Abstracts

Light Transmittance and Microwave Attenuation of a Gold-Film Coating on a Plastic Substrate (Short Papers)

S.Y. Liao. "Light Transmittance and Microwave Attenuation of a Gold-Film Coating on a Plastic Substrate (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.10 (Oct. 1975 [T-MTT]): 846-849.

Light transmittance and microwave attenuation of a gold-film coating on a plastic substrate is investigated. The dependence of the transmittance of visible light upon the thickness or resistivity of a gold-film coating on a plastic substrate is analyzed numerically. The microwave attenuation produced in the far field over the frequency range of 100 MHz-30 GHz by the gold film is calculated and compared with experimental data. An optimum condition is established between the light transmittance and the microwave attenuation. The results are applicable to any transparent glass coated with any thin metallic film.

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