Abstracts

Generators of Magnetic Groups of Symmetry and Commutation Relations

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A general procedure is given for determining the matrices [S], [Z]. and [Y] of linear symmetrical multiports with gyromagnetic media. To obtain relations between the elements of the matrices, the color groups, the Curie principle, and the concept of gyrotropic symmetry (GS) and gyrotropic antisymmetry (GA) are used. Symmetries of the dc magnetic field are also considered. General properties of the multiports with GS and GA are discussed. Applications of the symmetry analysis are illustrated by two 3-D structures and some existent devices.

❑ Return to main document.