HP-GPS-L4

The most accurate L1 single-frequency GPS receiver (30 cm RMS) available

Efficient and Precise.

Carrier phase capable of achieving 1 cm + 1 ppm accuracy with long occupation times.

Also recommended by CMT for use as a high-precision base station. When compared to Trimble Pro XRS, it provides better accuracy and a more powerful software solution.

With a long base line distance, such as 300 KILOMETERS, and one minute of static measurements, you can achieve 30-CENTIMETER accuracy. Very useful for asset management.

	HP-GPS-L4 3.8 PKG	HP-GPS-L4 3.8 PKG with Beacon Receiver Package
List Price:	$6,450.00	$7,150.00
GPS receiver:	12 channel	12 channel
DGPS Beacon Receiver:	No	Yes
Professional GPS/GIS:	Yes	Yes
Mapping Accuracy: (Differentially Corrected, 2DRMS)	C/A Code: 25 - 50 cm Carrier Phase: 1 cm + 1 ppm	
Designed for easy use:	Yes, CMT Field 3.8 Included	
On-board Traverse:	Yes	Yes
Post Processing:	Yes	Yes
Memory:	4 MB standard 8 MB optional	4 MB standard 8 MB optional
Records Points, Lines, and Areas:	Yes	Yes
GPS/GIS Mapping Software: Microsoft Windows® based	Yes, PC-GPS 3.8 Included	
Waterproof:	Yes, submersible	Yes, submersible
Audible beeper signal:	Yes	Yes

PC-GPS 3.8
- BaseMaps
- Buffering
- More GIS, symbols/patterns

The HP-GPS-L4 package includes CMT's **PC-GPS 3.8** software for comprehensive GPS project management and mapping. PC-GPS 3.8 provides functions for Mapping, Mission Planning, Batch Differential Correction, Static Point "Spread" analysis and Job Editing. The software also supports GIS layering, raster images (i.e. DOQs, DRGs, aerial photographs, satellite imagery), BaseMaps, buffering, multimedia objects (OLE 2.0), Microsoft® ODBC and many other GIS functions.

System Features

- **12-channel L1 frequency**
- Extremely stable pseudorange code & phase measurements
- Full wavelength carrier phase on L1
- **Carrier-phase smoothing**
- Up to 2 Hz position update rate
- Up to 10 Hz code & phase measurements- 12-channel L1 frequency
- 1 PPS timing signal
- **Superior performance under tree canopy**
- Canyon, Blockage and Clear modes for optimal tracking performance

PC5L Data Collector with CMT Field v3.8

- **Waterproof (submersible)**
- Operating temperature: -40°C to 54°C
- **4 MB RAM standard** (8 MB optional)
- 16 line x 25 character backlit display
- Interfaces to laser rangefinders, barcode readers and various NMEA devices
- Two 9-pin RS-232 serial ports, PC/AT pinout

Obtain 2 cm + 2 ppm accuracy with Carrier Phase
Using carrier phase, the HP-GPS-L4 can attain centimeter-level accuracy (2cm+2ppm) without separate data collectors, antennas or poles. Processing your carrier phase data in **PC-GPS** with a robust carrier phase processor that will provide either a FIXED solution (ambiguities fixed to integers) or FLOAT solution (ambiguities resolved to real values).

CMT Field Software v3.8

- Collect Points, Lines Areas
- **Feature/Attribute/Value GIS structure**
- Graphic plotting.
- **Traversing function allows continued mapping when GPS is obstructed**
- **Offset function for mapping hard-to-reach locations.**
- Nested point function for tagging points while mapping a Line or Area Feature.
- Averaging function to optimize accuracy while recording static points.
- LLA/UTM/SPC plus user-defined coordinates and over 50 datums (and user-defined).
- Provides area calculation in the field
- **Interfaces to laser rangefinders, barcode readers and various NMEA devices**

System Accuracy Specifications

Real-Time Differential (DGPS):

| DGPS (RMS): | **30 cm** |
| DGPS (typical): | 30 – 60 cm |

L1 C/A Code Post-Processing:

| Static (RMS): | 30 cm |
| Static (typical): | 20-50 cm |

| Static (typical): | 20-50 cm |
| Time to first fix: | 60 s. typical; 40 s. w/ ephemeris |

L1 Carrier Phase Post-Processing:

| Static (RMS): | 1cm + 1ppm |
| Static (typical): | 20 – 50 cm |

| Dynamics: | 3G |
| Velocity: | .05 m/sec. |

Velocity (RMS):	.05 m/sec.
Maximum velocity:	460 m/sec.
Maximum altitude:	18000 m

Physical

| Operating temperature: | -20°C to 50°C |
| Power consumption: | 6 watts |

| Input voltage: | 10-32 VDC |
| Humidity: | 95% non-condensing |

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