# Excelitas Technologies Launches Third-Generation TPG3AD1S09 905 nm Pulsed Laser Diode

*High-Performance, Triple-Cavity 225 µm Pulsed Laser Diode Offers High Output Power and Power Efficiency in SMD Package for Smart Devices*

**WALTHAM, Mass., June 22, 2023 –** Excelitas Technologies® Corp., a leading industrial technology manufacturer focused on delivering innovative, market-driven photonic solutions, introduces its new TPG3AD1S09 905 nm Pulsed Laser Diode. The third-generation, high-performance, triple-cavity 225 µm SMD pulsed laser diode offers a high output power of 120 W for long-distance range finding and power efficiency for short- to mid-range systems. These design enhancements provide excellent stability, beam quality and reliability to enable the most demanding smart home, smart city and smart factory applications.

With a power slope of 3 W/A, TPG3AD1S09 ranges further with enhanced output power of 120W when operated at 40 A. It also delivers a reduced series resistance to allow operation at lower voltages for lower power consumption and high-efficient light output.

Additional product features of the TPG3AD1S09 905 nm Pulsed Laser Diode include:

- Cost-effective SMD packaging for high-volume consumer and industrial applications
- New EPI design delivers the highest reliability for the most demanding applications
- Bare die available for automotive LiDAR applications
- Capability to mount horizontally or vertically on the PCB
- Triple-cavity laser chip provides three times higher optical power compared to a single-cavity laser design
- 225 µm contact stripe width.

“We’re excited to build upon our PGA Series product family with the introduction of the TPG3AD1S09 905 nm Pulsed Laser Diode,” said Jens Krause, Applications Engineer High Performance Sensors at Excelitas. “The edge-emitting TPG3AD1S09’s high output power and high efficiency, combined with its SMD packaging, make it an ideal option for application engineers, product managers and design engineers developing the latest smart home, smart factory and smarty city devices. This includes integration in consumer and industrial applications including LiDAR, laser scanning and therapy, infrared night illumination, medical and analytical material excitation, and more.”

Excelitas will display the new TPG3AD1S09 905 nm Pulsed Laser Diode at Laser World of Photonics, Booth 103 Hall B1 in Munich, Germany, June 27-30, 2023. For additional information please visit: https://www.excelitas.com/product/tpg3ad1s09-905-nm-triple-cavity-225-mm-smd-pld.

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**About Excelitas Technologies**
Excelitas Technologies® Corp. is a leading industrial technology manufacturer focused on delivering innovative, market-driven photonic solutions to meet the illumination, optical, optronic, sensing, detection and imaging needs of our OEM and end-user customers. Serving a vast array of applications across biomedical, scientific, semiconductor, industrial manufacturing, safety, security, consumer products, defense and aerospace sectors, Excelitas stands committed to enabling our customers' success in their many various end-markets. Our team consists of more than 7,500 professionals working across North America, Europe and Asia, to serve customers worldwide.

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