

LambdaMeter Laser Wavelength and Power Meter

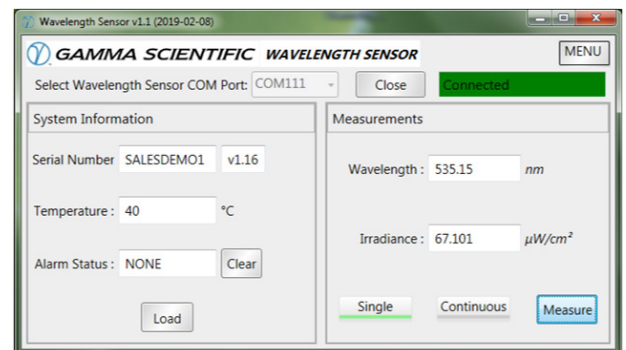


The LambdaMeter system represents a significant advancement in real-time laser wavelength and power measurements. Using a multi-channel photodiode system, the unit provides accurate laser wavelength measurements combined with power measurements at a fraction of the cost of traditional spectrometers.

Using proprietary optical filtering techniques, the LambdaMeter is able to resolve wavelength with ± 0.5 nm accuracy and ± 0.01 nm repeatability. High dynamic range is achieved using a transimpedance amplifier with five gain ranges and 24-bit ADCs. Rock-solid stability and a reduced noise floor are realized via temperature stabilized detectors and optical filters.

Precision Optical Power and Wavelength Measurement Unmatched Accuracy and Repeatability

- Sub-nanometer resolution and accuracy
- Works with both cw and pulsed lasers
- Built-in thermal regulation for long-term stability and low noise floor
- Data output via USB to Windows/MacOS/Linux using included LambdaMeter application software
- ASCII command set for simple device control
- 5 adjustable transimpedance gain ranges and 24-bit ADC
- On-board unit specific calibration data
- Wavelength range 365 to 1100 nm
- ISO/IEC 17025 accredited by NVLAP (NVLAP lab code 200823-0) for calibration accuracy



365 nm

500

600

700

1100

Key Applications

- Monochromator wavelength monitoring
- Real-time production testing for wavelength and amplitude
- VCSEL wavelength and power measurement
- LED device or wafer level test & characterization
- Production line or laboratory use

Accuracy Specifications

Wavelength Range	365 nm to 1,100 nm (short wave infrared options possible)
Wavelength Absolute Accuracy	$\pm 0.25 \text{ nm}^1$
Wavelength Repeatability	$\pm 0.01 \text{ nm}$
Irradiance Absolute Accuracy	$\pm 1\%$
Irradiance Repeatability / Stability	0.1%
Measurement Time	100 msec

General Specifications

Interface	USB 2.0 type B connector
Interface Protocol	Simple ASCII commands
Supported Operating Systems	USB drivers for Windows, MacOS, Linux via FTOI virtual COM port
Dimensions	Height 160 mm, width 90 mm, depth 63 mm
Input Voltage	100 - 240 VAC 50/60 Hz
Operating Temperature	15°C - 35°C
Humidity	< 85% RH, non-condensing

1) 0.25 nm when calibrated with a known reference sample. $\pm 0.5 \text{ nm}$ nominal. Specifications are subject to change without notice.

In the Box

- LambdaMeter
- Power Supply
- USB Cable
- Application Software
- API Command Set

