

Measure multiple surface* cavities as thin as 0.075 mm

Confident accuracy with no back reflections, unique real-time visual feedback, and fast electronic fringe positioning via ÄPRE patented SCI Technology

*Etalons, substrates, prisms, wafers, masks, boules, display glass

System Overview

Description	Patented, Spectrally Controlled Source
Interferometer Compatibility	ANY Fizeau or Twyman Green interferometer
Data Acquisition	Electronic Vibration Tolerant Phase Shifting ¹
Alignment Mode	>5 m laser mode, electronically selected
Measure Mode	Narrow "white light" mode, electronically selected
Cavity Length Range	500 mm typical ² , electronically selected
Minimum Substrate Thickness	0.150 mm (0.075 option)
Minimum Fizeau Cavity (OPL)	~0.12 mm (thickness X index of refraction)
Polarization	Linear
Wavelength	633 nm & 660 nm ³ (other wavelengths possible)
SCI Source Feed	Fiber Optic, 3 meters long, nominal
Weight	7 kg, (15.4 lbs)
L X W X H mm (inch)	275 X 250 X 160 (11 X 10 X 6.3)

Environment

Temperature	15°C to 30° C (59°F to 86°F)
ΔT/Δt	<1.0°C/15 minutes
Humidity	5% to 90% relative humidity
Vibration Isolation	Best operation when place on a vibration isolation table

Typical Applications

Substrates/Windows/Waveplates

- Front/back surface form
- Front/back surface mid-spatial frequencies
- Total Thickness Variation (down to 0.075 mm thin)
- Thickness
- Wedge
- Transmitted Wavefront
- Homogeneity

Prisms, any size ≥100 μm per side

- Face Flatness
- Transmitted Wavefront
- Hypotenuse Flatness
- Face Parallelism
- Homogeneity

Spheres

- Form (no vertex bullseye)
- Mid-Spatial Frequencies
- Radius, 30 PPM without precision rails

Specification subject to change without notice

¹ SCI can acquire phase data in a fixed etalon (plane parallel plate) down to 0.150 mm.

² Longer and shorter cavity lengths are possible on custom order

³ 660 nm is recommended for Flat and Prismatic measurement applications.