

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 Initialisation	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 +/- 2cm 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
Humidity	Fully dust tight MIL-STD-810G 1 510.6
Vibration	MIL-STD-810H 1 507.6
Shock	Mechanical stress resistant according to ISO 9022-36-05 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.

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