

Ocean HR4 Spectrometer



High Resolution and Excellent Thermal Stability

The Ocean HR4 is a high-resolution spectrometer with rapid acquisition, low stray light and great thermal stability for applications from plasma monitoring to DNA/RNA analysis. Ocean HR4 is compact and robust, with enhanced electronics and excellent thermal wavelength

stability to ensure reliable performance in demanding environments. Ocean HR4 models cover UV-Vis, Vis-NIR and UV-NIR options within the wavelength range from ~190-1100 nm, with a choice of slit width sizes to help users manage throughput and optical resolution.

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Ocean HR4



At a Glance

Dimensions:

149 mm (w) x 106 mm (d) x 48 mm (h)

Wavelength range: UV-Vis, Vis-NIR
and extended range versions

Optical resolution (w/25 μm slit):

<1.0 nm (FWHM) (depending on configuration)

Signal-to-noise ratio:

3000:1 (w/High Speed Averaging Mode)

Dynamic range: 1400:1 (single scan)

Integration time: 3.8 ms-10 s

Stray light:

2.3-3.0 AU (depending on configuration)

Thermal stability:

(wavelength drift): 0.08 pixels/ $^{\circ}\text{C}$

A/D resolution: 16-bit

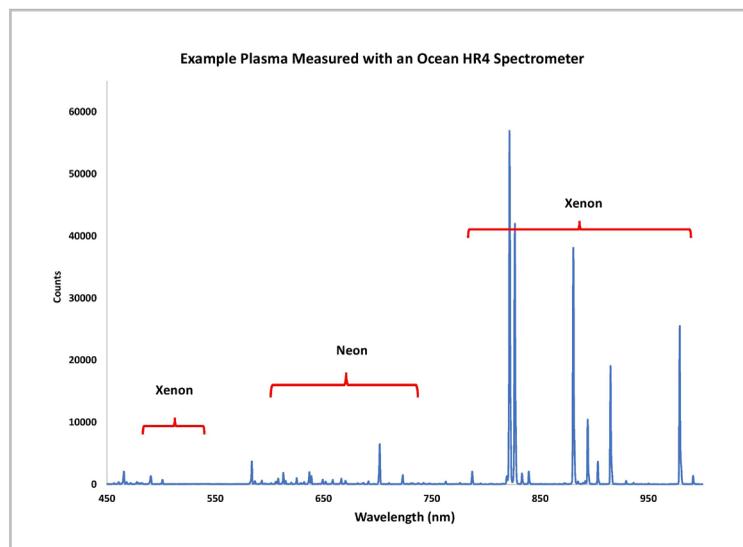
Connector: USB-C; SMA 905; 16-pin Samtec
TFM-108-02-L-DH accessory connector



For more information on the Ocean HR4, please contact
an Ocean Optics Application Scientist today.

Ocean HR4 is a High Resolution Instrument

The Ocean HR4 spectrometer is compatible with Ocean Optics light sources, accessories and software, allowing users to optimize setups for different applications. With its high resolution performance and thermal stability, Ocean HR4 allows users to discern smaller spectral differences among sample peaks. For example, Ocean HR4 is a good choice for optical emission spectroscopy applications in semiconductor manufacturing, where maintaining accuracy in identifying different spectral features is critical to certain processes.



As a high-resolution, thermally stable spectrometer, the Ocean HR4 is ideal for monitoring the emission peaks of gases used in semiconductor and other manufacturing processes.

Software Developers Kit Adds Value

Each Ocean HR4 spectrometer comes with OceanDirect, a powerful, cross-platform Software Developers Kit with an Application Programming Interface. OceanDirect provides users with the ability to optimize spectrometer performance, access critical data for analysis, and enable High Speed Averaging Mode, a function available with newer-model Ocean Optics spectrometers that dramatically improves spectrometer signal to noise ratio performance.