

GeoMax GNSS

Zenith10 & Zenith20 Series



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Technical Data

Zenith Series GNSS receiver

Receiver specifications

Novatel AdVance® technology
Zenith10 72 channels (GPS/GLONASS)
Zenith20 120 channels (GPS/GLONASS/Galileo)

Satellite signals tracked:

GPS L1, L2, L2C

GLONASS L1, L2

Galileo*

5 Hz raw measurement & position outputs,
20Hz optional

RTK signal initialization typically less than 10 sec**

Initial capture time < 15 sec**

Internal memory 256 MB (more than 60 days of
raw static data storage with
recording sample every 15 sec)

Raw Data Logging to internal memory
or MicroSD card

Receiver accuracy

Static horizontal accuracy 5 mm ± 0.5 ppm (RMS)**

Static vertical accuracy 10 mm ± 0.5 ppm (RMS)**

Kinematic horiz. accuracy 10 mm ± 1 ppm (RMS)**

Kinematic vert. accuracy 20 mm ± 1 ppm (RMS)**

DGPS/RTCM differential positioning: 0.25 m (RMS)**

Serial protocols

RTK formats CMR, CMR+, RTCM 2.1, RTCM
2.3, RTCM 3.0, RTCM 3.1

Navigation outputs ASCII (NMEA-0183)

Connection devices

Connectors I/O:

5-pin LEMO connector for external power supply
and serial connection

4-pin LEMO connector for connecting
with PC USB port

Two TNC connectors for UHF and GSM antennas
Bluetooth® device class II

Internal radio with 1 W transmission power.

Programmable frequency range of 403 – 473 MHz,
optional.

GSM/GPRS data modem at 800 MHz, 900 MHz,
1800 MHz & 1900 MHz

Sim card slot in battery compartment

MicroSD card slot in battery compartment

Power Supply

Interchangeable 2500mAh / 7.4V Li-Ion battery
providing 4.5 hours RTK operation

9V to a 18V DC external power input with
over-voltage protection

Physical specifications

Size height 94 mm x diameter 188 mm

Weight 1.2 kg with internal battery
and UHF radio

Operational temp. -30°C to 60°C (-22°F to 140°F)

Storage temp. -40°C to 80°C (-40°F to 176°F)

Protection class IP67

Humidity 100%

* The optional Galileo tracking will be made available once there are sufficient of these satellites.

** The position accuracies depend on various factors including number of satellites, geometry, ionospheric conditions, multipath, etc.

PSD236 HHandheld

System

Operating System: Microsoft Windows

Mobile® 6.1 Classic

Processor: Marvell PXA310 806MHz

Memory: 256MB NAND flash
and 4GB iNAND

Expansion Slot: SDHC card slot (up to 16GB)

Interface

Display: 3.5" TFT LCD VGA (480 x 640) touchscreen

Keypad: Numeric phone keypad with 21 keys
and backlight

Data ports: Serial port (9-pin) & USB port (mini AB)

Wireless connection: Bluetooth® device class II

Physical specifications

Dimensions 89 x 30 x 178 mm

Weight 530 g including battery

Rover weight 3.1 kg for complete pole setup

Operational temp. -30°C to 60°C (-22°F to 140°F)

Storage temp. -40°C to 70°C (-40°F to 160°F)

Protection class IP67

Humidity 95%, non-condensing

Power Supply

Removable 5600mAh / 3.7V Li-Ion battery

Operating time up to 10 hours

Internal charging with supplied AC adaptor



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