

# Abstracts

## Conservation Laws for Distributed Four-Ports (Short Papers)

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O. Schwelb and R. Antepyan. "Conservation Laws for Distributed Four-Ports (Short Papers)." 1985 *Transactions on Microwave Theory and Techniques* 33.2 (Feb. 1985 [T-MTT]): 157-160.

Condition of reciprocity, losslessness, bilateral symmetry, transversal symmetry, and semireciprocity is given for a four-port in terms of its impedance, admittance, scattering, and transfer representation. Corresponding conditions are also presented for the system coupling matrix of a uniform distributed circuit. The results are applied to an anisotropic stratified waveguide.

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