Abstracts

Long-Wavelength Analysis of Plane Wave Irradiation of a Prolate Spheroid Model of Man

C.H. Durney, C.C. Johnson and H. Massoudi. "Long-Wavelength Analysis of Plane Wave Irradiation of a Prolate Spheroid Model of Man." 1975 Transactions on Microwave Theory and Techniques 23.2 (Feb. 1975 [T-MTT]): 246-253.

An electromagnetic (EM) field perturbation technique is used to find internal electrical fields and the absorbed power of a prolate spheroid being irradiated by a plane wave when the wavelength is long compared to the dimensions of the spheroid. The results show significant differences in the power absorption patterns with changes in the orientation of the spheroid with respect to the incident EM fields. Calculations of the power absorbed by a prolate spheroid model of man are given.

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