

# Eight-channel 4K Network Video Recorder

1U 8-port PoE 4K and Smart H.265+



- Smart H.265+ and Smart H.264+ Dual Codec
- Maximum 160 Mbps Incoming Bandwidth
- Up to 8 MP Resolution for Preview and Playback
- Simultaneous HDMI and VGA Video Output
- Supports Remote Configuration and Management of Network Cameras
- Supports P2P Remote Surveillance and DMSS Mobile App
- Records Analytics+ Data from Edge Cameras
- Eight (8) PoE/PoE+ Ports
- Five-year Warranty\*











### **System Overview**

Dahua's Lite Series network video recorders offer excellent performance and high recording quality for network video surveillance applications. For applications where details are critical for identification, this professional NVR provides a powerful processor with up to 4K resolution. Additionally, the NVR features a mouse shortcut operation menu, remote management and control, center storage, edge storage, and back up storage.

Designed as a cost-effective and easy to install recorder, this NVR is an ideal addition to any security system that monitors public spaces, water conservancy, transportation, city centers, schools, 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 it is compatible with ONVIF S, T, and G protocols, enabling interoperability when combined with 4K cameras.

#### **Functions**

#### 4K Resolution

4K resolution is a revolutionary breakthrough in image processing technology. 4K delivers four times the resolution of Full HD 1080p devices and offers superior picture quality and image details. 4K resolution improves the clarity of a magnified scene to view or record crisp forensic video from large areas.

#### High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

#### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 90% when compared to the H.264 video compression standard.

# Analytics+ Recording

Working with Dahua WizSense network cameras, the NVR recognizes and records video that contains analytic data on all IP channels. The NVR records intelligence at-the-edge features, including Perimeter Protection, Smart Motion Detection+, and People Counting.

## Compatible with DMSS

The DMSS app is available on the iOS App Store and the Google Play Store. DMSS makes surveillance easy and simple, allowing remote access to 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.

#### HDCVI/AHD/TVI/CVBS Auto-detect

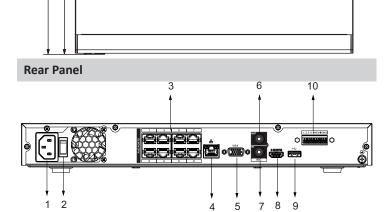
The HDCVI DVR automatically recognizes the incoming signals of each attached camera without any setup, making installation easy and operation convenient.

Technical Specification			Third-party Support		
System  Main Processor		Industrial-grade Embedded Processor	Third-party Support	Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dynacolor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek,	
Operating System		Embedded Linux		and others	
Audio and Video			Network		
IP Camera Input		Eight (8) Channels	Ethernet	One (1) RJ-45 Port (10/100/1000 Mbps), Self-adaptive	
Audio		Input: One (1) Channel, RCA Output: One (1) Channel, RCA	PoE	Eight (8) Ports (IEEE802.3af/at)	
Analytics+ Recording <sup>1</sup> Channels			Network Function	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; IP Search (Support Dahua IP camera;	
Perimeter Protection		Eight (8)	Maximum User Access	DVR; NVS); P2P; Auto register	
	Search	By channel, time, event type	Mobile Operating System	IOS, Android	
SMD+	Channels	Eight (8)	Browser	Chrome, IE 9 or later	
	Search	By target classification (human or vehicle)	Interoperability	ONVIF Profiles S,T,G; CGI, SDK	
Display			Storage		
Interface		One (1) HDMI One (1) VGA	Internal HDD	Two (2) SATA III Ports, Up to 10 TB capacity per HDD	
Native Output Resolution		3840 x 2160, 1920 x 1080, 1280 x 1024, 1280 x 720	HDD Mode	Single	
Maximum Decoding		Two (2) Channel of 8 MP at 30 fps Four (4) Channels of 4 MP at 30 fps	Auxiliary Interface		
		Eight (8) Channels of 2 MP at 30 fps	USB	Two (2) USB 2.0 Ports	
Multi-screen D	Display	1/4/8/9	Electrical		
On-screen Display		Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording	Power Supply	100 VAC to 240 VAC, 47 Hz to 63 Hz, 3.5 A	
Recording			NVR Power Consumption	< 10 W, without HDD	
Video Compression		Smart H.265+, H.265, Smart H.264+, H.264, MJPEG	Total PoE Budget	25.5 W single port, 117 W total	
Audio Compression		PCM, G.711A, G.711Mu, G.726	Environmental		
·		8 MP, 6 MP, 5 MP, 4 MP, 3 MP, 1080p, 720p, D1	Operating Conditions	-10° C to +55° C (+14° F to +131° F), 10% to 93% RH	
Maximum Recording Bandwidth		160 Mbps	Storage Conditions	0° C to +40° C (32° F to 104° F), 30% to 85% RH	
		Manual Recording; Alarm Recording;	Construction		
Record Mode		SMD Recording; Smart Recording	Dimensions (W x L x H)	375.0 mm x 327.90 mm x 53.0 mm (14.76 in. x 12.91 in. x 2.09 in.)	
Video Detection and Alarr		Four (4) Channels	Net Weight	2.51 kg (5.53 lb), without HDD	
Alarm Input		` '	Gross Weight	3.79 kg (8.36 lb), without HDD	
Relay Output  General Alarms		Two (2) Channels  Motion detection, privacy masking, video loss, scene changing, PIR alarm, IPC external alarm	Certifications		
Anomaly Alarms		Camera disconnection, storage error, disk full, IP conflict, MAC conflict, login locked, and cybersecurity exception	Safety	EN62368-1 UL 62368-1 CAN/CSA C22.2 No.62368-1-14	
Analytics+ Alarms		Face detection, perimeter protection (intrusion and tripwire), IVS, people counting, heat map, and SMD alarms	Electromagnetic Compatibility (EMC)	CFR 47 FCC Part 15 Subpart B EN55032, EN55024, EN55035, EN61000-3-2, EN61000-3-3, EN50130-4	
Alarm Actions		Recording, snapshot, audio, buzzer, log, preset, and email			
Playback ar	nd Backup				
Sync Playback		1/4/8			
Search Mode		Time/Date, Alarm, MD and Exact Search (accurate to one second), Smart Search			
Playback Function		Play, Pause, Stop, Rewind, Fast Play, Slow Play, Reverse, By Frame, Full Screen, Backup Selection (video clip or file), Partial Zoom, Audio On/Off			
Backup Mode		USB Device, Network	The recorder Analytics+ functions are ava Analytics+ functionality.	ilable only when connected to a Dahua network camera with	
			· ·		

Analytics+ functionality.

Ordering Information					
Туре	Part Number	Description			
	N42C2P	8-channel 1U 8 PoE 4K, No HDD Network Video Recorder			
	N42C2P2	8-channel 1U 8 PoE 4K, 2 TB HDD Network Video Recorder			
Eight-channel NVR	N42C2P4	8-channel 1U 8 PoE 4K, 4 TB HDD Network Video Recorder			
	N42C2P6	8-channel 1U 8 PoE 4K, 6 TB HDD Network Video Recorder			
	N42C2P8	8-channel 1U 8 PoE 4K, 8 TB HDD Network Video Recorder			
Accessory, Optional	PFH101	Rack Mount Tray, compatible with 1U, Mini 1U, and Compact 1U Storage Devices 482.60 mm x 281.20 mm x 43.70 mm (19.0 in. x 11.07 in. x 1.72 in.)			

# Dimensions (mm/in.) 375.0 [14.76] allhua 53.0 [2.09]



321.5 [12.66]

1	Power Input	6	Audio Output, RCA (x1)
2	Power Switch	7	MIC Input, RCA (x1)
3	PoE Ports, RJ-45 (x8)	8	HDMI Output
4	Network Port, RJ-45	9	USB 2.0 Ports (x1)
5	VGA Output	10	Alarm I/O

