

Abstracts

Basic Properties of Subharmonic Injection Locking

L. Gustafsson, K.I. Lundstrom and G.H.B. Hansson. "Basic Properties of Subharmonic Injection Locking." 1973 Transactions on Microwave Theory and Techniques 21.1 (Jan. 1973 [T-MTT]): 28-34.

Basic properties of subharmonic injection locking, as well as differences between subharmonic and fundamental injection locking, are studied with the describing function technique. The consequences of including a nonlinear capacitance as well as linear frequency-dependent parameters in the active element is investigated. The importance of the broad-band characteristics of the tuning circuit is studied. The detailed analysis is given for locking to the third subharmonic, but necessary expressions for generalizing the treatment to other than third subharmonic locking are provided. Finally, a note on stability of subharmonic locking is given.

[Return to main document.](#)