

Abstracts

The Channel Waveguide (Correspondence)

R.J. Vilmur and K. Ishii. "The Channel Waveguide (Correspondence)." 1962 Transactions on Microwave Theory and Techniques 10.3 (May 1962 [T-MTT]): 220-221.

A waveguide propagating the TE/sub 10/ mode can carry more power than the normal rectangular waveguide if it has a symmetrically placed channel in the E-plane as shown in Fig. 1. The greater height of the channel in the center of the waveguide will allow a higher voltage to be applied before dielectric breakdown occurs. The TE/sub 10/ cutoff wavelength λ_{c1} was investigated using the methods of Iashkin and Cohn to find out if the cutoff wavelength of the channel waveguide was equivalent to that of the rectangular waveguide λ_{cr} .

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