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Abstract:We have constructed a pulsed THz imaging system based on the triangulation method. The system is capable of stand-off measurements, especially of retrieving the refractive index in a non-tactile manner even if the thickness of the object is unknown. The distance between emitter and imaged object for the presented measurements was 1.3m. We have measured a variety of samples in order to determine the capabilities and to optimize the optical properties of the instrument.