

Abstracts

Frequency Dependent Characteristics of Microstrips on Anisotropic Substrates (Short Papers)

M. Kobayashi. "Frequency Dependent Characteristics of Microstrips on Anisotropic Substrates (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.11 (Nov. 1982 [T-MTT]): 2054-2057.

Frequency dependent characteristics are discussed for the microstrip line on anisotropic substrate (original line) from the extension of the results obtained in an isotropic substrate case. In approximating the original line by the equivalent line on an isotropic substrate, it is best to maintain h and w of the equivalent line equal to those of the original line. The reason is that the inflection frequency $f_{sub i}$ is a function of w and h and that $f_{sub i}$ plays an important role in calculating the dispersion. Three approximate dispersion formulas are derived owing to this idea. The results obtained by these formulas are compared with the other available theoretical and experimental results for sapphire substrates. Good agreement is seen.

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