

Abstracts

Wideband Electronically Tunable GaAs Gunn VCO's at W-Band (75-110GHz)

J. Ondria. "Wideband Electronically Tunable GaAs Gunn VCO's at W-Band (75-110GHz)." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 375-378.

A series tuned GaAs VCO employing a second harmonic radial disk circuit has provided up to 10 percent electronic tuning bandwidth (ETB) at 94GHz. Packaged GaAs Gunn and Hyperabrupt Varactor Diodes are employed. Analysis of the series equivalent circuit provides insight into methods of controlling trade-off between output power and tuning bandwidth, e.g. by restricting the ETB to 1.5GHz around 92.3GHz an output power of 18 to 22mW was achieved; with tighter coupling an output power of 11 to 12.8mW from 91.5 to 95.5GHz resulted.

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