

T-SENSE FMI

The THz imager for material inspection



Your products deserve maximum efficiency

HÜBNER Photonics has developed a new innovative measuring system:
The Terahertz Imager T-SENSE FMI.

This highly efficient technology is based on the most recent research results. Production can be monitored and controlled at various levels. T-SENSE FMI uses millimeter waves in the lower terahertz range with no health risks involved and known from the newest Bodyscanners at airports. This means that the equipment can be used anywhere and for several purposes without the need for radiation protection.

T-SENSE FMI can visualize process-related properties that are normally remain hidden to your eyes.

HÜBNER Photonics | Coherence matters.

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T-SENSE FMI

Areas of application

- Impurities visible through packaging
- Monitoring of a fill-level
- Monitoring of the bonding process
- Monitoring of the drying process
- Detecting shrinkage or cavities in non-metallic materials
- Inspecting frozen food
- Identifying flaws and cavities in non-electrically conductive components

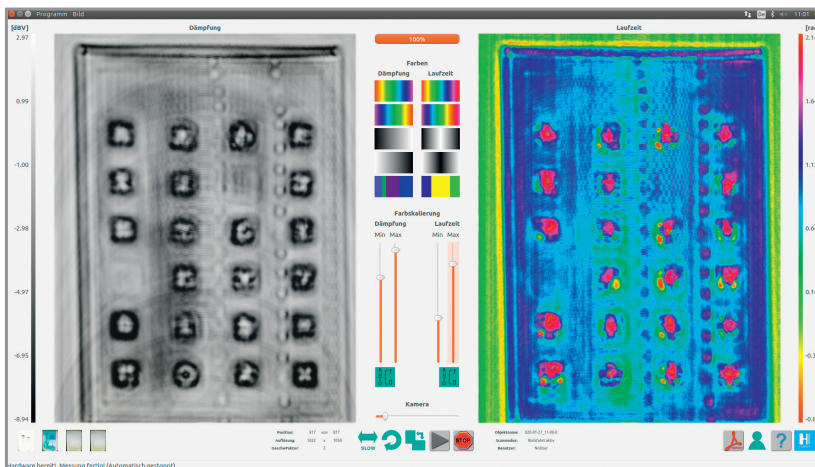
User-friendly

The stand-alone system is ready for use straight after set-up and start. Only a main connection is necessary. Simple and intuitive application software provides the device to be used with easy instruction.

Individually adaptable

The innovative measuring system can be specifically adapted to your production. We will be pleased to develop a tailor-made solution for your measuring requirements, including an individually adapted software solution for your specific needs.

Your aim is our aim: a zero-defect production.



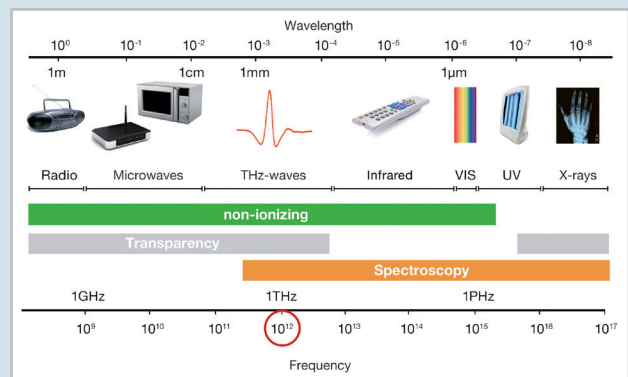
T-SENSE FMI Graphic user interface with different filters side by side. All parameters are intuitively customizable.

There is also an image overlay technique of the visual and the THz image

Operation Principle

Terahertz waves essentially stand for the frequency range of the electromagnetic spectrum, ranging between 0.1 THz and 10 THz. Numerous nonconductive materials such as plastics, compounds, ceramics, paper or clothing appear almost transparent on THz frequencies. The T-SENSE FMI makes use of the varying absorption levels of the objects being illuminated.

In addition, it measures the time range of the signal being emitted. It can recognize the smallest difference, regardless of whether this is due to varying levels of moisture or a deliberate or accidental alteration of the composition of the product in question.



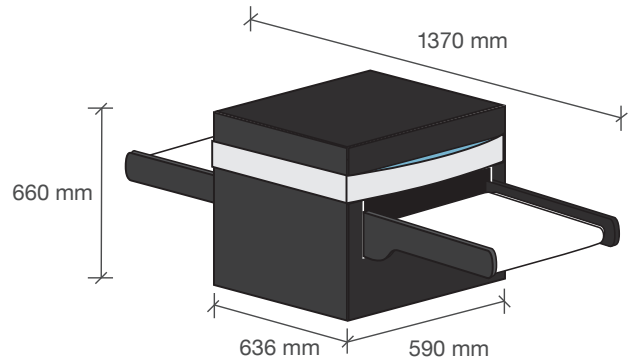
Frequency range

Approx. 90 GHz

Analysis of amplitude and phase

Maximum dimensions of scanned objects

Width	270 mm
Height	50 mm



Surroundings & electrical supply

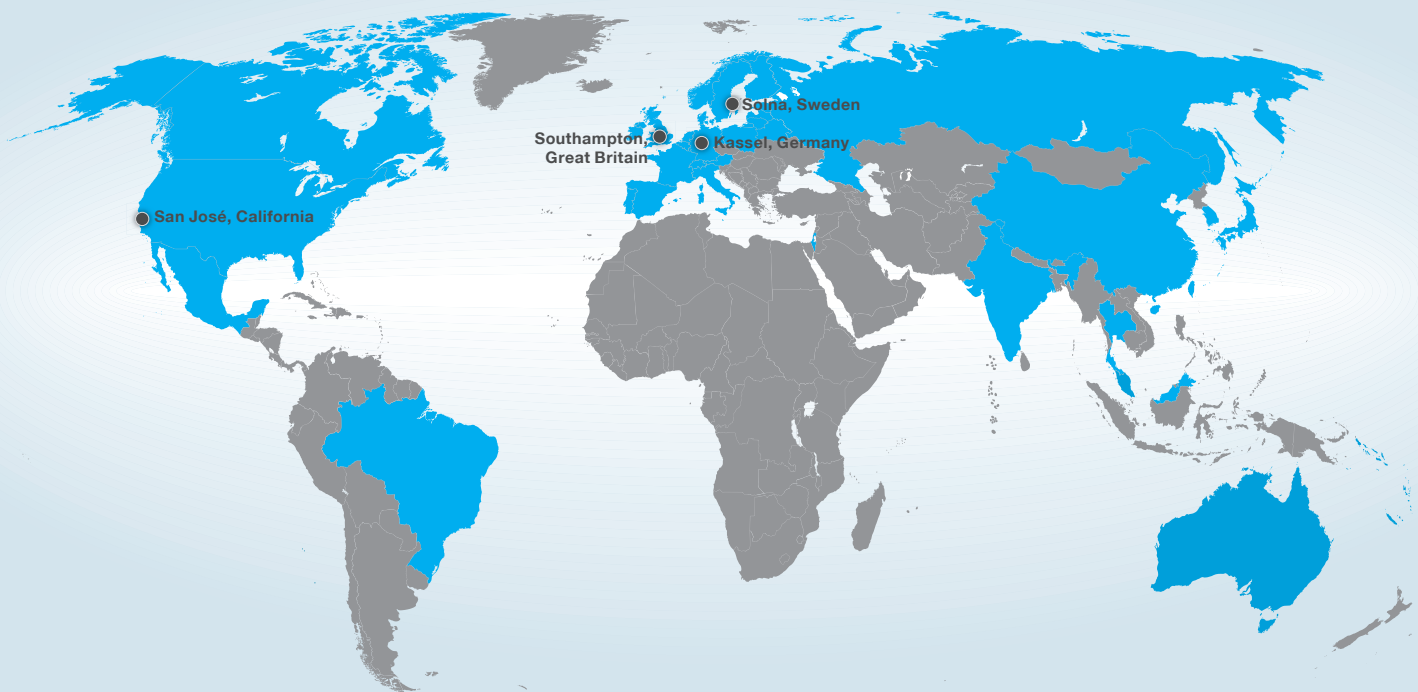
Operating temperature range	10 - 45 °C
Power supply	100 - 230 VAC
Power consumption	150 W
Frequency	50 - 60 Hz

Dimensions & weight

Length	1370 mm
Width	590 mm
Height	660 mm
Weight	100 kg

Visualizing the invisible without any risk to human health.





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