Abstracts

Heterodyne Experiments from Millimeter Wave to Optical Frequencies Using GaAs MESFETs Above f/sub T/

A. Chu, H.R. Fetterman, D.D. Peck and P.E. Tannenwald. "Heterodyne Experiments from Millimeter Wave to Optical Frequencies Using GaAs MESFETs Above f/sub T/." 1982 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 82.1 (1982 [MCS]): 25-27.

Response of GaAs FETs in mm-wave and optical heterodyne experiments has been obtained at frequencies above the frequency of unity current gain, f/sub T/. In the mixing of two visible lasers, beat frequencies as high as 300 GHz have been observed. These high IFs were down converted to microwave frequencies by radiatively coupling mm-wave local oscillators into the gate region.

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