

Abstracts

A New Technique for Magnetostatic Wave Delay Lines

M. Tsutsumi, Y. Masaoka, T. Ohira and N. Kumagai. "A New Technique for Magnetostatic Wave Delay Lines." 1981 Transactions on Microwave Theory and Techniques 29.6 (Jun. 1981, Part I [T-MTT]): 583-587.

A new technique for magnetostatic volume wave delay lines has been proposed where an inhomogeneous bias field is applied normal to the YIG slab surface and at transverse direction to the propagation of waves. Assuming an internal dc magnetic field in the raised cosine profile, theoretical time delay characteristics have been derived by a variational technique, and they have been confirmed with experiments by using a YIG slab oriented in a (110) plane. The large reductions on dispersion and loss have been highly significant.

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