



Excelitas Technologies® SMD 905nm 1x4 Pulsed Laser Diode Array Wins Autonomous Vehicle Technology ACES Award

Innovative High-Resolution Laser Array Enables the Design of More Efficient, Longer Range and Lower Cost LiDAR Systems for Autonomous Vehicle Market



WALTHAM, Mass., December 10, 2018 – [Excelitas Technologies® Corp.](#), a global technology leader delivering innovative, customized photonic solutions, announced that its [Surface Mount Device \(SMD\) 905nm 1X4 Pulsed Laser Diode Array](#) has been honored as an inaugural winner of the *Autonomous Vehicle Technology* ACES Award. As a key building block of next-generation LiDAR systems, the SMD 905nm 1X4 Pulsed Laser Diode Array has become an indispensable emitter technology for autonomous vehicles, which addresses OEM design engineers' need for a high-performance, customizable solution.

The *Autonomous Vehicle Technology* ACES Award recognizes the most innovative autonomous vehicle technologies, products and services of the year in the main areas of autonomy, connectivity, electrification and mobility services. Excelitas' high-performance, customizable laser array combines field-proven high-efficiency, multi-cavity laser chip technology with small form-factor surface mount device packaging. Unlike single-pixel lasers, the 1X4 linear configuration allows each pixel to be situated in very close proximity to its neighbor – minimizing space requirements in the assembly and allowing the use of smaller, less costly optical components.

"The integration of LiDAR into automotive applications is pushing the boundaries of sensor, emitter and package design – requiring the new generation of optoelectronic components and modules to deliver high levels of reliability in high-volume, cost-effective packaging," said Denis Boudreau, Product Leader, Detection at Excelitas Technologies. "Our innovative SMD 905nm 1X4 Pulsed Laser Diode Array delivers just that – a re-engineered, consumer-grade laser array that enables the design of more efficient, longer range and lower cost LiDAR systems to meet the demands of the autonomous vehicle market."

The SMD 905nm 1X4 Pulsed Laser Diode Array is fully compatible with SMD pick-and-place and reflow soldering equipment, allowing it to seamlessly integrate into high-volume, low-cost assembly lines. Each laser pixel can have up to four emitting stripes for very high per-channel optical power levels in excess of 85W for long-range detection with minimal power consumption. These lasers can also sustain large reverse voltage levels, with rise times of less than 5ns that can be achieved with proper drive electronics.

For additional information, please visit: <http://www.excelitas.com/Pages/Product/Surface-Mount-905-nm-Pulsed-Semiconductor-Laser-arrays.aspx>.

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About Excelitas Technologies

Excelitas Technologies® Corp. is a global technology leader focused on delivering innovative, high-performance, market-driven photonic solutions to meet the lighting, detection and optical technology needs of global customers. From biomedical technology to research laboratory, safety and security, consumer products, semiconductor, energy and environment,



industrial sensing & imaging, defense and aerospace, Excelitas Technologies is committed to enabling our customers' success in their end-markets. Excelitas Technologies acquired Qioptiq in 2013 and now has approximately 6,500 employees in North America, Europe and Asia, serving customers across the world. Connect with Excelitas on [Facebook](#), [LinkedIn](#) and [Twitter](#).

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Contacts:

Scott Orr
Senior Director of Global Marketing - Commercial
scott.orr@excelitas.com
781.996.5925

Cheryl Reynhout or Jill Anderson
On Behalf of Excelitas Technologies Corp.
SVM Public Relations
excelitas@svmmarcom.com
401.490.9700

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