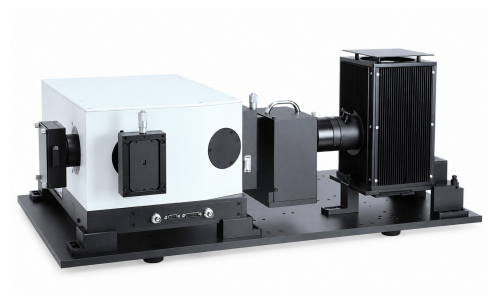


TLS2 / TLS3S

Tunable Monochromatic Light Sources

Broadband lamp illumination combined with an Omni monochromator and order-sorting optics. Choose the compact two-grating TLS2 or the three-grating TLS3S, then match the lamp, grating and output coupling to the measurement.

Best suited to: Scanning spectral response, excitation wavelength and wavelength-dependent optical properties.



Configuration

Specify the wavelength interval, required bandwidth and light level at the sample. Published coverage is configuration dependent; UV, visible and infrared ranges require different lamps, gratings and optics.

Specifications

Published parameters	
TLS2 optical platform	200 mm focal length; two-grating turret
TLS3S optical platform	320 mm focal length; three-grating turret
Xenon configurations	UV to 2000 nm on TLS3S; lamp and optics dependent
Halogen configurations	400–2400 nm (150 W); 350–2400 nm (250 W)
SiN configurations	1.1–8 μm (TLS2); 1.1–12 μm (TLS3S)
Output options	Free-space, fibre coupling or integrating sphere

Representative grating performance

Representative published grating configurations, with accuracy/repeatability referenced to the 435.8 nm line. Bandwidth depends on grating and slit setting; these are not simultaneous full-range specifications.

Platform / grating class	Bandwidth	Accuracy	Repeatability
TLS2 / short-wave	0.15–10 nm	± 0.2 nm	0.1 nm
TLS2 / long-wave	0.3–23 nm	± 0.4 nm	0.2 nm
TLS3S / short-wave	0.08–6.5 nm	± 0.2 nm	0.025 nm
TLS3S / long-wave	0.16–14.5 nm	± 0.4 nm	0.05 nm

Measurement features

- Manual bandwidth adjustment; motorised wavelength selection.
- Free-space, fibre or integrating-sphere output selected for the experiment.
- Xenon, halogen, infrared-emitter and reviewed laser-driven source configurations.

Configuration note

TLS3S is the current configuration naming used alongside the TLS3 family. Lamp coverage is not a guarantee of constant output power. Confirm the lamp, grating, order sorting and detector together.

Full configuration: www.precisometer.com/spectroscopy/light-sources/tls