Abstracts

Improved design of broad-band latching ferrite phase shifter in a reduced-size grooved waveguide

Wenquan Che, Nai-Ning Yung, Wen Junding and Kan Sha. "Improved design of broad-band latching ferrite phase shifter in a reduced-size grooved waveguide." 2001 Transactions on Microwave Theory and Techniques 49.4 (Apr. 2001, Part I [T-MTT]): 727-730.

In this paper, an improved design of a broad-band latching ferrite phase shifter in grooved waveguide is discussed. The elimination technique for the insertion-loss peak is also introduced. The little gaps between the metal bars and waveguide wall are beneficial to suppress the high-order modes caused by the filling of high constant dielectric in the ferrite toroid. The theoretical and measured results have shown that the changes in differential phase shift with frequency remains less than 2.2%; the insertion loss and voltage standing-wave ratio of the device are good over the band 2/spl sim/4 GHz.

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