# DS-96000NI-F24 (/H) (/I)

# Series NVR

### **Introduction:**

The DS-96000NI-F24 (/H) (/I) series NVR (Network Video Recorder) is a new generation recorder developed by Hikvision independently. Combined with multiple advanced technologies, such as audio and video decoding technology, embedded system technology, storage technology, network technology and intelligent technology, it can both work alone as a recorder and cooperate with other device to build a comprehensive surveillance system.

The DS-96000NI-F24(/H) (/I) series NVR can be widely applied in the areas of finance, public security, military, communication, transportation, education, etc.

## **Available Models:**

DS-96128NI-F24, DS-96256NI-F24

DS-96128NI-F24/H, DS-96128NI-F24/I, DS-96128NI-F24/H/I DS-96256NI-F24/H, DS-96256NI-F24/H, DS-96256NI-F24/H/I

## **Main Features:**

#### **Professional and Reliable**

- Pluggable HDD design provides a convenient HDD installation and maintenance way; Unique chassis based on patented design ensures environmental friendly and low-noise running.
- Adopt professional embedded hardware and software, and pioneering dual-OS design to ensure the reliability of system running.
- Support redundant power supply to improve the system stability.
- Adopt ANR technology to enhance the storage reliability when the network disconnected.
- Supports HDD hot swap with RAID0, RAID1, RAID5, RAID10 storage scheme configurable.
- Either normal or hot spare working mode is configurable to constitute an N+1 hot spare system.

### **HD** Input

- Connectable to the third-party network cameras like ACTI, Arecont, AXIS, Bosch, Brickcom, Canon, ONVIF, PANASONIC, Pelco, PSIA, SAMSUNG, SANYO, SONY, Vivotek and ZAVIO.
- Up to 128/256 IP cameras can be connected.
- Support live view, storage, and playback of the connected camera at up to 8 megapixels resolution.

### **HD** Output

- Simultaneous HDMI1/VGA output as the main output and the HDMI2 works as the auxiliary output.
- Video outputs at up to 1920×1080 resolution.
- Powerful decoding capacity: DS-96000NI-F24/H and DS-96000NI-F24/H/I support decoding up to 44 channels at 1080P resolution, and provide 12 HDMI outputs for display on video wall.

# HD Storage

 Up to 24 SATA hard disks can be connected, for both recording and backup.

#### HD Transmission

4 self-adaptive 10M/100M/1000M network interfaces and 4 1000M optical fiber interfaces.

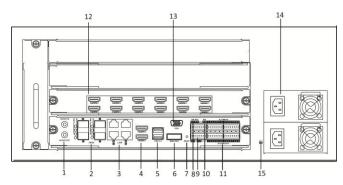
#### Various Applications

- Centralized management of IP cameras is supported, including configuration, information import/export, real-time information display, two-way audio, upgrade, etc.
- Connectable to smart IP cameras from Hikvision and the recording, playing back, and backing up of VCA alarms can be realized.
- VCA detection alarm is supported.
- VCA search for face detection, behavior analysis, people counting and heat man.
- New GUI and support starting record with one key.
- Realize instant playback for assigned channel during multi-channel display mode.
- Smart search for the selected area in the video; and smart playback to improve the playback efficiency.
- Support HDD quota and group modes; different capacity can be assigned to different channels.



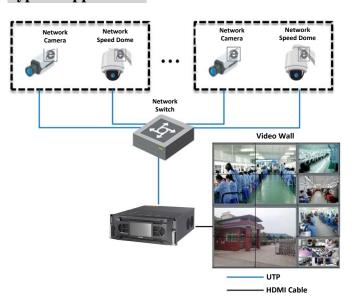


# **Physical Interfaces:**



Index	Name			
1	RCA connector for audio output and output			
2	4 Fiber Optic Interfaces			
3	4 LAN network interfaces			
4	2 HDMI video output connectors			
5	USB 3.0 Interfaces			
6	miniSAS Interface (optional)			
7	Reset the device.			
8	RS-485 Interface			
9	RS-232 Interface			
10	Controller Port			
11	ALARM IN and ALARM OUT			
12	HDMI Output Extension Board (for /H and /H/I models only)			
13	VGA Interface			
14	100~240VAC Power Input (Dual Power Supplies)			
15	GND			

## **Typical Application:**



**Note:** The /H and /H/I models provide 12 HDMI outputs for video wall display.



# **Specifications:**

Network   Outgoing bandwidth   400Mbps   400	Model		DS-96128NI-F24, DS-96128NI-F24/H, DS-96128NI-F24/I, DS-96128NI-F24/H/I	DS-96256NI-F24, DS-96256NI-F24/H, DS-96256NI-F24/I, DS-96256NI-F24/H/I	
Top to SMP resolution   Tow-way audio		ID 11	128-ch	256-ch	
Two-way audio		IP video input	Up to 8MP resolution		
Network   Outgoing bandwidth   400Mbps   400		Two-way audio	1-ch, RCA (2.0 Vp-p, 1kΩ)		
Name	Network	Incoming bandwidth	400Mbps	640Mbps, or 400Mbps (when RAID is enabled)	
Video/Addigorus   SMP-6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/CIF/CIF/CIF/CIF/CIF/CIF/CIF/CIF/		Outgoing bandwidth	400Mbps	400Mbps	
HDMIL/VGA output   1-ch,   1202   1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024   788 /60Hz   1200 × 1080P /		Remote connection	256		
Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 /768 /60Hz   Price   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1024 × 720 /60Hz, 1280 × 1024 × 720 /60Hz, 1280 × 1024 × 720 /60Hz, 1280 × 1024 × 720 /60Hz, 1		Recording resolution	8MP/6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF		
Video/Audio output   1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 × 786 /60Hz   1768 /60Hz   12-ch (for /H and /H/I models only), 1620 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 × 768 /60Hz   12-ch (for /H and /H/I models only)   1620 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 × 768 /60Hz   12-ch (for /H and /H/I models only)   12-ch (for /H and /H/I models only   12-ch (for /H and /H/I mo			$1920\times1080P$ /60Hz, 1600 $\times$ 1200 /60Hz, 1280 $\times$ 1024 /60Hz, 1280 $\times$ 720 /60Hz, 1024 $\times$ 768 /60Hz		
HDMI outputs (on HDMI Output Extension Board)   12-ch (10r / H and / H/I models only)   1920 × 1080P /60Hz, 1600 × 1200 / 60Hz, 1280 × 1024 / 60Hz, 1280 × 720 / 60Hz, 1024 : 768 / 80Hz   1920 × 1080P / 60Hz, 1600 × 1200 / 60Hz, 1280 × 1024 / 60Hz, 1280 × 720 / 60Hz, 1024 : 768 / 80Hz   1920 × 1080P / 60Hz, 1600 × 1200 / 60Hz, 1280 × 1024 / 60Hz, 1280 × 720 / 60Hz, 1024 : 368 / 60Hz   1920 × 1080P / 60Hz, 1600 × 1200 / 60Hz, 1280 × 720 / 60Hz, 1024 : 368 / 60Hz   1920 × 1080P / 60Hz, 1600 × 1200 / 60Hz, 1280 × 720 / 60Hz, 1024 : 368 / 60Hz   1920 × 1080P / 60Hz, 1280 × 1280 × 1280 / 60Hz, 1280 × 1280 × 1280 / 60Hz, 1280 × 12		HDMI2 output	$1920\times1080P$ /60Hz, $1600\times1200$ /60Hz, $1280\times1024$ /60Hz, $1280\times720$ /60Hz, $1024\times768$ /60Hz		
Audio output		HDMI outputs (on HDMI Output Extension Board)	1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 ×		
Live view   Playback resolution   Synchronous playback   16-ch		LCD Screen	Available for /H and /H/I models only		
Pecoling   Synchronous playback   16-ch   20S-96000NI-F24/II 8-ch@1080P   DS-96000NI-F24/H and DS-96000NI-F24/II: 44-ch@1080P   DS-96000NI-F24/H and DS-96000NI-F24/H/I: 44-ch@1080P   DS-96000NI-F24/H and DS-9600NI-F24/H and DS-9600NI-F24/H and DS-9600NI-F24/H and DS-9600N		Audio output	1-ch, RCA (2.0Vp-p, 1KΩ)		
Capability			8MP/6MP/5MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF		
SATA   24 SATA interfaces for 24 HDDs	Decoding	Synchronous playback	16-ch		
Mard disk   miniSAS (Optional)   1 miniSAS interface		Capability			
Capacity		SATA	24 SATA interfaces for 24 HDDs		
Array type	Hard disk	miniSAS (Optional)	1 miniSAS interface		
Disk array         Number of arrays         24           Lexternal interface         Network interface         4, RJ-45 10 /100 /1000 Mbps self-adaptive Ethernet interface           Optic fiber interface         4, 1000 Mbps optic fiber interface           Serial interface         RS-232; RS-485; Keyboard           USB interface         Front panel: 1 × USB 2.0; Rear panel: 2 × USB 3.0           Alarm in/out         16 / 8           Power supply         100 ~ 240 VAC, 50 ~ 60 Hz           Max. Power         600 W           Consumption (without hard disk)         ≤ 100 W           Working temperature         -10°C ~ +55°C (14°F ~ 131°F)           Working humidity         10 % ~ 90 %           Chassis         19-inch rack-mounted 4U chassis           Dimensions(W × D × H)         447 × 528 ×172 mm (17.6" × 20.8"×6.8")		Capacity	Up to 6TB capacity for each HDD		
Number of arrays   24	Disk array	Array type	RAID0, RAID1, RAID5, RAID10		
Coptic fiber interface		Number of arrays	24		
External interface         RS-232; RS-485; Keyboard           USB interface         Front panel: 1 × USB 2.0; Rear panel: 2 × USB 3.0           Alarm in/out         16 / 8           Power supply         100 ~ 240 VAC, 50 ~ 60 Hz           Max. Power         600 W           Consumption (without hard disk)         ≤ 100 W           Working temperature         -10°C ~ +55°C (14°F ~ 131°F)           Working humidity         10 % ~ 90 %           Chassis         19-inch rack-mounted 4U chassis           Dimensions(W × D × H)         447 × 528 ×172 mm (17.6" × 20.8" × 6.8")		Network interface	4, RJ-45 10 /100 /1000 Mbps self-adaptive Ethernet interface		
Serial interface		Optic fiber interface	4, 1000 Mbps optic fiber interface		
Alarm in/out		Serial interface	RS-232; RS-485; Keyboard		
Power supply		USB interface	Front panel: 1 × USB 2.0; Rear panel: 2 × USB 3.0		
		Alarm in/out			
	General				
Working temperature       -10°C ~ +55°C (14°F ~ 131°F)         Working humidity       10 % ~ 90 %         Chassis       19-inch rack-mounted 4U chassis         Dimensions(W × D × H)       447 × 528 ×172 mm (17.6" × 20.8"×6.8")		Max. Power	600 W		
Working humidity  10 % ~ 90 %  Chassis  19-inch rack-mounted 4U chassis  Dimensions(W × D × H)  447 × 528 ×172 mm (17.6" × 20.8"×6.8")			≤ 100 W		
Chassis         19-inch rack-mounted 4U chassis           Dimensions(W × D × H)         447 × 528 ×172 mm (17.6" × 20.8"×6.8")		Working temperature	-10°C ~ +55°C (14°F ~ 131°F)		
$\mathbf{Dimensions}(\mathbf{W} \times \mathbf{D} \times \mathbf{H}) \qquad 447 \times 528 \times 172 \text{ mm } (17.6" \times 20.8" \times 6.8")$		Working humidity	10 % ~ 90 %		
		Chassis	19-inch rack-mounted 4U chassis		
Weight(without hard disk) < 29.1 V = (61.0 lb.)		$\overline{\text{Dimensions}(W \times D \times H)}$	447 ×528 ×172 mm (17.6" ×20.8"×6.8")		
<b>vergin</b> (without nard disk) $\geq 28.1 \text{ Kg} (01.9 \text{ lb})$		Weight(without hard disk)	≤ 28.1 Kg (61.9 lb)		

# Notes:

The formula to calculate the incoming bandwidth and the IP camera connected is: A = B/(C+D). A refers to the number of IP camera you connected.

B refers to the value of the incoming bandwidth.

Example: The incoming bandwidth.

C refers to the bitrate value of the main stream of the connected IP camera.

And D refers to the bitrate value of the sub-stream of the connected IP camera.

Example: The incoming bandwidth of DS-96128NI-F24 NVR is 400 Mbps and the IP camera to connect is with resolution of 720P (1280\*720) / 25 (30) fps. The bitrate for the main stream and sub-stream of the IP camera is set as 4Mbps and 1Mbps respectively.

In this example, B=400Mbps, C=4Mbps, D=1Mbps and A = B/(C+D) = 400 / (4+1) = 80. So the number of IP cameras can be connected with is 80.