



Excelitas Technologies Introduces 1X4 Pulsed Laser Diode Array for LiDAR in Autonomous Vehicle Applications

New High-Resolution Laser Array Enables the Design of More Efficient, Longer Range and Lower Cost LiDAR Systems



WALTHAM, Mass., January 24, 2017 – [Excelitas Technologies® Corp.](#), a global technology leader focused on delivering innovative, customized photonic solutions, today introduced the [1X4 Pulsed Laser Diode Array for LiDAR applications](#). The new laser array combines Excelitas' field-proven high-efficiency, multi-cavity laser chip technology with small form-factor surface mount device (SMD) packaging for applications requiring high reliability such as autonomous vehicles and drones.

The Excelitas 1X4 Pulsed Laser Diode Array constitutes a key building block of LiDAR systems, which have become an indispensable detection technology for autonomous vehicles. Unlike single-pixel lasers, the 1X4 linear configuration enables each pixel to be situated in very close proximity to its neighbor – minimizing space requirements in the assembly and enabling the use of smaller, less costly optical components. It 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, enabling very high per-channel optical power levels in excess of 85 W for long-range detection with minimal power consumption. These lasers can sustain large reverse voltage levels, with rise times of less than 5 ns that can be achieved with proper drive electronics which can also be provided by Excelitas.

The standard 1X4 Pulsed Laser Diode Array can be customized to meet each customer's optical system requirements. Variables such as the number of elements, element spacing, stripe width, channel power output and package footprint can be adjusted to enable minimized losses, longer range detection and reduced power consumption.

“Excelitas is actively involved in LiDAR for autonomous vehicles, so we are excited to announce the new 1X4 Pulsed Laser Diode Array,” said Denis Boudreau, Product Leader at Excelitas Technologies. “This new laser array combines multi-cavity lasers and SMD packaging capabilities to address OEM design engineers’ need for a high-performance, customizable solution that enables the development of next-generation LiDAR systems.”

The new 1X4 Pulsed Laser Diode Array will debut at Photonics West in San Francisco, CA, January 31 – February 2, 2017 at Excelitas Technologies’ exhibit: Booth # 1423. For more information about Excelitas, visit www.excelitas.com.

###

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 other technology needs of global customers. From biomedical technology to research laboratory, safety and security, consumer, semiconductor, industrial, energy and environment, as well as defense and aerospace applications, Excelitas Technologies is committed to enabling our customers' success in their end-markets. Excelitas Technologies has approximately 5,500 employees in North America, Europe and Asia, serving customers across the world. Connect with Excelitas on [Facebook](#), [LinkedIn](#) and [Twitter](#).

Excelitas® is a registered trademark of Excelitas Technologies Corp. All other products and services are either trademarks or registered trademarks of their respective owners.

Contacts:

Scott Orr
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

Follow Excelitas online:

