



### **New 1500pixel Image Sensor Arrays from Toshiba Accelerate AOI Throughput Figures**

Leveraging the sensitivity of CCD technology while supporting high-speed operation

**Düsseldorf, Germany, 21<sup>st</sup> July 2020** – Toshiba Electronics Europe GmbH (“Toshiba”) has further strengthened its portfolio of advanced optoelectronic devices by introducing two new lens reduction type CCD linear image sensors.

Predominantly targeted at implementation in automated optical inspection (AOI) systems, though also suitable for barcode scanners, the TCD1105GFG and TCD1106GFG are 1500pixel monochrome devices that each have a 5.25 $\mu$ m pixel pitch. The TCD1105GFG has a 125V/lux-sec sensitivity, whereas the TCD1106GFG’s sensitivity is 600V/lux-sec. Their respective dynamic ranges are 400 (TCD1106GFG) and 90 (TCD1105GFG). For the TCD1105GFG there is a built-in electronic shutter included.

These image sensor arrays are each able to support a maximum data rate of 25MHz, thereby enabling elevated inspection throughput speeds to be achieved. Thanks to their integrated timing generators, the need for external driving circuitry is significantly reduced (leading to overall component cost and board utilisation benefits). The sample and hold mechanisms that these devices feature also means that video output signal periods can be extended, thereby resulting in advantages with regard to the accompanying signal processing.

Running off a 3.3V supply, the two CCDs have a much lower power consumption than competing imaging devices. They are both supplied in 16-pin GLCC packages and have an operational temperature range covering 0°C to 60°C.

Further information about both products are available from the following links:

<https://toshiba.semicon-storage.com/eu/semiconductor/product/linear-image-sensors/detail.TCD1105GFG.html>

<https://toshiba.semicon-storage.com/eu/semiconductor/product/linear-image-sensors/detail.TCD1106GFG.html>

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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](#) (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, 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. 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).

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**July 2020**

**Ref. 7287/A\_EN**