

Toshiba Electronic Devices & Storage Corporation Launches World's First
14TB HDD with Conventional Magnetic Recording

The 14TB models use an innovative 9-disk, helium-sealed design to deliver massive capacity that fits into standard 3.5 inch SATA drive bays.

Düsseldorf, Germany, 08. December 2017 - Toshiba Electronics Europe GmbH announces the launch of the MG07ACA Series, the world's first^[1] enterprise 14TB^[2] Conventional Magnetic Recording (CMR) HDD. Using a 9-disk, helium-sealed design, the new MG07ACA Series provides the power-efficient capacity and storage density needed by cloud-scale and enterprise storage solution providers to achieve their TCO objectives.

"We have raised the bar with the new MG07ACA Series 9-disk helium-sealed design," said Akitoshi Iwata, Vice President of Storage Products Division, Toshiba Electronic Devices and Storage Corporation. "By utilising an innovative design, we continue to improve the benefits that high-capacity disk storage can deliver to our broad global customer base."

The MG07ACA Series features both 14TB 9-disk and 12TB 8-disk models. The helium-sealed 3.5-inch^[3] mechanical design realises better storage density and a lower HDD operating power profile than the previous MG06ACA Series for optimal TCO in cloud-scale



infrastructures. The MG07 Series also utilises Toshiba Group's laser welding technology to ensure the helium remains securely sealed inside the drive enclosure. The drives support a SATA 6Gbit/s interface and 7,200rpm access performance. The 9-disk 14TB models achieve a 40% increase in maximum capacity over previous MG06ACA 10TB models. Additionally, the 14TB models improve power efficiency by over 50% (W/GB)^[4].

"Toshiba Electronic Devices & Storage's first helium-sealed nearline drive intercepts the market at a class-leading 14TB capacity with CMR," said John Chen, industry analyst at Trend Focus. "Its early time-to-market for this capacity positions the company well to meet the storage needs of large hyperscale and cloud companies. Additionally, the company's choice of a 9-disk platform paves the way to achieving higher capacities in future product generations."

"While enterprise server and storage customers realise that shingled magnetic recording (SMR) technology can improve HDD capacity, the adoption of SMR HDD products into server and storage systems is a transition that will take several years," according to John Rydning, Research Vice President for hard disk drives at IDC. "Toshiba Electronic Devices & Storage's new helium-sealed enterprise HDD is the world's first 14TB of storage capacity using conventional rather than shingled magnetic recording technology, giving enterprise customers the highest capacity HDD available in the market today for existing server and storage system architectures."

The sequential sample delivery of MG07ACA Series drives to customers began today^[5]. For more information on our full line of HDD storage products, please visit: https://toshiba.semicon-storage.com/eu/product.html.

Notes:

- [1] Source: Toshiba Electronic Devices & Storage Corporation, as of December 8, 2017.
- [2] Definition of capacity: A terabyte (TB) is 1,000,000,000,000,000 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.
- [3] Form Factor: "3.5-inch" means the form factor of HDDs. They do not indicate drive's physical size.
- [4] Power efficiency is calculated based on active idle power consumption divided by formatted capacity.
- [5] The samples are for functional evaluation. Final specifications may be different.
- * Information in this document, including product prices and specifications, content of services and contact information, is current and believed to be accurate on the date of the announcement but is subject to change without prior notice.
- * Company names, product names, and service names mentioned herein may be trademarks of their respective companies.



About Toshiba Electronics Europe

Toshiba Electronics Europe GmbH (TEE) is the European electronic components business of Toshiba Electronic Devices and Storage Corporation. TEE offers European consumers and businesses a wide variety of innovative hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

Formed in 1973 in Neuss, Germany, TEE has headquarters in Düsseldorf, Germany, with branch offices in Germany, France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Akira Morinaga.

For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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