

Abstracts

Superconducting Stripline Resonators and High-T_{sub c} Materials

D.E. Oates, A.C. Anderson and B.S. Shih. "Superconducting Stripline Resonators and High-T_{sub c} Materials." 1989 MTT-S International Microwave Symposium Digest 89.2 (1989 Vol. II [MWSYM]): 627-630.

The use of high-transition-temperature (T_{sub c}) superconducting resonators to stabilize oscillators operating between 1 and 10 GHz is discussed. Measurements of surface resistance are presented and related to resonator quality factor (Q). Projections of resonator Q and oscillator phase noise are discussed. Improved materials should offer greater than 20 dB reduction in noise over competing technology. The implications of flicker noise in reaching this level of performance are discussed, and preliminary measurements of flicker noise in the high-T_{sub c} materials are reported.

[Return to main document.](#)