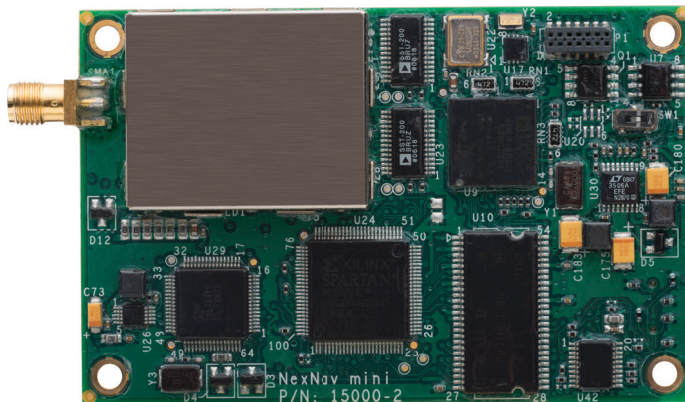


The next generation solution, today.



Fully Compliant FAA AC 20-165A GPS Source

Certified GPS source supporting primary means of navigation during enroute, terminal and LNAV approach phases of flight. US FAA TSO-C145c Class Beta-1 and **complies with FAA ADS-B AC 20-165A**. Most advanced, most affordable GPS SBAS solution supporting OEM applications.

NexNav is ready for NextGen ADS-B...now.

Affordable, Fully Compliant GPS SBAS OEM Receiver

Low power, light weight, credit card size form factor. Embedded GPS source solution. TSO-C145c GPS WAAS Class Beta-1 ONLY

Key Features

- Primary Means of Navigation
- Enroute, terminal, and LNAV approach
- Optimum Profile Descent (OPD)
- Current and Advanced Terrain Avoidance Warning System (TAWS)
- Advanced Integrated ATM (I-ATM)
- Required Navigation Performance Enhancements (RNP AR)
- Automatic Dependent Surveillance – Broadcast (ADS-B)
- GPS L1 C/A code Sensor card with SBAS capability (12 GPS + 3 SBAS Channels)
- Compatible with WAAS, EGNOS, MSAS and GAGAN
- Receiver Autonomous Integrity Monitoring (RAIM)
- Comprehensive PBIT and CBIT
- 5 Hz update rate
- DO-178B level C and DO-254 Level C design assurance standard
- Customizable input/output protocol and configurable time mark signal
- Environmental qualification as per DO-160F

NexNav™ mini GPS WAAS Class Beta-1 Source Solution

Performance Characteristics

Conformity	
RTCA	DO-229D, DO-301, DO-228, DO-178B, DO-254, DO-160F
FAA	TSO-C145c, Class Beta-1
Performance	
General	GPS L1 C/A Code Sensor Card with SBAS Capability
Number of Channels	12 GPS and 3 SBAS Parallel Channels
Horizontal Position Accuracy ¹	5 m, RMS
Differential Position Accuracy ¹	3 m, RMS
Vertical Position Accuracy ¹	7 m, RMS
Velocity Accuracy ¹	0.1 m/s, RMS
Time Accuracy ¹	30 ns, RMS
Update Rate	5 Hz
Sensitivity	
GPS Acquisition	-136 dBm
GPS Tracking	-140 dBm
Other Features	
ADS-B Support	Available, as per DO-229D Appendix U
Altitude Aiding	Pressure and Baro Altitude Aiding per DO-229D
Approach Capability	LNAV Approach
Dynamics	
Speed, Acceleration and Jerk	Per DO-229D Requirements for Enroute, Terminal and LNAV Approach
Integrity	
RAIM	SBAS Integrity Incorporated
FD/FDE	FD/FDE Incorporated
Alert	Software Alert per DO-229D
BITE	Comprehensive Power-on and Online Self Tests
Design Assurance	
Hardware	Per DO-254, Level C
Software	Per DO-178B, Level C
Interfaces	
Host Interface 2 Each	RS-232 Ports (TTL Level)
Time Mark	TTL and RS-422
Messages	Proprietary Messages, NMEA 0183
Upgrades	Software Upgrades Through Serial Port

Environmental Characteristics

Temperature	-55°C to +70°C
Altitude	60,000 ft. (18,200 m)

¹ Typical values at 1 Hz and nominal signal strength. Performance specifications are subject to GPS system characteristics, U. S. DOD operational degradation, ionospheric and tropospheric conditions, satellite geometry, and multipath effects. Assumes SA Off.

Electrical Characteristics

Power Input	5 Vdc
Power Consumption	1.8 W

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Physical Characteristics

Dimension	3.5"W x 2.0"L x 0.6"H (89 x 50.8 x 12.7 mm)
Weight	1.5 oz. (45 gms)
RF Connector	SMA/MCX RF Connector, Socket
I/O Connector	14 Pin Dual Row, Socket

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