



SPACECRAFT BUSES,
SYSTEMS & SOLUTIONS

XB3 SPACECRAFT



CLASS
3U

POINTING ACCURACY
 ± 0.003 deg (1-sigma) for 2 axes, 1 Tracker;
 ± 0.007 deg (1-sigma) for 3rd axis

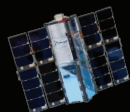
SOLAR ARRAY POWER
27 W

AVAILABLE PAYLOAD VOLUME
1.5U (typical)

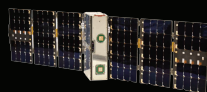
ENERGY STORAGE
6.8 Ah

ORBIT ALTITUDE / ORBIT LIFETIME
LEO > 5 years | GEO/Lunar/Deep Space > 2 years

CUBESAT SUMMARY



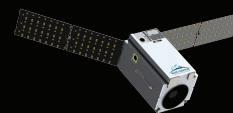
XB3



XB6



XB12



XB16

CLASS	3U	6U	12U	16U
AVAILABLE PAYLOAD VOLUME	1.5U (typical)	4U (typical)	8U (typical)	12U (typical)
POINTING ACCURACY	±0.003 deg (1-sigma) for 2 axes; ±0.007 deg (1-sigma) for 3rd axis	±0.002 deg (1-sigma) 3 axes, 2 Trackers	±0.002 deg (1-sigma) 3 axes, 2 Trackers	±0.002 deg (1-sigma) 3 axes, 2 Trackers
POINTING STABILITY	1 arc-sec over 1 sec			
AGILITY	> 10 deg/sec	> 6 deg/sec	> 5 deg/sec	> 3 deg/sec
ORBIT KNOWLEDGE	10m, 0.15 m/s (1-sigma)			
DATA INTERFACES	UART (3.3 V, 2.5 V LVDS, RS-422, RS-485), SpaceWire, 3.3 V In/Out			
ONBOARD DATA STORAGE	4GB with expandable beyond for the 6U, 12U and 16U (by adding the high speed data recorder)			
ENERGY STORAGE	6.8 Ah	6.8 – 20.4 Ah	6.8 – 20.4 Ah	6.8 – 20.4 Ah
SOLAR ARRAY POWER	27 W	92 W - 108 W	92 W - 108 W	92 W - 108 W
PROPULSION	Multiple electric and chemical propulsion systems available			
PAYLOAD POWER	3.3 V, 5.0 V, 12 V, 28 V (available in 6U, 12U and 16U)			
LEO UPLINK	Nominal 100 Kbps, CCSDS formatting			
LEO DOWNLINK	S-Band 2 Mbps standard	S-Band 2 Mbps standard X-Band up to 10 Mbps	S-Band 2 Mbps standard X-Band up to 10 Mbps	S-Band 2 Mbps standard X-Band up to 10 Mbps
ORBIT ALTITUDE / ORBIT LIFETIME	LEO > 5 years GEO/Lunar/Deep Space > 2 years			

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



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