

ANALYSIS AND STUDY OF THE FRACTAL MONOPOLE ANTENNA BEHAVIOR BASED ON KOCH CURVE PERTURBATION

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Abstract

Fractal antennas are very used nowadays given the ability to reduce the antenna size, while keeping quite large electrical size. The introduction of fractal perturbations on the geometry of a square patch antenna lead to multiple frequency resonance. These perturbations may be added or subtracted to the antenna geometry, possibly leading to different results. The aim of this project is to study the radiating behavior of the modeled antenna in both of the above conditions, exploiting as successive step an optimization tool in order to define an optimal antenna geometry which comply with a given set of frequency bands.

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