FASTLITE

ULTRAFAST SCIENTIFIC INSTRUMENTATION

WIZZLER

Femtosecond pulse measurement device

Models for short-wavelength infrared pulses

Dimensions: 300x450mm

- Highest dynamic range
- Single shot, single beam
- Extreme ease of use
- Calibration-free
- Direct retrieval algorithm
- Data logging
- 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.

Relevant 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.Trisorio et al: "Self-referenced spectral interferometry for ultrashort infrared pulse characterization"
Opt.Lett. (2012)

Phone: +33 (0)4 88 13 17 51
Fax: +33 (0)4 92 95 76 90
E-mail: info@fastlite.com
www.fastlite.com

FASTLITE
Les Collines de Sophia, bât D1
1900 route des crêtes, 06560
Valbonne, FRANCE

FASTLITE

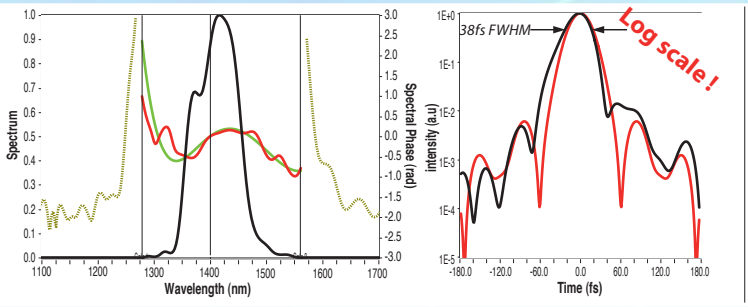
ULTRAFAST SCIENTIFIC INSTRUMENTATION

WIZZLER

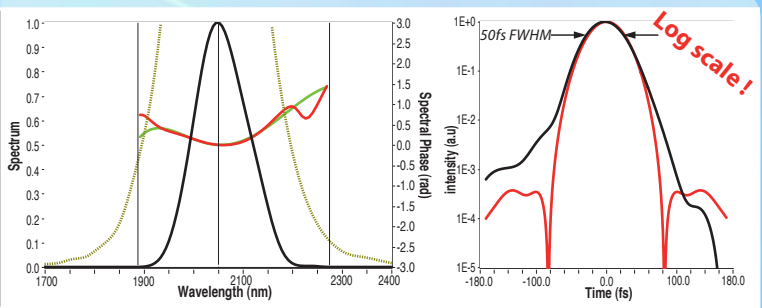
models for short-wavelength infrared pulses

	Wizzler OPA signal	Wizzler OPA idler	Wizzler SWIR
Spectral range	1,2-1,5 µm (central λ)	1,7-2,2 µm (central λ)	1,3-2,0 µm (central λ)
Spectral resolution	2,4 nm	5-9 nm	5-8 nm
Spectral bandwidth range (*)	at 1,2 µm 30-85 nm at 1,35 µm 35-105 nm at 1,5 µm 45-130 nm	at 1,7 µm 65-280 nm at 1,95 µm 80-390 nm at 2,2 µm 105-235 nm	at 1,4 µm 60-190 nm at 1,7 µm 85-280 nm at 2,0 µm 120-385 nm
Pulse duration range (*)	25-80 fs	at 1,7-1,95µm 15-70 fs at 2,2µm 30-70 fs	15-50 fs
Temporal measurement window	±280 fs	±235 fs	±170 fs
Required pulse energy (**)	5-20 µJ	5-20 µJ	5-20 µJ

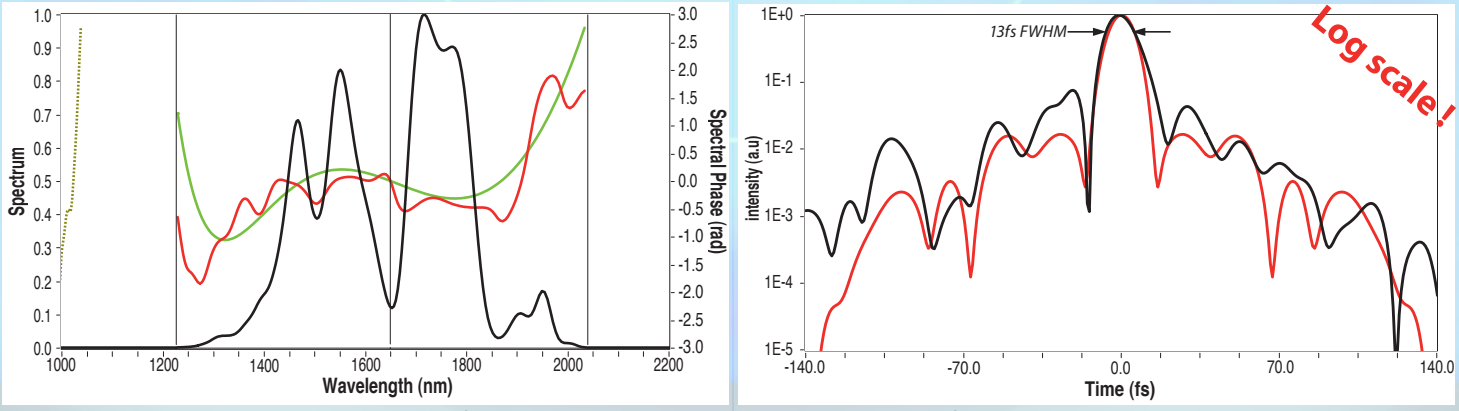
(*)*FWHM values for FTL Gaussian pulses* (**) *Collimated, <ϕ3mm beam* *For other pulse durations or other wavelengths, please contact us.*



Measurement of OPA signal pulse at 1400nm



Measurement of OPA idler pulse at 2050nm



Measurement of Filament generated by OPA pulse at 1500nm focused in Xe gas cell

Requirements :

Input pulse :

- Polarization: linear
- Beam diameter: <3mm, collimated
- Beam Height: custom down to 76mm

- Min/Max energy: see specification table
- Max average power: 1 W
- Pulse compression: < 1,2 x FTL pulse duration

PC : Windows XP or 7, with 2 USB ports