Abstracts

Coupling of Waveguides by Resistive Films

G. Epprecht. "Coupling of Waveguides by Resistive Films." 1967 G-MTT International Microwave Symposium Program and Digest 67.1 (1967 [MWSYM]): 10-10.

This paper is concerned with the application of resistive coupling structures, particularly in form of films, in waveguide- coaxial- and stripline-technics. However, in our new class of applications to be discussed, resistive films are used in a position essentially per pendicular to the electric field. Extending first suggestions by M. Schneider (thesis 1959) such devices may be analyzed in the following manner: A rectangular waveguide, operated in ordinary H 10-mode be divided in two- in general unequal - parts by a plane parallel to the broad side. If the dividing plane is assumed to have infinite conductivity, the two independent waves traveling in the same direction may also be interpreted as a superposition of two modes, called homopolar and antipolar respectively.

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