Abstracts

An Automated 60 GHz Open Resonator System for Precision Dielectric Measurement (1990 Vol. III [MWSYM])

M.N. Afsar, X. Li and H. Chi. "An Automated 60 GHz Open Resonator System for Precision Dielectric Measurement (1990 Vol. III [MWSYM])." 1990 MTT-S International Microwave Symposium Digest 90.3 (1990 Vol. III [MWSYM]): 1125-1128.

An automated open resonator system is designed and constructed for precision measurement of loss tangent and dielectric permittivity of low absorbing materials at 60 GHz. The use of high Q hemispherical Fabry-Perot cavity together with highly stabilized synthesized phase locked Gunn oscillator sources and the super heterodyne receiver enabled us to measure loss tangent value as low as 10 micro-radians.

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