

# Chromatis™ - Broadband Dispersion Measurements for Optics and Coatings

Thorlabs recently acquired the Chromatis Dispersion Measurement System from KMLabs, and this datasheet is currently being reviewed. An updated specification sheet in Thorlabs' template will be available in the coming weeks. Please refer to the website for the most up-to-date information.

## Applications

- Validating coating designs
- Incoming optics inspection
- Metrology for QA/QC

## Features

- GDD accuracy\*  $\pm 5 \text{ fs}^2$
- Intuitive control GUI including wavelength and bandwidth control, with integrated diagnostics
- Software guides the user through calibration and measurement
- No tools required to change optics or fixtures
- Includes Reflection and Transmission reference calibration optics

## Options

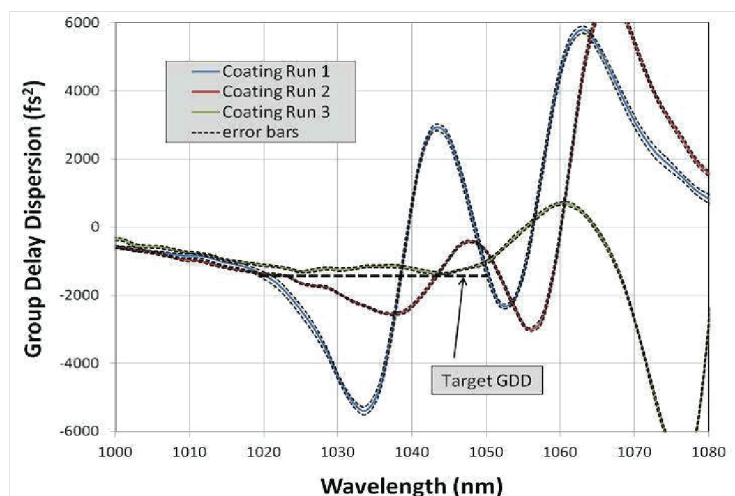
- InGaAs Detector Module for measurement to 1650 nm
- 2" Optic Fixtures
- Mirror-pair fixture
- Hardware for measuring highly dispersive optics such as AOM crystals
- Extended range to 1.7 or 2.2 micron

The first customer-friendly metrology system for optical dispersion: Visible to short-wave IR



Chromatis™ is the first and only production-grade test instrument designed specifically to address measurements of group delay dispersion in optical components. It is a broadband optical test instrument that quickly and accurately characterizes the full dispersive properties of optical components and coatings. Carefully managing optical dispersion is critical for optimal performance of ultrafast laser systems, multi-layer mirrors, and multiple quantum well structures. Chromatis™ is user friendly, self-calibrating, and highly accurate.

It's time to stop guessing, and start measuring.



Chromatis™ can be used to quickly characterize dispersion in optical elements.

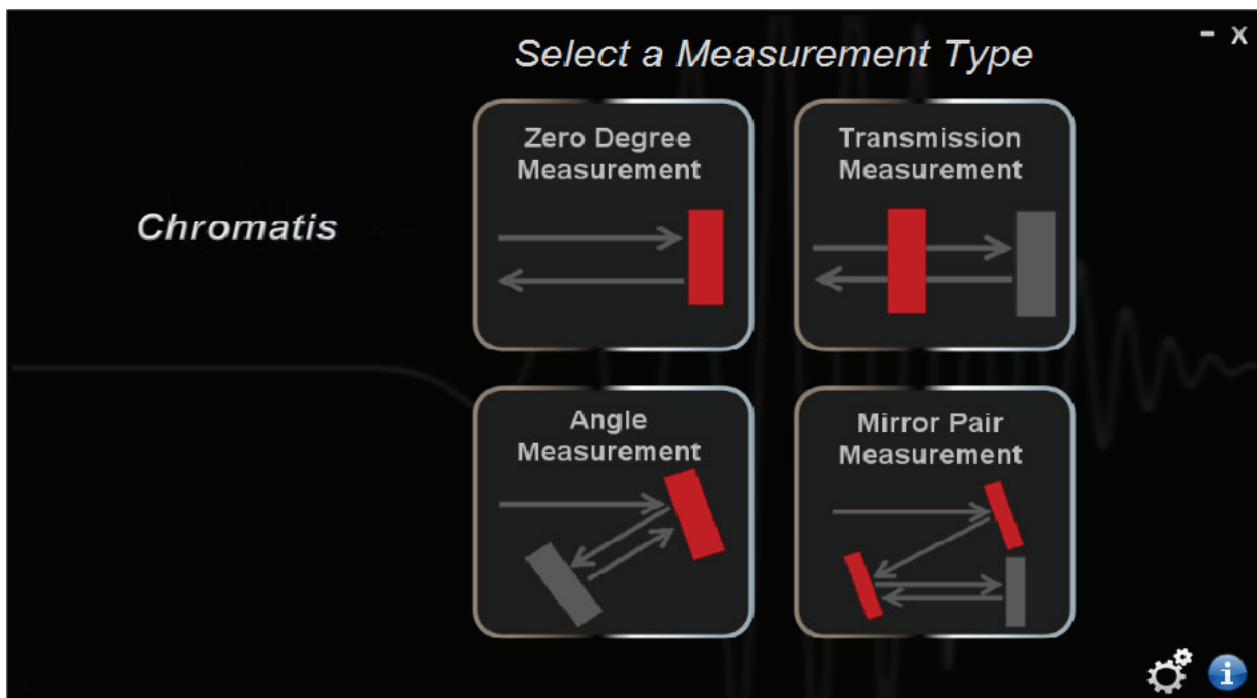
*Contact us for full specifications or with questions*



## Key Specifications

Parameter	Specification
Group Delay Dispersion (GDD) Resolution	$\pm 5 \text{ fs}^2$ *
Polarization	Measures "s" and "p" simultaneously
Standard Optic Diameter	1-inch (25mm)
Optional Optic Diameter	2-inch (50mm) (requires 2" Fixture Upgrade Option)
Standard Measurement Modes	<ul style="list-style-type: none"> <li>- Reflection, 0° Angle of Incidence (AOI)</li> <li>- Reflection, 5° - 70° AOI</li> <li>- Transmission, 0° - 70° AOI</li> </ul>
Optional Measurement Mode	Mirror pair, 6° - 54° AOI (requires Mirror-pair Fixture Upgrade Option)
Standard Silicon Detector Wavelength Range	500nm – 1100nm
Optional InGaAs Detector Wavelength Range	1000nm – 1650nm (Requires InGaAs Detector Module Upgrade Option)
Optional Pbs Detector Wavelength Range	1400nm – 2200nm (Requires PbS Detector Module Upgrade Option)
Laptop computer is included, with pre-installed measurement and control software.	

\* For low dispersion optics, verified with bare gold mirror calibration standard



Chromatis™ software interface