Abstracts

Eigenmode Sequence for an Elliptical Waveguide with Arbitrary Ellipticity (Short Papers)

S.-j. Zhang and Y.-c. Shen. "Eigenmode Sequence for an Elliptical Waveguide with Arbitrary Ellipticity (Short Papers)." 1995 Transactions on Microwave Theory and Techniques 43.1 (Jan. 1995 [T-MTT]): 227-230.

Eigenmode sequence for an elliptical waveguide with arbitrary ellipticity is studied by directly calculating the parametric zeros of the modified Mathieu functions of the first kind and their derivatives. The normalized cutoff wavelength of the lowest 100 successive modes are presented, and the curvefitting expressions for the determination of the cutoff wavelength of the lowest 10 order modes are given, which are valid for the ellipticities ranging from 0.0 to 0.99.

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