

650

LASER SPECTRUM ANALYZER WA-650 WAVEMETER

R&D AND MANUFACTURING



Complete Measurement of Laser Spectral Performance

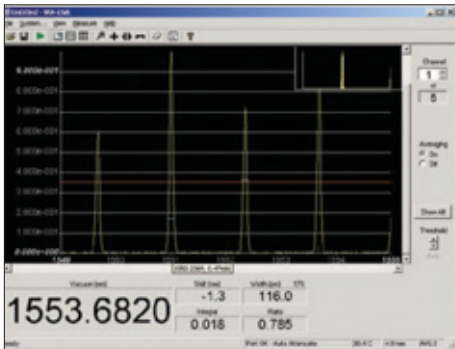
- Accurate wavelength measurement and high-resolution spectral analysis with one instrument
- Wide range of operation from 400 nm to 4 μ m
- Most accurate analysis of multi-wavelength laser sources
- Monitor laser performance over time to detect trends
- Store laser spectral performance data for future analysis and reporting

Converts Wavemeter® to Laser Spectrum Analyzer

The WA-650 Wavemeter Laser Spectrum Analyzer converts a Wavemeter system into a high-resolution laser spectrum analyzer, resulting in highly accurate, more complete characterization of laser spectral performance.

Automatic Laser Spectral Analysis

The WA-650 Wavemeter Laser Spectrum Analyzer is used with either the WA-1500 or WA-1000 Wavemeter Laser Wavelength Meters. It automatically derives a laser's spectral characteristics from the Fourier transform of the temporal interference fringe signal from the Wavemeter system. The WA-650 interfaces to a PC via USB, and special Windows-based software generates the laser spectrum for display or for more detailed analysis.



Spectral measurement of wavelength and linewidth.

Detailed Quantitative Information

The minimum resolvable bandwidth of the WA-650 is 4 GHz when used with the WA-1500 Wavemeter system. With the WA-1000 system, the minimum resolvable bandwidth is 15 GHz. Measuring laser linewidth to the specified spectral resolution is as simple as placing the cursor on the chosen peak.

Other quantitative information, such as longitudinal mode separation, is determined by calculating the absolute frequency of each spectral component. This results in a higher resolution measurement because absolute frequency is measured to an accuracy of either ± 0.2 ppm or ± 1.0 ppm, depending on the Wavemeter system used. Therefore, frequency differences between spectral components are measured to a resolution of about 60 MHz or 300 MHz.

Operates from 400 nm to 4 μ m

The WA-650 Wavemeter laser spectrum analyzer is extremely versatile, operating over the entire wavelength range of the three different versions of the WA-1500 and WA-1000 Wavemeter laser wavelength meters. With only one version of the WA-650, maximum wavelength flexibility is achieved with the VIS (400 to 1100 nm), NIR (600 to 1800 nm) and IR (1.5 to 4.0 μ m) Wavemeter systems.

Special Analysis Functions

To enable more detailed analysis, data collection by the WA-650 can be paused at any time to hold the most recently displayed spectrum. Or, the spectral data can be saved for future analysis. What's more, trends in laser spectral performance, such as frequency drift, can be analyzed over time with a real-time plot.



Trend analysis measures changes in wavelength over time.

Includes Everything Needed

The WA-650 Wavemeter Laser Spectrum Analyzer includes software that runs under Microsoft Windows and all the electronics necessary to interface either the WA-1500 or WA-1000 Wavemeter systems with a PC via USB.

SPECIFICATIONS

	WA-1500	WA-1000
Wavelength range		
VIS	400 to 1100 nm	400 to 1100 nm
NIR	600 to 1800 nm	600 to 1800 nm
IR	1.5 to 4.0 μ m	1.5 to 4.0 μ m
Spectral resolution	4 GHz	15 GHz
Absolute accuracy	± 0.2 ppm	± 1.0 ppm
	± 60 MHz at 1000 nm	± 300 MHz at 1000 nm
Measurement time (rate)	1 second	1 second
Computer requirements (minimum)	Windows 2000 or XP, Pentium 3 processor, 733 MHz, 256 MB RAM, USB 1.1/2.0	

ORDERING INFORMATION

	WA-650
Model	
WA-650 = Laser Spectrum Analyzer	
Example: WA-650	

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. **Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.** For the most recent version of this spec sheet, please go to the EXFO website at <http://www.exfo.com/specs>. In case of discrepancy, the Web version takes precedence over any printed literature.