Abstracts

Reflection of Magnetostatic Forward Volume Waves by a Shallow-Grooved Grating on a YIG Film

J.P. Parekh and H.-S. Tuan. "Reflection of Magnetostatic Forward Volume Waves by a Shallow-Grooved Grating on a YIG Film." 1978 Transactions on Microwave Theory and Techniques 26.12 (Dec. 1978 [T-MTT] (1978 Symposium Issue)): 1039-1044.

The magnetostatic forward volume wave (MSFVW) reflection characteristics of a uniform grating of shallow grooves etched on the planar surface of an epitaxial YIG film are treated using an approach which integrates field theory with the coupled-mode approach. The MSFVW reflectivity per groove is found to be comparable to the reflectivity of magnetostatic surface waves (MSSW's) and thus is found to be significantly large considering that the volume waves are reflected by surface-localized and shallow grooves.

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