# Abstracts

## A Waveguide-Cavity Multiple-Device FET Oscillator

*A. Materka and S. Mizushina. "A Waveguide-Cavity Multiple-Device FET Oscillator." 1982 Transactions on Microwave Theory and Techniques 30.8 (Aug. 1982 [T-MTT]): 1237-1241.*

A waveguide-cavity oscillator, applicable to power-combining circuits, has been developed using probe for coupling between active device and, cavity. No lossy stabilizing element is required. The control of output power, oscillation frequency, and injection locking bandwidth are performed easily. Output power of 44 mW and dc-RF conversion efficiency of 33.2 percent were obtained at 9.2GHz for a single-device low-power FET oscillator. A simple technique of cascading the pretuned oscillator modules was used to construct multiple-device oscillators incorporating up to four FET's with combining efficiency of about 100 percent.

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