

LX SPIDER

Phase Resolved Ultrafast Pulse Measurement



The **LX Spider** is a compact and robust instrument for complete spectral and temporal characterization of femtosecond laser pulses in the range of approximately 16 ... 200 fs (with two exchangeable optics sets - one included with unit).

The **LX Spider** measures the spectral amplitude and phase using the SPIDER (Spectral Phase Interferometry for Direct Electric-field Reconstruction) principle. It is based on a patented technology ¹⁾, using a single crystal to up-convert the two test pulse replica and to introduce the spectral shear without the need for an additional chirped pulse. From the spectral quantities the temporal amplitude and phase are calculated in real-time.

Due to the drastically simplified setup, the **LX Spider** is very compact, easy to align and use. With its automation, calibration is done via simply a mouse click in a matter of seconds. Offering realtime operation, the automated **LX Spider** is the ideal tool for optimization of complex ultrafast setups like amplifiers and pulse compressors.

The instrument comes ready to use including all required software.

Compact and robust design

Easy alignment

Realtime operation

Fully automated

Single shot capability included

1) International Patent Application PCT/GB2006/001823, May 18th, 2006

Ultrafast Pulse Diagnostics

Wavelength Conversion

Pulse Management

Acoustooptics

Your Partner in Ultrafast

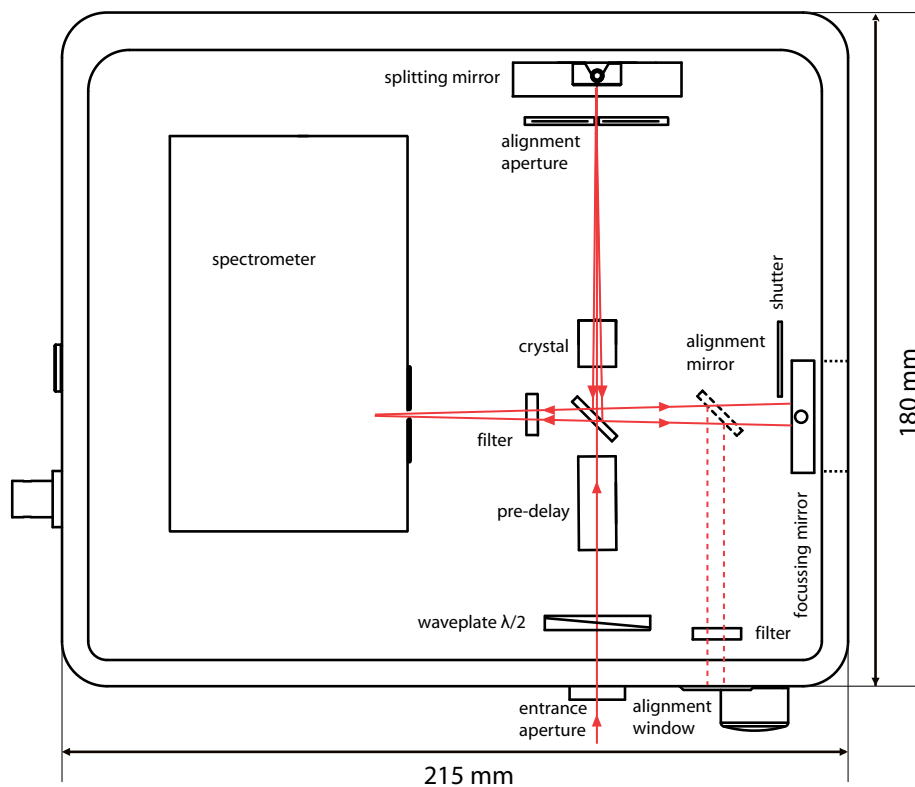
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SPECIFICATIONS

Wavelength range	750 ... 900 nm	
	Optics set 1	Optics set 2
Pulse width (for transform limited pulses)	80 ... 16 fs ¹⁾	200 ... 70 fs
1) with enhanced accuracy down to 25 fs / 40 nm (theoretical reconstruction error < 1 %)		
Pulse bandwidth	13 ... 65 nm	5 ... 15 nm
Pulse width (for non-transform limited pulses)	< 150 fs	< 300 fs
Input polarisation	Linear / any orientation	
Input power	> 10 mW @ 80 MHz, 80 fs ~ 20 mW @ 5 kHz, 35 fs	

DIMENSIONS (in mm)

215 x 100 x 180



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