



Teledyne e2v Topaz image sensor earns Vision Systems Design 2022 Innovators Award

Award-winning sensor utilizes Tower Semiconductor's state-of-the-art 65nm, low noise, global-shutter pixel technology

Grenoble, FRANCE, and Migdal Haemek, ISRAEL, June 7, 2022 – Teledyne e2v and Tower Semiconductor announced today that Teledyne's [Topaz](#) CMOS image sensors, utilizing Tower Semiconductor's 65nm global shutter pixel technology, were recognized among the best in machine vision by the judges of the Vision Systems Design 2022 Innovators Awards program. The judging panel consisted of esteemed experts from system integrator and end-user companies.

"The Vision Systems Design team would like to congratulate Teledyne e2v for their score in the 2022 Innovators Awards program," says Chris Mc Loone, Editor in Chief. "Each year this unbiased and increasingly competitive program aims to celebrate the most innovative products and systems in machine vision. The Teledyne e2v team should be very proud."

Topaz is available in 2MP (1,920 x 1,080 pixel) and 1.5MP (1,920 x 800) resolutions and enables compact mobile designs for many applications. Housed in a tiny 4.45 mm wide Chip Scale Package (CSP), with an optical array centre precisely matched with the mechanical centre of the package also allows for a slim camera design. This makes the sensors particularly suitable for miniature OEM barcode engine designs, mobile terminals and sleds, IoT, contactless authentication systems, wearable devices, drones and robotics. The machine vision and data gathering camera market is growing at 7.4% rate and is expected to reach \$5.5B by 2026 (source Yole Development, 2021).

Tower's global shutter pixel technology is based on its leading and unique light pipe (a micro-optical structure that funnels the light directly into the photodiode) – technology which enables a significant decrease in pixel size, while still offering state-of-the-art functionality, superb angular response, outstanding Shutter Efficiency and Quantum Efficiency (QE).

Rafael Juarez Romay, Executive Vice President and General Manager of Teledyne e2v said, "Innovation brings real value when it's adapted to customers' needs. Topaz was developed to enhance productivity and throughput and provide longer working ranges in modern logistics, retail, and manufacturing applications. The sensors offer excellent cost/performance ratio and have a tiny footprint making them ideal to drive the world's smallest barcode OEM engines and thinnest mobile platform. Tower Semiconductor has been our foundry of choice for all of our image sensors for almost two decades. Listening and designing a solution that will bring our customers the most value is in our DNA, so we are very proud to be recognized with this award."

"We are proud to accompany Teledyne e2v as a long-term partner for nearly two decades in its CMOS image sensor innovations," said Dr. Avi Strum, Senior Vice President and General Manager of the Sensors and Displays Business Unit at Tower Semiconductor. "The Topaz CMOS image sensor designs combined with our advanced 65nm CIS process is a significant milestone toward smaller and smarter industrial cameras. Our well-established collaboration with Teledyne e2v is a testimony of our commitment to support and promote industrial vision developments in this growing market".

Samples and evaluation kits are available now. Please [contact us](#) for more information.

About Vision Systems Design

Published since 1996, Vision Systems Design is a global resource for engineers, engineering managers and systems integrators that provides comprehensive global coverage of vision systems technologies, applications, and markets. Vision Systems Design's magazine, website (www.vision-systems.com), email newsletters and webcasts report on and analyze the latest technology and business developments and trends in the worldwide machine vision and image processing industry.

About the Vision Systems Design 2022 Innovators Awards

The Vision Systems Design 2022 Innovators Awards program reviews and recognizes the most innovative products and services in the vision and image processing industry. Criteria used in the Innovators Awards ranking included: originality; innovation; impact on designers, systems integrators, and end-users; fulfilling a need in the market that hasn't been addressed; leveraging a novel technology; and increasing productivity.

About Teledyne e2v

Teledyne e2v's innovations lead developments in healthcare, life sciences, space, transportation, defense and security and industrial markets. Teledyne e2v's unique approach involves listening to the market and application challenges of customers and partnering with them to provide innovative standard, semi-custom or fully custom imaging solutions, bringing increased value to their systems.

For more information, visit imaging.teledyne-e2v.com

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About Tower Semiconductor

[Tower Semiconductor](http://www.towersemi.com) Ltd. (NASDAQ: TSEM, TASE: TSEM), the leading foundry of high value analog semiconductor solutions, provides technology and manufacturing platforms for integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense. Tower Semiconductor focuses on creating positive and sustainable impact on the world through long term partnerships and its advanced and innovative analog technology offering, comprised of a broad range of customizable process platforms such as SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, non-imaging sensors, integrated power management (BCD and 700V), and MEMS. For more information, please visit: www.towersemi.com

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