



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 USB, Gigabit Ethernet, RS-232 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 and averaging ensure 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

Spectral range:	200-1100 nm (configurable within this range)
Optical resolution:	Depends on configuration; 0.8 nm (FWHM) w/600-line/mm grating and 5 μ m slit
SNR (single scan):	290:1
Dynamic range (single scan):	5000:1
Integration time:	10 μ s-10 seconds
Scan rate (maximum):	4,500 scans/second*
Onboard processing:	Buffer depth (up to 50,000 spectra); averaging (up to 5,000 spectra)
Thermal stability:	0.11 pixels/ $^{\circ}$ C
Entrance slit:	5, 10, 25, 50, 100 or 200 μ m width slits
Input fiber connector:	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
CMOS detector	Responsive from 200-1100 nm, with great sensitivity in the UV and NIR	<ul style="list-style-type: none"> • Biomedical applications (e.g., DNA absorbance) • UV gas analysis
Fast acquisition speed	Acquire and process more spectral data in less time for faster, more reliable answers	<ul style="list-style-type: none"> • Food sorting and processing • Kinetics measurements • Laser characterization • High-intensity plasma measurement • Measurements from transient events • Testing and QC in production environments
Onboard averaging	Onboard averaging increases SNR and reduces cumulative data transfer times	<ul style="list-style-type: none"> • Testing and QC in production environments
Buffering and timestamping	Onboard buffer holds up to 50,000 spectra so you don't miss a single data point during measurements	<ul style="list-style-type: none"> • Chemical kinetics such as enzyme reactions in cells • Reaction kinetics for drug development
Versatile communications module	Operates via Gigabit Ethernet, Wi-Fi, RS-232 and USB	<ul style="list-style-type: none"> • Remote monitoring • Portable instrumentation • Process applications • OEM product development

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



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