

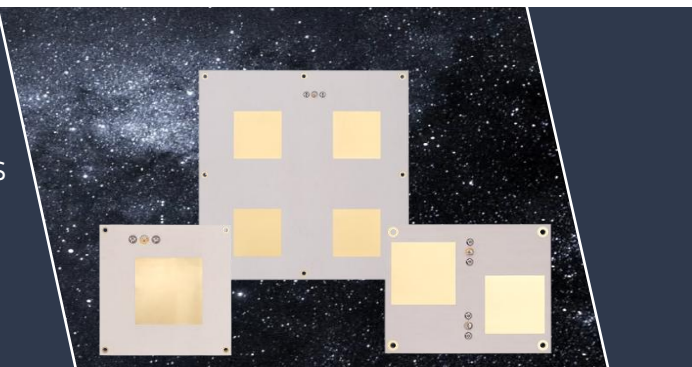
S-Band Antennas

- Single patch antennas
- Dual patch antennas for Tx and Rx

- Quad patch high gain antennas
- 1.980 – 2.500 GHz

HIGHLIGHTS

- Circular polarization (RHCP and LHCP)
- Small shape
- Single, dual or high gain patch antennas
- Compatible with CubeSats and Small Satellites
- Robust design



These **COTS antennas** are designed for small satellite applications to realize satellite communication links. Their mechanical dimensions fit CubeSats as well as larger satellites. Various designs of different frequencies are available, and customized solutions can be provided.

With circular polarization, the antennas provide a robust solution regarding the steering accuracy to the ground station antenna.

The design could be either as single patch antennas, dual patch antennas for separate Tx and Rx ports or quad patch antennas. With the dual patch antenna design the duplex filter requirements are minimized.

As RF interface a robust SMA (female) or an UMP connector is used.

A minimum of four screws provide a proper mounting of the antennas.

The antenna backside shall be grounded properly to the satellite chassis. ROGERS™ laminate for space applications is used as dielectric. The patches and conductors are copper with gold surface finish

The basic design has achieved TRL 9 with various successful LEO missions.

FEATURES

- Flight grade tested design
- Patch antenna design
- Various designs available
- Cost effective
- Short delivery time

KEY SPECIFICATIONS

Operation frequency 1.980 - 2.500 GHz	Dimensions Single Patch: 70 x 70 x 3.4 mm ³ Dual Patch: 80 x 100 x 3.4 mm ³ Quad Patch: 160 x 160 x 3.4 mm ³	Mass 49 grams (single) 62 grams (dual) 180 grams (quad)
Maximum Gain (main direction) 6...11 dBi (typ.)	Connector Type SMA (f), UMP	Polarization RHCP (opt. LHCP)
Half Power Beam Width ±20° (typ.)	Impedance 50 Ω	F/B Ratio > 20 dB
Bandwidth 50 MHz (within frequency band)	VSWR < 1.25 @ typ. < 1.8 @ full BW	Type Patch

Product specifications may be subject to change without notification.