

TeraSys®

The flexible solution for THz spectroscopy

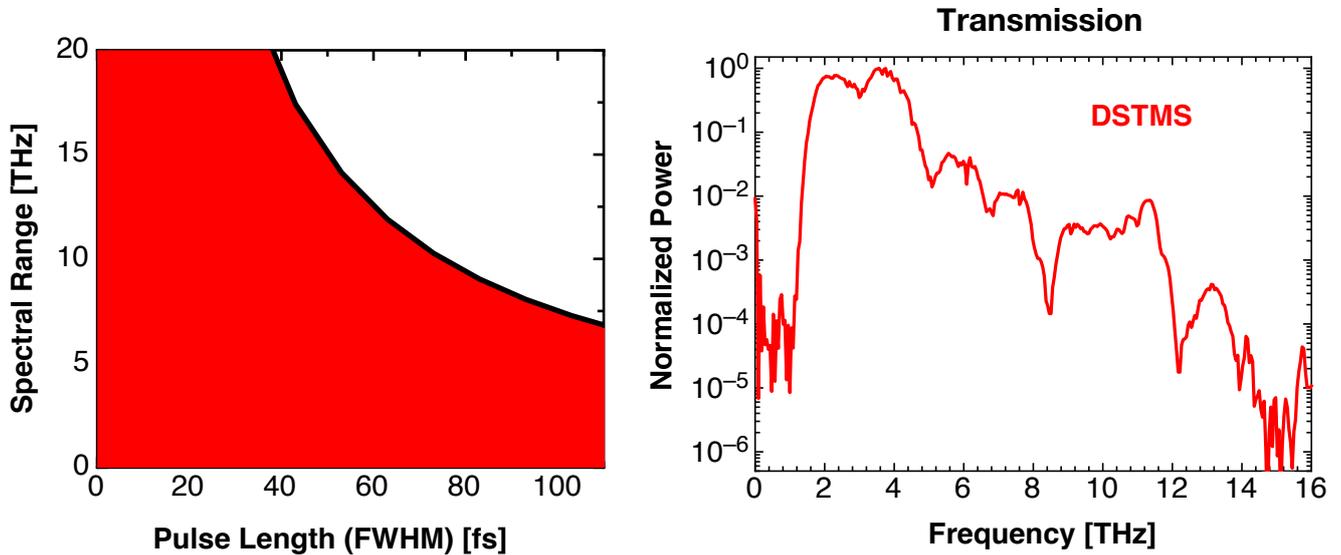
The **TeraSys®** provides a flexible solution for laboratory terahertz spectroscopy. It is based on organic crystals, to allow access to terahertz frequencies by optical down conversion yielding THz frequencies and efficiencies not available with conventional antennas. The **TeraSys®** includes all optical, mechanical, and electronic components for the generation and detection of THz waves such as delay line, terahertz generator, terahertz detector, optics, electronics, lock-in, custom made Er based femtosecond fiber laser, dedicated software and laptop.



TeraSys® optical board (38 cm x 38 cm)

TeraSys® Specifications	
THz generator / detector	Organic crystal
Spectral range	1–14 THz
Best phase matchable wavelength	1300–1600 nm
Options	
<i>THz imaging with a scanning range of 50x50 mm² or 100x100mm²</i>	

Terahertz spectral bandwidth as a function of the pump pulse length and frequency domain spectrum measured in dry air with the **TeraSys®** using DSTMS as terahertz generator and detector.



TeraSys® Specifications	
Spectral range	1 - 14 THz
Dynamic range	> 60 dB, (@4THz)
Scan range	up to 60 ps
Frequency resolution	< 100 GHz
Dimensions	30 x 38 x 17 cm ³
Pump source (Er based femtosecond laser)	
Pulse length	< 20 fs
Total average power	> 200 mW
Peak power	> 120 kW
Central wavelength	1565 nm
Repetition rate	> 80 MHz

Other spectral ranges are available upon request.

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