Get Real-Time, Sub-Meter Accuracy

Looking for a simple sub-meter GNSS solution at an affordable price? With the Geode, you can easily collect real-time, sub-meter GNSS data without the huge price tag or complexity of other precision receivers. Designed with versatility in mind, the Geode works with a wide range of Windows®, Windows Mobile, and Android® devices to fit your needs exactly and is especially useful for bring-your-own-device workplaces. Take the Geode with you mounted on a pole, in a pack, or held in your hand to collect real-time sub-meter GNSS data in harsh environments, using almost any handheld device.

- **SUB-METER ACCURACY** – Collect precision GNSS data with an existing device
- **REAL-TIME DATA** – Multiple correction sources provide precise, real-time data
- **AFFORDABLE** – Professional accuracy at a budget-friendly price
- **COMPACT SIZE** – Small and lightweight for all-day use
- **OPEN INTERFACE** – Works with Juniper Systems' handhelds or your own device
- **SIMPLE TO USE** – Intuitive and easy operation, one-button simplicity
- **ALL-DAY BATTERY LIFE** – Ideal for long work days

JUNIPER® systems

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Geode Specifications

RECEIVER
- Receiver Type: GNSS single frequency with carrier phase tracking
- Signals Received: GPS, SBAS, GLONASS, BeiDou, GALILEO and QZSS [1]
- Channels: 162
- SBAS Tracking: 3-channel parallel tracking
- Update Rate: 1 Hz standard, 2–10 Hz (optional)

ACCURACY
- SBAS (WAAS): <30 cm Horizontal RMS 63% - 68% of readings
  (<23.6", 60 cm 2DRMS 95% -98% of readings) [2]
- Cold Start: <60 sec typical (no almanac)
- Reacquisition: <1 sec

COMMUNICATIONS
- Bluetooth® 4.0 (Serial Port Profile)
- Bluetooth Range: Class 1 Long Range
- Ports: Micro USB Client 2.0; Serial RS232C DB-9 (optional)
- Serial Baud Rates: 4800–115200

RECEIVER PROTOCOLS
- Data I/O Protocol: NMEA 0183, Crescent Raw Binary (proprietary)
- Correction I/O Protocol: Hemisphere GNSS Proprietary, ROX, RTCM v2.3, RTCM v3.2, CMR, CMR+
- Other: 1PPS Timing Output, Speed Pulse, Event Marker Input (optional)

POWER
- Input Voltage: 5VDC @ 2A USB
- Power Consumption: 1.7–2 W nominal
- Overtime Technology™ Battery: 3.6V 6000 mAh Li-ion (10 hours typical)
- Charging Time: ~4 hours typical

ANTENNA
- Internal precision Multi-GNSS with integrated ground plane
- External Antenna Port: MCX type, 50 ohm 15VDC @ 20 mA maximum

JUNIPER RUGGED™
- Operating Temp: -20 C to +60 C
- Storage Temp: -30 C to +60 C
- Meets or Exceeds MIL-STD 810G (Drop, Vibration, Temperature, Ingress Protection)
- Enclosure Rating: IP68
- Dimensions: 4.4 x 4.4 x 1.7 inch (111 x 111 x 43 mm)
- Weight: 0.8 lb (360 g)
- Mount: ¼ x 20 camera stud and #6-32 AMPS (diag.)

RECEIVER UPGRADES
- 2 Hz to 10 Hz update rate
- Multi-GNSS upgrade

SOFTWARE
- GeodeConnect™: Provides configuration, communications setup, and receiver settings
- Available for:
  - Windows Embedded Handheld 6.5
  - Android 4.x and above
  - Windows PC (8/10)

INCLUDED ACCESSORIES
- 5VDC USB Universal Charger
- USB Data/Charging Cable (USB-A to Micro-B)
- 5/8 x 11 Pole Mount Adapter

OPTIONAL ACCESSORIES
- Smartphone Adapter Tray
- External Patch Antenna
- Antenna Cable

MODELS
- Geode GPS, 1 Hz
- Geode GPS with 9-pin serial port, 1 Hz
- Geode Multi-GNSS, 1 Hz
- Geode Multi-GNSS with 9-pin serial port, 1 Hz
- Other models with additional upgrades available

1: Signals used dependent on model configuration

2: GNSS accuracy subject to observation conditions, multipath environment, number of satellites in view, satellite geometry, and ionospheric activity.

Contact Juniper Systems today for a quote

MKTG0030

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