

Abstracts

Calculation of the Parameters of Ridge Waveguides

T.-S. Chen. "Calculation of the Parameters of Ridge Waveguides." 1957 Transactions on Microwave Theory and Techniques 5.1 (Jan. 1957 [T-MTT]): 12-17.

In this paper an algebraic expression which constitutes an approximation to Cohn's transcendental equation is given for the determination of the dominant-mode cutoff wavelength of ridge waveguides. A modified derivation of Mihran's equation for calculating the characteristic impedance of ridge waveguides is discussed. Based upon these formulas, nomography are constructed to permit the determination of these parameters with sufficient accuracy when the waveguide and the ridge dimensions vary. Experimental verification of the calculated cutoff wavelength is included.

 [Return to main document.](#)