

REAL TIME MEASUREMENT AND CONTROL OF YOUR  
ULTRAFAST LASER AMPLIFIER

# d:shot



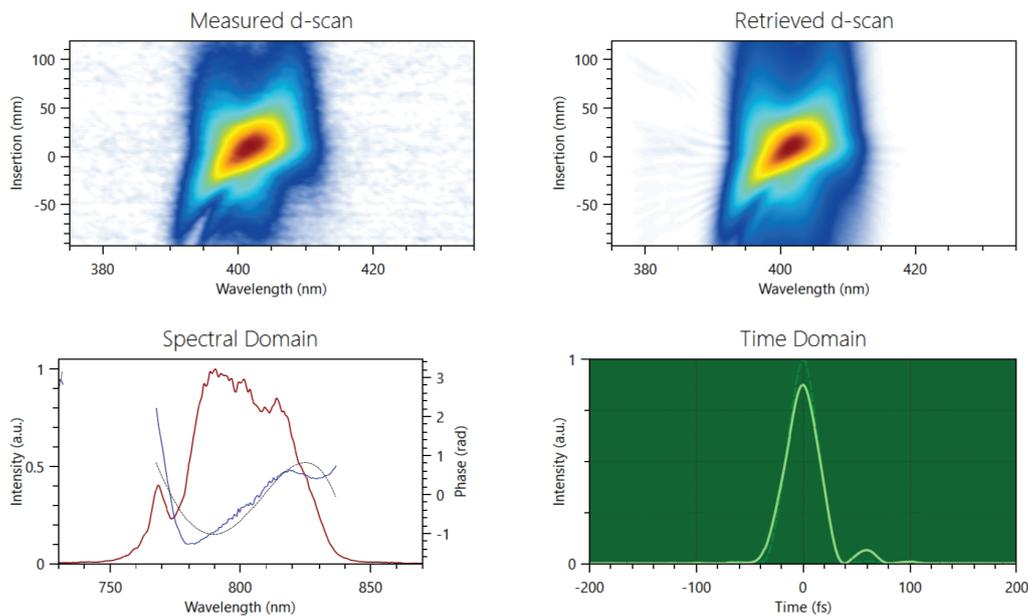
**sphere**  
ULTRAFAST PHOTONICS

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The d-shot is a compact system for measuring ultrafast laser pulses with spectrum supporting 10 fs and at repetition rates ranging from sub-Hz to hundreds of kHz or MHz. Coupling the laser beam into the d-shot is easily achieved in a couple of minutes, and a full measurement (including retrieval) usually takes less than 10 seconds.

The intuitiveness of the d-shot trace provides instant visual feedback for the optimisation of your source. The d-shot system is a practical tool for real-time alignment and optimisation of your compressor or pulse shaper, or for measuring the pulse duration after your spectral broadening stage. A proprietary algorithm provides fast and accurate retrieval of the full electric field of the pulses.



(top) Measured and retrieved d-shot traces. The good match between the Measured and Retrieved traces is an indicator of the quality of the measurement.  
 (bottom left) Measured spectrum (red) and retrieved spectral phase (blue).  
 (bottom right) Retrieved temporal profile of the compressed 37 fs pulses.

The d-shot is a compact and robust device enabling single-shot and real-time visualization of your femtosecond laser pulses.

TECHNICAL SPECIFICATIONS	d·shot
Wavelength range	700-1050 nm
Pulse duration (transform limited)	10 fs to 50 fs
Chirp range (equiv. to 80 mm of fused silica)	$\pm 1500 \text{ fs}^2$ <sup>(a)</sup>
Repetition rate	single shot - MHz <sup>(b)</sup>
Input polarization	Linear
Input aperture diameter	2 mm
Input energy	>10 $\mu\text{J}$
Dimensions (WxLxH)	220 x 152 x 98 mm

(a) Other chirp ranges on request  
 (b) Single pulse measurements for repetition rates < 1 kHz



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