



TRUMPF Photonic Components shipped its two billionth product

Increasing demand in VCSEL and photodiodes for smartphones and data centers // Investments at the headquarter in Germany to support strong business growth // Quantum computer chips planned to be fabricated in Ulm

Ulm, October 05, 2021 - TRUMPF Photonic Components, a global leader in VCSEL (Vertical Cavity Surface Emitting Lasers) and photodiode solutions for the consumer electronics, data communications, industrial sensing, heating, and automotive markets recently shipped its two billionth product of VCSEL and photodiodes. This cumulative milestone is enabled through a significant growth in demand for VCSEL technology, driven by trends such as proximity sensing and 3D facial recognition technology in consumer smartphones as well as raising demand in optical data communication in data centers.

Within the last two years, since TRUMPF acquired the business field, the company invested more than 20 million Euro into the headquarter location in Ulm, Germany. The production capacity has been expanded to support further business growth, both in existing markets as well as in new segments like quantum computing. TRUMPF continues to drive the technology know-how that has been established for over 20 years to maintain its leadership position and to implement a Photonic Hub in Ulm.

“Reaching the milestone of two billion products confirms our strategy to build on strong partnerships with our customers. Next to standardized solutions, we are also developing customized solutions to address the application needs in its best way”, says Berthold Schmidt, CEO at TRUMPF Photonic Components. “Therefore, we are continuously investing into high-tech equipment and human resources to meet the rapidly growing global demand and to guarantee best-in class infrastructure, as German leader in supplying VCSELs and photodiodes”, he adds. Recently the company announced that in future also quantum computer chips of Q.ANT, a wholly owned subsidiary of the TRUMPF Group, will be fabricated in Ulm. To manufacture these quantum computer chips, further expansion of the existing cleanroom fabrication facilities in Ulm is planned.

Growing application areas

Consumer electronics are one main successful business field for TRUMPF Photonic Components. The VCSEL products are a fundamental component of sensors that feature prominently in modern smartphones. It enables for example the functionality of face recognition, to switch off the display automatically, or to improve the camera autofocus.

On the other hand, optical data communication becomes more and more relevant as the amount of data to be handled is increasing. That’s why TRUMPF is recently in the development of 100G solutions.

Next to that, TRUMPF offers industrial heating systems, where VCSEL are for example used in e-mobility within the battery process chain, another growing business field. Latest future application field is quantum computing. With VCSEL becoming part of the quantum technology there is a huge



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potential for the laser diodes technology. These chips will be capable of creating, controlling and manipulating quanta.

“I am convinced that VCSEL technology drives the future not only of consumer electronics, industrial sensing or optical data communication, but also for autonomous driving, and quantum technology. So VCSEL laser diodes will be in every home, every mobile device, every car and within industrial production”, says Berthold Schmidt.

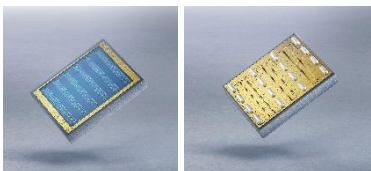
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Picture 1: TRUMPF Photonic Components is investing continuously into the clean room fabrication facility at the headquarter in Ulm, Germany.
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Picture 2: High-tech equipment and professional staff are mandatory to keep TRUMPF Photonic Components technology leadership position.
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Picture 3: ViBO is one of the latest product releases of TRUMPF Photonic Components. ViBO stands for VCSEL with integrated backside optics. With its addressable zones, individual illumination profiles can be generated. It offers huge potential for consumer electronics or automotive applications such as LiDAR. © TRUMPF



Picture 4: 56G VCSEL and photodiode for datacom applications.
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About TRUMPF Photonic Components

TRUMPF Photonic Components is a global technology leader, supplying VCSEL and photodiode solutions for consumer electronics, datacom, industrial sensing, heating and automotive markets. More than two billion VCSEL chips and photodiodes has been shipped worldwide so far. The employees continue to drive the technological know-how that has been established for over 20 years now in order to maintain its leadership position. The long-established technology was acquired by TRUMPF in 2019. The company has its headquarters in Ulm, Germany, with further sales locations in the Netherlands, China, Korea and the US.

TRUMPF Photonic Components belongs to the TRUMPF Group, a high-technology company that offers production solutions in the machine tool and laser sectors. TRUMPF is the world technological and market leader for machine tools used in flexible sheet metal processing, and also for industrial lasers and metal 3D printing. In 2020/21, the company employed some 14,800 people and generated sales of about 3.5 billion euros (preliminary figures). With over 80 subsidiaries, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

For more information about TRUMPF Photonic Components visit: www.trumpf.com/s/VCSEL-solutions

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