



THE NEXT INNOVATION FROM OCEAN OPTICS

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 3,000 scans per second, and a robust communications module that accommodates Ethernet and Wi-Fi. The new spectrometer is ideal for UV-Vis applications in food and agriculture, where acquisition speed helps with food sorting and processing; biomedical sciences, especially for absorbance measurements requiring enhanced UV sensitivity; and environmental monitoring, where added communication interfaces enable remote sensing. Also, the onboard buffering feature ensures data integrity during kinetics measurements.



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Preliminary Specifications

Spectral range:	200-1100 nm (configurable within this range)
Available configurations:	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
Optical resolution:	Depends on configuration; 0.8 nm (FWHM) w/600-line/mm grating and 5 µm slit
SNR (single scan):	~270:1
Dynamic range (single scan):	~6400:1
Integration time:	10 µs-1 second
Scan rate (maximum):	3,000 scans/second*
Thermal stability:	0.11 pixels/°C
Entrance slit:	5, 10, 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
Hamamatsu S11639 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 (triggered pulses) • High-intensity plasma measurement • Measurements from transient events • Testing and QC in production environments
Integration times to 10 µs		
Buffering and timestamping	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"> • Chemical kinetics such as enzyme reactions in cells • Reaction kinetics for drug development
Versatile communications module	Operates via Gigabit Ethernet, Wi-Fi and USB simultaneously	<ul style="list-style-type: none"> • Remote monitoring • Portable instrumentation • Process applications

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



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