Leica Viva GS14
Data sheet

Easy-to-use software

The compact and powerful Leica Viva GS14 smart antenna is equipped with the intuitive SmartWorx Viva software. With clear graphics, practical menu structures, understandable terminology and simplified workflows, save time and effort on any site. SmartWorx Viva is incredibly easy to learn and use. You and your field crew will be up to speed in no time.

Infinitely bridging the field to the office

Leica Infinity imports and combines data from your GNSS, 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 problem. Eliminate delays with superior technical service, finish jobs faster with excellent consultancy support, and avoid costly site revisits with online service to send and receive data directly from the field. Control your costs with a tailored Customer Care Package, giving you peace of mind you're covered anywhere, anytime.

- when it has to be **right**

Leica Geosystems

Leica Viva GS14

GNSS PERFORMANCE		
GNSS technology	Leica SmartTrack	Advanced four constellation tracking
Leica SmartCheck	Continuous check of RTK solution	Reliability 99.99%
Signal tracking		GPS (L1, L2, L2C), Glonass (L1, L2), BeiDou (B1, B2), Galileo (E1, E5b), SBAS (WAAS, EGNOS, MSAS, GAGAN)
Number of channels		120 (up to 60 satellites simultaneously on two frequencies)
MEASUREMENT PERFORMANCE & ACCURACY[1]		
Time for initialisation		Typically 4 s
Real-time kinematic	Single baseline Network RTK	Hz 8 mm + 1 ppm / V 15 mm + 1 ppm Hz 8 mm + 0.5 ppm / V 15 mm + 0.5 ppm
Post processing	Static (phase) with long observations Static and rapid static (phase)	Hz 3 mm + 0.1 ppm / V 3.5 mm + 0.4 ppm Hz 3 mm + 0.5 ppm / V 5 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 NMEA output Network RTK	Leica, Leica 4G, CMR, CMR+, RTCM 2.2, 2.3, 3.0, 3.1, 3.2 MSM NMEA 0183 V 4.00 and Leica proprietary VRS, FKP, iMAX, MAC (RTCM SC 104)
Built-in data links	3.75 G GSM / UMTS / CDMA phone modem Radio modem	Fully integrated, internal antenna Fully integrated, receive and transmit, external antenna 403 - 470 MHz, 1 W output power
External data links		GSM / GPRS / UMTS / CDMA and UHF / VHF modem
GENERAL		
Field controller and software	Leica SmartWorx Viva software	Leica CS10 and CS15 field controller
User interface	Buttons and LEDs Web server	On / Off and Function button, 7 status LEDs Full status information and configuration options
Data recording	Storage Data type and recording rate	Removable microSD card, 8 GB Leica GNSS raw data and RINEX data at up to 20 Hz
Power management	Internal power supply External power supply Operation time[2]	Exchangeable Li-Ion battery (2.6 Ah / 7.4 V) Nominal 12 V DC, range 10.5 - 28 V DC 7 h receiving (Rx) data with internal radio, 5 h transmitting (Tx) data with internal radio, 6 h Rx/Tx data with internal modem
Weight and Dimensions	Weight Diameter x Height	0.93 kg (GS14) / 2.90 kg standard RTK rover setup on pole 190 mm x 90 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 IP68 (IEC60529 / MIL STD 810G 506.5 I / MIL STD 810G 510.5 I / MIL STD 810G 512.5 I) Withstands strong vibration (ISO9022-36-08 / MIL STD 810G 514.6 Cat.24) 100% (ISO9022-13-06 / ISO9022-12-04 / MIL STD 810G 507.5 I) 40 g / 15 to 23 msec (MIL STD 810G 516.6 I)

LEICA VIVA GS14 – GNSS SMART ANTENNA	Performance	Professional
SUPPORTED GNSS SYSTEMS		
Dual frequency	✔	✔
GPS / GLONASS / Galileo / BeiDou	✔ / • / • / •	✔ / ✔ / ✔ / ✔
RTK PERFORMANCE		
DGPS/RTCM. RTK Unlimited, Network RTK	✔	✔
POSITION UPDATE & DATA RECORDING		
5 Hz / 20 Hz positioning	✔ / ✔	✔ / ✔
Raw data / RINEX data logging	✔ / •	✔ / ✔
NMEA out	•	✔
ADDITIONAL FEATURES		
RTK reference station functionality	✔	✔
3.75G or CDMA Phone / UHF Radio (receive & transmit) modem	✔ / •	✔ / •

✔ 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] Might vary with temperature, age of battery, transmit power of data link device.

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