Leica Zeno GG02plus
GNSS/GIS SmartAntenna Datasheet

Leica Viva

Reliable and accurate GNSS technology

The Leica Zeno GG02plus is a flexible GNSS receiver with cm accuracy – both real-time and post-processed. The Leica Zeno GG02plus combines a high-performance GNSS SmartAntenna with maximum simplicity for the data collection market.

- Built on years of knowledge and experience
- 72 L1/L2 GPS/GLONASS channels for optimum tracking behaviour in all environments. The GLONASS option improves the ability to track enough satellites in obstructed environments
- Delivers accurate and reliable results in the networks

Built for the field

Designed for the extreme environments – accurate, reliable and light-weight.

- With IP67 it is built to withstand the most demanding field environments but nevertheless light-weight and compact design
- Built to operate in extreme temperatures
- Easily exchangeable all-day-battery

Designed for versatile use

Choose the field computer, the field software and the setup (pole or backpack) to suit your workflow and budget.

- Ready-to-use with Leica Zeno Field, Leica MobileMatriX
- Ready-to-use with various Leica Geosystems handhelds and tablet computers such as Leica Zeno 10 & Zeno 15, Leica CS10 GIS & CS15 GIS and the Leica CS25
- Use Leica Zeno Connect to embed custom applications into Leica CS25, Leica Zeno 10 or Zeno 15

- when it has to be **right**

Leica Geosystems

Leica Zeno GG02plus

GNSS technology	
Channels	72 channels
Satellite signals tracking	GPS: L1, L2, L2C (C/A, P, C Code) Optional: GLONASS: L1, L2 (C/A, P narrow Code)
Integrated Real-Time	SBAS (WAAS, EGNOS, MSAS)[3]
Real-Time and Post-processed	Support of real-time correction service and post-processing to achieve cm positioning accuracy[1]
Output Data Protocols	NMEA-0183 (GGA, VTG, GLL, GSA, ZDA, GSV, RMC, GST, GRS) via Zeno Control only
Real-Time Protocols	RTCM 2.x, RTCM 3.0, CMR, CMR+
Update Rate	1 Hz
Post-Processed Accuracy[1]	Baseline mode L1 Phase: 10 mm + 2 ppm RMS
Horizontal Real-Time Accuracy[1] (SBAS or external source)	SBAS < 1.2 m, RTK < 1 cm + 2 ppm
Vertical Real-Time Accuracy[1]	RTK < 2 cm + 2 ppm
Time for initialisation[2]	Typically 8 sec
GG02plus SmartAntenna	
User Interface	On/Off key Status indicator (LED): Satellite tracking, Bluetooth® communication & battery power
Communication port	Bluetooth® 2.0 class 2 & sealed and protected 8-pin Lemo combined USB / power port
Field controller connection	By Bluetooth® or with GEV162 RS232 cable
Power Management	
Removable Battery	GEB211 (7.4 V / 2100 mAh Li-Ion rechargeable) or GEB212 (7.4 V / 2600 mAh Li-Ion rechargeable)
Battery Charging Time	2 hours to full charge with GKL211
Power	Nominal 12 V DC Range 10.5 – 28 V DC
Operating Time	7 h[6]
Physical Specifications	
Weight	1 kg with all-day battery 2.8 kg ready-to-use with Leica CS10 GIS, pole and batteries
Environmental specifications	IP67: dust and water-resistant for all conditions Temporary submersion into water (max. depth: 1 m) Protected against blowing rain and dust
Operating / Storage temperature range[4]	Operation: -40 to 65 °C Storage: -40 to 80 °C
Humidity	100%, non-condensing[5]
Drop	Withstands topple over from a 2m survey pole onto hard surface Withstands 1 m drop onto hard surface
Vibration	Withstands vibration in compliance with ISO9022-26-08
Functional shock	No loss of lock to satellite signals when used on a pole setup and submitted to pole bumps up to 150 mm
Accessories and Optional Features	
Accessories	• External battery charger • Backpack kit • Hard carry case • 2 meter range pole
Optional Field and Office Software	• Leica Zeno Field • Leica MobileMatriX • Leica Zeno Connect • Leica Zeno Office and Leica Zeno Office on ArcGIS
Optional field computers	• Leica CS25 rugged Tablet Computer • Leica Zeno 10 and Zeno 15 GNSS/GIS handhelds • Leica CS10 GIS and CS15 GIS field controllers

[1] Measurement precision, accuracy and reliability depends upon various factors including number of available sat, geometry proximity to base station, multipath effects, ionospheric conditions etc.
[2] May vary due to atmospheric conditions, multipath, obstructions, signal geometry and number of tracked satellites.
[3] WAAS available in North America only, EGNOS available in Europe only, and MSAS available in Japan only
[4] Compliance with ISO9022-10-8, ISO9022-11-special and MIL-STD-810F Method 502.4-II, MIL-STD-810F method 501.4-II
[5] Compliance with ISO9022-13-6, ISO9022-12-04 and MIL-STD-810F Method 507.4-I
[6] May vary with temperature, battery age etc.

Swiss Technology
by Leica Geosystems

TQM
ISO 9001 / ISO 14001

**Total Quality Management –
our commitment to total
customer satisfaction.**

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