BAE SYSTEMS

Doppler/GPS navigation set AN/ASN-128D

Provides integrated GPS and Doppler navigation/guidance

The **AN/ASN-128D** Doppler/GPS navigation set provides the complementary advantages of a Global Positioning System (GPS) receiver and a self-contained Doppler navigation system. Aircraft modifications and system installations have been minimized by embedding a Trimble one-card SAASM GPS receiver into the Signal Data Converter (SDC) unit.

The AN/ASN-128D provides continuous velocities and navigation, including non-precision approach and 3-D tactical GPS landing guidance to a pre-entered touchdown point. When both Doppler and GPS are available, the GPS accurately initializes and automatically updates Doppler present position. If the GPS is lost, the Doppler continues to provide accurate velocities for hover and navigation. If the Doppler is lost, the GPS continues to provide accurate present position and velocity. In each case, navigation continues providing uninterrupted guidance in challenging environments that may contain intentional or unintentional interference.

Features and benefits

- Accurate hover velocities regardless of operation time or distance traveled.
- Army self-certified to TSO-C129a Class A1 allows instrument flight in national airspace.
- Four-line display with 16 characters per line improves readability in sunlight and under night vision goggles.
- Users have the flexibility of selecting manual and automatic display of Doppler only, GPS only, or combined Doppler/GPS modes (Doppler/GPS is default mode).
- Doppler aiding and barometric pressure (optional) improves GPS tracking in a jamming environment and reduces reacquisition time.
- GPS receiver includes Receiver Autonomous Integrity Monitoring (RAIM) and Fault Detection and Exclusion (FDE) for enhanced accuracy.
- Data loading cartridge simplifies the transfer of Digital Aeronautical Flight Information Files (DAFIF), user waypoints, and flight plans from Army Mission Planning Stations (AMPS).
- Automatic Dependent Surveillance-Broadcast out (ADS-B) enabled through the GPS improves safety and efficiency of flight.
- High-resolution position latitude / longitude display (0.01 arc minutes, or approximately 18 meters) improves navigation and guidance accuracy.

Specifications

Physical characteristics	Weight	Volume*	Power
RTA	11.0 lb	383 in^3	12.0W
Hat		90 in^3	
SDC	14.0 lb	564 in^3	56.6W
CDU	7.0 lb	240 in^3	30.0W
Total	**32.0 lb**	**1,277 in^3**	**98.6W**
GPS Antenna	0.6 lb	14 in^3	1.0W
Product dimensions	Length*	Width	Height
RTA	14.56 in	13.48 in	1.95 in
Hat	5.58 in	5.58 in	2.91 in
SDC	9.56 in	7.56 in	7.81 in
CDU	6.95 in	5.75 in	6.00 in
GPS Antenna	4.00 in	4.00 in	0.93 in

*Measurements in length and volume do not include handles, connectors, and knobs.

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