

ZOOM Spectra

High-Resolution High-Rate Laser Spectrum Analyzer

ZOOM Spectra gives you access to high spectral resolution on a simultaneous bandwidth of a few nanometers. ZOOM Spectra is both a multi-wavelength meter (picometer accuracy) and a spectrum analyzer. It is the ideal tool for the characterization of your cw and pulsed lasers.

SPECIFICATIONS

Wavelength range	630 - 1100 nm
Optical Spectral Resolution ⁽¹⁾	8 - 24 pm / 6 GHz
Absolute accuracy ⁽²⁾	1 - 2 pm / 650 MHz
Maximum linewidth of a mode ⁽³⁾	100 GHz
Wavelength bandwidth one measurement	5 nm (@ 630 nm) 14 nm (@ 1083 nm)
Maximum measurement rate	30,000 frame/s
Integration time	320 ns to 500 ms (32 ns step)
Input power range ⁽⁴⁾	10 nW - 1 mW
Optical input	PM singlemode fiber N.A. 0.12
Fiber connection	FC/APC
Power consumption	11 W - 450 mA @ 24 VDC
Communication	Gigabit Ethernet
Dimensions	12.6 x 8.3 x 9.1 cm

FUNCTIONALITIES with SpectraResolver software

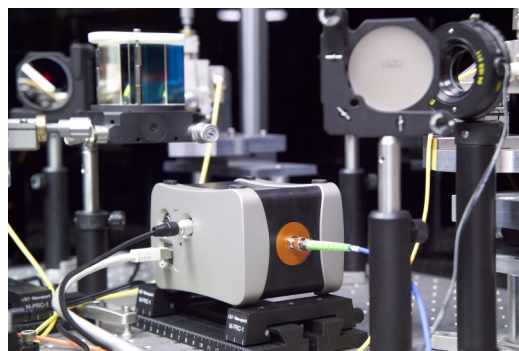
Compatibility	Windows 7, 8
Recording	Continuous, multiframe or triggered
Dark measurement	Manual and wizard modes
Multi-wavelength meter function	Automatic peak(s) detection
Standard graphical utilities	Zoom, markers and peak(s) detection over time
Unit change	nm / cm ⁻¹ / THz
Trigger option	TriggerBox and adjustable trigger delay
Software development kit	C/C++, Python, DotNet, VIs libraries

⁽¹⁾ According to Rayleigh criterion

⁽²⁾ T[°] calibrated on 10-40°C, no recalibration needed

⁽³⁾ For single and multimode lasers

⁽⁴⁾ Coupled in PM singlemode fiber



Key features

- 6 GHz high spectral resolution
- Excellent absolute accuracy: 650 MHz
- Simultaneous bandwidth of a few nm
- High measurement rate capability: 30 kHz
- Compact size
- Robust long-life factory calibration
- User-friendly SpectraResolver software
- Trigger

Applications

- Continuous and pulsed/triggered lasers (ns/ps lasers)
- Absolute wavelength and spectrum measurement
- Multifrequency lasers
- Mode-hop characterization
- Laser modulation

