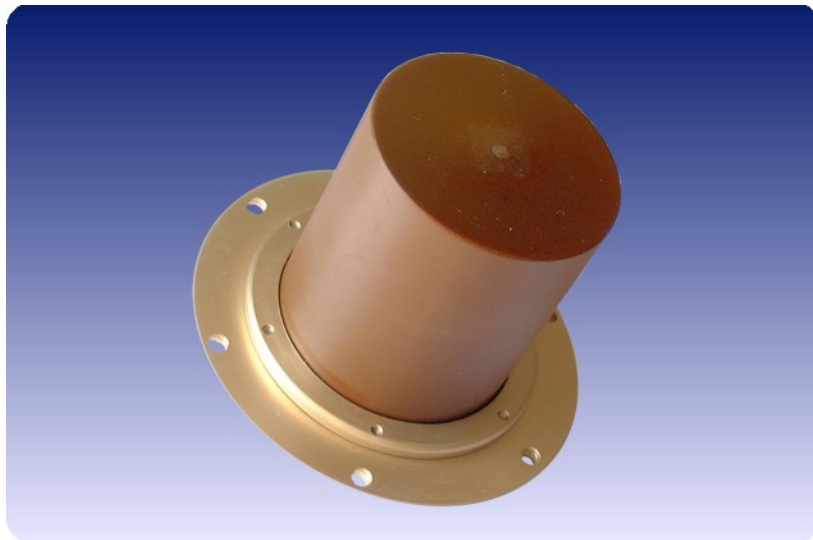


# S-Band Satellite Antenna

S2023R



## Highlights

- ➔ Circularly polarized Antenna
- ➔ Hemispherical Coverage
- ➔ S-Band 2,025 to 2,290 MHz
- ➔ up to 10 watts cw
- ➔ Designed for LEO-satellite missions
- ➔ Compact size and low weight
- ➔ Made in Germany

The **S-Band Antenna S2023R** has been designed for use on board of small satellites. The pattern shape has been optimized particularly for low earth orbit (LEO) missions with NADIR orientation.

The antenna is broadband and operates at both the standard S-Band frequencies for satellite missions, i.e. downlink at 2200 to 2290 MHz and uplink at 2025 to 2110 MHz.

The antenna design is compact, solid and very rugged.

To achieve spherical coverage the S2023R could be used in pairs with opposite placement at the satellite body.

## Specifications:

### Electrical:

Frequency Range	2025 MHz ... 2110 MHz uplink 2200 MHz ... 2290 MHz downlink
Gain	+3 dBic @ boresight, typ. > 0 dBic for $-45^\circ < \Theta < +45^\circ$ , typ. > -6 dBic for $-90^\circ < \Theta < +90^\circ$ , typ.
Coverage	Hemispherical
HP Bandwidth	140° typical
Polarization	Right circular (Left circular optional)
Power	40 dBm CW, max.
Impedance	50 ohms
VSWR	better than 1,5 : 1
Connector	SMA female

### Environmental:

Operating Temperature	-60°C ... +120°C (extended range upon request)
Vibration	20 ... 2,000 Hz; 25g rms random, 3-axis
Shock	100g (100 Hz), 3,500g (>1000 Hz)

### Mechanical:

Dimensions	Length approx. 70 mm w/o connector, Reflector d = 100 mm, Radome d = 60 mm;
Mounting	6 holes each 4.2 mm
Weight	ca. 140 g
Radome	PEEK (beige) VESPEL (gold brown) optional
Reflector	AW6082 with finish Alodine1200 or SURtec650

