Abstracts

Passive Stabilization of Sources Using a Dielectric Resonator and a Modified Ring Hybrid

B.E. Sigmon. "Passive Stabilization of Sources Using a Dielectric Resonator and a Modified Ring Hybrid." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 367-370.

A new approach for the frequency stabilization of sources, high power or low, vacuum tube or solid-state, is described. The method uses a high-Q dielectric resonator coupled to a three arm ring hybrid. Stabilization factors of 3 to 5 have been successfully achieved (in X- and Ku-bands) with pulsed magnetrons over an operating temperature range of -55 to +95 degrees Centigrade, and stabilization factors of 2 to 24 have been successfully achieved with X-and Ku-band pulsed IMPATT oscillators, some, but not all, operating over temperature ranges of -46 to +80 degrees Centigrade.

❑ Return to main document.