



Introducing

aura

The most compact, ultra broadband FTIR - spectrometer available

Product Description

The aura is a miniature broadband FTIR spectrometer designed for cutting-edge infrared and terahertz applications. With a footprint of only 15 × 10 × 10 cm, it combines compactness with an exceptionally wide spectral range from 5 μm to 500 μm (0.6–100 THz). The system is built entirely on reflective optics and a lamellar grating design, ensuring alignment-free operation, long-term stability, and compatibility with high-vacuum environments down to 10⁻⁶ bar. Delivering spectral resolution down to 1 cm⁻¹, the aura enables researchers and industry users alike to perform precise and reliable measurements in a portable form factor.

Typical applications include synchrotron and FEL diagnostics and material characterization in the mid-IR to THz regime.

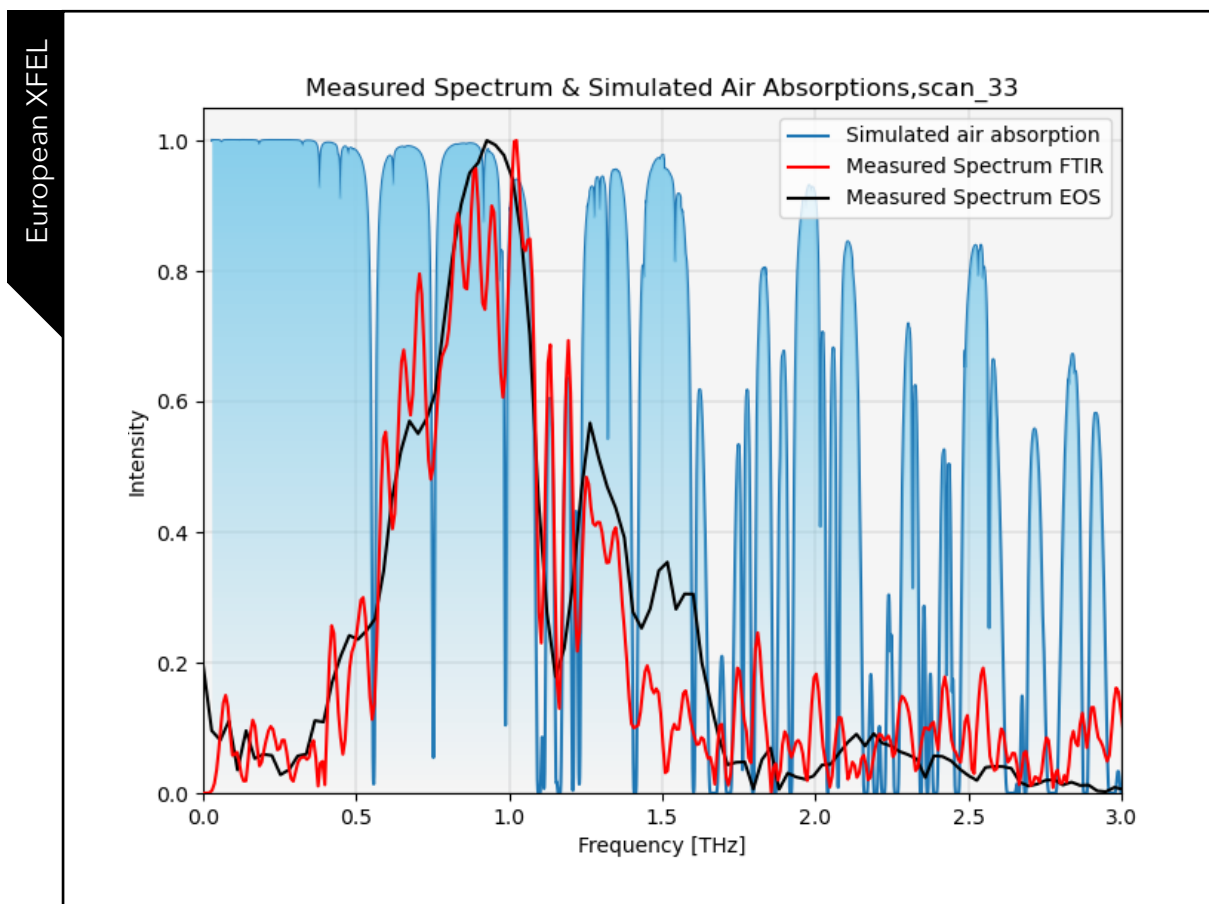
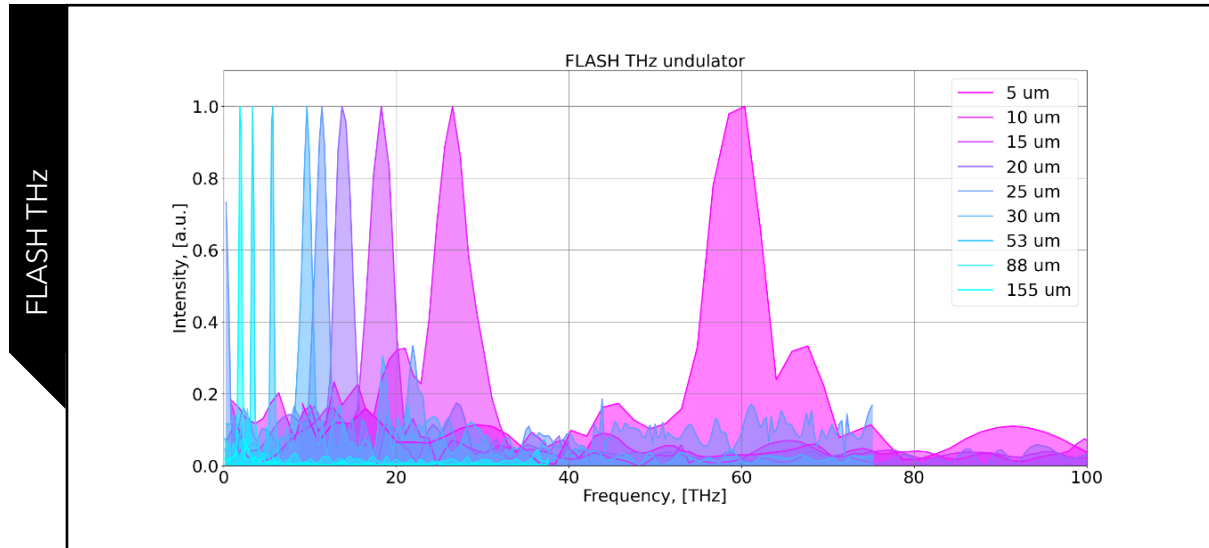
Specifications

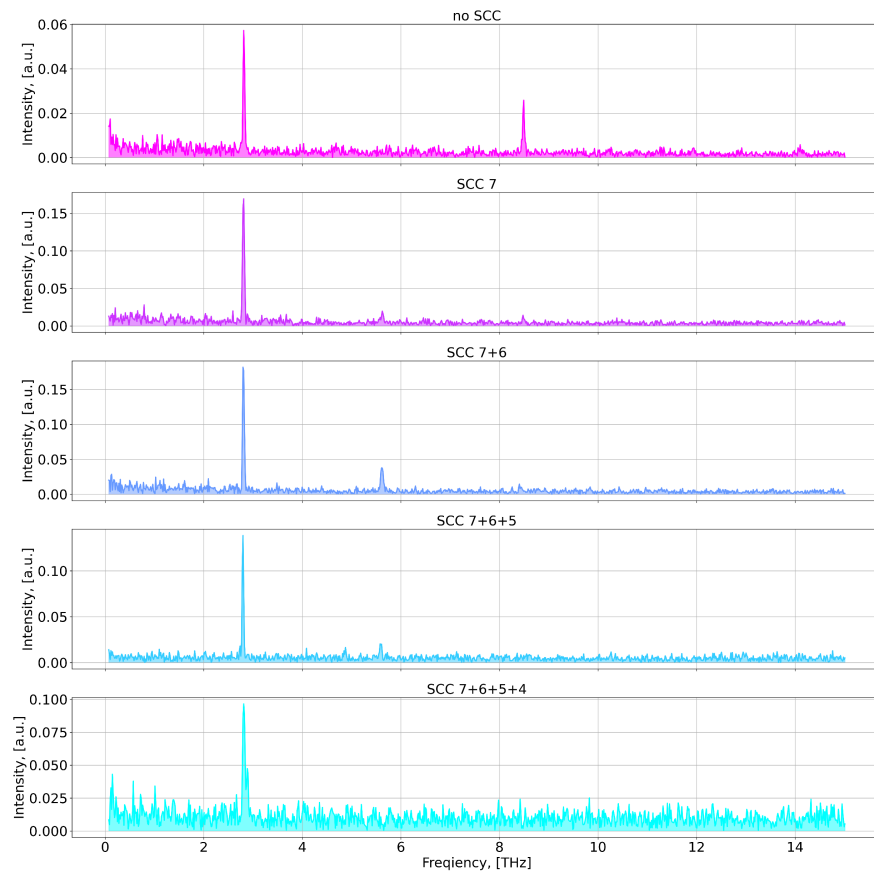
Compact Design	15cm x 10cm x 10cm
Bandwidth	5μm - 500μm
Resolution	1 cm ⁻¹
Vacuum Compatible	10 ⁻⁶ bar
Max. Beamsize	12.5mm
Max - rep - rate	10kHz
Responsivity	70kV/W
Max - Input - Power	250μW

Applications

- Synchrotron and FEL diagnostics
- IR and THz spectroscopy
- Non-destructive material characterization
- Photonics and semiconductor research
- Quality control in industry (polymers, coatings, thin films)
- Broadband reference source for calibration setups

Sample Data





References

- R. Pan, E. Zapolnova, T. Golz, et al., Photon diagnostics at the FLASH THz beamline, J. Synchrotron Radiat., 26, 700–707 (2019). doi:10.1107/s1600577519003412
- M. Krasilnikov, et al., First spectral measurements of single-pass high-gain THz FEL at PITZ, FEL2024 Conference Proceedings (submitted)
- M. Krasilnikov, et al., First high peak and average power single-pass THz FEL in operation, Physical Review Letters (submitted, 2024)
- Seung-gi Gang, Ekaterina Jung, Nicholas H. Matlis, Nikola Stojanovic, Rui Pan, Laser-free and low-jitter Electro-Optic Sampling of FEL-based THz radiation by intrinsic ultrafast laserlike-pulses at FLASH, Infrared Physics and Technology 151, 106121 (2025)

Order Information

Estimated delivery time: 3 months after initial payment

For inquiries and orders, please contact:

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