Abstracts

30 GHz Monolithic Balanced Mixers Using an Ion-Implanted FET-Compatible 3-Inch GaAs Wafer Process Technology

P. Bauhahn, A. Contolatis, V. Sokolov and C. Chao. "30 GHz Monolithic Balanced Mixers Using an Ion-Implanted FET-Compatible 3-Inch GaAs Wafer Process Technology." 1986 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 86.1 (1986 [MCS]): 45-49.

An all ion-implanted Schottky barrier mixer diode which has a cutoff frequency greater than 1000 GHz has been developed. This new device is planar and FET-compatible and employs a projection lithography 3-inch wafer process. A Ka-band monolithic balanced mixer based on this device has been designed, fabricated and tested. A conversion loss of 8 dB has been measured with a LO drive of 10 dBm at 30 GHz.

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