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.

Ocean Optics

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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 µm slit
SNR (single scan):	290:1
Dynamic range (single scan):	5000:1
Integration time:	10 µs-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/° C
Entrance slit:	5, 10, 25, 50, 100 or 200 µm 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	• 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	• 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	
Buffering and timestamping	Onboard buffer holds up to 50,000 spectra so you don't miss a single data point during measurements	• 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	• Remote monitoring • Portable instrumentation • Process applications • OEM product development

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

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