

A·P·E Family of Autocorrelators



A·P·E offers an autocorrelator product line consisting of three different autocorrelators - the **Mini USB**, the *pulseCheck* USB, and the **Carpe**.

Mini USB

The **Mini USB** is a compact autocorrelator with a high speed USB computer interface to communicate with the Control Software. The user can easily adjust the **Mini USB** to measure non-collinear (intensity) autocorrelation functions, or collinear autocorrelation functions. The measurement range spans from femtoseconds up to a few picoseconds with a number of standard pre-defined wavelength ranges available. The **Mini USB** includes an optical head and a control unit which connects the optical head to the computer. It enables a much higher number of data points and hence improves the resolution of the measurement significantly compared to previous designs.



Mini USB

pulseCheck USB

The *pulseCheck* USB is a very flexible autocorrelator. In addition to the features of the **Mini**, the *pulseCheck* USB measures pulse widths from femtoseconds up to hundreds of picoseconds in different delay versions. It also covers a broader wavelength range than the **Mini USB**. Amongst the optional features available for this autocorrelator is a **FROG option**, converting the autocorrelator *pulseCheck* USB into a measuring device which allows for more detailed analysis of ultrafast pulses. The *pulseLink* control unit connects the optical head with the computer. Due to the USB connection the data point density is much improved.



pulseCheck USB

Carpe

Designed specifically for laser microscopy, the **Carpe** provides information about the pulse length of an ultrafast laser beam before and after it passes through a microscope. This allows to obtain the broadening of the laser pulse caused by dispersion of the optical material in a microscope - an important information - since pulse broadening results in reduced peak power of the pulse.

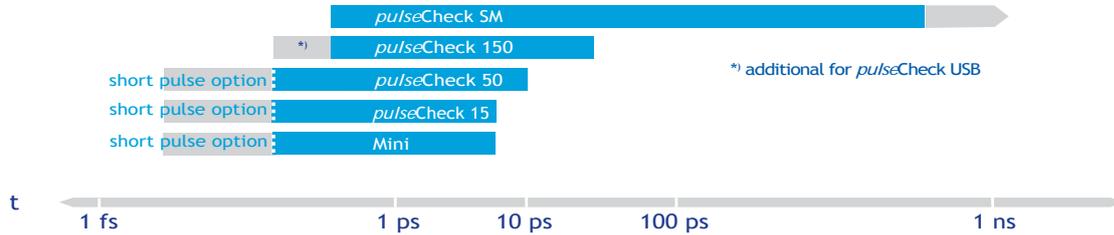
Versions for especially short working distances and short pulses are available as well.



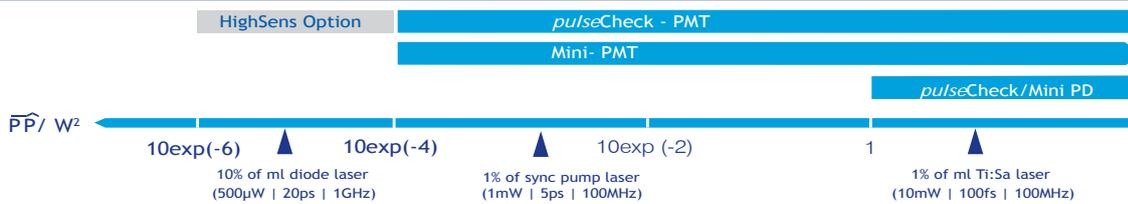
Carpe

Accurate Pulse Width Measurements

Pulse Width Measuring Ranges



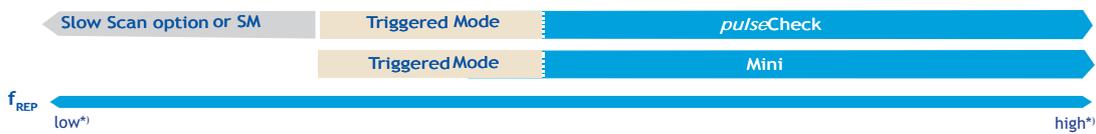
Sensitivity ($P_{AV} \cdot P_{Peak}$)



Input Pulse Energy (Low Rep Rate <10 kHz), Triggered Mode

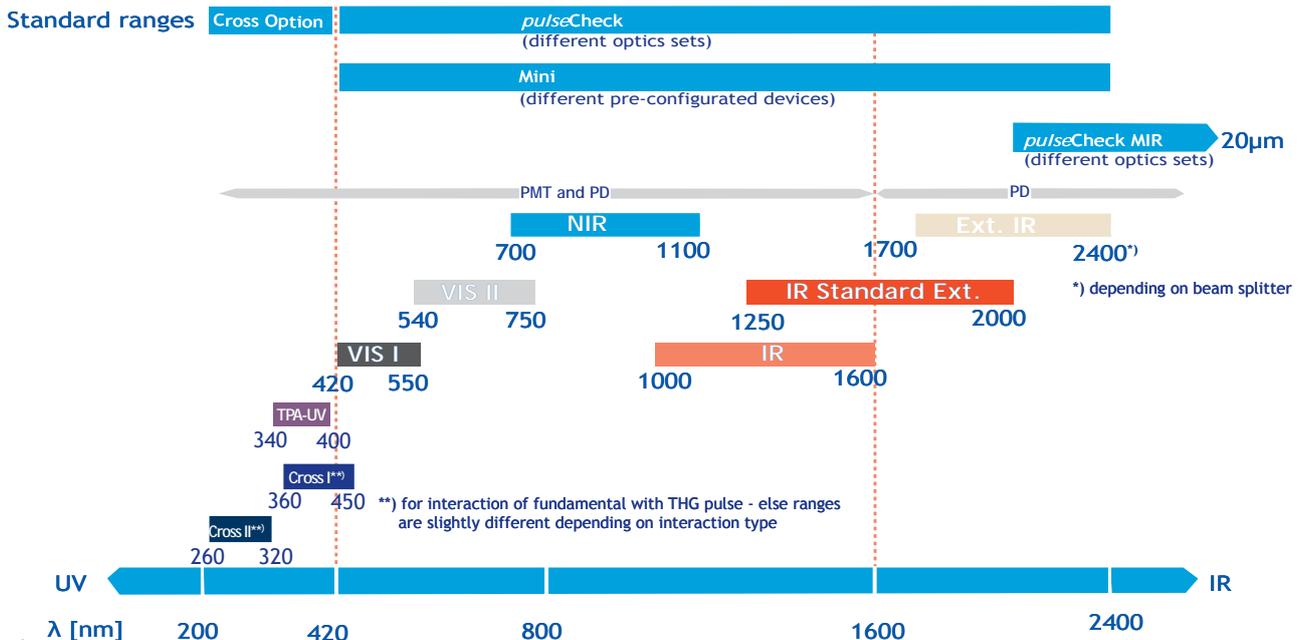


Repetition Rate



* see actual ranges on individual product datasheet

Wavelength Ranges



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A-P-E follows a policy of continued product improvement.
 Therefore, specifications are subject to change without notice.
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