FASTLITE

Ultrafast - Shaping - Measurement - Control

WIZZLER

Femtosecond pulse measurement device

Standard Models

- Highest dynamic range
- Single shot, single beam
- Extreme ease of use
- Calibration-free
- Direct retrieval algorithm
- Data logging
- Vacuum-compatible option
- Pulse compression optimization for Dazzler users

Wizzler products are based on a unique technique invented and patented by FASTLITE, in which a reference pulse with a flat spectral phase is collinearly generated from the input pulse by cross-polarized wave generation (XPW). The spectral interference pattern resulting from the combination of the input pulse and the reference pulse allows direct retrieval of the spectral phase and intensity.

Publications:

T.Oksenhendler et al: "Self-referenced spectral interferometry"
Appl. Phys.B (2010)

A.Moulet et al: "Single-shot, high dynamic-range measurement of sub-15fs pulses by self-referenced spectral interferometry"
Opt.Lett. (2010)

S.Grabielle et al: "Self-referenced spectral interferometry cross-checked with SPIDER on sub-15 fs pulses."
Nima. (2011)

A.Trabattoni et al: "Self-referenced spectral interferometry for single-shot measurement of sub-5fs pulses"
RSI (2015)

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Specifications

	Wizzler 400	Wizzler USP8	Wizzler USP4	Wizzler 800	Wizzler 1030
Spectral detection band edges	380-400 nm	550-1050 nm	to specify within 460-1040 nm Δλ max =480nm	560-1040 nm	960-1080 nm
Pulse duration range	35 - 100 fs(*)	8 - 100 fs(*)	4 - 100 fs(**)	20 - 100 fs(*)	50 - 1000 fs(*)
Temporal measurement window	±400 fs	±400 fs	±400 fs	±400 fs	±2500 fs ±800 fs for pulses <100fs
Temporal measurement dynamic	>40 dB	>40 dB	>40 dB	>40 dB	>40 dB
Required pulse energy	2-20 µJ	5-15 µJ	5-15 µJ	2-20 µJ	2-20 µJ

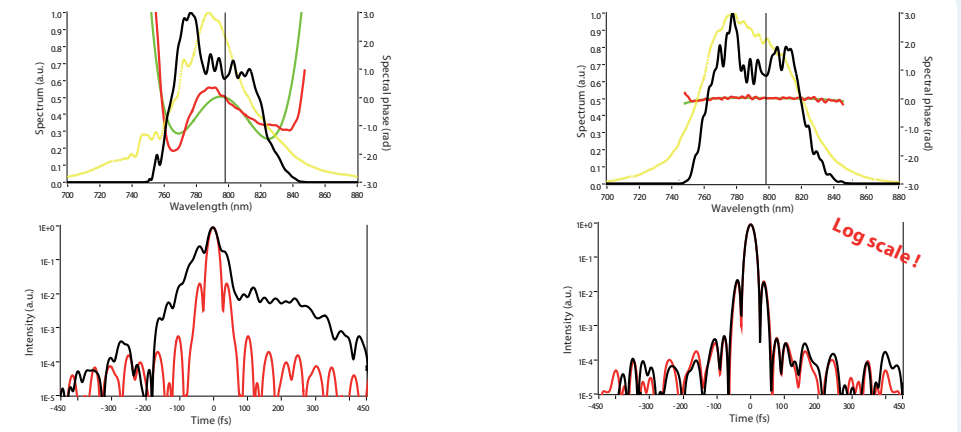
(*)*FWHM values for FTL Gaussian pulses*
(**) *For typical few-cycle spectrum shapes*

For other pulse durations or other wavelengths, please contact us

Additional feature for Dazzler users:

High dynamic pulse compression using the included Dazzler / Wizzler feedback loop

- Increase contrast and peak power
- Day-to day FTL pulses
- Day-to-day reproducible results



Requirements

Input pulse :

- Polarization — linear
- Min/Max energy — see specification table
- Max average power — 1 W
- Beam diameter — 3mm, collimated
- Pulse compression — < 2 x FTL pulse duration
- Beam Height — adjustable down to 35mm

PC: Windows 10, with 2 USB ports

Dimensions: *257x109mm*