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World's Smallest Micro-Mirror Scanning Technology from STMicroelectronics Chosen for Intel® RealSense™ High-Resolution LiDAR Depth Camera L515

Power-efficient, hi-res LiDAR camera capturing millions of depth points per second suits a wide range of Industrial and Computing use cases

Geneva, March 8, 2021 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has developed a tiny MEMS mirror with Intel enabling spatial scanning of an environment. Intel developed a LiDAR system based on this micro-mirror, providing high-resolution scanning for industrial applications such as robotic arms for bin picking, volumetric measurements, logistics, and 3D scanning.

Built into the Intel RealSense LiDAR[1] Camera L515, the small dimensions of the ST micro-mirror contribute to the LiDAR camera's hockey-puck size (61mm diameter x 26mm height). The micro-mirror enables continuous laser scanning across the entire field of view. In combination with a custom photodiode sensor, the RealSense LiDAR Camera L515 renders a 3D depth map of the entire scene.

"With 30 frames per second and a field-of-view of 70° by 55°, ST's 2nd-generation micro-mirror continues to set the bar for 3D scanning and detection applications," said Benedetto Vigna, President Analog, MEMS and Sensors Group, STMicroelectronics. *"Continuing the long-term supply relationship for micro-mirrors with Intel demonstrates our never-ending efforts to leverage our long-lasting leadership in MEMS to meet the demanding technical and supply needs of our customers."*

The L515 leverages the scanning capabilities of ST's MEMS to deliver high-resolution depth with no interpolated pixels, the ability to control the field of view, and provides close to zero pixel blur driven by the low 50nS exposure time.

"Intel® RealSense™ technology has been used to develop products and solutions for use in Robotics, Logistics, Scanning and other computer vision applications. The Intel RealSense LiDAR Camera L515 using ST's micro-mirrors delivers unparalleled precision and is the world's smallest high-resolution LiDAR depth camera, making it suitable for a variety of use cases," said Sagi BenMoshe, Chief Incubation Officer, Corporate Vice President and General Manager, Emerging Growth and Incubation Group at Intel.

Visit here for more information or to order the Intel RealSense LiDAR depth camera L515.

[1] LiDAR = **Li**ght **D**etection **A**nd **R**anging

About Intel® RealSense™ Technology

Intel RealSense technologies are fundamentally reshaping the future by equipping devices with the ability to see, understand, interact with and learn from their environment. Intel RealSense provides a wide variety of vision-based solutions, from the world's smallest high-resolution LiDAR camera to low power, platform-agnostic stereo depth cameras, as well as customizable software. Continuously expanding its range, Intel RealSense's end-to-end solutions enhance use cases in areas such as Robotics, 3D Scanning, Facial Authentication, Measurement and Logistics.

About STMicroelectronics

At ST, we are 46,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An independent device manufacturer, we work with more than 100,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and 5G technology. Further information can be found at www.st.com.

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