

geode™

GNS3 Receiver



ULTRA
RUGGED

DESIGNED &
ASSEMBLED
★ ★ IN ★ ★
USA

YOUR LOCATION, OUR SOLUTION.

SCALABLE REAL-TIME GNSS RECEIVER

Looking for a simple and scalable sub-meter, sub-foot, and decimeter GNSS solution at an affordable price? With the Geode, you can easily collect real-time GNSS data without the huge price tag or complexity of other precision receivers.

Designed with versatility in mind, the Geode works well with with most Apple®, Windows®, and Android™ devices. An integrated antenna makes messy cables a thing of the past, yet still has an external antenna port if it's needed. Take the Geode with you mounted on a pole, in a pack, or held in your hand to collect real-time precision GNSS data wherever the job takes you.



SCALABLE ACCURACY – Collect precision multi-frequency, multi-constellation GNSS data at various accuracy levels



WORLDWIDE CORRECTIONS – Multiple correction sources provide precise, real-time data



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



POWER

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

ANTENNA

- Internal precision single/multi-frequency with integrated ground plane
- External Antenna Port: MCX type, 50 ohm 15VDC @ 45 mA maximum (GNS3M)/ 20mA maximum (GNS3S)

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 (1.4 meters for 30 min)

RECEIVER UPGRADES

- 10 Hz Data Rate
- 20Hz Data Rate
- Multi-Frequency
- Atlas Basic
- Atlas H30
- Atlas H10

INCLUDED ACCESSORIES

- Cable: USB-A to USB Type-C
- Cable: USB Type C to USB Type-C
- 5/8 x 11 Pole Mount Adapter
- USB charger

CONFIGURATIONS

- Geode GNS3S Single Frequency Antenna, 9-pin serial port, No Atlas support
- Geode GNS3M Multi Frequency Antenna, 9-pin serial port, All Atlas subscriptions supported

DIMENSIONS

- 110x110x57mm (4.36x4.36x2.25in)
- Weight: 394g (14 oz)
- Mount: ¼ x 20 camera stud and #6-32 AMPS



GEODE GNS3 COMPATIBILITY

- Windows® PC
- Android™ 7 and above
- iPhone and iPad (See our website for full list of compatible Apple devices)
- GeodeConnect™ software provides configuration, communications setup, and receiver settings

RECEIVER

- Receiver Type: GNSS multi-frequency, multi-constellation
- Signals: GPS: L1CA, L1P, L1C, L2P, L2C, L5, GLONASS: G1, G2, P1, P2, BeiDou: B1, B2, B3 (without L5), GALILEO: E1BC, E5a, E5b and QZSS: L1CA, L1C, L2C, L5
- Channels: 800+
- SBAS Support: 3-channel parallel tracking
- L Band: Atlas worldwide 1525-1560 Mhz (with Subscription)
- Update Rate: 1 Hz standard, up to 10Hz and 20Hz options

ACCURACY

- SBAS: <30 cm HRMS¹, <60 cm 2DRMS
- Atlas (95%): H10: 10 cm, H30: 30 cm, Basic: 50cm (requires subscription)
- Autonomous: 1.2 meters HRMS²
- Cold Start: <60 sec typical (no almanac)
- Reacquisition: 15 sec Atlas, all others <1 sec

COMMUNICATIONS

- Bluetooth® 4.1 SPP, iAP2, EAP
- Bluetooth Range: Class 1 Long Range
- Ports: USB Type-C; Serial RS232C DB-9
- 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)

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

2. Signals used dependent on model configuration

Geode vs GSFGPS vs GSFGGeo



	Geode	GSFGPS RV5	GSFGGeo
Manufacturer			
Dimensions	111 x 111 x 43 mm	58 x 144 x 39 mm	100 x 100 x 53 mm
Water resistance	IPX7	Yes	Yes
Accuracy	+/- 30 cm	1 meter	+/- 60 cm
Communication	Bluetooth 4.0	Bluetooth LE 5.0	Bluetooth LE 5.0
Battery life	Around 10h	Around 55h	Around 36h
Recharge time	4h	6h	6h
Weight	360g	180g	300g
Work with	Android & iPhone	Android	Android