

Abstracts

Electromagnetic Wave Propagation Along a Ferrite Loaded Wire

R.S. Mueller and F.J. Rosenbaum. "Electromagnetic Wave Propagation Along a Ferrite Loaded Wire." 1969 Transactions on Microwave Theory and Techniques 17.2 (Feb. 1969 [T-MTT]): 92-100.

The dispersion relation for axially symmetric modes propagating on a surface waveguide composed of a central conductor surrounded by an axially magnetized ferrite tube has been obtained. Tuning curves for an open boundary post resonator are calculated and compared with experimental results for an X-band tunable filter. The modes of circulation of a three-port waveguide circulator utilizing this geometry have also been studied and experimentally verified.

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