
# Toshiba expands low-voltage single-gate logic device lineup with 21 new XSON6 packaged products

Single-supply design simplifies board layout in voltage-level translation applications

**Düsseldorf, Germany, 20th November 2025** – Toshiba Electronics Europe GmbH ("Toshiba") expands its 7UL series of low-voltage, single-gate logic ICs with the introduction of 21 new devices housed in the industry-standard XSON6 package. The 7UL series lineup, which now comprises 85 products in total, includes 12 new products in the 7UL1G series and 9 products in the 7UL1T series.

The rapid advancement of artificial intelligence (AI) technology has accelerated the expansion of data centers and the rise of edge AI applications. As high-performance graphics processing units (GPUs) and large-capacity memory become more prevalent, the demand for efficient, multi-power systems with tailored power supply voltages has surged. However, these systems face the critical issue of ensuring signal compatibility across varying voltage levels.

The 7UL series addresses these issues with optimised power delivery while maintaining seamless communication between components operating at different voltages. The small, leadless XSON6 package, which measures 1.45mm x 1.0mm (typ.), allows implementation in space-constrained environments. This contributes to reduced PCB mounting area and supports high-density mounting, addressing the miniaturization demands for mobile devices and IoT applications. These devices include smartphones, sensors, drones, surveillance cameras, and IoT devices.

The 7UL1G series operates with a power supply of 0.9V to 3.6V and features a 3.6V tolerant function on the input terminal. This allows a single device to perform logic conversion and voltage translation to 0.9V for input signals ranging from 0.9V to 3.6V, even when used with a 0.9V power supply.

The 7UL1T series operates with a power supply of 2.3V to 3.6V and sets the input threshold to 50% or less of the supply voltage. This ensures that even low input voltages are reliably recognised as 'high', which is important for correctly transmitting low-voltage signals such as 1.8V to 3.3V logic systems. With this feature, when used with a 3.3V power supply, a single device can perform both logic conversion for input signals ranging from 1.8V to 3.6V and voltage translation to 3.3V.

Toshiba will continue to expand its lineup of low-voltage logic ICs to meet the evolving needs of system design and contribute to energy efficiency, helping to realise a more sustainable society.

Follow the link here for more on the new product.

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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.semicon-storage.com and www.scib.jp/en for further company and product information.

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**November 2025 Ref. 7653(A)E**