Abstracts

An Implantable Electric-Field Probe of Submillimeter Dimensions

T.E. Batchman and G. Gimpelson. "An Implantable Electric-Field Probe of Submillimeter Dimensions." 1983 Transactions on Microwave Theory and Techniques 31.9 (Sep. 1983, Part I [T-MTT]): 745-751.

Many areas of biological research await the development of practical electric (E)-field probes with submillimeter dimensions for in situ measurements of RF electromagnetic fields. This paper reports on the design, fabrication, and testing of such a probe. The probe consists of a 0.6-mm dipole antenna zero-bias Schottky barrier diode and a unique highly resistive output lead structure. Experimental results indicate the probe does not perturb the field under investigation and is linear over a range of field strengths from less than 60 to over 1200 V/m. The probe has been designed so as to he independent of the media in which measurements are being made.

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