WD Purple™

Surveillance Hard Drives

WD Purple Surveillance Storage is built for 24/7 always-on surveillance in high-definition security systems that use up to eight hard drives and up to 32 cameras. Exclusive AllFrame™ technology works with ATA streaming to reduce error pixilation and video interruptions that occur when desktop hard drives are incorrectly used as storage in security systems.

INTERFACE	FORM FACTOR	PERFORMANCE CLASS	CAPACITIES
SATA 6 Gb/s	3.5-inch	5400 RPM Class	500GB to 8TB

MODEL NUMBERS

WD80PUZX	WD20PURX
WD60PURX	WD10PURX
WD50PURX	WD05PURX
WD40PURX	
WD30PURX	

Product Features

Superior storage. Superior surveillance.

WD Purple™ drives are built for 24/7, always-on, high-definition security systems. With support for up to 8 bays and 32 cameras, WD Purple™ drives are optimized for surveillance systems. WD Purple™ surveillance storage also comes with WD's exclusive AllFrame™ technology, so you can confidently create a security system tailored to the needs of your business. Using AllFrame™ technology, WD Purple™ drives improve ATA streaming to reduce errors, pixilation, and video interruptions that could happen in a video recorder system.

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 an DVR 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 32

Each WD Purple™ drive is optimized to support up to 32 HD cameras. With so many options, you have the flexibility to upgrade or expand your security system in the future.

Improve performance with AllFrame™

WD Purple surveillance-class hard drives are equipped with AllFrame technology which works with ATA streaming to reduce frame loss, improve playback and increases the number of drive bays supported. AllFrame reduces video interruptions that commonly occur when desktop hard drives are incorrectly used as storage in security systems. Missed frames and lost footage is a serious problem when an event occurs and surveillance footage needs to be retrieved. WD Purple with AllFrame provides the confidence you should expect when it's time to play back and review critical surveillance footage.

3-year limited warranty

Trust a company with the confidence to stand behind their surveillance storage products with a 3-year limited warranty.

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 highest 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 longer 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	8TB	6TB	5TB	4TB	3TB	2TB	1TB
Model number[1]	WD80PUZX	WD60PURX	WD50PURX	WD40PURX	WD30PURX	WD20PURX	WD10PURX
Formatted capacity[2]	8TB	6TB	5TB	4TB	3TB	2TB	1TB
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[3]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Performance							

Data transfer rate (max)
  Buffer to host
  Host to/from drive (sustained)
	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
							6 Gb/s
							110 MB/s

Cache (MB)	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
Reliability/Data Integrity							
Load/unload cycles[4]	300,000	300,000	300,000	300,000	300,000	300,000	300,000
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}
Limited warranty (years)[5]	3	3	3	3	3	3	3
Power Management							

Average power requirements (W)
  Read/Write
  Idle
  Standby and Sleep
	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
							3.3
							2.9
							0.4

Environmental Specifications[6]							

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
							350

Acoustics (dBA)[7]
  Idle
  Seek (average)
	20
	29
		25
		26
			25
			26
				25
				26
					23
					24
						23
						24
							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
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	1.65/0.75	1.65/0.75	1.50/0.68	1.40/0.64	1.40/0.64	0.99/0.45

[1] Not all products may be available in all regions of the world.

[2] 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.

[3] 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.

[4] Controlled unload at ambient condition.

[5] See http://support.wd.com/warranty for regional specific warranty details.

[6] No non-recoverable errors during operating tests or after non-operating tests.

[7] Sound power level.

Specifications	500GB
Model number[1]	WD05PURX
Formatted capacity[2]	500GB
Form factor	3.5-inch
Advanced Format (AF)	Yes
RoHS compliant[3]	Yes
Performance	

Data transfer rate (max)
    Buffer to host
    Host to/from drive (sustained)
	
	6 Gb/s
	110 MB/s

Cache (MB)	64
Performance Class	5400 RPM Class
Reliability/Data Integrity	
Load/unload cycles[4]	300,000
Non-recoverable read errors per bits read	<1 in 10^{14}
Limited warranty (years)[5]	3
Power Management	

Average power requirements (W)
    Read/Write
    Idle
    Standby and Sleep
	
	3.3
	2.9
	0.4

Environmental Specifications[6]	

Temperature (°C, on the base casting)
    Operating
    Non-operating
	
	0 to 65
	-40 to 70

Shock (Gs)
    Operating (2 ms, read/write)
    Operating (2 ms, read)
    Non-operating (2 ms)
	
	30
	65
	350

Acoustics (dBA)[7]
    Idle
    Seek (average)
	
	21
	22

Physical Dimensions	
Height (in./mm, max)	1.028/26.1
Length (in./mm, max)	5.787/147
Width (in./mm, ± .01 in.)	4/101.6
Weight (lb/kg, ± 10%)	0.99/0.45

[1] Not all products may be available in all regions of the world.

[2] 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.

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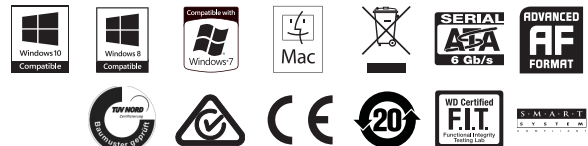[6] No non-recoverable errors during operating tests or after non-operating tests.

[7] Sound power level.

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For service and literature:
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CAN ICES-3 (B) / NMB-3 (B)

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