Abstracts

A compact MMIC 90/spl deg/ coupler for ISM applications

G.F. Avitabile, A. Cidronali, C. Salvador and M. Speciale. "A compact MMIC 90/spl deg/ coupler for ISM applications." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 281-284.

In this paper, a new GaAs MMIC quadrature hybrid is described which is based on a lumped element approach. The MMIC makes use of interleaved spiral inductors in a transformer-like configuration and MIM capacitors. A design technique is proposed. The resulting 90/spl deg/ coupler is characterised by a reduced size (500 /spl mu/m/spl times/500 /spl mu/m). An analytical derivation of the hybrid design parameters is discussed and results are compared with experiments.

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