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Keep Business Moving.

Toshiba N300 Pro NAS Internal Hard Drive



Image does not represent actual product.

The Toshiba N300 Pro NAS Internal Hard Drive is ready to help you scale your business with up to 24 drive bay support[4].

Offering a higher workload of up to 300 TB/yr[6] and an expanded capacity of up to 22TB[1] (compared to the N300), the N300 Pro is a reliable drive to help you take your business to the next level. Delivering the 7200 RPM speed you need to access your data quickly and 24/7 operation[10] to help keep your data readily accessible, these drives are optimized to help keep your business growing.

The N300 Pro is designed to work in wide temperature ranges and has built-in RV sensors to mitigate rotational vibration in a multi-RAID environment, so you can be confident that this drive will perform wherever and whenever you need it most. This drive is engineered with CMR technology to deliver a consistent performance and broad compatibility[13]. Plus, it offers time-tested quality that is backed by a Toshiba's five-year limited warranty[8] providing you with peace of mind.

When speed, reliability and performance are critical to your business, the N300 Pro hard drive delivers. Keeping your data safe and accessible, so you can keep your business moving.

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Toshiba N300 Pro NAS Internal Hard Drive



Product image may represent a design model.

Application[13]

Network Attached Storage for high-intensity workloads
NAS systems for medium or large-sized businesses
RAID-optimized NAS systems with up to 24 bays[4]



Operate Around the Clock
Designed for 24/7 NAS systems[10].

Grow Your Business
Scalable up to 24 drive bays[4] for medium or large-sized business. CMR technology for broad compatibility[13].

Powerful Performance
7200 RPM speed with up to 512MB cache size. Powered by Toshiba cache technology.

Optimized for RAID Environment
Built-in RV sensors to mitigate rotational vibration. Error Recovery Control technology limits recovery time to help optimize error correction.

Enhanced Reliability
Workload rate up to 300 TB/yr[6,10]. MTTF Up to 1.2 million hours[7].

Capacity for More
Store and access your critical data and important documents with up to 22TB[1] storage capacity.

Peace of Mind
Toshiba Five-year limited warranty[8].

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Capacity[1]	22TB	20TB	18TB
Model Number (Retail Packaging)	HDWG62CXZSTB	HDWG62AXZSTB	HDWG51JXZSTB
Model Number (Bulk)	HDWG62CUZSVB	HDWG62AUZSVB	HDWG51JUZSVB
Basic Specifications			
Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor[2]	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes
RoHS Compatible[3]	Yes	Yes	Yes
Sector Size	512e	512e	512e
Features			
Drive Bays Supported[4]	Up to 24	Up to 24	Up to 24
Rotational Vibration (RV) **Sensors**	Yes	Yes	Yes
Native Command Queuing (NCQ)	Yes	Yes	Yes
Shock Sensor	Yes	Yes	Yes
Toshiba Cache Technology	Yes	Yes	Yes
Ramp Loading Technology	Yes	Yes	Yes
Recording Technology[11]	CMR	CMR	CMR
Performance			
Rotational Speed [RPM]	7,200	7,200	7,200
Max Data Transfer Speed[5] [MB/s Typ.] (Sustained)	281	281	281
Cache Size [MB]	512	512	512
Reliability			
24x7 Operation[10]	Yes	Yes	Yes
Maximum Workload Rate [TB/Year][6]	300	300	300
MTTF [Hours][7]	1,200,000	1,200,000	1,200,000
Unrecoverable Error Rate	1 per 10^{15}	1 per 10^{15}	1 per 10^{14}
Load/Unload Cycles	600,000	600,000	600,000
Limited Warranty [Years][8]	5	5	5
Power Management			
Supply Voltage	5 VDC +10 % / -7 % 12 VDC ±10 %	5 VDC +10 % / -7 % 12 VDC ±10 %	5 VDC +10 % / -7 % 12 VDC ±10 %
Power Consumption (Operating) [W]	8.02	8.02	7.48
Power Consumption (Active Idle) [W]	4.35	4.41	4.14
Environmental			
Temperature (Operating) [°C]	5 to 60 (surface)	5 to 60 (surface)	5 to 60 (surface)
Temperature (Non-Operating) [°C]	-40 to 70	-40 to 70	-40 to 70
Vibration (Operating) [m/s²]	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)
Vibration (Non-Operating) [m/s²]	29.4 {3.0 G} (5 to 500Hz)	29.4 {3.0 G} (5 to 500Hz)	29.4 {3.0 G} (5 to 500Hz)
Shock (Operating) [m/s²]	490 {50 G} (2 ms duration)	490 {50 G} (2 ms duration)	686 {70 G} (2 ms duration)
Shock (Non-Operating) [m/s²]	1,960 {200 G} (2 ms duration)	1,960 {200 G} (2 ms duration)	2,450 {250 G} (2 ms duration)
Acoustics Idle Mode [dB]	20	20	20
Physical			
Height [mm Max.]	26.1	26.1	26.1
Length [mm Max.]	147.0	147.0	147.0
Width [mm Max.]	101.85	101.85	101.85
Weight [g Max.]	720	720	720
Bottom Holes Type[9]	TYPE1	TYPE1	TYPE1

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Capacity[1]	16TB	14TB	12TB
Model Number (Retail Packaging)	HDWG51GXZSTB	HDWG51EXZSTB	HDWG51CXZSTB
Model Number (Bulk)	HDWG51GUZSVB	HDWG51EUZSVB	HDWG51CUZSVB
Basic Specifications			
Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor[2]	3.5-inch	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes	Yes
RoHS Compatible[3]	Yes	Yes	Yes
Sector Size	512e	512e	512e
Features			
Drive Bays Supported[4]	Up to 24	Up to 24	Up to 24
Rotational Vibration (RV) **Sensors**	Yes	Yes	Yes
Native Command Queuing (NCQ)	Yes	Yes	Yes
Shock Sensor	Yes	Yes	Yes
Toshiba Cache Technology	Yes	Yes	Yes
Ramp Loading Technology	Yes	Yes	Yes
Recording Technology[11]	CMR	CMR	CMR
Performance			
Rotational Speed [RPM]	7,200	7,200	7,200
Max Data Transfer Speed[5] [MB/s Typ.] (Sustained)	281	281	281
Cache Size [MB]	512	512	512
Reliability			
24x7 Operation[10]	Yes	Yes	Yes
Maximum Workload Rate [TB/Year][6]	300	300	300
MTTF [Hours][7]	1,200,000	1,200,000	1,200,000
Unrecoverable Error Rate	1 per 10^{14}	1 per 10^{14}	1 per 10^{14}
Load/Unload Cycles	600,000	600,000	600,000
Limited Warranty [Years][8]	5	5	5
Power Management			
Supply Voltage	5 VDC +10 % / -7 % 12 VDC ±10 %	5 VDC +10 % / -7 % 12 VDC ±10 %	5 VDC +10 % / -7 % 12 VDC ±10 %
Power Consumption (Operating) [W]	7.48	7.38	6.85
Power Consumption (Active Idle) [W]	4.14	3.77	3.30
Environmental			
Temperature (Operating) [°C]	5 to 60 (surface)	5 to 60 (surface)	5 to 60 (surface)
Temperature (Non-Operating) [°C]	-40 to 70	-40 to 70	-40 to 70
Vibration (Operating) [m/s²]	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)
Vibration (Non-Operating) [m/s²]	29.4 {3.0 G} (5 to 500Hz)	29.4 {3.0 G} (5 to 500Hz)	29.4 {3.0 G} (5 to 500Hz)
Shock (Operating) [m/s²]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
Shock (Non-Operating) [m/s²]	2,450 {250 G} (2 ms duration)	2,450 {250 G} (2 ms duration)	2,450 {250 G} (2 ms duration)
Acoustics Idle Mode [dB]	20	20	20
Physical			
Height [mm Max.]	26.1	26.1	26.1
Length [mm Max.]	147.0	147.0	147.0
Width [mm Max.]	101.85	101.85	101.85
Weight [g Max.]	720	705	690
Bottom Holes Type[9]	TYPE1	TYPE1	TYPE1

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Capacity[1]	10TB	8TB
Model Number (Retail Packaging)	HDWG71AXZSTB	HDWG780XZSTB
Model Number (Bulk)	HDWG71AUZSVB	HDWG780UZSVB
Basic Specifications		
Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor[2]	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes
RoHS Compatible[3]	Yes	Yes
Sector Size	512e	512e
Features		
Drive Bays Supported[4]	Up to 24	Up to 24
Rotational Vibration (RV) **Sensors**	Yes	Yes
Native Command Queuing (NCQ)	Yes	Yes
Shock Sensor	Yes	Yes
Toshiba Cache Technology	Yes	Yes
Ramp Loading Technology	Yes	Yes
Recording Technology[11]	CMR	CMR
Performance		
Rotational Speed [RPM]	7,200	7,200
Max Data Transfer Speed[5] [MB/s Typ.] (Sustained)	281	281
Cache Size [MB]	512	512
Reliability		
24x7 Operation[10]	Yes	Yes
Maximum Workload Rate [TB/Year][6]	300	300
MTTF [Hours][7]	1,200,000	1,200,000
Unrecoverable Error Rate	1 per 10^{15}	1 per 10^{15}
Load/Unload Cycles	600,000	600,000
Limited Warranty [Years][8]	5	5
Power Management		
Supply Voltage	5 VDC +10 % / -7 % 12 VDC ±10 %	5 VDC +10 % / -7 % 12 VDC ±10 %
Power Consumption (Operating) [W]	9.07	8.19
Power Consumption (Active Idle) [W]	5.74	4.92
Environmental		
Temperature (Operating) [˚C]	5 to 60 (surface)	5 to 60 (surface)
Temperature (Non-Operating) [˚C]	-40 to 70	-40 to 70
Vibration (Operating) [m/s²]	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)
Vibration (Non-Operating) [m/s²]	29.4 {3.0 G} (5 to 500Hz)	29.4 {3.0 G} (5 to 500Hz)
Shock (Operating) [m/s²]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
Shock (Non-Operating) [m/s²]	2,450 {250 G} (2 ms duration)	2,450 {250 G} (2 ms duration)
Acoustics Idle Mode [dB]	34	34
Physical		
Height [mm Max.]	26.1	26.1
Length [mm Max.]	147.0	147.0
Width [mm Max.]	101.85	101.85
Weight [g Max.]	755	730
Bottom Holes Type[9]	TYPE1	TYPE1

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Capacity[1]	6TB	4TB
Model Number (Retail Packaging)	HDWG760XZSTB	HDWG740XZSTD
Model Number (Bulk)	HDWG760UZSVB	HDWG740UZSVD
Basic Specifications		
Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor[2]	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes
RoHS Compatible[3]	Yes	Yes
Sector Size	512e	512e
Features		
Drive Bays Supported[4]	Up to 24	Up to 24
Rotational Vibration (RV) **Sensors**	Yes	Yes
Native Command Queuing (NCQ)	Yes	Yes
Shock Sensor	Yes	Yes
Toshiba Cache Technology	Yes	Yes
Ramp Loading Technology	Yes	Yes
Recording Technology[11]	CMR	CMR
Performance		
Rotational Speed [RPM]	7,200	7,200
Max Data Transfer Speed[5] [MB/s Typ.] (Sustained)	281	281
Cache Size [MB]	512	512
Reliability		
24x7 Operation[10]	Yes	Yes
Maximum Workload Rate [TB/Year][6]	300	300
MTTF [Hours][7]	1,200,000	1,200,000
Unrecoverable Error Rate	1 per 10^{15}	1 per 10^{15}
Load/Unload Cycles	600,000	600,000
Limited Warranty [Years][8]	5	5
Power Management		
Supply Voltage	5 VDC +10 % / -7 % 12 VDC ±10 %	5 VDC +10 % / -7 % 12 VDC ±10 %
Power Consumption (Operating) [W]	7.43	6.75
Power Consumption (Active Idle) [W]	4.14	3.49
Environmental		
Temperature (Operating) [˚C]	5 to 60 (surface)	5 to 60 (surface)
Temperature (Non-Operating) [˚C]	-40 to 70	-40 to 70
Vibration (Operating) [m/s²]	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)	7.35 {0.75 G} (5 to 300 Hz) 2.45 {0.25 G} (300 to 500 Hz)
Vibration (Non-Operating) [m/s²]	29.4 {3.0 G} (5 to 500Hz)	29.4 {3.0 G} (5 to 500Hz)
Shock (Operating) [m/s²]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
Shock (Non-Operating) [m/s²]	2,450 {250 G} (2 ms duration)	2,450 {250 G} (2 ms duration)
Acoustics Idle Mode [dB]	34	34
Physical		
Height [mm Max.]	26.1	26.1
Length [mm Max.]	147.0	147.0
Width [mm Max.]	101.85	101.85
Weight [g Max.]	710	690
Bottom Holes Type[9]	TYPE1	TYPE1

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Toshiba Consumer Internal Hard Drives.

A drive for every storage application.



Image does not represent actual product.

To see our full line of consumer HDD storage products, visit: **storage.toshiba.com/consumer-hdd**

[1] One Gigabyte (1GB) means 10^9 = 1,000,000,000 bytes and One Terabyte (1TB) means 10^{12} = 1,000,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB= 2^{30} = 1,073,741,824 bytes and 1TB = 2^{40} = 1,099,511,627,776 bytes, and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system and other factors. Actual formatted storage capacity may vary.
[2] 2.5-inch and 3.5-inch mean the form factor of HDDs. They do not indicate drive's physical size.
[3] Toshiba Electronic Devices & Storage Corporation defines "RoHS-Compatible" products as products that either (i) contain no more than a maximum concentration value of 0.1% by weight in Homogeneous Materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) and of 0.01% by weight in Homogeneous Materials for cadmium; or (ii) fall within any of the application exemptions set forth in the Annex to the RoHS Directive (Directive 2011/65/EC of the European Parliament and of the Council of 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment). "Homogeneous Material" means a material of uniform composition that cannot be mechanically disjointed (meaning separated, in principle, by mechanical actions such as unscrewing, cutting, crushing, grinding and/or abrasive processes) into different materials. Examples of "Homogeneous Materials" would be individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins and coatings.
[4] As for "Drive Bays Supported", please contact your Solutions Provider because the compatibility with the host device will vary based on the system.
[5] The maximum sustained data rate and interface speed may be restricted to the response speed of host system and by transmission characteristics. Read and write speed may vary depending on the host device, read and write conditions, and file size. Transfer speed varies by capacity.
[6] Annual Workload Rating: HDDs keep track of various drive usage such as power on hours, lifetime writes and lifetime reads from the host computer. With this data we calculate an Annualized Workload Rate, under 40 deg. C ambient environments, Annualized Workload Rate = (Lifetime Writes + Lifetime Reads) * (8760 / Lifetime Power On Hours) in case Power On time is 8760h or longer. Otherwise (i.e. Power On time is shorter than 8760h), Annualized Workload Rate = (Lifetime Writes + Lifetime Reads) Each drive is designed to perform up to the Annualized Workload Rate stated, after which the drive may be expected to decline. The Annualized Workload Rate in no way alters the warranty policy for such drive. Workload is defined as the amount of data written, read or verified by commands from host system.
[7] MTTF (Mean Time to Failure) 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. MTTF (Mean Time to Failure) of the HDDs during its life time is 1.0 million hours and AFR(Annualized Failure Rate) is 0.88% or 1.2 million hours and AFR (Annualized) Failure Rate) is 0.73% . This assumes power-on hours are 24 x 7 in normal usage (8760 h/year power on hours, up to 180TB/year or up to 300TB/year total data transfers, and average HDA surface temperature:40°C or less). Use at case HDA surface temperature above 40°C may degrade product reliability and reduce warranty period.
[8] Standard limited warranty applies. The warranty brochure can be viewed online at http://storage.toshiba.com/consumer-hdd/warranty-info.
[9] Location of bottom mounting hole is different from product. For more information, please see the following page. https://toshiba.semicon-storage.com/us/design-support/faq/storage-holes.html
[10] Drive life may vary depending on usage and workload. See also MTTF and Annual Workload Rating for more detail.
[11] CMR is Conventional Magnetic Recording technology.
[12] Product prices, specifications, configurations, colors, components, features, and availability are subject to change without notice.
[13] Compatibility may vary depending on user's hardware configuration and operating system.

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