Product Brochure

Sidewinder

Multi-Orbit Aero Terminal with Electronically Steered Antenna

High Performance Aero Terminal Designed for Commercial, Business, VIP, Government and Military Aviation

The Sidewinder Aero Terminal by Stellar Blu Solutions represents a groundbreaking advancement in aviation connectivity. Designed to cater to commercial, business, VIP, government, and military aviation, Sidewinder incorporates cutting-edge technology to deliver unparalleled performance, reliability, and flexibility. Its compact design features a fuselage-mounted, electronically steered antenna (ESA) compatible with both Geostationary (GSO) and the OneWeb LEO constellation. The terminal integrates seamlessly with existing aircraft systems, ensuring a smooth operational experience for service providers and end users.

Flexible, Versatile Architecture

Sidewinder's advanced multi-modem, multi-network capabilities provide utmost service flexibility. It enables high data throughput, low latency, and seamless beam and satellite handovers. With both LEO and GEO satellites support, service coverage and cost can be optimized with maximum flexibility. It features radome-less design, minimizes drag and improves fuel performance, making it ideal for a variety of airframes, from small business jets to wide-body aircraft. Partnering with leading aerospace and satellite providers like BAE Aerospace, OneWeb, Hughes, and Intelsat, Stellar Blu has created a reliable and adaptable solution for next-generation aviation connectivity.

Benefits

- Delivers significat throughput with downlink/uplink speeds exceeding 260/80Mbps during testing
- Full redundancy with optional modems, connecting 2 or more networks
- Beam and satellite handovers are instantaneous and completely seamless
- With no moving parts and limited LRUs, Sidewinder is extremely reliable
- Sidewinder offers a low profile, reducing drag and improving fuel performance, range and carbon emissions versus traditional fuselage mounted mechanical antennas
- The open architecture design of Sidewinder allows integration of applications and services, as well as network flexibility
- Multi-orbit design accommodates any Ku mode

Sidewinder

Sidewinder Value Proposition

- Performance: Sidewinder delivers significant throughput, with downlink / uplink speeds exceeding 260/80Mbps during testing, superior latency (LEO network) and seamless handovers
- Reliability: The terminal is passively cooled and contains no moving parts, inspection requirement limited due to no radome
- Maintainability: Each LRU (OAE and cabin) is accessible, component removal and replacement accomplished in <30 minutes – minimum aircraft downtime
- Environmentally friendly: Sidewinder uses an Electronically Steered Antenna (ESA) that is inherently low-profile and lighter than traditional mechanical antennas, offering fuel savings and range improvement
- Flexibility: Multiple Ku modem configurations compatible with most GSO and non-GSO satellite networks and supporting software with open APIs for ongoing application development. The OAE kit is adaptable to various airframe types – from small business jets/EVTOLs to wide body airframes
- Open architecture design: Sidewinder allows integration of applications and services, as well as network flexibility

Developed in Partnership

Contributing to the development of the Sidewinder terminal are OneWeb, Hughes, Intelsat, Panasonic and American Airlines, and its service was launched by Alaska Airlines, Air Canada, American Airlines, Aerolineas Argentina, Japan Airlines, Lufthansa Group as well as government and military customers.

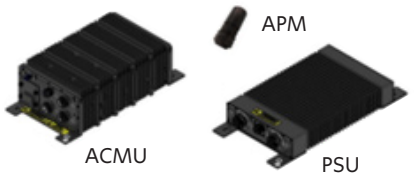
Configuration Options

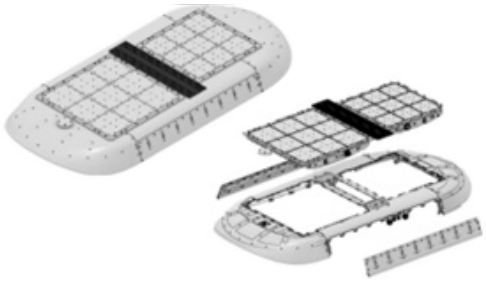
- Antenna supports LEO only or LEO+GEO
- Adaptor Plate
  - Slim, non-ARINC standard (suitable for regional jets / business aircraft)
  - Large, ARINC 792
  - Boeing OEM, ARINC 791
- ACMU and Auxiliary Modem MODMAN (AMM)
  - Baseline - ACMU, OneWeb modem
  - Optional Auxiliary Modem MODMAN (AMM) - Gilat, Newtec, iDirect and other modems

Certifications

- Sidewinder LRUs are qualified and certified
- The following aircraft STC's are available:
  - CRJ/ERJ and business jet equivalents
  - DHC-8 (Q400)
  - Airbus A220, A320/321
  - Boeing B737NG, B737MAX, B777
  - Boing B787 (via Boeing Service Bulletin, Available in 2026)
- Boeing offered linefit - 737/777/787 targeted for 2025
  - Boeing standard adaptor plate (no airframe impact)
  - No radome

Cabin LRUs (excludes AMM)





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