Abstracts

A new open-resonator technique at 60 GHz for permittivity and loss-tangent measurement of low-loss materials

M.N. Afsar, H. Ding and K. Tourshan. "A new open-resonator technique at 60 GHz for permittivity and loss-tangent measurement of low-loss materials." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1755-1758 vol.4.

This paper describes a new open resonator system at 60 GHz, in which a new, full cavity-length variation technique is utilized. This new technique provides a 20-nm resolution for the variation of the cavity length. The introduction of this high resolution in the new system allows to measure the permittivity and loss tangent with slightly better than that using the variation technique. Additionally the system becomes much simpler when a complete study of resonance peak profiles are made in the full cavity-length variation method.

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