

## WD Red™ Pro NAS Storage

Designed specifically with SMB customers in mind, WD Red™ Pro drives are available for up to 24-bay medium to large-scale 24x7 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.



### INTERFACE

SATA 6 Gb/s

### FORM FACTOR

3.5-inch

### PERFORMANCE CLASS

7200 RPM Class

### CAPACITIES

2TB to 10TB

### MODEL NUMBERS

WD2002FFSX	WD8001FFWX
WD4003FFBX	WD8003FFBX
WD6003FFBX	WD101KFBX

## Product Benefits

### NAS for Big Business

Increase the efficiency and productivity of your business with WD Red Pro drives—available for up to 24 bay NAS systems. WD Red Pro drives come equipped with NASware™ 3.0 technology 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 24 bay NAS environments and helps increase hard drive reliability.

## Applications

Specifically targeted at the medium to large business NAS applications with 1-24 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](http://www.wd.com) or by calling our customer support line where we would be happy to help you through the selection process.

Specifications <sup>1</sup>	10TB	8TB	8TB	6TB	4TB	2TB
Model Number <sup>2</sup>	WD101KFBX	WD8003FFBX	WD8001FFWX	WD6003FFBX	WD4003FFBX	WD2002FFSX
Interface <sup>1</sup>	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity <sup>1</sup>	10TB	8TB	8TB	6TB	4TB	2TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format	Yes	Yes	Yes	Yes	Yes	Yes
Native command queuing	Yes	Yes	Yes	Yes	Yes	Yes
RoHS compliant <sup>3</sup>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Performance</b>						
Interface transfer rate (max) Buffer to host Host to/from drive (sustained)	6 Gb/s 240 MB/s	6 Gb/s 235 MB/s	6 Gb/s 205 MB/s	6 Gb/s 238 MB/s	6 Gb/s 217 MB/s	6 Gb/s 164 MB/s
Cache (MB) <sup>1</sup>	256	256	128	256	256	64
Performance Class	7200 RPM Class	7200 RPM Class	7200 RPM Class	7200 RPM Class	7200 RPM Class	7200 RPM Class
<b>Reliability/Data Integrity</b>						
Load/unload cycles <sup>4</sup>	600,000	600,000	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<10 in 10 <sup>15</sup>	<10 in 10 <sup>15</sup>	<10 in 10 <sup>15</sup>	<10 in 10 <sup>15</sup>	<10 in 10 <sup>15</sup>	<10 in 10 <sup>15</sup>
MTBF (hours) for 8-24 bay NAS <sup>5</sup>	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Workload Rate (TB/yr) <sup>6</sup>	300	300	300	300	300	300
Limited warranty (years) <sup>7</sup>	5	5	5	5	5	5
<b>Power Management<sup>8</sup></b>						
12VDC-/±10% (A, peak)	1.8	2.08	1.79	1.79	1.79	1.9
Average power requirements (W) Read/Write Idle Standby/Sleep	5.7 2.8 0.5	8.8 4.6 0.7	8.3 5.2 0.7	7.2 3.7 0.4	7.2 3.7 0.4	7.8 6.0 1.4
<b>Environmental Specifications<sup>9</sup></b>						
Temperature (°C) Operating <sup>10</sup> 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	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	30 65 300
Acoustics (dBA) <sup>11</sup> Idle Seek (average)	20 29	29 36	20 36	29 36	29 36	29 31
<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
Length (in./mm, max)	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
Weight (lb/kg, ± 10%)	1.43/0.65	1.58/0.72	1.43/0.65	1.58/0.72	1.58/0.72	1.58/0.72

<sup>1</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>2</sup> Not all products may be available in all regions of the world.

<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> 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.

<sup>6</sup> 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.

<sup>7</sup> See <http://support.wd.com/warranty> for regionally specific warranty details.

<sup>8</sup> Power measurements at room-ambient temperature.

<sup>9</sup> No non-recoverable errors during operating tests or after non-operating tests.

<sup>10</sup> On the base casting.

<sup>11</sup> Sound power level.

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2879-800022-A09 April 2018

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