



# COMPACT QUADRIFILAR HELICAL ANTENNA

*Innovative device that optimises the compactness of a helical antenna while maintaining performance*

## Technological benefits

### A simple, lightweight solution

No deployment

Reduced antenna height and weight

### Performance maintained

Deconstructed symmetry avoiding strong couplings

Controlled loss of gain

Form of diagram, directivity and TOS maintained

Robust technology

### Easy to manufacture

Compatible with current production modes without added complexity

## Invention overview

Quadrifilar helical antenna with each wire following the form of a sinusoid remodulated by a fractal pattern. This double modulation of the helical profile allows optimum use of the space containing the antenna, and maximised RF efficiency.

## Potential applications

Circular polarisation antennas

**TRL : 3**

*Patented invention, available under license*



Example of an antenna prototype

## Commercial benefits

### Low-cost production

Simple and controlled production process

### Optimised payload

Reduced antenna weight and/or sizing