# HIKVISION

# DS-7700NI-ST Series NVR

## Introduction:

DS-7700NI-ST series NVR (Network Video Recorder) is a new generation recorder developed by Hikvision independently. Combined with multiple advanced technologies, such as audio and video encoding & 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-7700NI-ST series NVR can be widely applied in the areas of finance, public security, military, communication, transportation, education, etc..
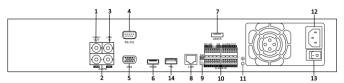
## Available Models:

DS-7708NI-ST, DS-7716NI-ST, DS-7732NI-ST and DS-7764NI-ST.

## Main Features:

- Connectable to the third-party network cameras like ACTI, Arecont, AXIS, Bosch, Brickcom, Canon, PANASONIC, Pelco, SAMSUNG, SANYO, SONY, Vivotek and ZAVIO, and cameras that adopt ONVIF or PSIA protocol.
- Up to 64 network cameras can be connected.
- Support live view, storage, and playback of the connected camera at up to 6 megapixels resolution.
- Simultaneous HDMI and VGA at $1920 \times 1080$ resolution.
- New GUI and support starting record with one key.
- Redundant recording, holiday recording and capture schedule configuration.
- Realize instant playback for assigned channel during multi-channel display mode.
- Up to 16-ch synchronous playback at 720P resolution.
- Smart playback to quick get through the less effective information.
- Connectable to the smart IP cameras from Hikvision, and VCA functions can be realized.
- Customization of tags, searching, and playing back by tags.
- Locking and unlocking record files.
- Support HDD quota and group modes; different capacity can be assigned to different channel.
- Up to 4 SATA hard disks and 1 eSATA disk can be connected, for both recording and backup.
- Either normal or hot spare working mode is configurable to constitute an N+1 hot spare system.
- 1 self-adaptive 10M/100M/1000M network interface.
- Support Hikvision DDNS (Dynamic Domain Name System);
- Support Channel-zero encoding, which enables you to get a view in the remote client or web browser of all the channels in one screen.
- Support network detection, including network delay, packet loss, etc.
- Adopt pioneering dual-OS design to ensure the security of system running.
- VCA detection alarm is supported.
- VCA search for face detection, behavior analysis, people counting and heat map.
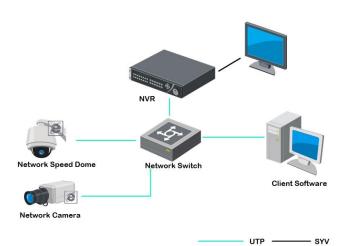
## Physical Interfaces:



| Index | Name |
|-------|------|
| 1 | VIDEO OUT |
| 2 | CVBS AUDIO OUT and VGA AUDIO OUT |
| 3 | LINE IN |
| 4 | RS-232 Serial Interface |
| 5 | VGA Interface |
| 6 | HDMI Interface |
| 7 | eSATA Interfaces |
| 8 | LAN Network Interface |
| 9 | Termination Switch |
| 10 | RS-485 Serial Interface, Keyboard Interface, ALARM IN and ALARM OUT |
| 11 | GND |
| 12 | 100~240VAC Power Input |
| 13 | Power Switch |
| 14 | USB Interface |

## Typical Application:

# Specifications:

| Model | | DS-7708NI-ST | DS-7716NI-ST | DS-7732NI-ST | DS-7764NI-ST |
|---|---|---|---|---|---|
| **Video/Audio input** | **IP video input** | 8-ch | 16-ch | 32-ch | 64-ch |
| | **Two-way audio** | 1-ch, BNC (2.0 Vp-p, 1kΩ) | | | |
| **Network** | **Incoming bandwidth** | 50Mbps | 100Mbps | 200Mbps | 200Mbps |
| | **Outgoing bandwidth** | 240Mbps | 240Mbps | 160Mbps | 160Mbps |
| | **Remote Connection** | 128 | | | |
| **Video/Audio output** | **Recording resolution** | 6MP /5MP /3MP /1080P /UXGA /720P /VGA /4CIF /DCIF /2CIF /CIF /QCIF | | | |
| | **CVBS output** | 1-ch, BNC (1.0 Vp-p, 75 Ω) <br> Resolution: 704 ×576 (PAL); 704 ×480 (NTSC) | | | |
| | **HDMI output** | 1-ch, resolution: <br> 1920 × 1080P /60Hz, 1920 × 1080P /50Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz, 1280 × 720 /60Hz, 1024 ×768 /60Hz | | | |
| | **VGA output** | 1-ch, resolution: <br> 1920 × 1080P /60Hz, 1600 × 1200 /60Hz, 1280 × 1024 /60Hz,   1280 × 720 /60Hz, 1024 × 768 /60Hz | | | |
| | **Audio output** | 2-ch, BNC (Linear, 600Ω) | | | |
| **Decoding** | **Live view / Playback resolution** | 6MP /5MP /3MP /1080P /UXGA /720P /VGA /4CIF /DCIF /2CIF /CIF /QCIF | | | |
| | **Capability** | 10-ch@720P, <br> 5-ch@1080P | 10-ch@720P, <br> 5-ch@1080P | 16-ch@720P, <br> 8-ch@1080P | 16-ch@720P, <br> 8-ch@1080P |
| **Hard disk** | **SATA** | 4 SATA interfaces for 2 HDDs + 1 DVD-R/W (default), or 4HDDs | | | |
| | **eSATA** | 1 eSATA interface | | | |
| | **Capacity** | Up to 4TB capacity for each HDD | | | |
| **External interface** | **Network interface** | 1 RJ-45 10 /100 /1000 Mbps self-adaptive Ethernet interface | | | |
| | **Serial interface** | RS-232; RS-485; Keyboard | | | |
| | **USB interface** | 3 ×USB 2.0 | | | |
| | **Alarm in** | 16 | | | |
| | **Alarm out** | 4 | | | |
| **Others** | **Power supply** | 100 ~ 240 VAC, 6.3 A, 50 ~ 60 Hz | | | |
| | **Consumption (without hard disk or DVD-R/W)** | ≤ 35 W | ≤ 40W | ≤ 45 W | ≤ 45 W |
| | **Working temperature** | -10 ℃ ~ +55 ℃ (14 ℉ ~ 131 ℉) | | | |
| | **Working humidity** | 10 % ~ 90 % | | | |
| | **Chassis** | 19-inch rack-mounted 1.5U chassis | | | |
| | **Dimensions (W ×D ×H)** | 445 ×390 ×70 mm ( 17.5" ×15.3" ×2.8") | | | |
| | **Weight (without hard disk or DVD-R/W )** | ≤ 4 Kg (8.82 lb) | | | |

***Note:***

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.

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-7716NI-ST NVR is 100Mbps and the IP camera to connect is with resolution of 1080P (1920*1080) / 25 (30) fps.

The bitrate for the main stream and sub-stream of the IP camera is set as 6Mbps and 1Mbps respectively.

In this example, B=100Mbps, C=6Mbps, D=1Mbps and $A = B/(C+D) = 100 / (6+1) \approx 14$. So the number of IP cameras can be connected with is 14.