Abstracts

On the evaluation of modal coupling coefficients by contour integrals

M. Bozzi, G. Conciauro and L. Perregrini. "On the evaluation of modal coupling coefficients by contour integrals." 2002 Transactions on Microwave Theory and Techniques 50.7 (Jul. 2002 [T-MTT]): 1853-1855.

The coupling coefficients between two waveguide modes or between a waveguide and a Floquet mode can be written in terms of line integrals on the boundary of the smaller waveguide. However, some of these integrals give rise to indeterminate forms when the cutoff frequencies of the two modes coincide, thus making these expressions useless from a numerical point of view. In this paper, alternative line-integral expressions are derived, which remove the indeterminacy and are applicable also when the cutoff frequencies are very close or even coincident.

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