Abstracts

High frequency SAW filter on diamond

K. Higaki, H. Nakahata, H. Kitabayashi, S. Fujii, K. Tanabe, Y. Seki and S. Shikata. "High frequency SAW filter on diamond." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 829-832.

Surface acoustic wave (SAW) filters based on diamond which has very high SAW velocity have been investigated. 2.5 GHz low loss narrow-band filter and 1.5 GHz IF filter were demonstrated by the SiO/sub 2//ZnO/diamond structure with zero temperature coefficient of frequency and the ZnO/diamond structure, respectively. The super-high power durability of the ZnO/diamond structure was also confirmed at 2.9 GHz. Diamond SAW filters having high velocity and high power durability, can be expected for broad applications in future high frequency communication systems.

❑ Return to main document.