

Omni-λ300s / Omni-500S / Omni-λ750S

Omni-S Imaging Spectrometers & Monochromators

Three imaging-corrected grating platforms with 320, 500 and 750 mm focal lengths. Interchangeable triple-grating turrets support wavelength scanning and array-camera spectroscopy; the 500S adds motorised focus adjustment for each grating.

Best suited to: Research spectroscopy requiring a choice between throughput, resolution and camera imaging.



Configuration

Start with the required wavelength interval and detector pixel size. Specify the grating, slit width and entrance/exit geometry together: a longer focal length narrows the band captured on a fixed detector.

Specifications

Published parameters	
Focal plane	30 × 14 mm
Grating size	68 × 68 mm
Slit width	0.01–3 mm
Slit heights	2, 4 or 14 mm
Wavelength step, 1200 lines/mm	0.005 nm
Wavelength accuracy, 1200 lines/mm	±0.2 nm
Repeatability, 1200 lines/mm	±0.025 nm
Communication	USB 2.0; RS-232 configuration dependent

Platform comparison at 1200 lines/mm

¹ 10 μm slit near 435.83 nm. ² Published values for 15 μm CCD pixels. Spectral coverage depends on grating and detector; mechanical scan limits do not imply optical response.

Platform	Focal length / aperture	Slit resolution ¹	CCD resolution ²	Weight
Omni-λ300s	320 mm / f/4.2	0.08 nm	0.173 nm	20 kg
Omni-500S	500 mm / f/6.5	0.05 nm	0.11 nm	27 kg
Omni-λ750S	750 mm / f/9.7	0.03 nm	0.054 nm	40 kg

Measurement features

- Triple-grating turret; gratings selected separately.
- Manual slit supplied; motorised options depend on port.
- USB control and optional configurations for UV or infrared optics.

Full configuration: www.precisometer.com/spectroscopy/spectral-imaging/omni-s