

SOKKIA

GSR2700 IS

Fully Integrated L1/L2 GPS System



System Components

- Survey-grade, dual-frequency receiver, integrated data link, *Bluetooth*[®] wireless technology, antenna, memory and batteries — all in one compact enclosure.
- Windows[®] CE data collector.
- Revolutionary new SDR+ Data Collection Software.
- Spectrum Survey Suite post-processing and adjustment software.
- Rugged field-ready carrying case.

System Features

Fully Integrated Design.

Everything you need in one compact package.

Bluetooth[®] wireless technology.

Wireless data transfer means no more cables.

Voice Messages.

Indicates receiver status during field operation.

Multiple Configurations.

Functions ideally as a rover for RTK applications, but can also be utilized as an RTK base or for static surveys.

Lightweight and Rugged.

Weighs just 1.8 kg (3.9 lbs.) with internal radio; magnesium alloy housing provides unparalleled protection from dust and water.

Easy to Operate.

Single-button operation and LED indicators for battery life, satellite tracking status, remaining memory and occupation timer.

Expandable Memory.

Comes standard with 64 MB of memory for more than 500 hours of uninterrupted surveying. Options up to 2GB.

Internal Radio.

Optional internal UHF or GSM/GPRS radio available.



* SOKKIA is preparing for future GPS system enhancements, such as L2C and L5. When future satellites begin broadcasting these new signals, an upgrade to the GSR2700 IS will be available, which will allow access to all GPS signals.

GSR2700 IS Specifications

| | | | |
|--------------------------------------|--|--|---|
| Position Accuracy¹ | | Physical | |
| Static ² | 3.0 mm + 0.5 ppm (horizontal). 10.0 mm + 1 ppm (vertical). | Enclosure | Magnesium alloy housing. |
| Rapid Static ² | 5.0 mm + 1 ppm (horizontal). 10.0 mm + 1 ppm (vertical). | Weight (no internal radio) | 1.6 kg (3.5 lbs). |
| Kinematic, Stop-and-Go ² | 10.0 mm + 1 ppm (horizontal). 20.0 mm + 1 ppm (vertical). | Weight (with internal radio) | 1.8 kg (3.9 lbs). |
| RTK ³ | 10.0 mm + 1 ppm (horizontal). 20.0 mm + 1 ppm (vertical). | Size | 22.5 cm x 10.5 cm (8.9 in x 4.1 in). |
| Differential (DGPS) | WAAS/EGNOS: 0.8 M CEP. | Environmental | |
| Latency | 0.02 sec (typical). | Operating Temperature | -20° C to +65° C (-4° F to +149° F). |
| Stand-alone Position | 1.5 m CEP. | Storage Temperature | -40° C to +85° C (-40° F to +185° F). |
| Channels | 12 x L1 and 12 x L2 with full code and carrier. | Humidity | 100% condensing. |
| Time to First Fix | | Dust and Waterproof | IP67. Complete protection against dust ingress. Protected against immersion up to 1.0 m (3.3 ft). |
| Cold Start | 50 sec. | Shock ⁵ | 2.0 m pole drop (6.6 ft). |
| Warm Start | 40 sec. | Communication Ports | 2 x RS232, 1 x USB, 1 x Bluetooth, 1 x internal radio. |
| Hot Start | 30 sec. | RTK Initialization | 3-10 sec (typical) based on satellite constellation and baseline length. ⁶ |
| Signal Reacquisition | 0.5 sec L1, 1.0 sec L2. | Power Requirements | |
| Data Rate | 20 Hz. | Batteries | Internal batteries standard, external batteries available. |
| Receiver Technology | PAC™ technology for high accuracy GPS measurement and multipath rejection. | Consumption | <5 W using internal radio. |
| Interface | | Power Input | External +9 VDC to +18 VDC. Internal +10.8 VDC. |
| Operation | Single-button operation for power, receiver reset and clear memory. | Port | 1 x external power port. |
| Display | LED display status indicators. | Operating Time | |
| Status Indicators | Receiver health, battery life, satellites tracked, available memory, occupation timer, communication status. | Rover | 10 hours with internal batteries and internal UHF radio. |
| Audible Indicators ⁴ | Audible notification for receiver status information. | Static | 14 hours with internal batteries and no internal radio. |
| Memory | Internal 64 MB standard. Options up to 2 GB. | Standard Input/Output | RTCA, RTCM, CMR, CMR+, NTRIP, NMEA, 1 PPS (out), mark-in. |
| Memory Life | 500 hours at 10-second interval (6 satellites). | <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. 95% confidence level. 3. 1 sigma. 4. English, Spanish, Japanese, French and generic sounds available. Audible notifications can be disabled. 5. Shock specifications based on receiver without cables attached. 6. RTK initialization time based on unobstructed observing conditions, 7 satellites and a baseline length less than 5.0 km. | |
| Antenna | Internal GPS antenna (L1/L2) with Pinwheel™ Technology and multipath rejection equivalent to choke ring antenna. | | |
| Radio Link | Optional internal UHF or GSM/GPRS radio. | | |
| UHF | 380-470 MHz. Transmit and Receive (Tx/Rx). | | |
| GSM/GPRS | 850/1800 MHz or 900/1900 MHz band. | | |

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