

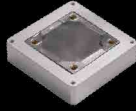


SPACECRAFT BUSES,
SYSTEMS & SOLUTIONS

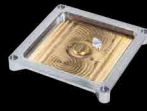
ANTENNA CAPABILITIES



Blue Canyon Technologies' flight antennas are currently operating on-orbit, supporting numerous successful customer missions over a wide range of bandwidths. Typical applications for these antennas include commands, telemetry, crosslink and mission downlink. Available versions feature those that operate with LHCP or RHCP polarizations. Blue Canyon also offers custom-designed antenna couplers (test hats) to support safe, repeatable testing at the integrated spacecraft level.



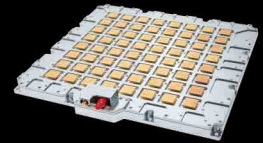
**L-, S- AND X-BAND
PCB PATCH ANTENNA**



**S- AND X-BAND
ALL-METAL
PATCH ANTENNA**



**WIDEBAND X-BAND
PCB MEDIUM GAIN
ARRAY ANTENNA**



**WIDEBAND X-BAND
HYBRID HIGH GAIN
ARRAY ANTENNA**

X - Y DIMENSIONS	L-band: 8.38 x 8.38 cm S-band: 7.62 x 7.62 cm X-band: 4.71 x 4.71 cm	S-band: 8.38 x 8.38 cm X-band: 4.71 x 4.71 cm	10.16 x 10.16 cm	25.4 x 25.4 cm
FREQUENCY	L-, S-, or X-bands. [Customized] Single or Dual Frequency Units	S-, or X-bands. [Customized]	8-8.5 GHz	8-8.5 GHz
GAIN / AR	Directive Gain 3.5-5.7 dBi/AR<6dB at CF (Level Depends on Ground Plane, Frequency, and Size)	Directive Gain >6 dBi/AR<6dB at CF (Level Depends on Ground Plane, Frequency, and Size)	Directive Gain 13-15.5 dBi/ AR<4dB over BW	Directive Gain> 19-21 dBi/ AR<4dB over BW
BANDWIDTH	10 MHz Nominal S-band units (frequency dependent)	10 MHz Nominal S-band units (frequency dependent)	> 500 MHz	> 500 MHz
POLARIZATION	RHCP or LHCP	RHCP or LHCP	RHCP	RHCP or LHCP (Dual Ports)
VSWR	< 1.5:1 at CF (Single-Freq Patch) < 1.75:1 at CF (Dual-Freq Stacked Patch)	< 1.5:1 at CF	< 2:1 over Operating BW	< 2:1 over Operating BW
CONNECTOR	50 Ohm SMA Female (Others Available)	50 Ohm SMA Female (Others Available)	50 Ohm SMA Female (Others Available)	50 Ohm SMA Female (Others Available)
MASS	<75 Grams Standard L/S -Band Antenna <45 Grams Standard X-Band Antenna	<75 Grams Standard L/S -Band Antenna <45 Grams Standard X-Band Antenna	< 220 Grams	< 1.2 Kgrams
TEMPERATURE	-50° to +125°C (Operational)	-50° to +125°C (Operational)	-50° to +100°C (Operational)	-50° to +125°C (Operational)
MIN QTY (FOR CUSTOM DESIGNS)	1 EDU and 3 Flights	1 EDU and 3 Flights	1	1

Note: This data is for information only and subject to change. Please contact Blue Canyon Technologies for current design data.



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