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

NAS for Big Business

Increase the efficiency and productivity of your business with WD Red Pro hard drives for up to 24 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

In a Network Attached Storage device, a desktop hard drive is not typically designed for NAS environments. 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 24 bay NAS environments and helps increase hard drive reliability.

Highlights

- Available in large capacities with support for 1–24 bays
- 5-year limited warranty
- Enhanced reliability with 3D Active Balance™ Plus technology and error recovery controls with NASware 3.0 technology
- Extended drive testing to ensure each drive is tested for extended reliable operation
- Vibration & Shock protection

INTERFACE SATA 6 Gb/s	**MODELS** WD141KFGX
FORM FACTOR 3.5-inch	WD121KFBX WD102KFBX WD101KFBX
PERFORMANCE CLASS 7200 RPM Class	WD8003FFBX WD6003FFBX WD4003FFBX
CAPACITIES 2TB to 14TB	WD2002FFSX

THE WESTERN DIGITAL ADVANTAGE
Western Digital puts our products through extensive Functional Integrity Testing (F.I.T.) prior to any product launch. This testing ensures our products consistently meet the quality and reliability standards of the Western Digital brand. WD also has a detailed Knowledge Base with more than 1,000 helpful articles as well as helpful software and utilities. Our toll-free customer support lines are here to help or you can access our WD Support site for additional details.

WD Red™ Pro

Specifications

	14TB	12TB	10TB	10TB	8TB
Model Number[1]	WD141KFGX	WD121KFBX	WD102KFBX	WD101KFBX	WD8003FFBX
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity[2]	14TB	12TB	10TB	10TB	8TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes	Yes
RoHS compliant[3]	Yes	Yes	Yes	Yes	Yes
Performance					
Interface Transfer Rate (max) Interface Speed	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Interface Transfer Rate[2] (max) Internal Transfer Rate	255 MB/s	240 MB/s	265 MB/s	240 MB/s	235 MB/s
Cache (MB)[2]	512	256	256	256	256
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 errors per bits read	<10 in 10^{14}	<10 in 10^{14}	<10 in 10^{14}	<10 in 10^{14}	<10 in 10^{14}
MTBF (hours)[5]	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year)[6]	300	300	300	300	300
Limited warranty (years)[7]	5	5	5	5	5
Power Management[8]					
12VDC ±5% (A, peak)	1.85	1.8	1.75	1.8	2.08
5VDC ±5% (A, peak) Average power requirements (W)					
Read/Write	6.2	6.0	8.4	5.7	8.8
Idle	3.0	2.8	4.6	2.8	4.6
Standby and Sleep	0.8	0.6	0.5	0.5	0.7
Environmental Specifications[9]					
Temperature (°C)					
Operating	0 to 65	0 to 65	0 to 65	0 to 65	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)					
Operating, (2 ms, read/write)	30	30	30	30	30
Operating, (2 ms, read)	65	65	65	65	65
Non-operating (2 ms)	300	300	250	300	300
Acoustics (dBA)[10]					
Idle	20	20	34	20	29
Seek (average)	36	36	38	36	36
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%)	1.52/0.69	1.46/0.66	1.65/0.75	1.43/0.65	1.58/0.72

WD Red™ Pro

Specifications

	8TB	6TB	4TB	2TB
Model Number[1]	WD8003FFBX	WD6003FFBX	WD4003FFBX	WD2002FFSX
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity[2]	8TB	6TB	4TB	2TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Native command queuing	Yes	Yes	Yes	Yes
Advanced Format (AF)	Yes	Yes	Yes	Yes
RoHS compliant[3]	Yes	Yes	Yes	Yes
Performance				
Interface Transfer Rate (max) Interface Speed	6 Gb/s	6 Gb/s	6 Gb/s	6 Gb/s
Interface Transfer Rate[2] (max) Internal Transfer Rate	235 MB/s	238 MB/s	217 MB/s	164 MB/s
Cache (MB)[2]	256	256	256	64
Performance 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
Non-recoverable errors per bits read	<10 in 10^{14}	<10 in 10^{14}	<10 in 10^{14}	<10 in 10^{14}
MTBF (hours)[5]	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/year)[6]	300	300	300	300
Limited warranty (years)[7]	5	5	5	5
Power Management[8]				
12VDC ±5% (A, peak) 5VDC ±5% (A, peak)	2.08	1.79	1.79	1.9
Average power requirements (W)				
Read/Write	8.8	7.2	7.2	7.8
Idle	4.6	3.7	3.7	6.0
Standby and Sleep	0.7	0.4	0.4	1.4
Environmental Specifications[9]				
Temperature (°C)				
Operating	0 to 65	0 to 65	0 to 65	0 to 65
Non-operating	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Shock (Gs)				
Operating, (2 ms, read/write)	30	30	30	30
Operating, (2 ms, read)	65	65	65	65
Non-operating (2 ms)	300	300	300	300
Acoustics (dBA)[10]				
Idle	29	29	29	29
Seek (average)	36	36	36	31
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 , ± 10%)	1.58/0.72	1.58/0.72	1.58/0.72	1.58/0.72

Specifications subject to change without notice.

[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] MTBF specifications are based upon internal testing using a 40°C base casting temperature. MTBF is based on a sample population and is estimated by statistical measurements and acceleration algorithms. MTBF does not predict an individual drive's reliability and does not constitute a warranty.

[6] 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.

[7] See http://support.wd.com/warranty for regionally specific warranty details.

[8] Power measurements at room-ambient temperature.

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

[10] Sound power level.

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