IRA. Scanning Autocorrelator with Extended Scan Range

- 50 fs - 250 ps broad input pulse duration range
- 450 nm - 11 um 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^2 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.
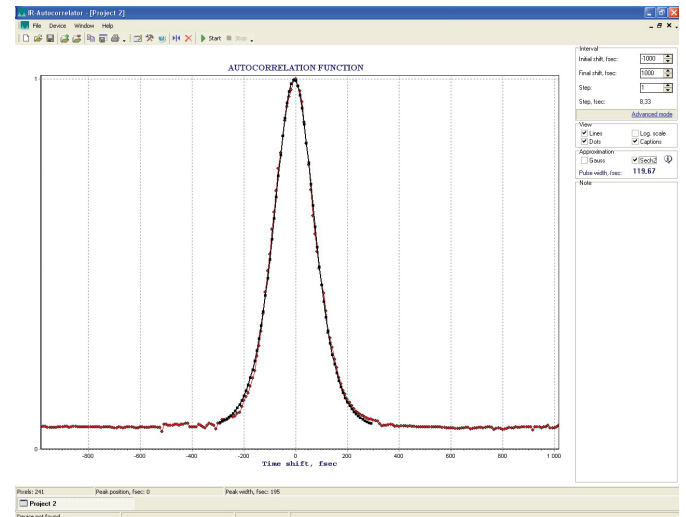
IRA Sotfware

IRA series technical specifications

	IRA-VISIR	IRA-MIR
Full possible input wavelength range*	450-2200 nm	2.2-11 um
Subranges*	VIS: 450-700 nm NIR1: 700-1300 nm NIR2: 1300-2200 nm	MIR1: 2.2-5 um MIR2: 5-11 um
Input pulse duration range	50 fs - 250 ps	
Sensitivity**	1 W^2 at 50 fs - 1 ps (w. thin NL crystals) 5 W^2 at 1-250 ps (w. thick NL crystals)	20 W^2 at 50 fs - 1 ps (w. thin NL crystals) 50 W^2 at 1-250 ps (w. thick NL crystals)
Maximum input average power	1 W	
Input repetition rate	10 Hz - 100 MHz	
Input polarization	linear, horizontal	
Delay line temporal resolution	8.3 fs	
Full scan range	850 ps	
Required equipment	PC with USB; Windows acquisition and analysis software included	
Power supply	220/110 V; 50/60 Hz ±10%	
Dimensions	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;
** - Pav*Ppeak (average power value multiplied by peak power value); typical values; depends on input pulse duration and wavelength.

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