

Abstracts

Reciprocity Relationships for Gyrotropic Media

R.F. Harrington and A.T. Villeneuve. "Reciprocity Relationships for Gyrotropic Media." 1958 Transactions on Microwave Theory and Techniques 6.3 (Jul. 1958 [T-MTT]): 308-310.

Reversal of the dc magnetic field in gyrotropic media transposes the tensor permeability and permittivity. It is shown that this also transposes the impedance, admittance, and scattering matrices any device. It follows from this that the usual reciprocity statements for isotropic media apply to gyrotropic media if one reverses the dc magnetic field whenever an interchange of source and is made.

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