



CONSTELLATION SERIES GPS POSITION SOURCE

1201 SERIES SBAS/GNSS SENSORS

True altitude. True safety. Robust and reliable in demanding environments.

HIGH RELIABILITY, ROBUST, STANDALONE SBAS/GNSS SENSORS FOR ADS-B, IFF MODE 5, AND OTHER POSITION SOURCES

Building on systems engineering and integration know-how, FreeFlight Systems effectively implements comprehensive, high-integrity avionics solutions. We are focused on the practical application of NextGen technology to real-world operational needs — OEM, retrofit, platform or infrastructure.

Designed for urban air mobility (UAM) applications, the Constellation Series provides position, velocity, time, and integrity (PVT&I) data to a Terrain Awareness Warning System (NMS). This model navigates worldwide by processing Global Position System (GPS) signal data and Satellite Based Augmentation System (SBAS) signal data, where available, that comply with the Wide Area Augmentation System (WAAS) standard used in the United States.

The system interfaces to TAWS, FMS, NMS, and other systems requiring GPS data via an ARINC 743 2-wire interface, and meets TSO-C145c Class Beta 1 device.



FreeFlight Systems

FreeFlight Systems designs, manufactures, sells, and supports avionics systems that improve the safety, efficiency and affordability of flying. We specialize in technologies and solutions that bring the benefits of the NextGen airspace transformation to all segments of aerospace. We are known for the quality and reliability of our products, the flexibility and compatibility of our solutions, and our commitment to long-term client satisfaction.



FreeFlight Systems is part of the ACR Group of companies.

1201 PRODUCT SHEET

CONSTELLATION SERIES



TECHNICAL SPECIFICATIONS

SIZE

Width: 5.0 in. (127.0 mm)
Depth: 5.5 in. (139.7 mm)
Height: 1.7 in. (43.2 mm)

WEIGHT

1.05 lb (476.27 g)

TRANSMITTER POWER

40W max

POWER REQUIREMENTS

10-40 VDC
Typical 0.34A @ 28 VDC
Peak 0.84A @ 28 VDC

ALTITUDE

50,000 ft

OPERATING TEMPERATURE

-40°F to 158°F
-40°C to 70°C

ANTENNAS

TSO-C144 or TSO-C190, or any standard antenna compliant with RTCA/DO-228 or RTCA/DO-301

CONNECTORS

1x Ethernet
2x ARINC 743
2x ARINC 429
1x RS-232

ACCESSORIES



GPS SPLITTER

The FGS-100 eliminates the need for multiple GPS antenna locations, reducing antenna installation time. Fewer antennas also reduces cabling needs while adding no unnecessary weight or drag. Suitable for a wide variety of aircraft types.



1201 ANTENNA

The AV-801 GPS antenna is designed specifically to meet FAA TSO-C190 specifications. Qualification testing includes meeting the requirements of RTCA DO-301 and DO-160G. The mounting footprint matches the standard ARINC found on many general aviation aircraft up to and including business jets.

Specifications subject to change. Contact sales@freeflightssystems.com for latest revision.