Leica GS07
Data sheet

Engaging software

The Leica GS07 is accompanied with the revolutionary Captivate software, turning complex data into the most realistic and workable 3D models. With easy-to-use apps and familiar touch technology, all forms of measured and design data can be viewed in all dimensions. Leica Captivate spans industries and applications with little more than a simple swipe, regardless of whether you work with GNSS, total stations or both.

Seamlessly share data among all your instruments

Leica Infinity imports and combines data from your GNSS RTK rover, total station and level instruments for one final and accurate result. Processing has never been made easier when all your instruments work in tandem to produce precise and actionable information.

ACC»

Customer care only a click away

Through Active Customer Care (ACC), a global network of experienced professionals is only a click away to expertly guide you through any challenge. Eliminate delays with superior technical service, finish jobs faster and avoid costly site revisits with excellent consultancy support. Control your costs with a tailored Customer Care Package (CCP), giving you peace of mind you are covered anywhere, anytime.

PART OF HEXAGON

- when it has to be **right**

Leica Geosystems

Leica GS07

GNSS PERFORMANCE

GNSS Technology	Leica RTKplus	Adaptive on-the-fly satellite selection
Leica SmartCheck	Continuous check of RTK solution	Reliability 99.95%
Signal tracking	SmartTrack	GPS (L1, L2, L2C, L5), Glonass (L1, L2, L3[2]), BeiDou (B1, B2, B3[2]), Galileo (E1, E5a, E5b, Alt-BOC, E6[2]), QZSS (L1, L2, L5, LEX[2]), NavIC L5[3], SBAS (WAAS, EGNOS, MSAS, GAGAN)
Number of channels		320 hardware channels

MEASUREMENT PERFORMANCE & ACCURACY[1]

Time for initialisation		Typically 6 s
Real-time kinematic (Compliant to IS017123-8 standard)	Single baseline Network RTK	Hz 10 mm + 1 ppm / V 20 mm + 1 ppm Hz 10 mm + 0.5 ppm / V 20 mm + 0.5 ppm
Post processing	Static (phase) with long observations Static and rapid static (phase)	Hz 3 mm + 0.5 ppm / V 6 mm + 0.5 ppm Hz 5 mm + 0.5 ppm / V 10 mm + 0.5 ppm
Code differential	DGPS / RTCM	Typically 25 cm

COMMUNICATIONS

Communication ports	Lemo Bluetooth®	USB and RS232 serial Bluetooth v2.00 + EDR, class 2
Communication protocols	RTK data protocols Network RTK	Leica, Leica 4G, CMR, CMR+, RTCM 2.2, 2.3, 3.0, 3.1, 3.2 MSM VRS, FKP, iMAX, MAC (RTCM SC 104)
Built-in data links[4]	3.75G GSM / UMTS / CDMA phone modem Radio modem	Fully integrated, internal antenna Fully integrated, receive, external antenna 403 - 470 MHz, up to 28800 bps over air
External data links		Bluetooth GSM / GPRS / UMTS / LTE / CDMA phone modem

GENERAL

Field controller and software	Leica Captivate software	Leica CS20 field controller
User interface	Buttons and LEDs	On / Off button, 3 status LEDs
Data recording	Storage[5] Data type and recording rate	Removable SD card, 8 GB Leica GNSS raw data and RINEX data at up to 5 Hz
Power management	Internal power supply External power supply Operation time[6]	Exchangeable Li-Ion battery (2.6 Ah / 7.4 V) Nominal 12 V DC, range 10.5 - 28 V DC 8 h GNSS 7 h receiving RTK data with CS modem
Weight and dimensions	Weight Diameter x Height	0.7 kg / 2.7 kg standard RTK rover setup on pole 186 mm x 71 mm
Environmental	Temperature Drop Proof against water, sand and dust Vibration Humidity Functional shock	-40 to 65°C operating, -40 to 80°C storage Withstands topple over from a 2 m survey pole onto hard surfaces IP66 / IP68 (IEC60529 / MIL STD 810G CHG-1 510.6 I / MIL STD 810G CHG-1 506.6 II / MIL STD 810G CHG-1 512.6 I) Withstands strong vibration (ISO9022-36-05 / MIL STD 810G 514.6 Cat.24) 95% (ISO9022-13-06 / ISO9022-12-04 / MIL STD 810G CHG-1 507.6 II) 40 g / 15 to 23 msec (MIL STD 810G 516.6 I)

LEICA GS07 – GNSS SMART ANTENNA

SUPPORTED GNSS SYSTEMS	
Dual-frequency / Multi-frequency	✔ / •
GPS / GLONASS / Galileo / BeiDou / QZSS	✔ / • / • / • / ✔
RTK PERFORMANCE	
DGPS/RTCM, RTK Unlimited, Network RTK	✔
POSITION UPDATE & DATA RECORDING	
5 Hz positioning	✔
Raw data / RINEX data logging	✔ / ✔
ADDITIONAL FEATURES[4]	
3.75G GSM / GPRS / UMTS / CDMA phone modem	•
UHF radio modem (receive only)	•

✔ Standard   • Optional

[1] Measurement precision, accuracy, reliability and time for initialisation are dependent upon various factors including number of satellites, observation time, atmospheric conditions, multipath etc. Figures quoted assume normal to favourable conditions. A full BeiDou and Galileo constellation will further increase measurement performance and accuracy.
[2] Believe to comply, but subject to availability of BeiDou ICD and Galileo commercial service definition. Glonass L3, BeiDou B3, QZSS LEX and Galileo E6 will be provided through future firmware upgrade.

[3] Support of NavIC L5 is incorporated and will be provided through future firmware upgrade.
[4] Depending on the used CS field controller and radio modem.
[5] Data is recorded to the CS field controller.
[6] Might vary with temperature, age of battery, transmit power of data link device.

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