



SPACECRAFT BUSES,
SYSTEMS & SOLUTIONS

XB12 SPACECRAFT

WORLD LEADER IN
ADVANCED TECHNOLOGY

CLASS

12U

ENERGY STORAGE

6.8 - 20.4 Ah

POINTING ACCURACY

$\pm 0.002^\circ$ (1-sigma), 3 axes, 2 Trackers

ORBIT ALTITUDE / ORBIT LIFETIME

LEO > 5 years | GEO/Lunar/Deep Space > 2 years

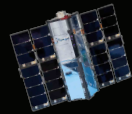
SOLAR ARRAY POWER

92 W - 108 W

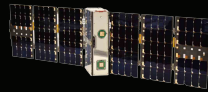
AVAILABLE PAYLOAD VOLUME

8U (typical)

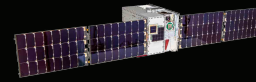
CUBESAT SUMMARY



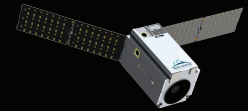
XB3



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; □	±0.002 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			
ORBIT KNOWLEDGE	4m, 0.05 m/s			
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	92W - 108 W	92W - 108 W	92W - 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 up to 2 Mbps	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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