

Abstracts

Network Representation and Transverse Resonance for Layered Chirowaveguides (Short Papers)

X. Shanja and D. Kai. "Network Representation and Transverse Resonance for Layered Chirowaveguides (Short Papers)." 1996 *Transactions on Microwave Theory and Techniques* 44.8 (Aug. 1996 [T-MTT]): 1496-1499.

This paper presents an equivalent network method for dispersion analysis of general chirowaveguides. First, wave propagation in each homogeneous layer is represented by two pairs of transmission lines, the matrix wave impedance is defined. Next, the transformation properties of the input impedance are established. It is then demonstrated that the transverse resonance condition involving the previously obtained matrix impedance leads to the dispersion equation for the waveguides. The numerical results show that this network approach is feasible and practicable.

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