



HIGH-ACCURACY BROADBAND WAVEMETER



- Wide-range within two modifications
- Perfect kit for laser measurement
- No need for internal calibration
- Analysis of pulsed and CW lasers and diodes with one instrument

WLMeter system is a unique precise device for wavelength measurement of both CW and pulsed laser type. Equipped with advanced capabilities such as extensive opportunities for spectrum analysis including FWHM determination, high absolute accuracy ($\pm 3\text{pm}$) in a broad spectral range 190-1800nm supported by two modifications of WLMeter, and a compact design free from movable components, the WLMeter is an essential device for a wide variety around the laser applications.

Optical design without moving elements ensures stability, accuracy and high speed wavelength measurement. Please note the corresponding restrictions on the width of the analyzed line: 125cm-1.

Two versions of the WLMeter are available to meet the diverse needs of most experiments. Depending on the detector type WLMeter can cover the spectral range of 190-1100nm for WLMeter or 600-1800nm for WLMeter-NIR with outstanding resolution of 30 000 (from 6pm to 15pm depending on the measured laser wavelength) for WLMeter or 4 000 (from 0.15nm to 0.48nm) for WLMeter-NIR.

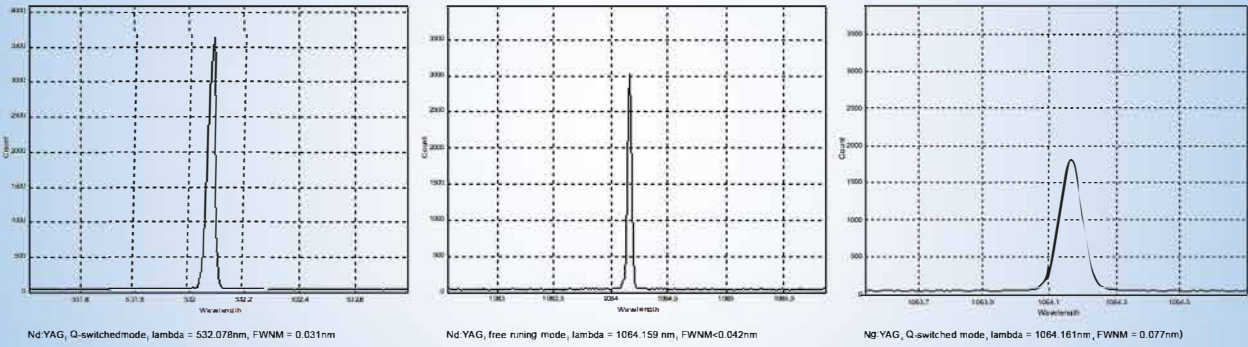
Intuitive user-friendly software "WLMeter" was designed specially for this model considering all the possibilities of this instrument type. Its key features are selection among the most known measurement units, straightforward demonstration of analysed spectra, FWHM determination of analyzed lines, monitoring and saving the central line wavelength value during time which is important for high-speed processes.

SMA-905
optical interface



External
Synchronization

WLMeter is capable of determining the half-width of Nd:YAG radiation at 1064 nm and 532 nm in Q-switched mode (77 pm and 31 pm, respectively). Since the linewidth in the free-oscillation mode is



- Display spectra and spectral line shape
- Monitoring changes in central wavelength over time
- Stable, reliable, no daily calibration required
- Measurement results in <nm>, <cm-1>, <Hz>
- Proven diffraction grating technology without moving elements or built-in light sources

The WLMeter is a stable and reliable alternative to traditional monochromators or interferometers, providing cost-effective solutions for laser wavelength analysis.

Technical data

		WLMeter	WLMeter-NIR
Range	nm	190 ... 1200	600 ... 1800
	cm-1	52 600 ... 8 300	16 700 ... 5 500
	THz	1 557 ... 250	500 ... 167
Laser Type		Pulsed and CW	
Minimum Input Power ¹⁾		0.5μW or 50μJ	
Accuracy,	pm	± 3	±20
	cm-1	0.8 at 190nm ... 0.02 at 1200nm	0.4 at 600nm ... 0.05 at 1800nm
	GHz	25 at 190nm ... 0.6 at 1200nm	13 at 600nm ... 1.4 at 1800nm
Spectral Resolution	$\lambda/\Delta\lambda_{FWHM}$	30 000	4 000
	pm	6 at 190nm ... 40 at 1200nm	150 at 600nm ... 480 at 800nm
	cm-1	1.75 at 190nm ... 0.28 at 1200nm	4.2 at 600nm ... 1.4 at 1800nm
	GHz	52 at 190nm ... 8.3 at 1200nm	125 at 600nm ... 42 at 1800nm
Requirements to the line width of analyzed radiation, not more than		nm	0.5 at 190nm ... 18 at 1200 nm
		cm-1	125
		GHz	3 750
Optical Input		Multimode SMA-905 fiber connection or direct (free-space aperture) input	
Instrument Interface		High-Speed USB	
Synchronization		External	
		Requirements for external sync pulse: Positive Polarity, 3 – 15V amplitude, 5 – 20 ms pulse duration at half maximum, ~10ms rise time,	

1) data for the minimum time of 7 ms; if the power of your source is lower, then you can increase the registration time.