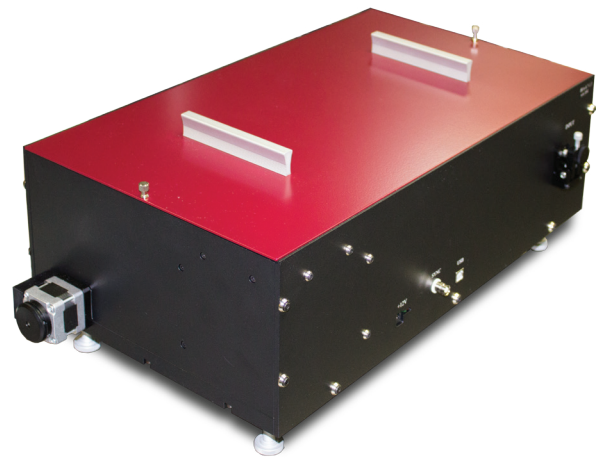




## IRA. Scanning Autocorrelator with Extended Scan Range

- 50 fs - 250 ps broad input pulse duration range
- 450 nm - 11  $\mu\text{m}$  input wavelength range
- USB interface and Windows software included in a standard package



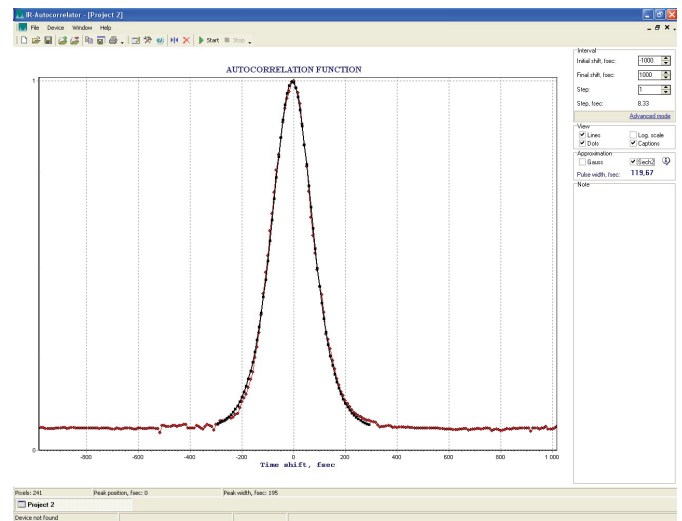
IRA-VISIR Scanning Autocorrelator

### Product overview

The IRA scanning autocorrelator is specifically developed for measurement of pulse duration and near contrast ratio of ultrafast radiation generated by ultrafast amplifiers and oscillators. There is also a special model of the IRA system that is suitable for mid-IR laser sources.

The IRA includes opto-mechanical assembly and electronics with USB interface. The system is easy to operate and includes a full set of user friendly Windows software tools for data collection and analysis. Approximation with Gauss and Sech<sup>2</sup> shapes is also available. The unit implements a robust scanning mechanism.

The acquisition and analysis software is fully compatible with Windows, USB drivers are included



	IRA-VISIR	IRA-MIR
<b>Full possible input wavelength range*</b>	450-2000 nm	2-11 $\mu\text{m}$
<b>Subranges*</b>	VIS: 450-700 nm NIR1: 700-1300 nm NIR2: 1300-2000 nm	MIR1: 2-5 $\mu\text{m}$ MIR2: 5-11 $\mu\text{m}$
<b>Input pulse duration range</b>	50 fs - 250 ps	
<b>Required input pulse energy**</b>	>1 nJ at 50 fs - 1 ps (w. thin NL crystals) >3 nJ at 1-250 ps (w. thick NL crystals)	>5 nJ at 50 fs - 1 ps (w. thin NL crystals) >100 nJ at 1-250 ps (w. thick NL crystals)
<b>Maximum input average power</b>	1 W	
<b>Input repetition rate</b>	10 Hz - 100 MHz	
<b>Input polarization</b>	linear, horizontal	
<b>Delay line temporal resolution</b>	8.3 fs	
<b>Full scan range</b>	850 ps	
<b>Required equipment</b>	PC with USB; Windows acquisition and analysis software included	
<b>Power supply</b>	220/110 V; 50/60 Hz $\pm$ 10%	
<b>Dimensions</b>	optical unit: 450x250x210 mm control unit: 250x180x90 mm	

\* - each subrange is covered by an exchangeable optics set (NL crystals, beamsplitters, filters, photodetectors). A set for one of the subranges of the customer's choice is supplied with the unit, additional sets are supplied upon request; the final set of optics and detectors depends on the specifications of the sources to be measured and is discussed with our sales manager upon offering;

\*\* - typical values, depends on input pulse duration and wavelength.



# AVESTA

LASERS AND OPTICAL SYSTEMS

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