Abstracts

Parameter De-Embedding Accuracy Dependency Upon Material Sample Dimensions

A. Park and A. Dominek. "Parameter De-Embedding Accuracy Dependency Upon Material Sample Dimensions." 1992 Transactions on Microwave Theory and Techniques 40.8 (Aug. 1992 [T-MTT]): 1674-1680.

The sensitivity of the sample fit in rectangular waveguide fixtures is examined for constitutive parameter de-embedding. The sensitivity is characterized through a percent error figure between the de-embedded and known parameter values when an air gap exists between the sample and the side walls of the fixture. The de-embedding process assumed a completely filled waveguide in which rigorously calculated S parameters for material sample air gaps in either the E or H plane walls of the waveguide were used. The presence of an air gap was very noticeable for a E-plane gap. Commonly used gap correction factors provided limited improvement in reducing air gap related errors.

❑ Return to main document.