Abstracts

In situ microwave characterization of insulator thin films for interconnects of advanced circuits

B. Flichet, C. Bermond, P. Ferrari and G. Angenieux. "In situ microwave characterization of insulator thin films for interconnects of advanced circuits." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 961-964.

An accurate and simple method to in-situ characterize the dielectric constant of insulator thin films is developed. Optimized devices under test are capacitive patches where insulator film is set in the future operational configuration. Dielectric constant is extracted by an optimization procedure based upon subnanosecond time domain reflectometry measurement and simulation. /spl epsiv//sub r/ is given into a 100 MHz-10 GHz frequency bandwidth.

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