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HIKVISION DS-7616NXI-K1

HIKVISION DS-7616NXI-K1 16 Channel 8MP 4K NVR Instruction Manual

MODEL: DS-7616NXI-K1

Brand: HIKVISION

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your HIKVISION DS-7616NXI-K1 16 Channel 8MP 4K Network Video Recorder (NVR). Please read this manual thoroughly before using the product to ensure proper and safe operation. Keep this manual for future reference.

PACKAGE CONTENTS

Upon unpacking, verify that all items listed below are present and in good condition:

- HIKVISION DS-7616NXI-K1 NVR Main Unit
- Power Adapter
- USB Mouse
- Ethernet Cable
- SATA Cables (for HDD connection)
- HDMI Cable (USEWEII HDMI Included)
- Quick Start Guide

Package Include



PoE Switch is Required, not Include

Figure 1: Package Contents. The image displays the NVR unit, power adapter, USB mouse, Ethernet cable, SATA cables, and a quick start guide, all neatly arranged as they would appear upon unboxing.

PRODUCT OVERVIEW

Key Features

- Supports up to 16 IP camera inputs.
- Advanced H.265+/H.265/H.264+/H.264 video formats for efficient storage and bandwidth usage.
- Equipped with Motion Detection 2.0 for enhanced security.
- Up to 160 Mbps incoming bandwidth to support multiple high-resolution cameras.
- AcuSense technology for intelligent analysis and reduced false alarms.

DS-7616NXI-K1 16-ch 1U K Series AcuSense 4K NVR

Key Feature

- Up to 16-ch IP camera inputs
- H.265+/H.265/H.264+/H.264 video formats
- Up to 1-ch@12 MP or 2-ch@8 MP or 4-ch@4 MP or 8-ch@1080p decoding capacity
- Up to 160 Mbps incoming bandwidth
- Adopt Hikvision AcuSense technology to minimize manual effort and security costs



Smart Function

- All channels support Motion Detection 2.0
- 1-ch video analysis for human and vehicle recognition to reduce false alarm
- 1-ch facial recognition for video stream, or 4-ch facial recognition for face picture
- Smart search for the selected area in the video, and smart playback to improve the playback efficiency

Professional and Reliability

- H.265+ compression effectively reduces the storage space by up to 75%
- Adopt stream over TLS encryption technology which provides more secure stream transmission service

HD Video Output

- Provide independent HDMI and VGA outputs
- HDMI video output at up to 4K resolution

Storage and Playback

- Up to 1 SATA interface for HDD connection (up to 10 TB)
- 16-ch synchronous playback

Network & Ethernet Access

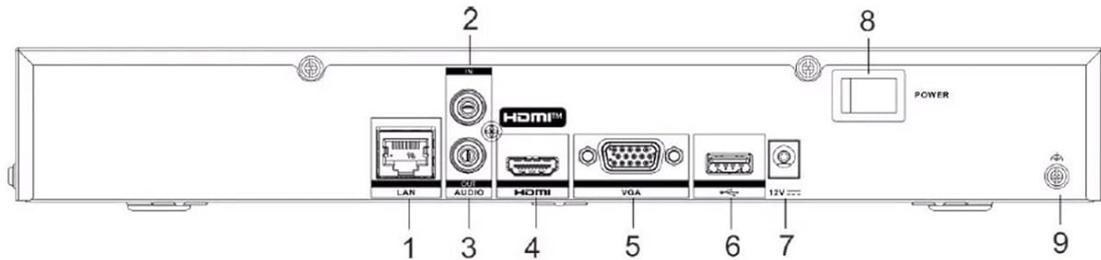
- 1 self-adaptive 10/100/1000 Mbps Ethernet interface
- Hik-Connect for easy network management

Figure 2: Key Features. This image highlights the main capabilities of the NVR, such as H.265+ compression, 4K resolution support, AcuSense technology, and various smart functions.

Physical Interface

The NVR features a well-organized rear panel with various ports for connectivity. Refer to the diagram below for a detailed layout.

Physical Interface



No.	Description	No.	Description
1	LAN network interface	6	USB interface
2	AUDIO IN	7	Power supply
3	AUDIO OUT	8	Power switch
4	HDMI interface	9	GND
5	VGA interface		

Available Model

DS-7616NXI-K1

Figure 3: Physical Interface. This diagram illustrates the rear panel of the NVR, labeling ports such as LAN, Audio In/Out, HDMI, VGA, USB, and Power Supply.

Physical Interface Port Descriptions

No.	Description	No.	Description
1	LAN network interface	6	USB interface
2	AUDIO IN	7	Power supply
3	AUDIO OUT	8	Power switch
4	HDMI interface	9	GND
5	VGA interface		

None PoE

16-ch 1U K Series AcuSense 4K NVR



PoE Switch is Required, not Include

Figure 4: NVR Front and Rear View. This image provides a clear view of the NVR's front panel with its minimalist design and the rear panel showcasing all connectivity options.

SETUP

Follow these steps to set up your HIKVISION NVR:

1. **Hard Drive Installation (Optional):** If a hard drive is not pre-installed, open the NVR casing, connect the SATA power and data cables to the hard drive, and secure it within the NVR. Close the casing.
2. **Connect Display:** Connect a monitor to the NVR's HDMI or VGA output port using the provided HDMI cable or a VGA cable.
3. **Connect Mouse:** Plug the USB mouse into one of the NVR's USB ports.
4. **Network Connection:** Connect the NVR to your local network using an Ethernet cable. Ensure your network has internet access for remote viewing features.
5. **Power On:** Connect the power adapter to the NVR and then to a power outlet. Turn on the NVR using the power

switch on the rear panel.

6. **Initial Configuration:** Follow the on-screen prompts to complete the initial setup, including setting up a password, network settings, and hard drive initialization.
7. **Connect IP Cameras:** Connect your IP cameras to the same network as the NVR. The NVR will automatically search for and add compatible cameras. For non-PoE cameras, ensure they are powered separately and connected to the network.

OPERATING INSTRUCTIONS

Once the NVR is set up, you can begin monitoring and managing your surveillance system.

Live View and Recording

- Access the live view interface from the connected monitor or via the Hik-Connect app/web interface.
- Configure recording schedules and motion detection settings for each camera through the NVR's menu.

AcuSense Features

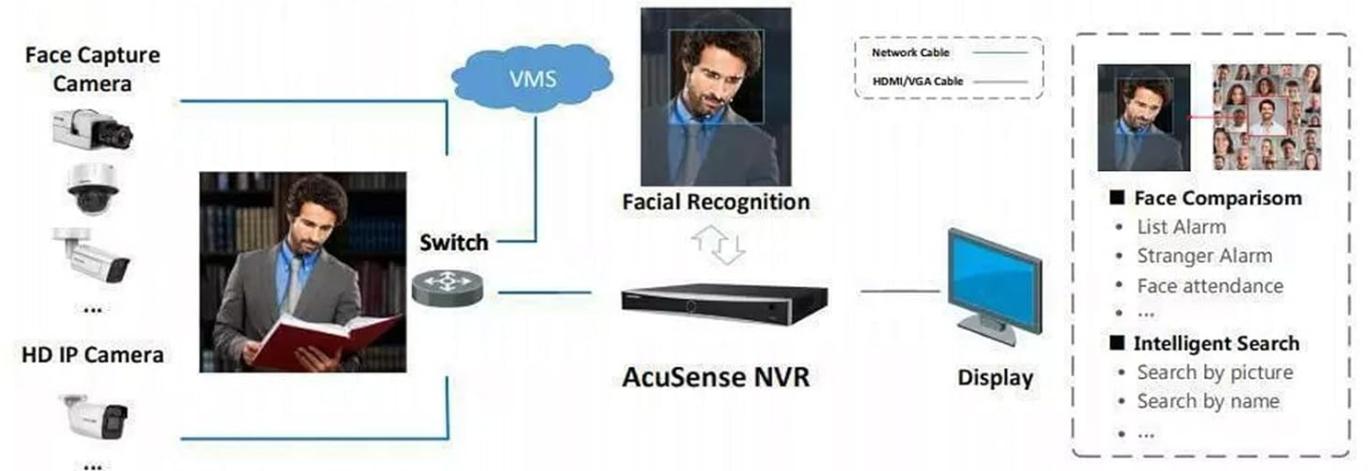
The NVR's AcuSense technology enhances security by providing intelligent detection capabilities:

- **Motion Detection 2.0:** Reduces false alarms caused by environmental factors (e.g., rain, leaves) by accurately classifying human and vehicle targets.
- **Facial Recognition:** Supports face picture comparison and facial detection for specific applications.
- **Perimeter Protection:** Utilizes deep learning algorithms to reduce false alarms in intrusion detection and line crossing scenarios.

Facial Recognition and Face Picture Comparison

Modeling and analyzing face pictures captured by cameras. Realize blacklist alarm and stranger alarm via face picture library.

Search target people by picture and name features.



Perimeter Protection

Adopt deep learning algorithm to reduce false alarm, effectively reduces the false alarm caused by tree branches, leaves, shadow, light, vehicles, small animals, etc.

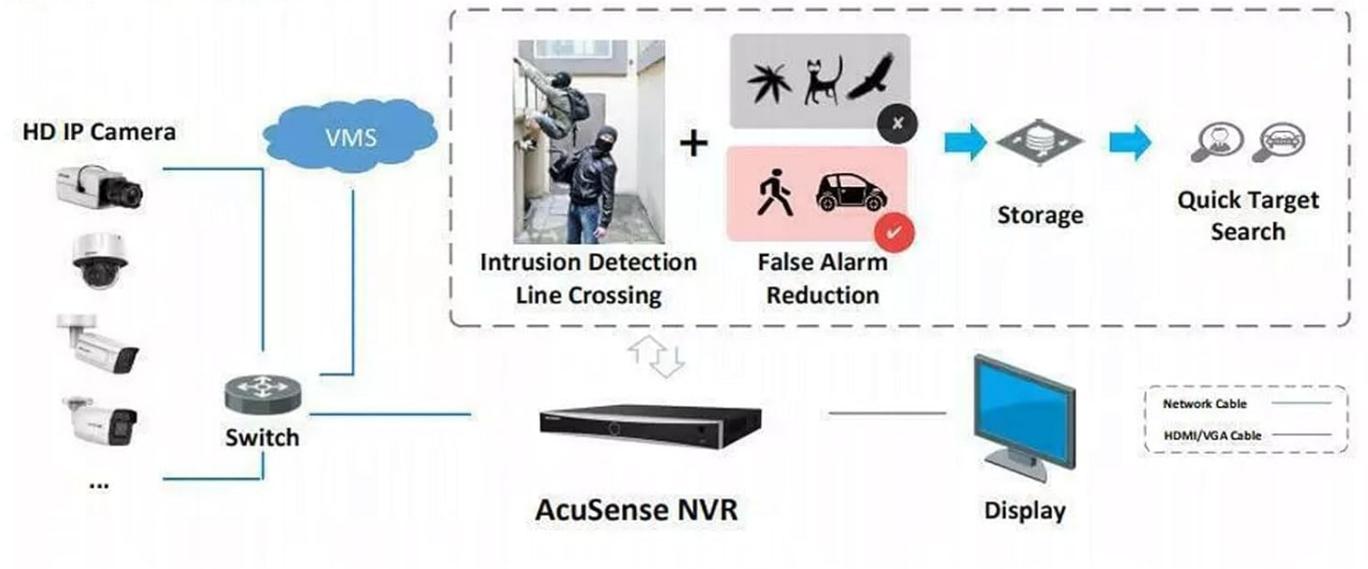


Figure 5: AcuSense Detection Capabilities. This image visually explains how AcuSense technology works for facial recognition and perimeter protection, showing the integration with cameras and the NVR.

Remote Access

Utilize the Hik-Connect P2P function for easy remote management and live viewing from your mobile device or web browser.

MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your NVR system.

- **Cleaning:** Periodically clean the exterior of the NVR with a soft, dry cloth. Ensure ventilation openings are free from dust and obstructions.
- **Firmware Updates:** Check the official HIKVISION website for the latest firmware updates. Regularly updating the firmware can improve system stability and add new features.
- **Hard Drive Management:** Monitor the health of your hard drive(s) through the NVR's system settings. Ensure

sufficient storage space is available for recordings.

- **Backup Configuration:** Regularly back up your NVR's configuration settings to a USB drive or network location.

TROUBLESHOOTING

This section addresses common issues you might encounter.

- **No Video Output:** Check all cable connections (HDMI/VGA, power). Ensure the monitor is on and set to the correct input. Restart the NVR.
- **Cameras Not Displaying:** Verify that IP cameras are powered on and correctly connected to the network. Check network settings on both the NVR and cameras. Ensure cameras are added to the NVR.
- **Network Connection Issues:** Confirm the Ethernet cable is securely connected. Check your router/switch status. Verify NVR network settings (IP address, gateway, DNS).
- **Hard Drive Detection Issues:** If the hard drive is not detected or shows errors, ensure it is properly connected inside the NVR. In some cases, an insufficient power supply to the NVR can cause HDD issues. Consider using a 12V 2A power adapter if the supplied 12V 1.5A adapter proves insufficient for your HDD.
- **False Alarms:** Adjust the sensitivity and detection zones for motion detection. Utilize AcuSense features (Motion Detection 2.0, Perimeter Protection) to filter out non-human/vehicle events.

SPECIFICATIONS

Detailed technical specifications for the HIKVISION DS-7616NXI-K1 NVR.

Feature	Detail
IP Video Input	16-channel
Incoming Bandwidth	160 Mbps
Outgoing Bandwidth	80 Mbps
HDMI Output	1-ch, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
VGA Output	1-ch, 1920 × 1080/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz
Decoding Format	H.265+/H.265/H.264+/H.264
Recording Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Synchronous Playback	16-ch
SATA Interface	1 SATA interface
Memory Storage Capacity	Up to 10 TB per HDD
USB Interface	Front panel: 1 × USB 2.0; Rear panel: 1 × USB 2.0
Network Interface	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
Power Supply	12 VDC, 1.5 A
Power Consumption	≤ 10 W (without HDD)

Feature	Detail
Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)
Working Humidity	10% to 90%
Dimensions (W × D × H)	320 mm × 240 mm × 48 mm (12.6" × 9.4" × 1.9")
Weight	≤ 1 kg (without HDD), 1.5 kg (Item Weight)
Country of Origin	India

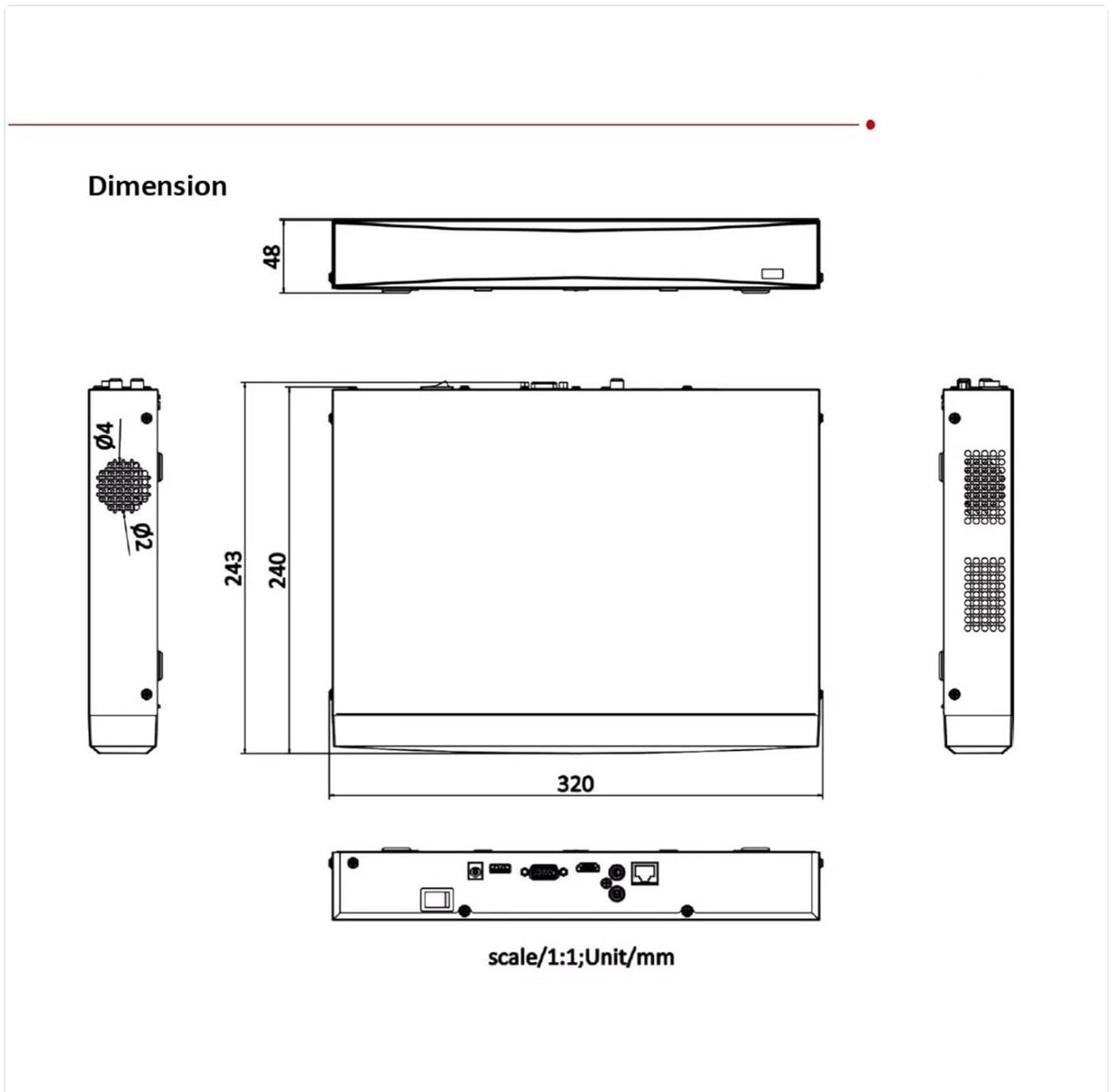


Figure 6: NVR Dimensions. This technical drawing provides precise measurements of the NVR unit in millimeters.

OFFICIAL PRODUCT VIDEO

Video 1: HIKVISION 16 Channel 8MP 4K NVR Overview. This video provides a brief visual introduction to the HIKVISION DS-7616NXI-K1

NVR, showcasing its design, package contents, and key features.

WARRANTY AND SUPPORT

Your HIKVISION DS-7616NXI-K1 NVR comes with a **2-year warranty**, ensuring peace of mind regarding product quality and performance. For technical support, troubleshooting assistance, or warranty claims, please contact HIKVISION customer service or your authorized dealer.

Additionally, extended warranty plans are available for purchase:

- 1 Year Extended warranty by OneAssist
- 2 Year Extended warranty by OneAssist

For further information, visit the official HIKVISION website or consult your product documentation.

