



Toshiba announce new automotive BLDC pre-driver IC supporting ASIL-D

Device offers full support for ISO 26262 functional safety requirements

Düsseldorf, Germany, 9th November 2021 – Toshiba Electronics Europe GmbH (“Toshiba”) announces a new three-phase automotive brushless DC (BLDC) motor driver IC that supports functional safety. The new TB9083FTG will be used with BLDC motors for a wide variety of automotive applications including electric power steering (EPS) systems and electric brakes among others.

The new product is a three-phase gate driver for external N-channel power MOSFETs that are used to drive a three-phase BLDC motor. The TB9083FTG is compliant with ISO 26262 2nd ed. and supports up to the highest functional safety grade at the ASIL-D level. Functional safety standards such as ISO 26262 seek to minimize risk from system failures meaning that the new device can be used in the most safety critical automotive systems including steering and braking. To support this, the TB9083FTG includes ABIST and LBIST self-diagnosis and is supplied with an ASIL safety manual and safety reports.

Capable of operating with PWM signals up to 20kHz, the driver includes three pre-driver channels for safety relays and a built-in amplifier for motor current detection (with six options for the gain setup). Communication is via a CRC-enabled SPI bus.

The TB9083FTG is suited to the rugged automotive environment and is able to operate down to -40°C and up to a max. ambient (T_a) of +150°C or a max. junction temperature (T_j) of +175°C. The device is undergoing AEC-Q100 qualification.

Reducing the total PCB mounting area, the driver is housed in a small P-VQFN48-0707-0.50-005 package with a 7.0mm x 7.0mm footprint. The package incorporates wettable flanks as required for automotive quality inspection.

Currently, test samples are shipping and final samples will ship in January 2022. Mass production is scheduled for December 2022.

For more information, please visit: <https://toshiba.semicon-storage.com/eu/semiconductor/product/automotive-devices/automotive-brushless-motor-driver-ics.html>

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About Toshiba Electronics Europe

[Toshiba Electronics Europe GmbH](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#). TEE offers European consumers and businesses a wide variety of innovative 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.

TEE has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing marketing, sales and logistics services. The company president is Mr. Tomoaki Kumagai.

For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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