

# RADIO ANTENNA WITH IMPROVED SUPPORT SYSTEM

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## ABSTRACT

Radio antennas must maintain their paraboloid shape and directional positioning in order to work properly. However wind can load the antenna dish and cause it to lose its shape and position.

To address this situation, researchers at UC Berkeley have developed a support system that strengthens antenna dishes and provides several structural enhancements. The support system consists of reinforcements that enable firm radial and torsional support as well as an optimal amount of axial flexibility and support. This design allows for a large open area so that azimuth and elevation-bearing systems can be positioned near to the reflector vertex. This positioning enables lower loads and less structural requirements for the pedestal and drives.

## APPLICATIONS

- Radio communications especially broadband astronomy
- Commercial satellite dish technology

## ADVANTAGES

- Increased radial and torsional stability
- Improved axial flexibility and support
- Decreased structural requirements for pedestal
- Decreased positioning requirements for drive

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	7,330,160	02/12/2008	2005-079

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## OTHER INFORMATION

### CATEGORIZED AS

- » **Communications**
- » Other
- » **Imaging**
- » Other
- » **Research Tools**
- » Other
- » Vectors

### RELATED CASES

2005-079-0