Abstracts

Unconditional Stability of a Three-Port Network Characterized with S-Parameters

J.F. Boehm and W.G. Albright. "Unconditional Stability of a Three-Port Network Characterized with S-Parameters." 1987 Transactions on Microwave Theory and Techniques 35.6 (Jun. 1987 [T-MTT]): 582-586.

An analytical solution is presented which establishes nine conditions necessary for determining the unconditional stability of a network described with three-port S-parameters. In contrast to the unconditional stability conditions of a two-port network the unconditional stability conditions of a three-port network are dependent on both the three-port S-parameters and the port terminations. These criteria form the basis for three-port amplifier design, and are used to analyze measured three-port S-parameter data of a silicon BJT at 2.4 GHz.

❑ Return to main document.