Abstracts

Power Deposition of a Microstrip Applicator Radiating Into a Layered Biological Structure

L. Beyne and D. De Zutter. "Power Deposition of a Microstrip Applicator Radiating Into a Layered Biological Structure." 1988 Transactions on Microwave Theory and Techniques 36.1 (Jan. 1988 [T-MTT]): 126-131.

The power deposited by a microstrip antenna into a layered biological structure is investigated. The solution is based on an integral equation for the surface current density on the antenna and on an electric Green's dyadic for the fields inside a planar stratified medium. The integral equation is solved using the method of moments in conjunction with the point-matching technique. The modeling of the surface current takes the edge conditions into account. Special attention is devoted to a correct modeling of the excitation of the antenna by a coaxial feed. The numerical results focus on the power deposition as a function of depth.

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