WD Red™ Pro
NAS Storage

Designed specifically with SMB customers in mind, WD Red™ Pro is available for up to 16 bay medium to large-scale 24×7 NAS environments. Engineered to handle increased workloads from your business, WD Red Pro is extensively tested and carries a long 5-year limited warranty.

INTERFACE
SATA 6 Gb/s

FORM FACTOR
3.5-inch

PERFORMANCE CLASS
7200 RPM Class

CAPACITIES
2TB to 10TB

MODEL NUMBERS

WD101KFBX	WD4002FFWX
WD8001FFWX	WD2002FFSX
WD6002FFWX	

Product Benefits

NAS for Big Business

Increase the efficiency and productivity of your business with WD Red Pro hard drives for up to 16 bay NAS systems. WD Red Pro comes equipped with NASware™ 3.0, which increases system compatibility allowing for seamless integration with your existing network infrastructure. Add value to your business by enabling your employees to quickly share their files and back up folders reliably with WD Red Pro NAS hard drives in your NAS solution.

Exclusive NASware 3.0 technology

Our exclusive advanced firmware technology, NASware 3.0 enables seamless integration, robust data protection and optimal performance for NAS systems operating under heavy demand.

Built for optimum NAS compatibility

Desktop drives aren't purpose-built for NAS. But WD Red Pro drives with NASware 3.0 technology are purpose-built for NAS. Our exclusive technology takes the guesswork out of selecting a drive and balances performance and reliability in NAS and RAID environments. Simply put, a WD Red Pro drive is one of the most compatible drives available for medium to large NAS enclosures. But don't take our word for it. WD Red Pro drives are a reflection of an extensive NAS partner technology engagement and compatibility-testing resulting in a leading compatibility list for NAS systems.

Larger NAS Bay Shock Protection

WD Red Pro drives are equipped with a multi-axis shock sensor that automatically detects subtle shock events and dynamic fly height technology which adjusts each read-write function to compensate and protect the data. This combination of technology further protects the drives in larger 1 to 16 bay NAS environments and helps increase hard drive reliability.

Applications

Specifically targeted at the medium to large business NAS applications with 1–16 bays.*

*WD hard drives are designed and tested for use in specific applications and environments. This ensures that your hard drive is compatible with and functions properly in your application. Our hard drives are warranted against defects in materials and workmanship in the system for which they were designed. Use in systems other than for what the hard drive was designed could result in compatibility problems that affect proper function, unrelated to material and/or workmanship defects. For best results, be sure to select the appropriate product for your application by consulting our product spec sheets on our website at www.wd.com or by calling our customer support line where we would be happy to help you through the selection process.

Specifications	10TB	8TB	6TB	4TB	2TB
Model number[1]	WD101KFBX	WD8001FFWX	WD6002FFWX	WD4002FFWX	WD2002FFSX
Interface[2]	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity[2]	10TB	8TB	6TB	4TB	2TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format	Yes	Yes	Yes	Yes	Yes
Native command queuing	Yes	Yes	Yes	Yes	Yes
RoHS compliant[3]	Yes	Yes	Yes	Yes	Yes
Performance					

Interface transfer rate (max)[2]
  Buffer to host
  Host to/from drive (sustained)
	6 Gb/s
	240 MB/s
		6 Gb/s
		205 MB/s
			6 Gb/s
			227 MB/s
				6 Gb/s
				202 MB/s
					6 Gb/s
					164 MB/s

Cache (MB)	256	128	128	128	64
Performance Class	7200 RPM Class	7200 RPM Class	7200 RPM Class	7200 RPM Class	7200 RPM Class
Reliability/Data Integrity					
Load/unload cycles[4]	600,000	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<10 in 10^{15}	<10 in 10^{15}	<10 in 10^{15}	<10 in 10^{15}	<10 in 10^{15}
MTBF (hours) for 8–16 bay NAS[5]	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/yr) [10]	300	300	300	300	300
Limited warranty (years)[6]	5	5	5	5	5
Power Management					
12VDC-/+10% (A, peak)	1.8	1.79	1.79	1.79	1.9

Average power requirements (W)
  Read/Write
  Idle
  Standby/Sleep
	5.7
	2.8
	0.5
		8.3
		5.2
		0.7
			9.1
			7.1
			1.0
				9.1
				7.1
				1.0
					7.8
					6.0
					1.4

Environmental Specifications[7]					

Temperature (°C)
  Operating[8]
  Non-operating
	5 to 60
	-40 to 70
		5 to 60
		-40 to 70
			5 to 60
			-40 to 70
				5 to 60
				-40 to 70
					5 to 60
					-40 to 70

Shock (Gs)
  Operating (2 ms, read/write)
  Operating (2 ms, read)
  Non-operating (2 ms)
	30
	65
	300
		30
		65
		300
			30
			65
			300
				30
				65
				300
					30
					65
					300

Acoustics (dBA)[9]
  Idle
  Seek (average)
	20
	29
		20
		36
			29
			36
				29
				36
					31
					34

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, ± 10%)	1.43/0.65	1.43/0.65	1.58/0.72	1.58/0.72	1.58/0.72

[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] Product MTBF specifications are based upon a 40°C base casting temperature and typical system workload of 300TB/year. Workload is defined as the amount of user data transferred to or from the hard drive.

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

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

[8] On the base casting.

[9] Sound power level.

[10] 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 service and literature:
http://support.wdc.com
www.wdc.com

800.ASK.4WDC (800.275.4932)	North America English
800.832.4778	Spanish
+86.21.2603.7560	Asia Pacific
00800.27549338	Europe (toll free where available)
+31.880062100	Europe/Middle East/ Africa

WD Red premium support

855.55.WDRED (855.559.3733)	North America
+800.55593733	Europe/Middle East/ Africa/Asia Pacific

Learn more about WD Red hard drives

CAN ICES-3 (B) / NMB-3 (B)

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