

Abstracts

Low-Frequency Characteristic Modes for Aperture Coupling Problems

Y. Leviatan. "Low-Frequency Characteristic Modes for Aperture Coupling Problems." 1986 Transactions on Microwave Theory and Techniques 34.11 (Nov. 1986 [T-MTT]): 1208-1213.

In this paper, a recently suggested general procedure which leads to an eigenvalue equation for aperture problems is specialized to the range of frequencies for which the maximum linear dimension of the aperture l is much smaller than the wavelengths, known as the Rayleigh region. As kl asymptotically approaches zero, we arrive at a set of two eigenvalue equations which aided by the edge condition, constitutes an alternative set of equations for a derivation of the quasi-static distributions characterizing the aperture.

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