Wedge-supported cylindrical microstrip lines with an indented ground

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Abstract

A combined mode-matching and moment method is proposed to calculate the capacitance matrix of wedgesupported cylindrical microstrip lines with an indented ground. Each indent is modeled as a multilayered medium in which the potential distribution is systematically derived by defining reflection matrices. An integral equation is derived in terms of the charge distribution on the strip surfaces. Galerkin's method is then applied to solve the integral equation for the charge distribution. The effects of strip width, strip separation, indent depth, and indent shape are analyzed.