

**HDD**

> **MG04ACAxxxN SERIES**  
**ENTERPRISE CAPACITY HDD**

> **KEY FEATURES**

- Large Capacity (4 / 2 TB Models) in an industry standard 3.5-inch Form-Factor
- 7,200rpm Performance
- SATA 6Gbit/s Interface
- Designed for 24 x 7 workloads of up to 550 total TB Transferred per Year
- 512 Native Sector Technology
- Rotational Vibration Technology
- Sanitize Instant Erase (SIE) Option Available



> **APPLICATIONS**

- Engineered for Mid-line / Nearline Business Critical Workloads
- Tier 2 and Business-Critical Servers and Storage Systems
- Servers Supporting Workloads that Benefit from High Capacity per Spindle
- Capacity-Optimized Data Center Storage Systems
- Applications and hypervisors that require 512 Native Sector Technology

> **MAIN SPECIFICATIONS**

Model Number		MG04ACA400N	MG04ACA200N
Interface		SATA-2.6 / 3.0 ( 6.0 Gbit/s , 3.0 Gbit/s , 1.5 Gbit/s )	
Formatted Capacity		4 TB	2 TB
Performance	Interface Speed	6.0 Gbit/s Max.	
	Rotation Speed	7,200 rpm ±0.1 %	
	Average Latency Time	4.17 ms	
	Buffer Size	128 MiB	
	Data Transfer Speed (Sustained)	195 MiB/s	
Logical Data Block Length	HOST	512 / 520 / 528 B	
	DISK	512 / 520 / 528 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.	

> **MECHANICAL SPECIFICATIONS**

Model Number	MG04ACAxxx
MTTF	1,400,000 hours
Non-recoverable Error Rate	10 errors per 10 <sup>16</sup> bits read
24 x 7 Operation	Yes
Workloads	550 TB/y

## > RELIABILITY

Model Number	MG04ACA400N	MG04ACA200N
Height	26.1 mm Max.	
Width	101.85 mm Max.	
Length	147 mm Max.	
Weight	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 ) 2.45 m/s <sup>2</sup> { 0.25 G } ( 300 to 500 Hz )
	Non-Operating	49 m/s <sup>2</sup> { 5.0 G } ( 5 to 500 Hz )
Altitude	Operating	-305 m to +3,048 m { -1,000 to +10,000 feet }
	Non-Operating	-305 m to +12,192 m { -1,000 to +40,000 feet }

## > ENVIRONMENTAL FEATURE

Model Number	MG04ACAxxx
RoHS	Compatible

Product image may represent a design model.

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<sup>30</sup> = 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<sup>10</sup>, or 1,024 bytes, a mebibyte (MiB) means 2<sup>20</sup>, or 1,048,576 bytes, and a gibibyte (GiB) means 2<sup>30</sup>, 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 Storage & Electronic Devices Solutions 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 disjoined (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.

Energy Consumption Efficiency: Energy consumption efficiency is calculated based on power consumption divided by formatted capacity, as defined by Japanese law.