

# pulseCheck SM Type 2 High Dynamic Range Autocorrelator for High Contrast Pulse Characterization

Revealing Pre- & Post-pulses, Pedestals, Satellites

High contrast measurements with the Autocorrelator pulseCheck Type 2 provide information about how far in time and intensity the main pulse is accompanied by pre-pulses, post-pulses and pedestals.

With a high dynamic range of  $10^7$ , pulseCheck SM Type 2 is ideally suited for the characterization of high-intensity, high-repetition rate laser pulses, such as those in material processing or in ultra-high intensity light-matter interaction experiments.

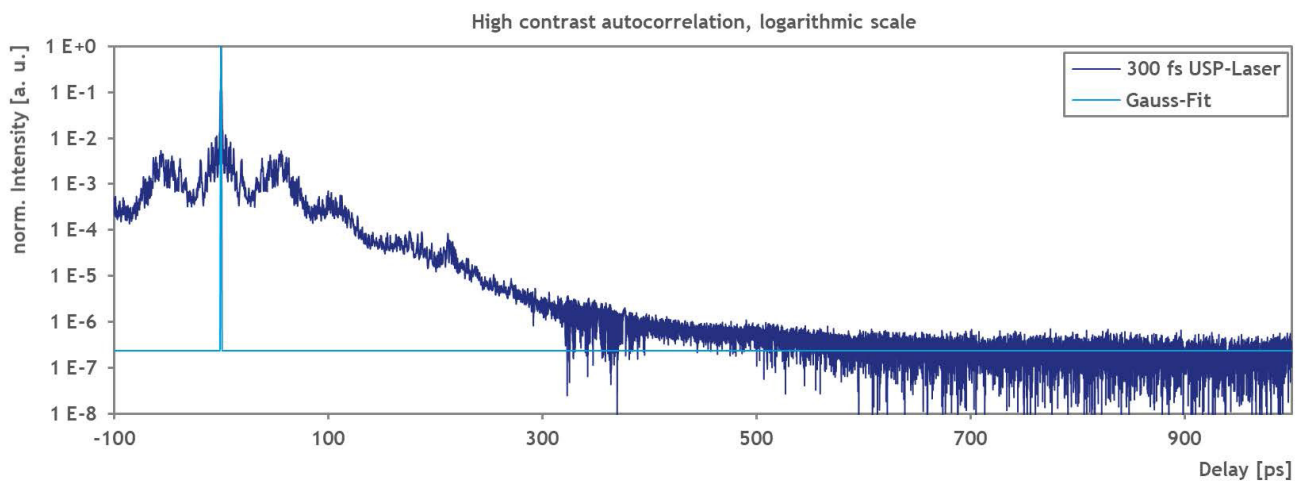
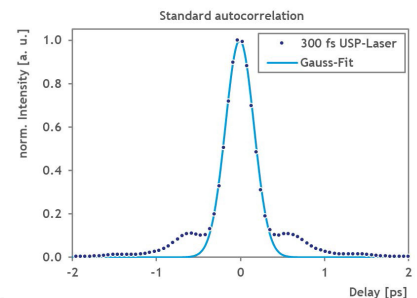
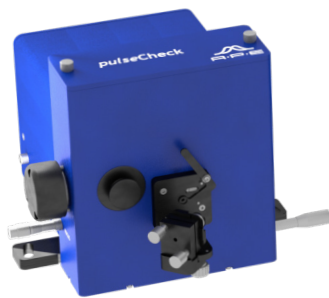


Figure: SM Type 2 high contrast autocorrelation measurement of an industrial femtosecond fiber laser with a nominal pulse duration of ~ 280 fs (please note the ps scale of the measurement). Measurement conditions: -1030 nm, 35 mW, 1 MHz

- Measuring intense pulses and their pre-pulses, post-pulses, pedestals
- High dynamic range measurements
- Ultra-precise delay resolution
- Automatic phase matching
- NIST traceable calibration
- Ready to use software and USB interface
- TCP/IP remote control with standardized command set for easy programming

# pulseCheck SM Type 2 High Contrast Specification

## Specifications

Measurable Pulse Width Range	< 100 fs ... 400 ps
Wavelength Range	NIR 700 ... 1100 nm
Detector	PD
Delay Linearity	< 1 %
Delay Resolution	1 fs normal operation, 25 fs high contrast operation
Recommended Repetition Rate	>10 Hz for triggered operation; > 100 kHz for continuous operation
Contrast	$10^{-6}$ for > 10 Hz and $10^{-7}$ for > 100 kHz laser repetition rate
Type of Measurement Mode	Collinear, Non-Collinear
SHG Tuning for Phase Matching	Software aided
Input Polarization	Linear (vertical or horizontal)
Input Beam Coupling	Free-space
Input Aperture	6 mm (free-space)
Software	Included; Real-time display of pulse width
Connection	USB, Ethernet
Remote Control	Possible via TCP/IP (SCPI command set)
Calibration	NIST traceable calibration certificate included

## Dimensions and Power

Dimensions	250 mm x 190 mm x 440 mm
Power	95 ... 240 V, 50 ... 60 Hz, 60 W

### Contact

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