

NEWSPACE MARKET · COMPANY PROFILE



Blue Canyon Technologies

United States · founded 2008 · bluecanyontech.com

26

PRODUCTS

4

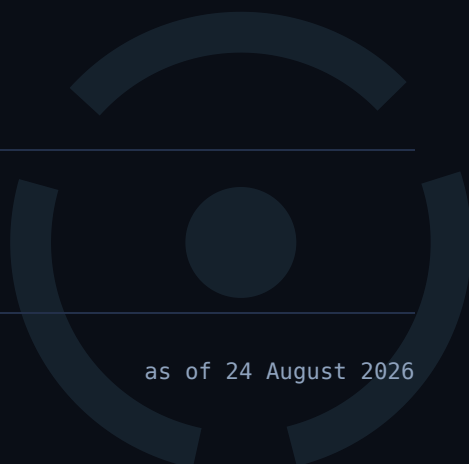
SERVICES

15

WITH DATASHEETS

newspacemarket.com/companies/blue-canyon-technologies-raytheon/

as of 24 August 2026



Blue Canyon Technologies

Blue Canyon Technologies (BCT), a wholly owned subsidiary of Raytheon, an RTX business, is a leading provider of small satellite buses, systems, and components for commercial, civil, and government space missions. Founded to solve the toughest challenges in space, BCT has amassed over 90 launched satellites and thousands of components delivered, with more than 230 years of combined on-orbit heritage for spacecraft, 350+ years for avionics assemblies, and 3,600+ years for individual components. BCT's product line spans complete spacecraft buses, attitude determination and control systems, reaction wheels, star trackers, and other high-precision components, supporting missions across VLEO, LEO, GEO, lunar, and interplanetary trajectories. The company is known for low-jitter, arcsecond-class on-orbit pointing systems and high-volume manufacturing that maximizes payload mass and volume while minimizing overall mission costs. With a total integrated mission solutions approach, BCT supports customers from initial design through build, test, and on-orbit operations. Its reliable, flight-proven, high-performing spacecraft solutions serve university-led science missions as well as national defense constellations.

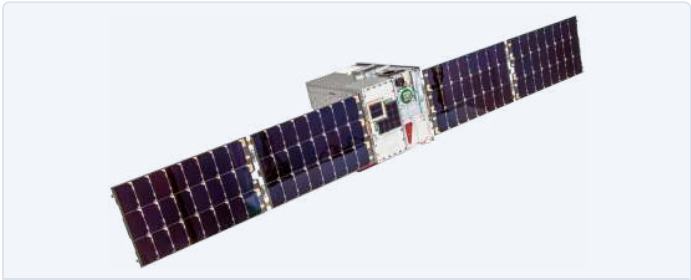
This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

SERVICES

Services

Environmental Testing Blue Canyon Technologies offers advanced environmental testing facilities, including vibration, thermal vacuum, and high-G shock testing, to ensure mission confidence and structural integrity.	Integration & Test Blue Canyon Technologies offers integration and test services, utilizing advanced facilities and consistent software for testing and on-orbit operations to ensure mission reliability.
Mission Operations Blue Canyon Technologies provides mission operations services, offering insight into spacecraft subsystem and flight software behavior for efficient, reliable operations and anomaly resolution.	Pre-Launch and LEOP Support Blue Canyon Technologies provides comprehensive pre-launch and Launch and Early Orbit Phase (LEOP) support as part of their mission operations services.

Product catalogue



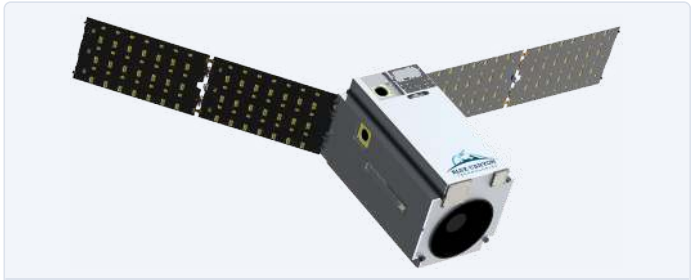
BLUE CANYON TECHNOLOGIES

12U CubeSat

The Blue Canyon Technologies 12U CubeSat is a reliable, high-performing, and flight-proven satellite bus from the XB line, offering a turnkey solution for various space missions.

Class	12U
Available payload volume	8U (typical)
Pointing accuracy	$\pm 0.002^\circ$ (1-sigma), 3 axes, 2 Trackers
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)
Real-world missions	Proven Heritage
Units launched	03

[price on request](#) [datasheet](#)



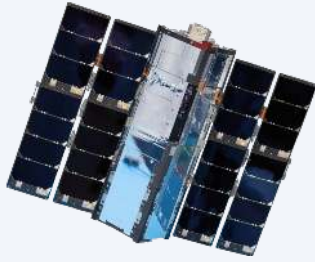
BLUE CANYON TECHNOLOGIES

16U CubeSat

The 16U CubeSat is a reliable, high-performing, and flight-proven satellite bus from Blue Canyon Technologies' XB line, offering a turnkey solution for various space missions.

Class	16U
Available payload volume	12U (typical)
Pointing accuracy	$\pm 0.002^\circ$ (1-sigma), 3 axes, 2 Trackers
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)
Real-world missions	Proven Heritage
Units launched	02
Units in-work	02

[price on request](#) [datasheet](#)



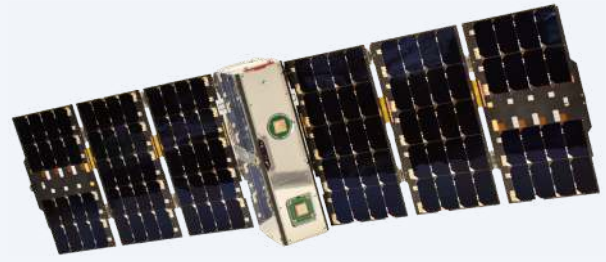
BLUE CANYON TECHNOLOGIES

3U CubeSat

The Blue Canyon Technologies 3U CubeSat is a reliable, high-performing, and flight-proven satellite platform, offering a turnkey solution for various space missions.

Class	3U
Available payload volume	1.5U (typical)
Pointing accuracy	$\pm 0.003^\circ$ (1-sigma), 2 axes, 1 Tracker
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)
Units launched	18
Units in-work	02
Units delivered	02

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

6U CubeSat

The Blue Canyon Technologies 6U CubeSat, part of the XB line, is a reliable, high-performing, and flight-proven satellite platform offering a turnkey solution for various space mis

Class	6U
Available payload volume	4U (typical)
Pointing accuracy	$\pm 0.002^\circ$ (1-sigma), 3 axes, 2 Trackers
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)
Real-world missions	Proven Heritage
Units launched	46
Units in-work	07

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

Blue Canyon Technologies nano star tracker (NST)

The Blue Canyon Technologies nano star tracker (NST) is a flight-proven, high-performing, and reliable star tracker designed for spacecraft platforms, offering a low SWaP-C solutio

1p8s	1 string $\times$ 8 Li-ion cells in series
2p8s	2 strings $\times$ 8 Li-ion cells; ~2 $\times$ energy of 1P8S
1p8s	Integrated pack variant
Chemistry	Li-ion
Compatible buses	BCT XB3, XB6, XB12, XB16 (XB1 avionics stack)
Mission life	5-year design life baseline
Applications	LEO, GEO, cislunar, deep space

[price on request](#)



BLUE CANYON TECHNOLOGIES

Control Moment Gyroscopes

Blue Canyon Technologies' Control Moment Gyroscopes (CMGs) offer significantly higher torque and lower power consumption compared to traditional reaction wheels, providing enhanced

Cmg-8 momentum	8 Nms
Cmg-8 torque	8 Nm
Cmg-8 mass	< 13 kg
Cmg-12 momentum	12 Nms
Cmg-12 torque	12 Nm
Cmg-12 mass	< 18 kg
Manufactured	13

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

Drive Control Electronics

Blue Canyon Technologies offers Drive Control Electronics as a component for various space applications.

Dimensions	3.937 x 3.937 x .5 in
Mass	210 g
Supply voltage	10-14 V
Power	<8 W
Interface	31-pin nano

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BLUE CANYON TECHNOLOGIES

High Capacity Batteries

Blue Canyon Technologies offers high-capacity batteries with integrated heaters to optimize operation at low temperatures, available in two configurations: IP8S and 2P8S.

Ip8s nameplate capacity	3.4 Ah
Ip8s energy	99 Wh
Ip8s mass	<650 g
2p8s nameplate capacity	6.8 Ah
2p8s energy	198 Wh
2p8s mass	<1200 g
Manufactured	595

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

Nano Star Tracker (NST)

Blue Canyon Technologies' flight-proven nano star tracker is a low SWaP-C, turnkey starlight-in/quaternion-out attitude sensor for standalone missions and constellations.

Environmental qualification	Beyond GEVS level environments
Interface	Starlight-in, quaternion-out (turnkey)
Tracking sensitivity	Down to 7.5 magnitude
On-board star catalog	More than 20,000 stars

[price on request](#)



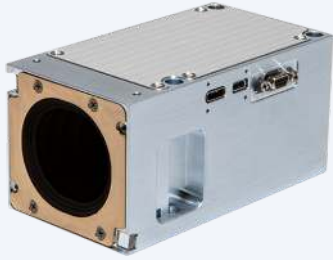
BLUE CANYON TECHNOLOGIES

Nano Star Trackers

A family of low SWaP-C nano star trackers from Blue Canyon Technologies offering lost-in-space star identification across three form factors with proven flight heritage.

Standard nst - mass	.35 kg
Standard nst - dimensions	10 x 5 x 5.5 cm
Standard nst - accuracy cross-boresight	6 arcsec
Standard nst - accuracy about-boresight	40 arcsec
Mid-extension nst - mass	.45 kg
Mid-extension nst - dimensions	17 x 8.5 x 7 cm
Mid-extension nst - accuracy cross-boresight	1 arcsec

[price on request](#)



BLUE CANYON TECHNOLOGIES

Nano Star Trackers (NST)

Blue Canyon Technologies' Nano Star Trackers (NST) are low SWaP-C attitude sensors offering lost-in-space star identification with flight-proven heritage.

Standard nst - mass	0.35 kg
Standard nst - dimensions	10 x 5 x 5.5 cm
Standard nst - accuracy cross-boresight	6 arcsec
Standard nst - accuracy about-boresight	40 arcsec
Mid-extension nst - mass	0.45 kg
Mid-extension nst - dimensions	17 x 8.5 x 7 cm
Mid-extension nst - accuracy cross-boresight	1 arcsec

[price on request](#)



BLUE CANYON TECHNOLOGIES

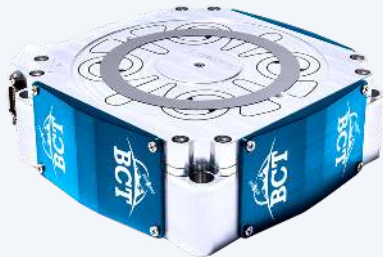
Reaction Wheels

Blue Canyon Technologies offers a line of low-jitter reaction wheels ranging from 0.015 Nms to 16.0 Nms of momentum, designed for long life and vibration isolation.

Rwp015 max momentum	0.015 Nms
Rwp015 max torque	0.004 Nm
Rwp015 mass	0.13 kg
Rwp050 max momentum	0.050 Nms
Rwp050 max torque	0.007 Nm
Rwp050 mass	0.24 kg
Rwp100 max momentum	0.100 Nms

[price on request](#)

[datasheet](#)



BLUE CANYON TECHNOLOGIES

Reaction Wheels

Blue Canyon Technologies' ultra-low disturbance reaction wheels deliver long-life performance and vibration isolation features, supporting missions from very low Earth orbit to cis

Torque	0.015 Nms
Torque (2)	16.0 Nms

[price on request](#)



BLUE CANYON TECHNOLOGIES

Real-Time Dynamics Processor

The Real-Time Dynamics Processor (RDP) is one of two spacecraft simulation products offered by Blue Canyon Technologies to support various mission and hardware-in-the-loop needs.

[price on request](#)

[datasheet](#)



BLUE CANYON TECHNOLOGIES

RW Series Reaction Wheels

Blue Canyon Technologies' RW (Reaction Wheel) series is one of the most flight-proven lines of miniaturized reaction wheels available for small spacecraft. The family scales

Rw1	Smallest variant, 1U-3U CubeSat class
Rw2 / rw2-ht	2U-6U class; HT = High-Temperature qualified variant
Rw4 / rw4-ht	4U-6U class
Rw8 / rw8-ht	6U-12U class; used in XB6/XB12
Rw16 / rw16-ht	Largest variant for Saturn-400 and 16U+ platforms
Control	3-axis attitude control; integrates with BCT XB1 avionics
Flight heritage	Extensive – NASA MarCO, TROPICS, HaloSat, Starling, DoD missions

price on request



BLUE CANYON TECHNOLOGIES

RWP Series Reaction Wheels

The BCT RWP (Reaction Wheel Precision) series addresses the momentum and torque storage needs of microsatellite platforms above the 6U CubeSat class. The four variants — RWP015, RW

Rwp015	Smallest RWP variant; microsatellite class
Rwp050	Mid-range stored momentum
Rwp100	Suitable for Venus/Saturn-class platforms
Rwp500	Largest stored momentum; Saturn-400 and larger buses
Qualification	Qualified beyond GEVS-level environments
Compatible platforms	BCT Saturn-200, Saturn-400, Venus-100; third-party microsatellites
Flight heritage	BCT Saturn and Venus mission heritage

price on request



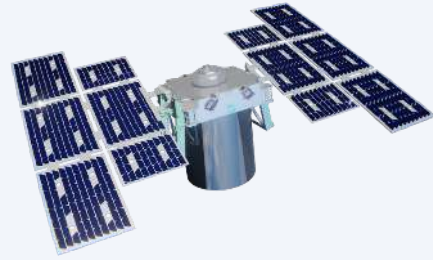
BLUE CANYON TECHNOLOGIES

Saturn-200

The Saturn-200 is a flight-proven minisatellite bus platform supporting diverse missions from LEO to deep space, featuring autonomous mission resume and hardware-encrypted TT&C

Class	ESPA-Grande or equivalent 24" launch interface standard, other options available
Available payload volume	30.0" X 30.0" X 40.0" (typical); Larger volume available within rideshare envelope and in
Pointing accuracy	$\pm 0.002^\circ$ (1-sigma), about all axes, using 2 Trackers
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)
Units launched	06
Units in-work	02
Units delivered	01

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

Saturn-400

Saturn-400 is a small satellite platform from Blue Canyon Technologies offering high payload capacity, scalable power, and multiple reaction wheel or CMG attitude control options f

Class	ESPA-Grande or equivalent four-point mount launch vehicle interface, compliant to SpaceX r
Available payload volume	40.0" x 40.0" x 45.0" (objective); Larger volume available depending on launch vehicle all
Pointing accuracy	$\pm 0.002^\circ$ (1-sigma), three axes, two trackers
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

Solar Array Drive Assemblies

Blue Canyon Technologies' high-performance, lightweight, and modular SADA design maximizes payload operation time through a rotary interface between a spacecraft and its solar pane

SADA-3 Mass	1.5 kg
SADA-3 Volume	12.5 cm x 11.1 diameter
SADA-3 Rated Torque	10 Nm
SADA-3HP Mass	1.66 kg
SADA-3HP Volume	15.0 cm x 11.1 diameter
SADA-3HP Rated Torque	10 Nm

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BLUE CANYON TECHNOLOGIES

Solar Arrays

Blue Canyon Technologies offers flight-proven, high-efficiency solar arrays for various satellite platforms, providing reliable power for onboard systems.

3u solar array power	27 – 34 W
3u array voltage, vmp	14.9 VDC
6u/12u solar array power	48 – 118 W
6u/12u array voltage, vmp	17 or 34.1 VDC
Espa-class microsatellite solar array power	222 – 444 W
Espa-class microsatellite array voltage, vmp	36.2 VDC
Espa-g-class minisatellite solar array power	588 – 1175 W

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

Venus-100

Venus-100 is a flight-proven, ESPA-class microsatellite bus from Blue Canyon Technologies offering high-precision pointing and support for LEO, GEO, and deep space missions.

Class	ESPA-Standard or large 15" launch vehicle interface
Available payload volume	20.5" X 16.4" X 27.0" (1 array) or 17.0" X 16.4" X 27.0" (2 array); larger volume available
Pointing accuracy	$\pm 0.002^\circ$ (1-sigma), 3 axes, 2 Trackers
Orbit altitude / orbit lifetime	LEO (> 5 years), GEO (> 2 years), Deep Space (> 2 years)
Units launched	05
Units in-work	07
Units delivered	02

[price on request](#) [datasheet](#)

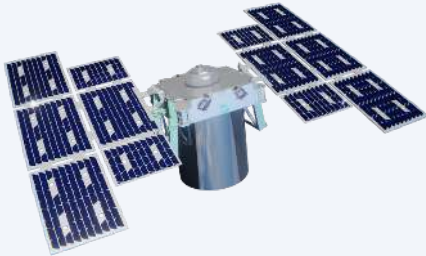
BLUE CANYON TECHNOLOGIES

X-Sat Mercury Class Microsat Platform

Smallest BCT X-Sat microsat platform, 40 kg payload, 108 W solar, $\pm 0.002^\circ$ 3-axis pointing. LEO/GEO/deep space capable.

Payload mass	40 kg
Payload envelope	355.6 × 431.8 × 431.8 mm
Solar power	108 W
Battery	20.4 Ah
Pointing knowledge (3-axis)	$\pm 0.002^\circ$
Launch vehicle interface	8" and 11.32"
Design life	≥ 5 years LEO, ≥ 2 years GEO/deep space

[price on request](#)



BLUE CANYON TECHNOLOGIES

X-Sat Saturn Class Microsat Platform

BCT's largest X-Sat platform, 200 kg payload, 30×30×40 in bus, $\pm 0.002^\circ$ 3-axis pointing. For high-payload government/commercial missions.

Payload mass	200 kg
Bus dimensions	30 × 30 × 40 in
Launch vehicle interface	24'
Pointing knowledge (3-axis)	$\pm 0.002^\circ$
Design life	≥ 5 years LEO, ≥ 2 years GEO/deep space

[price on request](#)

BLUE CANYON TECHNOLOGIES

X-Sat Venus Class Microsat Platform

Mid-size BCT microsat platform, 70 kg payload, $\pm 0.002^\circ$ 3-axis pointing. Secure communications, radiation tolerant. LEO/GEO/deep space.

Payload mass	70 kg
Pointing knowledge (3-axis)	$\pm 0.002^\circ$
Radiation	Radiation tolerant
Design life	≥ 5 years LEO, ≥ 2 years GEO/deep space

[price on request](#)



BLUE CANYON TECHNOLOGIES

XACT

The XACT is an integrated attitude control solution for CubeSats, providing high-accuracy pointing capabilities for various missions.

Xact-15 mass	.89 kg
Xact-15 dimensions	10 x 10 x 5 cm (0.5U)
Xact-15 supply voltage	12 V
Xact-50 mass	1.23 kg
Xact-50 dimensions	10 x 10 x 7.54 cm (0.75U)
Xact-50 supply voltage	12 V
Xact-100 mass	.52 kg + 1 kg (wheels)

[price on request](#) [datasheet](#)



BLUE CANYON TECHNOLOGIES

XB Series

Blue Canyon Technologies' flagship XB series is a modular, flight-proven CubeSat bus line (XB1 core avionics in 3U, 6U, 12U, and 16U configurations) built for high-precision pointing

Configurations	3U, 6U, 12U, 16U CubeSat
Core avionics	XB1 - integrated C&DH, ADCS, RF, Power, GPS, mission software
Pointing accuracy (3U, 2-axis, 1 tracker)	±0.03° (1-sigma)
Pointing accuracy (6U/12U/16U, 3-axis, 2 trackers)	±0.002° (1-sigma)
Slew rate	360 deg/min
Orbit types supported	LEO, GEO, Lunar, CisLunar
Mission design life	5 years

[price on request](#)

Contact Blue Canyon Technologies

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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