32-Channel 8K Network Video Recorder

1.5U 4HDD WizSense

Wiz Sense

- Maximum Bandwidth of 384 Mbps Incoming/Recording/Outgoing
- Analytics+ by Recorder: 2-channel Face Detection and Face Detection+, 4-channel Perimeter Protection, and 8-channel Smart Motion Detection+
- Analytics+ by Camera: Face Detection, Face Detection+, Perimeter Protection, Smart Motion Detection+, ANPR, Stereo Analysis, Heat Map, and People Counting

Perimeter Protection	Face Detection	Search by Image	Heat Map	ANPR	Blocklist Alarm
People Counting	SMD Plus	Pro Series			

System Overview

Dahua's N8 NVR series provide exceptional performance and high-quality recording technology, making it perfect for IP video security applications. Its robust CPU allows for high access and forwarding bandwidth and excellent decoding capabilities for uninterrupted streams.

N8 NVRs have a built-in analytics chip and are programmed with Dahua's deep learning algorithms to reduce response time to events and make films more engaging. N8 NVRs are compatible with a wide range of third-party devices to support security systems that use Video Management Software (VMS).

Functions

Perimeter Protection

Dahua Analytics+ includes Tripwire and Intrusion functions that offer custom tripwires based on object type for automation in limited access areas. Perimeter Protection requires fewer pixels to detect an object to deliver improved accuracy and decreased false alarms due to lights, weather, trees, or animals.

Face Detection

Face Detection technology captures a human face in a digital image and then selects the best image and outputs a snapshot of the face.

Face Detection+

Face Detection+ technology identifies, tracks, and captures a human face in a digital image and then selects the best image and outputs a snapshot of the face. This technology identifies key facial features and obtains the contours of detected faces.

Heat Map

The built-in IVS features people counting and heat map functionality, advanced features that add business intelligence to your security system. Intelligent Analysis tracks and stores daily, weekly, monthly, and yearly people flow through a defined scene and produces a configurable report. The system uses this data to produce a Heat Map, a two-dimensional representation of data that provides an immediate visual summary of activity. People Counting and Heat Maps can identify the most active areas of a retail space providing valuable data analysis for commercial applications.

Automatic License Plate Recognition

The NVR automatically captures and stores vehicle license plate images from a dedicated license plate capture camera connected to the NVR. During playback, an operator can perform a license plate search by Time and Date to view thumbnail images of all plates captured during the specified time period. License plate capture technology offers effective entrance/exit management, traffic monitoring, and parking lot monitoring.

Smart Motion Detection+

Smart Motion Detection, a component of Dahua's Analytics+ technology, improves alarm accuracy and decreases the number of false alarms. The advanced SMD algorithm analyzes a scene for human or vehicle motion, while filtering out other motion due to trees, leaves, animals, weather, and triggers an alarm when detected.

Technical Specification

System

Main Processor	Industrial-grade Processor
Operating System	Embedded Linux
Operating Interface	Web, Local GUI

Analytics+ Recording

Recorder Functions	Face Detection, Face Detection+, Perimeter Protection, Smart Motion Detection+
Camera Fuctions	Face Detection, Face Detection+, Perimeter Protection, Video Analytics (Human, Motor Vehicles, and Non-motor Vehicles), Smart Motion Detection+, Crowd Distribution, People Counting, Automatic License Plate Recognition (ANPR), Vehicle Density, Heat Map

Perimeter Protection Recording

Recorder Channels	4 channels (10 IVS Rules per Channel)
Camera Channels	16 Channels

Face Detection

Face Attributes	Gender, Age Group, Glasses, Expressions, Face Mask, Beard
Recorder Channels	2 Channels (Up to 12 Face Images Per Channel)
Camera Channels	16 Channels

Face Detection+

Face Database	Capactiy	Up to 20 Databases with 200,000 Images (Max. 2.5 GB)
	Analytics	Name, Gender, Birthday, Address, Credential Type, Credential Number, Country, Region, State
Recorder Channels		1. 16 Channels with Image Stream of 16 Images when the NVR is used for Face Detection+ functionality and the camera is used for Face Detection functionality 2. 2 channels with Image Stream of 12 Images when only the NVR is used for Face Detection and Face Detection+ functionality (No camera involvment for Face Detection or Face Detection+ functionality)
Camera Channels		16 Channels when only the camera is used for Face Detection and Face Detecion+ functionality (No NVR involvement for Face Detection or Face Detection+ functionality)

Smart Motion Detection+ (SMD+) Recording

Recorder Channels	8 Channels with Secondary Filtering for False Alarm Reduction
Camera Channels	16 Channels

Video Analytics

Camera Channels	8 Channels
Human Attributes	Top Color, Top Type, Hat, Bag, Age, Gender, Umbrella
Motor Vehicle Attributes	License Plate, Plate Color, Vehicle Model, Vehicle Logo, Plate Color, Ornament, Calling
Non-motor Vehicle Attributes	Vehicle Model, Vehicle Color, Number Of Persons, Helmet

Vehicle License Plate Comparison

ANPR Channels by Camera	8 channels
License Plate Database Capacity	20,000 (Blocklist and Allow List)

Audio and Video

Access Channel		16 Channels
Network Bandwidth	Incoming	Analytics+ Disabled: 384 Mbps Analytics+ Enabled: 200 Mbps
	Recording	Analytics+ Disabled: 384 Mbps Analytics+ Enabled: 200 Mbps
	Outgoing	Analytics+ Disabled: 384 Mbps Analytics+ Enabled: 200 Mbps

Resolution		32MP, 24MP, 16MP, 12MP, 8MP, 5MP, 4MP, 1080p, 720p, D1, CIF, QCIF
Decoding Capability	Analytics Disabled	2-channel: 32MP at 20 fps or 24MP at 20 fps 4-channel:16MP at 30 fps 5-channel: 12MP at 30 fps 8-channel: 8MP at 30 fps 12-channel: 5MP at 30 fps 16-channel: 4MP at 30 fps 32-channel 1080p at 30 fps
	Analytics Enabled	1-channel: 32MP at 20 fps or 24MP at 20 fps 2-channel: 16MP at 30 fps 4-channel: 12MP at 30 fps or 8MP at 30 fps 8-channel: 5MP at 30 fps 12-channel: 4MP at 30 fps 24-channel 1080p at 30 fps
Video Output		2-channel VGA, 2-channel HDMI video output. Heterogeneous video source output for HDMI and VGA supports 4K display
Multi-screen Display	Main Screen	1/4/8/9/16/25/36
	Sub Screen	1/4/8/9/16
Third-party Camera Support		ONVIF, Panasonic, Sony, Axis, Arecont, Pelco, Canon, Samsung

Compression Standard

Video Compression	Smart H.265+, H.265, Smart H.264+, H.264, MJPEG (Sub Stream Only)
Audio Compression	G.711a, G.711Mu, PCM, G.723, G.726, AAC

Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; RTSP; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports Dahua IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration
Mobile Phone Access	iOS, Android
Interoperability	ONVIF 21.12 (Profile S/Profile T/Profile G), CGI, SDK
Browser	Chrome, Edge, Firefox

Recording Playback

Multi-channel Playback	Up to 16 Channels
Record Mode	General, Motion Detection, Intelligent, Alarm, POS
Backup Method	USB Device, Network
Playback Mode	Instant Playback, General Playback, Event Playback, Tag Playback, Smart playback (Face and Motion Detection)

Storage

Disk Group	Yes

Alarm

General Alarm	Motion Detection, Privacy Masking, Local Alarm
Anomaly Alarm	Camera Offline, Storage Error, Disk Full, IP Conflict, MAC Conflict, Login Lock, Abnormal Fan Behavior, Cybersecurity Exception
Intelligent Alarm	Face Detection, Perimeter Protection, Face Detection+, Video Analytics (Human, Motor Vehices, Non-motor Vehicles), Smart Motion Detection+, Automatic License Plate Recognition (ANPR), Vehicle Density, Heat Map
Alarm Linkage	Record, Snapshot (Panoramic), Local Alarm Output, IPC External Alarm Output, Access Controller, Audio, Buzzer, Log, Preset, Email

Auxiliary Interface

Audio Input	1-channel RCA
Audio Output	2-channel RCA
Alarm Input	16 channels
Alarm Output	6 channels (1-channel 12 V 1 A output)
HDD Interface	4 SATA ports, up to 16 TB each. The maximum HDD capacity varies with environment temperature.

RS-232	1
RS-485	1
USB	3 (1 front USB 2.0 ports, 2 rear USB 3.0 ports)
HDMI	2
VGA	2
Network Port	2 (10/100/1000 Mbps Ethernet Port, RJ-45)

Electrical

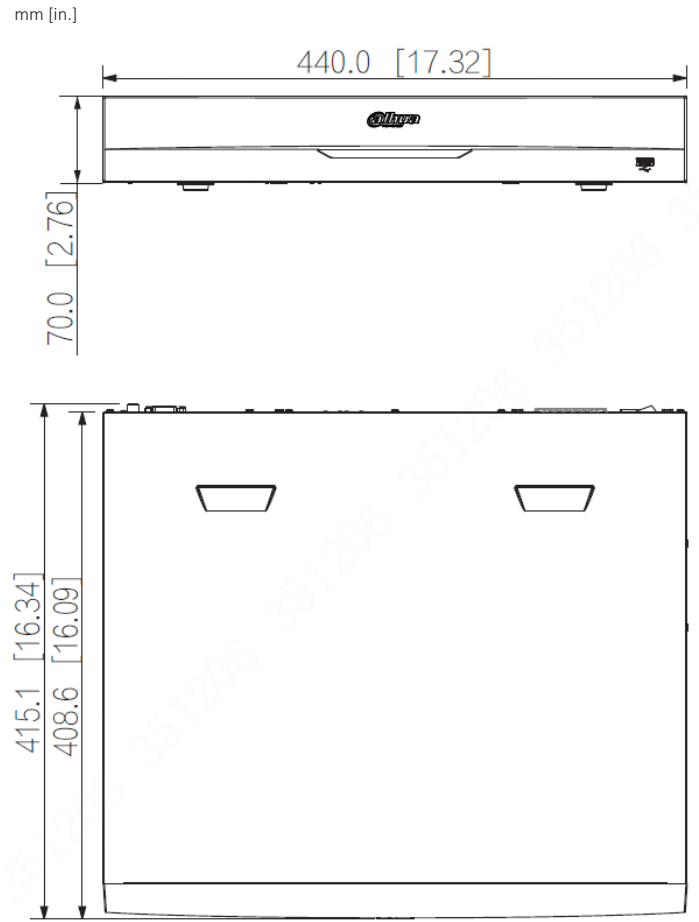| Power Supply	0 to 240 VAC, 50 to 60 Hz
Power Consumption	≤ 13 W (without HDD)

Environmental

Operating Temperature	−10 °C to +55 °C (14 °F to +131 °F)
Storage Temperature	−20 °C to +60 °C (−4 °F to +140 °F)
Operating Humidity	10%–93% (RH)

Certifications

Safety	UL 62368-1 CAN/CSA C22.2 No.62368-1-14
Electromagnetic Compatibility	FCC: 47 CFR FCC Part15, SubpartB, Class A EN 55032:2020, Class A EN IEC 61000-3-2:2019 EN 61000-3-3:2013+A1:2019 EN 55024:2010+A1:2015 EN 55035:2020 EN 50130-4:2011+A1:2014

Electrical

Net Weight	4.74 kg (10.45 lb)
Gross Weight	6.11 kg (13.47 lb)
Product Dimensions (W x D x H)	440.0 mm × 415.1 mm x 70.0 mm (17.32 in. × 16.34 in. × 2.76 in.)
Packaging Dimensions (W x D x H)	530.0 mm × 500.0 mm × 210.0 mm (20.87 in. × 19.69 in. × 8.27 in.)
Installation	Rack or Desktop

Ordering Information

Type	Part Number	Description
Network Video Recorder	N84B5N	32-channel 8K WizSense NVR 4SATA
	N84B5N4	32-channel 8K WizSense NVR 4SATA (4 TB)
	N84B5N6	32-channel 8K WizSense NVR 4SATA (6 TB)
	N84B5N8	32-channel 8K WizSense NVR 4SATA (8 TB)
	N84B5N10	32-channel 8K WizSense NVR 4SATA (10 TB)

Dimensions

mm [in.]

Panel

1	Power Input	2	Network Ports
3	eSATA Port	4	HDMI Ports
5	USB Ports	6	VGA Ports
7	MIC IN, RCA Connector	8	Power Switch
9	Alarm In/Out	10	RS-232 Port
11	MIC OUT, RCA Connector		