



## 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.

For more details,  
[www.eos-gnss.com](http://www.eos-gnss.com)

# ARROW 100™

ARROW Series™  
for Submeter GNSS Positioning

### 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!



# Specifications

## GPS Sensor

Receiver Type:	L1/11/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:	< 60 cm 2dRMS, 95% confidence <sup>1</sup> ( < 30 cm HRMS, < 25 cm CEP)
Horizontal Accuracy:	< 2.5 m 2dRMS, 95% confidence <sup>1</sup> (autonomous, no SA)
Optional Proprietary RTCM:	< 20 cm 2dRMS, 95% confidence <sup>1</sup>
Optional Single Frequency RTK:	1 cm + 1 ppm <sup>1</sup>
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 RS-232(option)
Bluetooth Transmission:	Class 1, 300 m typical range <sup>2</sup> , 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 Lithium-Ion pack (rechargeable inside unit or separately)
Battery Capacity:	Battery Operating Time: 12+ hours <sup>3</sup>
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) <sup>3</sup>
Storage Temperature:	-40°C to +85°C (-40°F to +185°F)
Humidity:	95% non-condensing
Compliance:	FCC, CE, RoHS and Lead-free



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## 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

### NOTES:

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

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**GEOSCANNERS**  
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Geoscanners is a reseller of ARROW Series of full GNSS submeter positioning systems for ground penetrating radar instrumentation solutions.