Abstracts

Electromagnetic Waves in a Cylindrical Waveguide with Infinite or Semi-Infinite Wall Corrugations

S.L.G. Lundqvist. "Electromagnetic Waves in a Cylindrical Waveguide with Infinite or Semi-Infinite Wall Corrugations." 1988 Transactions on Microwave Theory and Techniques 36.1 (Jan. 1988 [T-MTT]): 28-33.

The electromagnetic waves inside a circular waveguide having a periodically varying radius with corrugations of infinite or semi-infinite extent are considered. The infinitely corrugated waveguide is investigated by use of the null field approach, and some plots of the axial wavenumbers are presented. For a junction between a straight and a corrugated waveguide, the reflection and transmission coefficients are determined by mode matching, and some computations of these reflection coefficients are also given.

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