Abstracts

On the Summation of Double Infinite Series Field Computations Inside Rectangular Cavities

S. Hashemi-Yeganeh. "On the Summation of Double Infinite Series Field Computations Inside Rectangular Cavities." 1995 Transactions on Microwave Theory and Techniques 43.3 (Mar. 1995 [T-MTT]): 641-646.

An accurate and efficient computational technique for the full-wave analysis of passive microstrip lines inside rectangular cavities is described. The unique feature of the technique is the transformation of the double infinite series expansion of the method of moments solution into a few single summations of fast converging series using the residue theorem and the contour-integration method. The technique offers improved convergence especially when the field and source points coincide. Examples of the field computations inside the cavity are presented to verify the technique and its usefulness.

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