Abstracts

Miniaturisation of a Band-X Monolithic GaAs Amplifier (1983 [MWSYM])

P. Dueme, M. Le Brun, P.R. Jay and C. Rumelhard. "Miniaturisation of a Band-X Monolithic GaAs Amplifier (1983 [MWSYM])." 1983 MTT-S International Microwave Symposium Digest 83.1 (1983 [MWSYM]): 65-68.

Reducing the area occupied by microwave monolithic integrated circuits is a necessity to decrease the cost of these circuits. A reduction in area can be obtained with circuit configurations comprising a minimum of inductances and by using spiral inductors. When a circuit is compacted, the coupling between radiating elements such as the inductances has also to be taken into account. An amplifier working from 2 to 10GHz with a measured gain of 5.8 ± 0.4dB is presented. The efforts to reduce the area have led to a surface of 0.16mm² and therefore an integration density of 36dB/mm².

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