

Abstracts

O-Guide and X-Guide: An Advanced Surface Wave Transmission Concept

M. Sugi and T. Nakahara. "O-Guide and X-Guide: An Advanced Surface Wave Transmission Concept." 1959 Transactions on Microwave Theory and Techniques 7.3 (Jul. 1959 [T-MTT]): 366-369.

This paper describes the O-guide and X-guide which are proposed by the authors and are the advanced surface waveguides composed of thin dielectric sheets. The results of an analysis of the TE fundamental mode in the O-guide are described, and the theoretical characteristics as a transmission line are discussed. The practical guides are suitable especially for the SHF region and guides can be obtained which have lower attenuation constants than coaxial lines, G-lines, and rectangular waveguides.

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