Abstracts

Integrated Coplanar mm-Wave Amplifier with Gain Control Using a Dual-Gate InP HEMT (1996 Vol. II [MWSYM])

M. Schefer, H.-P. Meier, B.-U. Klepser, W. Patrick and W. Bachtold. "Integrated Coplanar mm-Wave Amplifier with Gain Control Using a Dual-Gate InP HEMT (1996 Vol. II [MWSYM])." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 521-524.

A variable gain mm-wave amplifier, based on InP HEMT devices, is demonstrated. The measured gain control range of 14 dB is the largest reported in the mm-wave range for a monolithically integrated variable gain amplifier. The two stage circuit consists of a single gate transistor and a dual-gate transistor. The circuit has a maximum gain of 22 dB at 44 GHz and a bandwidth of 14.6 GHz. The circuit was fabricated in coplanar technology.

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