

T-SWEEPER REALTIME CONTINUOUS WAVE TERAHERTZ SYSTEM



AT A GLANCE

All-fiber terahertz spectrometer operating at 1.5 μm optical wavelength

Features

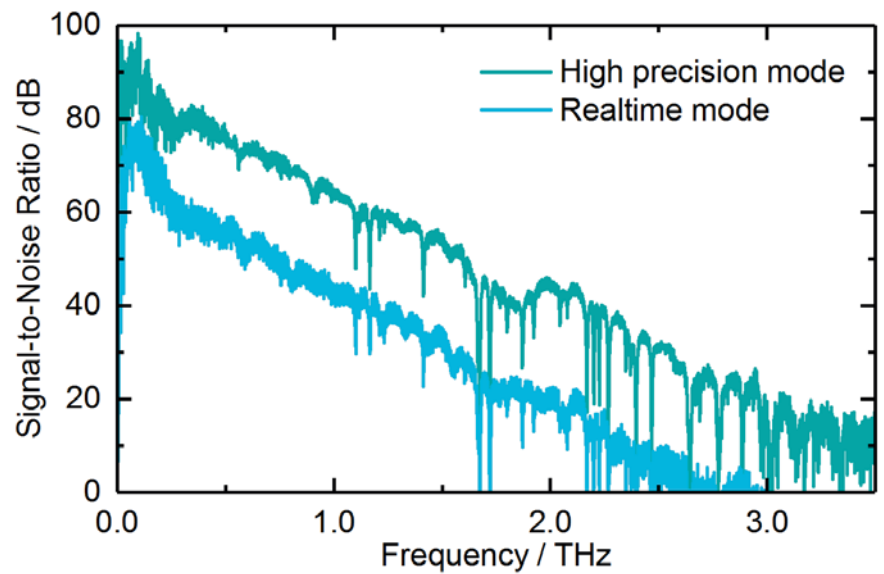
- Turnkey operation
- Fully fiber-coupled
- No moving parts
- Realtime data acquisition

Applications

- High-resolution terahertz spectroscopy
- Industrial process control
- Non-contact thickness measurement

Technical background

Robust and agile terahertz (THz) systems are the prerequisite for transferring THz technologies from research facilities to industrial environments. The T-Sweeper realtime continuous wave THz system is based on mature telecom components, operating at an optical wavelength of 1.5 μm . Utilizing HHI's fiber-coupled continuous wave THz emitter and detector modules, the T-Sweeper provides a unique combination of flexibility, high performance and high speed. This enables the adaptation of the T-Sweeper to your specific application.



Frequency spectrum recorded with HHI's fiber-coupled continuous wave terahertz emitter and detector modules.

Specifications

- Power at 1 THz
> 1 μ W
- Frequency resolution
20 MHz
- Size
11 x 48 x 36 cm³
- Weight
9 kg

Realtime mode

- Acquisition time
per spectrum
67 ms
- Spectral range
> 2 THz
- Dynamic range
> 60 dB

High precision mode

- Acquisition time
per spectrum
250 s
- Spectral range
> 3 THz
- Dynamic range
> 80 dB

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