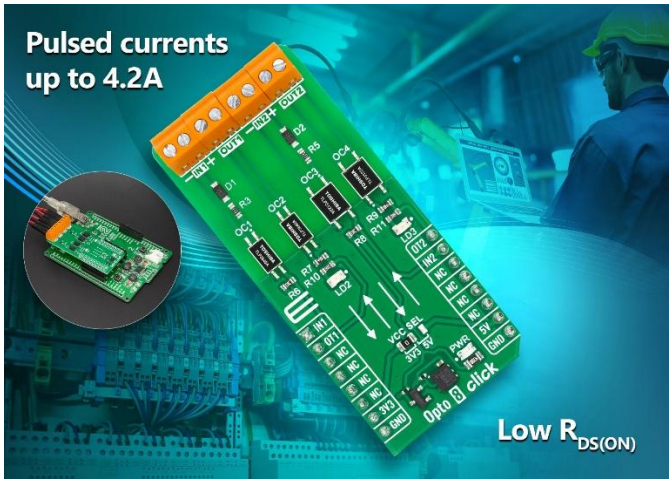

New MIKROE Click Board for side-by-side evaluation of Toshiba photorelays for industrial and PLC applications

Compare TLP3640A and TLP3122A photorelays in either direction, or use all four devices simultaneously

Düsseldorf, Germany, 25th June 2026 – Toshiba Electronics Europe GmbH ("Toshiba") has announced that the essential functionalities of its TLP3640A with TLP3122A photorelays can now be evaluated with a new add-on board from MIKROE - the Opto 8 Click.

The MIKROE Opto 8 Click is a relay Click Board™ that enables engineers to conveniently place the two similar photorelays side-by-side, allowing them to directly compare in either direction, which device is better suited for applications that require reinforced galvanic isolation for both the microcontroller (MCU) input and output stages. In addition, all four devices, two TLP3640A and two TLP3122A, can be used simultaneously to control heavier loads such as DC motors.

MIKROE Click Boards™ are an easy-to-use platform to demonstrate the functionality of a device, supported by MIKROE's broad ecosystem. Electrically, both photorelays are quite similar when activated, due to a very low drain-source on-resistance $R_{DS(ON)}$ of the integrated MOSFETs, they can conduct a constant on-state current (I_{ON}) of 1A (TLP3640A) versus 1.4A (TLP3122A). The output stage for both devices can sustain up to 60V while OFF. However, the TLP3640A comes in a smaller 4-pin SO4 package, which could become relevant when a high number of channels is required.

Housed in the 4-pin SO4 package, the TLP3640A delivers an on-state pulsed current (I_{ONP}) of up to 3A. The $R_{DS(ON)}$ is 0.14Ω (typ.), allowing highly efficient operation, while the off-state current (I_{OFF}) is 1µA (max.). The photorelay also offers maximum switching times of 0.5ms (t_{ON}) and 0.2ms (t_{OFF}), making the device suitable for analogue interface sections in programmable logic controllers (PLCs) and gain-selectable amplifiers used in measuring instruments. Housed in the slightly larger 4-pin SO6 package, the TLP3122A provides up

to 4.2A I_{ONP}. The $R_{DS(ON)}$ is typically just 0.13Ω, allowing highly efficient operation while the I_{OFF} is only 1µA. The device offers fast switching times of 3ms (t_{ON}) and 1ms (t_{OFF}).

With a minimum isolation voltage (BV_S) of 3750Vrms, both devices are fully approved for UL1577 for safety-critical applications, as well as cUL-recognised and VDE-approved. They are also rated for an operating temperature between -40°C and 110°C, which is ideal for industrial applications and makes it easier to allow for a temperature margin in system-level thermal design.

MIKROE Click Boards™ come with a software library that contains easy-to-use functions and example code to accelerate development. Users can also take advantage of the MIKROE Software Development Kit, mikroSDK, which contains open-source software libraries, a unified API, and software development tools to accelerate time to market.

For more information about the MIKROE Opto 8 Click, please visit: Opto 8 Click - Photo-MOSFET Photorelay | MIKROE-6928

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About Toshiba Electronics Europe

Toshiba Electronics Europe GmbH (TEE) offers European consumers and businesses a wide variety of 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. In addition, TEE offers SCiB™ battery cells and modules with lithium titanium oxide (LTO) for heavy-duty applications.

TEE has its headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing marketing, sales and logistics services.

Visit Toshiba's websites at www.toshiba.semicon-storage.com and www.scib.jp/en for further company and product information.

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