



Laser Thermal Wins Direct to Phase II SBIR DARPA Award

Working closely with partners in industry and academia, the Phase II Award will develop Advancing Thermo-Optical Metrology for Integrated Circuits (ATOMIC)

CHARLOTTESVILLE, VIRGINIA, UNITED STATES, August 22, 2024 /EINPresswire.com/ -- [Laser Thermal](#), a leading tool and service provider of thermal property measurement solutions, is thrilled to announce its selection as an awardee from the Defense Advanced Research Projects Agency (DARPA) Direct to Phase II Small Business Innovation Research (SBIR): Advancing Thermo-Optical Metrology for Integrated Circuits (ATOMIC).

In collaboration with academic and commercial partners, the company will embark on a multi-year, multi-million-dollar SBIR to further advance a super-resolution thermal metrology tool. This tool aims to characterize the thermal resistance and/or temperature of semiconductor materials/heterostructures and wide/ultra-wide bandgap RF devices at the nanometer length scale.

Brian Foley, Principal Investigator for the program and VP of R&D at Laser Thermal, expressed the significance of this Phase II award, stating, "This is a crucial leap forward in innovative thermal measurement techniques, combining the spatial resolution of scanning probe platforms with the sensitivity of [thermoreflectance](#) methods. We are enthusiastic about partnering with DARPA and contributing our expertise in thermal sciences to the development of state-of-the-art thermo-optical metrology instrumentation."

The Direct to Phase II ATOMIC program builds upon the utilization of a thermoreflectance-based, contact-mode scanning probe platform for thermal metrology, achieving sub-50 nm spatial resolution with unparalleled sensitivity to nanoscale thermal properties. The capabilities and operating ranges of Laser Thermal's Nano-probe Thermoreflectance Microscope are being expanded and optimized through this program to further its capabilities for measuring materials integrated within functional RF HEMT device architectures. Initiated in August 2023, the program is set to conclude in July 2025.

About Laser Thermal:

Founded in 2020, Laser Thermal began as a spinoff from the University of Virginia, and today is a local Charlottesville, Virginia-based company providing accessible thermal measurements of materials across all length-scales utilizing cutting edge optical technologies. Laser Thermal

designs and manufactures thermal metrology equipment that can measure thermal properties from the nanometer scale up through bulk. Utilizing optical techniques, Laser Thermal provides simple, accurate, and rapid measurements through a mix of contract testing and tool sales to best serve customer needs.

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