Abstracts

Magnetodynamic Modes in Axially Magnetized Ferrite Rods Between Two Parallel Conducting Sheets (Correspondence)

H.-D. Godtmann and W. Haas. "Magnetodynamic Modes in Axially Magnetized Ferrite Rods Between Two Parallel Conducting Sheets (Correspondence)." 1967 Transactions on Microwave Theory and Techniques 15.8 (Aug. 1967 [T-MTT]): 478-480.

Open electromagnetic resonators are well-known structures for many applications in the microwave region. Assuming a lossless nonconducting medium partly surrounded by perfectly conducting metal walls, a manifold of undamped oscillations may exist provided the energy of the corresponding electromagnetic field (with finite amplitude) remains finite. In practice, high Q modes occur in open resonators built from isotropic or anisotropic dielectrics or ferrites partly enclosed by well conducting metal walls. In the case of ferrites, the resonator is tunable by a dc magnetic field which may be useful for many technical applications.

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