

Abstracts

The Annular Slot Antenna in a Lossy Biological Medium (Short Papers)

R.D. Nevels, C.M. Butler and W. Yablon. "The Annular Slot Antenna in a Lossy Biological Medium (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.4 (Apr. 1985 [T-MTT]): 314-319.

An integral equation is formulated for a coaxially fed annular aperture antenna. The integral equation in terms of the unknown tangential aperture electric field is solved numerically by the Method of Moments. The coaxial feed line is air filled while the exterior region consists of i) air, ii) fat or bone, and iii) muscle. Results are given for the aperture electric field, apparent input admittance, and contours of constant power absorption when the excitation frequency is 2.45 GHz.

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