

**WITH WAAS**  
for even greater accuracy

The GPS 15H and 15L sensors are designed for a variety of OEM system applications, including car navigation, wireless communications, marine navigation, mapping and more.

## Powerful 12-channel GPS engine with WAAS

Because they're WAAS capable, these sensors can provide position accuracy of less than 3 meters without the use of an external DGPS beacon receiver.

They also offers excellent EMI/RFI performance for easy integration into systems that will be operated near mobile computing devices and wireless communications equipment. Available in low and high voltage configurations, the GPS 15H and 15L can be adapted to your individual application.



## GPS 15H and 15L specifications

**Electrical****Input voltage:**

15H: 8 to 40 Vdc unregulated  
15L: 3.3 to 5 Vdc +/- 100 mV ripple

**Input current:**

15H: 60 mA @ 8 Vdc peak current  
50 mA @ 8 Vdc nominal current  
40 mA @ 12 Vdc peak current  
33 mA @ 12 Vdc nominal current  
15 mA @ 40 Vdc peak current  
12 mA @ 40 Vdc nominal current  
15L: 100 mA from 3.3 to 5 Vdc peak current  
85 mA from 3.3 to 5 Vdc nominal current

**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; 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

**Environmental****Temperature:**

**Operating:** -30° to 80°C  
**Storage:** -40° to 90°C

**Physical**

**Size:** 1.400" x 1.805" x 0.327"  
(35.56 x 45.85 x 8.31 mm)

**Weight:**

15H: 0.53 oz. (15 g)  
15L: 0.50 oz. (14.1 g)

**Connectors:** 8 pin LIF for connection by flex, 1 mm pitch

**Part number:**

15H: 010-00240-11  
15L: 010-00240-12

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For more information, please refer to our tech specs, which are available on our Web site:  
<http://www.garmin.com/oem/>

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.

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