

Redefining Accuracy and Reliability



GeoMax Zenith60 Pro

Product Information
May 2024



GeoMax Zenith60 Pro

The all new GeoMax Zenith60 Pro – Redefining Accuracy and Reliability



Works when you do



Product Announcement
May 2024

Product Release
End of May 2024



GeoMax Zenith60 Pro – Highlights

GNSS board with 800+ channels

Multi-constellation – GPS, Glonass, Galileo, BeiDou, QZSS, NavIC

Calibration-free tilt compensation

Multi-frequency – Resilient to high solar activity

Integrated LTE phone modem and UHF radio modem

IP68 protection against dust and water

Withstands 2 m pole topple-over

Internal memory and microSD card storage

GeoMax X-PAD field software



GeoMax Zenith60 Pro – Technical Data

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

RECEIVER SPECIFICATIONS

Measurement Engine	800+ channels, multi-frequency, multi-constellation
GPS tracking	L1 C/A, L1P, L1C, L2C, L2P, L5
GLONASS tracking	L1 C/A, L1P, L2 C/A, L2P, L3
BeiDou tracking	B1I, B1C, B2I, B2a, B2b, B3I, ACEBOC
Galileo tracking	E1, E5a, E5b, E6, AltBOC,
QZSS tracking	L1 C/A, L1C, L2C, L5, L6
NavIC	L5
SBAS (EGNOS, WAAS, MSAS, GAGAN)	L1, L5
Positioning rate	20 Hz
Time for Initialisation	Typically 4s

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

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

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)
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
LTE/TCP/IP	Removable SIM card



GeoMax Zenith60 Pro – Technical Data

QUALITY MODE

RTK modes	Selectable; Surefix, 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+
NMEA Output	NMEA v3.1, NMEA v4.1
UHF radio module	SATEL TR4+, 500 mW, 1000 mW transceiver, 403–473 MHz
Bluetooth®	2.1 +EDR, V5.0 QR-iConnect functionality
WLAN	802.11 b/g/n Hotspot / client mode
TNC connector	UHF antenna
Communication port	USB, serial & power

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

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GeoMax Zenith60 Pro – Network RTK Rover Set

6018651	Zenith60 Pro NRTK Rover Set GeoMax Zenith60 Pro LTE-IMU multi-constellation GNSS receiver with tilt compensation, internal 4G phone modem, Bluetooth, 800+ channels, GPS, GLONASS, Galileo, BeiDou, NavIC, QZSS, multi-frequency, 20 Hz positioning rate. Including battery, charger, hard container, USB cable, multilingual Quick Guide and telescopic pole.	List price 17120 EUR	GRP 10175 EUR
996669	Zenith60 Pro LTE-IMU GNSS Smart Antenna		
819282	ZBA201 Li-Ion Battery, 2.6 Ah 7.4 V, rechargeable		
766872	ZCH201 Charger for ZBA201 & ZBA400 Li-Ion batteries		
733254	GEV192 AC/DC-Adapter for ZCH201 Charger		
789349	ZPC200 Telescopic Carbon Fibre and aluminium pole with 5/8" screw for GNSS. Extends to 2.5 m.		

GeoMax Zenith60 Pro – UHF Rover Set

6018652	Zenith60 Pro UHF Rover Set GeoMax Zenith60 Pro LTE-UHF-IMU multi-constellation GNSS receiver with tilt compensation, internal 4G phone modem and Satel UHF radio, Bluetooth, 800+ channels, GPS, GLONASS, Galileo, BeiDou, NavIC, QZSS, multi-frequency, 20 Hz positioning rate. Including UHF antenna, battery, charger, hard container, USB cable, multilingual Quick Guide and telescopic pole.	List price 18517 EUR	GRP 10925 EUR
996670	Zenith60 Pro LTE-UHF-IMU GNSS Smart Antenna		
819282	ZBA201 Li-Ion Battery, 2.6 Ah 7.4 V, rechargeable		
766872	ZCH201 Charger for ZBA201 & ZBA400 Li-Ion batteries		
733254	GEV192 AC/DC-Adapter for ZCH201 Charger		
789349	ZPC200 Telescopic Carbon Fibre and aluminium pole with 5/8" screw for GNSS. Extends to 2.5 m.		
760259 or 766906	ZRA100, Gainflex UHF Antenna - frequency range 435-470 MHz or ZRA101, Gainflex UHF Antenna - frequency range 400-435 MHz		

GeoMax Zenith60 Pro – Positioning



* Precise Point Positioning (PPP, Terrastar C-Pro) is supported by:

- Zenith16 UHF / Zenith16
- Zenith60 LTE-UHF-IMU (948901)

Zenith60 LTE, Zenith60 LTE-UHF and Zenith60 LTE-IMU will be discontinued



GeoMax Zenith60 Pro – X-PAD Software

X-PAD

The GeoMax X-PAD Software Suite covers all the stages of a construction project, from design to plan and build. It is tailored for projects that require capturing accurate data in the field, transferring it quickly and securely to the office, storing and managing files on a single platform, post-processing GNSS static data, and more.

The Suite includes **X-PAD Ultimate**, the dedicated GeoMax field software for GNSS antennas and total stations featuring straightforward workflows on site.

X-PAD Office Fusion combines in one environment all geospatial data from GeoMax sensors, laser scanners and drones, for creating your project deliverables; and **X-PAD 365** cloud platform for synchronized collaboration, file management and notifications.



GE  **MAX**

GeoMax Zenith60 Pro – Key Messages

Complete complex surveying challenges with accuracy and confidence.

Navigate Every Challenge Fast and Accurately.

Redefining Accuracy and Reliability.

The Zenith60 Pro by GeoMax is the tool of choice for construction and surveying professionals who want their job done accurately and on time. The Zenith60 Pro is a robust, durable and highly reliable GNSS smart antenna designed for high performance even in challenging conditions. Offering seamless integration with the GeoMax ecosystem, working seamlessly with GeoMax total stations and X-PAD Suite, it's more than a GNSS receiver – it's a comprehensive solution, resulting in unmatched precision and efficiency.



GeoMax Zenith60 Pro – Messaging Framework

Optimized Performance

For surveyors and construction professionals who want to get the job done on time and with confidence, the advanced Zenith60 Pro GNSS smart antenna ensures precise, accurate, and hassle-free measurements. The new, powerful RTK rover provides high quality data and supports a streamlined workflow. The Zenith60 Pro's tilt compensation makes it possible to measure otherwise inaccessible points and increases your speed of work and measurement accuracy.

Excellent Reliability

Face any challenge and have your job done with the new Zenith60 Pro. Whether it's harsh climate, urban areas, dense canopy coverage, or other challenging terrains, the Zenith60 Pro supports you in overcoming obstacles with minimal effort. With our multi-constellation, multi-frequency GNSS receiver you can complete your surveying and construction projects accurately and on time, regardless of the circumstances.

Boosted Efficiency for your digital workflow

Zenith60 Pro is fully integrated with the GeoMax ecosystem, providing a comprehensive solution that works when you do. Zenith60 Pro has been designed to connect with GeoMax total stations and innovative X-PAD field software that enables an efficient and flexible workflow. X-PAD Software provides a simple user experience without extra software maintenance costs.



Zenith60 Pro - Marketing Materials

Marketing Assets available online (Bynder & www) at PA:

- Datasheet
- GNSS Comparison Chart
- Family Brochure
- Product Presentation
- Product Webpage
- Key Visual
- Application Images

We invite you to share your insights on any other materials that could enhance the successful launch of Zenith60 Pro. Especially those that ensures sustained value beyond the launch and contribute to product comprehension and acceptance in your regions.

Thank you for your cooperation and support!

GeoMax GNSS and TPS Solutions – Works when you do

