



Press Release

TRUMPF delivers billionth mini laser to STMicroelectronics for the smartphone market

More than 150 smartphone models feature TRUMPF laser technology // One billion mini lasers have been shipped to sensor manufacturer STMicroelectronics // Managing Director Pankert: “Together, we want to develop new markets”

Ditzingen, December 5, 2019. The partnership between high-technology company TRUMPF and the sensor manufacturer STMicroelectronics reached a new high in autumn 2019 when TRUMPF delivered the one billionth Vertical Cavity Surface Emitting Laser (VCSEL) to its European partner. The VCSEL is a fundamental component of sensors that feature prominently in modern smartphones to improve the camera autofocus, enable face recognition to unlock the device’s display and switch off the display when the user raises the smartphone to their ear when taking a call. TRUMPF’s VCSEL technology is now installed in more than 150 smartphones from a wide range of leading OEMs.

A good fit for industrial robots and autonomous vehicles

“We have been working successfully with STMicroelectronics since 2012 and intend to deepen this relationship to unlock the great potential for growth in many consumer electronics segments,” says Joseph Pankert, the managing director in charge of the VCSEL line of business. “We also see strong growth potential for our VCSELs in other markets including higher resolution time-of-flight cameras. These cameras flood an object or a room with infrared light, measure the round-trip travel time or the phase shift of the emitted light, and calculate three-dimensional models based on this data,” says Pankert. Today, VCSELs are used not only in the consumer industry, but also in data transmission, industrial robots and autonomous vehicles.

“Our long-standing technology partnership with TRUMPF has reached a hugely significant milestone – the shipment of 1 Billion VCSELs for use in our Time-of-Flight product families,” says Eric Aussedat, STMicroelectronics Executive Vice President and General Manager of the Imaging sub-group. “ST’s Time-of-Flight product families have been widely adopted by leading smartphone OEMs with



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more than 150 phone models already using our technology. Building on this success, we look forward to further co-work with TRUMPF to address the exciting and rapidly growing 3D and depth sensing markets.”

Tech with growth potential

TRUMPF develops and produces its VCSEL technology at Photonic Components, a business field located at the company's Ulm site. One technical aspect sets VCSELs apart from other beam sources. In contrast to edge-emitting laser diodes, where the light exits on one or two sides of the semiconductor, VCSELs emit laser light vertically from the chip's surface. VCSEL technology complements TRUMPF's wide-ranging laser product and technology portfolio.

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VCSEL-in-sensors

The VCSEL is a fundamental component of sensors that feature prominently in modern smartphones.



Joseph-Pankert

Joseph Pankert,
Managing Director TRUMPF Photonic Components



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About TRUMPF

The high-technology company TRUMPF offers production solutions in the machine tool and laser sectors. It is driving digital connectivity in manufacturing industry through consulting, platform and software offers. TRUMPF is the world technological and market leader for machine tools used in flexible sheet metal processing, and also for industrial lasers.

In 2018/19 the company – which has about 14,500 employees – achieved sales of 3.8 billion euros (preliminary figures). With over 70 subsidiaries, the TRUMPF Group is represented in nearly all the countries of Europe, North and South America, and Asia. It has production facilities in Germany, France, Great Britain, Italy, Austria, Switzerland, Poland, the Czech Republic, the USA, Mexico, China and Japan.

For more information about TRUMPF go to www.trumpf.com

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