

Sequoia^{HD}

Ultra high dynamic range

Temporal contrast measurement

Amplitude is extending the capabilities of the Sequoia 3rd order cross-correlator. The worldwide reference for ultrashort laser pulse contrast characterization is improved and reaches unprecedented measurement dynamic range.

With its ability to inspect spontaneous emission up to 13 orders of magnitude and parasitic pulses on several nanoseconds timescale, the Sequoia^{HD} is the most powerful tool available today to investigate precise temporal laser pulse profile. The latter is of a crucial importance for high intensity lasers commonly used in high field physics.

The high level of optical and mechanical engineering allows easy and reliable operation. The system includes an enriched user-friendly interface for efficient data collection and analysis.



Applications

Science:

> Instrumentation

Key Features

- > Reference tool for contrast characterization
- > Ultrahigh dynamic range up to 13 orders
- > Extended scanning range up to 5.2 ns
- > Robust optical and mechanical design
- > User-friendly interface

Specifications

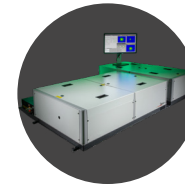
Sequoia^{HD}

Center Wavelength	800 ± 15 nm
Spectral Bandwidth	750-850 nm
Input Pulse Width	20 - 200 fs (FTL)
Input Energy	Down to 150 μJ
Input Beam Diameter	7 mm at 1/e ²
Input Polarization	Linear, horizontal
Input Repetition Rate	< 1 kHz
Dynamic Range	> 10 ¹³
Total Scanning Range	5.2 ns
Adjustable Zero Delay With Temporal Ranges	2600 ps to + 600 ps
	1600 ps to + 1600 ps
	600 ps to + 2600 ps
Temporal Scan Resolution	< 16 fs
Optical Temporal Resolution	< 100 fs

Dimensions

All Models 152 x 380 x 505 cm

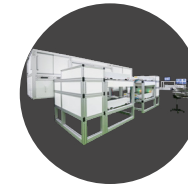
Compatibility



ARCO



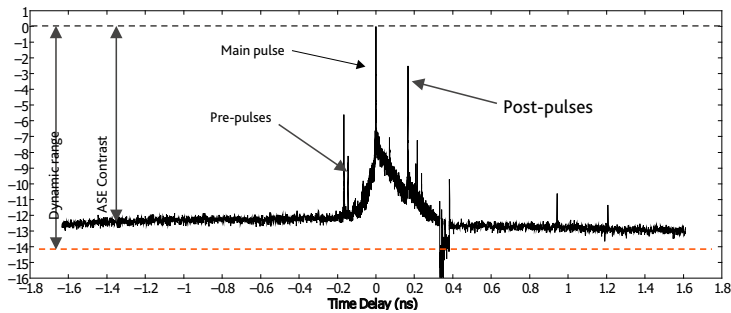
MAGMA



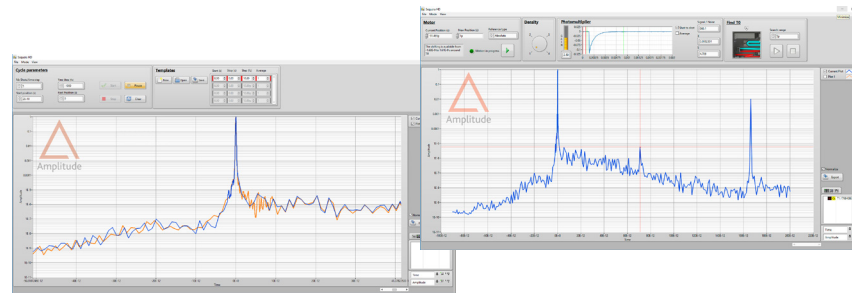
PULSAR TW



PULSAR PW



Typical contrast measurement curve with Sequoia



User interface