

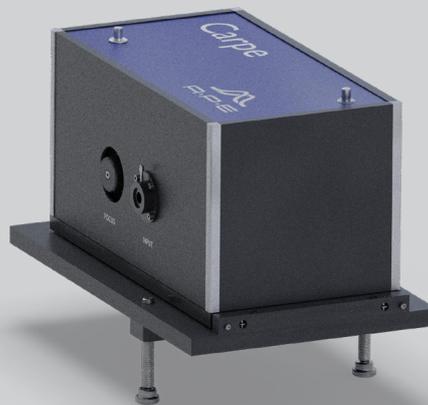
# Carpe Autocorrelator for Microscopy & Lithography

## 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 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	50 fs ... 3.5 ps; Optional: 30 fs ... 3.5 ps
Wavelength Range (for pulse width measurement)	700 ... 1100 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

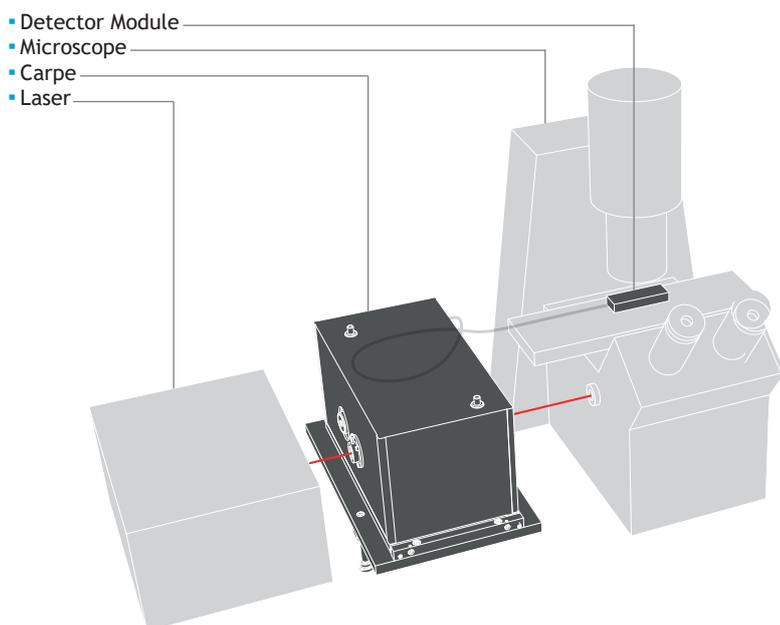
## Options

- 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



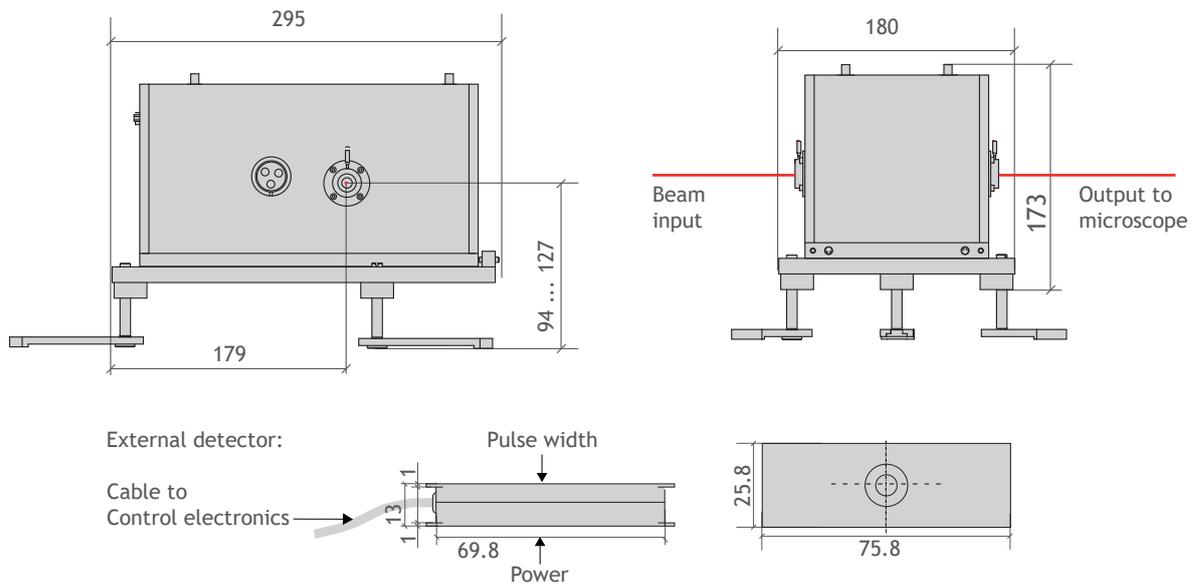
Example setup with Carpe autocorrelator

# Appendix Technical Drawings

All Dimensions in mm

## Carpe

- First choice for multiphoton microscopy



### Contact

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