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, AmigoCloud, MapItFast, 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, North America is covered by WAAS, Europe and North Africa by EGNOS, India is covered by GAGAN, and Japan by MSAS. The abovementioned free SBAS services provide 60 cm real-time accuracy. For those regions not covered by a free SBAS, Eos has partnered with Atlas to provide real-time submeter accuracy in South America, Australia, and Central and South Africa.

Key Features:

- Full GNSS (GPS, GLONASS, Galileo, Beidou)
- 100 % Android, iOS, Windows compatible
- 60 cm real-time accuracy using free SBAS
- Supports all mobile GIS softwares
- Supports Atlas™ H100 service

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 24 extra satellites. Real-time results in the field optimize your efficiency, no post-processing required!
### GPS Sensor
- **Receiver Type:** L1/1/1/B1, GPS, GLONASS, Galileo, BeiDou with carrier smoothing 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:**
  - < 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
- **Bluetooth Frequency:** 2.400 - 2.485 GHz
- **Fully Bluetooth Pre-Qualified:**
  - Bluetooth 2.1 + EDR
- **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
- **Battery Capacity:**
  - Lithium-Ion pack (rechargeable inside unit or separately)
- **Battery 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)
  - with removable magnet mount
- **Antenna Connector:**
  - SMA Female
- **Finish:**
  - Fluid Resistant
- **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
- L1/G1 RTK for 1-3 cm

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

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