

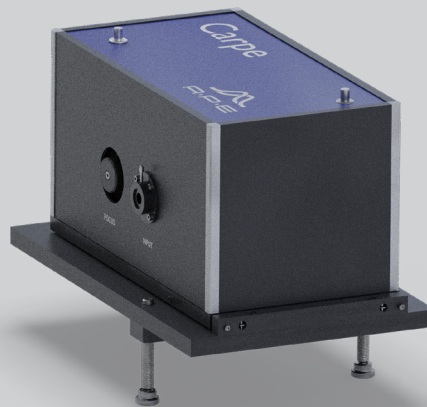
Carpe Autocorrelator for Microscopy & Lithography

Microscopy & Lithography Autocorrelator

APE's Carpe autocorrelator is designed to measure the pulse duration of laser pulses directly at the sample location in a focus. It is therefore ideally suited for use in microscopy or lithography.

The Carpe autocorrelator measures the pulse width both at the sample location (e.g. behind the microscope optics) and at any other location between laser and sample. A comparison of the pulse widths obtained at these two locations allows the pulse broadening to be calculated and / or the the pulse width to be optimized with a pre-chirper.

An additional power measurement (optional) at the sample location also supports systematic and quantitative studies on the laser power of ultrashort pulses.



- Measure pulse widths at the sample position and before microscope input
- Measure average power at sample position (optional)
- Estimate the peak power in conjunction with the pulse width
- Option: Short working distance, e.g. for immersion objective lenses
- Option: pre-chirper femtoControl for pulse compression & dispersion compensation

Carpe Specifications

Specifications

| | |
|--|--|
| Measurable Pulse Width | 30 fs ... 3.5 ps |
| Wavelength Range (for pulse width measurement) | 700 ... 1250 nm or 1250 ... 2000 nm |
| Wavelength Range (for power detection) | 700 ... 1000 nm |
| Power Measurement (optional) | 0 ... 30 mW; 0 ... 300 mW |
| Recommended Repetition Rate | > 100 kHz |
| Working Distance | > 0.5 mm; Optional < 0.5 mm |
| Input Polarization | Linear horizontal |

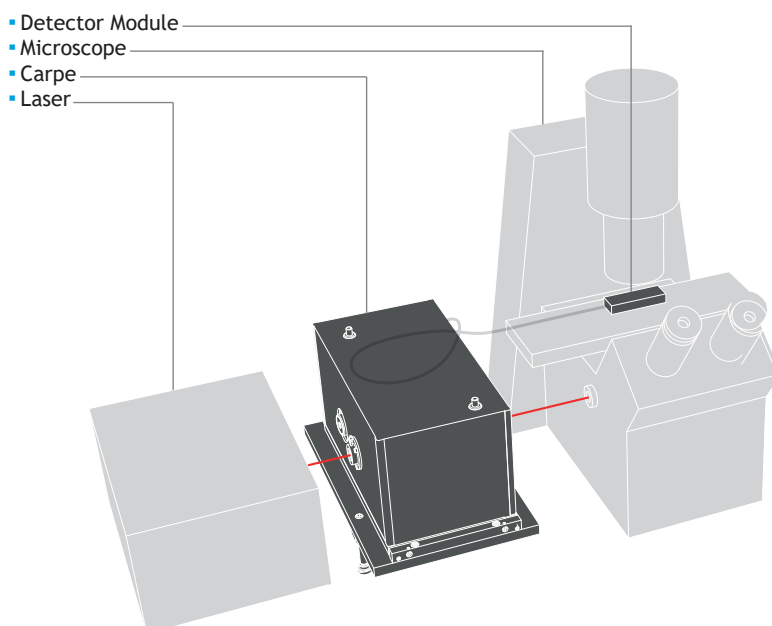
Options

- Short working distance < 0.5 mm (e.g. immersion lenses)
- APE pulse compressor femtoControl (Dispersion management)

Dimensions and Power

| | |
|------------|--|
| Dimensions | 295 x 173 x 180 mm (W/H/L) See appendix for technical drawings |
| Power | 95 ... 240 V, 50 ... 60 Hz, 60 W |

Example Setup



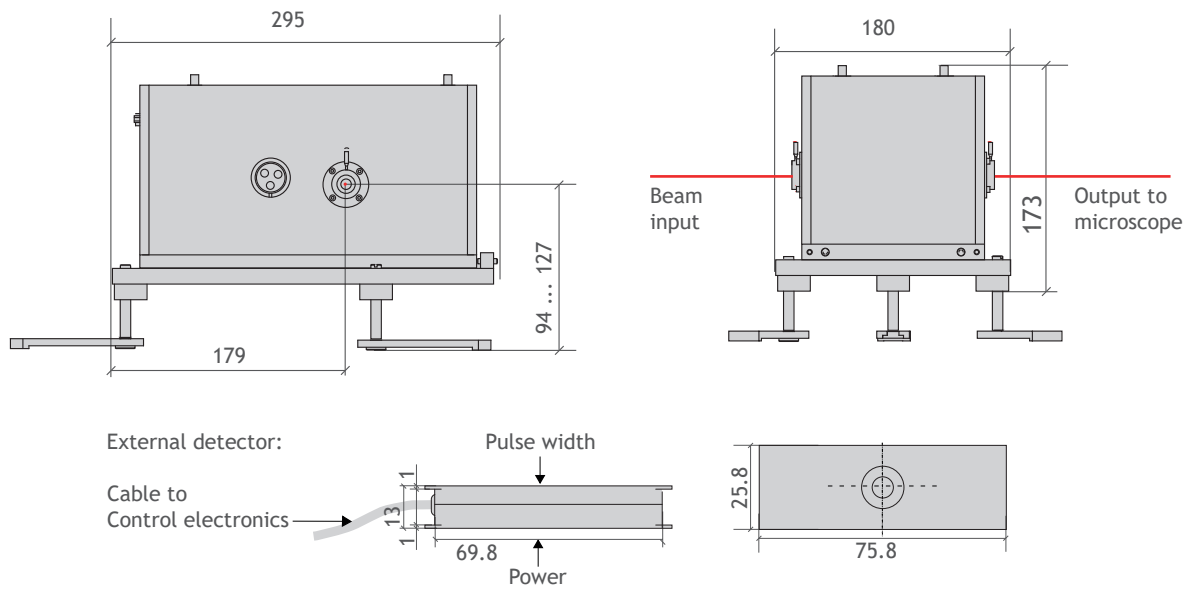
Example setup with Carpe autocorrelator

Appendix Technical Drawings

All Dimensions in mm

Carpe

- First choice for multiphoton microscopy



Contact

APE Angewandte Physik & Elektronik GmbH
Plauener Str. 163-165 | Haus N | 13053 Berlin | Germany
T: +49 30 986 011-30 F: +49 30 986 011-333
E: sales@ape-berlin.de www.ape-berlin.de