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.

- when it has to be right
### Technical Specifications

**Leica Zeno 20**

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#### GNSS

- **Basic configuration**: GPS L1 only
- **Upgrade options**:
  - GPS: L2, L2C
  - GLONASS: L1, L2
  - BeiDou: B1
  - Galileo: E1
- **Channels**: 240 channels
- **Integrated real-time**:
  - SBAS (WAAS, EGNOS, GAGAN, MSAS)
- **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
  - 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** (SBAS or external source):
  - 1 cm + 1 ppm
  - <0.5 cm + 1 ppm with L1/L2 handheld
  - <0.4 m with SBAS L1 handheld
- **Vertical real-time accuracy**:
  - RTK (with AS10, L1/L2): 2 cm + 1 ppm
  - RTK (with internal, L1/L2): <10 cm + 1 ppm

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#### 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" WVGA (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

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#### 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 3G/4G
- **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
    - Battery charge: <6h
  - **Operating time**:
    - Real time DGNSS usage (via integrated modem): 7 hours
    - Autonomous GNSS usage: 8 hours
    - Bluetooth® usage: 20 hours
    - Standby: up to 50 days

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#### Physical Specifications

- **Size**: 99 mm (3.9") x 259 mm (10.1") x 40 mm (2.0")
- **Weight**: <880 g including battery
- **Sand & Dust**: IPexa Dust IEC-60529
- **Water**: IPx2 survives dip in 1 m depth for 30 min 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 506.5, Procedure I, II & III
  - Storage temperature range:
    - -30°C to +60°C; MIL-STD-810G 506.5, Procedure I, II & III
  - Humidity:
    - 90% relative at -30°C to +60°C; MIL-STD-810G 507.5 I, II
  - Drop:
    - MIL-STD-810G 26 drops from 1.22 m (4 ft) MIL-STD-810G, Method 566.6, Procedure IV
  - Vibration:
    - MIL-STD-810G, Method 664.4 Procedures I & II, Category 4, General minimum integrity and the more rigorous loose cargo test

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#### 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 MobileMatrix, Leica Zeno Connect, Leica Zeno Office and Leica Zeno Office on ArcGIS
- **Optional GNSS Antenna**:
  - Leica AS10

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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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