and click [icon] to modify the IP address.

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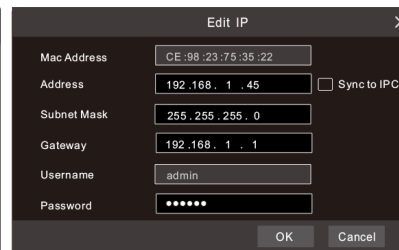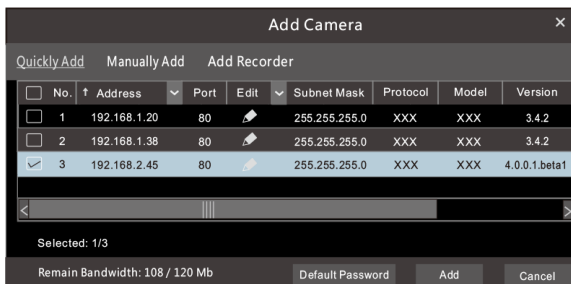
5. Checkmark the device you want to add and then click "Add" button.The NVR will automatically refresh the cameras and return to "Edit Camera" interface. "Online" status means connecting the device successfully and you will see the live image. You may select the added device and click ![icon] button to modify channel, IP address, etc.
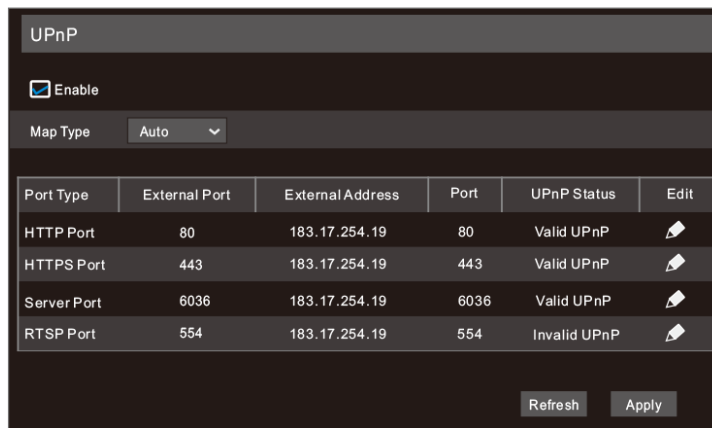

WAN

1. Set the network of the NVR. Go to Start → Settings → Network → PPPoE. Enter static IP address or enable PPPoE and then enter the user name and password received from your ISP.
2. Go to Start → Settings → Camera. Click "Add Camera" or ![icon] behind the column of the search camera and select "Manually Add" to add the IP cameras. Enter IP address, server port, username and password of the IP camera. The IP camera must be connected over WAN. And here the IP address of the IP camera must be a WAN IP address.

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You can use the UPnP function to enable the fast connection of the device to WAN via a router without port mapping.

1. Go to Start → Settings → Network → UPnP, and enable UPnP and then click "Apply" button to save.
2. Enable the UPnP function in the router.
3. Click "Refresh" button to refresh the UPnP status. If the UPnP status were still "Invalid UPnP" after refreshing it for several times, the port would be wrong. Please change the mapping type to "Manual" and then click to modify the port until the UPnP status turns to "valid UPnP".

| Port Type	External Port	External Address	Port	UPnP Status	Edit
HTTP Port	80	183.17.254.19	80	Valid UPnP	✎
HTTPS Port	443	183.17.254.19	443	Valid UPnP	✎
Server Port	6036	183.17.254.19	6036	Valid UPnP	✎
RTSP Port	554	183.17.254.19	554	Invalid UPnP	✎

UPnP

☑ Enable

Map Type   Auto

Refresh   Apply

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NAT Settings
1. The NVR shall be powered on and connected to the network.
2. Go to Start → Settings → Network → TCP/IP. You can obtain the IP address, subnet mask and gateway automatically. You can also manually enter them according to the actual network situation. Please make sure the network segment is the same as that of the network which is used.
3. Set the preferred or alternative DNS Server. Click "Apply" to save the parameters.
4. Go to Start → Settings → Network → NAT tab. Enable NAT and select the NAT Server Address (The default NAT Server Address is nat.autonat.com). Click "Apply" to save the parameters.
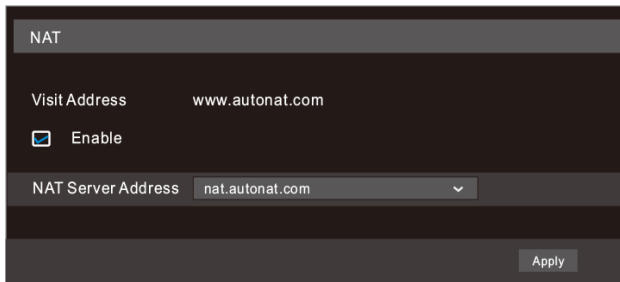
NAT Access
After finishing the NAT settings, you can enter www.autonat.com in the address bar of your browser and then press enter to go to the following interface. If you are the first time to access the NAT, you shall download and install the plug-in according to the tips. After installing the plug-in successfully, it will pop up the login box.
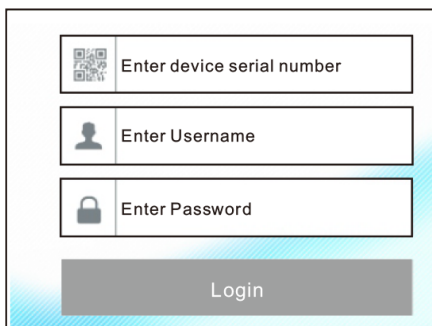
Device Serial Number:
Click 🖳 on the menu bar at the bottom of the live interface to check the serial number or go to Start → Settings → Network → Network Status to check the serial number of the NVR).

Username:
The username of the NVR. The default username is admin.

Password:
The password of the NVR. The password is set by yourself when you configure the wizard for the first time.

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9.1 Manual Recording

Before recording, please install and format a HDD. In the live interface you can see the menu toolbar. Click ⬛ button to start recording. Click it again to stop recording. You can also click ⬛ to check the status of the recording.

9.2 Playback

Instant Playback

Click "Instant Playback" in the right-click menu of the camera's preview window to select or drag the playback progress bar to change the playback time to play back the record.

General Playback

Click ⬛ on the tool bar at the bottom of the live preview interface or click
Start → Playback to go to the playback interface as shown below. You can also
add the playback cameras manually. Click ⬛ in the playback window to pop up the "Add
Camera" window. Check the cameras in the window and then click "Add" to add playback
camera. The record files of the added playback camera
will be played in the playback interface.

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