Abstracts

Monolithic millimeter-wave balanced bi-phase amplitude modulator in GaAs/InGaP HBT technology

S. Nam, N. Shala, K.S. Ang, A.E. Ashtiani, T. Gokdemir, I.D. Robertson and S.P. Marsh. "Monolithic millimeter-wave balanced bi-phase amplitude modulator in GaAs/InGaP HBT technology." 1999 MTT-S International Microwave Symposium Digest 99.1 (1999 Vol. I [MWSYM]): 243-246 vol.1.

The design and performance of a monolithic 38 GHz balanced reflection-type direct carrier modulator in HBT technology is described. The circuit uses cold-HBTs as variable resistance reflection terminations. With a calibrated biasing technique, the circuit achieves /spl plusmn/0.1 dB amplitude error and /spl plusmn/1.5/spl deg/ phase error.

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