

Exhibitions

TDK showcases its latest solutions for green and digital transformation at PCIM and SENSOR+TEST

- Under the joint claim “accelerating transformation for a sustainable future,” TDK shows its highlight solutions for green and digital transformation from May 6 to 8, 2025, in the NürnbergMesse exhibition center in Nuremberg, Germany
- At PCIM in booth 350 in hall 9, visitors can explore the latest passive component and sensor solutions for wind and solar power, ESS, hydrolyzer, heat pumps, EV charging, electric mobility (xEV), and AI
- At SENSOR+TEST in booth 204 in hall 1, visitors can explore the latest sensor technologies to optimize the performance and reliability of industrial and automotive solutions

April 28, 2025

TDK Corporation (TSE:6762) showcases its latest passive component and sensor innovations at this year's PCIM and SENSOR+TEST, taking place in parallel from May 6 to 8, 2025, in the NürnbergMesse exhibition center in Nuremberg, Germany. “Accelerating transformation for a sustainable future” is TDK's joint claim for both shows, where visitors can explore TDK's solutions for both green and digital transformation in the application areas of automotive, industrial, home appliances, and artificial intelligence. TDK's exhibit at PCIM in hall 9, booth 350, features passive components and sensor solutions for applications such as energy and power conversion, heat pumps, EV charging, mobility (xEV), and AI. Just around the corner, in hall 1, booth 204, visitors at SENSOR+TEST can delve into the whole spectrum of sensor technologies from different TDK group companies.

Solution highlights at PCIM, hall 9, booth 350:

- **Electric Mobility (xEV):** TDK is showcasing a busbar design with our modular xEVCap as a DC link capacitor as well as a bidirectional 22-kW onboard charger. Innovative power magnetics like transformers with integrated resonance choke minimize losses and save valuable space in onboard chargers. The aluminum nitride (AlN) multilayer substrates and 3D-printed AlN liquid coolers allow a 400-kW traction inverter to fit into a space about the size of two decks of playing cards.
- **Energy & Power Conversion (wind, solar, ESS, hydrolyzer, etc.):** TDK will display a modular inverter solution based on CeraLink used as flying capacitors, as well as a 250-kW inverter block for commercial and agricultural vehicles. The company will also introduce the next generation of its award-winning ModCap; the ModCap High Performance is capable of operating at elevated temperatures of +105 °C without derating. Visitors can explore a wind power stack weighing 60 kg equipped with 15 capacitors from the MKP DC HF series in the DC link. Just as small as a sugar cube is the gate drive transformer EP9, which has an operational isolation voltage of 500 V for driving IGBTs and MOSFETs on the high side of a half bridge.
- **EV Charging:** TDK presents various reference designs like a bidirectional 22-kW onboard charger as well as a modular hybrid inverter for 10 + 15 kW. The company will also showcase several new DC link and safety EMI capacitors, as well as high voltage contactors like the HVC50 for currents up to 750 A at 1500 V for megawatt charging stations.
- **Sensor Solutions:** To reduce costs by significantly lowering the number of components in heat pumps, TDK showcases integrated pressure and temperature sensors. Taking a real e-motor, the company illustrates its comprehensive portfolio of sensor solutions to drive the motor to the max without pushing it over the edge.

Presentations:

- Niklas Edkvist, TDK Europe: Panel discussion on “Powering AI: What Market and Technology Trends in Powertrain?” on May 6 at 11:20 AM on the Technology Stage in hall 4, stand 435
- David Olalla, TDK Electronics: “Practical Use of xEVCap: The Modular and Standard DC-Link Capacitor for the Main Powertrain Inverter” on May 8 at 10:10 AM in room Mailand

Product highlights at SENSOR+TEST, hall 1, booth 204x:

- Hall-effect Automotive Sensors: Visitors can explore more about new stray-field robust mainstream 2D Hall-effect sensors HAL/R 35xy for automotive applications, like steering wheel angles, brake and accelerator pedals, valve positions, and chassis detection. These are available in single-die (HAL 3550) and dual-die (HAR 3550) versions, with analog and digital outputs.
- Embedded motor control solutions: TDK will also display the new cost-efficient HVC 5481G programmable gate driver SoC for automotive actuators, fans, and pumps. They can drive an external power bridge of 6 N-channel FETs with sensor-based and sensorless algorithms from BEMF commutation to single-shunt FOC.
- Analog & digital MEMS microphones: TDK showcases audio capture, acoustic activity detection, and spoken keyword detection.
- WeWALK Smart Cane 2: Experience the 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 sensor modules: TDK presents a solution that detects objects and measures distances in challenging environments, including full sunlight, translucent targets, and vibration in autonomous mobile robots (AMR) or autonomous guided vehicles (AGV).
- Pressure sensors: At the booth, visitors can learn more about combined pressure and temperature sensors for thermal management, as well as pressure sensors for fuel tank leakage detection and industrial applications.
- Temperature sensors: On display are also surface temperature sensors for industrial as well as automotive applications, including an e-motor busbar sensor, an e-motor small case series, clip-on sensors for heat pumps, and a sensor for high voltages.

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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