SOKKIA

GSR2600
High-Accuracy L1/L2 GPS System

Your High-performance GPS Solution

GSR2600 L1/L2 GPS Receiver

SOKKIA's GSR2600 is a dual-frequency, survey-grade receiver that can perform both post-processed and RTK surveys and can function as both a base or a rover. No software, hardware or upgrade modifications are required. The GSR2600 can achieve centimeter-level accuracy for RTK jobs and millimeter-level accuracy for post-processing jobs. These features, combined with PAC and Pinwheel Technologies (patented), provide comprehensive tracking capability with advanced multipath rejection.

Simple Operation

LCD panel and keypad allow for easy menu navigation and self-contained base station operation.

Lightweight & Rugged

The receiver weighs just 1.3 kg (2.9 lb) and can withstand a drop of 1.0 m (3.3 ft).

Unlimited Memory

Removable and upgradeable Compact Flash card provides hours of data collection.
(16 MB card provided)

Reliable Power

Several battery options available, which provide a reliable power supply for a full day of surveying.

GPS Technology

PAC technology achieves centimeter accuracy with RTK corrections, while Pinwheel technologies decrease errors associated with multipath and electromagnetic interference.
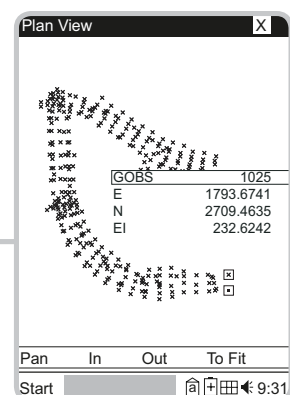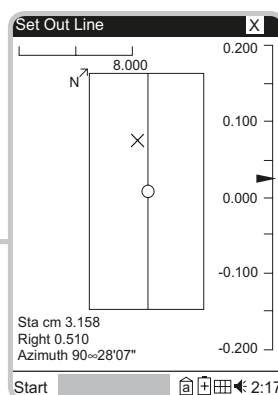
SDR Level 5 Data Collection Software

Built on knowledge from surveyors and previous generations of SDR electronic field books, the SDR Level 5 CE workflow is assembled to follow a logical field collection process. Provided in one single package, SDR's full functionality increases your productivity by offering topographic surveying, stake out, roading and coordinate geometry (COGO). Save time with the ability to switch between GPS and Terrestrial sensors, and ensure the quality of the reading as you check the coverage of collected points using a graphical view.

SDR Level 5 Features

- Full functionality in one package enables you to finish your job quickly

- Handles a large range of GPS and Terrestrial sensors

- Runs on multiple platforms, including Allegro CX™, JETT•ce®, Pocket PC PDAs and many others

- Map vertical heights with a supplied GEOID file or an inclined plane

- Complete any type of surveying, including solar observation

- Access existing jobs, browse for other jobs, or create a new job simultaneously without using a file browser

- Utilize customizable feature code lists with point-sorting capabilities

- Automatic generation of linework

- Ability to export data by a serial port, IRDA connection, modem connection or pre-existing file

- Customize point code IDs with a range from numeric to alphanumeric

- Handle data in many forms, including horizontal; horizontal and vertical; and horizontal, vertical and X-slope; using COGO or Roading modes

- Export data to industry standard formats such as Delimited Text, SDR, ICS, MOSS and SDMS.

Cd	ss
Pt	1003
Ant ht	5.56
H.obs	255˚45'23"
V.obs	90˚25'41"
S.Dist	1564.250
3DRMS (m)	0.015

Ofs Cnfg

Start 4:52

Set Out Line X
8.000
0.200
N
0.100
×
0.000
○
-0.100
Sta cm 3.158
Right 0.510
Azimuth 90∞28'07"
-0.200

Start 2:17

Plan View X
GOBS 1025
E 1793.6741
N 2709.4635
El 232.6242

Pan In Out To Fit
Start 9:31

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 to processing, 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's Radian IS, GSR2600 and Stratus GPS receivers, along with other proprietary data formats, including RINEX.
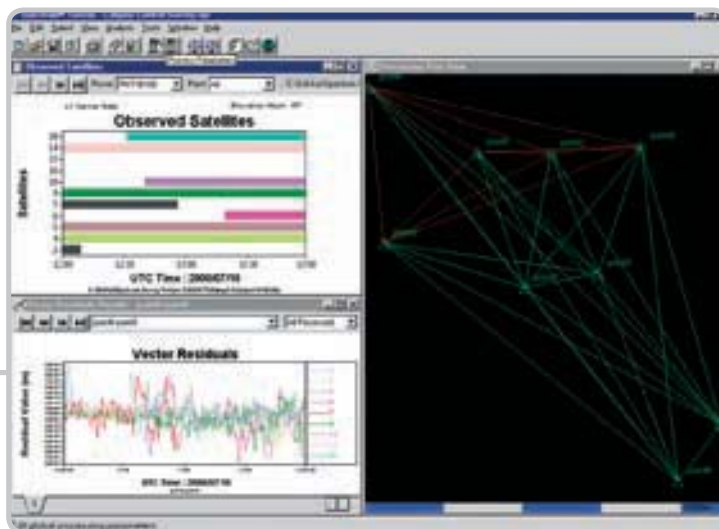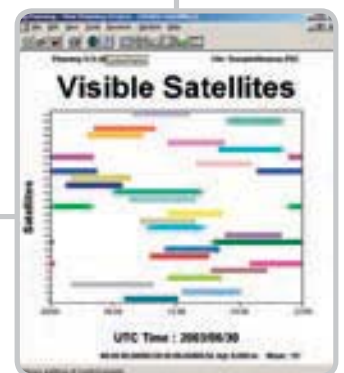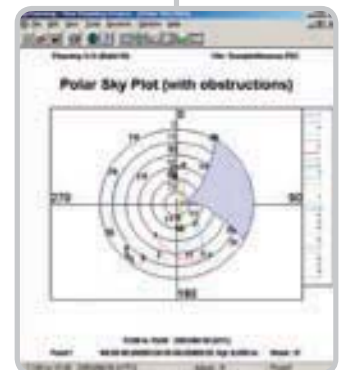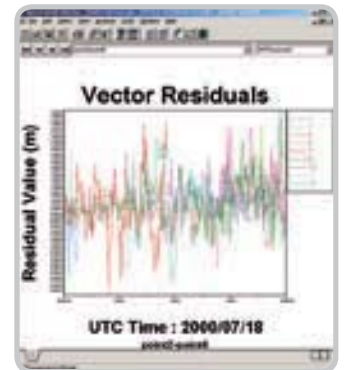
GSR2600 High-Accuracy GPS System

With a focus on efficiency, the GSR2600 system enables an individual user to complete the toughest task, saving time and money. Designed to work right out of the box, the GSR2600 system can be used in any position-based application. Coupled with Spectrum Survey or SDR Level 5, the GSR2600 system provides high-accuracy results. With a rugged waterproof and dust proof design, the system is ideal for a variety of applications, including topographic mapping, control surveys and construction staking.

GSR2600 System

- High-performance GPS receiver and L1/L2 GPS antenna (SK-702 or SK-600)

- Spectrum® Survey Suite V3 processing and adjustment software

- Microsoft® Windows® CE data collector and software

- Ergonomic rover backpack and base soft case

- RTK radio data link

- GSM connectivity

Post-Processed & RTK Applications

- Boundary surveys

- Construction stake out

- Create slopes and terraces in landscaping

- Determine cut and fill for a road project

- Establish station pairs

- Geodetic Control points

- Map utility lines, cables and piping

- Position aerial photo panels

- Position aerial towers

- Position recording pods

- Plan haul roads, set out blasting patterns or reclamation work

✳ SOKKIA is preparing for future GPS system enhancements, such as L2C and L5. In support of this, innovations are being explored to accommodate these future changes.

Antenna Specifications

The SK-600 and SK-702 are compact, lightweight, dual-frequency antennas that provide superior multipath rejection.

Operating Temperatures		
SK-600	-55º C to +85º C	-67º F to +185º F
SK-702	-40º C to +85º C	-40º F to +185º F
Storage	-55º C to +85º C	-67º F to +185º F
Weight		
SK-600	0.73 kg	1.61 lbs
SK-702	0.48 kg	1.06 lbs
Water Resistance		
SK-600	Equivalent to IPX7[1]	
SK-702	IEC 60529 IPX7	
Shock and Vibration		
SK-600	Random vibration 10-200 Hz, 8 g, custom profile	
SK-702	MIL-STD-810F method 514.5, Salt Spray: MIL-STD-810F method 509.4	
Phase Center		
SK-600	L1 and L2 phase center in same location (zero offset)	
SK-702	L1 and L2 phase center in same location (zero offset)	
Multipath Performance		
SK-600	Features an integral ground plane to reduce the effects of multipath	
SK-702	Choke ring-like performance. Pinwheel™ technology to provide exceptional multipath rejection	
Ground Plane		
SK-600	Built-in	
SK-702	Built-in	

Receiver Specifications

Position Accuracy[2]		
Static[3]	3.0 mm + 0.5 ppm (horizontal)	10.0 mm +1 ppm (vertical)
Rapid Static[3]	5.0 mm + 1 ppm (horizontal)	10.0 mm + 1 ppm (vertical)
Kinematic, Stop-and Go[3]	10.0 mm + 1 ppm (horizontal)	20.0 mm + 1 ppm (vertical)
RTK[4]	10.0 mm + 1 ppm (horizontal)	20.0 mm + 1 ppm (vertical)
Differential (DGPS)	WAAS/EGNOS: 0.8 m CEP	
Latency	0.02 sec (typical)	
Stand-alone Position	1.5 m CEP	
Channels	12 x L1 and 12 x L2 with full code and carrier	
Time To First Fix		
Cold Start	50 sec	
Warm Start	40 sec	
Hot Start	30 sec	
Signal Reacquisition	0.5 sec L1, 1.0 sec L2	
Data Rate	20 Hz	
Receiver Technology	PAC technology	
Interface		
Operation	Single-button operation for power, receiver reset and clear memory	
Display	Front-panel LCD that can be used to view receiver status information and view/modify receiver parameters	
Memory	Internal, removable Compact-Flash memory card (16 MB card provided)	
Physical		
Weight	1.3 kg	2.9 lb
Size (l x w x h)	18.3 cm x 15.0 cm x 7.0 cm	7.2 in x 6.0 in x 2.8 in
Environmental		
Operating Temperature (receiver)	-40º C to +55º C	-40º F to +131º F
Operating Temperature (display)	-20º C to +55º C	-4º F to +131º F
Storage Temperature	-40º C to +85º C	-40º F to +185º F
Water Resistance	IPX7	
Shock[5]	1.0 m drop	3.3 ft drop
GPS Board Communication Ports	2 x RS232, External Bluetooth® adaptor available, External GSM module available	
RTK Initialization	10-30 sec based on satellite constellation and base line length	
External Device	Any device that has RS232 serial communications	
Power Requirements		
Power Port	Multi sources power port (12 V car battery, AC/DC adaptor)	
Batteries	Various power options	
Operating Time	Varies with power option chosen	
Standard Input/Output	RTCA, CMR, RTCM, NMEA, 1 PPS (out), mark-in	

1. Tested to an equivalent standard to IPX7.
2. 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.
3. 95% confidence level.
4. 1 sigma.
5. Shock specifications based on receiver without cables attached.
Design and specifications are subject to change without notice.

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