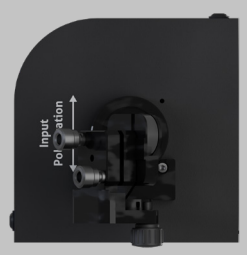
pulseCheck Single

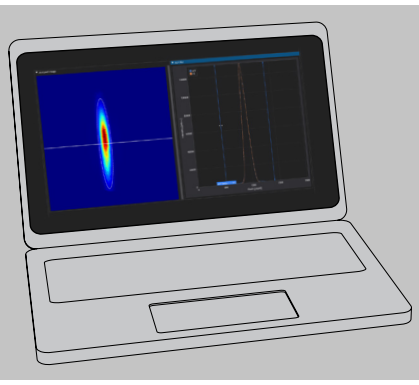
Designed by Experts

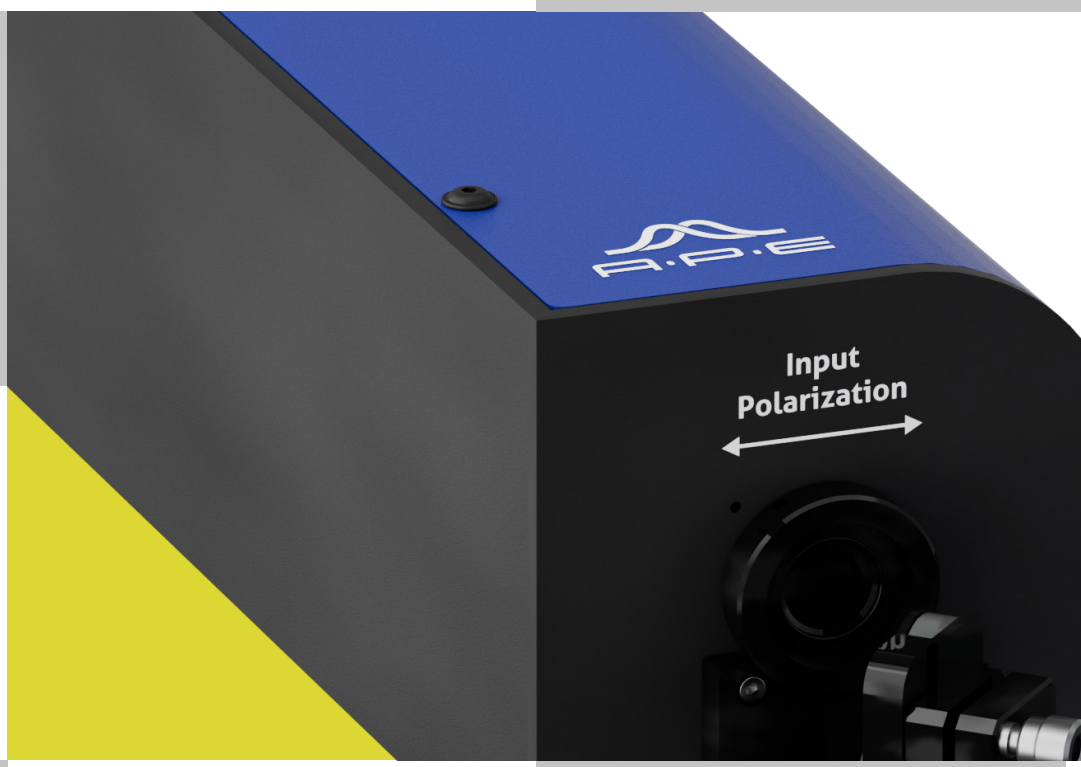
pulseCheck Single is designed with 30 years experience in pulse characterization devices. Alignment is dead simple without the need for any additional adjustments. Flip the device according to your beam's polarization.

Comprehensive Laser Pulse Characterization

pulseCheck Single delivers precise single-shot measurements of individual laser pulses, enabling a deep understanding of pulse duration and shape in real-time. Beyond autocorrelation traces, pulseCheck Single captures the beam profile on one axis and offers detailed statistics on pulse-to-pulse stability. This comprehensive insight makes it an indispensable tool for low repetition rate laser characterization.







Software

pulseCheck Single's software is designed for maximum usability without compromising on depth. Its clean, modern interface allows full control of all device parameters with just a few intuitive clicks.

Plug & Play

The device setup is as streamlined as the measurements. Simply connect the device and it's ready to operate. The compact footprint and minimal hardware requirements facilitate integration into any lab environment.

Real-Time Feedback

pulseCheck Single provides immediate insight into changing pulse properties. The software's visualization and statistical tracking helps users detect and correct laser misalignments or performance drifts.

More Information

Send an email to sales@ape-berlin.de and ask us anything about the new pulseCheck Single!

www.ape-berlin.de

Measurement Statistics

The pulseCheck Single software provides a wide range of parameters and statistics. Track the pulse properties, the pulse duration along the beam profile as well as beam pointing and energy stability at one glance.

pulseCheck Single
The Single-Shot Autocorrelator

Perfect Tool to Characterize Single Pulses and Low Repetition Rate Lasers

The pulseCheck Single completes APE's portfolio of autocorrelators by featuring single-shot measurements of ultra-short, low repetition rate amplifiers, as well as the capability to measure high repetition rate laser.

The single-shot operation and fast refresh rate allow to record pulse duration changes in the fastest possible way. Due to its built-in camera system, the pulseCheck Single can capture the pulse duration as well as the spatial properties of the laser beam in one direction simultaneously.

With its compact size and robust design, the pulseCheck Single fits into every laser laboratory and can be transported easily between different setups. Its advanced software enables the user to evaluate the full measurement information and track the pulse duration over time.

Specifications:

Wavelength range	720 nm … 1060 nm center wavelength (others on request)
Pulse width	20 fs … 500 fs (others on request)
Laser repetition rate	Single-shot to GHz
Single pulse measurement	Up to 30 kHz
Minimum input pulse energy	<1 µJ
Input polarization	Linear, horizontal or vertical (depending on mounting)
Input beam diameter	2 mm … 8 mm ($1/e^2$)
Input beam height	50 mm … 160 mm
Software	Full software suite included, Windows OS compatible
Interface	USB 3.1 and Windows PC
Power supply	USB 3.1
Camera	CMOS 12 bit, 3 Mpx, 72 dB
Dimensions (L x W x D)	312 mm x 103 mm x 103 mm 390 mm x 103 mm x 103 mm (with coupling mirror)

- Single pulse to GHz measurements
- Cost effective
- Effortless setup, no tweaking
- Robust design with no moving parts
- Pulse-to-pulse statistics
- Extensive pulse duration and beam data
- Intuitive software
- USB 3.1 data and power transfer (single cable)

Photonic Solutions Ltd
Edinburgh
EH14 4AP
+44 131 664 8122
www.photonicsolutions.co.uk