Abstracts

Radial Mode Matching Analysis of Ridged Circular Waveguides (Short Papers)

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In this paper a radial mode matching analysis is presented to calculate rigorously the TE and TM mode propagation in single-, double-, triple-, and quadruple-ridged circular waveguide structures. The ridges have been cut radially in all the cases. Results are presented for variations of the ridge depth and ridge thickness and are compared to results from finite element analysis. Furthermore, for the first time, the characteristic impedance of the double and quadruple-ridged circular waveguides have been calculated using the power-voltage definition.

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