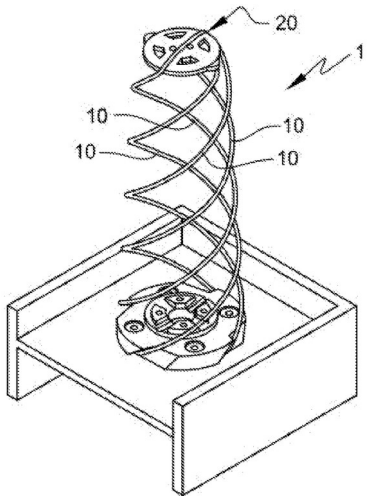
SATELLITE RADIO-FREQUENCY ANTENNA

Technological advantages

- Very small footprint
- Compatible with nano-satellites
- Does not need thermal heating for shape changes
- Accurate deployed shape

Invention synthesis

The invention presents a radio-frequency antenna with an alloyed based super elastic shape memory working in all frequency bands compatible with space vehicles.
The conical or cylindrical antenna possesses 4 strands that may be electrically connected into 2 pairs. It is made of a super-elastic shape memory allow (based on copper, nickel, titanium, iron). The autonomous deployment takes place simply by releasing some constraints (compression). The antenna then gets back to its original manufactured shape.



Schematic description of the deployed antenna

(10) Helicoid strands
(20) Antenna top section

Potential applications

- Aerospace domain : satellites, rovers, ...

Commercial benefits

- Efficient system with low complexity and low cost
- Compatible with all space vehicles

Patented invention - under license.

For more information :

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