PROCESS AND MEASURING DEVICE FOR ANTENNA RADIATION PATTERNS

Innovative system improving the method and device used to determine antenna performance

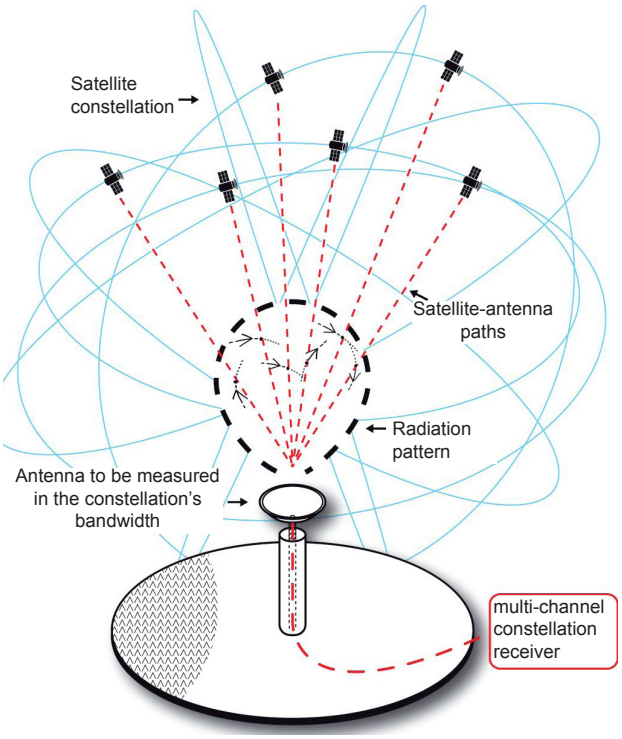
Technological benefits

Innovative technology

Simplified measurement of antenna performance
Material resources required are both simple and compact
The radiation pattern can be measured on the ground or during flight

Simple but effective

No need to move the antenna as satellites in the constellation move into the antenna's footprint
Simplified computation of the radiation pattern



Invention overview

Antenna fixed to a mast or a moving object such as a satellite, aircraft, ship or car, connected to a receiver and oriented skywards to track satellites in a constellation.

The receiver provides measurements such as S/N ratio while the satellites are orbiting overhead. These measurements are then used to work out the radiation pattern using optimization software.

Potential applications

Manufacturers of small antennas for radio communication satellites having a tight budget

- Navigation: satellite positioning
- Telecoms: mobile telephony on land or sea
- Synchronization by satellite
- Maritime safety: identification of ships from orbiting satellites

Manufacturers or owners of satellite constellations

Designers of vehicles integrating small antennas such as aircraft, drones, satellites or boats

Manufacturers of radiation measurement software and systems

Commercial benefits

Lower costs

No need to use an anechoic chamber
Inexpensive
Few and simple resources
Generic measurement whether on the ground or a moving vehicle

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Patented invention, available under license

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For further information

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