TOSHIBA

HDD

MD03ACAxxxV SERIES
SURVEILLANCE HDD

Toshiba's MD03ACA-V series of 7,200 rpm 3.5-inch surveillance HDD deliver up to 4 TB of storage capacity. The robust MD03ACA-V HDD is intended for demanding surveillance environments such as network video recorders (sNVR), surveillance digital video recorders (sDVR) and hybrid SDVRs, delivering 24x7 operation with MTTF (mean time to failure) of 1 million hours. For great reliability and scalability in RAID environments, the MD03ACA-V HDDs uses RV sensors to compensate for rotational vibration. The large capacities and great performance of these HDD's enable storage of high resolution camera feeds, support for long data retention periods as well as support for great number of camera streams.

Product image may represent a design model

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

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		512 B		
Supply Voltage	Allowable Voltage	5 V ± 5 % 12 V ± 5 %		
Power Consumption	Read / Write	11.3 W Max.		
	Low Power Idle	6.0 W Typ.		
Acoustics (Sound Power)	Idle	31 dB		
	Seek	31 dB		

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> RELIABILITY

Model Number	Specification
MTTF	1,000,000 hours
Non-recoverable Error Rate	10 errors per 10^{14} bits read

> MEHANICAL SPECIFICATIONS

Model Number	Specification
Width	26.1 mm Max.
Height	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.
	Non-Operating	5 % to 90 % R.H.
Shock	Operating	686 m/s^2 { 70 G } (2 ms duration)
	Non-Operating	2,940 m/s^2 { 300 G } (2 ms duration)
Vibration	Operating	7.35 m/s^2 { 0.75 G } (5 - 300Hz) 2.45 m/s^2 { 0.25 G } (300 - 500Hz)
	Non-Operating	49 m/s^2 { 5.0 G } (5 - 500Hz)
Altitude	Operating	- 305 m to +3,048 m
	Non-Operating	- 305 m to +12,192 m

Definition of capacity: 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.

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

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

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.

A kibibyte (KiB) means 2^{10}, or 1,024 bytes, a mebibyte (MiB) means 2^{20}, or 1,048,576 bytes, and a gibibyte (GiB) means 2^{30}, or 1,073,741,824 bytes.

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.