The Leica GS18 I is an accurate and easy to use GNSS RTK Rover. It utilises highly innovative Visual Positioning technology based on seamless integration of GNSS, IMU and a camera. It enables you to measure survey grade points in images on site and in the office. Create point clouds from captured data with Infinity to expand possibilities even further.

**Innovative**

**Fast**

Designed to measure a large amount of points efficiently. The Leica GS18 I allows you to capture images and measure hundreds of points within minutes. There’s no need to physically reach the point to measure it. This allows you to reduce time spent on-site and cut down re-work: once you’ve captured the site, you can measure all details whenever you want to.

**Versatile**

Imaging power has changed the rules of the game. By having the power to measure what you see, you can now reach places you couldn’t before without switching tools or climbing through obstacles. That gives you flexibility in the field, frees up equipment and crews and truly maximises productivity in your projects, which results in increased profits.

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Leica GS18

**GNSS TECHNOLOGY & SERVICES**

- **Self-learning GNSS**: Leica RTKplus
- **HeXGN SmartNet Global**: Leica SmartCheck
- **HEXGN SmartNet Pro**: Continuous check of RTK solution
- **HEXGN SmartNet Pro**: Reliability 99.99%
- **Signal tracking**: GPS | GLONASS | Galileo | BeiDou | QZSS | NoriC | SBAS | TerraStar
- **RAW**: L1, L2, L2C, L5 | L1, L2, L2C, L3
- **Number of channels**: 555 (more signals, fast acquisition, high sensitivity)
- **Tilt compensation**: Detection and elimination of faulty satellite signals for enhanced positioning solution and GNSS integrity

**IMAGING**

- **Measuring camera**: Global shutter with 1.2 MP | V 80°, V 60° | 20 Hz
- **Image group capture**: 2 Hz capturing rate. Max. capturing time: 60 s, size of an image group appr. 50 MB
- **Point cloud**: Leica infinity software
- **Image point measurement**: 1-click measurement in field & office. Typically 2 cm – 4 cm (2D1) captured from 2 – 10 m distance

**COMMUNICATIONS**

- **Communication ports**: Lemo | Bluetooth® | WLAN USB and RS232 serial | Bluetooth® v4.0 (BLE & BR/EDR), class 1.5
- **Communications**: Leica 4G, Leica, OMR, CMR+, RTCM 2.2, 2.3, 3.0, 3.1, 3.2, 5.0 NMEA G100 V4.00 & V4.10 and Leica proprietary VRS, FKP, IMAX, MAC (RTCM SC 104)
- **Built-in 4G LTE modem**: LTE frequency bands 20, 8, 3, 1, 7, 13, 17, 5, 4, 2, 16, 19, 1, 900, 1800 | 850, 900, 1800, 1900 MHz
- **Built-in UHF modem**: Receive & transmit UHF radio modem 403 – 473 MHz, channel spacing 12.5 kHz, 20 kHz, 25 kHz, max. 1 W output power up to 28800 bps over air | 902 – 928 MHz (licence free in North America), max. 1 W output power

**GENERAL**

- **Field controller and software**: Leica Capitave software
- **User interface**: Buttons and LEDs | Web server | Storage | Data type and recording rate
- **Power management**: Internal power supply | External power supply | Operating time
- **Weight and dimensions**: Weight | Dimensions
- **Temperature**: -30 to +50°C operating with camera, -40 to +65°C operating without camera
- **Drop**: 40 g / 15 to 23 msec (MIL STD 810G 516.6 I)
- **Humidity**: 95% (ISO9022-12-04 | MIL STD 810G CHG-1 507.6 I)
- **Vibration**: 95% (ISO9022-12-04 | MIL STD 810G CHG-1 507.6 I)
- **Functional shock**: Typical time up to 8 h

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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. QZSS L6 will be provided through future firmware upgrade.

3. Depending on variant. In order Europe | NAFTA | Japan version

4. Available for the GS18 UHF variants only.

5. Might vary with temperature, age of battery, transmit power of data link device or use of wireless communication devices.

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