

PERFORMANCE CHARACTERISTICS

Conformity

RTCA	DO-229D, DO-301, DO-228, DO-178B, DO-254, DO-160E
FAA	TSO-C145c, Class Beta 1, 2, and 3

Performance

General	GPS L1 C/A code Sensor card with SBAS capability
Number of channels	12 GPS and 3 SBAS parallel channels
Hor. Position Accuracy ¹	3m, RMS
Differential Position Accuracy ¹	1m, RMS
Vertical Position Accuracy ¹	5m, RMS
Velocity Accuracy ¹	0.1 m/s, RMS
Time Accuracy ¹	20 ns, RMS
Update rate	5Hz

Sensitivity

GPS Acquisition	-136 dBm
GPS Tracking	-140 dBm

Other Features

Altitude Aiding	Pressure and baro altitude aiding per DO-229D
Approach capability	LNAV, LNAV/VNAV, LP/LPV approaches

ENVIRONMENTAL CHARACTERISTICS

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

Dynamics

Speed, Acceleration and Jerk	Per DO-229D requirements for en-route, terminal and LNAV, LNAV/VNAV and LP/LPV modes of operation.
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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 B
Software	Per DO-178B, Level B

Interfaces

Host interface	RS-232 ports. Additional RS-232 port available.
Disretes	4 inputs and 4 outputs
Time mark	TTL and RS-422
Messages	Proprietary messages
Upgrades	Software upgrades through serial port

ELECTRICAL CHARACTERISTICS

Power Supply	5 Vdc
Power Consumption	2.8 W

PHYSICAL CHARACTERISTICS

Dimension	5" x 3" x 0.7" (127 x 76.2 x 17.8) mm
Weight	2.7 oz. (75 gms)
RF Connector	5MA RF connector, Socket
I/O Connector	40 pin dual row, Header

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.