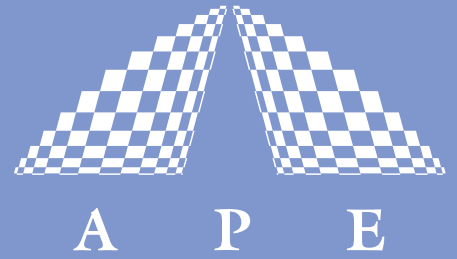
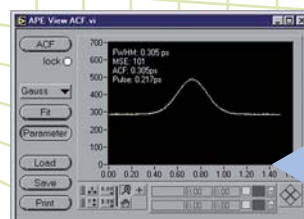
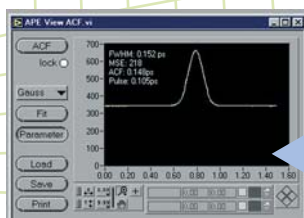
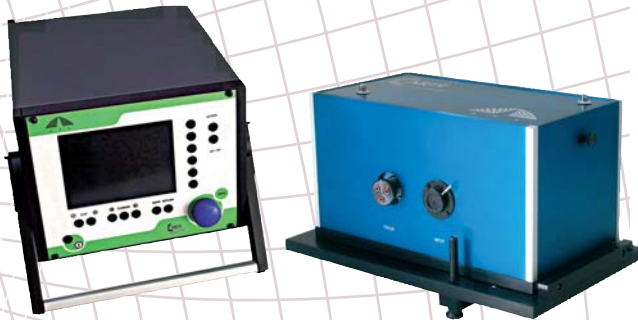


# CARPE



## AUTOCORRELATOR FOR MICROSCOPY



The **Carpe** is the first commercial autocorrelator to measure the pulse width of fs lasers at the output of laser microscopes behind the objective. The power of the laser behind the objective at the position of the sample can be measured as well with the power detector in the detector head.

The **Carpe** can measure the pulse width at both, the sample and the input position. This enables to examine the influence of the microscope optics on ultrafast pulses and to optimize the pulses at the relevant position. The **Carpe** works with high NA objectives as well as immersion objectives. Due to the thickness of the detector cover, the minimum distance required between the focal point of the objective and the housing of the objective (working distance) is 0.5 mm. To use objectives with a working distance below 0.5 mm, a short working option operating on a different detector principle is available.

The compact instrument is simply inserted into the beam between laser and microscope. It does not require any changes in the set-up and does not interfere with the measuring beam.

Power detector at sample position

Easy alignment and operation

Femtosecond resolution

Wavelength (optional) and power measurement

Windows control software included

RS232 or USB interface

Pulse width measurement  
before microscope and  
at sample position

Ultrafast Pulse Diagnostics

Wavelength Conversion

Pulse Management

Acoustooptics

**Your Partner in Ultrafast**

## SPECIFICATIONS

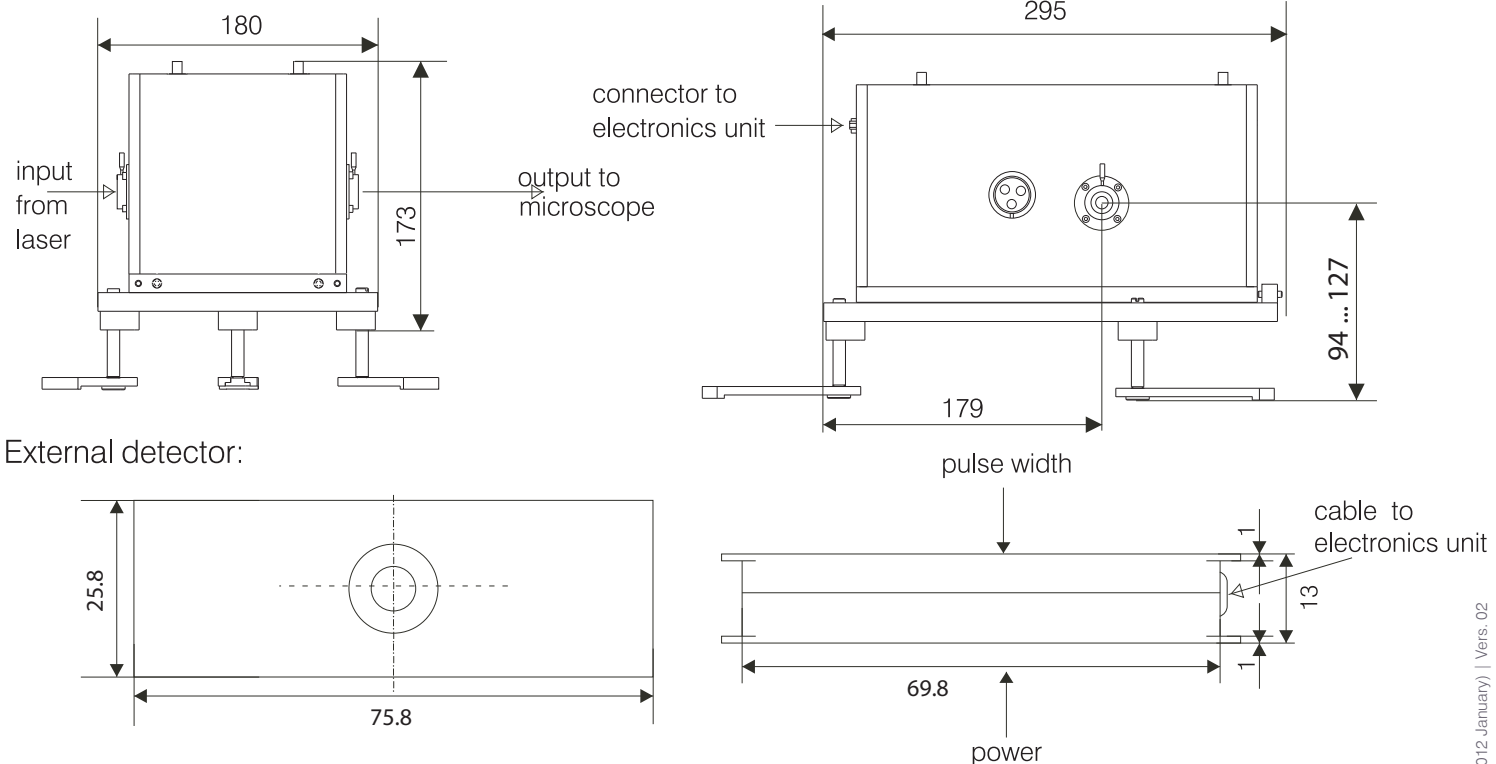
Scan ranges	150 fs ... 15 ps
Measurable pulse width	50 fs ... 3.5 ps
Scan rate	~10 Hz
Wavelength range	700 ... 1100 nm
Laser repetition rate	> 500 kHz
Sensitivity	1 W <sup>2</sup>
Power detector measurement ranges	0 ... 30 mW   0 ... 300 mW
Working distance (standard)	> 0.5 mm (shorter optional)
Input polarization	Linear / horizontal

## OPTIONS

Short working distance option  
 Wavelength measurement  
 IEEE interface  
 Dispersion management in combination with  
 APE pulse compressor **FemtoControl**

## DIMENSIONS (in mm)

Control electronics (W x H x D)	267 x 180 x 312
Optical unit:	



Distributors  
 see APE website [www.ape-berlin.com](http://www.ape-berlin.com)

APE GmbH Plauener Straße 163-165 Haus N / 13053 Berlin Germany  
 Phone +49.30.986.01130 Fax +49.30.986.011333 / Web [www.ape-berlin.com](http://www.ape-berlin.com) Email [ape@ape-berlin.de](mailto:ape@ape-berlin.de)

APE follows a policy of continued product improvement. Therefore, specifications are subject to change without notice.