

MS-ROC

MS-ROC stands for Multi-Shot Row Optical Correlator. The MS-ROC allows the measurement of autocorrelation traces. It is based on second harmonic generation, making it reliable and compact. It has been specially developed for sources with sub-nJ energy per pulse. It allows the measurement of pulses from 50 fs to 40 ps in the standard version. With its high scan speed, real-time operations is possible for measurement and optimization. The MS-ROC-LP can perform scan at 130 ps/s, making it the fastest scanning autocorrelator on the market. Also, the MS-ROC-SP allows the measurement of both ultra-short and long pulses thanks to its dual-mode (standard mode for pulse duration > 50 fs and fine-scan mode for pulse < 50 fs). Like every products, the MS-ROC is easy to install and use.

 MS-ROC

Key features

- ◆ Ultra simple alignment (2 min to setup)
- ◆ Large pulse duration measurement range (from 5 fs to 80 ps)
- ◆ High sensitivity (sub-nJ pulse)
- ◆ User-friendly and powerful software
(STAR : Software Technology for Acquisition and retrieval)
- ◆ Broad available spectral range
- ◆ Fiber connector available (FC/APC, FC/PC)

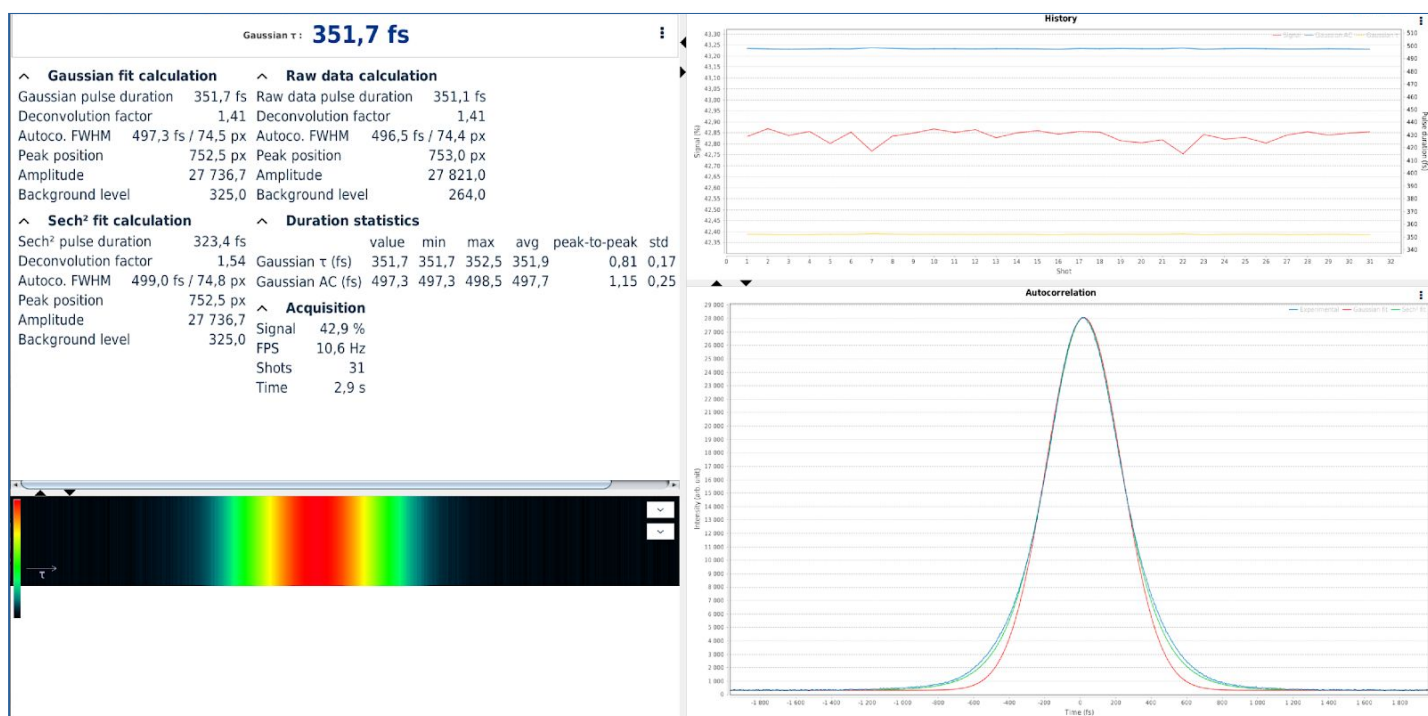
Specifications

Models		MS-ROC	MS-ROC-SP	MS-ROC-LP	MS-ROC-SLP
Pulse duration range	min max	50 fs 40 ps	5 fs 40 ps	100 fs 80 ps	25 fs 80 ps
Fine scan mode range		not applicable	5 – 50 fs	not applicable	25 – 500 fs
Accessible spectral range (nm)		500 - 2000 ¹			
Spectral Window $\Delta\lambda$ (nm)		From 200 to 700 ¹			
Minimum temporal resolution		6.7 fs	standard : 6.7 fs fine scan : 0.1 fs	13.4 fs	standard : 13.4 fs fine scan : 0.2 fs
Scan speed		> 65 ps/s	standard : > 65 ps/s fine scan : > 50 fs/s	> 130 ps/s	standard : > 130 ps/s fine scan : > 500 fs/s
Input pulse repetition rate		100 Hz to GHz ²			
Min input pulse energy ³	1 MHz 100 MHz	500 pJ 50 pJ	10 nJ 1 nJ	500 pJ 50 pJ	1 nJ 100 pJ
Input polarization		linear vertical			
Detection		CMOS 12 Bits – 3 Mpx – 72 dB			
PC Interface		USB 3.1			
Beam height (mm)		70 - 150			
Dimensions (mm)		213 x 162 x 125			

¹ Effective spectral bandwidth to be defined within the accessible spectral range according to customer's requirements.

² Low repetition rate available as an option.

³ Those values give an order of magnitude. The exact sensitivity depends on many parameters (pulse duration, beam profile, wavelength...)



- ◆ Different calculation methods available for proper pulse estimation (Raw data FWHM, Gaussian fit, sech2...)
- ◆ Enhanced treatment for real time simultaneous data extraction
- ◆ Client / Server interface, allowing remote control through network
- ◆ All data exportable into most common formats