Abstracts

Bound-mode resonance improving the input matching of a dual-mode leaky guiding structure

Ching-Chyuan Lin and C.C. Tzuang. "Bound-mode resonance improving the input matching of a dual-mode leaky guiding structure." 1998 Microwave and Guided Wave Letters 8.12 (Dec. 1998 [MGWL]): 418-420.

A novel approach of incorporating the bound-mode resonance in a uniform micro-CPW (coplanar waveguide) line that shows excellent input matching is presented. The matrix-pencil signal analyses of the CPW-fed micro-CPW guide confirm that two modes, namely, the bound CPW mode and the leaky second higher order microstrip mode, dominate, whereas the microstrip mode contributes too little to be detected. Both theoretical analyses and experimental measurements of the CPW-fed micro-CPW guide show that two well-matched input return losses regions are directly related to the resonances of the CPW mode within the guide.

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