Abstracts

Wave Propagation and Attenuation in the General Class of Circular Hollow Waveguides with Uniform Curvature

M. Miyagi, K. Harada and S. Kawakami. "Wave Propagation and Attenuation in the General Class of Circular Hollow Waveguides with Uniform Curvature." 1984 Transactions on Microwave Theory and Techniques 32.5 (May 1984 [T-MTT]): 513-521.

A general method has been developed to evaluate the propagation constant in oversized circular hollow-core waveguides characterized by a surface impedance and admittance due to a uniform bend. Completely different formulas are obtained for the attenuation constants of the modes in metallic or dielectric hollow waveguides from those obtained by Marcatili and Schmeltzer. Electric-field lines are also presented for several lower order modes in bent waveguides.

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