

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	GPS GLONASS Galileo BeiDou	L1, L2, L2C, L5 L1, L2, L2C, L3 E1, E5a, E5b, AltBOC, E6 B1I, B1C, B2I, B2a, B3I
	QZSS NavIC	L1, L2C, L5, L6 ² L5 ³
	SBAS	WAAS, EGNOS, MSAS, GAGAN
RAIM	Receiver Autonomous Integrity Monitoring	Detection and elimination of faulty satellite signals for enhanced positioning solution and GNSS integrity
Number of channels		320 hardware channels

MEASUREMENT PERFORMANCE & ACCURACY¹

Time for initialisation		Typically 6 s
Real-time kinematic (Compliant to ISO17123-8 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	DGNSS	Hz 25 cm V 50 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 - 473 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 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

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 FEATURES⁴

3.75G GSM / GPRS / UMTS / CDMA phone modem

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UHF radio modem (receive only)

•

✓ Standard • Optional