Abstracts

An Isotropic Electric-Field Probe with Tapered Resistive Dipoles for Broad-Band Use, 100 kHz to 18 GHz

M. Kanda and L.D. Driver. "An Isotropic Electric-Field Probe with Tapered Resistive Dipoles for Broad-Band Use, 100 kHz to 18 GHz." 1987 Transactions on Microwave Theory and Techniques 35.2 (Feb. 1987 [T-MTT]): 124-130.

A new broad-band electric-field probe, capable of accurately characterizing and quantifying electromagnetic (EM) fields, has been developed at the National Bureau of Standards (NBS). The probe's 8-mm resistively tapered dipole elements allow measurement of eleetric fields between 1 and 1600 V/m from 1 MHz to 15 GHz, with a flatness of ±2 dB. A mutually orthogonal dipole configuration provides an overall standard deviation in isotropic response, with respect to angle, that is within ±0.3 dB. Both the theoretical and developmental aspects of this prototype electric-field probe are discussed in this paper.

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