Abstracts

Resonance in a Spherical-Circular Microstrip Structure with an Airgap (Short Papers)

The resonance problem of the spherical-circular microstrip structure with an airgap between the substrate layer and the ground conducting sphere is studied by using a rigorous Green's function formulation in the spectral domain and Galerkin's moment method calculation. Complex resonant frequencies are obtained in this study, which provide the resonant frequencies and half-power bandwidth of the structure. From the numerical results, it is found that with the increasing of the airgap thickness, the half-power bandwidth of the structure is considerably increased. This improves the low-bandwidth characteristics of microstrip structures. Details of the numerical results are presented and discussed.

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