

TOSHIBA

Capture The Details.

Designed for business surveillance DVRs and NVRs that operate 24/7, Toshiba S300 Pro Surveillance Hard Drive delivers video-optimized storage that supports up to 64 HD camera streams⁶ and multi-bay video storage systems with up to 24 drive bays⁷.



S300 Pro Surveillance Internal Hard Drive

The S300 Pro is designed for 24/7 operation¹², supporting up to 1.2 million hour MTTF/MTBF¹⁰ and up to 300 TB per year workload⁵ rating, giving you peace of mind knowing that your surveillance stays vigilant.

Record and stream high-definition videos at a fast 7200 RPM speed - the S300 Pro allows you to store more high-quality frames per second. This drive offers a large cache size (up to 512 MB) and fast sustained data transfer speed (up to 281 MB/s)⁴ to help minimize frame loss and improve video playback.

Designed for storage systems with up to 24 drive bays⁷, the S300 Pro has advanced rotational vibration (RV) sensors to help mitigate system-induced vibrations and supports a stable and reliable operation in multi-bay environments.



Image does not represent actual product.

TOSHIBA

S300 Pro Surveillance Internal Hard Drive

Application²

- Surveillance Network Video Recorders (sNVR)
- Surveillance Digital Video Recorders (sDVR)
- Hybrid sDVR (analog and IP)
- RAID Storage Arrays for Surveillance



Product image may represent a design model.



Robust Performance

Workload rate of up to 300 TB/yr^{5,12}. MTTF/MTBF up to 1.2 million hours¹⁰.



Built to Last

Mitigate Rotational Vibration with built-in RV sensors. Designed to work in a wide temperature range.



Optimized Recording & Playback

Fast 7200 RPM speed with large cache size to help reduce frame loss.



High Reliability

Designed for 24/7¹² security systems. CMR recording technology¹⁴ provides consistent performance and broad compatibility.



Massive Capacity

Capture and retain surveillance-critical frame.



Rich Scalability

Support up to 64 HD cameras⁶ and up to 24 drive bays⁷.



Peace of Mind

Toshiba Five-year limited warranty⁹.



Capacity ¹	10TB	8TB
Model Number (Retail packaging)	HDWTA1AUZSVAR	HDWTA80UZSVAR
Model Number (Bulk)	HDWTA1AUZSVA	HDWTA80UZSVA
Basic Specifications		
Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor ¹¹	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes
RoHS Compatible ¹³	Yes	Yes
Sector Size	512e	512e
Features		
Number of Cameras Supported ⁶	Up to 64	Up to 64
Drive Bays Supported ⁷	Up to 24	Up to 24
Rotational Vibration (RV) Sensors	Yes	Yes
Native Command Queuing (NCQ)	Yes	Yes
Shock Sensor	Yes	Yes
Tarnish Resistant	Yes	Yes
Toshiba Cache Technology	Yes	Yes
Recording Technology ¹⁴	CMR	CMR
Performance		
Rotational Speed [RPM]	7,200	7,200
Max Data Transfer Speed ⁴ [MB/s Typ.] (Sustained)	281	281
Cache Size [MB]	512	512
Reliability		
24 x 7 Operation ¹²	Yes	Yes
Maximum Workload Rate [TB/Year] ^{5,12}	300	300
MTTF/MTBF [Hours] ¹⁰	1,200,000	1,200,000
Unrecoverable Error Rate	1 per 10 ¹⁴	1 per 10 ¹⁴
Load/Unload Cycles	600,000	600,000
Limited Warranty ⁹ [Years]	5	5
Power Management		
Supply Voltage	5 VDC +10 / -7 % 12 VDC ±10 %	5 VDC +10 / -7 % 12 VDC ±10 %
Power Consumption (Operating) [W] ¹⁵	9.07	9.07
Power Consumption (Active Idle-A) [W] ¹⁶	5.74	5.74
Environmental		
Temperature (Operating) [°C]	0 to 65 (surface)	0 to 65 (surface)
Temperature (Non-operating) [°C]	-40 to 70	-40 to 70
Vibration (Operating) [m/s ²]	7.35 {0.75G} (5 to 300Hz) 2.45 {0.25G} (300 to 500Hz)	7.35 {0.75G} (5 to 300Hz) 2.45 {0.25G} (300 to 500Hz)
Vibration (Non-Operating) [m/s ²]	29.4 {3.0G} (5 to 500Hz)	29.4 {3.0G} (5 to 500Hz)
Shock (Operating) [m/s ²]	686 {70G} (2 ms duration)	686 {70G} (2 ms duration)
Shock (Non-Operating) [m/s ²]	2,450 {250G} (2 ms duration)	2,450 {250G} (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	755
Bottom Holes Type ⁸	TYPE1	TYPE1

Capacity ¹	6TB	4TB
Model Number (Retail packaging)	HDWTA60UZSVAR	HDWTA40UZSVAR
Model Number (Bulk)	HDWTA60UZSVA	HDWTA40UZSVA
Basic Specifications		
Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor ¹¹	3.5-inch	3.5-inch
Advanced Format (AF)	Yes	Yes
RoHS Compatible ¹³	Yes	Yes
Sector Size	512e	512e
Features		
Number of Cameras Supported ⁶	Up to 64	Up to 64
Drive Bays Supported ⁷	Up to 24	Up to 24
Rotational Vibration (RV) Sensors	Yes	Yes
Native Command Queuing (NCQ)	Yes	Yes
Shock Sensor	Yes	Yes
Tarnish Resistant	Yes	Yes
Toshiba Cache Technology	Yes	Yes
Recording Technology ¹⁴	CMR	CMR
Performance		
Rotational Speed [RPM]	7,200	7,200
Max Data Transfer Speed ⁴ [MB/s Typ.] (Sustained)	281	281
Cache Size [MB]	512	512
Reliability		
24 x 7 Operation ¹²	Yes	Yes
Maximum Workload Rate [TB/Year] ^{5,12}	300	300
MTTF/MTBF [Hours] ¹⁰	1,200,000	1,200,000
Unrecoverable Error Rate	1 per 10 ¹⁴	1 per 10 ¹⁴
Load/Unload Cycles	600,000	600,000
Limited Warranty ⁹ [Years]	5	5
Power Management		
Supply Voltage	5 VDC +10 / -7 % 12 VDC ±10 %	5 VDC +10 / -7 % 12 VDC ±10 %
Power Consumption (Operating) [W] ¹⁵	8.19	7.43
Power Consumption (Active Idle-A) [W] ¹⁶	4.92	4.14
Environmental		
Temperature (Operating) [°C]	0 to 65 (surface)	0 to 65 (surface)
Temperature (Non-operating) [°C]	-40 to 70	-40 to 70
Vibration (Operating) [m/s ²]	7.35 {0.75G} (5 to 300Hz) 2.45 {0.25G} (300 to 500Hz)	7.35 {0.75G} (5 to 300Hz) 2.45 {0.25G} (300 to 500Hz)
Vibration (Non-Operating) [m/s ²]	29.4 {3.0G} (5 to 500Hz)	29.4 {3.0G} (5 to 500Hz)
Shock (Operating) [m/s ²]	686 {70G} (2 ms duration)	686 {70G} (2 ms duration)
Shock (Non-Operating) [m/s ²]	2,450 {250G} (2 ms duration)	2,450 {250G} (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.]	730	710
Bottom Holes Type ⁸	TYPE1	TYPE1

TOSHIBA

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 capacity may vary.

² Compatibility may vary depending on user's hardware configuration, and operating system.

³ Product specifications, configurations, colors, components and features are subject to change without notice.

⁴ 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.

⁵ 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.

⁶ Number of surveillance cameras support capability is defined by performance simulation with High Definition cameras at up to 10Mbps rate, depending on the HDD model. Actual results may vary based on various factors, including the types of cameras installed, the system's hardware and software capabilities, and the video compression technology used, as well as system variables such as resolution, frames per second, and other settings. Compatibility may vary depending on user's hardware configuration and operating system. "High Definition" is calculated assuming Full HD 1080p, 30fps, transfer rate of up to 10Mbps/stream.

⁷ For "Drive Bays Supported", please contact your Solutions Provider because the compatibility with the host device will vary based on the system.

⁸ Location of bottom mounting hole is different from product. For more information, please see the following page.

<https://toshiba.semicon-storage.com/us/storage/support/faq/storage-holes.html>

⁹ Standard limited warranty applies. The warranty brochure can be viewed online at <https://storage.toshiba.com/consumer-hdd/support/warranty-info>.

¹⁰ MTTF (Mean Time to Failure) or MTBF (Mean Time Between 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 or MTBF. MTTF (Mean Time to Failure) or MTBF (Mean Time Between Failure) of the HDDs during its life time is 600,000 hours and AFR (Annualized Failure Rate) is 1.46%, or 1.0 million hours and AFR is 0.88%, or 1.2 million hours and AFR is 0.73%, or 2.5 million hours and AFR is 0.35% (depending on HDD models). 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, or up to 550TB/year total data transfers (depending on HDD models), 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.

¹¹ 2.5-inch and 3.5-inch mean the form factor of HDDs. They do not indicate drive's physical size.

¹² Drive life may vary depending on usage and workload.

¹³ 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.

¹⁴ CMR is Conventional Magnetic Recording technology.

¹⁵ Operating watt is measured using 80 % random read/write and 20 % performance idle.

¹⁶ Idle is active idle.