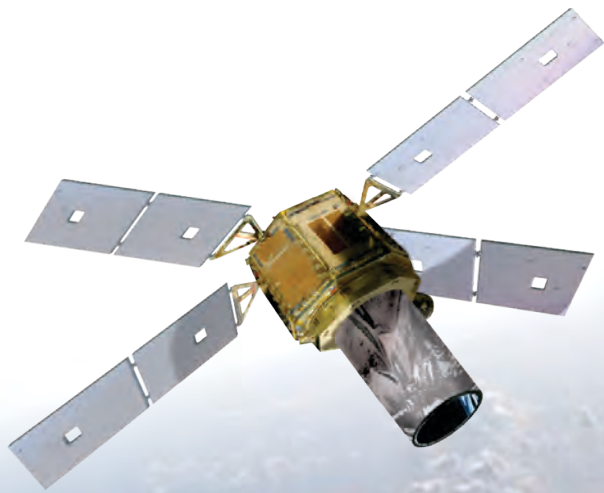


Antares

Comtech AeroAstro's Antares bus accommodates a wide variety of mission configurations / scenarios in the 500 kg space vehicle mass range (spacecraft + payload). Antares has been designed to maximize payload accommodations by optimizing payload mass (up to 200 kg), payload power (400W on-orbit average and 800W peak) and payload volume (Minotaur I 61" fairing). This versatile space vehicle has been designed to meet the launch requirements of a variety of launch vehicles simultaneously including the Minotaur I, Minotaur IV, Falcon 1e, Falcon 9, Atlas V and Delta IV.

Antares extensively uses standard, open architecture, non-proprietary interfaces – allowing rapid reconfiguration, flexibility and robustness for accommodating a large range of missions or payload types. The Antares bus architecture features a 100% Space Plug-and-Play Avionics (SPA) compliant network architecture that permits full Plug-and-Play implementation at the flight software and hardware component level. Antares is 100% SPA-SpaceWire compatible, enabling 200 Mbps data rates on orbit. Additionally, Antares is designed to be >97% compliant with the Operationally Responsive Space (ORS) office's General Bus Specification, allowing Antares to accommodate a vast array of payloads through standard mechanical, electrical and thermal interfaces.



Antares is designed to operate in a variety of LEO and HEO orbits with a full range of altitudes and inclinations. Due to the selection of S-class quality parts and solid Aluminum panels, our design requires no changes in transitioning from a low radiation LEO environment to a high radiation LEO environment.

Antares also features the use of a hinged hexagon structure, enabling efficient internal component access at all program stages while minimizing parts count. While Antares does not baseline propulsion for the "core" mission, propulsion can easily be added for longer mission durations, orbit raise, orbit maneuvering and attitude control.

Missions: EO, Communications, SAR and Missile Defense
 Orbit Altitude: 350 to 800 km
 Orbit Inclination: 30 to 97°
 Launch Mass: ≤460 kg
 Payload Mass Capability: ≤200 kg
 Payload Power Capability: 400W (OAP), 800W (peak)
 Launch Vehicle Compatibility: Minotaur I, Minotaur IV, Taurus, Falcon 1e, Falcon 9, Delta IV and Atlas V
 SV Lifetime: ≥12 months
 Stabilization Method: 3-axis, zero momentum
 Pointing Modes: Nadir, inertial point, sun point, Safe
 Pointing Control: 0.1°
 Slew Rate: ≤2° / second
 Bus Voltage: 28V
 Communication Frequencies: S-Band uplink / downlink (encrypted SGLS)
 Payload Downlink: Encrypted X-Band at 80 Mbps or Ku-Band at ≤274 Mbps (option)
 Command Uplink: 2 kbps
 Telemetry Downlink: 2 Mbps
 Onboard Storage: 16.0 GB (expandable)



Antares Accommodates a Wide Variety of Payloads / Instruments



Open Architecture Allows for Rapid Reconfiguration and Flexibility



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