Abstracts

Coplanar waveguides on silicon substrate with thick oxidized porous silicon (OPS) layer

Choong-Mo Nam and Young-se Kwon. "Coplanar waveguides on silicon substrate with thick oxidized porous silicon (OPS) layer." 1998 Microwave and Guided Wave Letters 8.11 (Nov. 1998 [MGWL]): 369-371.

The problem of high dielectric loss of waveguide on silicon in the microwave region can be solved by utilizing a thick silicon dioxide layer that is formed by silicon substrate anodization and oxidation processes. Coplanar waveguides (CPW's) are fabricated on silicon substrate with a 20-/spl mu/m-thick oxidized porous silicon (OPS) layer and demonstrate very high performance of 0.1-dB/mm attenuation at 4 GHz. Thus, the OPS process is promising for gigaherz applications of silicon substrates.

❑ Return to main document.