



Toshiba introduces new 4-channel automotive high-speed digital isolators

AEC-100 compliant devices provide 100kV/ μ s common-mode transient immunity at data rates up to 50Mbps

Düsseldorf, Germany, 17th April 2025 – Toshiba Electronics Europe GmbH (“Toshiba”) has launched its first lineup of ten AEC-Q100 qualified, 4-channel digital isolators. The new DCM34xx0 series has been designed to provide common-mode transient immunity (CMTI) of 100kV/ μ s (typ.) at data transmission rates up to 50Mbps in applications like on-board chargers (OBC) and battery management systems (BMS) for hybrid-electric vehicles (HEV) and electric vehicles (EV).

This new series of digital isolation devices leverages the unique features of Toshiba's proprietary magnetic coupling technology to deliver high CMTI of 100kV/ μ s (typ.) at supply voltages ($V_{DD1}=V_{DD2}$) from 3.0 to 5.5V with a common-mode voltage (V_{CM}) of 1500V. This makes them highly resistant to common-mode electrical noise at the input and output nodes, thereby ensuring they can deliver stable equipment control signals for reliable equipment operations.

These 4-channel devices offer flexible configuration options: 4 forward-only channels, 3 forward with 1 reverse channel, or 2 forward with 2 reverse channels, catering for various design needs. They provide low pulse-width distortion of just 0.8ns (typ.) and are suitable for multi-channel high-speed communication applications, including non-automotive uses such as I/O interfaces with SPI communications.

Devices in this series are available in the 16-pin SOIC-16W package and offer stable operation in temperatures ranging from -40°C to 125°C.

Read more about the new [DCM34xx0 series](#) on Toshiba's website.

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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 also offers Toshiba's SCiB™ battery cells and modules with lithium titanium oxide (LTO) for heavy-duty applications and Silicon Nitride (SiN) ceramic substrates used in power semiconductor modules, inverters and converters for their heat dissipation characteristics and strength.

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, www.scib.jp/en and www.toshiba-tmat.co.jp/en/ for further company and product information.

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