

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.

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, GQO, 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" FWGGA (854x480) IPS, sunlight readable, capacitive multi-touch; Asahi Dragontrail chemically strengthened glass Brightness: 600+ cd/m ² |
| Integrated camera | 8 Megapixel camera with Autofocus & LED flash |
| I/O | <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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 |
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| 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.



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