Abstracts

A Wide-Band Quadrature Hybrid Coupler (Correspondence)

J.A. Garcia. "A Wide-Band Quadrature Hybrid Coupler (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.7 (Jul. 1971 [T-MTT] (Special Issue on Microwave Integrated Circuits)): 660-661.

Wide-band quadrature hybrid proximity couplers consist of a conductor fabricated by thin-film techniques in microstrip the conductor side and a slot in the ground plane side. A 4 to 1 bandwidth was achieved using an alumina substrate of 99.6-percent purity with a surface finish of 10 µin. A single-section quadrature hybrid has been fabricated and operates over a 2.5- to 10-GHz frequency range with a maximum VSWR of 1.43:1, a 20-dB typical isolation, and a phase difference between outputs of 90° ± 3°.

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