

# Fringeezz

## *Single shot Carrier-Envelope Phase measurement*

Placed after an f-to-2f setup, the Fringeezz extract the CEP error at up to 15 kHz. With a CEP measurement speed 100 times faster than conventional techniques, and single-shot measurement capability up to 1 MHz, The Fringeezz stands out as the new fast CEP measurement standard tool.

Fringeezz software provides real-time information on the measured CEP stability, such as rms and pkpk values, power spectral density (PSD), etc...

Combine the Fringeezz with our Dazzler pulse shaper to achieve record CEP stability values on CPA and OPCPA systems.



### Applications

#### Scientific:

- > CPA and OPCPA CEP stabilization
- > Phase tagging

### Key Features

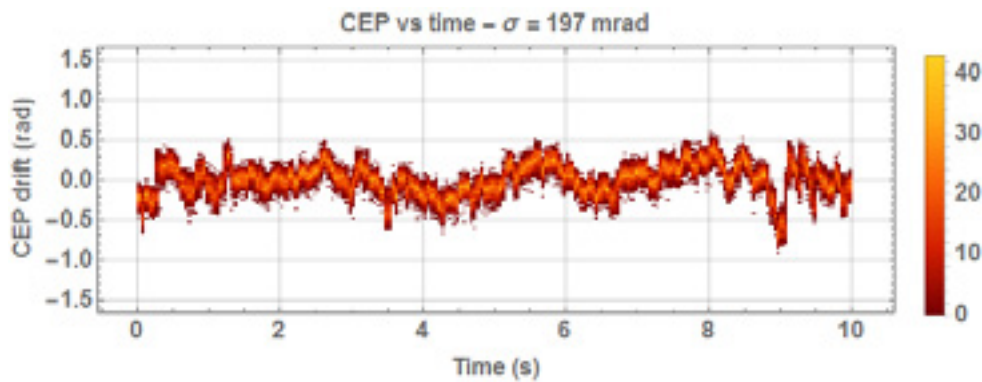
- > Single-shot CEP measurement at up to 1 MHz
- > Plug and play feedback with the Dazzler

Specifications

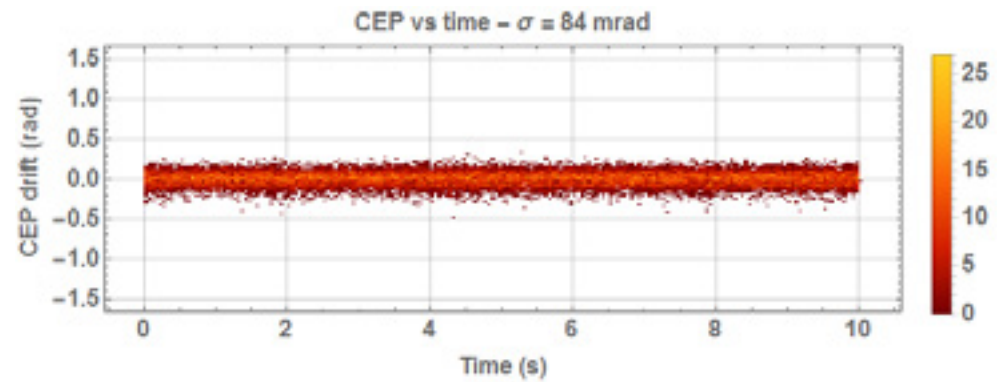
CEP measurement speed (kHz)	up to 15
Single shot capability (kHz)	Up to 1000
Resolution (mrad)	6 to 10

Requirements

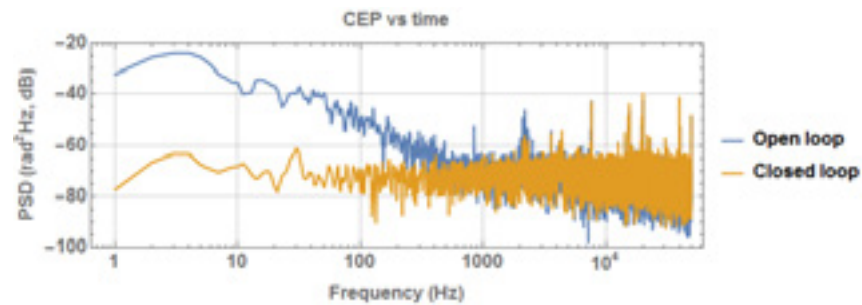
- > 5 to 15 interference fringes
- on a 80 nm bandwidth centred between 800 and 900nm
- or
- on a 30nm bandwidth centred around 510 nm
- > Fringes contrast >50 %
- > Entrance slit 50  $\mu\text{m}$
- > Energy 15-25nJ on the specified bandwidth
- > PC: Windows 10, 1 USB port



Fringezz open loop measurement 197 mrad



Fringezz/Dazzler close loop measurement 84



PSD, open/close loopmradmrad