NVR301HS-04/P-4KS2/L

4 Channel Smart 1U 1HDD 4PoE Network Video Recorder

- New 4.0 user interface, Security baseline 2.1
- H.264, H.265, Smart H.264+, and Smart H.265+. H.265 auto switch
- Max. decoding capability: 8 × 1080p@30 fps. Supports adaptive decoding
- Supports mainstream cameras of ONVIF and RTSP protocols
- P2P remote surveillance, video play on mobile device
- VGA/HDMI simultaneous video output, maximum resolution of HDMI is 4K
- AI by Camera: Face detection, perimeter protection, IVS, people counting, heat map, and SMD
- Supports remote configuration and management of IPC, such as setting parameters, getting information, and upgrading IPC of the same model in batches

Series Overview

NVR301HS-04/P-4KS2/L is introduced as the Lite series NVR that supports for 4K and H.265 encoding technology with excellent performance at an affordable price. For applications where image details are highly required, it delivers the capability of 4K resolution processing. The NVR can be served as edge storage, central storage or backup storage with an intuitive shortcut operation menu for remote management and control.

Due to its cost-effective and easy-to-install design, this NVR is ideal for a wide range of applications such as public safety, water conservancy, transportation, city centers, education, and financial institutions.

The NVR is compatible with numerous third-party devices making it the perfect solution for surveillance systems that work independently of video management system (VMS). It features an open architecture that supports for multi-user access and is compatible with ONVIF Profile S, T, G protocol, enabling interoperability with IP cameras.

Functions

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

Face Detection by Camera
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.

SMD Plus by Camera
With intelligent algorithm, Diamond 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.

| SMD Plus | Face Detection | Perimeter Protection | People Counting | 4K HDMI |

People Counting by Camera
With deep learning algorithm, Diamond People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/weekly/daily reports to meet your requirements.

Smart Codec
With advanced scene-adaptive rate control algorithm, Diamond smart codec technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

DMSS
The DMSS app is available on the iOS App Store and Google Play. It makes surveillance easy and simple, allowing you to remotely access back-end devices, view live video, receive event push notifications, and search for recorded videos from an iPhone, iPad, or Android phone at anytime from virtually anywhere.

Technical Specification

System

Main Processor	Industrial-grade embedded processor
OS	Embedded Linux
Operation Interface	Web/operating in local GUI

Perimeter Protection by Camera

Performance	4 channels
AI Search	Search for pictures by channel, time and event type

Face Detection by Camera

Performance	4 channels
Face Attributes	6 attributes: Gender, age, glasses, expression, mouth mask, and beard
AI Search	Search for pictures by channel, time and face attributes

SMD Plus by Camera

Performance	4 channels
AI Search	Search by target classification (human, vehicle)

Video

Access Channel	4
Network Bandwidth	Access: 80 Mbps; Storage: 80 Mbps; Forward: 60 Mbps
Resolution	8MP; 6MP; 5MP; 4MP; 3MP; 1080p; 720p; D1
Decoding Capability	8 × 1080p@30 fps
Video Output	1 × VGA output, 1 × HDMI output, supports simultaneous video sources output for VGA and HDMI
Multi-screen Display	1 , 4 views
Third-party Camera Access	ONVIF; RTSP

Compression

Video	Smart H.265/H.265/Smart H.264/H.264/MJPEG
Audio	PCM/G711A/G711U/G726/AAC

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; IP Search (Support Diamond IP camera; DVR; NVS; etc.); P2P; auto register
Mobile Phone Access	Android; iOS
Interoperability	ONVIF(profile T/S/G); CGI; SDK
Browser	Chrome; IE9 or later; firefox

Record Playback

Multi-channel Playback	Up to 4 channels for playback
Record Mode	Manual record; alarm recording; SMD recording; smart recording
Storage	Local HDD; network
Backup	USB storage device

Playback Function	1. Play/pause/stop/slow/quick/backward/by frame 2. Full screen, backup (video clip/file), partial zoom in, and audio on/off

Storage

Disk Group	Yes

Alarm

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 exception
Intelligent Alarm	Face detection, perimeter protection (intrusion and tripwire), IVS, people counting, heat map, and SMD alarms
Alarm Linkage	Recording, snapshot, audio, buzzer, log, preset, and email

External Port

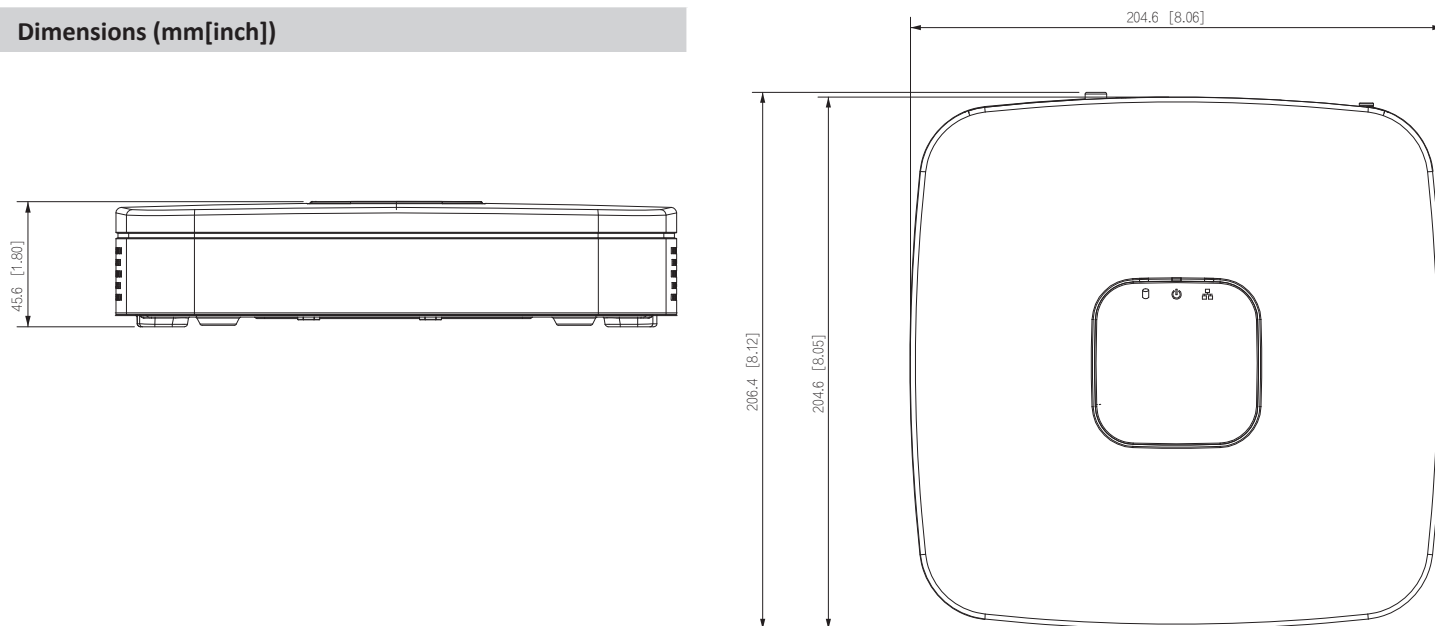|	
Audio Input	1 × RCA input
Audio Output	1 × RCA output
HDD	1 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature
USB	2 (2 × back USB2.0)
HDMI	1 (supports up to 4K resolution output)
VGA	1
Network	1 × RJ-45, 10/100 Mbps self-adaptive Ethernet port
POE	4

General Parameter

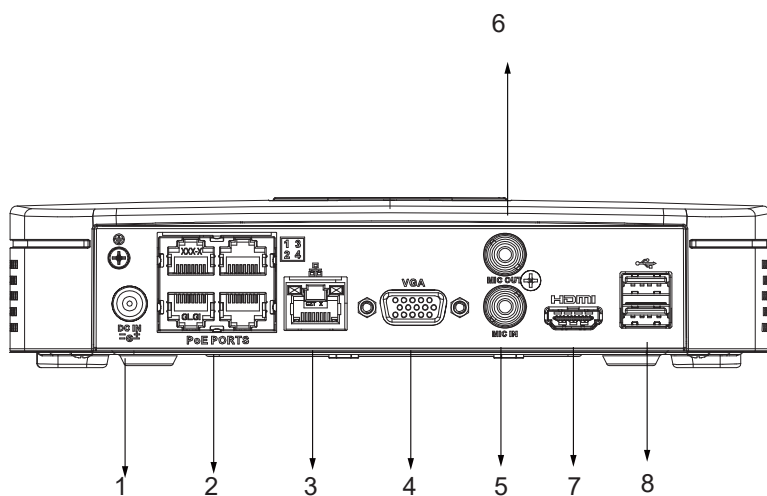|	
Power Supply	48 V/53 V DC, 1.25 A/1.13 A
Power Consumption	< 10 W (HDD not included, idling) Total output power of PoE is 36W, the maximum output power of a single port is 25.5W
Net Weight	0.50 kg (1.10 lb)
Gross Weight	1.43 kg (3.15 lb)
Product Dimensions	204.6 mm × 206.4 mm × 48.1 mm (8.06" × 8.12" × 1.90") (W × L × H)
Package Dimensions	96 mm × 364 mm × 261 mm (3.78" × 14.33" × 10.28") (W × L × H)
Operating Conditions	−10 °C to +50 °C (+10 °F to +122 °F)
Storage Conditions	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	10%~93%
Storage Humidity	30%~85%
Operating Altitude	3000 m (9842.52 ft)
Installation	Desktop mounted
Certifications	CE: EN62368-1; EN55032,EN55024, EN55035, EN61000-3-2, EN61000-3-3 EN50130-4 FCC: Part 15 Subpart B

Ordering Information

Type	Model	Description
4 Channel NVR	NVR301HS-04/P-4KS2/L	4 Channel Smart 1U 1HDD 4PoE Network Video Recorder

Dimensions (mm[inch])

204.6 [8.06]

45.6 [1.80]

206.4 [8.12]

204.6 [8.05]

Panels

6

1   2   3   4   5   7   8

1	DC Power Input	2	PoE Ports
3	Network Port	4	VGA Port
5	AUDIO IN, RCA Connector	6	AUDIO OUT, RCA Connector
7	HDMI Port	8	USB Port