

Abstracts

A Periodic Second Harmonic Spatial Power Combining Oscillator (May 1992 [T-MTT])

A. Mortazawi, H.D. Foltz and T. Itoh. "A Periodic Second Harmonic Spatial Power Combining Oscillator (May 1992 [T-MTT])." 1992 *Transactions on Microwave Theory and Techniques* 40.5 (May 1992 [T-MTT]): 851-856.

In this paper we present a periodic second harmonic spatial power combining oscillator. The power combining is achieved by phase locking the oscillators at the fundamental frequency and combining the second harmonic power in space through an array of microstrip patch antennas. The effect of moding and multiple device-circuit interaction is investigated. This circuit is planar, and therefore simplifies the design of monolithic circuits. In this work, X-band Gunn diodes are used for the purpose of demonstration.

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