Abstracts

Quasi-Periodic Route to Chaos in a Microwave Doubler

S. Basu, S.A. Maas and T. Itoh. "Quasi-Periodic Route to Chaos in a Microwave Doubler." 1995 Microwave and Guided Wave Letters 5.7 (Jul. 1995 [MGWL]): 224-226.

Quasi-periodic route to chaos was observed as the bias level was increased in a 5-10 GHz frequency doubler. The appearance of spurious oscillations is a consequence of the dynamical negative resistance manifested by the pn junction diode in the doubler. This phenomenon is caused by the long minority carrier recombination time of the junction diode compared to the period of the input signal.

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