

FAST FROG

The Femto Easy Fast Frog product line provides reliable and compact single shot FROGs based on second harmonic generation. Key design features such as the wavefront division technique and the mini imaging spectrometer make the Fast Frog very easy to use and provide a high level of accuracy. Six models will be available to cover a broad spectral range and a broad pulse duration range from sub-5 fs pulse to 5 ps. Two designs are available : one for long pulses relying mainly on transmission optics and one for ultrashort pulses completely achromatic. We also propose a wavelength accordable Fast FROG that combine a very broad spectral range with a high spectral resolution.



- Very easy to use
- Real time phase retrieval
- Single shot up to 100 kHz ¹
- High level of accuracy
- No calibration and no tweaking necessary
- Sub-5 fs pulses
- Broad accessible spectral range ²
- Achromatic and non-dispersive ³

Models	FC 700	FC 400	FS 700	FS 400	PS 700	PS 400
Pulse duration range (fs)	5 – 200 fs	5 – 200 fs	20 – 500 fs	20 – 500 fs	50 – 1000 fs	50 – 1000 fs
Wavelength range (nm) ²	700 – 2000	450 – 2000	700 – 2000	450 – 2000	700 – 2000	450 – 2000
Input pulse repetition rate	Any	Any	Any	Any	Any	Any
Input pulse energy (nJ) single shot: 1 MHz: 100 MHz:	> 5000 > 100 > 1	> 5000 > 100 > 1	> 5000 > 100 > 1	> 5000 > 100 > 1	> 5000 > 100 > 1	> 5000 > 100 > 1
Input polarization	Any linear	Any linear	Any linear	Any linear	Any linear	Any linear
Detection	CMOS 12 bit	CCD 10 bit	CMOS 12 bit	CCD 10 bit	CMOS 12 bit	CCD 10 bit
PC interface	USB3	USB2	USB3	USB2	USB3	USB2
Beam height (nm)	83 – no limit	83 – no limit	83 – no limit	83 – no limit	83 – no limit	83 – no limit
Dimensions (nm)	160x320x90	160x320x90	160x320x90	160x320x90	160x320x90	160x320x90

² The announced spectral range is the maximum bandwidth accessible in factory. Please let us know your requirements in terms of spectral window and spectral resolution to provide the best suitable device for your application.

³ The FC and FS models are non-dispersive and achromatic to achieve non-ambiguous phase retrieval.

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¹ Multi-shot measurements for higher rep rate. It means that the Femto Easy FROGs are suitable for any rep rate but they can measure a pulse to pulse fluctuation accurately only under 100 kHz. The single shot capacity can be extended to 200 kHz with the synchronisation option.