Abstracts

Asymmetrical Finline for Space Applications Using Millimeter Waves

P. Espes, P.F. Combes, J.-M. Goutoule and B. Theron. "Asymmetrical Finline for Space Applications Using Millimeter Waves." 1989 Transactions on Microwave Theory and Techniques 37.2 (Feb. 1989 [T-MTT] (Special Issue on Quasi-Planar Millimeter-Wave Components and Subsystems)): 289-298.

We have studied a new type of unilateral finline--the asymmetrical structure finline (ASFL). In addition to providing better electromagnetic isolation, this structure solves problems of mechanical and thermal resistance encountered with the traditional line. It provides better electromagnetic performances than the traditional line, while leaving an additional degree of freedom to obtain the characteristic parameters. The calculation software is used to simulate this type of structure, with results close to experimental measurements. The study was completed by producing two circuits a 20 GHz bandpass filter and a balanced mixer.

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