



### **Toshiba announces three-phase BLDC pre-driver IC featuring sensorless sine-wave motor control**

*Device operates without a Hall sensor and reduces noise and vibration*

**Düsseldorf, Germany, 08<sup>th</sup> February 2022** – Toshiba Electronics Europe GmbH (“Toshiba”) has launched a three-phase brushless DC (BLDC) motor control pre-driver IC for motors that require high rotation speeds, such as those used for server fans, pumps, blowers and suction motors for cordless and robotic vacuum cleaners.

Toshiba’s new TC78B011FTG incorporates a sine-wave drive method reducing vibration and noise. Its sensorless design saves the space and cost of a Hall sensor. The built-in closed loop speed control regulates and maintains the motor’s rotational speed during dynamic power supply fluctuations and load variations without requiring an external microcontroller (MCU). Precise setting of a speed profile can be programmed into the built-in non-volatile memory (NVM).

Operating from a supply voltage ranging from 5.5 to 27V, the feature-rich device includes selectable closed loop or open loop speed control. Speed can either be controlled through a PWM signal, analog voltage or via the I<sup>2</sup>C interface. The I<sup>2</sup>C interface is also used to control various settings within the device. A standby function further improves overall system efficiency.

The TC78B011FTG is packaged in a P-WQFN36-0505-0.50-001 package with a footprint of just 5mm x 5mm and a height of 0.8mm.

Also available is Toshiba's existing TC78B009FTG device, which uses trapezoidal control, allowing designers to select the most appropriate product depending on their preferred motor drive method.

Mass production and shipment of the TC78B011FTG starts today.

Further information for both devices can be found here:

TC78B011FTG - <https://toshiba.semicon-storage.com/eu/semiconductor/product/motor-driver-ics/brushless-dc-motor-driver-ics/detail.TC78B011FTG.html>

TC78B009FTG - <https://toshiba.semicon-storage.com/eu/semiconductor/product/motor-driver-ics/brushless-dc-motor-driver-ics/detail.TC78B009FTG.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](http://www.toshiba.semicon-storage.com).

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