

Abstracts

Coupled Power Equations for Backward Waves

D. Marcuse. "Coupled Power Equations for Backward Waves." 1972 Transactions on Microwave Theory and Techniques 20.8 (Aug. 1972 [T-MTT]): 541-546.

Two waves traveling in opposite directions that are coupled by a random coupling function are considered. These two waves can be described in a standard way by coupled wave equations. It is possible to derive coupled equations for the power carried by these two waves. The form of the coupled power equations differs depending on the assumptions that are made for the initial conditions. The validity of the coupled power equations has been confirmed by a computer-simulated experiment.

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