Abstract Details

Title: Analysis the behavior of Sierpinski Carpet and Fractal Tree Antennas

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Abstract: In this paper we design and analysis the result of the 4th iteration of Sierpinski carpet fractal antenna and Fractal tree antennas. The proposed antenna is designed on FR4 epoxy substrate with dielectric constant of 4.4 and fed with 50 ohms micro strip line. In our paper there is a comparison between fractal tree and sierpinski carpet fractal antenna. The Dimensions for the sierpinski Carpet and fractal Tree antenna are 16mm*18mm*1.6mm. The antenna structure is simulated using An Soft HFSS software. The antennas characteristics such as return loss, radiation pattern and VSWR of the antenna are analyzed and presented. The proposed fractal antenna can be used in the frequency range from 2-20 GHz. In our purposed work the simulated result of sierpinski carpet fractal antenna is much better than the fractal tree antenna.

Keywords: Microstrip Antenna, Fractal, Sierpinski Carpet Fractal Antenna (SCFA).