Abstracts

Narrow-band matching networks for quasi-TEM coupled microstrip lines

J.G. Nickel, M.D. Hampson, H.-Y.R. Chung and J.E. Schutt-Aine. "Narrow-band matching networks for quasi-TEM coupled microstrip lines." 2002 Transactions on Microwave Theory and Techniques 50.5 (May 2002 [T-MTT]): 1392-1399.

For coupled-line systems, "matching" involves entire impedance matrix networks and necessarily involves multiple propagating modes. This paper presents the synthesis of several matching strategies for symmetric coupled-line microstrip structures mismatched with several types of simple passive terminations. Detailed multiconductor transmission-line analysis provides the basis for procedures to optimize the parameters of several matching networks (stubs, reactances, transformers) that yield significant line and mode reflection reduction resulting from the mismatches. Measurement of synthesized structures verifies the reflection reduction and power savings.

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