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Capture The Details

Toshiba S300 Pro Surveillance Internal Hard Drive



Image does not represent actual product.

The Toshiba S300 Pro Surveillance Internal Hard Drives deliver up to 10 TB¹ of storage capacity and support up to 64 high-definition surveillance video cameras⁶ for around-the-clock security.

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.

With a range of available large capacities and 7,200 rpm performance, the S300 Pro offers real-time drive performance that supports high-resolution video recording and streaming and longer content retention periods.

For high reliability and scalability in RAID and multi-disk enclosures, the S300 Pro utilizes RV sensor technology to compensate for the effects of vibration from adjacent drives or cooling fans. Robust cache size helps to support smooth video recording and guard against frame drops.

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.



Rich Scalability

Support up to 64 HD cameras⁶



Massive Capacity

Capture and retain surveillance-critical frame



Peace of Mind

Toshiba five-year limited warranty⁹

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Toshiba S300 Pro Surveillance Internal Hard Drive

Model Number (Bulk) (MOWTABAUZSVA) (MOWTABUSZVA) Moder Number (Bulk) (MOWTABUSZVA) Interace SATA & Cobbit/s SATA & Cobbit/s Form Factor** 3.5 inch 3.5 inch Advanced Form (AF) Yes Yes Rotts Compatible** 19c 19c Features Power of Camera Supported* Up to 54 Up to 64 Drive Bays Supported* Up to 24 Up to 64 Porve Bays Supported* 19c to 7 Yes Native Command Queuing (NCQ) 19c to 7 Yes Reactional Vibration (NO) Sensors 19c to 7 Yes Reaction of Speed (RPM) 7,000 Yes Reactional Speed (RPM) 7,200 Yes Reactional Speed (RPM) 7,200 Yes Maximum Workload Rate (TR)Year)** Yes Yes Maximum Workload Rate (TR)Year)** 19c yes Yes Maximum Workload Rate (TR)Year)** 19c yes 19c yes Maximum Workload Rate (TR)Year)** 19c yes 19c yes Max	Capacity ¹	10TB	<u>8TB</u>	
Part	Model Number (Retail packaging)	HDWTA1AUZSVAR	HDWTA80UZSVAR	
SATA 6.0 Cbit/s	Model Number (Bulk)	HDWTA1AUZSVA	HDWTA80UZSVA	
Form Factors¹¹ 3.5-inch 3.5-inch Advanced Format (AF) Yes Yes SMS Compatible¹² Yes Yes SECTOR Size 512e 512e Features Image: Peatures Number of Cameras Supported⁴ Up to 64 Up to 24 Drive Bays Supported⁴ Up to 24 Up to 24 Rotational Vibration (RV) Sensors Yes Yes Native Command Queuing (RCQ) Yes Yes Shock Sensor Yes Yes Shock Senso		Basic Spec	cifications	
Advanced Format (AF) Yes Yes RoHS Compatible** Yes Yes Sector Size 512e 512e 512e Features** Number of Cameras Supported** Up to 64 Up to 64 Up to 64 Drive Bays Supported** Up to 24 Up to 24 Up to 24 Retatational Vibration (W) Sensors Yes Yes Native Command Queuing (MCQ) Yes Yes Shock Sensor Yes Yes Evertamental Speed (RMS) Yes Yes Recording Technology CMR CMR Evertamental Speed (RMS) Yes Yes Recording Technology	Interface	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	
Rote Sc ompatible** Yes 512e 512e </td <td>Form Factor¹¹</td> <td>3.5-inch</td> <td>3.5-inch</td>	Form Factor ¹¹	3.5-inch	3.5-inch	
Sector Size		Yes	Yes	
	·	Yes	Yes	
	Sector Size	512e	512e	
Prive Bays Supported		Features		
Notational Vibration (RV) Sensors Yes Yes Native Command Queuing (NCQ) Yes Yes Nessors Yes Yes Yes Nessors Yes Yes Yes Nessors Yes Yes Yes Nessors Yes Yes Yes Yes	Number of Cameras Supported ⁶	Up to 64	Up to 64	
Native Command Queuing (NCQ) Yes Yes	Drive Bays Supported ⁷	Up to 24	Up to 24	
Per Per Per Per	Rotational Vibration (RV) Sensors	Yes	Yes	
Ves	• • •	Yes	Yes	
Companies Comp				
Performance	- -			
Rotational Speed (RPM) 7,200 7,200 1,2	Recording Technology	CMR	CMR	
Asa Data Transfer Speed* [MB/S Typ.] [Sustained] 281 512 5		Performance		
Paris Pari		7,200	7,200	
Part		281	281	
Ves	Cache Size [MB]	512	512	
Maximum Workload Rate [TB/Year]***** 300 300 1,200,000		Reliability		
	24 x 7 Operation ¹²	Yes	Yes	
	Maximum Workload Rate [TB/Year] ^{5,12}	300	300	
	ATTF/MTBF [Hours] ¹⁰	1,200,000	1,200,000	
Sample S	Jnrecoverable Error Rate	1 per 10 ¹⁴	1 per 10 ¹⁴	
Power Consumption (Operating) [W] 9.07 8.19 Power Consumption (Active Idle) [W] 9.07 8.19 Power Consumption (Active Idle) [W] 5.74 4.92 Power Consumption (Active Idle) [W] 5.74 4.92 Power Consumption (Active Idle) [W] 5.74 4.92 Power Consumption (Active Idle) [W] 5.74 6.90 Power Consumption (Active Idle) [W] 6.74 6.90 Power Consumption (Active Idle) [W] 7.74 6.90 Power Consumption (Active Idle		600,000	600,000	
SVDC +10 / -7 % 12 VDC +10 VDC +10 % 12 VDC +10 VDC +10 VDC +10 VDC +10 VDC	.imited Warranty ⁹ [Years]	5	5	
Property voltage		Power Management		
Power Consumption (Active Idle) [W] 5.74 4.92 Environmental Emperature (Operating) [*C] 0 to 65 (surface) 0 to 65 (surface) demperature (Non-operating) [*C] -40 to 70 -40 to 70 dibration (Operating) [m/s²] 7.35 (0.756) (5 to 300Hz) 2.45 (0.256) (300 to 500Hz) 2.45 (0.256) (300 to 500Hz) 7.35 (0.756) (5 to 300Hz) 2.45 (0.256) (300 to 500Hz) dibration (Non-Operating) [m/s²] 29.4 (3.06) (5 to 500Hz) 29.4 (3.06) (5 to 500Hz) dibration (Non-Operating) [m/s²] 666 (70G) (2 ms duration) 666 (70G) (2 ms duration) dibration (Non-Operating) [m/s²] 2,450 (250G) (2 ms duration) 2,450 (250G) (2 ms duration) dibration (Non-Operating) [m/s²] 34 34 dibration (Non-Operating) [m/s²] 34 34 dibration (Non-Operating) [m/s²] 34 34 Physical discoustics Idle Mode [dB] 34 34 Physical deight [mm Max.] 26.1 26.1 dength [mm Max.] 147.0 147.0	Supply Voltage	·		
Power Consumption (Active Idle) [W] 5.74 4.92 Environmental Temperature (Operating) [*C] 0 to 65 (surface) 0 to 65 (surface) Temperature (Non-operating) [*C] -40 to 70 -40 to 70 /ibration (Operating) [m/s²] 7.35 (0.756) (5 to 300Hz) 2.45 (0.256) (300 to 500Hz) 2.45 (0.256) (300 to 500Hz) 7.35 (0.756) (5 to 300Hz) 2.45 (0.256) (300 to 500Hz) Shock (Operating) [m/s²] 29.4 (3.06) (5 to 500Hz) 29.4 (3.06) (5 to 500Hz) Shock (Non-Operating) [m/s²] 2,450 (250G) (2 ms duration) 686 {70G) (2 ms duration) Acoustics Idle Mode [dB] 34 34 Height [mm Max.] 26.1 26.1 Height [mm Max.] 147.0 147.0	Power Consumption (Operating) [W]	9.07	8.19	
Femperature (Operating) [*C] 0 to 65 (surface) 0 to 65 (surface) Femperature (Non-operating) [*C] -40 to 70 -40 to 70 Fibration (Operating) [m/s²] 7.35 (0.75G) (5 to 300Hz) 2.45 (0.25G) (300 to 500Hz) 3.45 (0.25G) (300 to 500Hz) 3.45 (0.25G) (2 ms duration) 3.45 (0.25G) (2	Power Consumption (Active Idle) [W]	5.74	4.92	
Femperature (Operating) [*C] 0 to 65 (surface) 0 to 65 (surface) Femperature (Non-operating) [*C] -40 to 70 -40 to 70 Fibration (Operating) [m/s²] 7.35 (0.75G) (5 to 300Hz) 2.45 (0.25G) (300 to 500Hz) 3.45 (0.25G) (300 to 500Hz) 3.45 (0.25G) (2 ms duration) 3.45 (0.25G) (2		Fnyiron	mental	
Femperature (Non-operating) [°C] -40 to 70 -40 to 70 Fibration (Operating) [m/s²] 7.35 {0.756} (5 to 300Hz) 2.45 {0.256} (300 to 500Hz) 3.45 {0.256} (300 to 500Hz) 3.45 {0.256} (300 to 500Hz) 3.45 {0.256} (2 ms duration) 3.45 {0.2	emperature (Operating) [*C]			
Table Tabl	, ., .,			
2.45 (0.25G) (300 to 500Hz)				
Shock (Operating) [m/s²] 686 {70G} (2 ms duration) 686 {70G} (2 ms duration) Shock (Non-Operating) [m/s²] 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		2.45 {0.25G} (300 to 500Hz)	2.45 {0.25G} (300 to 500Hz)	
Shock (Non-Operating) [m/s²] 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				
Acoustics Idle Mode [dB] 34 34 Physical Height [mm Max.] 26.1 26.1 Length [mm Max.] 147.0 147.0	Shock (Operating) [m/s²]			
Height [mm Max.] 26.1 26.1 Length [mm Max.] 147.0 147.0		2,450 {250G} (2 ms duration)	2,450 {250G} (2 ms duration)	
Height [mm Max.] 26.1 26.1 Length [mm Max.] 147.0 147.0	Acoustics Idle Mode [dB]	34	34	
Length [mm Max.] 147.0 147.0		Phys	sical	
•	Height [mm Max.]	26.1	26.1	
Width [mm Max.] 101.85 101.85	Length [mm Max.]	147.0	147.0	
		101.85	101.85	
Weight [g Max.] 755 730 Bottom Holes Type ⁸ TYPE1 TYPE1		755	730	

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Toshiba S300 Pro Surveillance Internal Hard Drive

Capacity ¹	<u>6ТВ</u>	<u>4TB</u>	
Model Number (Retail packaging)	HDWTA60UZSVAR	HDWTA40UZSVAR	
Model Number (Bulk)	HDWTA60UZSVA	HDWTA40UZSVA	
	Basic Spe	cifications	
nterface	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	
Toshiba Cache Technology	Yes	Yes	
Recording Technology	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	
ATTF/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	
.imited 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]	7.43	6.75	
Power Consumption (Active Idle) [W]	4.14	3.49	
	Fnviro	nmental	
Temperature (Operating) [° C]	0 to 65 (surface)	0 to 65 (surface)	
Temperature (Non-operating) [*C]			
remperature (non-operaturg) [C]	-40 to 70	-40 to 70	
/ibration (Operating) [m/s²]	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/s²]	29.4 {3.0G} (5 to 500Hz)	29.4 {3.0G} (5 to 500Hz)	
Shock (Operating) [m/s²]	686 {70G} (2 ms duration)	686 {70G} (2 ms duration)	
Shock (Non-Operating) [m/s²]	2,450 {250G} (2 ms duration)	2,450 {250G} (2 ms duration)	
Acoustics Idle Mode [dB]	34	34	
	Phy	rsical	
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 ⁸	TYPE1	TYPE1	



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 109 = 1,000,000,000 bytes and One Terabyte (1TB) means 1012 = 1,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB= 2^{10} = 1,073,741,824 bytes and 1TB = 2^{10} = 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
- 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 10Mbps rate. 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 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 '
- 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 1.2 million hours and AFR(Annualized Failure Rate) is 0.73%. This assumes power-on hours are 24 x 7 in normal surveillance usage (8760 h/year power on hours, 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.
- 12.5-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.

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