Abstracts

5-100 GHz InP CPW MMIC 7-Section Distributed Amplifier

R. Majidi-Ahy, M. Riaziat, C. Nishimoto, M. Glenn, S. Silverman, S. Weng, Y.C. Pao, G. Zdasiuk, S. Bandy and Z. Tan. "5-100 GHz InP CPW MMIC 7-Section Distributed Amplifier." 1990 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 90.1 (1990 [MCS]): 31-34.

A single stage 5-100 GHz InP MMIC amplifier with an average gain of more than 5.0 dB has been developed. This MMIC distributed amplifier has the highest frequency and bandwidth of operation (5-100 GHz), reported for wideband amplifiers. The active devices in this 7-section distributed amplifier were 0.1 µm mushroom gate, InGaAs-InAlAs lattice-matched HEMTs on a semi-insulating InP Substrate. Coplanar waveguide was the transmission medium for this 100 GHz MMIC with an overall chip dimension of 500 by 860 µm's.

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