



# Flame

## The Future Has Arrived.

Since producing the world's first miniature spectrometer nearly 25 years ago, Ocean Optics has striven continually to harness the power of spectroscopy to help customers solve problems. We've reinvented our core spectrometer design to improve the features our customers want most. Enjoy the benefits of greater thermal stability, reduced unit to unit variation made possible by cutting edge manufacturing techniques, and the freedom of interchangeable slits, simpler device connectors and LED status indicators. Blaze a trail of discovery with the new Flame spectrometer from Ocean Optics.



## Change the World, One Application at a Time



### At a Glance

Range: 190-1100 nm

Resolution: From 0.1 nm (FWHM)

SNR: 250:1

Dynamic range: 1300:1 (single acquisition)

Thermal stability: 0.02 nm/°C (650 nm range), 0.06 pixels/°C

Integration time: 1 ms – 65 s

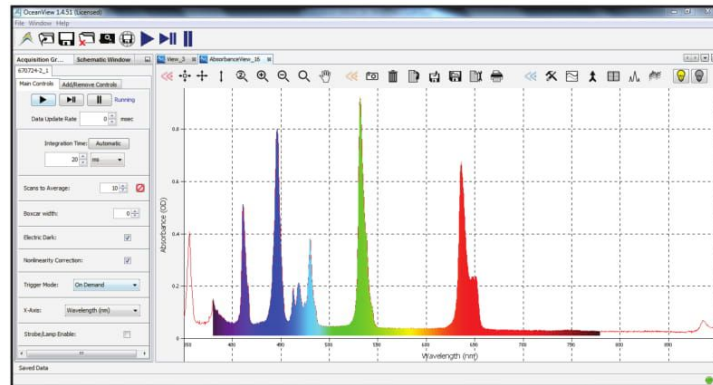
Power: 5V USB

Size: 88.9 x 63.5 x 31.9 mm (3.4 mm with feet); 3.5 x 2.5 x 1.26" (1.35" with feet)

Weight: 265 g (0.58 lb.)

Scan rate (maximum): ~400 Hz\*

\*When used with a standard, non-real time computer OS.



Holmium absorbance measured at 20 ms integration time from 350-800 nm with Flame spectrometer having a 25  $\mu$ m slit

We know it can be a challenge to get a spectroscopic measurement right the very first time. It's why you can configure the Flame for your specific application needs, with user-interchangeable slits to adjust for different requirements. It's also why we make our spectrometers available with the industry's largest range of modular light sources, fiber optics and sampling accessories for use within or outside of the lab. Small, rugged and easy to integrate, the Flame spectrometer is the ideal choice for OEMs, researchers and developers who can rely on our decades of experience and more than 250,000 spectrometers delivered.

### The Applications that Matter, the Features You Need

Feature	Best For	Example Applications
<b>User Interchangeable Slits</b>	Users who wish to vary resolution and throughput during measurements, or switch from absorbance to fluorescence in minutes	Life science and other labs using a wide variety of biological samples
<b>Indicator LEDs</b>	Convenient visual reference for spectrometer operation and status	Teaching and general lab use
<b>Thermal Stability</b>	Applications that require repeatable results in industrial and other environments with varying temperatures and conditions	LED binning and light metrology, process monitoring
<b>Reduced Unit to Unit Variation</b>	OEM applications and other measurement needs where users benefit from low variance	OEM manufacturers of analytical instrumentation
<b>Configurability</b>	Optimizing your spectrometer for application-specific requirements; adjusting range, throughput and resolution and adding features such as filters as required	Laser characterization, low signal fluorescence and optimizing for specific absorbance bands
<b>Plug &amp; Play Operation</b>	Users that want the convenience of simple, fast operation via the microUSB connection; lets users take the measurement to the sample	Remote sensing measurements in the field, including air and water quality monitoring and solar irradiance
<b>Ease of Integration</b>	OEMs and developers who need to integrate a spectrometer as part of a system via USB or RS-232	Engineering labs, developers, OEM manufacturers; works with LabVIEW and other design platforms

For more information, contact an application sales engineer today.

