ROC Autocorrelator

ROC stands for Row Optical Correlator. The ROCs autocorrelators are ultra compact and robust single shot autocorrelators. As the name implies, they are designed specifically to be ultra easy to use and to align onto the laser beam. They cannot be misaligned, there is no need for calibration or tweaking and are easily transportable. And yes, they are rock-solid!
Besides those advantages, the ROCs autocorrelators provide excellent technical performances and highly accurate measurements. The ROCs autocorrelators are available for different wavelengths and several pulse durations.

- Extreme ease of use
- Only 2 minutes to install and start measuring!
- Suitable for any rep rate
- Single shot acquisition up to 80 kHz[1]
- Spatially resolved measurements
- High level of accuracy
- No calibration necessary
- Down to 5 femtoseconds
- Broad available spectral range

Models	FC 600	FC 400	FS 600	FS 400	PS$^{\tau}$ 600	PS$^{\tau}$ 400
Pulse duration range (fs)	5 - 150 fs	5 - 150 fs	20 - 500 fs	20 - 500 fs	50 – 10 000 fs$^{\tau}$	50 – 5 000 fs$^{\tau}$
Wavelength range (nm)	600 - 2100*	450 - 2100**	600 - 2100*	450 - 2100**	600 - 2100*	450 - 2100**
Input pulse repetition rate	From Hz to GHz					
Input pulse energy (nJ)[2] single shot: 1 MHz: 1 GHz:	> 1000 > 10 > 0.05 (with low energy option)					
Input polarization	linear vertical or horizontal					
Detection	CMOS 12 Bit - 3 Mpx – 72 dB					
PC interface	USB 3 or GigE					
Beam height (mm)	30 - no limit					
Dimensions (mm)	55x56x265	55x56x265	55x56x265	55x56x265	55x56x195	55x56x195

τ four pulse duration ranges available :
- PS1 : 50 – 1 000 fs
- PS3 : 200 – 3 000 fs
- PS5 : 300 – 5 000 fs
- PS10 : 500 – 10 000 fs

* 4 wavelength options for ROC 700:
- 700 - 1200 nm (R)
- 1000 - 1600 nm (IR1)
- 1400 - 2100 nm (IR2)
- 700 - 2100 nm (BB)

** 6 wavelength options for ROC 400:
- same 3 than ROC 700 (R, IR1, IR2)
- 450 - 640 nm (B)
- 500 - 800 nm (G)
- 450 - 2100 nm (BB)

[1] Over 80 kHz, the measurements are average over several shots. The number of shot shots depends on the laser rep rate (ex: 4 shots for 200 kHz). Devices with higher shot to shot measurement capacity can be made upon request.

[2] The minimum average input power is 10 mW at 1 MHz. The maximum average input power is 2.5 W, it means that in most of the cases the beam can be injected directly into the ROC.

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