

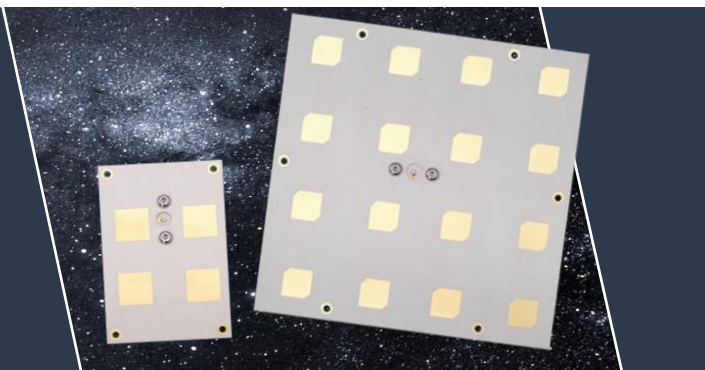
X-Band Antennas

- 2x2 Quad patch antennas
- 4x4 High gain patch antennas

- 8.025 – 8.400 GHz or
- 7.145 – 7.250 GHz

HIGHLIGHTS

- Circular polarization (RHCP)
- High gain
- Ultra-small shape
- Low mass
- 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.

Due to up to 16 combined patches, a high antenna gain can be achieved while meeting small form factor requirements.

A robust SMA (female) connector is used as the RF interface. Suitable screws ensure proper mounting of the antenna. The antenna backside shall be

grounded properly to the satellite chassis. ROGERSTTM 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. Alternative designs for X-Band uplink frequency and X-Band downlink frequency are available.

FEATURES

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

KEY SPECIFICATIONS

Operation frequency 8.025 - 8.400 GHz 7.145 - 7.250 GHz	Dimensions Quad Patch: 60 x 40 x 1.8 mm ³ High Gain: 100 x 100 x 1.8 mm ³	Mass Quad patch: 20 grams High gain: 40 grams
Maximum gain (main direction) 18 dBi	Connector Type SMA (f)	Polarization RHCP (opt. LHCP)
Half power beam width ±20° (typ.)	Impedance 50 Ω	Temperature Range -30°C ... +60°C
RF power input < 2 W	VSWR < 1.4 @ typ. < 1.8 @ full BW	Type Patch

Product specifications may be subject to change without notification.