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Title:Non-invasive terahertz field imaging inside parallel plate waveguides

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Abstract:We present a non-invasive broadband air photonic method of imaging of the electric field of THz pulses propagating inside a tapered parallel plate waveguide. The method is based on field-enhanced second harmonic generation of the fundamental laser beam in an external electric field. We apply the technique to measure the frequency-dependent reflection coefficient at the end of the waveguide.

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