



NEW

## Mini USB TPA-UV

The new Mini USB TPA - UV is the first commercially available device for a simple measurement of the pulse width in the UV-Blue wavelength range from 340 nm to 400 nm. It is a compact and easy to use scanning autocorrelator and can be used for fast and easy characterization of fs and ps laser systems emitting in the UV-Blue spectral range.

Until now, a cross-correlation measurement between pulses of two different wavelengths (with one being the pulse of interest), was required and the pulses needed to overlap both spatially and temporally inside the cross correlator. In contrast, the A·P·E UV autocorrelator needs no other wavelengths in addition to the pulse train that is to be measured. This makes the measurements much easier, or in many cases possible at all.

Also, the evaluation of the measured data has become simpler, from a two-step evaluation process in a cross-correlation to a one step evaluation in the autocorrelation.

The Mini USB with *miniLink* controller combines the standard Mini optical head with the *miniLink* controller. The *miniLink* controls the measuring process and connects via USB to the customer's computer running the Control Software (included). The Control Software features A·P·E's new standardized Software Interface for remote control and integration into software controlled environments.

- Simple pulse width characterization in the UV-Blue wavelength range
- Fast measurements and easy handling
- Femtosecond resolution
- High resolution data acquisition
- Very compact and robust design
- Standardized Software Interface (using TCP/IP)

Scan ranges	150 fs ... 15 ps (150 fs   500 fs   1.5 ps   5 ps   15 ps)
Measurable pulse width	50 fs ... 3.5 ps
Scan rate	approx. 10 Hz
Linearity of position Signal	better than 1 % of actual scan range
Sensitivity <sup>1)</sup>	500 W <sup>2</sup>
Wavelength range	340 ... 400 nm
Input polarization	linear / horizontal (polarization rotator optional for vertical input)
Diameter input aperture	6 mm (open) or 3 mm (in adjustment position)
Max. input average power / pulse energy	up to 300 mW or 5 μJ (whichever results in lower value)
Laser repetition rate	300 Hz ... 2 MHz

Interaction	collinear intensity ACF		
Power supply	95 ... 240 V, 50 ... 60 Hz, 60 W		
Computer interface	USB		
Input trigger	level	0.1 ... 5 V <sub>rms</sub> @ 50 Ω	
		0.1 ... 8 V <sub>pp</sub> @ 1 kΩ	
	impedance	50 Ω / 1 kΩ	
	repetition rate	300 Hz ... 50 kHz	
	width	> 50 ns	

1) Sensitivity is defined as average power times peak power of the incident pulses  $P_{AV} \cdot P_{Peak}$



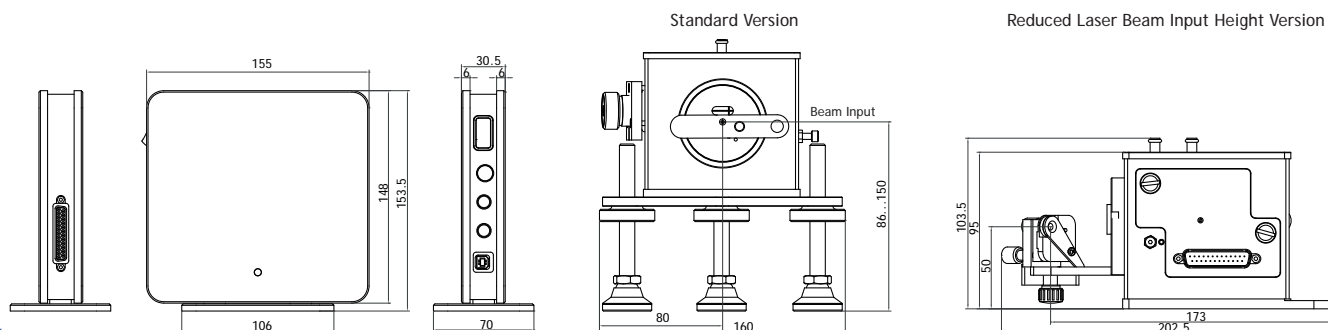
## Options

- Input polarization rotator
- Reduced laser beam input height

## Dimensions (in mm)

Control electronics:

Optical head:



Contact:

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