Patch Antenna

Highlights
◊ High-gain, small shape antenna
◊ Flexible design for various frequencies
◊ Single or dual patch for uplink and downlink (RHCP and LHCP)

Patch antennas are provided for receiver and transmitter radio equipment for Cubesats as well as for other small satellites. Various design proposals are available. They include either single patch antennas or dual patch antennas for separated Tx and Rx ports thereby minimizing the duplex filter requirements. Furthermore, the antennas will be designed on customer specific requirements in terms of frequency, bandwidth, size, gain and pattern.

Key Specifications (Example)
Frequency Range: 2,100-2,500 MHz
   Bandwidth: 50 MHz (within frequency band)
   Gain: 6 dBi (typ.)
Vertical Beam: +/- 40°
Horizontal Beam: +/- 40°
F/B Ratio: >20 dB
   VSWR: <1.25 @ center frequency
   <1.80 @ full BW
Impedance: 50 Ohm
Polarization: RHCP (opt. LHCP)
Connector: SMA (f), UMP
Dimensions: 70 x 70 mm²
   Weight: 49 g
Optional: Dual Patch for TX and RX
Technology Readiness Level (TRL): 9