

Abstracts

The Elliptical Dielectric Waveguide a Very Useful Model for Some Microwave and Millimeter Wave Integrated Circuits and Components

J.T. Citerne, S. Toutain, P. Choteau and L. Raczy. "The Elliptical Dielectric Waveguide a Very Useful Model for Some Microwave and Millimeter Wave Integrated Circuits and Components." 1976 MTT-S International Microwave Symposium Digest of Technical Papers 76.1 (1976 [MWSYM]): 176-178.

Guided modes spectrum of the elliptical dielectric waveguide has been completed and correspondence between modes in circular, elliptical, rectangular and slab dielectric waveguides have been investigated with details. Based on the results, an elliptical model description technique for planar waveguides has been suggested. This technique has, by example, been shown to be applicable for lower order modes in microslot lines and open suspended strip-line. Elliptical dielectric waveguide is also shown as a very practical structure to approximate dielectric resonator of high permittivity with various shapes.

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