Abstracts

Instabilities Diagnosis and the Role of K in Microwave Circuits

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Many papers, textbooks and the leading CAD packages state that a Two-Port is stable if and only if K>1 and |Delta/sub s/|<1 (or an equivalent set of conditions). The stipulation that the statement is rigorous only if no poles of the unloaded circuit lie in the right half plane seems lost on current microwave designers who rely on K and |Delta s| for determining the stability of their designs. Examples showing oscillating circuits with K>1 and |Delta s|<1 are shown. The role of K as well as methods for diagnosing circuit stability are discussed.

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