

# SXblue

II+ GNSS



## The best High-Accuracy GNSS Receiver



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

### Go Real-time, All the Time!

The vXBlue II+ GNSS uses innovative technologies that delivers high accuracy in real time, all the time. Utilizing both GPS and GLONASS satellites, the SXBlue II+ GNSS will work where GPS receivers struggle, such as in the forest, around buildings and other difficult mapping environments.

### 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, new 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 S 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 iOS application such as Esri's Collector for ArcGIS, ArcGIS for iOS, TerraGo, Amigo, Cloud, iGeoTrack, ICMT GS, Fulcrum, etc.

Coast and SureTrack maintain sub-meter DGNSS positioning for 40 minutes after correction loss.

### 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 Android. On the next, connect it to your Windows Mobile!

### Key Features

- 100% Windows Mobile and Android compatible
- SBAS support for GPS and GLONASS
- Accuracy of 60 cm, 95 % of the time
- Multi-constellation performance
- USB and RS-232 ports

# SPECIFICATIONS

## GNSS SENSOR

|   |  |
|---|--|
| Receiver type                                       | GNSS (GPS/GLONASS/Beidou) L1 with carrier phase                                  |
| Channels  | 162  |
| SBAS Support  | 3 channels parallel tracking<br>WAAS/EGNOS/MSAS/GAGAN<br>(with SBAS ranging)     |
| GPS Sensitivity                                     | -142 dBm   |
| Update Rate   | 1 Hz (optional 10 or 20 Hz)  |
| DGNSS Horizontal Accuracy                           | < 60 cm 2dRMS, 95 % confidence <sup>1</sup><br>(< 30 cm HRMS, < 25 cm CEP)       |
| Autonomous  | < 1.2 m 2dRMS, 95 % confidence<br>(autonomous, no SA) <sup>2</sup>               |
| Optional RTK  | 10 mm + 1 ppm (Horizontal) <sup>1</sup><br>20 mm + 2 ppm (Vertical) <sup>1</sup> |
| Cold Start  | 60 sec typical (no almanac or time)  |
| ReacquSition  | < 1 sec  |
| Maximum Speed                                       | 1,850 kph / 1,150 mph / 999 knots  |
| Maximum Altitude                                    | 18,288 m (60,000 ft)   |
| Post-processing<br>Horizontal Accuracy <sup>1</sup> | 5 mm + 0.5 ppm (Static) or better<br>10 mm + 1 ppm (Kinematic) or better         |
| Vertical Accuracy <sup>1</sup>                      | 5 mm + 1.0 ppm (Static) or better<br>20 mm + 1 ppm (Kinematic) or better         |

## COMMUNICATION

|                               |   |
|-------------------------------|---|
| Port                          | Bluetooth 2.1, RS-232C, USB 2.0                               |
| Bluetooth TransmSsion         | Class 1 (Long Range)<br>iAP2 and 2.1 EDR                      |
| Fully Bluetooth pre-qualified | Bluetooth 2.1   |
| Baud Rates                    | 4,800 to 115,200  |
| Data I/O Protocol             | NMEA 0183, RTCM 104, Binary                                   |
| Timing Output                 | 1 PPS (HCMOS, active high,<br>rSing edge sync, 10 pF load)    |
| Raw Measurement Data          | Binary (free RINEX utility)                                   |
| Correction I/O Protocol       | RTCM , ROX Format, RTCM V 2.3, RTCM V<br>3.2,CMR, CMR+        |
| LED mode indicators           | Power, lock, DGPS position<br>DIFF lock, Bluetooth connection |
| Battery Status LED            | 5 LED's bar graph   |

## FIELD ACTIVATED OPTION

- 10 Hz or 20 Hz Output rate
- RTK

### NOTES :

<sup>1</sup> Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activities. Stated accuracies for baseline lengths of up to 50 km.

<sup>2</sup> TransmSsion in free space.

<sup>3</sup> Lithium-Ion battery performance degrades below -20°C (-4°F).

## POWER

|                   |  |
|-------------------|--|
| Battery type      | Field replaceable Lithium-Ion pack<br>(Rechargeable inside unit or separately) |
| Battery capacity  | 3,900 mAh 7.2 V  |
| Battery life      | + 8 hours <sup>3</sup>   |
| Power Consumption | < 3.5 W  |
| Charging time     | 5 hours (with supplied charger)  |

## ENVIRONMENTAL

|                       |                                      |
|-----------------------|--------------------------------------|
| Operating Temperature | -40 °C to +85 °C (-40 °F to +185 °F) |
| 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, IP65   |
| Dimensions            | 14.1 cm x 8.0 cm x 4.7 cm<br>5.57 in x 3.15 in x 1.85 in |
| Weight                | 487 g (1.07 lbs)   |
| Data Connectors       | DB-9 female, USB Type B female                           |
| Antenna connector     | SMA female   |
| Drop ResStance        | Designed to withstand 1 m drop                           |

## ANTENNA

|                        |   |
|------------------------|---|
| Frequency Range        | L1, G1, L-Band (1,525 MHz - 1,607 MHz)            |
| Gain                   | 26 dB (+/- 2 dB), 35 mA                           |
| Voltage                | + 4.5 to 15 VDC                                   |
| Impedance              | 50 Ohms   |
| Dimensions             | 6.6 cm x 2.7 cm (2.6 in x 1.05 in)                |
| Weight (without cable) | 114 g (0.25 lbs)<br>(with removable magnet mount) |
| Antenna Connector      | SMA Female  |
| Temperature            | -55 °C to +70 °C (-67 °F to +158 °F)              |
| Humidity               | Waterproof  |

## STANDARD ACCESSORIES

- Li-Ion Battery Pack (Field replaceable)
- Li-Ion Charger
- Belt/Shoulder Carrying Case
- Soft Hat for antenna
- PrecSion Antenna with 1.5 m cable
- 1.8 m RS-232 Cable
- 1.8 m USB Type A/B Cable

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