

Abstracts

Design of a wide-band lumped-element 3-dB quadrature coupler

Yi-Chyun Chiang and Chong-Yi Chen. "Design of a wide-band lumped-element 3-dB quadrature coupler." 2001 Transactions on Microwave Theory and Techniques 49.3 (Mar. 2001 [T-MTT]): 476-479.

Analysis and design techniques for designing a lumped-element 3-dB quadrature coupler with wide-band flat coupling are proposed for microwave integrated-circuit/monolithic-microwave integrated-circuit applications. The proposed design technique can produce a coupler with flat coupling over 50% fractional bandwidth, which is wider than the conventional lumped-element design methods. A prototype consisting of a capacitive coupled high-pass network is designed and fabricated to verify the design concept. Measurement and simulation results closely correspond to each other.

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