

WS400

Spectral Attenuation, Cutoff Wavelength, Mode Field Diameter and Effective Area measurement system



Description

The **PE.fiberoptics** WS400 and WS400MFD measurement systems have been designed to be the most accurate and repeatable measurement system available for the measurement of Spectral Attenuation and Cut-Off Wavelength of single mode fibers. WS400MFD also measures Mode Field Diameter (MFD) and Effective Area (Aeff) using a far-field scanning method.

Features

- Spectral Attenuation using standard test method: cut-back and multimode reference.
- Cut-Off using standard bend technique.
- Uses high power LED sources and Solid State Monochromator; measurements at any wavelength in the 1000-1700nm range.
- Up to 50dB dynamic range
- Far-Field Scan (Reference) Method for MFD and Aeff with WS400MFD

Overview

The WS400 has been designed to provide the best possible accuracy and repeatability of Spectral Attenuation and Cut-Off Wavelength measurements. The WS400 conforms fully to the latest IEC and TIA standards (FOTPs178 and 80) and IEC 60793/60794.

The instrument features a bare fiber interface for fast and easy use, LED and Solid State Monochromator for low maintenance and high repeatability, coupled to highly sensitive detection. The system allows the user to select wavelengths anywhere from 1000 to 1700nm with high dynamic range.

WS400

Overview (continued)

The WS400MFD also includes the far field scanning reference method for MFD and Aeff measurements, using specially designed optics that allow a very low scattered light level.

In conclusion, the WS400 represents the ultimate in the measurement of Spectral Attenuation and Cut-Off, with additional capabilities for MFD and Aeff on the WS400MFD, as proven by discerning customers world-wide. (suited for industrial manufacturing environments), accurate wavelength calibration with CD401 across full measurement range calibration NOT limited to discrete laser emissions - and a rugged design which ensures easy portability.

Outline Specifications

Measurement Speed	~1 sec per point, typical
Measurement range	
Attenuation	1150-1650nm (LED) 1000-1650nm (White Light)
Cut-Off	1000-1650nm (White Light)
MFD	1150nm - 1700nm (programmable) ¹ 1310nm +/-25nm ² 1550nm +/-25nm ² 1600nm +/-25nm ²
Monochromator	Solid State
Wavelength accuracy	+/-0.5 nm
Maximum fiber loss	~50dB(at 1310+/-25nm and 1550+/-25nm)
Repeatability Attenuation	<0.03dB
Cut-Off	<10nm
MFD	<0.05 micron, fiber re-cleaved
Controller	Windows software, designed for network operation

¹ programming capability of monochromator

² wavelength range that will meet accuracy and repeatability specs.

Ordering information

The WS400 is supplied in two configurations:

1. WS400 operates in the 1310, 1550nm and 1600nm windows for measurement of Spectral Attenuation and Cutoff Wavelength.
2. WS400MFD operates in the 1310, 1550nm and 1600nm windows for measurement of Spectral Attenuation and Cutoff Wavelength and Mode Field Diameter.

Information WS400 and WS400MFD includes main unit, controller, software, adapted cleaving tool, and full accessories. Each system includes a PC controller, all required cables, accessories package and software.

Service contracts for all systems are available.

Application and training courses are held at regular intervals in the factory. Please enquire for details

Options available with the WS400 include:

1. CD401 high accuracy wavelength calibrator
2. CD440/PC remote control software suite

PE.fiberoptics reserves the right to change or amend specifications and/or configurations at any time without notice. Issue 2 Mar 2006

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