Abstracts

A Note on the Derivation of the Fields in a Radial Line (Correspondence)

J.F. Dienst. "A Note on the Derivation of the Fields in a Radial Line (Correspondence)." 1960 Transactions on Microwave Theory and Techniques 8.5 (Sep. 1960 [T-MTT]): 571-572.

The concept of a radial transmission line is frequently used in the description of such devices as cylindrical cavity resonators and horn radiators. An approach to the prob-lem of determining the electric and magnetic fields in the radial line has been to solve Maxwell's equations in component form with appropriate boundary conditions. While the following derivation yields nothing new, it does, however, have the advantages of being simple and of requiring a minimum of guess work as compared to other methods of solving this problem.

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