# Abstracts

## Highly Stable Dielectric Resonator FET Oscillators (Short Papers)

*C. Tsironis. "Highly Stable Dielectric Resonator FET Oscillators (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.4 (Apr. 1985 [T-MTT]): 310-314.*

The long-term frequency drift of GaAs FET oscillators with temperature has been analyzed theoretically and experimentally in view of stabilization using dielectric resonators. It was found that the dielectric material stability and quality factor should be within certain limits, and, in addition, that the resonance frequency over the temperature characteristic should be quite linear. Such a material has been developed on the basis of BaTi/sub 4/O/sub 9/ and Ba/sub 2/Ti/sub 9/O/sub 20/ , and ultra-stable DRO's with frequency drifts of around ± 100 kHz for -50 to 100°C at 11 GHz (ap ± 0.06 ppm/K) have been realized.

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