



The World's Most Advanced GNSS receiver for Every Mobile Device

The Arrow Gold® and its modernized sister product, the Arrow Gold+™, are the first high-accuracy Bluetooth® GNSS receivers to implement all four global GNSS constellations (GPS, GLONASS, Galileo, BeiDou), multi-frequency, and satellite-based RTK augmentation. Moreover, the Arrow Gold+ adds full-band support for all GNSS signals including Galileo High-Accuracy Service (Galileo HAS) which provides <20cm accuracy worldwide. Both the Arrow Gold and Arrow Gold+ receivers work with all apps that run on iOS®, Android™, and Windows®.

20cm Accuracy or Better Anywhere

When there is no RTK network or base station available, and you need better than submeter accuracy, the Arrow Gold+ can be used anywhere globally to provide 20cm or better accuracy via Galileo HAS.

RTK in Poor Cell Coverage Areas

Losing RTK network connection in areas with spotty cell coverage is frustrating. SafeRTK® is a proprietary feature included exclusively with the Arrow Gold and Arrow Gold+ receivers, which takes over and preserves your accuracy within a few seconds of losing RTK connection. SafeRTK allows you to maintain RTK-level accuracy all day, enabling uninterrupted productivity in spotty areas.

Accuracy with Atlas

Do you need 4cm accuracy but have no RTK network available? The Arrow Gold and Arrow Gold+ can be activated with a four-constellation, satellite-based differential correction service called Atlas®. Atlas is available anywhere in the world and offers convergence times as low as 15 minutes, at a revolutionary price point.

For more details, visit:
www.eos-gnss.com

Arrow Gold® Arrow Gold+™

Arrow Series®

for 1cm RTK Accuracy with SafeRTK®



Save paper!
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Arrow Gold Key Features:

- Supports GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS (L5)
- Triple-Frequency supports 1 cm RTK real-time accuracy
- Long-range RTK baselines up to 50 km (31 mi)
- SafeRTK for poor cell coverage areas
- 4 cm worldwide satellite correction service (Atlas)
- 100% iOS, Android, and Windows, compatible

Arrow Gold+ Key Features:

- All Arrow Gold key features
- Supports free Galileo High-Accuracy Service
- All frequencies, all signals
- Multi-device Bluetooth connectivity
- 11-hour battery autonomy on a single charge



Multiplexing with the Arrow Gold+

The Arrow Gold+ has the functionality of the Eos Bridge™ Bluetooth connector built in. Connect your Arrow Gold+ to any third-party sensor (e.g., laser rangefinder), and the Arrow Gold+ will stream the content of that sensor to your iOS or other mobile device via the receiver's own location datastream.

Ultimate Flexibility in Mobile Accuracy

iOS, Android, and Windows compatibility is our expertise. Eos Positioning Systems offers GNSS hardware with some of the most innovative, advanced connectivity on the market, supporting connection to popular apps like Esri's ArcGIS® apps, and other mobile GIS apps, on any consumer device.

Specifications

GPS Sensor

Receiver Type:	GNSS multi-frequency RTK with carrier phase
GNSS Signals Received:	GPS: L1CA, L1P, L1C, L2P, L2C, L5 GLONASS: G1, G2, G3* , P1, P2 Galileo: E1BC, E5a, E5b, E6* BeiDou: B1i, B2i, B3i* , B10C* , B2A* , B2B* , ACEBOC* QZSS: L1CA, L1C, L2C, L5, LEX* IRNSS: L5*
SBAS Support:	3-channel, parallel tracking WAAS/EGNOS/MSAS/GAGAN/SouthPAN
L-Band (Atlas®):	1
Update Rate:	1 Hz Default, Optional 10 Hz, 20 Hz, and 50 Hz
RTK Accuracy:	8mm ¹ + 1 ppm Horizontal 1.5 cm ¹ + 1 ppm Vertical
SBAS Accuracy:	< 30 cm HRMS ¹ , < 60 cm 2dRMS
Atlas® Accuracy (RMS):	H10: 4 cm H30: 15 cm Atlas® Basic: 30 cm
Galileo HAS Accuracy:	< 20cm 2dRMS*
Autonomous Accuracy:	1.2 meters HRMS ¹
Cold Start:	< 60 sec typical (no almanac or time)
Reacquisition:	< 1 sec
Max Speed:	1,850 kph (1,150 mph / 999 knots)
Max Altitude:	18,288 meters / 60,000 ft

Communication

Port:	Bluetooth®, USB 2.0, Serial
Bluetooth® Transmission:	Class 1, 300 m typical range ² , up to 1 km
Frequency:	2.400 - 2.485 GHz
Fully Bluetooth® pre-Qualified:	Bluetooth® 2.1 + EDR
Supported Bluetooth® Profiles:	SPP, iAP, multi-point*
Data I/O formats:	NMEA 0183, RTCM SC-104, Binary
Output Datum:	Autonomous: WGS-84 SBAS & Atlas®: ITRF (current year epoch) RTK: Same as RTK base Galileo HAS+: GTRF
Raw Measurement Data:	Binary and RINEX
Correction I/O Protocol:	RTCM 2.x, 3.x, CMR, CMR+, proprietary binary
GPS Status LEDs:	Power, GNSS, DGNSS, DIFF, Bluetooth®
Battery Status LED:	5 LED Indicator
Timing Output: (with optional serial port)	1PPS, CMOS, active high, rising edge sync, 10 kΩ, 10 pF load
Event Marker Input: (with optional serial port)	CMOS, active low, falling edge sync, 10kΩ, 10 pF load

Power

Battery Type:	Field replaceable, rechargeable Lithium-Ion pack (rechargeable inside unit or separately)
Battery Autonomy:	7+ hrs ³ , 11+ hrs^{3*}
Charging Time:	4 hours (vehicle charger available)



Eos Positioning Systems Inc.
Terrebonne (Quebec), Canada
Tel: (450) 824-3325
www.eos-gnss.com | info@eos-gnss.com

Environmental

Operating Temperature:	-40°C to +85°C (-40°F to +185°F) ³
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 lb)
Data Connectors:	Mini USB Type B Receptacle
Arrow Antenna Port:	SMA Female

Antenna

	Arrow Gold®	Arrow Gold+™
Impedance:	50 Ohms	50 Ohms*
Gain (no cable):	27 dB (± 2 dB)	28 dB (± 2 dB)*
LNA Noise Figure @25°C:	2.5 dB typ.	1.8 dB typ.*
Voltage:	+2.5 to +16 VDC	+3 to 16 VDC*
Dimensions mm:	68 Diam. x 20 H	127 Diam. x 55 H*
Dimensions in:	2.7 Diam. x 0.8 H	5.0 Diam. x 2.1 H*
Weight:	170 g (0.37 lbs)	217 g (0.48 lbs)*
RF Connector:	SMA female	
Operating Temperature:	-40°C to +85°C (-40°F to + 185°F)	
Humidity:	Waterproof	

Standard Accessories

Li-Ion Battery Pack (Field Replaceable)	Pole Bracket and Clamp
12VDC Power Supply	Hard Shell Carrying Case
USB Cable	Antenna Cable
GNSS Antenna	Antenna Mounting Plate

Field Activated Options

- 10 Hz, 20 Hz, 50Hz Output Rates
- Atlas® satellite correction services

NOTES :

1. Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activities. Stated accuracies for baseline lengths of up to 50 km
 2. Transmission in free space
 3. Lithium-Ion battery performance degrades below -20°C (-4°F)
- + indicates item applies only to Arrow Gold+™

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