Abstracts

Magnetostatic volume waves in lossy YIG film backed by a metal of finite conductivity

S. Chakrabarti and D. Bhattacharya. "Magnetostatic volume waves in lossy YIG film backed by a metal of finite conductivity." 1999 Transactions on Microwave Theory and Techniques 47.7 (Jul. 1999, Part I [T-MTT]): 1132-1134.

Dispersion relations for magnetostatic volume waves propagation in a yttrium-iron-garnet (YIG) film coated with a thin metal film of finite conductivity have been derived. The real and imaginary parts of the complex wavenumber are found by solving the dispersion relations. The effects of finite conductivity and thickness of the metal on the phase and attenuation constant for both magnetostatic forward volume wave and magnetostatic backward volume wave in lossy YIG film are discussed.

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