

# Abstracts

## A note on the application of edge-elements for modeling three-dimensional inhomogeneously-filled cavities (Comments and Extensions)

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*D.B. Davidson. "A note on the application of edge-elements for modeling three-dimensional inhomogeneously-filled cavities (Comments and Extensions)." 1998 Transactions on Microwave Theory and Techniques 46.9 (Sep. 1998 [T-MTT]): 1344-1346.*

For the original paper see *ibid.*, vol. 40, no. 9, p. 1767-1773 (1992). Some comments are made on the aforementioned paper and a typographical error is corrected. Eigenvalue solutions for three-dimensional (3-D) cavities computed using an independently implemented finite-element code using edge-based elements are reported as verification of the tabulated formulas in this paper. The question of "trivial" eigenvalues is briefly addressed. The extension of the tabulated formulas to diagonally anisotropic media is presented; it is shown to be very straightforward. Such media currently have significant applications as artificial absorbers in finite-element meshes.

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