ARROW 100™

ARROW Series

for Submeter GNSS Positioning

Key Features:

- Full GNSS: GPS/GLONASS/Galileo/BeiDou/QZSS
- 100% Android, iOS, Windows compatible.
- 60cm real-time accuracy using free SBAS
- Supports Esri® and other Mobile GIS software
- Supports OmniSTAR®

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. The Arrow 100 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, the Arrow 100 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/ArcPad/ArcMobile, Fulcrum, AmigoCloud, TerraFlex, MapItFast, GeoJot, iCMTGIS, the Arrow Lite works seamlessly with all of them and many more mapping apps.

Real-time, World-wide Accuracy

The Arrow 100 takes advantage of GPS, GLONASS (optionally Galileo, BeiDou, QZSS) and free SBAS corrections in most regions of the world. North America is covered by WAAS. Europe and North Africa are covered by EGNOS. India is covered by GAGAN. Japan is covered by MSAS. The free SBAS services mentioned above provide 60cm real-time accuracy. For those regions not covered by a free SBAS, Eos has partnered with OmniSTAR to provide real-time, submeter accuracy in South America, Australia and Central/Southern Africa.

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 the Arrow 100 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 (and optionally Galileo/BeiDou/QZSS) signals from **at least 24 extra satellites.** Real-time results in the field optimize your efficiency! No post-processing required.

For more details,
www.eos-gnss.com

Specifications

GPS Sensor

Receiver Type:	L1/G1, GPS + GLONASS (Galileo, BeiDou, QZSS optional) with carrier smoothing
Channels:	58-channel, parallel tracking
SBAS Support:	3-channel, parallel tracking WAAS, EGNOS, MSAS, GAGAN SBAS ranging
Update Rate:	1Hz Default, optional 10Hz and 20Hz
SBAS Accuracy:	< 30cm HRMS
DGNSS Hrizontal Accuracy:	< 60cm 2dRMS, 95% confidence (< 30cm HRMS, < 25cm CEP)
Horizontal Accuracy:	< 2.5m 2dRMS, 95% confidence (autonomous, no SA)
Optional Proprietary RTCM:	< 20cm 2dRMS, 95% confidence
Optional RTK:	1cm + 1ppm
Cold Start:	< 60 sec typical (no almanac or time)
Reacquisition:	< 1sec
Maximum Speed:	1,850 kph / 1,150 mph / 999 knots
Maximum Altitude:	18,288m (60 000 ft)

Communication

Port:	Bluetooth 2.0, USB 2.0
Bluetooth Transmission:	Class 1, 250m typical range[4], up to 1km
Frequency:	2.400 - 2.485 GHz
Fully Bluetooth pre-qualified:	Bluetooth 2.0
Bluetooth Protocols Supported:	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, GPS, DGPS, DIFF, Bluetooth
Battery Status LED:	5 LED Indicator

Power

Battery type:	Field replaceable Lithium-Ion pack (Rechargeable in unit)
Battery Capacity:	Battery Operating Time: 9 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:	Re-enforced Nylon
Enclosure Rating:	Waterproof, IP-67
Immersion:	30cm, 30 minutes
Dimensions:	12.5 x 8.4 x 4.2 cm (4.92 x 3.3 x 1.65 in.)
Weight:	372g (0.82 lbs)
Data Connectors:	Mini USB Type B
Antenna Connector:	SMA Female

Antenna

Frequency Range:	L1, G1, L-Band (1,525 MHz - 1,607 MHz)
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):	114g (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)
Humidity:	Immersion 30 cm

Standard Accessories

Eos Arrow 100 Receiver
Li-Ion Battery Pack (Field replaceable)
Li-Ion Charger
Belt/Shoulder Carrying Case
Precision Antenna with 1.5m cable
Soft Hat for antenna

Field Activated Options

10Hz, 20Hz Output Rate
Base Station RTCM Output
Proprietary Real-time for <20cm
L1/G1 RTK for 1-3cm

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 bellow -20°C (-4°F)

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Authorized Distributor

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