



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 22 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 8 drive bays
- Workload up to 180 TB/year
- MTTF/MTBF up to 1.2 million hours
- 7200 rpm speed with up to 512 MiB buffer
- CMR technology
- 3.5-inch Form Factor

Capacities

22	20	18	16	14
TB	TB	ТВ	ТВ	ТВ

12	10	8	6	4
TB	TB	TB	TB	TB

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NAS Hard Drives

Capacity *1		22 TB	20 TB	18 TB	16 TB	16 TB	14 TB	14 TB	12 TB	12 TB		
Parts Number		HDWG62CUZSVA	HDWG62AUZSVA	HDWG51JUZSVA	HDWG51GUZSVA	HDWG31GUZSVA	HDWG51EUZSVA	HDWG21EUZSVA	HDWG51CUZSVA	HDWG21CUZSVA		
Basic Specifications												
Recording Technolog	y					CMR						
Interface SATA 6.0 Gbit/s												
Mechanical Design						He						
Form Factor *2						3.5-inch						
Sector Size						512e						
Features												
Drive Bays Supported	I					up to 8						
24 / 7 Operation						yes						
Rotational Vibration S	Sensor					yes						
Shock Sensor						yes						
Performances												
Rotation Speed					7200 rpm							
Sustained data transfer rate *3		281 (268 t			274 MB/s (262 MiB/s)	281 MB/s (268 MiB/s)	260 MB/s (248 MiB/s)	281 MB/s (268 MiB/s)	253 MB/s (242 MiB/s)			
Buffer Size *4				512	MiB	,		256 MiB	512 MiB	256 MiB		
Reliability		•										
MTTF / MTBF *5				1 200 00	00 hours			1 000 000 hours	1 200 000 hours	1 000 000 hours		
Unrecoverable Error Rate 1 per 10E15					1 per 10E14							
Maximum rated workload *6			180 TB/year									
Load/Unload cycles		300 000 times										
Power Requirements	i											
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 %		
Power Consumption	Operating	8.0	2 W	7.4	8 W	6.91 W	7.38 W	6.77 W	6.85 W	6.49 W		
rower consumption	Active Idle	4.35 W	4.41 W	4.1	4 W	4.03 W	3.77 W	4.54 W	3.3 W	4.28 W		
Environmental												
Temperature	Operating	5 to 60 °C (Surface) 0 to 65 °C (Surface)					5 to 60 °C (Surface)					
remperature	Non-operating	-40 to 70 °C										
Vibration	Operating	7.35 m/s² {0.75 G} (5 to 300 Hz) 2.45 m/s² {0.25 G} (300 to 500 Hz)										
	Non-operating	29.4 m/s² {3.0 G} (5 to 500 Hz)										
Shock	Operating	490 m/s² {50 G} (2 ms duration) 686 m/s² {70 G} (2 ms duration)										
SHOCK	Non-operating	1960 m/s² {200 G} (2 ms duration) 2450 m/s² {250 G} (2 ms duration)										
Acoustics (Active Idle)						20 dB (Typ.)						
Physical												
Dimension					147 (L) x	101.85 (W) x 26.1 (H) r	mm (Max)					
Weight				720 g (Max)			705 g (Max)	720 g (Max)	690 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 "3.5-inch" means the form factor of HDDs. They do not indicate drive's physical size.

^{2 3-3} Read and write speed may vary depending on the host device, read and write conditions, and file size.
4 A mebibyte (MiB) means 1 048 576 bytes.

^{*5} 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.

*6 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.

[•] Before creating and producing designs and using, customers must also refer to and comply with the latest versions of all relevant information of this document and the instructions for the application that Product will be used with or for.

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NAS Hard Drives

Capacity *1		10 TB	8 TB	8 TB	6 TB	6 TB	4 TB	4 TB	4 TB	
Parts Number		HDWG71AUZSVA	HDWG780UZSVA	HDWG480UZSVA	HDWG760UZSVA	HDWG460UZSVA	HDWG740UZSVC	HDWG440UZSVA	HDWQ140UZSVA	
Basic Specifications										
Recording Technolog	Sy				CI	MR				
Interface					SATA 6.	0 Gbit/s				
Mechanical Design		Air								
Form Factor *2					3.5-	inch				
Sector Size				51	12e			51	2n	
Features										
Drive Bays Supported	d				up	to 8				
24 / 7 Operation					y.	es				
Rotational Vibration :	Sensor				y.	es				
Shock Sensor					y.	es				
Performances										
Rotation Speed					7200) rpm				
Sustained data trans	fer rate *3		MB/s 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)	204 MB/s (195 MiB/s)	
Buffer Size *4		512	2 MiB	256 MiB	512 MiB	256 MiB	512 MiB	256 MiB	128 MiB	
Reliability										
MTTF / MTBF *5					1 000 00	00 hours				
Unrecoverable Error	Rate				1 per 10E15				1 per 10E14	
Maximum rated work	cload *6				180 T	B/year				
Load/Unload cycles		600 00	00 times	300 000 times	600 000 times	s 300 000 times 600 000 times 300 000 times				
Power Requirement	s									
Supply Voltage							C ±10 % C ±5 %			
D	Operating	9.07 W	8.19 W	8.41 W	7.43 W	7.72 W	6.75 W	6.84 W	9.6 W	
Power Consumption	Active Idle	5.74 W	4.92 W	5.61 W	4.14 W	4.93 W	3.49 W	4.04 W	5.2 W	
Environmental										
Tomorovaturo	Operating	5 to 60 °C	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 °				5 to 65 °C (Surface)	0 to 65 °C (Surface		
Temperature	Non-operating				-40 to	70 °C				
Vibration	Operating	7.35 m/s² {0.75 G} (5 to 300 Hz) 2.45 m/s² {0.25 G} (300 to 500 Hz)		7.35 m/s² {0.75 G} (2 to 300 Hz) 4.90 m/s² {0.50 G} (300 to 350 Hz) 2.45 m/s² {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/s² {0.75 G} (2 to 300 Hz) 4.90 m/s² {0.50 G} (300 to 350 Hz) 2.45 m/s² {0.25 G} (350 to 500 Hz)	7.35 m/s² {0.75 G} (5 to 300 Hz) 2.45 m/s² {0.25 G} (300 to 500 Hz)	7.35 m/s² {0.75 G} (2 to 300 Hz) 4.90 m/s² {0.50 G} (300 to 350 Hz) 2.45 m/s² {0.25 G} (350 to 500 Hz)	7.35 m/s² {0.75 G (5 to 300 Hz) 2.45 m/s² {0.25 G (300 to 500 Hz)	
	Non-operating	29.4 m/s ² {3.0 G} (5 to 500 Hz)							49.0 m/s² {5.0 G} (5 to 500 Hz)	
Shock	Operating	686 m/s² {70 G} (2 ms duration)								
JIIUCK	Non-operating	2450 m/s² {250 G} (2 ms duration)								
Acoustics (Active Idle)	34 dE	3 (Typ.)	31 dB (Typ.)	34 dB (Typ.)	31 dB (Typ.)	34 dB (Typ.)	31 dB (Typ.)	30 dB (Typ.)	
Physical										
Dimension					147 (L) x 101.85 (W)	x 26.1 (H) mm (Max)				
	Weight				_	_				

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