

Ocean HDX Spectrometer



High Definition Optics in a Compact Spectrometer

The Ocean **HDX** spectrometer uses a superior optical bench design, optimized components and precision engineering to maximize optical resolution, increase throughput, reduce stray light and maintain thermal stability for integrated, industrial and research applications. HDX has a back-thinned CCD array and "High Definition Optics" design to deliver an exceptional level of spectral performance for a compact,

UV-Visible spectrometer. Ocean HDX uses X-Platform Electronics to enhance communication capabilities, with powerful onboard storage and processing functions. Store up to 50,000 spectra and take advantage of onboard averaging to capture more spectral data in less time. Communication options include USB, Gigabit Ethernet, Wi-Fi, AP Wi-Fi and RS-232.

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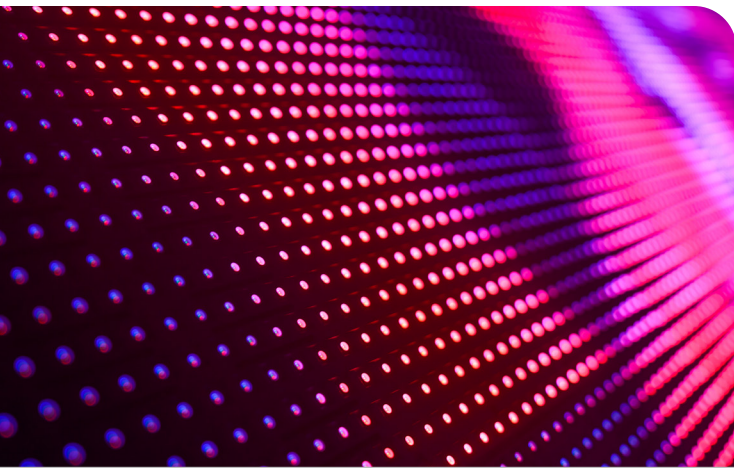
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OceanOptics



At a Glance

Detector: Back-thinned CCD

Spectral range: 200-1100 nm
(w/extended range option)

Optical resolution: 0.75-1.2 nm (FWHM)*

SNR: 400:1

Dynamic range: 12,000:1

Stray light: >3 AU

Integration time: 6 ms-10 seconds

A/D resolution: 16 bit

Thermal stability: +/-1.0 pixels over 0-40 °C

Communications: USB, Gigabit Ethernet, Wi-Fi,
AP Wi-Fi, RS-232

Onboard memory: Store up to 50,000 spectra

Operating temperature: 0-40 °C

Physical: 88.9 x 63.5 x 52.4 mm
dimensions, 400 g weight

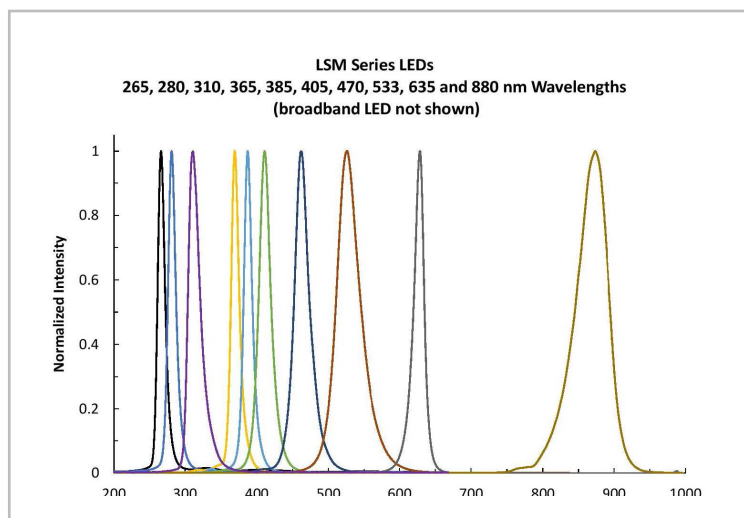
**Average over the entire spectral range using 10 µm slit*

High Performance, Seamless Integration

Ocean HDX is a general-purpose spectrometer well suited for research applications, integration into biomedical instrumentation, and QC functions in industrial settings. Outstanding unit-to-unit repeatability ensures measurement consistency across multiple monitoring points on a process line or across multiple plant locations.

Key industrial applications include thin film analysis on a production line; high speed, high throughput color and irradiance measurements for QA/QC; and real-time elemental analysis using plasma monitoring.

Sample Ocean HDX Spectra



Great optical resolution and awesome peak symmetry across the entire spectrum make Ocean HDX a good choice for monitoring plasma emission lines.



For more information on the Ocean HDX, please
contact an Ocean Optics Application Scientist today.