

GSR1700 CSX Specifications

Positioning ¹		
Static ²	H: 5.0 mm + 1.0 ppm V: 8.0 mm + 2.0 ppm	
Kinematic, Stop-and-Go ²	H: 10.0 mm + 1.0 ppm V: 12.0 mm + 2.0 ppm	
Stand-Alone Position	1.8 m CEP Horizontal	
Tracking Capability		
Channels	28 universal channels: 14 L1 GPS, 12 L1 GLONASS, 2 SBAS	
Time to First Fix	Cold Start - 60 sec Hot Start - 35 sec	
Signal Reacquisition	0.5 sec L1	
Receiver Technology	Pulse Aperture Correlator (PAC)	
Physical		
Enclosure	Magnesium alloy housing	
Weight (with battery)	0.672 kg	1.48 lb
Weight (without battery)	0.622 kg	1.37 lb
Size (Diam. x Height)	16.7 cm x 10.1 cm	6.6 in x 4.0 in
Power Requirements		
Battery	Internal removable, hot swap capability	
Consumption	1.6 W	
Power Input	6-18 VDC; <2.5 Amps	
Operating Time	Static - 10 hours	
Environmental		
Operating Temperature ³	-40°C to +55°C	-40°F to +131°F
Storage Temperature	-40°C to +60°C	-40°F to +140°F
Humidity	100% condensing	
Dust and Waterproof	Complete protection against dust ingress. Protected against immersion up to 1.0 m / 3.3 ft (IP67)	
Shock ⁴	2.0 m pole drop 30G per IEC 68-2-27	6.6 ft pole drop
RoHS Compliant	Yes	

Ports & Communications Signals	
Communication	2 x RS232, 2 x Bluetooth <i>Note: second RS232 port available with the use of a special "Y" cable (sold separately)</i>
Power	6-18 VDC; <2.5 Amps
Standard Input/Output	Mark in; PPS out
Interface	
Operation	Single-button operation for power up, receiver reset and file management
Display	LED display status indicators
Status Indicators	Power, battery life, satellites tracked, available memory, occupation timer, communications status
Audible Indicators ⁵	Audible notifications for receiver status information; available in a variety of languages
Data Recording and Message Formats	
Memory	64 MB removable CF (upgradeable to 2 GB)
Memory Life	560 hours at 10 second interval (10 SV)
Standard Input/Output	RTCM, RTCM V3.0, RTCA, CMR, CMR+, NMEA-0183 out
Data Rate	10 Hz
Data Links	
External ⁶	Yes. Fully supported
Antenna	
Type	Fully integrated geodetic GNSS antenna
<ol style="list-style-type: none"> 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. 2. Standard RMS confidence level. 3. On external power. 4. Shock specifications based on receiver without cables attached. 5. English, Russian, Spanish, Portuguese, French, Italian, Japanese, Korean, Chinese, General Tones. 6. Supports most external data links with serial connection, such as Pacific Crest and SATEL UHF radios, and select Bluetooth devices, such as Bluetooth-enabled mobile phones. 	

SOKKIA

GSR1700 CSX

Integrated L1 GNSS System



SOKKIA Worldwide

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SOKKIA

790-0-0082
Printed in the U.S.A.Precision &
Reliability

GSR1700 CSX

Integrated L1 GNSS System

GSR1700 CSX GNSS survey system empowers surveyors to quickly and easily collect centimeter accurate survey points for topographic and control surveys with unmatched reliability and ease-of-use. This small, lightweight, yet rugged, GPS + GLONASS receiver eliminates observation range and line-of-sight limitations of conventional surveying, increasing efficiency and maximizing productivity in the field.

The affordability and minimal learning curve of the GSR1700 CSX enables surveyors to harness the power of GPS surveying right away, making it a valuable asset in any surveyor's toolbox. A controller is optional with the GSR1700 CSX - just press the receiver's power button to start surveying.



Powerful. Accurate. Anywhere.



Compact, rugged, easy-to-use system

The GSR1700 CSX is designed for surveyors wanting a lightweight, easy-to-use survey solution that offers the best in accuracy.



Superior ease-of-use

- Simple GPS survey workflows ensure that you'll be up and running quickly
- Intuitive, intelligent software guides you through multiple GPS survey types
- Built-in diagnostic and quality control tools eliminate costly trips back to the worksite



Unmatched handling

- Cable-free in all setups
- Lightweight – only 0.67 kg
- Controller-optional operation
- Connects to multiple **Bluetooth®** wireless peripherals



Unparalleled durability

- Operates in extreme temperatures from -40° C to +55° C
- Complete protection against dust/water
- Ruggedized to handle a 2m pole drop



Adapts to your requirements

- Voice notifications in 10 different languages alert you immediately of status changes in your survey
- Superior LED display provides all the information needed to complete the job
- Seamless support of continuously operating reference stations (CORS) offers easy interface with third-party data warehouses
- Upgrade capability for additional functionality in the future
- Data is conveniently stored on a Compact Flash® card

Flexible and efficient surveying

Simple operation without a controller

With one button, the GSR1700 CSX starts static GPS surveys to rapidly and easily establish additional control points in your survey area.

Powerful static and kinematic surveying

Combine the GSR1700 CSX with SDR+ S/K Edition for powerful static, stop-and-go and kinematic surveying. GNSS surveying has never been easier with the simple, yet effective, Navigate, Locate, Survey workflow. Quickly collect centimeter accurate survey points while SDR+ S/K Edition guides you at every step and verifies that your GPS survey is complete before you leave the job site.

Its minimal learning curve will have you completing your survey jobs faster with less effort in no time with the GSR1700 CSX.

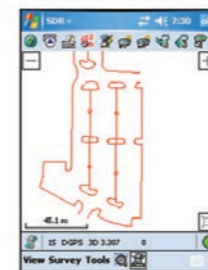
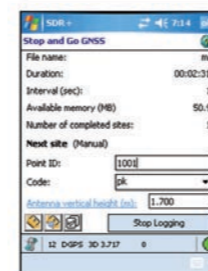
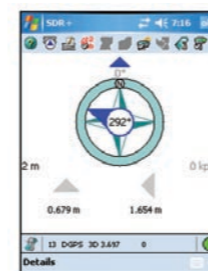
GNSS System



Reliable positioning in any environment

The GSR1700 CSX features 28 universal channels that support both GPS and GLONASS, providing increased satellite coverage in forests and urban areas. In addition, Pulse Aperture Correlator (PAC) technology guarantees superior tracking capability in the presence of multipath to optimize measurement performance even in the harshest conditions. These features ensure reliable GPS survey even in poor satellite tracking conditions.

SDR+ S/K Edition Software



Simple and powerful

SDR+ S/K Edition features an easy, icon-based interface and intuitive wizard-style workflows, which minimizes training time and ensures you'll be surveying in no time. User-defined hot keys and customizable onscreen toolbar helps you tailor the application for your most commonly used functions. The software operates on all Windows Mobile® touchscreen devices.

Navigate, Locate, Survey

The graphical navigation and background base map help to quickly locate survey monuments and other points of interest. Set up the GSR1700 CSX over your point and press one key to start surveying, and automatic prompts will query you for all relevant survey site information. Other GSR1700 CSX receivers can then be connected to survey more control and topographic points in the same job.

Streamlined data collection

SDR+ S/K Edition guides you through static, stop-and-go and kinematic data collection. Customizable survey and blunder detection tools help you meet survey specifications. Document your survey with feature codes and record field observations with survey notes.

Comprehensive coordinate system support

Work with any coordinate system, including local systems, at any time in your job. Perform surveys in one coordinate system and import, key-in and export survey information in any other coordinate system as required – transformation into your current coordinate system is instantaneous.

Cross-functional with total stations

SDR+ S/K Edition can be upgraded to SDR+ Professional Edition at any time to work with the GSR1700 CSX and SOKKIA total stations on the same controller and in the same job. Combine the power of GNSS surveying with optical instruments by learning and using only one data collection platform for all your survey work and minimize time spent transferring data.

Spectrum Survey Suite Software

With this easy-to-use Windows®-based software, quickly download and process GPS + GLONASS survey data and deliver centimeter accurate survey points. Its simple, yet powerful, workflow makes all steps of your static, stop and go or kinematic survey easy with its broad array of tools.

From mission planning to processing, adjusting and exporting survey data, Spectrum Survey Suite ensures that the your survey meets specifications with its advanced error detection. Data quality analysis tools and loop closures guarantee accurate, reliable post-processing. Perform a comprehensive network adjustment to get a perfect fit for your survey. Export survey data in a wide variety of industry standard formats.

