



New Stepper Motor Drivers from Toshiba Improve Motion Accuracy and Motor Efficiency

Düsseldorf, Germany, 27 November 2017 - Toshiba Electronics Europe (TEE) has introduced two new stepping motor drivers that detect excessive load on a motor and automatically adjust power to the motor to accommodate this load. The new TB67S249FTG and TB67S279FTG enable motors to move with precision at rapid speeds under various loads while minimising power consumption, heat generation, and system costs. These drivers are ideal for use in robotics, precision manufacturing and 3D printing application that require stable, precise and high speed control.

Toshiba's new stepper motor drivers incorporate the company's proprietary anti-stall and active gain control (AGC) technology, guarding motors from stalling and possible damage. The AGC technology constantly monitors motor torque and automatically optimises motor current to meet load requirements without the need for an additional microcontroller. By operating at nominal currents instead of high currents, these devices reduce motor power and heat by up to 80% when compared with existing products without the AGC function, while maintaining motor precision and efficiency under a wide variety of workloads and speeds^[1].

Supporting a maximum operating voltage of 50V, the TB67S249FTG drives an impressive 4.5A maximum current, while the TB67S279FTG has a current rating of 2.0A. In addition, these motor drivers include Toshiba's proprietary Advanced Current Detection System

(ACDS), which eliminates the need for a large, expensive high-power sense resistor to save PCB space and lower system cost.

In order to decrease noise and vibration, these devices offer step resolutions of full, half, quarter, 1/8, 1/16 and 1/32 steps, enabling fast, precise movements. They also identify a variety of error conditions (thermal, over-current, under-voltage lock out, and motor load open detection) that improve system safety and reliability.

Housed in a thermally-efficient QFN48 (7mm x 7mm) package, all three devices are pin compatible, allowing system manufacturers to design one board to support a variety of performance requirements.

The new stepping motor driver ICs are currently in mass production and available now.

Notes:

[1] As of September 14, 2017, Toshiba Electronic Devices & Storage Corporation survey.

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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. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

Formed in 1973 in Neuss, Germany, TEE has headquarters in Düsseldorf, Germany, with branch offices in Germany, France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Akira Morinaga. For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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