Allegro MicroSystems Acquires Voxtel, Inc. to Drive LiDAR Solutions for Advanced Automotive Safety Systems

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Acquisition pairs leading eye-safe photonics with Allegro's extensive portfolio optimized for high growth ADAS applications in semi-autonomous and autonomous vehicles

Allegro MicroSystems (Allegro), a global leader in sensing and power semiconductor technology, today announced the acquisition of Voxtel, Inc, a privately held company specializing in advanced photonic and 3D imaging technology including long-range, eye-safe Light Detection and Ranging (LiDAR). This acquisition brings together Voxtel's significant laser and imaging expertise with Allegro's automotive leadership and scale to enable the next generation of Advanced Driver Assistance Systems (ADAS).

Voxtel, Inc. has been pioneering photonics since 1999, developing cutting-edge solutions for military, space, automotive and surveillance applications. Its ultra-miniature lasers, read-out integrated circuits (ROICs), and near-infrared (NIR) and short-wavelength infrared (SWIR) photodetectors, supported by more than 38 US patents, represent one of the broadest LADAR/LiDAR photonic technology suites available in the market today. Allegro's innovative portfolio of motor drivers, position sensors, regulators, and current sensors, when combined with photonics, provides most of the key semiconductor components in the transmit and receive blocks of automotive LiDAR systems. This increases Allegro's foothold in the car of the future.

"Allegro is a market leader in magnetic sensors for the automotive market. Annually, we ship more than 1 billion devices into automotive systems – 100 million of which are shipped into advanced automotive safety systems, including semi-autonomous vehicle systems," said Ravi Vig, CEO of Allegro. "Our experience, scale and design for quality uniquely position us to enhance the Voxtel LiDAR portfolio for ADAS applications, aiming to make LiDAR systems safer, cost-effective, and widely adopted features in the cars of the future."

LiDAR Enables Safer, Smarter Vehicles

LiDAR typically uses lasers, photodetectors, and read-out integrated circuits (ROICs) with time-of-flight (TOF) capability to measure distance by illuminating a target and analyzing the reflected light. LiDAR technology provides the high-resolution, three-dimensional information about the surrounding environment necessary to make fully autonomous driving a reality. It also supports adaptive cruise control, complements car cameras and radar and adds situational awareness.

Comprehensive Solutions, Including Essential "Eye-Safe" Capability

Historically, a barrier to broad adoption of LiDAR technology in vehicles has been the restriction of maximum power output of the laser in order to comply with eye safety guidelines. As a result of this acquisition, Allegro's photonics portfolio now includes devices made in silicon and InGaAs, providing components for both eye-safe, long-range 1D or 2D scanned front-facing LiDAR and side- or rear-facing FLASH LiDAR. Devices based on InGaAs operate at wavelengths at which the human eye is less sensitive (1500 – 1600nm), enabling higher laser power levels for longer range object detection beyond 200 meters.

"We are combining Voxtel's proven LiDAR technology born out of an impressive history in ranging and space applications, with Allegro's automotive expertise, world class IC design, proven quality systems, and high-volume manufacturing proficiency," said Mike Doogue, Senior Vice President of Business Development. "Our OEM and Tier-1 customers will now have access to this advanced technology with Allegro's assurance of world-class global support and the scale needed to support automotive manufacturing volumes."

About Voxtel, Inc. and the Acquisition

Headquartered in Beaverton, Oregon, Voxtel, Inc. was founded in 1999. For almost two decades, Voxtel has maintained a focus on innovating laser ranging, LADAR, and LiDAR technologies, becoming a leading developer, manufacturer and supplier of innovative photonic and advanced 3D imaging technologies. Voxtel's product portfolio includes eye-safe lasers; time-of-flight (TOF) ROICs; and single-pixel, 1D, and 2D photodetectors fabricated in both silicon and InGaAs.

In addition to the portfolio of advanced electro-optical solutions, the transaction includes Voxtel's ongoing business addressing a broad range of applications, including robotics, drones, heavy equipment, mapping/surveying, environmental monitoring, defense, and space exploration; as well as its IP portfolio, including patents and in-process R&D; and an experienced team of engineers and scientists. Voxtel's President and Chief Executive Officer, George M. Williams Jr., will become Allegro MicroSystems' Photonics Fellow. For more information about Voxtel products and technology, visit voxtel-inc.com.

About Allegro MicroSystems

Allegro MicroSystems is redefining the future of sensing and power technologies. From green energy to advanced mobility and motion control systems, our team is passionate about developing intelligent solutions that move the world forward and give our customers a competitive edge.

With global engineering, manufacturing and support, Allegro is a trusted partner to both large enterprises and regional market leaders worldwide.