Abstracts

Computer-Aided Analysis as a Quantitative Design Tool for Ferrite Phase Shifters and Resonance Isolators

J.L. Allen. "Computer-Aided Analysis as a Quantitative Design Tool for Ferrite Phase Shifters and Resonance Isolators." 1967 G-MTT International Microwave Symposium Program and Digest 67.1 (1967 [MWSYM]): 111-114.

The use of digital computers as a tool in the analysis of ferrite devices permits a significant change in design philosophy. It is becoming increasingly apparent that no Ionger is it necessary to restrict the role of the theoretical analysis of ferrite components to that of providing design guidelines. To be sure, providing general guidelines and developing meaningful physical and mathematical models is and will remain an important task of the analyst, especially in the investigation of new devices. In addition to this traditional role, however, through computer-aided analysis, precise design information can now in many cases be provided. Once the analysis programs for a basic configurational type are established, a few minutes of computation time can suffice to examine a variety of trial device configurations having different dimensions and/or materiel parameters. By taking advantage of this capability, a large portion of the experimental cut-and-try normally required to arrive at a satisfactory design can be replaced by a few runs on the computer.

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