



# Frozzer

**Scanning FROG dedicated to IR ultrafast pulses**

Specially developed to characterize the output of Fastlite high-flux MIR OPCPA sources, the Frozzer can measure pulses from 3

optical cycles to 5ps between 1 and 5 $\mu$ m.

The Frozzer is thus perfectly adapted to the temporal characterization of Yb, Er, or Tm-doped systems as well as signal, idler and DFG outputs of OPA and OPCPA systems.

## Principle - Key benefits

- Versatile

With its optical head separated from the spectrometer, and including optics compatible with 1 to 5 $\mu$ m central wavelengths, the Frozzer can cover a wide spectral range, and thus characterize many different light sources, from Yb, Er, Tm-doped systems to signal, idler and DFG outputs of OPAs and OPCPAs.

Its ultra-long, high-resolution scanning range can accommodate pulses ranging from few-optical cycles to 5ps with large Time Bandwidth Product (TBP).

- Easy to operate

The optical head is designed with simplicity in mind, and can be re-aligned within minutes even by inexperienced users.

## Applications

- Few-cycle SWIR pulse measurement

The third generation of femtosecond laser sources can deliver few-cycle pulses at central wavelengths where non-SHG-based techniques such as SRSI suffer from the lack of available high-resolution spectrometers. The Frozzer perfectly fills the gap with a versatile though simple design.

Extremely easy to operate, it is the ideal tool for SWIR pulse characterization.

- Large Time-Bandwidth Product pulses measurement.

The ability of the Frozzer to measure chirped pulses or complex temporal shapes up to 5ps is very useful, whether you are building an OPCPA pumped by a few ps laser and you need to control the real pulse temporal profile during amplification, or you are doing experiments with pulses after an OPA and DFG where pulse compression is not straightforward.

## **Specifications**

Click on the image to download the Frozzer specifications.

Click on the image to download the Frozzer 1030 specifications.

For other wavelengths, please contact Fastlite.