Abstracts

Coupled-mode analysis of ferrite microstrip lines

J. Mazur, P. Kutysz and A. Cwikla. "Coupled-mode analysis of ferrite microstrip lines." 1999 Microwave and Guided Wave Letters 9.8 (Aug. 1999 [MGWL]): 300-302.

A coupled-mode analysis is presented for an axially magnetized ferrite microstrip, with a particular reference to the case of a coupled microstrip (FCL). On the basis of the gyromagnetic coupling between the basis propagating and the evanescent isotropic modes, we determine the propagation characteristics of normal modes in ferrite microstrips. The theory is also applied to define the scattering matrix of the FCL microstrip junction. The important for application behavior of FCL junction is discussed. Numerical results confirming the validity of the theory are included.

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