

Abstracts

Microwave Filter Design Using an Electronic Digital Computer

L. Young. "Microwave Filter Design Using an Electronic Digital Computer." 1959 Transactions on Microwave Theory and Techniques 7.1 (Jan. 1959 [T-MTT]): 99-101.

It is shown how a transmission-line circuit can be analyzed by a digital computer. Transformation matrices are used and broken down into equations which are applicable to a computer. "Synthesis by computer" involves feeding in an approximate design and programming the computer to search for better parameters until the performance matches the specification. Examples are given to indicate time and cost of both analysis and synthesis procedures on an IBM Type 650 digital computer. The synthesis of a stagger-tuned three-cavity filter is described.

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