Abstracts

Penetration of Electromagnetic Fields through an Elliptical Hole in a Wall of Finite Thickness

B. Radak and R.L. Gluckstern. "Penetration of Electromagnetic Fields through an Elliptical Hole in a Wall of Finite Thickness." 1995 Transactions on Microwave Theory and Techniques 43.1 (Jan. 1995 [T-MTT]): 194-204.

The penetration of electromagnetic fields through an elliptical hole of variable eccentricity in a wall of finite thickness is analyzed. Six cases are considered: p /spl ap/ 0, 0.2, 0.4, 0.6, 0.8, 1., where p = (a - b)/(a + b), a and b being semimajor and semiminor axes of the ellipse. Polarizabilities and susceptibilities are calculated. Results for zero-thickness wall are compared to known analytical expressions.

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