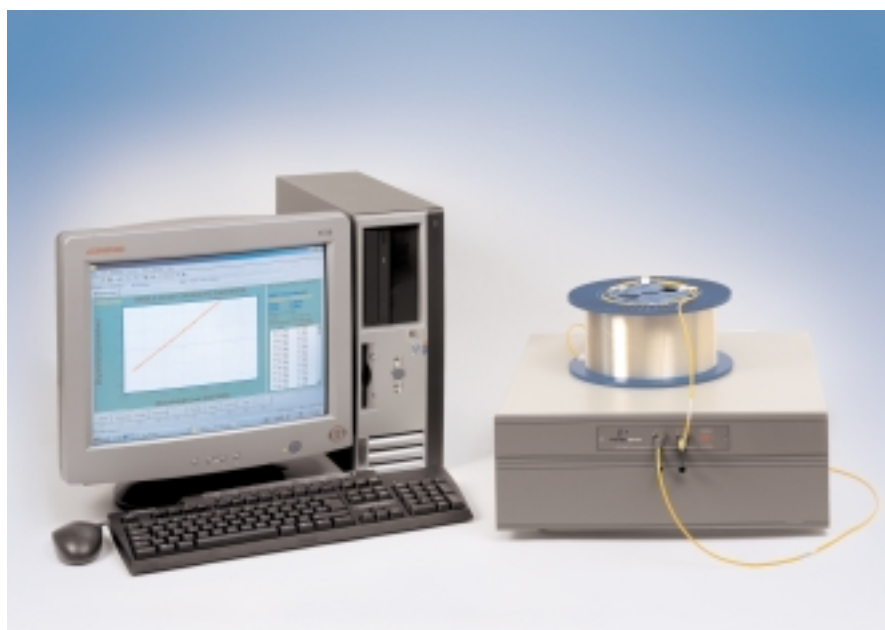


CD400

Chromatic Dispersion System



Description

The CD400 Chromatic Dispersion System represents a new generation of fiber test equipment based on the latest digital DSP technology. The PerkinElmer CD400 is the first in an exciting range of innovative digital instruments designed for the characterisation of optical fibers. The CD400 provides both Chromatic and Polarisation Mode Dispersion (PMD) offering unparalleled measurement of speed and compact design.

Features

- High speed measurements, conforming to ITU, IEC and ITU standards
- Applicable to unshifted, dispersion shifted and dispersion compensation fibers
- Solid state monochromator for accuracy and reliability in the 1250 - 1630nm range
- High accuracy and repeatability
- "Windows" based software for ease of use and for networking
- Options include Polarisation Mode Dispersion (PMD) and Fiber Strain/Elongation
- Tunable laser source add-on package available (CD450)

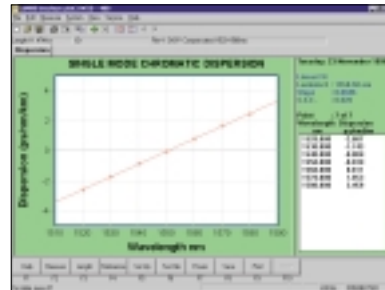
Overview

The CD400 uses a patented double demodulation technique to directly measure chromatic dispersion of optical fibers. The innovative approach offered by the CD400 provides the advantages in both fiber production and research environments:

- Direct dispersion read out.
- Curve fitting with Sellmeier or similar functions is not necessary to obtain dispersion data.
- The technique is applicable to all present and future silica fiber designs including standard unshifted, dispersion shifted and dispersion compensation fibers.

CD400 Chromatic Dispersion System

Overview (continued)



The CD400 also provides:

- Highly accurate and precise measurements.
- The operator can measure dispersion at any number of wavelengths. If dispersion is only required at one or two wavelengths, the CD400 can measure at those exact wavelengths. It is not necessary to make a full scan or to interpolate between points.
- Other key advantages include an insensitivity to ambient vibration (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.

Specifications

General

Connectors: FC-APC fitted as standard, others on request
Dimensions: 17" (W) x 6" (H) x 18.5" (D)
Weight: 19kg

Power requirements: 110, 220 or 240v, 50 or 60 Hz AC 270 Watts
Recommended Operating Conditions: 15-30°C, 0-70% RH

Technical

Separate specification sheet available on request.

Ordering Information

The CD 400 is supplied in two configurations:

1. CD 400 operates in the 1310 and 1550nm windows for measurement of chromatic dispersion and fiber length.
2. CD 400PMD operates in the 1310 and 1550nm windows for measurement of chromatic dispersion, polarisation mode dispersion and fiber length.

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 CD 400 include:

1. CD401 high accuracy wavelength calibrator
2. CD406 calibration fiber
3. CD409ST software suite consisting of routines for fiber strain and transmitted optical power measurements
4. CD409GI software suite for group index measurements
5. CD410 statistical analysis software suite
6. CD416/N N-channel integrated multiplex measurement system for strain and transmitted optical power measurements
7. CD425 pair of 1310 and 1550nm high power LEDs
8. CD431 polarisation mode dispersion
9. CD437A/B ultra-low PMD measurement option
10. CD440/PC remote control software suite
11. CD446 PMD calibrator
12. CD450 Tunable laser source module. Please refer to CD400L brochure for complete description.

For more information e-mail us at sales.fiberoptics@perkinelmer.com or visit our web site at www.perkinelmer.com/opto.

PerkinElmer Optoelectronics reserve the right to change or amend specifications and/or configurations at any time without notice.

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