High-Accuracy GNSS Receiver for Your Smartphone, Tablet, or Notebook Computer

The Arrow 100® is designed specifically to use with a variety of mobile devices, including your smartphone, tablet, or notebook computer. It incorporates rock-solid, wireless Bluetooth® technology that works with Android, iOS, and Windows® devices, making it obsolete-proof. Contemplating switching from an iPhone to an Android phone or vice-versa? No problem, the Arrow 100 works smoothly with both.

Use the Mobile GIS Software of Your Choice

Seems like a new mobile GIS software is being offered each week? With the Arrow 100 you will not be tied to legacy GNSS receiver hardware or GIS software. it will grow with you. The Arrow 100 feeds submeter accuracy to every app on your Android or iOS device, even Google or Apple maps! Esri Collector, Survey123 and QuickCapture, Futura. AmigoCloud, Mapit, GeoJot, iCMTGIS, it works seamlessly with all of them and many more mapping apps.

Real-time, Worldwide Accuracy

The Arrow 100 takes advantage of GPS, GLONASS, Galileo, Beidou, and free SBAS corrections in most regions of the world. For SBAS, North America is covered by WAAS, Europe and North Africa by EGNOS, India is covered by GAGAN, Japan by MSAS, and Australasia by their own system. With the above-mentioned free SBAS the Arrow 100 provides 30 to 60 cm real-time accuracy.

Key Features:

- Full GNSS (GPS, GLONASS, Galileo, Beidou)
- 100 % Android, iOS, Windows compatible
- 30 to 60 cm real-time accuracy using free SBAS
- Supports all mobile GIS software

Works Where Other Receivers Can’t

The Arrow 100 was designed specifically with GIS users in mind. It squeezes more accuracy from SBAS corrections than any other receiver in the world. With its patented technology, you can use it under trees, around buildings, and in rugged terrain where other receivers will fail to deliver. Where having GPS is just not enough, the Arrow 100 uses GLONASS, Galileo, and Beidou signals from at least 100 satellites. Real-time results in the field optimize your efficiency with no post-processing required!
Specifications

GPS Sensor

**Receiver Type:**
L1/G1/E1/B1, GPS, GLONASS, Galileo, BeiDou with carrier smoothing

**Channels:**
158-channel, parallel tracking

**Number of Tracked Satellites:**
- 12 GPS (15 when no SBAS)
- 12 GLONASS
- 15 Galileo
- 22 BeiDou

**SBAS Support:**
3-channel, parallel tracking
WAAS, EGNOS, MSAS, GAGAN (SBAS ranging where supported)

**Update Rate:**
1 Hz Default, optional 10 Hz and 20 Hz

**DGNSS Horizontal Accuracy:**
< 30 cm HRMS

**SBAS Accuracy:**
< 60 cm 2dRMS, 95% confidence
(< 30 cm HRMS, < 25 cm CEP)

**Horizontal Accuracy:**
< 2.5 m 2dRMS, 95% confidence
(autonomous, no SA)

**Optional Proprietary RTCM:**
< 20 cm 2dRMS, 95% confidence

**Optional Single Frequency RTK:**
1 cm + 1 ppm

**Cold Start:**
< 60 sec typical (no almanac or time)

**Reacquisition:**
< 1 sec

**Maximum Speed:**
1,850 kph / 1,150 mph / 999 knots

**Maximum Altitude:**
18,288 m (60 000 ft)

Communication

**Port:**
Bluetooth, USB 2.0, serial (optional)

**Bluetooth Transmission:**
Class 1, 300 m typical range, up to 1 km
2.400 - 2.485 GHz

**Bluetooth Frequency:**
2.400 - 2.485 GHz

**Fully Bluetooth Pre-Qualified:**
Yes

**Supported Bluetooth Profiles:**
SPP and iAP

**Data I/O Protocol:**
NMEA-0183, RTCM SC-104, Binary

**Raw Measurement Data:**
Binary and RINEX

**Correction I/O Protocol:**
RTCM, Optional Proprietary format

**GNSS Status LED:**
Power, GNSS, DGNSS, DIFF, Bluetooth

**Battery Status LED:**
5 LED Indicator

Power

**Battery Type:**
Field replaceable, rechargeable
Lithium-Ion pack (rechargeable inside unit or separately)

**Battery Capacity:**
Battery Operating Time: 12+ hours

**Charging Time:**
4 hours (vehicle charger available)

**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:**
Xenoy

**Enclosure Rating:**
Waterproof, IP-67

**Immersion:**
30 cm, 30 minutes

**Dimensions:**
12.5 x 8.4 x 4.2 cm (4.92 x 3.3 x 1.65 in.)

**Weight:**
372 g (0.82 lbs)

**Data Connectors:**
Mini USB Type B Receptacle

**Antenna Connector:**
SMA Female

Antenna

**Frequency Range:**
L1, G1, E1, B1

**Gain (without cable):**
26 dB (+/- 2 dB), 35 mA

**Voltage:**
+4.5 to +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)

**Temperature:**
-55°C to +70°C (-67°F to +158°F)

**Immersion:**
30 cm, 30 minutes

Standard Accessories

Li-ion Battery Pack (Field replaceable)
12VDC Power Supply
Belt/Shoulder Carrying Case
Precision Antenna with 1.5 m cable
Soft Hat for Antenna
USB Cable

Field Activated Options

10 Hz, 20 Hz Output Rate
Base Station RTCM Output
Single Frequency RTK for 1-3 cm

NOTES:
1. Depends on multipath environment, number of satellites in view, satellite geometry, baseline length for local services and ionospheric activities.
2. Transmission in free space
3. Lithium-ion battery performance degrades below -20°C (-4°F)

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Made in Canada 🇨🇦