Abstracts

Attenuating Films in Rectangular Waveguides

A. Wexler. "Attenuating Films in Rectangular Waveguides." 1967 G-MTT International Microwave Symposium Program and Digest 67.1 (1967 [MWSYM]): 11-12.

The complete solution for normal modes in a resistive-film-loaded rectangular waveguide is due to H.L. Knudsen. He showed how to solve the boundory-value problem of a guide divided into homogeneous regions by a number of vanes (of various resistivities) parallel to the side walls. Solutions were found in terms of longitudinal-section electric (LSE) and magnetic (LSM) modes. Boundary conditions in the loaded guide are that electric field transverse to the film must be continuous across it and that the discontinuity in magnetic field along the film must equal the sheet conduction current.

❑ Return to main document.