NVR 16-Channel PoE 2 SATA

1U 16 PoE Network Video Recorder



- Dual-core Embedded Processor
- Up to 16 IP Camera Inputs
- Smart H.264+ / MJPEG Dual Codec Decoding
- Max 200Mbps Incoming Bandwidth
- Up to 5MP Resolution for Preview and Playback
- 16 Channel Synchronous Realtime Playback
- 2 SATA HDDs, Up to 12TB
- IPC UPnP, 16 PoE Ports
- 3D Intelligent Positioning with Dahua PTZ Camera



System Overview

Dahua's NVR42A16-16P is one of the NVRs which have the most reasonable price and best quality for IP video surveillance applications. The NVR provides up to 5MP resolution. It supports 16 channels of IP camera inputs, 16 local live-view channels, and 16 playback channels. Additionally, the NVR features a mouse shortcut operation menu, remote management and control, centre storage, edge storage, and back-up storage.

Designed as a low-cost, easy installation, 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 with or without a video management system (VMS). Its open architecture supports multi-user access and is compatible with ONVIF 2.4, enabling interoperability when combined with IP cameras.

Functions

4MP/5MP Resolution
The NVR supports 4MP HD resolution (2560 x 1440) and 5MP HD resolution (2560 x 1920) for recording, live viewing and playback.

Intelligent Video System (IVS)
Working with built-in intelligent video analytics IP cameras, the NVR has the ability to detect and analyze moving objects for improved video surveillance. The NVR provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed.

Plug & Play
The Smart Add function benefits users with basic IP video surveillance knowledge as the NVR automatically finds your devices making it as easy as using an analog system. Note: the NVR and cameras must be on the same router.

Smart H.264+
Delivering high quality video without straining the network, Smart H.264+ is the optimized implementation of H.264. The Smart H.264+ encoding platform includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing a savings of up to 70% of bandwidth and storage when compared with standard H.264.

Technical Specification

System

Main Processor	Dual-core embedded processor
Operating System	Embedded LINUX

Display

Interface	1 HDMI, 1 VGA
Resolution	1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768
Display Split	1/4/8/9/16
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording

Video Detection and Alarm

Trigger Events	Recording, PTZ, Tour, Alarm Out, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Camera Blank
Alarm input	4 Channel, Low Level Effective, Green Terminal Interface
Relay Output	2 Channel, NO/NC Programmable, Green Terminal Interface
Tracking Trigger Event	Targeting, Zoom, Tracking, Recording, Snapshot, Alarm

Playback and Backup

Sync Playback	1/4/8/16
Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second), Smart search
Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom
Backup Mode	USB Device/Network/Internal SATA burner

Storage

Internal HDD	2 SATA III Ports, Up to 12TB
HDD Mode	Single
eSATA	N/A

Auxiliary Interface

Front Cover	N/A
USB	2 USB Ports (1 rear USB 3.0 , 1 front USB 2.0)
SAS	N/A
RS232	1 Port, for PC Communication and Keyboard
RS485	N/A

Third-party Support

Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and more

Audio and Video

IP Camera Input	16 Channel
Two-way Talk	1 Channel Input, 1 Channel Output, RCA

Recording

Compression	Smart H.264+ / MJPEG
Resolution	5MP (2560 × 1920), 4MP (2560 × 1440), 3MP (2048 × 1536), 1080p (1920 × 1080), 720p (1280 × 720), D1 (704 × 576/704 × 480)
Record Rate	200Mbps
Bit Rate	48Kbps ~ 8192Kbps Per Channel
Record Mode	Manual, Schedule (Regular, Continuous), MD (Video detection: Motion Detection, Camera Blank, Video Loss), Alarm, Stop
Record Interval	1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec

Network

Interface	1 RJ-45 Ports (10/100/1000Mbps)
PoE	16 ports (IEEE802.3at/af)
Network Function	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search (Supports Dahua IP cameras, DVRs, NVRs)
Optical Fiber Interface	N/A
Max. User Access	128 users
Smart Phone	iPhone, iPad, Android
Interoperability	ONVIF 2.4, CGI

Electrical

Power Supply	Single, AC 100 ~ 240V, 47/63Hz
Power Consumption	NVR: <30W (Without HDD) PoE: Max 25.5W for single port, 130W in total

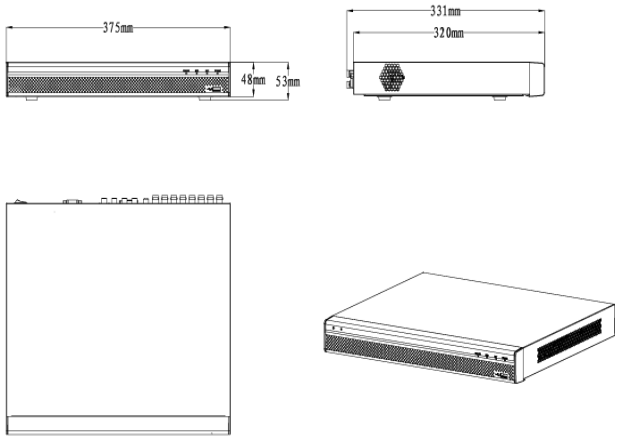
Environmental

Operating Conditions	-10°C ~ +55°C (+14°F ~ +131°F), 0 ~ 90% RH, 86 ~ 106kpa
Storage Conditions	-20°C ~ +70°C (-4°F ~ +158°F), 0 ~ 90% RH

Construction	
Dimensions	375mm x 331mm x 53mm (14.8" x 13.0" x 2.1")
Net Weight	2.5kg (5.5 lb) (without HDD)
Gross Weight	4.0kg (8.8 lb)
Installation	Rack mount

Certifications	
FCC	SEFD1410127-A
UL	E234884-A22-UL

Dimensions (mm/inch)



Ordering Information

Part Number	Description
DHI-NVR42A16-16P	200Mbps / 200Mbps (16 channel IP Video Inputs), 4 channel @4MP / 8 channel @1080p, Audio, Alarm, 1U, Smart H.264+
DHI-NVR42A16-16P 1TB	200Mbps / 200Mbps (16 channel IP Video Inputs), 4 channel @4MP / 8 channel @1080p, Audio, Alarm, 1U, 1TB HDD, Smart H.264+
DHI-NVR42A16-16P 2TB	200Mbps / 200Mbps (16 channel IP Video Inputs), 4 channel @4MP / 8 channel @1080p, Audio, Alarm, 1U, 2TB HDD, Smart H.264+
DHI-NVR42A16-16P 3TB	200Mbps / 200Mbps (16 channel IP Video Inputs), 4 channel @4MP / 8 channel @1080p, Audio, Alarm, 1U, 3TB HDD, Smart H.264+
DHI-NVR42A16-16P 4TB	200Mbps / 200Mbps(16 channel IP Video Inputs), 4 channel @4MP / 8 channel @1080p, Audio, Alarm, 1U, 4TB HDD, Smart H.264+
DHI-NVR42A16-16P 6TB	200Mbps / 200Mbps(16 channel IP Video Inputs), 4 channel @4MP / 8 channel @1080p, Audio, Alarm, 1U, 6TB HDD, Smart H.264+

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