

Abstracts

Rigorous Analysis of the GTEM Cell

R. De Leo, T. Rozzi, C. Svara and L. Zappelli. "Rigorous Analysis of the GTEM Cell." 1991 Transactions on Microwave Theory and Techniques 39.3 (Mar. 1991 [T-MTT]): 488-500.

This work deals with the modeling of the new GTEM cell, recently in use for field measurements, which consists of a tapered rectangular waveguide loaded with an eccentric sloping plate conductor. We derive the fields of the cross section of the uniform structure by transverse resonance diffraction and apply the "local modes" approach to the study of the longitudinal field distribution. The first few modes of the cell are obtained. Numerical results agree with those in the literature, where available. The treatment is highly accurate and requires no more computer power than that of a desktop computer.

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