

Rockwell Collins GPS-4000S



With the WAAS-enabled GPS-4000S, pilots can utilize GPS as their primary means of navigation.

For more than 20 years, Rockwell Collins has been at the forefront of Global Positioning System (GPS) technology for commercial and military applications. Today, Space Based Augmentation Systems (SBAS), such as the Wide Area Augmentation System (WAAS), improve the availability and integrity of GPS navigation enabling new operational benefits. By installing the Rockwell Collins GPS-4000S sensor and associated WAAS antenna, operators have the equipment required to utilize the GPS system without reliance on other navigation equipment for en route operations and approach procedures authorized for WAAS, such as RNAV (GPS) charts.

The GPS-4000S processes the transmissions of up to 10 GPS satellites and two SBAS geo stationary satellites simultaneously, calculating navigation solutions based on information from all satellites in view. The position, velocity and time information are provided for incorporation into the FMS navigation function.

Installing a GPS-4000S also positions operators to take advantage of Localizer Performance with Vertical guidance (LPV) approach capability upon availability of an FMS upgrade option which is currently under development.

KEY BENEFITS:

- ▶ Streamlined preflight procedures
 - By eliminating the requirements to run a pre-flight prediction of Receiver Autonomous Integrity Monitoring (RAIM) availability along the intended U.S. RNAV routes, the GPS-4000S reduces the number of pilot actions prior to each mission enabling the flight crew to focus on more critical tasks
- ▶ Similar to our GPS-4000A, the GPS-4000S provides simple and intuitive operations, and is fully integrated with the FMS in Rockwell Collins Pro Line 4 and Pro Line 21 systems

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- Convenient installation
 - Physically interchangeable with the GPS-4000 and GPS-4000A
 - Multiple antenna options available
 - Service bulletin to upgrade GPS-4000A to GPS-4000S is available
- Growth to Localizer Performance with Vertical guidance (LPV) approach capability through optional FMS upgrade, currently under development
 - LPV provides new precision-like landing approaches with minimums as low as 200 feet at locations throughout the U.S.
- More options for alternate airports
 - With GPS-4000S, the declared alternate airport may be an authorized airport with an RNAV (GPS) approach and is not restricted to an airport with approaches based on other means of navigation, such as VOR/DME, NDB or ILS
 - Having more alternative landing sites available provides flight crews with additional options when diversions become necessary due to weather, and can even enhance mission flexibility on routine flights without diversions thanks to the potential for reduced reserve fuel requirements

The GPS-4000S is designed for compatibility with all SBAS being developed in compliance with RTCA DO-229. In addition to the United States WAAS system, examples of systems being developed

in compliance with RTCA DO-229 include EGNOS in Europe and MSAS in Japan.

Certification

FAA TSO	C145 Class Beta-3
€EUROCAE	ED-14C

Physical Characteristics

Size	2MCU per ARINC 600
Height	200.0 mm (7.87 in) max
Width	61.7 mm (2.43 in) max
Length	368.8 mm (14.52 in) max
Weight	2.9 kg (6.3 lbs), typical
Cooling	Not Required

Environmental

Temperature	-50° to +70°C
Altitude	55,000 ft

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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Rockwell Collins delivers smart communication and aviation electronics solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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