WD RED™
NAS Hard Drives

WD Red is designed specifically for small NAS systems that have 1 to 5 drive bays. The drives are designed and extensively tested for compatibility in the unique 24x7 operating environment and for the demanding system requirements of home and small office NAS.

INTERFACE
SATA 6 Gb/s

WIDTH/HEIGHT
3.5-inch/1-inch

ROTATIONAL SPEED
IntelliPower™

CAPACITIES
1 TB to 4 TB

MODEL NUMBERS
WD40EFRX
WD30EFRX
WD20EFRX
WD10EFRX

Note: Not all products may be available in all regions of the world.

Product Features

Expanded solutions

Our formula of success has led growth of WD Red into higher capacities and expansion into new 2.5-inch solutions. We now offer a broader, more comprehensive portfolio of NAS hard drives for our customers. It is not just about NAS drives, it is REDvolutionary™.

Next generation experience

Every component, line of code, and product decision was built on our passion and determination to deliver the best NAS experience. The next generation of WD Red hard drives delivers on this promise with massive capacity and NASware™ 2.0, which further improves drive reliability and protects your data in the event of a power loss or disruption.

Exclusive NASware 2.0 technology

Our exclusive technology, NASware 2.0, makes WD Red thrive in the demanding small-NAS environment. By adding WD Red to your NAS system, not only is everything more efficient and reliable, you can better protect your data investment.

Experienced in NAS

In all of our cultures around the world, first impressions are what leave a mark. With superior technology that is driven to impress, WD Red is a reflection of the most extensive NAS partner compatibility-testing list that is available on the market.* That means when you buy a NAS enclosure, you can trust that WD Red will be the most compatible drive available. Our pride is in our product and our vision is shared with our customers.

3D Active Balance™ Plus

Our enhanced dual-plane balance control technology significantly improves the overall drive performance and reliability. Hard drives that are not properly balanced may cause excessive vibration and noise in a multi-drive system, reduce the hard drive life span, and degrade the performance over time.

The right choice

WD Red is designed specifically for home and small office NAS systems and PCs with RAID.

*Data reflects products in production as of August 2013.

Enhanced reliability

Since your NAS system is always on, a highly reliable drive is essential. With a 35% MTBF improvement over standard drives, the WD Red drive with NASware 2.0 is designed for the 24x7 environment.

NAS compatibility

Advanced firmware technology built into every WD Red drive, NASware 2.0 enables seamless integration, robust data protection and optimal performance for systems operating in NAS and RAID environments.

The secret is the next-generation technology

WD's next generation NASware 2.0 technology improves NAS storage performance by reducing common hard drive concerns in NAS systems including concerns for things like compatibility, integration, upgrade ability, reliability and cost of ownership that are experienced with a hard drive designed for desktop computers.

Energy efficient and money saving

We keep power consumption low which keeps your NAS system happy and your wallet, too.

Lower operating temperatures

Reduce your electricity bill with WD Red drives. Innovative technology reduces power consumption and lowers the operating temperature, resulting in a more reliable and affordable solution for always on NAS environments.

Longer warranty coverage

The WD Red drive is backed by a 3-year limited warranty for greater peace of mind.

Need help? We offer premium support

Every WD Red hard drive comes with our world-class professional support services including a premium dedicated 24/7 support line (available in English, other regional support hours vary).*

* Support outside of normal business hours is available in English only Go to http://support.wd.com for further details.

Applications

WD Red NAS hard drives are recommended for use in home and small office 1-5 bay NAS systems. For systems that use more than 5 bays or are rack mount solutions, please consider WD Datacenter hard drives.*

* 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	4 TB	3 TB	2 TB	1 TB
Model number	WD40EFRX	WD30EFRX	WD20EFRX	WD10EFRX
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Formatted capacity[1]	4 TB	3 TB	2 TB	1 TB
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes	Yes
RoHS compliant[2]	Yes	Yes	Yes	Yes
Performance				
Data transfer rate (max) Buffer to host Host to/from drive (sustained)	6 Gb/s 150 MB/s	6 Gb/s 147 MB/s	6 Gb/s 147 MB/s	6 Gb/s 150 MB/s
Cache (MB)	64	64	64	64
Rotational speed (RPM)[3]	IntelliPower	IntelliPower	IntelliPower	IntelliPower
Reliability/Data Integrity				
Load/unload cycles[4]	600,000	600,000	600,000	600,000
Non-recoverable read errors per bits read	<1 in 10^{14}	<1 in 10^{14}	<1 in 10^{14}	<1 in 10^{14}
MTBF (hours)[5]	1,000,000	1,000,000	1,000,000	1,000,000
Limited warranty (years)[6]	3	3	3	3
Power Management				
12VDC ±10% (A, peak)	1.75	1.73	1.73	1.20
Average power requirements (W) Read/Write Idle Standby/Sleep	4.5 3.3 0.4	4.1 3.0 0.4	4.1 3.0 0.4	3.3 2.5 0.4
Environmental Specifications[7]				
Temperature (°C)[8] Operating Non-operating	0 to 70 -40 to 70	0 to 70 -40 to 70	0 to 70 -40 to 70	0 to 70 -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 65 350
Acoustics (dBA)[9] Idle Seek (average)	25 28	23 27	23 27	21 24
Physical Dimensions				
Height (in./mm)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm)	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%)	1.50/0.68	1.40/0.64	1.32/0.60	0.99/0.45

[1] 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 3 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.

[2] 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.

[3] A fine-tuned balance of spin speed, transfer rate and caching algorithms designed to deliver both significant power savings and solid performance. For each drive model, WD may use a different, invariable RPM.

[4] Controlled unload at ambient condition.

[5] Based on a typical NAS product environment under normal operating conditions.

[6] The term of the limited warranty may vary by region. Visit http://support.wd.com/warranty for details.

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

[8] On the base casting.

[9] Sound power level.

WD Red is part of WD's complete lineup of internal hard drives.

WD BLUE™ — Everyday Storage
WD GREEN™ — Cool & Quiet Storage
WD BLACK™ — Performance Storage
WD RED™ — NAS Storage

Windows 8 Compatible
Compatible with Windows 7
Mac
N3565
CE
20
SERIAL ATA 6 Gb/s
ADVANCED AF FORMAT
WD Certified F.I.T. Functional Integrity Testing Lab
S·M·A·R·T SYSTEM

Canada ICES-003 Class B / NMB-003 Classe B

2879-771442-A03   Aug 2013