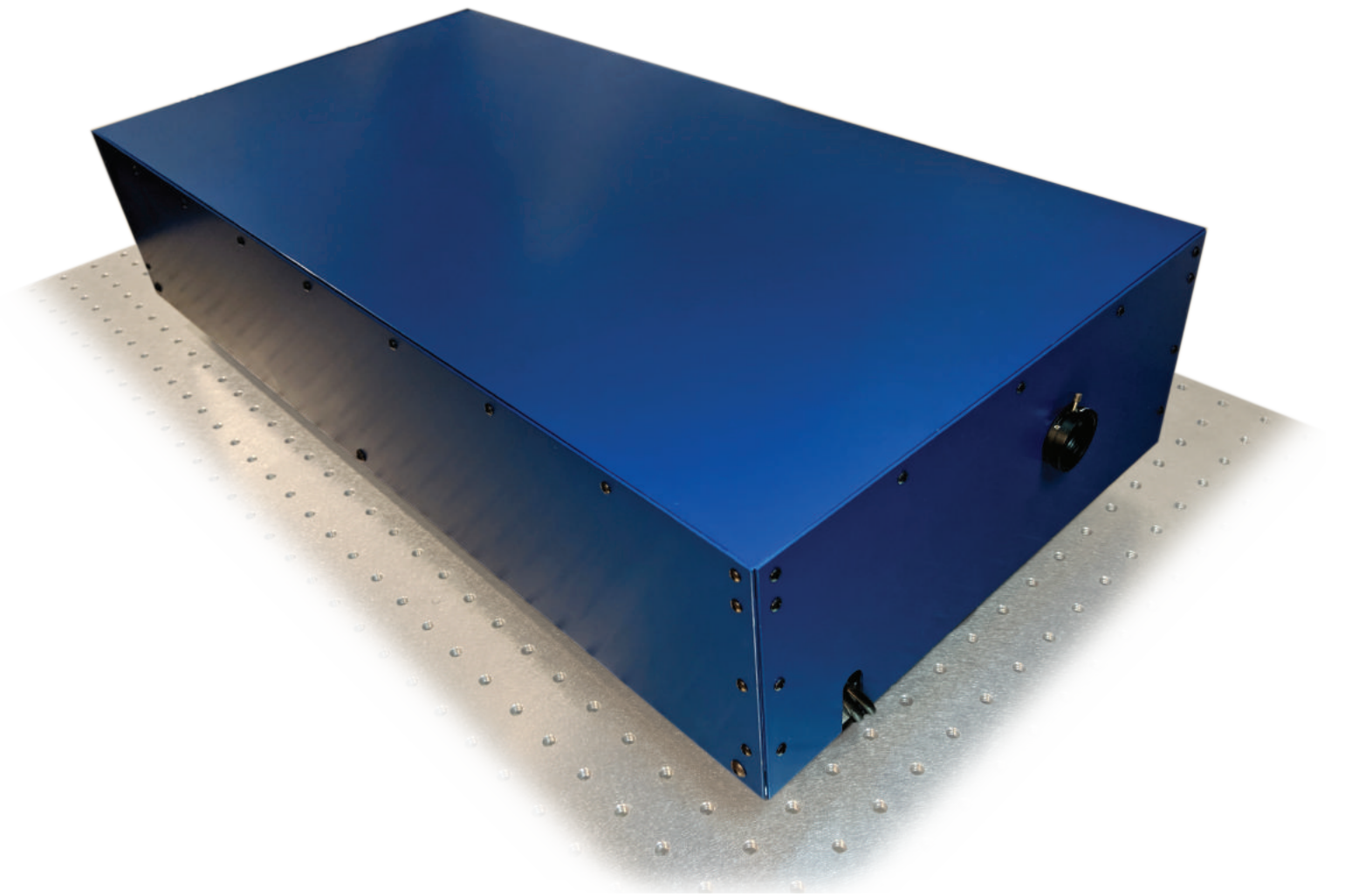
BIGFOOT
Collinear Ultrafast Spectrometer

MONSTR SENSE TECHNOLOGIES

Three ultrafast spectroscopy techniques in a *single box* with a *single beam*

Research is never easy, but your equipment should not limit you. Get the most our of your samples with the best resonant and non-resonant ultrafast spectroscopy techniques, easily coupled with a microscope!



➲ Transient Absorption Spectroscopy (TAS)

Only commercial fully-collinear TAS capable of **on-resonant pumping** (i. e., no high energy excitation to degrade the dynamics you care about).

➲ Impulsive Stimulated Raman (ISRS)

ISRS enhances Raman signals by up to nine orders of magnitude, so our spectrometer is a great tool for rapid measurement of dense samples and **label-free imaging** of biological samples.

➲ Multidimensional Coherent Spectroscopy (MDCS)

Use a variety of pulse sequences to fully characterize **inhomogeneous samples** and **coupling/transport**. Use our spectrometer to completely measure the third order nonlinear optical response of a material.

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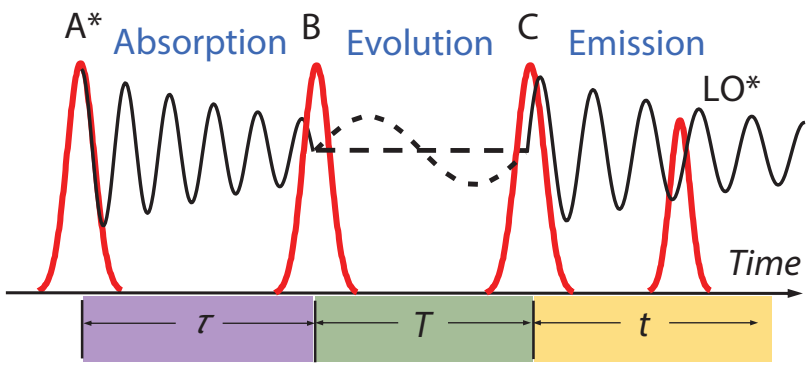
Technical Specifications

Specification	Standard config.:	Upgradable to:
Wavelength range	450 – 1100 nm	350 – 1500 nm
Optical bandwidth	> 60 nm	> 200 nm*
Resolution	0.02 nm	0.005 nm
Delay range	330 ps	up to 3.3 ns
Delay step size	0.3 fs	0.3 fs
Supported laser rep rate	50 kHz – 100 GHz	Contact us
Interferometric precision	0.1 fs	0.1 fs
Dimensions	12 × 24 in (30 × 60 cm)	12 × 24 in (30 × 60 cm)

* We encourage purchasing the dispersion compensation upgrade for extremely broad bandwidths

System generates 4 frequency tagged pulse trains that enable unprecedented versatility and control.



System Features

- **Software controlled**
  Scans are intuitive, and signal processing is performed by our carefully designed and integrated FPGA-based firmware.
- **Aligned by design**
  Double-pass design is robust, and hardware is custom machined so that our spectrometers do not require alignment.
- **No calibration needed**
  Because all measurements are made with respect to a stable Nd:YAG laser as a reference, these spectrometers NEVER require calibration.
- **Passively stable to vibrations**
  We bring the passive stability of IR interferometry and spectroscopy to visible wavelengths by our unique reference technique.