

Abstracts

Dependence of the Multiple-Device Oscillator Injection-Locking Range on the Number of Constituent Devices (Short Papers)

S. Sarkar and O.S. Gupta. "Dependence of the Multiple-Device Oscillator Injection-Locking Range on the Number of Constituent Devices (Short Papers)." 1986 *Transactions on Microwave Theory and Techniques* 34.7 (Jul. 1986 [T-MTT]): 839-840.

An analysis of the behavior of an injection-locked multiple-device oscillator is presented. It is shown that the external Q of the oscillator circuit decreases towards a limiting value as the number of devices is increased. This limiting value is determined by the Q of an individual device. It is also shown that improvement of the locking range with an increase in the number of devices is rapid when the locking gain is very low and independent of the increase of the number of devices.

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