A New De-Embedding Method for Microstriplines with Coaxial Adapters

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Abstract

A new de-embedding method for microstriplines with coaxial adapters is suggested. The method uses the field calculation to determine the scattering parameters of the coaxial adapter. Based on these data an equivalent circuit of lumped elements is derived, which describes the physical reality of the adapter. This de-embedding method also provides a definition of the characteristic impedance of the microstripline. The values of the characteristic impedance presented in this paper have been verified experimentally and differ from those derived by two dimensional definitions of characteristic impedance.

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