

Abstracts

Modellization of Losses in TE₀₁₁-Mode Waveguide Bandpass Filters

A. Melloni and G.G. Gentili. "Modellization of Losses in TE₀₁₁-Mode Waveguide Bandpass Filters." 1995 *Transactions on Microwave Theory and Techniques* 43.11 (Nov. 1995 [T-MTT]): 2642-2644.

A mode-matching technique for the analysis of TE₀₁₁ mode waveguide cylindrical bandpass filters including losses is presented. The modes of a lossy radial waveguide are derived and the generalized scattering matrix of the lossy cavity coupled by two rectangular apertures is computed enforcing an impedance boundary condition on the cavity sidewall. Cavity sidewall losses as well as top and bottom wall losses are therefore taken accurately into account. Numerical and experimental results are given for a four cavity filter in K_a band.

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