pulseCheck Type 2 High Contrast

High Dynamic Range Autocorrelator for High Contrast Pulse Characterization

Revealing Pre-/Post-pulses, Pedestals, Satellites

- High contrast measurements with the Autocorrelator *pulseCheck Type 2 High Contrast* provide information about how far in time and intensity the main pulse is accompanied by pre-pulses, post-pulses and pedestals.
- With a high contrast ratio of > 65 dB, *pulseCheck Type 2 High Contrast* is ideally suited for the characterization of high-intensity laser pulses, such as those used in material processing or in ultra-high-intensity laser-matter interaction experiments.

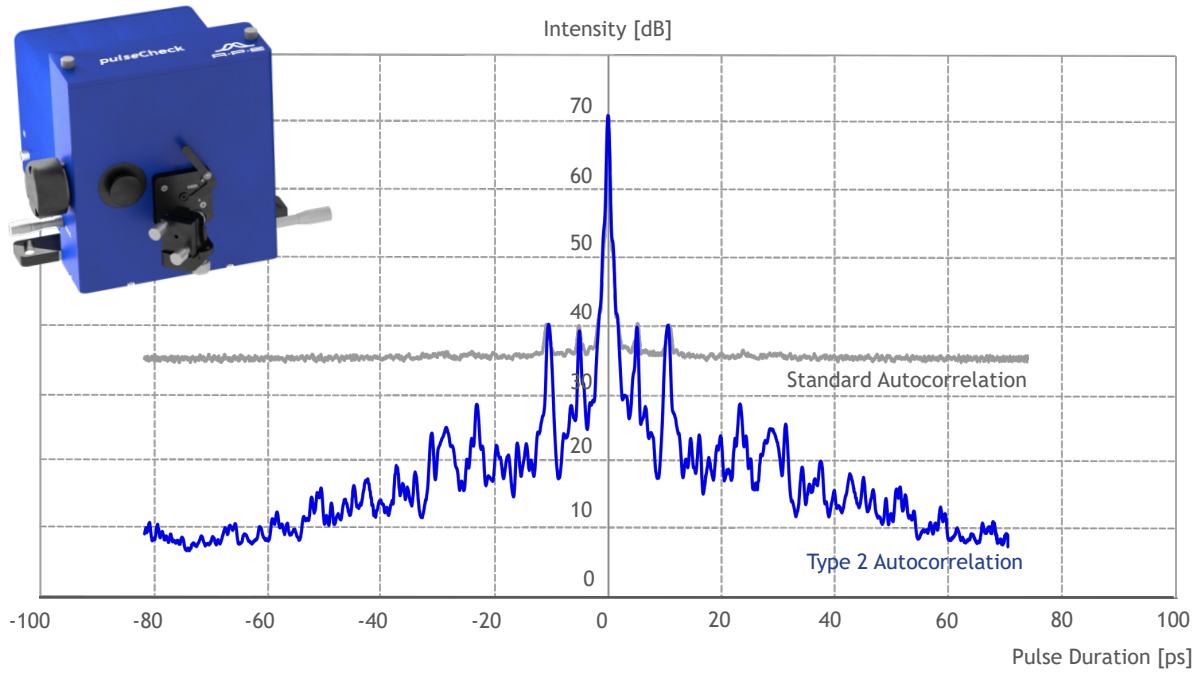

Figure: Type 2 high contrast autocorrelation measurement of an industrial femtosecond fiber laser with a nominal pulse duration of ~ 250 fs (please note the ps scale of the measurement). Measurement conditions: ~ 1030 nm, 35 mW, 1 MHz.

- 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 Type 2 High Contrast Specifications

Specifications

Measurable Pulse Width Range	Depending on Base Unit: < 100 fs ... 3.5 ps < 100 fs ... 12 ps < 100 fs ... 35 ps < 120 fs ... 150 ps < 120 fs ... 300 ps < 120 fs ... 400 ps
Wavelength Range	NIR 700 - 1200 nm (Others on request)
Detector	PD
Dynamic Range	> 65 dB
Delay Linearity	< 1 %
Delay Resolution	< 0.001 % of scan range
Recommended Repetition Rate	> 100 kHz for high contrast measurements
Type of Measurement Mode	Collinear
SHG Tuning for Phase Matching	Automatic
Input Polarization	Linear
Input Beam Coupling	Free-space
Input Aperture	6 mm (free-space)
Software	Included; Real-time display of pulse width and central wavelength
Connection	USB
Remote Control	Possible via TCP/IP (SCPI command set)
Calibration	NIST traceable calibration certificate included

Dimensions and Power

Dimensions	250 x 190 x 315*/350*/440* mm (*depending on base unit)
Power	95 ... 240 V, 50 ... 60 Hz, 60 W

Contact

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