Theoretical analysis and application of fractal antenna

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ABSTRACT

In this paper, planar antennas based on fracral structure will be present. Using the fractal structure, a compact and wideband antenna is designed. Analysis of Koch curve indicates the performance of antennas will depend on iteration factor. As long as the iteration order increases, the bandwidth can increase 50%. First, we use HFSS to simulate the performance of the 50Ω-feed designed antenna. Second, use AutoCAD to draw the layout of the designed antenna. Third, etch the designed antenna on FR4. Finally measured the antenna by network and analyzer the result.

Keywords : iteration factor、iteration order

Table of Contents

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