

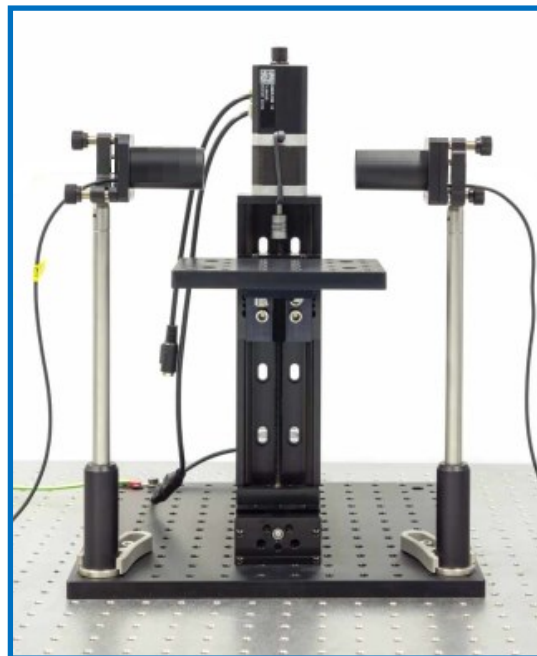
## T-image: Terahertz Imaging Kit

### Product overview

If the customer is familiar with the principles of THz time-domain spectrometers and has a femto-second laser, the NLS's Terahertz Imaging Kit, T-image, is the best choice for non-destructive testing by terahertz imaging. We provide imaging system for pulse lasers with 780 nm wavelength with the following parameters:

- Pulse duration: < 100 fs
- Repetition rate: 50 - 100 MHz
- Average optical power: 100mW (free space antennas).

The T-image is capable to generate terahertz waves with a bandwidth more than 2.5THz. The THz waves, are generated and detected by photo-conductive antennas. The linear time delay stage, imaging module and the data acquisition system are controlled using the T-image software package that is included on a USB flash drive or can be installed on a separate laptop.

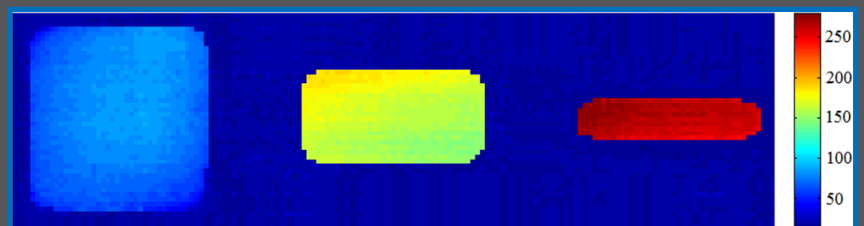
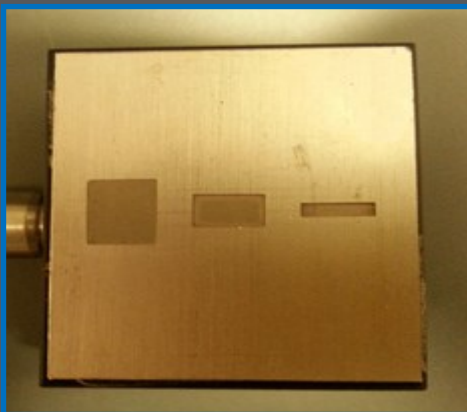


### Applications

- Non-destructive testing in various industries
- Terahertz Imaging
- Study of mobility and carriers life time in semiconductor materials
- Characterization of the complex refractive index of dielectrics
- Quality control in the pharmaceutical industry
- Metamaterials study
- Diagnosis of cancerous cells
- Small thicknesses measurement

## System specifications

<b>T-image</b>	
<b>Frequency range</b>	<b>0.1 THz up to 2THz</b>
<b>Imaging resolution</b>	<b>better than 2mm</b>
<b>Dimensions</b>	
<b>Maximum sample dimensions</b>	<b>150 mm × 150 mm × 2 mm</b>
<b>System dimensions</b>	<b>60 cm (L) × 70 cm (W) × 30 cm (H)</b>
<b>Environmental and utility specifications</b>	
<b>Operating temperature</b>	<b>23 – 28°C</b>
<b>Voltage</b>	<b>single-phase; 220VAC; 50Hz</b>
<b>Power consumption</b>	<b>&lt; 300W</b>



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