



Diagnostics



SPIDER

- USB interface
- Single-shot mode
- Real-time measurements



SPIDER

Product overview

Spectral Phase Interferometry for Direct Electric field Reconstruction

Comes as a system consisting of the mechanics, optics and user-friendly software. The device is used to measure spectral phase, spectral intensity, temporal intensity. It also has an autocorrelation function.

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 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.

Avesta's SPIDER features a USB connection with acquisition and analysis software.

SPIDER technical specifications

	SP-30	SP-120	SP-7	SP-10/120
Wavelength range, nm	650-1050			
Pulse duration range, fs	8-32	30-120	6-22	10-120
Sensitivity	min. average power 100 mW at 100 MHz 0.01 mJ in single-shot mode			
Input pulses repetition rate	from 1 kHz to CW/single			
Input polarization, linear	horizontal			
Dimensions, mm	550 x 330 x 180			



Software screenshot