



## SPIDER. Spectral Phase Measurement System

- Input pulse duration from 5 fs
- Suitable for oscillators and amplifiers
- Real-time measurements
- Single-shot mode
- Built-in 2-channel spectrometer
- Built-in CCD camera for easy alignment at low repetition rates
- USB interface and analysis software included



SPIDER SP-800-5 System

### Product overview

#### Spectral Phase Interferometry for Direct Electric field Reconstruction

The SPIDER device provides precise phase-amplitude measurement of ultrashort laser pulses. The device is widely used for on-line tuning of amplifier systems. The device is used to measure spectral phase, spectral intensity and temporal intensity. It also displays an autocorrelation function.

The principle of operation is based on spectral shearing interferometry. The spectral phase property is reconstructed from a spectral interferogram registered by a CCD. The other CCD records spectral amplitude of the input pulse. The phase-amplitude characteristic in time domain is obtained by Fourier transformation of the spectral phase-amplitude characteristic. The reconstruction algorithm used is linear and non-iterative.

The SPIDER features a USB connection with acquisition and analysis software. The unit has a built-in two-channel spectrometer for spectra registration.

#### SPIDER technical specifications

	SP-800-5	SP-800-10	SP-1000-20
<b>Input spectral range*</b>	550-1050 nm	680-1000 nm	900-1100 nm
<b>Input pulse duration ranges (for TL pulses)</b>	5-12 fs / 10-30** fs	10-40 fs / 30-120*** fs	20-80 fs / 80-320*** fs
<b>Sensitivity</b>	100 mW at 100 MHz; ~1 uJ in single-shot mode		
<b>Input pulse repetition rate</b>	any*, from single-shot		
<b>Input polarization</b>	linear, horizontal		
<b>Dimensions (including 2-channel spectrometer)</b>	361 x 210 x 145 mm		385 x 295 x 125 mm

\* - please specify the required values with your request;

\*\* - the ranges are covered by changing the number of passes in the stretcher;

\*\*\* - the ranges are covered by exchangeable stretcher optics sets; one of the ranges of customer's choice is included in the default supply package.



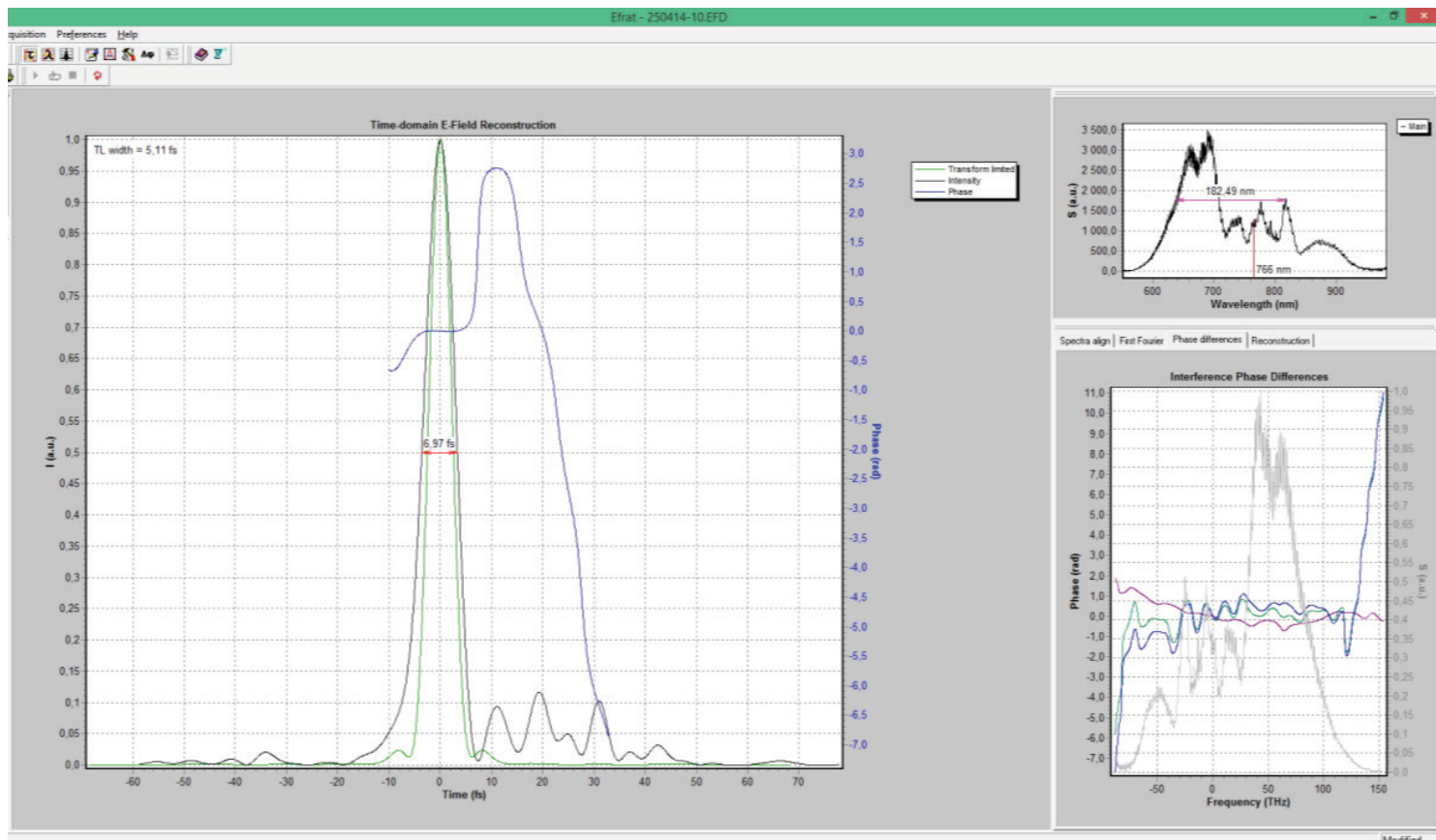
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LASERS AND OPTICAL SYSTEMS

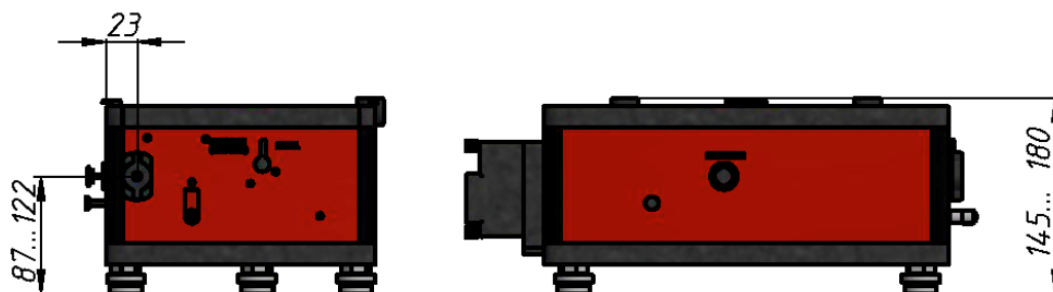


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SPIDER software screenshot



SPIDER-800-5 dimensions in mm

