Realize small footprint measurement from millimeter wave to terahertz wave range

Characterization of materials for next gen. radio communication

Radio wave absorption materials
Metamaterials / Polymers

- High frequency resolution: 380 MHz
- Broadband measurement (30 GHz to 2 THz) without switching frequency extenders
- High throughput pulse waveform sampling technology up to 40ms/scan
- Easy switching between measurement setups (transmission/reflection) and simple operation
- Remote programming function enables 2D mapping measurement
Terahertz Source Module TAS1120 (Low frequency type)

- **Generation method**: Photoconductive antenna
- **Bandwidth (SNR=1)**: 0.03 to 2 THz
- **Input Optical Fiber Connector**: φ 3mm 1550 nm polarization maintaining fiber (length: 1.5 m)
- **Size (without fiber pigtail)**: 55mm × 20mm × 20mm

Terahertz Source Module TAS1220

- **Generation method**: Photoconductive antenna
- **Input Optical Fiber Connector**: φ 3mm 1550 nm polarization maintaining fiber (length: 1.5 m)
- **Size (without fiber pigtail)**: 55mm × 20mm × 20mm

Terahertz Detector Module TAS1220

- **Dynamic range (Peak level)**: ≥50dB (Source: TAS1120) (at resolution: 7.6 GHz)
- **TIA sensitive**: 9.7 × 10⁻⁶ V/A
- **TIA bandwidth (-3dB)**: 500 kHz
- **Input Optical Fiber Connector**: φ 3mm 1550 nm polarization maintaining fiber (length: 1.5 m)
- **TIA bandwidth (-3dB)**: 500 kHz

Comparison of Frequency Resolution on around 0.557 THz (Water Vapor Absorption)

- **7.6 GHz resolution**
- **1.9 GHz resolution**
- **380 MHz resolution**

Spectroscopy/Imaging System

- **SHT-710122X04**
- **PYSI74-08MNIS** (Automatic Control Measuring Option)

Specifications and external view are subject to change without notice.

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