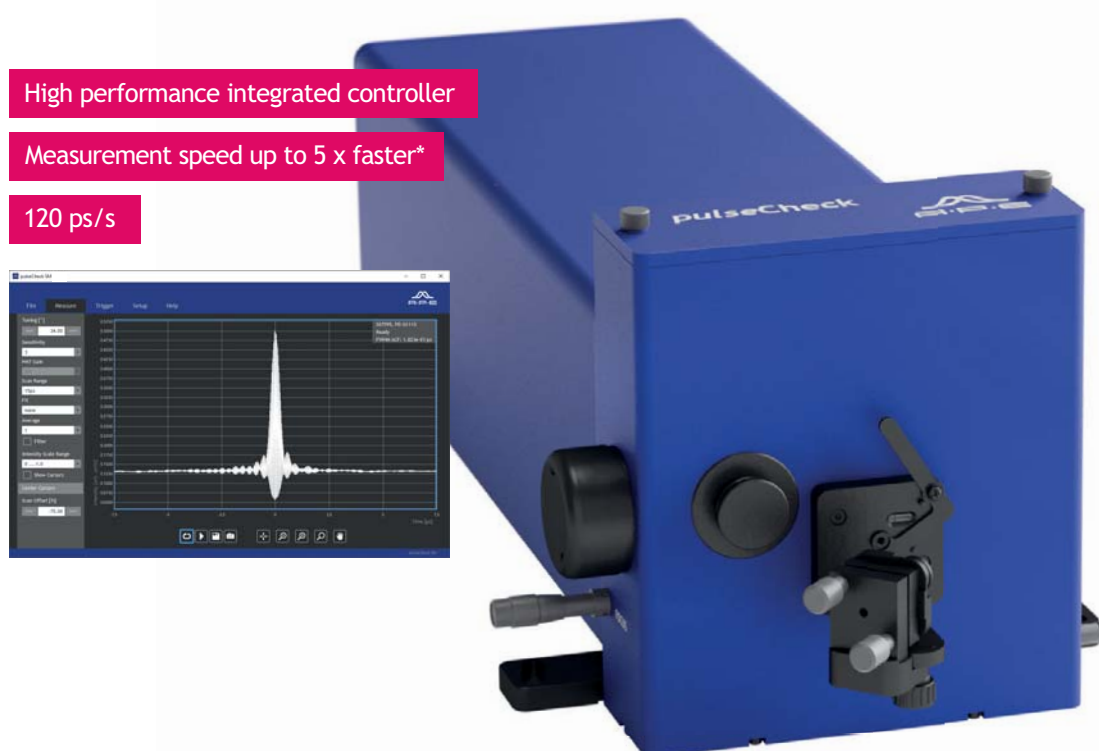


NEW: pulseCheck SM 2000

Long-Range Autocorrelator

Pulse Width Measurement Perfection with the Multitalent from APE

- With the refreshed variant of the long-range pulseCheck SM, the new autocorrelator offers a scanning range up to three times larger and a measuring speed up to five times faster than the previous long-range models. The pulseCheck SM also includes a new high performance controller that is now integrated into the device for the first time.
- The pulseCheck SM is suitable for particularly long pulse durations of up to 500 ps. At the other end, short pulses below 100 fs can be measured. A resolution of up to 1 fs and a sampling rate of 1 MHz is available over the entire measuring range.



- Pulse widths from < 100 fs up to 500 ps
- Optics Sets from 200 nm to 12 μm
- Automatic phase matching
- Ultra-precise delay resolution
- High performance integrated controller
- Toggle between interferometric and intensity autocorrelation
- Wide range of sensitivity levels covered with PMT, PD, and TPA
- USB & Ethernet connectivity; TCP/IP remote control
- Gaussian, Sech², and Lorentzian fitting routines
- NIST traceable calibration

* Compared to previous SM long-range models

pulseCheck SM 2000 Specifications

Specifications

Measurable Pulse Width	< 100 fs ... 500 ps
Wavelength Range	200 nm - 12 μm, depends on Optics Set
Optics Sets	Exchangeable; Detector-Type: PMT, PD, or TPA
Delay Resolution	1 fs
Delay Linearity	< 1 %
Scan Speed	120 ps/s
Sampling Rate	1 MHz
Sensitivity	Typically 1 ... 10 ⁻⁶ W ² depending on Optics Set*
Recommended Repetition Rate	PD, TPA: 1 Hz and above; PMT: 250 kHz and above
Type of Measurement Mode	PMT, PD : non-collinear intensity, collinear interferometric; TPA: hybrid collinear intensity
Trigger Mode	TTL, 1 Hz - 10 kHz
Input Polarization	Linear horizontal, vertical available as option
Input Beam Coupling	Free-space; Option: fiber coupling FC/PC, FC/APC, SMA
Max Input Power	1 W (e.g. oscillator with a rep. rate of approx. 70 MHz) or 10 μJ (e.g. amplified system with rep. rates in the kHz range), whichever results in lower value
Input Aperture	6 mm (free-space)
Software	Included; Real-time display of pulse width
Fitting Routine	Gaussian, Sech ² , Lorentz
Connection	USB; Ethernet
Remote Control	Possible via TCP/IP (SCPI command set)
Calibration	NIST traceable calibration certificate included

Dimensions and Power

Dimensions	250 x 190 x 575 mm w/o screws and mounting feet (W/H/L)
Power	95 ... 240 V, 50 ... 60 Hz

* Measured sensitivity including Optics Set, defined as average power times peak power of the incident pulses $P_{AV} * P_{Peak}$

Contact

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