



GPS + GLONASS + SBAS = Free High Accuracy GIS

The SXBlue II GNSS is a palm-sized receiver that delivers real-time, high accuracy performance using GPS/GLONASS satellites and free SBAS corrections. It's battery-powered lightweight design makes it the ideal choice for a variety of mapping apps including GIS, Forestry, Mining, Utilities, Agriculture, Surveying and Environmental, at a price you can afford.

Go Real-time, All the time!

The SXBlue II GNSS uses innovative technologies that deliver high accuracy in real-time, all the time. There is no need for post-processing or order correction source when SBAS (WAAS, EGNOS, MSAS or GAGAN) are available. Utilizing both GPS and GLONASS satellites, the SXBlue II GNSS will work where GPS receivers struggle, such as in the forest, around building and other difficult mapping environments. The SXBlue II GNSS is designed to work where you need to work; in the forest or in the city, all day long.

GPS + GLONASS + SBAS = Revolutionary SXBlue II GNSS receiver

Until now, SBAS users couldn't enjoy the tremendous benefit offered by adding GLONASS satellites since SBAS doesn't support GLONASS. However, now technology employed by the SXBlue II GNSS allows it to use both GPS and GLONASS satellites for high-performance, real-time mapping accuracy using SBAS. No post-processing is needed to achieve the accuracy you expect.

Work in More Places than Ever Before

We've heard it over and over. Once you start using GLONASS, you'll be addicted. By using GLONASS satellites, your productivity immediately improves. With both GPS and GLONASS satellites, you'll have nearly twice as many satellites in view, meaning you won't have to wait for the high accuracy data you want. The SXBlue II GNSS maximizes your productivity by working directly within your GIS framework (Esri, DigiTerra, Autodesk, CMT, Intergraph, MapInfo, TDS, etc.)

A Long Term Solution

Because the SXBlue II GNSS doesn't have a built-in computer, it can't become obsolete. On one project, connect it to your new smartphone. On the next project, connect it to your tablet computer. Android? Windows Mobile? The SXBlue II GNSS doesn't care which operating system your mobile device uses, it just keeps delivering high accuracy positioning to whichever device you want to connect to it using Bluetooth, USB or RS-232.

Key Features:

- SBAS support for GPS and GLONASS
- Palm-sized
- Rugged, waterproof
- High accuracy

Specifications

GNSS Sensor

Receiver type:	L1/G1, GPS + GLONASS
Channels:	36-channel, parallel tracking
SBAS Support:	3-channel, parallel tracking WAAS, EGNOS, MSAS, GAGAN, SBAS ranging.
Update Rate:	Up to 10Hz, optional 20Hz
SBAS Accuracy:	<30cm HRMS
DGNSS Horizontal Accuracy:	< 60cm 2dRMS, 95% confidence ¹ (< 30cm HRMS, < 25cm CEP)
Horizontal Accuracy:	< 2.5m 2dRMS, 95% confidence (autonomous, no SA) ²
Optional Proprietary RTCM:	< 20cm 2dRMS, 95% confidence ³
Optional RTK:	1 cm to 3 cm + 1 ppm ¹ (Horizontal) 2 cm to 6 cm + 1 ppm ¹ (Vertical)
Post-processing:	
<i>Horizontal Accuracy¹:</i>	5 mm + 0.5 ppm (Static) or better 10 mm + 1 ppm (Kinematic) or better
<i>Vertical Accuracy¹:</i>	5 mm + 1.0 ppm (Static) or better 20 mm + 1 ppm (Kinematic) or better
<small>Accuracy standard when baseline or kinematic are using the same antenna at the base and the remote receiver.</small>	
Cold Start:	< 60 sec typical (no almanac or time)
Reacquisition:	< 1sec
Maximum Speed:	1.850 kph / 1.150 mph / 999 knots
Maximum Altitude:	18.288 meters (60.000 ft)

Communication

Ports :	Bluetooth 2.0, RS-232C, USB 2.0
Bluetooth Transmission:	Classe 1, 250m range typical ⁴
Bluetooth Frequency:	2.400 – 2.485 GHz
Fully Bluetooth pre-qualified:	Bluetooth 2.0
Baud Rates:	4,800 à 57,600
Data I/O Format:	NMEA 183, RTCM 104, Binary
Output Datum:	- Autonomous: WGS-84 (G1150) - SBAS : ITRF-2000
Timing Output:	1 PPS (HCMOS, active high, rising edge sync, 10 kOhms, 10 pF load)
Event Marker Data:	HCMOS, active low, falling edge sync, 10 kOhms, 10 pF load
Raw Measurement Data:	Binary (Free RINEX utility)
Correction I/O Protocol:	RTCM, Optional Proprietary format
GNSS Status LEDs:	Power, GNSS lock, DGPS position, DIFF lock, Bluetooth connection
Battery Status LED:	5 LED's bar graph

Alimentation

Battery Type:	Field replaceable Lithium-Ion pack. Rechargeable inside unit or separately
Battery Capacity:	3.900 mAh. 7.2 V
Battery Life:	8 heures
Power Consumption:	< 3.5W
Charging Time:	4 - 5 hours using supplied charger
Antenna Voltage Output:	5 VDC
Antenna Input Impedance:	50 Ohms



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Authorized Distributor

Environmental

Operating Temperature:	-40°C to +85°C (-40°F to +185°F) ⁵
Storage Temperature:	-40°C to +85°C (-40°F to +185°F)
Humidity:	95 % non-condensing
Compliance:	FCC, CE, RoHS and Lead-free

Mechanical

Enclosure Material:	Re-enforced Nylon
Battery Case Material:	ABS
Enclosure Rating:	Waterproof, dustproof, IP-67
Immersion :	30 cm, 30 minutes
Enclosure Dimensions:	14.1 x 8.0 x 4.7 cm (5.57 x 3.15 x 1.85 in.)
Weight:	487 g (1.07 lbs)
Data Connectors:	DB-9 Female USB Type B Female
Antenna Connector:	SMA Female

Antenna

Frequency Range:	L1, G1, Bande L (1.525 - 1,607 MHz)
Gain (without cable):	26 dB (+/- 2 dB), 35mA
Voltage:	+ 4.5 à 15 VDC
Impedance:	50 Ohms
Dimensions:	6.6 diam. x 2.7 cm (2.61 x 1.05 in)
Weight (without cable):	114 g (0.25 lbs) (with removable magnet mount)
Antenna Cable:	SMA Female
Finish:	Fluid Resistant
Temperature :	-55°C to +70°C (-67°F to + 158°F)
Humidity:	Immersion 1 meter

Standard Accessories

SXBlue II GNSS Receiver
Li-Ion Battery Pack (Field replaceable)
Li-Ion Charger
Belt / Shoulder Carrying Case
Precision Antenna with 1.5m cable
Soft Hat for Antenna
RS-232 Cable (6 ft)
CD-ROM (manuals and utilities)



Field Activated Options

20 Hz Output Rate
Base Station RTCM Output
Proprietary Real-time for <20 cm
L1 / G1 RTK for 1-3 cm¹

NOTE:

1. Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activities
2. Depends on multipath environment, number of satellites in view, satellite geometry and ionospheric activities
3. Option required on both base and rover. Also requires communication link between base and rover
4. Transmission in free space
5. Lithium-Ion battery performance degrades below -20°C (-4°F)

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