

Abstracts

Properties of and Generalized Full-Wave Transmission Line Models for Hybrid (Bi)(an)isotropic Waveguides

F. Olyslager. "Properties of and Generalized Full-Wave Transmission Line Models for Hybrid (Bi)(an)isotropic Waveguides." 1996 Transactions on Microwave Theory and Techniques 44.11 (Nov. 1996 [T-MTT]): 2064-2075.

In this contribution single and coupled equivalent transmission lines are developed for the propagation of modes in reciprocal and nonreciprocal, anisotropic, bi-isotropic and bi-anisotropic waveguides. The transmission lines are described by the generalized telegrapher's equations. In order to develop these transmission line models some properties, related to reciprocity, unidirectionality, and mirroring, of general waveguides and generalized transmission lines are investigated. The transmission line models are based on the reciprocity theorem and are valid for arbitrary frequencies.

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