

Overview

The terahertz (THz) detector is based on an extremely thin GaP(110) crystal that allows for efficient detection via free-space electro-optic sampling covering the frequency range from 0.1 up to 30 THz.

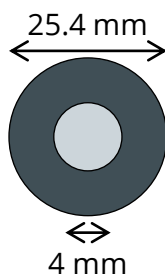
T-Sense1



Key Benefits

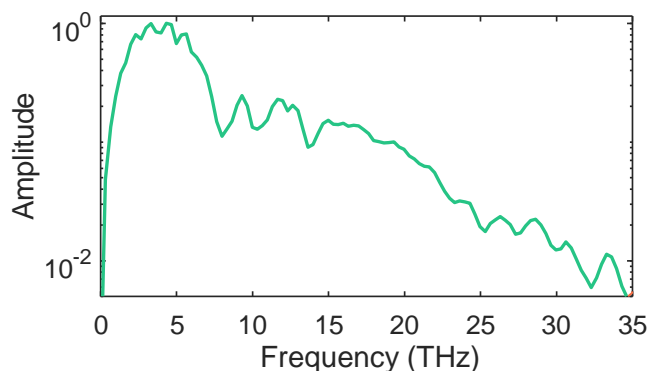
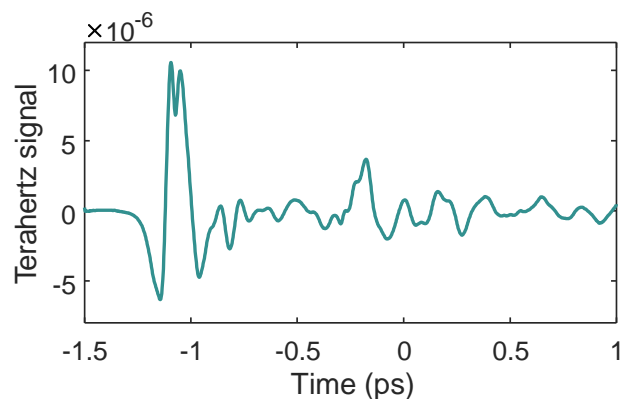
- **Ultrabroadband THz detection** with a minor spectral gap at ~8 THz
- **High THz-detection efficiency**
- **Fully passive operation**
- **Long term stability**
- Thinnest electro-optic GaP crystal on the market for highest THz bandwidth

Dimensions



Exemplary Measurement Data^{1,2}

Detected THz emission from the T-Spin1 emitter



Technical Data

T-Sense1	
Material	GaP(110)
Thickness	30 μm
Free aperture	$\geq 4 \text{ mm}$

¹ Typical values only. The actual terahertz band-width depends on the probe pulse duration and may vary depending on specific experimental conditions.

² Obtained with 15 fs pulses centered at a wavelength of 785 nm, 80 MHz repetition rate, 80 mW excitation power for the T-Spin1, about 10 mW detection power for the T-Sense1, about 0.5 mJ/cm² excitation fluence.