

## Design of a Novel Fractal Multiband Planar Antenna with a CPW-Feed

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**Abstract :** This work presents a new planar multiband antenna based on fractal geometry. This structure is optimized and validated into simulation by using CST-MW Studio. To feed this antenna we have used a CPW line which makes it easy to be incorporated with integrated circuits. The simulation results presents a good matching input impedance and radiation pattern in the GSM band at 900 MHz and ISM band at 2.4 GHz. The final structure is a dual band fractal antenna with 70 x 70 mm<sup>2</sup> as a total area by using an FR4 substrate.

**Keywords :** Antenna, CPW, fractal, GSM, multiband

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