Toshiba launches S300 AI surveillance HDD for AI-driven video applications

The new high-capacity, high-performance storage is purpose-built for the demands of modern AI-enabled surveillance systems

Düsseldorf, Germany, 4th November 2025 – Toshiba Electronics Europe GmbH (Toshiba) has introduced the S300 AI, a new generation of surveillance hard disk drives (HDDs) engineered for the requirements of modern artificial intelligence (AI) driven video applications. Purpose-built for high-resolution video capture, analysis, and storage, the S300 AI delivers higher capacities, enhanced performance, and enterprise-grade durability to meet the demands of AI surveillance workloads.

Available in capacities from 8 TB[1] to 24 TB, the S300 AI supports large-scale, continuous recording and retention for AI video analytics servers and storage, centralised surveillance data storage systems, video archive and recovery infrastructure, and multi-bay Redundant Array of Independent Disks (RAID) setups. This combination of scale, speed, and endurance makes it an effective solution for storing and processing the vast volumes of video and analytical data generated by AI-enabled surveillance systems.

“The surveillance market is rapidly evolving, with AI analytics driving new requirements for storage performance, capacity, and reliability,” said Larry Martinez-Palomo, Vice President and Head of the Storage Products Division, at Toshiba Electronics Europe GmbH. “With the S300 AI, Toshiba continues to expand and tailor its HDD range to meet

these demands — delivering higher capacities, enhanced performance, and enterprise-grade durability purpose-built for AI workloads."

Optimised performance for AI workloads
The S300 AI is tuned to handle the additional random access introduced by AI workloads, ensuring rapid video data retrieval for precise real-time AI analytics and insights.

High scalability for modern surveillance
The S300 AI supports up to 64 high-resolution camera streams[2] and up to an additional 32 AI streams, enabling easy scaling to meet evolving AI-driven surveillance requirements. Its large capacities and optimised design make it a fitting choice for continuous recording across a wide range of commercial and infrastructure sectors, including transportation, manufacturing, smart city projects, healthcare and nursing care, finance, and logistics.

Enterprise-grade reliability
With an annual workload rating of 550 TB[3] and a mean time to failure (MTTF) of up to 2.5 million hours[4], the S300 AI is built to operate 24/7 in mission-critical environments. Furthermore, Toshiba backs the hard disk drives with a 5-year limited warranty, underscoring their durability and their suitability for the most demanding surveillance applications.

The 8 TB and 10 TB capacities of the S300 AI will be available starting this month, with 14 TB, 16 TB, 18 TB, 20 TB, 22 TB, and 24 TB capacities following in Q1 2026[5].

More information on the S300 AI can be found at: https://www.toshiba-storage.com/products/s300ai-surveillance-hard-drive/.

[1]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 two 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.
[2] Number of surveillance cameras support capability is defined by performance simulation with high-definition cameras at 10Mbit/s rate. Actual results may vary based on various factors, including the types of cameras installed, the system's hardware and software capabilities, the video compression technology used, and system variables such as resolution, frames per second, and other settings.
[3]Workload is a measure of the data throughout of the year, and it is defined as the amount of data written, read or verified by commands from the host system.
[4]MTTF/MTBF (Mean Time to Failure/Mean Time Between Failures) 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. The actual operating life of the product may be different from the MTTF/MTBF.
[5] This sample may differ in specifications from the mass-produced version.

* 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.
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About Toshiba Electronics Europe

Toshiba Electronics Europe GmbH (TEE) offers European consumers and businesses a wide variety of hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. Next to HDDs, the company's broad portfolio encompasses power semiconductors and other discrete devices ranging from diodes to logic ICs, optical semiconductors as well as microcontrollers and application specific standard products (ASSPs) amongst others. In addition, TEE offers SCiB™ battery cells and modules with lithium titanium oxide (LTO) for heavy-duty applications.

TEE has its headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing marketing, sales and logistics services.

Visit Toshiba's websites at www.toshiba-storage.com, www.toshiba.semicon-storage.com and www.scib.jp/en for further company and product information.

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