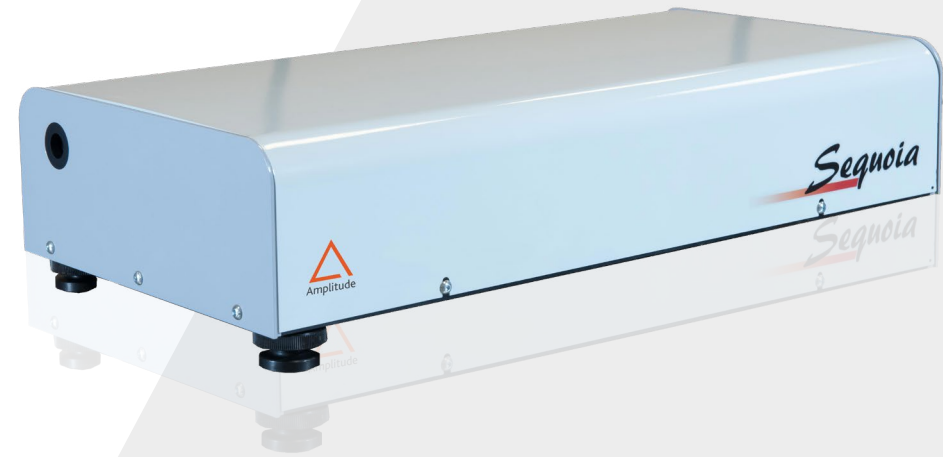


# Sequoia

*Reference device for temporal contrast measurement*

Sequoia offers state-of-the-art measurement of the temporal contrast of ultrafast laser pulses. As the leading producer of high peak power laser system, Amplitude has developed this unique metrology tool in collaboration with the French CEA. This makes it ideal for operations that require strict control of the laser pulse contour, such as femtosecond laser systems used in high-field physics applications.

High quality system engineering means that precise measurements can be performed easily and reliably. On a daily basis, its high dynamic range allows characterization of high peak power systems, making Sequoia the best third-order cross-correlator commercially available today. The performance level of the Sequoia is such, that it has been adopted as the reference tool to define and optimize virtually any laser system, making it paramount for operations related notably to plasma physics, or laser metrology.



## Applications

### Science:

> Instrumentation

## Key Features

- > State-of-the-art technology to measure laser pulse temporal contrast
- > Robust standardized tool for daily use
- > High dynamic range ( $> 10^9$ )
- > Developed by Amplitude under CEA license
- Reference tool to define and optimize
- > A wide range of laser systems

# Specifications

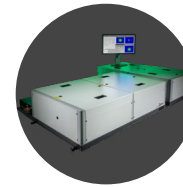
## Sequoia

Center Wavelength	800 ± 15 nm	1050 ± 15 nm
Spectral Bandwidth	750 - 850 nm	1000 - 1150 nm
Input Pulse Width	20 - 200 fs (FTL)	
Input Energy	Down to 500 µJ for 30 fs pulses	
Input Beam Diameter	< 4 mm at 1/e <sup>2</sup>	
Input Polarization	Linear, horizontal	
Input Repetition Rate	< 1 kHz	
Dynamic Range	> 10 <sup>9</sup>	
Total Scanning Range	570 ps	
Temporal Scan Resolution	< 20 fs	
Optical Temporal Resolution	< 120 fs	

## Dimensions

All Models 45 x 25 x 10 cm

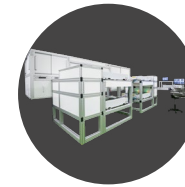
## Compatibility



ARCO



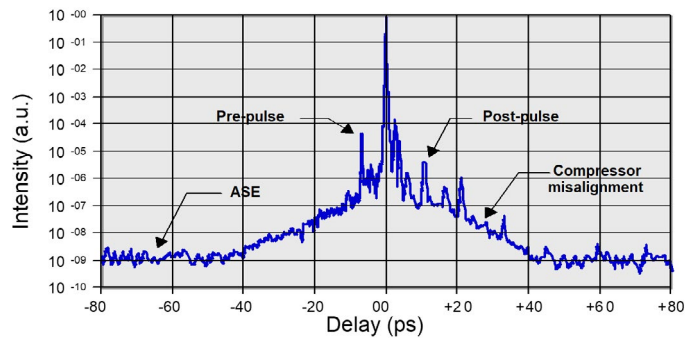
MAGMA



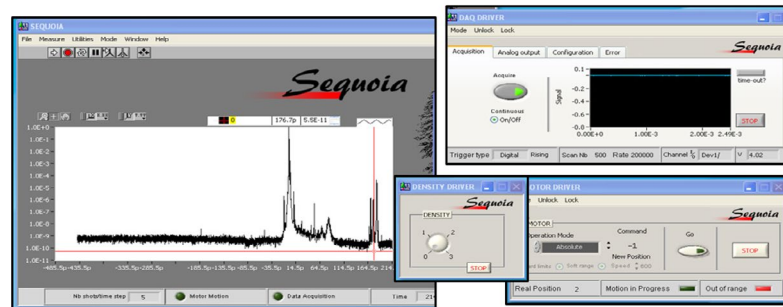
PULSAR TW



PULSAR PW



Typical Sequoia trace measurements



Iconic Sequoia user interface