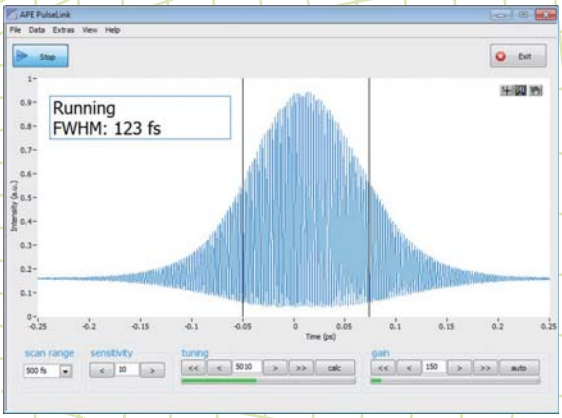
NEW!

PulseCheck USB

Autocorrelator with PulseLink Controller

USB Controller

Optical Unit



The autocorrelator **PulseCheck USB** is a versatile instrument for measuring the pulse width of different fs and ps laser systems with the ability to cover a broad wavelength range, which can be upgraded in the field.

The **PulseCheck USB** with **PulseLink** controller combines the standard PulseCheck optical head with the new PulseLink controller replacing the standard control unit of the PulseCheck. It controls the optical head while being connected via USB to the control software running on the customer's computer.

Enabled by a special scanner design and a realtime position measurement system the instrument offers a linear time scale and different factory calibrated scan ranges. In combination with a high resolution digitizing and fast processing, the **PulseLink** provides the measured autocorrelation function and pulse width data at a high refresh rate and with a very high precision.

Furthermore the center wavelength of the input laser beam is derived from the interferometric autocorrelation data. Using an external trigger the measuring process is optimized for the measurement of low repetition rate laser, too

The included control software allows for easy data export for further analysis.

Autosetup
scan range | crystal tuning | signal amplification

Autotrigger - for broad variety of trigger signals

High resolution data acquisition - 16 bit

High speed realtime measurement

Fast USB 2.0 full speed interface to PC

Ultrafast Pulse Diagnostics

Wavelength Conversion

Pulse Management

Acoustooptics

Your Partner in Ultrafast

PulseCheck USB

SPECIFICATIONS

Version	**15**	**50**	**150**
Scan ranges	150 fs...15 ps	500 fs...50 ps	1.5 ps...150 ps
Delay resolution	< 0.5 fs	< 1 fs	< 1 fs
Measurable pulse width	< 50 fs ... 3.5 ps	< 50 fs ... 12 ps	< 50 fs ... 35 ps
	(short pulse < 20 fs optional)		

Linearity of position signal	Depending on optics set, better 1% of actual scan range		
Sensitivity[1)]	Photomultipler tube (PMT): 10^{-4} W ^{2} (higher sensitivity optional)		
	Photodiode: 1 W ^{2}		
Wavelength ranges	VIS 1 420 ... 550 nm		
	VIS 2 540 … 750 nm		
	NIR 700 … 1100 nm		
	IR 1000 … 1600 nm		
	Cross 1 360 … 450 nm (interaction with 720 … 900 nm)		
	Cross 2 260 … 320 nm (interaction with 780 … 960 nm)		
	(others optional between 200 nm and 20 μm)		
Input polarization	Linear / horizontal		
Laser repetition rate	Depending on optics set		
	PMT: > 250 kHz		
	PD: > 300 Hz (lower repetition rates optional)		
Interaction	Collinear / non-collinear (fringe resolved and intensity ACF)		
Power supply	95 ... 240 V, 50 ... 60 Hz, 20 W		
Output	USB		
Input	Trigger:	level	0.1 V ...< 5 V
		impedance	50 Ω / 1 kΩ
		repetition rate	< 50 kHz
		width	> 50 ns

OPTIONS

- Phase measurement option
- Additional optics sets
- Fiber input
- Input polarization rotator
- Measurement of pulses down to 10 fs (ShortPulse option)
- Enhanced sensitivity (optics sets)
- Customized wavelength ranges
- Software interface for integration into remote control
- LabView drivers (under development)

[1)] Sensitivity is defined as average power times peak power of the incident pulses $P_{AV} * P_{Peak.}$

When configurating the PulseCheck with multiple optics sets, MIR optics sets or custom optics sets, sensitivity may be lower than specified above.

Distributors

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