Abstracts

A Comprehensive Theoretical and Experimental Study of Coplanar Waveguide Shunt Stubs

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A comprehensive theoretical and experimental study of straight and bent CPW shunt stubs is presented. In the theoretical analysis, the CPW is assumed to be inside a cavity, while, the experiments are performed on open structures. A hybrid technique has been developed to analyze the CPW discontinuities which has been proven to be accurate since the theoretical and experimental results agree very well. Throughout this study, the effect of the cavity resonances on the behavior of the stubs with and without air-bridges is investigated. In addition, the encountered radiation loss due to the discontinuities is evaluated experimentally.

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