Corporate

TDK sets the course for the age of artificial intelligence at electronica 2024

- TDK sees AI, green transformation and digital transformation as megatrends of the next decade
- Neuromorphic devices mimicking the human brain to reduce AI power consumption
- TDK sensor fusion and AI solutions for Industry 4.0 for unprecedented efficiency and productivity increase
- Latest TDK solutions for digital and energy transformation for key markets including automotive, industrial & energy, ICT

October 17, 2024

TDK Corporation (TSE: 6762) will showcase its solution portfolio for the entire spectrum of electronics applications at electronica 2024 in Munich, Germany – from November 12 to 15, 2024.

The Tokyo-based TDK Corporation, one of the world leaders in electronic solutions for the smart society, is positioning itself for the age of artificial intelligence. The company expects rapid growth revolving around this new technology in the coming decade and is aligning its innovation and business strategy accordingly. Moreover, the company sees further global megatrends in green transformation and the ongoing digital transformation.

Noboru Saito, President and CEO of TDK Corporation, says: “We are firmly convinced that these megatrends will change the world as we know it as fundamentally as the internet has done – and at a much faster pace. Looking forward, we expect these transformations to continue and to increase in importance rapidly. In a society equipped with 6G networks, the metaverse, smart cities, clean energy, electrified vehicles, and various gadgets will become end devices connected to networks. This means, that the areas in which TDK can make valuable contributions to a sustainable future and thus to society are growing.”

At TDK’s booth B5.179, everything revolves around the company’s newly established long-term vision “TDK Transformation. Accelerating transformation for a sustainable future.” With its products, TDK aims to accelerate technological progress and thus also social transformation.

To achieve this, TDK is constantly striving to develop groundbreaking innovations – in terms of materials, manufacturing processes, and the properties of products in customers' applications.

Artificial intelligence for instance already transformed many aspects of everyday life and will continue to impact industry, automation, and technology. TDK solutions aim to reduce potential obstacles to a smart and widespread adoption of AI, such as excess power consumption. Additionally, by combining sensor fusion, components, software, and AI, TDK is poised to transform its key markets of automotive, industrial & energy, ICT.

Driving the AI revolution
TDK’s recently announced “spin memristor" is a basic element used in neuromorphic devices. By mimicking the energy-efficient operation of synapses in the human brain, this element could cut the power consumption of AI applications down to 1/100th of traditional devices – a game-changer for power-hungry AI applications.

The newly established group company TDK SensEI develops solutions for Industry 4.0 by combining sensing at the edge, electronic components, and batteries with software and AI – enabling manufacturing, heavy industry, and renewable energy with unprecedented intelligence and possibilities to increase productivity.

Key solutions for key markets

Automotive: TDK leads the charge in the transformation of mobility. The company's wide range of innovations for e-mobility and state-of-the-art advanced driver assistance systems (ADAS) will be showcased with an overview of all possible components and sensor solutions. Highlights include piezo-electric MEMS mirrors and ultrasonic lens cleaners.

Industrial & Energy: Explore how TDK's combination of AI, sensor fusion, and cutting-edge components enable green transformation while meeting the critical challenges of energy efficiency, productivity, and sustainability. Highlights include power electronic capacitors (PEC) for green energy and ultrasonic time of flight sensors that enable further automation.

ICT: TDK will showcase solutions that lay the foundation for smarter, more reliable, and more sustainable communication. Highlight solutions include high-accuracy positioning sensors and an ultra-small full-color laser module for direct retinal projection, poised to transform AR/VR applications.

TDK transformation through internal TDK startup acceleration

- Suiki is engaged in removing PFAS chemicals (per- and poly-fluoroalkyl substances) from water.
- Samasy addresses temperature management in electronic systems.
- Denpaflux (formerly mitai) tackles electromagnetic interference and has set itself the goal of revolutionizing electronics design with AI-empowered EMC/EMI.
- Chiisai enables "smart farming" for local farmers and can thus contribute to feeding the world's growing population going forward.

Additionally, for all interested in working for TDK, there will be a strong HR presence in the booth.

TDK's power supply solutions will be at booth A4.503

More information about TDK at electronica 2024 can be found here: https://electronica.tdk.com/

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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