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Title:THz pulse shaping and improved optical-to-THz conversion efficiency using a binary phase mask
Authors:Ropagnol, Xavier (1); Morandotti, Robert (1); Ozaki, Tsuneyuki (1); Reid, Matt (2)
Author affiliation:(1) INRS-EMT, Advanced Laser Light Source, Université du Québec, Varennes, QC J3X 1S2, Canada; (2) Department of Physics, University of Northern British Columbia, Prince George, BC V2N 4Z9, Canada
Corresponding author:Ropagnol, X.(ropagnol@emt.inrs.ca)
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Abstract:We demonstrate improved optical-to-terahertz (THz) conversion efficiency and THz pulse shaping from an interdigitated GaAs large area photoconductive antenna by using a binary phase mask. The binary phase mask results in a time-delayed excitation of the adjacent antennas, which allows subsequent antennas to produce an additive field, thus resulting in a quasi-single-cycle THz pulse. We demonstrate control over the temporal profile of the THz waveform to maximize optical-to-THz conversion efficiency.
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