Abstracts

Novel transition between different configurations of planar transmission lines

A.M.E. Safwat, K.A. Zaki, W. Johnson and C.H. Lee. "Novel transition between different configurations of planar transmission lines." 2002 Microwave and Wireless Components Letters 12.4 (Apr. 2002 [MWCL]): 128-130.

New designs of coplanar waveguide (CPW)-microstrip, CPW-stripline, conductor backed CPW (CBCPW)-microstrip, and CBCPW-stripline transitions are presented. Simulation using the high frequency structures simulator (HFSS) shows that the return loss of the CPW-microstrip transition is less than -25 dB up to 11 GHz. Similarly is the CPW-stripline transition. In the case of two back to back CBCPW-stripline transitions, the return loss is less than -22 dB up to 9 GHz. Experimentally, the S/sub 11/ of two back to back CBCPW-microstrip transitions on an alumina substrate is less than -15 dB up to 25 GHz.

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