Highlights

- Optimal compatibility for NAS systems
- Tested for 24/7 environments
- Designed for and seamlessly integrates with NAS systems with up to 8 bays
- Designed for the unique system requirements of NAS environments
- Reliable, affordable solution for demanding 24/7 networking environments
- 3-year Limited Warranty[7]

INTERFACE
SATA 6 Gb/s

PERFORMANCE CLASS
5400 RPM Class

FORM FACTOR
2.5-inch

CAPACITIES
1TB[2]

MODEL NUMBERS
WDBGFT0010BNC-WRSN

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 highest quality and reliability standards of the Western Digital brand.

Western Digital 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 Western Digital Support site for additional details.

WD Red™ NAS internal hard drives are designed and tested to meet the unique requirements of NAS systems with up to eight bays, and are engineered to run cool and quietly while offering optimum compatibility for demanding 24/7 environments. These reliable drives are backed by a 3-year limited warranty.[7]

3D Active Balance Plus

Help ensure your data is protected from excessive vibration and noise in a NAS or RAID environment. This dual-plane balance control reduces the degradation of your drive over time.

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 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 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 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 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.

WD Red™

Specifications

	1TB
Model Number[1]	WDBGFT0010BNC-WRSN
Interface	SATA 6 Gb/s
Formatted capacity[2]	1TB
Form factor	2.5-inch
Native command queuing	Yes
Advanced Format (AF)	Yes
RoHS compliant[3]	Yes
Performance	
Interface Transfer Rate[2] (up to)	144 Gb/s
Cache (MB)[2]	16
Performance Class	5400 RPM Class
Reliability/Data Integrity	
Load/unload cycles[4]	600,000
Non-recoverable errors per bits read	<10 in 10^{14}
MTBF (hours)[5]	100,000,000
Workload Rate (TB/year)[6]	180
Limited warranty (years)[7]	3
Power Management[8]	
12VDC ±5% (A, peak)	1.00
5VDC ±5% (A, peak)	
Average power requirements (W)	
Read/Write	1.4
Idle	0.6
Standby and Sleep	0.2
Environmental Specifications[9]	
Temperature (°C)	
Operating	0 to 60
Non-operating	-40 to 70
Shock (Gs)	
Operating, (2 ms, read/write)	400
Operating, (2 ms, read)	
Non-operating (2 ms)	1000
Acoustics (dBA)[10]	
Idle	24
Seek (average)	25
Physical Dimensions	
Height (in./mm, max)	0.374 / 9.50
Length (in./mm, max)	3.94 / 100.2
Width (in./mm, ± .01 in.)	2.75 / 69.85
Weight (lb/kg , ± 10%)	0.25 / 0.115

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. Performance will vary depending on your hardware and software components and configurations. 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.wdc.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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