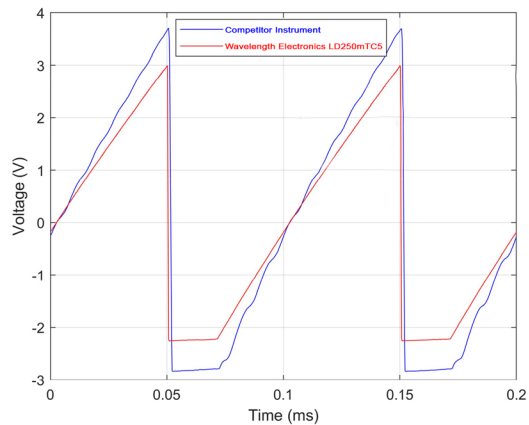


# LD250mTC5 LAB Series Combination Laser Diode & Temperature Control Instrument

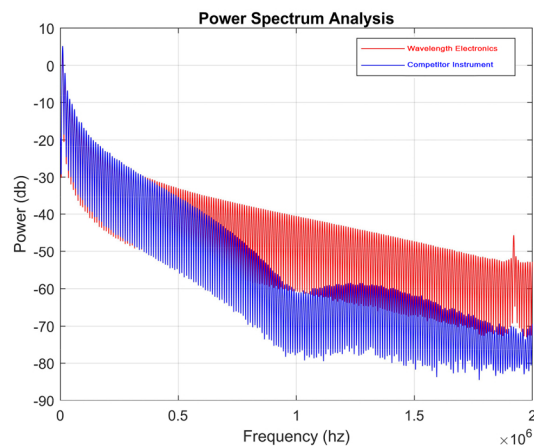
A recent comparative study at Purdue University between laser drivers from Wavelength Electronics and a competitor highlighted two key advantages of Wavelength products: significantly lower noise and a more consistent power spectrum in the laser output. The study found that Wavelength's laser drivers consistently exhibited a lower noise floor compared to the competitor's models, which is crucial for applications requiring high precision, such as spectroscopy, where even small fluctuations can impact measurement accuracy and overall system performance.

- Scan rate – 10KHz
- Sample rate – 4MHz



**PURDUE UNIVERSITY** School of Mechanical Engineering

With this high-performance experiment, Wavelength is set to release a new laser driver designed to provide even greater control and stability for sensitive applications. The LD250mTC5 LAB will focus on low current operation, low noise, and will integrate a built-in temperature controller, offering full control for laser systems. By ensuring minimal noise and providing precise temperature regulation, the driver will help maintain thermal stability, reduce drift, narrow linewidth, and enhance the consistency of laser output. These features are particularly valuable in research, medical, and industrial applications where high precision and reliability are essential. With this new release, Wavelength Electronics aims to deliver a comprehensive solution that combines low-noise performance, low current driving, and thermal management, adding to the wide range of products available for any application.



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The study also revealed that Wavelength Electronics' drivers produce a more consistent and stable power spectrum in the laser output, remaining more uniform and less prone to fluctuations over time compared to the competitor's drivers. The combination of lower noise and a more stable, consistent power spectrum makes Wavelength Electronics' laser drivers a superior choice for users seeking precise control, high-quality output, and long-term reliability in their laser systems.

