Abstracts

Analysis of ridged circular waveguides by the coupled-integral-equations technique

S. Amari, S. Catreux, R. Vahldieck and J. Bornemann. "Analysis of ridged circular waveguides by the coupled-integral-equations technique." 1998 Transactions on Microwave Theory and Techniques 46.5 (May 1998, Part I [T-MTT]): 479-493.

Cutoff wavenumbers of transverse electric (TE) and transverse magnetic (TM) modes of ridged circular waveguides are accurately determined using the coupled-integral-equations technique (CIET). A set of coupled integral equations for the electric field at the interfaces are derived and then solved by the moment method. Basis functions which include the edge conditions at all metallic edges are used. Results from this paper are compared with available data to demonstrate the accuracy and efficiency of the approach.

❑ Return to main document.