Abstracts

Slow Wave Propagation in Generalized Cylindrical Waveguides Loaded with a Semiconductor

C.M. Krowne. "Slow Wave Propagation in Generalized Cylindrical Waveguides Loaded with a Semiconductor." 1983 MTT-S International Microwave Symposium Digest 83.1 (1983 [MWSYM]): 402-404.

For a parallel-plate waveguide and a microstrip line loaded with a semiconductor slab of resistive or active character the complex propagation constant gamma is determined. Gamma is found for higher order branches for microwave and millimeter-wave frequencies between 10 and 140 GHz, representing a very comprehensive study of phase velocity slowing. An assessment of slowing in generalized cylindrical waveguide structures at millimeter-wave frequencies is obtained from this study.

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