



Toshiba launches single-supply single-gate logic devices supporting low voltage operation

Single-supply design simplifies board layout in voltage-level translation applications

Düsseldorf, Germany, 28th February 2019 – Toshiba Electronics Europe GmbH today announced their range of single-supply single-gate logic devices. In total the lineup consists of 31 devices that simplify the design of voltage-level translation as used in data communication between devices, such as between microprocessors and peripherals. These single-gate devices are provided in tiny packaging that ensure that voltage translation can be implemented even in applications with limited board space.

Previous voltage-level translation devices from Toshiba required two power sources; one for the input-side and one for the output-side. The new “7UL1G” and “7UL1T” series only require a single power source to support voltage-level translation. This simplifies board layout as well as negating concerns regarding power-on sequence for power supplies. These devices are suitable for applications utilizing multiple power domains that have limited board space such as smartphones, tablets, laptop PCs, digital camera, POS, and IoT equipment.

The 7UL1G series primarily target down translation to the voltage provided at the supply pins and offer 3.6V-tolerant input terminals. When used with a 0.9V power supply the

devices can support down translation to 0.9V from input signals that lie between 0.9V and 3.6V.

The 7UL1T series primarily support up translation to the voltage provided at the supply pins and operate with a power supply in the range of 2.3V to 3.6V. The input threshold is set at 50% or less of the power supply voltage. When powered from a 3.3V supply, up translation to 3.3V combined with logic-level translation is supported for input signals in the range of 1.65V to 3.6V.

Both the 7UL1G and 7UL1T are provided as single-gate NAND, NOR, AND, OR, XOR, inverter and non-inverter, Schmitt inverter and buffer, as well as 3-state buffer versions. The 7UL1G series are available in both SOT353 (2.0 x 2.1 x 0.9 mm) general purpose USV package and the SOT953 (1.0 x 1.0 x 0.48 mm) fSV package, the industry's smallest lead-type package. The 7UL1T series are available in the SOT353 package with the exception of the Schmitt inverter and buffer.

###

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. 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.

TEE has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Tomoaki Kumagai

For more company information visit TEE's web site at 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

E-mail: discrete-ic@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

Issued by:

Birgit Schöniger, Publitek

Tel: +44 (0) 20 8429 6554

Web: www.publitek.com

E-mail: birgit.schoeniger@publitek.com

February 2019

Ref. 7201/A