

Multiband Antenna Design Using Fractal Geometries

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Abstract

In this work, antenna design using the fractal geometry with the aid of MATLAB will be introduced. Making use of the unique characteristics of fractal geometries, the designed antennas can operate at multiple frequency bands while have reasonably small size. Two kinds of fractal monopole antennas and one fractal monopole antenna array, which aim to be designed for Wireless LAN application (IEEE 802.11 a/b/g), have been successfully designed and fabricated. The simulation and measurement results show that the designed fractal antennas exhibit high radiation efficiency, good impedance match and moderate gain at desired frequency bands. More details will be given during the presentation.