LASER THERMAL

R&D

How Laser Thermal can help your R&D lab

THE SITUATION

A prominent national research lab is responsible for serving as an independent evaluator for commercial and government entities. They develop reference materials, standardize measurement protocols, and provide materials testing services for vendors that require accurate material characteristics measurements. **Customers rely on this research lab to continue making advancements.**

The CHIPS act has invested billions of dollars into advanced research & development for semiconductors and other small electronics. As chip designs shrink to smaller dimensions and manufacturers integrate transistors in three dimensions, thermal management is one of the most significant technical challenges.

THE PROBLEM

The lab is expecting demand for their materials testing services to skyrocket, with a particular focus on testing thermal properties, **but this lab's existing technologies can only support a small number of tests per day.** Their current tools use technology that is unable to keep up with the demands of their growing customer base.

This will slow down materials science advancement and delay the completion of key deliverables for commercial partners and participants in government programs.

HOW LASER THERMAL CAN HELP

Laser Thermal's SSTR-F is an innovative thermal measurement tool and analysis suite that can deliver **fully automated testing & analysis.**

Our easy-to-use software suite has an intuitive user interface, supports rapid data analysis, requires minimal maintenance, and can be operated by a technician rather than a PhD-level engineer.

SSTR-F locally heats with a pump laser and measures temperature with a probe laser. This provides direct measurements of thermal properties at nano- to bulk-length scales, and supports measurements up to 200C, unlike any other commercially available tools.

THE POTENTIAL OUTCOME

SSTR-F's ability to accelerate materials testing means that the national research lab can **address its customers' needs faster than ever before.** Customers are able to get rapid results for almost any number of requested materials tests, and keep coming back to the lab for its reliability and speed.

Because the lab's customers are getting reliable, accurate measurements, they're able to **innovate at an accelerated pace.** Customers know that they can rely on the national lab to turn around their measurements with best-in-class throughput.

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