

FPSI 200-532

Longitudinal Mode Measurement

Resolve the fine spectral structure of a continuous laser with a scanning confocal Fabry-Perot interferometer. The system combines an optical cavity, photodiode detector and piezoelectric scan controller.

Measurement method

A sawtooth voltage changes the mirror separation. The photodiode records transmitted resonances as the cavity scans, revealing single- or multiple-longitudinal-mode structure.

Features

- Confocal Fabry-Perot layout
- Photodiode detector included
- Mirror reflectance above 99% across the listed band
- Adjustable high-voltage scan amplitude and duty cycle

Applications

- Single-frequency laser assessment
- Longitudinal-mode structure
- Interferometry and narrow-line laser experiments

Interferometer

Parameter	Specification
Model	FPSI 200-532
Wavelength range	532-633 nm; other wavelengths customised
Free spectral range	2.5 GHz
Total finesse	≥200
Resolution	<12.5 MHz
Cavity length	30 mm
Mirror substrate	UV fused silica

Scan controller

Parameter	Specification
Waveform	Sawtooth
Output voltage	0-200 V
Listed scan-period settings	0.05 / 0.1 / 0.5 / 1 / 5 s

Conditions and configuration notes

The settings expressed in seconds are scan periods, although the source column calls them frequency conversion. Confirm scan calibration and the configured free spectral range.

Specify your measurement

- Laser wavelength and expected linewidth/mode spacing
- Input power, beam alignment and detector readout
- Required scan period and high-voltage control

Prepared by Precisometer. Technical review: 24 October 2026. Confirm the supplied configuration, measurement conditions, accessories and warranty with the quotation.

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