



## 50CM ANTENNA

Model Type: ANP0200A

The **Italspazio R&D department** has developed the project for a Ka-band antenna for on board applications for small satellite like CubeSat.

The dual reflector antenna in the launch phase is enclosed in a case of the size required by the CubeSat launcher types, then with a fast deployment system with release and release of the sub reflector, **in flight, unfolds with its reflector 50 cm main consisting of 30 foldable ribs** and a sub reflector that reaches its final position with a release system.

The RF and mechanical performances make this product useful for **both inter-satellite and terrestrial satellite applications**.

The shape and the accurate reflector surface provide good side lobe and cross-polarization performance.

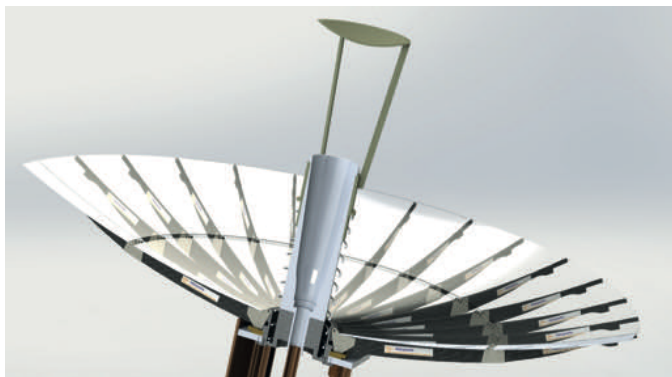
The 50 cm antenna, including the feed, is packaged in one portable case ready for CubeSat launcher.

### Features

- Precision dual central reflector
- Compact pedestal
- Transport case included

### Options

- Paint/finishes
- Case upgrades



**ISO 9001:2015**

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## ANTENNA SPECIFICATION

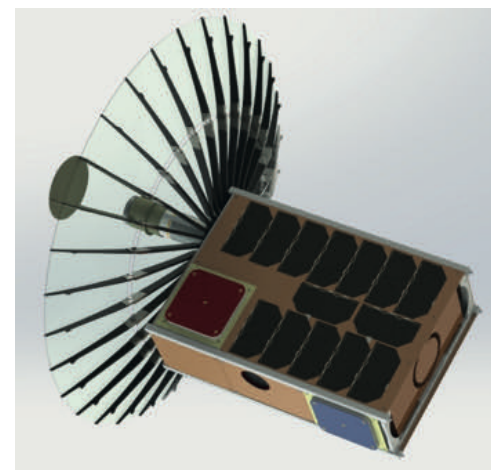
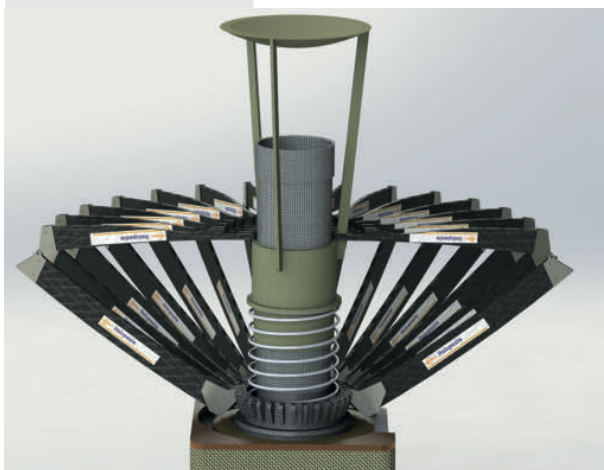
Type	50 cm Ka-Band Antenna	
	Rx	Tx
Antenna Diameter	50 cm	
Antenna Type	Double Reflector	
Frequency (GHz)	20.2 – 21.2	30.0 – 31.0
Gain (dBi) @ Mid Band	38.94	42.27
Feed	2 Ports Circular Pol.	
VSWR	1.30:1	
Beam width @ 3 dB	2°	2°
Feed Interface	WR-42	WR-28
Feed Insertion Loss	0.2 dB	0.2 dB
Power Handling		500 W
Cross Pol. Isolation	27 dB	27 dB
Tx - Rx Isolation	≥ 30 dB	

## MECHANICAL SPECIFICATION

Mount Type	Umbrella shape form with quick deploy motorized system
Complete Case (stowed)	10 x 10 x 24(H) cm
Total Structure Weight	< 2 Kg

## ENVIRONMENTAL SPECIFICATION

Ambient Temperature	-150° C to +150° C
Solar Radiation (W/m <sup>2</sup> )	1354
Albedo	0.35
IR Radiation	250 (K temperature – Black Body)



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