

iSXBlue II⁺ GPS



The most affordable Sub-Meter GIS Receiver compatible with Apple, Windows and Android

The iSXBlue II⁺ GPS is a compact, real-time receiver that delivers true sub-meter performance every second to your application. Its integrated lightweight design makes it the ideal choice for a variety of industry applications including GIS, Forestry, Mining, Utilities, Agriculture, Survey and Environmental, at a price you can afford.

Go Real-time, All the Time!

The iSXBlue II⁺ GPS uses innovative technology that delivers sub-meter accuracy in real-time, all the time. There is no need for post-processing or a beacon receiver when WAAS, EGNOS, MSAS, or GAGAN are available. Even in environments where GPS reception is limited, the iSXBlue II⁺ is designed to keep working and deliver the DGPS accuracy you need all day long.

Accuracy and Productivity in One

The iSXBlue II⁺ GPS takes real-time accuracy a step further. Its accurate code phase measurements and leading edge multipath mitigation delivers sub-60 cm (2dRMS, 95% confidence) positioning.

With its superior tracking performance and innovative real-time positioning, that means no downtime even in harshest conditions, the iSXBlue II⁺ maximizes your productivity by working directly within your GIS framework such as Esri's Collector for ArcGis, ArcGis for iOS, TerraGo, AmigoCloud, iGeoTrack, ICMT Gis, Fulcrum, etc.

A Long Term Solution

Add a field computer that suits your application, an off-the-shelf software of your choice, and the iSXBlue II⁺ GPS becomes the heart of a modular solution you can grow with. In today's rapidly evolving technologies,

its unique multi-port interface (fully independent Bluetooth, USB, RS-232 ports) helps to protect your long term investment by always allowing the use of up-to-date computer hardware, operating system and software.

Options

The iSXBlue II⁺ can also evolve with your needs with its optional features:

- 10 Hz or 20 Hz output rates
- Base Station (standard RTCM-104 output)
- Proprietary RTCM for sub-20 cm accuracy
- Single Frequency Real-time Kinematic (RTK) for cm level accuracy
- Carrier Phase for post-processed cm level accuracy
- Galileo / Beidou / QZSS Ready

Key Features

- Sub-60 cm, 2dRMS real-time performance
- Multi-port interface (Bluetooth, USB, RS-232)
- Rugged and Waterproof design
- Integrated Li-Ion battery pack for 10⁺ hours autonomy
- Battery fuel gauge
- Compact and lightweight
- RoHS compliant

Specifications

GPS Sensor

Receiver Type:	L1, C/A code, with carrier phase smoothing
Channels:	372-channels
SBAS Support:	3-channel, parallel tracking WAAS, EGNOS, MSAS, GAGAN compatible
Update Rate :	1Hz (optional 10 or 20Hz) ¹
DGNSS Horizontal Accuracy:	< 60 cm 2dRMS, 95% confidence (< 30 cm HRMS, < 25 cm CEP)
Horizontal Accuracy:	< 2.5 m 2dRMS, 95% confidence (autonomous, no SA) ²
Optional Proprietary RTCM:	< 20 cm 2dRMS, 95% confidence ³
Optional L1 RTK:	< 5 cm 2dRMS, 95% confidence ³
Cold Start:	60 sec (no almanac or RTC)
Reacquisition:	< 1sec
Maximum Speed:	1607 km/h (999mph)
Maximum Altitude:	18,288 m (60,000 ft)

Communication

Port:	Bluetooth, 2.1 RS-232C, USB 2.0
Bluetooth Transmission:	Class 1, up to 1km IAP2 and 2.1 EDR
Bluetooth Frequency:	2.400 – 2.485 GHz
Fully Bluetooth pre-qualified:	Bluetooth 2.1 Apple-approved, authenticated
Baud Rates:	4800 to 115 200
Data I/O Protocol:	NMEA 183, RTCM 104, Binary
Timing Output:	1 PPS (HCMOS, active high, rising edge sync, 10 kOhms, 10 pF load)
Raw Measurement Data:	Proprietary binary (Free RINEX utility)
Correction I/O Protocol:	ROX Format, RTCM V 2.3, RTCM V 3.2, CMR, CMR+
LED mode indicator:	Power, GPS lock, DGPS position, DIFF lock, Bluetooth connection
Battery Status LED:	5 LED's bar graph

Power

Battery Type:	Field replaceable Lithium-Ion pack (Rechargeable inside unit)
Battery Capacity:	3,900 mAh 7.2 V
Battery Life:	10 + hours
Power Consumption:	< 2.5 W
Charging Time:	5 hours (with supplied charger)
Antenna Voltage Output:	5 VDC
Antenna Input Impedance:	50 Ohms

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, IP-65
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 :	476 g (1.05 lb)
Data Connectors :	DB-9 Female, USB Type B Female
Drop Resistance :	Designed to withstand 1m drop
Antenna Connector :	SMA Female

Antenna

GPS Frequency Range:	L1 (1575 MHz +/- 10 MHz)
Gain (without cable):	26.5 dB (+/- 2 dB), 35 mA
Voltage:	+5 VDC +/- 10%
Impedance:	50 Ohms
Dimensions:	5.5 diam. x 2.2 cm (2.16 x 0.87 in.)
Weight (without cable):	79g (0.17 lbs) (with removable magnet mount)
Antenna Connector:	SMA Female
Temperature:	-55°C to +85°C (-67°F to +185°F)
Humidity:	Immersion 1 meter

Standard Accessories

- iSXBlue II* GPS Receiver
- Li-Ion Battery Pack (Field replaceable)
- Li-Ion Charger
- Belt/Shoulder Carrying Case
- Precision Antenna with 0.3, 1 and 1.5 m cable
- Soft Hat for antenna
- RS-232 Cable (6 ft.)
- USB Type A/B Cable (6 ft.)

NOTES :

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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