

Bandwidth Characteristics of Inhomogeneous T-Septum Waveguides

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Rectangular waveguides with T-shaped septa were recently shown to have superior characteristics compared to conventional ridged guides. Here the dispersion equations of the hybrid modes of an inhomogeneously filled septum guide have been determined by the Ritz-Galerkin technique. Results of numerical computations indicate that with dielectric filling of the septum gap, further enhancement of the cutoff wavelength of the lowest mode and the bandwidth with respect to the next higher mode is possible.

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