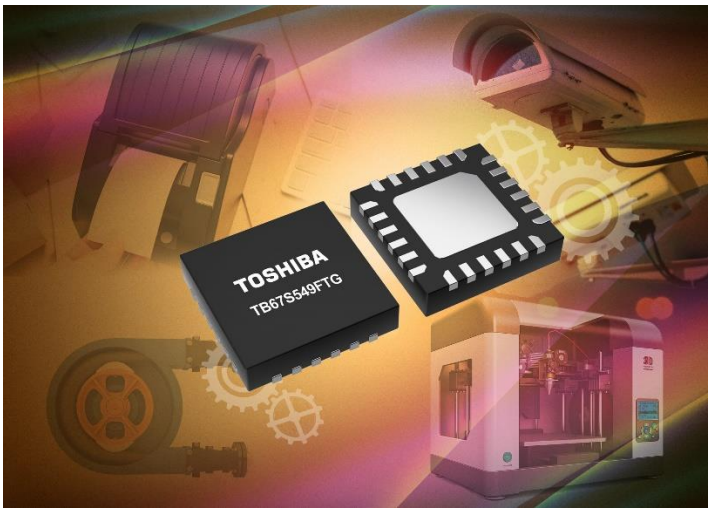

Toshiba announces 4.5V-33V stepper motor driver in tiny package that saves space and simplifies design

Wide operating voltage and 1.2A current delivery, with low R_{DS}(on) and no charge-pump capacitor needed, saves space, BOM, and circuit complexity

Düsseldorf, Germany, 29th September 2022 – Toshiba Electronics Europe GmbH ("Toshiba") has launched an ultra-small and highly integrated stepping-motor driver that helps miniaturize product designs and enhance reliability while cutting the bill of materials and time to market.

The new IC, TB67S549FTG, with an operating output voltage range from 4.5V to 33V, delivers an operating current of up to 1.2A. It is well suited for a wide range of constant current control stepper motor applications including those found in office automation, commercial and industrial equipment. It is also suited for surveillance cameras and projectors.

The integrated Advanced Dynamic Mixed Decay (ADMD) system guarantees an efficient PWM current control under all conditions. With the integrated clock interface up to 32 micro steps can be realized.

Housed in a 4mm x 4mm QFN24 package, the TB67S549FTG occupies only 64% of the mounting area of its predecessor IC and hence saves circuit-board space and costs. Moreover, the internal monitoring circuitry for constant-current control does not require an external current sense resistor, and the charge-pump capacitor is also integrated, thereby further reducing circuit size as well as component count.

Despite the smaller package size, the ON-resistance of the motor driver output block is at only 1.2Ω (typical), thereby keeping power dissipation low and enabling greater efficiency. In addition, the TB67S549FTG has a power-saving sleep mode that cuts the

current consumption to below 1µA making it widely usable for 12V/24V power supply applications.

The TB67S549FTG also integrates a complete set of protection functions, including overcurrent detection, thermal shutdown, and undervoltage lockout.

Alongside the stepping motor IC, a compact evaluation board is available. Created in partnership with MIKROE, the Stepper 12 Click board™ is supported by a mikroSDK compliant library and simplifies software development.

More information about the TB67S549FTG stepping motor driver IC can be found on Toshiba's website: https://toshiba.semicon-storage.com/eu/semiconductor/product/motor-driver-ics/stepping-motor-driver-ics/detail.TB67S549FTG.html

For more information on the Stepper 12 Click board™, please visit: https://www.mikroe.com/blog/stepper-12-click

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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 website at www.toshiba.semicon-storage.com.

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News Release

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September 2022 **Ref. 7419E**