

Synthesis of a Multiband Fractal Antenna for LTE700, GSM1800 and UMTS Standards

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Abstract

Long Term Evolution (LTE) is an emerging standard for next-generation wireless communication systems. Frequency spectrum allocated for LTE applications ranges from 400 MHz to 4 GHz with bandwidths from 1.4 to 20 MHz. Today's market requires devices capable of operating over such a new standard but also over already existing standards such as GSM and UMTS.

The objective of the activity is therefore the synthesis of a multiband fractal Sierpinski antenna exhibiting a good impedance match at the LTE bands at 700 MHz, at the GSM band at 1800 MHz and at the UMTS band at 2100 MHz. The radiation properties of the optimized antenna at the three operating frequencies will be also analysed.

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