

HDD



> AL13SEB SERIES ENTERPRISE PERFORMANCE HDD

The AL13SEB Enterprise Performance 10k HDD models combine the performance of 10,500rpm spindle speed with capacities up to 900 GB in a compact, power efficient 2.5-inch form factor. The AL13SEB Series is engineered for mission critical IT operations. The AL13SEBxxxN supports 6.0 Gbit/s SAS and provides 512 B per sector native format required for legacy applications and operating environments while delivering sustained transfer rates reaching 195 MB/s. In addition, AL series helps to reduce operating costs by lower access time and power savings compared with Toshiba legacy 3.5-inch Enterprise Performance HDD models (MAW3xxxNx).

> KEY FEATURES

- Industry Standard 2.5-inch 15mm Height Form Factor
- 900 GB, 600 GB, 450 GB and 300 GB Capacity Models
- Rotational Speed of 10,500 rpm
- Dual-Port 6.0 Gbit/s SAS Interface
- MTTF of 2,000,000 hours
- 24/7 Mission Critical Workload Performance and Data Reliability
- RoHS Compatible, Halogen Free and Antimony Free

> APPLICATIONS

- Mid-Range Volume Servers
- Mainstream Storage Arrays
- Blade and Rack mount Servers
- Mission-Critical Systems

> SPECIFICATIONS

Model Number		AL13SEB900	AL13SEB600	AL13SEB450	AL13SEB300
Interface		SAS-2.0 (6.0 Gbit/s , 3.0 Gbit/s , 1.5 Gbit/s)			
Formatted Capacity		900 GB	600 GB	450 GB	300 GB
Performance	Interface Speed	6.0 Gbit/s Max.			
	Rotation Speed	10,500 rpm			
	Average Latency Time	2.86 ms			
	Buffer Size	64 MiB			
Logical Data Block Length		512 to 528 B			
Supply Voltage	Allowable Voltage	5 V ± 5 % 12 V ± 5 %			
Power Consumption	Low Power Idle	3.9 W Typ.			

> RELIABILITY

Model Number	Specification
MTTF	2,000,000 hours
Non-recoverable Error Rate	10 errors per 10 ¹⁷ bits read

> MECHANICAL SPECIFICATIONS

Model Number	Specification
Width	15.0 ± 0.5 mm Max.
Height	69.85 ± 0.25 mm Max.
Length	100.45 mm Max.
Weight	240 g Max.

> ENVIRONMENTAL LIMITS

Item	Specification	
Temperature	Operating	5 °C to 55 °C
	Non-Operating	- 40 °C to 70 °C
Humidity	Operating	5 % to 95 % R.H.
	Non-Operating	5 % to 95 % R.H.
Shock	Operating	980 m/s ² { 100 G } (1 ms duration)
	Non-Operating	3,920 m/s ² { 400 G } (2 ms duration)
Vibration	Operating	9.8 m/s ² { 1.0 G } (20 - 300Hz)
	Non-Operating	49 m/s ² { 5.0 G } (20 - 300Hz)
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 = 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.

"2.5-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 2¹⁰, or 1,024 bytes, a mebibyte (MiB) means 2²⁰, or 1,048,576 bytes, and a gibibyte (GiB) means 2³⁰, 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.