

# Abstracts

## Ridged Waveguides with Inhomogeneous Dielectric-Slab Loading

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G. Magerl. "Ridged Waveguides with Inhomogeneous Dielectric-Slab Loading." 1978  
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The dispersion equation of the ridged waveguide with inhomogeneous dielectric-slab loading is derived. Numerical results for the cutoff frequencies of the three lowest order TE<sub>sub m0</sub> modes are given which substantiate the feasibility of the modal expansion and field-matching technique employed. For a Teflon-slab loaded ridged waveguide, a 40-percent decrease of dominant-mode cutoff frequency, simultaneously providing 20-percent enhanced TE<sub>sub 20</sub>-mode separation compared to an empty ridged waveguide, is demonstrated.

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