

## Accurate calculation of the modes of the circular multiridge waveguide

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*A. Morini, T. Rozzi, A. Angeloni and M. Guglielmi. "Accurate calculation of the modes of the circular multiridge waveguide." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. 1 [MWSYM]): 199-202.*

Circular multiridge waveguides (CMRW) have been recently considered for their promise in application to tuningless dual mode filters. We propose an accurate method for characterizing such structures that is based on a combination of the Boundary Integral Method, in a form leading to a standard eigenvalue problem, with a proper choice of the current distributions on the ridges, which takes into account the edge effects. The resulting code permits to calculate very accurately several tens of modes by inverting only once a reasonably small matrix.

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