

Abstracts

Capacitance Definitions for Parametric Operation (Correspondence)

H. Heffner. "Capacitance Definitions for Parametric Operation (Correspondence)." 1961 Transactions on Microwave Theory and Techniques 9.1 (Jan. 1961 [T-MTT]): 98-99.

The purpose of this note is to reconcile the various definitions of nonlinear or equivalent time-varying capacitance which appear in the literature concerned with parametric devices. The problem considered is one of a nonlinear reactive element, let us say a capacitance, which is pumped by strong pump source at frequency f_p and which couples two circuit modes at frequencies f_s and f_i , usually called the signal and idling frequencies. For parametric operation we demand either $f_p = f_i + f_s$ or $f_p = f_i - f_s$.

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