

Collecting **high accuracy** geospatial data on your **tablet** or **smartphone** has never been easier

Leica
Geosystems

Leica Zeno GG04 Plus

The latest Smart Antenna in the Leica Zeno range can pair with a wide range of Android, iOS or Windows smart devices, bringing centimetre accuracy into the hands of all.

Key Features

- Uses RTK technology and Precise Point Positioning (PPP) that makes real-time, high-accuracy data collection possible in most demanding environments without the need for a mobile data connection.
- Day-long operation with onboard battery and a Bluetooth connection that ensures cable free operation
- Have confidence in your measurements with 555 channels for more GNSS signals (GPS, Glonass, BeiDou, Galileo, QZSS, SBAS), faster acquisition and higher sensitivity.



Not only will the Zeno GG04 Plus smart antenna work with Leica Zeno Mobile on the Zeno 20 GIS/GNSS handheld, but also with other popular data collection apps and software, like Geolantis.360, ESRI Collector for ArcGIS and others.



Supports Android, iOS or Windows smart devices

C.R. Kennedy Proudly Partnering

Leica
Geosystems

geolantis 360

 **esri** Partner Network
Silver

Call **1300 886 982** for more information
survey.crkennedy.com.au/gis

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Technical Specifications

LEICA ZENO GG04 PLUS | GNSS TECHNOLOGY

Number of channels	555 channels (more signals, fast acquisition, high sensitivity)										
Satellite signal tracking	GPS (L1, L2, L2C, L5), Glonass (L1, L2), BeiDou (B1, B2, B3 ¹), Galileo (E1, E5a, E5b, Alt-BOC, E6 ¹), QZSS, SBAS (WAAS, EGNOS, MSAS, GAGAN), L-band										
Real-time and post-processing	Support of real-time correction service and post-processing to achieve positioning accuracy										
Output data protocols	<ul style="list-style-type: none"> Windows®: NMEA² via Zeno Connect Android: position provided by Location Service and NMEA² output possible, both via Zeno Connect iOS: position provided by iOS Location Feature and NMEA² output possible (via EA protocol) via Zeno Connect 										
Update rate	20 Hz (0.05 sec) ³										
Post-processing accuracy static mode	Horizontal: 3 mm + 0.5 ppm (rms) ⁴ Vertical: 6 mm + 0.5 ppm (rms) ⁴										
Horizontal real-time accuracy (SBAS or external source)	<table> <tr> <td>SBAS, L1 only</td><td>< 0.9 m⁴</td></tr> <tr> <td>Spot Lite, PPP (Multi-frequency option needed)</td><td>< 60 cm⁴ after approximately 7 minutes of converging</td></tr> <tr> <td>DGNSS, L1 only</td><td>< 40 cm⁴</td></tr> <tr> <td>Spot Prime, PPP (Multi-frequency option needed)</td><td>< 10 cm⁴ after approximately 30 minutes of converging</td></tr> <tr> <td>RTK, Multi-frequency</td><td>< 1 cm + 1 ppm⁴</td></tr> </table>	SBAS, L1 only	< 0.9 m ⁴	Spot Lite, PPP (Multi-frequency option needed)	< 60 cm ⁴ after approximately 7 minutes of converging	DGNSS, L1 only	< 40 cm ⁴	Spot Prime, PPP (Multi-frequency option needed)	< 10 cm ⁴ after approximately 30 minutes of converging	RTK, Multi-frequency	< 1 cm + 1 ppm ⁴
SBAS, L1 only	< 0.9 m ⁴										
Spot Lite, PPP (Multi-frequency option needed)	< 60 cm ⁴ after approximately 7 minutes of converging										
DGNSS, L1 only	< 40 cm ⁴										
Spot Prime, PPP (Multi-frequency option needed)	< 10 cm ⁴ after approximately 30 minutes of converging										
RTK, Multi-frequency	< 1 cm + 1 ppm ⁴										
Vertical real-time accuracy	RTK (Multi-frequency): 2 cm + 1 ppm ⁴										
Real-time protocols	RTCM 2.x, RTCM 3.0, RTCM 3.1, RTCM 3.2, RTCM MSM, CMR, CMR+										
Integrated real-time	SBAS ⁵ (EGNOS, WAAS, MSAS, GAGAN), or PPP via L-band (requires a valid Spot option)										
Time for initialisation	Typically 6 sec ⁶										

INTERFACE & COMMUNICATION

User interface	On/Off key Status indicator (LED): satellite tracking, Bluetooth® communication and battery power
Communication port	Bluetooth® 4.1 class 1 & sealed and protected 8-pin Lemo combined USB / Serial232 port
Field controller connection	By Bluetooth® (3 ports available), RS232 or USB cable

POWER MANAGEMENT

Removable battery	GEB212 (7.4 V / 2600 mAh Li-Ion rechargeable)
Battery charging time	2 hours to full charge with GKL341
Power	Nominal 12 V DC Range 10.5 – 28 V DC
Operating time	7.5 h (RTK) ⁷ , 10 h (GNSS only) ⁷

PHYSICAL SPECIFICATIONS

Weight and dimensions	0.8 kg with all-day battery Height: 0.071 m x Diameter: 0.186 m
Proof against water, sand and dust	IP68 (IEC60529): dust and water-resistant for all conditions: Temporary submersion into water (2 hours in 1.40 m depth) and protected against blowing rain and dust
Operating / Storage temperature range	Operation: –40 to 65 °C (–40°F to +149°F) (ISO 9022-10-08, MIL-STD-810G CHG1 Method 502.6-II & ISO 9022-11-04, MIL-STD-810G CHG1 Method 501.6-I) Storage: –40 to 80 °C (–40°F to +176°F) (ISO 9022-10-08, MIL-STD-810G CHG1 Method 502.6-I & ISO 9022-11-06, MIL-STD-810G CHG1 Method 501.6-I)
Humidity	100% (ISO9022-12-04, ISO9022-13-06, ISO9022-16-02, MIL-STD-810G CHG1 Method 507.6-I)
Drop	Withstands topple over from a 2 m survey pole onto hard surface Withstands 1 m drop onto hard surface
Vibration	Withstands strong vibration (ISO9022-36-05)

ACCESSORIES & OPTIONAL FEATURES

Accessories	<ul style="list-style-type: none"> External battery charger Backpack kit Hard carry case 2 meter range pole Universal pole mounts for different sized 3rd party mobile devices
Optional field and office software	<ul style="list-style-type: none"> Leica Zeno Field Leica Zeno Mobile Leica Zeno Connect Leica Zeno Office and Leica Zeno Office on ArcGIS
Optional field computers	<ul style="list-style-type: none"> Leica Zeno 5 Leica CS25 plus rugged tablet computer or with the following 3rd party HW in combination with Leica Zeno Connect: <ul style="list-style-type: none"> Android: most phones and tablets with Android version > 4.1 Windows®: tablets/pcs/handhelds with Windows® 10/8/7 or WEH Apple phones and tablets⁸

¹ Believe to comply, but subject to availability of BeiDou ICD and Galileo commercial service definition.

BeiDou B3 and Galileo E6 will be provided through future firmware upgrade.

² Supported NMEA-0183 messages: GGA, VTG, GLL, GSA, GQG, GSV, RMC, LLQ (Windows® only), GST

³ 20 Hz supported for selected NMEA messages on Windows® only.

⁴ Measurement precision, accuracy and reliability depends upon various factors including number of available satellites, geometry proximity to base station, multipath effects, ionospheric conditions, etc.

⁵ WAAS available in North America only, EGNOS available in Europe only, MSAS available in Japan only, GAGAN available in India only.

⁶ May vary due to atmospheric conditions, multipath, obstructions, signal geometry and number of tracked satellites.

⁷ May vary with temperature, battery age, usage etc.

⁸ Check compatibility list.



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- when it has to be **right**

