Abstracts

Analysis of Guided Waves in Inhomogeneous Bianisotropic Cylindrical Waveguides

B. Jakoby and D. De Zutter. "Analysis of Guided Waves in Inhomogeneous Bianisotropic Cylindrical Waveguides." 1996 Transactions on Microwave Theory and Techniques 44.2 (Feb. 1996 [T-MTT]): 297-310.

Electromagnetic fields in structures composed of inhomogeneous cylindrical layers are analyzed using a propagator matrix approach. The presented formulation is capable of analyzing fully bianisotropic media, where the involved propagator matrix for bianisotropic media is derived in cylindrical coordinates. The applicability of the method is demonstrated by calculating the dispersion characteristics of surface waves as well as fundamental and higher order modes on cylindrical microstrip lines on top of an inhomogeneous bianisotropic substrate.

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