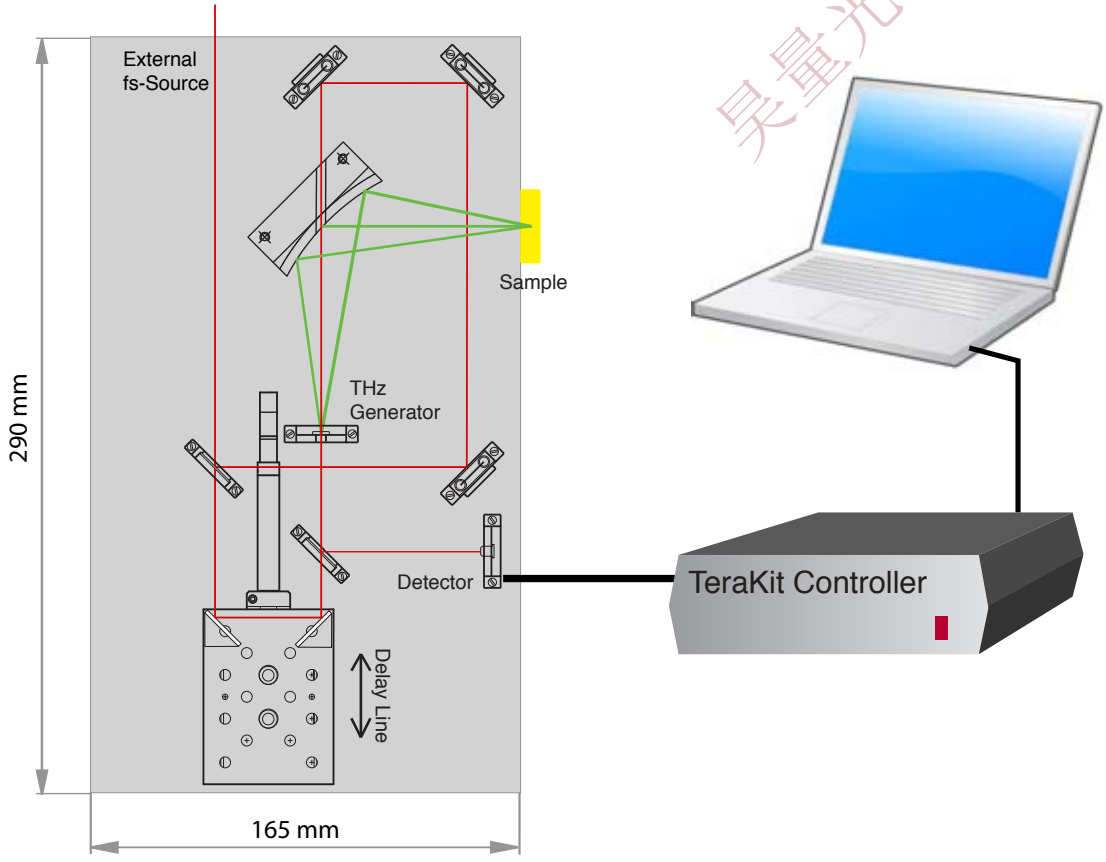
Rainbow Photonics

TeraKit® - R

The flexible solution for THz spectroscopy

The ***TeraKit®-R*** operating in reflection provides a flexible solution for THz spectroscopy. It is based on organic crystals, to generate and detect terahertz frequencies not available with conventional antennas.
The ***TeraKit®-R*** 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, dedicated software and laptop. It uses DAST, OH1 or DSTMS crystals as THz generator / detector with any femtosecond laser source.

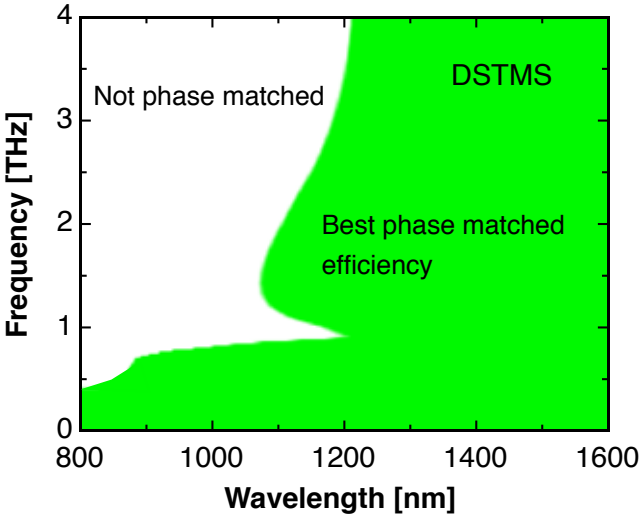


TeraKit® - R Specifications	
THz generator	Organic crystal
Spectral range*	1–8 THz
Best phase matchable wavelength	1300 – 1600 nm

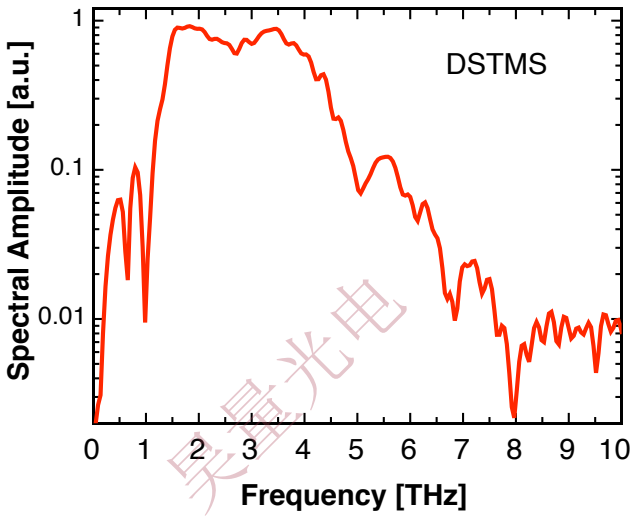
**Depends on the femtosecond laser source*

Best phase-matched efficiency as a function of pump wavelength, and typical frequency domain spectra measured in dry air using DSTMS in the ***TeraKit®-R*** as terahertz generator and detector.

Phase matching vs. pump wavelength



Example of frequency domain spectrum



Spectral range	1–8 THz
Dynamic range	~ 40 dB
Scan range	up to 60 ps

This spectrum is for a pump laser with the following specifications:

Repetition rate	100 MHz
Central wavelength	1565 nm
Pulse duration	<80 fs
Output port	Free space
Total average power	>180 mW

Other spectral ranges are available upon request.

Rainbow Photonics AG
Farbhofstrasse 21
CH-8048 Zürich

Phone: +41 44 419 05 05
Fax: +41 44 419 05 06
E-mail: info@rainbowphotonics.com
Web: www.rainbowphotonics.com