TOSHIBA
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End of Sales

HDD

MC04ACAxxxE SERIES
ENTERPRISE CLOUD HDD

Product image may represent a design model.

KEY FEATURES

- Industry Standard 3.5inch 26.1mm Height Form-Factor
- Large-Capacity (5 / 4 / 3 TB Models)
- 7,200rpm Performance
- SATA 6.0 Gbit/s Interface
- 180 Total TB Transferred per Year Workload Rating
- 512e Advanced Format Sector Technology

APPLICATIONS

- Tier 3 Servers and Storage Systems
- Servers Application Workloads that Benefit from Large Capacity per Spindle
- Replicated Data Storage Environments

MAIN SPECIFICATIONS

Model Number		MC04ACA500E	MC04ACA400E	MC04ACA300E	MC04ACA200E
Interface		SATA-2.6/ 3.0 (6.0 Gbit/s , 3.0 Gbit/s , 1.5 Gbit/s)			
Formatted Capacity		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)		512 B			
Logical Data Block Length (DISK)		4,096 B			
Supply Voltage	Allowable Voltage	5 V ± 5 % 12 V ± 5 %			
Power Consumption	Read / Write	11.3 W			
	Idle	6.0 W Typ.			

RELIABILITY

Model Number	MC04ACAxxxE
MTTF	800,000 hours
Non-recoverable Error Rate	10 errors per 10^{15} bits read

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MECHANICAL SPECIFICATIONS

Model Number	MC04ACAxxxE
Height	26.1 mm Max.
Width	101.6 mm ± 0.25 mm
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^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 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 { -1,000 to +10,000 feet }
	Non-Operating	-305 m to +12,192 m { -1,000 to +40,000 feet }

ENVIRONMENTAL FEATURE

Model Number	MC04ACAxxxE
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 1,024 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.

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.

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