

## ***TeraSys<sup>®</sup> – ULTRA***

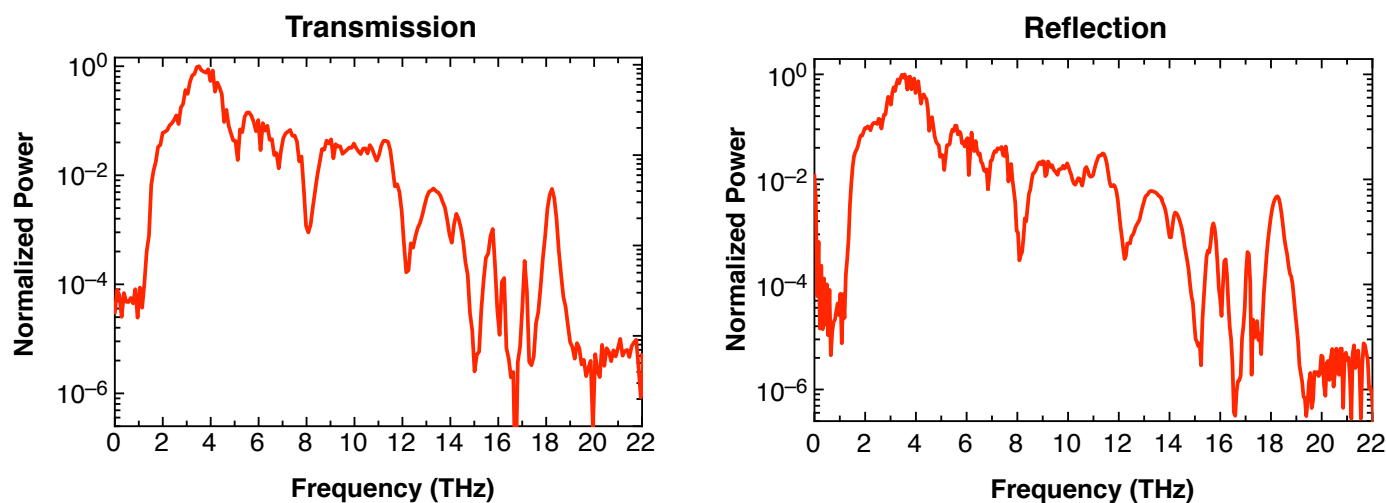
### ***Ultra–Wide THz Bandwidth for Spectroscopy and Imaging***

The ***TeraSys<sup>®</sup> – 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   |

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