



### **Compact, Low-Profile LDOs from Toshiba Deliver Low Output Voltage Noise Alongside Exceptional Output Voltage Accuracy**

**Düsseldorf, Germany, 15 March 2021** – Toshiba Electronics Europe GmbH (“Toshiba”) has underlined its strength in power management by announcing the introduction of its new TCR5RG series. These low drop-out (LDO) voltage regulators cover an output voltage range of 0.9V to 5.0V, thereby giving them scope to be employed in a wide variety of potential applications. They have a 100dB ripple rejection ratio (when operating at a 1kHz frequency). This has been achieved through the combination of a wide-gap internal circuit topology, an integrated high-speed operational amplifier supporting low noise operation, plus low-pass filtering.

The expansive LDO series comprises a total of 45 different devices, all of which are housed in WCSP4F packages that take up only minimal PCB space. They support a maximum output current of 500mA and have a 5 $\mu$ V (typical) output voltage noise, with a  $\pm$ 1.5% output voltage accuracy at voltages between 1.8V and 2.8V (going to  $\pm$ 1.8% for voltages above 2.8V) and a chip temperature range of -40°C to +85°C.

Thanks to their mix of elevated performance parameters and a compact form factor, the TCR5RG series devices are optimised for implementation within space-constrained, high density electronic systems. Key uses include sensor-based system, IoT-chipset, RF systems, wearable technology and portable audio equipment, as well as healthcare monitoring units.

For more information about Toshiba's LDOs, please visit: [https://toshiba.semicon-storage.com/list/index.php?p=&h=&sort=3,asc&code=param\\_610&region=emea&lang=en\\_gb&cc=&scroll\\_x=0&scroll\\_y=0&t%5B%5D=0%7CTCR5RG](https://toshiba.semicon-storage.com/list/index.php?p=&h=&sort=3,asc&code=param_610&region=emea&lang=en_gb&cc=&scroll_x=0&scroll_y=0&t%5B%5D=0%7CTCR5RG)

###

**About Toshiba Electronics Europe**

[Toshiba Electronics Europe GmbH](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#) (Toshiba). 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).

**Contact details for publication:**

Toshiba Electronics Europe GmbH, Hansaallee 181, D-40549 Düsseldorf, Germany

Tel: +49 (0) 211 5296 0 Fax: +49 (0) 211 5296 79197

Web: [www.toshiba.semicon-storage.com/eu/company/news.html](http://www.toshiba.semicon-storage.com/eu/company/news.html)

E-mail: [solution-marketing@toshiba-components.com](mailto:solution-marketing@toshiba-components.com)

**Contact details for editorial enquiries:**

Michelle Shrimpton, Toshiba Electronics Europe GmbH

Tel: +44 (0)193 282 2832

E-mail: [MShrimpton@teu.toshiba.de](mailto:MShrimpton@teu.toshiba.de)

**Issued by:**

Birgit Schöniger, Publitek

Tel: +44 (0) 1582 390980

Web: [www.publitek.com](http://www.publitek.com)

E-mail: [birgit.schoeniger@publitek.com](mailto:birgit.schoeniger@publitek.com)

March 2021

Ref. 7325/A\_EN