

Leica GS50 Specifications

Modes and applications	Post-processing with GIS DataPRO RTCM/DGPS	
Number of channels	12 L1 C/A narrow code, precision code	
Power and weight	12 V nominal, 5.5w fpr GS50+ terminal. Wt. 1.15kg	
AT501 Antenna	L1 microstrip, built-in groundplane, 0.35kg	
RTB Antenna	Combined GPS / Coastguard DGPS antenna	
RTS Antenna	L1 Helical, 0.25kg	
Baseline rms (post-processing)	Code only; typically 30cm (rms) using GIS DataPRO software	
DGPS/RTCM - optional	Accuracy typically 40cm (rms)	
TR500 terminal	Display: 12 lines of 32 characters. Weight 0.4kg	
Data recording rate	Selectable from 1 to 60 sec.	
PCMCIA, ATA flash cards	8MB (standard); 16MB, 85MB (optional)	
Hours of recording with 4MB capacity	About 240 hours at 15 sec. rate, 960 hours at 60 sec. (Multiply by 2.5 for 10MB, Multiply by 21 for 85MB)	
2-GBE121 batteries plug into GS50	3.6AH/6V. Power GS50+ terminal for about 7.5 hours. GEB121: weight, 0.35kg	
External power supply	GEB 717AH/12V external battery or any 12V source	
Operation without terminal	Automatic on switching ON, 3 LED status display	
Operation with terminal	Menu driven, two-level operating system	
Coordinate displays	Geographical: Lat, Long, Ht Cartesian: X, Y, Z Grid: E, N, Ht with transformation parameters	
Positioning with navigation	Graphical with zoom. Digital. Polar.	
Position update rate	5Hz (0.2 sec.) in navigation mode. 1Hz in data collection mode	
Coordinate systems	Ellipsoids, projections, transformation, geodal models	
Environmental	Operation	Storage
Receiver, Terminal	-20° C to +55° C	-40° C to +75° C
Antenna	-30° C to +70° C	-40° C to +75° C
GIS DataPRO software	Professional Office Support Software including export to ESRI, AutoCAD, MapInfo and Microstation	
Included in package	Antenna (choice of post-processing, real-time beacon or real-time satellite)	
	Receiver	
	PC card	
	Cables	
	Backpack	
	Telescopic rod	
	Battery pack	
	Batteries (2)	
	Battery charger	
	Hard-shell case	

GS50 When the data really counts...



GPS/GIS Data Collection System:
GS50
GIS DataPRO™



Total Quality Management
Our commitment to total customer satisfaction

To learn more, call 1-866-LEICAGIS or visit leica-geosystems.com

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...you can count on Leica.



Leica GS50

Our top of the line GPS/GIS system, the ultimate in accuracy and performance.

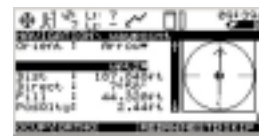


By far the most reliable and accurate GPS/GIS data collection system on the market, the GS50 offers a variety of solutions for every application. The GS50 can be used for stand alone post processing as well as real-time DGPS. Its ability to track GPS signals in the most challenging environments, using Leica's patented MaxTrak™ technology, means there is never any downtime. Add to this a rugged hand-held terminal with a full QWERTY keyboard, the biggest and best daylight visible display and Leica's intuitive GIS DataPRO™ software package, you have the definitive tool for intelligent data collection.

Features/Benefits:



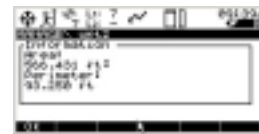
Data Collection with Leica's real-time accuracy indicator



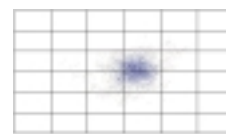
Simple and powerful navigation of points, lines and areas



The ability to view, edit and update graphical data; even during collection.



Automatic area and perimeter calculations



Ensured precision and accuracy with Leica's ClearTrak™ technology

- **MaxTrak™**
Unique maximum tracking algorithm ensures continuous tracking, even in the most dense foliage conditions. Use the MaxTrak hotkey to toggle from maximum accuracy to maximum tracking for complete control of your data.
- **Real-Time Accuracy Monitor**
The GS50 is the only GPS/GIS Receiver in the industry that displays continuous accuracy values in real-time. No more wondering just how good the data you are collecting really is! Real-time accuracy also allows threshold filtering to accept only the data that meets your defined requirements.
- **Standard Camcorder batteries and ATA PCMCIA flash memory**
- **One Step Transformation and Coordinate Geometry**
Leica's One Step allows you to conform to any coordinate system in the field and on the fly. Onboard Coordinate Geometry means you don't have to go back to the office to perform routine calculations.
- **Satellite, Beacon and User Defined Differential Available**
Pay for what you need, when you need it. Our flexible modular design allows you to choose what differential correction best suits your needs.
- **Field Editable Codelist**
Leica provides you with the freedom to create and update your codelist in the field.
- **Unique Variety of Offset Function including "Double Distance"**
Because we realize the variance in magnetic compass readings, we offer Double Distance intersections to provide the most accurate offset measurements possible. Other more traditional methods are also available, including bearing and distance, double bearing, and chainage and offset.
- **Full Expandability**
Leica's scalable architecture enables you to move from the GIS functionality to Survey RTK or add GIS capabilities to your existing Survey receiver. This unique expandability also allows you to collect your GIS data in sub-centimeter RTK. Both GIS and Survey applications reside on the same sensor, allowing access to either application at any time.
- **ASCII Input and NMEA Output**
Work with your existing tools via the user defined ASCII interface. Save outside data as attribute information, such as digital picture filenames, seismic data, depth soundings, etc.
- **Nested features**
No need to complete one object just to map another. Leica gives you the flexibility to nest unlimited points, lines and areas in both your current line and area.
- **Graphical Display and Area/Perimeter Calculation**
Graph your object and calculate length and area during real-time collection. Forget the value? No problem! Leica's powerful data management allows you to graph, edit and view all collected objects.
- **ClearTrak™ Technology**
Provides you with the industry's most precise L1 code accuracy through innovative multipath mitigation and carrier phase smoothing.

Applications

Leica GPS/GIS solutions have been specially designed to meet the mapping and data collection needs of a variety of industries, including:



- **Urban and Municipal Government**
 - Cadastral Mapping
 - Transportation Planning and Inventory
 - Public Safety Management



- **Utilities**
 - Electric and Gas
 - Water Resource Management
 - Telecommunications



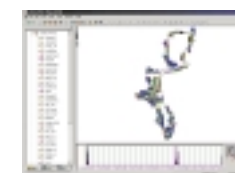
- **Natural Resources**
 - Agriculture and Forestry
 - Mining and Exploration
 - Petroleum



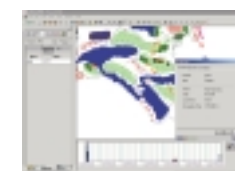
- **Environmental and Scientific**
 - Geological Surveying
 - Environmental Monitoring and Assessment
 - Education and Research

GIS DataPRO™

The GS50's GIS DataPRO software provides:



- **Easy-to-use familiar GIS interface**
GIS DataPRO provides a familiar GIS environment and the kind of simplicity that caters to the expert and novice alike.



- **Standard Shapefile Format**
GIS DataPRO works in the standard Shapefile format, which means no data translation is necessary if you are an ESRI user. Streamlined and efficient export functionality is also built in for Autocad, Microstation and MapInfo.



- **True 2-Way Data-Flow**
Take GIS data into the field for updating and then transfer it back to your office, either via the PC card or through a data transfer cable.

- **Automatic Internet Download**
GIS DataPRO's user friendly Internet Search automatically finds the 10 closest sites for one button download. The Add/Edit custom site allows for entry of your own reference sites into the search library.

- **Workflow Management**
The user defined workflow manager allows you to create a wizard to easily walk you through your job.

- **Image Referencing**
GIS DataPRO allows for the import of geo-referenced images as well as the ability to geo-reference your own imagery.