

GSR2700 IS Specifications

Positioning ¹		
Static ²	H: 3.0 mm + 0.5 ppm	V: 10.0 mm + 1.0 ppm
Rapid Static ²	H: 5.0 mm + 1.0 ppm	V: 10.0 mm + 1.0 ppm
Kinematic, Stop-and-Go ²	H: 10.0 mm + 1.0 ppm	V: 20.0 mm + 1.0 ppm
RTK ³	H: 10.0 mm + 1.0 ppm	V: 20.0 mm + 1.0 ppm
WAAS/EGNOS DGPS	0.8 m CEP Horizontal	
Stand-Alone Position	1.5 m CEP Horizontal	
Latency	0.02 sec (typical)	
RTK Initialization ⁴	3-10 sec (typical) based on satellite constellation and baseline length	
Tracking Capability		
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	
Receiver Technology	PAC™ technology for high accuracy GPS measurement and multipath rejection	
Physical		
Enclosure	Magnesium alloy housing	
Weight (no internal radio)	1.6 kg	3.5 lb
Weight (with internal radio)	1.8 kg	3.9 lb
Size	22.5 cm x 10.5 cm	8.9 in x 4.1 in
Power Requirements		
Batteries	Internal batteries standard, external batteries available	
Consumption	< 5 W using internal radio	
Power Input	External +9 VDC to +18 VDC Internal (non-removable) +10.8 VDC	
Operating Time – Rover	10 hours with internal batteries and internal UHF radio	
Operating Time – Static	16 hours with internal batteries and no internal radio	

Environmental		
Operating Temperature ⁵	-40°C to +60°C	-40°F to +140°F
Storage Temperature ⁶	-20°C to +50°C	-4°F to +122°F
Humidity	100% condensing	
Dust and Waterproof	Complete protection against dust ingress. Protected against immersion up to 1.0 m (3.3 ft)	
Shock ⁷	2.0 m pole drop	6.6 ft pole drop
Ports		
Communication	2 x RS232, 1 x USB, 1 x Bluetooth, 1 x internal radio	
Power	1 x external power	
Interface		
Operation	Single-button operation for power, receiver reset and clear memory	
Display	LED display status indicators	
Status Indicators	Receiver health, battery life, satellites tracked, available memory, occupation timer, communication status	
Audible Indicators ⁸	Audible notifications for receiver status information; available in a variety of languages	
Data Recording and Message Formats		
Memory	Internal 64 MB standard, upgradeable to 2 GB	
Memory Life	500 hours at 10 second interval (6 SV)	
Standard Input/Output	RTCA, RTCM, CMR, CMR+, NTRIP, NMEA, 1 PPS (out), mark-in	
Data Rate	20 Hz	
Data Links		
Internal UHF	380-470 MHz (Tx/Rx)	
Internal GSM/GPRS	850/1800 MHz or 900/1900 MHz band	
Antenna		
Type	Internal GPS antenna (L1/L2) with Pinweel™ Technology and multipath rejection equivalent to choke ring antenna	
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 95% confidence level. ³ 1 sigma ⁴ RTK initialization time based on unobstructed observing conditions, 7 satellites and a baseline length of less than 5.0 km. ⁵ Specifications for use with external batteries. If using internal batteries, operating range is -20°C to +55°C. ⁶ Storage temperature range is recommended to maintain shelf life of internal batteries. ⁷ Shock specifications based on receiver without cables attached. ⁸ English, Spanish, Japanese, French, Chinese, Russian, Italian, Portuguese, Korean, General Tones.		

SOKKIA

GSR2700 IS



Fully Integrated L1/L2 GPS System

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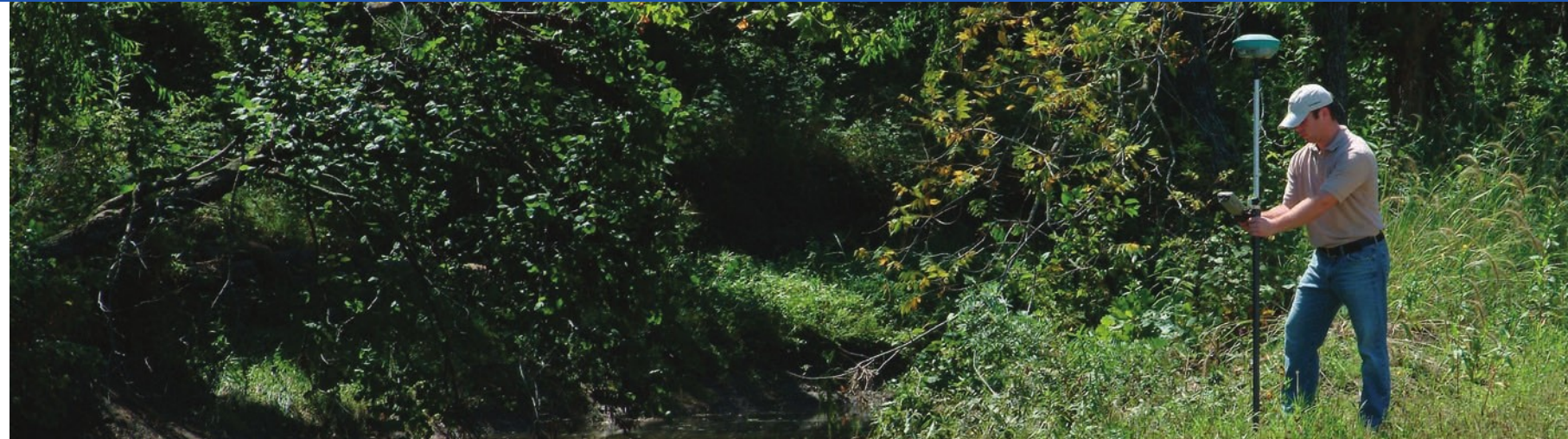
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HERITAGE | QUALITY | SUPPORT | VALUE

GSR2700 IS

Fully Integrated L1/L2 GPS System

The GSR2700 IS combines everything you need for your most challenging projects in one package. It is a fully integrated system that includes a survey-grade, dual-frequency receiver, antenna, memory, batteries, internal data link – plus *Bluetooth*® wireless technology for completely cable-free surveying. The GSR2700 IS comes standard with 64 MB of memory for up to 500 hours of uninterrupted surveying. And it is the first GPS receiver of its kind to offer audible status notification in the field.



Accurate. Reliable. Remarkable.

GSR2700 IS System

- Dual-frequency GPS receiver, *Bluetooth* wireless technology, antenna, memory, batteries and internal data link in one compact enclosure
- Windows® CE data collector
- SDR+ data collection software
- Spectrum Survey Suite post-processing software
- Rugged, field-ready carrying case

Data Collection

SDR+ data collection software.

- Use SDR+ data collection software and Allegro CX™ with SOKKIA GPS instruments, conventional, motorized and robotic Total Stations all on the same job

- Easy-to use, icon-based interface
- Customize the screen to display your most commonly used functions
- Standard Windows® pull-down menus for ease of use with minimal training required
- Fully live editable database
- Swap between coordinate systems with the push of a button
- Perform surveys in one coordinate system and download in any other system as required, including local systems
- Edit errors in the field, such as Target or Antenna height errors, "on the go" and get immediate recalculation of coordinates – no need to edit after the survey
- Use control points from any coordinate system – transformation into your current coordinate system is instantaneous
- When working on the edge of a zone, download data in both zones as required
- Perform ETS surveys and assign/change backsights at your convenience



(Tribrach and tribrach adapter included with base kit only.)

GSR2700 IS Features

Fully integrated design.

- Combines high-performance, dual-frequency GPS receiver, *Bluetooth* wireless technology, antenna, memory, batteries and internal data link in one package
- Offers all-on-the-pole convenience

Versatile performance.

- Ideally suited as a rover for RTK applications
- Utilize as a base for RTK or static surveying
- Includes internal UHF or GSM/GPRS radio option

Voice messages.



- Offers verbal notification of receiver status, satellite lock, RTK status and more
- Available in multiple languages and generic tones

Cable-free convenience.

- *Bluetooth* wireless technology means no cables are necessary

Rugged reliability.

- Receiver offers complete protection against dust ingress
- Immersion up to 1.0 m (3.3 ft.)
- Can withstand pole drop of 2.0 m (6.6 ft.)
- Durable magnesium alloy housing

User-friendly.

- Superior LED panel provides indicators for battery life, satellite tracking status, remaining memory, occupation timer and COMS functions
- Easy, single-button operation

Outstanding memory.

- Comes standard with 64 MB of memory for up to 500 hours of continuous surveying with options up to 2 GB



Spectrum Survey Suite post-processing software.

- Complete Windows®-based software package
- Supports commonly used methods of survey data collection, including static, rapid-static, kinematic and stop-and-go
- Provides all the tools you need to manage your project – from planning to processing, adjusting and analyzing GPS surveying data



The SOKKIA Difference

SOKKIA has been developing advanced products for surveying professionals around the world since 1920. We are very proud of our **heritage**. It is our mission to provide you with products of the highest **quality** so you can do the job right the first time – every time. And we **support** our products long after the sale is complete. With that kind of **value**, it is no wonder surveyors everywhere count on SOKKIA for their most important projects.

