

Cutoff Wavenumber Of An Elliptical Waveguide Partially Filled With Nonconfocal Dielectric

Ragheb, HA

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King Fahd University of Petroleum & Minerals

<http://www.kfupm.edu.sa>

Summary

The problem of electromagnetic wave propagation in a non-confocal dielectric elliptic cylinder loading a conducting elliptic cylinder is considered here. The cutoff frequencies (phase constants) are calculated here using a boundary value method with the help of the addition theorem of the Mathieu functions. To obtain numerical results the resulting infinite determinant is truncated after making sure that the solution converges.

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For pre-prints please write to: hragheb@kfupm.edu.sa

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