Comparative Analysis of Modified fractal, L-Shaped and Fractal Slotted Patch antenna with Novel Microstrip Rectangular L-Shaped Slotted Patch Antenna for Wireless Applications

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Abstract

This paper investigates the comparison between existing antennas based on microstrip fractal technology with the proposed antenna. Comparison of proposed antenna has been made on the basis of number of frequency bands of operation and bandwidth. Proposed antenna is designed on the substrate of FR4 glass epoxy material with 1.6mm thickness and 4.4 dielectric constant. HFSS V13 simulator is used to design and simulate the proposed antenna. By observing the results of proposed antenna and existing antennas; it has been depicted that proposed antenna works on seven frequency bands of operation as compared to the existing antennas. Proposed antenna exhibits wideband characteristics and shows the bandwidth of 1959MHz, 700MHz and 2970MHz for respective frequency bands of operation. So, the proposed antenna can be efficiently used for practical wireless applications due to its wideband characteristics and more number of frequency bands of operation.

References


Index Terms

Computer Science Wireless
Keywords

L-slots, rectangular patch, circular patch, return loss, gain.