Abstracts

Widely Tunable Millimeter-Wave Mixers Using Beam-Lead Diodes

S. Nussbaum, J.A. Calviello, E. Sard and N. Arnoldo. "Widely Tunable Millimeter-Wave Mixers Using Beam-Lead Diodes." 1982 MTT-S International Microwave Symposium Digest 82.1 (1982 [MWSYM]): 209-211.

Newly developed GaAs beam-lead diodes have been used in mixers covering the millimeter bands of 35 to 50 GHz, 70 to 90, and 90 to 120 GHz. The mixers were tested at room temperature and achieved the following single sideband conversion losses: 4 to 4.5 dB from 35 to 50 GHz, 5 to 7 dB from 70 to 90 GHz, 4.5 to 6.5 dB from 90 to 120 GHz. SSB mixer noise temperature from 90 to 120 GHz ranged from 494 K to 1200 K. Room and cryogenic noise temperature measurements for the other mixers are in progress.

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