Abstracts

A novel low-loss slow-wave microstrip structure

Fei-Ran Yang, Yongxi Qian, R. Coccioli and T. Itoh. "A novel low-loss slow-wave microstrip structure." 1998 Microwave and Guided Wave Letters 8.11 (Nov. 1998 [MGWL]): 372-374.

A low-loss slow-wave microstrip line using a periodic structure in the ground plane is presented. The periodic structure is realized with metal pads etched in the ground plane connected by thin lines to form a distributed LC network. The slow-wave factor is demonstrated to be 1.2-2.4 times larger than that of conventional microstrip lines over a wide frequency range. Due to the unique design of the structure, low insertion loss comparable to conventional microstrips has been achieved. The proposed structure is easier to fabricate than other slow-wave devices which require multilayer substrates or very fine features.

❑ Return to main document.