

Abstracts

On the Design of Dielectric Loaded Waveguides

*T.K. Findakly and H.M. Haskal. "On the Design of Dielectric Loaded Waveguides." 1976
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Rectangular waveguides partially filled with a dielectric slab in the E plane can provide an alternative to ridged waveguides in broad-band systems. It is shown that by an appropriate choice of the dielectric constant, maximum power handling capacity for a given bandwidth and cutoff wavelength can be achieved. This power-handling capacity is much higher than for ridged waveguides. Attenuation and the effect of the first longitudinal-section-electric (LSE) mode on bandwidth are also discussed.

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