

ZS-NVR16-2H

16 Channel 1U 4K&H.265 Lite Network Video Recorder



System Overview

PADMAX NVR4000-4KS2 is introduced as the first 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 2.4 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.

SMD Plus by Camera

With intelligent algorithm, PADMAX 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.

Heat Map by Camera

PADMAX heat map technology is used to display the crowd density and people appearance probability. Export and display the crowd status by different colors. Generally, the crowd status is the statistics of people quantity in space and time dimensions.

- New UI interface with more easier operation experience
- Smart H.265+/ Smart H.264+
- P2P remote surveillance, video play on mobile device
- 16-ch@720P(30FPS), self-adaptive decoding capability
- Supports mainstream cameras of ONVIF and RTSP protocol
- VGA/HDMI simultaneous video output, maximum resolution of HDMI is 4K
- Remote configuration and management of IPCs, such as setting parameters, acquiring information and upgrading IPCs of the same model in batches
- DHCP(Dynamic Host Configuration Protocol), HTTP(Hypertext Transfer Protocol), NTP(Network Time Protocol) and DDNS(Dynamic Domain Name System)



AI Search

Support AI search by metadata of different targets or uploading face pictures to device and comparing them with recorded faces by similarity. Enable operators to quickly and easily search through multi channels and long duration, efficiently find out when and where a person of interest appeared.

ANR (Automatic Network Replenishment Technology)

Video record in SD card in IP cameras when the network breaks down, and after the network recovered, the video will be transferred to device and then recorded in it.

Smart Codec

With advanced scene-adaptive rate control algorithm, PADMAX 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

Video

Access Channel	16 channels
Network Bandwidth	128 Mbps for access, 128 Mbps for storage and 64 Mbps for forwarding
Resolution	8MP/5MP/4MP/3MP/1080P/720P/D1/CIF
Decoding Capability	2ch@4K(30fps)/4ch@4MP(30fps)/8ch@1080P(30fps)
Video Output	1 VGA/1 HDMI simultaneous video output HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720
Multi-screen Display	1/4/8/9/16
Third Party Camera Access	ONVIF, RTSP

Compression

Video	Smart H.265+/H.265/Smart H.264+/H.264
Audio	G.711A/G.711U/PCM/G726

Network

Network Protocol	HTTP, HTTPS, TCP/IP, IPv4, RTSP, UDP, NTP, DHCP, DNS, P2P
Mobile Phone Access	iDMSS (iOS)/gDMSS (Android)
Access Standard	ONVIF (profile S), CGI, SDK
Browser	Chrome, IE9 or above, Firefox

Record Playback

Multi-channel Playback	Up to 16 channels playback
Record Mode	Priority of record mode: Manual recording > alarm recording > motion detection recording > timed recording
Storage	Local HDD
Backup	USB device
Playback Function	1. Play, pause, stop, fast forward, fast backward, rewind, play by frame 2. Full screen, backup (cut/file), partially enlarge, audio on/off

Alarm

General Alarm	Motion detection, privacy masking, video loss, IPC alarm
Anomaly Alarm	Front-end device going offline, storage error, full storage, IP conflict, MAC conflict, login lock, network security anomaly
Alarm Linkage	Video recording, snapshot, log, preset point, tour

External Port

HDD	2 SATA ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature.
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USB	1 front USB 2.0 port, 1 rear USB 2.0 port
HDMI	1
VGA	1
RCA Input	1
RCA Output	1
Alarm	4 alarm input ports, 2 alarm output ports
Network	1 RJ-45 port (10/100/1000 Mbps)

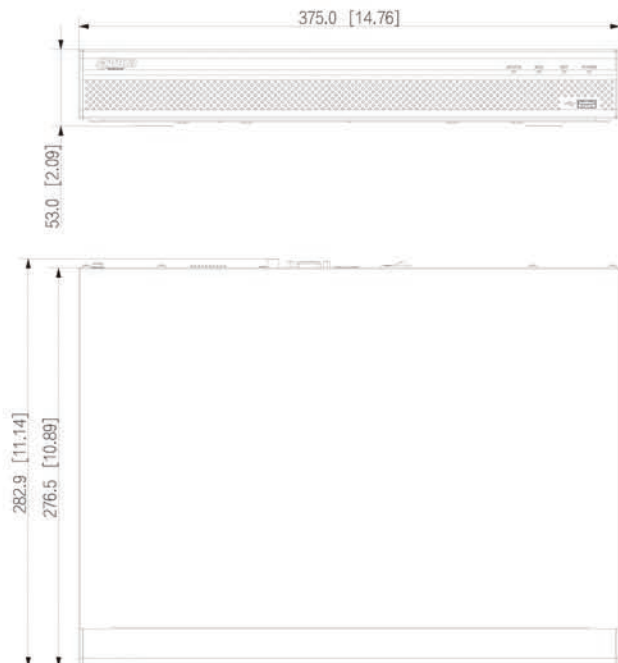
General Parameter

Power Supply	DC12V, 4A
Power Consumption	Total output of NVR is ≤ 10W (without HDD)
Net Weight	1.51 kg (3.33 lb) (without HDD)
Gross weight	2.76 kg (6.08 lb) (without HDD)
Dimensions	375 mm × 282.4 mm × 53 mm (W × L × H) 14.76 inch × 11.12 inch × 2.09 inch (W × L × H)
Packaging Dimensions	141mm × 433mm × 366mm (W × L × H) 5.55 inch × 17.05 inch × 14.41 inch (W × L × H)
Operating Temperature	-10°C to +55°C (+14°F to +131°F)
Storage Temperature	0°C to +40°C (+32°F to +104°F)
Operating Humidity	10%–90%
Storage Humidity	30%–85%
Operating Altitude	3000 m (9843 ft)
Installation	Desktop mounted
Certification	CE/FCC

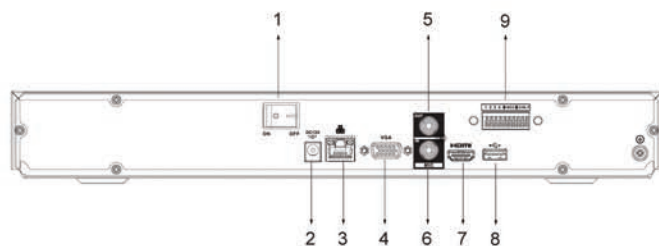
Ordering Information

Type	Model	Description
16 Channel NVR	ZS-NVR16-2H	16 Channel 1U Network Video Recorder

Dimensions (mm[inch])



Panels



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|----------------------|----------------------|
| 1 Power Switch | 2 DC 12V Power Input |
| 3 Network Port | 4 VGA Port |
| 5 Mic Out | 6 Mic In |
| 7 HDMI Port | 8 USB Port |
| 9 Alarm Input/Output | |