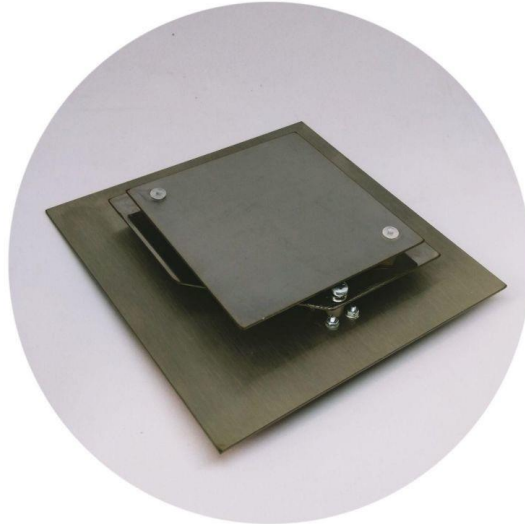


## L-Band 9dBi RHCP Patch Antenna



*Figure 1 Antenna 3D EM Model and Photo*

### General information

This antenna with the gain of 9dBi is designed for high-quality receiving of the satellite signals L-Band (Inmarsat AERO/STD-C), as well as any signals of frequency 1.42-1.66GHz. The antenna works perfect for both right-hand circularly polarized (RHCP) and linear signal types and has excellent performance over the entire range of Inmarsat signals. The size is only 12\*12 cm.

Application: L-Band (Inmarsat AERO/STD-C), GPS, Satellite Reception

### Features

- ✓ Ultra-wideband – 240MHz bandwidth
- ✓ High gain – 9dBi
- ✓ Good quality right hand polarization

### Specification

- Application: L-Band (Inmarsat AERO/STD-C), GPS, Satellite Reception
- Polarization: (Right Hand Circular Polarization) RHCP
- Total gain: 9dBi
- RHCP Gain: 7.7dBi
- Dimensions: – 120\*120\*30 mm
- Connector: SMA-Female
- Axial ratio: < 2
- half-power beamwidth: 30 degree

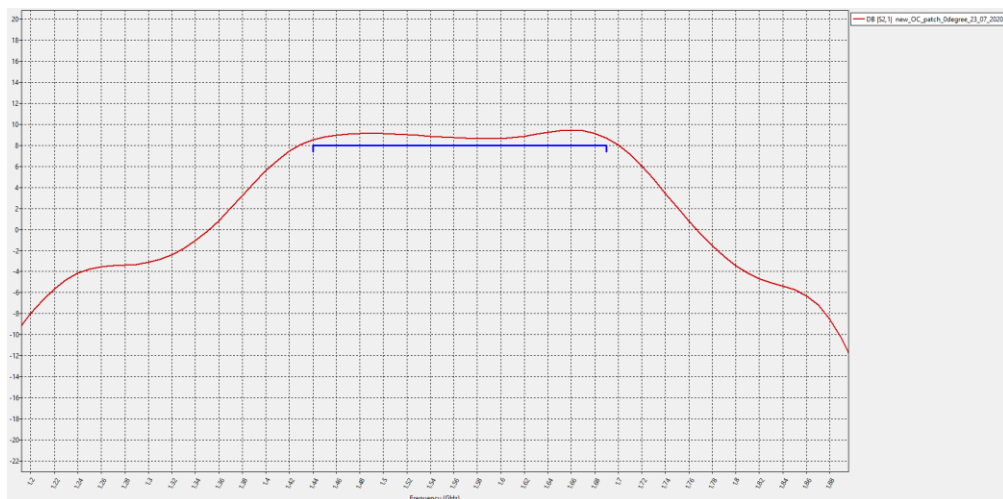
### Typical characteristics in L-Band

Frequency Range (MHz)	Max Total Gain (dBi)	Return Loss (worst case in band) (dB)	Impedance (Ohm)	Operating temperature (Celsius degree)
(L-Band – -10dB)- 1420-1660	9.0 (Peak)	-10	50	-25 to 55
(L-Band – -3dB)- 1300-1800	9.0 (Peak)	-3	50	-25 to 55

### Typical electrical characteristics (T = 25 ° C)



**Figure 1 Antenna Matching (S11) vs Frequency, GHz, Measurements**

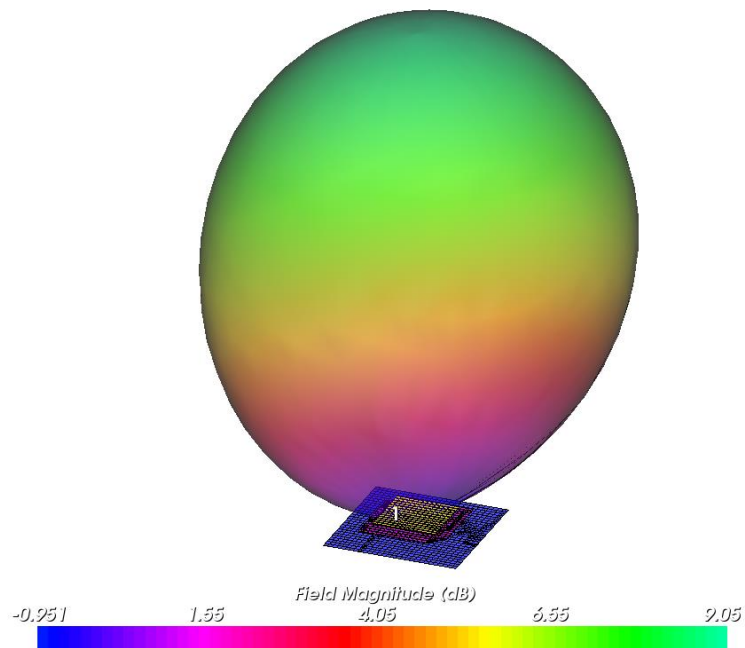


**Figure 3 Antenna Gain vs Frequency, GHz, Measurements**

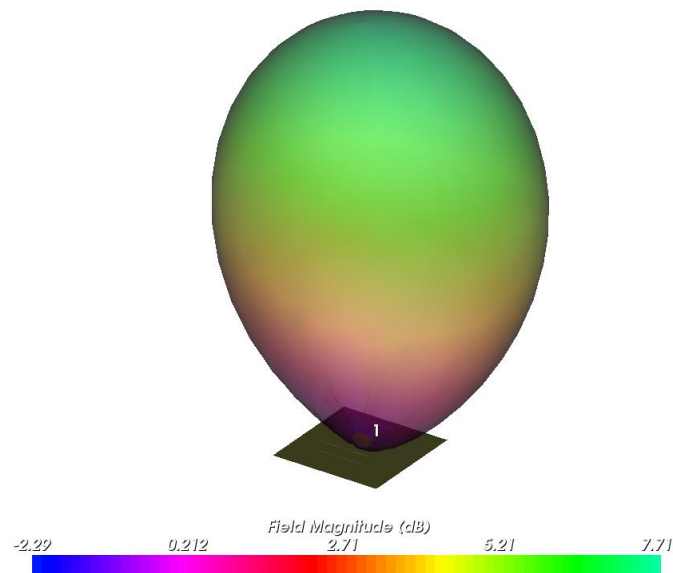
## Precautions

Warning! Be careful when using and installing this antenna.

Install the antenna on a stable surface to prevent the antenna from falling. Do not allow the antenna to fall, as the device may cause damage to health. Install the antenna out of the reach of children. Handle the edges of the antenna carefully to avoid cuts and impacts so as not to damage your health or other objects or surfaces. Do not wet the antenna, as this may cause oxidation and deterioration of electrical contacts. When installing the antenna, use a ladder rack to prevent the installer and antenna from falling. Install the antenna not above the location of people.



**Figure 4 Antenna Radiation Pattern – Total, Gain max = 9dBi**



**Figure 5 Antenna Radiation Pattern – RHCP, Gain max = 7.7dBi**

## **Complete set and assembly**

- Printed circuit board
- Metal wings - 2 pcs.
- M3-8 bolts and M3 lock nuts - 8 pcs.
- Means of fastening-1 with openings M3-M5
- Box
- Documentation

**The wings must be attached to the metal parts of the printed circuit board!  
(Select the correct side of the PCB) - Figure 5**

## **Contacts and support**

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