Abstracts

A 3-db Directional Coupler for Microwave Integrated Circuits (Correspondence)

J.E. Morris. "A 3-db Directional Coupler for Microwave Integrated Circuits (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.7 (Jul. 1968 [T-MTT] (Special Issue on Microwave Integrated Circuits)): 476-477.

A procedure for designing quarter-wavelength 3-dB directional couplers is described which utilizes a perturbation technique to reduce the number of experimental models needed during the development. Limitations caused by unequal odd and even mode phase velocities and junction parasitics are discussed. The use of thin-film conductors on quartz and glazed ceramic gives a coupling accuracy better than 3.0 ± 0.1 dB and an isolation greater than 32 dB with worst-case tolerances.

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