Abstracts

A Quick Accurate Method to Measure the Dielectric Constant of Microwave Integrated-Circuit Substrates (Comments and Authors' Reply)

P.H. Ladbrooke, M.H.N. Potok, E.H. England and J.Q. Howell. "A Quick Accurate Method to Measure the Dielectric Constant of Microwave Integrated-Circuit Substrates (Comments and Authors' Reply)." 1973 Transactions on Microwave Theory and Techniques 21.8 (Aug. 1973 [T-MTT]): 570-571.

If, in the above short paper, the data for open-edged resonators are plotted to a base of /spl radic/m^2+n^2, where (n, m), characterizes the cavity mode, an excellent comparison is found. Such a plot is given in Fig. 1. It can therefore be asked whether Howell's frequency errors are of reactive origin, not resistive as he suggests. His results do not properly support the notion of resonant frequency change due to radiation loss, since there is no apparent correlation between the mode Q's and the frequency (or dielectric constant) errors for open sidewalls in Table I.

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