

TOSHIBA



N300 NAS Hard Drives

Built for 24/7 reliability

Toshiba N300 NAS Hard Drive offers unprecedented reliability for NAS and other high-performance storage systems. It is optimized to meet the reliability, endurance, performance and scalability requirements of 24-hour/7-day high-capacity storage. Suitable for personal, home office and small business use. The N300 is available in capacities of up to 24 TB.



Use for

- NAS and Multimedia Server
- Desktop RAID and Server
- Private Cloud Storage
- Small Business Server and Storage

Top Features

- Designed for 24/7 operation
- Up to 12 drive bays
- Workload up to 180 TB/year
- MTTF/MTBF up to 1.2 million hours
- 7200 rpm speed with up to 1 GiB buffer
- CMR technology
- 3.5-inch Form Factor

Capacities

24 TB	22 TB	20 TB	18 TB	16 TB	14 TB
12 TB	10 TB	8 TB	6 TB	4 TB	



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NAS Hard Drives

Capacity *1	24 TB	22 TB	20 TB	20 TB	18 TB	18 TB	
Part Number	MN11ACA24TS HDWG82EUZSVA	MN11ACA22TS HDWG82CUZSVA	MN11ACA20TS HDWG82AUZSVA	HDWG62AUZSVA	MN11ACA18TS HDWG81JUZSVA	HDWG51JUZSVA	
Part Number (Retail Package) *2	HDWG82E*ZSTA	HDWG82C*ZSTA	HDWG82A*ZSTA	HDWG62A*ZSTA	HDWG81J*ZSTA	HDWG51J*ZSTA	
Basic Specifications							
Recording Technology	CMR						
Interface	SATA 6.0 Gbit/s						
Mechanical Design	He						
Form Factor *3	3.5-inch						
Sector Size	512e						
Features							
Drive Bays Supported	up to 12			up to 8	up to 12	up to 8	
24 / 7 Operation	yes						
Rotational Vibration Sensor	yes						
Shock Sensor	yes						
Performances							
Rotation Speed	7200 rpm						
Sustained data transfer rate *4	309 MB/s (295 MiB/s)	298 MB/s (284 MiB/s)	294 MB/s (280 MiB/s)	281 MB/s (268 MiB/s)	294 MB/s (280 MiB/s)	281 MB/s (268 MiB/s)	
Buffer Size *5	1 GiB			512 MiB	1 GiB	512 MiB	
Reliability							
MTTF / MTBF *6	1 200 000 hours						
Unrecoverable Error Rate	1 per 10E15					1 per 10E14	
Maximum rated workload *7	180 TB/year						
Load/Unload cycles	600 000 times			300 000 times	600 000 times	300 000 times	
Power Requirements							
Supply Voltage	12 VDC ±10 % 5 VDC +10 / -7 %						
Power Consumption	Operating	7.62 W			8.02 W	7.41 W	7.48 W
	Active Idle	4.35 W			4.41 W	4.16 W	4.14 W
Temperature	Operating	5 to 60 °C (Surface)					
	Non-operating	-40 to 70 °C					
Vibration	Operating	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)					
	Non-operating	29.4 m/s ² {3.0 G} (5 to 500 Hz)					
Shock	Operating	490 m/s ² {50 G} (2 ms duration)				686 m/s ² {70 G} (2 ms duration)	
	Non-operating	1960 m/s ² {200 G} (2 ms duration)				2450 m/s ² {250 G} (2 ms duration)	
Acoustics (Active Idle)	20 dB (Typ.)						
Physical							
Dimension	147 (L) x 101.85 (W) x 26.1 (H) mm (Max)						
Weight	730 g (Max)			720 g (Max)	730 g (Max)	720 g (Max)	

*1 Definition of capacity: One terabyte (TB) = one trillion bytes, but storage capacity actually available may vary depending on operating environment and formatting. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

2 The asterisk mark() in the parts number indicates that the alphabet varies depending on region.

*3 "3.5-inch" means the form factor of HDDs. They do not indicate drive's physical size.

*4 Read and write speed may vary depending on the host device, read and write conditions, and file size.

*5 A mebibyte (MiB) means 1 048 576 bytes.

*6 MTTF/MTBF (Mean Time to Failure/Mean Time Between Failures) is not a guarantee or estimate of product life; it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. Actual operating life of the product may be different from the MTTF/MTBF.

*7 Workload is a measure of the data throughput of the year, and it is defined as the amount of data written, read or verified by commands from the host system.

• Product image may represent a design model.

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Capacity *1	16 TB	16 TB	14 TB	14 TB	12 TB
Part Number	MN11ACA16TS HDWG81GUZSVA	HDWG51GUZSVA	MN11ACA14TS HDWG81EUZSVA	HDWG51EUZSVA	HDWG51CUZSVA
Part Number (Retail Package) *2	HDWG81G*ZSTA	HDWG51G*ZSTA	HDWG81E*ZSTA	HDWG51E*ZSTA	HDWG51C*ZSTA

Basic Specifications

Recording Technology	CMR
Interface	SATA 6.0 Gbit/s
Mechanical Design	He
Form Factor *3	3.5-inch
Sector Size	512e

Features

Drive Bays Supported	up to 12	up to 8	up to 12	up to 8
24 / 7 Operation	yes			
Rotational Vibration Sensor	yes			
Shock Sensor	yes			

Performances

Rotation Speed	7200 rpm			
Sustained data transfer rate *4	294 MB/s (280 MiB/s)	281 MB/s (268 MiB/s)	294 MB/s (280 MiB/s)	281 MB/s (268 MiB/s)
Buffer Size *5	1 GiB	512 MiB	1 GiB	512 MiB

Reliability

MTTF / MTBF *6	1 200 000 hours			
Unrecoverable Error Rate	1 per 10E15	1 per 10E14	1 per 10E15	1 per 10E14
Maximum rated workload *7	180 TB/year			
Load/Unload cycles	600 000 times	300 000 times	600 000 times	300 000 times

Power Requirements

Supply Voltage	12 VDC ±10 % 5 VDC +10 / -7 %					
Power Consumption	Operating	6.94 W	7.48 W	6.94 W	7.38 W	6.85 W
	Active Idle	3.66 W	4.14 W	3.66 W	3.77 W	3.3 W

Temperature	Operating	5 to 60 °C (Surface)			
	Non-operating	-40 to 70 °C			
Vibration	Operating	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)			
	Non-operating	29.4 m/s ² {3.0 G} (5 to 500 Hz)			
Shock	Operating	490 m/s ² {50 G} (2 ms duration)	686 m/s ² {70 G} (2 ms duration)	490 m/s ² {50 G} (2 ms duration)	686 m/s ² {70 G} (2 ms duration)
	Non-operating	1960 m/s ² {200 G} (2 ms duration)	2450 m/s ² {250 G} (2 ms duration)	1960 m/s ² {200 G} (2 ms duration)	2450 m/s ² {250 G} (2 ms duration)
Acoustics (Active Idle)	20 dB (Typ.)				

Physical

Dimension	147 (L) x 101.85 (W) x 26.1 (H) mm (Max)				
Weight	730 g (Max)	720 g (Max)	730 g (Max)	705 g (Max)	690 g (Max)

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Capacity *1	10 TB	8 TB	8 TB	6 TB	6 TB	4 TB	4 TB
Part Number	MN10ADA10TS HDWG71AUZSVA	MN10ADA800S HDWG780UZSVA	HDWG480UZSVA	MN10ADA600S HDWG760UZSVA	HDWG460UZSVA	MN10ADA400ES HDWG740UZSVC	HDWG440UZSVA
Part Number (Retail Package) *2	HDWG71A*ZSTA	HDWG780*ZSTA	HDWG480*ZSTA	HDWG760*ZSTA	HDWG460*ZSTA	HDWG740*ZSTC	HDWG440*ZSTA

Basic Specifications

Recording Technology	CMR
Interface	SATA 6.0 Gbit/s
Mechanical Design	Air
Form Factor *3	3.5-inch
Sector Size	512e

Features

Drive Bays Supported	up to 8
24 / 7 Operation	yes
Rotational Vibration Sensor	yes
Shock Sensor	yes

Performances

Rotation Speed	7200 rpm					
Sustained data transfer rate *4	281 MB/s (268 MiB/s)	260 MB/s (248 MiB/s)	281 MB/s (268 MiB/s)	250 MB/s (239 MiB/s)	281 MB/s (268 MiB/s)	232 MB/s (222 MiB/s)
Buffer Size *5	512 MiB	256 MiB	512 MiB	256 MiB	512 MiB	256 MiB

Reliability

MTTF / MTBF *6	1 000 000 hours					
Unrecoverable Error Rate	1 per 10E15					
Maximum rated workload *7	180 TB/year					
Load/Unload cycles	600 000 times	300 000 times	600 000 times	300 000 times	600 000 times	300 000 times

Power Requirements

Supply Voltage	12 VDC ±10 % 5 VDC +10 / -7 %	12 VDC ±10 % 5 VDC ±5 %	12 VDC ±10 % 5 VDC +10 / -7 %	12 VDC ±10 % 5 VDC ±5 %	12 VDC ±10 % 5 VDC +10 / -7 %	12 VDC ±10 % 5 VDC ±5 %	
Power Consumption	Operating	9.07 W	8.41 W	8.19 W	7.72 W	7.43 W	6.84 W
	Active Idle	5.74 W	5.61 W	4.92 W	4.93 W	4.14 W	4.04 W

Environmental

Temperature	Operating	5 to 60 °C (Surface)	5 to 65 °C (Surface)	5 to 60 °C (Surface)	5 to 65 °C (Surface)	5 to 60 °C (Surface)	5 to 65 °C (Surface)
	Non-operating	-40 to 70 °C					
Vibration	Operating	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)	7.35 m/s ² {0.75 G} (2 to 300 Hz) 4.90 m/s ² {0.50 G} (300 to 350 Hz) 2.45 m/s ² {0.25 G} (350 to 500 Hz)	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)	7.35 m/s ² {0.75 G} (2 to 300 Hz) 4.90 m/s ² {0.50 G} (300 to 350 Hz) 2.45 m/s ² {0.25 G} (350 to 500 Hz)	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)	7.35 m/s ² {0.75 G} (2 to 300 Hz) 4.90 m/s ² {0.50 G} (300 to 350 Hz) 2.45 m/s ² {0.25 G} (350 to 500 Hz)
	Non-operating	29.4 m/s ² {3.0 G} (5 to 500 Hz)					
Shock	Operating	686 m/s ² {70 G} (2 ms duration)					
	Non-operating	2450 m/s ² {250 G} (2 ms duration)					
Acoustics (Active Idle)	34 dB (Typ.)	31 dB (Typ.)	34 dB (Typ.)	31 dB (Typ.)	34 dB (Typ.)	31 dB (Typ.)	

Physical

Dimension	147 (L) x 101.85 (W) x 26.1 (H) mm (Max)					
Weight	755 g (Max)	720 g (Max)	730 g (Max)	700 g (Max)	710 g (Max)	693 g (Max)

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