Abstracts

Circuit model for coplanar-slotline tees

M. Ribo and L. Pradell. "Circuit model for coplanar-slotline tees." 2000 Microwave and Guided Wave Letters 10.5 (May 2000 [MGWL]): 177-179.

Coplanar-slotline tees have been used in a number of microwave circuits, although no complete models were available to explain their behavior. In this letter, a new "circuit-model" for a coplanar-slotline tee is presented. The model, based on the separation of coplanar waveguide (CPW) even and odd modes into two different ports, explains the tee's behavior even if CPW air bridges are not used and slotlines are loaded asymmetrically. The new model has been applied to the analysis of the input reflection coefficient of an offset-fed slotline antenna, showing an excellent agreement between simulation and measurement.

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