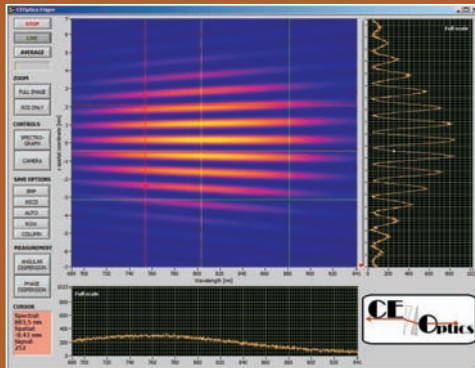


Full dispersion measurement with FRINGER

a powerful 2D interferogram processing software



Features

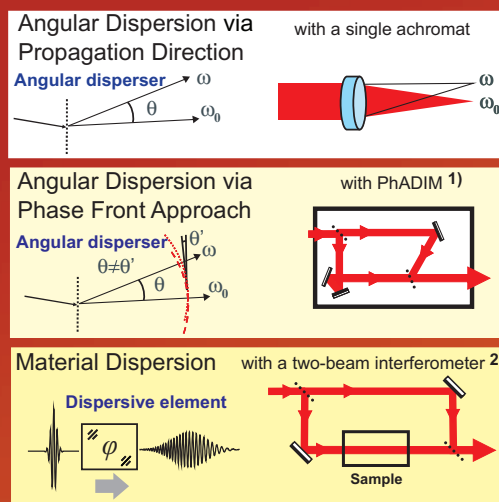
- Captures and evaluates interferograms
- High precision measurement of material dispersion and angular dispersions
- Triggerable
- Real time operation
- Save images in various formats
- Cross section evaluation
- Region of interest (ROI)
- Easy control of camera functions
- Requires low input laser power / pulse energy

There are numerous ways how Spectrally and Spatially Resolved Interferometry (SSRI) can be useful for you. Designed for capturing and evaluation of spectrally and spatially resolved interference fringes, Fringer can measure spectral phase shift and angular dispersion of ultrashort pulses by extreme accuracy. The two-dimensional feature of the detector

allows you to explore any spatial dependence along the beam diameter. Real-time evaluation of the interference patterns and triggered exposition of images are also possible with CEOptics' Fringer.

Although an SSRI measurement requires a two-beam interferometer with the object of interest positioned into the sample arm before the spectrograph; non-interferometric

measurements also provide great opportunity for beam diagnostics and alternative angular dispersion measurement (with only an extra achromat needed for focusing).



Imaging 2) Spectrograph



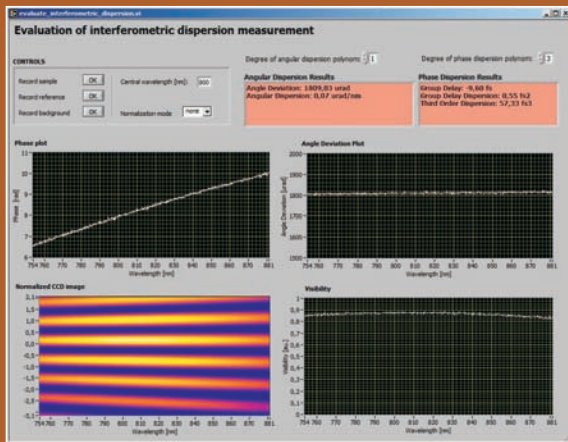
Possible optical layouts for measurements with FRINGER.



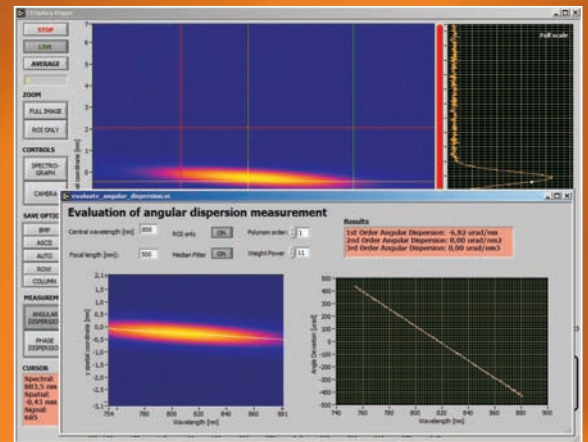
Phone: 021-34241961

Fax: 021-34241962

E-mail: info@auniontech.com



Phase dispersion measurement feature



Angular dispersion measurement feature

Specifications

Group delay (GD) ³⁾ :	range accuracy	-300 to 300 fs < 0.5 %
Group delay dispersion (GDD) ³⁾ :	range accuracy	-10 ³ to 10 ³ fs ² < 1 %
Third order dispersion (TOD) ³⁾ :	range accuracy	-4·10 ⁴ to 4·10 ⁴ fs ³ < 3 %
Fourth order dispersion (FOD) ³⁾ :	range accuracy	-10 ⁷ to 10 ⁷ fs ⁴ < 15 %
Propagation direction angular dispersion ^{3), 4)} :		< 0.1 μrad/nm
Phase front angular dispersion ³⁾ :		< 0.1 μrad/nm
Spectral range ³⁾		150 nm – 20 μm
Image formats:		bmp, jpeg, png, ascii txt
Operation system ⁵⁾ :		Windows XP, Windows 7 Linux
Minimum system requirements ⁵⁾ :		P4 processor, 1GB RAM

¹⁾: Inverted Mach-Zehnder Interferometer: PhADIM

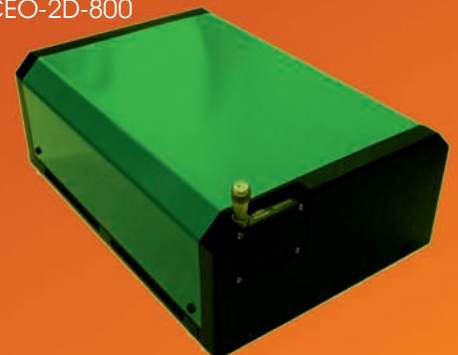
²⁾: Available on request

³⁾: The range and accuracy depend on the specifications of the imaging spectrograph. The displayed values are for color depth of 10 bit, spectral resolution of 0.1 nm, spatial resolution of 3.3 μm and around 800 nm.

⁴⁾: For an achromatic lens of a focal length 50cm and a beam size of 3 mm.

⁵⁾: Depends also on the detector specifications of the spectrograph.

CEO-2D-800



Accessories (optional)

- PhADIM/PhADIM-D, a phase front angular dispersion measurement unit.
- MePS, high accuracy beam rotator for 2D characterisation of the beam.
- Combined with a real 2D spectrograph (e.g. CEO-2D-800/CEO-2D-800-V by CE Optics)