Rainbow Photonics

NEW

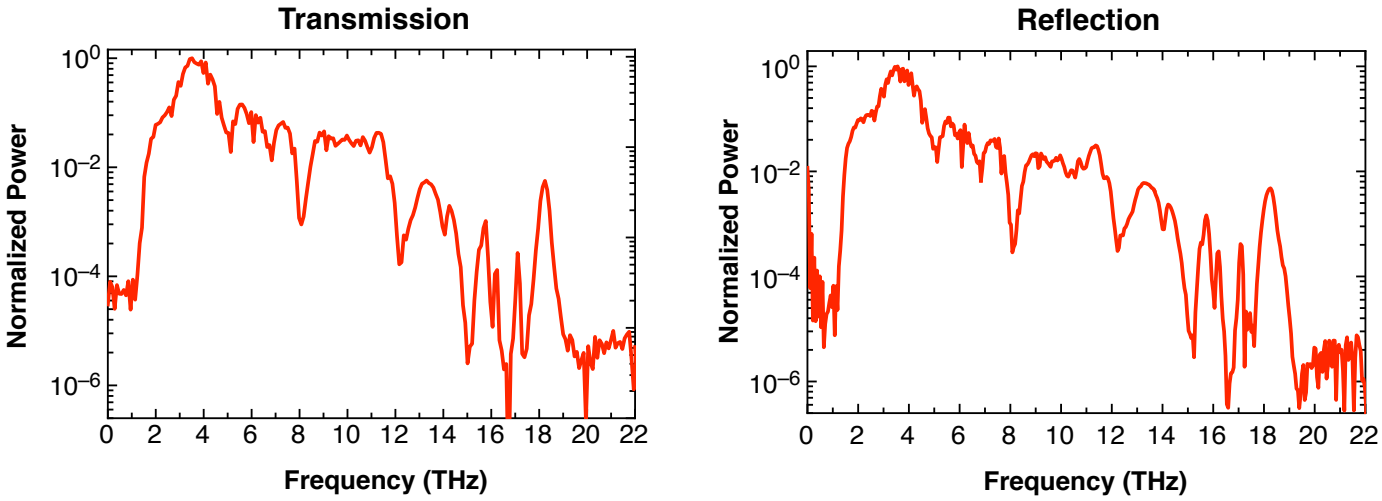
TeraSys® – ULTRA

Ultra–Wide THz Bandwidth for Spectroscopy and Imaging

The ***TeraSys®* – ULTRA** is the ultimate solution for real time, THz imaging and spectroscopy. It is a compact terahertz instrument addressing: sensing, detection, analysis and processing methods at terahertz (THz) frequencies in real time. It is based on organic crystals to allow access to terahertz frequencies up to 20 THz not available with conventional photoconductive antennas.

- **Frequency range 0.3 – 20 THz**
- **Spectral resolution 2.7 GHz**
- **Real-time acquisition, 4 spectra per second**
- **Purge chamber with humidity sensor**
- **Dedicated software, computer control**
- **Compact design, maintenance free**

Frequency domain spectrum measured with the ***TeraSys*® – ULTRA** using DSTMS organic crystals as terahertz generator and detector in



transmission and reflection.

TeraSys*® – ULTRA *Specifications	
Spectral range	0.3 – 20 THz
Spectral resolution	2.7 GHz
Acquisition speed	4 spectra per second
Scan range	>300 ps
Dynamic range	>70 dB (@ 4 THz)
Dimensions	55 cm x 60 cm x 30 cm
Pump Source (high power ultrafast fiber laser)	
Pulse length	< 20 fs
Total average power	> 200 mW
Peak Power	> 240 kW
Central wavelength	1565 nm
Repetition rate	40 MHz