TDS
THz time-domain spectrometer

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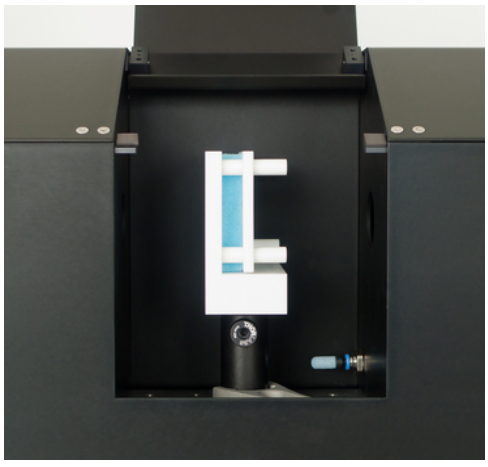
- TDS benchtop system for THz spectroscopy
- Spectral range up to 3.5 THz using fs fiber laser
- Optional nitrogen purge of sample compartment
- Additional ports for external fiber-coupled setup

TDS system includes:

- Enclosed sample compartment with free space THz path for transmission measurements
- Linear stage for a maximum time delay of 500 ps (corresponds to a 2 GHz resolution)
- Pulse generator, signal amplification and lock-in detector integrated into one device
- Laptop with T3DS software for easy handling of the spectrometer setup and the data acquisition
- Internal sample compartment can be purged with nitrogen

Optional:

- External fiber-coupled setup for transmission, reflection or imaging measurements

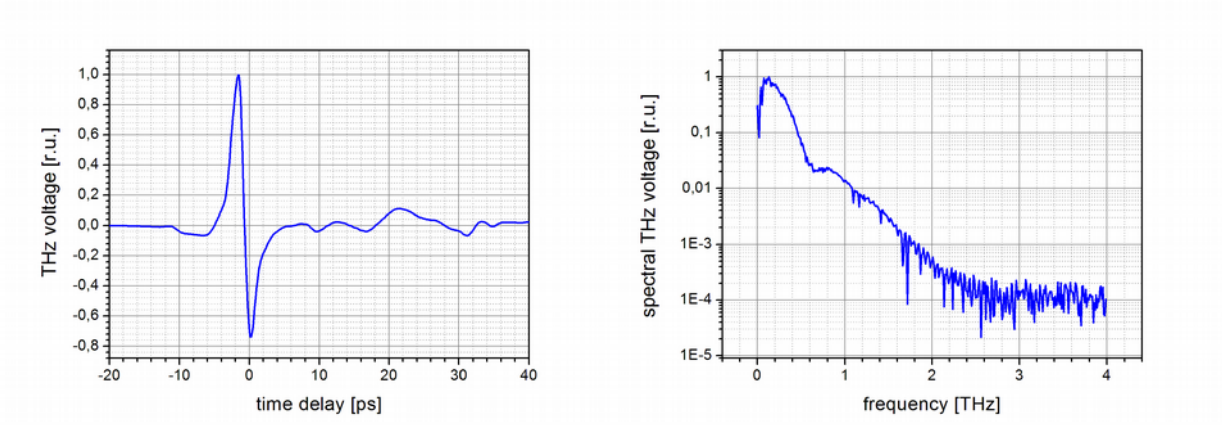


Optional external fiber-coupled antennas Sample compartment

TDS specifications:

- Spectral range 0.05 – 3.5 THz (780 nm laser)
  0.05 – 2.5 THz (1040 nm laser)
  0.05 – 2 THz (1550 nm laser)
- Dynamic range > 60 dB (780 nm laser)
  > 60 dB (1040 nm laser)
  > 50 dB (1550 nm laser)
- Scan range 500 ps (2 GHz resolution)
- THz beam diameter 22 mm (collimated beam) / 1-3 mm (focussed beam)
- Sample size 55 x 55 mm (collimated beam) / > 5 x 5 mm (focussed beam)
- Supply voltage 100-240 V, 50/60 Hz
- Spectrometer dimensions 60 cm x 60 cm x 25 cm
- Spectrometer weight 50 kg

Exemplary THz-spectrum:



T3DS software:

- Quick and easy configuration of the spectrometer setup and sampling parameters
- Separate measurements of baseline, reference and sample spectra
- Stepping measurement of THz signal for high signal-to-noise ratio
- Option for imaging measurements included in software package