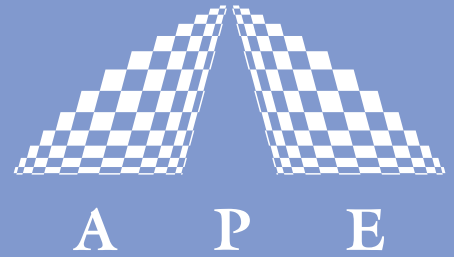


# NEW!

# PULSE CHECK USB



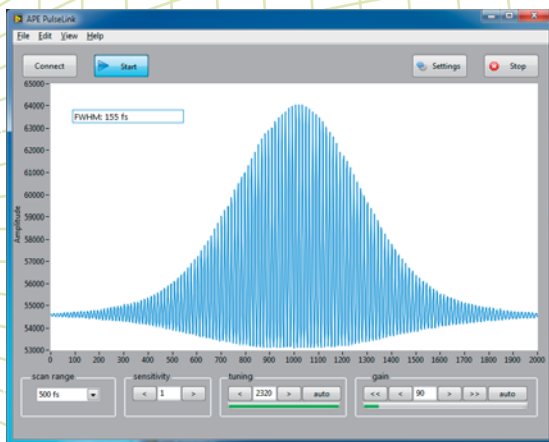
## Autocorrelator with PulseLink Controller



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.

The **PulseLink** controller offers high resolution digitizing and high speed readout of the autocorrelation function for further use by the control software. The scanning of the optical head can be synchronized to an external trigger which makes it ideal for the measurement of e.g. low repetition rate amplifier systems.

The center wavelength of the input pulse is derived by the control software from a fringe resolved autocorrelation via the calibrated scanner.

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

Autosetup  
scan range | phase matching | 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

## SPECIFICATIONS

Version	15	50	150
Scan ranges	150 fs...15 ps	500 fs...50 ps	1.5 ps...150 ps
Delay resolution	< 1 fs	2 fs	6 fs
Measurable pulse width	< 50 fs ... 3.5 ps	< 50 fs ... 12 ps	< 120 fs ... 35 ps
Scan rate	~13 Hz	~10 Hz	~7.5 Hz
Laser repetition rate	(depending on optics set)		
Linearity of position signal	Better 1% of actual scan range		
Sensitivity <sup>1)</sup>	Photomultiplier tube (PMT): $10^{-4} \text{ W}^2$ (higher sensitivity optional) Photodiode: $1 \text{ W}^2$		
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)		
Input polarization	Linear / horizontal		
Laser repetition rate	Any (optional photodiode detector recommended for repetition rates < 500 kHz)		
Interaction	Collinear / Non-collinear (fringe resolved and intensity ACF)		
Power supply	95 ... 240 V, 50 ... 60 Hz, 20 W		
Outputs	Delay: analog	0 ... 5 V	
	Signal: analog	0 ... 5 V	
Input	Trigger: amplitude	0.1 V ... < 10 V	
	impedance	50 $\Omega$ / 1 M $\Omega$	
	repetition rate	< 50 kHz	

## OPTIONS

- Phase measurement option
- Additional optics sets
- Fiber input
- Measurement of pulses < 50 fs (ShortPulse option)
- Enhanced sensitivity (optics sets)
- Customized wavelength ranges
- Software interface for integration into remote control
- Input polarization rotator
- LabView drivers (under development)

<sup>1)</sup>Sensitivity is defined as average power times peak power of the incident pulses  $P_{AV} * P_{Peak}$

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