

HDD

**> MD03ACAxxxV SERIES
SURVEILLANCE HDD**

> KEY FEATURES

- Up to 4 TB of Data Storage Capacity for high resolution camera feeds
- High-Definition streams
- Rotational Vibration (RV) Sensors for great Scalability and good Performance
- MTTF of 1,000,000 hours
- Suitable for 24x7 Operation
- Large 64 MiB Buffer/Cache for better Streaming Performance



> APPLICATIONS

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

> MAIN SPECIFICATIONS

Model Number		MD03ACA400V	MD03ACA300V	MD03ACA200V
Interface		SATA-2.6 / 3.0 (6.0 Gbit/s , 3.0 Gbit/s , 1.5 Gbit/s)		
Formatted Capacity		4 TB	3 TB	2 TB
Performance	Interface Speed	6.0 Gbit/s Max.		
	Rotation Speed	7,200 rpm		
	Average Latency Time	4.17 ms		
	Buffer Size	64 MiB		
Logical Data Block Length	MD03ACAxxxV	HOST: 512 B, DISK: 512 B		
Supply Voltage	Allowable Voltage	5 V ± 5%		
		12 V ± 5 %		
Power Consumption	Read / Write	11.3 W Typ.		
	Low Power Idle	6.0 W Typ.		
Acoustics (Sound Power)	Idle	31 dB		
	Seek	31 dB		

> RELIABILITY

Model Number	MD03ACAxxxV
MTTF	1,000,000 hours
Non-recoverable Error Rate	1 error per 10 ¹⁴ bits read

> MECHANICAL SPECIFICATIONS

Model Number	MD03ACAxxxV
Height	26.1 mm Max..
Width	101.6 mm
Length	147 mm Max.
Weight	720 g Max.

> ENVIRONMENTAL LIMITS

Item		Specification
Temperature	Operating	0 °C to 70 °C
	Non-Operating	- 40 °C to 70 °C
Humidity	Operating	5 % to 90 % R.H. (No condensation)
	Non-Operating	5 % to 90 % R.H. (No condensation)
Shock	Operating	686 m/s ² {70 G} (2 ms half sine wave)
	Non-Operating	2,940 m/s ² {300 G} (2 ms half sine wave)
Vibration	Operating	7.35 m/s ² { 0.75 G } (5 to 300 Hz) 2.45 m/s ² { 0.25 G } (300 to 500 Hz)
	Non-Operating	49 m/s ² { 5.0 G } (5 to 500 Hz)
Altitude	Operating	- 305 m to +3,048 m
	Non-Operating	- 305 m to +12,192 m

> ENVIRONMENTAL FEATURE

Model Number	MD03ACAxxxV
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 = 2³⁰ = 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 2¹⁰, or 1,024 bytes, a mebibyte (MiB) means 2²⁰, or 1,048,576 bytes, and a gibibyte (GiB) means 2³⁰, or 1,073,471,824 bytes.

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.

Toshiba Semiconductor & Storage Products Company 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.

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

Subject to Change: While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, and availability are all subject to change without notice.

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