



# SUPER-FAST OCEAN FX SPECTROMETER

## High Sensitivity, Fast Acquisition Speed and Enhanced Communications

The next innovation in miniature spectrometers from Ocean Optics offers high-sensitivity CMOS detector performance, acquisition speed up to 4,500 scans per second, and a robust communications module that accommodates Ethernet and Wi-Fi. The new spectrometer is ideal for UV-Vis measurement of high intensity light sources and plasmas; fast reaction kinetics, where onboard buffering ensures no data points are missed during critical stages of the reaction; and environmental monitoring, where Ethernet and Wi-Fi enable remote sensing. The fast sampling rate of Ocean FX also benefits high-speed sorting and QC applications.



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# Specifications

<b>Spectral range:</b>	200-1100 nm (configurable within this range)
<b>Available configurations:</b>	UV-Vis (200-850 nm) w/25 µm slit, in standard or enhanced sensitivity versions Vis-NIR (350-1000 nm) w/25 µm slit, in standard or enhanced sensitivity versions Extended-range spectrometer (200-1025 nm) w/25 µm slit, in standard or enhanced sensitivity versions
<b>Optical resolution:</b>	Depends on configuration; 0.8 nm (FWHM) w/600-line/mm grating and 5 µm slit
<b>SNR (single scan):</b>	300:1
<b>Dynamic range (single scan):</b>	6400:1
<b>Integration time:</b>	10 µs-10 seconds
<b>Scan rate (maximum):</b>	4,500 scans/second*
<b>Thermal stability:</b>	0.11 pixels/°C
<b>Entrance slit:</b>	5, 10, 25, 50, 100 or 200 µm width slits
<b>Input fiber connector:</b>	SMA 905 or FC

\*Scan rate depends on many factors, including the performance of the operating computer and operating system.

## Spectrometer Features and Benefits

Features	Benefits	Sample Applications
<b>Hamamatsu S11639 CMOS detector</b>	Responsive from 200-1100 nm, with great sensitivity in the UV and NIR	<ul style="list-style-type: none"> <li>• Biomedical applications (e.g., DNA absorbance)</li> <li>• UV gas analysis</li> </ul>
<b>Fast acquisition speed</b>	Acquire and process more spectral data in less time for faster, more reliable answers	<ul style="list-style-type: none"> <li>• Food sorting and processing</li> <li>• Kinetics measurements</li> <li>• Laser characterization</li> <li>• High-intensity plasma measurement</li> <li>• Measurements from transient events</li> <li>• Testing and QC in production environments</li> </ul>
<b>Integration times to 10 µs</b>		
<b>Buffering and timestamping</b>	Onboard buffer holds up to 50,000 spectra so you don't miss a single data point during kinetics measurements	<ul style="list-style-type: none"> <li>• Chemical kinetics such as enzyme reactions in cells</li> <li>• Reaction kinetics for drug development</li> </ul>
<b>Versatile communications module</b>	Operates via Gigabit Ethernet, Wi-Fi and USB simultaneously	<ul style="list-style-type: none"> <li>• Remote monitoring</li> <li>• Portable instrumentation</li> <li>• Process applications</li> </ul>

For more information, please contact an Application Sales Engineer today.



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