Abstracts

Circuit model for a coplanar-slotline cross

M. Ribo and L. Pradell. "Circuit model for a coplanar-slotline cross." 2000 Microwave and Guided Wave Letters 10.12 (Dec. 2000 [MGWL]): 511-513.

A new 6-port "circuit-model" for coplanar-slotline crosses is presented. The model is based on the separation of the two fundamental Coplanar Waveguide (CPW) modes (even and odd) into different ports. It generalizes previous models since it explains the cross's behavior even if air-bridges are not used and slotlines are loaded asymmetrically. The new model is applied to the analysis of the S-parameters of an asymmetric slotline resonator, and validated through comparison with experimental results up to 40 GHz.

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