

**Toshiba Announces CMR 24TB and SMR 28TB Hard Disk Drives**

*- Mx11 family for hyperscalers and data centers -*

**TAIPEI – Taiwan, September 10, 2024** - Toshiba Electronic Components Taiwan Corporation (Toshiba) announces the Mx11 family of helium-sealed high-capacity HDDs. The Mx11 family includes the MG11 Series, which provides capacities of up to 24TB<sup>[1]</sup> using conventional magnetic recording (CMR), and the MA11 Series which offers up to 28TB capacities with shingled magnetic recording (SMR).

The new Mx11 family is designed to deliver new levels of density and power efficiency to customers tasked with controlling (or managing) operational costs while meeting the relentless demands of data growth. Built on a common architecture, both products feature a 10-disk, helium-sealed, standard 3.5-inch<sup>[2]</sup> 7,200rpm design that leverages Toshiba's innovative flux control microwave assisted magnetic recording (FC-MAMR™) technology. Engineered for higher performance and 24/7 reliability, the Mx11 family is designed with a 1GiB<sup>[3]</sup> buffer, a workload<sup>[4]</sup> rating of 550TB per year, an MTTF/MTBF<sup>[5]</sup> of 2.5 million hours, and an AFR of 0.35%.



The MG11 CMR HDD Series enables cloud, data center, and enterprise storage customers to rapidly scale storage density within existing infrastructure. Built with a 1GiB buffer, the new 24TB HDD is faster<sup>[6]</sup> than its predecessor, with an approximately 9% faster maximum sustained transfer speed of 295MiB/s<sup>[7]</sup>. With a choice of 6Gbps SATA or 12Gbps SAS interfaces, the MG11 Series fits seamlessly into any data center to support data storage, online backup and archive, and video surveillance applications.

In addition to 24TB, the MG11 Series is available in 22TB, 20TB, 18TB, 16TB and 14TB capacities with sanitize instant erase (SIE) and self-encrypting drive (SED) options for enhanced security<sup>[8]</sup>.

The MA11 Series achieves 2.8TB per disk using SMR technology. The MA11 Series host-managed SMR increases drive capacity by overlapping the physical tracks on the disk during write operations. Data centers with software that can optimize the MA11 Series host-managed SMR design will benefit from improved cost efficiencies through higher storage densities. The new MA11 Series is available in 28TB and 27TB capacities with a 6Gbps SATA interface and with SED options for enhanced security.

“Backed by 50 years of continuous HDD innovation, the MX11 series delivers new levels of capacity and total cost of ownership (TCO) efficiency enabling customers to optimize operational costs while expanding their data center infrastructure” said Noriaki Katakura, Division President, Storage Products Division, Toshiba Electronics Components Taiwan Corporation.

Sample shipments of the MG11 Series will start this month, and the MA11 Series in the fourth calendar quarter of this year.

For more information on the new products, please visit:

<https://toshiba.semicon-storage.com/ap-en/storage/product/data-center-enterprise/cloud-scale-capacity/articles/mg11-series.html>

For more information on Toshiba’s full line of HDD storage products, please visit:

<https://www.toshiba-storage.asia/>

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<sup>[1]</sup> Definition of capacity: One terabyte (TB) = one trillion bytes, but actually available storage capacity may vary, depending on operating environment and formatting. 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.

<sup>[2]</sup> "3.5-inch" mean the form factor of HDDs. They do not indicate drive's physical size.

<sup>[3]</sup> A gibibyte (GiB) is 230, or 1,073,741,824 bytes, A mebibyte (MiB) is 220, or 1,048,576 bytes.

<sup>[4]</sup> Workload is a measure of data throughput in a year, and it is defined as the amount of data written, read or verified by commands from the host system.

<sup>[5]</sup> MTTF/MTBF (mean time to failure/mean time between failure) is not a guarantee or estimate of the product life; rather it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. The actual product life of the product may vary.

<sup>[6]</sup> Comparison between the SATA interface 512e model "MG11ACA24TE" and the previous generation "MG10AFA22TE."

<sup>[7]</sup> Read and write speeds may vary depending on the host device, read and write conditions, and file size.

<sup>[8]</sup> The HDDs which have any optional security function may not be available in the countries where the use of such HDDs is prohibited or limited due to export control and local regulations.

\* Information in this document, including product prices and specifications, content of services and contact information, is current and believed to be accurate as of the date of the announcement, but is subject to change without prior notice.

\* FC-MAMR™ is a trademark of Toshiba Devices & Storage Corporation.

\* Other company names, product names, and service names may be trademarks of their respective companies.

### **About Toshiba Electronic Components Taiwan Corporation (TET)**

Toshiba Electronic Components Taiwan Corporation is responsible for the sales and marketing promotion and support of Toshiba hard disk drives and Toshiba External HDDs in Taiwan, China and Southeast Asian countries. TET is the best partner to Enterprise server, storage and notebook computers, and its mission is to offer the best service and products embodying the highest quality and most leading-edge technology. For more information, visit us at:

<http://toshiba.semicon-storage.com/ap-en/product/storage-products.html>

### **About Toshiba Electronics Asia (Singapore)**

Toshiba Electronics Asia (Singapore) ("TEA") is under Toshiba Electronic Devices & Storage Corporation, a subsidiary of Toshiba Corporation. TEA was founded in 1990, and is responsible for the sales, marketing and services for Toshiba's wide range of storage solutions in Asia Pacific, which includes the Canvio Portable External Hard Drives and Internal Hard Drives. TEA is the best partner to consumers and enterprises, and its mission is to offer the best services and products that embody the highest quality and cutting-edge technology. To find out more about TEA, visit:

<https://toshiba.semicon-storage.com/ap-en/storage.html>

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