

SOKKIA

Stratus

L1 Integrated GPS System



Your Lightweight
GPS Solution

Stratus Integrated L1 GPS Receiver

SOKKIA's Stratus is a fully integrated L1, 12-channel GPS receiver capable of both static and kinematic surveys. By integrating the receiver, antenna, memory and batteries in one lightweight package, Stratus offers cable-free operation. The rugged, sealed enclosure ensures durability in the harshest of environments.

Integrated Design

Fully integrated, single-frequency GPS receiver, antenna, memory and batteries.

Simple Operation

Single-button operation with LED indicators for battery life, satellite tracking status, remaining memory and integer fixed occupation time.

Lightweight & Rugged

Weighs just 0.80 kg (1.75 lb) and can withstand a drop of 2.2 m (7.2 ft).

Internal Memory

4 MB of internal memory provides 55 hours at 10 sec recording interval (8 satellites) and 11 hours at 2 sec recording interval (8 satellites).

Reliable Power

Ability to hot swap batteries for continuous surveying.

Wireless Communication

Infrared (IR) communication provides cable-free operation.

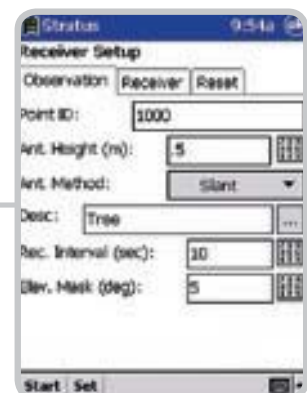
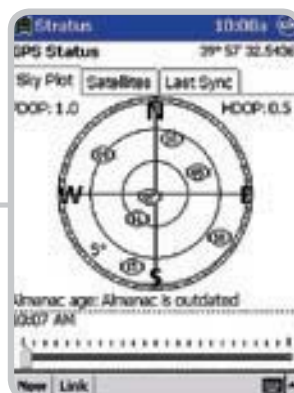


Stratus Controller Data Collection Software

The Stratus Controller software provides a user-friendly solution for monitoring and managing your Stratus receiver data. Install Stratus Controller software (Windows Pocket PC platform) on the HP iPAQ and enjoy versatility in the field and office.

Controller Features

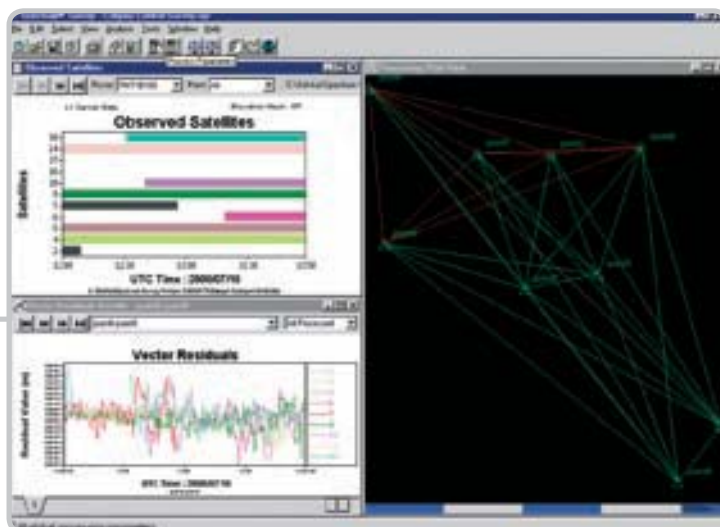
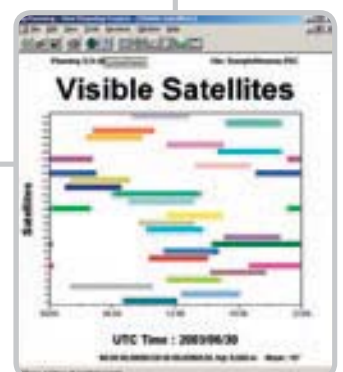
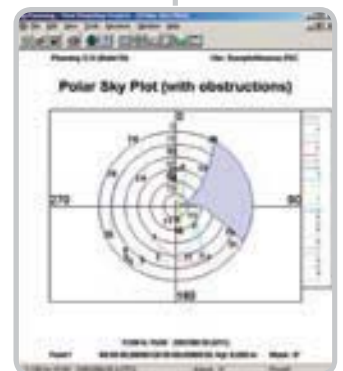
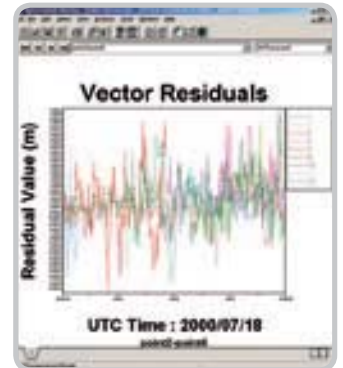
- Shorten your workload and eliminate the need to key in information at the office by storing site information in the field, such as point identification, feature codes and antenna height.
- Eliminate the need for cables in the field with an Infrared (IR) interface that communicates between the Stratus controller and the receiver.
- Easily determine your data quality and view detailed statistics on the GPS receiver's operation and status.
- Install Windows CE software on the HP iPAQ for optimal performance.



SOKKIA's Spectrum Survey is a comprehensive, easy-to-use Windows-based software package that supports all phases of GPS/survey operations. Spectrum Survey Suite combines Spectrum Survey and Planning into one software package. This package provides all of the tools you need to successfully manage your project, from planning and processing to adjusting and analyzing GPS survey data.

Spectrum Survey Features

- Process single and dual-frequency GPS data (code and carrier)
- An integrated GPS data processing and network adjustment environment makes it easy to process and adjust data in a few simple steps.
- Display data in geographic, state plane, UTM or user-defined coordinates. Compute and export data in ground coordinates.
- View and edit baselines before processing, either through menus or through the graphical interface.
- Supports commonly used methods of survey data collection, including static, rapid-static, kinematic and stop-and-go.
- Compatible with SOKKIA GPS receivers, such as Radian IS, Stratus, and GSR2600, along with other proprietary data formats.



Stratus Integrated L1 GPS System

The Stratus system, coupled with Spectrum Survey and Stratus Controller software, efficiently provides high-accuracy results. The system's single-user capability saves you time and money. With a variety of system configurations available, the Stratus system is the solution that fits your environment and budget.

Stratus System

- Lightweight, fully integrated GPS receiver, antenna, memory and batteries in one enclosure
- Windows® CE data collector and Stratus Controller software
- Spectrum Survey Suite V3 processing and adjustment software
- Heavy-duty, field-ready soft case

Static & Kinematic Applications

- As-built mapping
- Boundary surveys
- Control densification
- Establish station pairs
- Map utilities and natural resources
- Position aerial photo panels
- Road construction surveys
- Section corner surveys
- Topographic mapping



Stratus Specifications

Position Accuracy^{1,3}

Static	5.0 mm + 1 ppm (horizontal)	10.0 mm +2 ppm (vertical)
Kinematic, Stop-and Go ²	12.0 mm + 2.5 ppm (horizontal)	15.0 mm + 2.5 ppm (vertical)

Channels 12 x L1 with full code and carrier

Time to first fix

Cold Start	2 min
Warm Start	40 sec
Hot Start	15 sec
Signal Reacquisition	1 sec
Data Rate	1 Hz

Interface

Operation	Single-button operation for power, receiver reset and clear memory
Display	LED display status indicators
Status Indicators	Power, battery life, satellites tracked, available memory and occupation timer
Memory	4 MB Internal
Memory Life	55 hours at 10 s (8 satellites); 11 hours at 2 s (8 satellites)

Integrated Antenna Internal L1 GPS antenna

Physical

Weight (with batteries)	0.80 kg	1.75 lb
Weight (without batteries)	0.62 kg	1.38 lb
Size (d x h)	15.5 cm x 12.5 cm	6.0 in x 5.0 in

Environmental

Operating Temperature	-20° C to +65° C	-4° F to +149° F
With external batteries	-40° C to +65° C	-40° F to +149° F
Storage Temperature	-40° C to +85° C	-40° F to +185° F
Water Resistance	IPX4	
Shock ⁴	2.2 m pole drop; 1.0 m stand alone	7.2 ft pole drop; 3.3 ft drop stand alone

Communications and Serial Port Infrared communications link (transfer rate up to 57,600 baud rate)
Cable communications link (transfer rate up to 115,200 baud rate)

Power Requirements

Power Input	Internal 7.2 VDC, External 8 to 16 VDC
Batteries	2 x BDC46 rechargeable batteries
Operating Time	30 hours at -20° C 30 hours at -4° F
Swapping	Hot swap between batteries without interrupting receiver operation

We Recommend the HP iPAQ Controller

Processor	400 MHz, Intel X-scale, 32 bit RISC
Memory	64 MB RAM, 12 MB ROM
Battery Type	950 mAh Lithium Rechargeable
Battery Life	Up to 12 hours
Charging Time	Up to 4 hours
Weight	0.14 kg 5.1 oz
Operating Temperature	0° C to +40° C +32° F to +104° F

Minimum Controller Specifications

Operating System	Pocket PC 2003
Processor	ARM
Memory	16 MB RAM
Communication	IrDA Port
Resolution	240 x 320

1. Accuracy depends on the number of satellites used, obstructions, satellite geometry (DOP), occupation time, multipath effects, atmospheric conditions, baseline length, survey procedures and data quality. Numbers shown are for baselines not exceeding 10 km.
 2. Kinematic and Stop-and-Go surveys require an initialization.
 3. 95% confidence level.
- Design and specifications are subject to change without notice.

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Dealer Information