Abstracts

Measuring the omega-beta Diagram of Periodic Structures (Correspondence)

O.P. McDuff. "Measuring the omega-beta Diagram of Periodic Structures (Correspondence)." 1962 Transactions on Microwave Theory and Techniques 10.4 (Jul. 1962 [T-MTT]): 295-296.

One of the most important properties of a periodic structure is the shape of the omega - beta diagram. A common technique for measuring the omega - beta diagram is to form a resonant section by placing shorting planes at positions of symmetry within the periodic structure and to observe the resonant frequencies of the resulting resonator. Discussed in this correspondence is a technique wherein the far end of the periodic structure is shorted and the positions of nulls of voltage on an input line are observed as frequency is varied. From these nulls it is possible to determine the frequencies where the electrical length of the loaded structure is a multiple of pi radians. Basically, it is a procedure for graphically determining points on the omega - beta diagram.

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