TOSHIBA

High storage capacity and reliability for Cloud and on-premise data centers

Enterprise Capacity HDDs are perfect in situations such as cloud data centers, which have to manage a massive volume of data. The MG Series includes the world's first nine disks* storage device, and offers up to 16TB of conventional magnetic recording capacity. Helium-sealed models also achieve higher storage recording density and significantly lower power consumption by reducing aero-dynamic resistance.

*Source:Toshiba Electronic Devices & Storage Corporation, as of December, 2017 for the 3.5-inch, 26.1mm high.

Enterprise Capacity
Hard Disk Drive

MG Series

A choice of SATA or SAS models up to 16TB

The lineup includes products with a wide range of uses such as large-scale cloud data centers and more conventional server/storage systems. The highest capacity models help contribute to reduced TCO and a lower cost per unit of storage capacity.

Durability and reliability

With an annual workload of 550TB and a maximum MTTF of 2.5 million hours, this series is designed for business critical workloads that require consistent 24/365 performance with high reliability.

Toshiba's Persistent Write Cache technology

Helps to enhances write performance between the host and the drive, and also helps to prevents data loss in the event of a sudden loss of power (512e models).

Enterprise Capacity Hard Disk Drive

Application

- Cloud-scale Storage Infrastructure
- Software-defined data center infrastructure
- File and Object-based storage infrastructure
- Mid-line / Nearline Business Critical Workloads
- Tier 2 Business-Critical Servers and Storage Systems

Specifications

Formatted Capacity			**16**TB	**14**TB	**12**TB	**10**TB	**8**TB	**6**TB	**4**TB	**2**TB	**1**TB
Model Number	SATA	4Kn	MG08ACA16TA	MG07ACA14TA	MG07ACA12TA	MG06ACA10TA	MG06ACA800A	MG06ACA600A	MG04ACA400A	MG04ACA200A	-
		512e	MG08ACA16TE	MG07ACA14TE	MG07ACA12TE	MG06ACA10TE	MG06ACA800E	MG06ACA600E	MG04ACA400E	MG04ACA200E	-
		512n	-	-	-	-	-	-	MG04ACA400N	MG04ACA200N	MG04ACA100N
	SAS	4Kn	MG08SCA16TA	MG07SCA14TA	MG07SCA12TA	MG06SCA10TA	MG06SCA800A	MG06SCA600A	MG04SCA40EA	MG04SCA20EA	-
		512e	MG08SCA16TE	MG07SCA14TE	MG07SCA12TE	MG06SCA10TE	MG06SCA800E	MG06SCA600E	MG04SCA40EE	MG04SCA20EE	-
		512n	-	-	-	-	-	-	MG04SCA40EN	MG04SCA20EN	-

Specification					
Mechanical Design	Helium-Sealed		Conventional Air		
Form Factor	3.5-inch (Height:26.1 mm, Length: 147.0 mm, Wide:101.85 mm)				
Maximum Weight	720 g		770 g		720 g
Interface	SATA : 6.0 Gbit/s SAS : 12.0 Gbit/s				
Rotation Speed	7,200 rpm				
Buffer Size	512 MiB	256 MiB			128 MiB

Reliability		
MTTF	2,500,000 hours	1,400,000 hours
Workload Rating	550 Total TB Transferred per Year	

Environmental Requirements				
Temperature	Operating	5 °C to 55 °C		
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	29.4 m/s^2 { 3.0 G } (5 to 500 Hz)		49 m/s^2 { 5 G } (5 to 500 Hz)
Shock	Non-Operating	2,450 m/s^2 { 250 G } (2 ms duration)		2,940 m/s^2 { 300 G } (2 ms duration)
Acoustic	Idle	20 dB	34 dB	31 dB

• Definition of capacity: A terabyte (TB) is 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1TB = 2^{40} = 1,099,511,627,776 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 and/or pre-installed software applications, or media content. Actual formatted capacity may vary. • A mebibyte (MiB) means 2^{20}, or 1,048,576 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. • Read and write speed may vary depending on the host device, read and write conditions, and file size. • "3.5-inch" means the form factor of HDDs. They do not indicate drive's physical size. • Workload is a measure of the data throughput of the year, and it is defined as the amount of data written, read or verified by commands from the host system.

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

Toshiba Electronic Devices & Storage Corporation

https://toshiba.semicon-storage.com

HDD-MGENA