

# ALTO-G12

The only **sub-meter integrated hand-held GPS/GIS receiver on the market**

Very good for precision farming, hydrographic surveys, etc.

Signal inaccuracies are removed with RAIM (Receiver Autonomous Integrity Monitor). Built-in strobe correlator technology provides unmatched multi-path mitigation for code.

*A proven and reliable GPS unit for GIS applications.*



	ALTO-G12 3.8 PKG	ALTO-G12 3.8 PKG with Beacon Receiver Package
List Price:	\$3,850.00	\$4,550.00
GPS receiver:	12 channel	12 channel
DGPS Beacon Receiver:	No	Yes
Professional GPS/GIS:	Yes	
Mapping Accuracy: (Differentially Corrected, 2DRMS)	C/A Code: 50 - 90 cm Carrier Phase: 2 cm + 2 ppm included	
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	
Audible beeper signal:	Yes	Yes

The ALTO-G12 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.

**PC-GPS 3.8**

- BaseMaps
- Buffering
- More GIS, symbols/patterns

## System Features

- **12-channel L1 frequency**
- Strobe Correlator technology
- Full wavelength carrier phase on L1
- Sub-meter accuracy for C/A Code measurements
- **Carrier-phase smoothing**
- RTCM-104 Ver. 2.2 input
- NMEA 0183 Ver. 2.2 output
- 1 PPS timing signal

### Real-time DGPS: RTCM-104 Version 2.0

Obtain real-time differential correction with CMT's Coast Guard Beacon Receiver package.

### Efficient Data Entry with Bar Code Input

Attach a bar code scanner to the ALTO-G12 and you can quickly enter data. Bar code menus can be set up in such a way that you never need to touch the ALTO-G12 keyboard.

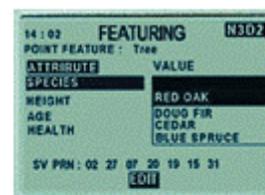
## Data Collector Features

- **Waterproof (submersible)**
- Operating temperature: -40°C to 54°C
- 16 line x 25 character backlit display
- **4 MB RAM standard** (8 MB optional)
- **Fully integrated GPS, antenna & data collector in one hand-held unit**
- 55-key alphanumeric keyboard w/ 5 multi-function keys and numeric keypad
- Optional external antenna
- Field-replaceable rechargeable battery
- **Up to 8 hrs. operation on rechargeable batteries**



## CMT Field Software v3.8

- Collect Points, Lines Areas
- **Feature/Attribute/Value GIS structure**
- Graphic plotting.
- **Traversing function to allow continued mapping when GPS is obstructed**
- **Offset function to map hard-to-reach locations.**
- Nested point function for tagging points while mapping Line or Area Features
- Averaging function to optimize accuracy while recording static points
- LLA/UTM/SPC plus user-defined coordinates
- Supports 50 datums plus user-defined datums
- Provides area calculation in the field
- **Interfaces with laser rangefinders, barcode readers and NMEA devices**
- Canyon, Blockage and Clear modes for optimal tracking performance



**CMT's own GPS Field. A complete surveying, mapping, and data logging software for all your GIS/GPS field needs.**

## System Accuracy Specifications

### Real-Time Differential (DGPS):

DGPS (RMS):	40 cm
DGPS (2DRMS):	90 cm
DGPS (typical):	60-100 cm

### L1 Carrier Phase Post-Processing:

Static (RMS):	2 cm + 2 ppm
Static (typical):	1 cm + 2 ppm

### L1 C/A Code Post-Processing:

Static (RMS):	40 cm
Static (2DRMS):	90 cm
Static (typical):	50-90 cm
Time to first fix:	45 sec. typical, 20 sec. with current ephemeris

Sustained acceleration:	20G
Velocity (RMS):	.05 m/sec.
Maximum velocity:	460 m/sec.
Maximum altitude:	18000 m

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