Abstracts

Pulse Distortion on Multilayer Microstrip Line

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Effect of permittivity, w/h ratio and pulse duration on the distortion of Gaussian pulse is investigated. For w/h= 1, epsilon/sub r/, < 9.7, the pulse distortion becomes independent of w/h ratio. Using unified dispersion model, distortion of Gaussian pulse on composite substrate and suspended substrate is presented. In the case of composite substrate pulse distortion can be controlled by proper selection of w/h ratio and thickness of low permittivity substrate. The fractional change in epsilon/sub eff i.e.[epsilon/sub eff (f) - epsilon/sub eff(f=o)]/epsilon/sub r/ can provide a measure for characterizing the pulse distortion.

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