# FASTLITE

Ultrafast - Shaping - Measurement - Control

## red & black STARZZ

### **High flux MIR OPCPA**

Sub 50fs MIR pulses at 100kHz Record CEP stability



The **STARZZ** series of high flux MIR OPCPA is the perfect combination of Ytterbium amplifiers industrial quality and power with FASTLITE ultrafast expertise.

With its design based around FASTLITE landmark technologies for ultimate control and flexibility, the **red & black STARZZ** deliver up to 20W of few-cycle and CEP-stabilized IR pulses at 100kHz with an unprecedented simplicity, thus drastically reducing experiment times for the most demanding applications.

#### **Applications**

HHG

XUV spectroscopy & imaging

Attosecond science

#### **Key Features**

All collinear geometry
Sub 150mrad single shot CEP stability
Industrial-grade Yb pump

Dry air, purge-compatible enclosure

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### **Preliminary specifications**

	red STARZZ	black STARZZ
Repetition rate	100 <i>kHz</i>	
Central wavelength selection range	1,4 - 1,75 μm fixed	2,5 - 4.0 μm fixed
Output power, single output with 100W pump with 200W pump	10 W 20 W	7.5 W 15 W
Pulse duration	< 50 fs	
CEP single shot stability	< 150 mrad rms	
Pulse to pulse stability	<1.5 %rms	
	options	
Tunability	yes	
Secondary output  central wavelength  pulse duration  output power  with 100W pump  with 200W pump  CEP stability	2,5 - 4,0 μm < 100 fs 5 W 10 W	1,4 - 1,75 μm < 100 fs 5 W 10 W

### Included exclusive technologies

### **Available diagnostics**



100kHz Dazzler



Big Brozzer multi-channel data acquisition system



Fringeezz integrated CEP detector



Mozza
1-5µm spectrometer



Frozzer
1-9µm scanning FROG