



WD Purple™

Surveillance Hard Drives

WD Purple drives are built for 24/7, always-on, high-definition security systems. With a supported workload rate¹ of up to 180 TB/yr and support for up to 64 cameras, WD Purple drives are optimized for surveillance systems. WD Purple surveillance storage also comes with WD's exclusive AllFrame 4K™ technology, so you can confidently create a security system tailored to the needs of your business.



INTERFACE

SATA 6 Gb/s

FORM FACTOR

3.5-inch

PERFORMANCE CLASS

5400 RPM Class

CAPACITIES

500GB to 10TB

MODEL NUMBERS

WD100PURZ	WD30PURZ
WD80PURZ	WD20PURZ
WD60PURZ	WD10PURZ
WD40PURZ	WD05PURZ

Product Features

Industry-leading storage. Surveillance you can trust.

WD is a worldwide leader in the hard drive industry. With WD Purple surveillance storage, you have a drive engineered for high temperature, always-on surveillance systems so you can rely on quality video playback when you need it most. Whether you're protecting loved ones or monitoring your business, WD Purple offers performance you can trust.

WD's exclusive AllFrame 4K technology

All WD Purple drives are equipped with AllFrame 4K technology, which improves ATA streaming to help reduce frame loss, improve overall video playback, and increase the number of hard drive bays supported within a NVR. Future-proof your surveillance solution knowing that WD Purple is ready for ultra high definition cameras.

Enhanced workload rating

With a workload rating¹ of 180 TB/yr – three times that of desktop drives – WD Purple is designed to handle the unique demands of modern video surveillance DVR and NVR systems.

Expand your view to 64

Each WD Purple drive is optimized to support up to 64 cameras. With so many options, you have the flexibility to upgrade or expand your security system in the future.

Designed for today's and tomorrow's surveillance solutions

With an MTBF of up to 1 million hours², WD Purple is engineered for 24/7 operation in all sizes of mainstream surveillance DVRs and NVRs. With support for more than eight bays³ and tarnish resistant components³, WD Purple drives deliver reliable operation in larger scale surveillance systems in harsher environments.

Field-proven high capacity

Now on its 4th generation and with more than 20 million drives shipped⁴, field-proven HelioSeal™ Technology delivers trusted high-capacity WD Purple storage (8TB and 10TB) for the massive storage needs of 4K surveillance video.

Wide compatibility. Seamless integration.

WD Purple hard drives are built with compatibility in mind, so you can quickly and seamlessly add capacity to your surveillance system. With a wide range of industry-leading enclosures and chipsets supported, you're sure to find the DVR or NVR configuration that's right for you.

Less power. More efficient.

With our exclusive IntelliSeek™ technology, WD Purple drives are able to calculate optimum seek speeds. This keeps power consumption low so ambient noise and vibrations are at a minimum.

Three year limited warranty

As an industry-leading hard drive manufacturer, WD stands behind their surveillance storage solutions with a 3-year limited warranty included with every WD Purple drive.

The WD Advantage

At WD, we put our products through extensive Functional Integrity Testing (F.I.T.™) prior to any product launch. This testing ensures our products consistently meet the high quality and reliability standards of the WD brand. WD also has a detailed Knowledge Base with more than 1,000 helpful articles as well as helpful software and utilities. Our customer support lines have long operational hours to ensure you get the help you need when you need it. Our toll-free customer support lines are here to help or you can access our WD Support site for additional details.



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Specifications	10TB	8TB	6TB	4TB	3TB	2TB	1TB	500GB
Model number ⁵	WD100PURZ	WD80PURZ	WD60PURZ	WD40PURZ	WD30PURZ	WD20PURZ	WD10PURZ	WD05PURZ
Formatted capacity ⁶	10TB	8TB	6TB	4TB	3TB	2TB	1TB	500GB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RoHS compliant ⁷	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Product Features								
Cameras supported	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64
Maximum drive bays supported	8+	8+	8+	8+	8	8	8	8
Tarnish resistant components	Yes	Yes	Yes	Yes	No	No	No	No
Performance								
Interface transfer rate (max) ⁶ Buffer to host Host to/from drive (sustained)	6 Gb/s 210 MB/s	6 Gb/s 178 MB/s	6 Gb/s 175 MB/s	6 Gb/s 150 MB/s	6 Gb/s 145 MB/s	6 Gb/s 145 MB/s	6 Gb/s 110 MB/s	6 Gb/s 110 MB/s
Cache (MB) ⁶	256	128	64	64	64	64	64	64
Performance Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class	5400 RPM Class
Reliability/Data Integrity								
Load/unload cycles ⁸	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Annualized workload rating ¹	180TB/yr	180TB/yr	180TB/yr	180TB/yr	180TB/yr	180TB/yr	180TB/yr	180TB/yr
Non-recoverable read errors per bits read	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴	<1 in 10 ¹⁴
Limited warranty (years) ⁹	3	3	3	3	3	3	3	3
Power Management								
Average power requirements (W) Read/Write Idle Standby and Sleep	6.2 5.0 0.5	6.4 5.7 0.7	5.3 4.9 0.4	5.1 4.5 0.4	4.4 4.1 0.4	4.4 4.1 0.4	3.3 2.9 0.4	3.3 2.9 0.4
Environmental Specifications¹⁰								
Temperature (°C, on the base casting) Operating Non-operating	0 to 65 -40 to 70	0 to 65 -40 to 70	0 to 65 -40 to 70	0 to 65 -40 to 70	0 to 65 -40 to 70	0 to 65 -40 to 70	0 to 65 -40 to 70	0 to 65 -40 to 70
Shock (Gs) Operating (2 ms, read/write) Operating (2 ms, read) Non-operating (2 ms)	30 65 250	30 65 250	30 65 250	30 65 250	30 65 250	30 65 250	30 65 350	30 65 350
Acoustics (dBA) ¹¹ Idle Seek (average)	20 29	20 29	25 26	25 26	23 24	23 24	21 22	21 22
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	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	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	4/101.6	4/101.6	4/101.6
Weight (lb/kg, ± 10%)	1.43/0.65	1.43/0.65	1.65/0.75	1.50/0.68	1.40/0.64	1.40/0.64	0.99/0.45	0.99/0.45

¹Workload Rate is defined as the amount of user data transferred to or from the hard drive. Workload Rate is annualized (TB transferred X (8760 / recorded power-on hours)). Workload Rate will vary depending on your hardware and software components and configurations.

² Mean Time Before Failure based on internal testing.

³ For capacities 4TB and higher.

⁴ As of December 2017

⁵ Not all products may be available in all regions of the world.

⁶ As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 6 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

⁷ WD hard drive products manufactured and sold worldwide after June 8, 2011, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

⁸ Controlled unload at ambient condition.

⁹ See <http://support.wd.com/warranty> for regional specific warranty details.

¹⁰ No non-recoverable errors during operating tests or after non-operating tests.

¹¹ Sound power level.

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