Abstracts

A single-chip coplanar 0.8-/spl mu/m GaAs MESFET K/Ka-band DRO

M.G. Keller, A.P. Freundorfer and Y.M.M. Antar. "A single-chip coplanar 0.8-/spl mu/m GaAs MESFET K/Ka-band DRO." 1999 Microwave and Guided Wave Letters 9.12 (Dec. 1999 [MGWL]): 526-528.

The authors describe the design and measured results of a monolithic coplanar (CP) transmission line-based GaAs MESFET dielectric resonator oscillator (DRO) for K/Ka-band applications. The dielectric resonator (DR) is on chip. The measured output power was 11 dBm at 26.17 GHz for a conversion efficiency of 5.5%. The chip probed phase noise was -118.7 dBc at 1 MHz off carrier. This represents the first reported instance of a DRO being fabricated using a CP transmission line topology.

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