Abstracts

A terahertz grid frequency doubler (1997 Vol. II [MWSYM])

A. Moussessian, M.C. Wanke, Yongjun Li, Jung-Chih Chiao, F.A. Hegmann, S.J. Allen, T.W. Crowe and D.B. Rutledge. "A terahertz grid frequency doubler (1997 Vol. II [MWSYM])." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 683-686.

We present a 144-element terahertz quasi-optical grid frequency doubler. The grid is a planar structure with bow-tie antennas as a unit cell each loaded with a planar Schottky diode. The grid has an output power of 5.5 mW at 1 THz for 3.1-/spl mu/s, 500-GHz input pulses with a peak power of 36 W. This is the largest recorded output power for a multiplier at terahertz frequencies.

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