

# CMA 5000

## Chromatic Dispersion Application



The CD module maintains industry-leading accuracy performance over the entire temperature and spectral range.



### Ideal Solution For Any Test Scenario

As a part of the CMA 5000 platform, the CD application is just one other way to accelerate the deployment of services while reducing the cost of measurement. With test and measurement options ranging from OTDR, connector inspection and dispersion to optical spectral analysis, bit error rate, SONET/SDH analysis and Gigabit Ethernet, the CMA 5000 is the ideal single-solution for all your testing needs.

The field portable CMA 5000 Chromatic Dispersion measurement system is a dedicated module that combined with the CMA 5000 mainframe will provide installers, network providers and network designers an advanced Chromatic Dispersion measurement instrument. The CMA 5000 Chromatic Dispersion measurement system is based upon the industry accepted phase shift method that can evaluate chromatic dispersion of individual fiber links or entire networks consisting of multiple EDFAs. Utilizing a single fiber for the test, as well as a tunable laser, results in a reduction in the testing time and an increase in the accuracy of the measurement. This translates into improved network performance and efficiency, resulting in increasing revenue for the network provider.

NetTest understands how valuable your time is, so we've provided intuitive, easy-to-use setup menus and single button operation. The CMA 5000 Chromatic Dispersion measurement system has been designed to provide optimal test efficiency to facilitate quicker turn-up of services and reduce the cost of testing.

The CMA 5000 provides complete control over the wavelengths measured, allowing for the instrument to be quickly configured to test only the specific wavelength areas of interest, increasing efficiency and saving valuable time. Wavelength can be selected so accurately to allow even the measurement of Chromatic Dispersion (CD) on an individual DWDM channel basis. With intuitive setup menus, the user is guided through a few minor settings that provide the industry's most accurate measurements of all fiber types.

The field portable CMA 5000 is the most versatile and accurate system available for Chromatic Dispersion measurements on all single-mode fiber types. It provides installers, carriers and system providers increased revenue through optimized network bandwidth while improving efficiency and reducing operational expenses through proper CD mitigation and compensation techniques.



Chromatic Dispersion Specifications	
<b>Wavelength Range</b>	1525-1625 nm
<b>Wavelength Accuracy</b>	±40 pm
<b>Wavelength Step Size<sup>1</sup></b>	0.01 nm to 100 nm
<b>Test Time</b>	< 30 sec
<b>Dynamic Range</b>	> 40 dB
<b>λ<sub>0</sub> Accuracy</b>	±0.5 nm
<b>Dispersion Accuracy</b>	±1.0% or ±0.05 ps/nm/km (whichever is greater)
<b>Dispersion Slope Accuracy</b>	±1.5%
<b>Dispersion Measurement Range<sup>2</sup></b>	6000 ps/nm for 2 nm step size
<b>λ<sub>0</sub> Repeatability</b>	0.05 nm
<b>Dispersion Slope Repeatability</b>	0.1%
<b>Measurement Points</b>	Up to 999
<b>Number of Test Fibers Required</b>	One
<b>Fiber Access</b>	Dual End
<b>Test Through Multiple EDFAs</b>	Yes

### Notes

<sup>1</sup> Wavelength step sizes of 10 pm - 100 nm can be programmed via the GPIB interface

<sup>2</sup> For 2 nm step size. (2400 ps/ns for 5 nm step size)

Please refer to the CMA 5000 Order Guide for valid NetTest module configurations and ordering information at [www.nettest.com/products/cma5000/literature.php](http://www.nettest.com/products/cma5000/literature.php).



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