Abstracts

Properties of periodic arrays of symmetric complementary structures and their application to grid amplifiers

A. Moussessian, J.J. Rosenberg and D.B. Rutledge. "Properties of periodic arrays of symmetric complementary structures and their application to grid amplifiers." 1998 Transactions on Microwave Theory and Techniques 46.11 (Nov. 1998, Part II [T-MTT] (Special Issue on Innovative Integration Techniques for Microwave and Millimeter-Wave Circuits)): 1956-1963.

Deschamps' theorem for n-terminal complementary structures is reviewed. An extension to Deschamps' theorem for a class of three-terminal bounded structures with one axis of symmetry is presented. It is shown that, for these structures, a simple relationship between the impedances of the odd mode of the original structure and the admittances of the even mode of the complementary structure exists, and that these modes are orthogonal. Using this, a self-complementary grid amplifier is designed and the measured results are presented.

❑ Return to main document.