

Abstracts

Ka- and W-Band PM-HFET DRO's

J. Wenger and U. Guttich. "Ka- and W-Band PM-HFET DRO's." 1993 Microwave and Guided Wave Letters 3.6 (Jun. 1993 [MGWL]): 191-193.

Dielectric resonator stabilized oscillators have been designed, fabricated, and investigated. The oscillators consist of microstrip matching and biasing circuits on alumina substrate, a dielectric resonator puck, and a low-noise quarter-micron InGaAs-GaAs pseudomorphic (PM) HFET as the active device. At 37 GHz and 81 GHz, output powers of 10 dBm and 0 dBm have been measured. The phase noise of the Ka-band and W-band oscillators has been determined to be -97 dBc/Hz at 100 kHz and -90 dBc/Hz at 1 MHz off carrier, respectively.

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