GPS receiver 122980-50

General
The Global Positioning System (GPS) is a satellite based navigation system operated and maintained by the U.S. Department of Defence. GPS consist of a constellation of 24 satellites providing worldwide, 24 hour, three dimensional (3D) coverage. Although originally conceived for military needs, GPS has a broad array of civilian applications including surveying, marine, land, aviation, and precise time. GPS is the most accurate technology available for easy timing.

By computing the distance to satellites orbiting the earth, a GPS receiver can calculate an accurate position. This process is called satellite ranging. A 2-D position calculation requires three satellite ranges. A 3-D position calculation, which includes altitude, requires four satellite ranges. GPS receivers can also provide precise time, speed, and course measurements, which are beneficial for vehicle navigation.

Westerstrand GPS unit uses a miniature 48-channel GPS. Its compact size and low power consumption make it ideal for this application.

Technical Specifications
Signal delay: Timing pulse synchronised to UTC within +/- 1 microsecond
Acquisition time: Cold start: 2 to 5 minutes. Warm start: 30 seconds (with battery)
Operating temp: -40°C to +85°C
Prime power: +8V to 35V (Power supply from Master Clock / Time Central)
Power consumption: 0.2 watt (nominal)
Backup power: 3V lithium battery
Antenna: Compact, active antenna. Short circuit protection
Connection wire: 3 x 0.25mm² shielded, maximum length 300m
Cable example: ELAKY/ELAQBY 2 x 2 x 0.28 mm², LIYCY 3 x 0.25 mm²
Housing: Plastic case IP55
Dimension: 105 x 105 x 55 mm
Weight: Approx. 0.3 kg