

Excelitas Technologies Introduces Generation 2 905 nm High-Volume Pulsed Semiconductor Laser Diode for Range Finding and Industrial LiDAR



WALTHAM, Mass., November 17, 2020 – [Excelitas Technologies® Corp.](#), a global technology leader delivering innovative, customized photonic solutions, today introduced its enhanced [Generation 2 905 nm High-Volume Pulsed Semiconductor Laser Diode](#). Featuring a multi-layer monolithic chip design, the second-generation 905 nm pulsed laser diode provides higher efficiency (3 W/A) for further ranging and reduced power consumption, as well as an improved GaAs structure to

offer typically 85 W pulsed peak power when driven at 30 A for an increase of more than 20% compared to the first-generation product.

An ideal solution for industrial and consumer range finding and LiDAR applications involving time of flight measurements, the enhanced pulsed laser diode design includes an optical emitting area of 225 μm x 10 μm by emission of three laser lines, offering high output power in a small emitting area. The laser chips are fabricated using metal organic chemical vapor deposition (MOCVD) manufactured in a TS 16949 certified high-volume facility. Features and benefits include:

- **Increased output power by more than 20%:** customer's range finder can measure greater distances, or the same distance with reduced power consumption
- **Triple-cavity design:** provides three times the level of optical power compared to a single cavity design
- **Plastic TO package:** cost-effective solution for high volume applications

"We are pleased to add the Generation 2 905 nm High-Volume Pulsed Semiconductor Laser Diode to our wide range of plastic-packaged pulsed laser diode configurations," said Denis Boudreau, Product Leader, Detection at Excelitas. "Our technology enhancements make this the highest quality, highest efficiency plastic packaged pulsed laser diode on the market at 905 nm, delivering a robust, cost-effective solution for design engineers working with time of flight measurements for industrial and consumer distance measurement applications."

Available for purchase now, Generation 2 905 nm High-Volume Pulsed Semiconductor Laser Diodes come standard in a plastic TO package, with future SMD and metal TO iterations available in 2021.

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About Excelitas Technologies

Excelitas Technologies® Corp. is a photonics technology leader focused on delivering innovative, high-performance, market-driven solutions to meet the lighting, optronics, detection and optical technology needs of our OEM customers. Serving a vast array of applications across biomedical, scientific, safety, security, consumer products, semiconductor, industrial manufacturing, defense and aerospace sectors, Excelitas stands committed to enabling our



customers' success in their end-markets. Our photonics team consists of 7,000 professionals working across North America, Europe and Asia, to serve customers worldwide. 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
+1 (781) 996-5925

Cheryl Reynhout or Jill Anderson
On Behalf of Excelitas Technologies Corp.
SVM Public Relations
excelitas@svmmarcom.com
+1 (401) 490-9700