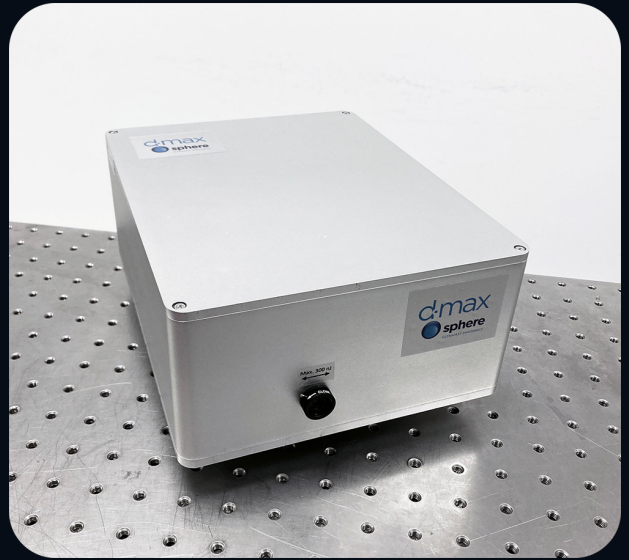




THE HIGH-PERFORMANCE TOOL FOR MASTERING
YOUR HOLLOW-FIBER OR MULTIPASS CELL POST-COMPRESSOR
DOWN TO FEW-CYCLE PULSES

d:max



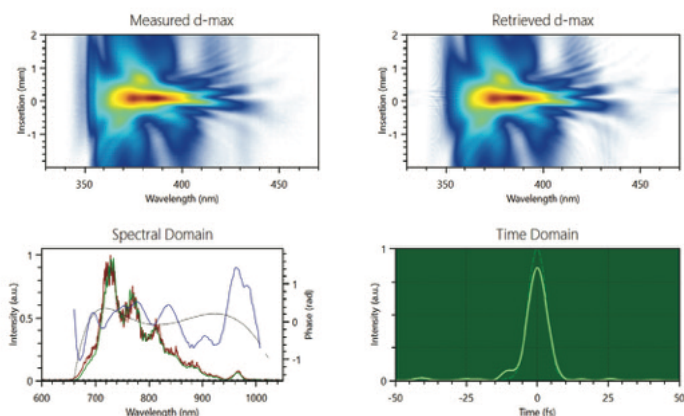
Sphere Ultrafast Photonics
Rua do Campo Alegre, 1021 - Edifício FC6
4169-007 Porto - Portugal
sales@sphere-photonics.com

www.sphere-photonics.com

The d-max is the system of choice for fast and accurate measurement of even the most demanding ultrafast pulses, down to ultra-broadband spectra and few-cycle durations. Its compact, standalone design supports a wide range of ultra-short pulse sources, including broadband laser oscillators, amplifiers, OPAs and hollow-core fiber and multipass cell post-compressors. The d-max's

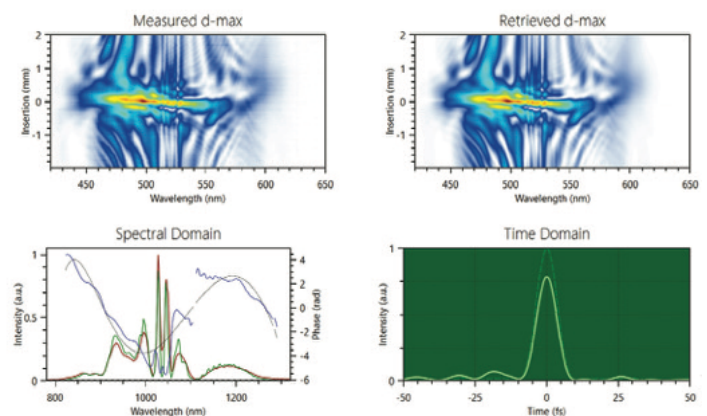
compact footprint packs a dispersion-calibrated system that measures your pulses exactly as they are, without ambiguities. Beam coupling takes less than a minute, and a full measurement completes in under 10 seconds. The intuitive d-max trace gives instant visual feedback via the unique Virtual Logbook™ interface, while its proprietary algorithm ensures fast, accurate pulse reconstruction.

Ti:Sa Oscillator (800 nm)



(top) Measured and retrieved d-max traces, (bottom left) Measured spectrum (red), retrieved spectrum (green), retrieved spectral phase (blue), 4th order polynomial fit of the spectral phase (black), (bottom right) Retrieved temporal intensity profile showing 8 fs pulses (light green), FTL (Dashed green).

Two Stage MPC output (1 μm)



(top) Measured and retrieved d-max traces, (bottom left) Measured spectrum (red), retrieved spectrum (green), retrieved spectral phase (blue), 4th order polynomial fit of the spectral phase (black), (bottom right) Retrieved temporal intensity profile showing 8 fs pulses (light green), FTL (Dashed green).

The d-max is a compact and robust device for fast and accurate measurement of even the most demanding laser pulses.

TECHNICAL SPECIFICATIONS

	d-max B ^{a)}	d-max R ^{b)}	d-max SWIR ^{c)}	d-max XR
Wavelength range	500-1000 nm	600-1100 nm	700-1400 nm	600-1100 nm, or 700-1400 nm
Pulse duration (FTL) ^{d)}	4 fs to 50 fs	7 fs to 50 fs	7 fs to 50 fs	40 fs to 200 fs
Chirp range	±3520 fs ²	±3520 fs ²	±7040 fs ²	>300,000 fs ²
Repetition rate	1 kHz and above ^{e)}			
Input polarization	Linear			
Max input aperture	5 mm			
Required input energy	> 0.5 nJ @ 80 MHz < 300 nJ @ 1 kHz			
Dimensions (WxLxH)	250 x 200 x 100 mm			

(a) Optimized for post-compressors

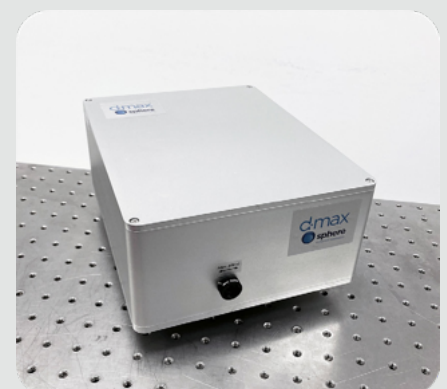
(b) Optimized for Ti:Sapphire oscillators and OPCAs

(c) Optimized for OPCPA

(d) FTL = Fourier-Transform limit. The temporal duration can be much longer if the pulse is chirped (within the chirp range of the model).

(e) Lower repetition rates possible with external synch option

* Vacuum compatible systems available on request



Talk to us for different wavelength ranges, chirp ranges, input aperture, and other requirements