Abstracts

First-Order Model of Symmetrical Six-Port Microstrip Ring Coupler (Short Papers)

S.P. Yeo and C.L. Lau. "First-Order Model of Symmetrical Six-Port Microstrip Ring Coupler (Short Papers)." 1991 Transactions on Microwave Theory and Techniques 39.9 (Sep. 1991 [T-MTT] (Special Issue on Microwave Applications of Superconductivity)): 1666-1669.

This paper describes, in brief, how the simple eigenmode approach can be utilized to develop a first-order model that yields explicit ready-to-use formulas for predicting the performance characteristics of a symmetrical six-port microstrip ring coupler. Prototype tests conducted over the 2--5 GHz frequency range show the agreement between the predicted and measured values of the coupler's scattering coefficients to be within ±0.05 for magnitude and ±10° for phase.

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