DS-7608NI-K2/8P NVR



Key Feature

- Up to 8-ch IP camera inputs
- H.265+/H.265/H.264+/H.264 video formats
- Up to 1-ch@12 MP or 2-ch@8 MP or 4-ch@4 MP or 8-ch@1080p decoding capacity
- 1 HDMI and 1 VGA interfaces, both interfaces support independent video output
- 2 SATA interfaces for HDD connection (up to 10 TB capacity per HDD)
- Up to 80 Mbps incoming bandwidth
- Plug-and-play with 8 power over Ethernet (PoE) interfaces



Professional and Reliability

- H.265+ compression effectively reduces the storage space by up to 75%
- Adopt stream over TLS encryption technology which provides more secure stream transmission service

HD Video Output

- Provide independent HDMI and VGA outputs
- HDMI video output at up to 4K resolution

Storage and Playback

- 2 SATA interfaces for HDD connection (up to 10 TB capacity per HDD)
- 8-ch synchronous playback

Smart Function

- Support multiple VCA (Video Content Analytics) events
- Configurable special camera smart functions, such as VCA detection (motion, line crossing, intrusion, etc.) and ANPR

Network & Ethernet Access

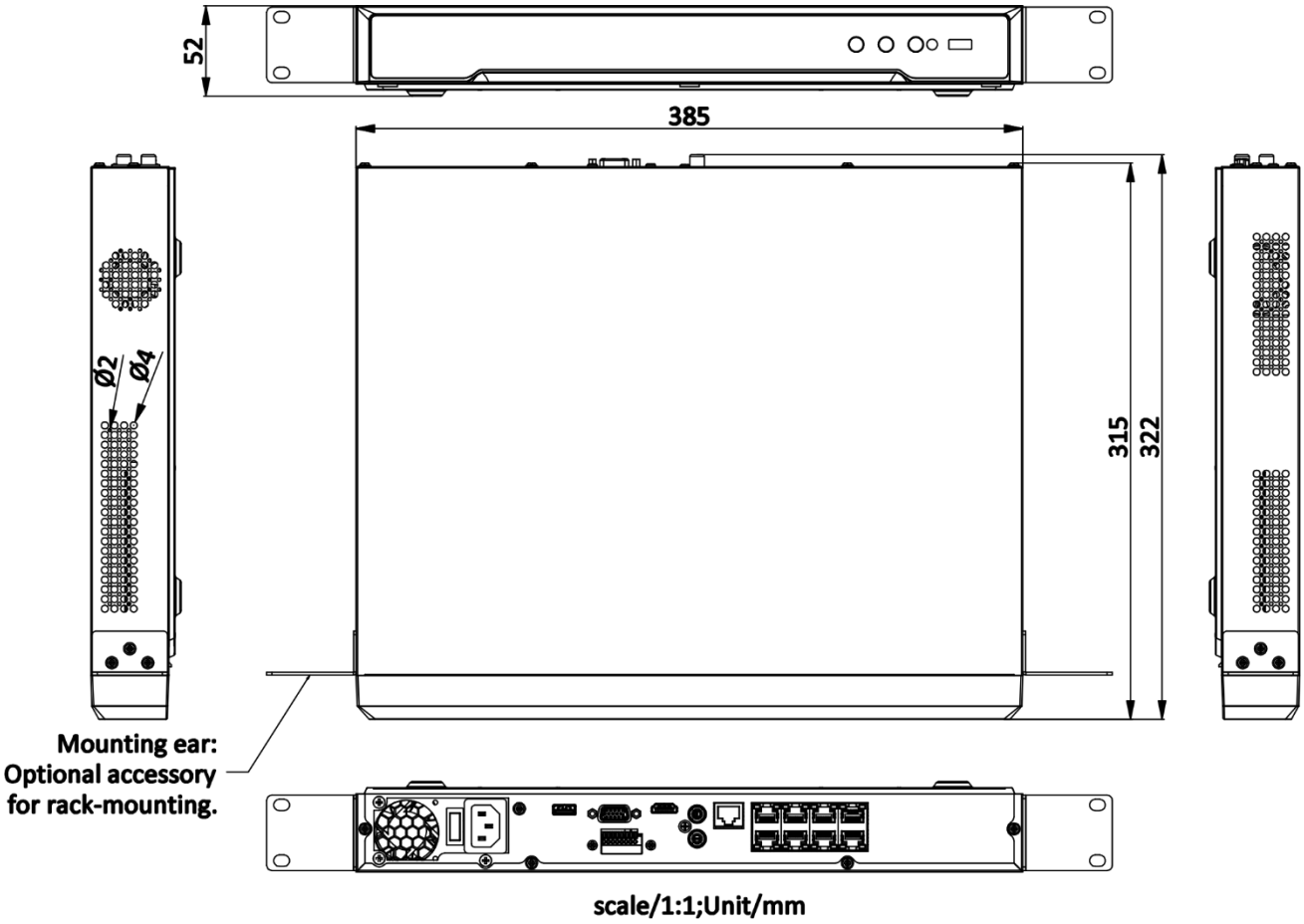
- 1 self-adaptive 10/100/1000 Mbps Ethernet interface
- 8 independent PoE network interfaces
- Hik-Connect for easy network management

▪ Specification

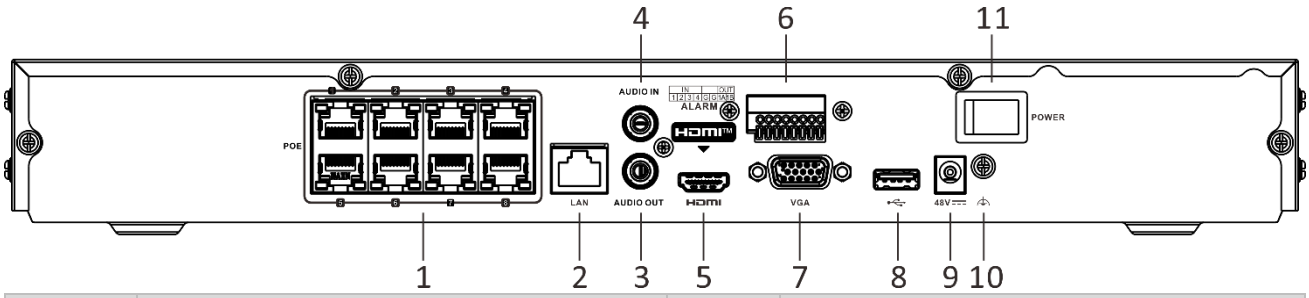
Video and Audio	
IP Video Input	8-ch
Incoming Bandwidth	80 Mbps
Outgoing Bandwidth	160 Mbps
HDMI Output	4K (3840 × 2160)/30 Hz, 2K (2560 × 1440)/60 Hz, 1920 × 1080/60 Hz, 1600 × 1200/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz
VGA Output	1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz
Video Output Mode	HDMI/VGA independent output
Audio Input	1-ch, RCA (2.0 Vp-p, 1 KΩ)
Audio Output	1-ch, RCA (Linear, 1 KΩ)
Two-Way Audio	1-ch, RCA (2.0 Vp-p, 1kΩ, using the audio input)
Decoding	
Decoding Format	H.265/H.265+/H.264/H.264+
Recording Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Synchronous Playback	8-ch
Decoding Capability	1-ch@12 MP (30 fps)/2-ch@8 MP (30 fps)/4-ch@4 MP (30 fps)/8-ch@1080p (30 fps)
Stream Type	Video, Video & Audio
Audio Compression	G.711ulaw/G.711alaw/G.722/G.726
Network	
Remote Connection	128-ch
Network Protocol	TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP™, HTTP, HTTPS
Network Interface	1 RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface
PoE	
Interface	8, RJ-45 10/100 Mbps self-adaptive Ethernet interface
Power	≤ 80 W
Standard	IEEE 802.3 af/at
Auxiliary Interface	
SATA	2 SATA interfaces
Capacity	Up to 10 TB capacity for each HDD
USB Interface	Front panel: 1 × USB 2.0; Rear panel: 1 × USB 2.0
Alarm In/Out	4/1
General	
Power Supply	48 VDC, 2.5A
Consumption	≤ 15 W (without HDD and PoE off)

Working Temperature	-10 °C to 55 °C (14 °F to 131 °F)
Working Humidity	10 to 90 %
Dimension (W × D × H)	385 × 315 × 52 mm (15.2" × 12.4" × 2.0")
Weight	≤ 3 kg (without HDD, 6.6 lb.)
Certification	
FCC	Part 15 Subpart B, ANSI C63.4-2014
CE	EN 55032: 2015, EN 61000-3-2, EN 61000-3-3, EN 50130-4, EN 55035: 2017

Dimension



Physical Interface



No.	Description	No.	Description
1	Network interfaces with PoE function	7	VGA Interface
2	LAN network interface	8	USB interface
3	AUDIO OUT	9	48 VDC power supply
4	AUDIO IN	10	GND
5	HDMI interface	11	Power switch
6	Alarm in/alarm out		

Available Model

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Data Sheet

WD Purple® Pro

Professional Grade Storage for Smart Video Recording and AI Video Analytics

WD Purple® Pro delivers ultimate reliability and performance for the most demanding video recording and analytics environments

Highlights

- Up-to 24TB[1] capacity
- Enterprise-class reliability and performance
- 5-year limited warranty[8]
- 550TB per year workload rating[3]
- Up-to 2.5 million hours Mean Time Between Failure (MTBF)[4]
- Innovative AllFrame™ technology helps reduce dropped frames
- Western Digital Device Analytics™ (WDDA) proactive health management

Higher Capacity Drives for More Demanding Smart Video Solutions

WD Purple® Pro delivers big capacities up to 24TB[1] for larger scale deployments and longer-term video retention requirements.

Enterprise Class Reliability

True enterprise class drives designed with the highest level of reliability. With up to 2.5 million hours MTBF[4] and backed with a 5-year limited warranty[8], WD Purple® Pro is built for high-end video recorders and analytics servers.

High Performance for Simultaneous Video Recording and Real-Time AI Analysis

Modern cameras and AI-enabled recording systems send multiple streams of high-definition video, picture files and metadata to storage. WD Purple® Pro drives deliver our highest level of performance to accurately store all streams.

Built for Advanced Smart Video Workloads

WD Purple® Pro delivers higher workload capability up-to 550TB/year[3]. Keep up with heavy video data capture and AI analysis found in advanced video management systems.

Innovative AllFrame™ Technology

AllFrame™ technology intelligently guides video, picture and meta data streams to disk while helping to reduce dropped video frames

Proactive Drive Health Insights with WDDA™

Western Digital Device Analytics™ (WDDA) monitors drive health and recommends action to improve drive operation. Requires compatible video recorder or system.

WD Purple® Pro

Product Specifications

Model Number	WD240PURP	WD221PURP	WD181PURP	WD142PURP	WD122PURP
Formatted capacity[1]	24TB	22TB	18TB	14TB	12TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
Interface	SATA	SATA	SATA	SATA	SATA
Recording Technology	CMR	CMR	CMR	CMR	CMR
Drive Technology	Helium	Helium	Helium	Helium	Air
RV Sensors	Yes	Yes	Yes	Yes	Yes
RoHS compliant[2]	Yes	Yes	Yes	Yes	Yes
Product Features					
Maximum drive bays supported	No Limit	No Limit	No Limit	No Limit	No Limit
Camera Support[3]	Up to 64 HD	Up to 64 HD	Up to 64 HD	Up to 64 HD	Up to 64 HD
AI Streams	32	32	32	32	32
Firmware Feature Name	AllFrame™	AllFrame™	AllFrame™	AllFrame™	AllFrame™
Tarnish resistant components	Yes	Yes	Yes	Yes	Yes
Performance					
Interface transfer rate (max) Buffer to host	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Internal transfer rate (max)[4] Host to / from drive	287 MB/s	265 MB/s	272 MB/s	265 MB/s	267 MB/s
Cache (MB)[1]	512 MB	512 MB	512 MB	512 MB	512 MB
RPM	7200	7200	7200	7200	7200
Reliability/Data Integrity					
Load/unload cycles[5]	600,000	600,000	600,000	600,000	600,000
Annualized Workload Rate[6] (TB/year)	Up to 550 TB/year	Up to 550 TB/year	Up to 550 TB/year	Up to 550 TB/year	Up to 550 TB/year
Non-recoverable read errors per bits read	<1 in 1015	<1 in 1015	<1 in 1015	<1 in 1015	<1 in 1015
MTBF[7] (hours)	2,500,000	2,500,000	2,500,000	2,500,000	2,000,000
Limited warranty (years)[8]	5 years	5 years	5 years	5 years	5 years
Power Management					
Average Power (W)[9]					
Read/Write	6.5 W	6.9 W	6.3 W	6.6 W	9.1 W
Idle	5.9 W	5.6 W	5.9 W	5.7 W	8.2 W
Standby/Sleep	1.2 W	1.2 W	0.9 W	0.9 W	0.3 W
Environmental Specifications					
Temperature					
Operating	0°C to 65°C	0°C to 65°C	0°C to 65°C	0°C to 65°C	0°C to 65°C
Non-operating	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
Shock					
Operating (2 ms, read/write)	40Gs	40Gs	50Gs	50Gs	70Gs
Operating (2 ms, read)	40Gs	40Gs	50Gs	50Gs	70Gs
Non-operating (2 ms)	200Gs	200Gs	250Gs	250Gs	250Gs
Acoustics (dBA)					
Idle	20	20	20	20	34
Seek (average)	32	32	27	27	39
Physical Dimensions					
Height (in./mm, max)	1.028 / 26.1	1.028 / 26.1	1.028 / 26.1	1.028 / 26.1	1.028 / 26.1
Length (in./mm, max)	5.787 / 147	5.787 / 147	5.787 / 147	5.787 / 147	5.787 / 147
Width (in./mm, ± .01 in.)	4 / 101.6	4 / 101.6	4 / 101.6	4 / 101.6	4 / 101.6
Weight (lb/kg, ± 3%)	1.48 / 0.67	1.48 / 0.67	1.52 / 0.69	1.52 / 0.69	1.65 / 0.75

1. 1MB = one million bytes, 1GB = one billion bytes, and 1TB = one trillion bytes. Actual user capacity may be less, depending on operating environment.
2. This drive is in compliance with the European Union Directive 2011/65/EU and Directive (EU) 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
3. Single stream per camera @ 3.2Mbps (1080p, H.265, 25 fps). Results may vary depending on camera resolution, file format, frames per second, software, system settings, video quality, and other factors.
4. Based on read speed, unless otherwise stated. 1 MB/s = 1 million bytes per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.
5. Controlled unload at ambient condition.
6. Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred × (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.
7. Projected values. When final, MTBF specifications will be based on a sample population and are estimated by statistical measurements and acceleration algorithms under typical operating conditions, workload of 220TB/year, and drive temperature of 40°C. Derating of MTBF will occur above these parameters, up to 550TB writes per year, and 65°C drive temperature. MTBF ratings do not predict an individual drive's reliability and do not constitute a warranty.
8. See http://support.wdc.com/warranty for regional specific warranty details.
9. Power measurements at room-ambient temperature.

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August 2024 Data_Sheet_WD_Purple_Pro_2024_08

WD Purple® Pro

Product Specifications

Model Number	WD121PURP	WD102PURP	WD101PURP	WD8002PURP
Formatted capacity[1]	12TB	10TB	10TB	8TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes	Yes
Interface	SATA	SATA	SATA	SATA
Recording Technology	CMR	CMR	CMR	CMR
Drive Technology	Air	Air	Air	Air
RV Sensors	Yes	Yes	Yes	Yes
RoHS compliant[2]	Yes	Yes	Yes	Yes
Product Features				
Maximum drive bays supported	No Limit	No Limit	No Limit	No Limit
Camera Support[3]	Up to 64 HD	Up to 64 HD	Up to 64 HD	Up to 64 HD
AI Streams	32	32	32	32
Firmware Feature Name	AllFrame™	AllFrame™	AllFrame™	AllFrame™
Tarnish resistant components	Yes	Yes	Yes	Yes
Performance				
Interface transfer rate (max) Buffer to host	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Internal transfer rate (max)[4] Host to / from drive	245 MB/s	267 MB/s	265 MB/s	267 MB/s
Cache (MB)[1]	256 MB	512 MB	256 MB	256 MB
RPM	7200	7200	7200	7200
Reliability/Data Integrity				
Load/unload cycles[5]	600,000	600,000	600,000	600,000
Annualized Workload Rate[6] (TB/year)	Up to 550 TB/year	Up to 550 TB/year	Up to 550 TB/year	Up to 550 TB/year
Non-recoverable read errors per bits read	<1 in 1015	<1 in 1015	<1 in 1015	<1 in 1015
MTBF[7] (hours)	2,000,000	2,000,000	2,000,000	2,000,000
Limited warranty (years)[8]	5 years	5 years	5 years	5 years
Power Management				
Average Power (W)[9]				
Read/Write	6.6 W	9.1 W	9W	7.3W
Idle	5.6W	8.2 W	8W	6.5 W
Standby/Sleep	0.6 W	0.3 W	0.5W	0.3 W
Environmental Specifications				
Temperature				
Operating	0°C to 65°C	0°C to 65°C	0°C to 65°C	0°C to 65°C
Non-operating	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C	-40°C to 70°C
Shock				
Operating (2 ms, read/write)	30Gs	70Gs	30Gs	70Gs
Operating (2 ms, read)	65Gs	70Gs	65Gs	70Gs
Non-operating (2 ms)	250Gs	250Gs	250Gs	300Gs
Acoustics (dBA)				
Idle	20	34	34	29
Seek (average)	29	39	38	36
Physical Dimensions				
Height (in./mm, max)	1.028 / 26.1	1.028 / 26.1	1.028 / 26.1	1.028 / 26.1
Length (in./mm, max)	5.787 / 147	5.787 / 147	5.787 / 147	5.787 / 147
Width (in./mm, ± .01 in.)	4 / 101.6	4 / 101.6	4 / 101.6	4 / 101.6
Weight (lb/kg, ± 3%)	1.46 / 0.66	1.65 / 0.75	1.65 / 0.75	1.58 / 0.715

1. 1MB = one million bytes, 1GB = one billion bytes, and 1TB = one trillion bytes. Actual user capacity may be less, depending on operating environment.
2. This drive is in compliance with the European Union Directive 2011/65/EU and Directive (EU) 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
3. Single stream per camera @ 3.2Mbps (1080p, H.265, 25 fps). Results may vary depending on camera resolution, file format, frames per second, software, system settings, video quality, and other factors.
4. Based on read speed, unless otherwise stated. 1 MB/s = 1 million bytes per second. Based on internal testing; performance may vary depending upon host device, usage conditions, drive capacity, and other factors.
5. Controlled unload at ambient condition.
6. Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred × (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.
7. Projected values. When final, MTBF specifications will be based on a sample population and are estimated by statistical measurements and acceleration algorithms under typical operating conditions, workload of 220TB/year, and drive temperature of 40°C. Derating of MTBF will occur above these parameters, up to 550TB writes per year, and 65°C drive temperature. MTBF ratings do not predict an individual drive's reliability and do not constitute a warranty.
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