

# Starzz

## High power OPCPA system

With record CEP stability, high average power and high versatility, this new generation of ultrafast light sources combines Yb-doped industrial grade pump lasers with Fastlite landmark technologies to set new standards in ultrafast laser science.

Based on the Tangor300 femtosecond pump laser, Starzz OPCPA systems can be set to cover a wide range of wavelengths from 800nm to  $3\mu\text{m}$ , and deliver few cycle pulses. The included Dazzler proprietary technology enables ultimate control of key parameters for reproducible day to day experimental conditions. Its full range of embedded diagnostics, active pointing stabilization and computer-controlled operation make the Starzz system the ideal tool for high-end laser science.



### Applications

#### Scientific:

- > High-harmonic generation (HHG)
- > Attosecond science
- > TR-ARPES
- > Ultrafast dynamics

### Options

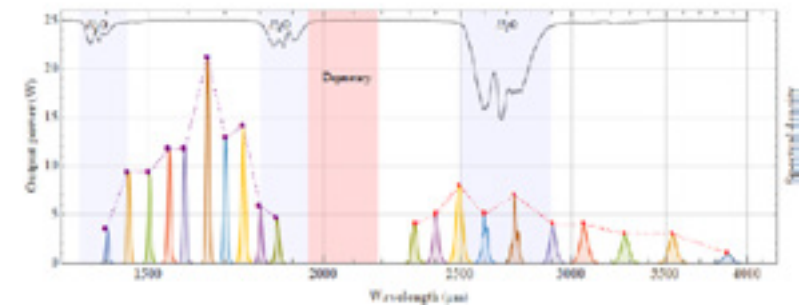
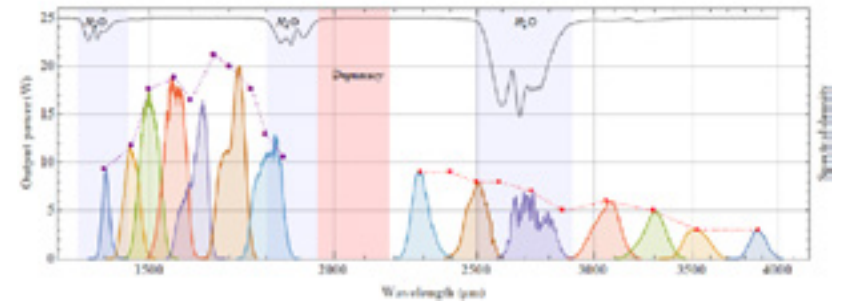
- > dual fs / ps mode

### Key Features

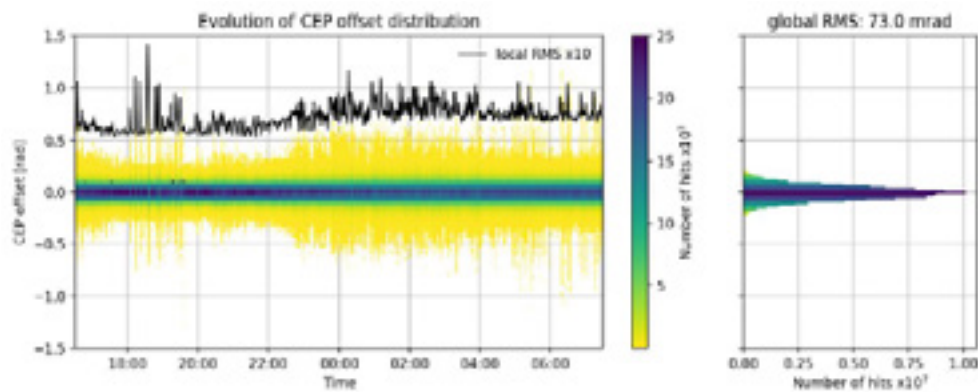
- > Record CEP stability
- > High-power integrated pump and OPCPA solution
- > Integrated active beam pointing stabilization system and diagnostics
- > Upgradable design

Pump					
Pump models	Tangor300*				
Pump energy (mJ)	Up to 3				
Pump power (W)	Up to 300				
OPCPA					
Central wavelength (nm)	800	1750	2000	3000	Tunable 1450-1850 / 2330-3560
Pulse energy ( $\mu$ J)	Up to 250	Up to 350	Up to 300	Up to 220	Up to 300 / 150
Pulse duration (fs)	<15	<50	<25	<40	<100 / <150
CEP stability (mrad rms, non-averaged)	<250 on 8h	<150 on 8h	<150 on 8h	<150 on 8h	On request
Long term power stability	<1.5				
Pulse to pulse stability (%)	<1.5				
Pointing stability	<0.1 x diffraction-limited beam divergence				

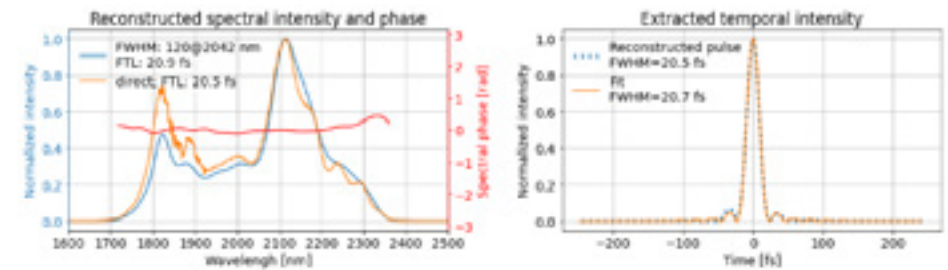
\* Contact us for other pump laser models



Tunability of Starzz OPCPA in dual fs and ps mode



CEP stability measurement on a 2 $\mu$ m Starzz OPCPA. 73 mrad rms non-averaged, on 16h



Wizzler2000 measurement of a 2 $\mu$ m Starzz OPCPA