SHR, SHR-IR High-Precision Wavelength Meter

Applications

- Spectral range 190 1800 nm
- Accuracy up to ± 3 pm
- Spectrum & FWHM analysis
- Compact design; no moving components
- Optical fiber input; diffuse attenuator
- Ideal for measuring wavelength of pulsed and CW lasers





Max width of analysed spectrum versus wavelength.

SHR spectral resolution versus wavelength.

Specifications

Operation modes	CW and pulsed (externally triggered)	
	SHR	SHR-IR
Spectral range	190 - 1100 nm	600-1800 nm
Absolute accuracy	± 0.003 nm	± 0.02 nm
Spectral resolution	30 000	4 000
(instrument function,	(from 6pm at 193nm to 40pm at	$(\lambda/\Delta\lambda_{FWHM}$ from 0.15nm for
λ/Δλ _{FWHM})	1200nm, refer to Fig.1)	600nm to 0.48nm for 1800nm)
Source linewidth requirement	≤125 cm ⁻¹ (from 0.5nm at 193nm to 18nm at 1200nm, refer to Fig.2)	≤125 cm ⁻¹ (from 4nm for 600nm to 40nm for 1800nm)
Sensitivity	less than 0.5 μW at 632.8nm for min exposure time of 7msec	-
Optical interface	 optical fiber 400 µm dia., 1000 mm length, connector SMA-905 diffuse attenuator FA-3 equipped with SMA-905 direct input without a fibre 	 quartz optical fiber dia. 400 µm, 1m length, SMA-905 connector diffuse attenuator FA-3 with SMA-905 connector
Computer interface	Full Speed USB	
Software	WLMeter	
Dimensions	165 x 215 x 90 mm	142 x 110 x 80
Weight	2.6 kg	1.2

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OPO spectrum acquired with the SHR



Nd:YAG laser wavelength of 1064.2nm can be measured either with MM optical fiber or without a fiber.



Laser diode spectrum 1725-1750nm acquired with the SHR-IR

Diode laser lcenter = 655.25nm, FWHM < 0.022nm Distance between single modes is 170pm

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