Abstracts

A 5-MM Resonance Isolator (Correspondence)

M.T. Weiss and F.A. Dunn. "A 5-MM Resonance Isolator (Correspondence)." 1958 Transactions on Microwave Theory and Techniques 6.3 (Jul. 1958 [T-MTT]): 331-331.

The rectangular waveguide resonance isolator operating at frequencies from 3000 to 24,000 mc is a simple and compact device since the dc magnetic field requirements are relatively low. In the 5-mm range, however, resonance isolators are not practical if conventional ferrites are used because very high magnetic fields of about 20,000 oersteds are required to obtain resonance at these high frequencies. By using highly oriented Ferroxdure, resonance isolators in the millimeter range become feasible because of the high internal anisotropy field of 17,000 oersteds exhibited by this material. Thus, with Ferroxdure a magnetic field of a few thousand oersteds is sufficient for resonance in the 5-mm region.

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