

Whatever your OEM application,
the Garmin GPS 16 and GPS 17 will

Rugged GPS receiver and antenna modules with WAAS

deliver the accuracy you need for
precise position reporting. These GPS
sensors have an integrated antenna
housed in a rugged, waterproof design.

The 12-channel receiver allows for
continuous tracking of all visible satellites.

And it's WAAS capable, which means it
can provide position accuracy of less than

3 meters. This incredible accuracy is
possible without the use of an external
DGPS beacon receiver. The GPS 16 and

GPS 17 also offer excellent EM/RFI
performance for easy integration into

systems that will be operated near
mobile computing devices and wireless

communications equipment.



Electrical

Input voltage:
GPS 16 LVS: 3.3 to 6 Vdc regulated to <100 mV ripple
GPS 16/17 HVS: 8 to 40 Vdc unregulated

Input current:
GPS 16 LVS: 65 mA (typical)
GPS 16/17 HVS: 60 mA @ 8 Vdc; 40 mA @ 12 Vdc;
 15 mA @ 40 Vdc

Sensitivity: -165 dBW minimum

GPS performance

Receiver: WAAS enabled; 12 parallel channel GPS receiver continuously tracks and uses up to 12 satellites to compute and update your position

Acquisition times:*

Reacquisition: Less than 2 seconds
Warm: Approximately 15 seconds
Cold: Approximately 45 seconds
AutoLocate™: 5 minutes
SkySearch: 5 minutes

Update rate: 1 to 900 seconds between updates; programmable in 1 second increments

GPS accuracy:

Position: < 15 meters, 95% typical**
Velocity: 0.1 knot RMS steady state

DGPS (USCG) accuracy:

Position: 3-5 meters, 95% typical
Velocity: 0.1 knot RMS steady state

DGPS (WAAS) accuracy:

Position: < 3 meters, 95% typical
Velocity: 0.1 knot RMS steady state

Dynamics: 999 knots, 6g's

Map datums: 108 predefined, 1 user

Interfaces

Serial interface:

Port 1: True RS-232 output, asynchronous serial input compatible with RS-232 or TTL voltage levels, RS-232 polarity
Port 2: Asynchronous serial input only, compatible with RS-232 or TTL voltage levels, RS-232 polarity

Baud rates: 300/600/1200/2400/4800/9600/19200/38400

Serial format:

Port 1: Selectable between NMEA 0183 v2.00, NMEA 0183 v3.00, and Garmin binary formats; NMEA 0183 v2.0 (ASCII); Approved output sentences: GPALM, GPGGA, GPGLL, GPGSA, GPGSV, GPRMC, GPVTG; Proprietary sentences: PGRMB, PGRME, PGRMF, PGRMM, PGRMT, PGRMV

Port 2: RTCM input only; RTCM SC-104 differential input message types 1, 2, 3, 7 and 9

PPS output: 1 Hz pulse, programmable width, 1 microsecond accuracy

Power control: OFF — open
 ON — pull down to less than 0.3 Vdc

Environmental

Temperature:
Operating: -30° to 80°C
Storage: -40° to 80°C

Physical

Size:
GPS 16: 3.58" (91 mm) diameter, 1.65" (42 mm) high
GPS 17: 3.58" (91 mm) diameter, 3.6" (91.5 mm) high

Weight:
GPS 16: 6.4 oz. (181 g) without cable
 11.7 oz. (332 g) with 5 meter cable
GPS 17: 7.1 oz. (201 g) without cable;
 16.8 oz. (476 g) with 30 foot cable

Cable: Foil-shielded 8 conductor 28 AWG RJ-45
GPS 16: RJ-45
GPS 17: JST ZHR-8 connector housing with 8 JST SZH-002T-PO.5 pin socket contacts

GPS 16



GPS 17



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Specifications are preliminary and subject to change without notice.

* Warm = all data known. Cold = position, time and almanac known. AutoLocate = almanac known, position and time unknown. SkySearch = no data known.

** Subject to accuracy degradation to 100m 2DRMS under the U.S. Department of Defense imposed Selective Availability Program.