



# WD Purple™ Surveillance Hard Drives

WD Purple™ drives are built for 24/7, always-on, high-definition security systems. With a supported workload rate\* 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. Using AllFrame 4K™ technology, WD Purple™ drives improve ATA streaming to help reduce errors, pixelation, and video interruptions that could happen in a video recorder system.



## INTERFACE

SATA 6 Gb/s

## FORM FACTOR

3.5-inch

## PERFORMANCE CLASS

5400 RPM Class

## CAPACITIES

500GB to 10TB

## MODEL NUMBERS

WD100PURZ	WD30PURX
WD80PUZX	WD20PURX
WD60PURX	WD10PURX
WD50PURX	WD05PURX
WD40PURX	

## Product Features

### The right drive for the right job

WD Purple™ drives have been engineered specifically for surveillance, so they're able to withstand the extreme heat fluctuations and equipment vibrations within a NVR environment. An average desktop drive is built to run for only short intervals, not the harsh 24/7 always-on environment of a high-definition surveillance system. A disruption to a drive could result in a failure that impacts multiple users, your security archive, or even the entire system. With WD Purple™, you get reliable, surveillance-class storage that's tested for compatibility in a wide-range of security systems.

### 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.

### 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 configuration that's right for you.\*\*

\*\*Not sure what drive is best for your system? Use our compatibility tool to find the perfect storage for your DVR or NVR.

### 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

### Trust your view with AllFrame 4K™

Missed frames and lost footage could be a serious problem when video surveillance needs to be retrieved. 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.

#### Features:

- Engineered specifically for surveillance security systems.
- Three times the workload rating of our desktop hard drives\*.
- Tuned for write-intensive, low bit-rate, high stream-count applications typical to most surveillance applications.
- Prioritized write-operations for maximized surveillance performance.
- TLER & ATA streaming support.
- Support for more than eight bays.\*\*\*

\*Workload 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.

\*\*\*For capacities 4TB and higher.

### Less power. More efficient.

Low power consumption is a necessity in a high-temperature, always-on surveillance environment. 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, you can rely on your surveillance system's data storage capabilities.

## 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.



Specifications	10TB	8TB	6TB	5TB	4TB	3TB	2TB
Model number <sup>1</sup>	WD10oPURZ	WD8oPUZX	WD6oPURX	WD5oPURX	WD4oPURX	WD3oPURX	WD2oPURX
Formatted capacity <sup>2</sup>	10TB	8TB	6TB	5TB	4TB	3TB	2TB
Form factor	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
RoHS compliant <sup>3</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Performance</b>							
Interface transfer rate (max) <sup>2</sup> 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 170 MB/s	6 Gb/s 150 MB/s	6 Gb/s 145 MB/s	6 Gb/s 145 MB/s
Cache (MB) <sup>2</sup>	256	128	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
<b>Reliability/Data Integrity</b>							
Load/unload cycles <sup>4</sup>	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>
Limited warranty (years) <sup>5</sup>	3	3	3	3	3	3	3
<b>Power Management</b>							
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	5.3 4.9 0.4	5.1 4.5 0.4	4.4 4.1 0.4	4.4 4.1 0.4
<b>Environmental Specifications<sup>6</sup></b>							
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
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 65 250
Acoustics (dBA) <sup>7</sup> Idle Seek (average)	20 29	20 29	25 26	25 26	25 26	23 24	23 24
<b>Physical Dimensions</b>							
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
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
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
Weight (lb/kg, ± 10%)	1.43/0.65	1.43/0.65	1.65/0.75	1.65/0.75	1.50/0.68	1.40/0.64	1.40/0.64

<sup>1</sup> Not all products may be available in all regions of the world.

<sup>2</sup> 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](http://www.sata-io.org) for details.

<sup>3</sup> 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.

<sup>4</sup> Controlled unload at ambient condition.

<sup>5</sup> See <http://support.wd.com/warranty> for regional specific warranty details.

<sup>6</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>7</sup> Sound power level.



Specifications	1TB	500GB
Model number <sup>1</sup>	WD10PURX	WD05PURX
Formatted capacity <sup>2</sup>	1TB	500GB
Form factor	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes
RoHS compliant <sup>3</sup>	Yes	Yes
<b>Performance</b>		
Interface transfer rate (max) <sup>2</sup> Buffer to host Host to/from drive (sustained)	6 Gb/s 110 MB/s	6 Gb/s 110 MB/s
Cache (MB) <sup>2</sup>	64	64
Performance Class	5400 RPM Class	5400 RPM Class
<b>Reliability/Data Integrity</b>		
Load/unload cycles <sup>4</sup>	300,000	300,000
Non-recoverable read errors per bits read	<1 in 10 <sup>14</sup>	<1 in 10 <sup>14</sup>
Limited warranty (years) <sup>5</sup>	3	3
<b>Power Management</b>		
Average power requirements (W) Read/Write Idle Standby and Sleep	3.3 2.9 0.4	3.3 2.9 0.4
<b>Environmental Specifications<sup>6</sup></b>		
Temperature (°C, on the base casting) Operating Non-operating	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 65 350	30 65 350
Acoustics (dBA) <sup>7</sup> Idle Seek (average)	21 22	21 22
<b>Physical Dimensions</b>		
Height (in./mm, max)	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6
Weight (lb/kg, ± 10%)	0.99/0.45	0.99/0.45

<sup>1</sup> Not all products may be available in all regions of the world.

<sup>2</sup> 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](http://www.sata-io.org) for details.

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