Leica Zeno 20
More than GPS

Outdoor experience

Zeno 20 is tough and built to last. Lightweight and compact, it fits in one hand, with the largest, best-in-class screen and a dust and water resistance IP67 rating. An out-of-box experience, Zeno 20 is ready to work when you are. Just unpack and go.

gamtec

Overcome GNSS limitations and extend productivity. gamtec merges two great tools, the Zeno 20 and the DISTO™ S910, to create a contactless offset measuring solution, increasing safety dramatically in the field while maintaining highest accuracy.

More software

By choosing either Android or Windows Embedded Handheld operating systems, users can add their favourite mobile Apps, such as the Zeno Mobile, Zeno Field or any third party software to simplify workflows and maximise flexibility.

PART OF HEXAGON

- when it has to be **right**

Leica Geosystems

Technical Specifications

Leica Zeno 20

GNSS	
Basic configuration	GPS L1 only
Upgrade options	GPS: L2, L2C GLONASS: L1, L2 BeiDou: B1 Galileo: E1
Channels	120 channels
Integrated real-time	SBAS (WAAS, EGNOS, GAGAN, MSAS)[1]
Output data protocols	NMEA-0183 (GGA, VTG, GLL, GSA, GSV, RMC, GST, GGQ, LLQ) via Zeno Connect on WEH or position provided by Android Location Service via Zeno Connect on Android
Real-time protocols	RTCM 2.x, RTCM 3.0, RTCM 3.1, Leica, CMR, CMR+
Update rate	1 Hz (1 sec), Optional: 5 Hz (0.2 sec)
Horizontal real-time accuracy[2] (SBAS or external source)[3]	1 cm + 1 ppm <5cm + 1 ppm with L1/L2 handheld <40cm L1 handheld <0.9 m with SBAS L1 handheld
Vertical real-time accuracy[2]	RTK (with AS10, L1/L2): 2 cm + 1 ppm, RTK (with internal, L1/L2): <10 cm + 1 ppm
Post processing accuracy static mode[2]	Horizontal: 3 mm + 0.5 ppm (rms), vertical: 6 mm + 0.5 ppm (rms)
Time to first fix	Typically 40 sec
Technology	
Processor & memory	Ultra fast dual core Texas Instruments OMAP4470 1.5 GHz and 1 GB RAM
Data storage	4 GB on-board iNAND – extensible with Secure Digital™ (microSD) Card compatible up to 32 GB
Operating system	Windows Embedded Handheld 6.5 Professional or Android 4.2.2
Screen	4.7" FWVGA (854x480) IPS, sunlight readable, capacitive multi-touch; Asahi Dragontrail chemically strengthened glass Brightness: 600+ cd/m²
Integrated camera	8 Megapixel camera with Autofocus & LED flash
I/O	• 1 x USB 2.0 port (fully waterproof even when the latch is open) • Micro USB Client for data transfer and charging (fully waterproof even when the latch is open) • External SMB antenna connector • Integrated Audio and Microphone
Keyboard	Keypad with 3 operating system hard keys, 3 programmable buttons, one navigation wheel, a GNSS button and a power button
Additional sensors	3-axis accelerometers, 3-axis gyroscope, ambient light sensor, digital compass, altimeter/barometer, proximity, ambient temperature
gamtec	Typical measurement accuracy: distance +/- 1 mm (up to 300 m) Hz/V: 0.1°
Communication	
Integrated communication modules	Wireless LAN 802.11 b/g/n Bluetooth®: Class 2 (10m), v3.0 in Android OS and v2.0 in Windows Mobile OS WWAN 3.8G GSM (Zeno 20 UMTS) or CDMA (Zeno 20 CDMA), supporting the following RF bands: • GSM: HSDPA/UMTS 800/850/900/1900/2100 MHz • GSM: Quad-band EDGE/GPRS/GSM – 850/900/1800/1900 MHz • CDMA: Dual-band EV-DO Rev. A - 800/1900 MHz – 800/1900 MHz
Power Management	
Batteries	Hot-swappable Li-Ion battery with 7800 mAh and one small internal battery which allows the hot-swap
Power management	Input: 100 - 240 V AC, 50 - 60 Hz; output: 5.0 V DC, 1.8 A Charge time: <6h
Operating time[4]	Real time DGNSS usage (via integrated modem): <7 hours Autonomous GNSS usage: 8 hours Bluetooth® usage: 20 hours Standby: up to 50 days
Physical Specifications	
Size	99 mm (3.9") x 259 mm (10.1") x 40 mm (2.0")
Weight	<880 g including battery
Sand & Dust	IP6x Dust IEC-60529
Water	IPx7 survives dip in 1m depth for 30min IEC-60529
Altitude	15,000 ft (4,572 m) at 73 °F (23 °C) to 40,000 ft (12,192 m) at -22 °F (-30 °C), MIL-STD-810G, Method 500.5, Procedure I, II & III
Operating temperature range	–30 °C to +60 °C; MIL-STD-810G 501.5/502.5 I,II,III
Storage temperature range	–40 °C to +70 °C; MIL-STD-810G 501.5/502.5 I,II,III
Humidity	90% relative at -30 °C to +60 °C; MIL-STD-810G 507.5 II
Drop	MIL-STD-810G 4ft drop, free to concrete, 26 drops from 1.22 m (4 ft) MIL-STD-810G, Method 516.5, Procedure IV
Vibration	MIL-STD-810G, Method 514.5 Procedures I & II, Category 4; General minimum integrity and the more rigorous loose cargo test Accessories and Optional Features
Accessories and Optional Features	
Accessories	External battery charger, backpack kit, hard carry case, 12V vehicle charger, pole mount solution, anti-glare screen protectors, additional 5200 mAh battery
Optional Field and Office Software	Leica Zeno Field, Leica Zeno Mobile, Leica Zeno Connect, Leica Zeno Office and Leica Zeno Office on ArcGIS
Optional GNSS Antenna	Leica AS10

[1] WAAS available in North America, EGNOS available in Europe, GAGAN available in India & MSAS available in Japan only.
[2] Stated accuracy is with Leica AS10, requires the Zeno L1/L2 option.
[3] Measurement precision, accuracy and reliability depends upon various factors including number of available satellites, geometry, obstructions proximity to base station, multipath effects, ionospheric conditions etc.
[4] May vary with temperature, battery age, usage etc.

Swiss Technology by Leica Geosystems

The Bluetooth® word mark and logos are owned by Bluetooth SIG, Inc. and any use of such marks by Leica Geosystems AG is under license.

Microsoft, Windows and the Windows logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Other trademarks and trade names are those of their respective owners.

Illustrations, descriptions and technical data are not binding. All rights reserved. Printed in Switzerland
Copyright Leica Geosystems AG, Heerbrugg, Switzerland, 2015. 835754en-us – 05.15 – INT

Leica Geosystems AG
Heerbrugg, Switzerland

www.leica-geosystems.com

- when it has to be **right**

Leica Geosystems