

SOKKIA™

GIR1000

GPS SYSTEM



Sokkia's GIR1000 System provides reliable, accurate GPS positioning for cost-effective asset control. The software is easy to use, and you can choose the positional accuracy you need for your application; systems are available for submeter and decimeter accuracies.

Submeter System

The standard GIR1000 Submeter System typically obtains 2.5 foot (75cm) accuracy. This accuracy remains available when occupying a point location for a single second, as well as in dynamic mode when recording line and area features.

Decimeter System

The GIR1000 Decimeter System's receiver processes both the code and carrier data transmitted by GPS satellites to achieve accuracies comparable to survey-grade systems. When stationary in an open environment, the GIR1000 Decimeter System can achieve centimeter-level accuracy. In other settings—such as mapping point, line and area features—the System is accurate to 4 inches (10cm).

Data Collection

The GIR1000 line of field asset management tools utilizes a hand-held system controller for the ultimate in rugged reliability. Collect points using offsets and pause or nest line and area features for accurate and efficient data collection.

Processing Software

The GIR1000 Processor is Windows™-based, so it supports seamless data transfer to other Windows programs such as desktop CAD and GIS products. You can even run these programs simultaneously with the GIR1000 Processor—on the same screen. Modules include:

- Feature Editor manages all customized field asset descriptions and attribute labeling task
- Time View graphically indicates when each recording session took place, which receiver or field worker recorded the data, and how each feature was described.
- Map View displays the GPS accuracy and relative location of each feature.
- Export outputs data formatted for the most popular GIS products, such as ArcView®, ARC/INFO®, Intergraph®, and AutoCAD®.

Differential Correction

Both the GIR1000 Submeter and Decimeter system accept differential corrections in real-time (offering convenience and accurate navigation) or in postprocessing mode. Post-processing mode requires use of base station data recorded by either a Sokkia base station receiver or by any other brand of GPS reference receiver that outputs industry standard RINEX data for GPS file sharing. Real-time mode requires reception of standard RTCM corrections.



GIR1000 Specifications

System Accuracy (RMS)

- Submeter: 2.5 ft. (75cm) instantaneous/static or dynamic; 1.6 ft. (50cm) with 1 min. occupation
- Decimeter: 11.8 in. (30cm) static or dynamic when satellite lock is maintained for > 5 min.; 4 in. (10cm) static or dynamic when satellite lock is maintained for > 20 min.; 0.4 in. (1cm) with optional software, static or dynamic when satellite lock is maintained for > 45 min.

Accuracies assume PDOP<4, minimum of 5 satellites. Obstructions from building/foilage, high multipath areas and periods of strong ionospheric fluctuations will degrade accuracies.

Equipment and Accessories

- Standard: 12 channel "all-in-view" GPS receiver, compact GPS antenna, rugged backpack carrying system, 2 rechargeable receiver batteries for 12-hr. operation, battery charger (120 VAC input), multi-use data cable, magnetic mount; (Decimeter system also includes hard-shell carrying case, 2-meter range pole, controller bracket, and point)
- Optional: HUSKY FS/2™ hand-held controller with FAMLOG™ software; (Submeter system also has an optional hard-shell carrying case, 2-meter range pole and point)

GIR1000 Processor Software Capabilities

- Pre-mission planning for satellite availability
- Feature file creation/editing for customizing feature and attribute libraries
- Waypoint Editor
- Data transfer
- Data collection session management
- Differential correction of GPS data
- Time View for displaying when field units were collecting data
- Map View for displaying position and feature data
- Datum conversion and coordinate transformation
- RINEX conversion
- Database, CAD and GIS formatting

GIR1000 GPS Receiver

- Tracking: 12 parallel channels, L1 C/A code (carrier optional)
- Size: 1.9" H x 3.7" W x 6.5" D (4.8cm H x 9.4cm W x 16.5cm D)
- Weight: 1.5 lbs. (0.68kg)
- Power: 6-15 VDC, 3.5 watts
- Temperatures: Operating -4° to +131°F (-20° to +55°C); Storage -22° to +167°F (-30° to +75°C)
- Memory: 4.5Mb (up to 40 hrs of 6 satellite data at 5 sec. intervals, or 8 hrs at 1 sec. intervals)
- Update Rate: selectable 1-999 sec.
- Warranty: 1 year (extended warranty available)

Marine IV GPS Antenna (microstrip)

- Size: 7" Dia. x 3" H (17.8cm Dia. x 7.6cm H)
- Weight: 0.9 lbs. (0.4kg)
- Temperatures: Operating and Storage -40° to +160°F (-40° to +71 °C)

Impervious to wind-driven rain and dust

HUSKY FS/2 Controller

- General: MS-DOS based hand-held computer, 8-line x 40-character backlit LCD screen, separate alpha and numeric keypads, die-cast magnesium alloy case
 - Size: 9.3" x 5" x 1.7" (23.6cm x 12.7cm x 4.3cm)
 - Weight: 1.6 lbs. (0.7kg)
 - Temperatures: Operating -22° to +130°F (-30° to +55°C); Storage -22° to +140°F (-30 to +60°C)
- Waterproof against accidental immersion.
Designed to withstand 6 ft. (2m) drop.*

Design and specifications are subject to change without notice.

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