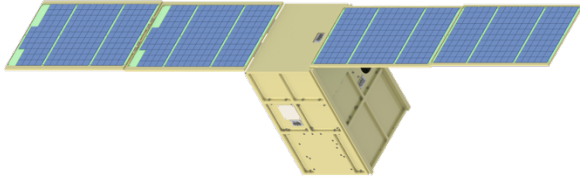
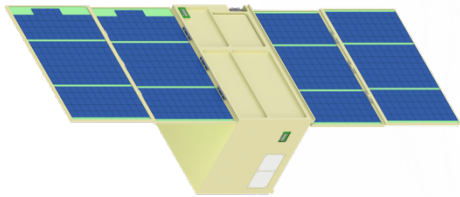


12U CubeSatBus

Standard Configuration 1



Standard Configuration 2



AMA's 12U spacecraft bus comes in two standard configurations defined by differing nominal flight geometries, solar array geometries, propulsive capabilities, and available payload volumes. Both are designed for launch and deployment from a Canisterized Satellite Dispenser (CSD) provided by Planetary Systems Corporation (PSC). The spacecraft design leverages experience from AMA's highly successful Kestrel Eye Block IIM spacecraft that was deployed from the International Space Station in 2017 and AMA's heritage line of ADACS hardware. The bus provides a dedicated payload volume, various pointing modes, and a significant delta-v capability in order to accommodate a wide variety of payloads and payload concepts of operation.

Specifications

Performance Item	Configuration 1	Configuration 2
Dimensions	9.021 x 9.426 x 14.31 in stowed	
Payload Volume	8.676 x 7.471 x 3.917 in ~4 U	8.326 x 8.809 x 7.471 in (115 in ³ reserved for propulsion) ~7 U
System Mass	< 24 kg wet mass	
Pointing Control	±0.1 ° 3σ standard, options for tighter control	
Position Knowledge	< 10 m	
Slew Rate	1°/sec	
Uplink	Options for S and L band	
Downlink	Options for S and X band	
Encryption	AES256 standard, options for Type 1 and TSAB	
Delta-V	Up to 138 m/s green monopropellant system Optional passive deorbit device	Up to 38 m/s H2O2/alcohol bipropellant system Optional passive deorbit device
Power	84.3 W solar array EOL minimum peak power	
Design Lifetime	3 years	
Standard Payload Interface	13.2 – 16.8 V Unregulated Power Switches (x4) 1 x RS-422 Data Interface (x1) 3.3 V Analog Inputs (x8) Bi-level Inputs/Outputs (x5)	