TOSHIBA

DT01ABAxxxV SERIES
VIDEO STREAM HDD



Product image may represent a design model.

KEY FEATURES

- Up to 3 TB of Storage Capacity
- 24/7 operation
- Annual workload rating of 72 TB/year
- 3.5-inch Form Factor
- 5940 / 5700 rpm
- SATA up to 6.0 Gbit/s
- Advanced Format (AF) 512e Sector Length

APPLICATIONS

- Video Editing Systems
- Set-Top-Box (STB)
- Digital Video Recorders (DVR)
- Network Video Recorders (NVR)

SPECIFICATIONS

Item		DT01ABA300V	DT01ABA200V	DT01ABA100V	DT01ABA050V
Interface		Serial ATA 3.0 / ATA-8 (6.0 Gbit/s , 3.0 Gbit/s , 1.5 Gbit/s)			
Formatted Capacity		3 TB	2 TB	1 TB	500 GB
Performance	Interface Speed (Max)	6.0 Gbit/s			
	Rotation Speed	5940 rpm	5700 rpm		
	Average Latency Time	5.06 ms	5.27 ms		
	Buffer Size	32 MiB			
Logical Data Block Length		HOST: 512 B, DISK: 4096 B			
Supply Voltage	Allowable Voltage	12 V ±10 % / 5 V ±5 %			
Power Consumption	Read / Write (Typ.)	5.4 W	4.7 W	5.7 W	
	Low Power idle (Typ.)	4.2 W	3.3 W	3.0 W	
Acoustics (Sound Power)	Idle	24 dB	22 dB	19 dB	
	Seek	25 dB	24 dB	22 dB	

RELIABILITY

Model Number	DT01ABAxxxV
Non-recoverable Error Rate	1 error per 10^{14} bits read
MTBF	1 000 000 hours

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MECHANICAL SPECIFICATIONS

Item	DT01ABA300V	DT01ABA200V	DT01ABA100V	DT01ABA050V
Height (Max)	26.1 mm			
Width	101.6 mm			
Length (Max)	147 mm			
Weight (Max)	680 g		450 g	

ENVIRONMENTAL LIMITS

Item		Specification	
Temperature	Operating	0 °C to 60 °C (No condensation)	
	Non-Operating	- 40 °C to 70 °C (No condensation)	
Humidity	Operating	8 % to 90 % R.H. (No condensation)	
	Non-Operating	5 % to 95 % R.H. (No condensation)	
Shock	Operating	686 m/s^2 { 70 G } (2 ms duration)	
	Non-Operating	2940 m/s^2 { 300 G } (2 ms half size wave)	3430 m/s^2 { 350 G } (2 ms half size wave)
Vibration	Operating	6.57 m/s^2 { 0.67 G } (5 to 500 Hz)	
	Non-Operating	10.2 m/s^2 { 1.04 G } (2 to 200 Hz)	
Altitude	Operating	- 300 m to 3048 m	
	Non-Operating	- 300 m to 12 000 m	

ENVIRONMENTAL FEATURE

Model Number	DT01ABAxxxV
RoHS	Compatible

Definition of capacity: Toshiba defines a megabyte (MB) as 1 000 000 bytes, a gigabyte (GB) as 1 000 000 000 bytes and a terabyte (TB) as 1 000 000 000 000 bytes. 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 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, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

A kibibyte (KiB) means 2^{10}, or 1024 bytes, a mebibyte (MiB) means 2^{20}, or 1 048 576 bytes, and a gibibyte (GiB) means 2^{30}, or 1 073 471 824 bytes.

MTBF (Mean Time Between Failure) of the HDDs during its life time is 1 000 000 hours. Average HDA surface temperature: 40 °C or less. Continual or sustained operation at case HDA surface temperature above 40 °C may degrade product reliability.

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.

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

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

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.

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