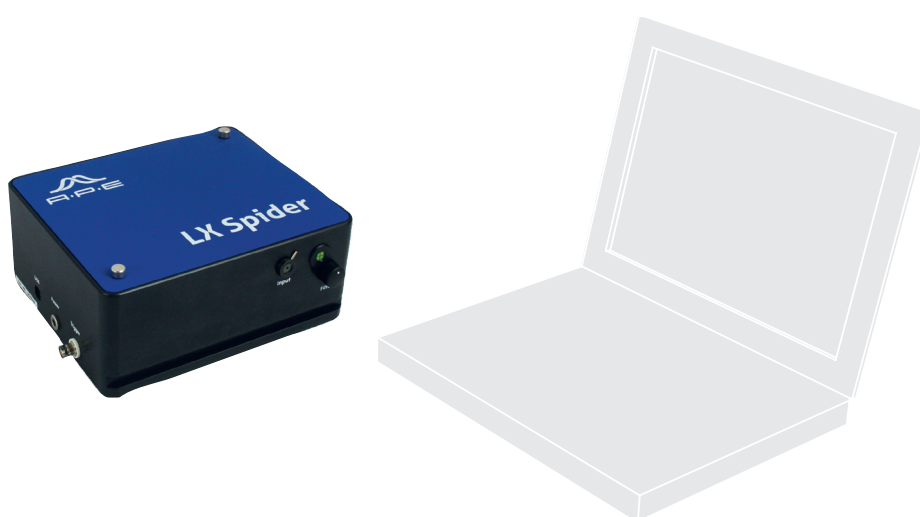


# Compact LX Spider

## The Compact Choice for the Ti:Sa Wavelength Range

- The Compact LX Spider by APE is a portable, compact and robust instrument for spectral and temporal characterization of femtosecond laser pulses. It is the ideal candidate for Ti:Sa laser applications and other ultrashort pulse oscillators or amplifiers in the wavelength range 750 - 900 nm.
- Two interchangeable Optics Sets are available to cover pulse durations between 16 and 300 fs.
- Based on the popular Spider method (Spectral Phase Interferometry for Direct Electric-field Reconstruction), the Compact LX Spider allows you to visualize the spectral and temporal characteristics of the measured pulse.
- The patented optical design\* incorporates a long crystal to up-convert two test pulse replicas. It also introduces spectral shear without the need for an additional chirped pulse. Both the temporal amplitude and the phase are calculated in real-time.
- The Compact LX Spider has been drastically simplified to feature fewer optical components, making it much easier to align and use. It is delivered as a pre-calibrated unit, complete with hardware and software. One click of the mouse and recalibration of this fully automated device is performed within seconds.




- Ideal for the wavelength range of 750 - 900 nm, e.g. Ti:Sa Laser
- Compact and robust design for easy portability
- Real-time measurement of phase/intensity profiles
- Software suite included
- Fully automated

\* International Patent No.: US 7,599,067 B2, WO 2006123148

# Compact LX Spider Specifications

## Specifications



Wavelength Range	750 - 900 nm
Typical Application	Ti:Sa Laser characterization
Optics Sets	Exchangeable
Spectral Bandwidth	Depending on Optics Set Optics Set 1: 13 ... 65 nm Optics Set 2: 5 ... 15 nm
Pulse Width	Depending on Optics Set Optics Set 1: 16 ... < 150 fs Optics Set 2: 70 ... < 300 fs
Laser Repetition Rate	Any; Single Shot
Input Polarization	Linear (any orientation)
Input Power	> 10 mW at e.g. 80 MHz, 80 fs 20 mW at e.g. 5 kHz, 35 fs
Input Trigger	TTL for $f < 10$ Hz
Connection	USB
Software	Included; Features e.g. <ul style="list-style-type: none"> <li>▪ Spectral and temporal reconstruction</li> <li>▪ Bar plot of dispersion orders suitable for alignment purpose</li> <li>▪ Spectral phase fit and analysis up to fourth order</li> </ul>

## Options

- Optics Set 1 or Optics Set 2
- Notebook with pre-installed Software

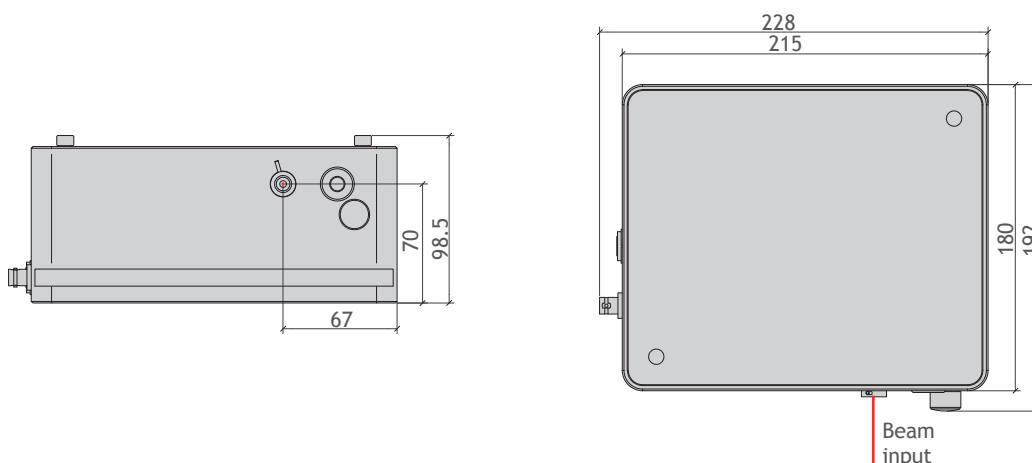
## Dimensions

228 x 99 x 192 mm (W x H x D) (See appendix for details)

# Compact LX Spider Technical Drawings

## Compact LX Spider

- Compact version, ideal for the characterization of Ti:Sa lasers



### Similar Products

FC Spider - Measurement of very short pulses with only a few cycles  
 Spider IR - Measurement at central wavelengths of around 1  $\mu\text{m}$   
 pulseCheck - Autocorrelator multitasking for any task  
 Mini PD - Autocorrelator routine tasks with a fixed wavelength range  
 Carpe - Autocorrelator first choice for multiphoton microscopy  
 waveScan - High resolution spectrometer  
 peakDetect - Pulse quality monitoring

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APE follows a policy of continued product improvement.  
 Therefore, specifications are subject to change without notice.

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