

## > MD04ACAxXX SERIES GENERIC DATA STORAGE HDD

The power-efficient 3.5-inch SATA hard disk drive delivers up to 6 TB capacity to store more data. Thanks to the 6.0 Gbit/s interface, the rotational speed of 7,200 rpm, a 128 MiB memory buffer and Native Command Queuing, the MD04ACA series reaches a deserving level of performance and offer the suitable mix of reliability, capacity and speed for desktop PC and external storage.

### HDD



### > KEY FEATURES

- Up to 6 TB Capacity
- 7,200 RPM
- SATA Interface with 6.0 Gbit/s
- 128 MiB Buffer

### > APPLICATIONS

- Desktop PC
- External Storage

### > MAIN SPECIFICATIONS

Model Number		MD04ACA600	MD04ACA50D	MD04ACA500	MD04ACA400 MD04ACA400N	MD04ACA300 MD04ACA300N	MD04ACA200 MD04ACA200N
Interface		Serial ATA 3.0 / ATA 8					
Formatted Capacity		6 TB	5 TB		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	128 MiB					
Logical Data Block Length (HOST)	MD04ACAxXX	512 B (emulation)					
	MD04ACAxXXN	512 B (fixed length)					
Logical Data Block Length (DISK)	MD04ACAxXX	4,096 B					
	MD04ACAxXXN	512 B (fixed length)					
Supply Voltage	Allowable Voltage	5 V ± 5 % 12 V ± 5 %					
	Read / Write	11.3 W Typ.					
Power Consumption	Low Power Idle	6.0 W Typ.					
	Acoustics (Sound Power)	Idle	34 dB		31 dB		
Seek		35 dB		34 dB			

### > MECHANICAL SPECIFICATIONS

Model Number	MD04ACA600	MD04ACA50D	MD04ACA500	MD04ACA400 MD04ACA400N	MD04ACA300 MD04ACA300N	MD04ACA200 MD04ACA200N
Height	26.1 mm Max.					
Width	101.6 mm ± 0.25mm					
Length	147 mm Max.					
Weight	770 g Max.			720 g Max		

## ➤ ENVIRONMENTAL LIMITS

Item		Specification
Temperature	Operating	5 °C to 55 °C
	Non-Operating	- 40 °C to 70 °C
Humidity	Operating	5 to 90 % R.H. (No condensation)
	Non-Operating	5 to 95 % R.H. (No condensation)
Shock	Operating	686 m/s <sup>2</sup> {70 G} (2 ms duration)
	Non-Operating	2,940 m/s <sup>2</sup> {300 G} (2 ms duration)
Vibration	Operating	7.35 m/s <sup>2</sup> { 0.75 G } (5 to 300 Hz)
	Non-Operating	49 m/s <sup>2</sup> { 5.0 G } (5 to 500 Hz)
Altitude	Operating	- 305 to +3,048 m
	Non-Operating	- 305 to +12,192 m

## ➤ RELIABILITY

Model Number	MD04ACAxxx MD04ACAxxxN
Non-recoverable Error Rate	1 error per 10 <sup>14</sup> bits read

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.

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.

Toshiba Semiconductor & Storage Products Company defines halogen-free and antimony-free SSD and HDD products as those meeting all of the following requirements: (a) containing bromine (Br) and chlorine (Cl) at no more than 900 parts per million (ppm) by weight for each element, and containing bromine and chlorine in an aggregate amount not exceeding 1500 ppm by weight; and (b) containing no more than 1000 ppm antimony (Sb) by weight. For the avoidance of doubt, Halogen-Free/Antimony-Free SSD or HDD products may not be entirely free of bromine, chlorine, or antimony, and may contain other element of the halogen family.

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.