

Zenith60

GNSS Receiver



Reliable technology

- Calibration-free IMU technology
- Electromagnetic resistance
- 4G LTE module
- SATEL UHF Radio
- NovAtel measurement engine

Maximum flexibility

- Field controllers: Choose GeoMax or your own device
- With or without tilt capability and/or UHF module

Unique Software Suite

- No maintenance cost for field software
- Automatic data backup
- Collaborative Survey & Stakeout



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Zenith60 product page



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Zenith60

Work fast and flexibly, and trust your results

Become more productive and efficient with the Zenith60's calibration-free tilt capability, making every survey faster and more convenient. The antenna is resistant to magnetic interferences, so you can enjoy the comfort of knowing you can trust your data. When combined with GeoMax field controllers and X-PAD Ultimate field software, the Zenith60 reaches its maximum performance. X-PAD provides a comfortable user experience, reducing the need for training. In addition, software maintenance for X-PAD Ultimate comes at no extra cost. By keeping your X-PERT service active, you can continuously profit from the latest software improvements.

| VARIANTS | 4G LTE | UHF | TILT COMPENSATION |
|-----------------------------|--------|-----|-------------------|
| GeoMax Zenith60 LTE | ■ | - | - |
| GeoMax Zenith60 LTE-UHF | ■ | ■ | - |
| GeoMax Zenith60 LTE-IMU | ■ | - | ■ |
| GeoMax Zenith60 LTE-UHF-IMU | ■ | ■ | ■ |

| RECEIVER SPECIFICATIONS | |
|---------------------------------|--|
| Reliability | 99.99% |
| Measurement Engine | NovAtel OEM7, 555 channels, multi-frequency, multi-constellation |
| GPS tracking | L1 C/A, L1C, L2C, L2P, L5 |
| GLONASS tracking | L1 C/A, L2 C/A, L2P, L3* |
| BeiDou tracking | B1I, B1C, B2I, B2a, B2b, B3I |
| Galileo tracking | E1, E5a, E5b, AltBOC, E6* |
| QZSS tracking | L1 C/A, L1C, L2C, L5, L6* |
| NavIC | L5** |
| SBAS (EGNOS, WAAS, MSAS, GAGAN) | L1, L5 |
| Precise Point Positioning (PPP) | TerraStar C Pro, L-Band (opt) |
| Positioning rate | 5Hz, 20Hz (opt) |
| Time for Initialization | Typically 4s |

| QUALITY MODE | |
|-------------------|---|
| RTK modes | Selectable; ExtraSafe, Standard |
| Tilt Compensation | Calibration-free, Resistant to magnetic interferences |

| COMMUNICATION | |
|--------------------|---|
| 4G LTE module | QUECTEL EG25-G LTE FDD, LTE TDD, UMTS, GSM |
| RTK data protocols | RTCM 2.1, 2.3, 3.0, 3.1, 3.2, 3.3, 3.4, CMR, CMR+, RTCA, NOVATELX |
| NMEA Output | NMEA v3.1, NMEA v4.1 |
| UHF radio module | SATEL TR4+, 500mW, 1000mW transceiver, 403-473 MHz; (opt) |
| Bluetooth® | 2.1 +EDR, V5.0 QR-iConnect functionality |
| WLAN | 802.11 a/ac/b/g/n Hotspot / client mode |
| TNC connector | UHF antenna |
| Communication port | USB, serial & power |

| RECEIVER ACCURACY & PERFORMANCE *** | |
|--------------------------------------|---|
| RTK | Hz: 8 mm ± 1 ppm (rms) V: 15 mm ± 1 ppm (rms) |
| Network RTK | Hz: 8 mm ± 0.5 ppm (rms) V: 15 mm ± 0.5 ppm (rms) |
| Static | Hz: 3 mm ± 0.5 ppm (rms) V: 5 mm ± 0.5 ppm (rms) |
| Static long | Hz: 3 mm + 0.1 ppm (rms) V: 3.5 mm + 0.4 ppm (rms) |
| Code differential | Hz: 0.25 m (rms) V: 0.50 m (rsm) |
| Tilt compensated real-time kinematic | Additional Hz uncertainty +/- 2 cm up to 30° tilt |

| INTERFACES | |
|-----------------------|---|
| Keyboard | On/off button |
| LED status indicators | Position, RTK, Power, Bluetooth® |
| Data recording | Dual; microSD card and 8 GB internal memory |
| GSM/TCP/IP | Removable SIM card |

| POWER SUPPLY | |
|------------------------|---------------------------------------|
| Two internal batteries | Hot-swappable, Li-Ion 3.4 Ah / 7.2 V |
| Operating time | 12.5 h in static / 11 h in rover mode |
| External power | 9 V to 28 V, LEMO® plug |

| PHYSICAL SPECIFICATIONS | |
|--------------------------|--|
| Dimensions | Height 75 mm, ø 166.8 mm |
| Weight | 1.14 kg without batteries |
| Operating temp. | -40°C to 65°C |
| Environmental protection | IP68 (IEC 60529) Withstands powerful jets and temp. immersion under water MIL-STD-810G 1 506.6 & 1 512.6 Fully dust tight MIL-STD-810G 1 510.6 |
| Humidity | MIL-STD-810H 1 507.6 |
| Vibration | Mechanical stress resistant according to ISO 9022-36-05 |
| Shock | Withstands 2 m drop onto hard surface |

*GLONASS L3, Galileo E6, and QZSS L6 will be provided with future firmware upgrade.

**Support of NavIC is incorporated and will be provided through future firmware upgrade.

*** Measurement accuracy and reliability are dependent on various factors including satellite geometry, obstructions, observation time, ionospheric conditions, multipath, etc.

Figures quoted assume normal to favorable conditions. GeoMax reserves the right to change, without notice, product offerings or specifications.

