Abstracts

Ultra low loss transmission lines on low resistivity silicon substrate

H. Henri, S. Gonzague, V. Matthieu, C. Alain and D. Gilles. "Ultra low loss transmission lines on low resistivity silicon substrate." 2000 MTT-S International Microwave Symposium Digest 00.3 (2000 Vol. III [MWSYM]): 1809-1812.

The properties of transmission lines on low-resistivity silicon substrate (/spl rho/=10 /spl Omega/.cm) are investigated. Coplanar lines on silicon substrate with a 10 /spl mu/m dielectric film show that losses of 0.6 dB/mm can be obtained at 50 GHz. A new embedded ultra-low loss coplanar line is proposed, with a broad interval of characteristic impedance.

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