



# BEAM FORMING NETWORK OF AN ACTIVE OR PHASED ANTENNA

*Innovative process for determining the amplitudes and phases of the beam forming network channels of an active or phased antenna*

## Technological benefits

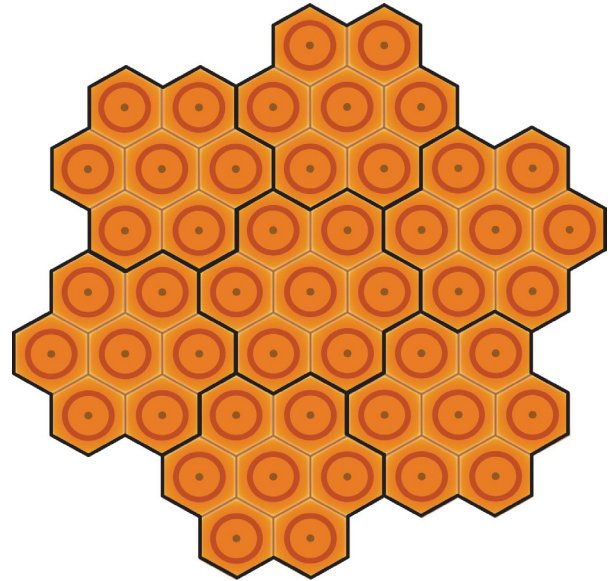
### A simple and innovative process

Obtain an optimised forming network relative to the distribution of antenna side lobes  
Uniform distribution of parasitic power around lobe  
Maintaining of 6 fold symmetry

## Invention overview

Process using plane tessellation without holes through identical forms corresponding to active antenna sub-panels or cells.

Each of these forms is tessellated without holes by an integer number of hexagons (their centres are on a triangular grid).



Example of active antenna tessellation through seven identical panels with seven radiating elements each

## Potential applications

**Phased or active antennas in transmission or reception, for:**

- Telecommunications
- Navigation
- Radar

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*Patented invention, available under license*

## Commercial benefits

### Simple and optimised design

Antenna manufacturing by identical panels  
Cost reduction