Abstracts

Fundamental-Mode Pierce Oscillators Utilizing Bulk-Acoustic-Wave Resonators in the 250--300-MHz Range (Short Papers)

S.G. Burns and R.S. Ketcham. "Fundamental-Mode Pierce Oscillators Utilizing Bulk-Acoustic-Wave Resonators in the 250--300-MHz Range (Short Papers)." 1984 Transactions on Microwave Theory and Techniques 32.12 (Dec. 1984 [T-MTT] (1984 Symposium Issue)): 1668-1673.

Fundamental-mode Pierce oscillators in the 250-300-MHz range have been realized utilizing a unique form of a bulk-acoustic-wave (BAW) resonator. Phase noise greater than -100 dBc/Hz (1-kHz offset) has been extrapolated from data collected on oscillators operating at -22 and -24 dBm. Higher power levels to +6 dBm have been achieved. A linear-model design was used. The circuit topology used and resonator fabrication technique shows great promise for the creation of MMIC circuits in the 200-MHz-2-GHz range.

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