

Integral Equations Formulation to Linear Array Slots Antennas

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Abstract

An integral equation (IE) formulation has been used to formulate the problem of radiation from linear array of slots antennas located on the conducting Bodies Of Revolution (BOR). Method of Moment (MoM) is used as a numerical method to solve the (IE) to convert problem to set of linear equation and then determined the unknown coefficients of current expansion function, then find the radiation pattern components in the principle planes E or H-plane.

A linear array of slots, as elements, on the conducting body of cylinder shape of spacing 0.5λ between each element is study excited with uniform and non-uniform distribution. The result gives are good compared with the numerical formula of such elements as array antenna.