Abstracts

High frequency leaky-mode excitation on microstrip line

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The excitation of leaky modes and the continuous spectrum on microstrip line at high frequencies is studied. It is shown that the current excited from a practical source or discontinuity exhibits spurious effects at high frequencies due to the excitation of the continuous spectrum (radiation spectrum), which may or may not be dominated by a leaky mode, depending on the frequency range and the substrate permittivity. In some cases the spurious effects are due to a leaky mode, while in other cases the effects are due to the excitation of one or more "residual-wave" currents, which have not been previously studied for open microstrip line.

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