# Abstracts

## Measurement of the Electromagnetic-Field Components in a Rectangular Drift Tube-Loaded Cavity Using Various Perturbing Objects (Short Papers)

*F. Brunner, W. Schott and H. Daniel. "Measurement of the Electromagnetic-Field Components in a Rectangular Drift Tube-Loaded Cavity Using Various Perturbing Objects (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.3 (Mar. 1975 [T-MTT]): 319-320.*

The electric-field quantities E, E/sub y/, E/sub z/, and the magnetic-field quantities H and H/sub x/ in a rectangular drift tube-loaded cavity resonating in the TE/sub 101/ mode have been measured along the z direction by means of the perturbation method using a dielectric bead, a metallic disk, a metallic needle, a metallic sphere, and a ferrite disk. The relative errors for E and E/sub y/ are 3 percent; for E/sub z/, 10 percent on the average; whereas for H and H/sub x/, they are 10 percent at least. The ferrite disk, being superior to the metallic sphere, offers a new technique in determining magnetic-field components in cavity resonators.

❑ Return to main document.