

## **Exhibitions**

## Experience the future of embedded solutions with TDK at embedded world 2025

- Technologies ranging from sensor solutions, power supplies and embedded motor controllers to flash storage, microphones, and positioning software solutions
- TDK is represented from March 11 to 13 in Nuremberg, Germany, at booth 430 in hall 1

February 20, 2025

TDK Corporation (TSE 6762) is set to present its latest technological advancements at embedded world 2025, scheduled from March 11 to 13 in Nuremberg, Germany. Visitors are invited to discover TDK's extensive array of embedded solutions at booth 430 in hall 1. Experts from product marketing, R&D, and sales will be available to discuss the latest innovations.

Technology highlights include:

**Sensor solutions:** Sensing solutions for a variety of applications across IoT, wearables, hearables, AR/VR, smart home, and accessibility technology.

- Analog & digital MEMS microphones
  - Showcasing audio capture, acoustic activity detection, and spoken keyword detection.
- TMR & MEMS sensor fusion:
  - Tracking everything every time, an absolute orientation detection for accurate heading and navigation, using on-chip system-level sensor fusion of 6-axis IMU (Inertial Measurement Unit) and 3-axis magnetometer.
- WeWALK Smart Cane 2
  - Multi-award-winning cane, featuring TDK's microphone sensors, ultrasonic sensors, and motion sensors, to enhance accessibility for individuals with visual impairments, all while maintaining an ergonomic design.
- Ultrasonic Time-of-Flight sensor for energy harvesting solutions
  - Thanks to its presence detection capabilities, the ultrasonic ToF sensor accurately detects hand movements and wakes up an IoT module powered by solar cells and TDK CeraCharge batteries. Power management and sensor interface is handled by the NanoPower IC, which wakes up the main microcontroller only when needed, achieving ultra-low power consumption performance.

**Embedded motor controllers:** Fully integrated motor controllers for the drive of small DC motors, e.g. in automotive thermal management applications such as pumps, valves, grille shutters or fans.

 HVC 5x is a family of programmable SoC motor control solutions for stepper, brushed (BDC), and brushless (BLDC) DC motors. The components include an ARM® Cortex®-M3 CPU, up to 64 kB Flash, LIN transceiver, and features like "Back EMF" comparators. They control motors up to 2 A peak current and support algorithms such as micro-step, space-vector modulation, and FOC.

**Power supply solutions:** Advanced AC-DC power supplies and DC-DC converters for cutting-edge industrial, medical, and embedded applications.

- 300 W rated RGC series of ruggedized non-isolated DC-DC buck-boost converters, with an input voltage of 9 to 53 V.
- 250 W rated RGA series of ruggedized non-isolated DC-DC buck converters. Capable of operating from an input voltage of 9 to 40 V or 9 to 53 V.
- 6 W and 10 W CCG series of DC-DC converters, suitable for either through hole or surface mount placement.



i7A series of non-isolated DC-DC buck converters with the industry-standard 1/16th brick footprint.

**Positioning & navigation software:** Software solutions for reliable positioning in areas where GNSS cannot perform well, such as tunnels, urban canyons and other obstructed situations.

- RIDE & TRACK software, inertial-aided positioning for always-on, enhanced vehicle navigation delivering
  positioning in GNSS-denied or degraded environments.
- AUTO software, inertial plus GNSS and perception positioning for autonomous and semi-autonomous platforms, delivering decimeter positioning accuracy in GNSS-denied or degraded environments.
- VENUE, a near infrastructure-free indoor positioning and real-time location services platform leveraging magnetic, inertial, and other signals of opportunity to position workers, forklifts, robots, and other assets.

**Flash storage solutions:** Solid State Drives (SSDs) offering exceptional data reliability are ideal for applications like industrial equipment and edge computing, where stable operation is crucial.

- Solid State Drives (SSDs) featuring GBDriver series, realizing moderately high-speed access and stable operation while securing data reliability.
- DRAM-less SSDs with a power backup circuit to minimize data errors, ideal solution for industrial embedded systems.

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## **About TDK Corporation**

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately "Attracting Tomorrow." It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2024, TDK posted total sales of USD 14.6 billion and employed about 101,000 people worldwide.

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