THE HIGH-PERFORMANCE TOOL FOR MASTERING YOUR HOLLOW-FIBER COMPRESSOR DOWN TO SINGLE-CYCLE PULSES

d·scan

SINGLE CYCLE

sphere
ULTRAFAST PHOTONICS

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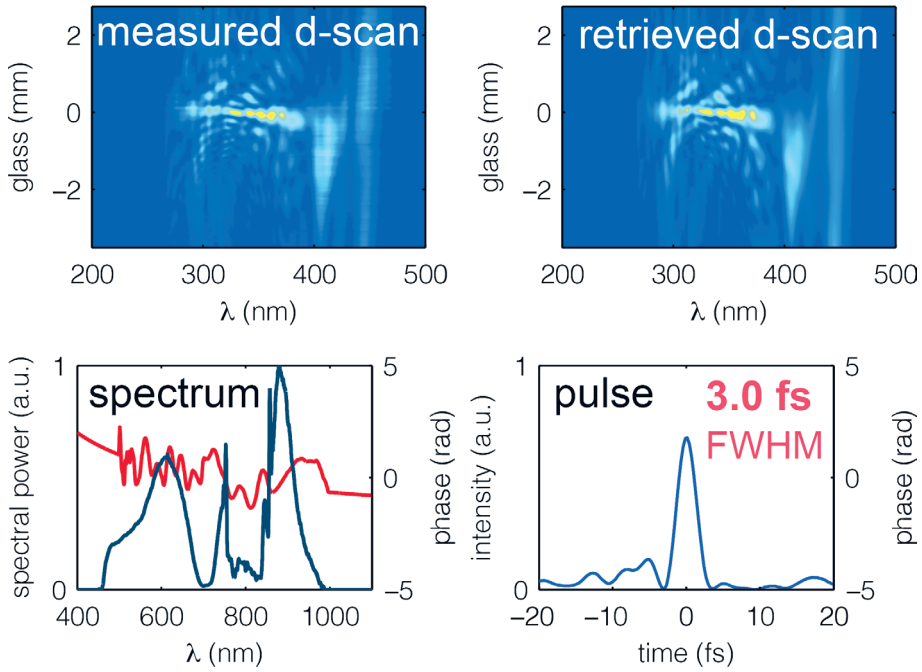
The d-scan single cycle is the system of choice for fast and accurate measurement of even the most demanding ultrafast pulses, down to ultra-broadband spectra and single-cycle durations - the shortest for any commercially available device. Its versatile and standalone architecture handles a variety of state-of-the-art ultrashort pulse sources, from broadband laser oscillators, amplifiers and OPAs to hollow-core fiber compressors. The d-scan single cycle's compact footprint packs a dispersion-calibrated system that measures your pulses exactly as they are, without any ambiguities. Coupling your beam into the d-scan is easily achieved in less than one minute and a full measurement takes less than 10 seconds. The intuitiveness of the d-scan trace provides instant visual feedback for optimisation and control of your source via d-scan's unique graphical user interface - the Virtual Logbook™ - and the proprietary d-scan algorithm provides fast and accurate retrieval of the complete temporal profile of the pulses.



Charaterization of the output from a hollow-core fiber compressor. (Top) Measured and retrieved d-scan traces. (bottom-left) Measured spectrum (black) and retrieved spectral phase (red). (bottom-right) Retrieved temporal profile of the compressed 3.0 fs pulses.

The d-scan single cycle is a compact and robust device for fast and accurate measurement of even the most demanding laser pulses. Single-cycle? No problem!

TECHNICAL SPECIFICATIONS	SINGLE CYCLE
Wavelength range [a]	450-1050 nm
Pulse duration (transform limited) [b]	sub-3 fs to 12 fs
Repetition rate	1 kHz and above [c]
Input polarization	Horizontal
Input aperture diameter	2 mm
Input energy	> 100 pJ @ 80 MHz; > 5 µJ @ 1 kHz
Dimensions (WxLxH)	190 x 235 x 135 mm

(a) Other wavelenghts available upon request (700-1400nm)
(b) System chirp range: from ±200 fs² up to ±1000 fs²
(c) Lower repetition rates possible with external synch option

Customized d-scan systems available upon request.

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